

ALUMINUM COMPANY OF AMERICA
MASSENA, NEW YORK

REMEDIATION PROJECTS ORGANIZATION

CONSTRUCTION QUALITY ASSURANCE
CERTIFICATION REPORT

FOR THE

DENNISON CROSS ROAD SITE

January 12, 1996

Prepared By

CDM Camp Dresser & McKee
Massena, New York 13662

CERTIFICATION WITH SUBMITTAL
OF THE
CERTIFICATION REPORT
FOR THE
DENNISON CROSS ROAD SITE

All information contained in this document is to the best of our knowledge, factual and represents CDM's total understanding of the conditions and circumstances at the Alcoa facility and impacted area. The conclusions and recommendations contained in this document represent CDM's best professional engineering judgement on remediation that meets those applicable, or relevant and appropriate requirements, and represents sound engineering practices and principles required to protect public health and the environment.

Signature: Wayne M. Kimball
Wayne M. Kimball, P.E.
Construction Quality Assurance Officer
CAMP DRESSER & McKEE

Date: February 12, 1996

Contents

Contents

<i>Section 1</i>	Introduction	1-1
	1.1 General	1-1
	1.2 Intent of Report	1-2
	1.3 Background Information	1-3
	1.4 Supplemental Documentation	1-5
	1.5 Construction Approval	1-8
	1.6 Operation and Maintenance	1-8
	1.7 Construction Personnel and Approved Equipment	1-8
<i>Section 2</i>	Excavation of the Drum Disposal Area	2-1
	2.1 General	2-1
	2.2 Preconstruction Activities	2-1
	2.3 Construction Activities	2-3
	2.3.1 Drum Excavation, Overpacking and Shredding	2-5
	2.3.1.1 Decontamination of Overpacks	2-7
	2.3.1.2 Drum Shredding Operations	2-8
	2.3.1.2.1 Shredder Installation/ Set-Up Operations	2-9
	2.3.1.2.2 Compatibility of Shredded Drums	2-9
	2.3.1.2.3 Stratified Drum Contents	2-9
	2.3.1.2.4 Roll-Off Integrity	2-10
	2.3.1.2.5 Roll-Off Condensation	2-10
	2.3.2 Perched Water	2-10
	2.3.3 Sump Abandonment	2-11
	2.3.4 Excavation of Unexpected Containerized Liquid Waste	2-11
	2.4 Post-Construction	2-12
	2.4.1 Cleanup Verification Sampling	2-12
	2.4.2 Demobilization Sampling	2-12
	2.5 Summary	2-12
<i>Section 3</i>	Excavation of Areas 1, 2 and the Southern Swale	3-1
	3.1 General	3-1
	3.2 Preconstruction Activities	3-1
	3.3 Construction Activities	3-2

Contents
(Continued)

3.3.1	Solidification	3-3
3.3.2	Disposal of Soils in SLF Cell No. 1	3-4
3.3.3	Excavation of Area 1	3-4
3.3.4	Excavation of the Southern Swale	3-6
3.3.5	Excavation of Area 2	3-6
	3.3.5.1 Excavation to the North of Area 2	3-7
3.4	Post-Construction	3-7
3.5	Summary	3-8
<i>Section 4</i>	Low-Permeability Cap	4-1
4.1	General	4-1
4.2	Preconstruction Activities	4-1
	4.2.1 Common Fill/Select Fill	4-2
	4.2.2 Geosynthetic Clay Liner	4-3
	4.2.3 Topsoil	4-3
	4.2.4 Seed and Fertilizer	4-3
4.3	Construction Activities	4-3
	4.3.1 Common Fill/Select Fill	4-3
	4.3.2 Geosynthetic Clay Liner	4-4
	4.3.3 Topsoil	4-9
	4.3.4 Seed and Fertilizer	4-9
4.4	Post-Construction	4-9
4.5	Summary	4-9
<i>Section 5</i>	Conclusions	5-1
5.1	General	5-1
5.2	Punch List Items	5-1
<i>Appendix A</i>	<i>List of Archived Files</i>	
<i>Appendix B</i>	<i>Summary of Roll-offs</i>	
<i>Appendix C</i>	<i>Screening Results</i>	
<i>Appendix D</i>	<i>Correspondence Documentation</i>	
	<i>List of Figures</i>	
	<i>List of Tables</i>	

List of Figures

Figure

1-1	Site Location Plan	1-4
2-1	Area 1 Site Layout	2-4
4-1	GCL Panel Placement	4-8

List of Tables

Table

1-1	Work Items	1-6
1-2	Design Change Orders	1-7
1-3	Design Clarifications	1-9
1-4	Problem Identification and Correction Report	1-12
2-1	Soil Cleanup Goals from Record of Decision	2-2
3-1	Field Screening Results for Cell 1 Confirmation	3-5
4-1	Geosynthetic Clay Liner Placement	4-5

1

Section
One

Section 1

Introduction

1.1 General

The subject matter contained within this Certification Report deals with the Construction Quality Assurance (CQA) items associated with the Dennison Cross Road Site (DCR) remediation project at the Aluminum Company of America's (Alcoa), Massena, New York facility. The CQA organization functioned as an independent party that determined, documented and provided assurance that the project was constructed in a manner that met the intent of the *Final Remedial Design Report for the Dennison Cross Road Site* (FDR). Statements of conformance with the FDR in this report are meant to imply conformance with the *Construction Quality Assurance Plan for the Dennison Cross Road Site* (CQAP), Technical Specifications and Design Drawings.

CQA was distinct from Construction Quality Control (CQC) which was a planned system used by the contractor, Morrison Knudsen Corporation (MKE), to control quality of work, cost and schedule.

Remediation procedures for the DCR site, New York State Department of Environmental Conservation (NYSDEC) site code 6-45-004, were established through a Record of Decision (ROD) dated March 1991. Pursuant with the ROD, reports were developed as an integral part of the overall remediation process and submitted to, and approved by, the NYSDEC. These reports¹ are as follows:

- *Work Plan for Sampling and Analysis of the Dennison Cross Road Site*, CDM, November 1991;
- *Sampling and Analysis Report for the Dennison Cross Road Site*, CDM, September 1992;
- *Conceptual Design Report and Design Work Plan for the Dennison Cross Road Site*, CDM, July 1993;
- *Construction Quality Assurance Plan for the Dennison Cross Road Site*, CDM, May 1994;
- *Final Remedial Design Report for the Dennison Cross Road Site*, CDM, March 1994;
- *Soil Cleanup Verification Plan for the Dennison Cross Road Site*, CDM, October 1995;
- *Post-Closure Monitoring Plan for the Dennison Cross Road Site*, CDM, June 1994;
- *Post-Closure Operations and Maintenance Manual for the Dennison Cross Road*

¹ Where applicable, dates shown reflect final revision versions of the reports.

- Site, CDM, March 1994;
- *Dennison Cross Road Site Operational Health and Safety Plan*, MKE, March 1994;
 - *Preliminary Remedial Design Report for the Dennison Cross Road Site*, CDM, April 1994;
 - *Dennison Cross Road Site Construction Work Plan*, MKE, February 1995;
 - *Final Remedial Design Report for the Dennison Cross Road Site*, CDM, June 1994;
 - *Dennison Cross Road Site Health and Safety Plan*, CDM, October 1994;
 - *Shredded Mill Pit Solids Drum Sampling and Analysis Work Plan for the Dennison Cross Road Site*, CDM, June 1995;
 - *Dennison Cross Road Site Field Screening Sampling and Analysis Plan*, CDM, June 1995;
 - *Area 2 Sampling and Analysis Work Plan for the Dennison Cross Road Site*, CDM, July 1995;
 - *Quality Assurance Project Plan*, CDM, July 1995;
 - *Area 2 Sampling and Analysis Report for the Dennison Cross Road Site*, CDM, August 1995;
 - *Demobilization Sampling and Analysis Plan for the Dennison Cross Road Site*, CDM, October 1995;
 - *Demobilization Sampling and Analysis Report for the Dennison Cross Road Site*, CDM, December 1995; and
 - *Soil Cleanup Verification Report for the Dennison Cross Road Site*, CDM, December 1995.

1.2 Intent of Report

The intent of this Certification Report is to document that the work completed during the remediation of the DCR site was in conformance with the design goals of the FDR. As part of the documentation process, this report presents a discussion of the inspection activities and testing programs that were undertaken during remediation. Moreover, this document is intended to satisfy the requirements of Section 6.8 of the CQAP. That section outlined procedures and requirements for the submittal of reports and documentation.

Documentation included minutes from weekly progress meetings, Construction Quality Assurance Inspector's (CQAI) Daily Reports (IDRs), Construction Quality Assurance Officer (CQAO) Monthly Status Reports, Inspection Data Sheets, Design Change Orders (DCOs), Design Clarification Forms (DCFs), Problem Identification and Correction Reports (PICRs), soils laboratory analysis and data summary sheets, Field Engineering submittals and project photographs. All of these items have been reviewed by the NYSDEC's onsite representative prior to submittal of this report and are archived in Building 65 at Alcoa, Massena. A listing of

these archived files is provided in Appendix A.

Of these records, the PICRs and DCFs were of particular significance in maintaining CQA. DCFs were used by the CQAI, CQAO and MKE to avoid deviation from, or to clarify, design intent. PICRs were issued when the CQAO was of the opinion that problems were significant enough to jeopardize the credibility of the certification process and that formal documentation was warranted. See Section 1.4 for further discussion of DCFs, DCOs and PICRs.

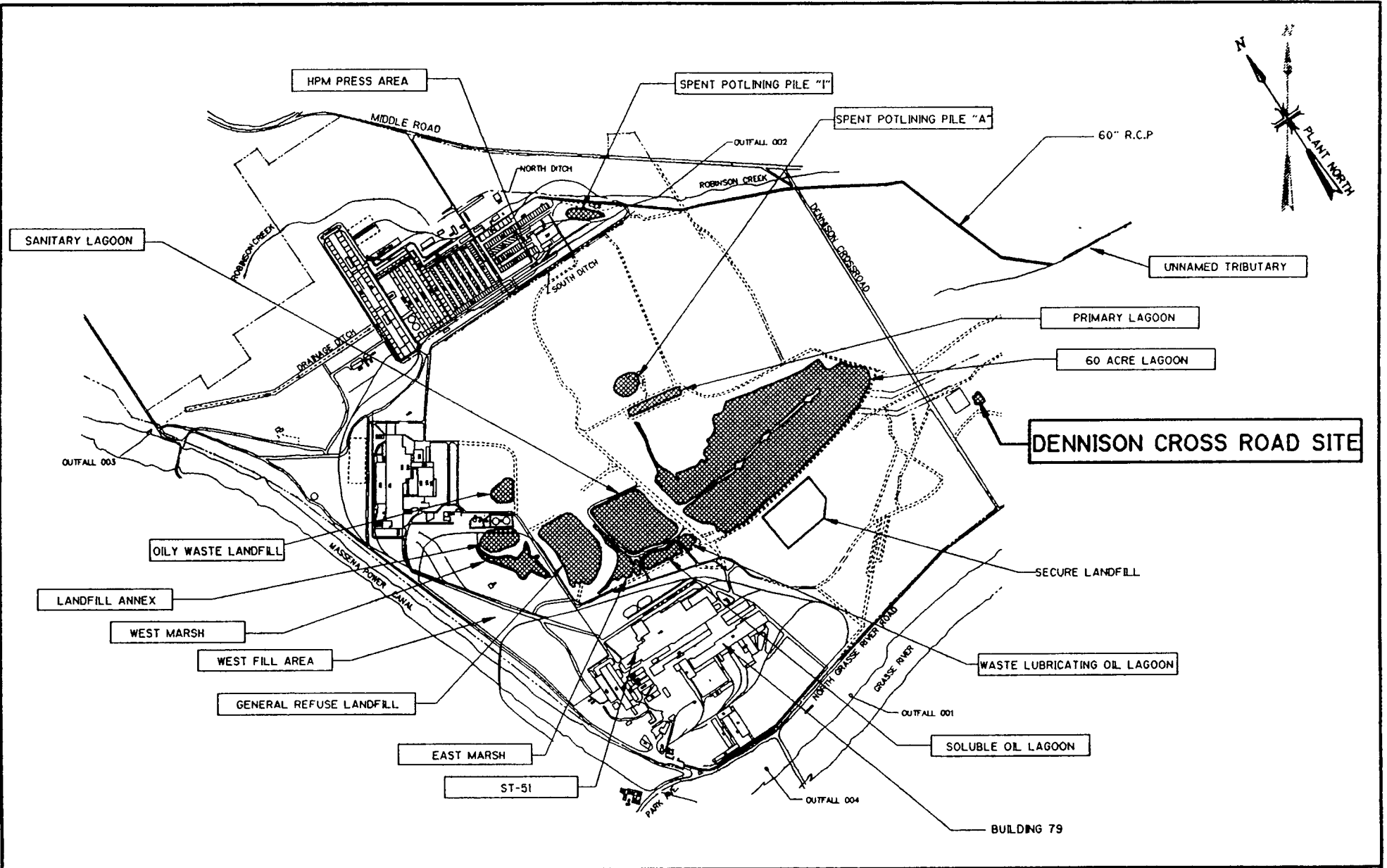
Record Drawings and certification by the Engineer of Record will be submitted with this report to the NYSDEC.

1.3 Background Information

The DCR, an inactive hazardous waste site approximately 1.75-acres in size, was operated as a disposal area from 1969 to 1979 for mill pit solids, solvent degreasing still bottoms, drawing and soluble oil sludge and debris containing chlorinated solvents. It is located east of Dennison Crossroad on Alcoa property, but outside of the Alcoa facility boundary. A site location plan is shown in Figure 1-1.

Required remedial action for this listed hazardous waste site was stipulated under a ROD issued in March 1991. The ROD required excavation and removal of contaminated soils to reduce or eliminate their potential for contributing to groundwater contamination. The contaminants of concern included polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs). Remediation activities included:

- excavation and disposal of drums, waste materials and contaminated soils in the drum disposal area pursuant with the following criteria:
 - Intact drums containing solids only were to be sampled for compliance with Landfill Disposal Restrictions (LDRs) for either onsite or offsite disposal.
 - Intact drums containing liquid residues were to be placed in overpacks (along with visibly contaminated soils around the drums) and disposed offsite.
 - Corroded drums, soils and miscellaneous solid wastes meeting LDRs were to be disposed of at the Secure Landfill (SLF) and material not meeting LDRs were to be disposed of offsite. *not tested during excavation*
- excavation of contaminated soils in Area 1 (including the southern swale) outside



DENNISON CROSS ROAD SITE

ALCOA - MASSENA, NEW YORK

**SITE LOCATION PLAN
DENNISON CROSS ROAD SITE**

SCALE IN FEET



the drum disposal area for disposal at the SLF.

- excavation of contaminated soils in Area 2 outside the drum disposal area for disposal at the SLF;
- cleanup verification sampling in the drum disposal area, Area 1 (including the southern swale) and Area 2;
- backfilling of the drum disposal area, Area 1 (including the southern swale) and Area 2; and
- the construction of a low-permeability cap over the drum disposal area, Area 1 (including the southern swale) and Area 2.

As discussed in Sections 2 through 4, DCF Nos. 9, 14, 15 and 17 modified this sequence as remediation progressed. Section 2 presents a discussion of construction excavation activities for the drum disposal area, Section 3 for Areas 1 and 2 and the southern swale and Section 4 for the low-permeability cap.

The drum disposal area, Area 1, Area 2 and the southern swale are shown on Record Drawing B-137683-JM et al. and the location of the SLF is shown on Figure 1-1.

1.4 Supplemental Documentation

For record keeping purposes the remediation activities of the DCR were divided into specific categories or work item numbers. The DCR work item numbers are shown in Table 1-1. The CQAI recorded activity by work item numbers in the IDRs.

Pursuant with the format of the CQAP, CQA program activities conducted during the remediation of the DCR are discussed under the following headings in this report:

- preconstruction activities;
- construction activities; and
- post-construction activities.

Modifications to the project design were made by means of DCOs. The DCOs were issued by the Engineer of Record and were approved by the NYSDEC. Table 1-2 lists each DCO by date of issuance and subject.

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table 1-1

Work Items

Work Item Number	Work Item Description
1	Area 1 Excavation
1A	Area 1 Cleanup Verification
1B	Area 1 Backfill
1C	Area 1 Final Cap
1D	Drum Disposal Area Excavation
2	Area 2 Excavation
2A	Area 2 Cleanup Verification
2B	Area 2 Backfill
2C	Area 2 Final Cap
3	Southern Swale Excavation
3A	Southern Swale Cleanup Verification
3B	Southern Swale Backfill
3C	Southern Swale Final Cap
4	Mobilization and Site Preparation
4A	Demobilization
5	Erosion Control Measures
6	Geosynthetic Clay Liner
7	Topsoil and Hydroseeding
8	Solidification
9	Select Fill
10	Common Fill
11	Drum Shredding

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table 1-2

Design Change Orders

No.	Item	Description	Date Approved
✓ 1	Drum Disposal Area Excavation	Modified the Construction Work Plan to establish a drum staging area and utilize a mobile drum management area within the exclusion zone.	9/16/94
✓ 2	Backfill All Areas	Updated Technical Specifications, Section 02200, in response to DCF No. 4 and to address offsite common borrow sources.	10/18/94
✓ 3	Drum Shredding	Modified the Construction Work Plan and Operational Health and Safety Plan to establish an onsite drum shredding operation.	5/1/95 ¹
✓ 4	Cleanup Verification	Revised the density and alignment of cleanup verification sampling grids in the <i>Soil Cleanup Verification Plan for the Dennison Cross Road Site</i> to reflect the field verified limits of the drum disposal area.	8/31/95
✓ 5	Cleanup Verification Area 2	Revised the number of sampling grids in the <i>Soil Cleanup Verification Plan for the Dennison Cross Road Site</i> to reflect the field verified limits of Area 2.	10/11/95

✓
m.cj
1-28-96

Note:

1. NYSDEC approval for that portion of the DCO dealing with visual characterization for segregating and shredding drums into roll-offs was approved, but not the portion that included the sampling and analysis plan for characterizing the contents of the roll-offs as to compliance to LDRs.

Questions regarding the intent of the Technical Specifications were answered using DCFs as presented in Table 1-3. The DCFs associated with the DCR include DCF-001 through DCF-008.

Problems that developed during construction were addressed by the issuance of PICRs as listed in Table 1-4. There were three PICRs associated with remediation of the DCR site.

1.5 Construction Approval

Approval for remediation of the DCR was issued by the NYSDEC in August 1994.

1.6 Operation And Maintenance

Operation and maintenance activities are discussed in the *Dennison Cross Road Site Post-Closure Operations and Maintenance Manual*.

1.7 Construction Personnel And Approved Equipment

In general, construction proceeded on a four or five day per week basis with the following average staffing level:

- 1 - MKE construction supervisor;
- 1 - MKE quality control;
- 1 - MKE industrial hygienist;
- 2 - MKE general foremen;
- 5 - MKE operators;
- 8 - MKE laborers; and
- 4 - MKE teamsters.

Staffing levels varied directly with the nature of the work being performed. The entire operation was overseen by a sitewide construction manager and monitored by CQC personnel. Equipment utilized for drum removal, compacting subgrades and surfaces and geosynthetic clay liner (GCL) placement met or exceeded the requirements of the FDR.

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table 1-3

Design Clarifications

No.	Item	Description	Response Date
✓ 1	Solidification	Provided strength criteria for solidified soils at the DCR site.	7/21/94
✓ 2	Excavation All Areas	Confirmed formal submittal of the Waste Management Decision Tree in Technical Specification, Section 02200, to the CQAI.	7/21/94
✓ 3	Excavation All Areas	Clarified the intent of Technical Specification, Section 02200, Part 3.02 C, pertaining to stockpiling excavated materials and prevention of cross-contamination and offsite migration.	7/21/94
✓ 4	Backfill All Areas	Provided grain size requirements for grey till and common fill.	7/21/94
✓ 5	Solidification	Provided requirements and procedures for testing the bearing strengths of solidified materials that were to be placed in the SLF, Cell No. 2	9/6/94 revised 9/15/94
✓ 6	Drum Disposal Area Excavation	Allowed the transfer of liquid waste from damaged drums to containers for transport to Building 79.	8/25/94
✓ 7	Drum Disposal Area Excavation	Provided procedures for compositing the contents of segregated drums/waste materials into roll-offs.	9/2/94 revised 9/12/94 and 9/13/94

Continued on next page

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table 1-3 (Continued)

Design Clarifications

No.	Item	Description	Response Date
8	Excavation All Areas	Verified that paint filter testing would be performed at the discretion of the CQAI.	12/1/94
9	Excavation Areas 1 and 2	Verified acceptability of excavating in Area 2 prior to completing work in Area 1.	4/26/95
10	Excavation All Areas	Provided procedures for dealing with discrepancies in the visual profiling of waste materials.	4/26/95 revised 4/28/95
11	Drum Disposal Area Excavation	Verified the CQAI's treatment of contaminated soil and observed solid waste between drums as being in compliance with the Waste Management Decision Tree.	revised 7/5/95
12	Excavation All Areas	Provided requirements for testing and stockpiling soils that were removed beyond the excavation limits shown on Drawings B-137684-JM and B-137685-JM before their use as backfill.	7/5/95
13	Cleanup Verification All Areas	Detailed conditions for performing cleanup verification sampling.	7/5/95
14	Area 1 Excavation	Provided cross contamination prevention requirements for backfilling the south side of Area 1 prior to completion of excavation in the north side.	7/20/95

Continued on next page

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table 1-3 (Continued)

Design Clarifications

No.	Item	Description	Response Date
✓ 15	Area 2 Excavation Area 1 Backfill	Provided details for a separation berm between Areas 1 and 2 to allow concurrent cleanup verification and backfilling in Area 1 and excavation in Area 2.	7/19/95 revised 7/20/95
✓ 16	Area 2 Excavation	Approved a temporary stockpile of overburden soil outside the excavation limits shown on Design Drawing B-137685-JM.	7/28/95
✓ 17	Areas 1 and 2 Cleanup Verification	Approved cleanup verification in Area 2 prior to Area 1 contingent upon prevention of cross-contamination.	8/9/95
✓ 18	Cap All Areas	Provided GCL anchor trench details between Areas 1, 2 and the southern swale and the use of select fill above and below the GCL.	9/27/95

✓
M. CT
1-29-96

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table 1-4

Problem Identification and Correction Report

Number	Item	Description	Submitted (Resolved)
1	Solidification	Lack of submittal for solidification additive prohibited accurate determination of how much material to add.	9/23/94 (10/4/94)
2	Drum Disposal Area	Drums were being staged in a non-designated area and not being overpacked as agreed upon in Weekly Progress Meeting No. 4.	9/27/94 (9/26/94)
3	Excavation 1 and Southern Swale Excavation	Berm leaking between Area 1 and the southern swale with possible cross-contamination.	3/28/95 (4/10/95)

2

Section Two

Section 2 Excavation of the Drum Disposal Area

2.1 General

Excavation of the drum disposal area began in August 1994 and was completed in August 1995. The intent of the excavation of the drum disposal area to design grades was to expose soil that tested in compliance with predetermined cleanup goals for areas outside of groundwater management units. These goals are listed in Table 2-1.

Post-excavation field screening, immunoassay testing for PCBs and jar headspace testing for VOCs were conducted as outlined in the *Soil Cleanup Verification Plan for the Dennison Cross Road Site* as modified by DCO Nos. 4 and 5 and the *Demobilization Sampling and Analysis Plan for the Dennison Cross Road Site*. Sampling was conducted by Field Engineering personnel and results are presented in the *Cleanup Verification Sampling and Analysis Report for the Dennison Cross Road Site* and the *Demobilization Sampling and Analysis Report for the Dennison Cross Road Site*. It was the conclusion of these reports that contamination levels in remaining soils at the limits of excavation, site access roads, the drum staging area, the decontamination pad, the roll-off staging area and the shredder area were in statistical compliance with cleanup goals.

A discussion of the CQA program requirements for excavation of drums was presented in Section 3 of the CQAP.

CQA inspection activities during excavation of the drum disposal area were recorded in the IDRs under Work Item Nos. 1A, 1D, 2A, 4, 4A, 5 and 11.

2.2 Preconstruction Activities

The CQAI confirmed that mobilization activities proceeded in conformance with Technical Specifications, Sections 02100 and 02140, and the Construction Work Plan (CWP). Despite the fact that readings from perimeter observation wells indicated high groundwater levels, the field excavation operations were able to proceed without preconstruction dewatering. Additional mobilization activities consisted of grubbing, clearing, preparing stormwater controls, relocating a permanent benchmark and the construction of a 50,000 gallon holding tank and a decontamination pad.

DCO No. 1 was initiated during the preconstruction phase to free up work space at the site and to prevent potentially contaminated run-off due to truck traffic from migrating offsite. It contained revisions to the:

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table 2-1

Soil Cleanup Goals from Record of Decision

Compound	Areas Outside Groundwater Management Units¹
1,1,1-Trichloroethane	0.76 mg/kg
Benzene	0.04 mg/kg
Tetrachloroethene	0.02 mg/kg
Trichloroethene	0.13 mg/kg
Toluene	0.15 mg/kg
Total Xylene	0.12 mg/kg
Phenanthrene	2.2 mg/kg
Pyrene	6.6 mg/kg
Other PAHs	0.3 mg/kg
PCBs	1.00 mg/kg

Notes:

1. Areas "outside" of groundwater management units are areas other than areas "within" groundwater management units.

- exclusion fencing layout; and
- access road cross-sections.

It also included the addition of:

- a diversion berm to the east of the southern drainage swale;
- a drum staging area outside of the exclusion zone; and
- provision for a mobile drum management area within the exclusion zone, although this item was never constructed.

The above revisions and additions are shown on Figure 2-1.

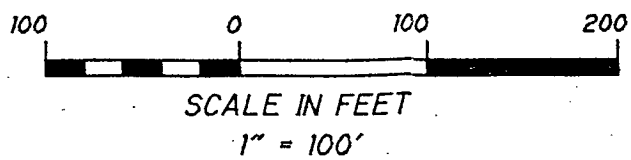
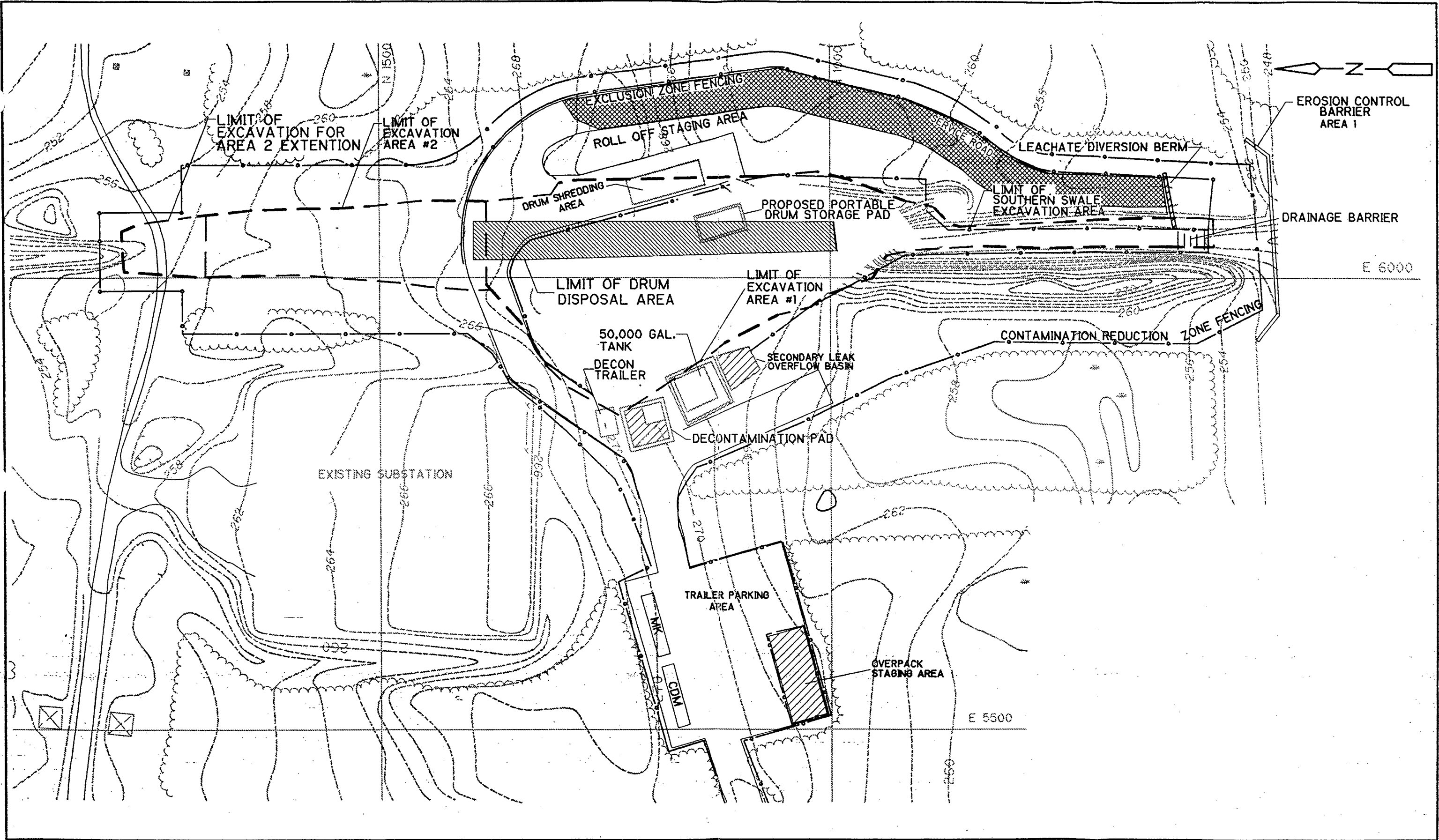
2.3 Construction Activities

The CQAI observed and documented that the excavation of drums, waste materials and contaminated soils from the DCR was in accordance with the requirements of the FDR. The excavation of these materials was overseen by the CQAI, while drum content identification, segregation/consolidation into roll-offs and/or trailer mounted tanks for sampling and analysis/disposal purposes was the responsibility of Sterling Environmental, a long-term Alcoa consultant familiar with plant processes and waste streams. Trailer mounted tankers for liquid wastes were supplied by OpTech, an Alcoa contractor.

The Waste Management Decision Tree, presented in Section 02200 of the Technical Specifications, was used to guide the excavation and the handling of drums, waste materials and contaminated soils during the remediation of the DCR. DCF No. 2 was issued to verify that the CQAI had the current version of the Decision Tree for implementation in the field. Pursuant with the Waste Management Decision Tree, Alcoa administered the profiling and disposal of liquid wastes, contaminated water (i.e., perched, surface and/or groundwater), uncharacterized sludges, unprofiled or containerized solid waste, soils with entrained liquids and characterized sludges. Material that was not transported to the SLF was routed through Alcoa's onsite processing/treatment facility located in Building 79 as shown on Figure 2-1. — ?

Remediation construction activities during drum, waste material and contaminated soil excavation at the DCR site were affected by:

- the excavation, overpacking and shredding of an unexpected quantity of drums;
- the presence of perched water and its disposal;



ALCOA - MASSENA, NEW YORK

DENNISON CROSS ROAD SITE SITE LAYOUT

FIGURE 2-1

- temporary sump abandonment; and
- encountering unexpected containerized liquid waste.

These items are discussed in further detail below.

2.3.1 Drum Excavation, Overpacking and Shredding

As noted in Section 2.1, the drum disposal area excavation spanned a one year period from August 1994 to August 1995. At the beginning of the excavation process, the general procedure was to excavate and overpack drums and transport them to Building 79 for processing by Alcoa staff. Alcoa acquired the services of Sterling Environmental who augmented in-house capabilities by facilitating waste segregation and shredding activities. In 1994 Sterling Environmental reportedly characterized segregated wastes as mill pit solids, liquid or miscellaneous wastes. The in-house processing consisted of shredding drums (with non-liquid contents) of like materials into roll-offs for eventual LDR testing for either onsite or offsite disposal and pumping liquid drums into tankers for offsite disposal. Overpacked drums containing miscellaneous wastes that were not consistent with the mill pit solids category were not shredded. They were temporarily staged within Building 79 and at the onsite drum staging area.

As the excavation effort matured, it appeared that the number of drums was overwhelming the capacity of the equipment in Building 79. At the end of the 1994 construction season the decision was made to lease a drum shedding unit that would complement drum excavation capacity and move the process onsite. This unit was put on line at the beginning of the 1995 season. Sterling Environmental continued to provide drum segregation services in 1995 for the shredding operation and to direct MKE in its drum excavation activities and the handling of materials.

DCF No. 7 provided guidelines for Sterling Environmental to perform the characterization and consolidation activities on the drums. DCO No. 3 enabled Sterling Environmental to consolidate the segregated drums into categorized roll-offs. However, DCO No. 3 did not establish the procedures for characterization of the contents of the roll-offs. Consequently, Sterling Environmental established four roll-off categories:

- aluminum mill pit solids;
- carbon mill pit solids;
- caustics; and
- sludges.

These new categories augmented the 1994 category list. The drums and waste materials placed within the “sludges” categorized roll-offs were designated for offsite disposal and were further categorized as follows:

- sludge;
- grease;
- venturi;
- wax;
- honey oil;
- black and white;
- soils; and
- paint solids.

In addition, abandoned sump materials were also placed into the “sludges” categorized roll-offs.

The staged miscellaneous drums in Building 79 from the 1994 season were relocated to the DCR site during the 1995 season. The majority of these drums were incorporated into the “sludges” category as mentioned above and shredded into roll-offs. The remaining miscellaneous drums with liquid contents, in addition to the 1995 season liquid drums, were pumped into onsite trailer mounted tankers supplied by OpTech. After liquids were transferred to the tankers, the drums were examined by Sterling Environmental. These drums were recharacterized as RCRA empty, removed from the overpacks, crushed and transported to SLF Cell No. 2 for disposal. The empty overpacks were decontaminated and reused. Processing of roll-offs is discussed below in Section 2.3.1.2. The final deposition of these roll-offs remains an ongoing activity that is being administered by Alcoa.

In all, approximately 7,000 drums were excavated from the drum disposal area with approximately 6,600 from within the limits of Area 1, 300 from within the transition of Area 1 to Area 2 and 100 from Area 2. Accordingly, actual excavation limits of the drum disposal area expanded approximately 100-feet to the north and 200-feet to the south of the original design limits. The design and actual excavation limits of the drum disposal area are both shown on Record Drawing No. B-137683-JM et al.

Of the total drums excavated, approximately 15 percent were found in a crushed condition and were documented to be “RCRA empty” (40 CFR 261.7) and disposed of in the SLF Cell No. 2. Approximately 84 percent of the drums were open, partially filled, dented, 55 gallon steel drums and approximately 1 percent of the drums were closed, sealed and considered intact. To assist Sterling Environmental in characterizing the contents of pinched or sealed drums, MKE fabricated a brass pronged attachment for one of the loaders. The prong was used to pierce an

overpacked drum so that its contents could be accessed. 2.
/

In general, non-RCRA empty drums were placed in HDPE double-walled overpacks. During the extraction and overpacking process contents would often fall out of a drum. The spilled contents, along with any soil that came into contact with the spillage were placed in the same overpack as the associated drum and any additional overpacks if needed. Perched water that drained from the drums, waste materials and contaminated soils, or from partially crushed and open drums, was collected in a temporary sump located within the excavation area. Perched water issues are discussed in further detail in Section 2.3.2.

Many of the drums that retained liquid wastes (i.e., other than perched water) were in poor condition and extraction and overpacking without content spillage was difficult. DCF No. 6 addressed procedures for handling leaking liquid waste drums. These procedures included pumping the liquid into an acceptable container and then overpacking the drum along with any soils that had come in contact with the spilled liquid. An excavated drum was immediately overpacked and/or pumped out (i.e., not purposely allowed to drain) if it appeared to contain a liquid waste. The pumped liquid was characterized by Sterling Environmental and transferred to tankers supplied by OpTech for processing/disposal.

DCO No. 1 included the use of a mobile drum management area (i.e., a lined area) within the exclusion zone. However, a mobile drum management area was never constructed. On one occasion, and during a period when there was a shortage of overpacks, excavated drums were being staged within the excavation area. PICR No. 2 was issued addressing the fact that drums containing solids, sludges and liquids were being staged in an unlined area. The issue was resolved by restricting the overpacking of drums to one unit at a time. If overpacks were not available, drum excavation operation was stopped.

An additional discussion during construction concerned the material surrounding the buried drums. DCF No. 11 stated contaminated soils and observed solid waste between the drums were previously characterized, as summarized in the *Final Remedial Design Report for the Dennison Cross Road Site*, and suitable for disposal in SLF Cell No. 2.

During drum excavation the CQAI inspected the extraction and overpacking of drums, ensuring that the process was in compliance with the Waste Management Decision Tree. Drum checklists were created and maintained by the CQAI and attached to the IDRs.

2.3.1.1 Decontamination of Overpacks

As noted above, drums were excavated, overpacked, characterized and shredded. Overpacks

were decontaminated before being recycled to avoid chemical incompatibility incidents. Although no incompatibility reactions were observed in the overpacks themselves, shredded drum contents did react in one of the roll-offs as discussed in Section 2.3.1.2.2.

The decontamination pad, as mentioned in Section 2.2, was utilized throughout the 1994 and 1995 construction seasons. The components of the pad consisted of an HDPE liner, sand and drainage stone. The contaminated water generated from the pad use was pumped into the 50,000 gallon holding tank. The contents of the 50,000 gallon tank were pumped as required into mobile tankers and transported to Building 79 for treatment or disposal. Residual solids washed from the overpacks during the decontamination process were placed into 55 gallon steel drums and transported to Building 79 for processing.

Attempts during construction to prevent over-spraying (installation of shields) from contaminating the area to the north and west of the limits of the decontamination pad did not prove successful. The perimeter of the pad was sampled as part of post-construction activities and areas not meeting cleanup goals were excavated and resampled until satisfactory results were obtained. Excavated soils were disposed of in SLF Cell No. 2. Test results are summarized in the *Demobilization Sampling and Analysis Plan for the Dennison Cross Road Site*.

2.3.1.2 Drum Shredding Operations

As described in Section 2.3, drums excavated and overpacked during the 1994 construction season were transported to Building 79 for shredding/consolidation. However, the Alcoa plant shredding operations became overwhelmed due to the fact that the quantity of drums was much greater than originally estimated. Therefore, a mobile shredder unit was brought onsite at the beginning of the 1995 season.

The shredder operation was positioned to the east of Area 1 as shown in Figure 2-1. Overpacked drums were shredded into specific, categorized, clearly labeled roll-offs. Due to the concurrence of construction of the DCR with the Oily Waste Landfill (OWL), drums excavated from the OWL were transported and also shredded at the DCR. DCR and OWL drums were not co-mingled with the exception of those placed in "sludge" categorized roll-offs which were destined for offsite disposal (Appendix B, Table B-3). Filled roll-offs were temporarily staged at the DCR site before disposal of their contents, on or offsite, or they were restaged at Building 79.

The shredding operation was influenced by the following five items:

- shredder installation/set-up operations;
- compatibility of shredded drums;

- stratified drum contents;
- roll-off integrity; and
- roll-off condensation.

2.3.1.2.1 Shredder Installation/Set-Up Operations

During the mobilization of the shredder operation, HDPE liner was placed beneath the unit and conveyor as a preventative measure to avoid contamination of surrounding areas. During the period that the shredder was in operation incidents were observed (e.g., shredded materials falling off the conveyor, stormwater running off of the shredder and leaking roll-offs). Therefore, the shredder area was sampled as part of post-construction activities and areas not meeting cleanup goals were excavated and resampled until satisfactory results were obtained. Excavated soils were disposed of in SLF Cell No. 2. Test results are summarized in the *Demobilization Sampling and Analysis Report for the Dennison Cross Road Site*.

2.3.1.2.2 Compatibility of Shredded Drums

Drum characterization and shredding issues were discussed and resolved among Alcoa, Sterling Environmental, NYSDEC and Field Engineering. DCF No. 10 provided guidelines for dealing with any situations that involved a difference in opinion as to the visual characterization of a waste material.

As mentioned in Section 2.3.1.1, the possibility of an incident occurring due to incompatible materials was discussed prior to the shredding of drums. During the shredding operation, an exothermic reaction was observed in one of the roll-offs. The incident was handled by Sterling Environmental and the roll-off was set aside for a few days and later reused. No further incompatibility incidents were observed during the remainder of the shredding operation.

2.3.1.2.3 Stratified Drum Contents

Prior to shredding a drum, any free liquid (i.e., contaminated water or otherwise) that had accumulated in the bottom of the overpack was removed. Though this procedure was continually practiced, it was impossible for Sterling Environmental to visually confirm that any particular drum was completely free of liquid as some drum contents were stratified (solid layer then a liquid layer). The existence of stratified drum contents was verified through inspection of the roll-offs and the observation of saturated material within them. Bulking/solidifying the saturated material in the roll-offs was accomplished through the addition of absorbent materials such as Speedi-Dri, processed corn cob and "Magic" absorbent. Issues associated with the volume of absorbent utilized and the potential for dilution of the contents prior to LDR testing were

discussed and resolved among Sterling Environmental, a NYSDEC onsite representative and Field Engineering.

2.3.1.2.4 Roll-Off Integrity

Roll-offs utilized at the DCR were supplied by ChemWaste Management and/or Waste Stream Management. Typically, the containers arrived as 20 or 30 cy, unlined, steel containers. Prior to roll-off use, MKE typically lined the containers with plastic sheeting and added a layer of Speedi-Dri absorbent. As the shredding operation tended to aggravate phase separation of drums with stratified contents, many roll-offs ended up containing saturated material and leaked. If a leaking roll-off was observed, the liquid was contained and the area of contamination excavated and placed back into the appropriate roll-off. MKE then would temporarily patch the leak prior to the transfer of the roll-off to Building 79. On occasion the contents of a leaking roll-off were transferred to another unit in Building 79 and the leaking roll-off repaired and later reused. A record of the roll-off contents that were transferred were maintained on a roll-off summary sheet by the CQAI, CQC and an onsite NYSDEC representative and is presented in Appendix B.

2.3.1.2.5 Roll-Off Condensation

Condensation was observed to form and run-off full, covered roll-offs. Due to contamination concerns, the condensation was tested by MKE's Industrial Hygienist. The results of the condensation indicated low-level PCB contamination. In response to these results, the Industrial Hygienist established the roll-off staging area as an exclusion zone as well as directing that the roll-offs be periodically ventilated by the partial removal of the roll-off covers. After the roll-offs were removed from the site, the staging area was graded and excavated soils were placed into Area 1 for eventual disposal in SLF Cell No. 2.

2.3.2 Perched Water

Perched water was encountered in the drum disposal area. The depth of the perched water ranged from approximately 10-to 20-feet below original grade. During the 1995 construction season, as excavation approached the vicinity of DCR borings 143 and 145, an increased amount of product was observed in the perched water as the latter was released from the working drum excavation face. The perched water/liquid waste was allowed to drain into a temporary sump. Drums that contained perched water were also allowed to drain to this sump before being overpacked. Saturated soils from sump areas were processed as described in Section 2.3.3.

2.3.3 Sump Abandonment

As discussed in Section 2.3.2, perched water was allowed to drain into a temporary sump. The water that collected in the sump was pumped on a routine basis to the 50,000 gallon holding tank shown on Figure 2-1. If the liquid leaking out of a drum appeared to be anything besides perched water, it was contained, overpacked and the ground/soil that was contaminated by the product was collected and placed into the same or a separate overpack. This method was discussed with an onsite NYSDEC representative. During this process, a product/liquid waste layer formed on the 50,000 gallon tank surface. The layer was skimmed from the holding tank and containerized into 55 gallon steel double bung drums (reference DCR-IDR-151). These drums were periodically emptied into tanks supplied by OpTech. Oil booms that were used in the skimming process were also placed in 55 gallon steel drums and transported to Building 79 for disposal.

A NYSDEC letter dated June 9, 1995, (Appendix D), recommended that the saturated soils within the temporary sumps be excavated and containerized. This recommendation was followed. On occasion, during the abandonment procedure, absorbent cloths were utilized to collect product prior to the water in the sump being pumped down. The saturated soils from the sump were then excavated and placed into 3 cy hoppers, along with the contaminated cloths. The hopper contents were allowed to dry, and were later emptied into roll-offs designated for offsite disposal. On other occasions, and as noted in Section 2.3.1, abandoned sump materials were placed directly into sludge categorized roll-offs.

2.3.4 Excavation of Unexpected Containerized Liquid Waste

Unexpected containerized liquid wastes were encountered on three occasions. The first, in 1994, was the observation of a broken drum with a viscous white liquid. The drum containing the liquid and the surrounding soils that had been in contact with the liquid were placed into an overpack and transported to Building 79 for processing.

The second observation, also in 1994, involved a valved, propane-like tank that Sterling Environmental reported as containing a red liquid. The tank was overpacked and transported to Building 79 for processing.

The third situation involving an unexpected waste was the observation of a green liquid during drum shredding into an OWL roll-off in 1995. The liquid was pumped into a 55 gallon metal drum and the shredding operations continued. The drum contents were later characterized by Sterling Environmental and transferred to a tanker supplied by OpTech.

2.4 Post-Construction

2.4.1 Cleanup Verification Sampling

Post-construction activities consisted of confirmation that the excavation was completed to the required horizontal and vertical limits and/or that all waste material/contaminated soil was removed from the DCR. Cleanup verification sampling was performed by Field Engineering under the observance of an onsite NYSDEC representative. DCO Nos. 4 and 5 modified the density and alignment of the sampling grids to reflect the unexpected extent of the drum disposal area. In addition, the CQAI inspected the completed excavation to approve the subgrade for the backfilling process.

2.4.2 Demobilization Sampling

Demobilization perimeter sampling was performed to assess the impact of drum and roll-off staging, shredding and decontamination activities. The sampling was performed by Field Engineering under the observance of an onsite NYSDEC representative. The sampling areas included the site access roads, the drum staging area, the decontamination pad, the roll-off staging area and the shredder area. Further excavation was performed at the perimeter areas of the decontamination pad and the shredder area. The CQAI observed and documented that the perimeter sampling was in accordance with the requirements of the *Demobilization Sampling and Analysis Plan for the Dennison Cross Road Site*. Results of demobilization perimeter sampling are presented in the *Demobilization Sampling and Analysis Report for the Dennison Cross Road Site*.

2.5 Summary

Excavation acceptance was based on compliance with design drawing elevations and the achievement of cleanup verification goals. The subgrade elevations shown on the Record Drawings were in conformance with the excavation requirements of the FDR. Results of cleanup verification sampling, as observed by the CQAI, were presented in the *Cleanup Verification Sampling and Analysis Report for the Dennison Cross Road Site* and the *Demobilization Sampling and Analysis Report for the Dennison Cross Road Site*. These reports documented that cleanup goals were achieved. Therefore, the excavation of the drum disposal area was in conformance with the FDR.

3

Section Three

Section 3

Excavation of Areas 1, 2 and the Southern Swale

3.1 General

This section of the Certification Report deals with the excavation of waste materials and contaminated soils in Areas 1, 2 and the southern swale. It excludes the footprint of the drum disposal area (Section 2) that overlaps Areas 1 and 2 as well as the excavation of drums. Record Drawing No. B-137683-JM et al. shows the delineation of these areas.

As was the case with the drum disposal area, excavation activities in Area 1 and the southern swale were started in the 1994 construction season and completed in 1995. Remediation of Area 2 was initiated and completed in the 1995 construction season.

The excavation and removal of waste materials and contaminated soils to design limits in Areas 1, 2 and the southern swale were intended to expose soil that tested in compliance with predetermined cleanup goals. These goals are listed in Table 2-1.

Post-excavation field screening, immunoassay testing for PCBs and jar headspace testing for VOCs, were conducted as outlined in the *Soil Cleanup Verification Plan for the Dennison Cross Road Site* as modified by DCO Nos. 4 and 5. Sampling was conducted by Field Engineering personnel and the results are presented in the *Soil Cleanup Verification Sampling and Analysis Report for the Dennison Cross Road Site*. It was the conclusion of this report that contamination levels in remaining soils within the limits of excavation were in statistical compliance with the cleanup goals.

A discussion of the CQA program requirements for excavation of Areas 1, 2 and the southern swale was presented in Section 3 of the CQAP.

CQA inspection activities during remediation of these areas were recorded in the IDRs under Work Item Nos. 1, 1A, 2, 2A, 3, 3A, 4, 5 and 8.

3.2 Preconstruction Activities

The CQAI confirmed that mobilization activities proceeded in conformance with the Technical Specifications, Sections 02100 and 02140, and the CWP. Mobilization activities for Areas 1, 2 and the southern swale were similar to those discussed in Section 2 for the drum disposal area. An additional preconstruction activity for Area 1 included the mobilization of a power screen to facilitate screening the excavated soils to cover the initial 2-foot over the composite liner system in SLF Cell No. 2. An additional preconstruction activity for Area 2 included stripping the

overburden layer of soil and stockpiling it to the north of the site. DCF No. 16 detailed conditions for the stockpiling of the overburden layer of soil for reuse as common fill during construction of the low-permeability cap (Section 4).

3.3 Construction Activities

Overall, the Waste Management Decision Tree, shown in Section 02200 of the Technical Specifications, was used to guide the excavation and the handling of waste materials and contaminated soils during remediation of Areas 1, 2 and the southern swale. During the progression of construction activities, questions arose concerning specific field applications of the Decision Tree. DCF No. 3 emphasized that excavated and stockpiled contaminated material was to be handled in a timely manner. DCF No. 10 provided a procedure for dealing with the situation should there be disagreements in the visual characterization of a waste.

Field Engineering performed construction screening tests throughout the 1994 and 1995 seasons. These tests were used to verify whether or not areas that had been considered "clean" had become cross-contaminated (e.g., the roadway/berm between Areas 1 and 2 and temporary loading platforms in Area 2 and the southern swale that were beyond design excavation limits). In addition, screening tests were used as a field indication during construction as to whether attainment of cleanup goals for PCBs had been achieved. Excavation continued until test results of less than 1 ppm PCBs were obtained or actual cleanup verification sampling was performed. Screening tests were performed in Areas 1, 2 and the southern swale and results are listed in Appendix C. The onsite NYSDEC representative periodically took samples for independent analysis. NYSDEC sample test results are not included in the appendix. — *NYSDEC Sample Results*

Excavated contaminated materials were often temporarily stockpiled before transportation to the SLF to allow them to dry, for solidification or to establish a backlog to make hauling efforts effective. Solidification is discussed in further detail in Section 3.3.1. DCF Nos. 1 and 5 provided strength criteria for solidified materials and testing frequency, respectively. PICR No. 1 identified the need for an approved submittal for the solidification agent. DCF No. 8 confirmed that it was at the CQAI's discretion as to when paint filter tests should be performed. Paint filter tests were used to determine whether or not an excavated material contained free liquid.

Construction activities during the 1994 season included concurrent excavation of Area 1, the southern swale and the drum disposal area (Section 2). At the close of the 1994 season, MKE constructed a temporary berm between Area 1 and the southern swale in an effort to prevent cross-contamination from one area to another during construction and as part of winterization efforts. The location of this berm was recorded in the IDRs and is discussed in further detail in Section 3.3.2.

The partial excavation of Area 1 in 1994 formed a depressed area that collected stormwater. This entire area was flooded with snowmelt and rain at the start of the 1995 season. The water was pumped and transported to Building 79 for treatment. This area was later reflooded during a heavy rain event along with a petroleum-like product that was washed from a temporary sump in the drum disposal area. After the water was pumped and transported to Building 79 for treatment, soil that had become saturated with the petroleum-like product, was processed as discussed in Section 2.3.3.

Another development in the 1995 season, included the provision to place contaminated soils from the DCR into SLF Cell No. 1. It was originally planned that SLF Cell No. 1 would receive only material excavated from the Spent Potlining Pile A (PPA) (Figure 1-1). Details associated with this activity are discussed below in Section 3.3.2.

According to the FDR, the original construction sequence was to excavate Area 1, including the southern swale, perform confirmatory sampling and then proceed with the excavation of Area 2. Because the drum disposal area extended into Area 2 and work in this area was taking longer than expected, DCF No. 9 was issued to confirm the acceptability of excavating Area 2 prior to the completion of work in Area 1. DCF No. 13 emphasized the fact that only after excavation had reached design limits would cleanup verification sampling be performed.

At the completion of excavation of all the areas in 1995, horizontal and vertical excavation limits were surveyed by MKE. Final grades are presented in Record Drawing Nos. B-137684-JM, B-137685-JM, B-137688-JM, B-137689-JM, B-137690-JM and B-137691-JM. Review of this data, as well as observations during construction, confirmed that the areas were excavated beyond design grades. In fact, in all three areas at the site, over-excavation was needed to remove all visible waste materials and contaminated soils.

The CQAI observed and documented that the excavation of waste materials and contaminated soils from the DCR was in accordance with the requirements of the FDR and that sampling was performed in accordance with the *Soil Cleanup Verification Plan for the Dennison Cross Road Site*.

3.3.1 *Solidification*

Solidification of the saturated soils was performed in Area 1 as well as the southern swale. Quick and hydrated lime were the solidification additives used at the site. The CQAI verified that the percentage of lime did not exceed 10 percent by wet weight of quick lime and 40 percent by wet weight of hydrated lime per SLF DCF No. 74. Clarifications were requested concerning

the strength requirement for materials that would be placed in the SLF. DCF No. 1 provided details on strength criteria of solidified materials. DCF No. 5 provided the frequency and methods of testing solidified materials to be placed in the SLF.

PICR No. 1 addressed the fact that an approved submittal had not been received by the CQAI that identified the solidification agent as quick or hydrated lime. To resolve the issue the CQAI sent a sample to Greybec (a lime supplier) for analysis. Results of the test indicated that the material was quick lime. Therefore, in accordance with SLF DCF No. 74 the allowed dosage for solidification was 10 percent by weight. Quantities of quick lime added in the field did not exceed this rate.

The paint filter test (EPA standard test method 9095) was the method used for determining the presence of free liquids in a representative sample of waste. DCF No. 8 confirmed that if the CQAI's visual observation indicated that sufficient moisture was not present in the solidified matrix, the paint filter testing was not required.

3.3.2 Disposal of Soils in SLF Cell No. 1

It was the original plan that SLF Cell No. 1 would receive only material excavated from PPA. This site is shown on Figure 1-1. However, it became evident that there would be excess capacity in SLF Cell No. 1. DCO No. 23 was issued for the SLF allowing the disposal of DCR soils with PCB concentrations less than 50 ppm and VOC levels less than 100 ppm in Cell No. 1. Immunoassay field screen sampling of material from Area 1 and the southern swale by Field Engineering and NYSDEC determined that it met the parameters provided in SLF DCO No. 23 and was acceptable for disposal in Cell No. 1. The results of these tests are summarized in Table 3-1. The CQAI oversaw the sampling effort and observed that the techniques outlined in the *Cleanup Verification Work Plan for the Dennison Cross Road Site* were followed.

Subsequent to the sampling and testing effort, the CQAI monitored excavation efforts to ensure that the visual characteristics of the backfill remained consistent with what had been tested.

3.3.3 Excavation of Area 1

Area 1 was defined as the portion of the former ravine surrounding the drum disposal area. During remediation of the DCR it was discovered that Area 1 extended beyond the excavation limits shown on the Design Drawings. Over-excavation was necessary in order to achieve soil cleanup goals. The final excavation grades are shown on Record Drawing Nos. B-137684-JM and B-137688-JM.

DCF No. 12 clarified that soils in Area 1 that were excavated within the limits shown on the

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table 3-1

Field Screening Results for Cell 1 Confirmation¹

Sample Number	Date Sampled	Sample Depth (ft)	Date Tested	PCB Immunoassay Result ²	VOC Jar Headspace Result ³	Send to Cell 1 (Yes or No)
DCR-CEL-01	6/12/95	3	6/12/95	< 50 ppm	0 ppm	Yes
DCR-CEL-02	6/12/95	6	6/12/95	< 50 ppm	0 ppm	Yes
DCR-CEL-03	6/12/95	3	6/12/95	< 50 ppm	0 ppm	Yes
DCR-CEL-04	6/12/95	6	6/12/95	< 50 ppm	2.4 ppm	Yes
DCR-CEL-05	6/14/95	3	6/14/95	< 50 ppm	0 ppm	Yes
DCR-CEL-06	6/14/95	0	6/14/95	< 50 ppm	0 ppm	Yes
DCR-CEL-07	6/14/95	4	6/14/95	< 50 ppm	3.5 ppm	Yes
DCR-CEL-08	6/14/95	8	6/14/95	< 50 ppm	2.4 ppm	Yes
DCR-CEL-09	6/14/95	4	6/14/95	< 50 ppm	3.5 ppm	Yes
DCR-CEL-10	6/14/95	8	6/14/95	< 50 ppm	0 ppm	Yes
DCR-CEL-11	6/14/95	4	6/14/95	< 50 ppm	2.4 ppm	Yes
DCR-CEL-12	6/14/95	8	6/14/95	< 50 ppm	0 ppm	Yes
DCR-CEL-13	6/14/95	4	6/14/95	< 50 ppm	0 ppm	Yes
DCR-CEL-14	6/14/95	8	6/14/95	< 50 ppm	0 ppm	Yes
DCR-CEL-15	6/27/95	Stockpile	6/27/95	< 50 ppm	0 ppm	Yes
DCR-CEL-16	6/27/95	Stockpile	6/27/95	< 50 ppm	0 ppm	Yes
DCR-CEL-17	6/27/95	Stockpile	6/27/95	< 50 ppm	4.3 ppm	Yes
DCR-CEL-18	6/27/95	Stockpile	6/27/95	< 50 ppm	2.5 ppm	Yes
DCR-CEL-19	6/27/95	Stockpile	6/27/95	< 50 ppm	4.3 ppm	Yes

Notes:

1. Excavated soil was sampled and field screened once every 500 cy, or as required, to confirm that the material met Cell 1 requirements.
2. A Millipore EnviroGard PCB Test Kit was used for immunoassay analysis.
3. The VOC jar headspace analysis was performed in accordance with the QAPP.

Design Drawings would be disposed of at the SLF. It also stated that material that was excavated outside of the design limits of Area 1 could be stockpiled, field screened and used for backfill if it met cleanup goals.

Solidification of material that was excavated from Area 1 is discussed in Section 3.3.1.

Material that was excavated from Area 1 for disposal in Cell No. 1 at the SLF was discussed in Section 3.3.2.

3.3.4 Excavation of the Southern Swale

The excavation of the southern swale began in 1994 and was completed in 1995. In 1994, approximately 2-feet of soil/sediment was excavated from the bottom of the swale. The area was field screened for construction purposes to evaluate if PCB cleanup goals were achieved. The field screening test locations and results are presented in Appendix C. At the end of the 1994 construction season, MKE installed a berm at the north of the southern swale with the intent of preventing additional contamination. The berm was constructed with a mixture of clay and common fill.

PICR No. 3 was issued at the beginning of 1995 to address fact that this berm was leaking and that a visible sheen was observed on the ponded stormwater to the south of the berm. It was suspected that the sheen was being induced by percolation from the flooded depression in Area 1 (Section 3.3). This situation was resolved by pumping down Area 1 and the ponded stormwater in the southern swale.

A final excavation of approximately 4-feet was performed in the southern swale in 1995 to remove debris (e.g., railroad ties and wood) remaining in the swale bottom. Over-excavation was necessary in the southern swale to achieve soil cleanup goals.

Solidification of material that was excavated from the southern swale was discussed in Section 3.3.1.

3.3.5 Excavation of Area 2

Area 2 was defined as that portion of the former ravine north of the drum disposal area. Record Drawing No. B-137685-JM represents the final grades for Area 2. Over-excavation was necessary in Area 2 to achieve soil cleanup goals. Over excavation requirements to the north of Area 2 are discussed in further detail in Section 3.3.5.1.

DCF No. 16 confirmed that the top three feet of overburden material in Area 2 could be

temporarily stockpiled outside the proposed excavation limits. This material was later field screened by Field Engineering in conformance with the *Area 2 Sampling and Analysis Work Plan for the Dennison Cross Road Site*. The material was then analyzed for acceptability and eventual use as backfill in Area 2.

It was the original design intent to consecutively sequence the excavation, cleanup verification testing and backfilling of Areas 1 and 2. However, as remediation of the drum disposal area became protracted, completion of Area 1 was delayed and Area 2, as originally delineated in the Design Drawings, was completed first. DCF No. 17 allowed Area 2 to undergo cleanup verification testing prior to Area 1 as long as cross-contamination was prevented. Cross-contamination was prevented by installing a GCL barrier/road berm between Areas 1 and 2. After completion of Area 2 cleanup verification testing, the GCL barrier/road berm was removed. The berm material was field screened and contained PCB levels above 1 ppm in exceedance of cleanup goals. Consequently, the material in the GCL barrier/road berm was excavated and placed in SLF. The field screening test locations and results are presented in Appendix C.

During excavation of Area 2, the CQAI noticed and sampled a rust colored liquid that seeped in from the side slopes. The results of the field screen met cleanup goals for PCBs and are presented in Appendix C.

3.3.5.1 Excavation to the North of Area 2

During the remediation of Area 2, waste was observed at the northern design excavation limit. Consequently, excavation continued an additional 100 feet in a northerly direction and to a depth approximately 16 feet below original ground surface. A low-permeability barrier of GCL was installed at the approximate location of the northern design excavation limit of Area 2 to separate it from the additional excavation. The barrier was installed after cleanup verification sampling in Area 2 was performed. The GCL barrier was constructed to prevent cross-contamination from the northern extension into Area 2.

As a result of the need for additional excavation, DCO No. 5 modified the *Soil Cleanup Verification Report for the Dennison Cross Road Site* by adding additional sampling grids to the north of Area 2.

3.4 Post-Construction

Post-construction activities consisted of confirmation that the excavation was completed to the required horizontal and vertical limits and/or that all waste materials and contaminated soils were removed from the DCR. Cleanup verification sampling was performed by Field Engineering

under the observance of an onsite NYSDEC representative. DCO Nos 4 and 5 modified the density and alignment of the sampling grids to reflect the unexpected extent of the drum disposal area. In addition, the CQAI inspected the completed excavation to approve the subgrade for the backfilling process for construction of the low-permeability cap (Section 4).

3.5 Summary

Excavation acceptance was based on compliance with design drawing elevations and the achievement of cleanup verification goals. The subgrade elevations shown on the Record Drawings were in conformance with the excavation requirements of the FDR. Results of cleanup verification sampling, as observed by the CQAI, were presented in the *Cleanup Verification Sampling and Analysis Report for the Dennison Cross Road Site*. This report documented that cleanup goals were achieved. Therefore, the excavation of Areas 1, 2 and the southern swale was in conformance with the FDR.

4

Section
Four

Section 4

Low-Permeability Cap

4.1 General

The cap constructed over the DCR consists of a low-permeability GCL with a protective overlying soil cover that minimizes erosion and promotes drainage away from the site. The purpose of the cap is to reduce the percolation of stormwater and snowmelt into the remediated area. The cap extends over the drum disposal area, Areas 1 and 2 and the southern swale.

Before the DCR cap was constructed, each of the areas was backfilled within 2-feet of final grade with common fill. The first component of the cap consisted of a 6-inch layer of select fill, which protected the GCL layer from mechanical damage and acted as a subgrade. A 12-inch layer of select fill was placed over the GCL to provide the required restraining load during hydration, mechanical protection, a support layer for vegetative growth and a horizontal pathway for infiltrating stormwater. The final component of the DCR cap was 6-inches of topsoil for the support of vegetative growth and erosion control.

A discussion of the CQA program requirements for installation of the DCR cap was presented in Section 4 of the CQAP.

CQA inspection activities during construction of the low-permeability cap were recorded in the IDRs under Work Item Nos. 1B, 1C, 2B, 2C, 3B, 3C, 4A, 5, 6, 7, 9 and 10.

4.2 Preconstruction Activities

Preconstruction activities undertaken by the CQAI for the DCR cap included verification that materials delivered to the project site were in conformance with the FDR. Deliveries included the following:

- geosynthetic clay liner;
- common/select fill;
- topsoil; and
- seed and fertilizer.

Observations during delivery to the site were recorded in the IDRs and are included in the project files. The CQAI inspected and confirmed that the items were in conformance with the FDR. In addition, Field Engineering provided the CQAI with approved submittals and manufactures' certifications for these items. Moreover, the CQAI reviewed the FDR installation procedures for these components where applicable. The subsections below provide details related to the above materials.

DCF No. 14 approved the backfilling of the southern swale prior to the completion of waste excavation in Area 1 as long as a physical barrier was constructed to prevent cross-contamination between the two areas and as long as the southern swale met cleanup goals.

4.2.1 Common Fill/Select Fill

Common fill was utilized for backfilling the excavated areas and construction of the DCR cap. Common fill was provided from offsite and onsite borrow sources. Offsite borrow sources for common fill were provided from MK-13 and MK-13A. Onsite sources for common fill were provided from the following:

- overburden material in Area 2;
- berm material located to the west of the southern swale;
- stockpiled material located in the area of the proposed SLF Cell No. 3 (which was material left over from final grading activities during construction of SLF Cell Nos. 1 and 2); and
- surplus fill excavated beyond design limits in areas to the southeast and west of Area 1 and to the east and west of the southern swale. ?

Technical Specifications, Section 02200, detailed the material property requirements for common fill (both onsite and offsite sources) and Section 4 of the CQAP detailed material testing methods and frequencies. Results of common fill testing are archived with the project files.

In addition to physical property testing of onsite sources of common fill, the Area 2 overburden material and the berm material to the west of the southern swale were field screened prior to their use as backfill. The Area 2 overburden material was field screened for PCBs, PAHs and VOCs and the results are included in the *Area 2 Sampling and Analysis Work Plan for the Dennison Cross Road Site*. The field screening test results and locations for the berm material to the west of the southern swale are listed in Appendix C. No field screening test results were performed on the stockpiled material in SLF Cell No. 3 as it was originally from "clean" borrow sources. Similarly, surplus fill excavated from beyond the design excavation limits at the DCR was considered "clean" and not field screened.

DCF No. 4 clarified common fill and backfilling specifications as presented in Section 02200 of the Technical Specifications. DCO No. 2 further clarified offsite borrow properties and backfilling requirements for cap construction.

4.2.2 Geosynthetic Clay Liner

The GCL was manufactured by Colloid Environmental Technologies Company was utilized to provide a low-permeable layer over the DCR. The GCL was placed above the 6-inch layer and beneath the 12-inch layers of select fill. Technical Specifications, Section 02275, detailed GCL requirements.

DCF No. 18 clarified the location and construction requirements for the GCL anchor trench in Area 1, Area 2 and the southern swale. This DCF included the elimination of the anchor trench at the east and west of the southern swale. In lieu of the anchor trench, the GCL was keyed into the side slopes during construction.

4.2.3 Topsoil

Topsoil was utilized to protect the cap soils against erosion by supporting vegetative growth. Topsoil was provided from offsite borrow source MK-12. Technical Specifications, Section 02930, detailed the material property requirements for topsoil and Section 4 of the CQAP detailed material testing methods and frequencies. Results of topsoil testing are archived with the project files.

4.2.4 Seed and Fertilizer

Technical Specifications, Section 02930, detailed the requirements for seed and fertilizer. Seed mixture slips are archived with the project files.

4.3 Construction Activities

CQA inspection and testing activities associated with the construction of the DCR cap are discussed in the sections below.

All Record Drawing survey information was obtained and provided by MKE. Final grades and cross sections of the cap are shown in Record Drawing Nos. B-137686-JM, B-137687-JM, B-137688-JM, B-137689-JM, B-137690-JM and B-137691-JM.

4.3.1 Common Fill/Select Fill

Moisture/density testing was performed on the common/select fill as outlined in Sections 4 and 5 of the CQAP. The results of this testing are archived with the project files. Installation of the common/select fill layers was in accordance with the requirements of the FDR.

4.3.2 Geosynthetic Clay Liner

Installation of the GCL was continuously observed by the CQAI to verify that the requirements of the FDR were met. The quality assurance parameters observed during installation include:

- panel orientation;
- seam preparation, location and overlap;
- seam augmentation; and
- proper keying of the GCL into the anchor trench.

The CQAI collected roll labels for the GCL panels installed. Table 4-1 provides the identification roll numbers and Figure 4-1 shows GCL panel placement layout.

The general procedure for placement of GCL panels included:

- testing the select fill subgrade for compliance with moisture/density requirements;
- placement of panels; and
- backfilling of all exposed panels at the end of each work day except for a working seam that allowed tie in to the next day's work.

The working seam was formed by not placing backfill on 2-to 3-feet of the leading edge(s) of a panel(s). The edge was protected from moisture by covering it with plastic sheeting. On one occasion, as shown on Figure 4-1, the working seam was inundated during a heavy rain storm in the area of panel nos. 40, 41 and 48 for approximately 100-feet. After allowing the soils in the area time to dry, a minimum of 1-foot of the leading edge of the working seam that had been backfilled was exposed and swept. A new 15-foot wide piece of GCL repair panel was placed along the seam which was augmented above and below the panel with a minimum of 1/4-pound of bentonite powder per linear foot. Connecting panel nos. 81, 82, 89, 90 and 91 were then placed over and perpendicular to the repair panel. The entire area was immediately backfilled and the repair procedure completed. Other than this instance, GCL was not allowed to become saturated after placement without a confining load in place.

As recorded in the IDRs, and as discussed with the onsite NYSDEC representative and Field Engineering, a recurring seep of perched and/or groundwater was observed in the northwest corner of Area 1 in the vicinity of GCL panels 89 and 90 as shown in Figure 4-1. The soils that were in contact with this water met cleanup verification goals which indicated that the water itself was not contaminated. The GCL seams in this area were augmented with bentonite powder in excess of the minimum requirement. This portion of the cap will be inspected in the spring of 1996 to confirm cap integrity and has been included as a punch list item in Section 5.

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table 4-1

Geosynthetic Clay Liner Placement

Date Placed	Report No.	Bentomat Lot/Roll No.	Placement No.
10/2/95	253	27894A/38	1
10/2/95	253	28794B/41	2
10/2/95	253	25795B/69	3
10/2/95	253	25795B/91	4
10/2/95	253	25795B/94	5
10/2/95	253	25795B/72	6
10/3/95	254	Not Legible/44	7
10/3/95	254	28794B/Not Legible	8
10/3/95	254	28794B/38	9
10/3/95	254	25795B/119	10
10/3/95	254	25795B/49	11
10/3/95	254	25795A/51	12
10/3/95	254	25795A/60	13
10/3/95	254	25795A/58	14
10/3/95	254	25795B/120	15
10/3/95	254	25795B/118	16
10/11/95	261	25795B/118	16
10/11/95	261	25795A/55	17
10/11/95	261	25795A/56	18
10/11/95	261	25795A/57	19
10/11/95	261	25795A/50	20
10/11/95	261	25795A/59	21
10/11/95	261	25795A/47	22
10/11/95	261	25795A/43	23
10/11/95	262	25795A/40	24
10/12/95	262	27794C/135	25
10/12/95	262	27894A/36	26
10/12/95	262	27494A/06	27
10/12/95	262	27894A/35	28
10/12/95	262	27494A/21	29
10/12/95	262	27494A/04	30
10/16/95	265	25795A/48	31
10/16/95	265	27794C/125	32
10/16/95	265	27894A/39	33

Continued on next page

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table 4-1 (Continued)

Geosynthetic Clay Liner Placement

Date Placed	Report No.	Bentomat Lot/Roll No.	Placement No.
10/16/95	265	27494A/03	34
10/16/95	265	Not Legible	35
10/16/95	265	27894A/35	36
10/16/95	265	25795A/46	37
10/16/95	265	Not Legible/70	38
10/16/95	265	27394C/131	39
10/16/95	265	27494A/22	40
10/16/95	265	24794B/54	41
10/16/95	265	24794C/77	42
10/16/95	265	24794C/78	43
10/16/95	265	24794C/71	44
10/16/95	265	27794C/121	45
10/16/95	265	27794C/109	46
10/16/95	265	27494A/10	47
10/16/95	265	25795A/54	48
10/16/95	265	24794CB/79	49
10/16/95	265	24794B/67	50
10/16/95	265	24794B/57	51
10/16/95	265	Not Legible/64	52
10/16/95	265	24794C/83	53
10/16/95	265	24794C/76	54
10/16/95	265	24794B/63	55
10/17/95	266	24794C/70	56
10/17/95	266	24794C/75	57
10/17/95	266	24794C/74	58
10/17/95	266	24794C/84	59
10/17/95	266	Not Legible/86	60
10/17/95	266	Not Legible	61
10/17/95	266	24794B/66	62
10/17/95	266	13095A/24	63
10/17/95	266	13095A/26	64
10/17/95	266	18094B/77	65
10/17/95	266	13095A/30	66
10/17/95	266	24794B/62	67

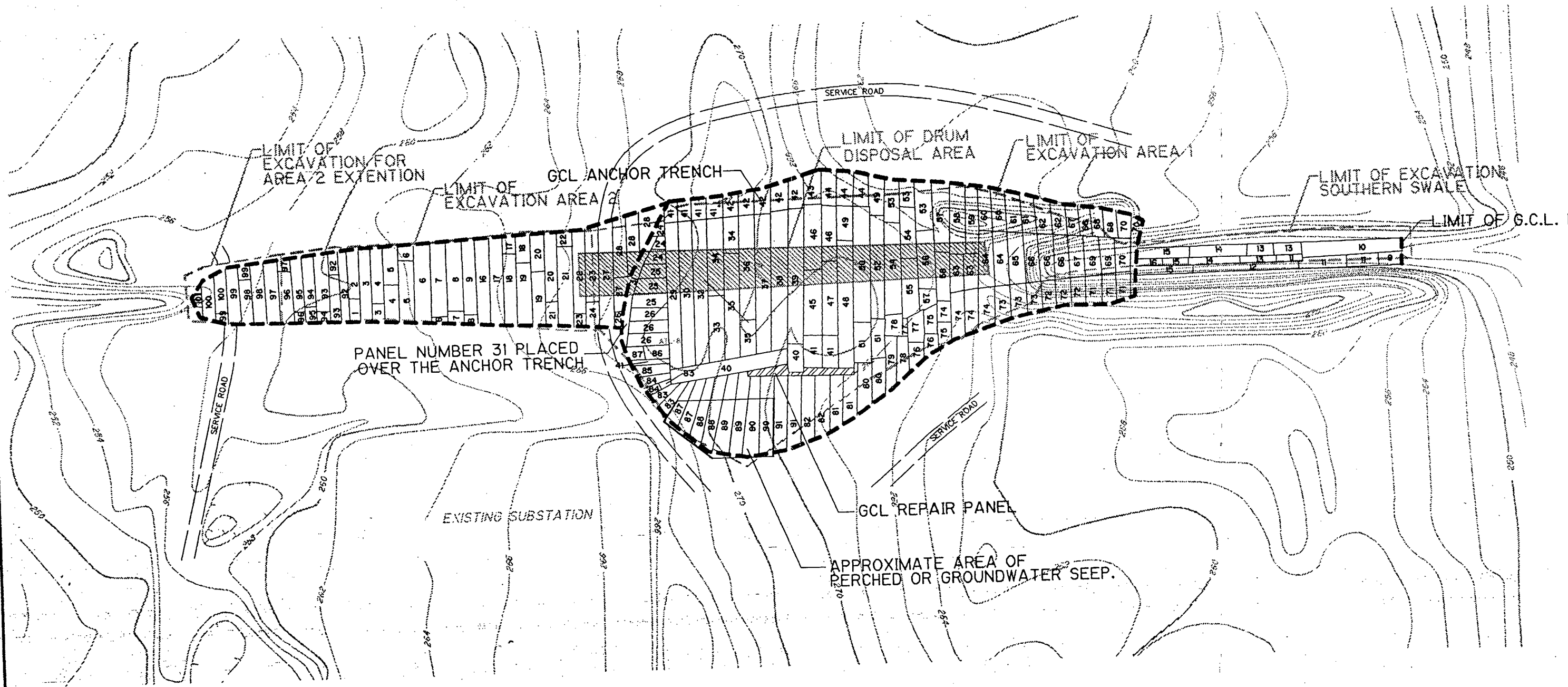
Continued on next page

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table 4-1 (Continued)

Geosynthetic Clay Liner Placement

Date Placed	Report No.	Bentomat Lot/Roll No.	Placement No.
10/17/95	266	24794B/68	68
10/17/95	266	Not Legible	69
10/17/95	266	24794B/61	70
10/18/95	267	24794B/60	71
10/18/95	267	24794C/72	72
10/18/95	267	24794C/69	73
10/18/95	267	24794C/81	74
10/18/95	267	24794B/55	75
10/18/95	267	24794B/59	76
10/18/95	267	24794C/85	77
10/18/95	267	24794B/58	78
10/18/95	267	24794B/56	79
10/18/95	267	18094B/80	80
10/18/95	267	18094B/66	81
10/18/95	267	18094B/81	82
10/18/95	267	18094B/64	83
10/18/95	267	28194B/91	84
10/18/95	267	18094B/61	85
10/18/95	267	Not Legible	86
10/18/95	267	28194B/89	87
10/23/95	271	28194B/97	88
10/23/95	271	28794A/33	89
10/23/95	271	28894B/55	90
10/23/95	271	28694C/150	91
10/31/95	278	28894B/59	92
10/31/95	278	28794A/15	93
11/1/95	279	28194B/88	94
11/1/95	279	Not Legible	95
11/1/95	279	28194B/86	96
11/1/95	279	28194B/84	97
11/1/95	279	28194B/83	98
11/1/95	279	28894B/58	99
11/1/95	279	28194B/82	100
11/1/95	279	28794A/31	101



PANEL NUMBER 31 PLACED OVER THE ANCHOR TRENCH

ALCOA - MASSENA, NEW YORK

DENNISON CROSS ROAD SITE
GCL PANEL PLACEMENT

NOT TO SCALE



In conclusion, GCL installation was completed in accordance with the manufacturer's recommendations and the requirements of the FDR.

4.3.3 Topsoil

The CQAI monitored installation of the topsoil layer as outlined in the CQAP. The uniformity and thickness of the application process was confirmed through random depth checks.

4.3.4 Seed and Fertilizer

Seed mixtures were monitored by the CQAI and applications rates were checked to insure that the seed mixture was applied as specified.

Although seed and fertilizer were hand applied (i.e., the area was not hydroseeded), the task was considered to have been completed in conformance with the intent of the FDR.

4.4 Post-Construction

Final inspection and acceptance of vegetative cover has not been completed and remains a punch list item pending full seed germination and two mowings as stipulated in the Technical Specifications.

4.5 Summary

Acceptance of the low-permeability cap was based on compliance with material specifications and design drawing elevations. Therefore, installation of the low-permeability cap was in conformance with the intent of the FDR.

5

Section Five

Section 5

Conclusions

5.1 General

A construction quality assurance program was conducted during the DCR remediation effort. The program implementation for the sections discussed in this report was in accordance with the CQAP and met the objective of documenting that the project was completed in conformance with the requirements of the FDR.

Construction quality assurance sampling and testing met or exceeded the requirements of the CQAP and the FDR. Any deviations from the provisions of these documents has been noted and discussed in the appropriate sections of this report.

It is the conclusion of the CQAO that construction was in conformance with, and met the intent of, the FDR.

5.2 Punch List Items

There are three punch list items as follows:

- the full germination of the seed and two mowings, as stipulated in the Technical Specifications;
- final deposition of roll-offs presently stored in Building 79; and
- observation (spring 1996) of the impact of a perched/groundwater seep in the area of GCL panel nos. 87 through 90 on the cap (Figure 4-1).

A

Appendix
A

Appendix A
List of Archived Files

**ALUMINUM COMPANY OF AMERICA
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Appendix A

Archived File Listing

<u>Box No.</u>	<u>Description</u>	<u>File No.</u>
1	Design Change Orders	1-1
	Miscellaneous	1-2
	Design Clarifications	1-3
	Health and Safety	1-4
	NYSDEC Comments	1-5
	PICR	1-6
	Cell 2 Operations	1-7
	Soil Testing Information	1-8
	Soil Verification Cleanup	1-9
	Solidification	1-10
	Weekly CQA Meeting	1-11
	Weekly Progress Meeting	1-12
	Weekly Reports CDM	1-13
	MK Weekly Reports	1-14
	RPO Weekly Reports	1-15
	Weekly Staff Meeting RPO	1-16
	Submittals	1-17
	Common Fill	1-18
	Select Fill	1-19
	GCL	1-20
	Topsoil/Hydroseeding	1-21

**ALUMINUM COMPANY OF AMERICA
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Appendix A

Archived File Listing

<u>Box No.</u>	<u>Description</u>	<u>File No.</u>
1 (Con't)	Miscellaneous Testing Results	1-22
	Sampling and Analysis Plan	1-23
2	Inspectors Daily Reports, Book 1, 2, 3, 4	2-1
	Final Design	2-2
	Design Change Orders	2-3
3	Construction Work Plan	3-1
	Soil Cleanup Verification Plan	3-2
	Post-Closure Monitoring Plan 3-3	
	Health and Safety plan	3-4
	Post-Closure O&M Plan	3-5
	Construction Quality Assurance Plan	3-6
4	Technical Specifications	4-1
	Design Change Orders	4-2
	PICR	4-3
	CQA Field Books 1-4	4-4

B

Appendix B

Appendix B

Summary of Roll-offs

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table B-1

Summary of Dennison Cross Road Site Roll-offs

Box Number	Type of Material	Date Filled	Date Sampled	Date Disposed	Disposal Placement	Comments
1994 Roll-offs						
CWM 7264	PCB - Haz Mill Pit Debris	8/18/94	6/7/95	12/15/95	Offsite	
CWM 7384	PCB - Haz Mill Pit Debris	8/18/94	6/7/95	11/6/95	SLF Cell No. 2 ⁽⁴⁾	Meets LDRs for disposal in SLF Cell 2
CWM 7108 ⁽¹⁾⁽²⁾	PCB - Haz Mill Pit Debris	8/18/94	6/13/95	7/12/95	Offsite	Waste placed in CWMU
CWM 7140	PCB - Haz Mill Pit Debris	8/18/94	6/7/95	12/15/95	Offsite	
CWM 7329	PCB - Haz Mill Pit Debris	8/30/94	6/7/95	12/15/95	Offsite	
CWM 7345	PCB - Haz Mill Pit Debris	8/30/94	6/7/95	12/15/95	Offsite	
CWM 7270	PCB - Haz Mill Pit Debris	8/30/94	6/7/95	11/6/95	SLF Cell No. 2 ⁽⁴⁾	
CWM 7394	PCB - Haz Mill Pit Debris	9/9/94	6/12/95	12/15/95	Offsite	
CWM 7333	PCB - Haz Mill Pit Debris	9/9/94	6/12/95	12/15/95	Offsite	
CWM 7278	PCB - Haz Mill Pit Debris	9/9/94	6/12/95	12/15/95	Offsite	
CWM 7341	PCB - Haz Mill Pit Debris	8/24/95	6/12/95	12/15/95	Offsite	
CWM 7400	PCB - Haz Mill Pit Debris	8/18/94	6/12/95	12/15/95	Offsite	
CWM 7204	PCB - Haz Mill Pit Debris	8/18/94	6/7/95	12/15/95	Offsite	
CWM 7207	PCB - Haz Mill Pit Debris	8/18/94	6/7/95	12/15/95	Offsite	
CWM 7428	PCB - Haz Mill Pit Debris	8/18/94	6/7/95	11/6/95	SLF Cell No. 2 ⁽⁴⁾	Meets LDRs for disposal into SLF Cell 2
WSM 200-5100 ⁽¹⁾	PCB - Haz Mill Pit Debris	8/18/94	6/14/95	12/15/95	Offsite	Waste placed in CWMU
WSM 149-6300 ⁽¹⁾	PCB - Haz Mill Pit Debris	8/18/94	6/14/95	12/15/95	Offsite	Waste placed in CWMU
CWM 7385	PCB - Haz Mill Pit Debris	8/18/94	6/7/95	12/15/95	Offsite	
WSM 53-5000 ⁽¹⁾	PCB - Haz Mill Pit Debris	8/18/94	6/14/95	12/15/95	Offsite	Waste placed in CWMU

Continued on next page

ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT

Table B-1 (Continued)

Summary of Dennison Cross Road Site Roll-offs

Box Number	Type of Material	Date Filled	Date Sampled	Date Disposed	Disposal Placement	Comments
1995 Roll-offs						
36	Aluminum Mill Pit Solids	5/2/95				
145	Aluminum Mill Pit Solids	5/3/95				
30	Aluminum Mill Pit Solids	5/4/95				
31	Aluminum Mill Pit Solids	5/8/95				
23-5200	Aluminum Mill Pit Solids	5/8/95	6/13/95			
23A	Carbon Mill Pit Solids	5/8/95				
43	Caustics	5/9/95				
WSM 21-5000	Caustics	5/10/95	6/13/95			
WSM 12-7480	Carbon Mill Pit Solids	5/10/95	6/13/95			
33	Aluminum Mill Pit Solids	5/10/95				
WSM 16-7320 ⁽³⁾	Aluminum Mill Pit Solids	5/16/95	6/13/95	11/6/95	SLF Cell No. 2 ⁽⁵⁾	
201	Aluminum Mill Pit Solids	5/16/95				Waste placed in Box 16-7320 on 7/20/95.
80	Aluminum Mill Pit Solids	5/17/95				
5	Aluminum Mill Pit Solids	5/18/95				
49-6780	Aluminum Mill Pit Solids	5/19/95				Waste placed in 201 on 7/20/95.
26	Carbon Mill Pit Solids	5/22/95				
194	Caustics	6/2/95				
24	Aluminum Mill Pit Solids	5/22/95				
WSM 196-4900	Aluminum Mill Pit Solids	5/23/95	6/14/95			
30064	Aluminum Mill Pit Solids	5/24/95	6/15/95			
30063	Aluminum Mill Pit Solids	5/25/95	6/15/95			
30061	Aluminum Mill Pit Solids	5/30/95	6/15/95			

Continued on next page

ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT

Table B-1 (Continued)

Summary of Dennison Cross Road Site Roll-offs

Box Number	Type of Material	Date Filled	Date Sampled	Date Disposed	Disposal Placement	Comments
30069	Aluminum Mill Pit Solids	5/31/95	6/15/95			
30068	Aluminum Mill Pit Solids	6/1/95	6/15/95			
30006	Carbon Mill Pit Solids	6/22/95				
30066	Caustics	6/8/95				
84006	Aluminum Mill Pit Solids	6/14/95				
30071	Aluminum Mill Pit Solids	6/6/95				
30001	Aluminum Mill Pit Solids	6/8/95				
84004	Aluminum Mill Pit Solids	6/12/95				
30005	Aluminum Mill Pit Solids	6/5/95				
84002	Aluminum Mill Pit Solids	6/15/95				
84012	Aluminum Mill Pit Solids	6/19/95				
84014	Aluminum Mill Pit Solids	6/21/95				
84011	Soil/Liquid Waste	6/21/95				
84003	Caustics	6/21/95				
20-036-0T-B-3	Caustics	6/27/95				
84015	Aluminum Mill Pit Solids	6/22/95				
84010	Aluminum Mill Pit Solids	6/26/95				
84007	Aluminum Mill Pit Solids	6/26/95				
84009	Aluminum Mill Pit Solids	6/28/95				
84020	Aluminum Mill Pit Solids	6/29/95				
84018	Aluminum Mill Pit Solids	7/3/95				
84019	Aluminum Mill Pit Solids	7/5/95				
CWMU 7309	Aluminum Mill Pit Solids	7/11/95				
CWMU 7293	Caustics	7/13/95				

Continued on next page

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table B-1 (Continued)

Summary of Dennison Cross Road Site Roll-offs

Box Number	Type of Material	Date Filled	Date Sampled	Date Disposed	Disposal Placement	Comments
WSM 149-6300	Aluminum Mill Pit Solids	8/9/95				(red roll-off)
49-6780	Soils/Liquid Waste	8/31/95				Previously used, empty roll-off filled on 5/19/95 (includes material from 2 abandoned sumps in Area 1) Roll-off was emptied and placed into CWMU 7380 and 7354
CWMU 7365	Carbon Mill Pit Solids	8/28/95				Partially filled
CWMU 7332	Aluminum Mill Pit Solids	9/5/95				Partially filled
CWMU 7281	Used, shredded overpack lids	8/22/95		8/31/95	SLF Cell No. 2	
CWMU 7321	Used, shredded overpacks	8/22/95		8/31/95	SLF Cell No. 2	
CWMU 7303	Used, shredded overpacks	8/22/95		8/31/95	SLF Cell No. 2	
CWMU 7281 (5)	Aluminum Mill Pit Solids and SLF Waste					Refer to SLF IDR-C2OPSLF-240 and DEC SLF IR-613
49-6780 (5)	Aluminum Mill Pit Solids and SLF Waste					Refer to SLF IDR-C2OPSLF-240 and DEC SLF IR-613
16-7320 (5)	Aluminum Mill Pit Solids and SLF Waste					Refer to SLF IDR-C2OPSLF-240 and DEC SLF IR-613

Notes:

- 1994 leaking roll-offs were each placed into one of the following roll-offs (7357, 7393, 7219 or 7435). These roll-offs were disposed offsite on 12/12/95.
- Roll-off CWMU 7108 was repaired and re-used for offsite disposal of sludge waste on July 12, 1995.
- Roll-off CWMU 7262 was repaired and re-used for material originally contained in roll-off WSM 16-7320. The contents were tested for LDRs, *waste was transferred on July 19, 1995*, *sampled on June 13, 1995*.
- July 19, 1995, complied and were disposed of in SLF Cell No. 2 on November 6, 1995.
- Contents tested and passed LDRs.
- Contents of box no.201 did not meet LDRs and were inadvertently placed in Cell 2. The contents and material it came in contact with were removed from Cell 2 and placed into roll-off nos. CWMU 7281, 49-6780 and 16-7320.

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table B-2

Summary of Oily Waste Landfill Roll-offs ⁽¹⁾

Box Number	Type of Material	Date Filled	Date Sampled	Comments
30070	Aluminum Mill Pit Solids	6/7/95	6/15/95	
30062	Carbon Mill Pit Solids	8/28/95	11/7/95	Partially filled
84001	Aluminum Mill Pit Solids	6/13/95		
30067	Aluminum Mill Pit Solids	6/20/95		
84005	Caustics	6/21/95		
84016	Aluminum Mill Pit Solids	6/27/95		
84008	Aluminum Mill Pit Solids	7/3/95		
84013	Aluminum Mill Pit Solids	7/7/95		
84017	Aluminum Mill Pit Solids	7/11/95		
CWMU 7322	Caustics	7/12/95		
53	Aluminum Mill Pit Solids	7/19/95		Previously leaking roll-off
200	Aluminum Mill Pit Solids	7/25/95	11/6/95	Previously leaking roll-off
CWMU 7440	Aluminum Mill Pit Solids	8/1/95	11/7/95	
CWMU 7374	Aluminum Mill Pit Solids	8/3/95	11/6/95	
CWMU 7088	Caustics	8/28/95	11/6/95	Partially filled
CWMU 7135	Aluminum Mill Pit Solids	8/8/95		
CWMU 7268	Aluminum Mill Pit Solids	8/10/95		
CWMU 7409	Aluminum Mill Pit Solids	8/16/95		

Note:

1. 1995 OWL roll-offs

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table B-3

Summary of Offsite Disposal Roll-offs ⁽¹⁾

Box Number	Type of Material	Date Filled	Date Sampled	Date Disposed	Comments
CWMU 7108	Sludge and Honey Oil	7/7/95	N/A	7/12/95	
CWMU 7154	Sludges	7/13/95	N/A	9/21/95	
CWMU 7120	Sludges	7/26/95	N/A	9/21/95	<i>OWL roll off</i>
CWMU 7310	Sludges	7/27/95	N/A	9/21/95	
CWMU 7380	Sludges	9/6/95	N/A	9/21/95	Half of DCR roll-off 49-6780 was added plus some of 7354.
CWMU 7388	Sludges	8/16/95	N/A	9/21/95	OWL roll-off - including 6 soils overpacks w/liquid waste.
CWMU 7354	Sludges	9/6/95	N/A	9/21/95	OWL roll-off/half of DCR roll-off 49-6780 and 55-gallon drum contents of DCR sludge generated from the decon pad and the 50,000 gallon tank - (leaking roll-off)
CWMU 7321	Sludge from 50,000 gal. tank	-	N/A	9/21/95	Various absorbents added to the roll-off to solidify the sludge.
CWMU 7303	Sludge from 50,000 gal. tank	-	N/A	9/21/95	Various absorbents added to the roll-off to solidify the sludge.

Note:

1. 1995 offsite disposal roll-offs

C

Appendix
C

Appendix C
PCB Field
Screening Results

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table C-1

PCB Field Screening Results ⁽¹⁾⁽²⁾

Sample Number	Date Sampled	Sample Location	Date Tested	Interpretation of Results
Area 1				
DCR-WST-01	4/13/95	B-138	4/13/95	< 1 ppm
DCR-WST-02	4/13/95	B-139	4/13/95	< 1 ppm
DCR-BRM-01	9/14/95	Road/Berm	9/15/95	< 1 ppm
DCR-BRM-02	9/14/95	Road/Berm	9/15/95	> 1 ppm
DCR-BRM-03	9/18/95	Road/Berm	9/18/95	> 1 ppm
DCR-BRM-04	9/18/95	Road/Berm	9/18/95	> 1 ppm
DCR-BRM-05	9/19/95	Road/Berm	9/19/95	> 1 ppm
DCR-BRM-06	9/19/95	Road/Berm	9/19/95	> 1 ppm
Area 2				
DCR-A2-01	8/15/95	North Area 2	8/15/95	> 5 ppm
DCR-A2-02	8/15/95	North Area 2	8/15/95	> 5 ppm
DCR-A2-03	8/15/95	N-1' depth	8/15/95	< 1 ppm
DCR-A2-04	8/15/95	N-2' depth	8/15/95	< 1 ppm
DCR-A2-05	8/15/95	S-0' depth	8/15/95	< 1 ppm
DCR-A2-06	8/16/95	N-0' depth	8/16/95	> 10 ppm
DCR-A2-07	8/16/95	N-0' depth	8/16/95	> 10 ppm
DCR-A2-08	8/23/95	N-3" depth	8/23/95	< 1 ppm
DCR-A2-09	8/23/95	N-3" depth	8/23/95	< 1 ppm
DCR-A2-10	8/23/95	N-3" depth	8/23/95	< 1 ppm
DCR-A2-11	8/23/95	N-3" depth	8/23/95	< 1 ppm
DCR-A2-12	8/23/95	West Bank ⁽³⁾	8/23/95	< 1 ppm
DCR-STK-01	9/14/95	Stockpile	9/15/95	< 1 ppm
DCR-NA2-01	10/5/95	North Area 2	10/5/95	> 1 ppm
DCR-NA2-02	10/5/95	North Area 2	10/6/95	< 1 ppm
DCR-NA2-03	10/5/95	North Area 2	10/6/95	< 1 ppm
DCR-NA2-04	10/5/95	North Area 2	10/6/95	< 1 ppm
DCR-NA2-05	10/5/95	North Area 2	10/6/95	< 1 ppm
Southern Swale				
DCR-SS-1A	8/30/94	DCR	8/30/94	< 1 ppm
DCR-SS-2A	9/13/94	DCR	9/13/94	> 1 ppm
DCR-SS-3A	9/13/94	DCR	9/13/94	> 1 ppm

Continued on next page

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CERTIFICATION REPORT**

Table C-1 (Continued)

PCB Field Screening Results ⁽¹⁾⁽²⁾

Sample Number	Date Sampled	Sample Location	Date Tested	Interpretation of Results
DCR-SSW-01-01	10/12/94	North Berm	10/12/94	< 1 ppm
DCR-SSW-02-01	10/12/94	South Berm	10/12/94	> 1 ppm
DCR-SSW-03-01	10/12/94	Floor	10/12/94	< 1 ppm
DCR-SSW-04-01	10/12/94	Slope	10/12/94	< 1 ppm
DCR-SSW-05-01	10/12/94	Floor	10/12/94	< 1 ppm
DCR-SSW-06-01	10/12/94	Slope	10/12/94	> 1 ppm
DCR-SSW-02-02	10/28/94	South Berm	10/28/94	< 1 ppm
DCR-SSW-06-02	10/28/94	Slope	10/28/94	< 1 ppm
DCR-TP1	8/31/95	West Berm	9/8/95	< 1 ppm
DCR-TP2	8/31/95	West Berm	9/8/95	< 1 ppm
DCR-TP3	8/31/95	West Berm	9/8/95	< 1 ppm

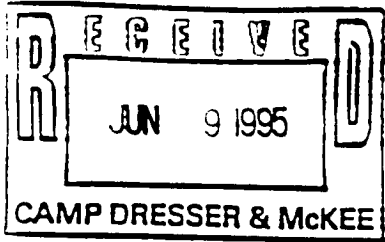
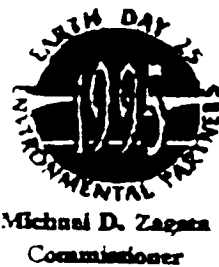
Notes:

1. Excavation continued until field screening test results were less than 1 ppm PCBs unless cleanup verification sampling was performed. The test results for the latter are presented in the the *Soil Cleanup Verification Report for the Dennison Cross Road Site*.
2. The immunoassay test kit used for the analysis is the EnSys Samplepro PCB Test Kit.
3. Rust colored liquid sample.

D

Appendix
D

Appendix D
Correspondence
Documentation



APPENDIX D

June 9, 1995

Post-It® Fax Note	571	Date	6/9/95	# of pages	2
To	Francis Gero	From	Bill Sesmor		
Co/Dept	ALCOA	Co.	NYSDEC		
Phone #		Phone #			
Fax #		Fax #			

Mr. Francis Gero
ALCOA - MASSENA OPERATIONS
P.O. Box 150
Massena, New York 13662

95-DCR047-FE

RE: DENNISON CROSS ROADS SUMP AREA CONTAMINATION

Dear Mr. Gero:

As per our discussion of this date, the Department offers the following summation of the agreement reached to address the sump areas at the Dennison Road site. The following areas will be addressed accordingly:

- All material removed from the drum excavation area will continue to be handled as in the past.
- Material removed from the drainage trench which connects the drum removal area to the sump will continue to be handled as in the past.
- When a sump is abandoned, the stained material will be segregated and characterized for LDR's to insure it can be placed in the Secure Landfill. While waiting for analytical results, ALCOA has agreed to contain the material. One option discussed was covering the material with plastic after it was removed and dried. If ALCOA would like to pursue other options, please feel free to discuss them with me.

DAILY REPORT

DCR 157
SHEET 5 OF 13

Anderson
Mihm
Schultz
Juras
Kusball

The stained soil in the Southeast corner which resulted from the overflow of the sump area will be placed with the sump material and wait for LDR analysis results before disposal.

If there are any questions, please feel free to contact me.

Sincerely,

William Jesmore
Environmental Engineer I
Region 6 - Haz. Waste Remediation

WJ:kw

cc: Darrell Sweredoski/Gregg Townsend
Thomas Higginbotham/Michael Cox
Christine McGrath/Tom Gibbons

DAILY REPORT

DCR 157

SHEET 5 OF 13

ALUMINUM COMPANY OF AMERICA
MASSENA, NEW YORK

REMEDIATION PROJECTS ORGANIZATION

CLEANUP VERIFICATION
SAMPLING AND ANALYSIS REPORT

FOR THE
DENNISON CROSS ROAD SITE

January 12, 1996

Prepared by

CDM Camp Dresser & McKee
Massena, New York 13662

*✓ m. cap 2-5-96
Revisions/Comments
Completed*

CERTIFICATION WITH SUBMITTAL OF
CLEANUP VERIFICATION
SAMPLING AND ANALYSIS REPORT
FOR THE
DENNISON CROSS ROAD SITE

All information contained in this document is to the best of our knowledge, factual and represents CDM's total understanding of the conditions and circumstances at the Alcoa facility and impacted area. The conclusions and recommendations contained in this document represent CDM's best professional engineering judgement on remediation that meets those applicable or relevant and appropriate requirements and represents sound engineering practices and principles to protect public health and the environment.

Signature: Joseph E. Mihm
Joseph E. Mihm, P.E.
Project Manager
CAMP DRESSER & McKEE

Date: January 12, 1996

Signature: James F. Occhialini
James F. Occhialini
Quality Assurance Manager
CAMP DRESSER & McKEE

Date: January 12, 1996

Contents

Contents

<i>Section 1</i>	Introduction	1-1
	1.1 Intent of Document	1-1
	1.2 Site Description	1-1
	1.3 Objectives	1-1
	1.4 Report Organization	1-3
<i>Section 2</i>	Dennison Cross Road Site Cleanup Verification Program	2-1
	2.1 Introduction	2-1
	2.2 Cleanup Goals	2-2
	2.3 Conformance with the Work Plan	2-2
<i>Section 3</i>	Sampling Results	3-1
	3.1 Sample Collection Procedures	3-1
	3.2 Analytical Protocols	3-2
	3.3 Field Screening and Laboratory Results	3-2
	3.3.1 Sampling Day September 1, 1995	3-3
	3.3.2 Sampling Day September 14, 1995	3-18
	3.3.3 Sampling Day September 18, 1995	3-18
	3.3.4 Sampling Day September 19, 1995	3-19
	3.3.5 Sampling Day September 20, 1995	3-19
	3.3.6 Sampling Day September 21, 1995	3-20
	3.3.7 Sampling Day September 25, 1995	3-21
	3.3.8 Sampling Day September 26, 1995	3-22
	3.3.9 Sampling Day September 27, 1995	3-23
	3.3.10 Sampling Day October 12, 1995	3-23
	3.4 Quality Control	3-25
<i>Section 4</i>	Statistical Analysis	4-1
	4.1 Field Screening Summary	4-1
	4.2 Laboratory Summary	4-1
	4.3 Statistical Analysis of Cleanup Verification Data	4-2
<i>Section 5</i>	Conclusions	5-1
<i>Section 6</i>	References	6-1

*Contents
(Continued)*

Appendix A Summary of Field Screening Results

Appendix B Analytical Data Performed by RECRA Environmental Inc.

Appendix C Data Validation Report Prepared by Gradient Corporation

Appendix D Statistical Analysis

List of Figures

List of Tables

List of Figures

Figure

1-1 Site Location Plan 1-2

2-1 Dennison Cross Road Site Sampling Location Plan Area 1 and the
Southern Swale 2-3

2-2 Dennison Cross Road Site Sampling Location Plan Area 2 2-4

List of Tables

Table

3-1	Summary of Cleanup Verification Samples	3-4
3-2	Summary of Laboratory Results for Area 1	3-12
3-3	Summary of Laboratory Results for Area 2	3-13
3-4	Summary of Laboratory Results for the Southern Swale	3-14

1

Section
One

Section 1

Introduction

1.1 Intent of Document

Camp Dresser & McKee (CDM) prepared this *Cleanup Verification Sampling and Analysis Report for the Dennison Cross Road Site* for the Aluminum Company of America (Alcoa) in Massena, New York to document the remedial excavation activities performed at the Dennison Cross Road Site (DCR). This report presents the results of the cleanup verification testing to assess cleanup standard attainment. This work was performed in substantial compliance with the approved remedial design document *Soil Cleanup Verification Plan for the Dennison Cross Road Site* (CDM, Revised October 1995).

The DCR remediation work involved establishing survey controls, excavation of visible waste and waste contaminated soils, disposal of excavated materials either in Cell 1 or Cell 2 of the onsite Secure Landfill (SLF) or sent offsite for disposal and cleanup verification testing.

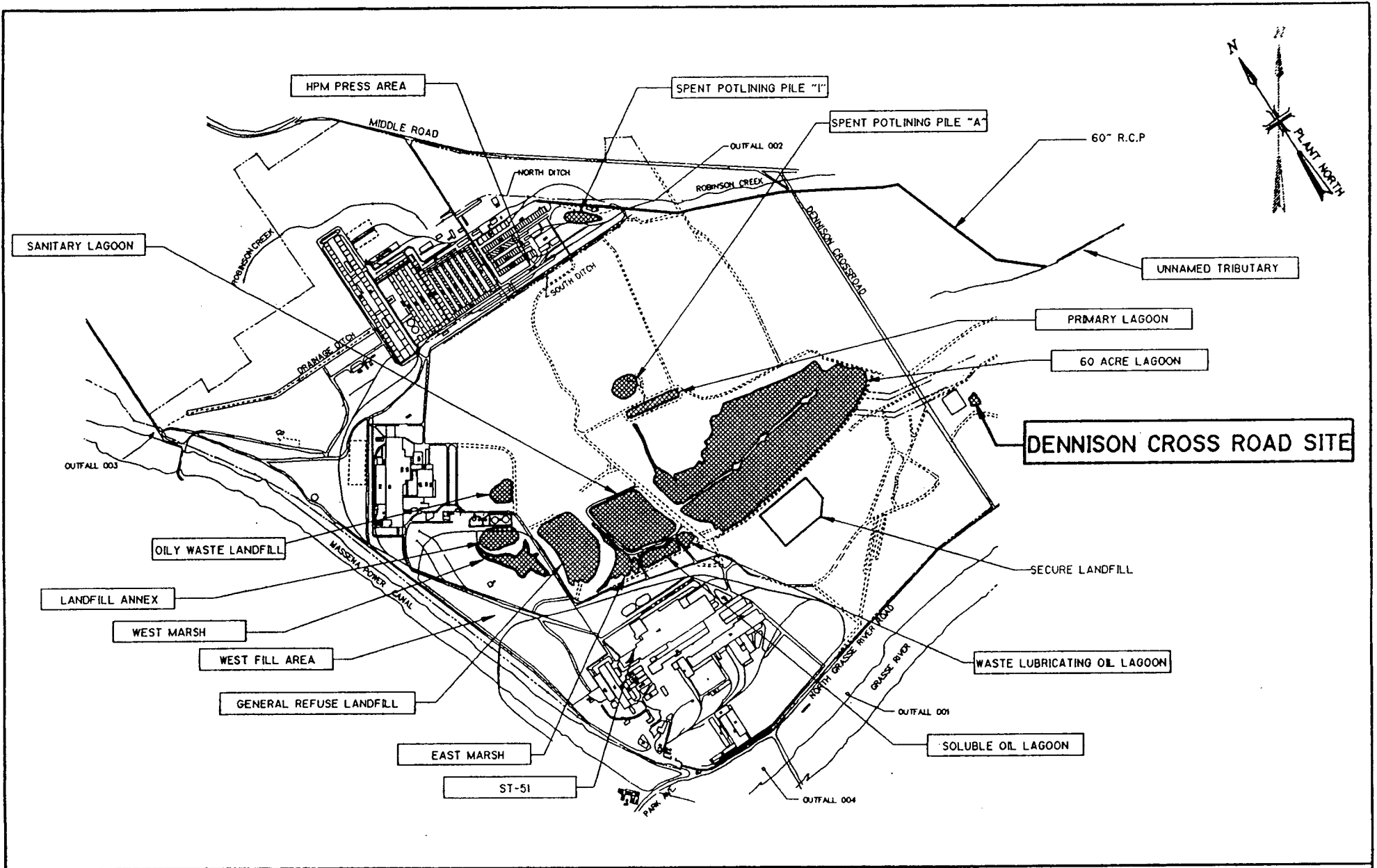
1.2 Site Description

The DCR site (New York State Department of Environmental Conservation [NYSDEC] Site No. 645004) was a 1 3/4-acre area that formerly operated as a disposal area for various mill pit solids, solvent degreasing bottoms, drawings and soluble oil sludges, and debris containing chlorinated solvents. The DCR site is located east of Dennison Road on the Alcoa property, but outside the Alcoa facility boundary. Figure 1-1 shows the location of the DCR site.

1.3 Objectives

The objective of this report is to:

- document the sampling work performed as required by the *Soil Cleanup Verification Plan for the Dennison Cross Road Site* (CDM, Revised October 1995);
- present the analytical results of the field screening and laboratory testing performed on the samples collected; and
- present the statistical analysis performed on the cleanup verification samples to demonstrate that the cleanup goals were attained during the DCR remediation.



SCALE IN FEET



ALCOA - MASSENA, NEW YORK

SITE LOCATION PLAN
DENNISON CROSS ROAD SITE

FIGURE I-1



1.4 Report Organization

The remainder of this report is organized into five sections. Section 2 provides a summary of the approved cleanup verification work plan and any deviations during execution of the work. Section 3 documents the sampling work that was performed and the results of the field screening and laboratory testing. Section 4 presents a summary of the results and the statistical analysis performed on the cleanup verification samples to demonstrate that the remediation was successful in meeting the cleanup goals. Section 5 provides a summary and conclusions. Section 6 provides a list of references.

2

Section
Two

Section 2

Dennison Cross Road Site Cleanup Verification Program

2.1 Introduction

The *Soil Cleanup Verification Plan for the Dennison Cross Road Site* (CDM, Revised October 1995) outlined the sampling design and activities necessary to verify that the post-excavation soil concentrations achieved soil cleanup goals during the DCR remediation. Based on conditions encountered in the field during remediation the following changes were incorporated in this work plan:

- Design Change Order No. 4 (CDM, August 1995) which revised the cleanup verification plan to modify the density and alignment of the cleanup verification sampling grids so that the samples are collected along the alignment of the former drum disposal area.
- Design Change Order No. 5 (CDM, October 1995) which revised the cleanup verification plan with the addition of sampling grids located north of Area 2 where additional waste was discovered.

The information presented herein is based on this final revised document.

The work plan divided the DCR into three excavation areas for the statistical evaluation. The areas developed for this statistical evaluation were based on the existing data, information gained during remediation construction, and the likelihood of attaining cleanup goals throughout those areas. A general description of the areas are as follows:

- Area 1 is defined as the southern portion of the former ravine surrounding the drum disposal area where cleanup goals were exceeded.
- Area 2 is defined as the northern portion of the former ravine surrounding the drum disposal area where cleanup goals were exceeded.
- Southern swale is defined as the drainage swale which outlets to the south where cleanup goals were exceeded.

Area 1 was to consist of samples collected at the center of 17 selected grid blocks (grids 1 through 17). Samples were to be collected at the 3-to 12-inch interval. All samples were to be field screened for polychlorinated biphenyls (PCBs) and total organic vapors. Nine of the 17 grids were randomly selected (grids 2, 3, 4, 6, 7, 12, 13, 14 and 17) to be laboratory analyzed for PCBs, polycyclic aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs).

Area 2 was to consist of samples collected at the center of 12 selected grid blocks (grids 18 through 27, 48 and 49). Samples were to be collected at the 3-to 12-inch interval. All samples were to be field screened for PCBs and total organic vapors and laboratory analyzed for PCBs, PAHs and VOCs.

The southern swale was to consist of samples collected at the center of 20 selected grid blocks (grids 28 through 47). Samples were to be collected at the 3-to 12-inch interval. All samples were to be field screened for PCBs and laboratory analyzed for PCBs and PAHs.

The required cleanup verification sampling locations for the DCR are shown in Figures 2-1 and 2-2.

2.2 Cleanup Goals

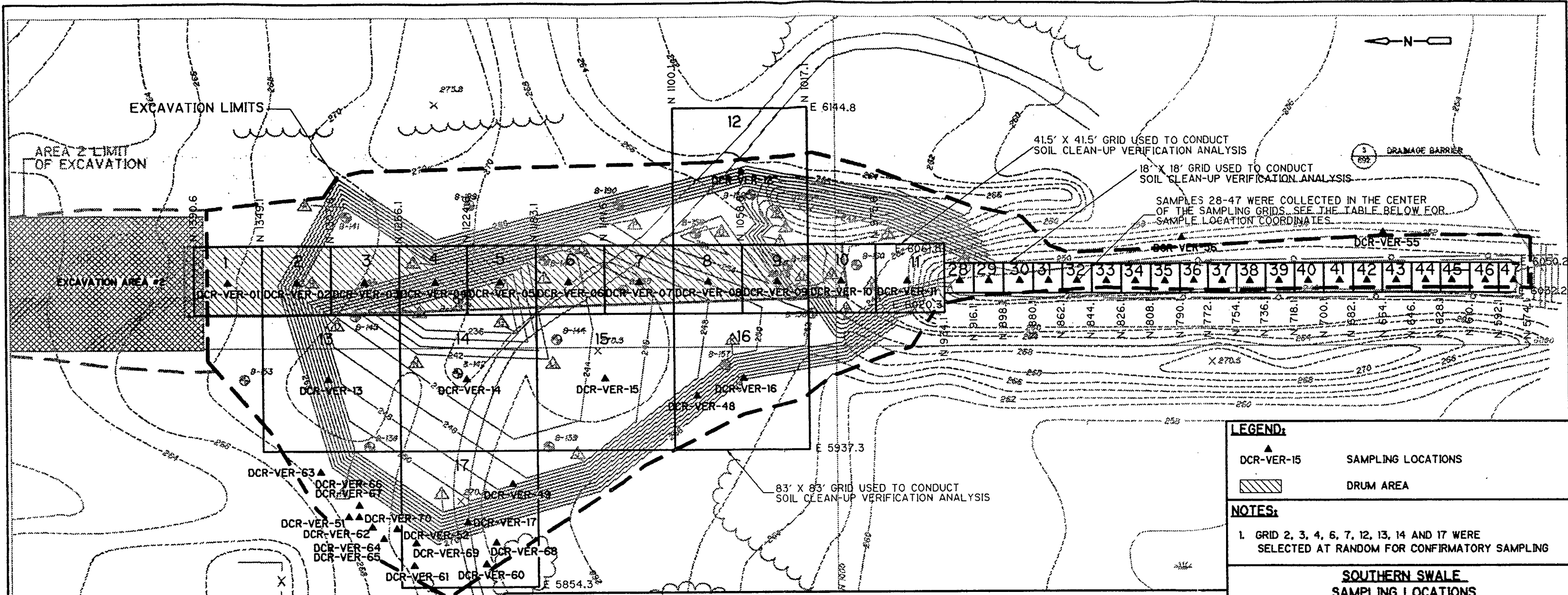
The contaminants of concern in DCR soils are PCBs, PAHs and VOCs. The cleanup goals established in the March 1991 Record of Decision (ROD) for the remediated DCR site are:

<u>Constituent</u>	<u>Soil Cleanup Goal</u>
Total PCBs	1 mg/kg
Phenanthrene	2.2 mg/kg
Pyrene	6.6 mg/kg
Other PAHs	0.3 mg/kg
1,1,1 Trichloroethane	0.76 mg/kg
Benzene	0.04 mg/kg
Tetrachloroethene	0.02 mg/kg
Trichloroethene	0.13 mg/kg
Toluene	0.15 mg/kg
Total Xylene	0.12 mg/kg

The objective of post-excavation sampling was to statistically demonstrate that the total PCB, PAH and VOC concentrations in the residual soils are at or below the ROD specified cleanup goals.

2.3 Conformance with the Work Plan

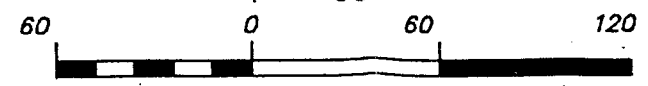
Field activities were completed in general accordance with the approved work plan. The following paragraphs discuss any variations.



AREA 1 SAMPLING LOCATIONS

GRID	IDPOINT	NORTHING	EASTING	GRID	IDPOINT	NORTHING	EASTING
1	DCR-VER-01	N 1370.33	E 6041.78	--	DCR-VER-52	N 1268.62	E 5992.49
2	DCR-VER-02	N 1328.17	E 6041.78	--	DCR-VER-60	N 1214.41	E 5871.07
3	DCR-VER-03	N 1287.35	E 6041.78	--	DCR-VER-61	N 1258.24	E 5870.07
4	DCR-VER-04	N 1244.19	E 6041.78	--	DCR-VER-62	N 1283.68	E 5893.83
5	DCR-VER-05	N 1205.05	E 6041.78	--	DCR-VER-63	N 1314.45	E 5927.31
6	DCR-VER-06	N 1163.56	E 6041.78	--	DCR-VER-64	N 1276.98	E 5886.47
7	DCR-VER-07	N 1120.73	E 6041.78	--	DCR-VER-65	N 1276.98	E 5886.47
8	DCR-VER-08	N 1079.57	E 6041.78	--	DCR-VER-66	N 1304.42	E 5922.28
9	DCR-VER-09	N 1037.07	E 6041.78	--	DCR-VER-67	N 1304.42	E 5922.28
10	DCR-VER-10	N 996.93	E 6041.78	--	DCR-VER-68	N 1208.39	E 5884.13
11	DCR-VER-11	N 956.44	E 6041.78	--	DCR-VER-69	N 1257.24	E 5883.79
12	DCR-VER-12	N 1058.82	E 6041.78	--	DCR-VER-70	N 1292.04	E 5900.19
13	DCR-VER-13	N 1309.44	E 5983.87				
14	DCR-VER-14	N 1225.45	E 5983.87				
15	DCR-VER-15	N 1141.81	E 5983.87				
16	DCR-VER-16	N 1058.49	E 5983.87				
17	DCR-VER-17	N 1225.45	E 5896.52				
--	DCR-VER-48	N 1806.60	E 5972.49				
--	DCR-VER-49	N 1198.35	E 5919.27				
--	DCR-VER-51	N 1297.72	E 5900.19				

SCALE IN FEET
1" = 60'

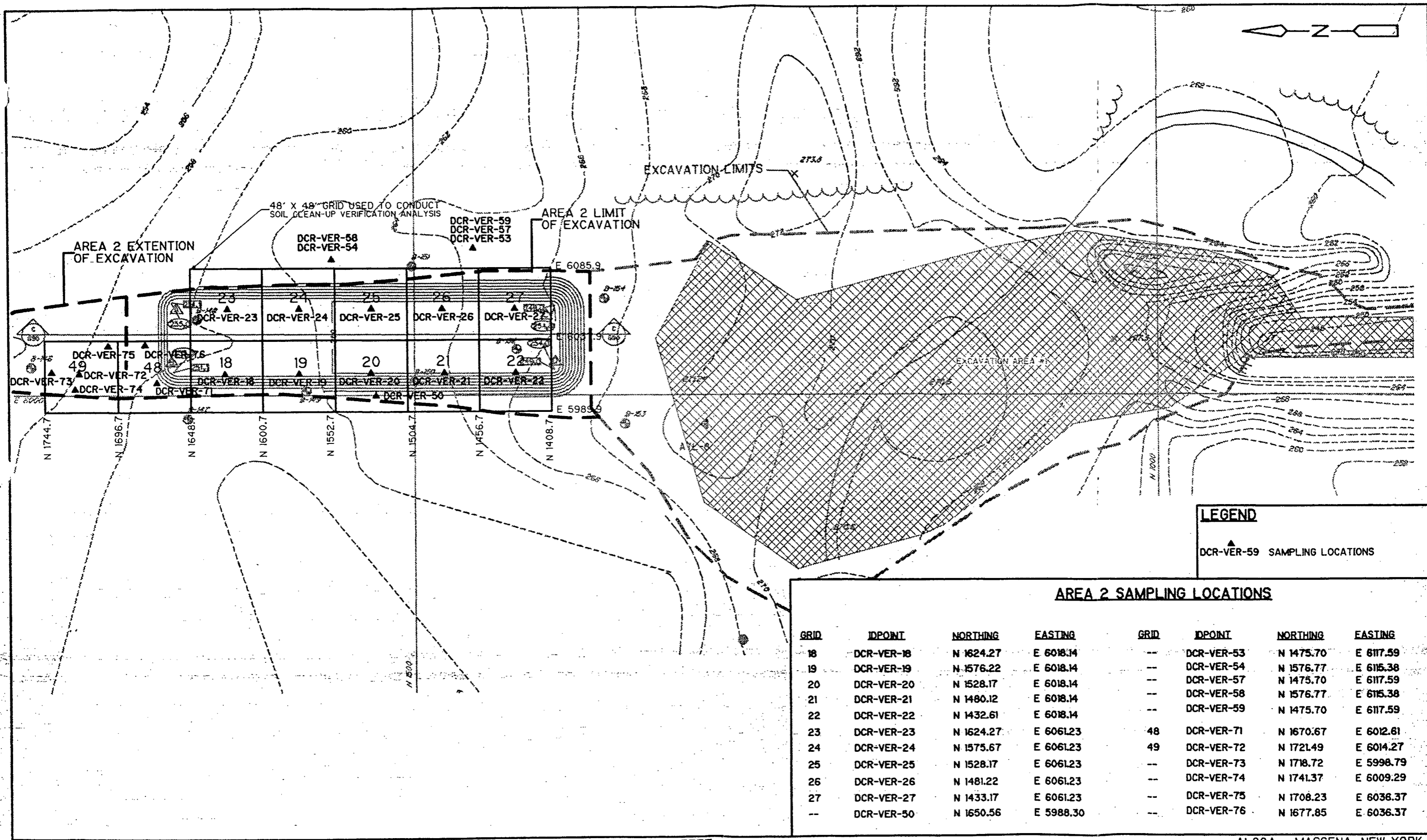


DATE OF PHOTOGRAPHY 4/20/87



ALCOA - MASSENA NEW YORK
DENNISON CROSS ROAD SITE
SAMPLING LOCATION PLAN
AREA 1 AND THE SOUTHERN SWALE

FIGURE 2-1

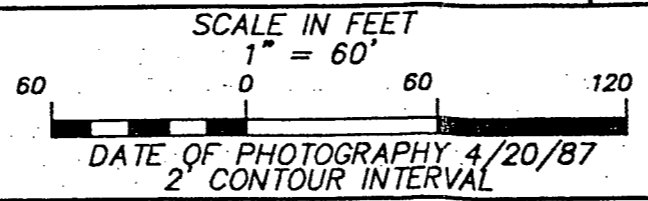


LEGEND

▲ DCR-VER-59 SAMPLING LOCATIONS

AREA 2 SAMPLING LOCATIONS

GRID	IDPOINT	NORTHING	EASTING	GRID	IDPOINT	NORTHING	EASTING
18	DCR-VER-18	N 1624.27	E 6018.14	--	DCR-VER-53	N 1475.70	E 6117.59
19	DCR-VER-19	N 1576.22	E 6018.14	--	DCR-VER-54	N 1576.77	E 6115.38
20	DCR-VER-20	N 1528.17	E 6018.14	--	DCR-VER-57	N 1475.70	E 6117.59
21	DCR-VER-21	N 1480.12	E 6018.14	--	DCR-VER-58	N 1576.77	E 6115.38
22	DCR-VER-22	N 1432.61	E 6018.14	--	DCR-VER-59	N 1475.70	E 6117.59
23	DCR-VER-23	N 1624.27	E 6061.23	48	DCR-VER-71	N 1670.67	E 6012.61
24	DCR-VER-24	N 1575.67	E 6061.23	49	DCR-VER-72	N 1721.49	E 6014.27
25	DCR-VER-25	N 1528.17	E 6061.23	--	DCR-VER-73	N 1718.72	E 5998.79
26	DCR-VER-26	N 1481.22	E 6061.23	--	DCR-VER-74	N 1741.37	E 6009.29
27	DCR-VER-27	N 1433.17	E 6061.23	--	DCR-VER-75	N 1708.23	E 6036.37
--	DCR-VER-50	N 1650.56	E 5988.30	--	DCR-VER-76	N 1677.85	E 6036.37



ALCOA - MASSENA, NEW YORK
**DENNISON CROSS ROAD SITE
SAMPLING LOCATION PLAN
AREA 2**

FIGURE 2-2

Area 1

According to the work plan, samples were to be collected with a steel bowl and spoon. Since Area 1 was to be sampled for VOC laboratory analysis, the *Quality Assurance Project Plan* (QAPP) (CDM, July 1995) states that a hand auger must be used to collect samples designated for volatile analysis. Therefore a hand auger was used to collect all samples from Area 1.

If the field screening result for a sample was greater than 1 mg/kg total PCBs, or 5 ppm total organic vapors, the work plan indicates that a second sample would be collected from the same location, 6 inches deeper than the original sample. Additional excavation would be performed until the field screening results were below the soil cleanup goals. A split sample would then be collected from this post-excavation surface and sent to the laboratory for PCB, PAH and VOC analysis. In Area 1, 9 sampling grids (grids 4, 5, 7, 8, 9, 13, 14, 16 and 17) contained greater than 1 mg/kg PCBs and 4 sampling grids (grids 2, 4, 5 and 7) contained greater than 5 ppm total organic vapors, according to the field screen procedures. Due to the proximity of the field screening results to the cleanup goal, all samples were sent to the laboratory for analysis.

Subsequent laboratory analysis showed that grids 13 and 14 contained less than 1 mg/kg PCBs and grids 4 and 7 met the ROD specified VOC cleanup goals. The seven remaining grids that contained total PCB concentrations above 1 mg/kg and the 2 remaining grids that contained a VOC concentration above cleanup goals were excavated an additional 12-to 18-inches. Additional excavation and field screening were performed until the final excavation surface met the soil cleanup goals.

The NYSDEC onsite representative requested that additional field screening samples be collected from areas not specified in the work plan. In Area 1, two samples collected from the shelf adjacent to the decon pad (DCR-VER-51 and DCR-VER-52) contained greater than 1 mg/kg PCBs. Additional excavation and field screening were performed until the final excavation surface met the soil cleanup goals.

Any modifications to the sampling and analysis work were discussed and agreed upon with the onsite NYSDEC representative.

Area 2

According to the work plan, samples were to be collected with a steel bowl and spoon. Since Area 2 was to be sampled for VOC laboratory analysis, the QAPP states that a hand auger must be used to collect samples designated for volatile analysis. Therefore a hand auger was used to collect all samples from Area 2.

If the field screening result for a sample was greater than 1 mg/kg total PCBs, or 5 ppm total organic vapors, the work plan indicates that a second sample would be collected from the same location, 6 inches deeper than the original sample. Additional excavation would be performed until the field screening results were below the soil cleanup goals. A split sample would then be collected from this post-excavation surface and sent to the laboratory for PCB, PAH and VOC analysis. In Area 2, 5 sampling grids (grids 18, 21, 22, 24 and 27) contained greater than 5 ppm total organic vapors, according to the field screen procedures. Due to the proximity of the field screening results to the cleanup goal, all samples were sent to the laboratory for analysis.

Subsequent laboratory analysis showed that all five grids met the ROD specified VOC cleanup goals. No additional excavation or field screening were required.

The NYSDEC onsite representative requested that additional field screening samples be collected from areas not specified in the work plan. In Area 2, two samples collected from the loading area (DCR-VER-53 and DCR-VER-54) contained greater than 1 mg/kg PCBs. Additional excavation and field screening were performed until the final excavation surface met the soil cleanup goals.

Any modifications to the sampling and analysis work were discussed and agreed upon with the onsite NYSDEC representative.

Southern Swale

All sampling and analysis work was performed according to the proposed work plan.

Additional Cleanup Verification Sampling

Outlying areas surrounding Area 1, Area 2 and the southern swale were field screened for PCBs to assess whether the areas contained residual contamination as a result of construction activities. These areas included the roll-off staging area, drum shredding area, decon pad, modular tank pad, overpack staging area, trailer parking area and service roads. The results of this verification sampling program were submitted under separate cover in the *Demobilization Sampling and Analysis Plan* (CDM, December 1995).

3

Section Three

Section 3

Sampling Results

Samples required by the cleanup verification work plan were collected and analyzed as construction progressed. Soil samples were collected from all forty-nine sampling grids for field screening and from forty-one sampling grids for laboratory analysis. After soil samples were taken, the contractor took measures to ensure recontamination did not occur.

The following terminology will be used throughout the remainder of this report. The term "cleanup verification" refers to a sample which was field screened and then analyzed by the laboratory to determine if the remediated area achieved cleanup standards as required by the work plan. "Contingency sample" refers to a sample which was field screened and laboratory analyzed in addition to the samples required as part of the work plan. "PCB/VOC screen" refers to a sample that is field screened for PCBs and total organic vapors but not analyzed by laboratory procedures. "PCB screen" refers to a sample that was field screened for PCBs after the additional excavation in Areas 1 and 2 to confirm that the residual soil concentration was below 1 mg/kg total PCBs. "Immunoassay confirmation" refers to a sample that was laboratory analyzed for PCBs to confirm the results of the "PCB screen" samples. "Field duplicate" refers to a duplicate sample that was analyzed by the laboratory. "Rinsate blank" is a sample of deionized water that has been rinsed over the field decontaminated sampling equipment to detect any cross-contamination between samples. "Water field blank" is a deionized water sample that is transferred from one container to another in the field to detect any environmental contamination that may occur during the sample collection process.

3.1 Sample Collection Procedures

Prior to excavation, a survey control was established by Morrison Knudsen Environmental (MKE) to lay out the excavation limits and the center of the sampling grids.

Typically, the following standard sequence of events were followed. First, the contractor would excavate to grade. The Construction Quality Assurance Inspector (CQAI) would then verify that the excavation grade had been reached and inform Field Engineering (FE) that the grid was ready for cleanup verification sampling. FE would then collect the cleanup verification samples from the 3-to 12-inch interval below the excavated surface. Once collected, the samples were field screened by immunoassay and jar headspace procedures and then the cleanup verification and contingency samples were sent to the offsite laboratory for analysis.

All sampling equipment was decontaminated by CDM personnel in the designated decon area using a detergent wash, tap water rinse, methanol rinse, followed by a deionized water rinse. To ensure the decontamination procedure was effective, rinsate blanks were taken from the sampling equipment used to collect the laboratory cleanup verification samples.

Decontamination water and solvents were drummed, labeled and properly disposed of by Alcoa following their standard site procedures.

3.2 Analytical Protocols

The analytical protocols outlined in Section 3.2.4 in the *Soil Cleanup Verification Plan for the Dennison Cross Road Site* (CDM, Revised October 1995) were followed. All samples were analyzed for PCBs using an EnSys Samplepro PCB immunoassay test kit (Method 4020). A field screen for total organic vapors using a photoionization detector (PID) with a 11.8 eV ionization lamp was performed in accordance with the QAPP. Appendix A presents a summary of the field screening results.

All cleanup verification and contingency samples were analyzed using Superfund Contract Laboratory Procedures (CLP) for VOCs (Areas 1 and 2), PAHs and PCBs by New York State CLP methods 91-1, 91-2 and 91-3 respectively, in compliance with the 1991 NYSDEC Analytical Services Protocol (ASP) CLP technical requirements and deliverables. RECRA Environmental, Inc., a certified New York State Department of Health (NYSDOH) Environmental Laboratory Approved Program (ELAP) CLP laboratory was employed for the analysis. Appendix B presents seven RECRA CLP reports with SDG numbers VER2D, VER23, VER37, VER02C, VER26, VER05 and CRVER dated September 29, September 29, September 29, October 2, October 2, October 26, and November 11, 1995, respectively. The laboratory data for the DCR cleanup verification samples, were validated by Gradient Corporation. The validation results are discussed in Section 3.4 and copies of the validation reports are included in Appendix C.

Copies of the Chain of Custody (COC) forms, showing that the laboratory received the samples within two days of sampling, are included in the CLP reports. The validation report contains a table that reports the Verified Time of Sample Receipt (VTSR), extraction start and completion dates and analysis date for each sample.

3.3 Field Screening and Laboratory Results

The DCR site was excavated in portions, beginning with Area 1 and the southern swale then moving to the Area 2 excavation. Because the excavation was done in portions, the cleanup verification samples were collected on several different days. All samples required by the work plan and requested by the onsite NYSDEC representative were collected on September 1, 14, 18, 19, 20, 21, 25, 26 and 27, 1995 and October 12, 1995.

Three contingency samples were collected from Area 1 and Area 2 (DCR-VER-48 through DCR-VER-50) as requested by the onsite NYSDEC representative. The NYSDEC also requested

9/1/1995
DCR-VER-04
-07
-17
-23

Section 3
Sampling Results

additional field screen samples from the loading areas, decon pad and excavation sideslopes (DCR-VER-51 through DCR-VER-56 and DCR-VER-73 through DCR-VER-76) from all three excavation areas.

Table 3-1 provides a summary of the sampling and field screening that was completed as part of the cleanup verification program. The laboratory results of the cleanup verification and contingency samples are summarized in Tables 3-2, 3-3 and 3-4.

3.3.1 Sampling Day September 1, 1995

Excavation was performed to grade in a majority of Area 1, Area 2 and the southern swale. Completed grid blocks were sampled along with three contingency samples and six field screen samples requested by the onsite NYSDEC representative.

The following samples were collected:

<u>Area</u>	<u>Grid Number</u>	<u>Sample Number</u>	<u>Remarks</u>
Area 1	2	DCR-VER-02	Cleanup verification
		MW-546-01	Rinsate blank
		MW-546-03	Field blank
	3	DCR-VER-03	Cleanup verification
		DCR-VER-200	Field duplicate
	4	DCR-VER-04	Cleanup verification
	5	DCR-VER-05	PCB/VOC screen
	6	DCR-VER-06	Cleanup verification
	7	DCR-VER-07	Cleanup verification
	8	DCR-VER-08	PCB/VOC screen
	9	DCR-VER-09	PCB/VOC screen
	10	DCR-VER-10	PCB/VOC screen
	11	DCR-VER-11	PCB/VOC screen
	12	DCR-VER-12	Cleanup verification
	13	DCR-VER-13	Cleanup verification
14	DCR-VER-14	Cleanup verification	
15	DCR-VER-15	PCB/VOC screen	

ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT

Table 3-1

Summary of Cleanup Verification Samples

Sample Number ⁽¹⁾	Sampling Area	Grid Number	Date Sampled	Sample Media	PCB Immunoassay Result ⁽²⁾	VOC Jar Headspace Result ⁽³⁾	Final Excavation Samples (Yes/No)	Sample Analysis ⁽⁴⁾	Sample Reference
DCR-VER-01	Area 1	1	9/27/95	Soil	< 1 mg/kg	ND	Yes	PCB/VOC field screen	PCB/VOC screen
DCR-VER-02	Area 1	2	9/1/95	Soil	< 1 mg/kg	432 ppm	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-03	Area 1	3	9/1/95	Soil	< 1 mg/kg	2 ppm	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-04	Area 1	4	9/1/95	Soil	> 1 mg/kg	16 ppm	No, see DCR-VER-04-02	PCB, PAH, VOC	Cleanup verification
DCR-VER-04-02	Area 1	4	9/21/95	Soil	> 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-05	Area 1	5	9/1/95	Soil	> 1 mg/kg	13 ppm	No, see DCR-VER-05-03	PCB/VOC field screen	PCB VOC screen
DCR-VER-05-02	Area 1	5	9/21/95	Soil	> 1 mg/kg	---	No, see DCR-VER-05-03	PCB field screen	PCB screen
DCR-VER-05-03	Area 1	5	9/25/95	Soil	< 1 mg/kg	---	Yes	PCB	Immunoassay confirmation
DCR-VER-06	Area 1	6	9/1/95	Soil	< 1 mg/kg	ND	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-07	Area 1	7	9/1/95	Soil	> 1 mg/kg	123 ppm	No, see DCR-VER-07-03	PCB, PAH, VOC	Cleanup verification
DCR-VER-07-02	Area 1	7	9/21/95	Soil	> 1 mg/kg	---	No, see DCR-VER-07-03	PCB field screen	PCB screen
DCR-VER-07-03	Area 1	7	9/25/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-08	Area 1	8	9/1/95	Soil	> 1 mg/kg	2 ppm	No, see DCR-VER-08-02	PCB/VOC field screen	PCB VOC screen
DCR-VER-08-02	Area 1	8	9/21/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-09	Area 1	9	9/1/95	Soil	> 1 mg/kg	ND	No, see DCR-VER-09-03	PCB/VOC field screen	PCB VOC screen

Continued on next page

ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT

Table 3-1 (Continued)

Summary of Cleanup Verification Samples

Sample Number ⁽¹⁾	Sampling Area	Grid Number	Date Sampled	Sample Media	PCB Immunoassay Result ⁽²⁾	VOC Jar Headspace Result ⁽³⁾	Final Excavation Samples (Yes/No)	Sample Analysis ⁽⁴⁾	Sample Reference
DCR-VER-09-02	Area 1	9	9/21/95	Soil	> 1 mg/kg	---	No, see DCR-VER-09-03	PCB field screen	PCB screen
DCR-VER-09-03	Area 1	9	9/25/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-10	Area 1	10	9/1/95	Soil	< 1 mg/kg	ND	Yes	PCB/VOC field screen	PCB VOC screen
DCR-VER-11	Area 1	11	9/1/95	Soil	< 1 mg/kg	ND	Yes	PCB/VOC field screen	PCB VOC screen
DCR-VER-12	Area 1	12	9/1/95	Soil	< 1 mg/kg	2 ppm	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-13	Area 1	13	9/1/95	Soil	> 1 mg/kg	2 ppm	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-14	Area 1	14	9/1/95	Soil	> 1 mg/kg	ND	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-15	Area 1	15	9/1/95	Soil	< 1 mg/kg	ND	Yes	PCB/VOC field screen	PCB VOC screen
DCR-VER-16	Area 1	16	9/1/95	Soil	> 1 mg/kg	ND	No, see DCR-VER-16-02	PCB/VOC field screen	PCB VOC screen
DCR-VER-16-02	Area 1	16	9/25/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-17	Area 1	17	9/1/95	Soil	> 1 mg/kg	ND	No, see DCR-VER-17-02	PCB, PAH, VOC	Cleanup verification
DCR-VER-17-02	Area 1	17	9/21/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-18	Area 2	18	9/1/95	Soil	< 1 mg/kg	5.2 ppm	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-19	Area 2	19	9/1/95	Soil	< 1 mg/kg	2 ppm	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-20	Area 2	20	9/1/95	Soil	< 1 mg/kg	ND	Yes	PCB, PAH, VOC	Cleanup verification

Continued on next page

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT**

Table 3-1 (Continued)

Summary of Cleanup Verification Samples

Sample Number ⁽¹⁾	Sampling Area	Grid Number	Date Sampled	Sample Media	PCB Immunoassay Result ⁽²⁾	VOC Jar Headspace Result ⁽³⁾	Final Excavation Samples (Yes/No)	Sample Analysis ⁽⁴⁾	Sample Reference
DCR-VER-21	Area 2	21	9/1/95	Soil	< 1 mg/kg	45 ppm	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-22	Area 2	22	9/1/95	Soil	< 1 mg/kg	6 ppm	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-23	Area 2	23	9/1/95	Soil	< 1 mg/kg	ND	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-24	Area 2	24	9/1/95	Soil	< 1 mg/kg	32 ppm	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-25	Area 2	25	9/1/95	Soil	< 1 mg/kg	2 ppm	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-26	Area 2	26	9/1/95	Soil	< 1 mg/kg	ND	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-27	Area 2	27	9/1/95	Soil	< 1 mg/kg	16 ppm	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-28	Southern Swale	28	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-29	Southern Swale	29	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-30	Southern Swale	30	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-31	Southern Swale	31	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-32	Southern Swale	32	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification

Continued on next page

ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT

Table 3-1 (Continued)

Summary of Cleanup Verification Samples

Sample Number ⁽¹⁾	Sampling Area	Grid Number	Date Sampled	Sample Media	PCB Immunoassay Result ⁽²⁾	VOC Jar Headspace Result ⁽³⁾	Final Excavation Samples (Yes/No)	Sample Analysis ⁽⁴⁾	Sample Reference
DCR-VER-33	Southern Swale	33	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-34	Southern Swale	34	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-35	Southern Swale	35	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-36	Southern Swale	36	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-37	Southern Swale	37	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-38	Southern Swale	38	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-39	Southern Swale	39	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-40	Southern Swale	40	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-41	Southern Swale	41	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-42	Southern Swale	42	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-43	Southern Swale	43	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-44	Southern Swale	44	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-45	Southern Swale	45	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification

Continued on next page

ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT

Table 3-1 (Continued)

Summary of Cleanup Verification Samples

Sample Number ⁽¹⁾	Sampling Area	Grid Number	Date Sampled	Sample Media	PCB Immunoassay Result ⁽²⁾	VOC Jar Headspace Result ⁽³⁾	Final Excavation Samples (Yes/No)	Sample Analysis ⁽⁴⁾	Sample Reference
DCR-VER-46	Southern Swale	46	9/26/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-47	Southern Swale	47	9/26/95	Soil	< 1 mg/kg	---	Yes	PCB, PAH	Cleanup verification
DCR-VER-48	Area 1 sideslope	---	9/1/95	Soil	< 1 mg/kg	ND	Yes	PCB, PAH, VOC	Contingency sample
DCR-VER-49	Area 1 sideslope	---	9/1/95	Soil	< 1 mg/kg	ND	Yes	PCB, PAH, VOC	Contingency sample
DCR-VER-50	Area 2 sideslope	---	9/1/95	Soil	< 1 mg/kg	2 ppm	Yes	PCB, PAH, VOC	Contingency sample
DCR-VER-51	Area 1 shelf	---	9/1/95	Soil	> 1 mg/kg	2 ppm	No, see DCR-VER-70	PCB/VOC field screen	PCB VOC screen
DCR-VER-52	Area 1 shelf	---	9/1/95	Soil	> 1 mg/kg	2 ppm	No, see DCR-VER-69	PCB/VOC field screen	PCB VOC screen
DCR-VER-53	Area 2 loading area	---	9/1/95	Soil	> 1 mg/kg	ND	No, see DCR-VER-59	PCB/VOC field screen	PCB VOC screen
DCR-VER-54	Area 2 loading area	---	9/1/95	Soil	> 1 mg/kg	ND	No, see DCR-VER-58	PCB/VOC field screen	PCB VOC screen
DCR-VER-55	Southern Swale loading area	---	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-56	Southern Swale loading area	---	9/1/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-57	Area 2 loading area	---	9/14/95	Soil	> 1 mg/kg	---	No, see DCR-VER-59	PCB field screen	PCB screen
DCR-VER-58	Area 2 loading area	---	9/14/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen

Continued on next page

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT**

Table 3-1 (Continued)

Summary of Cleanup Verification Samples

Sample Number ⁽¹⁾	Sampling Area	Grid Number	Date Sampled	Sample Media	PCB Immunoassay Result ⁽²⁾	VOC Jar Headspace Result ⁽³⁾	Final Excavation Samples (Yes/No)	Sample Analysis ⁽⁴⁾	Sample Reference
DCR-VER-59	Area 2 loading area	---	9/18/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-60	Area 1 shelf	---	9/19/95	Soil	> 1 mg/kg	---	No, see DCR-VER-68	PCB field screen	PCB screen
DCR-VER-61	Area 1 shelf	---	9/19/95	Soil	> 1 mg/kg	---	No, see DCR-VER-69	PCB field screen	PCB screen
DCR-VER-62	Area 1 shelf	---	9/19/95	Soil	> 1 mg/kg	---	No, see DCR-VER-70	PCB field screen	PCB screen
DCR-VER-63	Area 1 shelf	---	9/19/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-64	Area 1 shelf	---	9/20/95	Soil	> 1 mg/kg	---	No, see DCR-VER-70	PCB field screen	PCB screen
DCR-VER-65	Area 1 shelf	---	9/20/95	Soil	> 1 mg/kg	---	No, see DCR-VER-70	PCB field screen	PCB screen
DCR-VER-66	Area 1 shelf	---	9/20/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-67	Area 1 shelf	---	9/20/95	Soil	> 1 mg/kg	---	No, see DCR-VER-70	PCB field screen	PCB screen
DCR-VER-68	Area 1 shelf	---	9/21/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-69	Area 1 shelf	---	9/21/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-70	Area 1 shelf	---	9/21/95	Soil	< 1 mg/kg	---	Yes	PCB field screen	PCB screen
DCR-VER-71	Area 2	48	10/12/95	Soil	< 1 mg/kg	3 ppm	Yes	PCB, PAH, VOC	Cleanup verification

Continued on next page

ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT

Table 3-1 (Continued)

Summary of Cleanup Verification Samples

Sample Number ⁽¹⁾	Sampling Area	Grid Number	Date Sampled	Sample Media	PCB Immunoassay Result ⁽²⁾	VOC Jar Headspace Result ⁽³⁾	Final Excavation Samples (Yes/No)	Sample Analysis ⁽⁴⁾	Sample Reference
DCR-VER-72	Area 2	49	10/12/95	Soil	< 1 mg/kg	1 ppm	Yes	PCB, PAH, VOC	Cleanup verification
DCR-VER-73	Area 2 sideslope	---	10/12/95	Soil	< 1 mg/kg	1 ppm	Yes	PCB/VOC field screen	PCB VOC screen
DCR-VER-74	Area 2 sideslope	---	10/12/95	Soil	< 1 mg/kg	ND	Yes	PCB/VOC field screen	PCB VOC screen
DCR-VER-75	Area 2 sideslope	---	10/12/95	Soil	< 1 mg/kg	ND	Yes	PCB/VOC field screen	PCB VOC screen
DCR-VER-76	Area 2 sideslope	---	10/12/95	Soil	< 1 mg/kg	ND	Yes	PCB/VOC field screen	PCB VOC screen
DCR-VER-200	Area 1	3	9/1/95	Soil	< 1 mg/kg	ND	---	PCB, PAH, VOC	Field duplicate of DCR-VER-03
DCR-VER-201	Area 2	18	9/1/95	Soil	< 1 mg/kg	ND	---	PCB, PAH, VOC	Field duplicate of DCR-VER-18
DCR-VER-202	Southern Swale	28	9/1/95	Soil	< 1 mg/kg	---	---	PCB, PAH	Field duplicate of DCR-VER-28
MW-546-01	Area 1	2	9/1/95	Water	---	---	---	PCB, PAH, VOC	Rinsate blank for DCR-VER-02
MW-546-02	Area 2	18	9/1/95	Water	---	---	---	PCB, PAH, VOC	Rinsate blank for DCR-VER-18
MW-546-03	Area 1	---	9/1/95	Water	---	---	---	PCB, PAH, VOC	Field blank
MW-546-04	Southern Swale	28	9/1/95	Water	---	---	---	PCB, PAH	Rinsate blank for DCR-VER-28

Continued on next page

ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT

Table 3-1 (Continued)

Summary of Cleanup Verification Samples

Sample Number ⁽¹⁾	Sampling Area	Grid Number	Date Sampled	Sample Media	PCB Immunoassay Result ⁽²⁾	VOC Jar Headspace Result ⁽³⁾	Final Excavation Samples (Yes/No)	Sample Analysis ⁽⁴⁾	Sample Reference
MW-546-05	Area 2	---	9/1/95	Water	---	---	---	PCB, PAH, VOC	Field blank
MW-546-06	Area 1	5	9/25/95	Water	---	---	---	PCB, PAH, VOC	Rinsate blank for DCR-VER-05-03
MW-546-07	Area 1	---	9/25/95	Water	---	---	---	PCB, PAH, VOC	Field blank
MW-546-08	Southern Swale	46	9/26/95	Water	---	---	---	PCB, PAH	Rinsate blank for DCR-VER-46
MW-546-09	Area 2	48	10/12/95	Water	---	---	---	PCB, PAH, VOC	Rinsate blank for DCR-VER-71

Notes:

⁽¹⁾ See Figure 2-1 and Figure 2-2 for sample locations.

⁽²⁾ The immunoassay test kit used for the PCB analysis was the EnSys Samplepro PCB Test Kit.

⁽³⁾ The VOC jar headspace analysis was performed with a 11.8 eV lamp PID in accordance with the QAPP.

⁽⁴⁾ All samples were field screened by PCB/VOC screening techniques. See Tables 3-2, 3-3 and 3-4 for results of the samples sent for offsite laboratory analysis.

ND - Non-detect

ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT

Table 3-4

Summary of Laboratory Results for the Southern Swale ⁽¹⁾⁽²⁾

Sample Number	Total PCBs (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)	Other PAHs (mg/kg)
DCR-VER-28	0.011 J	0.300 U	0.300 U	0.009 J
DCR-VER-29	0.007 JP	0.300 U	0.300 U	0.300 U
DCR-VER-30	0.035 U	0.300 U	0.300 U	0.006 J
DCR-VER-31	0.011 JP	0.300 U	0.300 U	0.011 J
DCR-VER-32	0.012 JP	0.300 U	0.300 U	0.012 J
DCR-VER-33	0.035 U	0.300 U	0.300 U	0.012 J
DCR-VER-34	0.014 JP	0.300 U	0.300 U	0.006 J
DCR-VER-35	0.036 U	0.300 U	0.300 U	0.006 J
DCR-VER-36	0.004 JP	0.300 U	0.300 U	0.011 J
DCR-VER-37	0.017 JP	0.300 U	0.300 U	0.300 U
DCR-VER-38	0.036 U	0.300 U	0.300 U	0.016 J
DCR-VER-39	0.008 J	0.300 U	0.300 U	0.016 J
DCR-VER-40	0.005 JP	0.300 U	0.300 U	0.016 J
DCR-VER-41	0.036 U	0.300 U	0.300 U	0.010 J
DCR-VER-42	0.015 J	0.300 U	0.300 U	0.011 J
DCR-VER-43	0.035 U	0.300 U	0.300 U	0.013 J
DCR-VER-44	0.035 U	0.300 U	0.300 U	0.012 J
DCR-VER-45	0.035 U	0.300 U	0.300 U	0.300 U
DCR-VER-46	0.035 U	0.300 U	0.300 U	0.012 J
DCR-VER-47	0.036 U	0.300 U	0.300 U	0.300 U
DCR-VER-202 ⁽³⁾	0.012 JP	0.300 U	0.300 U	0.300 U

Notes:

⁽¹⁾ The laboratory analysis was performed by RECRA Environmental Inc.

⁽²⁾ The samples for the southern swale were analyzed by NYSDEC Method 91-2 (PAH) and 91-3 (PCB). See Appendix B for complete lab reports.

⁽³⁾ Field duplicate of DCR-VER-28.

U - Analyte was not detected. Value is the highest sample detection limit.

J - Indicates an estimated value.

P- The percent difference for detected concentrations between two GC columns were greater than 25 percent.

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT**

Table 3-2

Summary of Laboratory Results for Area 1 ⁽¹⁾⁽²⁾

Sample Number	Total PCBs (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)	Other PAHs (mg/kg)	1,1,1 Trichloroethane (mg/kg)	Benzene (mg/kg)	Trichloroethene (mg/kg)	Tetrachloroethene (mg/kg)	Toluene (mg/kg)	Total Xylene (mg/kg)
DCR-VER-02	0.175 P	0.300 U	0.300 U	0.097 J	0.011 U	0.011 U	2.900	0.004 J	0.021	0.004 J
DCR-VER-03	0.063 J	0.300 U	0.300 U	0.015 J	0.011 U	0.011 U	0.032	0.011 U	0.011 U	0.011 U
DCR-VER-04	2.870 P	0.300 U	0.300 U	0.085 J	0.011 U	0.011 U	0.014	0.011 U	0.011 U	0.011 U
DCR-VER-06	0.035 U	0.300 U	0.300 U	0.028 J	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
DCR-VER-07	3.400	0.300 U	0.300 U	0.042 J	0.010 U	0.010 U	0.011	0.010 U	0.010 U	0.010 U
DCR-VER-12	0.039 JP	0.300 U	0.300 U	0.300 U	0.011 U	0.011 U	0.014	0.011 U	0.011 U	0.011 U
DCR-VER-13	0.034 U	0.300 U	0.300 U	0.300 U	0.010 U	0.010 U	0.006 J	0.010 U	0.010 U	0.010 U
DCR-VER-14	0.043 J	0.300 U	0.300 U	0.300 U	0.011 U	0.011 U	0.022	0.011 U	0.011 U	0.011 U
DCR-VER-17	3.400 P	0.053 J	0.120 J	0.160 J	0.011 U	0.011 U	0.016	0.011 U	0.011 U	0.011 U
DCR-VER-48	0.037 U	0.300 U	0.300 U	0.300 U	0.012 U	0.012 U	0.012 U	0.012 U	0.001 J	0.012 U
DCR-VER-49	0.037 U	0.300 U	0.300 U	0.008 J	0.011 U	0.011 U	0.011 U	0.011 U	0.003 J	0.011 U
DCR-VER-05-03 ⁽³⁾	0.035 U	---	---	---	---	---	---	---	---	---
DCR-VER-200 ⁽⁴⁾	0.035 U	0.300 U	0.300 U	0.300 U	0.011 U	0.011 U	0.036	0.011 U	0.011 U	0.011 U

Notes:

⁽¹⁾ The laboratory analysis was performed by RECRA Environmental Inc.

⁽²⁾ The samples for Area 1 were analyzed by NYSDEC Methods 91-1 (VOC), 91-2 (PAH), and 91-3 (PCB). See Appendix B for complete lab reports.

⁽³⁾ This sample is a confirmation sample on the PCB immunoassay field screens performed after additional excavation in Area 1.

⁽⁴⁾ Field duplicate of DCR-VER-03.

U - Analyte was not detected. Value is the highest sample detection limit.

J - Indicates an estimated value.

P- The percent difference for detected concentrations between two GC columns were greater than 25%.

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT**

Table 3-3

Summary of Laboratory Results for Area 2 ⁽¹⁾⁽²⁾

Sample Number	Total PCBs (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)	Other PAHs (mg/kg)	1,1,1 Trichloroethane (mg/kg)	Benzene (mg/kg)	Trichloroethene (mg/kg)	Tetrachloroethene (mg/kg)	Toluene (mg/kg)	Total Xylene (mg/kg)
DCR-VER-18	0.036 U	0.300 U	0.300 U	0.300 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
DCR-VER-19	0.021 JP	0.300 U	0.300 U	0.300 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
DCR-VER-20	0.036 U	0.300 U	0.300 U	0.300 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
DCR-VER-21	0.037 U	0.300 U	0.300 U	0.300 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
DCR-VER-22	0.227 P	0.300 U	0.300 U	0.300 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U
DCR-VER-23	0.920 U	0.300 U	0.300 U	0.380	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
DCR-VER-24	0.032 J	0.300 U	0.300 U	0.025 J	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
DCR-VER-25	0.036 U	0.300 U	0.300 U	0.140 J	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
DCR-VER-26	0.026 J	0.300 U	0.300 U	0.042 J	0.011 U	0.011 U	0.011 U	0.011 U	0.002 J	0.011 U
DCR-VER-27	0.036 U	0.300 U	0.300 U	0.240 J	0.058	0.011 U	0.080	0.011 U	0.009 J	0.011 U
DCR-VER-50	0.037 U	0.300 U	0.300 U	0.300 U	0.001 J	0.011 U	0.011 U	0.011 U	0.002 J	0.011 U
DCR-VER-71	0.032 U	0.300 U	0.300 U	0.015 J	0.011 U	0.011 U	0.001 J	0.002 J	0.004 BJ	0.002 J
DCR-VER-72	0.032 U	0.810	0.880	0.920	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
DCR-VER-201 ⁽³⁾	0.035 U	0.300 U	0.300 U	0.025 J	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U

Notes:

⁽¹⁾ The laboratory analysis was performed by RECRA Environmental Inc.

⁽²⁾ The samples for Area 2 were analyzed by NYSDEC Methods 91-1 (VOC), 91-2 (PAH), and 91-3 (PCB). See Appendix B for complete lab reports.

⁽³⁾ Field duplicate of DCR-VER-18.

U - Analyte was not detected. Value is the highest sample detection limit.

J - Indicates an estimated value.

B - The parameter was also present in the associated blank.

P - The percent difference for detected concentrations between two GC columns were greater than 25 percent.

Section 3
Sampling Results

<u>Area</u>	<u>Grid Number</u>	<u>Sample Number</u>	<u>Remarks</u>
Area 1	16	DCR-VER-16	PCB/VOC screen
<i>(continued)</i>	17	DCR-VER-17	Cleanup verification
		DCR-VER-48	Contingency sample
		DCR-VER-49	Contingency sample
		DCR-VER-51	PCB/VOC screen
		DCR-VER-52	PCB/VOC screen
Area 2	18	DCR-VER-18	Cleanup verification
		DCR-VER-201	Field duplicate
		MW-546-02	Rinsate blank
		MW-546-05	Field blank
	19	DCR-VER-19	Cleanup verification
	20	DCR-VER-20	Cleanup verification
	21	DCR-VER-21	Cleanup verification
	22	DCR-VER-22	Cleanup verification
	23	DCR-VER-23	Cleanup verification
	24	DCR-VER-24	Cleanup verification
	25	DCR-VER-25	Cleanup verification
	26	DCR-VER-26	Cleanup verification
	27	DCR-VER-27	Cleanup verification
		DCR-VER-50	Contingency sample
		DCR-VER-53	PCB/VOC screen
		DCR-VER-54	PCB/VOC screen
Southern Swale	28	DCR-VER-28	Cleanup verification
		DCR-VER-202	Field duplicate
		MW-546-04	Rinsate blank
	29	DCR-VER-29	Cleanup verification
	30	DCR-VER-30	Cleanup verification
	31	DCR-VER-31	Cleanup verification
	32	DCR-VER-32	Cleanup verification
	33	DCR-VER-33	Cleanup verification

<u>Area</u>	<u>Grid Number</u>	<u>Sample Number</u>	<u>Remarks</u>
Southern Swale	34	DCR-VER-34	Cleanup verification
<i>(continued)</i>	35	DCR-VER-35	Cleanup verification
	36	DCR-VER-36	Cleanup verification
	37	DCR-VER-37	Cleanup verification
	38	DCR-VER-38	Cleanup verification
	39	DCR-VER-39	Cleanup verification
	40	DCR-VER-40	Cleanup verification
	41	DCR-VER-41	Cleanup verification
	42	DCR-VER-42	Cleanup verification
	43	DCR-VER-43	Cleanup verification
	44	DCR-VER-44	Cleanup verification
	45	DCR-VER-45	Cleanup verification
		DCR-VER-55	PCB/VOC screen
		DCR-VER-56	PCB/VOC screen

The field screening results are shown in Table 3-1. All samples were field screened for PCBs for all three excavation areas and for total organic vapors in Areas 1 and 2.

The laboratory results are shown in Tables 3-2, 3-3 and 3-4. In addition to the cleanup verification and contingency samples sent to the laboratory, three field duplicates, three rinsate blanks and two water field blanks were also sent to the laboratory to be analyzed for PCBs and PAHs for all three areas and for VOCs in Areas 1 and 2.

PCBs

Thirteen samples (DCR-VER-04, 05, 07, 08, 09, 13, 14, 16, 17 and 51 through 54) contained greater than 1 mg/kg total PCBs according to the PCB immunoassay test procedure. All of the cleanup verification and contingency samples were sent to the laboratory to confirm the field screen results.

The laboratory results showed that PCBs were detected in twenty-one samples at an estimated concentration range of 0.004 mg/kg to 3.4 mg/kg. The remaining samples were non-detect for

PCBs at a detection limit range of 0.034 mg/kg to 0.037 mg/kg. All samples except DCR-VER-04, 07 and 17 (2.87, 3.4 and 3.4 mg/kg) were below the cleanup goal of 1 mg/kg for total PCBs.

PAHs

Phenanthrene was detected in one sample (DCR-VER-17) at an estimated concentration of 0.053 mg/kg. The remaining samples were non-detect for phenanthrene at a detection limit of 0.3 mg/kg. All samples were below the cleanup goal of 2.2 mg/kg for phenanthrene.

Pyrene was detected in one sample (DCR-VER-17) at an estimated concentration of 0.12 mg/kg. The remaining samples were non-detect for pyrene at a detection limit of 0.3 mg/kg. All samples were below the cleanup goal of 6.6 mg/kg for pyrene.

Other PAHs were detected in twenty-seven samples at an estimated concentration range of 0.006 mg/kg to 0.38 mg/kg. The remaining samples were non-detect for other PAHs at a detection limit of 0.3 mg/kg. All samples except DCR-VER-23 (0.38 mg/kg) were below the cleanup goal of 0.3 mg/kg for other PAHs.

VOCs

Nine samples (DCR-VER-02, 04, 05, 07, 18, 21, 22, 24 and 27) contained greater than 5 ppm total organic vapors according to the jar headspace test procedure. All of the cleanup verification and contingency samples were sent to the laboratory to confirm the field screen results.

Benzene was non-detect in all twenty-two samples at a detection limit range of 0.01 mg/kg to 0.012 mg/kg. All samples were below the cleanup goal of 0.04 mg/kg for benzene.

1,1,1 Trichloroethane was detected in two samples (DCR-VER-27 and DCR-VER-50) at an estimated concentration range of 0.001 mg/kg to 0.058 mg/kg. The remaining samples were non-detect for 1,1,1 trichloroethane at a detection limit range of 0.01 mg/kg to 0.012 mg/kg. All samples were below the cleanup goal of 0.76 mg/kg for 1,1,1 trichloroethane.

Trichloroethene was detected in nine samples (DCR-VER-02, 03, 04, 07, 12, 13, 14, 17 and 27) at an estimated concentration range of 0.006 mg/kg to 2.9 mg/kg. The remaining samples were non-detect for trichloroethene at a detection limit range of 0.01 mg/kg to 0.012 mg/kg. All samples except DCR-VER-02 (2.9 mg/kg) were below the cleanup goal of 0.13 mg/kg for trichloroethene.

Tetrachloroethene was detected in one sample (DCR-VER-02) at an estimated concentration of 0.004 mg/kg. The remaining samples were non-detect for tetrachloroethene at a detection limit

range of 0.01 mg/kg to 0.012 mg/kg. All samples were below the cleanup goal of 0.02 mg/kg for tetrachloroethene.

Toluene was detected in six samples (DCR-VER-02, 26, 27, 48, 49 and 50) at an estimated concentration range of 0.001 mg/kg to 0.021 mg/kg. The remaining samples were non-detect for toluene at a detection limit range of 0.01 mg/kg to 0.012 mg/kg. All samples were below the cleanup goal of 0.15 mg/kg for toluene.

Total xylene was detected in one sample (DCR-VER-02) at an estimated concentration of 0.004 mg/kg. The remaining samples were non-detect for total xylene at a detection limit range of 0.01 mg/kg to 0.012 mg/kg. All samples were below the cleanup goal of 0.12 mg/kg for total xylene.

3.3.2 Sampling Day September 14, 1995

The field screen samples collected from the loading area in Area 2 on September 1, 1995 indicated that this area exceeded 1 mg/kg total PCBs. After removal of additional material, a second set of field screen samples were collected to determine if the area was sufficiently remediated.

The following samples were collected:

<u>Area</u>	<u>Grid Number</u>	<u>Sample Number</u>	<u>Remarks</u>
Area 2	---	DCR-VER-57	PCB screen
		DCR-VER-58	PCB screen

The field screening results are shown in Table 3-1. Both samples were field screened for PCBs.

PCBs

One sample (DCR-VER-57) contained greater than 1 mg/kg total PCBs according to the PCB immunoassay test procedure. Additional excavation was required at the loading area in Area 2.

3.3.3 Sampling Day September 18, 1995

The field screen samples collected from the loading area in Area 2 on September 14, 1995 indicated that part of the area exceeded 1 mg/kg total PCBs. After removal of additional material, another field screen sample was collected to determine if the area was sufficiently remediated.

The following sample was collected:

<u>Area</u>	<u>Grid Number</u>	<u>Sample Number</u>	<u>Remarks</u>
Area 2	---	DCR-VER-59	PCB screen

The field screening results are shown in Table 3-1. The sample was field screened for PCBs.

PCBs

This sample (DCR-VER-59) did not contain greater than 1 mg/kg total PCBs according to the PCB immunoassay test procedure.

3.3.4 Sampling Day September 19, 1995

The field screen samples collected from the shelf adjacent to the decon pad in Area 1 on September 1, 1995 indicated that this area exceeded 1 mg/kg total PCBs. After removal of additional material, a second set of field screen samples were collected to determine if the area was sufficiently remediated.

The following samples were collected:

<u>Area</u>	<u>Grid Number</u>	<u>Sample Number</u>	<u>Remarks</u>
Area 1	---	DCR-VER-60	PCB screen
		DCR-VER-61	PCB screen
		DCR-VER-62	PCB screen
		DCR-VER-63	PCB screen

The field screening results are shown in Table 3-1. All samples were field screened for PCBs.

PCBs

Three samples (DCR-VER-60 through DCR-VER-62) contained greater than 1 mg/kg total PCBs according to the PCB immunoassay test procedure. Additional excavation was required at the shelf in Area 1.

3.3.5 Sampling Day September 20, 1995

The field screen samples collected from the shelf adjacent to the decon pad in Area 1 on September 19, 1995 indicated that this area exceeded 1 mg/kg total PCBs. After removal of additional material, a third set of field screen samples were collected to determine if the area was sufficiently remediated.

The following samples were collected:

<u>Area</u>	<u>Grid Number</u>	<u>Sample Number</u>	<u>Remarks</u>
Area 1	---	DCR-VER-64	PCB screen
		DCR-VER-65	PCB screen
		DCR-VER-66	PCB screen
		DCR-VER-67	PCB screen

The field screening results are shown in Table 3-1. All samples were field screened for PCBs.

PCBs

Three samples (DCR-VER-64, DCR-VER-65 and DCR-VER-67) contained greater than 1 mg/kg total PCBs according to the PCB immunoassay test procedure. Additional excavation was required at the shelf in Area 1.

3.3.6 Sampling Day September 21, 1995

The cleanup verification samples collected in Area 1 on September 1, 1995 and the field screen samples collected from the shelf adjacent to the decon pad in Area 1 on September 20, 1995 indicated that these areas exceeded 1 mg/kg total PCBs. After removal of additional material, another set of field screen samples were collected to determine if the area was sufficiently remediated. One sample was sent to the Alcoa laboratory to confirm the field screen results.

The following samples were collected:

<u>Area</u>	<u>Grid Number</u>	<u>Sample Number</u>	<u>Remarks</u>
Area 1	4	DCR-VER-04-02	PCB screen
	5	DCR-VER-05-02	PCB screen
	7	DCR-VER-07-02	PCB screen
	8	DCR-VER-08-02	PCB screen
	9	DCR-VER-09-02	PCB screen
	17	DCR-VER-17-02	PCB screen
	---	DCR-VER-68	PCB screen
		DCR-VER-69	PCB screen
		DCR-VER-70	PCB screen

The field screening results are shown in Table 3-1. All samples were field screened for PCBs.

PCBs

Four samples (DCR-VER-04-02, 05-02, 07-02 and 09-02) contained greater than 1 mg/kg total PCBs according to the PCB immunoassay test procedure. Subsequent laboratory analysis showed that one sample (DCR-VER-04-02) contained less than 1 mg/kg total PCBs. Additional excavation was required in grids 5, 7 and 9.

3.3.7 Sampling Day September 25, 1995

The field screen samples collected from the grids in Area 1 on September 21, 1995 indicated that grids 5, 7 and 9 exceeded 1 mg/kg total PCBs. After removal of additional material, another set of field screen samples were collected to determine if the area was sufficiently remediated. One sample (DCR-VER-05-03) was sent to the laboratory to confirm the field screen results.

The following samples were collected:

<u>Area</u>	<u>Grid Number</u>	<u>Sample Number</u>	<u>Remarks</u>
Area 1	5	DCR-VER-05-03	Immunoassay confirmation
		MW-546-06	Rinsate blank
		MW-546-07	Field blank
	7	DCR-VER-07-03	PCB screen
	9	DCR-VER-09-03	PCB screen
	16	DCR-VER-16-02	PCB screen

The field screening results are shown in Table 3-1. All samples were field screened for PCBs.

The laboratory result is shown in Table 3-2. In addition to the immunoassay confirmation sample sent to the laboratory, a rinsate blank and a water field blank were also sent to the laboratory to be analyzed for PCBs.

PCBs

None of the samples contained greater than 1 mg/kg total PCBs according to the PCB immunoassay test procedure. The immunoassay confirmation sample was sent to the laboratory to confirm the field screen result.

The laboratory result showed that PCBs were non-detect for sample DCR-VER-05-03 at a detection limit of 0.035 mg/kg. All of the samples were below the cleanup goal of 1 mg/kg for total PCBs.

3.3.8 Sampling Day September 26, 1995

After removal of material in grids 46 and 47 of the southern swale, the grids were sampled for field screen and laboratory analysis.

The following samples were collected:

<u>Area</u>	<u>Grid Number</u>	<u>Sample Number</u>	<u>Remarks</u>
Southern Swale	46	DCR-VER-46	Cleanup verification
		MW-546-08	Rinsate blank
	47	DCR-VER-47	Cleanup verification

The field screening results are shown in Table 3-1. All samples were field screened for PCBs.

The laboratory results are shown in Table 3-4. In addition to the cleanup verification samples sent to the laboratory, a rinsate blank was also sent to the laboratory to be analyzed for PCBs and PAHs.

PCBs

Neither of the samples contained greater than 1 mg/kg total PCBs according to the PCB immunoassay test procedure. Both of the cleanup verification samples were sent to the laboratory to confirm the field screen results.

The laboratory results showed that PCBs were non-detect in both samples at a detection limit range of 0.035 mg/kg to 0.036 mg/kg. All samples were below the cleanup goal of 1 mg/kg for total PCBs.

PAHs

Phenanthrene was non-detect in both samples at a detection limit of 0.3 mg/kg. All samples were below the cleanup goal of 2.2 mg/kg for phenanthrene.

Pyrene was non-detect in both samples at a detection limit of 0.3 mg/kg. All samples were below the cleanup goal of 6.6 mg/kg for pyrene.

Other PAHs were detected in one sample (DCR-VER-46) at an estimated concentration of 0.012 mg/kg. The remaining sample was non-detect for other PAHs at a detection limit of 0.3 mg/kg. All samples were below the cleanup goal of 0.3 mg/kg for other PAHs.

3.3.9 Sampling Day September 27, 1995

After removal of material in grid 1 of Area 1, a field screen sample was collected for analysis.

The following sample was collected:

<u>Area</u>	<u>Grid Number</u>	<u>Sample Number</u>	<u>Remarks</u>
Area 1	1	DCR-VER-01	PCB/VOC screen

The field screening results are shown in Table 3-1. The sample was field screened for PCBs and total organic vapors.

PCBs

This sample (DCR-VER-01) did not contain greater than 1 mg/kg total PCBs according to the PCB immunoassay test procedure.

VOCs

This sample (DCR-VER-01) did not contain greater than 5 ppm total organic vapors according to the jar headspace analysis.

3.3.10 Sampling Day October 12, 1995

Additional excavation was required north of Area 2 due to the discovery of additional waste material. When the excavation was completed, samples were collected for field screen and laboratory analysis.

The following samples were collected:

<u>Area</u>	<u>Grid Number</u>	<u>Sample Number</u>	<u>Remarks</u>
Area 2	48	DCR-VER-71	Cleanup verification
		MW-546-09	Rinsate blank
	49	DCR-VER-72	Cleanup verification
	---	DCR-VER-73	PCB/VOC screen
		DCR-VER-74	PCB/VOC screen
		DCR-VER-75	PCB/VOC screen
		DCR-VER-76	PCB/VOC screen

The field screening results are shown in Table 3-1. All samples were field screened for PCBs and total organic vapors.

The laboratory results are shown in Table 3-3. In addition to the cleanup verification samples sent to the laboratory, a rinsate blank was also sent to the laboratory to be analyzed for PCBs, PAHs and VOCs.

PCBs

None of the samples contained greater than 1 mg/kg total PCBs according to the PCB immunoassay test procedure. Both of the cleanup verification samples were sent to the laboratory to confirm the field screen results.

The laboratory results showed that PCBs were non-detect in both samples at a detection limit of 0.032 mg/kg. Both samples were below the cleanup goal of 1 mg/kg for total PCBs.

PAHs

Phenanthrene was detected in one sample (DCR-VER-72) at a concentration of 0.81 mg/kg. The remaining sample was non-detect for phenanthrene at a detection limit of 0.3 mg/kg. Both samples were below the cleanup goal of 2.2 mg/kg for phenanthrene.

Pyrene was detected in one sample (DCR-VER-72) at a concentration of 0.88 mg/kg. The remaining sample was non-detect for pyrene at a detection limit of 0.3 mg/kg. All samples were below the cleanup goal of 6.6 mg/kg for pyrene.

Other PAHs were detected in both samples with an estimated concentration range of 0.015 mg/kg to 0.92 mg/kg. Sample DCR-VER-72 (0.92 mg/kg) was above the cleanup goal of 0.3 mg/kg for other PAHs.

VOCs

None of the samples contained greater than 5 ppm total organic vapors according to the jar headspace analysis. All of the cleanup verification samples were sent to the laboratory to confirm the field screen results.

1,1,1 Trichloroethane and benzene were non-detect in both samples at a detection limit of 0.011 mg/kg. All samples were below the cleanup goal of 0.76 mg/kg for 1,1,1, trichloroethane and 0.04 mg/kg for benzene.

Trichloroethene was detected in one sample (DCR-VER-71) at an estimated concentration of 0.001 mg/kg. The remaining sample was non-detect for trichloroethene at a detection limit of 0.011 mg/kg. All samples were below the cleanup goal of 0.13 mg/kg for trichloroethene.

Tetrachloroethene was detected in one sample (DCR-VER-71) at an estimated concentration of 0.002 mg/kg. The remaining sample was non-detect for tetrachloroethene at a detection limit of 0.011 mg/kg. All samples were below the cleanup goal of 0.02 mg/kg for tetrachloroethene.

Toluene was detected in one sample (DCR-VER-71) at an estimated concentration of 0.004 mg/kg. The remaining sample was non-detect for toluene at a detection limit of 0.011 mg/kg. All samples were below the cleanup goal of 0.15 mg/kg for toluene.

Total xylene was detected in one sample (DCR-VER-71) at an estimated concentration of 0.002 mg/kg. The remaining sample was non-detect for total xylene at a detection limit of 0.011 mg/kg. All samples were below the cleanup goal of 0.12 mg/kg for total xylene.

3.4 Quality Control

Quality control analytical data associated with the *Cleanup Verification Sampling and Analysis Report for the Dennison Cross Road Site* is summarized in this section. All samples were analyzed by RECRA Environmental Inc., located in Amherst, New York. New York ASP CLP was used for all analyses, where applicable. The following quality control data was reviewed:

- Laboratory Method Blanks
- Matrix Spike/Matrix Spike Duplicate
- Blank Spike/Blank Spike Duplicate
- Laboratory Duplicates
- Sample Holding Time Data

Project-generated quality control data was also reviewed. This data included:

- Field Duplicate Samples
- Rinsate Blank Samples
- Field Blank Samples

All applicable quality control data were evaluated on a per analysis basis and are summarized below by analytical parameter. Holding times, field duplicate, field blank, and rinsate blank data are summarized in the validation reports in Appendix C.

PCBs

All associated PCB analytical data submitted in accordance with the ASP CLP protocols was reviewed and validated. It should be noted that there were numerous data usability issues associated with the PCB analyses requiring the sample results to be qualified as estimated.

Most of the PCB data was qualified due to unacceptable surrogate spike recovery data and/or variable instrument response. Low blank spike recovery data was also reported. It should be

noted that the laboratory did not meet the requested reporting limits initially. The sample extracts were re-concentrated from 10 mL to 1 mL and re-analyzed to meet the reporting limit requirements. Method detection limit data supporting the revised reporting limits was requested and received from the laboratory. It is possible that the generally poor surrogate recovery performance could be attributed to this method modification.

The reported positive Aroclor 1260 results for samples DCR-VER-24, 26, 28, 29, 31, 32, 34 and 36 are considered non-detected values and the reporting limit has been raised to the contract required quantitation limit (CRQL) due to blank contamination.

Aroclor 1248 data reported for sample DCR-VER-37 was rejected due to poor GC dual column precision. Since the magnitude of the effect Gradient is commenting on is questionable and the results are less than the cleanup goals for PCBs, this data will be considered usable for statistical purposes.

The data validator found that all laboratory samples were received by the laboratory within the VTSR limit of 48 hours and none exceeded the laboratory holding time of 5 days from VTSR for extraction and 40 days for PCB analysis.

The field duplicate pairs were DCR-VER-03 and DCR-VER-200, DCR-VER-18 and DCR-VER-201, and DCR-VER-28 and DCR-VER-202. The typical procedure is that the laboratory QA/QC data would be evaluated in detail if the relative percent difference (RPD) was greater than 50 percent. The field duplicate data was reviewed and considered acceptable.

PCBs were not detected in the rinsate blank samples with the exception of MW-546-01, MW-546-02, and MW-546-04 which were reported with a PCB concentration range of 0.007 μ g/l to 0.17 μ g/l. No formal action is recommended except to note the possibility of low level PCB cross contamination for the soil samples.

PCBs were not detected in any of the water field blank samples. The field blank data was considered acceptable.

In consideration of the PCB analytical data reviewed and validated, the usability of all PCB sample data is qualified in accordance with the recommendations and qualifications presented above. See the validation reports in Appendix C.

PAHs

All associated semivolatile organics analytical data submitted in accordance with the ASP CLP protocols was reviewed and validated.

The analytical data reported for selected target compounds for several PAH analyses was qualified as estimated due to variable instrument performance. Several estimated, low level PAH hits were considered not detected and the detection limit was raised to the CRQL.

It should be noted that the laboratory was requested to report quantitation limits of 300 ug/kg, which was lower than the CRQL. Method detection limit data supporting the revised reporting limits was requested and received from the laboratory.

PAH data reported for samples DCR-VER-02 and DCR-VER-13 was rejected due to low internal standard response. Since the magnitude of the effect Gradient is commenting on is questionable and the results are all considerably less than the cleanup goal for PAHs, this data will be considered usable for statistical purposes.

The data validator found that all laboratory samples were received by the laboratory within the VTSR limit of 48 hours and none exceeded the laboratory holding time of 5 days from VTSR for extraction and 40 days for PAH analysis.

The field duplicate pairs were DCR-VER-03 and DCR-VER-200, DCR-VER-18 and DCR-VER-201, and DCR-VER-28 and DCR-VER-202. The typical procedure is that the laboratory QA/QC data would be evaluated in detail if the RPD was greater than 50 percent. The field duplicate data was reviewed and considered acceptable.

PAHs were not detected in any of the rinsate blank samples. No cross contamination occurred.

PAHs were not detected in any of the water field blank samples. The field blank data was considered acceptable.

In consideration of the PAH analytical data reviewed and validated, the usability of all PAH sample data is qualified in accordance with the recommendations and qualifications presented above. See the validation reports in Appendix C.

VOCs

All associated VOC analytical data submitted in accordance with the ASP CLP protocols was reviewed and validated.

The analytical data reported for selected VOC target compounds for several VOC analyses was qualified as estimated due to variable instrument performance. Matrix spike/matrix spike (MS/MSD) recovery data was also reported as being outside of the acceptable recovery criteria.

It should be noted that 1,2 dichloroethene was reported as not detected in sample DCR-VER- 02 and toluene was reported as not detected in sample DCR-VER-20. These reported results were changed to positive values due to a response factor calculation error.

Several estimated, low level VOC hits were considered not detected and the detection limit was raised to the CRQL. Also, the reported methylene chloride data for several samples was considered not detected due to blank contamination

The data validator found that all laboratory samples were received by the laboratory within the VTSR limit of 48 hours and none exceeded the laboratory holding time of 7 days from VTSR for VOC analysis.

The field duplicate pairs were DCR-VER-03 and DCR-VER-200, DCR-VER-18 and DCR-VER-201, and DCR-VER-28 and DCR-VER-202. The typical procedure is that the laboratory QA/QC data would be evaluated in detail if the RPD was greater than 50 percent. The field duplicate data was reviewed and considered acceptable.

VOCs were not detected in any of the rinsate blank samples. No cross contamination occurred.

VOCs were not detected in any of the water field blanks. The field blank data is considered acceptable.

In consideration of the VOC analytical data reviewed and validated, the usability of all VOC sample data is qualified in accordance with the recommendations and qualifications presented above. See the validation reports in Appendix C.

4

Section
Four

Section 4

Statistical Analysis

The cleanup verification work at the DCR resulted in the generation of two data sets. The first data set includes the immunoassay and jar headspace results. This data set is used to provide results in a timely manner so that field decisions can be made with regard to further construction and cleanup verification sampling. The second data set includes the laboratory results. This data set is used to confirm the field screen results and provide data on the cleanup verification samples that will be used to statistically determine whether the remediated area has met the ROD specified cleanup goals for the DCR.

4.1 Field Screening Summary

Immunoassay testing was performed on 49 cleanup verification samples (DCR-VER-01 through DCR-VER-47, DCR-VER-71 and DCR-VER-72) and three duplicates (DCR-VER-200 through DCR-VER-202) as required by the work plan. Three contingency samples (DCR-VER-48 through DCR-VER-50) and ten PCB/VOC screen samples (DCR-VER-51 through DCR-VER-56 and DCR-VER-73 through DCR-VER-76) were analyzed at the NYSDEC's request. Thirteen of these samples (DCR-VER-04, 05, 07, 08, 09, 13, 14, 16, 17 and 51 through 54) exceeded 1 mg/kg total PCBs according to the immunoassay test procedure. Additional excavation, sampling and testing was performed until all areas contained less than 1 mg/kg PCBs according to the immunoassay test procedure. The immunoassay results are given in Table 3-1. Appendix A provides a summary of the field screen results.

Jar headspace testing was performed on 29 cleanup verification samples (DCR-VER-01 through DCR-VER-27, DCR-VER-71 and DCR-VER-72) and two duplicates (DCR-VER-200 and DCR-VER-201) as required by the work plan. Three contingency samples (DCR-VER-48 through DCR-VER-50) and eight PCB/VOC screen samples (DCR-VER-51 through DCR-VER-54 and DCR-VER-73 through DCR-VER-76) were analyzed at the NYSDEC's request. Nine of these samples (DCR-VER-02, 04, 05, 07, 18, 21, 22, 24 and 27) exceeded 5 ppm total organic vapors according to the jar headspace test procedure. Additional excavation was performed in grids 2 and 5 only, since subsequent laboratory analysis showed that all remaining samples contained concentrations below cleanup goals for VOCs. The jar headspace results are given in Table 3-1. Appendix A provides a summary of the field screen results.

4.2 Laboratory Summary

Laboratory analysis was performed on 41 cleanup verification samples (DCR-VER-02, 03, 04, 06, 07, 12, 13, 14, 17 through 47 and DCR-VER-71 and 72) and 3 duplicates (DCR-VER-200 through DCR-VER-202) as required by the work plan. Three contingency samples (DCR-VER-48 through DCR-VER-50) were analyzed at the NYSDEC's request. All samples were

laboratory analyzed for PCBs and PAHs. Samples from Area 1 and 2 (DCR-VER-02, 03, 04, 06, 07, 12, 13, 14, DCR-VER-17 through DCR-VER-27, DCR-VER-48 through DCR-VER-50 and DCR-VER-71 and 72) were also analyzed for VOCs. All samples contained either non-detect concentrations or concentrations below cleanup standards except DCR-VER-02 (2.9 mg/kg trichloroethene), DCR-VER-04 (2.87 mg/kg total PCBs), DCR-VER-07 (3.4 mg/kg total PCBs), DCR-VER-17 (3.4 mg/kg total PCBs), DCR-VER-23 (0.38 mg/kg other PAHs), and DCR-VER-72 (0.92 mg/kg other PAHs). An immunoassay confirmation sample was also analyzed for PCBs to confirm the field screen results from additional sampling and testing in Area 1. This sample contained a non-detect concentration of PCBs. Tables 3-2, 3-3 and 3-4 report the concentrations for all constituents. Appendix B provides copies of the laboratory reports.

4.3 Statistical Analysis of Cleanup Verification Data

The statistical method to be used when evaluating the laboratory results from the DCR cleanup verification sampling, with respect to the soil cleanup goals, was given in the *Soil Cleanup Verification Plan for the Dennison Cross Road Site* (CDM, Revised October 1995).

The statistical analysis will be performed on the cleanup verification samples that were collected as required by the Work Plan. According to the Work Plan, the cleanup verification data was to be fit to a normal distribution or log transformed and then fit to a normal distribution. Based on this fit, the upper 80 percent confidence interval on the mean could be calculated and compared to the soil cleanup goals for PCBs, PAHs and VOCs. It may not be possible to fit the data set to a normal or log-normal distribution particularly if there are too few samples or the data set is censored (a majority of the data is non-detect). In that case, the *Soil Remediation Verification Guide* (CDM, April 1993) states that a non-parametric statistical method must be utilized to determine if the upper 80 percent confidence interval on the median, not the mean, is below the soil cleanup goals.

Area 1

In Area 1, the number of cleanup verification samples was moderate in size (9). One or more of the nine samples contained detectable concentrations of total PCBs, the PAHs, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene and the VOCs, trichloroethene, tetrachloroethene, toluene and total xylene. The remaining cleanup goal parameters were non-detect for all nine cleanup verification samples. Hence, no statistical analysis for those parameters is necessary to show that the cleanup goals were achieved.

The PCB data set was evaluated to determine if its data or log transformed data could be fit to a normal distribution. This evaluation determined that the log transformed data could be fit to the

normal distribution. The parametric analysis found that the upper 80 percent confidence interval was 0.351 mg/kg for total PCBs which is statistically less than the cleanup goal of 1 mg/kg for total PCBs. Appendix D provides copies of the statistical calculations.

The benzo(g,h,i)perylene data set was evaluated to determine if its data or log transformed data could be fit to a normal distribution. This evaluation determined that the log transformed data could be fit to the normal distribution. The parametric analysis found that the upper 80 percent confidence interval was 0.083 mg/kg for benzo(g,h,i)perylene which is statistically less than the cleanup goal of 0.3 mg/kg for other PAHs. Appendix D of this report presents the statistical analysis calculations.

A majority of the remaining detectable PAH data were non-detect concentrations. Hence, a nonparametric statistical method should be used for the PAH analysis. Appendix D of this report presents the statistical analysis calculations.

The PAH data were ranked from lowest to highest concentrations. The upper 80 percent confidence intervals on the median were used to find the sample rank that should have an analytical concentration less than the cleanup standard in order for the remediated area to be considered statistically below cleanup goals.

The results of the nonparametric statistical analysis states that the sixth ranking sample must have a concentration below the cleanup goal. Based on the laboratory results, the sixth ranking samples were found to contain 0.15 mg/kg for benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene and pyrene which are statistically less than the cleanup goals of 2.2 mg/kg for phenanthrene, 6.6 mg/kg for pyrene and 0.3 mg/kg for other PAHs.

The trichloroethene (TCE) data set was evaluated to determine if its data or log transformed data could be fit to a normal distribution. This evaluation determined that neither the untransformed data nor the log transformed data could be fit to the normal distribution. Hence, a nonparametric analysis should be performed for TCE. Appendix D of this report presents the statistical analysis calculations.

A majority of the remaining detectable VOC data were non-detect concentrations. Hence, a nonparametric statistical method should be used for the VOC analysis, as well. Appendix D of this report presents the statistical analysis calculations.

The VOC data were ranked from lowest to highest concentrations. The upper 80 percent confidence intervals on the median were used to find the sample rank that should have an analytical concentration less than the cleanup standard in order for the remediated area to be considered statistically below cleanup goals.

The results of the nonparametric statistical analysis states that the sixth ranking sample must have a concentration below the cleanup goal. Based on the laboratory results, the sixth ranking samples were found to contain 0.016 mg/kg of trichloroethene and 0.006 mg/kg for tetrachloroethene, toluene and total xylene which are statistically less than the cleanup goals of 0.13 mg/kg for trichloroethene, 0.02 mg/kg for tetrachloroethene, 0.15 mg/kg for toluene, and 0.12 mg/kg for total xylene.

The results of the analysis proved that the PCB, PAH and VOC data sets from Area 1 of the remediated DCR, were statistically below cleanup goals.

Area 2

In Area 2, the number of samples was moderate in size (12). One or more of the twelve samples contained detectable concentrations of total PCBs, the PAHs, acenaphthene, anthracene, dibenzo(a,h)anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chrysene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene and the VOCs, 1,1,1 trichloroethane, trichloroethene and toluene. The remaining cleanup goal parameters were non-detect for all twelve cleanup verification samples. Hence, no statistical analysis for those parameters is necessary to show that the cleanup goals were achieved.

A majority of the PCB, PAH and VOC data were non-detect concentrations. Hence, a nonparametric statistical method should be used for the PCB, PAH and VOC analysis. Appendix D of this report presents the statistical analysis calculations.

The PCB, PAH and VOC data were ranked from lowest to highest concentrations. The upper 80 percent confidence intervals on the median were used to find the sample rank that should have an analytical concentration less than the cleanup standard in order for the remediated area to be considered statistically below cleanup goals.

The results of the nonparametric statistical analysis states that the eighth ranking sample must have a concentration below the cleanup goal. Based on the laboratory results, the eighth ranking samples were found to contain 0.019 mg/kg of total PCBs, 0.15 mg/kg of phenanthrene, pyrene and other PAHs and 0.006 mg/kg of 1,1,1 trichloroethane, trichloroethene and toluene which are statistically less than the cleanup goals of 1 mg/kg for total PCBs, 2.2 mg/kg for phenanthrene, 6.6 mg/kg for pyrene, 0.3 mg/kg for other PAHs, 0.76 mg/kg for 1,1,1 trichloroethane, 0.13 mg/kg for trichloroethene, and 0.15 mg/kg for toluene.

The results of the analysis proved that the PCB, PAH and VOC data sets from Area 2 of the remediated DCR, were statistically below cleanup goals.

Southern Swale

In the southern swale, the number of samples was moderate in size (20). One or more of the twenty samples contained detectable concentrations of total PCBs and the PAH benzo(a)pyrene. The remaining cleanup goal parameters were non-detect for all twenty cleanup verification samples. Hence, no statistical analysis for those parameters is necessary to show that the cleanup goals were achieved.

The PCB data set was evaluated to determine if its data or log transformed data could be fit to a normal distribution. This evaluation determined that the log transformed data could be fit to the normal distribution. The parametric analysis found that the upper 80 percent confidence interval was 0.014 mg/kg for total PCBs which is statistically less than the cleanup goal of 1 mg/kg for total PCBs. Appendix D of this report presents the statistical analysis calculations.

The benzo(a)pyrene data set was evaluated to determine if its data or log transformed data could be fit to a normal distribution. This evaluation determined that neither the untransformed data nor the log transformed data could be fit to the normal distribution. Hence, a nonparametric analysis should be performed for benzo(a)pyrene. Appendix D of this report presents the statistical analysis calculations.

The benzo(a)pyrene data were ranked from lowest to highest concentrations. The upper 80 percent confidence interval on the median was used to find the sample rank that should have an analytical concentration less than the cleanup standard in order for the remediated area to be considered statistically below cleanup goals.

The results of the nonparametric statistical analysis states that the twelfth ranking sample must have a concentration below the cleanup goal. Based on the laboratory results, the twelfth ranking sample was found to contain 0.012 mg/kg of benzo(a)pyrene which is statistically less than the cleanup goal of 0.3 mg/kg for benzo(a)pyrene.

The results of the analysis proved that the PCB and PAH data sets from the southern swale of the remediated DCR, were statistically below cleanup goals.

5

Section Five

Section 5

Conclusions

The cleanup verification sampling was performed in accordance with the approved cleanup verification work plan with exceptions as noted in Section 2. Immunoassay, jar headspace, and laboratory samples were collected and analyzed during remediation of the DCR site.

Area 1

In Area 1, immunoassay samples were collected from seventeen sampling grids, two contingency locations and two additional field screen locations. Samples DCR-VER-04, 05, 07, 08, 09, 13, 14, 16, 17, 51 and 52 showed a result of greater than 1 mg/kg total PCBs. Subsequent laboratory analysis showed that two of the samples (DCR-VER-13 and DCR-VER-14) contained less than 1 mg/kg total PCBs. In the remaining areas additional excavation was performed until the excavation surface tested less than 1 mg/kg total PCBs.

Jar headspace samples were collected from seventeen sampling grids, two contingency locations and two additional field screen locations. Samples DCR-VER-02, 04, 05 and 07 showed a result of greater than 5 ppm total organic vapors. Subsequent laboratory analysis showed that two of the samples (DCR-VER-04 and 07) contained VOC concentrations below the cleanup goals. Additional excavation was performed in grids 2 and 5.

The cleanup verification samples were collected and analyzed for PCBs, PAHs and VOCs. Area 1 contained detectable concentrations of PCBs, the PAHs, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene and the VOCs, trichloroethene, tetrachloroethene and total xylene. The upper 80 percent confidence limits were found to contain 0.351 mg/kg of total PCBs, 0.083 mg/kg of benzo(g,h,i)perylene, 0.15 mg/kg of the remaining PAH parameters, 0.016 mg/kg of trichloroethene, and 0.006 mg/kg of tetrachloroethene, toluene and total xylene. The cleanup goals are 1 mg/kg for total PCBs, 0.3 for benzo(g,h,i)perylene and other PAHs, 0.02 mg/kg for trichloroethene, 0.15 mg/kg for toluene, and 0.12 mg/kg for total xylene. The results of the analysis proved that the PCB, PAH and VOC data sets were statistically below cleanup goals.

Area 2

In Area 2, immunoassay samples were collected from twelve sampling grids, one contingency location and six additional field screen locations. Samples DCR-VER-53 and 54 showed a result of greater than 1 mg/kg PCBs. Additional excavation was performed in these areas until the excavation surface tested less than 1 mg/kg total PCBs.

Jar headspace samples were collected from twelve sampling grids, one contingency location and six field screen locations. Samples DCR-VER-18, 21, 22, 24 and 27 showed a result of greater than 5 ppm total organic vapors. Subsequent laboratory analysis showed that all five samples contained VOC concentrations below cleanup goals.

The cleanup verification samples were collected and analyzed for PCBs, PAHs and VOCs. Area 2 contained detectable concentrations of total PCBs, the PAHs, acenaphthene, anthracene, dibenzo(a,h)anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chrysene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene and the VOCs, 1,1,1 trichloroethane, trichloroethene and toluene. The upper 80 percent confidence limits were found to contain 0.019 mg/kg of total PCBs, 0.15 mg/kg of phenanthrene, pyrene and other PAHs, and 0.006 mg/kg of 1,1,1 trichloroethane, trichloroethene and toluene. The cleanup goals are 1 mg/kg for total PCBs, 2.2 mg/kg for phenanthrene, 6.6 mg/kg for pyrene, 0.3 mg/kg for other PAHs, 0.76 mg/kg for 1,1,1 trichloroethane, 0.13 mg/kg for trichloroethene, and 0.15 mg/kg for toluene. The results of the analysis proved that the PCB, PAH and VOC data sets were statistically below cleanup goals.

Southern Swale

In the southern swale, immunoassay samples were collected from 20 sampling grids and two additional field screen locations. All of the samples showed a result of less than 1 mg/kg PCBs.

The cleanup verification samples were collected and analyzed for PCBs and PAHs. The southern swale contained detectable concentrations of total PCBs and the PAH benzo(a)pyrene. The upper 80 percent confidence limits were found to contain 0.014 mg/kg of total PCBs and 0.012 mg/kg of benzo(a)pyrene. The cleanup goals are 1 mg/kg for total PCBs and 0.3 mg/kg for other PAHs. The results of the analysis proved that the PCB and PAH data sets were statistically below cleanup goals.

6

Section Six

Section 6 References

CDM. 1993. Soil Remediation Verification Guide

CDM. 1995. Soil Cleanup Verification Plan for the Dennison Cross Road Site

CDM. 1994. Quality Assurance Project Plan

Conover, W.J. 1980. Practical Non-Parametric Statistics. 2nd Edition

A

Appendix
A

Appendix A

Summary of Field Screening Results

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT**

Table A-1

Field Screening Results of Cleanup Verification Testing ⁽¹⁾

Sample Number	Date Sampled	Sampled By	Sample Location	Date Tested	Tested By	PCB Immunoassay Result ⁽²⁾	VOC Jar Headspace Result ⁽³⁾
DCR-VER-01	9/27/95	Julie Schreiber	Grid 1	9/27/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-02	9/1/95	Julie Schreiber	Grid 2	9/2/95	Julie Schreiber	< 1 ppm	432 ppm
DCR-VER-03	9/1/95	Julie Schreiber	Grid 3	9/2/95	Julie Schreiber	< 1 ppm	2 ppm
DCR-VER-04	9/1/95	Julie Schreiber	Grid 4	9/2/95	Julie Schreiber	> 1 ppm	16 ppm
DCR-VER-04-02	9/21/95	Julie Schreiber	Grid 4	9/21/95	Julie Schreiber	> 1 ppm	---
DCR-VER-05	9/1/95	Julie Schreiber	Grid 5	9/2/95	Julie Schreiber	> 1 ppm	13 ppm
DCR-VER-05-02	9/21/95	Julie Schreiber	Grid 5	9/21/95	Julie Schreiber	> 1 ppm	---
DCR-VER-05-03	9/25/95	Julie Schreiber	Grid 5	9/25/95	Julie Schreiber	< 1 ppm	---
DCR-VER-06	9/1/95	Julie Schreiber	Grid 6	9/2/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-07	9/1/95	Julie Schreiber	Grid 7	9/2/95	Julie Schreiber	> 1 ppm	123 ppm
DCR-VER-07-02	9/21/95	Julie Schreiber	Grid 7	9/21/95	Julie Schreiber	> 1 ppm	---
DCR-VER-07-03	9/25/95	Julie Schreiber	Grid 7	9/25/95	Julie Schreiber	< 1 ppm	---
DCR-VER-08	9/1/95	Julie Schreiber	Grid 8	9/2/95	Julie Schreiber	> 1 ppm	2 ppm
DCR-VER-08-02	9/21/95	Julie Schreiber	Grid 8	9/21/95	Julie Schreiber	< 1 ppm	---
DCR-VER-09	9/1/95	Julie Schreiber	Grid 9	9/2/95	Julie Schreiber	> 1 ppm	ND
DCR-VER-09-02	9/21/95	Julie Schreiber	Grid 9	9/21/95	Julie Schreiber	> 1 ppm	---
DCR-VER-09-03	9/25/95	Julie Schreiber	Grid 9	9/25/95	Julie Schreiber	< 1 ppm	---
DCR-VER-10	9/1/95	Julie Schreiber	Grid 10	9/2/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-11	9/1/95	Julie Schreiber	Grid 11	9/2/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-12	9/1/95	Julie Schreiber	Grid 12	9/2/95	Julie Schreiber	< 1 ppm	2 ppm
DCR-VER-13	9/1/95	Julie Schreiber	Grid 13	9/2/95	Julie Schreiber	> 1 ppm	2 ppm
DCR-VER-14	9/1/95	Julie Schreiber	Grid 14	9/2/95	Julie Schreiber	> 1 ppm	ND
DCR-VER-15	9/1/95	Julie Schreiber	Grid 15	9/2/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-16	9/1/95	Julie Schreiber	Grid 16	9/2/95	Julie Schreiber	> 1 ppm	ND
DCR-VER-16-02	9/25/95	Julie Schreiber	Grid 16	9/25/95	Julie Schreiber	< 1 ppm	---
DCR-VER-17	9/1/95	Julie Schreiber	Grid 17	9/2/95	Julie Schreiber	> 1 ppm	ND
DCR-VER-17-02	9/21/95	Julie Schreiber	Grid 17	9/21/95	Julie Schreiber	< 1 ppm	---
DCR-VER-18	9/1/95	Christina Osvoldik	Grid 18	9/2/95	Julie Schreiber	< 1 ppm	5.2 ppm
DCR-VER-19	9/1/95	Christina Osvoldik	Grid 19	9/2/95	Julie Schreiber	< 1 ppm	2 ppm
DCR-VER-20	9/1/95	Christina Osvoldik	Grid 20	9/2/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-21	9/1/95	Christina Osvoldik	Grid 21	9/2/95	Julie Schreiber	< 1 ppm	45 ppm
DCR-VER-22	9/1/95	Christina Osvoldik	Grid 22	9/4/95	Julie Schreiber	< 1 ppm	6 ppm
DCR-VER-23	9/1/95	Christina Osvoldik	Grid 23	9/4/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-24	9/1/95	Christina Osvoldik	Grid 24	9/4/95	Julie Schreiber	< 1 ppm	32 ppm
DCR-VER-25	9/1/95	Christina Osvoldik	Grid 25	9/4/95	Julie Schreiber	< 1 ppm	2 ppm
DCR-VER-26	9/1/95	Christina Osvoldik	Grid 26	9/4/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-27	9/1/95	Christina Osvoldik	Grid 27	9/4/95	Julie Schreiber	< 1 ppm	16 ppm
DCR-VER-28	9/1/95	Dave Perry	Grid 28	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-29	9/1/95	Dave Perry	Grid 29	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-30	9/1/95	Dave Perry	Grid 30	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-31	9/1/95	Dave Perry	Grid 31	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-32	9/1/95	Dave Perry	Grid 32	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-33	9/1/95	Dave Perry	Grid 33	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾

Continued on next page

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT**

Table A-1 (Continued)

Field Screening Results of Cleanup Verification Testing ⁽¹⁾

Sample Number	Date Sampled	Sampled By	Sample Location	Date Tested	Tested By	PCB Immunoassay Result ⁽²⁾	VOC Jar Headspace Result ⁽³⁾
DCR-VER-34	9/1/95	Dave Perry	Grid 34	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-35	9/1/95	Dave Perry	Grid 35	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-36	9/1/95	Dave Perry	Grid 36	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-37	9/1/95	Dave Perry	Grid 37	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-38	9/1/95	Dave Perry	Grid 38	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-39	9/1/95	Dave Perry	Grid 39	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-40	9/1/95	Dave Perry	Grid 40	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-41	9/1/95	Dave Perry	Grid 41	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-42	9/1/95	Dave Perry	Grid 42	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-43	9/1/95	Dave Perry	Grid 43	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-44	9/1/95	Dave Perry	Grid 44	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-45	9/1/95	Dave Perry	Grid 45	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-46	9/26/95	Christina Osvoldik	Grid 46	9/26/95	Christina Osvoldik	< 1 ppm	⁽⁴⁾
DCR-VER-47	9/26/95	Christina Osvoldik	Grid 47	9/26/95	Christina Osvoldik	< 1 ppm	⁽⁴⁾
DCR-VER-48 ⁽⁵⁾	9/1/95	Julie Schreiber	West Sideslope-Area 1	9/4/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-49 ⁽⁵⁾	9/1/95	Julie Schreiber	West Sideslope-Area 1	9/7/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-50 ⁽⁵⁾	9/1/95	Christina Osvoldik	West Sideslope-Area2	9/4/95	Julie Schreiber	< 1 ppm	2 ppm
DCR-VER-51 ⁽⁶⁾	9/1/95	Julie Schreiber	Decon-Area 1	9/7/95	Julie Schreiber	> 1 ppm	2 ppm
DCR-VER-52 ⁽⁶⁾	9/1/95	Julie Schreiber	Decon-Area 1	9/7/95	Julie Schreiber	> 1 ppm	2 ppm
DCR-VER-53 ⁽⁶⁾	9/1/95	Christina Osvoldik	Loading Ramp-Area2	9/4/95	Julie Schreiber	> 1 ppm	ND
DCR-VER-54 ⁽⁶⁾	9/1/95	Christina Osvoldik	Loading Ramp-Area2	9/4/95	Julie Schreiber	> 1 ppm	ND
DCR-VER-55 ⁽⁶⁾	9/1/95	Dave Perry	Platform-South Swale	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-56 ⁽⁶⁾	9/1/95	Dave Perry	Platform-South Swale	9/4/95	Julie Schreiber	< 1 ppm	⁽⁴⁾
DCR-VER-57 ⁽⁷⁾	9/14/95	Julie Schreiber	Loading Ramp-Area2	9/14/95	Julie Schreiber	> 1 ppm	---
DCR-VER-58 ⁽⁷⁾	9/14/95	Julie Schreiber	Loading Ramp-Area2	9/14/95	Julie Schreiber	< 1 ppm	---
DCR-VER-59 ⁽⁷⁾	9/18/95	Julie Schreiber	Loading Ramp-Area2	9/18/95	Julie Schreiber	< 1 ppm	---
DCR-VER-60 ⁽⁷⁾	9/19/95	Christina Osvoldik	Decon-Area 1	9/19/95	Christina Osvoldik	> 1 ppm	---
DCR-VER-61 ⁽⁷⁾	9/19/95	Christina Osvoldik	Decon-Area 1	9/19/95	Christina Osvoldik	> 1 ppm	---
DCR-VER-62 ⁽⁷⁾	9/19/95	Christina Osvoldik	Decon-Area 1	9/19/95	Christina Osvoldik	> 1 ppm	---
DCR-VER-63 ⁽⁷⁾	9/19/95	Christina Osvoldik	Decon-Area 1	9/19/95	Christina Osvoldik	< 1 ppm	---
DCR-VER-64 ⁽⁷⁾	9/20/95	Julie Schreiber	Decon-Area 1	9/20/95	Julie Schreiber	> 1 ppm	---
DCR-VER-65 ⁽⁷⁾	9/20/95	Julie Schreiber	Decon-Area 1	9/20/95	Julie Schreiber	> 1 ppm	---
DCR-VER-66 ⁽⁷⁾	9/20/95	Julie Schreiber	Decon-Area 1	9/20/95	Julie Schreiber	< 1 ppm	---
DCR-VER-67 ⁽⁷⁾	9/20/95	Julie Schreiber	Decon-Area 1	9/20/95	Julie Schreiber	> 1 ppm	---
DCR-VER-68 ⁽⁷⁾	9/21/95	Julie Schreiber	Decon-Area 1	9/21/95	Julie Schreiber	< 1 ppm	---
DCR-VER-69 ⁽⁷⁾	9/21/95	Julie Schreiber	Decon-Area 1	9/21/95	Julie Schreiber	< 1 ppm	---
DCR-VER-70 ⁽⁷⁾	9/21/95	Julie Schreiber	Decon-Area 1	9/21/95	Julie Schreiber	< 1 ppm	---
DCR-VER-71	10/12/95	Julie Schreiber	Grid 48	10/12/95	Julie Schreiber	< 1 ppm	3 ppm
DCR-VER-72	10/12/95	Julie Schreiber	Grid 49	10/12/95	Julie Schreiber	< 1 ppm	1 ppm
DCR-VER-73 ⁽⁶⁾	10/12/95	Julie Schreiber	North Sideslope - Area2	10/12/95	Julie Schreiber	< 1 ppm	1 ppm

Continued on next page

**ALCOA REMEDIATION PROJECTS ORGANIZATION
DENNISON CROSS ROAD SITE
CLEANUP VERIFICATION SAMPLING AND ANALYSIS REPORT**

Table A-1 (Continued)

Field Screening Results of Cleanup Verification Testing ⁽¹⁾

Sample Number	Date Sampled	Sampled By	Sample Location	Date Tested	Tested By	PCB Immunoassay Result ⁽²⁾	VOC Jar Headspace Result ⁽³⁾
DCR-VER-74 ⁽⁶⁾	10/12/95	Julie Schreiber	East Sideslope - Area2	10/12/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-75 ⁽⁶⁾	10/12/95	Julie Schreiber	East Sideslope - Area2	10/12/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-76 ⁽⁶⁾	10/12/95	Julie Schreiber	West Sideslope - Area2	10/12/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-200 ⁽⁸⁾	9/1/95	Julie Schreiber	Grid 3	9/7/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-201 ⁽⁹⁾	9/1/95	Christina Osvoldik	Grid 18	9/7/95	Julie Schreiber	< 1 ppm	ND
DCR-VER-202 ⁽¹⁰⁾	9/1/95	Dave Perry	Grid 28	9/7/95	Julie Schreiber	< 1 ppm	⁽⁴⁾

Notes:

- (1) The samples are initially field screened by immunoassay (PCB) and jar headspace (VOC) procedures. Samples that contain < 1 ppm PCBs and < 5 ppm total organic vapors according to the field screening procedure, will be sent to the laboratory for analysis.
 - (2) The immunoassay test kit used for the PCB analysis is the EnSys Samplepro PCB Test Kit.
 - (3) The VOC jar headspace analysis is performed in accordance with the QAPP.
 - (4) The cleanup verification plan does not require a VOC jar headspace or laboratory analysis for samples in the southern swale.
 - (5) Additional laboratory sample requested by the onsite NYSDEC representative.
 - (6) Additional field screening sample requested by the onsite NYSDEC representative.
 - (7) Additional PCB field screening sample collected after additional excavation in Areas 1 and 2.
 - (8) Field duplicate of DCR-VER-03.
 - (9) Field duplicate of DCR-VER-18.
 - (10) Field duplicate of DCR-VER-28.
- ND-Non-detect

B

Appendix B

Appendix B

Analytical Data Performed by RECRA Environmental Inc.

Lab Reports Dated:

September 29, 1995

September 29, 1995

September 29, 1995

October 2, 1995

October 2, 1995

October 26, 1995

November 11, 1995

Sample ID Nos.:

Lab Report Dated:

September 29, 1995

DCR-VER-02
DCR-VER-03
DCR-VER-04
DCR-VER-06
DCR-VER-07
DCR-VER-12
DCR-VER-13
DCR-VER-14
DCR-VER-17
DCR-VER-18
DCR-VER-19
DCR-VER-20
DCR-VER-21
DCR-VER-22
DCR-VER-45
DCR-VER-200
DCR-VER-202
MW-546-01
MW-546-04
MW-546-05



**RECRA
ENVIRONMENTAL
INC.**

Chemical and Environmental Analysis Services

Q5DOR 100 FL

September 29, 1995

Mr. Joseph Mihm
Camp, Dresser and McKee / Alcoa
Park Avenue East, Building 65
Massena, NY 13665

RE: Analytical Results

Dear Mr. Mihm:

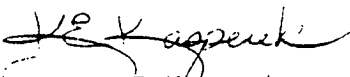
Please find enclosed the data package concerning the analyses of samples recently submitted by your firm. The pertinent information regarding these analyses is listed below:

Quote No.: NY95-438
REI: 19
SDG #: VER2D
Matrix: Soil & Water
Sample Receipt Date: 09/02/95
Sample Date: 09/01/95

If you have any questions concerning these data, please contact Ms. Deborah A. Carella, Program Manager, at (800) 52R-ECRA and refer to the I.D. number listed below.

Sincerely,

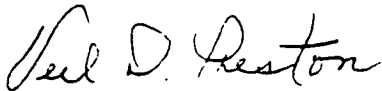
RECRA ENVIRONMENTAL, INC.


Kenneth E. Kasperek
Laboratory Manager

DAC/KEK/dms
Enclosure

cc: Frances Gero (cover letter only)
Aluminum Company of America
Mr. Bernard Kunkle (cover letter only)
Aluminum Company of America
Park Avenue East, BLDG. 65
Massena, NY 13665

Reviewed and approved by/date:

 9/29/95
for Deborah A. Carella, Program Manager

ID #A95-4683
#NY5A5754

Mihm } LTR
Schultz }
Schwab }
Cochran }
Henderson }

SAMPLE DATA SUMMARY PACKAGE



SDG NARRATIVE:

Laboratory: Recra Environmental, Inc.

Laboratory Code: RECNV

Contract No.: NY95-438

SDG No.: VER2D

Sample Identifications: DCR-VER-02
DCR-VER-02 MATRIX SPIKE
DCR-VER-02 MATRIX SPIKE DUPLICATE
DCR-VER-03
DCR-VER-04
DCR-VER-06
DCR-VER-07
DCR-VER-12
DCR-VER-13
DCR-VER-14
DCR-VER-17
DCR-VER-18
DCR-VER-19
DCR-VER-20
DCR-VER-200
DCR-VER-202
DCR-VER-21
DCR-VER-22
DCR-VER-45
MW-546-01
MW-546-04
MW-546-05

METHODOLOGY

Analyses were performed in accordance with 1991 New York State Analytical Services protocol. (Revised 1993)

COMMENTS

Results are reported using standard qualifiers (Q) as defined on the Organic Data Comment Page.

Preliminary results were sent on September 11, 1995 via Airborne to Ms. Julie Schreiber of Camp, Dresser and McKee by Ms. Deborah Carella of Recra Environmental.

Quality Control analysis was performed on a batch basis for water samples.



SEMIVOLATILE DATA

Semivolatile sample and standard areas are listed on the corresponding data system printouts.

Semivolatile data was processed utilizing Finnigan Autoquantitation, Teknivant Datasystem and Recra Environmental's Inc.'s Analytical Information Management Systems (AIMS). All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. False positive compounds are crossed out, initialed and dated in this data package.

Samples SBLK89, DCR-VER-14, DCR-VER-17, DCR-VER-18, DCR-VER-19, DCR-VER-20, DCR-VER-21, DCR-VER-22, DCR-VER-45, DCR-VER-200, DCR-VER-202 and soil MSBLANK were all spiked with 80ng of internal standard.

Samples DCR-VER-02 and DCR-VER-02RE both exhibit the recovery of all six internal standards as below QC limits.

Samples DCR-VER-13 and DCR-VER-13RE both exhibit the recovery of all six internal standards as outside QC limits.

Sample DCR-VER-17 exhibits the recovery of internal standards Chrysene-d12 and Phenanthrene-d10 as above QC limits. However, this is not actually the case since the area of the internal standard in the sample is from 80ng of internal standard, while the area of the standard is from 40ng of internal standard.

PCB DATA

Due to suspected elevated concentrations of Polychlorinated Biphenyls (PCB's), samples DCRVER04, DCRVER07 and DCRVER17. were initially analyzed at a dilution factor of ten (10).

The surrogate recovery of Tetrachloro-m-xylene fell outside QC limits in samples PBLK14, PBLK16, DCRVER03, DCRVER07, DCRVER12, DCRVER13, DCRVER14, DCRVER17, DCRVER18, DCRVER20, DCRVER200, DCRVER21, DCRVER22, DCRVER45, MSB14, MSBD14, MSB16, MW54601, MW54604 and MW54605 on both the DB608 and DB1701 column. The surrogate recovery of Tetrachloro-m-xylene fell outside QC limits in sampleS DCRVER02MSD and DCRVER06 on the DB608 column.

The surrogate recovery of Decachlorobiphenyl fell outside QC limits in samples PBLK14, PBLK16, DCRVER18, DCRVER20, DCRVER21, DCRVER22, DCRVER45, MSB14, MSBD14, MW54601, MW54604 and MW54605 on both the DB608 and DB1701 columns. The surrogate recovery of Decachlorobiphenyl fell outside QC limits in sample DCRVER02MSD on the DB608 column. The surrogate recovery of Decachlorobiphenyl fell outside QC limits in sample DCRVER04 on the DB1701 column.

The Endrin percent breakdown and combined percent breakdown are above QC limits on the DB608 column in: PEM10 analyzed on 8/31/95 at 02:15; PEM11 analyzed on 9/6/95 at 14:08; PEM12 analyzed on 9/7/95 at 04:40; PEM13 analyzed on 9/8/95 at 03:49; PEM14 analyzed on 9/9/95 at 01:37; PEM15 analyzed on 9/10/95 at 01:36; PEM16 analyzed on 9/10/95 at 23:23.



The relative percent difference of Methoxychlor fell outside QC limits on the DB1701 column in: PEM10 analyzed on 8/31/95 at 02:15; PEM11 analyzed on 9/6/95 at 14:08; PEM12 analyzed on 9/7/95 at 04:40; PEM13 analyzed on 9/8/95 at 03:49; PEM14 analyzed on 9/9/95 at 01:37; PEM15 analyzed on 9/10/95 at 01:36; PEM16 analyzed on 9/10/95 at 23:23.

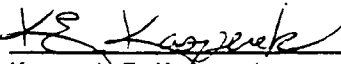
The relative percent difference of Methoxychlor fell outside QC limits on the DB608 column in: INDAM08 analyzed on 8/31/95 at 07:21; INDAM10 analyzed on 9/7/95 at 16:55. The relative percent difference of 4,4'-DDT and Methoxychlor fell outside QC limits on the DB608 column in: INDAM11 analyzed on 9/8/95 at 14:43. The relative percent difference of Endrin, 4,4'-DDT and Methoxychlor fell outside QC limits on the DB608 column in: INDAM12 analyzed on 9/10/95 at 12:28. INDAM13 analyzed on 9/11/95 at 11:01 exhibits the relative percent difference of Endrin, 4,4'-DDT and Methoxychlor as outside QC limits on column DB608.

The relative percent difference of Methoxychlor fell outside QC limits on the DB1701 column in: INDAM10 analyzed on 9/7/95 at 16:55. The relative percent difference of 4,4'-DDT and Methoxychlor fell outside QC limits on the DB608 column in: INDAM11 analyzed on 9/8/95 at 14:43 and INDAM12 analyzed on 9/10/95 at 12:28. INDAM13 analyzed on 9/11/95 at 11:01 exhibits the relative percent difference of Endrin, 4,4'-DDT and Methoxychlor as outside QC limits on column DB608.

The percent recovery of 4,4'-DDT fell outside QC limits for the Pest GPC calibration.

PIBLK22 analyzed on 9/7/95 at 03:57; PEM12 analyzed on 9/7/95 at 04:40; PEM13 analyzed on 9/8/95 at 03:49; PIBLK29 analyzed on 9/10/95 at 22:40 and PEM16 analyzed on 9/10/95 at 23:23 all exhibit the retention time of Decachlorobiphenyl outside QC limits on the DB1701 column.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."


Kenneth E. Kasperek
Laboratory Director

9/29/95
Date

Laboratory Name RECRA ENVIRONMENTAL, INC.

USEPA Defined Organic Data Qualifiers:

- U - Indicates compound was analyzed for but not detected.
- J - Indicates an estimate value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- G - The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
- L - The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.
- T - This flag is used when the analyte is found in the associated TCLP extraction as well as in the sample.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- A - This flag indicates that a TIC is a suspected aldol-condensation product.



ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000006

Client No.

DCR-VER-02

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5468301
 Sample wt/vol: 40.35 (g/mL) G Lab File ID: 23281X.MSO
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 % Moisture: 7.6 decanted: (Y/N) N Date Extracted: 09/05/95
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/10/95
 Injection Volume: 2.00 (uL) Dilution Factor: 1.00
 EPC Cleanup: (Y/N) Y pH: 8.3

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
120-12-7	ANTHRACENE	300	U
153-07-5	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	97	J
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000007

Client No.

DCR-VER-02RE

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468301RI
 Sample wt/vol: 40.48 (g/mL) G Lab File ID: 23305X.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 % Moisture: 7.6 decanted: (Y/N) N Date Extracted: 09/05/95
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/11/95
 Injection Volume: 2.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.3

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9-----	ACENAPHTHENE	300	U
208-96-8-----	ACENAPHTHYLENE	300	U
124-12-7-----	ANTHRACENE	300	U
155-55-3-----	BENZO (A) ANTHRACENE	300	U
205-99-2-----	BENZO (B) FLUORANTHENE	300	U
207-08-9-----	BENZO (K) FLUORANTHENE	300	U
191-24-2-----	BENZO (G, H, I) PERYLENE	97	J
50-32-8-----	BENZO (A) PYRENE	300	U
218-01-9-----	CHRYSENE	300	U
53-70-3-----	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0-----	FLUORANTHENE	300	U
86-73-7-----	FLUORENE	300	U
193-39-5-----	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6-----	2-METHYLNAPHTHALENE	300	U
91-20-3-----	NAPHTHALENE	300	U
85-01-8-----	PHENANTHRENE	300	U
129-00-0-----	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000008

Client No.

DCR-VER-03

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468302

Sample wt/vol: 40.09 (g/mL) G Lab File ID: 23284X.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 7.3 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/10/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

SPC Cleanup: (Y/N) Y pH: 8.6

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
12-7	ANTHRACENE	300	U
5-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	15	J
191-24-2	BENZO (G, H, I) PERYLENE	9	J
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000009

Client No.

DCR-VER-04

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468303

Sample wt/vol: 40.40 (g/mL) G Lab File ID: 23285X.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 8.5 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/10/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.2

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9	ACENAPHTHENE	300		U
208-96-8	ACENAPHTHYLENE	300		U
12-7	ANTHRACENE	300		U
15-3	BENZO (A) ANTHRACENE	300		U
205-99-2	BENZO (B) FLUORANTHENE	300		U
207-08-9	BENZO (K) FLUORANTHENE	300		U
191-24-2	BENZO (G, H, I) PERYLENE	85		J
50-32-8	BENZO (A) PYRENE	300		U
218-01-9	CHRYSENE	300		U
53-70-3	DIBENZO (A, H) ANTHRACENE	300		U
206-44-0	FLUORANTHENE	300		U
86-73-7	FLUORENE	300		U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300		U
91-57-6	2-METHYLNAPHTHALENE	300		U
91-20-3	NAPHTHALENE	300		U
85-01-8	PHENANTHRENE	300		U
129-00-0	PYRENE	300		U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000010

Client No.

DCR-VER-06

Lab Name: Recra Environmental, Contract: MO772732MO
 Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5468304
 Sample wt/vol: 40.03 (g/mL) G Lab File ID: 23306X.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 Moisture: 7.5 decanted: (Y/N) N Date Extracted: 09/05/95
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/11/95
 Injection Volume: 2.00 (uL) Dilution Factor: 1.00
 EPC Cleanup: (Y/N) Y pH: 8.5

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
-12-7	ANTHRACENE	300	U
55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	28	J
50-32-8	BENZO (A) PYRENE	14	J
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000011

Client No.

DCR-VER-07

Lab Name: Recra Environmental Contract: MQ772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468305

Sample wt/vol: 40.08 (g/mL) G Lab File ID: 23307X.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 7.0 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/11/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9-----	ACENAPHTHENE	300	U
208-96-8-----	ACENAPHTHYLENE	300	U
7-12-7-----	ANTHRACENE	300	U
55-3-----	BENZO (A) ANTHRACENE	8	J
205-99-2-----	BENZO (B) FLUORANTHENE	300	U
207-08-9-----	BENZO (K) FLUORANTHENE	300	U
191-24-2-----	BENZO (G, H, I) PERYLENE	42	J
50-32-8-----	BENZO (A) PYRENE	300	U
218-01-9-----	CHRYSENE	19	J
53-70-3-----	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0-----	FLUORANTHENE	300	U
86-73-7-----	FLUORENE	300	U
193-39-5-----	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6-----	2-METHYLNAPHTHALENE	300	U
91-20-3-----	NAPHTHALENE	300	U
85-01-8-----	PHENANTHRENE	300	U
129-00-0-----	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000012

Client No.

DCR-VER-12

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468306

Sample wt/vol: 40.03 (g/mL) G Lab File ID: 23288X.MSO

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 9.0 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/10/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.1

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9-----	ACENAPHTHENE	300	U
208-96-8-----	ACENAPHTHYLENE	300	U
-12-7-----	ANTHRACENE	300	U
5-3-----	BENZO (A) ANTHRACENE	300	U
205-99-2-----	BENZO (B) FLUORANTHENE	300	U
207-08-9-----	BENZO (K) FLUORANTHENE	300	U
191-24-2-----	BENZO (G, H, I) PERYLENE	300	U
50-32-8-----	BENZO (A) PYRENE	300	U
218-01-9-----	CHRYSENE	300	U
53-70-3-----	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0-----	FLUORANTHENE	300	U
86-73-7-----	FLUORENE	300	U
193-39-5-----	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6-----	2-METHYLNAPHTHALENE	300	U
91-20-3-----	NAPHTHALENE	300	U
85-01-8-----	PHENANTHRENE	300	U
129-00-0-----	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000013

Client No.

DCR-VER-13

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468307

Sample wt/vol: 40.48 (g/mL) G Lab File ID: 23289X.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 5.8 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/10/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9	ACENAPHTHENE	300		U
208-96-8	ACENAPHTHYLENE	300		U
125-12-7	ANTHRACENE	300		U
155-3	BENZO (A) ANTHRACENE	300		U
205-99-2	BENZO (B) FLUORANTHENE	300		U
207-08-9	BENZO (K) FLUORANTHENE	300		U
191-24-2	BENZO (G, H, I) PERYLENE	300		U
50-32-8	BENZO (A) PYRENE	300		U
218-01-9	CHRYSENE	300		U
53-70-3	DIBENZO (A, H) ANTHRACENE	300		U
206-44-0	FLUORANTHENE	300		U
86-73-7	FLUORENE	300		U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300		U
91-57-6	2-METHYLNAPHTHALENE	300		U
91-20-3	NAPHTHALENE	300		U
85-01-8	PHENANTHRENE	300		U
129-00-0	PYRENE	300		U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000014

Client No.

DCR-VER-13RE

Lab Name: Recra Environmental Contract: MQ772732MQ

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468307RI

Sample wt/vol: 40.48 (g/mL) G Lab File ID: 23310X.MSO

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 5.8 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/11/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
100-12-7	ANTHRACENE	300	U
15-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000015
 Client No.

DCR-VER-14

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468308

Sample wt/vol: 40.14 (g/mL) G Lab File ID: Z24226.RR

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 6.4 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.5

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9	ACENAPHTHENE		300	U
208-96-8	ACENAPHTHYLENE		300	U
124-12-7	ANTHRACENE		300	U
152-55-3	BENZO (A) ANTHRACENE		300	U
205-99-2	BENZO (B) FLUORANTHENE		300	U
207-08-9	BENZO (K) FLUORANTHENE		300	U
191-24-2	BENZO (G, H, I) PERYLENE		300	U
50-32-8	BENZO (A) PYRENE		300	U
218-01-9	CHRYSENE		300	U
53-70-3	DIBENZO (A, H) ANTHRACENE		300	U
206-44-0	FLUORANTHENE		300	U
86-73-7	FLUORENE		300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE		300	U
91-57-6	2-METHYLNAPHTHALENE		300	U
91-20-3	NAPHTHALENE		300	U
85-01-8	PHENANTHRENE		300	U
129-00-0	PYRENE		300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000016

Client No.

DCR-VER-17

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468309

Sample wt/vol: 40.53 (g/mL) G Lab File ID: Z24227.RR

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 11.1 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9	ACENAPHTHENE		300	U
208-96-8	ACENAPHTHYLENE		300	U
12-7	ANTHRACENE		300	U
55-3	BENZO (A) ANTHRACENE		85	J
205-99-2	BENZO (B) FLUORANTHENE		160	J
207-08-9	BENZO (K) FLUORANTHENE		32	J
191-24-2	BENZO (G, H, I) PERYLENE		43	J
50-32-8	BENZO (A) PYRENE		110	J
218-01-9	CHRYSENE		89	J
53-70-3	DIBENZO (A, H) ANTHRACENE		300	U
206-44-0	FLUORANTHENE		130	J
86-73-7	FLUORENE		300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE		43	J
91-57-6	2-METHYLNAPHTHALENE		300	U
91-20-3	NAPHTHALENE		300	U
85-01-8	PHENANTHRENE		53	J
129-00-0	PYRENE		120	J

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000017

Client No.

DCR-VER-18

Lab Name: Recra Environmental Contract: MQ772732MQ

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468316

Sample wt/vol: 40.33 (g/mL) G Lab File ID: Z24231.RR

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 8.5 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9	ACENAPHTHENE	300		U
208-96-8	ACENAPHTHYLENE	300		U
-12-7	ANTHRACENE	300		U
55-3	BENZO (A) ANTHRACENE	300		U
205-99-2	BENZO (B) FLUORANTHENE	300		U
207-08-9	BENZO (K) FLUORANTHENE	300		U
191-24-2	BENZO (G, H, I) PERYLENE	300		U
50-32-8	BENZO (A) PYRENE	300		U
218-01-9	CHRYSENE	300		U
53-70-3	DIBENZO (A, H) ANTHRACENE	300		U
206-44-0	FLUORANTHENE	300		U
86-73-7	FLUORENE	300		U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300		U
91-57-6	2-METHYLNAPHTHALENE	300		U
91-20-3	NAPHTHALENE	300		U
85-01-8	PHENANTHRENE	300		U
129-00-0	PYRENE	300		U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000018

Client No.

DCR-VER-19

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECN

Case No.: 5324

SAS No.: _____

SDG No.: VER2D

Matrix: (soil/water) SOIL

Lab Sample ID: A5468317

Sample wt/vol: 40.59 (g/mL) G

Lab File ID: Z24232.RR

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 1.9 decanted: (Y/N) N

Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
12-7	ANTHRACENE	300	U
50-35-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000019

Client No.

DCR-VER-20

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468318

Sample wt/vol: 40.84 (g/mL) G Lab File ID: Z24233.RR

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 7.6 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.5

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/KG</u>	Q
83-32-9	ACENAPHTHENE		300	U
208-96-8	ACENAPHTHYLENE		300	U
12-7	ANTHRACENE		300	U
55-3	BENZO (A) ANTHRACENE		300	U
205-99-2	BENZO (B) FLUORANTHENE		300	U
207-08-9	BENZO (K) FLUORANTHENE		300	U
191-24-2	BENZO (G, H, I) PERYLENE		300	U
50-32-8	BENZO (A) PYRENE		300	U
218-01-9	CHRYSENE		300	U
53-70-3	DIBENZO (A, H) ANTHRACENE		300	U
206-44-0	FLUORANTHENE		300	U
86-73-7	FLUORENE		300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE		300	U
91-57-6	2-METHYLNAPHTHALENE		300	U
91-20-3	NAPHTHALENE		300	U
85-01-8	PHENANTHRENE		300	U
129-00-0	PYRENE		300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000020

Client No.

DCR-VER-21

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468319

Sample wt/vol: 40.60 (g/mL) G Lab File ID: 23280X.MSO

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 12.3 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/10/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

EPC Cleanup: (Y/N) Y pH: 8.5

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/KG</u>	Q
83-32-9-----	ACENAPHTHENE	300	300	U
208-96-8-----	ACENAPHTHYLENE	300	300	U
12-7-----	ANTHRACENE	300	300	U
50-55-3-----	BENZO (A) ANTHRACENE	300	300	U
205-99-2-----	BENZO (B) FLUORANTHENE	300	300	U
207-08-9-----	BENZO (K) FLUORANTHENE	300	300	U
191-24-2-----	BENZO (G, H, I) PERYLENE	300	300	U
50-32-8-----	BENZO (A) PYRENE	300	300	U
218-01-9-----	CHRYSENE	300	300	U
53-70-3-----	DIBENZO (A, H) ANTHRACENE	300	300	U
206-44-0-----	FLUORANTHENE	300	300	U
86-73-7-----	FLUORENE	300	300	U
193-39-5-----	INDENO (1, 2, 3-CD) PYRENE	300	300	U
91-57-6-----	2-METHYLNAPHTHALENE	300	300	U
91-20-3-----	NAPHTHALENE	300	300	U
85-01-8-----	PHENANTHRENE	300	300	U
129-00-0-----	PYRENE	300	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000021

Client No.

DCR-VER-22

Lab Name: Recra Environmental Contract: MQ772732MQ

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468320

Sample wt/vol: 40.40 (g/mL) G Lab File ID: Z24235.RR

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 14.3 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.1

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9-----	ACENAPHTHENE		300	U
208-96-8-----	ACENAPHTHYLENE		300	U
7-12-7-----	ANTHRACENE		300	U
55-3-----	BENZO (A) ANTHRACENE		300	U
205-99-2-----	BENZO (B) FLUORANTHENE		300	U
207-08-9-----	BENZO (K) FLUORANTHENE		300	U
191-24-2-----	BENZO (G, H, I) PERYLENE		300	U
50-32-8-----	BENZO (A) PYRENE		300	U
218-01-9-----	CHRYSENE		300	U
53-70-3-----	DIBENZO (A, H) ANTHRACENE		300	U
206-44-0-----	FLUORANTHENE		300	U
86-73-7-----	FLUORENE		300	U
193-39-5-----	INDENO (1, 2, 3 -CD) PYRENE		300	U
91-57-6-----	2-METHYLNAPHTHALENE		300	U
91-20-3-----	NAPHTHALENE		300	U
85-01-8-----	PHENANTHRENE		300	U
129-00-0-----	PYRENE		300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000022

Client No.

DCR-VER-45

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468314

Sample wt/vol: 40.01 (g/mL) G Lab File ID: Z24229.RR

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 7.1 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
-12-7	ANTHRACENE	300	U
-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000023

Client No.

DCR-VER-200

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468310

Sample wt/vol: 40.45 (g/mL) G Lab File ID: Z24228.RR

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 7.2 decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.5

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
12-7	ANTHRACENE	300	U
55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000024

Client No.

DCR-VER-202

Lab Name: Recra Environmental Contract: MQ772732MQ
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5468315
 Sample wt/vol: 40.41 (g/mL) G Lab File ID: Z24230.RR
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 % Moisture: 7.8 decanted: (Y/N) N Date Extracted: 09/05/95
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95
 Injection Volume: 2.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.6

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
124-12-7	ANTHRACENE	300	U
55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000025

Client No.

MW-546-01

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) WATER Lab Sample ID: A5468312

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 23233X.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/07/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/L</u>	Q
83-32-9	ACENAPHTHENE		10	U
208-96-8	ACENAPHTHYLENE		10	U
7-12-7	ANTHRACENE		10	U
55-3	BENZO (A) ANTHRACENE		10	U
205-99-2	BENZO (B) FLUORANTHENE		10	U
207-08-9	BENZO (K) FLUORANTHENE		10	U
191-24-2	BENZO (G, H, I) PERYLENE		10	U
50-32-8	BENZO (A) PYRENE		10	U
218-01-9	CHRYSENE		10	U
53-70-3	DIBENZO (A, H) ANTHRACENE		10	U
206-44-0	FLUORANTHENE		10	U
86-73-7	FLUORENE		10	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE		10	U
91-57-6	2-METHYLNAPHTHALENE		10	U
91-20-3	NAPHTHALENE		10	U
85-01-8	PHENANTHRENE		10	U
129-00-0	PYRENE		10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000020

Client No.

MW-546-04

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) WATER Lab Sample ID: A5468311

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 23232X.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/07/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
83-32-9-----	ACENAPHTHENE		10	U
208-96-8-----	ACENAPHTHYLENE		10	U
124-12-7-----	ANTHRACENE		10	U
55-3-----	BENZO (A) ANTHRACENE		10	U
205-99-2-----	BENZO (B) FLUORANTHENE		10	U
207-08-9-----	BENZO (K) FLUORANTHENE		10	U
191-24-2-----	BENZO (G, H, I) PERYLENE		10	U
50-32-8-----	BENZO (A) PYRENE		10	U
218-01-9-----	CHRYSENE		10	U
53-70-3-----	DIBENZO (A, H) ANTHRACENE		10	U
206-44-0-----	FLUORANTHENE		10	U
86-73-7-----	FLUORENE		10	U
193-39-5-----	INDENO (1, 2, 3-CD) PYRENE		10	U
91-57-6-----	2-METHYLNAPHTHALENE		10	U
91-20-3-----	NAPHTHALENE		10	U
85-01-8-----	PHENANTHRENE		10	U
129-00-0-----	PYRENE		10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000027

Client No.

MW-546-05

Lab Name: Recra Environmental,

Contract: MO772732MO

Lab Code: RECNV

Case No.: 5324

SAS No.: _____

SDG No.: VER2D

Matrix: (soil/water) WATER

Lab Sample ID: A5468313

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: 23234X.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 09/06/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/95

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

CAS NO.	COMPOUND	UG/L	Q
83-32-9	ACENAPHTHENE	10	U
208-96-8	ACENAPHTHYLENE	10	U
120-12-7	ANTHRACENE	10	U
55-3	BENZO (A) ANTHRACENE	10	U
205-99-2	BENZO (B) FLUORANTHENE	10	U
207-08-9	BENZO (K) FLUORANTHENE	10	U
191-24-2	BENZO (G, H, I) PERYLENE	10	U
50-32-8	BENZO (A) PYRENE	10	U
218-01-9	CHRYSENE	10	U
53-70-3	DIBENZO (A, H) ANTHRACENE	10	U
206-44-0	FLUORANTHENE	10	U
86-73-7	FLUORENE	10	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	10	U
91-57-6	2-METHYLNAPHTHALENE	10	U
91-20-3	NAPHTHALENE	10	U
85-01-8	PHENANTHRENE	10	U
129-00-0	PYRENE	10	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DCRVER02
000028

Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5468301
 Sample wt/vol: 30.4 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/08/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	72	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	55	
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	120	P

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

00002

DCRVER03

Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5468302
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____
 % Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/08/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	72	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	57	
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	5.5	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DCRVER04

000030

1 Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5468303
 Sample wt/vol: 30.7 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/11/95
 Injection Volume: 1.00 (uL) Dilution Factor: 10.0
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	350	U
11104-28-2-----	Aroclor-1221	710	U
11141-16-5-----	Aroclor-1232	350	U
53469-21-9-----	Aroclor-1242	350	U
12672-29-6-----	Aroclor-1248	670	P
11097-69-1-----	Aroclor-1254	350	U
11096-82-5-----	Aroclor-1260	2200	P

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

000031

DCRVER06

Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5468304
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____
 % Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/08/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2- - - - -	Aroclor-1016	35	U
11104-28-2- - - - -	Aroclor-1221	72	U
11141-16-5- - - - -	Aroclor-1232	35	U
53469-21-9- - - - -	Aroclor-1242	35	U
12672-29-6- - - - -	Aroclor-1248	35	U
11097-69-1- - - - -	Aroclor-1254	35	U
11096-82-5- - - - -	Aroclor-1260	35	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

000032

DCRVER07

Name: RECRA ENVIRON

Contract: NY94-606

Lab Code: RECN

Case No.: 5324

SAS No.: _____

SDG No.: VER2D

Matrix: (soil/water) SOIL

Lab Sample ID: A5468305

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: _____

% Moisture: 7 decanted: (Y/N) N

Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 09/05/95

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 09/11/95

Injection Volume: 1.00 (uL)

Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 7.0

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

CAS NO.

COMPOUND

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	350	U
11104-28-2-----	Aroclor-1221	720	U
11141-16-5-----	Aroclor-1232	350	U
53469-21-9-----	Aroclor-1242	350	U
12672-29-6-----	Aroclor-1248	2200	
11097-69-1-----	Aroclor-1254	350	U
11096-82-5-----	Aroclor-1260	1200	

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE ID **000033**

DCRVER12

Name: RECRA ENVIRON Contract: NY94-606

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468306

Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____

% Moisture: 9 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/08/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

12674-11-2-----Aroclor-1016	36	U
11104-28-2-----Aroclor-1221	73	U
11141-16-5-----Aroclor-1232	36	U
53469-21-9-----Aroclor-1242	36	U
12672-29-6-----Aroclor-1248	11	JP
11097-69-1-----Aroclor-1254	36	U
11096-82-5-----Aroclor-1260	28	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
000034

DCRVER13

Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5468307
 Sample wt/vol: 30.9 (g/mL) G Lab File ID: _____
 % Moisture: 6 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/08/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/KG
12674-11-2-----	Aroclor-1016	34	U
11104-28-2-----	Aroclor-1221	69	U
11141-16-5-----	Aroclor-1232	34	U
53469-21-9-----	Aroclor-1242	34	U
12672-29-6-----	Aroclor-1248	34	U
11097-69-1-----	Aroclor-1254	34	U
11096-82-5-----	Aroclor-1260	34	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE ID: **000035**

DCRVER14

Name: RECRA ENVIRON Contract: NY94-606

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468308

Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____

% Moisture: 6 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/08/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION	Q
12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	71	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	27	J
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	16	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000036**

DCRVER17

Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5468309
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____
 % Moisture: 11 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/11/95
 Injection Volume: 1.00 (uL) Dilution Factor: 10.0
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

12674-11-2-----Aroclor-1016	370	U
11104-28-2-----Aroclor-1221	750	U
11141-16-5-----Aroclor-1232	370	U
53469-21-9-----Aroclor-1242	370	U
12672-29-6-----Aroclor-1248	1100	
11097-69-1-----Aroclor-1254	370	U
11096-82-5-----Aroclor-1260	2300	P

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000037**

DCRVER18

Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5468316
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____
 % Moisture: 9 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/08/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	73	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	36	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER19

Lab Name: RECRA ENVIRON

Contract: NY94-606

Lab Code: RECNY Case No.: 5324

SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL

Lab Sample ID: A5468317

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: _____

% Moisture: 2 decanted: (Y/N) N

Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 09/05/95

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 09/08/95

Injection Volume: 1.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND	CONCENTRATION	Q
12674-11-2------	Aroclor-1016	34	U
11104-28-2------	Aroclor-1221	68	U
11141-16-5------	Aroclor-1232	34	U
53469-21-9------	Aroclor-1242	34	U
12672-29-6------	Aroclor-1248	10	JP
11097-69-1------	Aroclor-1254	34	U
11096-82-5------	Aroclor-1260	11	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000039**

DCRVER20

Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5468318
 Sample wt/vol: 30.3 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/08/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

12674-11-2-----Aroclor-1016	36	U
11104-28-2-----Aroclor-1221	72	U
11141-16-5-----Aroclor-1232	36	U
53469-21-9-----Aroclor-1242	36	U
12672-29-6-----Aroclor-1248	36	U
11097-69-1-----Aroclor-1254	36	U
11096-82-5-----Aroclor-1260	36	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000040**

DCRVER21

Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5468319
 Sample wt/vol: 30.3 (g/mL) G Lab File ID: _____
 % Moisture: 12 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/08/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	37	U
11104-28-2-----	Aroclor-1221	75	U
11141-16-5-----	Aroclor-1232	37	U
53469-21-9-----	Aroclor-1242	37	U
12672-29-6-----	Aroclor-1248	37	U
11097-69-1-----	Aroclor-1254	37	U
11096-82-5-----	Aroclor-1260	37	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO
000041

DCRVER22

Lab Name: RECRA ENVIRON Contract: NY94-606

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468320

Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____

% Moisture: 14 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/09/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
12674-11-2	Aroclor-1016	38	U
11104-28-2	Aroclor-1221	77	U
11141-16-5	Aroclor-1232	38	U
53469-21-9	Aroclor-1242	38	U
12672-29-6	Aroclor-1248	97	
11097-69-1	Aroclor-1254	38	U
11096-82-5	Aroclor-1260	130	P

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

000042

DCRVER45

Name: RECRA ENVIRON Contract: NY94-606

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468314

Sample wt/vol: 30.7 (g/mL) G Lab File ID: _____

% Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/08/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	70	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	35	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SA **000043**

DCRVER200

Lab Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5468310
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____
 % Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/08/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	72	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	35	U
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	35	U

000044

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER202

L. Name: RECRA ENVIRON

Contract: NY94-606

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER2D

Matrix: (soil/water) SOIL

Lab Sample ID: A5468315

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: _____

% Moisture: 8 decanted: (Y/N) N

Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 09/05/95

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 09/08/95

Injection Volume: 1.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	72	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	35	U
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	12	JP

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000045**

MW54601

Name: RECRA ENVIRON

Contract: NY94-606

Lab Code: RECNV

Case No.: 5324

SAS No.: _____

SDG No.: VER2D

Matrix: (soil/water) WATER

Lab Sample ID: A5468312

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 09/07/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 09/07/95

Injection Volume: 1.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

12674-11-2-----Aroclor-1016	0.065	U
11104-28-2-----Aroclor-1221	0.065	U
11141-16-5-----Aroclor-1232	0.065	U
53469-21-9-----Aroclor-1242	0.065	U
12672-29-6-----Aroclor-1248	0.065	U
11097-69-1-----Aroclor-1254	0.065	U
11096-82-5-----Aroclor-1260	0.024	JP

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000046**

MW54604

L Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) WATER Lab Sample ID: A5468311
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/07/95
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/07/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	CONCENTRATION	Q
12674-11-2-----	Aroclor-1016	0.065	U
11104-28-2-----	Aroclor-1221	0.065	U
11141-16-5-----	Aroclor-1232	0.065	U
53469-21-9-----	Aroclor-1242	0.065	U
12672-29-6-----	Aroclor-1248	0.065	U
11097-69-1-----	Aroclor-1254	0.065	U
11096-82-5-----	Aroclor-1260	0.0071	JP

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO
000047

MW54605

Name: RECRA ENVIRON Contract: NY94-606

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) WATER Lab Sample ID: A5468313

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/07/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/07/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
12674-11-2-----	Aroclor-1016	0.065	U
11104-28-2-----	Aroclor-1221	0.065	U
11141-16-5-----	Aroclor-1232	0.065	U
53469-21-9-----	Aroclor-1242	0.065	U
12672-29-6-----	Aroclor-1248	0.065	U
11097-69-1-----	Aroclor-1254	0.065	U
11096-82-5-----	Aroclor-1260	0.065	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 WATER SURROGATE RECOVERY

000048

Lab Name: Recra Environmental, Inc.

Contract: MO772732MO

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER2D

	Client Sample ID	2CP		DCB		FBP		NBZ		PHL		TBP		TPH		TOT OUT
		%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	
1	MS Blank	51		49		54		54		53		86		88		0
2	MW-546-01	57		54		54		55		52		60		88		0
3	MW-546-04	56		44		46		54		50		49		71		0
4	MW-546-05	46		46		46		44		42		42		62		0
5	SBLK84	53		52		66		61		24		54		120		0

QC LIMITS

2CP = 2-Chlorophenol-d4 (33-110)
 DCB = 1,2-Dichlorobenzene-d4 (16-110)
 FBP = 2-Fluorobiphenyl (43-116)
 NBZ = Nitrobenzene-D5 (35-114)
 PHL = Phenol-D5 (10-110)
 TBP = 2,4,6-Tribromophenol (10-123)
 H = Terphenyl-D14 (33-141)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogates diluted out

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
SOIL SURROGATE RECOVERY

000049

Lab Name: Recra Environmental, Inc. Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Level (low/med): LOW

	Client Sample ID	2CP		2FP		DCB		FBP		NBZ		PHL		TBP		TPH		TOT OUT
		%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	
1	DCR-VER-02	36		40		36		45		41		37		38		58		0
2	DCR-VER-02 MS	35		38		34		40		36		38		45		56		0
3	DCR-VER-02 MSD	47		48		43		51		48		50		62		65		0
4	DCR-VER-02RE	48		50		41		48		43		48		32		55		0
5	DCR-VER-03	58		68		59		70		66		65		93		93		0
6	DCR-VER-04	44		50		43		50		47		47		66		65		0
7	DCR-VER-06	84		87		61		71		68		86		108		93		0
8	DCR-VER-07	81		98		65		70		74		89		110		91		0
9	DCR-VER-12	66		72		67		73		80		73		106		108		0
10	DCR-VER-13	52		56		53		70		56		53		53		96		0
11	DCR-VER-13RE	50		57		57		72		61		45		52		95		0
12	DCR-VER-14	69		87		68		90		52		68		158	*	136		1
13	DCR-VER-17	78		101		90		102		64		79		120		126		0
14	DCR-VER-18	56		73		55		64		55		51		104		105		0
	DCR-VER-19	43		58		43		47		41		42		61		54		0
	DCR-VER-20	64		87		62		85		49		63		126	*	111		1
17	DCR-VER-200	45		53		40		38		41		40		63		50		0
18	DCR-VER-202	45		55		42		44		40		42		63		63		0
19	DCR-VER-21	45		48		44		46		47		47		53		64		0
20	DCR-VER-22	39		48		40		39		37		36		52		48		0
21	DCR-VER-45	53		67		53		63		48		52		132	*	118		1
22	Matrix Spike Blank	72		86		95		74		50		66		96		79		0
23	SBLK13	50		72		56		56		54		55		63		65		0
24	SBLK89	64		69		58		61		59		63		70		68		0

QC LIMITS

2CP	=	2-Chlorophenol-d4	(20-130)
2FP	=	2-Fluorophenol	(25-121)
DCB	=	1,2-Dichlorobenzene-d4	(20-130)
FBP	=	2-Fluorobiphenyl	(30-115)
NBZ	=	Nitrobenzene-D5	(23-120)
PHL	=	Phenol-D5	(24-113)
TBP	=	2,4,6-Tribromophenol	(19-122)
TPH	=	Terphenyl-D14	(18-137)

- # Column to be used to flag recovery values
- * Values outside of contract required QC limits
-) Surrogates diluted out

2E
WATER PESTICIDE SURROGATE RECOVERY

000050

L Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 GC Column(1): DB608 ID: 0.53(mm) GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK14	16*	15*	36*	33*			4
02	MSB14	15*	14*	33*	30*			4
03	MSBD14	16*	15*	33*	31*			4
04	MW54601	30*	15*	40*	37*			4
05	MW54604	28*	19*	42*	40*			4
06	MW54605	27*	17*	41*	39*			4

ADVISORY
QC LIMITS
(60-150)
(60-150)

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogate diluted out

2F
SOIL PESTICIDE SURROGATE RECOVERY

000051

I Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 GC Column(1): DB608 ID: 0.53(mm) GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====
01	PBLK16	45*	44*	53*	50*			4
02	DCRVER02	69	78	72	102			0
03	DCRVER03	57*	57*	65	64			2
04	DCRVER04	62	64	106	154*			1
05	DCRVER06	59*	60	70	70			1
06	DCRVER07	48*	51*	72	64			2
07	DCRVER12	46*	47*	66	65			2
08	DCRVER13	55*	56*	65	64			2
09	DCRVER14	44*	46*	62	61			2
10	DCRVER17	47*	50*	77	71			2
11	DCRVER18	36*	38*	50*	48*			4
12	DCRVER19	68	69	86	86			0
13	DCRVER20	39*	40*	52*	51*			4
14	DCRVER200	58*	59*	85	83			2
15	DCRVER202	62	63	80	80			0
16	DCRVER21	30*	30*	48*	46*			4
17	DCRVER22	21*	20*	48*	53*			4
18	DCRVER45	34*	35*	50*	48*			4
19	MSB16	52*	52*	63	61			2
20	DCRVER02MS	71	77	72	103			0
21	DCRVER02MSD	52*	61	56*	82			2

ADVISORY
QC LIMITS
(60-150)
(60-150)

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL MATRIX SPIKE BLANK RECOVERY

000052

Lab Name: Recre Environmental, Inc. Contract: MO772732MO Lab Samp ID: A5B0584801

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix Spike - Client Sample No.: ~~SDH13~~ MS Blank Level: (low/med) LOW
MTA 9/29/95

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.
Acenaphthene _____	1200	1100	92	31 - 137
Pyrene _____	1200	1100	92	35 - 142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 0 out of 2 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 WATER MATRIX SPIKE BLANK RECOVERY

000053

Lab Name: Recre Environmental, Inc. Contract: MQ772732MO Lab Samp ID: A5B0586901
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix Spike - Client Sample No.: SBLK04 *MSBLANK*
with 7/27/95

COMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.
Acenaphthene _____	50	26	52	46 - 118
Pyrene _____	50	39	78	26 - 127

* Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

Spike recovery: 0 out of 2 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

000054

Lab Name: Recra Environmental, Inc. Contract: MQ772732MQ Lab Samp ID: A5468301
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix Spike - Client Sample No.: DCR-VER-02 Level: (low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.
Acenaphthene _____	1300	0	560	43	31 - 137
Pyrene _____	1300	0	680	52	35 - 142

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS REC.	
Acenaphthene _____	1400	700	50	15	19	31 - 137
Pyrene _____	1400	790	56	7	36	35 - 142

Column to be used to flag recovery and RPD values with an asterisk

values outside of QC limits

RPD: 0 out of 2 outside limits
 Spike recovery: 0 out of 4 outside limits

Comments: _____

3E
 WATER PCB MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

000055

b Name: RECRA ENVIRON Contract: NY94-606

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix Spike - EPA Sample No.: MSB14,MSBD14

COMPOUND	SPIKE ADDED (ug/L)	MSB CONCENTRATION (ug/L)	MSB % REC #
Aroclor 1242	1.00	0.46	46

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #
Aroclor 1242	1.00	0.49	49	6

COMMENTS:

000056

3F
SOIL PCB MATRIX SPIKE BLANK RECOVERY

b Name: RECRA ENVIRON Contract: NY94-606

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix Spike - EPA Sample No.: MSB16

COMPOUND	SPIKE ADDED (ug/Kg)	MSB CONCENTRATION (ug/Kg)	MSB % REC #
=====	=====	=====	=====
Aroclor 1242	330	190	58

COMMENTS:

3F

SOIL PCB MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: RECRA ENVIRON Contract: NY94-606Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2DMatrix Spike - EPA Sample No.: DCRVER02

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #
=====	=====	=====	=====	=====
Aroclor 1242	361	0	310	86

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #
=====	=====	=====	=====	=====
Aroclor 1242	358	220	61	34

COMMENTS:

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 METHOD BLANK SUMMARY

000058

Client No.

SBLK84

Lab Name: Recra Environmental, Contract: MO772732MO
 Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID: 23238X.MSQ Lab Sample ID: A5B0586901
 Instrument ID: I50X Date Extracted: 09/06/95
 Matrix: (soil/water) WATER Date Analyzed: 09/08/95
 Level: (low/med) LOW Time Analyzed: 08:23

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	MS Blank	A5468323	23274X.MSQ	09/09/95
2	MW-546-01	A5468312	23233X.MSQ	09/07/95
3	MW-546-04	A5468311	23232X.MSQ	09/07/95
4	MW-546-05	A5468313	23234X.MSQ	09/07/95

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000059

Client No.

SBLK84

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) WATER Lab Sample ID: A5B0586901

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 23238X.MSQ

Level: (low/med) LOW Date Samp/Recv: _____

Moisture: _____ decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
83-32-9	ACENAPHTHENE	10	U
89-96-8	ACENAPHTHYLENE	10	U
128-12-7	ANTHRACENE	10	U
56-55-3	BENZO (A) ANTHRACENE	10	U
205-99-2	BENZO (B) FLUORANTHENE	10	U
207-08-9	BENZO (K) FLUORANTHENE	10	U
191-24-2	BENZO (G, H, I) PERYLENE	10	U
50-32-8	BENZO (A) PYRENE	10	U
218-01-9	CHRYSENE	10	U
53-70-3	DIBENZO (A, H) ANTHRACENE	10	U
206-44-0	FLUORANTHENE	10	U
86-73-7	FLUORENE	10	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	10	U
91-57-6	2-METHYLNAPHTHALENE	10	U
91-20-3	NAPHTHALENE	10	U
85-01-8	PHENANTHRENE	10	U
129-00-0	PYRENE	10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 METHOD BLANK SUMMARY

000030

Client No.

SBLK13

Lab Name: Recra Environmental, Contract: MO772732MO
 Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID: Z24223.RR Lab Sample ID: A5B0584801
 Instrument ID: I50Z-A Date Extracted: 09/05/95
 Matrix: (soil/water) SOIL Date Analyzed: 09/08/95
 Level: (low/med) LOW Time Analyzed: 11:12

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
1	DCR-VER-14	A5468308	Z24226.RR	09/08/95
2	DCR-VER-17	A5468309	Z24227.RR	09/08/95
3	DCR-VER-18	A5468316	Z24231.RR	09/08/95
4	DCR-VER-19	A5468317	Z24232.RR	09/08/95
5	DCR-VER-20	A5468318	Z24233.RR	09/08/95
6	DCR-VER-200	A5468310	Z24228.RR	09/08/95
7	DCR-VER-202	A5468315	Z24230.RR	09/08/95
8	DCR-VER-22	A5468320	Z24235.RR	09/08/95
9	DCR-VER-45	A5468314	Z24229.RR	09/08/95
10	Matrix Spike Blank	A5468321	Z24224.RR	09/08/95

Comments: _____

000061

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
ANALYSIS DATA SHEET

Client No.

SBLK13

Lab Name: Recra Environmental, Contract: MQ772732MQ

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5B0584801

Sample wt/vol: 40.00 (g/mL) G Lab File ID: Z24223.RR

Level: (low/med) LOW Date Samp/Recv: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
200-96-8	ACENAPHTHYLENE	300	U
-12-7	ANTHRACENE	300	U
56-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 METHOD BLANK SUMMARY

000062
 Client No.

SBLK89

Lab Name: Recra Environmental Contract: MQ772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID: 23290X.MSQ Lab Sample ID: A5468322
 Instrument ID: I50X Date Extracted: 09/05/95
 Matrix: (soil/water) SOIL Date Analyzed: 09/10/95
 Level: (low/med) LOW Time Analyzed: 17:10

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	DCR-VER-02	A5468301	23281X.MSQ	09/10/95
2	DCR-VER-02 MS	A5468301MS	23282X.MSQ	09/10/95
3	DCR-VER-02 MSD	A5468301SD	23283X.MSQ	09/10/95
4	DCR-VER-02RE	A5468301RI	23305X.MSQ	09/11/95
5	DCR-VER-03	A5468302	23284X.MSQ	09/10/95
6	DCR-VER-04	A5468303	23285X.MSQ	09/10/95
7	DCR-VER-06	A5468304	23306X.MSQ	09/11/95
8	DCR-VER-07	A5468305	23307X.MSQ	09/11/95
9	DCR-VER-12	A5468306	23288X.MSQ	09/10/95
10	DCR-VER-13	A5468307	23289X.MSQ	09/10/95
11	DCR-VER-13RE	A5468307RI	23310X.MSQ	09/11/95
12	DCR-VER-21	A5468319	23280X.MSQ	09/10/95

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000053

Client No.

SBLK89

Lab Name: Recra Environmental,

Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) SOIL Lab Sample ID: A5468322

Sample wt/vol: 40.00 (g/mL) G Lab File ID: 23290X.MSQ

Level: (low/med) LOW Date Samp/Recv: _____

Moisture: _____ decanted: (Y/N) N Date Extracted: 09/05/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/10/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

83-32-9-----	ACENAPHTHENE	300	U
208-96-8-----	ACENAPHTHYLENE	300	U
12-7-----	ANTHRACENE	300	U
50-55-3-----	BENZO (A) ANTHRACENE	300	U
205-99-2-----	BENZO (B) FLUORANTHENE	300	U
207-08-9-----	BENZO (K) FLUORANTHENE	300	U
191-24-2-----	BENZO (G, H, I) PERYLENE	300	U
50-32-8-----	BENZO (A) PYRENE	300	U
218-01-9-----	CHRYSENE	300	U
53-70-3-----	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0-----	FLUORANTHENE	300	U
86-73-7-----	FLUORENE	300	U
193-39-5-----	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6-----	2-METHYLNAPHTHALENE	300	U
91-20-3-----	NAPHTHALENE	300	U
85-01-8-----	PHENANTHRENE	300	U
129-00-0-----	PYRENE	300	U

000064

EPA SAMPLE NO.

4C

PESTICIDE METHOD BLANK SUMMARY

PBLK14

Lab Name: RECRA ENVIRON

Contract: NY94-606

Lab Code: RECN Case No.: 5324

SAS No.: _____ SDG No.: VER2D

Lab Sample ID: A5B0590003

Lab File ID: _____

Matrix: (soil/water) WATER

Extraction: (SepF/Cont/Sonc) SEPF

Sulfur Cleanup: (Y/N) Y

Date Extracted: 09/07/95

Date Analyzed (1): 09/07/95

Date Analyzed (2): 09/07/95

Time Analyzed (1): 1822

Time Analyzed (2): 1822

Instrument ID (1): 5890A9

Instrument ID (2): 5890B9

GC Column (1): DB608 ID: 0.53 (mm) GC Column (2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	MSB14	A5B0590001	09/07/95	09/07/95
02	MSBD14	A5B0590002	09/07/95	09/07/95
03	MW54601	A5468312	09/07/95	09/07/95
04	MW54604	A5468311	09/07/95	09/07/95
05	MW54605	A5468313	09/07/95	09/07/95

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

PBLK14

I Name: RECRA ENVIRON Contract: NY94-606

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D

Matrix: (soil/water) WATER Lab Sample ID: A5B0590003

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/07/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/07/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO. COMPOUND

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
12674-11-2-----	Aroclor-1016	0.065	U
11104-28-2-----	Aroclor-1221	0.065	U
11141-16-5-----	Aroclor-1232	0.065	U
53469-21-9-----	Aroclor-1242	0.065	U
12672-29-6-----	Aroclor-1248	0.014	JP
11097-69-1-----	Aroclor-1254	0.065	U
11096-82-5-----	Aroclor-1260	0.065	U

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK16

Lab Name: RECRA ENVIRON

Contract: NY94-606

Lab Code: RECNV Case No.: 5324

SAS No.: _____ SDG No.: VER2D

Lab Sample ID: A5B0584701

Lab File ID: _____

Matrix: (soil/water) SOIL

Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) N

Date Extracted: 09/05/95

Date Analyzed (1): 09/08/95

Date Analyzed (2): 09/08/95

Time Analyzed (1): 0726

Time Analyzed (2): 0726

Instrument ID (1): 5890A9

Instrument ID (2): 5890B9

GC Column (1): DB608 ID: 0.53 (mm)

GC Column (2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	=====	=====	=====	=====
01	DCRVER02	A5468301	09/08/95	09/08/95
02	DCRVER03	A5468302	09/08/95	09/08/95
03	DCRVER04	A5468303	09/11/95	09/11/95
04	DCRVER06	A5468304	09/08/95	09/08/95
05	DCRVER07	A5468305	09/11/95	09/11/95
06	DCRVER12	A5468306	09/08/95	09/08/95
07	DCRVER13	A5468307	09/08/95	09/08/95
08	DCRVER14	A5468308	09/08/95	09/08/95
09	DCRVER17	A5468309	09/11/95	09/11/95
10	DCRVER18	A5468316	09/08/95	09/08/95
11	DCRVER19	A5468317	09/08/95	09/08/95
12	DCRVER20	A5468318	09/08/95	09/08/95
13	DCRVER200	A5468310	09/08/95	09/08/95
14	DCRVER202	A5468315	09/08/95	09/08/95
15	DCRVER21	A5468319	09/08/95	09/08/95
16	DCRVER22	A5468320	09/09/95	09/09/95
17	DCRVER45	A5468314	09/08/95	09/08/95
18	MSB16	A5468321	09/08/95	09/08/95
19	DCRVER02MS	A5468301MS	09/08/95	09/08/95
20	DCRVER02MSD	A5468301SD	09/08/95	09/08/95

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000067**

PBLK16

Name: RECRA ENVIRON Contract: NY94-606
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Matrix: (soil/water) SOIL Lab Sample ID: A5B0584701
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Received: _____
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/05/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/08/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2- - - - -	Aroclor-1016	33	U
11104-28-2- - - - -	Aroclor-1221	67	U
11141-16-5- - - - -	Aroclor-1232	33	U
53469-21-9- - - - -	Aroclor-1242	33	U
12672-29-6- - - - -	Aroclor-1248	33	U
11097-69-1- - - - -	Aroclor-1254	33	U
11096-82-5- - - - -	Aroclor-1260	33	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000058

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001229
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID (Standard): 23226X.MSQ Date Analyzed: 09/07/95
 Instrument ID: I50X Time Analyzed: 09:26

	IS1 (ANT)		IS2 (CRY)		IS3 (DCB)	
	AREA	# RT	AREA	# RT	AREA	# RT
12 HOUR STD	24094	16.50	26120	29.23	12792	7.73
UPPER LIMIT	48188	17.00	52240	29.73	25584	8.23
LOWER LIMIT	12047	16.00	13060	28.73	6396	7.23
CLIENT SAMPLE						
1 MW-546-01	34098	16.48	30538	29.20	16094	7.72
2 MW-546-04	32898	16.48	30850	29.20	16042	7.72
3 MW-546-05	33252	16.47	29061	29.20	16244	7.72

AREA UNIT RT
 QC LIMITS QC LIMITS

IS1 (ANT) = Acenaphthene-D10 (50-200) -0.50 / +0.50 min
 IS2 (CRY) = Chrysene-D12 (50-200) -0.50 / +0.50 min
 IS3 (DCB) = 1,4-Dichlorobenzene-D4 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000059

Lab Name: Recra Environmental, Inc. Contract: MQ772732MQ Labsampid: A5C0001229
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID (Standard): 23226X.MSQ Date Analyzed: 09/07/95
 Instrument ID: I50X Time Analyzed: 09:26

	IS4 (NPT) AREA	#	RT	#	IS5 (PHN) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
12 HOUR STD	48888		11.22		32382		21.03		13839		33.32	
UPPER LIMIT	97776		11.72		64764		21.53		27678		33.82	
LOWER LIMIT	24444		10.72		16191		20.53		6920		32.82	
=====												
CLIENT SAMPLE												
1 MW-546-01	61466		11.20		43000		21.02		18096		33.30	
2 MW-546-04	61142		11.20		44538		21.02		17964		33.30	
3 MW-546-05	62836		11.20		42614		21.02		16780		33.30	

AREA UNIT
QC LIMITS

RT
QC LIMITS

.S4 (NPT) = Naphthalene-D8
 IS5 (PHN) = Phenanthrene-D10
 IS6 (PRY) = Perylene-D12

(50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000070

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001233
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID (Standard): 23237X.MSQ Date Analyzed: 09/08/95
 Instrument ID: I50X Time Analyzed: 06:32

	IS1 (ANT) AREA #	RT #	IS2 (CRY) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	37472	16.48	40675	29.22	20050	7.72
UPPER LIMIT	74944	16.98	81350	29.72	40100	8.22
LOWER LIMIT	18736	15.98	20338	28.72	10025	7.22
CLIENT SAMPLE						
SBLK84	36212	16.47	32959	29.18	18040	7.70

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (ANT) = Acenaphthene-D10 (50-200) -0.50 / +0.50 min
 IS2 (CRY) = Chrysene-D12 (50-200) -0.50 / +0.50 min
 IS3 (DCB) = 1,4-Dichlorobenzene-D4 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
SEMITVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000071

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001233
Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
Lab File ID (Standard): 23237X.MSQ Date Analyzed: 09/08/95
Instrument ID: I50X Time Analyzed: 06:32

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	73726	11.20	49796	21.02	22073	33.30
UPPER LIMIT	147452	11.70	99592	21.52	44146	33.80
LOWER LIMIT	36863	10.70	24898	20.52	11037	32.80
CLIENT SAMPLE						
1 SBLK84	67736	11.18	47544	21.02	19666	33.28

AREA UNIT QC LIMITS RT QC LIMITS

IS4 (NPT) = Naphthalene-D8 (50-200) -0.50 / +0.50 min
IS5 (PHN) = Phenanthrene-D10 (50-200) -0.50 / +0.50 min
IS6 (PRY) = Perylene-D12 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000072

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001246
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID (Standard): 23262X.MSQ Date Analyzed: 09/09/95
 Instrument ID: I50X Time Analyzed: 08:52

	IS1 (ANT) AREA	#	RT	#	IS2 (CRY) AREA	#	RT	#	IS3 (DCB) AREA	#	RT	#
12 HOUR STD	21808		16.38		25562		29.12		12218		7.63	
UPPER LIMIT	43616		16.88		51124		29.62		24436		8.13	
LOWER LIMIT	10904		15.88		12781		28.62		6109		7.13	
CLIENT SAMPLE												
MS Blank	17124		16.38		22158		29.10		8682		7.63	

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (ANT) = Acenaphthene-D10 (50-200) -0.50 / +0.50 min
 IS2 (CRY) = Chrysene-D12 (50-200) -0.50 / +0.50 min
 IS3 (DCB) = 1,4-Dichlorobenzene-D4 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000073

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001246
Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
Lab File ID (Standard): 23262X.MSQ Date Analyzed: 09/09/95
Instrument ID: I50X Time Analyzed: 08:52

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	44324	11.12	27726	20.92	14667	33.20
UPPER LIMIT	88648	11.62	55452	21.42	29334	33.70
LOWER LIMIT	22162	10.62	13863	20.42	7334	32.70
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE						
=====	=====	=====	=====	=====	=====	=====
1 MS Blank	32996	11.12	24236	20.92	14957	33.20

AREA UNIT RT
QC LIMITS QC LIMITS

IS4 (NPT) = Naphthalene-D8 (50-200) -0.50 / +0.50 min
IS5 (PHN) = Phenanthrene-D10 (50-200) -0.50 / +0.50 min
IS6 (PRY) = Perylene-D12 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000074

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001251
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID (Standard): 23278X.MSQ Date Analyzed: 09/10/95
 Instrument ID: I50X Time Analyzed: 08:01

	IS1 (ANT)		IS2 (CRY)		IS3 (DCB)	
	AREA	#	AREA	#	AREA	#
12 HOUR STD	27566		36150		14548	
UPPER LIMIT	55132		72300		29096	
LOWER LIMIT	13783		18075		7274	
=====						
CLIENT SAMPLE						
=====						
1 DCR-VER-02	9048	*	8948	*	5370	*
2 DCR-VER-02 MS	18172		19824		9722	
3 DCR-VER-02 MSD	27618		32960		14032	
4 DCR-VER-03	29492		34682		15124	
5 DCR-VER-04	35786		44284		17538	
6 DCR-VER-12	30304		34059		15418	
CR-VER-13	2176	*	2186	*	1406	*
8 DCR-VER-21	46334		57796		22510	
9 SBLK89	33900		45421		15796	

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (ANT) = Acenaphthene-D10

IS2 (CRY) = Chrysene-D12

IS3 (DCB) = 1,4-Dichlorobenzene-D4

(50-200)

-0.50 / +0.50 min

(50-200)

-0.50 / +0.50 min

(50-200)

-0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000075

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001251
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID (Standard): 23278X.MSO Date Analyzed: 09/10/95
 Instrument ID: I50X Time Analyzed: 08:01

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	56132	11.05	36068	20.85	21776	33.12
UPPER LIMIT	112264	11.55	72136	21.35	43552	33.62
LOWER LIMIT	28066	10.55	18034	20.35	10888	32.62
=====						
CLIENT SAMPLE						
=====						
1 DCR-VER-02	18582 *	11.02	11980 *	20.82	6274 *	33.07
2 DCR-VER-02 MS	35584	11.02	23816	20.82	15644	33.10
3 DCR-VER-02 MSD	51486	11.03	37780	20.83	26055	33.13
4 DCR-VER-03	53734	11.03	40302	20.83	24616	33.10
5 DCR-VER-04	67930	11.03	50747	20.83	39383	33.18
6 DCR-VER-12	55026	11.03	37500	20.83	23278	33.10
DCR-VER-13	4934 *	11.02	2928 *	20.80	1282 *	33.03
DCR-VER-21	84980	11.03	64852	20.83	37450	33.12
9 SBLK89	62060	11.03	49384	20.82	23467	33.10

AREA UNIT RT
 QC LIMITS QC LIMITS

IS4 (NPT) = Naphthalene-D8 (50-200) -0.50 / +0.50 min
 IS5 (PHN) = Phenanthrene-D10 (50-200) -0.50 / +0.50 min
 IS6 (PRY) = Perylene-D12 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000076

Lab Name: Recre Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001252
Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
Lab File ID (Standard): 23292X.MSO Date Analyzed: 09/10/95
Instrument ID: I50X Time Analyzed: 19:27

	IS1 (ANT) AREA #	RT #	IS2 (CRY) AREA #	RT #	IS3 (DCB) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	24782	16.23	32918	28.95	13654	7.52
UPPER LIMIT	49564	16.73	65836	29.45	27308	8.02
LOWER LIMIT	12391	15.73	16459	28.45	6827	7.02
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE						
=====	=====	=====	=====	=====	=====	=====
1 DCR-VER-02RE	5664 *	16.20	5968 *	28.88	2994 *	7.48
2 DCR-VER-06	25214	16.22	34722	28.93	10976	7.52
3 DCR-VER-07	28506	16.23	44536	28.98	11640	7.53

AREA UNIT RT
QC LIMITS QC LIMITS

IS1 (ANT) = Acenaphthene-D10 (50-200) -0.50 / +0.50 min
IS2 (CRY) = Chrysene-D12 (50-200) -0.50 / +0.50 min
IS3 (DCB) = 1,4-Dichlorobenzene-D4 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

0000'77

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001252
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID (Standard): 23292X.MSQ Date Analyzed: 09/10/95
 Instrument ID: I50X Time Analyzed: 19:27

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	49180	10.98	30836	20.77	19772	33.03
UPPER LIMIT	98360	11.48	61672	21.27	39544	33.53
LOWER LIMIT	24590	10.48	15418	20.27	9886	32.53
CLIENT SAMPLE						
1 DCR-VER-02RE	11930 *	10.95	7592 *	20.73	4096 *	32.98
2 DCR-VER-06	46726	10.97	36186	20.75	23356	33.03
3 DCR-VER-07	53152	10.97	46192	20.78	30830	33.12

AREA UNIT
QC LIMITS

RT
QC LIMITS

.S4 (NPT) = Naphthalene-D8 (50-200) -0.50 / +0.50 min
 IS5 (PHN) = Phenanthrene-D10 (50-200) -0.50 / +0.50 min
 IS6 (PRY) = Perylene-D12 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000078

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001260
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID (Standard): 23309X.MSQ Date Analyzed: 09/11/95
 Instrument ID: I50X Time Analyzed: 08:57

	IS1 (ANT)		IS2 (CRY)		IS3 (DCB)	
	AREA	# RT	AREA	# RT	AREA	# RT
12 HOUR STD	19300	16.38	30494	28.38	8260	8.08
UPPER LIMIT	38600	16.88	60988	28.88	16520	8.58
LOWER LIMIT	9650	15.88	15247	27.88	4130	7.58
CLIENT SAMPLE						
DCR-VER-13RE	4176 *	16.35	5106 *	28.32	2522 *	8.07

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (ANT) = Acenaphthene-D10

IS2 (CRY) = Chrysene-D12

IS3 (DCB) = 1,4-Dichlorobenzene-D4

(50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000079

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001260
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID (Standard): 23309X.MSQ Date Analyzed: 09/11/95
 Instrument ID: I50X Time Analyzed: 08:57

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	37204	11.40	27376	20.65	20738	32.22
UPPER LIMIT	74408	11.90	54752	21.15	41476	32.72
LOWER LIMIT	18602	10.90	13688	20.15	10369	31.72
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE						
=====	=====	=====	=====	=====	=====	=====
1 DCR-VER-13RE	8724 *	11.37	6222 *	20.62	3450 *	32.17

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS4 (NPT) = Naphthalene-D8 (50-200) -0.50 / +0.50 min
 IS5 (PHN) = Phenanthrene-D10 (50-200) -0.50 / +0.50 min
 IS6 (PRY) = Perylene-D12 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001236
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID (Standard): Z24219.RR Date Analyzed: 09/08/95
 Instrument ID: I50Z-A Time Analyzed: 08:26

	IS1 (ANT) AREA #	RT #	IS2 (CRY) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	222748	8.60	340781	16.47	103245	4.85
UPPER LIMIT	445496	9.10	681562	16.97	206490	5.35
LOWER LIMIT	111374	8.10	170391	15.97	51623	4.35
=====						
CLIENT SAMPLE						
1 DCR-VER-14	391399	8.60	608735	16.47	191598	4.87
2 DCR-VER-17	317256	8.60	704519	16.50	157560	4.88
3 DCR-VER-18	321223	8.60	455333	16.47	157280	4.87
4 DCR-VER-19	284142	8.60	487907	16.47	152976	4.87
5 DCR-VER-20	315888	8.60	458258	16.47	159207	4.87
6 DCR-VER-200	381615	8.60	608448	16.47	183688	4.87
7 YCR-VER-202	253642	8.60	379773	16.47	123712	4.87
8 YCR-VER-22	309056	8.60	500275	16.47	153192	4.87
9 DCR-VER-45	275844	8.60	419052	16.47	138048	4.87
10 Matrix Spike Blank	352646	8.60	554999	16.47	184660	4.87
11 SBLK13	360272	8.60	576458	16.47	171048	4.87

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (ANT) = Acenaphthene-D10

IS2 (CRY) = Chrysene-D12

IS3 (DCB) = 1,4-Dichlorobenzene-D4

(50-200) -0.50 / +0.50 min

(50-200) -0.50 / +0.50 min

(50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000081

Lab Name: Recre Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001236
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER2D
 Lab File ID (Standard): Z24219.RR Date Analyzed: 09/08/95
 Instrument ID: I50Z-A Time Analyzed: 08:26

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	423792	6.13	309616	11.27	243933	19.10
UPPER LIMIT	847584	6.63	619232	11.77	487866	19.60
LOWER LIMIT	211896	5.63	154808	10.77	121967	18.60
=====						
CLIENT SAMPLE						
=====						
1 DCR-VER-14	793450	6.13	541389	11.27	447264	19.12
2 DCR-VER-17	599511	6.15	625057	11.28	342541	19.13
3 DCR-VER-18	645276	6.13	485346	11.27	301994	19.10
4 DCR-VER-19	617827	6.13	495888	11.28	322421	19.12
5 DCR-VER-20	677197	6.13	464527	11.27	284861	19.10
6 DCR-VER-200	735708	6.13	556686	11.27	450123	19.12
DCR-VER-202	583768	6.13	346005	11.27	244114	19.10
DCR-VER-22	660717	6.13	508995	11.27	284394	19.12
9 DCR-VER-45	584419	6.13	384323	11.27	283611	19.10
10 Matrix Spike Blank	840299	6.13	488281	11.27	352251	19.10
11 SBLK13	657443	6.13	558882	11.27	357548	19.10

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS4 (NPT) = Naphthalene-D8
 IS5 (PHN) = Phenanthrene-D10
 IS6 (PRY) = Perylene-D12

(50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

Sample ID Nos.:

Lab Report Dated:

September 29, 1995

DCR-VER-23
DCR-VER-24
DCR-VER-25
DCR-VER-26
DCR-VER-27
DCR-VER-28
DCR-VER-29
DCR-VER-30
DCR-VER-31
DCR-VER-32
DCR-VER-33
DCR-VER-34
DCR-VER-35
DCR-VER-36
DCR-VER-48
DCR-VER-49
DCR-VER-50
DCR-VER-201
MW-546-02
MW-546-03



**RECRA
ENVIRONMENTAL
INC.**

Chemical and Environmental Analysis Services

95 DEC 14 1995

September 29, 1995

Mr. Joseph Mihm
Camp, Dresser and McKee / Alcoa
Park Avenue East, Building 65
Massena, NY 13665

RE: Analytical Results

Dear Mr. Mihm:

Please find enclosed the data package concerning the analyses of samples recently submitted by your firm. The pertinent information regarding these analyses is listed below:

Quote No.: NY95-438
REI: 19
SDG #: VER23
Matrix: Soil & Water
Sample Receipt Date: 09/02/95
Sample Date: 09/01/95

If you have any questions concerning these data, please contact Ms. Deborah A. Carella, Program Manager, at (800) 52R-ECRA and refer to the I.D. number listed below.

Sincerely,

RECRA ENVIRONMENTAL, INC.

Kenneth E. Kasperek
Kenneth E. Kasperek
Laboratory Manager

DAC/KEK/dms
Enclosure

cc: Frances Gero (cover letter only)
Aluminum Company of America
Mr. Bernard Kunkle (cover letter only)
Aluminum Company of America
Park Avenue East, BLDG. 65
Massena, NY 13665

Reviewed and approved by/date:

Candace L. Fox for DAC

Deborah A. Carella, Program Manager

ID #A95-4685
#NY5A5754

Mihm } LR
Schultz }
Schreiner }
Ockhinaline } Sem
Anderson }

000001

SAMPLE DATA SUMMARY PACKAGE



RECRA
ENVIRONMENTAL
INC.

SDG NARRATIVE:

Laboratory: Recra Environmental, Inc.

Laboratory Code: RECNY

Contract No.: NY95-438

SDG No.: VER23

Sample Identifications: DCR-VER-201
DCR-VER-23
DCR-VER-23 MATRIX SPIKE
DCR-VER-23 MATRIX SPIKE DUPLICATE
DCR-VER-24
DCR-VER-25
DCR-VER-26
DCR-VER-27
DCR-VER-28
DCR-VER-29
DCR-VER-30
DCR-VER-31
DCR-VER-32
DCR-VER-33
DCR-VER-34
DCR-VER-35
DCR-VER-36
DCR-VER-48
DCR-VER-49
DCR-VER-50
MW-546-02
MW-546-03

METHODOLOGY

Analyses were performed in accordance with 1991 New York State Analytical Services protocol. (Revised 1993)

COMMENTS

Results are reported using standard qualifiers (Q) as defined on the Organic Data Comment Page.

Preliminary results were sent on September 11, 1995 via Airborne to Ms. Julie Schreiber of Camp, Dresser and McKee by Ms. Deborah Carella of Recra Environmental.

Quality Control analysis was performed on a batch basis for water samples.

The PAH volumes for samples MW-546-02 and MW-546-03 were received broken.

SEMIVOLATILE DATA

Semivolatile sample and standard areas are listed on the corresponding data system printouts.

Semivolatile data was processed utilizing Finnigan Autoquantitation and Rebra Environmental's Inc.'s Analytical Information Management Systems (AIMS). All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. False positive compounds are crossed out, initialed and dated in this data package.

Due to a lack of sample volume pH could not be tested for on samples DCR-VER-23, DCR-VER-23MS and DCR-VER-23MSD.

Samples DCR-VER-23, DCR-VER-23MS and DCR-VER-23MSD all exhibit the recovery of internal standard Perylene-d12 as outside QC limits.

PCB DATA

The surrogate recovery of Tetrachloro-m-xylene fell outside QC limits in samples PBLK14, PBLK17, DCRVER201, DCRVER24, DCRVER25, DCRVER26, DCRVER27, DCRVER28, DCRVER29, DCRVER30, DCRVER33, DCRVER34, DCRVER36, DCRVER48, DCRVER49, DCRVER50, MSB14, MSBD14, MSB17, MSBD17, MW54602 and MW54603 on both the DB608 and DB1701 column.

The surrogate recovery of Decachlorobiphenyl fell outside QC limits in samples PBLK14, PBLK17, DCRVER201, DCRVER26, DCRVER27, DCRVER30, DCRVER33, DCRVER36, DCRVER48, DCRVER49, DCRVER50, MSB14, MSBD14, MSB17, MSBD17, MW54602 and MW54603 on both the DB608 and DB1701 columns.

The Endrin percent breakdown and combined percent breakdown are above QC limits on the DB608 column in: PEM10 analyzed on 8/31/95 at 02:15; PEM11 analyzed on 9/6/95 at 14:08; PEM12 analyzed on 9/7/95 at 04:40; PEM13 analyzed on 9/8/95 at 03:49; PEM15 analyzed on 9/10/95 at 01:36; PEM16 analyzed on 9/10/95 at 23:23. PEM14 analyzed on 9/9/95 at 01:37 exhibits the combined percent breakdown above QC limits.

The relative percent difference of Methoxychlor fell outside QC limits on the DB1701 column in: PEM10 analyzed on 8/31/95 at 02:15.

The relative percent difference of Methoxychlor fell outside QC limits on the DB608 column in: PEM10 analyzed on 8/31/95 at 02:15; PEM11 analyzed on 9/6/95 at 14:08; PEM12 analyzed on 9/7/95 at 04:40; PEM13 analyzed on 9/8/95 at 03:49; PEM14 analyzed on 9/9/95 at 01:37. The relative percent difference of Endrin, 4,4'-DDT and Methoxychlor fell outside QC limits on the DB608 column in: PEM15 analyzed on 9/10/95 at 01:36; PEM16 analyzed on 9/10/95 at 23:23.

The relative percent difference of Methoxychlor and combined percent breakdown fell outside QC limits on the DB1701 column in: PEM11 analyzed on 9/6/95 at 14:08; PEM13 analyzed on 9/8/95 at 03:49; PEM14 analyzed on 9/9/95 at 01:37. The Endrin percent breakdown and combined percent breakdown fell outside QC limits on the DB1701 column in: PEM12 analyzed on 9/7/95 at 04:40. The relative percent difference of Endrin, Methoxychlor, Endrin percent breakdown fell and combined percent breakdown fell outside QC limits on the DB1701 column in: PEM15 analyzed on 9/10/95 at 01:36; PEM16 analyzed on 9/10/95 at 23:23.



The relative percent difference of Methoxychlor fell outside QC limits on the DB608 column in: INDAM08 analyzed on 8/31/95 at 07:21; INDAM10 analyzed on 9/7/95 at 16:55. The relative percent difference of 4,4'-DDT and Methoxychlor fell outside QC limits on the DB608 column in: INDAM11 analyzed on 9/8/95 at 14:43. The relative percent difference of Endrin, 4,4'-DDT and Methoxychlor fell outside QC limits on the DB608 column in: INDAM12 analyzed on 9/10/95 at 12:28. INDAM13 analyzed on 9/11/95 at 11:01 exhibits the relative percent difference of Endrin, 4,4'-DDT and Methoxychlor as outside QC limits on column DB608.

The relative percent difference of Methoxychlor fell outside QC limits on the DB1701 column in: INDAM10 analyzed on 9/7/95 at 16:55. The relative percent difference of 4,4'-DDT and Methoxychlor fell outside QC limits on the DB608 column in: INDAM11 analyzed on 9/8/95 at 14:43 and INDAM12 analyzed on 9/10/95 at 12:28. INDAM13 analyzed on 9/11/95 at 11:01 exhibits the relative percent difference of Endrin, 4,4'-DDT and Methoxychlor as outside QC limits on column DB608.

The retention time of surrogate TCX fell outside retention time windows on the DB608 column for PIBLK23 and PIBLK25.

The retention time of surrogates TCX and DCB fell outside retention time windows on the DB1701 column for PIBLK16.

The retention time of surrogate DCB fell outside retention time windows on the DB1701 column for samples: DCRVER29, DCRVER30, DCRVER31, PIBLK29, PEM16, DCRVER32, DCRVER33 and DCRVER34. The retention of surrogates TCX and DCB fell outside retention time windows on the DB1701 column for samples: DCRVER35, DCRVER36, MSB17, PBLK17 and MSBD17.

The percent recovery of Heptachlor and Endrin fell outside QC limits for the Pest GPC calibration on column DB608.

PIBLK22 analyzed on 9/7/95 at 03:57; PEM12 analyzed on 9/7/95 at 04:40; PEM13 analyzed on 9/8/95 at 03:49; PIBLK29 analyzed on 9/10/95 at 22:40 and PEM16 analyzed on 9/10/95 at 23:23 all exhibit the retention time of Decachlorobiphenyl outside QC limits on the DB1701 column.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."


Kenneth E. Kasperek
Laboratory Director

9/29/95
Date

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: RECRA ENVIRONMENTAL, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	BNA GC/MS	VOA GC	PCB	METALS	OTHER
DCR-VER-201	A5468506	-	ASP91	-	ASP91	-	-
DCR-VER-23	A5468501	-	ASP91	-	ASP91	-	-
DCR-VER-24	A5468502	-	ASP91	-	ASP91	-	-
DCR-VER-25	A5468503	-	ASP91	-	ASP91	-	-
DCR-VER-26	A5468504	-	ASP91	-	ASP91	-	-
DCR-VER-27	A5468505	-	ASP91	-	ASP91	-	-
DCR-VER-28	A5468512	-	ASP91	-	ASP91	-	-
DCR-VER 29	A5468513	-	ASP91	-	ASP91	-	-
DCR-VER-30	A5468514	-	ASP91	-	ASP91	-	-
DCR-VER-31	A5468515	-	ASP91	-	ASP91	-	-
DCR-VER-32	A5468516	-	ASP91	-	ASP91	-	-
DCR-VER-33	A5468517	-	ASP91	-	ASP91	-	-
DCR-VER-34	A5468518	-	ASP91	-	ASP91	-	-
DCR-VER-35	A5468519	-	ASP91	-	ASP91	-	-
DCR-VER-36	A5468520	-	ASP91	-	ASP91	-	-
DCR-VER-48	A5468510	-	ASP91	-	ASP91	-	-
DCR-VER-49	A5468511	-	ASP91	-	ASP91	-	-
DCR-VER-50	A5468507	-	ASP91	-	ASP91	-	-
MW-546-02	A5468508	-	-	-	ASP91	-	-
MW-546-03	A5468509	-	-	-	ASP91	-	-

NYSDEC-1



RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
BIN-A ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
DCR-VER-201	SOIL	09/01/95	09/02/95	09/06/95	09/08/95
DCR-VER-23	SOIL	09/01/95	09/02/95	09/06/95	09/09/95
DCR-VER-24	SOIL	09/01/95	09/02/95	09/06/95	09/09/95
DCR-VER-25	SOIL	09/01/95	09/02/95	09/06/95	09/08/95
DCR-VER-26	SOIL	09/01/95	09/02/95	09/06/95	09/08/95
DCR-VER-27	SOIL	09/01/95	09/02/95	09/06/95	09/08/95
DCR-VER-28	SOIL	09/01/95	09/02/95	09/06/95	09/08/95
DCR-VER-29	SOIL	09/01/95	09/02/95	09/06/95	09/08/95
DCR-VER-30	SOIL	09/01/95	09/02/95	09/06/95	09/08/95
DCR-VER-31	SOIL	09/01/95	09/02/95	09/06/95	09/08/95
DCR-VER-32	SOIL	09/01/95	09/02/95	09/06/95	09/08/95
DCR-VER-33	SOIL	09/01/95	09/02/95	09/06/95	09/08/95
DCR-VER-34	SOIL	09/01/95	09/02/95	09/06/95	09/08/95
DCR-VER-35	SOIL	09/01/95	09/02/95	09/06/95	09/09/95
DCR-VER-36	SOIL	09/01/95	09/02/95	09/06/95	09/09/95
DCR-VER-48	SOIL	09/01/95	09/02/95	09/06/95	09/08/95
DCR-VER-49	SOIL	09/01/95	09/02/95	09/06/95	09/08/95
DCR-VER-50	SOIL	09/01/95	09/02/95	09/06/95	09/08/95

NYSDEC-3



RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PCB ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
DCR-VER-201	SOIL	09/01/95	09/02/95	09/08/95	09/10/95
DCR-VER-23	SOIL	09/01/95	09/02/95	09/08/95	09/10/95
DCR-VER-24	SOIL	09/01/95	09/02/95	09/08/95	09/10/95
DCR-VER-25	SOIL	09/01/95	09/02/95	09/08/95	09/10/95
DCR-VER-26	SOIL	09/01/95	09/02/95	09/08/95	09/10/95
DCR-VER-27	SOIL	09/01/95	09/02/95	09/08/95	09/10/95
DCR-VER-28	SOIL	09/01/95	09/02/95	09/08/95	09/10/95
DCR-VER-29	SOIL	09/01/95	09/02/95	09/08/95	09/10/95
DCR-VER-30	SOIL	09/01/95	09/02/95	09/08/95	09/10/95
DCR-VER-31	SOIL	09/01/95	09/02/95	09/08/95	09/10/95
DCR-VER-32	SOIL	09/01/95	09/02/95	09/08/95	09/11/95
DCR-VER-33	SOIL	09/01/95	09/02/95	09/08/95	09/11/95
DCR-VER-34	SOIL	09/01/95	09/02/95	09/08/95	09/11/95
DCR-VER-35	SOIL	09/01/95	09/02/95	09/08/95	09/11/95
DCR-VER-36	SOIL	09/01/95	09/02/95	09/08/95	09/11/95
DCR-VER-48	SOIL	09/01/95	09/02/95	09/08/95	09/10/95
DCR-VER-49	SOIL	09/01/95	09/02/95	09/08/95	09/10/95
DCR-VER-50	SOIL	09/01/95	09/02/95	09/08/95	09/10/95
MW-546-02	WATER	09/01/95	09/02/95	09/07/95	09/07/95
MW-546-03	WATER	09/01/95	09/02/95	09/07/95	09/07/95

NYSDEC-4



RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
ORGANIC ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
DCR-VER-201	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-23	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-24	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-25	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-26	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-27	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-28	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-29	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-30	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-31	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-32	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-33	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-34	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-35	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-36	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-48	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-49	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-50	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
MW-546-02	WATER	ASP91	SEPF	AS REQUIRED	AS REQUIRED
MW-546-03	WATER	ASP91	SEPF	AS REQUIRED	AS REQUIRED

NYSDEC-6

ORGANIC DATA COMMENT PAGE

000009

Laboratory Name RECRA ENVIRONMENTAL, INC.

USEPA Defined Organic Data Qualifiers:

- U - Indicates compound was analyzed for but not detected.
- J - Indicates an estimate value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- G - The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
- L - The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.
- T - This flag is used when the analyte is found in the associated TCLP extraction as well as in the sample.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- A - This flag indicates that a TIC is a suspected aldol-condensation product.



ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000010

Client No.

DCR-VER-23

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468501

Sample wt/vol: 24.27 (g/mL) G Lab File ID: 23263X.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 4.4 decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/09/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 0.0

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
200-96-8	ACENAPHTHYLENE	300	U
12-7	ANTHRACENE	300	U
56-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	380	
50-32-8	BENZO (A) PYRENE	32	J
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

DCR-VER-23
 (PAHs)

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000011

Client No.

DCR-VER-24

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECN

Case No.: 5324

SAS No.: _____

SDG No.: VER23

Matrix: (soil/water) SOIL

Lab Sample ID: A5468502

Sample wt/vol: 40.74 (g/mL) G

Lab File ID: 23266X.MSO

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

Moisture: 6.9 decanted: (Y/N) N

Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 09/09/95

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

SPC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
200-96-8	ACENAPHTHYLENE	300	U
12-7	ANTHRACENE	300	U
50-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	25	J
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000012

Client No.

DCR-VER-25

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468503

Sample wt/vol: 40.83 (g/mL) G Lab File ID: 23241X.MSO

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 8.6 decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/KG</u>	Q
83-32-9	ACENAPHTHENE	300		U
209-96-8	ACENAPHTHYLENE	300		U
124-2-7	ANTHRACENE	300		U
56-55-3	BENZO (A) ANTHRACENE	300		U
205-99-2	BENZO (B) FLUORANTHENE	300		U
207-08-9	BENZO (K) FLUORANTHENE	300		U
191-24-2	BENZO (G, H, I) PERYLENE	140		J
50-32-8	BENZO (A) PYRENE	31		J
218-01-9	CHRYSENE	300		U
53-70-3	DIBENZO (A, H) ANTHRACENE	300		U
206-44-0	FLUORANTHENE	300		U
86-73-7	FLUORENE	300		U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300		U
91-57-6	2-METHYLNAPHTHALENE	300		U
91-20-3	NAPHTHALENE	300		U
85-01-8	PHENANTHRENE	300		U
129-00-0	PYRENE	300		U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000013

Client No.

DCR-VER-26

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468504
 Sample wt/vol: 40.88 (g/mL) G Lab File ID: 23242X.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 % Moisture: 5.8 decanted: (Y/N) N Date Extracted: 09/06/95
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95
 Injection Volume: 2.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.5

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
-12-7	ANTHRACENE	300	U
56-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	42	J
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000014

Client No.

DCR-VER-27

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECNV

Case No.: 5324

SAS No.: _____

SDG No.: VER23

Matrix: (soil/water) SOIL

Lab Sample ID: A5468505

Sample wt/vol: 40.67 (g/mL) G

Lab File ID: 23243X.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

Moisture: 8.9 decanted: (Y/N) N

Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.5

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
200-96-8	ACENAPHTHYLENE	300	U
12-7	ANTHRACENE	300	U
56-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	240	J
191-24-2	BENZO (G, H, I) PERYLENE	14	J
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000015

Client No.

DCR-VER-28

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468512

Sample wt/vol: 40.70 (g/mL) G Lab File ID: 23252X.MSO

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 8.1 decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.7

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9	ACENAPHTHENE	300		U
77-96-8	ACENAPHTHYLENE	300		U
12-7	ANTHRACENE	300		U
56-55-3	BENZO (A) ANTHRACENE	300		U
205-99-2	BENZO (B) FLUORANTHENE	300		U
207-08-9	BENZO (K) FLUORANTHENE	300		U
191-24-2	BENZO (G, H, I) PERYLENE	300		U
50-32-8	BENZO (A) PYRENE	9		J
218-01-9	CHRYSENE	300		U
53-70-3	DIBENZO (A, H) ANTHRACENE	300		U
206-44-0	FLUORANTHENE	300		U
86-73-7	FLUORENE	300		U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300		U
91-57-6	2-METHYLNAPHTHALENE	300		U
91-20-3	NAPHTHALENE	300		U
85-01-8	PHENANTHRENE	300		U
129-00-0	PYRENE	300		U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000016

Client No.

DCR-VER-29

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468513

Sample wt/vol: 40.64 (g/mL) G Lab File ID: 23253X.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 6.9 decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.6

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/KG</u>	Q
83-32-9	ACENAPHTHENE	300		U
200-96-8	ACENAPHTHYLENE	300		U
12-7	ANTHRACENE	300		U
56-55-3	BENZO (A) ANTHRACENE	300		U
205-99-2	BENZO (B) FLUORANTHENE	300		U
207-08-9	BENZO (K) FLUORANTHENE	300		U
191-24-2	BENZO (G, H, I) PERYLENE	300		U
50-32-8	BENZO (A) PYRENE	300		U
218-01-9	CHRYSENE	300		U
53-70-3	DIBENZO (A, H) ANTHRACENE	300		U
206-44-0	FLUORANTHENE	300		U
86-73-7	FLUORENE	300		U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300		U
91-57-6	2-METHYLNAPHTHALENE	300		U
91-20-3	NAPHTHALENE	300		U
85-01-8	PHENANTHRENE	300		U
129-00-0	PYRENE	300		U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

C00017

Client No.

DCR-VER-30

Lab Name: Recra Environmental Contract: MQ772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468514

Sample wt/vol: 40.70 (g/mL) G Lab File ID: 23254X.MSO

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 6.2 decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

RPC Cleanup: (Y/N) Y pH: 8.7

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
200-96-8	ACENAPHTHYLENE	300	U
12-7	ANTHRACENE	300	U
50-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	6	J
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000018

Client No.

DCR-VER-31

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECNV

Case No.: 5324

SAS No.: _____

SDG No.: VER23

Matrix: (soil/water) SOIL

Lab Sample ID: A5468515

Sample wt/vol: 40.22 (g/mL) G

Lab File ID: 23255X.MSO

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

Moisture: 7.9 decanted: (Y/N) N

Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.5

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	<u>UG/KG</u>	<u>Q</u>
83-32-9-----	ACENAPHTHENE		300	U
200-96-8-----	ACENAPHTHYLENE		300	U
12-7-----	ANTHRACENE		300	U
50-55-3-----	BENZO (A) ANTHRACENE		300	U
205-99-2-----	BENZO (B) FLUORANTHENE		300	U
207-08-9-----	BENZO (K) FLUORANTHENE		300	U
191-24-2-----	BENZO (G, H, I) PERYLENE		300	U
50-32-8-----	BENZO (A) PYRENE		11	J
218-01-9-----	CHRYSENE		300	U
53-70-3-----	DIBENZO (A, H) ANTHRACENE		300	U
206-44-0-----	FLUORANTHENE		300	U
86-73-7-----	FLUORENE		300	U
193-39-5-----	INDENO (1, 2, 3-CD) PYRENE		300	U
91-57-6-----	2-METHYLNAPHTHALENE		300	U
91-20-3-----	NAPHTHALENE		300	U
85-01-8-----	PHENANTHRENE		300	U
129-00-0-----	PYRENE		300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000019

Client No.

DCR-VER-32

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER23

Matrix: (soil/water) SOIL

Lab Sample ID: A5468516

Sample wt/vol: 40.87 (g/mL) G

Lab File ID: 23256X.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

Moisture: 8.1 decanted: (Y/N) N

Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

PC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
200-96-8	ACENAPHTHYLENE	300	U
124-2-7	ANTHRACENE	300	U
56-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	12	J
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000020

Client No.

DCR-VER-33

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468517
 Sample wt/vol: 40.67 (g/mL) G Lab File ID: 23257X.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 Moisture: 6.6 decanted: (Y/N) N Date Extracted: 09/06/95
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95
 Injection Volume: 2.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
96-8	ACENAPHTHYLENE	300	U
12-7	ANTHRACENE	300	U
56-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	12	J
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000021

Client No.

DCR-VER-34

Lab Name: Recra Environmental Contract: MQ772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468518

Sample wt/vol: 40.82 (g/mL) G Lab File ID: 23258X.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 7.9 decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.6

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
96-8	ACENAPHTHYLENE	300	U
-12-7	ANTHRACENE	300	U
56-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	6	J
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000022

Client No.

DCR-VER-35

Lab Name: Recra Environmental

Contract: M0772732MO

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER23

Matrix: (soil/water) SOIL

Lab Sample ID: A5468519

Sample wt/vol: 40.96 (g/mL) G

Lab File ID: 23259X.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

Moisture: 9.7 decanted: (Y/N) N

Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 09/09/95

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.5

CONCENTRATION UNITS:
(ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
-12-7	ANTHRACENE	300	U
50-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	6	J
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000023

Client No.

DCR-VER-36

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468520

Sample wt/vol: 40.76 (g/mL) G Lab File ID: 23260X.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 21.7 decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/09/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.3

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
-12-7	ANTHRACENE	300	U
50-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	11	J
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000024

Client No.

DCR-VER-48

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468510

Sample wt/vol: 40.84 (g/mL) G Lab File ID: 23250X.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 12.9 decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.8

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
-12-7	ANTHRACENE	300	U
55-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000025

Client No.

DCR-VER-49

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468511
 Sample wt/vol: 40.23 (g/mL) G Lab File ID: 23251X.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 Moisture: 10.9 decanted: (Y/N) N Date Extracted: 09/06/95
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95
 Injection Volume: 2.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9	ACENAPHTHENE		300	U
3-96-8	ACENAPHTHYLENE		300	U
124-12-7	ANTHRACENE		300	U
56-55-3	BENZO (A) ANTHRACENE		300	U
205-99-2	BENZO (B) FLUORANTHENE		300	U
207-08-9	BENZO (K) FLUORANTHENE		300	U
191-24-2	BENZO (G, H, I) PERYLENE		300	U
50-32-8	BENZO (A) PYRENE		8	J
218-01-9	CHRYSENE		300	U
53-70-3	DIBENZO (A, H) ANTHRACENE		300	U
206-44-0	FLUORANTHENE		300	U
86-73-7	FLUORENE		300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE		300	U
91-57-6	2-METHYLNAPHTHALENE		300	U
91-20-3	NAPHTHALENE		300	U
85-01-8	PHENANTHRENE		300	U
129-00-0	PYRENE		300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000026

Client No.

DCR-VER-50

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468507

Sample wt/vol: 40.16 (g/mL) G Lab File ID: 23245X.MSO

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 10.6 decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.2

CONCENTRATION UNITS:
(ug/L or ug/Kg)

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
200-96-8	ACENAPHTHYLENE	300	U
12-7	ANTHRACENE	300	U
56-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000027

Client No.

DCR-VER-201

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468506
 Sample wt/vol: 40.15 (g/mL) G Lab File ID: 23244X.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 Moisture: 7.6 decanted: (Y/N) N Date Extracted: 09/06/95
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/08/95
 Injection Volume: 2.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
12-7	ANTHRACENE	300	U
55-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	25	J
50-32-8	BENZO (A) PYRENE	13	J
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

*DCR-VER-201
 (field dup. of
 DCR-VER-18)*

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DC000028

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468501
 Sample wt/vol: 1.1 (g/mL) G Lab File ID: _____
 % Moisture: 4 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	920	U
11104-28-2-----	Aroclor-1221	1900	U
11141-16-5-----	Aroclor-1232	920	U
53469-21-9-----	Aroclor-1242	920	U
12672-29-6-----	Aroclor-1248	920	U
11097-69-1-----	Aroclor-1254	920	U
11096-82-5-----	Aroclor-1260	920	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000029**

DCRVER24

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468502
 Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____
 % Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

12674-11-2-----Aroclor-1016	35	U
11104-28-2-----Aroclor-1221	72	U
11141-16-5-----Aroclor-1232	35	U
53469-21-9-----Aroclor-1242	35	U
12672-29-6-----Aroclor-1248	17	J
11097-69-1-----Aroclor-1254	35	U
11096-82-5-----Aroclor-1260	15	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAM **000030**

DCRVER25

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468503
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____
 % Moisture: 9 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.

COMPOUND

12674-11-2-----Aroclor-1016	36	U
11104-28-2-----Aroclor-1221	74	U
11141-16-5-----Aroclor-1232	36	U
53469-21-9-----Aroclor-1242	36	U
12672-29-6-----Aroclor-1248	36	U
11097-69-1-----Aroclor-1254	36	U
11096-82-5-----Aroclor-1260	36	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
000031

DCRVER26

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468504
 Sample wt/vol: 30.4 (g/mL) G Lab File ID: _____
 % Moisture: 6 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.5 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	70	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	12	J
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	14	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLING ID: **990082**

DCRVER27

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468505
 Sample wt/vol: 30.4 (g/mL) G Lab File ID: _____
 % Moisture: 9 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.5 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	73	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	36	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SA **000033**

DCRVER28

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468512
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.7 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	73	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	11	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SA ~~000034~~

DCRVER29

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468513
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____
 % Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.6 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION	UNITS
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	72	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	6.9	JP

000035

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER30

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468514

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 6 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.7 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	71	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	35	U
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	35	U

000036

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER31

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468515

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.5 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.

COMPOUND

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	73	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	11	JP

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000037**

DCRVER32

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468516
 Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/11/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION	UNITS
12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	72	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	12	JP

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000038**

DCRVER33

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468517
 Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____
 % Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/11/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.5 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	72	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	35	U
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	35	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000039
EPA SAMPLE NO.

DCRVER34

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468518
 Sample wt/vol: 30.3 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/11/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.6 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION	UNIT
12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	72	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	14	JP

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000040**

DCRVER35

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468519
 Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____
 % Moisture: 10 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/11/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.5 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	74	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	36	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000041
EPA SAMPLE NO.

DCRVER36

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468520

Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____

% Moisture: 22 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/11/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.3 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	42	U
11104-28-2-----	Aroclor-1221	86	U
11141-16-5-----	Aroclor-1232	42	U
53469-21-9-----	Aroclor-1242	42	U
12672-29-6-----	Aroclor-1248	42	U
11097-69-1-----	Aroclor-1254	42	U
11096-82-5-----	Aroclor-1260	4.1	JP

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER48

Law Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468510
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: _____
 % Moisture: 13 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.8 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	37	U
11104-28-2-----	Aroclor-1221	76	U
11141-16-5-----	Aroclor-1232	37	U
53469-21-9-----	Aroclor-1242	37	U
12672-29-6-----	Aroclor-1248	37	U
11097-69-1-----	Aroclor-1254	37	U
11096-82-5-----	Aroclor-1260	37	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER49

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468511
 Sample wt/vol: 30.3 (g/mL) G Lab File ID: _____
 % Moisture: 11 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.7 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

12674-11-2-----Aroclor-1016	37	U
11104-28-2-----Aroclor-1221	75	U
11141-16-5-----Aroclor-1232	37	U
53469-21-9-----Aroclor-1242	37	U
12672-29-6-----Aroclor-1248	37	U
11097-69-1-----Aroclor-1254	37	U
11096-82-5-----Aroclor-1260	37	U

000044

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER50

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468507
 Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____
 % Moisture: 11 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.2 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

12674-11-2-----Aroclor-1016	37	U
11104-28-2-----Aroclor-1221	75	U
11141-16-5-----Aroclor-1232	37	U
53469-21-9-----Aroclor-1242	37	U
12672-29-6-----Aroclor-1248	37	U
11097-69-1-----Aroclor-1254	37	U
11096-82-5-----Aroclor-1260	37	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

000045

DCRVER201

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468506
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	72	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	35	U
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	35	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

000031

DCRVER26

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468504
 Sample wt/vol: 30.4 (g/mL) G Lab File ID: _____
 % Moisture: 6 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.5 Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	70	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	12	J
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	14	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLING ID: **990032**

DCRVER27

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468505
 Sample wt/vol: 30.4 (g/mL) G Lab File ID: _____
 % Moisture: 9 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.5 Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	73	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	36	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA S **000033**

DCRVER28

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468512
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.7 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	73	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	11	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SA **080034**

DCRVER29

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468513
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____
 % Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.6 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION	Q
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	72	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	6.9	JP

000035

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER30

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468514

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 6 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.7 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2- - - - -	Aroclor-1016	35	U
11104-28-2- - - - -	Aroclor-1221	71	U
11141-16-5- - - - -	Aroclor-1232	35	U
53469-21-9- - - - -	Aroclor-1242	35	U
12672-29-6- - - - -	Aroclor-1248	35	U
11097-69-1- - - - -	Aroclor-1254	35	U
11096-82-5- - - - -	Aroclor-1260	35	U

000036

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER31

Lab Name: RECRA ENVIRON

Contract: NY95-438

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER23

Matrix: (soil/water) SOIL

Lab Sample ID: A5468515

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: _____

% Moisture: 8 decanted: (Y/N) N

Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 09/08/95

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 09/10/95

Injection Volume: 1.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y

pH: 8.5

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	73	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	11	JP

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000037**

DCRVER32

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468516
 Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/11/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2------	Aroclor-1016	36	U
11104-28-2------	Aroclor-1221	72	U
11141-16-5------	Aroclor-1232	36	U
53469-21-9------	Aroclor-1242	36	U
12672-29-6------	Aroclor-1248	36	U
11097-69-1------	Aroclor-1254	36	U
11096-82-5------	Aroclor-1260	12	JP

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000038**

DCRVER33

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468517
 Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____
 % Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/11/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.5 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION	Q
12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	72	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	35	U
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	35	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000039
EPA SAMPLE NO.

DCRVER34

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468518
 Sample wt/vol: 30.3 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/11/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.6 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	72	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	14	JP

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000040**

DCRVER35

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468519
 Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____
 % Moisture: 10 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/11/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.5 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	74	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	36	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER36

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468520

Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____

% Moisture: 22 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/11/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.3 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	42	U
11104-28-2-----	Aroclor-1221	86	U
11141-16-5-----	Aroclor-1232	42	U
53469-21-9-----	Aroclor-1242	42	U
12672-29-6-----	Aroclor-1248	42	U
11097-69-1-----	Aroclor-1254	42	U
11096-82-5-----	Aroclor-1260	4.1	JP

000042

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER48

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468510
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: _____
 % Moisture: 13 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.8 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	37	U
11104-28-2-----	Aroclor-1221	76	U
11141-16-5-----	Aroclor-1232	37	U
53469-21-9-----	Aroclor-1242	37	U
12672-29-6-----	Aroclor-1248	37	U
11097-69-1-----	Aroclor-1254	37	U
11096-82-5-----	Aroclor-1260	37	U

000043

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER49

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5468511

Sample wt/vol: 30.3 (g/mL) G Lab File ID: _____

% Moisture: 11 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.7 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS	Q
12674-11-2-----	Aroclor-1016	37	U
11104-28-2-----	Aroclor-1221	75	U
11141-16-5-----	Aroclor-1232	37	U
53469-21-9-----	Aroclor-1242	37	U
12672-29-6-----	Aroclor-1248	37	U
11097-69-1-----	Aroclor-1254	37	U
11096-82-5-----	Aroclor-1260	37	U

000044

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER50

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468507
 Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____
 % Moisture: 11 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.2 Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

12674-11-2-----	Aroclor-1016	37	U
11104-28-2-----	Aroclor-1221	75	U
11141-16-5-----	Aroclor-1232	37	U
53469-21-9-----	Aroclor-1242	37	U
12672-29-6-----	Aroclor-1248	37	U
11097-69-1-----	Aroclor-1254	37	U
11096-82-5-----	Aroclor-1260	37	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

000045

DCRVER201

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5468506
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>		Q
12674-11-2-----	Aroclor-1016	35		U
11104-28-2-----	Aroclor-1221	72		U
11141-16-5-----	Aroclor-1232	35		U
53469-21-9-----	Aroclor-1242	35		U
12672-29-6-----	Aroclor-1248	35		U
11097-69-1-----	Aroclor-1254	35		U
11096-82-5-----	Aroclor-1260	35		U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000046
EPA SAMPLE NO.

MW54602

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) WATER Lab Sample ID: A5468508
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____
 Moisture: _____ decanted: (Y/N) _____ Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/07/95
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/07/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 PC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
12674-11-2-----	Aroclor-1016	0.065	U
11104-28-2-----	Aroclor-1221	0.065	U
11141-16-5-----	Aroclor-1232	0.065	U
53469-21-9-----	Aroclor-1242	0.065	U
12672-29-6-----	Aroclor-1248	0.065	U
11097-69-1-----	Aroclor-1254	0.065	U
11096-82-5-----	Aroclor-1260	0.17	

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000047**

MW54603

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) WATER Lab Sample ID: A5468509
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____
 Moisture: _____ decanted: (Y/N) _____ Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/07/95
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/07/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	CONCENTRATION	Q
12674-11-2	Aroclor-1016	0.065	U
11104-28-2	Aroclor-1221	0.065	U
11141-16-5	Aroclor-1232	0.065	U
53469-21-9	Aroclor-1242	0.065	U
12672-29-6	Aroclor-1248	0.065	U
11097-69-1	Aroclor-1254	0.065	U
11096-82-5	Aroclor-1260	0.065	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL SURROGATE RECOVERY

000048

Lab Name: Recra Environmental, Inc.

Contract: MO772732MO

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER23

Level (low/med): LOW

Client Sample ID	2CP %REC #	2FP %REC #	DCB %REC #	FBP %REC #	NBZ %REC #	PHL %REC #	TBP %REC #	TPH %REC #	TOT OUT
DCR-VER-201	73	77	71	70	65	74	123 *	90	1
DCR-VER-23	49	48	48	49	46	47	77	64	0
DCR-VER-23 MS	68	68	65	61	64	71	86	75	0
DCR-VER-23 MSD	77	77	70	64	63	77	87	78	0
DCR-VER-24	56	59	54	53	51	58	76	65	0
DCR-VER-25	100	102	95	108	95	102	167 *	139 *	2
DCR-VER-26	101	101	90	103	90	97	161 *	127	1
DCR-VER-27	71	74	71	70	63	70	110	90	0
DCR-VER-28	59	63	61	61	62	63	87	81	0
DCR-VER-29	68	78	66	67	69	68	102	93	0
DCR-VER-30	62	66	60	65	59	64	86	82	0
DCR-VER-31	66	70	62	63	67	65	95	82	0
DCR-VER-32	66	72	65	64	68	72	94	82	0
DCR-VER-33	57	64	49	55	55	61	90	76	0
DCR-VER-34	59	67	51	58	57	62	96	77	0
DCR-VER-35	65	70	58	60	64	62	92	82	0
DCR-VER-36	58	64	51	53	56	59	83	78	0
DCR-VER-48	54	54	48	57	57	53	74	80	0
DCR-VER-49	59	64	53	56	59	59	89	78	0
DCR-VER-50	81	78	71	76	75	75	136 *	103	1
Matrix Spike Blank	79	91	75	76	72	81	103	98	0
SBLK87	69	74	72	69	72	73	101	93	0

QC LIMITS

2CP	= 2-Chlorophenol-d4	(20-130)
2FP	= 2-Fluorophenol	(25-121)
DCB	= 1,2-Dichlorobenzene-d4	(20-130)
FBP	= 2-Fluorobiphenyl	(30-115)
NBZ	= Nitrobenzene-D5	(23-120)
PHL	= Phenol-D5	(24-113)
TBP	= 2,4,6-Tribromophenol	(19-122)
TPH	= Terphenyl-D14	(18-137)

- # Column to be used to flag recovery values
- * Values outside of contract required QC limits
- D Surrogates diluted out

2E

WATER PESTICIDE SURROGATE RECOVERY

Job Name: RECRA ENVIRON Contract: NY95-438
 Job Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 GC Column(1): DB608 ID: 0.53(mm) GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====
01	PBLK14	16*	15*	36*	33*			4
02	MSB14	15*	14*	33*	30*			4
03	MSBD14	16*	15*	33*	31*			4
04	MW54602	21*	20*	36*	34*			4
05	MW54603	28*	15*	35*	32*			4

 ADVISORY
 QC LIMITS

TCX = Tetrachloro-m-xylene (60-150)
 DCB = Decachlorobiphenyl (60-150)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogate diluted out

2F
SOIL PESTICIDE SURROGATE RECOVERY

000050

Contract Name: RECRA ENVIRON

Contract: NY95-438

Lab Code: RECNY Case No.: 5324

SAS No.: _____

SDG No.: VER23

GC Column(1): DB608 ID: 0.53(mm)

GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK17	26*	26*	37*	35*			4
02	DCRVER201	32*	33*	46*	44*			4
03	DCRVER23	82	82	102	103			0
04	DCRVER24	49*	50*	68	68			2
05	DCRVER25	53*	54*	76	76			2
06	DCRVER26	25*	26*	37*	35*			4
07	DCRVER27	40*	40*	56*	55*			4
08	DCRVER28	42*	43*	62	83			2
09	DCRVER29	45*	45*	60	60			2
10	DCRVER30	36*	36*	54*	52*			4
11	DCRVER31	66	68	84	85			0
12	DCRVER32	61	62	78	78			0
13	DCRVER33	18*	18*	26*	24*			4
14	DCRVER34	42*	41*	62	61			2
15	DCRVER35	60	62	76	76			0
16	DCRVER36	36*	36*	57*	56*			4
17	DCRVER48	36*	36*	53*	51*			4
18	DCRVER49	40*	40*	55*	54*			4
19	DCRVER50	32*	32*	45*	43*			4
20	MSB17	30*	30*	46*	44*			4
21	MSBD17	33*	33*	47*	45*			4

ADVISORY
QC LIMITS
(60-150)
(60-150)

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL MATRIX SPIKE BLANK RECOVERY

C00051

Na. Recra Environmental, Inc.

Contract: MQ772732MQ

Lab Samp ID: A5B0585501

Code: RECNY Case No.: 5324

SAS No.: _____

SDG No.: VER23

Matrix Spike - Client Sample No.: ~~SBLK87~~ ^{MSBLANK} Level: (low/med) LOW

MSA 9/28/95

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.
benaphthene	1200	920	77	31 - 137
rene	1200	1000	83	35 - 142

column to be used to flag recovery and RPD values with an asterisk

values outside of QC limits

like recovery: 0 out of 2 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

000052

Client: Recra Environmental, Inc.

Contract: MQ772732MQ

Lab Samp ID: A5468501

Code: RECY Case No.: 5324

SAS No.: _____

SDG No.: VER23

Matrix Spike - Client Sample No.: DCR-VER-23

Level: (low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.
Benaphthene	2100	0	1300	62	31 - 137
Pyrene	2100	0	1500	71	35 - 142

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS REC.
Benaphthene	2100	1300	62	0	19 31 - 137
Pyrene	2100	1500	71	0	36 35 - 142

Column to be used to flag recovery and RPD values with an asterisk

Value outside of QC limits

MSD: 0 out of 2 outside limits
 Spike recovery: 0 out of 4 outside limits

Comments: _____

3F
WATER PCB MSB/MSBD RECOVERY

000053

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix Spike - EPA Sample No.: MSB14,MSBD14

COMPOUND	SPIKE ADDED (ug/L)	MSB CONCENTRATION (ug/L)	MSB % REC #
=====	=====	=====	=====
Aroclor 1242	1.00	0.46	46

COMPOUND	SPIKE ADDED (ug/L)	MSBD CONCENTRATION (ug/L)	MSBD % REC #
=====	=====	=====	=====
Aroclor 1242	1.0	0.49	49

COMMENTS:

3F
SOIL PCB MSB/MSBD RECOVERY

I Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix Spike - EPA Sample No.: MSB17,MSBD17

COMPOUND	SPIKE ADDED (ug/Kg)	MSB CONCENTRATION (ug/Kg)	MSB % REC #
=====	=====	=====	=====
Aroclor 1242	333	110	33

COMPOUND	SPIKE ADDED (ug/Kg)	MSBD CONCENTRATION (ug/Kg)	MSBD % REC #
=====	=====	=====	=====
Aroclor 1242	333	120	36

COMMENTS:

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 METHOD BLANK SUMMARY

000055
Client No.

SBLK87

Name: Recra Environmental, Contract: MO772732MO
 Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER23
 File ID: 23267X.MSQ Lab Sample ID: A5B0585501
 Instrument ID: I50X Date Extracted: 09/06/95
 Matrix: (soil/water) SOIL Date Analyzed: 09/09/95
 Level: (low/med) LOW Time Analyzed: 12:45

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
1	DCR-VER-201	A5468506	23244X.MSQ	09/08/95
2	DCR-VER-23	A5468501	23263X.MSQ	09/09/95
3	DCR-VER-23 MS	A5468501MS	23264X.MSQ	09/09/95
4	DCR-VER-23 MSD	A5468501SD	23265X.MSQ	09/09/95
5	DCR-VER-24	A5468502	23266X.MSQ	09/09/95
6	DCR-VER-25	A5468503	23241X.MSQ	09/08/95
7	DCR-VER-26	A5468504	23242X.MSQ	09/08/95
8	DCR-VER-27	A5468505	23243X.MSQ	09/08/95
9	DCR-VER-28	A5468512	23252X.MSQ	09/08/95
10	DCR-VER-29	A5468513	23253X.MSQ	09/08/95
11	DCR-VER-30	A5468514	23254X.MSQ	09/08/95
12	DCR-VER-31	A5468515	23255X.MSQ	09/08/95
13	DCR-VER-32	A5468516	23256X.MSQ	09/08/95
14	DCR-VER-33	A5468517	23257X.MSQ	09/08/95
15	DCR-VER-34	A5468518	23258X.MSQ	09/08/95
16	DCR-VER-35	A5468519	23259X.MSQ	09/09/95
17	DCR-VER-36	A5468520	23260X.MSQ	09/09/95
18	DCR-VER-48	A5468510	23250X.MSQ	09/08/95
19	DCR-VER-49	A5468511	23251X.MSQ	09/08/95
20	DCR-VER-50	A5468507	23245X.MSQ	09/08/95
21	Matrix Spike Blank	A5468521	23268X.MSQ	09/09/95

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000056

Client No.

SBLK87

Name: Recra Environmental Contract: MO772732MO

Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix: (soil/water) SOIL Lab Sample ID: A5B0585501

Sample wt/vol: 40.00 (g/mL) G Lab File ID: 23267X.MSQ

Level: (low/med) LOW Date Samp/Recv: _____

Moisture: _____ decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/09/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

AS NO.	COMPOUND	UG/KG	Q
3-32-9-----	ACENAPHTHENE	300	U
08-96-8-----	ACENAPHTHYLENE	300	U
20-?-7-----	ANTHRACENE	300	U
6-?-3-----	BENZO (A) ANTHRACENE	300	U
05-99-2-----	BENZO (B) FLUORANTHENE	300	U
07-08-9-----	BENZO (K) FLUORANTHENE	300	U
91-24-2-----	BENZO (G, H, I) PERYLENE	300	U
0-32-8-----	BENZO (A) PYRENE	300	U
18-01-9-----	CHRYSENE	300	U
3-70-3-----	DIBENZO (A, H) ANTHRACENE	300	U
06-44-0-----	FLUORANTHENE	300	U
36-73-7-----	FLUORENE	300	U
93-39-5-----	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6-----	2-METHYLNAPHTHALENE	300	U
91-20-3-----	NAPHTHALENE	300	U
35-01-8-----	PHENANTHRENE	300	U
129-00-0-----	PYRENE	300	U

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.
000057

PBLK14

Name: RECRA ENVIRON Contract: NY95-438
 Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Sample ID: A5B0590003 Lab File ID: _____
 Matrix: (soil/water) WATER Extraction: (SepF/Cont/Sonc) SEPF
 Sulfur Cleanup: (Y/N) Y Date Extracted: 09/07/95
 Date Analyzed (1): 09/07/95 Date Analyzed (2): 09/07/95
 Time Analyzed (1): 1822 Time Analyzed (2): 1822
 Instrument ID (1): 5890A9 Instrument ID (2): 5890B9
 Column (1): DB608 ID: 0.53 (mm) GC Column (2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	=====	=====	=====	=====
01	MSB14	A5B0590001	09/07/95	09/07/95
02	MSBD14	A5B0590002	09/07/95	09/07/95
03	MW54602	A5468508	09/07/95	09/07/95
04	MW54603	A5468509	09/07/95	09/07/95

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA ~~60058~~

PBLK14

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) WATER Lab Sample ID: A5B0590003
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____
 Moisture: _____ decanted: (Y/N) _____ Date Received: _____
 Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/07/95
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/07/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 PC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
12674-11-2-----	Aroclor-1016	0.065	U
11104-28-2-----	Aroclor-1221	0.065	U
11141-16-5-----	Aroclor-1232	0.065	U
53469-21-9-----	Aroclor-1242	0.065	U
12672-29-6-----	Aroclor-1248	0.014	JP
11097-69-1-----	Aroclor-1254	0.065	U
11096-82-5-----	Aroclor-1260	0.065	U

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK17

b . . . : RECRA ENVIRON Contract: NY95-438
 b Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 b Sample ID: A5B0593003 Lab File ID: _____
 trix: (soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC
 lfur Cleanup: (Y/N) N Date Extracted: 09/08/95
 te Analyzed (1): 09/11/95 Date Analyzed (2): 09/11/95
 me Analyzed (1): 0427 Time Analyzed (2): 0427
 strument ID (1): 5890A9 Instrument ID (2): 5890B9
 Column (1): DB608 ID: 0.53 (mm) GC Column (2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	=====	=====	=====	=====
01	DCRVER201	A5468506	09/10/95	09/10/95
02	DCRVER23	A5468501	09/10/95	09/10/95
03	DCRVER24	A5468502	09/10/95	09/10/95
04	DCRVER25	A5468503	09/10/95	09/10/95
05	DCRVER26	A5468504	09/10/95	09/10/95
06	DCRVER27	A5468505	09/10/95	09/10/95
07	DCRVER28	A5468512	09/10/95	09/10/95
08	DCRVER29	A5468513	09/10/95	09/10/95
09	DCRVER30	A5468514	09/10/95	09/10/95
10	DCRVER31	A5468515	09/10/95	09/10/95
11	DCRVER32	A5468516	09/11/95	09/11/95
12	DCRVER33	A5468517	09/11/95	09/11/95
13	DCRVER34	A5468518	09/11/95	09/11/95
14	DCRVER35	A5468519	09/11/95	09/11/95
15	DCRVER36	A5468520	09/11/95	09/11/95
16	DCRVER48	A5468510	09/10/95	09/10/95
17	DCRVER49	A5468511	09/10/95	09/10/95
18	DCRVER50	A5468507	09/10/95	09/10/95
19	MSB17	A5B0593001	09/11/95	09/11/95
20	MSBD17	A5B0593004	09/11/95	09/11/95

MENTS:

000066

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK17

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Matrix: (soil/water) SOIL Lab Sample ID: A5B0593003
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____
 Moisture: _____ decanted: (Y/N) _____ Date Received: _____
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/08/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/11/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 PC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	33	U
11104-28-2-----	Aroclor-1221	67	U
11141-16-5-----	Aroclor-1232	33	U
53469-21-9-----	Aroclor-1242	33	U
12672-29-6-----	Aroclor-1248	33	U
11097-69-1-----	Aroclor-1254	33	U
11096-82-5-----	Aroclor-1260	33	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000061

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001233
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Lab File ID (Standard): 23237X.MSQ Date Analyzed: 09/08/95
 Instrument ID: I50X Time Analyzed: 06:32

	IS1 (ANT)		IS2 (CRY)		IS3 (DCB)	
	AREA	#	AREA	#	AREA	#
12 HOUR STD	37472	16.48	40675	29.22	20050	7.72
UPPER LIMIT	74944	16.98	81350	29.72	40100	8.22
LOWER LIMIT	18736	15.98	20338	28.72	10025	7.22
=====						
CLIENT SAMPLE						
DCR-VER-201	36144	16.47	46557	29.20	15384	7.73
DCR-VER-25	27208	16.47	34209	29.18	11924	7.73
DCR-VER-26	25138	16.47	33710	29.20	11266	7.73
DCR-VER-27	37186	16.47	48999	29.20	16062	7.73
DCR-VER-50	30866	16.47	39669	29.20	13954	7.73

AREA UNIT RT
 QC LIMITS QC LIMITS

IS1 (ANT) = Acenaphthene-D10 (50-200) -0.50 / +0.50 min
 IS2 (CRY) = Chrysene-D12 (50-200) -0.50 / +0.50 min
 IS3 (DCB) = 1,4-Dichlorobenzene-D4 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000062

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: ASC0001233
Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER23
Lab File ID (Standard): 23237X.MSQ Date Analyzed: 09/08/95
Instrument ID: I50X Time Analyzed: 06:32

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	73726	11.20	49796	21.02	22073	33.30
UPPER LIMIT	147452	11.70	99592	21.52	44146	33.80
LOWER LIMIT	36863	10.70	24898	20.52	11037	32.80
=====						
CLIENT SAMPLE						
DCR-VER-201	65306	11.20	54110	21.02	32647	33.32
DCR-VER-25	47884	11.18	39748	21.00	23585	33.30
DCR-VER-26	44990	11.18	38280	21.00	22757	33.30
DCR-VER-27	67914	11.20	53014	21.02	33374	33.32
DCR-VER-50	55158	11.20	45496	21.02	28224	33.32

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS4 (NPT) = Naphthalene-D8

(50-200)

-0.50 / +0.50 min

IS5 (PHN) = Phenanthrene-D10

(50-200)

-0.50 / +0.50 min

IS6 (PRY) = Perylene-D12

(50-200)

-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000063

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001245
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Lab File ID (Standard): 23247X.MSQ Date Analyzed: 09/08/95
 Instrument ID: I50X Time Analyzed: 15:03

	IS1 (ANT)		IS2 (CRY)		IS3 (DCB)	
	AREA	#	AREA	#	AREA	#
12 HOUR STD	26456		36946		12824	
UPPER LIMIT	52912	16.48	73892	29.23	25648	7.72
LOWER LIMIT	13228	16.98	18473	29.73	6412	8.22
=====						
CLIENT SAMPLE						
DCR-VER-28	33826	16.48	51347	29.22	14610	7.73
DCR-VER-29	31600	16.48	47712	29.22	13742	7.73
DCR-VER-30	31796	16.48	49642	29.23	14152	7.75
DCR-VER-31	31492	16.48	50529	29.22	13670	7.75
DCR-VER-32	29502	16.48	47041	29.22	11980	7.73
DCR-VER-33	30510	16.48	48954	29.23	13560	7.73
DCR-VER-34	32588	16.48	51071	29.23	14492	7.75
DCR-VER-35	30426	16.48	46942	29.23	13368	7.75
DCR-VER-36	29530	16.48	44629	29.23	12602	7.73
DCR-VER-48	33468	16.48	43718	29.22	17126	7.75
DCR-VER-49	38684	16.48	58880	29.22	17740	7.75

AREA UNIT	RT
QC LIMITS	QC LIMITS
(50-200)	-0.50 / +0.50 min
(50-200)	-0.50 / +0.50 min
(50-200)	-0.50 / +0.50 min

IS1 (ANT) = Acenaphthene-D10
 IS2 (CRY) = Chrysene-D12
 IS3 (DCB) = 1,4-Dichlorobenzene-D4

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000064

Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001245
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Lab File ID (Standard): 23247X.MSQ Date Analyzed: 09/08/95
 Instrument ID: I50X Time Analyzed: 15:03

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	50506	11.20	36772	21.03	21069	33.32
UPPER LIMIT	101012	11.70	73544	21.53	42138	33.82
LOWER LIMIT	25253	10.70	18386	20.53	10535	32.82
=====						
CLIENT SAMPLE						
DCR-VER-28	57240	11.20	53078	21.03	35914	33.33
DCR-VER-29	53848	11.20	48716	21.03	33530	33.33
DCR-VER-30	57692	11.20	49354	21.03	34222	33.33
DCR-VER-31	54086	11.20	49554	21.03	34577	33.33
DCR-VER-32	48722	11.20	46598	21.03	33243	33.33
DCR-VER-33	52582	11.20	47664	21.03	34522	33.33
DCR-VER-34	56818	11.22	49353	21.03	35610	33.35
D ₁ ER-35	52472	11.20	46144	21.03	33252	33.33
D ₂ ER-36	50546	11.20	45212	21.03	33118	33.33
DCR-VER-48	62862	11.20	48344	21.02	28925	33.32
DCR-VER-49	68236	11.20	59654	21.03	41978	33.33

AREA UNIT RT
 QC LIMITS QC LIMITS

IS4 (NPT) = Naphthalene-D8 (50-200) -0.50 / +0.50 min
 IS5 (PHN) = Phenanthrene-D10 (50-200) -0.50 / +0.50 min
 IS6 (PRY) = Perylene-D12 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000065

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001246
 Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER23
 Lab File ID (Standard): 23262X.MSQ Date Analyzed: 09/09/95
 Instrument ID: I50X Time Analyzed: 08:52

	IS1 (ANT)		IS2 (CRY)		IS3 (DCB)	
	AREA	#	AREA	#	AREA	#
12 HOUR STD	21808		25562		12218	
UPPER LIMIT	43616		51124		24436	
LOWER LIMIT	10904		12781		6109	
=====						
CLIENT SAMPLE						
=====						
DCR-VER-23	36544	16.37	50775	29.10	17208	7.65
DCR-VER-23 MS	33282	16.38	44913	29.12	14934	7.67
DCR-VER-23 MSD	33142	16.38	45330	29.12	14002	7.67
DCR-VER-24	27756	16.37	39897	29.10	12974	7.65
Matrix Spike Blank	23986	16.38	31042	29.10	11736	7.67
SBLK87	24264	16.37	32468	29.10	11880	7.65

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (ANT) = Acenaphthene-D10 (50-200) -0.50 / +0.50 min
 IS2 (CRY) = Chrysene-D12 (50-200) -0.50 / +0.50 min
 IS3 (DCB) = 1,4-Dichlorobenzene-D4 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000066

Law Name: Recra Environmental, Inc. Contract: MQ772732MQ Labsampid: A5C0001246
Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER23
Lab File ID (Standard): 23262X.MSQ Date Analyzed: 09/09/95
Instrument ID: I50X Time Analyzed: 08:52

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	44324	11.12	27726	20.92	14667	33.20
UPPER LIMIT	88648	11.62	55452	21.42	29334	33.70
LOWER LIMIT	22162	10.62	13863	20.42	7334	32.70
=====						
CLIENT SAMPLE						
DCR-VER-23	65170	11.10	51843	20.92	34840 *	33.22
DCR-VER-23 MS	59880	11.12	46630	20.93	33091 *	33.22
DCR-VER-23 MSD	63170	11.12	46114	20.93	32365 *	33.23
DCR-VER-24	51988	11.10	40880	20.92	28437	33.22
Matrix Spike Blank	47056	11.12	34190	20.92	22472	33.20
SBLK87	44530	11.10	33822	20.92	22746	33.20

AREA UNIT RT
QC LIMITS QC LIMITS

IS4 (NPT) = Naphthalene-D8 (50-200) -0.50 / +0.50 min
IS5 (PHN) = Phenanthrene-D10 (50-200) -0.50 / +0.50 min
IS6 (PRY) = Perylene-D12 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

Sample ID Nos.:

Lab Report Dated:

September 29, 1995

DCR-VER-37

DCR-VER-38

DCR-VER-39

DCR-VER-40

DCR-VER-41

DCR-VER-42

DCR-VER-43

DCR-VER-44



**RECRA
ENVIRONMENTAL
INC.**

001 5 0
CAMP DRESSER & MCKEE

Chemical and Environmental Analysis Services

95 DEC 14 5 P E

September 29, 1995

Mr. Joseph Mihm
Camp, Dresser and McKee / Alcoa
Park Avenue East, Building 65
Massena, NY 13665

RE: Analytical Results

Dear Mr. Mihm:

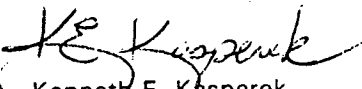
Please find enclosed the data package concerning the analyses of samples recently submitted by your firm. The pertinent information regarding these analyses is listed below:

Quote No.: NY95-438
REI: 19
SDG #: VER37
Matrix: Soil
Sample Receipt Date: 09/02/95
Sample Date: 09/01/95

If you have any questions concerning these data, please contact Ms. Deborah A. Carella, Program Manager, at (800) 52R-ECRA and refer to the I.D. number listed below.

Sincerely,

RECRA ENVIRONMENTAL, INC.


Kenneth E. Kasperek
Laboratory Manager

DAC/KEK/dms
Enclosure

cc: Frances Gero (cover letter only)
Aluminum Company of America
Mr. Bernard Kunkle (cover letter only)
Aluminum Company of America
Park Avenue East, BLDG. 65
Massena, NY 13665

Reviewed and approved by/date: 9/29/95



Deborah A. Carella, Program Manager *KEK for*

ID #A95-4686
#NY5A5754

Mihm } LTR
Schultz }
~~Schwartz~~ }
Occhialini } Sem
Anderson }

000001

SAMPLE DATA SUMMARY PACKAGE



RECRA
ENVIRONMENTAL
INC.

000002

SDG NARRATIVE:

Laboratory: Recra Environmental, Inc.

Laboratory Code: RECNV

Contract No.: NY95-438

SDG No.: VER37

Sample Identifications: DCR-VER-37
DCR-VER-37 MATRIX SPIKE
DCR-VER-37 MATRIX SPIKE DUPLICATE
DCR-VER-38
DCR-VER-39
DCR-VER-40
DCR-VER-41
DCR-VER-42
DCR-VER-43
DCR-VER-44

METHODOLOGY

Analyses were performed in accordance with 1991 New York State Analytical Services protocol. (Revised 1993)

COMMENTS

Results are reported using standard qualifiers (Q) as defined on the Organic Data Comment Page.

Preliminary results were sent on September 11, 1995 via Airborne to Ms. Julie Schreiber of Camp, Dresser and McKee by Ms. Deborah Carella of Recra Environmental.

SEMIVOLATILE DATA

Semivolatile sample and standard areas are listed on the corresponding data system printouts.

Semivolatile data was processed utilizing Finnigan Autoquantitation and Recra Environmental's Inc.'s Analytical Information Management Systems (AIMS). All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. False positive compounds are crossed out, initialed and dated in this data package.

No deviations from protocol were observed during the analyses.



RECRA
ENVIRONMENTAL
INC.

PCB DATA

The Endrin percent breakdown and combined percent breakdown are above QC limits on the DB608 column in: PEM10 analyzed on 8/31/95 at 02:15; PEM11 analyzed on 9/6/95 at 14:08; PEM12 analyzed on 9/7/95 at 04:40; PEM13 analyzed on 9/8/95 at 03:49; PEM14 analyzed on 9/9/95 at 01:37; PEM15 analyzed on 9/10/95 at 01:36; PEM16 analyzed on 9/10/95 at 23:23.

The relative percent difference of Methoxychlor fell outside QC limits on the DB608 column in: PEM11 analyzed on 9/6/95 at 14:08; PEM12 analyzed on 9/7/95 at 04:40; PEM13 analyzed on 9/8/95 at 03:49; PEM14 analyzed on 9/9/95 at 01:37; PEM15 analyzed on 9/10/95 at 01:36; PEM16 analyzed on 9/10/95 at 23:23.

The relative percent difference of Endrin fell outside QC limits on the DB608 column in: PEM16 analyzed on 9/10/95 at 23:23.

The relative percent difference of 4,4'-DDT fell outside QC limits on the DB608 column in: PEM16 analyzed on 9/10/95 at 23:23.

The relative percent difference of Methoxychlor fell outside QC limits on the DB1701 column in: PEM10 analyzed on 8/31/95 at 02:15; PEM11 analyzed on 9/6/95 at 14:08; PEM12 analyzed on 9/7/95 at 04:40; PEM13 analyzed on 9/8/95 at 03:49; PEM14 analyzed on 9/9/95 at 01:37; PEM15 analyzed on 9/10/95 at 01:36; PEM16 analyzed on 9/10/95 at 23:23.

The relative percent difference of Endrin fell outside QC limits on the DB1701 column in: PEM15 analyzed on 9/10/95 at 01:36; PEM16 analyzed on 9/10/95 at 23:23.

The Endrin percent breakdown and combined percent breakdown are above QC limits on the DB1701 column in: PEM11 analyzed on 9/6/95 at 14:08; PEM15 analyzed on 9/10/95 at 01:36; PEM16 analyzed on 9/10/95 at 23:23.

The combined percent breakdown are above QC limits on the DB1701 column in: PEM16 analyzed on 9/10/95 at 23:23.

The relative percent difference of Methoxychlor fell outside QC limits on the DB608 column in: INDAM08 analyzed on 8/31/95 at 07:21; INDAM10 analyzed on 9/7/95 at 16:55. The relative percent difference of 4,4'-DDT and Methoxychlor fell outside QC limits on the DB608 column in: INDAM11 analyzed on 9/8/95 at 14:43. The relative percent difference of Endrin, 4,4'-DDT and Methoxychlor fell outside QC limits on the DB608 column in: INDAM12 analyzed on 9/10/95 at 12:28. INDAM13 analyzed on 9/11/95 at 11:01 exhibits the relative percent difference of Endrin, 4,4'-DDT and Methoxychlor as outside QC limits on column DB608.

The relative percent difference of Methoxychlor fell outside QC limits on the DB1701 column in: INDAM10 analyzed on 9/7/95 at 16:55. The relative percent difference of 4,4'-DDT and Methoxychlor fell outside QC limits on the DB608 column in: INDAM11 analyzed on 9/8/95 at 14:43 and INDAM12 analyzed on 9/10/95 at 12:28. INDAM13 analyzed on 9/11/95 at 11:01 exhibits the relative percent difference of Endrin, 4,4'-DDT and Methoxychlor as outside QC limits on column DB608.

The percent recovery of gamma-BHC(lindane) and Dieldrin fell outside QC limits for the Pest GPC calibration.

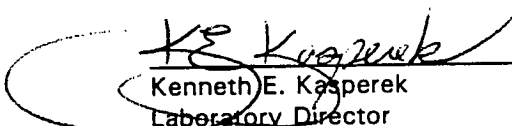


PIBLK23 and PIBLK25 both exhibited a retention time for Tetrachloro-m-Xylene that was outside QC limits on the DB608 column.

PIBLK16, DCR-VER-38 and DCR-VER-39 exhibited retention times for Tetrachloro-m-Xylene and Decachlorobiphenyl that was outside QC limits on the DB1701 column.

PIBLK22 analyzed on 9/7/95 at 03:57; PEM12 analyzed on 9/7/95 at 04:40; PEM13 analyzed on 9/8/95 at 03:49; PIBLK29 analyzed on 9/10/95 at 22:40; PEM16 analyzed on 9/10/95 at 23:23; DCR-VER-37 Matrix Spike Duplicate analyzed on 9/10/95 at 02:19, DCR-VER-43 analyzed on 09/10/95 at 08:06; DCR-VER-44 analyzed on 09/10/95 at 08:49 and Matrix Spike Blank 17 analyzed on 09/10/95 at 09:33 all exhibit the retention time of Decachlorobiphenyl outside QC limits on the DB1701 column.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."


Kenneth E. Kasperek
Laboratory Director

9/29/95
Date



000005

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: RECRA ENVIRONMENTAL, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	WATER QUALITY
DCR-VER-37	A5468601	-	ASP91	-	ASP91	-	ASP91
DCR-VER-38	A5468602	-	ASP91	-	ASP91	-	ASP91
DCR-VER-39	A5468603	-	ASP91	-	ASP91	-	ASP91
DCR-VER-40	A5468604	-	ASP91	-	ASP91	-	ASP91
DCR-VER-41	A5468605	-	ASP91	-	ASP91	-	ASP91
DCR-VER-42	A5468606	-	ASP91	-	ASP91	-	ASP91
DCR-VER-43	A5468607	-	ASP91	-	ASP91	-	ASP91
DCR-VER-44	A5468608	-	ASP91	-	ASP91	-	ASP91

NYSDEC-1



RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY
B/N-A ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
DCR-VER-37	SOIL	09/01/95	09/02/95	09/06/95	09/10/95
DCR-VER-38	SOIL	09/01/95	09/02/95	09/06/95	09/10/95
DCR-VER-39	SOIL	09/01/95	09/02/95	09/06/95	09/10/95
DCR-VER-40	SOIL	09/01/95	09/02/95	09/06/95	09/11/95
DCR-VER-41	SOIL	09/01/95	09/02/95	09/06/95	09/11/95
DCR-VER-42	SOIL	09/01/95	09/02/95	09/06/95	09/11/95
DCR-VER-43	SOIL	09/01/95	09/02/95	09/06/95	09/11/95
DCR-VER-44	SOIL	09/01/95	09/02/95	09/06/95	09/11/95

NYSDEC-3

RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
DCR-VER-37	SOIL	09/01/95	09/02/95	09/06/95	09/10/95
DCR-VER-38	SOIL	09/01/95	09/02/95	09/06/95	09/10/95
DCR-VER-39	SOIL	09/01/95	09/02/95	09/06/95	09/10/95
DCR-VER-40	SOIL	09/01/95	09/02/95	09/06/95	09/10/95
DCR-VER-41	SOIL	09/01/95	09/02/95	09/06/95	09/10/95
DCR-VER-42	SOIL	09/01/95	09/02/95	09/06/95	09/10/95
DCR-VER-43	SOIL	09/01/95	09/02/95	09/06/95	09/10/95
DCR-VER-44	SOIL	09/01/95	09/02/95	09/06/95	09/10/95

NYSDEC-4

RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY
ORGANIC ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
DCR-VER-37	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-38	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-39	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-40	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-41	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-42	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-43	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-44	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED

NYSDEC-6

RECRA
ENVIRONMENTAL
INC.

000009

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

LABORATORY SAMPLE CODE	MATRIX	ANALYTICAL PROTOCOL	DIGESTION PROCEDURE	MATRIX MODIFIER	DIL/CONC FACTOR
DCR-VER-37	SOIL	ASP91	ASP91	AS REQUIRED	AS REQUIRED
DCR-VER-38	SOIL	ASP91	ASP91	AS REQUIRED	AS REQUIRED
DCR-VER-39	SOIL	ASP91	ASP91	AS REQUIRED	AS REQUIRED
DCR-VER-40	SOIL	ASP91	ASP91	AS REQUIRED	AS REQUIRED
DCR-VER-41	SOIL	ASP91	ASP91	AS REQUIRED	AS REQUIRED
DCR-VER-42	SOIL	ASP91	ASP91	AS REQUIRED	AS REQUIRED
DCR-VER-43	SOIL	ASP91	ASP91	AS REQUIRED	AS REQUIRED
DCR-VER-44	SOIL	ASP91	ASP91	AS REQUIRED	AS REQUIRED

NYSDEC-7

RECRA
ENVIRONMENTAL
INC.

ORGANIC DATA COMMENT PAGE

Laboratory Name RECRA ENVIRONMENTAL, INC.

USEPA Defined Organic Data Qualifiers:

- U - Indicates compound was analyzed for but not detected.
- J - Indicates an estimate value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- G - The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
- L - The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.
- T - This flag is used when the analyte is found in the associated TCLP extraction as well as in the sample.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- A - This flag indicates that a TIC is a suspected aldol-condensation product.



ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000011
 Client No.

DCR-VER-37

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER37

Matrix: (soil/water) SOIL Lab Sample ID: A5468601

Sample wt/vol: 30.25 (g/mL) G Lab File ID: 23294X.MSO

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 7.2 decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/10/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/KG</u>	<u>Q</u>
83-32-9-----	ACENAPHTHENE		300	U
208-96-8-----	ACENAPHTHYLENE		300	U
124-10-7-----	ANTHRACENE		300	U
155-3-----	BENZO (A) ANTHRACENE		300	U
205-99-2-----	BENZO (B) FLUORANTHENE		300	U
207-08-9-----	BENZO (K) FLUORANTHENE		300	U
191-24-2-----	BENZO (G, H, I) PERYLENE		300	U
50-32-8-----	BENZO (A) PYRENE		300	U
218-01-9-----	CHRYSENE		300	U
53-70-3-----	DIBENZO (A, H) ANTHRACENE		300	U
206-44-0-----	FLUORANTHENE		300	U
86-73-7-----	FLUORENE		300	U
193-39-5-----	INDENO (1, 2, 3-CD) PYRENE		300	U
91-57-6-----	2-METHYLNAPHTHALENE		300	U
91-20-3-----	NAPHTHALENE		300	U
85-01-8-----	PHENANTHRENE		300	U
129-00-0-----	PYRENE		300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000012

Client No.

DCR-VER-38

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER37

Matrix: (soil/water) SOIL

Lab Sample ID: A5468602

Sample wt/vol: 30.17 (g/mL) G

Lab File ID: 23297X.MSO

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

Moisture: 7.7 decanted: (Y/N) N

Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 09/10/95

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.3

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
-96-8	ACENAPHTHYLENE	300	U
-12-7	ANTHRACENE	300	U
56-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	16	J
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000013

Client No.

DCR-VER-39

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37

Matrix: (soil/water) SOIL Lab Sample ID: A5468603

Sample wt/vol: 30.68 (g/mL) G Lab File ID: 23298X.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 7.1 decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/10/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9-----	ACENAPHTHENE	300	U
208-96-8-----	ACENAPHTHYLENE	300	U
7-12-7-----	ANTHRACENE	300	U
55-3-----	BENZO (A) ANTHRACENE	300	U
205-99-2-----	BENZO (B) FLUORANTHENE	300	U
207-08-9-----	BENZO (K) FLUORANTHENE	300	U
191-24-2-----	BENZO (G, H, I) PERYLENE	300	U
50-32-8-----	BENZO (A) PYRENE	16	J
218-01-9-----	CHRYSENE	300	U
53-70-3-----	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0-----	FLUORANTHENE	300	U
86-73-7-----	FLUORENE	300	U
193-39-5-----	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6-----	2-METHYLNAPHTHALENE	300	U
91-20-3-----	NAPHTHALENE	300	U
85-01-8-----	PHENANTHRENE	300	U
129-00-0-----	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000014

Client No.

DCR-VER-40

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37

Matrix: (soil/water) SOIL Lab Sample ID: A5468604

Sample wt/vol: 30.54 (g/mL) G Lab File ID: 23299X.MSO

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 5.8 decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/11/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.3

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9	ACENAPHTHENE	300		U
208-96-8	ACENAPHTHYLENE	300		U
200-12-7	ANTHRACENE	300		U
55-3	BENZO (A) ANTHRACENE	300		U
205-99-2	BENZO (B) FLUORANTHENE	300		U
207-08-9	BENZO (K) FLUORANTHENE	300		U
191-24-2	BENZO (G, H, I) PERYLENE	300		U
50-32-8	BENZO (A) PYRENE	16		J
218-01-9	CHRYSENE	300		U
53-70-3	DIBENZO (A, H) ANTHRACENE	300		U
206-44-0	FLUORANTHENE	300		U
86-73-7	FLUORENE	300		U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300		U
91-57-6	2-METHYLNAPHTHALENE	300		U
91-20-3	NAPHTHALENE	300		U
85-01-8	PHENANTHRENE	300		U
129-00-0	PYRENE	300		U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000015

Client No.

DCR-VER-41

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER37
 Matrix: (soil/water) SOIL Lab Sample ID: A5468605
 Sample wt/vol: 30.13 (g/mL) G Lab File ID: 23300X.MSO
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 % Moisture: 8.3 decanted: (Y/N) N Date Extracted: 09/06/95
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/11/95
 Injection Volume: 2.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
7-12-7	ANTHRACENE	300	U
55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	10	J
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL MATRIX SPIKE BLANK RECOVERY

000029

Lab Name: Recre Environmental, Inc. Contract: MO772732MQ Lab Samp ID: A5B0589401

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37

Matrix Spike - Client Sample No.: ~~SB1K88~~ ^{715 BLANK} Level: (low/med) LOW
MTA 9/29/95

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.
Acenaphthene _____	1700	1500	88	31 - 137
Pyrene _____	1700	1700	100	35 - 142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 0 out of 2 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

000030

Lab Name: Recra Environmental, Inc.

Contract: MO772732MO

Lab Samp ID: A5468601

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER37

Matrix Spike - Client Sample No.: DCR-VER-37

Level: (low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.
Acenaphthene	1800	0	1400	78	31 - 137
Pyrene	1800	0	1600	89	35 - 142

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS REC.	
Acenaphthene	1800	1300	72	8	19	31 - 137
Pyrene	1800	1400	78	13	36	35 - 142

Column to be used to flag recovery and RPD values with an asterisk

* uses outside of QC limits

RPD: 0 out of 2 outside limits

Spike recovery: 0 out of 4 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000016

Client No.

DCR-VER-42

Lab Name: Recra Environmental,

Contract: MO772732MO

Lab Code: RECNV

Case No.: 5324

SAS No.: _____

SDG No.: VER37

Matrix: (soil/water) SOIL

Lab Sample ID: A5468606

Sample wt/vol: 30.33 (g/mL) G

Lab File ID: 23301X.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

% Moisture: 6.5 decanted: (Y/N) N

Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 09/11/95

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.3

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/KG</u>	<u>Q</u>
83-32-9-----	ACENAPHTHENE	300		U
208-96-8-----	ACENAPHTHYLENE	300		U
70-12-7-----	ANTHRACENE	300		U
55-3-----	BENZO (A) ANTHRACENE	300		U
205-99-2-----	BENZO (B) FLUORANTHENE	300		U
207-08-9-----	BENZO (K) FLUORANTHENE	300		U
191-24-2-----	BENZO (G, H, I) PERYLENE	300		U
50-32-8-----	BENZO (A) PYRENE	11		J
218-01-9-----	CHRYSENE	300		U
53-70-3-----	DIBENZO (A, H) ANTHRACENE	300		U
206-44-0-----	FLUORANTHENE	300		U
86-73-7-----	FLUORENE	300		U
193-39-5-----	INDENO (1, 2, 3-CD) PYRENE	300		U
91-57-6-----	2-METHYLNAPHTHALENE	300		U
91-20-3-----	NAPHTHALENE	300		U
85-01-8-----	PHENANTHRENE	300		U
129-00-0-----	PYRENE	300		U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000017

Client No.

DCR-VER-43

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER37

Matrix: (soil/water) SOIL Lab Sample ID: A5468607

Sample wt/vol: 30.20 (g/mL) G Lab File ID: 23302X.MSO

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: 6.7 decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/11/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9-----	ACENAPHTHENE	300	U
208-96-8-----	ACENAPHTHYLENE	300	U
-12-7-----	ANTHRACENE	300	U
55-3-----	BENZO (A) ANTHRACENE	300	U
205-99-2-----	BENZO (B) FLUORANTHENE	300	U
207-08-9-----	BENZO (K) FLUORANTHENE	300	U
191-24-2-----	BENZO (G, H, I) PERYLENE	300	U
50-32-8-----	BENZO (A) PYRENE	13	J
218-01-9-----	CHRYSENE	300	U
53-70-3-----	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0-----	FLUORANTHENE	300	U
86-73-7-----	FLUORENE	300	U
193-39-5-----	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6-----	2-METHYLNAPHTHALENE	300	U
91-20-3-----	NAPHTHALENE	300	U
85-01-8-----	PHENANTHRENE	300	U
129-00-0-----	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000018

Client No.

DCR-VER-44

Lab Name: Recra Environmental

Contract: MQ772732MO

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER37

Matrix: (soil/water) SOIL

Lab Sample ID: A5468608

Sample wt/vol: 30.09 (g/mL) G

Lab File ID: 23303X.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

Moisture: 7.5 decanted: (Y/N) N

Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 09/11/95

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.4

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
-12-7	ANTHRACENE	300	U
-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	12	J
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

000019

DCRVER37

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37
 Matrix: (soil/water) SOIL Lab Sample ID: A5468601
 Sample wt/vol: 30.3 (g/mL) G Lab File ID: _____
 % Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/06/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

12674-11-2-----Aroclor-1016	35	U
11104-28-2-----Aroclor-1221	71	U
11141-16-5-----Aroclor-1232	35	U
53469-21-9-----Aroclor-1242	35	U
12672-29-6-----Aroclor-1248	7.0	JP
11097-69-1-----Aroclor-1254	35	U
11096-82-5-----Aroclor-1260	10	JP

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000020**

DCRVER38

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37
 Matrix: (soil/water) SOIL Lab Sample ID: A5468602
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/06/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.3 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	73	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	36	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAM **000021**

DCRVER39

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37
 Matrix: (soil/water) SOIL Lab Sample ID: A5468603
 Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____
 % Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/06/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	72	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	35	U
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	8.3	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000022
EPA SAMPLE NO.

DCRVER40

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37

Matrix: (soil/water) SOIL Lab Sample ID: A5468604

Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____

% Moisture: 6 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/06/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.3 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION	Q
12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	71	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	35	U
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	4.9	JP

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DCRVER41

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37
 Matrix: (soil/water) SOIL Lab Sample ID: A5468605
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/02/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/06/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	36	U
11104-28-2-----	Aroclor-1221	73	U
11141-16-5-----	Aroclor-1232	36	U
53469-21-9-----	Aroclor-1242	36	U
12672-29-6-----	Aroclor-1248	36	U
11097-69-1-----	Aroclor-1254	36	U
11096-82-5-----	Aroclor-1260	36	U

000024

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER42

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37

Matrix: (soil/water) SOIL Lab Sample ID: A5468606

Sample wt/vol: 30.8 (g/mL) G Lab File ID: _____

% Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/06/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.3 Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	70	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	35	U
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	15	J

000025

EPA SAMPLE NO.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER43

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER37

Matrix: (soil/water) SOIL Lab Sample ID: A5468607

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/06/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

12674-11-2-----Aroclor-1016	35	U
11104-28-2-----Aroclor-1221	72	U
11141-16-5-----Aroclor-1232	35	U
53469-21-9-----Aroclor-1242	35	U
12672-29-6-----Aroclor-1248	35	U
11097-69-1-----Aroclor-1254	35	U
11096-82-5-----Aroclor-1260	35	U

000026

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

DCRVER44

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37

Matrix: (soil/water) SOIL Lab Sample ID: A5468608

Sample wt/vol: 30.4 (g/mL) G Lab File ID: _____

% Moisture: 7 decanted: (Y/N) N Date Received: 09/02/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/06/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.4 Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

12674-11-2-----	Aroclor-1016	35	U
11104-28-2-----	Aroclor-1221	71	U
11141-16-5-----	Aroclor-1232	35	U
53469-21-9-----	Aroclor-1242	35	U
12672-29-6-----	Aroclor-1248	35	U
11097-69-1-----	Aroclor-1254	35	U
11096-82-5-----	Aroclor-1260	35	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL SURROGATE RECOVERY

000027

Lab Name: Recra Environmental, Inc.

Contract: MO772732MO

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER37

Level (low/med): LOW

	Client Sample ID	2CP		2FP		DCB		FBP		NBZ		PHL		TBP		TPH		TOT OUT
		%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	
1	DCR-VER-37	61		69		55		57		59		60		76		80		0
2	DCR-VER-37 MS	91		98		76		80		80		91		111		106		0
3	DCR-VER-37 MSD	88		96		74		73		76		89		106		95		0
4	DCR-VER-38	90		99		85		78		77		93		110		107		0
5	DCR-VER-39	85		85		66		76		71		88		102		99		0
6	DCR-VER-40	100		103		83		88		82		97	*	125	*	112		1
7	DCR-VER-41	86		91		70		78		73		89		113		101		0
8	DCR-VER-42	104		104		89		85		88		107		132	*	120		1
9	DCR-VER-43	89		95		73		81		89		95		124	*	121		1
10	DCR-VER-44	94		98		73		82		86		92		122		118		0
11	Matrix Spike Blank	109		111		86		92		100		106		124	*	123		1
12	SBLK88	78		83		72		78		77		77		95		100		0

QC LIMITS

2CP	= 2-Chlorophenol-d4	(20-130)
2FP	= 2-Fluorophenol	(25-121)
DCB	= 1,2-Dichlorobenzene-d4	(20-130)
FBP	= 2-Fluorobiphenyl	(30-115)
NBZ	= Nitrobenzene-D5	(23-120)
PHL	= Phenol-D5	(24-113)
TBP	= 2,4,6-Tribromophenol	(19-122)
TPH	= Terphenyl-D14	(18-137)

- # Column to be used to flag recovery values
- * Values outside of contract required QC limits
- D Surrogates diluted out

2F
SOIL PESTICIDE SURROGATE RECOVERY

000028

Name: RECRA ENVIRON

Contract: NY95-438

Lab Code: RECNY Case No.: 5324

SAS No.: _____ SDG No.: VER37

GC Column(1): DB608 ID: 0.53(mm)

GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====
01	PBLK17	83	84	98	98			0
02	DCRVER37	79	80	94	94			0
03	DCRVER38	68	68	81	80			0
04	DCRVER39	75	74	89	88			0
05	DCRVER40	79	78	94	94			0
06	DCRVER41	77	76	89	88			0
07	DCRVER42	77	79	92	92			0
08	DCRVER43	80	83	94	96			0
09	DCRVER44	80	80	94	95			0
10	MSB17	81	80	102	102			0
11	DCRVER37MS	76	76	93	93			0
12	DCRVER37MSD	78	77	92	92			0

ADVISORY
QC LIMITS
(60-150)
(60-150)

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL MATRIX SPIKE BLANK RECOVERY

000029

Lab Name: Recra Environmental, Inc.

Contract: MQ772732MQ

Lab Samp ID: A5B0589401

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER37

Matrix Spike - Client Sample No.: ~~SBK08~~ ^{MS BLANK}

Level: (low/med) LOW

MTA 9/29/95

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.
Acenaphthene _____	1700	1500	88	31 - 137
Pyrene _____	1700	1700	100	35 - 142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 0 out of 2 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

000030

Lab Name: Recra Environmental, Inc. Contract: MQ772732MQ Lab Samp ID: A5468601
 Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER37
 Matrix Spike - Client Sample No.: DCR-VER-37 Level: (low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.
Acenaphthene _____	1800	0	1400	78	31 - 137
Pyrene _____	1800	0	1600	89	35 - 142

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS REC.
Acenaphthene _____	1800	1300	72	8	19 31 - 137
Pyrene _____	1800	1400	78	13	36 35 - 142

Column to be used to flag recovery and RPD values with an asterisk

* ues outside of QC limits

RPD: ____0 out of ____2 outside limits
 Spike recovery: ____0 out of ____4 outside limits

Comments: _____

000031

3F
SOIL PCB MSB RECOVERY

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix Spike - EPA Sample No.: MSB17

COMPOUND	SPIKE ADDED (ug/Kg)	MSB CONCENTRATION (ug/Kg)	MSB % REC #
=====	=====	=====	=====
Aroclor 1242	333	290	87

COMMENTS:

3F
SOIL PCB MS/MSD RECOVERY

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER23

Matrix Spike - EPA Sample No.: DCRVER37

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #
Aroclor 1242	355	0	300	85

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #
Aroclor 1242	355	290	82

COMMENTS:

000033

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
METHOD BLANK SUMMARY

Client No.

SBLK88

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37

Lab File ID: 23293X.MSQ Lab Sample ID: A5B0589401

Instrument ID: I50X Date Extracted: 09/06/95

Matrix: (soil/water) SOIL Date Analyzed: 09/10/95

Level: (low/med) LOW Time Analyzed: 20:08

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
1	DCR-VER-37	A5468601	23294X.MSQ	09/10/95
2	DCR-VER-37 MS	A5468601MS	23295X.MSQ	09/10/95
3	DCR-VER-37 MSD	A5468601SD	23296X.MSQ	09/10/95
4	DCR-VER-38	A5468602	23297X.MSQ	09/10/95
5	DCR-VER-39	A5468603	23298X.MSQ	09/10/95
6	DCR-VER-40	A5468604	23299X.MSQ	09/11/95
7	DCR-VER-41	A5468605	23300X.MSQ	09/11/95
8	DCR-VER-42	A5468606	23301X.MSQ	09/11/95
9	DCR-VER-43	A5468607	23302X.MSQ	09/11/95
10	DCR-VER-44	A5468608	23303X.MSQ	09/11/95
11	Matrix Spike Blank	A5468609	23304X.MSQ	09/11/95

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000034

Client No.

SBLK88

Lab Name: Recra Environmental Contract: MO772732MQ

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37

Matrix: (soil/water) SOIL Lab Sample ID: A5B0589401

Sample wt/vol: 30.00 (g/mL) G Lab File ID: 23293X.MSQ

Level: (low/med) LOW Date Samp/Recv: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/06/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/10/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9	ACENAPHTHENE	300		U
208-96-8	ACENAPHTHYLENE	300		U
120-12-7	ANTHRACENE	300		U
206-55-3	BENZO (A) ANTHRACENE	300		U
205-99-2	BENZO (B) FLUORANTHENE	300		U
207-08-9	BENZO (K) FLUORANTHENE	300		U
191-24-2	BENZO (G, H, I) PERYLENE	300		U
50-32-8	BENZO (A) PYRENE	300		U
218-01-9	CHRYSENE	300		U
53-70-3	DIBENZO (A, H) ANTHRACENE	300		U
206-44-0	FLUORANTHENE	300		U
86-73-7	FLUORENE	300		U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300		U
91-57-6	2-METHYLNAPHTHALENE	300		U
91-20-3	NAPHTHALENE	300		U
85-01-8	PHENANTHRENE	300		U
129-00-0	PYRENE	300		U

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAM **990035**

PBLK17

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37
 Lab Sample ID: A5B0589301 Lab File ID: _____
 Matrix: (soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC
 Sulfur Cleanup: (Y/N) N Date Extracted: 09/06/95
 Date Analyzed (1): 09/10/95 Date Analyzed (2): 09/10/95
 Time Analyzed (1): 1016 Time Analyzed (2): 1016
 Instrument ID (1): 5890A9 Instrument ID (2): 5890B9
 GC Column (1): DB608 ID: 0.53 (mm) GC Column (2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	=====	=====	=====	=====
01	DCRVER37	A5468601	09/10/95	09/10/95
02	DCRVER38	A5468602	09/10/95	09/10/95
03	DCRVER39	A5468603	09/10/95	09/10/95
04	DCRVER40	A5468604	09/10/95	09/10/95
05	DCRVER41	A5468605	09/10/95	09/10/95
06	DCRVER42	A5468606	09/10/95	09/10/95
07	DCRVER43	A5468607	09/10/95	09/10/95
08	DCRVER44	A5468608	09/10/95	09/10/95
09	MSB17	A5468609	09/10/95	09/10/95
10	DCRVER37MS	A5468601MS	09/10/95	09/10/95
11	DCRVER37MSD	A5468601SD	09/10/95	09/10/95

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK17

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37

Matrix: (soil/water) SOIL Lab Sample ID: A5B0589301

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/06/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/10/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	33	U
11104-28-2-----	Aroclor-1221	67	U
11141-16-5-----	Aroclor-1232	33	U
53469-21-9-----	Aroclor-1242	33	U
12672-29-6-----	Aroclor-1248	33	U
11097-69-1-----	Aroclor-1254	33	U
11096-82-5-----	Aroclor-1260	33	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000037

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001252
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37
 Lab File ID (Standard): 23292X.MSO Date Analyzed: 09/10/95
 Instrument ID: I50X Time Analyzed: 19:27

	IS1 (ANT)	RT #	IS2 (CRY)	RT #	IS3 (DCB)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	24782	16.23	32918	28.95	13654	7.52
UPPER LIMIT	49564	16.73	65836	29.45	27308	8.02
LOWER LIMIT	12391	15.73	16459	28.45	6827	7.02
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE						
=====	=====	=====	=====	=====	=====	=====
1 DCR-VER-37	24552	16.22	32705	28.92	11536	7.52
2 DCR-VER-37 MS	22172	16.23	32223	28.93	10164	7.53
3 DCR-VER-37 MSD	23388	16.23	35796	28.93	10186	7.53
4 DCR-VER-38	21736	16.22	33180	28.92	9160	7.52
5 DCR-VER-39	23812	16.22	34237	28.93	10940	7.53
6 DCR-VER-40	21452	16.22	31134	28.93	9542	7.53
DCR-VER-41	20826	16.22	31194	28.93	9360	7.53
7 DCR-VER-42	21492	16.22	32080	28.93	9428	7.53
8 DCR-VER-43	24290	16.22	35028	28.93	11346	7.53
9 DCR-VER-44	23450	16.22	35458	28.93	11662	7.53
10 Matrix Spike Blank	22638	16.23	31702	28.93	10380	7.55
11 SBLK88	27870	16.22	35878	28.92	14416	7.53

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (ANT) = Acenaphthene-D10 (50-200) -0.50 / +0.50 min
 IS2 (CRY) = Chrysene-D12 (50-200) -0.50 / +0.50 min
 IS3 (DCB) = 1,4-Dichlorobenzene-D4 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001252
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER37
 Lab File ID (Standard): 23292X.MSO Date Analyzed: 09/10/95
 Instrument ID: I50X Time Analyzed: 19:27

	IS4 (NPT)			IS5 (PHN)			IS6 (PRY)		
	AREA	#	RT	AREA	#	RT	AREA	#	RT
=====	=====		=====	=====		=====	=====		=====
12 HOUR STD	49180		10.98	30836		20.77	19772		33.03
UPPER LIMIT	98360		11.48	61672		21.27	39544		33.53
LOWER LIMIT	24590		10.48	15418		20.27	9886		32.53
=====	=====		=====	=====		=====	=====		=====
CLIENT SAMPLE									
=====	=====		=====	=====		=====	=====		=====
1 DCR-VER-37	43878		10.97	33910		20.75	21676		33.02
2 DCR-VER-37 MS	41964		10.97	32236		20.77	21749		33.02
3 DCR-VER-37 MSD	43512		10.97	34806		20.77	24353		33.03
4 DCR-VER-38	40922		10.97	32156		20.75	22524		33.02
5 DCR-VER-39	44768		10.97	34312		20.75	24008		33.03
6 DCR-VER-40	41386		10.97	32088		20.75	22410		33.02
7 DCR-VER-41	40912		10.97	31112		20.75	22688		33.02
8 DCR-VER-42	42504		10.97	31570		20.75	22800		33.03
9 DCR-VER-43	44750		10.97	35251		20.75	24523		33.03
10 DCR-VER-44	46066		10.97	35168		20.77	24341		33.03
11 Matrix Spike Blank	44624		10.98	30764		20.77	22137		33.03
12 SBLK88	53180		10.97	37484		20.75	25719		33.02

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS4 (NPT) = Naphthalene-D8
 IS5 (PHN) = Phenanthrene-D10
 IS6 (PRY) = Perylene-D12

(50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

Sample ID Nos.:

Lab Report Dated:

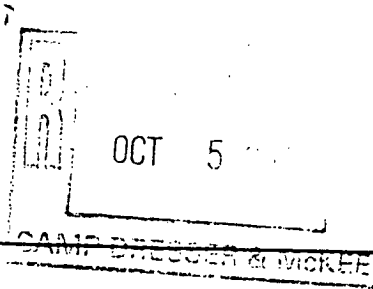
October 2, 1995

DCR-VER-02
DCR-VER-03
DCR-VER-04
DCR-VER-06
DCR-VER-07
DCR-VER-12
DCR-VER-13
DCR-VER-14
DCR-VER-17
DCR-VER-18
DCR-VER-19
DCR-VER-20
DCR-VER-21
DCR-VER-22
DCR-VER-23
DCR-VER-24
DCR-VER-25
DCR-VER-200
MW-546-01
MW-546-05



**RECRA
ENVIRONMENTAL
INC.**

Chemical and Environmental Analysis Services



95 DCR 14.3 FIE

October 2, 1995

Mr. Joseph Mihm
Camp, Dresser and McKee / Alcoa
Park Avenue East, Building 65
Massena, NY 13665

RE: **Analytical Results**

Dear Mr. Mihm:

Please find enclosed the data package concerning the analyses of samples recently submitted by your firm. The pertinent information regarding these analyses is listed below:

Quote No.: NY95-438
REI: 19
SDG #: VER02C
Matrix: Soil & Water
Sample Receipt Date: 09/02/95
Sample Date: 09/01/95

If you have any questions concerning these data, please contact Ms. Deborah A. Carella, Program Manager, at (800) 52R-ECRA and refer to the I.D. number listed below.

Sincerely,

RECRA ENVIRONMENTAL, INC.

Kenneth E. Kasperek
Kenneth E. Kasperek
Laboratory Manager

DAC/KEK/dms
Enclosure

cc: Frances Gero (cover letter only)
Aluminum Company of America
Mr. Bernard Kunkle (cover letter only)
Aluminum Company of America
Park Avenue East, BLDG. 65
Massena, NY 13665

Reviewed and approved by/date: *Q 10/2/95*

Deborah A. Carella/dms
Deborah A. Carella, Program Manager

ID #A95-4681
#NY5A5754

*Mihm
Schultz* } LTR

~~Schultz~~ } summary
*Occidental
Anderson*

SAMPLE DATA SUMMARY PACKAGE

SDG NARRATIVE:

Laboratory: Recra Environmental, Inc.

Laboratory Code: RECNV

Contract No.: NY95-438

SDG No.: VER02C

Sample Identifications:

- DCR-VER-02
- DCR-VER-02 MATRIX SPIKE
- DCR-VER-02 MATRIX SPIKE DUPLICATE
- DCR-VER-03
- DCR-VER-04
- DCR-VER-06
- DCR-VER-07
- DCR-VER-12
- DCR-VER-13
- DCR-VER-14
- DCR-VER-17
- DCR-VER-18 ✓
- DCR-VER-19
- DCR-VER-20
- DCR-VER-200
- DCR-VER-21
- DCR-VER-22
- DCR-VER-23
- DCR-VER-24
- DCR-VER-25
- MW-546-01
- MW-546-05

METHODOLOGY

Analyses were performed in accordance with 1991 New York State Analytical Services protocol. (Revised 1993)

COMMENTS

Results are reported using standard qualifiers (Q) as defined on the Organic Data Comment Page.

Preliminary results were sent on September 7, 1995 via facsimile to Ms. Julie Schreiber of Camp, Dresser and McKee by Ms. Deborah Carella of Recra Environmental.

Quality Control analysis was performed on a batch basis for water samples. All results were within acceptable limits.

The PAH and PCB data for these samples are submitted under a separate SDG number.



RECRA
ENVIRONMENTAL
INC.

VOLATILE DATA

Volatile sample and standard areas are listed on the corresponding data system printouts.

Volatile data was processed utilizing Finnigan DataPro Autoquantitation and Recra Environmental's Inc.'s Analytical Information Management Systems (AIMS). All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. False positive compounds are crossed out, initialed and dated in this data package.

Ortho-Xylene and meta & para-Xylene elute separately on a capillary column. They are reported in this data package as Total Xylenes. The concentration is calculated by adding the areas of ortho-Xylene and meta & para-Xylene and using only the response factor from ortho-Xylene to calculate the nanogram amount.

Sample DCR-VER-02 required a medium level analysis due to the high concentrations of Acetone, 2-Butanone and Trichloroethene.

Samples DCR-VER-02, DCR-VER-02MS and DCR-VER-02MSD all exhibit the recovery of surrogate p-Bromofluorobenzene as outside QC limits.

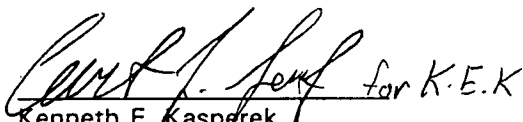
Samples DCR-VER-02MS and DCR-VER-02MSD exhibit the spike recovery and relative percent difference of Trichloroethene as outside QC limits. Samples DCR-VER-02MSDL and DCR-VER-02MSDDL exhibit the spike recovery of Trichloroethene as outside QC limits. The percent recovery of Trichloroethene is affected by the high concentration of this compound present in sample DCR-VER-02.

Samples DCR-VER-02 and DCR-VER-02MS both exhibit the recovery for internal standard Chlorobenzene-d5 as outside QC limits.

Samples MW-546-01 and MW-546-05 both exhibit a pH of approximately 6-8.

Volatile Method Blank, VBLK20, exhibits the presence of one (1) Tentatively Identified Compound (TIC).

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."


Kenneth E. Kasperek
Laboratory Director

10/2/95
Date

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: RECRA ENVIRONMENTAL, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	OTHER
DCR-VER-02	A5468101	ASP91	-	-	-	-	-
DCR-VER-03	A5468102	ASP91	-	-	-	-	-
DCR-VER-04	A5468103	ASP91	-	-	-	-	-
DCR-VER-06	A5468104	ASP91	-	-	-	-	-
DCR-VER-07	A5468105	ASP91	-	-	-	-	-
DCR-VER-12	A5468106	ASP91	-	-	-	-	-
DCR-VER-13	A5468107	ASP91	-	-	-	-	-
DCR-VER-14	A5468108	ASP91	-	-	-	-	-
DCR-VER-17	A5468109	ASP91	-	-	-	-	-
DCR-VER-18	A5468113	ASP91	-	-	-	-	-
DCR-VER-19	A5468114	ASP91	-	-	-	-	-
DCR-VER-20	A5468115	ASP91	-	-	-	-	-
DCR-VER-200	A5468110	ASP91	-	-	-	-	-
DCR-VER-21	A5468116	ASP91	-	-	-	-	-
DCR-VER-22	A5468117	ASP91	-	-	-	-	-
DCR-VER-23	A5468118	ASP91	-	-	-	-	-
DCR-VER-24	A5468119	ASP91	-	-	-	-	-
DCR-VER-25	A5468120	ASP91	-	-	-	-	-
MW-546-01	A5468111	ASP91	-	-	-	-	-
MW-546-05	A5468112	ASP91	-	-	-	-	-

NYSDEC-1



RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
DCR-VER-02	SOIL	09/01/95	09/02/95	-	09/06/95
DCR-VER-03	SOIL	09/01/95	09/02/95	-	09/06/95
DCR-VER-04	SOIL	09/01/95	09/02/95	-	09/06/95
DCR-VER-06	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-07	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-12	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-13	SOIL	09/01/95	09/02/95	-	09/06/95
DCR-VER-14	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-17	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-18	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-19	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-20	SOIL	09/01/95	09/02/95	-	09/06/95
DCR-VER-200	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-21	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-22	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-23	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-24	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-25	SOIL	09/01/95	09/02/95	-	09/05/95
MW-546-01	WATER	09/01/95	09/02/95	-	09/05/95
MW-546-05	WATER	09/01/95	09/02/95	-	09/05/95

NYSDEC-2



RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
ORGANIC ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILIARY CLEAN UP	DIL/CONC FACTOR
DCR-VER-02	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-03	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-04	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-06	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-07	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-12	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-13	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-14	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-17	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-18	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-19	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-20	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-200	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-21	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-22	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-23	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-24	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-25	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
MW-546-01	WATER	ASP91	-	AS REQUIRED	AS REQUIRED
MW-546-05	WATER	ASP91	-	AS REQUIRED	AS REQUIRED

NYSDEC-6



RECRA
ENVIRONMENTAL
INC.

ORGANIC DATA COMMENT PAGE

Laboratory Name RECRA ENVIRONMENTAL, INC.

USEPA Defined Organic Data Qualifiers:

- U - Indicates compound was analyzed for but not detected.
- J - Indicates an estimate value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- G - The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
- L - The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.
- T - This flag is used when the analyte is found in the associated TCLP extraction as well as in the sample.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- A - This flag indicates that a TIC is a suspected aldol-condensation product.



ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000008

Client No.

DCR-VER-02

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468101

Sample wt/vol: 5.03 (g/mL) G Lab File ID: H8053.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 8.2 Heated Purge: Y Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
75-00-3	CHLOROETHANE	11	U
-09-2	METHYLENE CHLORIDE	11	U
-64-1	ACETONE	820	E
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	12	
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11	U
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	2-BUTANONE	280	E
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	2900	E
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	17	
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	4	J
108-88-3	TOLUENE	21	
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
78-90-7	CHLOROBENZENE	11	U
10-41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	4	J

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000009

Client No.

DCR-VER-02

Lab Name: Recra Environmental Contract: MQ772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468101

Sample wt/vol: 5.03 (g/mL) G Lab File ID: H8053.MSO

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 8.2 Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNSATURATED HYDROCARBON	18.70	330	J
.	SATURATED HYDROCARBON	19.52	50	J
.	SATURATED HYDROCARBON	19.98	28	J
4.	TRIMETHYLBENZENE ISOMER	20.05	24	J
5.	UNSATURATED HYDROCARBON	20.70	18	J
6.	UNKNOWN	21.00	71	J
7.	UNSATURATED HYDROCARBON	21.13	12	J
8.	SATURATED HYDROCARBON	21.35	63	J
9.	UNSATURATED HYDROCARBON	21.58	20	J
10.	UNKNOWN	23.00	28	J

000010

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

Client No.

DCR-VER-02 DL

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C
 Matrix: (soil/water) SOIL Lab Sample ID: A5468101DL
 Sample wt/vol: 4.07 (g/mL) G Lab File ID: K9517.MSQ
 Level: (low/med) MED Date Samp/Recv: 09/01/95 09/02/95
 Moisture: not dec. 8.2 Heated Purge: N Date Analyzed: 09/07/95
 GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	1300	U
74-83-9	BROMOMETHANE	1300	U
75-01-4	VINYL CHLORIDE	1300	U
75-00-3	CHLOROETHANE	1300	U
75-09-2	METHYLENE CHLORIDE	1300	U
67-64-1	ACETONE	1300	U
75-15-0	CARBON DISULFIDE	1300	U
75-35-4	1,1-DICHLOROETHENE	1300	U
75-34-3	1,1-DICHLOROETHANE	1300	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	1300	U
67-66-3	CHLOROFORM	1300	U
107-06-2	1,2-DICHLOROETHANE	1300	U
78-93-3	2-BUTANONE	1300	U
71-55-6	1,1,1-TRICHLOROETHANE	1300	U
56-23-5	CARBON TETRACHLORIDE	1300	U
75-27-4	BROMODICHLOROMETHANE	1300	U
78-87-5	1,2-DICHLOROPROPANE	1300	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	1300	U
79-01-6	TRICHLOROETHENE	20000	D
124-48-1	DIBROMOCHLOROMETHANE	1300	U
79-00-5	1,1,2-TRICHLOROETHANE	1300	U
71-43-2	BENZENE	1300	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	1300	U
75-25-2	BROMOFORM	1300	U
108-10-1	4-METHYL-2-PENTANONE	1300	U
591-78-6	2-HEXANONE	1300	U
127-18-4	TETRACHLOROETHENE	1300	U
108-88-3	TOLUENE	220	DJ
75-34-5	1,1,2,2-TETRACHLOROETHANE	1300	U
75-90-7	CHLOROBENZENE	1300	U
100-41-4	ETHYLBENZENE	1300	U
100-42-5	STYRENE	1300	U
1330-20-7	XYLENE (TOTAL)	1300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000011

Client No.

DCR-VER-02 DL

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468101DL

Sample wt/vol: 4.07 (g/mL) G Lab File ID: K9517.MSO

Level: (low/med) MED Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 8.2 Date Analyzed: 09/07/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

Number TICs found: 4

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN	4.10	13000	J
.	UNKNOWN	4.30	17000	J
.	UNKNOWN	4.33	17000	J
4.	UNKNOWN	4.48	8100	J

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000012

Client No.

DCR-VER-03

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C
 Matrix: (soil/water) SOIL Lab Sample ID: A5468102
 Sample wt/vol: 5.03 (g/mL) G Lab File ID: H8062.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 Moisture: not dec. 6.7 Heated Purge: Y Date Analyzed: 09/06/95
 GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
75-00-3	CHLOROETHANE	11	U
79-2	METHYLENE CHLORIDE	11	U
64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11	U
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	2-BUTANONE	11	U
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	32	
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	11	U
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	11	U
108-88-3	TOLUENE	11	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
99-90-7	CHLOROBENZENE	11	U
41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000013

Client No.

DCR-VER-03

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468102

Sample wt/vol: 5.03 (g/mL) G Lab File ID: H8062.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 6.7 Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 1 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
.	UNKNOWN	21.93	7	BJ

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000014

Client No.

DCR-VER-04

Lab Name: Recra Environmental Contract: MQ772732MO

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468103

Sample wt/vol: 5.07 (g/mL) G Lab File ID: H8051.MSO

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 8.0 Heated Purge: Y Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	CHLOROMETHANE		11	U
74-83-9	BROMOMETHANE		11	U
75-01-4	VINYL CHLORIDE		11	U
75-00-3	CHLOROETHANE		11	U
09-2	METHYLENE CHLORIDE		11	U
-64-1	ACETONE		11	U
75-15-0	CARBON DISULFIDE		11	U
75-35-4	1,1-DICHLOROETHENE		11	U
75-34-3	1,1-DICHLOROETHANE		11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)		11	U
67-66-3	CHLOROFORM		11	U
107-06-2	1,2-DICHLOROETHANE		11	U
78-93-3	2-BUTANONE		11	U
71-55-6	1,1,1-TRICHLOROETHANE		11	U
56-23-5	CARBON TETRACHLORIDE		11	U
75-27-4	BROMODICHLOROMETHANE		11	U
78-87-5	1,2-DICHLOROPROPANE		11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE		11	U
79-01-6	TRICHLOROETHENE		14	
124-48-1	DIBROMOCHLOROMETHANE		11	U
79-00-5	1,1,2-TRICHLOROETHANE		11	U
71-43-2	BENZENE		11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE		11	U
75-25-2	BROMOFORM		11	U
108-10-1	4-METHYL-2-PENTANONE		11	U
591-78-6	2-HEXANONE		11	U
127-18-4	TETRACHLOROETHENE		11	U
108-88-3	TOLUENE		11	U
79-34-5	1,1,2,2-TETRACHLOROETHANE		11	U
08-90-7	CHLOROBENZENE		11	U
0-41-4	ETHYLBENZENE		11	U
100-42-5	STYRENE		11	U
1330-20-7	XYLENE (TOTAL)		11	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000015

Client No.

DCR-VER-04

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468103

Sample wt/vol: 5.07 (g/mL) G Lab File ID: H8051.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 8.0 Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

Number TICs found: 0

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000016

Client No.

DCR-VER-06

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468104

Sample wt/vol: 5.05 (g/mL) G Lab File ID: H8050.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 9.9 Heated Purge: Y Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
75-00-3	CHLOROETHANE	11	U
09-2	METHYLENE CHLORIDE	11	U
09-64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11	U
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	2-BUTANONE	11	U
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	11	U
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	11	U
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	11	U
108-88-3	TOLUENE	11	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
78-90-7	CHLOROBENZENE	11	U
100-41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000017
Client No.

DCR-VER-06

Lab Name: Recra Environmental Contract: MO772732MQ

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468104

Sample wt/vol: 5.05 (g/mL) G Lab File ID: H8050.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 9.9 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

Client No.

DCR-VER-07

Lab Name: Recra Environmental, Contract: MQ772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468105
 Sample wt/vol: 5.10 (g/mL) G Lab File ID: H8049.MSO
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 Moisture: not dec. 7.2 Heated Purge: Y Date Analyzed: 09/05/95
 GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
00-3	CHLOROETHANE	10	U
09-2	METHYLENE CHLORIDE	10	U
67-64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	11	U
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
90-7	CHLOROBENZENE	10	U
100-41-4	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000018

Client No.

DCR-VER-07

Lab Name: Recra Environmental Contract: MQ772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468105

Sample wt/vol: 5.10 (g/mL) G Lab File ID: H8049.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 7.2 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000019

Client No.

DCR-VER-12

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468106

Sample wt/vol: 5.10 (g/mL) G Lab File ID: H8048.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 8.2 Heated Purge: Y Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
75-00-3	CHLOROETHANE	11	U
09-2	METHYLENE CHLORIDE	11	U
64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11	U
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	2-BUTANONE	11	U
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	14	
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	11	U
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	11	U
108-88-3	TOLUENE	11	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
8-90-7	CHLOROBENZENE	11	U
41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000020

Client No.

DCR-VER-12

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468106

Sample wt/vol: 5.10 (g/mL) G Lab File ID: H8048.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 8.2 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000021

Client No.

DCR-VER-13

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468107

Sample wt/vol: 5.11 (g/mL) G Lab File ID: H8061.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 6.8 Heated Purge: Y Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
00-3	CHLOROETHANE	10	U
09-2	METHYLENE CHLORIDE	10	U
67-64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	6	J
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
8-90-7	CHLOROBENZENE	10	U
00-41-4	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000022

Client No.

DCR-VER-13

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECN

Case No.: 5324

SAS No.: _____

SDG No.: VER02C

Matrix: (soil/water) SOIL

Lab Sample ID: A5468107

Sample wt/vol: 5.11 (g/mL) G

Lab File ID: H8061.MSO

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 6.8

Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 1

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
	UNKNOWN SILICON COMPOUND	21.95	12	BJ

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000023

Client No.

DCR-VER-14

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468108

Sample wt/vol: 5.11 (g/mL) G Lab File ID: H8046.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 8.2 Heated Purge: Y Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
74-87-3	CHLOROMETHANE		11	U
74-83-9	BROMOMETHANE		11	U
75-01-4	VINYL CHLORIDE		11	U
75-00-3	CHLOROETHANE		11	U
75-09-2	METHYLENE CHLORIDE		11	U
67-64-1	ACETONE		11	U
75-15-0	CARBON DISULFIDE		11	U
75-35-4	1,1-DICHLOROETHENE		11	U
75-34-3	1,1-DICHLOROETHANE		11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)		11	U
67-66-3	CHLOROFORM		11	U
107-06-2	1,2-DICHLOROETHANE		11	U
78-93-3	2-BUTANONE		11	U
71-55-6	1,1,1-TRICHLOROETHANE		11	U
56-23-5	CARBON TETRACHLORIDE		11	U
75-27-4	BROMODICHLOROMETHANE		11	U
78-87-5	1,2-DICHLOROPROPANE		11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE		11	U
79-01-6	TRICHLOROETHENE		22	U
124-48-1	DIBROMOCHLOROMETHANE		11	U
79-00-5	1,1,2-TRICHLOROETHANE		11	U
71-43-2	BENZENE		11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE		11	U
75-25-2	BROMOFORM		11	U
108-10-1	4-METHYL-2-PENTANONE		11	U
591-78-6	2-HEXANONE		11	U
127-18-4	TETRACHLOROETHENE		11	U
108-88-3	TOLUENE		11	U
79-34-5	1,1,2,2-TETRACHLOROETHANE		11	U
8-90-7	CHLOROBENZENE		11	U
10-41-4	ETHYLBENZENE		11	U
100-42-5	STYRENE		11	U
1330-20-7	XYLENE (TOTAL)		11	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000024

Client No.

DCR-VER-14

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468108

Sample wt/vol: 5.11 (g/mL) G Lab File ID: H8046.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 8.2 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000025

Client No.

DCR-VER-17

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468109

Sample wt/vol: 5.12 (g/mL) G Lab File ID: H8045.MSO

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 11.5 Heated Purge: Y Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/KG</u>	Q
74-87-3	CHLOROMETHANE	11		U
74-83-9	BROMOMETHANE	11		U
75-01-4	VINYL CHLORIDE	11		U
75-00-3	CHLOROETHANE	11		U
-09-2	METHYLENE CHLORIDE	11		U
-64-1	ACETONE	11		U
75-15-0	CARBON DISULFIDE	11		U
75-35-4	1,1-DICHLOROETHENE	11		U
75-34-3	1,1-DICHLOROETHANE	11		U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11		U
67-66-3	CHLOROFORM	11		U
107-06-2	1,2-DICHLOROETHANE	11		U
78-93-3	2-BUTANONE	11		U
71-55-6	1,1,1-TRICHLOROETHANE	11		U
56-23-5	CARBON TETRACHLORIDE	11		U
75-27-4	BROMODICHLOROMETHANE	11		U
78-87-5	1,2-DICHLOROPROPANE	11		U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11		U
79-01-6	TRICHLOROETHENE	16		U
124-48-1	DIBROMOCHLOROMETHANE	11		U
79-00-5	1,1,2-TRICHLOROETHANE	11		U
71-43-2	BENZENE	11		U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11		U
75-25-2	BROMOFORM	11		U
108-10-1	4-METHYL-2-PENTANONE	11		U
591-78-6	2-HEXANONE	11		U
127-18-4	TETRACHLOROETHENE	11		U
108-88-3	TOLUENE	11		U
79-34-5	1,1,2,2-TETRACHLOROETHANE	11		U
108-90-7	CHLOROBENZENE	11		U
0-41-4	ETHYLBENZENE	11		U
0-42-5	STYRENE	11		U
1330-20-7	XYLENE (TOTAL)	11		U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000026

Client No.

DCR-VER-17

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL

Lab Sample ID: A5468109

Sample wt/vol: 5.12 (g/mL) G

Lab File ID: H8045.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 11.5

Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Oil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000027

Client No.

DCR-VER-18

Lab Name: Recra Environmental Contract: MQ772732MQ
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C
 Matrix: (soil/water) SOIL Lab Sample ID: A5468113
 Sample wt/vol: 5.06 (g/mL) G Lab File ID: H8043.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 Moisture: not dec. 9.3 Heated Purge: Y Date Analyzed: 09/05/95
 GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
00-3	CHLOROETHANE	11	U
09-2	METHYLENE CHLORIDE	11	J
67-64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11	U
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	2-BUTANONE	11	U
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	11	U
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	11	U
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	11	U
108-88-3	TOLUENE	11	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
8-90-7	CHLOROBENZENE	11	U
100-41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000028
 Client No.

DCR-VER-18

Lab Name: Recra Environmental Contract: MQ772732MQ

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468113
 Sample wt/vol: 5.06 (g/mL) G Lab File ID: H8043.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 Moisture: not dec. 9.3 Date Analyzed: 09/05/95
 GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000029

Client No.

DCR-VER-19

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C
 Matrix: (soil/water) SOIL Lab Sample ID: A5468114
 Sample wt/vol: 5.15 (g/mL) G Lab File ID: H8042.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 Moisture: not dec. 8.0 Heated Purge: Y Date Analyzed: 09/05/95
 GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
00-3	CHLOROETHANE	10	U
09-2	METHYLENE CHLORIDE	10	U
67-64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	10	U
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
3-90-7	CHLOROBENZENE	10	U
100-41-4	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000030

Client No.

DCR-VER-19

Lab Name: Recra Environmental Contract: MQ772732MQ

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468114

Sample wt/vol: 5.15 (g/mL) G Lab File ID: H8042.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 8.0 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000031

Client No.

DCR-VER-20

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468115

Sample wt/vol: 5.07 (g/mL) G Lab File ID: H8060.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 10.4 Heated Purge: Y Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
75-00-3	CHLOROETHANE	11	U
75-09-2	METHYLENE CHLORIDE	3	J
67-64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11	U
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	2-BUTANONE	11	U
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	11	U
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	11	U
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	11	U
108-88-3	TOLUENE	11	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
8-90-7	CHLOROBENZENE	11	U
100-41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000032

Client No.

DCR-VER-20

Lab Name: Recra Environmental Contract: MO772732MQ

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468115

Sample wt/vol: 5.07 (g/mL) G Lab File ID: H8060.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 10.4 Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000033

Client No.

DCR-VER-21

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C
 Matrix: (soil/water) SOIL Lab Sample ID: A5468116
 Sample wt/vol: 5.17 (g/mL) G Lab File ID: H8040.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 Moisture: not dec. 12.5 Heated Purge: Y Date Analyzed: 09/05/95
 GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
-00-3	CHLOROETHANE	11	U
-09-2	METHYLENE CHLORIDE	11	U
67-64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11	U
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	2-BUTANONE	11	U
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	11	U
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	11	U
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	11	U
108-88-3	TOLUENE	11	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
8-90-7	CHLOROBENZENE	11	U
100-41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000034

Client No.

DCR-VER-21

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468116

Sample wt/vol: 5.17 (g/mL) G Lab File ID: H8040.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 12.5 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000035

Client No.

DCR-VER-22

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C
 Matrix: (soil/water) SOIL Lab Sample ID: A5468117
 Sample wt/vol: 5.04 (g/mL) G Lab File ID: H8039.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 Moisture: not dec. 15.0 Heated Purge: Y Date Analyzed: 09/05/95
 GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	12	U
74-83-9	BROMOMETHANE	12	U
75-01-4	VINYL CHLORIDE	12	U
00-3	CHLOROETHANE	17	
09-2	METHYLENE CHLORIDE	12	U
67-64-1	ACETONE	12	U
75-15-0	CARBON DISULFIDE	12	U
75-35-4	1,1-DICHLOROETHENE	12	U
75-34-3	1,1-DICHLOROETHANE	12	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	12	U
67-66-3	CHLOROFORM	12	U
107-06-2	1,2-DICHLOROETHANE	12	U
78-93-3	2-BUTANONE	12	U
71-55-6	1,1,1-TRICHLOROETHANE	12	U
56-23-5	CARBON TETRACHLORIDE	12	U
75-27-4	BROMODICHLOROMETHANE	12	U
78-87-5	1,2-DICHLOROPROPANE	12	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	12	U
79-01-6	TRICHLOROETHENE	12	U
124-48-1	DIBROMOCHLOROMETHANE	12	U
79-00-5	1,1,2-TRICHLOROETHANE	12	U
71-43-2	BENZENE	12	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	12	U
75-25-2	BROMOFORM	12	U
108-10-1	4-METHYL-2-PENTANONE	12	U
591-78-6	2-HEXANONE	12	U
127-18-4	TETRACHLOROETHENE	12	U
108-88-3	TOLUENE	12	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	12	U
8-90-7	CHLOROBENZENE	12	U
100-41-4	ETHYLBENZENE	12	U
100-42-5	STYRENE	12	U
1330-20-7	XYLENE (TOTAL)	12	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000036

Client No.

DCR-VER-22

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468117

Sample wt/vol: 5.04 (g/mL) G Lab File ID: H8039.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 15.0 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

Number TICs found: 0

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000037

Client No.

DCR-VER-23

Lab Name: Recra Environmental Contract: MQ772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468118
 Sample wt/vol: 5.06 (g/mL) G Lab File ID: H8038.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 Moisture: not dec. 8.3 Heated Purge: Y Date Analyzed: 09/05/95
 GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
75-00-3	CHLOROETHANE	11	U
09-2	METHYLENE CHLORIDE	1	J
67-64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11	U
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	2-BUTANONE	11	U
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	11	U
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	11	U
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	11	U
108-88-3	TOLUENE	11	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
78-90-7	CHLOROBENZENE	11	U
100-41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000038

Client No.

DCR-VER-23

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468118

Sample wt/vol: 5.06 (g/mL) G Lab File ID: H8038.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 8.3 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000039

Client No.

DCR-VER-24

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER02C

Matrix: (soil/water) SOIL

Lab Sample ID: A5468119

Sample wt/vol: 5.11 (g/mL) G

Lab File ID: H8037.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 7.3 Heated Purge: Y

Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
00-3	CHLOROETHANE	10	U
09-2	METHYLENE CHLORIDE	10	U
67-64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	10	U
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
8-90-7	CHLOROBENZENE	10	U
100-41-4	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000040

Client No.

DCR-VER-24

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468119

Sample wt/vol: 5.11 (g/mL) G Lab File ID: H8037.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 7.3 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000041

Client No.

DCR-VER-25

Lab Name: Recra Environmental Contract: MO772732MO
Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER02C
Matrix: (soil/water) SOIL Lab Sample ID: A5468120
Sample wt/vol: 5.06 (g/mL) G Lab File ID: H8036.MSQ
Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
Moisture: not dec. 10.2 Heated Purge: Y Date Analyzed: 09/05/95
GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
00-3	CHLOROETHANE	11	U
09-2	METHYLENE CHLORIDE	11	U
67-64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11	U
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	BUTANONE	11	U
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	11	U
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	11	U
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	11	U
108-88-3	TOLUENE	11	U
73-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
8-90-7	CHLOROBENZENE	11	U
100-41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000042

Client No.

DCR-VER-25

Lab Name: Recra Environmental Contract: MO772732MQ

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468120

Sample wt/vol: 5.06 (g/mL) G Lab File ID: H8036.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 10.2 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000043

Client No.

DCR-VER-200

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C
 Matrix: (soil/water) SOIL Lab Sample ID: A5468110
 Sample wt/vol: 5.07 (g/mL) G Lab File ID: H8044.MSO
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 % Moisture: not dec. 8.3 Heated Purge: Y Date Analyzed: 09/05/95
 GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
00-3	CHLOROETHANE	11	U
09-2	METHYLENE CHLORIDE	11	U
67-64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11	U
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	2-BUTANONE	11	U
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	36	U
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	11	U
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	11	U
108-88-3	TOLUENE	11	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
3-90-7	CHLOROBENZENE	11	U
100-41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000044

Client No.

DCR-VER-200

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5468110

Sample wt/vol: 5.07 (g/mL) G Lab File ID: H8044.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 8.3 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000045

Client No.

MW-546-01

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) WATER Lab Sample ID: A5468111

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K9479.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
75-00-3	CHLOROETHANE	10	U
09-2	METHYLENE CHLORIDE	10	U
67-64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	10	U
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
3-90-7	CHLOROBENZENE	10	U
0-41-4	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000046

Client No.

MW-546-01

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) WATER Lab Sample ID: A5468111

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K9479.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. _____ Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000047

Client No.

MW-546-05

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) WATER Lab Sample ID: A5468112

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K9480.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
75-00-3	CHLOROETHANE	10	U
75-09-2	METHYLENE CHLORIDE	10	U
67-64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	10	U
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
79-39-7	CHLOROBENZENE	10	U
79-04-1	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000048

Client No.

MW-546-05

Lab Name: Recra Environmental Contract: MQ772732MQ

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) WATER Lab Sample ID: A5468112

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K9480.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. _____ Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
WATER SURROGATE RECOVERY

000049

Lab Name: Recra Environmental, Inc. Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

	Client Sample ID	BFB		DCE		TOL							TOT OUT
		%REC	#	%REC	#	%REC	#						
1	Matrix Spike Blank	98		94		98							0
2	Matrix Spike Blk Dup	96		91		94							0
3	MW-546-01	100		90		94							0
4	MW-546-05	102		90		92							0
5	VBLK21	103		93		97							0

QC LIMITS

BFB = p-Bromofluorobenzene (86-115)
DCE = 1,2-Dichloroethane-D4 (76-114)
TOL = Toluene-D8 (88-110)

Column to be used to flag recovery values
- Values outside of contract required QC limits
D Surrogates diluted out

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 SOIL SURROGATE RECOVERY

000050

Lab Name: Recra Environmental, Inc. Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Level (low/med): LOW

	Client Sample ID	BFB		DCE		TOL							TOT OUT
		%REC	#	%REC	#	%REC	#						
1	DCR-VER-02	118	*	86		107							1
2	DCR-VER-02 MS	116	*	89		99							1
3	DCR-VER-02 MSD	124	*	88		104							1
4	DCR-VER-03	90		92		105							0
5	DCR-VER-04	95		87		100							0
6	DCR-VER-06	93		85		106							0
7	DCR-VER-07	97		85		104							0
8	DCR-VER-12	97		88		102							0
9	DCR-VER-13	93		97		103							0
10	DCR-VER-14	92		87		110							0
11	DCR-VER-17	91		89		106							0
12	DCR-VER-18	91		91		109							0
13	DCR-VER-19	98		92		107							0
	DCR-VER-20	93		94		112							0
	DCR-VER-200	94		89		109							0
16	DCR-VER-21	96		93		108							0
17	DCR-VER-22	100		92		103							0
18	DCR-VER-23	96		91		109							0
19	DCR-VER-24	101		95		103							0
20	DCR-VER-25	101		92		106							0
21	Matrix Spike Blank	100		97		100							0
22	VBLK19	107		94		106							0
23	VBLK20	100		94		101							0

QC LIMITS

BFB = p-Bromofluorobenzene (59-113)
 DCE = 1,2-Dichloroethane-D4 (70-121)
 TOL = Toluene-D8 (84-138)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogates diluted out

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
SOIL SURROGATE RECOVERY

000051

Lab Name: Recra Environmental, Inc. Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Level (low/med): MED

	Client Sample ID	BFB %REC #	DCE %REC #	TOL %REC #						TOT OUT
1	DCR-VER-02 DL	102	100	98						0
2	DCR-VER-02 MSDDL	95	104	94						0
3	DCR-VER-02 MSDL	94	101	92						0
4	Matrix Spike Blank	90	95	97						0
5	VBLK24	97	90	102						0

QC LIMITS

BFB = p-Bromofluorobenzene (59-113)
DCE = 1,2-Dichloroethane-D4 (70-121)
TOL = Toluene-D8 (84-138)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 WATER MATRIX SPIKE BLANK/MATRIX SPIKE BLANK DUPLICATE RECOVERY

000052

Lab Name: Recra Environmental, Inc.

Contract: MO772732MO

Lab Samp ID: A5B0585103

Lab Code: RECNY Case No.: 5324

SAS No.: _____

SDG No.: VER02C

Matrix Spike - Client Sample No.: VER02C *msblanc/msbd n/a 10/2/95*

COMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	57	114	61 - 145
Trichloroethene	50	50	100	71 - 120
Benzene	50	48	96	76 - 127
Toluene	50	49	98	76 - 125
Chlorobenzene	50	52	104	75 - 130

COMPOUND	SPIKE ADDED UG/L	MSBD CONCENTRATION UG/L	MSBD % REC #	% RPD #	QC LIMITS REC.	
					RPD	REC.
1,1-Dichloroethene	50	58	116	2	14	61 - 145
Trichloroethene	50	52	104	4	14	71 - 120
zene	50	51	102	6	11	76 - 127
uene	50	48	96	2	13	76 - 125
Chlorobenzene	50	52	104	0	13	75 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
 Spike recovery: 0 out of 10 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 SOIL MATRIX SPIKE BLANK RECOVERY

000053

Lab Name: Recra Environmental, Inc. Contract: MO772732MQ Lab Samp ID: A5B0586001

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix Spike - Client Sample No.: ~~VBLK19~~ MS BLANK Level: (low/med) LOW
10/2/15

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	46	92	59 - 172
Trichloroethene	50	48	96	62 - 137
Benzene	50	48	96	66 - 142
Toluene	50	50	100	59 - 139
Chlorobenzene	50	49	98	60 - 133

* Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Recovery: 0 out of 5 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 SOIL MATRIX SPIKE BLANK RECOVERY

000054

Lab Name: Recra Environmental, Inc.

Contract: MQ772732MQ

Lab Samp ID: A5B0591502

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER02C

Matrix Spike - Client Sample No.: ~~VBLK24~~

MS BLANK

Level: (low/med) MED

*(med level)
 m.m 10/2/95*

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.
1,1-Dichloroethene	6200	6600	106	59 - 172
Trichloroethene	6200	6400	103	62 - 137
Benzene	6200	6400	103	66 - 142
Toluene	6200	6600	106	59 - 139
Chlorobenzene	6200	6900	111	60 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

ke recovery: 0 out of 5 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

000055

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Lab Samp ID: A5468101
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C
 Matrix Spike - Client Sample No.: DCR-VER-02 Level: (low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	54	0	50	92	59 - 172
Trichloroethene	54	2900	2800	-185 *	62 - 137
Benzene	54	0	54	100	66 - 142
Toluene	54	21	75	100	59 - 139
Chlorobenzene	54	0	57	106	60 - 133

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #		QC LIMITS REC.
				RPD #	RPD	
1,1-Dichloroethene	54	50	92	0	22	59 - 172
Trichloroethene	54	3200	556 *	399 *	24	62 - 137
Benzene	54	53	98	2	21	66 - 142
Toluene	54	80	109	9	21	59 - 139
Chlorobenzene	54	54	100	6	21	60 - 133

‡ Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 5 outside limits
 Spike recovery: 2 out of 10 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

000056

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Lab Samp ID: A5468101DL
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C
 Matrix Spike - Client Sample No.: DCR-VER-02 DL Level: (low/med) MED

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	6700	0	9700	145	59 - 172
Trichloroethene	6700	20000	33000	194 *	62 - 137
Benzene	6700	0	7000	104	66 - 142
Toluene	6700	220	6900	100	59 - 139
Chlorobenzene	6700	0	7200	107	60 - 133

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #		QC LIMITS REC.
				RPD	#	
1,1-Dichloroethene	6700	9500	142	2	22	59 - 172
Trichloroethene	6700	33000	194 *	0	24	62 - 137
Benzene	6700	6900	103	1	21	66 - 142
Toluene	6700	6900	100	0	21	59 - 139
Chlorobenzene	6700	7100	106	0	21	60 - 133

* Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
 spike recovery: 2 out of 10 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
METHOD BLANK SUMMARY

000057

Client No.

VBLK19

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Lab File ID: H8035.MSQ Lab Sample ID: A5B0586001

Date Analyzed: 09/05/95 Time Analyzed: 15:51

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: I50H

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
1	DCR-VER-02	A5468101	H8053.MSQ	01:17
2	DCR-VER-02 MS	A5468101MS	H8054.MSQ	01:48
3	DCR-VER-02 MSD	A5468101SD	H8055.MSQ	02:19
4	DCR-VER-04	A5468103	H8051.MSQ	00:15
5	DCR-VER-06	A5468104	H8050.MSQ	23:44
6	DCR-VER-07	A5468105	H8049.MSQ	23:13
7	DCR-VER-12	A5468106	H8048.MSQ	22:41
8	DCR-VER-14	A5468108	H8046.MSQ	21:40
9	DCR-VER-17	A5468109	H8045.MSQ	21:09
10	DCR-VER-18	A5468113	H8043.MSQ	20:07
11	DCR-VER-19	A5468114	H8042.MSQ	19:35
12	DCR-VER-200	A5468110	H8044.MSQ	20:38
13	DCR-VER-21	A5468116	H8040.MSQ	18:32
14	DCR-VER-22	A5468117	H8039.MSQ	18:02
15	DCR-VER-23	A5468118	H8038.MSQ	17:31
16	DCR-VER-24	A5468119	H8037.MSQ	17:00
17	DCR-VER-25	A5468120	H8036.MSQ	16:29
18	Matrix Spike Blank	A5468122	H8034.MSQ	15:20

Comments: _____

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000058

Client No.

VBLK19

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5B0586001

Sample wt/vol: 5.00 (g/mL) G Lab File ID: H8035.MSQ

Level: (low/med) LOW Date Samp/Recv: _____

% Moisture: not dec. _____ Heated Purge: Y Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
75-00-3	CHLOROETHANE	10	U
09-2	METHYLENE CHLORIDE	10	U
64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	10	U
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
9-90-7	CHLOROBENZENE	10	U
41-4	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000059

Client No.

VBLK19

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5B0586001

Sample wt/vol: 5.00 (g/mL) G Lab File ID: H8035.MSQ

Level: (low/med) LOW Date Samp/Recv: _____

Moisture: not dec. _____ Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 METHOD BLANK SUMMARY

000060
 Client No.

VBLK21

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Lab File ID: K9473.MSQ Lab Sample ID: A5B0585103

Date Analyzed: 09/05/95 Time Analyzed: 17:03

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: I50K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	Matrix Spike Blank	A5B0585101	K9470.MSQ	14:53
2	Matrix Spike Blk Dup	A5B0585102	K9471.MSQ	15:21
3	MW-546-01	A5468111	K9479.MSQ	20:22
4	MW-546-05	A5468112	K9480.MSQ	20:55

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000061

Client No.

VBLK21

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) WATER Lab Sample ID: A5B0585103

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K9473.MSO

Level: (low/med) LOW Date Samp/Recv: _____

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L Q

CAS NO.

COMPOUND

CAS NO.	COMPOUND	UG/L	Q
74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
75-00-3	CHLOROETHANE	10	U
09-2	METHYLENE CHLORIDE	10	U
64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	10	U
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
8-90-7	CHLOROBENZENE	10	U
0-41-4	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000062

Client No.

VBLK21

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) WATER

Lab Sample ID: A5B0585103

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: K9473.MSQ

Level: (low/med) LOW

Date Samp/Recv: _____

Moisture: not dec. _____

Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 METHOD BLANK SUMMARY

000063
 Client No.

VBLK20

Lab Name: Recra Environmental, Contract: MO772732MO
 Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER02C
 Lab File ID: H8059.MSQ Lab Sample ID: A5B0586002
 Date Analyzed: 09/06/95 Time Analyzed: 10:30
 GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y
 Instrument ID: I50H

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
1	DCR-VER-03	A5468102	H8062.MSQ	12:04
2	DCR-VER-13	A5468107	H8061.MSQ	11:32
3	DCR-VER-20	A5468115	H8060.MSQ	11:01

Comments: _____

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000064

Client No.

VBLK20

Lab Name: Recra Environmental, Contract: MQ772732MQ

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5B0586002

Sample wt/vol: 5.00 (g/mL) G Lab File ID: H8059.MSQ

Level: (low/med) LOW Date Samp/Recv: _____

Moisture: not dec. _____ Heated Purge: Y Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
75-00-3	CHLOROETHANE	10	U
09-2	METHYLENE CHLORIDE	10	U
64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	10	U
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
8-90-7	CHLOROBENZENE	10	U
J-41-4	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000065

Client No.

VBLK20

Lab Name: Recra Environmental Contract: MQ772732MQ

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5B0586002

Sample wt/vol: 5.00 (g/mL) G Lab File ID: H8059.MSQ

Level: (low/med) LOW Date Samp/Recv: _____

Moisture: not dec. _____ Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN SILICON COMPOUND	21.97	6	J

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
METHOD BLANK SUMMARY

000066
Client No.

VBLK24

Lab Name: Recra Environmental Contract: MO772732MO
Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C
Lab File ID: K9516.MSQ Lab Sample ID: A5B0591502
Date Analyzed: 09/07/95 Time Analyzed: 00:09
GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N
Instrument ID: I50K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
1	DCR-VER-02 DL	A5468101DL	K9517.MSQ	00:43
2	DCR-VER-02 MSDL	A5468101B	K9519.MSQ	01:49
3	DCR-VER-02 MSL	A5468101A	K9518.MSQ	01:16
4	Matrix Spike Blank	A5B0591501	K9515.MSQ	23:09

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000067

Client No.

VBLK24

Lab Name: Recra Environmental, Contract: MQ772732MQ

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5B0591502

Sample wt/vol: 4.00 (g/mL) G Lab File ID: K9516.MSQ

Level: (low/med) MED Date Samp/Recv: _____

Moisture: not dec. _____ Heated Purge: N Date Analyzed: 09/07/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

74-87-3	CHLOROMETHANE	1200	U
74-83-9	BROMOMETHANE	1200	U
75-01-4	VINYL CHLORIDE	1200	U
-00-3	CHLOROETHANE	1200	U
-09-2	METHYLENE CHLORIDE	1200	U
67-64-1	ACETONE	1200	U
75-15-0	CARBON DISULFIDE	1200	U
75-35-4	1,1-DICHLOROETHENE	1200	U
75-34-3	1,1-DICHLOROETHANE	1200	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	1200	U
67-66-3	CHLOROFORM	1200	U
107-06-2	1,2-DICHLOROETHANE	1200	U
78-93-3	2-BUTANONE	1200	U
71-55-6	1,1,1-TRICHLOROETHANE	1200	U
56-23-5	CARBON TETRACHLORIDE	1200	U
75-27-4	BROMODICHLOROMETHANE	1200	U
78-87-5	1,2-DICHLOROPROPANE	1200	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	1200	U
79-01-6	TRICHLOROETHENE	1200	U
124-48-1	DIBROMOCHLOROMETHANE	1200	U
79-00-5	1,1,2-TRICHLOROETHANE	1200	U
71-43-2	BENZENE	1200	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	1200	U
75-25-2	BROMOFORM	1200	U
108-10-1	4-METHYL-2-PENTANONE	1200	U
591-78-6	2-HEXANONE	1200	U
127-18-4	TETRACHLOROETHENE	1200	U
108-88-3	TOLUENE	1200	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	1200	U
8-90-7	CHLOROBENZENE	1200	U
100-41-4	ETHYLBENZENE	1200	U
100-42-5	STYRENE	1200	U
1330-20-7	XYLENE (TOTAL)	1200	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000068

Client No.

VBLK24

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C

Matrix: (soil/water) SOIL Lab Sample ID: A5B0591502

Sample wt/vol: 4.00 (g/mL) G Lab File ID: K9516.MSQ

Level: (low/med) MED Date Samp/Recv: _____

Moisture: not dec. _____ Date Analyzed: 09/07/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100.00 (uL)

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000069

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5B0586005
Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C
Lab File ID (Standard): H8033.MSQ Date Analyzed: 09/05/95
Instrument ID: I50H Time Analyzed: 14:33
GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) Y

	IS1 (BCM)		IS2 (CBZ)		IS3 (DFB)	
	AREA	#	AREA	#	AREA	#
12 HOUR STD	39839		176919		184418	
UPPER LIMIT	79678	9.30	353838	16.90	368836	11.78
LOWER LIMIT	19920	9.80	88460	17.40	92209	12.28
		8.80		16.40		11.28
CLIENT SAMPLE						
1 DCR-VER-02	22452	9.33	82284 *	16.93	96419	11.82
2 DCR-VER-02 MS	21895	9.30	88294 *	16.90	92422	11.78
3 DCR-VER-02 MSD	23898	9.32	92666	16.92	102281	11.80
4 DCR-VER-04	25438	9.35	93968	16.93	112696	11.82
5 DCR-VER-06	24239	9.33	88663	16.90	103459	11.78
6 DCR-VER-07	25405	9.32	96255	16.92	110759	11.80
7 DCR-VER-12	28448	9.33	114782	16.88	126717	11.78
8 DCR-VER-14	28816	9.30	98496	16.88	123040	11.77
9 DCR-VER-17	25750	9.32	92265	16.92	112474	11.78
10 DCR-VER-18	25459	9.30	96265	16.92	117413	11.78
11 DCR-VER-19	24580	9.28	95810	16.90	112652	11.78
12 DCR-VER-200	28332	9.28	102493	16.90	122549	11.77
13 DCR-VER-21	26517	9.30	99323	16.92	120435	11.78
14 DCR-VER-22	31083	9.32	127628	16.93	142193	11.80
15 DCR-VER-23	31931	9.32	119372	16.90	143009	11.78
16 DCR-VER-24	31843	9.35	133652	16.92	146056	11.80
17 DCR-VER-25	32580	9.32	130421	16.88	148270	11.78
18 Matrix Spike Blank	39196	9.33	173332	16.88	184163	11.78
19 VBLK19	36393	9.35	154488	16.90	172746	11.80

AREA UNIT RT
QC LIMITS QC LIMITS

IS1 (BCM) = BROMOCHLOROMETHANE (50-200) -0.50 / +0.50 min
IS2 (CBZ) = Chlorobenzene-D5 (50-200) -0.50 / +0.50 min
IS3 (DFB) = 1,4-Difluorobenzene (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000070

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5E0586006
Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C
Lab File ID (Standard): H8057.MSQ Date Analyzed: 09/06/95
Instrument ID: I50H Time Analyzed: 09:05
GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) Y

	IS1 (BCM)		IS2 (CBZ)		IS3 (DFB)	
	AREA	#	AREA	#	AREA	#
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	27390		118099		121601	
UPPER LIMIT	54780	9.32	236198	16.93	243202	11.80
LOWER LIMIT	13695	9.82	59050	17.43	60801	12.30
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE						
=====	=====	=====	=====	=====	=====	=====
1 DCR-VER-03	21179	9.27	75772	16.88	89572	11.75
2 DCR-VER-13	20843	9.28	77968	16.88	91579	11.77
3 DCR-VER-20	25242	9.28	89683	16.88	115019	11.77
4 VBLK20	26890	9.33	111209	16.92	122521	11.78

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (BCM) = BROMOCHLOROMETHANE
IS2 (CBZ) = Chlorobenzene-D5
IS3 (DFB) = 1,4-Difluorobenzene

(50-200) -0.50 / +0.50 min
(50-200) -0.50 / +0.50 min
(50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000071

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001198
Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER02C
Lab File ID (Standard): K9469.MSQ Date Analyzed: 09/05/95
Instrument ID: I50K Time Analyzed: 13:55
GC Column(1): DB-624 ID: 0.530(mm) Heated Purge: (Y/N) N

	IS1 (BCM) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DFB) AREA #	RT #
12 HOUR STD	31185	10.90	129040	17.82	127872	12.98
UPPER LIMIT	62370	11.40	258080	18.32	255744	13.48
LOWER LIMIT	15593	10.40	64520	17.32	63936	12.48
CLIENT SAMPLE						
1 Matrix Spike Blank	28587	10.90	114921	17.80	118693	13.00
2 Matrix Spike Blk Dup	25956	10.90	108260	17.82	106126	13.00
3 MW-546-01	19172	10.90	83162	17.83	77219	13.00
4 MW-546-05	18927	10.92	82513	17.85	77570	13.02
BLK21	21738	10.93	88081	17.83	88327	13.02

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (BCM) = BROMOCHLOROMETHANE (50-200) -0.50 / +0.50 min
IS2 (CBZ) = Chlorobenzene-D5 (50-200) -0.50 / +0.50 min
IS3 (DFB) = 1,4-Difluorobenzene (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000072

Lab Name: Recre Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001219
Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER02C
Lab File ID (Standard): K9514.MSQ Date Analyzed: 09/06/95
Instrument ID: I50K Time Analyzed: 22:33
GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) N

	IS1 (BCM)		IS2 (CBZ)		IS3 (DFB)	
	AREA	#	AREA	#	AREA	#
12 HOUR STD	29366		128162		116773	
UPPER LIMIT	58732	10.90	256324	17.82	233546	13.00
LOWER LIMIT	14683	11.40	64081	18.32	58387	13.50
CLIENT SAMPLE		10.40		17.32		12.50
1 DCR-VER-02 DL	28933	10.92	125000	17.85	120624	13.03
2 DCR-VER-02 MSDDL	31524	10.92	143424	17.87	131559	13.02
3 DCR-VER-02 MSDL	31051	10.88	144625	17.82	131018	12.98
4 Matrix Spike Blank	26262	10.90	117613	17.82	108902	13.00
VBLK24	23684	10.93	99312	17.85	94852	13.03

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (BCM) = BROMOCHLOROMETHANE (50-200) -0.50 / +0.50 min
IS2 (CBZ) = Chlorobenzene-D5 (50-200) -0.50 / +0.50 min
IS3 (DFB) = 1,4-Difluorobenzene (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

Sample ID Nos.:

Lab Report Dated:

October 2, 1995

DCR-VER-26

DCR-VER-27

DCR-VER-48

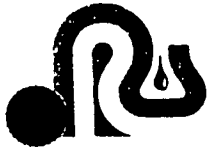
DCR-VER-49

DCR-VER-50

DCR-VER-201

MW-546-02

MW-546-03



**RECRA
ENVIRONMENTAL
INC.**

Chemical and Environmental Analysis Services

*"Part 1" scanned
ok up through
this page I
(resume scanning
w/ following page
for part 2 then
join documents)*

95DUR 147FE

October 2, 1995

Mr. Joseph Mihm
Camp, Dresser and McKee / Alcoa
Park Avenue East, Building 65
Massena, NY 13665

RE: **Analytical Results**

Dear Mr. Mihm:

Please find enclosed the data package concerning the analyses of samples recently submitted by your firm. The pertinent information regarding these analyses is listed below:

Quote No.: NY95-438
REI: 19
SDG #: VER26
Matrix: Soil & Water
Sample Receipt Date: 09/02/95
Sample Date: 09/01/95

If you have any questions concerning these data, please contact Ms. Deborah A. Carella, Program Manager, at (800) 52R-ECRA and refer to the I.D. number listed below.

Sincerely,

RECRA ENVIRONMENTAL, INC.

KE Kasperek
Kenneth E. Kasperek
Laboratory Manager

DAC/KEK/dms

Enclosure

cc: Frances Gero (cover letter only)
Aluminum Company of America
Mr. Bernard Kunkle (cover letter only)
Aluminum Company of America
Park Avenue East, BLDG. 65
Massena, NY 13665

Reviewed and approved by/date: *10/2/95*
Deborah A. Carella

Deborah A. Carella, Program Manager

ID #A95-4682
#NY5A5754

*Mihm } LTR
Schultz }
~~Schauber~~ }
Occhialini }
Andersons }*

000001

SAMPLE DATA SUMMARY PACKAGE

SDG NARRATIVE:

Laboratory: Recra Environmental, Inc.

Laboratory Code: RECNY

Contract No.: NY95-438

SDG No.: VER26

Sample Identifications: DCR-VER-201
DCR-VER-26
DCR-VER-26 MATRIX SPIKE
DCR-VER-26 MATRIX SPIKE DUPLICATE
DCR-VER-27
DCR-VER-48
DCR-VER-49
DCR-VER-50
MW-546-02
MW-546-03

METHODOLOGY

Analyses were performed in accordance with 1991 New York State Analytical Services protocol. (Revised 1993)

COMMENTS

Results are reported using standard qualifiers (Q) as defined on the Organic Data Comment Page.

Preliminary results were sent on September 7, 1995 via facsimile to Ms. Julie Schreiber of Camp, Dresser and McKee by Ms. Deborah Carella of Recra Environmental.

Quality Control analysis was performed on a batch basis for water samples. All results were within acceptable limits.

The PAH and PCB data for these samples are submitted under a separate SDG number.

VOLATILE DATA

Volatile sample and standard areas are listed on the corresponding data system printouts.

Volatile data was processed utilizing Finnigan DataPro Autoquantitation and Recra Environmental's Inc.'s Analytical Information Management Systems (AIMS). All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. False positive compounds are crossed out, initialed and dated in this data package.

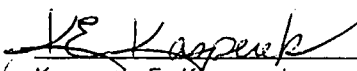
Ortho-Xylene and meta & para-Xylene elute separately on a capillary column. They are reported in this data package as Total Xylenes. The concentration is calculated by adding the areas of ortho-Xylene and meta & para-Xylene and using only the response factor from ortho-Xylene to calculate the nanogram amount.

Sample DCR-VER-27 required a dilution of five (5) due to the high concentration of 1,2-Dichloroethene (Total).

Samples DCR-VER-26MS and DCR-VER-26MSD exhibit the relative percent difference of 1,1-Dichloroethene as above QC limits.

Samples MW-546-02 and MW-546-03 both exhibit a pH of approximately 6-8.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."


Kenneth E. Kasperek
Laboratory Director

10/2/95
Date



NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

000004

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: RECRA ENVIRONMENTAL, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	OTHER
DCR-VER-201	A5468203	ASP91	-	-	-	-	-
DCR-VER-26	A5468201	ASP91	-	-	-	-	-
DCR-VER-27	A5468202	ASP91	-	-	-	-	-
DCR-VER-48	A5468207	ASP91	-	-	-	-	-
DCR-VER-49	A5468208	ASP91	-	-	-	-	-
DCR-VER-50	A5468204	ASP91	-	-	-	-	-
MW-546-02	A5468205	ASP91	-	-	-	-	-
MW-546-03	A5468206	ASP91	-	-	-	-	-

NYSDEC-1



RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
DCR-VER-201	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-26	SOIL	09/01/95	09/02/95	-	09/06/95
DCR-VER-27	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-48	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-49	SOIL	09/01/95	09/02/95	-	09/05/95
DCR-VER-50	SOIL	09/01/95	09/02/95	-	09/05/95
MW-546-02	WATER	09/01/95	09/02/95	-	09/05/95
MW-546-03	WATER	09/01/95	09/02/95	-	09/05/95

NYSDEC-2

RECRA
ENVIRONMENTAL
INC.

ORGANIC DATA COMMENT PAGELaboratory Name RECRA ENVIRONMENTAL, INC.

USEPA Defined Organic Data Qualifiers:

- U - Indicates compound was analyzed for but not detected.
- J - Indicates an estimate value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- G - The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
- L - The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.
- T - This flag is used when the analyte is found in the associated TCLP extraction as well as in the sample.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- A - This flag indicates that a TIC is a suspected aldol-condensation product.



NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY
ORGANIC ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
DCR-VER-201	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-26	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-27	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-27DL	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-48	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-49	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
DCR-VER-50	SOIL	ASP91	-	AS REQUIRED	AS REQUIRED
MW-546-02	WATER	ASP91	-	AS REQUIRED	AS REQUIRED
MW-546-03	WATER	ASP91	-	AS REQUIRED	AS REQUIRED

NYSDEC-6

RECRA
ENVIRONMENTAL
INC.

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000008
 Client No.

DCR-VER-26

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26
 Matrix: (soil/water) SOIL Lab Sample ID: A5468201
 Sample wt/vol: 5.04 (g/mL) G Lab File ID: G3347.MSO
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 % Moisture: not dec. 6.6 Heated Purge: Y Date Analyzed: 09/06/95
 GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
-00-3	CHLOROETHANE	11	U
-09-2	METHYLENE CHLORIDE	1	J
67-64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	1	J
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	2-BUTANONE	11	U
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	11	U
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	11	U
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	11	U
108-88-3	TOLUENE	2	J
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
08-90-7	CHLOROBENZENE	11	U
100-41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000009

Client No.

DCR-VER-26

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) SOIL Lab Sample ID: A5468201

Sample wt/vol: 5.04 (g/mL) G Lab File ID: G3347.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 6.6 Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN SILICON COMPOUND	22.90	8	J

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000010
 Client NO.

DCR-VER-27

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26
 Matrix: (soil/water) SOIL Lab Sample ID: A5468202
 Sample wt/vol: 5.00 (g/mL) G Lab File ID: G3338.MSQ
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 % Moisture: not dec. 10.6 Heated Purge: Y Date Analyzed: 09/05/95
 GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
00-3	CHLOROETHANE	6	J
09-2	METHYLENE CHLORIDE	2	BJ
67-64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	3	J
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	53	
540-59-0	1,2-DICHLOROETHENE (TOTAL)	450	E
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	2	J
78-93-3	2-BUTANONE	11	U
71-55-6	1,1,1-TRICHLOROETHANE	58	
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	
79-01-6	TRICHLOROETHENE	80	
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	2	J
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	11	U
108-88-3	TOLUENE	9	J
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
08-90-7	CHLOROBENZENE	11	U
100-41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000011
 Client No.

DCR-VER-27

Lab Name: Recra Environmental Contract: MO772732MQ

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) SOIL Lab Sample ID: A5468202

Sample wt/vol: 5.00 (g/mL) G Lab File ID: G3338.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 10.6 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 1 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN	16.27	8	J

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000012

Client No.

DCR-VER-27DL

Lab Name: Recra Environmental

Contract: MQ772732MO

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER26

Matrix: (soil/water) SOIL

Lab Sample ID: A5468202DL

Sample wt/vol: 1.10 (g/mL) G

Lab File ID: G3346.MSO

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 10.6 Heated Purge: Y

Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	51	U
74-83-9	BROMOMETHANE	51	U
75-01-4	VINYL CHLORIDE	51	U
00-3	CHLOROETHANE	3	DJ
09-2	METHYLENE CHLORIDE	51	U
67-64-1	ACETONE	51	U
75-15-0	CARBON DISULFIDE	51	U
75-35-4	1,1-DICHLOROETHENE	28	DJ
75-34-3	1,1-DICHLOROETHANE	350	D
540-59-0	1,2-DICHLOROETHENE (TOTAL)	51	U
67-66-3	CHLOROFORM	51	U
107-06-2	1,2-DICHLOROETHANE	51	U
78-93-3	2-BUTANONE	36	DJ
71-55-6	1,1,1-TRICHLOROETHANE	51	U
56-23-5	CARBON TETRACHLORIDE	51	U
75-27-4	BROMODICHLOROMETHANE	51	U
78-87-5	1,2-DICHLOROPROPANE	51	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	83	D
79-01-6	TRICHLOROETHENE	51	U
124-48-1	DIBROMOCHLOROMETHANE	51	U
79-00-5	1,1,2-TRICHLOROETHANE	51	U
71-43-2	BENZENE	51	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	51	U
75-25-2	BROMOFORM	51	U
108-10-1	4-METHYL-2-PENTANONE	51	U
591-78-6	2-HEXANONE	51	U
127-18-4	TETRACHLOROETHENE	15	DJ
108-88-3	TOLUENE	51	U
9-34-5	1,1,2,2-TETRACHLOROETHANE	51	U
98-90-7	CHLOROBENZENE	51	U
100-41-4	ETHYLBENZENE	51	U
100-42-5	STYRENE	51	U
1330-20-7	XYLENE (TOTAL)	51	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000013

Client No.

DCR-VER-27DL

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) SOIL

Lab Sample ID: A5468202DL

Sample wt/vol: 1.10 (g/mL) G

Lab File ID: G3346.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 10.6

Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000014

Client No.

DCR-VER-48

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER26

Matrix: (soil/water) SOIL

Lab Sample ID: A5468207

Sample wt/vol: 5.06 (g/mL) G

Lab File ID: G3335.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 15.3 Heated Purge: Y

Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	12	U
74-83-9	BROMOMETHANE	12	U
75-01-4	VINYL CHLORIDE	12	U
-00-3	CHLOROETHANE	12	U
-09-2	METHYLENE CHLORIDE	1	BJ
67-64-1	ACETONE	12	U
75-15-0	CARBON DISULFIDE	12	U
75-35-4	1,1-DICHLOROETHENE	12	U
75-34-3	1,1-DICHLOROETHANE	12	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	12	U
67-66-3	CHLOROFORM	12	U
107-06-2	1,2-DICHLOROETHANE	12	U
78-93-3	2-BUTANONE	12	U
71-55-6	1,1,1-TRICHLOROETHANE	12	U
56-23-5	CARBON TETRACHLORIDE	12	U
75-27-4	BROMODICHLOROMETHANE	12	U
78-87-5	1,2-DICHLOROPROPANE	12	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	12	U
79-01-6	TRICHLOROETHENE	12	U
124-48-1	DIBROMOCHLOROMETHANE	12	U
79-00-5	1,1,2-TRICHLOROETHANE	12	U
71-43-2	BENZENE	12	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	12	U
75-25-2	BROMOFORM	12	U
108-10-1	4-METHYL-2-PENTANONE	12	U
591-78-6	2-HEXANONE	12	U
127-18-4	TETRACHLOROETHENE	12	U
108-88-3	TOLUENE	1	J
79-34-5	1,1,2,2-TETRACHLOROETHANE	12	U
08-90-7	CHLOROBENZENE	12	U
100-41-4	ETHYLBENZENE	12	U
100-42-5	STYRENE	12	U
1330-20-7	XYLENE (TOTAL)	12	U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000015
Client No.

DCR-VER-48

Lab Name: Recra Environmental Contract: MQ772732MQ

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) SOIL Lab Sample ID: A5468207

Sample wt/vol: 5.06 (g/mL) G Lab File ID: G3335.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. 15.3 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000016

Client No.

DCR-VER-49

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) SOIL Lab Sample ID: A5468208

Sample wt/vol: 5.06 (g/mL) G Lab File ID: G3334.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 8.4 Heated Purge: Y Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	UU
75-01-4	VINYL CHLORIDE	11	UU
75-00-3	CHLOROETHANE	11	UU
09-2	METHYLENE CHLORIDE	2	BJ
64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	11	UU
75-35-4	1,1-DICHLOROETHENE	11	UU
75-34-3	1,1-DICHLOROETHANE	11	UU
540-59-0	1,2-DICHLOROETHENE (TOTAL)	1	J
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	2-BUTANONE	47	
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	UU
75-27-4	BROMODICHLOROMETHANE	11	UU
78-87-5	1,2-DICHLOROPROPANE	11	UU
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	UU
79-01-6	TRICHLOROETHENE	11	UU
124-48-1	DIBROMOCHLOROMETHANE	11	UU
79-00-5	1,1,2-TRICHLOROETHANE	11	UU
71-43-2	BENZENE	11	UU
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	UU
75-25-2	BROMOFORM	11	UU
108-10-1	4-METHYL-2-PENTANONE	11	UU
591-78-6	2-HEXANONE	11	UU
127-18-4	TETRACHLOROETHENE	11	UU
108-88-3	TOLUENE	3	J
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	J
78-90-7	CHLOROBENZENE	11	UU
0-41-4	ETHYLBENZENE	11	UU
100-42-5	STYRENE	5	J
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000017

Client No.

DCR-VER-49

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) SOIL

Lab Sample ID: A5468208

Sample wt/vol: 5.06 (g/mL) G

Lab File ID: G3334.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 8.4

Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 2

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN	5.42	10	J
2.	UNKNOWN	22.47	10	J

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000018

Client No.

DCR-VER-50

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26
 Matrix: (soil/water) SOIL Lab Sample ID: A5468204
 Sample wt/vol: 5.00 (g/mL) G Lab File ID: G3336.MSO
 Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95
 % Moisture: not dec. 10.7 Heated Purge: Y Date Analyzed: 09/05/95
 GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
75-00-3	CHLOROETHANE	38	
75-09-2	METHYLENE CHLORIDE	1	BJ
67-64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11	U
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	2-BUTANONE	1	J
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	11	U
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	11	U
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	11	U
108-88-3	TOLUENE	2	J
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
108-90-7	CHLOROENZENE	11	U
100-41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000019
 Client No.

DCR-VER-50

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) SOIL Lab Sample ID: A5468204

Sample wt/vol: 5.00 (g/mL) G Lab File ID: G3336.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 10.7 Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000020

Client No.

DCR-VER-201

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER26

Matrix: (soil/water) SOIL

Lab Sample ID: A5468203

Sample wt/vol: 5.04 (g/mL) G

Lab File ID: G3337.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 11.3 Heated Purge: Y

Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
00-3	CHLOROETHANE	11	U
09-2	METHYLENE CHLORIDE	0.8	BJ
67-64-1	ACETONE	11	U
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11	U
67-66-3	CHLOROFORM	11	U
107-06-2	1,2-DICHLOROETHANE	11	U
78-93-3	2-BUTANONE	11	U
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	11	U
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	11	U
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	11	U
108-88-3	TOLUENE	11	U
9-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
8-90-7	CHLOROBENZENE	11	U
100-41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	11	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000021

Client No.

DCR-VER-201

Lab Name: Recra Environmental Contract: MQ772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) SOIL

Lab Sample ID: A5468203

Sample wt/vol: 5.04 (g/mL) G

Lab File ID: G3337.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. 11.3

Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000022

Client No.

MW-546-02

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECNV

Case No.: 5324

SAS No.: _____

SDG No.: VER26

Matrix: (soil/water) WATER

Lab Sample ID: A5468205

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: K9481.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. _____ Heated Purge: N

Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
77-00-3	CHLOROETHANE	10	U
78-09-2	METHYLENE CHLORIDE	10	U
67-64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	10	U
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
78-90-7	CHLOROBENZENE	10	U
70-41-4	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000023

Client No.

MW-546-02

Lab Name: Recra Environmental Contract: MQ772732MQ

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) WATER Lab Sample ID: A5468205

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K9481.MSQ

Level: (low/med) LOW Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. _____ Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 ANALYSIS DATA SHEET

000024

Client No.

MW-546-03

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER26

Matrix: (soil/water) WATER

Lab Sample ID: A5468206

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: K9482.MSO

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

% Moisture: not dec. _____ Heated Purge: N

Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
5-00-3	CHLOROETHANE	10	U
1-09-2	METHYLENE CHLORIDE	10	U
67-64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	10	U
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
108-90-7	CHLOROBENZENE	10	U
100-41-4	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000025

Client No.

MW-546-03

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) WATER

Lab Sample ID: A5468206

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: K9482.MSQ

Level: (low/med) LOW

Date Samp/Recv: 09/01/95 09/02/95

Moisture: not dec. _____

Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
WATER SURROGATE RECOVERY

000026

Lab Name: Recra Environmental, Inc. Contract: MO772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26

	Client Sample ID	BFB		DCE		TOL							TOT OUT
		%REC	#	%REC	#	%REC	#						
1	Matrix Spike Blank	98		94		98							0
2	Matrix Spike Blk Dup	96		91		94							0
3	MW-546-02	100		89		93							0
4	MW-546-03	100		88		93							0
5	VBLK21	103		93		97							0

QC LIMITS

BFB = p-Bromofluorobenzene (86-115)
DCE = 1,2-Dichloroethane-D4 (76-114)
TOL = Toluene-D8 (88-110)

Column to be used to flag recovery values
Values outside of contract required QC limits
Surrogates diluted out

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
SOIL SURROGATE RECOVERY

000027

Lab Name: Recra Environmental, Inc.

Contract: MO772732MO

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER26

Level (low/med): LOW

Client Sample ID	BFB %REC #	DCE %REC #	TOL %REC #						TOT OUT
1 DCR-VER-201	90	106	109						0
2 DCR-VER-26	95	92	109						0
3 DCR-VER-26 MS	88	84	106						0
4 DCR-VER-26 MSD	91	106	105						0
5 DCR-VER-27	85	107	111						0
6 DCR-VER-27DL	93	84	108						0
7 DCR-VER-48	97	110	104						0
8 DCR-VER-49	90	106	110						0
9 DCR-VER-50	93	108	107						0
10 Matrix Spike Blank	94	106	101						0
11 VBLK61	102	83	101						0
12 VBLK62	97	83	104						0

QC LIMITS

BFB = p-Bromofluorobenzene
DCE = 1,2-Dichloroethane-D4
TOL = Toluene-D8

(59-113)
(70-121)
(84-138)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES

000028

WATER MATRIX SPIKE BLANK/MATRIX SPIKE BLANK DUPLICATE RECOVERY

Lab Name: Recra Environmental, Inc.

Contract: MQ772732MQ

Lab Samp ID: A5B0585103

Lab Code: RECNY

Case No.: 5324

SAS No.: _____

SDG No.: VER26

Matrix Spike - Client Sample No.: ~~VBK21~~ MSB/MSBD 9/30/95 demo

COMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	57	114	61 - 145
Trichloroethene	50	50	100	71 - 120
Benzene	50	48	96	76 - 127
Toluene	50	49	98	76 - 125
Chlorobenzene	50	52	104	75 - 130

COMPOUND	SPIKE ADDED UG/L	MSBD CONCENTRATION UG/L	MSBD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
1,1-Dichloroethene	50	58	116	2	14	61 - 145
Trichloroethene	50	52	104	4	14	71 - 120
Benzene	50	51	102	6	11	76 - 127
Toluene	50	48	96	2	13	76 - 125
Chlorobenzene	50	52	104	0	13	75 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
 Spike recovery: 0 out of 10 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 SOIL MATRIX SPIKE BLANK RECOVERY

000029

Lab Name: Recra Environmental, Inc. Contract: MQ772732MQ Lab Samp ID: ASB0586102
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26
 Matrix Spike - Client Sample No.: ~~VBLK62~~ MSB *9/30/95* Level: (low/med) LOW
lms

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.
1,1-Dichloroethene _____	50	56	112	59 - 172
Trichloroethene _____	50	44	88	62 - 137
Benzene _____	50	49	98	66 - 142
Toluene _____	50	49	98	59 - 139
Chlorobenzene _____	50	52	104	60 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 0 out of 5 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

000030

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Lab Samp ID: A5468201
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26
 Matrix Spike - Client Sample No.: DCR-VER-26 Level: (low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	53	0	45	85	59 - 172
Trichloroethene	53	0	43	81	62 - 137
Benzene	53	0	52	98	66 - 142
Toluene	53	2	55	100	59 - 139
Chlorobenzene	53	0	55	104	60 - 133

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS REC.
1,1-Dichloroethene	53	60	113	28 *	22 59 - 172
Trichloroethene	53	46	87	7	24 62 - 137
Benzene	53	54	102	4	21 66 - 142
Toluene	53	56	102	2	21 59 - 139
Chlorobenzene	53	57	108	4	21 60 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 5 outside limits
 Spike recovery: 0 out of 10 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 METHOD BLANK SUMMARY

000031

Client No.

VBLK61

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER26
 Lab File ID: G3326.MSQ Lab Sample ID: A5B0586101
 Date Analyzed: 09/05/95 Time Analyzed: 16:05
 GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y
 Instrument ID: I50G

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
1	DCR-VER-201	A5468203	G3337.MSQ	22:08
2	DCR-VER-27	A5468202	G3338.MSQ	22:40
3	DCR-VER-48	A5468207	G3335.MSQ	21:01
4	DCR-VER-49	A5468208	G3334.MSQ	20:29
5	DCR-VER-50	A5468204	G3336.MSQ	21:34

Comments: _____

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000032

Client No.

VBLK61

Lab Name: Recra Environmental

Contract: MQ772732MO

Lab Code: RECNV

Case No.: 5324

SAS No.: _____

SDG No.: VER26

Matrix: (soil/water) SOIL

Lab Sample ID: A5B0586101

Sample wt/vol: 5.00 (g/mL) G

Lab File ID: G3326.MSO

Level: (low/med) LOW

Date Samp/Recv: _____

% Moisture: not dec. _____ Heated Purge: Y

Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	CHLOROMETHANE		10	U
74-83-9	BROMOMETHANE		10	U
75-01-4	VINYL CHLORIDE		10	U
75-00-3	CHLOROETHANE		10	U
75-09-2	METHYLENE CHLORIDE	0.6		J
67-64-1	ACETONE		10	U
75-15-0	CARBON DISULFIDE		10	U
75-35-4	1,1-DICHLOROETHENE		10	U
75-34-3	1,1-DICHLOROETHANE		10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)		10	U
67-66-3	CHLOROFORM		10	U
107-06-2	1,2-DICHLOROETHANE		10	U
78-93-3	2-BUTANONE		10	U
71-55-6	1,1,1-TRICHLOROETHANE		10	U
56-23-5	CARBON TETRACHLORIDE		10	U
75-27-4	BROMODICHLOROMETHANE		10	U
78-87-5	1,2-DICHLOROPROPANE		10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE		10	U
79-01-6	TRICHLOROETHENE		10	U
124-48-1	DIBROMOCHLOROMETHANE		10	U
79-00-5	1,1,2-TRICHLOROETHANE		10	U
71-43-2	BENZENE		10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE		10	U
75-25-2	BROMOFORM		10	U
108-10-1	4-METHYL-2-PENTANONE		10	U
591-78-6	2-HEXANONE		10	U
127-18-4	TETRACHLOROETHENE		10	U
108-88-3	TOLUENE		10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE		10	U
108-90-7	CHLOROBENZENE		10	U
100-41-4	ETHYLBENZENE		10	U
100-42-5	STYRENE		10	U
1330-20-7	XYLENE (TOTAL)		10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000033

Client No.

VBLK61

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) SOIL Lab Sample ID: A5B0586101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: G3326.MSQ

Level: (low/med) LOW Date Samp/Recv: _____

Moisture: not dec. _____ Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 METHOD BLANK SUMMARY

000034

Client No.

VBLK21

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26
 Lab File ID: K9473.MSQ Lab Sample ID: A5B0585103
 Date Analyzed: 09/05/95 Time Analyzed: 17:03
 GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N
 Instrument ID: I50K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
1	Matrix Spike Blank	A5B0585101	K9470.MSQ	14:53
2	Matrix Spike Blk Dup	A5B0585102	K9471.MSQ	15:21
3	MW-546-02	A5468205	K9481.MSQ	21:29
4	MW-546-03	A5468206	K9482.MSQ	22:02

ments: _____

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

Client No.

VBLK21

Lab Name: Recra Environmental Contract: MQ772732MO

Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) WATER Lab Sample ID: A5B0585103

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K9473.MSO

Level: (low/med) LOW Date Samp/Recv: _____

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
75-00-3	CHLOROETHANE	10	U
09-2	METHYLENE CHLORIDE	10	U
67-64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	10	U
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
78-90-7	CHLOROBENZENE	10	U
70-41-4	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000036

Client No.

VBLK21

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) WATER

Lab Sample ID: A5B0585103

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: K9473.MSQ

Level: (low/med) LOW

Date Samp/Recv: _____

Moisture: not dec. _____

Date Analyzed: 09/05/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 METHOD BLANK SUMMARY

000037

Client No.

VBLK62

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER26
 Lab File ID: G3345.MSQ Lab Sample ID: A5B0586102
 Date Analyzed: 09/06/95 Time Analyzed: 10:33
 GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y
 Instrument ID: I50G

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
1	DCR-VER-26	A5468201	G3347.MSQ	11:39
2	DCR-VER-26 MS	A5468201MS	G3348.MSQ	12:11
3	DCR-VER-26 MSD	A5468201SD	G3349.MSQ	12:43
4	DCR-VER-27DL	A5468202DL	G3346.MSQ	11:07
5	Matrix Spike Blank	A5468210	G3344.MSQ	09:24

Comments: _____

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000038

Client No.

VBLK62

Lab Name: Recra Environmental Contract: MO772732MO
Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26
Matrix: (soil/water) SOIL Lab Sample ID: A5B0586102
Sample wt/vol: 5.00 (g/mL) G Lab File ID: G3345.MSQ
Level: (low/med) LOW Date Samp/Recv: _____
% Moisture: not dec. _____ Heated Purge: Y Date Analyzed: 09/06/95
GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
-00-3	CHLOROETHANE	10	U
-09-2	METHYLENE CHLORIDE	10	U
67-64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	10	U
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
08-90-7	CHLOROBENZENE	10	U
100-41-4	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000039

Client No.

VBLK62

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5324 SAS No.: _____ SDG No.: VER26

Matrix: (soil/water) SOIL Lab Sample ID: A5B0586102

Sample wt/vol: 5.00 (g/mL) G Lab File ID: G3345.MSQ

Level: (low/med) LOW Date Samp/Recv: _____

Moisture: not dec. _____ Date Analyzed: 09/06/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000040

Lab Name: Recra Environmental, Inc. Contract: MQ772732MO Labsampid: A5B0586105
 Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26
 Lab File ID (Standard): G3324.MSQ Date Analyzed: 09/05/95
 Instrument ID: I50G Time Analyzed: 14:13
 GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) Y

	IS1 (BCM) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DFB) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	46212	11.15	111551	18.13	124714	13.23
UPPER LIMIT	92424	11.65	223102	18.63	249428	13.73
LOWER LIMIT	23106	10.65	55776	17.63	62357	12.73
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE	=====	=====	=====	=====	=====	=====
=====	=====	=====	=====	=====	=====	=====
1 DCR-VER-201	31959	11.13	70588	18.13	91814	13.22
2 DCR-VER-27	30925	11.13	60139	18.15	85634	13.25
3 DCR-VER-48	34794	11.13	86303	18.13	104545	13.22
DCR-VER-49	32945	11.17	68452	18.13	90408	13.25
DCR-VER-50	33431	11.13	75253	18.15	96882	13.23
6 VBLK61	48510	11.18	92236	18.17	109385	13.27

AREA UNIT RT
 QC LIMITS QC LIMITS

IS1 (BCM) = BROMOCHLOROMETHANE (50-200) -0.50 / +0.50 min
 IS2 (CBZ) = Chlorobenzene-D5 (50-200) -0.50 / +0.50 min
 IS3 (DFB) = 1,4-Difluorobenzene (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000041

Lab Name: Recra Environmental, Inc. Contract: MO772732MQ Labsampid: A5B0586106
Lab Code: RECNY Case No.: 5324 SAS No.: _____ SDG No.: VER26
Lab File ID (Standard): G3343.MSQ Date Analyzed: 09/06/95
Instrument ID: I50G Time Analyzed: 08:42
GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) Y

	IS1 (BCM) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DFB) AREA #	RT #
12 HOUR STD	36009	11.05	91956	18.13	99291	13.17
UPPER LIMIT	72018	11.55	183912	18.63	198582	13.67
LOWER LIMIT	18005	10.55	45978	17.63	49646	12.67
=====						
CLIENT SAMPLE						
=====						
1 DCR-VER-26	35185	11.10	71150	18.13	89967	13.22
2 DCR-VER-26 MS	39044	11.08	74064	18.13	91430	13.20
3 DCR-VER-26 MSD	28481	11.10	69714	18.15	83130	13.22
XCR-VER-27DL	39763	11.08	72555	18.13	92574	13.20
5 Matrix Spike Blank	35129	11.10	92853	18.15	106121	13.22
6 VBLK62	39590	11.10	76074	18.15	90301	13.22

AREA UNIT RT
QC LIMITS QC LIMITS

IS1 (BCM) = BROMOCHLOROMETHANE (50-200) -0.50 / +0.50 min
IS2 (CBZ) = Chlorobenzene-D5 (50-200) -0.50 / +0.50 min
IS3 (DFB) = 1,4-Difluorobenzene (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001198
Lab Code: RECN Case No.: 5324 SAS No.: _____ SDG No.: VER26
Lab File ID (Standard): K9469.MSQ Date Analyzed: 09/05/95
Instrument ID: I50K Time Analyzed: 13:55
GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) N

	IS1 (BCM) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DFB) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	31185	10.90	129040	17.82	127872	12.98
UPPER LIMIT	62370	11.40	258080	18.32	255744	13.48
LOWER LIMIT	15593	10.40	64520	17.32	63936	12.48
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE						
=====	=====	=====	=====	=====	=====	=====
1 Matrix Spike Blank	28587	10.90	114921	17.80	118693	13.00
2 Matrix Spike Blk Dup	25956	10.90	108260	17.82	106126	13.00
3 MW-546-02	19360	10.92	81045	17.83	74684	13.02
4 MW-546-03	19130	10.90	81297	17.82	76328	13.00
VBLK21	21738	10.93	88081	17.83	88327	13.02

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (BCM) = BROMOCHLOROMETHANE
IS2 (CBZ) = Chlorobenzene-D5
IS3 (DFB) = 1,4-Difluorobenzene

(50-200) -0.50 / +0.50 min
(50-200) -0.50 / +0.50 min
(50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

Sample ID Nos.:

Lab Report Dated:

October 26, 1995

DCR-VER-05-03

DCR-VER-46

DCR-VER-47

MW-546-06

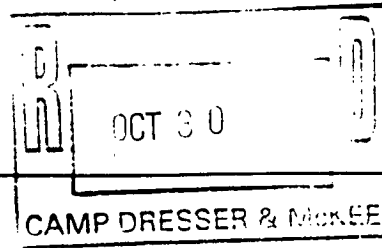
MW-546-07

MW-546-08



**RECRA
ENVIRONMENTAL
INC.**

Chemical and Environmental Analysis Services



157X2166FE

October 26, 1995

Mr. Joseph Mihm
Camp, Dresser and McKee / Alcoa
Park Avenue East, Building 65
Massena, NY 13665

RE: **Analytical Results**

Dear Mr. Mihm:

Please find enclosed the data package concerning the analyses of samples recently submitted by your firm. The pertinent information regarding these analyses is listed below:

Quote No.: NY95-438
REI: 19
SDG #: VER05
Matrix: Soil & Water
Sample Receipt Date: 09/26,27/95
Sample Date: 09/25,26/95

If you have any questions concerning these data, please contact Ms. Deborah A. Carella, Program Manager, at (800) 52R-ECRA and refer to the I.D. number listed below.

Sincerely,

RECRA ENVIRONMENTAL, INC.

Kenneth E. Kasperek
Kenneth E. Kasperek
Laboratory Manager

DAC/KEK/cjs
Enclosure

cc: Frances Gero (cover letter only)
Aluminum Company of America
Mr. Bernard Kunkle (cover letter only)
Aluminum Company of America
Park Avenue East, BLDG. 65
Massena, NY 13665

Reviewed and approved by/date:

Deborah A. Carella
DAC

Deborah A. Carella, Program Manager

ID #A95-5097
#A95-5138
#NY5A5754

*Schreiber
Occhiavini
Anderson
Mihm } LTR
Schultz }*

Gradient All

000001

SAMPLE DATA SUMMARY PACKAGE



**RECRA
ENVIRONMENTAL
INC.**

SDG NARRATIVE:

Laboratory: Recra Environmental, Inc.

Laboratory Code: RECNV

Contract No.: NY95-438

SDG No.: VER05

Sample Identifications: DCR-VER-05-03
DCR-VER-46
DCR-VER-47
MW-546-06
MW-546-07
MW-546-08
MW-546-09

METHODOLOGY

Analyses were performed in accordance with 1991 New York State Analytical Services protocol. (Revised 1993)

COMMENTS

Results are reported using standard qualifiers (Q) as defined on the Organic Data Comment Page.

Preliminary results were sent on October 3, 1995 via facsimile Ms. Julie Schreiber of Camp, Dresser and McKee by Ms. Deborah Carella of Recra Environmental.

Quality Control analysis was performed on a batch basis.

Sample MW-546-09 was not analyzed at the request of Ms. Julie Schreiber.

SEMIVOLATILE DATA

Semivolatile sample and standard areas are listed on the corresponding data system printouts.

Semivolatile data was processed utilizing Teknivent Autoquantitation and Recra Environmental's Inc.'s Analytical Information Management Systems (AIMS). All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. False positive compounds are crossed out, initialed and dated in this data package.



PCB DATA

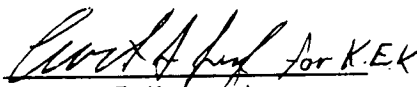
The retention time of surrogate TCX fell outside retention time windows on the DB608 column for PIBLK07 and PEM05.

The retention time of surrogates TCX and DCB fell outside retention time windows on the DB608 column for samples MSB04, MSBD04 and PBLK04.

Samples PBLK03, MSBD03, MW54607 and MW54608 exhibited Tetrachloro-m-xylene and Decachlorobiphenyl surrogate recoveries for both the DB608 and DB1701 columns that were below advisory limits

Sample MW54606 exhibited surrogate Decachlorobiphenyl recovery for the DB608 column that was below advisory limits. The recoveries for Tetrachloro-m-xylene and Decachlorobiphenyl on the DB1701 column were also below advisory limits.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."



Kenneth E. Kasperek
Laboratory Director

10/26/95
Date



NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: RECRA ENVIRONMENTAL, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	WATER QUALITY
DCR-VER-05-03	A5509701	-	-	-	ASP91	-	-
DCR-VER-46	A5513801	-	ASP91	-	ASP91	-	-
DCR-VER-47	A5513802	-	ASP91	-	ASP91	-	-
MW-546-06	A5509702	-	-	-	ASP91	-	-
MW-546-07	A5509703	-	-	-	ASP91	-	-
MW-546-08	A5513803	-	ASP91	-	ASP91	-	-

NYSDEC-1

RECRA
ENVIRONMENTAL
INC.

000005

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
B/N-A ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
DCR-VER-46	SOIL	09/26/95	09/27/95	09/28/95	09/30/95
DCR-VER-47	SOIL	09/26/95	09/27/95	09/28/95	09/30/95
MW-546-08	WATER	09/26/95	09/27/95	09/28/95	09/30/95

NYSDEC-3



RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
DCR-VER-05-03	SOIL	09/25/95	09/26/95	09/28/95	09/30/95
DCR-VER-46	SOIL	09/26/95	09/27/95	09/28/95	09/30/95
DCR-VER-47	SOIL	09/26/95	09/27/95	09/28/95	09/30/95
MW-546-06	WATER	09/25/95	09/26/95	09/28/95	09/29/95
MW-546-07	WATER	09/25/95	09/26/95	09/28/95	09/29/95
MW-546-08	WATER	09/26/95	09/27/95	09/28/95	09/30/95

NYSDEC-4

RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY
ORGANIC ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
DCR-VER-05-03	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-46	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-47	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
MW-546-06	WATER	ASP91	SEPF	AS REQUIRED	AS REQUIRED
MW-546-07	WATER	ASP91	SEPF	AS REQUIRED	AS REQUIRED
MW-546-08	WATER	ASP91	SEPF	AS REQUIRED	AS REQUIRED

NYSDEC-6

ORGANIC DATA COMMENT PAGE

Laboratory Name RECRA ENVIRONMENTAL, INC.

USEPA Defined Organic Data Qualifiers:

- U - Indicates compound was analyzed for but not detected.
- J - Indicates an estimate value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- G - The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
- L - The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.
- T - This flag is used when the analyte is found in the associated TCLP extraction as well as in the sample.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- A - This flag indicates that a TIC is a suspected aldol-condensation product.



ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000009

Client No.

DCR-VER-46

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05
 Matrix: (soil/water) SOIL Lab Sample ID: A5513801
 Sample wt/vol: 40.01 (g/mL) G Lab File ID: Z24482.RR
 Level: (low/med) LOW Date Samp/Recv: 09/26/95 09/27/95
 % Moisture: 6.0 decanted: (Y/N) N Date Extracted: 09/28/95
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/30/95
 Injection Volume: 2.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.0

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
120-12-7	ANTHRACENE	300	U
55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	12	J
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000010

Client No.

DCR-VER-47

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECN Case No.: 5754 SAS No.: _____ SDG No.: VER05
 Matrix: (soil/water) SOIL Lab Sample ID: A5513802
 Sample wt/vol: 40.13 (g/mL) G Lab File ID: Z24483.RR
 Level: (low/med) LOW Date Samp/Recv: 09/26/95 09/27/95
 % Moisture: 8.9 decanted: (Y/N) N Date Extracted: 09/28/95
 Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/30/95
 Injection Volume: 2.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.2

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
83-32-9	ACENAPHTHENE		300	U
208-96-8	ACENAPHTHYLENE		300	U
120-12-7	ANTHRACENE		300	U
55-3	BENZO (A) ANTHRACENE		300	U
205-99-2	BENZO (B) FLUORANTHENE		300	U
207-08-9	BENZO (K) FLUORANTHENE		300	U
191-24-2	BENZO (G, H, I) PERYLENE		300	U
50-32-8	BENZO (A) PYRENE		300	U
218-01-9	CHRYSENE		300	U
53-70-3	DIBENZO (A, H) ANTHRACENE		300	U
206-44-0	FLUORANTHENE		300	U
86-73-7	FLUORENE		300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE		300	U
91-57-6	2-METHYLNAPHTHALENE		300	U
91-20-3	NAPHTHALENE		300	U
85-01-8	PHENANTHRENE		300	U
129-00-0	PYRENE		300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000011

Client No.

MW-546-08

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05

Matrix: (soil/water) WATER Lab Sample ID: A5513803
 Sample wt/vol: 910.00 (g/mL) ML Lab File ID: Z24478.RR
 Level: (low/med) LOW Date Samp/Recv: 09/26/95 09/27/95
 % Moisture: _____ decanted: (Y/N) N Date Extracted: 09/28/95
 Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/30/95
 Injection Volume: 2.00(uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
83-32-9-----	ACENAPHTHENE	10	U
208-96-8-----	ACENAPHTHYLENE	10	U
-12-7-----	ANTHRACENE	10	U
55-3-----	BENZO (A) ANTHRACENE	10	U
205-99-2-----	BENZO (B) FLUORANTHENE	10	U
207-08-9-----	BENZO (K) FLUORANTHENE	10	U
191-24-2-----	BENZO (G, H, I) PERYLENE	10	U
50-32-8-----	BENZO (A) PYRENE	10	U
218-01-9-----	CHRYSENE	10	U
53-70-3-----	DIBENZO (A, H) ANTHRACENE	10	U
206-44-0-----	FLUORANTHENE	10	U
86-73-7-----	FLUORENE	10	U
193-39-5-----	INDENO (1, 2, 3-CD) PYRENE	10	U
91-57-6-----	2-METHYLNAPHTHALENE	10	U
91-20-3-----	NAPHTHALENE	10	U
85-01-8-----	PHENANTHRENE	10	U
129-00-0-----	PYRENE	10	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DCRVER46

000012

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05
 Matrix: (soil/water) SOIL Lab Sample ID: A5513801
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____
 % Moisture: 6 decanted: (Y/N) N Date Received: 09/27/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/28/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/30/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION	UNIT
12674-11-2-.....	Aroclor-1016	35	U
11104-28-2-.....	Aroclor-1221	71	U
11141-16-5-.....	Aroclor-1232	35	U
53469-21-9-.....	Aroclor-1242	35	U
12672-29-6-.....	Aroclor-1248	35	U
11097-69-1-.....	Aroclor-1254	35	U
11096-82-5-.....	Aroclor-1260	35	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE ID: **080013**

DCRVER47

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05
 Matrix: (soil/water) SOIL Lab Sample ID: A5513802
 Sample wt/vol: 30.4 (g/mL) G Lab File ID: _____
 % Moisture: 9 decanted: (Y/N) N Date Received: 09/27/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/28/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/30/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION	UNIT
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	73	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	36	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **990014**

DCVER0503

L Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05
 Matrix: (soil/water) SOIL Lab Sample ID: A5509701
 Sample wt/vol: 30.5 (g/mL) G Lab File ID: _____
 % Moisture: 8 decanted: (Y/N) N Date Received: 09/26/95
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/28/95
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/30/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 8.1 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2------	Aroclor-1016	.35	U
11104-28-2------	Aroclor-1221	72	U
11141-16-5------	Aroclor-1232	35	U
53469-21-9------	Aroclor-1242	35	U
12672-29-6------	Aroclor-1248	35	U
11097-69-1------	Aroclor-1254	35	U
11096-82-5------	Aroclor-1260	35	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SA **980015**

MW54606

L Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05
 Matrix: (soil/water) WATER Lab Sample ID: A5509702
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 09/26/95
 Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/28/95
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/29/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
12674-11-2-----	Aroclor-1016	0.065	U
11104-28-2-----	Aroclor-1221	0.065	U
11141-16-5-----	Aroclor-1232	0.065	U
53469-21-9-----	Aroclor-1242	0.065	U
12672-29-6-----	Aroclor-1248	0.065	U
11097-69-1-----	Aroclor-1254	0.065	U
11096-82-5-----	Aroclor-1260	0.065	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. **000016**

MW54607

Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05

Matrix: (soil/water) WATER Lab Sample ID: A5509703

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: 09/26/95

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/28/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/29/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	CONCENTRATION	Q
12674-11-2-----	Aroclor-1016	0.065	U
11104-28-2-----	Aroclor-1221	0.065	U
11141-16-5-----	Aroclor-1232	0.065	U
53469-21-9-----	Aroclor-1242	0.065	U
12672-29-6-----	Aroclor-1248	0.065	U
11097-69-1-----	Aroclor-1254	0.065	U
11096-82-5-----	Aroclor-1260	0.065	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE ID **300017**

MW54608

Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05

Matrix: (soil/water) WATER Lab Sample ID: A5513803

Sample wt/vol: 830.0 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: 09/27/95

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/28/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO. COMPOUND

12674-11-2-----Aroclor-1016	0.065	U
11104-28-2-----Aroclor-1221	0.065	U
11141-16-5-----Aroclor-1232	0.065	U
53469-21-9-----Aroclor-1242	0.065	U
12672-29-6-----Aroclor-1248	0.065	U
11097-69-1-----Aroclor-1254	0.065	U
11096-82-5-----Aroclor-1260	0.065	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 WATER SURROGATE RECOVERY

000018

Lab Name: Recra Environmental, Inc. Contract: MO772732MO

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05

	Client Sample ID	2CP		DCB		FBP		NBZ		PHL		TBP		TPH		TOT OUT
		%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	
1	Matrix Spike Blank	82		71		85		73		71		125 *		79		1
2	Matrix Spike Blk Dup	80		82		84		81		74		135 *		93		1
3	MW-546-08	78		60		74		84		61		111		87		0
4	SBLK26	93		60		79		94		69		110		87		0

QC LIMITS

2CP = 2-Chlorophenol-d4 (33-110)
 DCB = 1,2-Dichlorobenzene-d4 (16-110)
 FBP = 2-Fluorobiphenyl (43-116)
 NBZ = Nitrobenzene-D5 (35-114)
 PHL = Phenol-D5 (10-110)
 TBP = 2,4,6-Tribromophenol (10-123)
 TPH = Terphenyl-D14 (33-141)

π Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogates diluted out

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL SURROGATE RECOVERY

000019

Lab Name: Regra Environmental, Inc. Contract: MO772732MO

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05

Level (low/med): LOW

	Client Sample ID	2CP		2FP		DCB		FBP		NBZ		PHL		TEP		TPH		TOT OUT
		%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	
1	DCR-VER-46	98		102		76		88		78		108		135	*	98		1
2	DCR-VER-47	94		114		74		89		80		88		138	*	109		1
3	Matrix Spike Blank	83		98		67		90		96		79		130	*	98		1
4	Matrix Spike Blk Dup	84		107		71		92		99		81		121		99		0
5	SELK27	80		86		56		76		60		66		96		80		0

QC LIMITS

2CP = 2-Chlorophenol-d4 (20-130)
 2FP = 2-Fluorophenol (25-121)
 DCB = 1,2-Dichlorobenzene-d4 (20-130)
 FBP = 2-Fluorobiphenyl (30-115)
 NBZ = Nitrobenzene-D5 (23-120)
 PHL = Phenol-D5 (24-113)
 TEP = 2,4,6-Tribromophenol (19-122)
 TPH = Terphenyl-D14 (18-137)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogates diluted out

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05
 GC Column(1): DB608 ID: 0.53(mm) GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK04	81	73	87	84			0
02	DCRVER46	86	77	90	89			0
03	DCRVER47	85	76	91	89			0
04	DCVER0503	89	78	95	93			0
05	MSB04	80	71	85	83			0
06	MSBD04	84	76	90	89			0

ADVISORY
QC LIMITS
(60-150)
(60-150)

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

2E
WATER PESTICIDE SURROGATE RECOVERY

1 Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05
 GC Column(1): DB608 ID: 0.53(mm) GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK03	28*	26*	44*	41*			4
02	MSB03	45*	39*	60	56*			3
03	MSBD03	35*	32*	54*	50*			4
04	MW54606	76	34*	47*	44*			3
05	MW54607	38*	30*	47*	50*			4
06	MW54608	40*	28*	45*	42*			4

TCX = Tetrachloro-m-xylene
 DCB = Decachlorobiphenyl

ADVISORY
 QC LIMITS
 (60-150)
 (60-150)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogate diluted out

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 WATER MATRIX SPIKE BLANK/MATRIX SPIKE BLANK DUPLICATE RECOVERY

000022

Lab Name: Recra Environmental, Inc.

Contract: MO772732MO

Lab Samp ID: A5B0645603

Lab Code: RECNY

Case No.: 5754

SAS No.: _____

SDG No.: VER05

Matrix Spike - Client Sample No.: ~~SP1126~~ ^{MSB/MSDB} _{MSD 10/19/05}

COMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.
Acenaphthene	50	38	76	46 - 118
Pyrene	50	39	78	26 - 127

COMPOUND	SPIKE ADDED UG/L	MSBD CONCENTRATION UG/L	MSBD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Acenaphthene	50	49	98	25	31	46 - 118
Pyrene	50	46	92	16	31	26 - 127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 2 outside limits
 Spike recovery: 0 out of 4 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL MATRIX SPIKE BLANK/MATRIX SPIKE BLANK DUPLICATE RECOVERY

Lab Name: Recra Environmental, Inc.

Contract: MO772732MO

Lab Samp ID: A5B0645203

Lab Code: RECNY

Case No.: 5754

SAS No.: _____

SDG No.: VER05

Matrix Spike - Client Sample No.: ~~SECRET~~ *MSB/MSB*

Level: (low/med) LOW

MTA 10/14/65

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.
Acenaphthene	1200	1000	83	31 - 137
Pyrene	1200	1100	92	35 - 142

COMPOUND	SPIKE ADDED UG/KG	MSED CONCENTRATION UG/KG	MSED % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Acenaphthene	1200	960	80	4	19	31 - 137
Pyrene	1200	1000	83	10	36	35 - 142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 2 outside limits

Spike recovery: 0 out of 4 outside limits

Comments: _____

3E
 WATER PCB MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

000024

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNV Case No.: 5754 SAS No.: _____ SDG No.: VER05

Matrix Spike - EPA Sample No.: MSB03,MSBD03

COMPOUND	SPIKE ADDED (ug/L)	MSB CONCENTRATION (ug/L)	MSB % REC #
Aroclor 1242	1.00	0.38	38

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #
Aroclor 1242	1.00	0.31	31	20

COMMENTS:

3F
SOIL PCB MSB/MSBD RECOVERY

000025

I Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05

Matrix Spike - EPA Sample No.: MSB04.MSBD04

COMPOUND	SPIKE ADDED (ug/Kg)	MSB CONCENTRATION (ug/Kg)	MSB % REC #
Aroclor 1242	333	200	60

COMPOUND	SPIKE ADDED (ug/Kg)	MSBD CONCENTRATION (ug/Kg)	MSBD % REC #
Aroclor 1242	333	190	57

COMMENTS:

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 METHOD BLANK SUMMARY

000026

Client No.

SBLK26

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05
 Lab File ID: Z24475.RR Lab Sample ID: A5B0645603
 Instrument ID: I50Z-A Date Extracted: 09/28/95
 Matrix: (soil/water) WATER Date Analyzed: 09/30/95
 Level: (low/med) LOW Time Analyzed: 16:10

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	Matrix Spike Blank	A5B0645601	Z24476.RR	09/30/95
2	Matrix Spike Blk Dup	A5B0645602	Z24477.RR	09/30/95
3	MW-546-08	A5513803	Z24478.RR	09/30/95

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000027

Client No.

SBLK26

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5754 SAS No.: _____ SDG No.: VER05

Matrix: (soil/water) WATER Lab Sample ID: A5B0645603

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: Z24475.RR

Level: (low/med) LOW Date Samp/Recv: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/28/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/30/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
83-32-9-----	ACENAPHTHENE	10	U
208-96-8-----	ACENAPHTHYLENE	10	U
-12-7-----	ANTHRACENE	10	U
55-3-----	BENZO (A) ANTHRACENE	10	U
205-99-2-----	BENZO (B) FLUORANTHENE	10	U
207-08-9-----	BENZO (K) FLUORANTHENE	10	U
191-24-2-----	BENZO (G, H, I) PERYLENE	10	U
50-32-8-----	BENZO (A) PYRENE	10	U
218-01-9-----	CHRYSENE	10	U
53-70-3-----	DIBENZO (A, H) ANTHRACENE	10	U
206-44-0-----	FLUORANTHENE	10	U
86-73-7-----	FLUORENE	10	U
193-39-5-----	INDENO (1, 2, 3-CD) PYRENE	10	U
91-57-6-----	2-METHYLNAPHTHALENE	10	U
91-20-3-----	NAPHTHALENE	10	U
85-01-8-----	PHENANTHRENE	10	U
129-00-0-----	PYRENE	10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 METHOD BLANK SUMMARY

000028

Client No.

SBLK27

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: 5754 SAS No.: _____ SDG No.: VER05

Lab File ID: Z24479.RR Lab Sample ID: A5B0645203

Instrument ID: I50Z-A Date Extracted: 09/28/95

Matrix: (soil/water) SOIL Date Analyzed: 09/30/95

Level: (low/med) LOW Time Analyzed: 18:11

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	DCR-VER-46	A5513801	Z24482.RR	09/30/95
2	DCR-VER-47	A5513802	Z24483.RR	09/30/95
3	Matrix Spike Blank	A5B0645201	Z24480.RR	09/30/95
4	Matrix Spike Blk Dup	A5B0645202	Z24481.RR	09/30/95

ments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000029

Client No.

SBLK27

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECNV

Case No.: 5754

SAS No.: _____

SDG No.: VER05

Matrix: (soil/water) SOIL

Lab Sample ID: A5B0645203

Sample wt/vol: 40.00 (g/mL) G

Lab File ID: Z24479.RR

Level: (low/med) LOW

Date Samp/Recv: _____

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 09/28/95

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 09/30/95

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:

(ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/KG</u>	Q
83-32-9	ACENAPHTHENE	300	300	U
208-96-8	ACENAPHTHYLENE	300	300	U
124-12-7	ANTHRACENE	300	300	U
55-3	BENZO (A) ANTHRACENE	300	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	300	U
50-32-8	BENZO (A) PYRENE	300	300	U
218-01-9	CHRYSENE	300	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	300	U
206-44-0	FLUORANTHENE	300	300	U
86-73-7	FLUORENE	300	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	300	U
91-57-6	2-METHYLNAPHTHALENE	300	300	U
91-20-3	NAPHTHALENE	300	300	U
85-01-8	PHENANTHRENE	300	300	U
129-00-0	PYRENE	300	300	U

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO. **000030**

PBLK03

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05
 Lab Sample ID: A5B0645303 Lab File ID: _____
 Matrix: (soil/water) WATER Extraction: (SepF/Cont/Sonc) SEPF
 Sulfur Cleanup: (Y/N) Y Date Extracted: 09/28/95
 Date Analyzed (1): 09/29/95 Date Analyzed (2): 09/29/95
 Time Analyzed (1): 1920 Time Analyzed (2): 1920
 Instrument ID (1): 5890A9 Instrument ID (2): 5890B9
 GC Column (1): DB608 ID: 0.53 (mm) GC Column (2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	MSB03	A5B0645301	09/29/95	09/29/95
02	MSBD03	A5B0645302	09/29/95	09/29/95
03	MW54606	A5509702	09/29/95	09/29/95
04	MW54607	A5509703	09/29/95	09/29/95
05	MW54608	A5513803	09/30/95	09/30/95

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

PBLK03

Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05

Matrix: (soil/water) WATER Lab Sample ID: A5B0645303

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/28/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/29/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
---------	----------	---	---

12674-11-2-----	Aroclor-1016	0.065	U
11104-28-2-----	Aroclor-1221	0.065	U
11141-16-5-----	Aroclor-1232	0.065	U
53469-21-9-----	Aroclor-1242	0.065	U
12672-29-6-----	Aroclor-1248	0.065	U
11097-69-1-----	Aroclor-1254	0.065	U
11096-82-5-----	Aroclor-1260	0.065	U

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK04

La Name: RECRA ENVIRON

Contract: NY95-438

Lab Code: RECNY Case No.: 5754

SAS No.: _____ SDG No.: VER05

Lab Sample ID: A5B0645103

Lab File ID: _____

Matrix: (soil/water) SOIL

Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) N

Date Extracted: 09/28/95

Date Analyzed (1): 09/30/95

Date Analyzed (2): 09/30/95

Time Analyzed (1): 0531

Time Analyzed (2): 0531

Instrument ID (1): 5890A9

Instrument ID (2): 5890B9

GC Column (1): DB608 ID: 0.53 (mm) GC Column (2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	DCRVER46	A5513801	09/30/95	09/30/95
02	DCRVER47	A5513802	09/30/95	09/30/95
03	DCVER0503	A5509701	09/30/95	09/30/95
04	MSB04	A5B0645101	09/30/95	09/30/95
05	MSBD04	A5B0645102	09/30/95	09/30/95

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLING ID: **980033**

PBLK04

Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05

Matrix: (soil/water) SOIL Lab Sample ID: A5B0645103

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/28/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/30/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q.

12674-11-2-----	Aroclor-1016	33	U
11104-28-2-----	Aroclor-1221	67	U
11141-16-5-----	Aroclor-1232	33	U
53469-21-9-----	Aroclor-1242	33	U
12672-29-6-----	Aroclor-1248	33	U
11097-69-1-----	Aroclor-1254	33	U
11096-82-5-----	Aroclor-1260	33	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000034

Lab Name: Regra Environmental, Inc. Contract: MD772732MD Labsampid: A5C0001474
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05
 Lab File ID (Standard): Z24471.RR Date Analyzed: 09/30/95
 Instrument ID: I50Z-A Time Analyzed: 14:08

	IS1 (ANT) AREA #	RT #	IS2 (CRY) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	426315	7.50	592403	15.15	247343	4.18
UPPER LIMIT	852630	8.00	1184806	15.65	494686	4.68
LOWER LIMIT	213158	7.00	296202	14.65	123672	3.68
CLIENT SAMPLE						
1 Matrix Spike Blank	414834	7.50	540548	15.13	211304	4.18
2 Matrix Spike Blk Dup	400655	7.50	569938	15.13	215120	4.18
3 MW-546-08	460823	7.50	579740	15.13	242424	4.18
4 SELK26	457236	7.50	554735	15.13	239056	4.18

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (ANT) = Acenaphthene-D10
 IS2 (CRY) = Chrysene-D12
 IS3 (DCB) = 1,4-Dichlorobenzene-D4

(50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000035

Lab Name: Regra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001474
 Lab Code: RBCNY Case No.: 5754 SAS No.: _____ SDG No.: VER05
 Lab File ID (Standard): Z24471.RR Date Analyzed: 09/30/95
 Instrument ID: I50Z-A Time Analyzed: 14:08

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	828064	5.30	522726	10.03	426862	17.75
UPPER LIMIT	1656128	5.80	1045452	10.53	853724	18.25
LOWER LIMIT	414032	4.80	261363	9.53	213431	17.25
CLIENT SAMPLE						
1 Matrix Spike Blank	755368	5.30	516347	10.03	343562	17.73
2 Matrix Spike Blk Dup	699304	5.30	584797	10.03	364735	17.73
3 MW-546-08	798920	5.30	588944	10.03	373668	17.73
4 SBLK26	859624	5.30	565762	10.03	384362	17.73

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS4 (NPT) = Naphthalene-D8 (50-200) -0.50 / +0.50 min
 IS5 (PHN) = Phenanthrene-D10 (50-200) -0.50 / +0.50 min
 IS6 (PRY) = Perylene-D12 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000036

Lab Name: Regra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001474
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05
 Lab File ID (Standard): Z24471.RR Date Analyzed: 09/30/95
 Instrument ID: I50Z-A Time Analyzed: 14:08

	IS1 (ANT) AREA #	RT #	IS2 (CRY) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	426315	7.50	592403	15.15	247343	4.18
UPPER LIMIT	852630	8.00	1184806	15.65	494686	4.68
LOWER LIMIT	213158	7.00	296202	14.65	123672	3.68
CLIENT SAMPLE						
1 DCR-VER-46	538771	7.50	809940	15.13	280110	4.18
2 DCR-VER-47	615756	7.50	775363	15.13	334284	4.18
3 Matrix Spike Blank	573579	7.50	733976	15.13	316882	4.20
4 Matrix Spike Blk Dup	561619	7.50	717794	15.13	306354	4.20
5 SBLK27	631213	7.50	821198	15.13	361103	4.20

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (ANT) = Acenaphthene-D10
 IS2 (CRY) = Chrysene-D12
 IS3 (DCB) = 1,4-Dichlorobenzene-D4

(50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000037

Lab Name: Regra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001474
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05
 Lab File ID (Standard): Z24471.RR Date Analyzed: 09/30/95
 Instrument ID: I50Z-A Time Analyzed: 14:08

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	828064	5.30	522726	10.03	426862	17.75
UPPER LIMIT	1656128	5.80	1045452	10.53	853724	18.25
LOWER LIMIT	414032	4.80	261363	9.53	213431	17.25
CLIENT SAMPLE						
1 DCR-VER-46	1010693	5.30	746822	10.03	604769	17.73
2 DCR-VER-47	1080026	5.30	820767	10.03	604906	17.73
3 Matrix Spike Blank	1091886	5.30	761013	10.03	599356	17.73
4 Matrix Spike Blk Dup	1007391	5.30	780646	10.03	552201	17.73
5 SBLK27	1214726	5.30	856596	10.03	655172	17.75

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS4 (NPT) = Naphthalene-D8
 IS5 (PHN) = Phenanthrene-D10
 IS6 (PRY) = Perylene-D12

(50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min
 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits



**RECRA
ENVIRONMENTAL
INC.**

Chemical and Environmental Analysis Services

November 13, 1995

Ms. Deborah A. Roskos
Gradient Corporation
44 Brattle Street
Cambridge, Massachusetts 02138

RE: **Revised Form for SDG VER05**

Dear Ms. Roskos:

When Recra was looking back at the forms for SDG VER05, we found this form 1D (Page 000414) to be incorrect. It was originally submitted with 0.38 ug/l for Aroclor-1232, when it should actually be Aroclor-1242. The new form is attached.

We apologize for any inconvenience this has caused Gradient Corporation and ALCOA. If you have any further questions or comments please do not hesitate to contact me at (716)691-2600.

Sincerely,

RECRA ENVIRONMENTAL, INC.

A handwritten signature in cursive script that reads "Deborah A. Carella". The signature is written in black ink and is positioned above the printed name.

Deborah A. Carella
Program Manager

cc: Julie Schreiber (CDM) ✓
David Dros (Recra)

000 414

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSB03

Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: VER05

Matrix: (soil/water) WATER Lab Sample ID: A5B0645301

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: 09/26/95

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/28/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/29/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

12674-11-2-----	Aroclor-1016	0.065	U
11104-28-2-----	Aroclor-1221	0.065	U
11141-16-5-----	Aroclor-1232	0.065	U
53469-21-9-----	Aroclor-1242	0.38	
12672-29-6-----	Aroclor-1248	0.065	U
11097-69-1-----	Aroclor-1254	0.065	U
11096-82-5-----	Aroclor-1260	0.065	U

Sample ID Nos.:

Lab Report Dated:

November 11, 1995

DCR-VER-71

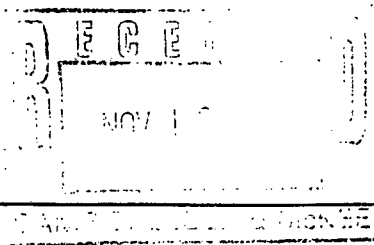
DCR-VER-72

MW-546-09



**RECRA
ENVIRONMENTAL
INC.**

Chemical and Environmental Analysis Services



95DCR 170 FE

November 11, 1995

Mr. Joseph Mihm
Camp, Dresser and McKee / Alcoa
Park Avenue East, Building 65
Massena, NY 13665

RE: Analytical Results

Dear Mr. Mihm:

Please find enclosed the data package concerning the analyses of samples recently submitted by your firm. The pertinent information regarding these analyses is listed below:

Quote No.: NY95-438
REI: 19
SDG #: CRVER
Matrix: Soil & Water
Sample Receipt Date: 10/13/95
Sample Date: 10/12,26/95

If you have any questions concerning these data, please contact Mr. David J. Dros, Program Manager, at (800) 52R-ECRA and refer to the I.D. number listed below.

Sincerely,

RECRA ENVIRONMENTAL, INC.

Kenneth E. Kasperek
Laboratory Manager

KEK/DJD/dms
Enclosure

cc: Frances Gero (cover letter only)
Aluminum Company of America
Mr. Bernard Kunkle (cover letter only)
Aluminum Company of America
Park Avenue East, BLDG. 65
Massena, NY 13665

Reviewed and approved by/date:

David J. Dros
Program Manager

ID #A95-5465
#NY5A5754

Summary ~~Schultz~~
Cocchia

Ltr { Schultz
Mihm

Orig - Gswold
Graham - all

000001

SAMPLE DATA SUMMARY PACKAGE

SDG NARRATIVE:

Laboratory: Recra Environmental, Inc.

Laboratory Code: RECNY

Contract No.: NY95-438

SDG No.: CRVER

Sample Identifications: DCR-VER-71
DCR-VER-72
MW-546-09

METHODOLOGY

Analyses were performed in accordance with 1991 New York State Analytical Services protocol. (Revised 1993)

COMMENTS

Results are reported using standard qualifiers (Q) as defined on the Organic Data Comment Page.

Preliminary results were sent on October 19 and 20, 1995 via facsimile Ms. Julie Schreiber of Camp, Dresser and McKee by Ms. Deborah Carella of Recra Environmental.

Quality Control analysis was performed on a batch basis.

VOLATILE DATA

Volatile sample and standard areas are listed on the corresponding data system printouts.

Volatile data was processed utilizing Finnigan DataPro Autoquantitation and Recra Environmental's Inc.'s Analytical Information Management Systems (AIMS). All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. False positive compounds are crossed out, initialed and dated in this data package.

Ortho-Xylene and meta & para-Xylene elute separately on a capillary column. They are reported in this data package as Total Xylenes. The concentration is calculated by adding the areas of ortho-Xylene and meta & para-Xylene and using only the response factor from ortho-Xylene to calculate the nanogram amount.

Sample MW-546-09 exhibits a pH of 7.

Volatile Method Blank, VBLK76, exhibits the presence of one (1) Tentatively Identified Compound (TIC).



SEMIVOLATILE DATA

000003

Semivolatile sample and standard areas are listed on the corresponding data system printouts.

Semivolatile data was processed utilizing Teknivant Autoquantitation and Recra Environmental's Inc.'s Analytical Information Management Systems (AIMS). All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. False positive compounds are crossed out, initialed and dated in this data package.

Samples DCR-VER-72 and DCR-VER-72 RE both exhibit the recovery of internal standard Perylene-d12 as outside QC limits.

PCB DATA

Water samples MW-546-09, PBLK07, MSB07 and MSBD07 had 1000 ul of 0.20 ng/ul surrogate mixture added to them. These samples were concentrated to a final volume of 10 mls. This is the appropriate surrogate concentration for CLP waters. However, the 10 ml final volume does not yield the desired detection limits. At the request of Camp, Dresser and McKee/Alcoa, these samples were concentrated to a final volume of 1.0 ml and re-analyzed. The re-analyzed samples are denoted by a "RI" suffix to sample ID. Concentrating these samples to a final volume of 1.0 ml increased the surrogate concentration by a factor of 10. As a result, the re-analyzed samples exhibit surrogate recoveries 10 times higher than those seen in the samples at a 10 ml final volume.

Sample PBLK07 exhibits the surrogate recovery of Tetrachloro-m-xylene on the DB1701 column as outside advisory QC limits.

Sample MSB07 exhibits the surrogate recoveries of Tetrachloro-m-xylene and Decachlorobiphenyl on both the DB608 and DB1701 columns as outside advisory QC limits.

Sample MSBD07 exhibits the surrogate recovery of Tetrachloro-m-xylene on both the DB608 and DB1701 columns and Decachlorobiphenyl on DB1701 column as outside advisory QC limits.

Sample MW-546-09 exhibits the surrogate recovery of Tetrachloro-m-xylene on both the DB608 and DB1701 columns as outside advisory QC limits.

The retention time of surrogate TCX fell outside retention time windows on the DB608 column for PIBLK07, PEM05, MW-546-09, MW-546-09RI, PBLK07RI, MSB07RI, MSBD07RI, PIBLK14 and PEM08.

The retention time of surrogates TCX and DCB fell outside retention time windows on the DB608 column for samples PIBLK11, INDAM05 and INDBM05.

The retention time of surrogate TCX fell outside retention time windows on the DB1701 column for AR124202, PIBLK07, AR124303, MSBD07, MW-546-09RI, PBLK07RI, MSB07RI and MSBD07RI.

The retention time of surrogates TCX and DCB fell outside retention time windows on the DB1701 column for samples PEM05, MW-546-09, PIBLK11, INDAM05, INDBM05, PIBLK14 and PEM09.



"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

Kenneth E. Kasperek for K.E.K.
Kenneth E. Kasperek
Laboratory Director

11/11/95
Date



NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

000005

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: RECRA ENVIRONMENTAL, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	BNA GC/MS	VOA GC	PCB	METALS	OTHER
DCR-VER-71	A5546501	ASP91	ASP91	-	ASP91	-	-
DCR-VER-72	A5546502	ASP91	ASP91	-	ASP91	-	-
MW-546-09	A5546503	ASP91	ASP91	-	ASP91	-	-

NYSDEC-1



RECRA
ENVIRONMENTAL
INC.

000096

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
DCR-VER-71	SOIL	10/12/95	10/13/95	-	10/16/95
DCR-VER-72	SOIL	10/12/95	10/13/95	-	10/16/95
MW-546-09	WATER	10/12/95	10/13/95	-	10/15/95

NYSDEC-2



RECRA
ENVIRONMENTAL
INC.

000007

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
B\N-A ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
DCR-VER-71	SOIL	10/12/95	10/13/95	10/14/95	10/18/95
DCR-VER-72	SOIL	10/12/95	10/13/95	10/14/95	10/18/95
MW-546-09	WATER	10/12/95	10/13/95	10/17/95	10/19/95

NYSDEC-3



RECRA
ENVIRONMENTAL
INC.

000008

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PCB ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
DCR-VER-71	SOIL	10/12/95	10/13/95	10/14/95	10/20/95
DCR-VER-72	SOIL	10/12/95	10/13/95	10/14/95	10/20/95
MW-546-09	WATER	10/12/95	10/13/95	10/17/95	10/18/95

NYSDEC-4



RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

000009

SAMPLE PREPARATION AND ANALYSIS SUMMARY
ORGANIC ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
DCR-VER-71	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
DCR-VER-72	SOIL	ASP91	SONC	AS REQUIRED	AS REQUIRED
MW-546-09	WATER	ASP91	CONT, SEPF	AS REQUIRED	AS REQUIRED

NYSDEC-6



RECRA
ENVIRONMENTAL
INC.

Laboratory Name RECRA ENVIRONMENTAL, INC.

USEPA Defined Organic Data Qualifiers:

- U - Indicates compound was analyzed for but not detected.
- J - Indicates an estimate value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- G - The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
- L - The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.
- T - This flag is used when the analyte is found in the associated TCLP extraction as well as in the sample.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".
- A - This flag indicates that a TIC is a suspected aldol-condensation product.



ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000011

Client No.

DCR-VER-71

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) SOIL Lab Sample ID: A5546501

Sample wt/vol: 5.07 (g/mL) G Lab File ID: G3580.MSO

Level: (low/med) LOW Date Samp/Recv: 10/12/95 10/13/95

% Moisture: not dec. 7.7 Heated Purge: Y Date Analyzed: 10/16/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg)

CAS NO. COMPOUND UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	CHLOROMETHANE	11	U
74-83-9	BROMOMETHANE	11	U
75-01-4	VINYL CHLORIDE	11	U
75-00-3	CHLOROETHANE	11	U
5-09-2	METHYLENE CHLORIDE	1	J
57-64-1	ACETONE	6	J
75-15-0	CARBON DISULFIDE	11	U
75-35-4	1,1-DICHLOROETHENE	11	U
75-34-3	1,1-DICHLOROETHANE	11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	11	U
67-66-3	CHLOROFORM	0.7	J
107-06-2	1,2-DICHLOROETHANE	21	
78-93-3	2-BUTANONE	11	U
71-55-6	1,1,1-TRICHLOROETHANE	11	U
56-23-5	CARBON TETRACHLORIDE	11	U
75-27-4	BROMODICHLOROMETHANE	11	U
78-87-5	1,2-DICHLOROPROPANE	11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	11	U
79-01-6	TRICHLOROETHENE	11 0.6	U J
124-48-1	DIBROMOCHLOROMETHANE	11	U
79-00-5	1,1,2-TRICHLOROETHANE	9	J
71-43-2	BENZENE	11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	11	U
75-25-2	BROMOFORM	11	U
108-10-1	4-METHYL-2-PENTANONE	11	U
591-78-6	2-HEXANONE	11	U
127-18-4	TETRACHLOROETHENE	2	J
108-88-3	TOLUENE	4	BJ
79-34-5	1,1,2,2-TETRACHLOROETHANE	11	U
108-90-7	CHLOROBENZENE	11	U
00-41-4	ETHYLBENZENE	11	U
100-42-5	STYRENE	11	U
1330-20-7	XYLENE (TOTAL)	2	J

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000012

Client No.

DCR-VER-71

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNV Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) SOIL Lab Sample ID: A5546501

Sample wt/vol: 5.07 (g/mL) G Lab File ID: G3580.MSO

Level: (low/med) LOW Date Samp/Recv: 10/12/95 10/13/95

% Moisture: not dec. 7.7 Date Analyzed: 10/16/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 3 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN SILICON COMPOUND	20.22	56	J
2.	UNKNOWN SILICON COMPOUND	23.02	22	BJ
3.	UNKNOWN	24.67	7	J

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000013

Client No.

DCR-VER-72

Lab Name: Recra Environmental, Contract: MQ772732MO

Lab Code: RECNY Case No.: SAS No.: SDG No.: CRVER

Matrix: (soil/water) SOIL Lab Sample ID: A5546502

Sample wt/vol: 5.15 (g/mL) G Lab File ID: G3581.MSO

Level: (low/med) LOW Date Samp/Recv: 10/12/95 10/13/95

% Moisture: not dec. 12.4 Heated Purge: Y Date Analyzed: 10/16/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
74-87-3	CHLOROMETHANE		11	U
74-83-9	BROMOMETHANE		11	U
75-01-4	VINYL CHLORIDE		11	U
75-00-3	CHLOROETHANE		1	J
75-09-2	METHYLENE CHLORIDE		11	U
75-64-1	ACETONE		11	U
75-15-0	CARBON DISULFIDE		11	U
75-35-4	1,1-DICHLOROETHENE		11	U
75-34-3	1,1-DICHLOROETHANE		11	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)		11	U
67-66-3	CHLOROFORM		11	U
107-06-2	1,2-DICHLOROETHANE		2	J
78-93-3	2-BUTANONE		11	U
71-55-6	1,1,1-TRICHLOROETHANE		11	U
56-23-5	CARBON TETRACHLORIDE		11	U
75-27-4	BROMODICHLOROMETHANE		11	U
78-87-5	1,2-DICHLOROPROPANE		11	U
10061-01-5	CIS-1,3-DICHLOROPROPENE		11	U
79-01-6	TRICHLOROETHENE		11	U
124-48-1	DIBROMOCHLOROMETHANE		11	U
79-00-5	1,1,2-TRICHLOROETHANE		1	J
71-43-2	BENZENE		11	U
10061-02-6	Trans-1,3-DICHLOROPROPENE		11	U
75-25-2	BROMOFORM		11	U
108-10-1	4-METHYL-2-PENTANONE		11	U
591-78-6	2-HEXANONE		11	U
127-18-4	TETRACHLOROETHENE		11	U
108-88-3	TOLUENE		11	U
79-34-5	1,1,2,2-TETRACHLOROETHANE		11	U
108-90-7	CHLOROBENZENE		11	U
00-41-4	ETHYLBENZENE		11	U
00-42-5	STYRENE		11	U
1330-20-7	XYLENE (TOTAL)		11	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000014

Client No.

DCR-VER-72

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) SOIL Lab Sample ID: A5546502

Sample wt/vol: 5.15 (g/mL) G Lab File ID: G3581.MSO

Level: (low/med) LOW Date Samp/Recv: 10/12/95 10/13/95

% Moisture: not dec. 12.4 Date Analyzed: 10/16/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

00015

Client No.

MW-546-09

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECNY

Case No.: _____

SAS No.: _____

SDG No.: CRVER

Matrix: (soil/water) WATER

Lab Sample ID: A5546503

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: K1226.MSO

Level: (low/med) LOW

Date Samp/Recv: 10/12/95 10/13/95

% Moisture: not dec. _____ Heated Purge: N

Date Analyzed: 10/15/95

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg)

UG/L

Q

CAS NO.

COMPOUND

CAS NO.	COMPOUND	UG/L	Q
74-87-3	CHLOROMETHANE	10	U
74-83-9	BROMOMETHANE	10	U
75-01-4	VINYL CHLORIDE	10	U
75-00-3	CHLOROETHANE	10	U
5-09-2	METHYLENE CHLORIDE	10	U
7-64-1	ACETONE	10	U
75-15-0	CARBON DISULFIDE	10	U
75-35-4	1,1-DICHLOROETHENE	10	U
75-34-3	1,1-DICHLOROETHANE	10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10	U
67-66-3	CHLOROFORM	10	U
107-06-2	1,2-DICHLOROETHANE	10	U
78-93-3	2-BUTANONE	10	U
71-55-6	1,1,1-TRICHLOROETHANE	10	U
56-23-5	CARBON TETRACHLORIDE	10	U
75-27-4	BROMODICHLOROMETHANE	10	U
78-87-5	1,2-DICHLOROPROPANE	10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	U
79-01-6	TRICHLOROETHENE	10	U
124-48-1	DIBROMOCHLOROMETHANE	10	U
79-00-5	1,1,2-TRICHLOROETHANE	10	U
71-43-2	BENZENE	10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10	U
75-25-2	BROMOFORM	10	U
108-10-1	4-METHYL-2-PENTANONE	10	U
591-78-6	2-HEXANONE	10	U
127-18-4	TETRACHLOROETHENE	10	U
108-88-3	TOLUENE	10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	U
108-90-7	CHLOROBENZENE	10	U
100-41-4	ETHYLBENZENE	10	U
100-42-5	STYRENE	10	U
1330-20-7	XYLENE (TOTAL)	10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000016

Client No.

MW-546-09

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) WATER Lab Sample ID: A5546503

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K1226.MSO

Level: (low/med) LOW Date Samp/Recv: 10/12/95 10/13/95

% Moisture: not dec. _____ Date Analyzed: 10/15/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000017

Client No.

DCR-VER-71

Lab Name: Recra Environmental

Contract: MO772732MO

Lab Code: RECNY

Case No.: _____

SAS No.: _____

SDG No.: CRVER

Matrix: (soil/water) SOIL

Lab Sample ID: A5546501

Sample wt/vol: 40.02 (g/mL) G

Lab File ID: Z24672.RR

Level: (low/med) LOW

Date Samp/Recv: 10/12/95 10/13/95

% Moisture: 7.6 decanted: (Y/N) N

Date Extracted: 10/14/95

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 10/18/95

Injection Volume: 2.00 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.3

CONCENTRATION UNITS:

(ug/L or ug/Kg)

UG/KG

Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
20-12-7	ANTHRACENE	300	U
6-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	15	J
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

DCR-VER-71
(FHS)

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000018

Client No.

DCR-VER-72

Lab Name: Recra Environmental Contract: MQ772732MO

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) SOIL Lab Sample ID: A5546502

Sample wt/vol: 40.35 (g/mL) G Lab File ID: Z24673.RR.

Level: (low/med) LOW Date Samp/Recv: 10/12/95 10/13/95

% Moisture: 25.5 decanted: (Y/N) N Date Extracted: 10/14/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 10/18/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.3

DCR-VER-72
(PAHS)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	
83-32-9	ACENAPHTHENE		120	J
208-96-8	ACENAPHTHYLENE		300	J
20-12-7	ANTHRACENE		180	J
6-55-3	BENZO (A) ANTHRACENE		460	
205-99-2	BENZO (B) FLUORANTHENE		730	
207-08-9	BENZO (K) FLUORANTHENE		320	
191-24-2	BENZO (G, H, I) PERYLENE		130	J
50-32-8	BENZO (A) PYRENE		430	
218-01-9	CHRYSENE		650	
53-70-3	DIBENZO (A, H) ANTHRACENE		50	J
206-44-0	FLUORANTHENE		930	
86-73-7	FLUORENE		94	J
193-39-5	INDENO (1, 2, 3-CD) PYRENE		190	J
91-57-6	2-METHYLNAPHTHALENE		21	J
91-20-3	NAPHTHALENE		33	J
85-01-8	PHENANTHRENE		840	
129-00-0	PYRENE		810	

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

C00019

Client No.

DCR-VER-72 RE

Lab Name: Recra Environmental Contract: MQ772732MQ

Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) SOIL Lab Sample ID: A5546502RI

Sample wt/vol: 40.35 (g/mL) G Lab File ID: Z24678.RR

Level: (low/med) LOW Date Samp/Recv: 10/12/95 10/13/95

% Moisture: 25.5 decanted: (Y/N) N Date Extracted: 10/14/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 10/18/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 8.3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	110	J
208-96-8	ACENAPHTHYLENE	300	U
120-12-7	ANTHRACENE	190	J
6-55-3	BENZO (A) ANTHRACENE	460	
05-99-2	BENZO (B) FLUORANTHENE	750	
207-08-9	BENZO (K) FLUORANTHENE	310	
191-24-2	BENZO (G, H, I) PERYLENE	120	J
50-32-8	BENZO (A) PYRENE	430	
218-01-9	CHRYSENE	620	
53-70-3	DIBENZO (A, H) ANTHRACENE	46	J
206-44-0	FLUORANTHENE	920	
86-73-7	FLUORENE	94	J
193-39-5	INDENO (1, 2, 3-CD) PYRENE	170	J
91-57-6	2-METHYLNAPHTHALENE	22	J
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	810	
129-00-0	PYRENE	880	

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
ANALYSIS DATA SHEET

000020

Client No.

MW-546-09

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) WATER Lab Sample ID: A5546503

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: Z24683.RR

Level: (low/med) LOW Date Samp/Recv: 10/12/95 10/13/95

% Moisture: _____ decanted: (Y/N) N Date Extracted: 10/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/19/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
83-32-9	ACENAPHTHENE	10	U
208-96-8	ACENAPHTHYLENE	10	U
120-12-7	ANTHRACENE	10	U
6-55-3	BENZO (A) ANTHRACENE	10	U
205-99-2	BENZO (B) FLUORANTHENE	10	U
207-08-9	BENZO (K) FLUORANTHENE	10	U
191-24-2	BENZO (G, H, I) PERYLENE	10	U
50-32-8	BENZO (A) PYRENE	10	U
218-01-9	CHRYSENE	10	U
53-70-3	DIBENZO (A, H) ANTHRACENE	10	U
206-44-0	FLUORANTHENE	10	U
86-73-7	FLUORENE	10	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	10	U
91-57-6	2-METHYLNAPHTHALENE	10	U
91-20-3	NAPHTHALENE	10	U
85-01-8	PHENANTHRENE	10	U
129-00-0	PYRENE	10	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000021
EPA SAMPLE NO.

DCR-VER-71

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) SOIL Lab Sample ID: A5546501

Sample wt/vol: 30.6 (g/mL) G Lab File ID: _____

% Moisture: 0 decanted: (Y/N) N Date Received: 10/13/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 10/14/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/20/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	32	U
11104-28-2-----	Aroclor-1221	66	U
11141-16-5-----	Aroclor-1232	32	U
53469-21-9-----	Aroclor-1242	32	U
12672-29-6-----	Aroclor-1248	32	U
11097-69-1-----	Aroclor-1254	32	U
11096-82-5-----	Aroclor-1260	32	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000022
EPA SAMPLE NO.

DCR-VER-72

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECN Case No.: 5754 SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) SOIL Lab Sample ID: A5546502

Sample wt/vol: 30.9 (g/mL) G Lab File ID: _____

% Moisture: 0 decanted: (Y/N) N Date Received: 10/13/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 10/14/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/20/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	32	U
11104-28-2-----	Aroclor-1221	65	U
11141-16-5-----	Aroclor-1232	32	U
53469-21-9-----	Aroclor-1242	32	U
12672-29-6-----	Aroclor-1248	32	U
11097-69-1-----	Aroclor-1254	32	U
11096-82-5-----	Aroclor-1260	32	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000023
EPA SAMPLE NO.

MW-546-09

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) WATER Lab Sample ID: A5546503

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: 10/13/95

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 10/17/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/18/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	<u>Q</u>
12674-11-2-----	Aroclor-1016	0.65	U
11104-28-2-----	Aroclor-1221	0.65	U
11141-16-5-----	Aroclor-1232	0.65	U
53469-21-9-----	Aroclor-1242	0.65	U
12672-29-6-----	Aroclor-1248	0.65	U
11097-69-1-----	Aroclor-1254	0.65	U
11096-82-5-----	Aroclor-1260	0.65	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

MW-546-09RI

o Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: CRVER
 Matrix: (soil/water) WATER Lab Sample ID: A5546503RI
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 10/13/95
 Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 10/17/95
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/20/95
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
12674-11-2-----	Aroclor-1016	0.065	U
11104-28-2-----	Aroclor-1221	0.065	U
11141-16-5-----	Aroclor-1232	0.065	U
53469-21-9-----	Aroclor-1242	0.065	U
12672-29-6-----	Aroclor-1248	0.065	U
11097-69-1-----	Aroclor-1254	0.065	U
11096-82-5-----	Aroclor-1260	0.065	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 WATER SURROGATE RECOVERY

000025

Lab Name: Recra Environmental, Inc. Contract: MO772732MO

Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: CRVER

	Client Sample ID	BFB		DCE		TOL							TOT OUT
		%REC	#	%REC	#	%REC	#						
1	Matrix Spike Blank	86		98		94							0
2	MW-546-09	90		101		99							0
3	VELK52	87		96		96							0

QC LIMITS

BFB = p-Bromofluorobenzene (86-115)
 DCE = 1,2-Dichloroethane-D4 (76-114)
 TOL = Toluene-D8 (88-110)

- # Column to be used to flag recovery values
- * Values outside of contract required QC limits
- D Surrogates diluted out

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
SOIL SURROGATE RECOVERY

000026

Lab Name: Recra Environmental, Inc. Contract: MO772732MO

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER

Level (low/med): LOW

	Client Sample ID	BFB %REC #	DCE %REC #	TOL %REC #						TOT OUT
1	DCR-VER-71	97	112	104						0
2	DCR-VER-72	101	110	103						0
3	Matrix Spike Blank1	95	98	98						0
4	Matrix Spike BlkDup1	94	99	98						0
5	VBLK76	94	98	96						0

QC LIMITS

BFB = p-Bromofluorobenzene (59-113)
DCE = 1,2-Dichloroethane-D4 (70-121)
TOL = Toluene-D8 (84-138)

- # Column to be used to flag recovery values
- * Values outside of contract required QC limits
- D Surrogates diluted out

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL SURROGATE RECOVERY

000027

Lab Name: Recra Environmental, Inc. Contract: MO772732MO

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER

Level (low/med): LOW

	Client Sample ID	2CP		2FP		DCB		FBP		NBZ		PHL		TBP		TPH		TOT OUT
		%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	%REC	#	
1	DCR-VER-71	88		96		76		98		81		96		87		90		0
2	DCR-VER-72	84		101		69		88		74		87		94		94		0
3	DCR-VER-72 RE	84		98		68		82		75		93		102		95		0
4	Matrix Spike Blank	80		83		73		86		80		95		104		86		0
5	Matrix Spike Blk Dup	87		88		80		94		84		99		104		90		0
6	SBLK46	87		100		93		107		82		101		106		96		0

QC LIMITS

2CP	=	2-Chlorophenol-d4	(20-130)
2FP	=	2-Fluorophenol	(25-121)
DCB	=	1,2-Dichlorobenzene-d4	(20-130)
FBP	=	2-Fluorobiphenyl	(30-115)
NBZ	=	Nitrobenzene-D5	(23-120)
PHL	=	Phenol-D5	(24-113)
TBP	=	2,4,6-Tribromophenol	(19-122)
TPH	=	Terphenyl-D14	(18-137)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogates diluted out

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 WATER SURROGATE RECOVERY

000028

Lab Name: Recre Environmental, Inc. Contract: MO772732MO

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER

	Client Sample ID	2CP %REC #	DCB %REC #	FBP %REC #	NBZ %REC #	PHL %REC #	TBP %REC #	TPH %REC #		TOT OUT
1	Matrix Spike Blank1	35	33	47	35	31	74	72		0
2	Matrix Spike BlkDupl	54	50	66	54	53	95	83		0
3	MW-546-09	71	61	69	63	64	83	83		0
4	SBLK47	69	60	69	68	69	74	82		0

QC LIMITS

- 2CP = 2-Chlorophenol-d4 (33-110)
- DCB = 1,2-Dichlorobenzene-d4 (16-110)
- FBP = 2-Fluorobiphenyl (43-116)
- NBZ = Nitrobenzene-D5 (35-114)
- PHL = Phenol-D5 (10-110)
- TBP = 2,4,6-Tribromophenol (10-123)
- TPH = Terphenyl-D14 (33-141)

- # Column to be used to flag recovery values
- * Values outside of contract required QC limits
- D Surrogates diluted out

2E
WATER PESTICIDE SURROGATE RECOVERY

000029

Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: CRVER

GC Column(1): DB608 ID: 0.53(mm) GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK07	60	54*	68	66			1
02	PBLK07RI	473*	400*	468*	478*			4
03	MSB07	47*	39*	49*	46*			4
04	MSB07RI	490*	418*	446*	455*			4
05	MSBD07	37*	32*	60	56*			3
06	MSBD07RI	380*	314*	515*	525*			4
07	MW-546-09	41*	39*	64	62			2
08	MW-546-09RI	386*	354*	535*	550*			4

ADVISORY
QC LIMITS
(60-150)
(60-150)

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

2F
SOIL PESTICIDE SURROGATE RECOVERY

000030

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: CRVER

GC Column(1): DB608 ID: 0.53(mm) GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====
01	PBLK08	84	70	89	86			0
02	DCR-VER-71	74	66	81	80			0
03	DCR-VER-72	89	78	99	97			0
04	MSB08	84	71	89	88			0
05	MSBD08	89	77	96	94			0

ADVISORY
QC LIMITS

TCX = Tetrachloro-m-xylene (60-150)
DCB = Decachlorobiphenyl (60-150)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
WATER MATRIX SPIKE BLANK RECOVERY

C00031

Name: Recra Environmental, Inc.

Contract: MO772732MO

Lab Samp ID: A5B0692902

Lab Code: RECNY

Case No.: _____

SAS No.: _____

SDG No.: CRVER

Matrix Spike - Client Sample No.: MSBLANK
~~VBLK52~~

MTM 11/3/95

COMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	61	122	61 - 145
Trichloroethene	50	57	114	71 - 120
Benzene	50	54	108	76 - 127
Toluene	50	51	102	76 - 125
Chlorobenzene	50	54	108	75 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 0 out of 5 outside limits

ments: _____

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES

000032

SOIL MATRIX SPIKE BLANK/MATRIX SPIKE BLANK DUPLICATE RECOVERY

Name: Recra Environmental, Inc.

Contract: MO772732MO

Lab Samp ID: A5B0695803

Lab Code: RECNY

Case No.: _____

SAS No.: _____

SDG No.: CRVER

Matrix Spike - Client Sample No.: ~~VBLK76~~ ^{MSB1 MSB1} _{MT 11/3/75} Level: (low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	55	110	59 - 172
Trichloroethene	50	40	80	62 - 137
Benzene	50	51	102	66 - 142
Toluene	50	50	98	59 - 139
Chlorobenzene	50	50	98	60 - 133

COMPOUND	SPIKE ADDED UG/KG	MSBD CONCENTRATION UG/KG	MSBD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
1,1-Dichloroethene	50	48	96	14	22	59 - 172
Trichloroethene	50	35	70	13	24	62 - 137
Benzene	50	46	92	10	21	66 - 142
Toluene	50	45	88	11	21	59 - 139
Chlorobenzene	50	46	90	8	21	60 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike recovery: 0 out of 10 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SOIL MATRIX SPIKE BLANK/MATRIX SPIKE BLANK DUPLICATE RECOVERY

000033

Name: Recra Environmental, Inc. Contract: M0772732M0 Lab Samp ID: A5B0693703

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix Spike - Client Sample No.: SBLK46 *MSB/MSB* *ASTM 11/2/95* Level: (low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.
Acenaphthene _____	1700	1500	88	31 - 137
Pyrene _____	1700	1400	82	35 - 142

COMPOUND	SPIKE ADDED UG/KG	MSBD CONCENTRATION UG/KG	MSBD % REC #	% RPD #	QC LIMITS REC.	
					RPD	REC.
Acenaphthene _____	1700	1600	94	6	19	31 - 137
Pyrene _____	1700	1400	82	0	36	35 - 142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 2 outside limits
 Spike recovery: 0 out of 4 outside limits

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 WATER MATRIX SPIKE BLANK/MATRIX SPIKE BLANK DUPLICATE RECOVERY

000034

Name: Recra Environmental, Inc.

Contract: MO772732MO

Lab Samp ID: A5B0697001

Lab Code: RECNY

Case No.: _____

SAS No.: _____

SDG No.: CRVER

Matrix Spike - Client Sample No.: ~~SELK47~~ /msbl/msbd *MSB 11/2/95*

COMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.
Acenaphthene _____	50	24	48	46 - 118
Pyrene _____	50	36	72	26 - 127

COMPOUND	SPIKE ADDED UG/L	MSED CONCENTRATION UG/L	MSED % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Acenaphthene _____	50	31	62	25	31	46 - 118
Pyrene _____	50	44	88	20	31	26 - 127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 2 outside limits
 Spike recovery: 0 out of 4 outside limits

Comments: _____

3F
WATER PCB MSB/MSBD RECOVERY

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNV Case No.: 5754 SAS No.: _____ SDG No.: CRVER
 Matrix Spike - EPA Sample No.: MSB07,MSBD07

COMPOUND	SPIKE ADDED (ug/L)	MSB CONCENTRATION (ug/L)	MSB % REC #
=====	=====	=====	=====
Aroclor 1242	10.0	3.5	35

COMPOUND	SPIKE ADDED (ug/L)	MSBD CONCENTRATION (ug/L)	MSBD % REC #	% RPD
=====	=====	=====	=====	=====
Aroclor 1242	10.0	3.2	32	9.0

COMMENTS:

3F

WATER PCB MSB/MSBD RECOVERY

Lab Name: RECRA ENVIRON Contract: NY95-438Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: CRVERMatrix Spike - EPA Sample No.: MSBQ7RI,MSBD07RI

COMPOUND	SPIKE ADDED (ug/L)	MSB CONCENTRATION (ug/L)	MSB % REC #
Aroclor 1242	10.0	3.2	32

COMPOUND	SPIKE ADDED (ug/L)	MSBD CONCENTRATION (ug/L)	MSBD % REC #	% RPD
Aroclor 1242	10.0	2.8	28	13

COMMENTS:

3F
SOIL PCB MSB/MSBD RECOVERY

000037

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECN Case No.: 5754 SAS No.: _____ SDG No.: CRVER

Matrix Spike - EPA Sample No.: MSB08,MSBD08

COMPOUND	SPIKE ADDED (ug/Kg)	MSB CONCENTRATION (ug/Kg)	MSB % REC #
Aroclor 1242	333	200	61

COMPOUND	SPIKE ADDED (ug/Kg)	MSBD CONCENTRATION (ug/Kg)	MSBD % REC #	% RPD
Aroclor 1242	333	210	63	3.1

COMMENTS:

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
METHOD BLANK SUMMARY

000038
Client No.

VBLK52

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: CRVER

Lab File ID: K1207.MSQ Lab Sample ID: A5B0692902

Date Analyzed: 10/14/95 Time Analyzed: 15:15

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: I50K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	Matrix Spike Blank	A5B0692901	K1205.MSQ	14:14
2	MW-546-09	A5546503	K1226.MSQ	00:47

Comments: _____

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000039

Client No.

VBLK52

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) WATER Lab Sample ID: A5B0692902

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K1207.MSO

Level: (low/med) LOW Date Samp/Recv: _____

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 10/14/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

74-87-3	CHLOROMETHANE		10	U
74-83-9	BROMOMETHANE		10	U
75-01-4	VINYL CHLORIDE		10	U
75-00-3	CHLOROETHANE		10	U
75-09-2	METHYLENE CHLORIDE		10	U
64-1	ACETONE		10	U
5-15-0	CARBON DISULFIDE		10	U
75-35-4	1,1-DICHLOROETHENE		10	U
75-34-3	1,1-DICHLOROETHANE		10	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)		10	U
67-66-3	CHLOROFORM		10	U
107-06-2	1,2-DICHLOROETHANE		10	U
78-93-3	2-BUTANONE		10	U
71-55-6	1,1,1-TRICHLOROETHANE		10	U
56-23-5	CARBON TETRACHLORIDE		10	U
75-27-4	BROMODICHLOROMETHANE		10	U
78-87-5	1,2-DICHLOROPROPANE		10	U
10061-01-5	CIS-1,3-DICHLOROPROPENE		10	U
79-01-6	TRICHLOROETHENE		10	U
124-48-1	DIBROMOCHLOROMETHANE		10	U
79-00-5	1,1,2-TRICHLOROETHANE		10	U
71-43-2	BENZENE		10	U
10061-02-6	Trans-1,3-DICHLOROPROPENE		10	U
75-25-2	BROMOFORM		10	U
108-10-1	4-METHYL-2-PENTANONE		10	U
591-78-6	2-HEXANONE		10	U
127-18-4	TETRACHLOROETHENE		10	U
108-88-3	TOLUENE		10	U
79-34-5	1,1,2,2-TETRACHLOROETHANE		10	U
108-90-7	CHLOROBENZENE		10	U
100-41-4	ETHYLBENZENE		10	U
10-42-5	STYRENE		10	U
130-20-7	XYLENE (TOTAL)		10	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 TENTATIVELY IDENTIFIED COMPOUNDS

000040

Client No.

VBLK52

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) WATER Lab Sample ID: A5B0692902

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K1207.MSQ

Level: (low/med) LOW Date Samp/Recv: _____

% Moisture: not dec. _____ Date Analyzed: 10/14/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 METHOD BLANK SUMMARY

000041

Client No.

VBLK76

Lab Name: Recra Environmental, Contract: MO772732MO

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER

Lab File ID: G3571.MSQ Lab Sample ID: A5B0695803

Date Analyzed: 10/16/95 Time Analyzed: 11:00

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: I50G

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	DCR-VER-71	A5546501	G3580.MSQ	16:39
2	DCR-VER-72	A5546502	G3581.MSQ	17:11
3	Matrix Spike Blank1	A5B0695801	G3568.MSQ	09:22
4	Matrix Spike BlkDup1	A5B0695802	G3569.MSQ	09:55

Comments: _____

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
ANALYSIS DATA SHEET

000042

Client No.

VBLK76

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) SOIL Lab Sample ID: A5B0695803

Sample wt/vol: 5.00 (g/mL) G Lab File ID: G3571.MSO

Level: (low/med) LOW Date Samp/Recv: _____

% Moisture: not dec. _____ Heated Purge: Y Date Analyzed: 10/16/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
74-87-3	CHLOROMETHANE	10		U
74-83-9	BROMOMETHANE	10		U
75-01-4	VINYL CHLORIDE	10		U
75-00-3	CHLOROETHANE	10		U
5-09-2	METHYLENE CHLORIDE	10		U
7-64-1	ACETONE	10		U
75-15-0	CARBON DISULFIDE	10		U
75-35-4	1,1-DICHLOROETHENE	10		U
75-34-3	1,1-DICHLOROETHANE	10		U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	10		U
67-66-3	CHLOROFORM	10		U
107-06-2	1,2-DICHLOROETHANE	10		U
78-93-3	2-BUTANONE	10		U
71-55-6	1,1,1-TRICHLOROETHANE	10		U
56-23-5	CARBON TETRACHLORIDE	10		U
75-27-4	BROMODICHLOROMETHANE	10		U
78-87-5	1,2-DICHLOROPROPANE	10		U
10061-01-5	CIS-1,3-DICHLOROPROPENE	10		U
79-01-6	TRICHLOROETHENE	10		U
124-48-1	DIBROMOCHLOROMETHANE	10		U
79-00-5	1,1,2-TRICHLOROETHANE	10		U
71-43-2	BENZENE	10		U
10061-02-6	Trans-1,3-DICHLOROPROPENE	10		U
75-25-2	BROMOFORM	10		U
108-10-1	4-METHYL-2-PENTANONE	10		U
591-78-6	2-HEXANONE	10		U
127-18-4	TETRACHLOROETHENE	10		U
108-88-3	TOLUENE	0.9		J
79-34-5	1,1,2,2-TETRACHLOROETHANE	10		U
108-90-7	CHLOROBENZENE	1		J
70-41-4	ETHYLBENZENE	10		U
100-42-5	STYRENE	10		U
1330-20-7	XYLENE (TOTAL)	10		U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

000043

Client No.

VBLK76

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) SOIL Lab Sample ID: A5B0695803

Sample wt/vol: 5.00 (g/mL) G Lab File ID: G3571.MSO

Level: (low/med) LOW Date Samp/Recv: _____

% Moisture: not dec. _____ Date Analyzed: 10/16/95

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 1 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN SILICON COMPOUND	22.97	14	J

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 METHOD BLANK SUMMARY

C00044

Client No.

SBLK46

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER

Lab File ID: Z24670.RR Lab Sample ID: A5B0693703

Instrument ID: I50Z-A Date Extracted: 10/14/95

Matrix: (soil/water) SOIL Date Analyzed: 10/18/95

Level: (low/med) LOW Time Analyzed: 14:33

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	-----	-----	-----	-----
1	DCR-VER-71	A5546501	Z24672.RR	10/18/95
2	DCR-VER-72	A5546502	Z24673.RR	10/18/95
3	DCR-VER-72 RE	A5546502RI	Z24678.RR	10/18/95
4	Matrix Spike Blank	A5B0693701	Z24668.RR	10/18/95
5	Matrix Spike Blk Dup	A5B0693702	Z24671.RR	10/18/95

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

00045

Client No.

SBLK46

Lab Name: Recra Environmental, Contract: MO772732MQ

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) SOIL Lab Sample ID: A5B0693703

Sample wt/vol: 30.00 (g/mL) G Lab File ID: Z24670.RR

Level: (low/med) LOW Date Samp/Recv: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 10/14/95

Concentrated Extract Volume: 500 (uL) Date Analyzed: 10/18/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
83-32-9	ACENAPHTHENE	300	U
208-96-8	ACENAPHTHYLENE	300	U
20-12-7	ANTHRACENE	300	U
15-55-3	BENZO (A) ANTHRACENE	300	U
205-99-2	BENZO (B) FLUORANTHENE	300	U
207-08-9	BENZO (K) FLUORANTHENE	300	U
191-24-2	BENZO (G, H, I) PERYLENE	300	U
50-32-8	BENZO (A) PYRENE	300	U
218-01-9	CHRYSENE	300	U
53-70-3	DIBENZO (A, H) ANTHRACENE	300	U
206-44-0	FLUORANTHENE	300	U
86-73-7	FLUORENE	300	U
193-39-5	INDENO (1, 2, 3-CD) PYRENE	300	U
91-57-6	2-METHYLNAPHTHALENE	300	U
91-20-3	NAPHTHALENE	300	U
85-01-8	PHENANTHRENE	300	U
129-00-0	PYRENE	300	U

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 METHOD BLANK SUMMARY

000046

Client No.

SBLK47

Lab Name: Recra Environmental Contract: MO772732MO
 Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER
 Lab File ID: Z24674.RR Lab Sample ID: A5B0697001
 Instrument ID: I50Z-A Date Extracted: 10/17/95
 Matrix: (soil/water) WATER Date Analyzed: 10/18/95
 Level: (low/med) LOW Time Analyzed: 17:35

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	Matrix Spike Blank1	A5B0697002	Z24682.RR	10/19/95
2	Matrix Spike BlkDup1	A5B0697003	Z24681.RR	10/19/95
3	MW-546-09	A5546503	Z24683.RR	10/19/95

Comments: _____

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 ANALYSIS DATA SHEET

000047

Client No.

SBLK47

Lab Name: Recra Environmental Contract: MO772732MO

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) WATER Lab Sample ID: A5B0697001

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: Z24674.RR

Level: (low/med) LOW Date Samp/Recv: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 10/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/18/95

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

83-32-9-----	ACENAPHTHENE	10	U
208-96-8-----	ACENAPHTHYLENE	10	U
10-12-7-----	ANTHRACENE	10	U
10-55-3-----	BENZO (A) ANTHRACENE	10	U
205-99-2-----	BENZO (B) FLUORANTHENE	10	U
207-08-9-----	BENZO (K) FLUORANTHENE	10	U
191-24-2-----	BENZO (G, H, I) PERYLENE	10	U
50-32-8-----	BENZO (A) PYRENE	10	U
218-01-9-----	CHRYSENE	10	U
53-70-3-----	DIBENZO (A, H) ANTHRACENE	10	U
206-44-0-----	FLUORANTHENE	10	U
86-73-7-----	FLUORENE	10	U
193-39-5-----	INDENO (1, 2, 3 - CD) PYRENE	10	U
91-57-6-----	2 - METHYLNAPHTHALENE	10	U
91-20-3-----	NAPHTHALENE	10	U
85-01-8-----	PHENANTHRENE	10	U
129-00-0-----	PYRENE	10	U

4C
PESTICIDE METHOD BLANK SUMMARY

000048
EPA SAMPLE NO.

PBLK07

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: CRVER
 Lab Sample ID: A5B0699701 Lab File ID: _____
 Matrix: (soil/water) WATER Extraction: (SepF/Cont/Sonc) SEPF
 Sulfur Cleanup: (Y/N) Y Date Extracted: 10/17/95
 Date Analyzed (1): 10/18/95 Date Analyzed (2): 10/18/95
 Time Analyzed (1): 1801 Time Analyzed (2): 1801
 Instrument ID (1): 5890A9 Instrument ID (2): 5890B9
 GC Column (1): DB608 ID: 0.53 (mm) GC Column (2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	=====	=====	=====	=====
01	MSB07	A5B0699702	10/18/95	10/18/95
02	MSBD07	A5B0699703	10/18/95	10/18/95
03	MW-546-09	A5546503	10/18/95	10/18/95

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK07

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) WATER Lab Sample ID: A5B0699701

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 10/17/95

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/18/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

12674-11-2-----Aroclor-1016	0.65	U
11104-28-2-----Aroclor-1221	0.65	U
11141-16-5-----Aroclor-1232	0.65	U
53469-21-9-----Aroclor-1242	0.65	U
12672-29-6-----Aroclor-1248	0.65	U
11097-69-1-----Aroclor-1254	0.65	U
11096-82-5-----Aroclor-1260	0.65	U

4C
PESTICIDE METHOD BLANK SUMMARY

000050
EPA SAMPLE NO.

PBLK07RI

Lab Name: RECRA ENVIRON Contract: NY95-438
 Lab Code: RECN Case No.: 5754 SAS No.: _____ SDG No.: CRVER
 Lab Sample ID: A5B0699701RI Lab File ID: _____
 Matrix: (soil/water) WATER Extraction: (SepF/Cont/Sonc) SEPF
 Sulfur Cleanup: (Y/N) Y Date Extracted: 10/17/95
 Date Analyzed (1): 10/20/95 Date Analyzed (2): 10/20/95
 Time Analyzed (1): 1454 Time Analyzed (2): 1454
 Instrument ID (1): 5890A9 Instrument ID (2): 5890B9
 GC Column (1): DB608 ID: 0.53 (mm) GC Column (2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	MSB07RI	A5B0699702RI	10/20/95	10/20/95
02	MSBD07RI	A5B0699703RI	10/20/95	10/20/95
03	MW-546-09RI	A5546503RI	10/20/95	10/20/95

COMMENTS:

000051

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK07RI

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECN Case No.: 5754 SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) WATER Lab Sample ID: A5B0699701RI

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 10/17/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/20/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	<u>Q</u>
---------	----------	---	----------

12674-11-2-----	Aroclor-1016	0.065	U
11104-28-2-----	Aroclor-1221	0.065	U
11141-16-5-----	Aroclor-1232	0.065	U
53469-21-9-----	Aroclor-1242	0.065	U
12672-29-6-----	Aroclor-1248	0.065	U
11097-69-1-----	Aroclor-1254	0.065	U
11096-82-5-----	Aroclor-1260	0.065	U

000052
EPA SAMPLE NO.

4C
PESTICIDE METHOD BLANK SUMMARY

PBLK08

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: CRVER

Lab Sample ID: A5B0693503 Lab File ID: _____

Matrix: (soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) N Date Extracted: 10/14/95

Date Analyzed (1): 10/20/95 Date Analyzed (2): 10/20/95

Time Analyzed (1): 0820 Time Analyzed (2): 0820

Instrument ID (1): 5890A9 Instrument ID (2): 5890B9

GC Column (1): DB608 ID: 0.53 (mm) GC Column (2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	=====	=====	=====	=====
01	DCR-VER-71	A5546501	10/20/95	10/20/95
02	DCR-VER-72	A5546502	10/20/95	10/20/95
03	MSB08	A5B0693501	10/20/95	10/20/95
04	MSBD08	A5B0693502	10/20/95	10/20/95

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

000053
EPA SAMPLE NO.

PBLK08

Lab Name: RECRA ENVIRON Contract: NY95-438

Lab Code: RECNY Case No.: 5754 SAS No.: _____ SDG No.: CRVER

Matrix: (soil/water) SOIL Lab Sample ID: A5B0693503

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____ Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 10/14/95

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/20/95

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
12674-11-2-----	Aroclor-1016	33	U
11104-28-2-----	Aroclor-1221	67	U
11141-16-5-----	Aroclor-1232	33	U
53469-21-9-----	Aroclor-1242	33	U
12672-29-6-----	Aroclor-1248	33	U
11097-69-1-----	Aroclor-1254	33	U
11096-82-5-----	Aroclor-1260	33	U

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-1 - VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000054

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5B0695805
Lab Code: RECONY Case No.: _____ SAS No.: _____ SDG No.: CRVER
Lab File ID (Standard): G3567.MSQ Date Analyzed: 10/16/95
Instrument ID: I50G Time Analyzed: 08:29
GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) Y

	IS1 (BCM)		IS2 (CBZ)		IS3 (DFB)	
	AREA	# RT #	AREA	# RT #	AREA	# RT #
12 HOUR STD	62681	11.22	165280	18.18	175563	13.28
UPPER LIMIT	125362	11.72	330560	18.68	351126	13.78
LOWER LIMIT	31341	10.72	82640	17.68	87782	12.78
=====						
CLIENT SAMPLE						
=====						
1 DCR-VER-71	46487	11.32	122259	18.25	148904	13.38
2 DCR-VER-72	51802	11.30	134527	18.23	164572	13.37
3 Matrix Spike Blank1	64178	11.25	168561	18.22	183705	13.32
4 Matrix Spike BlkDup1	65309	11.22	175121	18.20	193642	13.30
VBLK76	62794	11.22	163130	18.22	175359	13.32

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (BCM) = BROMOCHLOROMETHANE (50-200) -0.50 / +0.50 min
IS2 (CBZ) = Chlorobenzene-D5 (50-200) -0.50 / +0.50 min
IS3 (DFB) = 1,4-Difluorobenzene (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-1 - VOLATILES
 VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000055

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001605
 Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER
 Lab File ID (Standard): K1203.MSQ Date Analyzed: 10/14/95
 Instrument ID: I50K Time Analyzed: 13:02
 GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) N

	IS1 (BCM) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DFB) AREA #	RT #
12 HOUR STD	45606	11.02	195280	18.05	187336	13.15
UPPER LIMIT	91212	11.52	390560	18.55	374672	13.65
LOWER LIMIT	22803	10.52	97640	17.55	93668	12.65
=====						
CLIENT SAMPLE						
=====						
1 Matrix Spike Blank	40567	11.02	177003	18.05	171319	13.15
2 MW-546-09	44554	11.00	175917	18.02	177338	13.12
3 VBLK52	39698	10.98	159820	18.02	157659	13.12

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (BCM) = BROMOCHLOROMETHANE (50-200) -0.50 / +0.50 min
 IS2 (CBZ) = Chlorobenzene-D5 (50-200) -0.50 / +0.50 min
 IS3 (DFB) = 1,4-Difluorobenzene (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000056

Lab Name: Recre Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001604
 Lab Code: RECONY Case No.: _____ SAS No.: _____ SDG No.: CRVER
 Lab File ID (Standard): Z24664.RR Date Analyzed: 10/18/95
 Instrument ID: I50Z-A Time Analyzed: 09:44

	IS1 (ANT) AREA #	RT #	IS2 (CRY) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	469302	15.43	787418	27.92	219174	6.67
UPPER LIMIT	938604	15.93	1574836	28.42	438348	7.17
LOWER LIMIT	234651	14.93	393709	27.42	109587	6.17
CLIENT SAMPLE						
1 DCR-VER-71	375360	15.42	784782	27.88	174692	6.72
2 DCR-VER-72	420906	15.40	661748	27.93	183102	6.68
3 DCR-VER-72 RE	378447	15.42	621030	27.95	161602	6.70
4 Matrix Spike Blank	620476	15.43	1140515	27.90	265347	6.73
5 Matrix Spike Blk Dup	462720	15.42	829621	27.88	215725	6.73
6 SBLK46	467575	15.42	885304	27.88	227440	6.72

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (ANT) = Acenaphthene-D10

IS2 (CRY) = Chrysene-D12

IS3 (DCB) = 1,4-Dichlorobenzene-D4

(50-200)

-0.50 / +0.50 min

(50-200)

-0.50 / +0.50 min

(50-200)

-0.50 / +0.50 min

Column to be used to flag recovery values

* Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - HSL POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000057

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001604
 Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER
 Lab File ID (Standard): Z24664.RR Date Analyzed: 10/18/95
 Instrument ID: I50Z-A Time Analyzed: 09:44

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	765245	10.22	659606	19.87	1025307	31.92
UPPER LIMIT	1530490	10.72	1319212	20.37	2050614	32.42
LOWER LIMIT	382623	9.72	329803	19.37	512654	31.42
CLIENT SAMPLE						
1 DCR-VER-71	711131	10.20	678162	19.85	677813	31.90
2 DCR-VER-72	752848	10.18	690516	19.85	495447 *	31.98
3 DCR-VER-72 RE	647520	10.20	616833	19.87	463575 *	31.98
4 Matrix Spike Blank	1052151	10.22	889721	19.88	981183	31.90
5 Matrix Spike Blk Dup	821944	10.22	651439	19.87	719568	31.90
6 SBLK46	895400	10.20	754267	19.87	750899	31.90

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS4 (NPT) = Naphthalene-D8 (50-200) -0.50 / +0.50 min
 IS5 (PHN) = Phenanthrene-D10 (50-200) -0.50 / +0.50 min
 IS6 (PRY) = Perylene-D12 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000058

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001604
 Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER
 Lab File ID (Standard): Z24664.RR Date Analyzed: 10/18/95
 Instrument ID: I50Z-A Time Analyzed: 09:44

	IS1 (ANT)		IS2 (CRY)		IS3 (DCB)	
	AREA	#	RT	#	AREA	#
12 HOUR STD	469302		15.43		787418	27.92
UPPER LIMIT	938604		15.93		1574836	28.42
LOWER LIMIT	234651		14.93		393709	27.42
CLIENT SAMPLE						
SBLK47	410948		15.42		839199	27.88
					193557	6.67

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (ANT) = Acenaphthene-D10 (50-200) -0.50 / +0.50 min
 IS2 (CRY) = Chrysene-D12 (50-200) -0.50 / +0.50 min
 IS3 (DCB) = 1,4-Dichlorobenzene-D4 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000059

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001604
 Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER
 Lab File ID (Standard): Z24664.RR Date Analyzed: 10/18/95
 Instrument ID: I50Z-A Time Analyzed: 09:44

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	765245	10.22	659606	19.87	1025307	31.92
UPPER LIMIT	1530490	10.72	1319212	20.37	2050614	32.42
LOWER LIMIT	382623	9.72	329803	19.37	512654	31.42
CLIENT SAMPLE						
SBLK47	745087	10.20	677508	19.87	689181	31.90

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS4 (NPT) = Naphthalene-D8 (50-200) -0.50 / +0.50 min
 IS5 (PHN) = Phenanthrene-D10 (50-200) -0.50 / +0.50 min
 IS6 (PRY) = Perylene-D12 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
ALCOA - DENNISON CROSSROADS VERIFICATION
ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000060

Lab Name: Regra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001615
Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: CRVER
Lab File ID (Standard): Z24680.RR Date Analyzed: 10/19/95
Instrument ID: I50Z-A Time Analyzed: 09:23

	IS1 (ANT) AREA #	RT #	IS2 (CRY) AREA #	RT #	IS3 (DCB) AREA #	RT #
12 HOUR STD	322296	15.33	595679	27.80	150723	6.58
UPPER LIMIT	644592	15.83	1191358	28.30	301446	7.08
LOWER LIMIT	161148	14.83	297840	27.30	75362	6.08
CLIENT SAMPLE						
1 Matrix Spike Blank1	287147	15.32	514033	27.77	141128	6.57
2 Matrix Spike BlkDup1	301308	15.32	526425	27.77	149877	6.58
3 MW-546-09	295305	15.32	515196	27.77	118253	6.58

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS1 (ANT) = Acenaphthene-D10

IS2 (CRY) = Chrysene-D12

IS3 (DCB) = 1,4-Dichlorobenzene-D4

(50-200) -0.50 / +0.50 min
(50-200) -0.50 / +0.50 min
(50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

ALUMINUM COMPANY OF AMERICA
 ALCOA - DENNISON CROSSROADS VERIFICATION
 ASP91-2 - POLYNUCLEAR AROMATIC HYDROCARBONS
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000061

Lab Name: Recra Environmental, Inc. Contract: MO772732MO Labsampid: A5C0001615
 Lab Code: RECNY Case No.: SAS No.: SDG No.: CRVER
 Lab File ID (Standard): Z24680.RR Date Analyzed: 10/19/95
 Instrument ID: I50Z-A Time Analyzed: 09:23

	IS4 (NPT) AREA #	RT #	IS5 (PHN) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	590823	10.13	484154	19.77	726881	31.80
UPPER LIMIT	1181646	10.63	968308	20.27	1453762	32.30
LOWER LIMIT	295412	9.63	242077	19.27	363441	31.30
CLIENT SAMPLE						
1 Matrix Spike Blank1	512002	10.10	415501	19.75	566368	31.78
2 Matrix Spike BlkDup1	562098	10.12	408825	19.75	620641	31.78
3 MW-546-09	473534	10.10	443505	19.75	516984	31.78

AREA UNIT
QC LIMITS

RT
QC LIMITS

IS4 (NPT) = Naphthalene-D8 (50-200) -0.50 / +0.50 min
 IS5 (PHN) = Phenanthrene-D10 (50-200) -0.50 / +0.50 min
 IS6 (PRY) = Perylene-D12 (50-200) -0.50 / +0.50 min

Column to be used to flag recovery values
 * Values outside of contract required QC limits