RF/RMRS-99-442.UN

Rocky Mountain Remediation Services, L.L.C.

779 Closure Project

779 CLUSTER CLOSURE PROJECT

Non-Radiological
Closeout Report
For
Administration Area of Building 779

Draft 0
September 29, 1999

Rocky Mountain
Remediation Services, L.L.C.

OCT 1999
RECEIVED
RECORDS CENTER

IA-B779-A-00105
Best Available Copy

ADMIN RECORD

1/163

BUILDING 779
NON-RADIOLOGICAL CLOSEOUT REPORT
for the Administrative Area

Revision O
September 1999

This Non-Radiological Closeout Report has been reviewed and approved by:

Kathy Zbryk — 10-4-99
Kathy Zbryk, Environmental Scientist, B779 (RMRS) — **Date**

Barry Bowser — 9-30-99
Barry Bowser, Quality Assurance, B779 (LATA) — **Date**

Mark E. Hickman — 10-4-99
Mark E. Hickman, Integration Manager, B779 (RMRS) — **Date**

Duane L. Worley FOR MARK ZACHARY — 10-5-99
Mark Zachary, Industrial Safety & Hygiene, B779 (RMRS) — **Date**

Thomas J. Dieter — 9/30/99
Thomas Dieter, Project Manager, B779 (RMRS) — **Date**

2

TABLE OF CONTENTS

1.0 INTRODUCTION 4
1.1 Purpose 4
1.2 Scope 4

2.0 REMOVAL OF CONTAMINANTS OF CONCERN (COCs) 4
2.1 Asbestos 4
2.2 Beryllium 6
2.3 Polychlorinated Biphenyl (PCBs) 6
2.4 Solid Material Containing Regulated Levels of RCRA Metals 6
2.5 RCRA Regulated Waste Chemicals 7
2.6 RCRA Units 7
2.7 Staining Inspection 7

3.0 REFERENCES 8

4.0 VISUAL CHECKSHEET 9

ATTACHMENTS

1 Administrative Area Map
2 Asbestos Results
3 Beryllium Results
4 RCRA Hazardous Substances Results (Solids)
5 RCRA Hazardous Substances Results (Chemicals)
6 Waste and Environmental Management System Area Location Report
7 Visual Inspection Results

1.0 INTRODUCTION

1.1 Purpose

The purpose of this Report is to provide the information required by the 779 Cluster Closure Project Non-Radiological Closeout Plan for the Administrative Area of Building 779. Additionally, this document provides characterization information that supports the RFETS' decision to demolish the Building 779 Administrative Area.

1.2 Scope

The scope of this document is to provide information appropriate to the Building 779 Administrative Area. The scope includes a summary of the applicable information and survey data that has been conducted since the Reconnaissance Level Characterization Report was issued. This information demonstrates that all contaminants of concern (COCs) within the Administrative Area of Building 779 have been identified, removed, or remediated to a level below regulated levels. Building 779 will be demolished in sections starting with the Administrative Area (See Maps at Attachment 1). Non-Radiological Closeout Reports for other portions of Building 779 and other buildings within the 779 Cluster will be covered by a separate report.

Radiological closeout activities are not addressed in this plan. Refer to RF/RMRS-97-123.UN *"Closeout Radiological Survey Plan for the Building 779 Cluster"*, Rev. 2, June 1999 for information concerning radiological surveys.

2.0 Removal of Contaminants of Concern (COCs)

The following sections discuss the current status of COCs within the Administrative Area of Building 779. Each section also discusses what actions were taken to remove/abate the COCs.

2.1 Asbestos

The following paragraphs identify the amount of asbestos initially identified in the Administrative Area and the actions taken to abate the identified asbestos.

Administrative Area First Floor

This area includes Rooms 106 through 111, 113, 114, 115, 115A, and the adjoining hall (Room119). The Administrative Area's first floor asbestos abatement requires the removal of approximately 6,064 square feet of floor tile and mastic, 628 linear feet of insulation on 2" or smaller pipes, 48 square feet of duct/wall penetration filler, and approximately 1,130 square feet of cementitious wallboard.

Asbestos abatement was accomplished within a negative pressure secondary containment connected to a HEPA filtered ventilation system. The insulation and duct/wall filler was abated using glove bags and/or wrap/cut operations. Abatement of this area was started on June 29, 1999 and completed on July 12, 1999. Based on the results of a visual inspection and analytical results from five air samples, the Administrative Area first floor was cleared for normal occupancy on July 12, 1999.

Rooms 116, 116A, and 117 were abated separate from the main rooms in the Administrative Area due to access priorities. The air clearance samples for all rooms are summarized below and the results are documented in Attachment 2:

Administrative Area Second Floor

This area includes Rooms 202 through 214, and the adjoining 216 hallway. These rooms contained approximately 4,900 square feet of floor tile and mastic, 716 linear feet of 2" or smaller pipe that was insulated, 2,414 square feet of cementitious wallboard, 414 square feet of wall paneling/adhesive, and approximately 84 square feet of duct/ wall filler. In addition, several wall, floor, and ceiling penetrations containing various types of asbestos containing materials were present.

Asbestos abatement was accomplished within a negative pressure secondary containment connected with a HEPA-filtered ventilation system. Removal of all friable materials (filler and insulation) was accomplished with glove bags and/or wrap/cut operations. All non-friable materials were removed using intact removal and wet methods. The abatement of this area was approved for abatement on June 5, 1999 and completed on June 12, 1999. Based on the results of a visual inspection and analytical results from five air samples, the Administrative Area second floor was cleared for normal occupancy on June 12, 1999.

TABLE 2.1

ROOM NUMBER(S)	PCM SAMPLES	TEM SAMPLES	DATE CLEARED
213	2	2	4/7/99
216 Hall East, West End	3	0	5/15/99 (Pipe insulation only)
202, 202A, 203, 204, 204A, 204B, 205, 206, 207, 207A-C, 208, 209, 210, 210A, 211, 212, 212A, 213, 214, 216 Hall East	5	0	6/12/99
201	3	0	6/23/99
106, 108, 109, 110, 110A, 111, 113, 114, 115A, 119 Hall East	5	0	7/12/99
116, 116A	5	0	7/19/99 (Cleared with Room 121)
117	3	0	8/24/99

5

2.2 Beryllium

The beryllium analytical method and control limit changed during FY99. At the beginning of FY99, beryllium was controlled to a housekeeping limit of 25 $\mu g/ft^2$ Beryllium swipes were being analyzed at RFETS on the Beryllium Activation Swipe Tester (BEAST). The beryllium control limit was changed to 0.2 $\mu g/100$ cm^2 and limits and the swipe samples began to be sent to an off-site laboratory in order for the samples to be analyzed to the lower level. The swipes were sent off site because the RFETS analytical method is incapable of analyzing to the lower 0.2 $\mu g/100$ cm^2 limit.

During completion of the stripout activities in the Administrative Areas, the 779 Closure Project Beryllium Assessment Plans were used to identify the personnel monitoring and beryllium exposure controls that were used. Although Beryllium parts were stored in areas of the Administrative Area, beryllium was not processed in the Administrative Area during the facility's operation. Therefore, a limited number of beryllium swipes were taken in this area. The equipment and components identified as beryllium-contaminated were removed from the facility and packaged as low-level waste. Results of the Administrative Area beryllium analyses are included as Attachment 3. Beryllium samples were managed using the chain-of–custody process.

2.3 Polychlorinated Biphenyl (PCBs)

No areas within the Administrative Area of Building 779 required sampling for PCBs per the 779 Cluster Reconnaissance Level Characterization Report. The Administrative Area light ballast were inspected prior to removal and handled as necessary based on results of this inspection.

2.4 Solid Material Containing Regulated Levels of RCRA Metals

An analysis of materials that fall within this category were evaluated as part of a Site-wide lead-based paint evaluation and included Building 779 Cluster. The analysis is discussed below. The result of this evaluation was used to make decisions about the Administrative Area.

Painted surfaces are the only material of potential concern in this category. Characterization of lead-based paints is required for worker protection under OSHA's Lead Abatement Program and for hazardous waste characterization in accordance with 6 CCR 1007-3, Part 261.64. All of the painted surfaces within the 779 Cluster were treated as containing lead for the purposes of personnel protection.

RFETS personnel have evaluated different types of surfaces painted with lead-based paints and other paint containing heavy metals (cadmium, chromium). The RFETS evaluation concluded that, in general, the painted surfaces at RFETS are non-hazardous waste forms. This determination was based upon hundreds of samples taken throughout RFETS. As part of a continuing characterization, approximately 50 samples (see Attachment 4) from the 779

Cluster were analyzed for heavy metals using the Toxic Characteristic Leaching Procedure (TCLP). Each paint sample was of a unique paint color and/or combination of paint colors. These samples consisted of paint chips rather than the total media (cinder block, concrete, and paint) so that a conservative characterization would result. The sample results for the RCRA metals of concern are as follows:

- Cd (.06 mg/l; All analysis were .06 mg/l for Cd except for a painted metal door in Room 218)
- Cr (.15 - .29 mg/l)
- Pb (.24 - .6 mg/l; Excluding Room 160 which is discussed below)

The characterization results demonstrate that the building debris is non-hazardous with respect to painted surfaces, based on TCLP analysis. Even though there are two TCLP analysis results that indicated some leachability, the non-hazardous determination is based on an interpretation from EPA guidance and the RFETS' Environmental Leadership Team.

The two results above regulatory threshold values for TCLP analysis were:

1. Paint on one metal door (cadmium level of 19.7 mg/l; sample identification number 779-980416-MS-023).
2. Paint sampled from Room 160 in Building 779 (lead levels of 11.9 mg/l; sample identification number 779-0980416-MS-039). Painted surfaces in Room 160 have been scarified (all paint has been removed) and the entire waste matrix (paint and substrate) has been physically removed from the facility.

2.5 RCRA Regulated Waste Chemicals

There were two janitorial closets in the Administrative Area and a machine shop in Room 113. All the chemicals, oils, and solvents have been removed from these areas. Attachment 5 identifies the results of sampling that was performed on chemicals in the Administrative Area. Currently no hazardous waste chemicals are located in the Administrative Area.

2.6 RCRA Units

There were no permitted RCRA units in the Administrative Area. A RCRA temporary unit existed in Room 114. This unit was inactivated in accordance with Site procedures on May 12, 1999. (Documentation at Attachment 6)

2.7 Staining Inspection

A visual inspection of the Administrative Area is provided as Attachment 7. No unusual staining or odor was found in the Administrative Area.

3.0 REFERENCES

3.1 *Rocky Flats Cleanup Agreement (RFCA)*

3.2 *Decommissioning Operations Plan for the 779 Cluster Interim Measure/Interim Remedial Action*, Rev. 0, February 1998

3.3 *Reconnaissance Level Characterization Plan for the 779 Cluster*, Rev. 0, December 17, 1997

3.4 *Reconnaissance Level Characterization Report for the 779 Cluster*, Rev. 0, December 17, 1997

3.5 *Asbestos Characterization Report for the 779 Cluster Project*, Rev. 0, October 1997

3.6 *Lead/Metals in Paint Characterization For Building 779 Cluster*, Rev. 0, August 6, 1998

3.7 *Radiological Closeout Survey Plan for the Building 779 Cluster*, Rev. 2, June 1999

3.8 Procedure DA-GR01-v1-1, *Analytical Services General Guidelines for Data Verification and Validation*

3.9 29 CFR 1926.1101, Colorado Regulation 8, Asbestos

3.10 PCBs - 40 CFR 761; EPA 560/5/86-017; SW-846 Method 4020 Screening for PCBs by Immunoassay; Method 8082, PCBs by Gas Chromatography; disposal requirements - 40CF Part 761.62.

3.11 6 CCR 1007-3, Part 262.11, *Hazardous Waste Determination*, and 40 CFR 268. SW-846

3.12 Toxicity Characteristic Leaching Procedure, EPA SW 846 Method 1311.

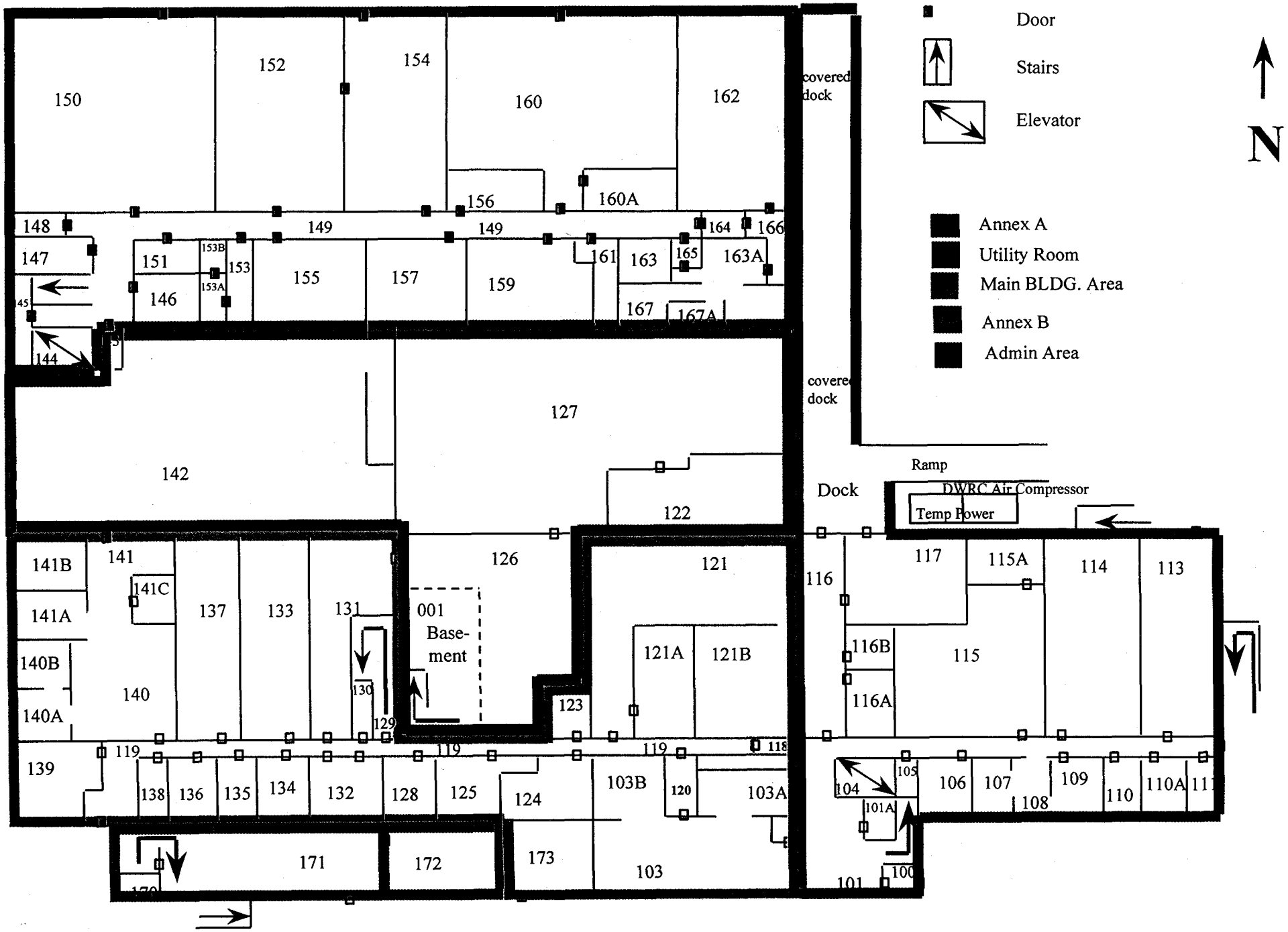
3.13 MAN-071-IWCP, *Integrated Work Control Program Manual*

Attachment 1

Administrative Area Map

BUILDING 779 FIRST FLOOR - Area Location Map

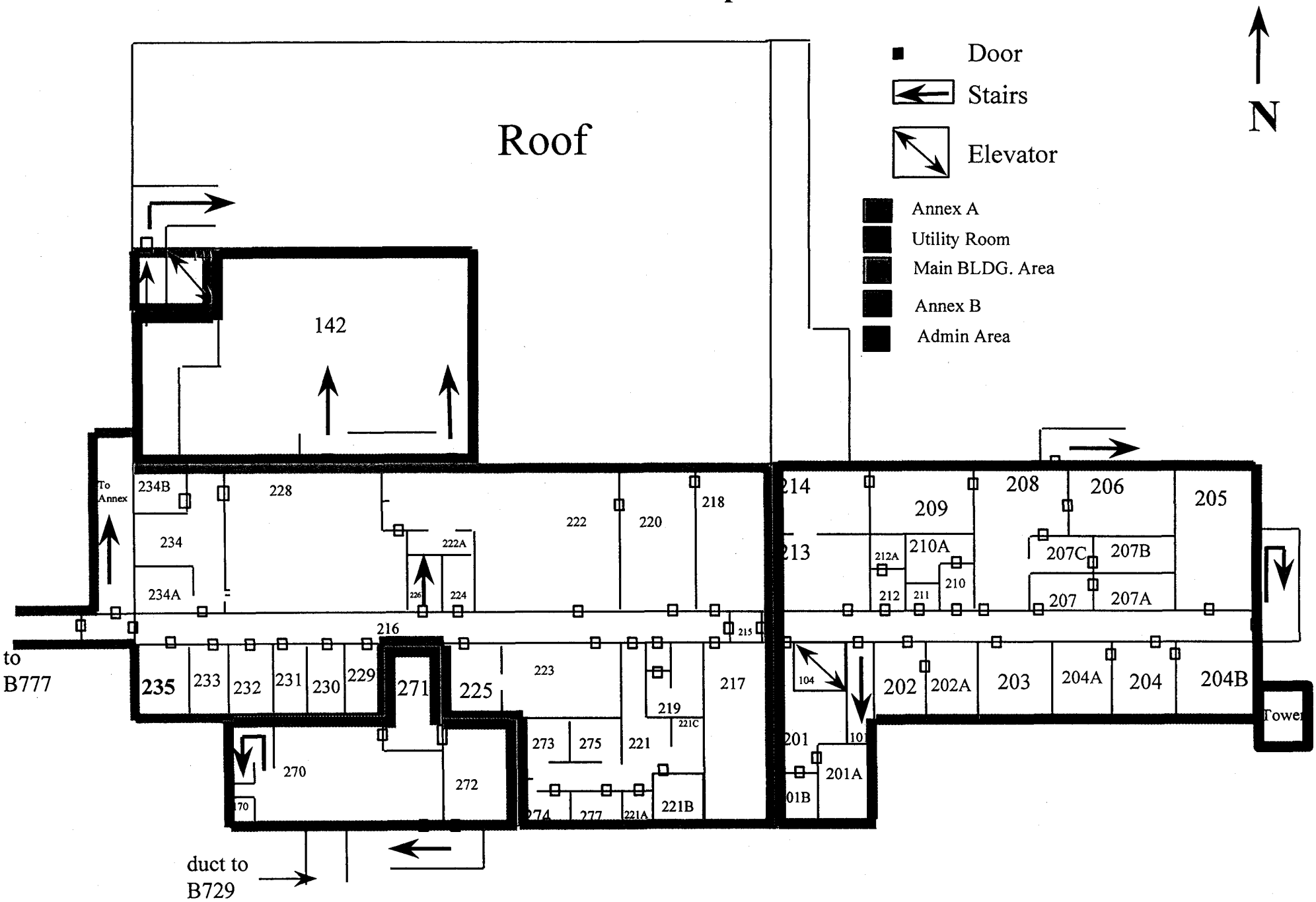
August 10, 1999



10

BUILDING 779 SECOND FLOOR - Area Location Map

August 10, 1999



//

Attachment 2

Asbestos Results

Best Available Copy

RFP F 3791.32 (7/95)
Formerly RF-47530

Rocky Flats Environmental Technology Site

Golden, CO 80402-0464

Safety and Hygiene Chain of Custody Record and Analysis Request

216 CA

216 Hall East

Name of Originator: Schlotchbum Title: I AM/AO Bldg/Ext: T130J/4215 Date: 5/15/99 Page 1 of 1

SAMPLE NUMBER Bldg/Y/M/D/P#/S#	ANALYZE FOR	VOLUME liters	SAMPLE TIME/	MEDIA	P A B	Personal Area Bulk	REMARKS	Lab Number
779-990515-MS-001	IH02B002	1269					TFM 001-003 if one is ≥ .01 f/cc DCM	
-002		1269						
-003		1269						
-004		←						
-005		←						

MD 5/15/99

Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
[signature]	[signature]	1355 5/15/99			
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date

Report and Billing Instruction

- Kaiser-Hill ☐
- RMRS ☑
- SSOC ☐
- DynCorp ☐
- WSI ☐

Verbal To: Schlotchbum
Fax To: 966-6875
Report To: K-H
Bill To: K-H
P.O.#/Release: KT95AAGO
Lab: Resi

Analysis Request

Industrial Hygiene Sample
☐ Standard Service ☐ Rush ☐ Other

Asbestos Samples
☐ Standard Service ☐ 24 Rush ☑ 2 Rush ☐ Other

Seal# (Release #) 9927415
Condition of Seal: ☐ Broken ☐ Unbroken
Signature:
Comments: P
Page Mike @ 543-5230

White - Return to Originator Yellow - Lab Copy Green - Sample Custodian Blue - Originator

13

RESERVOIRS ENVIRONMENTAL SERVICES, INC.

AIHA Certificate of Accreditation #480, Lab ID 10768

TABLE I. NIOSH 7400 FIBER COUNT ANALYSIS

RES Job Number: RES 60024-1
Client: Kaiser-Hill Company, LLC
Client Project: 9927415, 216E 216 Hall East
Date Samples Received: May 15, 1999
Analysis Type: PCM 7400 A, Issue 2, Air
Turnaround: 2 Hour

Client ID Number	Lab ID Number	Air Volume Sampled (L)	Fields Analyzed	Fiber Count	Fiber Density (F/mm²)	Limit of Detection (F/cc)	Fiber Concentration (F/cc)
779-990515-MS-001	EM 405926	1269	100	13.0	16.6	0.002	0.005
779-990515-MS-002	EM 405927	1269	100	ND	BDL	0.002	BDL
779-990515-MS-003	EM 405928	1269	100	15.0	19.1	0.002	0.006
779-990515-MS-004	EM 405929	0	100	ND	BDL	---	---
779-990515-MS-005	EM 405930	0	100	ND	BDL	---	---

Field Area = 0.00785 sq mm Filter area = 385 sq mm CBR = Cannot Be Read, see Table II
Note: Estimated Limit of Detection for 7400 Method is 7 F/sq mm Referenced Interlaboratory Sr, s = 0.45
NA = Not Analyzed ND = None Detected BDL = Below Detection Limit
Date Analyzed:

IV
Data QA

iy

RFP F 3791.32 (7/95)
Formerly RF-47530

Rocky Flats Environmental Technology Site

Golden, CO 80402-0464

Safety and Hygiene Chain of Custody Record and Analysis Request

2nd Floor Admin
Rooms 202-214 + 216 Hall

Name of Originator: Schlutenbusch Title: IAM/AO Bldg/Ext: T130J/4215 Date: 6/12/99 Page 1 of 1

SAMPLE NUMBER Bldg/Y/M/D/P#/S#	ANALYZE FOR	VOLUME liters	SAMPLE TIME/	MEDIA	PAB	Personal Area Bulk	REMARKS	Lab Number
779-990612-MS-001	IH02B002	1302			A		TEM -001 thru -005 if	
-002		1302			A		one is ≥ .01 f/cc	
-003		1297			A			
-004		1308			A			
-005		1319			A			
-006		0			A			
-007		0			A			

MMS 6/12/99

Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
[signature]	Erin Kravitz	1620 6/12/99			
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date

Report and Billing Instruction

- Kaiser-Hill ☐
- RMRS ☑
- SSOC ☐
- DynCorp ☐
- WSI ☐

Verbal To: Schlutenbusch
Fax To: 966-2864
Report To: K-H
Bill To: K-H
P.O.#/Release: KT95AA00
Lab: Rosi

Analysis Request

Industrial Hygiene Sample
☐ Standard Service ☐ Rush ☐ Other

Asbestos Samples
☐ Standard Service ☐ 24 Rush ☑ 2 Rush ☐ Other

Seal# (Release #) 997 8002
Condition of Seal: ☐ Broken ☐ Unbroken
Signature:
Comments: Page Mike @ 543-5230

15

White - Return to Originator Yellow - Lab Copy Green - Sample Custodian Blue - Originator

RESERVOIRS ENVIRONMENTAL SERVICES, INC.

AIHA Certificate of Accreditation #480, Lab ID 10768

TABLE I. NIOSH 7400 FIBER COUNT ANALYSIS

RES Job Number: RES 60936-1
Client: Kaiser-Hill Company, LLC
Client Project: 99Z8002, 7792ADMIN
Date Samples Received: June 12, 1999
Analysis Type: PCM 7400 A, Issue 2, Air
Turnaround: 2 Hour

2nd floor Admin ;
202 - 214 + 216 Hall

Client ID Number	Lab ID Number	Air Volume Sampled (L)	Fields Analyzed	Fiber Count	Fiber Density (F/mm²)	Limit of Detection (F/cc)	Fiber Concentration (F/cc)
779-990612-MS-001	EM 414800	1302	100	17.0	21.7	0.002	0.006
779-990612-MS-002	EM 414801	1302	100	10.0	12.7	0.002	0.004
779-990612-MS-003	EM 414802	1299	100	7.5	9.6	0.002	0.003
779-990612-MS-004	EM 414803	1308	100	5.4	BDL	0.002	BDL
779-990612-MS-005	EM 414804	1319	100	7.5	9.6	0.002	0.003
779-990612-MS-006	EM 414805	0	100	ND	BDL	----	----
779-990612-MS-007	EM 414806	0	100	ND	BDL	----	----

Field Area = 0.00785 sq mm Filter area = 385 sq mm CBR = Cannot Be Read, see Table II
Note: Estimated Limit of Detection for 7400 Method is 7 F/sq mm Referenced Interlaboratory Sr, s = 0.45
NA = Not Analyzed ND = None Detected BDL = Below Detection Limit
Date Analyzed:

EK
Data QA

16

RFP F 3791.32 (7/95)
Formerly RF-47530

Rocky Flats Environmental Technology Site

Golden, CO 80402-0464

Safety and Hygiene Chain of Custody Record and Analysis Request

Room 201

Name of Originator: Schlutterbeck Title: IAM/AO Bldg/Ext: T305/4215 Date: 6/23/99 Page 1 of 1

SAMPLE NUMBER Bldg/Y/M/D/P#/S#	ANALYZE FOR	VOLUME liters	SAMPLE TIME/	MEDIA	P A B	Personal Area Bulk	REMARKS	Lab Number
779-990623-MS-001	JH02B002	1382			A	JEM	-001 thru -003 if one	
-002		1416			A	is ≥	.01 f/cc	
-003		1413			A			
-004		6			A			
-005		-0			A			

MS 6/23/99

Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
[signature]	Ann Kaurtz	1810 6/28/99			
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date

Report and Billing Instruction

- Kaiser-Hill ☐
- RMRS ☐
- SSOC ☐
- DynCorp ☐
- WSI ☐

Verbal To: Schlutterbeck
Fax To: 966-2864
Report To: K-H
Bill To: K-H
P.O.#/Release: KT95AACO
Lab: Rosi

Analysis Request

Industrial Hygiene Sample: ☐ Standard Service ☐ Rush ☐ Other

Asbestos Samples: ☐ Standard Service ☐ 24 Rush ☑ 2 Rush ☐ Other

Seal# (Release #) 9928309

Condition of Seal: ☐ Broken ☐ Unbroken

Signature:

Comments: Page Miles @ 543-5230

White - Return to Originator Yellow - Lab Copy Green - Sample Custodian Blue - Originator

17

RESERVOIRS ENVIRONMENTAL SERVICES, INC.

AIHA Certificate of Accreditation #480, Lab ID 10768

TABLE I. NIOSH 7400 FIBER COUNT ANALYSIS

RES Job Number: RES 61233-1
Client: Kaiser-Hill Company, LLC
Client Project: 9928309, 779-R201 Room 201
Date Samples Received: June 23, 1999
Analysis Type: PCM 7400 A, Issue 2, Air
Turnaround: 2 Hour

Client ID Number	Lab ID Number	Air Volume Sampled (L)	Fields Analyzed	Fiber Count	Fiber Density (F/mm²)	Limit of Detection (F/cc)	Fiber Concentration (F/cc)
779-990623-MS-001	EM 417510	1382	100	8.5	10.8	0.002	0.003
779-990623-MS-002	EM 417511	1416	100	22.5	28.7	0.002	0.008
779-990623-MS-003	EM 417512	1413	100	12.0	15.3	0.002	0.004
779-990623-MS-004	EM 417513	0	100	ND	BDL	---	---
779-990623-MS-005	EM 417514	0	100	ND	BDL	---	---

Field Area = 0.00785 sq mm Filter area = 385 sq mm
Note: Estimated Limit of Detection for 7400 Method is 7 F/sq mm
NA = Not Analyzed ND = None Detected BDL = Below Detection Limit
Referenced Interlaboratory Sr, s = 0.45 CBR = Cannot Be Read, see Table II

EK
Data QA

18

RFP F 3791.32 (7/95)
Formerly RF-47530

Rocky Flats Environmental Technology Site

Golden, CO 80402-0464

Safety and Hygiene Chain of Custody Record and Analysis Request

1st Floor Admin Rooms 106 - 1115A + 119 Hall East

Name of Originator: Schlutenbach Title: IAM/AO Bldg/Ext: T130J/4215 Date: 7/12/99 Page 1 of 1

SAMPLE NUMBER Bldg/Y/M/D/P#/S#	ANALYZE FOR	VOLUME liters	SAMPLE TIME/	MEDIA	PAB	Personal Area Bulk	REMARKS	Lab Number
779-990712-MS-001	1350				A		TEM -001 thru -005 if	
-002	1352				A		one is ≥ .01 f/cc PCM	
-003	1353				A			
-004	1377				A			
-005	1413				A			
-006	~~0~~				A			
-007	~~0~~				A			

Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
[signature]	S. Hahl	1645 7/12/99			
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date

Report and Billing Instruction

- Kaiser-Hill ☐
- RMRS ☑
- SSOC ☐
- DynCorp ☐
- WSI ☐

Verbal To: Schlutenbach
Fax To: 966-2864
Report To: K-H
Bill To: K-H
P.O.#/Release: KT95AA00
Lab: Rosi

Analysis Request

Industrial Hygiene Sample: ☐ Standard Service ☐ Rush ☐ Other

Asbestos Samples: ☐ Standard Service ☐ 24 Rush ☑ 2 Rush ☐ Other

Seal# (Release #) 992 8796

Condition of Seal: ☐ Broken ☐ Unbroken

Signature:

Comments: Page Mike @ 543-5230

White - Return to Originator Yellow - Lab Copy Green - Sample Custodian Blue - Originator

19

RESERVOIRS ENVIRONMENTAL SERVICES, INC.

AIHA Certificate of Accreditation #480, Lab ID 10768

TABLE I. NIOSH 7400 FIBER COUNT ANALYSIS

RES Job Number: RES 61673-1
Client: Kaiser-Hill Company, LLC
Client Project: 99ZB796, 779AD1 1st Floor Admin
Date Samples Received: July 12, 1999 106 - 115 A + 119 Hall East
Analysis Type: PCM 7400 A, Issue 2, Air
Turnaround: 2 Hour

Client ID Number	Lab ID Number	Air Volume Sampled (L)	Fields Analyzed	Fiber Count	Fiber Density (F/mm²)	Limit of Detection (F/cc)	Fiber Concentration (F/cc)
779-990712-MS-001	EM 421912	1350	100	6.0	7.6	0.002	0.002
779-990712-MS-002	EM 421913	1352	100	15.0	19.1	0.002	0.005
779-990712-MS-003	EM 421914	1393	100	13.0	16.6	0.002	0.005
779-990712-MS-004	EM 421915	1377	100	10.5	13.4	0.002	0.004
779-990712-MS-005	EM 421916	1413	100	3.0	BDL	0.002	BDL
779-990712-MS-006	EM 421917	0	100	ND	BDL	—	—
779-990712-MS-007	EM 421918	0	100	ND	BDL	—	—

Field Area = 0.00785 sq mm Filter area = 385 sq mm
Note: Estimated Limit of Detection for 7400 Method is 7 F/sq mm
NA = Not Analyzed ND = None Detected BDL = Below Detection Limit
Referenced Interlaboratory Sr, s = 0.45 CBR = Cannot Be Read, see Table II

EK
Data QA

20

RFP F 3791.32 (7/95)
Formerly RF-47530

Rocky Flats Environmental Technology Site
Golden, CO 80402-0464
Safety and Hygiene Chain of Custody Record and Analysis Request

61813 121 RM 116,116A

Name of Originator: Schlutenbusch Title: IAM/AO Bldg/Ext: T130J/4215 Date: 7/19/99 Page 1 of 1

SAMPLE NUMBER Bldg/Y/M/D/P#/S#	ANALYZE FOR	VOLUME liters	SAMPLE TIME/	MEDIA	P A B	Personal Area Bulk	REMARKS	Lab Number
779-990719-MS-001	IH02B002	1325			A		TEM -001 thru -005	
-002		1322			A		is one is ≥ .01 f/cc PCM	
-003		1309			A			
-004		1300			A			
-005		1311			A			
-006		~			A			
-007		~			A			

MS 7/19/99

Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
[signature]	[signature]	1936 7/19/99			
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date

Report and Billing Instruction

Kaiser-Hill ☐ Verbal To: Schlutenbusch
RMRS ☑ Fax To: 966-2864
SSOC ☐ Report To: K-H
DynCorp ☐ Bill To: K-H
WSI ☐ P.O.#/Release: KT95AA00
Lab:

Analysis Request

Industrial Hygiene Sample
☐ Standard Service ☐ Rush ☐ Other

Asbestos Samples
☐ Standard Service ☐ 24 Rush ☑ 2 Rush ☐ Other

Seal# (Release #) 9928950
Condition of Seal: ☐ Broken ☐ Unbroken
Signature:
Comments: Page Mike @ 543-5230

White - Return to Originator Yellow - Lab Copy Green - Sample Custodian Blue - Originator

21

RESERVOIRS ENVIRONMENTAL SERVICES, INC.

AIHA Certificate of Accreditation #480, Lab ID 10768

TABLE I. NIOSH 7400 FIBER COUNT ANALYSIS

RES Job Number:	RES 61813-1
Client:	Kaiser-Hill Analytical Services Division
Client Project:	99Z8950, Bldg. 779 Rm. 121 Rooms 116, 116A
Date Samples Received:	July 19, 1999
Analysis Type:	PCM 7400 A, Issue 2, Air
Turnaround:	2 Hour

Client ID Number	Lab ID Number	Air Volume Sampled (L)	Fields Analyzed	Fiber Count	Fiber Density (F/mm²)	Limit of Detection (F/cc)	Fiber Concentration (F/cc)
779-990719MS-001	EM 422708	1325	100	8.0	10.2	0.002	0.003
779-990719MS-002	EM 422709	1322	100	8.0	10.2	0.002	0.003
779-990719MS-003	EM 422710	1309	100	7.0	8.9	0.002	0.003
779-990719MS-004	EM 422711	1300	100	6.0	7.6	0.002	0.002
779-990719MS-005	EM 422712	1311	100	5.0	BDL	0.002	BDL
779-990719MS-006	EM 422713	0	100	ND	BDL	----	----
779-990719MS-007	EM 422714	0	100	ND	BDL	----	----

Field Area = 0.00785 sq mm Filter area = 385 sq mm

Note: Estimated Limit of Detection for 7400 Method is 7 F/sq mm

NA = Not Analyzed ND = None Detected BDL = Below Detection Limit

Referenced Interlaboratory Sr, s = 0.45 CBR = Cannot Be Read, see Table II

Data QA

22

RFP F 3791.32 (7/95)
Formerly RF-47530

Rocky Flats Environmental Technology Site
Golden, CO 80402-0464
Safety and Hygiene Chain of Custody Record and Analysis Request

Room ~~217~~ 117

Name of Originator: Schluterbusch Title: IAM / AO Bldg/Ext: M30J/4215 Date: 8/24/99 Page 1 of 1

SAMPLE NUMBER Bldg/Y/M/D/P#/S#	ANALYZE FOR	VOLUME liters	SAMPLE TIME/	MEDIA	P A B	Personal Area Bulk	REMARKS	Lab Number
979-990824-MS-001	IH02B002	1290			A		TEM -001 thru -003 is	
-002		1289			A		one is = .01 f/cc PCM	
-003		1308			A			
-004		~~0~~			A			
-005		~~0~~			A			
~~-006~~								
-007								

Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
[signature]	S. Rahe	1310 8/24/99			
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date

Report and Billing Instruction

- Kaiser-Hill ☐
- RMRS ☑
- SSOC ☐
- DynCorp ☐
- WSI ☐

Verbal To: Schluterbusch
Fax To: 966-2864
Report To: K-H
Bill To: K-H
P.O.#/Release: K155 ADCO
Lab: Resi

Analysis Request

Industrial Hygiene Sample
☐ Standard Service ☐ Rush ☐ Other

Asbestos Samples
☐ Standard Service ☐ 24 Rush ☑ 2 Rush ☐ Other

Seal# (Release #) 592 0054
Condition of Seal: ☐ Broken ☐ Unbroken
Signature:
Comments: Page Mike @ 543-5230

White - Return to Originator Yellow - Lab Copy Green - Sample Custodian Blue - Originator

23

RESERVOIRS ENVIRONMENTAL SERVICES, INC.

AIHA Certificate of Accreditation #480, Lab ID 10768

TABLE I. NIOSH 7400 FIBER COUNT ANALYSIS

RES Job Number: RES 62729-1
Client: Kaiser-Hill Analytical Services Division
Client Project: 9920054, M. Schluterbusch Room ~~217~~ 117
Date Samples Received: August 24, 1999
Analysis Type: PCM 7400 A, Issue 2, Air
Turnaround: 2 Hour

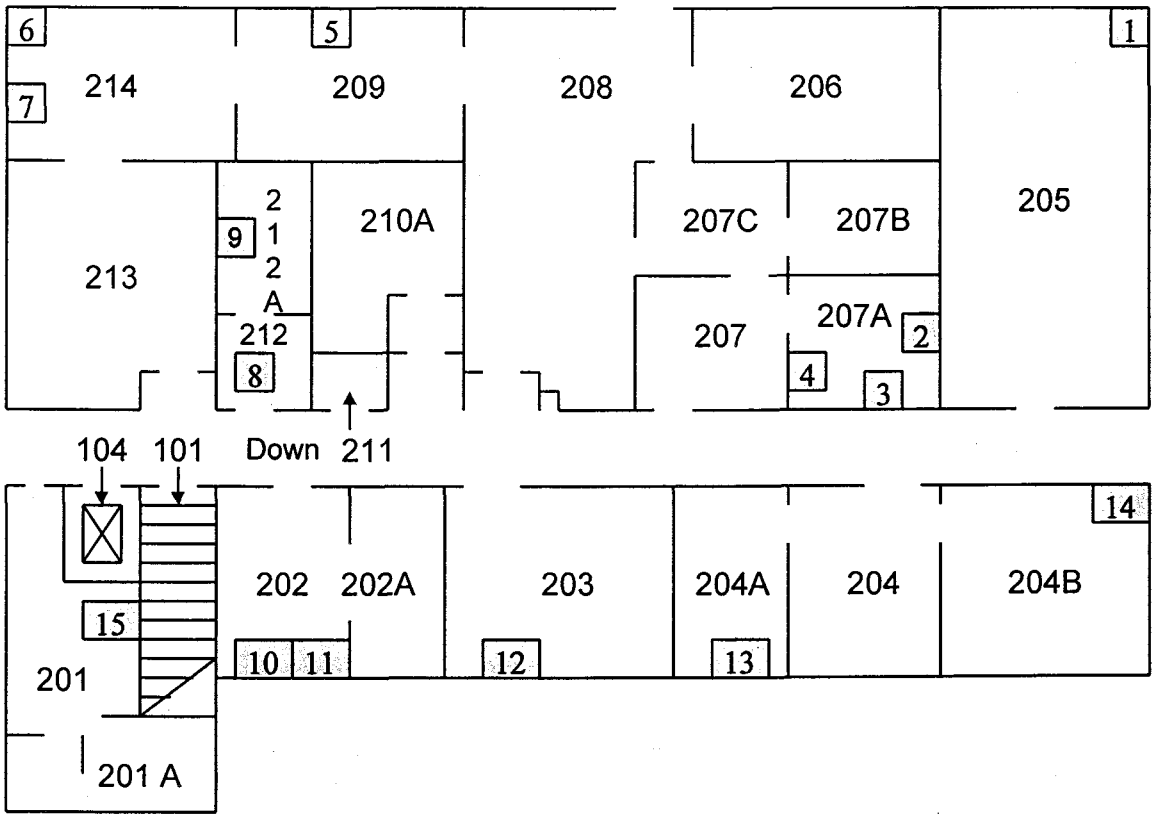
Client ID Number	Lab ID Number	Air Volume Sampled (L)	Fields Analyzed	Fiber Count	Fiber Density (F/mm²)	Limit of Detection (F/cc)	Fiber Concentration (F/cc)
779-990824-MS-001	EM 429602	1290	100	4.5	BDL	0.002	BDL
779-990824-MS-002	EM 429603	1289	100	6.5	8.3	0.002	0.002
779-990824-MS-003	EM 429604	1308	100	3.5	BDL	0.002	BDL
779-990824-MS-004	EM 429605	0	100	ND	BDL	---	---
779-990824-MS-005	EM 429606	0	100	ND	BDL	---	---

Field Area = 0.00785 sq mm Filter area = 385 sq mm
Note: Estimated Limit of Detection for 7400 Method is 7 F/sq mm
NA = Not Analyzed ND = None Detected BDL = Below Detection Limit
Referenced Interlaboratory Sr, s = 0.45 CBR = Cannot Be Read, see Table II

Data QA

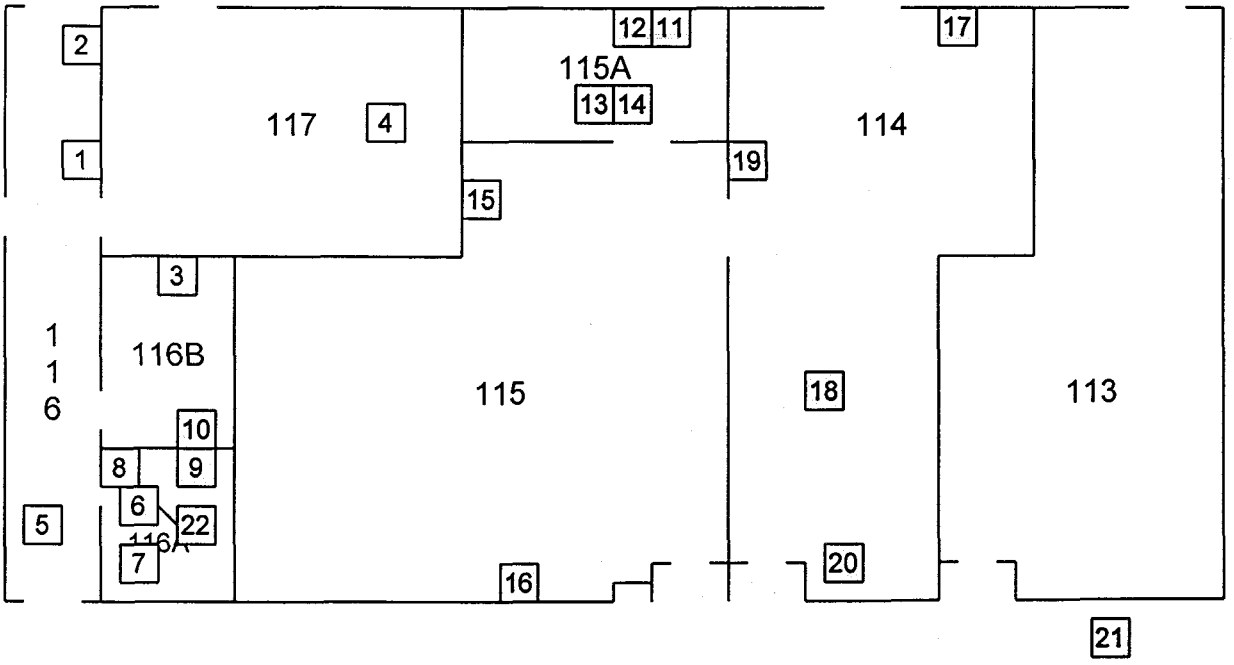
24

Floor Plan
1.1.06.14.04.03.05.01.20



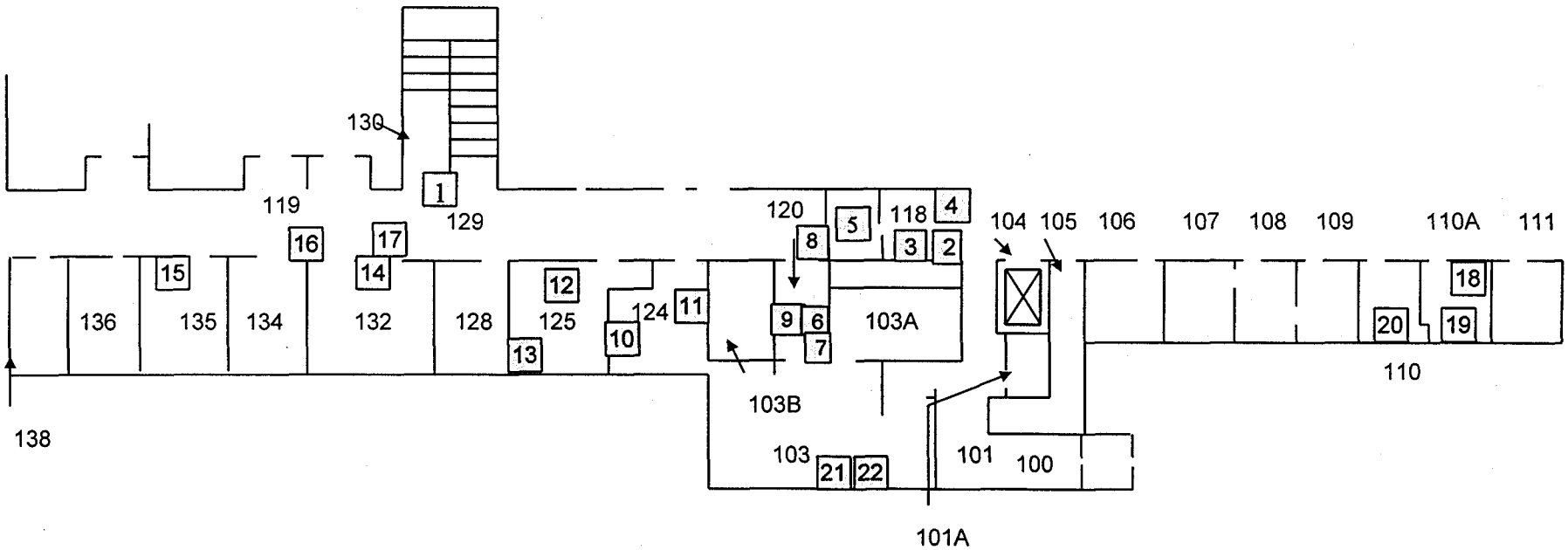
1	779-970617-MS-216	Tan adhesive on paneling (ND)
2	779-970617-MS-217	Stucco plaster on wall tiles (ND)
3	779-970617-MS-218	Stucco plaster on wall tiles (ND)
4	779-970617-MS-219	Stucco plaster on wall tiles (ND)
5	779-970617-MS-220	Wall plaster and foam (ND)
6	779-970617-MS-221	Caulk on brass wall angles (ND)
7	779-970617-MS-222	12" beige floor tile (4% tile)
8	779-970619-MS-223	12" off-white floor tile (5% mastic)
9	779-970619-MS-224	2x4 ceiling tile lg. & sm. pinholes (ND)
10	779-970619-MS-225	Drywall, plaster, foam (ND)
11	779-970619-MS-226(QC)	Drywall, plaster, foam (ND)
12	779-970619-MS-227	Black adhesive wood panel (15%)
13	779-970619-MS-228	Wall plaster drywall, foam (ND)
14	779-970619-MS-229	Wall plaster (ND)
15	779-970619-MS-230	Wall plaster skim (ND)

Floor Plan
1.1.06.14.04.03.05.01.21



1	779-970513-MS-025	Wall plaster and foam (ND)
2	779-970513-MS-026	Wall plaster and foam (ND)
3	779-970513-MS-031	Wall plaster and foam (ND)
4	779-970513-MS-032	TSI block on diesel exhaust (20%)
5	779-970513-MS-033	TSI mud on HWS pipe (20%)
6	779-970515-MS-036	2x4 ceiling tile l.g. (4%)
7	779-970515-MS-037	2x4 ceiling tile b.t.
8	779-970515-MS-038	Drywall, tape, J.C. (2% J.C.)
9	779-970515-MS-039	Drywall, tape, J.C. (ND)
10	779-970515-MS-040	Drywall, tape, J.C. (3%)
11	779-970515-MS-041	Drywall, tape, J.C. (ND)
12	779-970515-MS-042	Wall plaster (2%)
13	779-970515-MS-043	9" light brown floor tile/black mastic (2% tile)
14	779-970515-MS-044	9" light brown floor tile/black mastic (2% tile)
15	779-970515-MS-045	Wall plaster and foam (1%)
16	779-970515-MS-046	TSI mud sanwaste pipe (25%)
17	779-970515-MS-047	Wall plaster and foam (3%)
18	779-970515-MS-048	12" wht. grey mottled floor tile/yellow mastic (2% tile)
19	779-970515-MS-049	Duct/wall penetration filler (65%)
20	779-970515-MS-209	9" tan/brown floor tile (5%)
21	779-970515-MS-212	2x4 ceiling tile long grooves shollow (ND)
22	779-970619-MS-233 (QC)	2x4 ceiling tile shallow long grooves (.25%)

Floor Plan
1.1.06.14.04.03.05.01.23



1	779-970520-MS-064	12" white-tan-brown floor w/black mastic (3% both)
2	779-970604-MS-129	4" black cove base (ND)
3	779-970604-MS-130	12" white-grey-tan mottle floor tile/tan floor tile (15%)
4	779-970604-MS-131	Drywall, tape, J.C., ceiling (ND)
5	779-970604-MS-132	Drywall, tape, J.C., ceiling (ND)
6	779-970604-MS-146	TSI mud, pipe DHWS (ND)
7	779-970604-MS-147	TSI mud, pipe DHWR (15%)
8	779-970604-MS-148	Drywall, tape, J.C. (ND)
9	779-970604-MS-149	Anti skid flooring (ND)
	779-970604-MS-150	Drywall, 1" flat metal joints (ND)
1	779-970605-MS-151	Wall plaster on metal lathe (ND)
	779-970605-MS-152	Poured grey-green floor (ND)
2	779-970605-MS-153	Cementitious board, 2" metal joints (35%)
3	779-970605-MS-154	"Techtem" wallboard, coarse fiber (ND)
4	779-970605-MS-155	4" black cove base (TR)
5	779-970605-MS-170	2x4 ceiling tile long groooves (ND)
6		

17	779-970605-MS-171	2x4 ceiling tile long grooves (ND)
18	779-970616-MS-210	2x4 ceiling tile long grooves, pits, pinholes (ND
19	779-970617-MS-211	Wall plaster and foam (ND)
20	779-970617-MS-212	Wall plaster and foam (ND)
21	779-970617-MS-214	Wall plaster (ND)
22	779-970617-MS-215(QC)	Wall plaster (ND)

27

Attachment 3

Beryllium Results

13

	A	B	C	D	E	F	G
1	***Room Number***	***Date***	***Sample Number***	***Reporting Limit*** ***micro grams/100cm2***	***Location/Description***	***Smear Results*** ***micro grams/100cm2***	***Sample Method or RIN#***
5	114	4/21/98	001.001.114-01	0.04	Welding Fixture	0.04	98D1799
6	114	4/21/98	002.001.114-02	0.04	Welding Fixture	0.04	98D1799
7	114	4/21/98	003.001.114-03	0.04	Welding Fixture	0.04	98D1799
8	114	4/21/98	004.001.114-04	0.04	Welding Fixture	0.04	98D1799
9	114	6/23/99	779-99-05-15-13-114-01	0.1	Floor	<0.1 q/100cm2	BEAST
10	114	6/23/99	779-99-05-15-13-114-02	0.1	Floor	<0.1 q/100cm2	BEAST
11	114	6/23/99	779-99-05-15-13-114-03	0.1	Floor	<0.1 q/100cm2	BEAST
12	114	6/23/99	779-99-05-15-13-114-04	0.1	Floor	<0.1 q/100cm2	BEAST
13	114	6/23/99	779-99-05-15-13-114-05	0.1	Table	<0.1 q/100cm2	BEAST
14	114	6/23/99	779-99-05-15-13-114-06	0.1	Floor	<0.1 q/100cm2	BEAST
15	114	6/23/99	779-99-05-15-13-114-07	0.1	Floor	<0.1 q/100cm2	BEAST
16	114	6/23/99	779-99-05-15-13-114-08	0.1	Flange Access Point #2	<0.1 q/100cm2	BEAST
17	114	6/23/99	779-99-05-15-13-114-09	0.1	Flange Access Point #2	<0.1 q/100cm2	BEAST
18	114	6/23/99	779-99-05-15-13-114-10	0.1	Flange Access Point #1	<0.1 q/100cm2	BEAST
19	114	6/23/99	779-99-05-15-13-114-11	0.1	Flange Access Point #1	<0.1 q/100cm2	BEAST
20	114	7/16/99	779-99-06-16-114-01	0.1	Hood Exhaust Pipe	0.19 q/100cm2	BEAST

RADIOLOGICAL CO[illegible]ION SURVEY FORM

LOG NUMBER: 980325-B779-01

FOR: ✓ P/WRE ___ PRL

___ RWP ___ OTHER ___

BUILDING/LOCATION:	ROOM:
779	114, 233, 235, 270, 274
DATE: 4-21-98	TIME: 1430

ITEM DESCRIPTION: BE Survey on 4-BAC Welding Fixture/Electron-microscope/Auger System

COMMENTS: Surveyed Accessible Surfaces only. Survey for Release of BE. Swipes Themselves

STATUS: ✓ RELEASABLE ___ NOT RELEASABLE

[redacted]

PERFORMED BY (PRINT NAME): ___

RCT SIGNATURE / EMP. # / DATE

REVIEWED [redacted]

(Print and [redacted]

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

	EBERLINE	EBERLINE		
MODEL	SAC-4	SAC-4		
SERIAL #	1411	1354		
CAL DATE	1-98	1-98		
CAL. DUE DATE	7-98	7-98		
EFFICIENCY	33%	33%		
BACKGROUND	0.3	0.1		
MFR				
MODEL				
SERIAL #				
CAL DATE				
CAL DUE DATE				
EFFICIENCY				
BACKGROUND				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR				
MODEL				
SERIAL #				
CAL DATE				
CAL DUE DATE				
EFFICIENCY				
BACKGROUND				

30

Best Available Copy

LOG NUMBER: 98-0325-B779-01

RADIOLOGICAL CONTAMINATION SURVEY FORM

SURVEY RESULTS (DPM/100 CM² OR DPM/FRISK)

MAP I.D. #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISKER SECOND COUNT)	TOTAL BETA/GAMMA
1	See map	<20			
2		<20			
3		<20			
4		<20			
5	Electron microscope	<20			
6		<20			
7		<20			
8		<20			
9		<20			
10		<20			
11		<20			
12		<20			
13		<20			
14		<20			
15		<20			
16	Property control #00036253-00	<20			
17		<20			
18		<20			
19		<20			
20		<20			
21		<20			
22		<20			

SURVEY RESULTS (DPM/100 CM² OR DPM/FRISK)

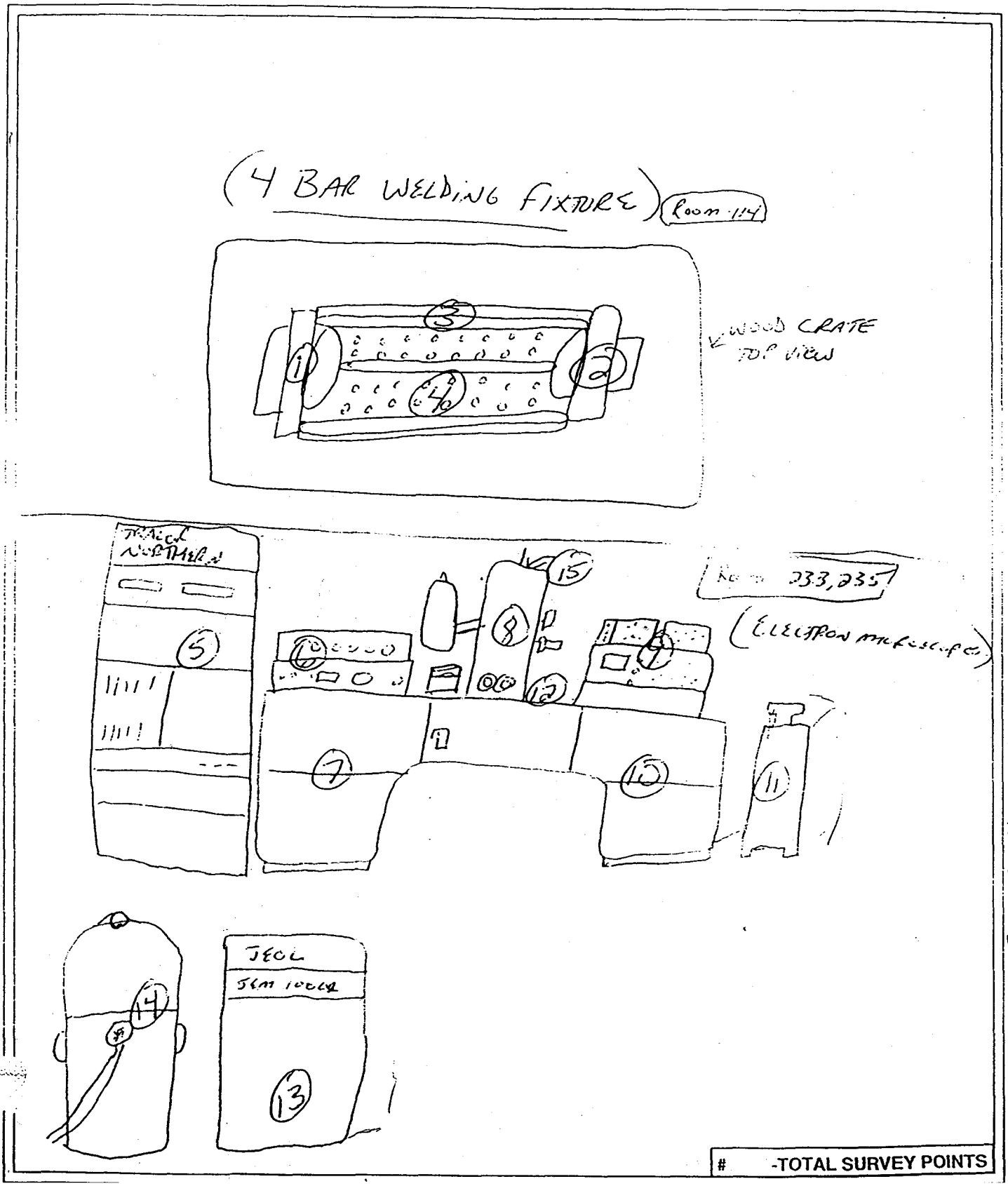
MAP I.D. #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISKER SECOND COUNT)	TOTAL BETA/GAMMA
23	Property #00036118-00	<20			
24		<20			
25		<20			
26	Property #00036313-00	<20			
27		<20			
28		<20			

CB

31

RADIOLOGICAL OPERATIONS

Drawing Showing Survey Points



PAGE # 980375-0079 01

Page 3 of 4

-TOTAL SURVEY POINTS

32

SAMPLERS (Signature) TONYA SANGALINE / T-779 X-5392 / D-3052

REPORT IDENTIFICATION NUMBER (RIN) 98D1799 LAB/LOCATION: RECRA

RFETS CONTRACTOR RMRS

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE CHAIN OF CUSTODY NUMBER _____

DATE	TIME	EVENT	BOTTLE	~~USER~~ ID (Room)	LOCATION	CONTAINER	MATRIX	Preservation: Cooled to 4° C	NaOH	HNO3	H2 SO4	HCl	Analytes: NR01A001	BE
4-21-98	0930	001	001	114-01	WELDING FIXTURE	114-01	WHATMAN FILTER PAPER						R	
		002	002	114-02		114-02								
		003	003	114-03		114-03								
		004	004	114-04		114-04								
		005	005	235-05	ELECTRON MICROSCOPE	235-05								
		006	006	235-06		235-06								
		007	007	235-07		235-07								
		008	008	235-08		235-08								
		009	009	235-09		235-09								
		010	010	235-010		235-10								
		011	011	235-11		235-11								
		012	012	235-12		235-12								

Relinquished By:	Date	Time	Received By/Organization	Date	Time
C. Berna	4-21-98	1605	D. Karen Olson	4-21-98	1605
D. Karen Olson	4-23-98	0930	[illegible]	4/23/98	0930

LABORATORY USE ONLY (19)	Y/N
PCKG REC'D/CUSTODY SEALS INTACT	
SAMPLE LABELS/COCs AGREE	
TEMPERATURE AT TIME OF RECEIPT ___°C	

REMARKS:

Charge # KT036X00

Project 779 D&D

Shipping Requirements: Overnight Delivery ☐ 2-Day Delivery ☐ Air Bill No _____

CLIENT: F-H RIN#98D1789 RECRA LOT #: 9804L543
WORK ORDER: 11830-001-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	001.001.114-01	Beryllium, Total	0.04 u	UG	0.04	1.0
-002	002.001.114-02	Beryllium, Total	0.04 u	UG	0.04	1.0
-003	003.001.114-03	Beryllium, Total	0.04 u	UG	0.04	1.0
-004	004.001.114-04	Beryllium, Total	0.04 u	UG	0.04	1.0
-005	005.001.235-05	Beryllium, Total	0.04 u	UG	0.04	1.0
-006	006.001.235-06	Beryllium, Total	0.04 u	UG	0.04	1.0
-007	007.001.235-07	Beryllium, Total	0.04 u	UG	0.04	1.0
-008	008.001.235-08	Beryllium, Total	0.04 u	UG	0.04	1.0
-009	009.001.235-09	Beryllium, Total	0.04 u	UG	0.04	1.0
-010	010.001.235-10	Beryllium, Total	0.04 u	UG	0.04	1.0
-011	011.001.235-11	Beryllium, Total	0.04 u	UG	0.04	1.0
-012	012.001.235-12	Beryllium, Total	0.04 u	UG	0.04	1.0
-013	013.001.233-13	Beryllium, Total	0.04 u	UG	0.04	1.0
-014	014.001.233-14	Beryllium, Total	0.04 u	UG	0.04	1.0
-015	015.001.235-15	Beryllium, Total	0.04 u	UG	0.04	1.0
-016	016.001.270-16	Beryllium, Total	0.04 u	UG	0.04	1.0
-017	017.001.270-17	Beryllium, Total	0.04 u	UG	0.04	1.0
-018	018.001.270-18	Beryllium, Total	0.04 u	UG	0.04	1.0
-019	019.001.270-19	Beryllium, Total	0.04 u	UG	0.04	1.0
-020	020.001.270-20	Beryllium, Total	0.04 u	UG	0.04	1.0

Best Available Copy

34

BUILDING 779

BERYLLIUM SMEAR RESULTS

ROOM 114

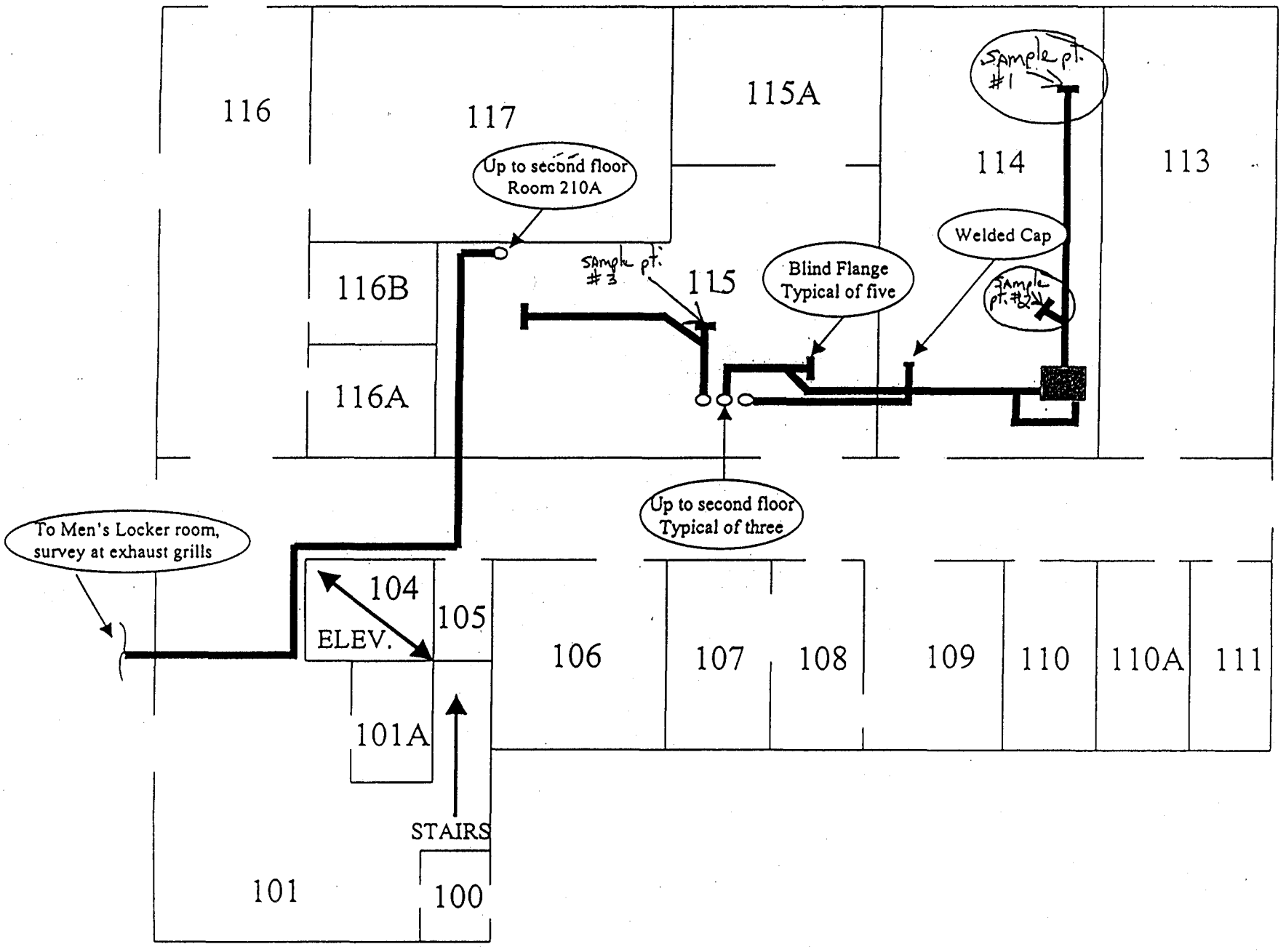
June 23, 1999

Sample Number	Reporting Limit micrograms	Location Totals[1] micro grams/100cm
779-99-05-15-13-114-01	0.1_{ug}	Floor $<0.1_{ug/100cm^2}$
779-99-05-15-13-114-02	0.1_{ug}	Floor $<0.1_{ug/100cm^2}$
779-99-05-15-13-114-03	0.1_{ug}	Floor $<0.1_{ug/100cm^2}$
779-99-05-15-13-114-04	0.1_{ug}	Floor $<0.1_{ug/100cm^2}$
779-99-05-15-13-114-05	0.1_{ug}	Table $<0.1_{ug/100cm^2}$
779-99-05-15-13-114-06	0.1_{ug}	Floor $<0.1_{ug/100cm^2}$
779-99-05-15-13-114-07	0.1_{ug}	Floor $<0.1_{ug/100cm^2}$
779-99-05-15-13-114-08	0.1_{ug}	Flange Access Point #2 $<0.1_{ug/100cm^2}$
779-99-05-15-13-114-09	0.1_{ug}	Flange Access Point #2 $<0.1_{ug/100cm^2}$
779-99-05-15-13-114-10	0.1_{ug}	Flange Access Point #1 $<0.1_{ug/100cm^2}$
779-99-05-15-13-114-11	0.1_{ug}	Flange Access Point #1 $<0.1_{ug/100cm^2}$

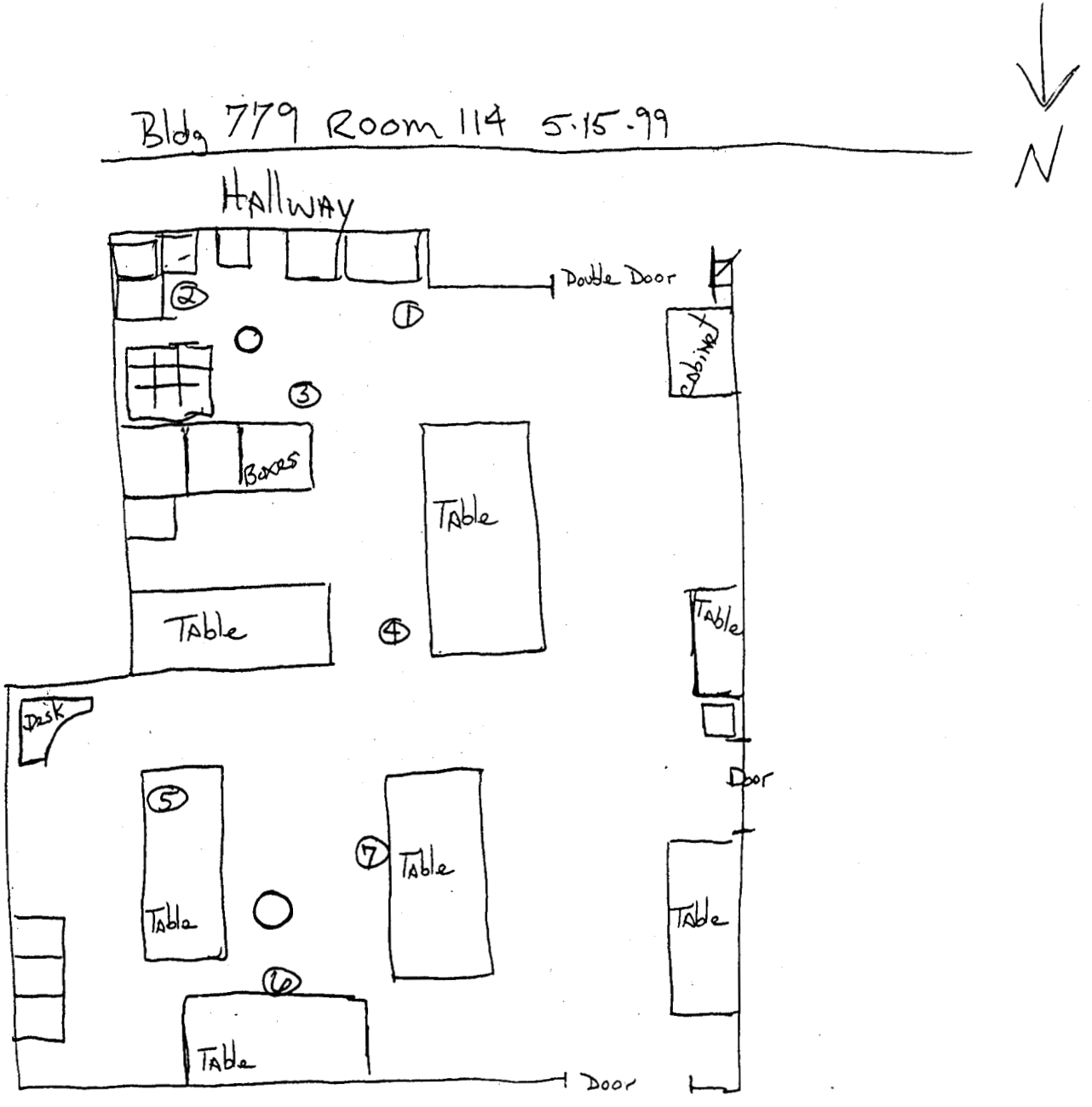
[1] See attached maps of room 114 for approximate smear locations. Samples 1-7 were taken pre open flange.

35

FIRST FLOOR *"COLD SIDE"* OFFICE AREA



Bldg 779 Room 114 5.15.99



BUILDING 779

BERYLLIUM SMEAR RESULTS

ROOM 114

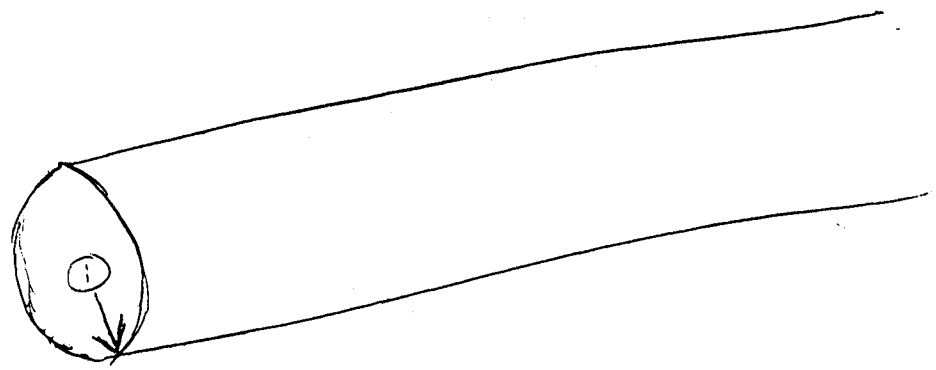
July 16, 1999

Sample Number	Reporting Limit micro grams	Location Totals micro grams/100cm²
779-99-06-16-114-01	0.1_{ug}	Hood Exhaust Pipe $0.19_{ug/100cm^2}$

[1] See attached map of hood exhaust pipe from room 114 for approximate smear location. Survey done to confirm no Be in the oil in pipe line. The pipe ends were bagged to contain the oil.

37

Hood exhaust room 114,
oil in line sampled.



	A	B	C	D	E	F	G
1	***Room Number***	***Date***	***Sample Number***	***Reporting Limit*** ***micro grams/100cm2***	***Location/Description***	***Smear Results*** ***micro grams/100cm2***	***Sample Method or RIN#***
2							
21	115	6/23/99	779-99-05-15-13-115-01	0.1	Floor	<0.1 q/100cm2	BEAST
22	115	6/23/99	779-99-05-15-13-115-02	0.1	Floor	<0.1 q/100cm2	BEAST
23	115	6/23/99	779-99-05-15-13-115-03	0.1	Floor	<0.1 q/100cm2	BEAST
24	115	6/23/99	779-99-05-15-13-115-04	0.1	Floor	<0.1 q/100cm2	BEAST
25	115	6/23/99	779-99-05-15-13-115-05	0.1	Flange Access Point #3	0.4 q/100cm2	BEAST
26	115	6/23/99	779-99-05-15-13-115-06	0.1	Flange Access Point #3	0.7 q/100cm2	BEAST

BUILDING 779

BERYLLIUM SMEAR RESULTS

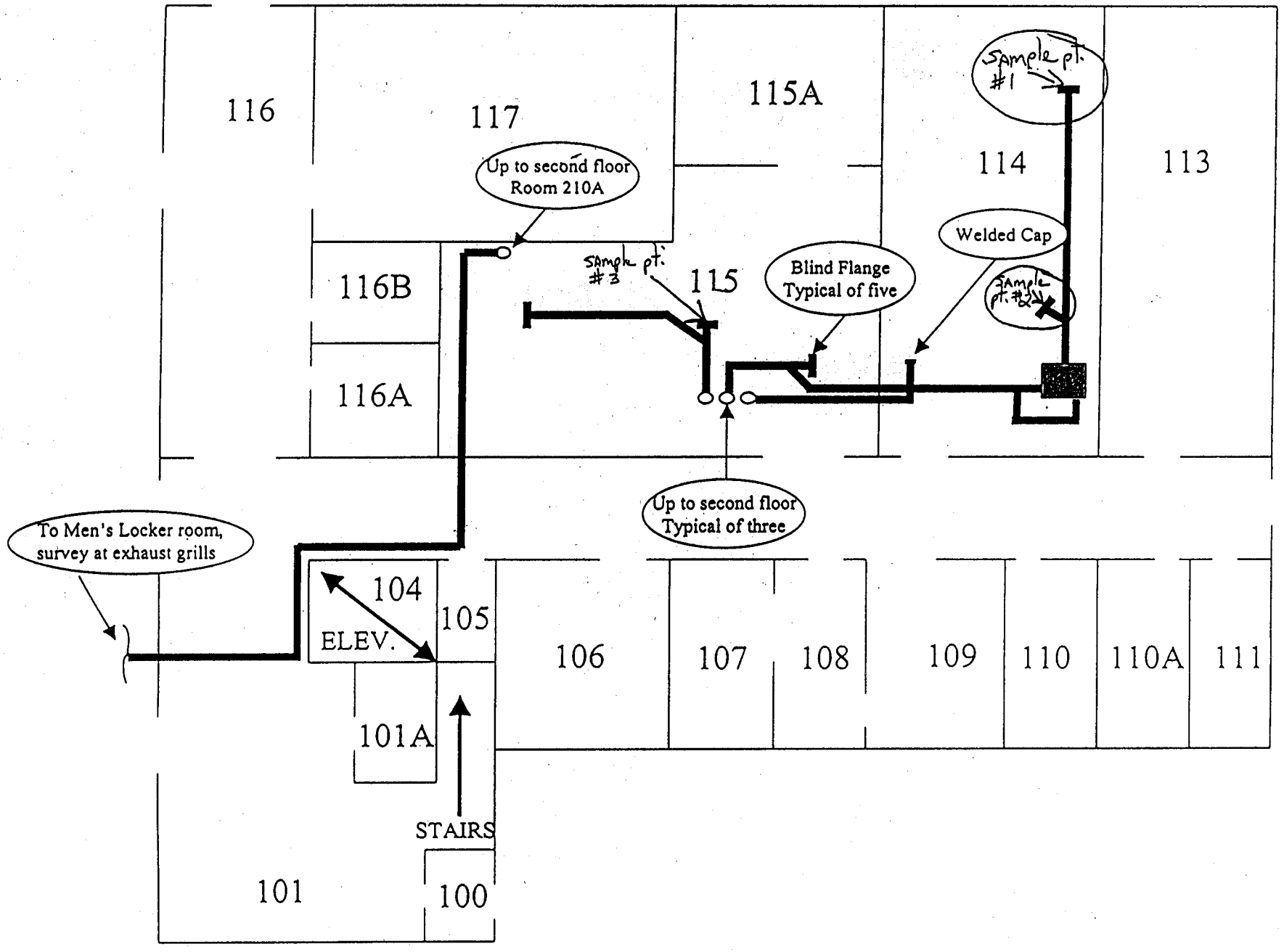
ROOM 115

June 23, 1999

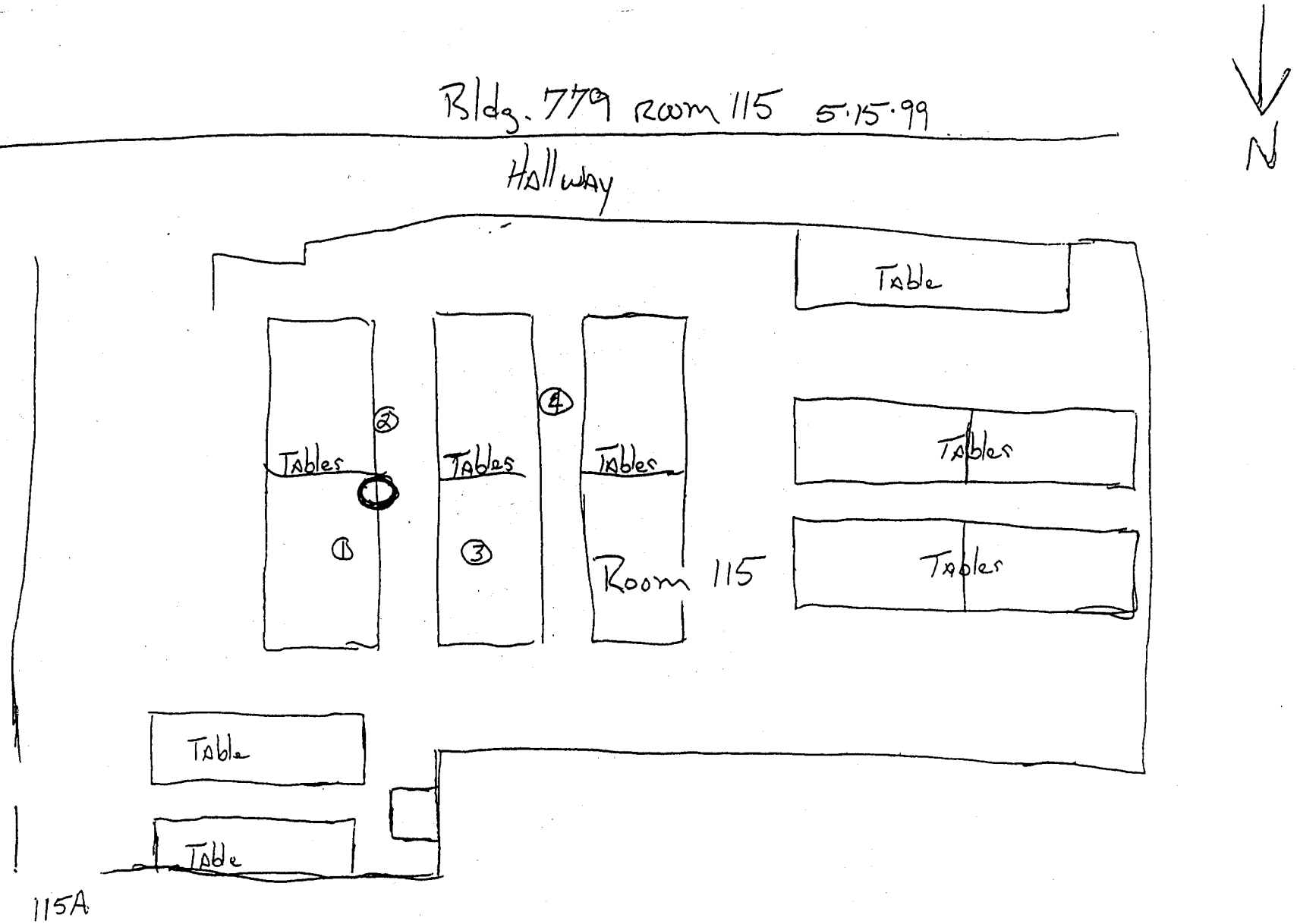
Sample Number	Reporting Limit micro grams	Location[1] micro grams/ 100cm
779-99-05-15-13-115-01	0.1_{ug}	Floor $<0.1_{ug/100cm^2}$
779-99-05-15-13-115-02	0.1_{ug}	Floor $<0.1_{ug/100cm^2}$
779-99-05-15-13-115-03	0.1_{ug}	Floor $<0.1_{ug/100cm^2}$
779-99-05-15-13-115-04	0.1_{ug}	Floor $<0.1_{ug/100cm^2}$
779-99-05-15-13-115-05	0.1_{ug}	Flange Access Point #3 $0.4_{ug/100cm^2}$
779-99-05-15-13-115-06	0.1_{ug}	Flange Access Point #3 $0.7_{ug/100cm^2}$

[1] See attached maps of room 115 for approximate smear locations. Samples 1-4 were taken pre open flange.

FIRST FLOOR *"COLD SIDE"* OFFICE AREA



Bldg. 779 room 115 5.15.99



	A	B	C	D	E	F	G
1	***Room Number***	***Date***	***Sample Number***	***Reporting Limit*** *micro grams/100cm2*	***Location/Description***	***Smear Results*** *micro grams/100cm2*	***Sample Method or RIN#***
27	117	8/6/99	779-07211999-13-501	0.1	Control Panel Top	<0.1 q/100cm2	BEAST
28	117	8/6/99	779-07211999-13-502	0.1	Control Panel Front	<0.1 q/100cm2	BEAST
29	117	8/6/99	779-07211999-13-503	0.1	Control Panel Top	<0.1 q/100cm2	BEAST
30	117	8/6/99	779-07211999-13-504	0.1	Generator Top	<0.1 q/100cm2	BEAST
31	117	8/6/99	779-07211999-13-505	0.1	Generator Top	<0.1 q/100cm2	BEAST
32	117	8/6/99	779-07211999-13-506	0.1	Generator Top	<0.1 q/100cm2	BEAST
33	117	8/6/99	779-07211999-13-507	0.1	Battery Container Top	<0.1 q/100cm2	BEAST
34	117	8/6/99	779-07211999-13-508	0.1	Motor Top	<0.1 q/100cm2	BEAST
35	117	8/6/99	779-07211999-13-509	0.1	Motor Top	<0.1 q/100cm2	BEAST
36	117	8/6/99	779-07211999-13-510	0.1	Motor Top	<0.1 q/100cm2	BEAST
37	117	8/6/99	779-07211999-13-511	0.1	Motor Top	<0.1 q/100cm2	BEAST
38	117	8/6/99	779-07211999-13-512	0.1	Motor Top	<0.1 q/100cm2	BEAST
39	117	8/6/99	779-07211999-13-513	0.1	Motor Top	<0.1 q/100cm2	BEAST

BUILDING 779

BERYLLIUM SMEAR RESULTS

ROOM 117

August 6, 1999

Sample Number	Reporting Limit micrograms	Location Totals micrograms/100cm²
779-07211999-13-501	0.1 ug	Control Panel Top <0.1 ug/100cm²
779-07211999-13-502	0.1 ug	Control Panel Front <0.1 ug/100cm²
779-07211999-13-503	0.1 ug	Control Panel Top <0.1 ug/100cm²
779-07211999-13-504	0.1 ug	Generator Top <0.1 ug/100cm²
779-07211999-13-505	0.1 ug	Generator Top <0.1 ug/100cm²
779-07211999-13-506	0.1 ug	Generator Top <0.1 ug/100cm²
779-07211999-13-507	0.1 ug	Battery Container Top <0.1 ug/100cm²
779-07211999-13-508	0.1 ug	Motor Top <0.1 ug/100cm²
779-07211999-13-509	0.1 ug	Motor Top <0.1 ug/100cm²
779-07211999-13-510	0.1 ug	Motor Top <0.1 ug/100cm²
779-07211999-13-511	0.1 ug	Motor Top <0.1 ug/100cm²
779-07211999-13-512	0.1 ug	Motor Top <0.1 ug/100cm²
779-07211999-13-513	0.1 ug	Motor Top <0.1 ug/100cm²

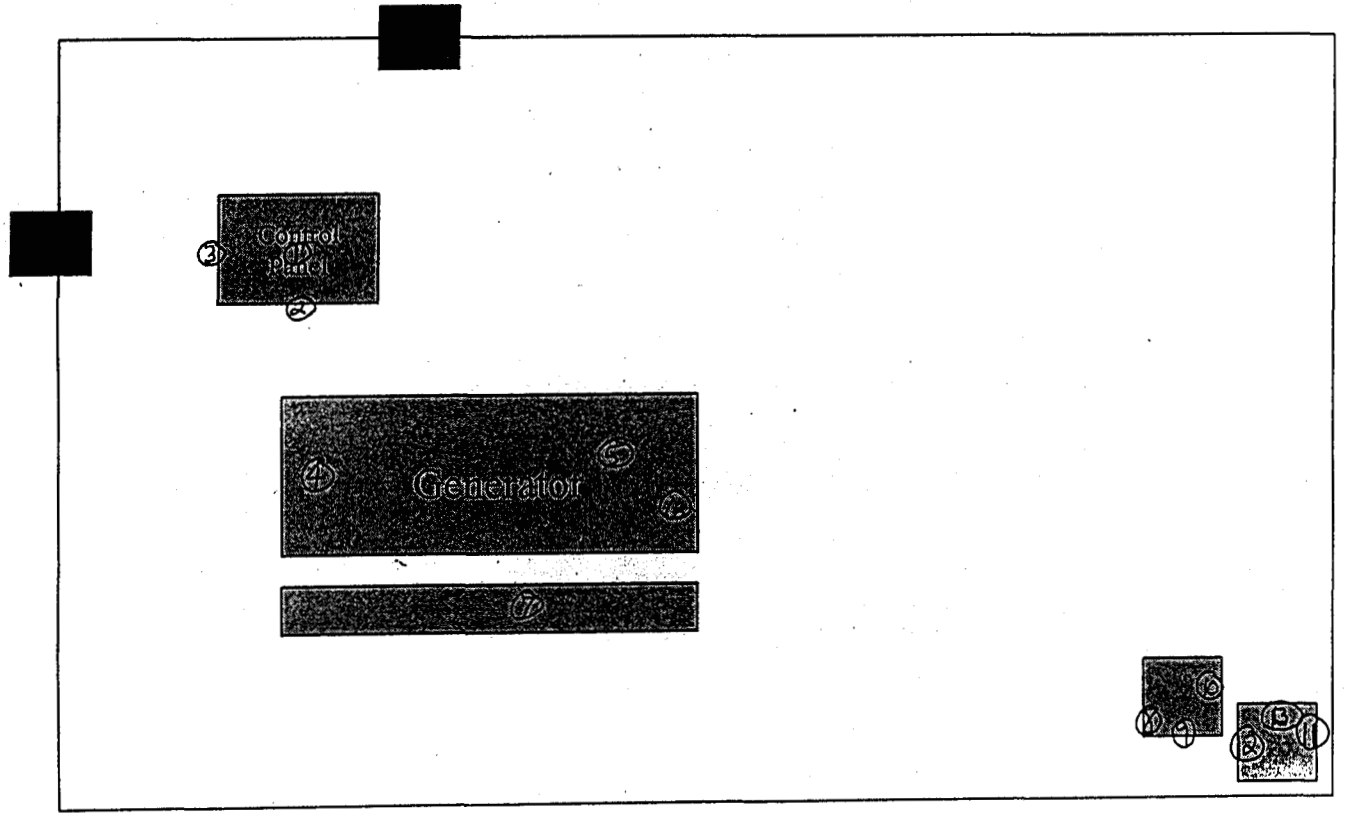
[1] See attached map of room 117 for approximate smear locations. Smears taken on equipment to be released to PU&D. All smears taken on exterior surfaces per the equipment release guide.

2 Equipment identification numbers are 00024167-00, 00216645-00, 00216622-00 and 00034869-00

45

Room 117, Building 779

July 21, 1999



Best Available Copy

46

	A	B	C	D	E	F	G
1	***Room Number***	***Date***	***Sample Number***	***Reporting Limit*** ***micro grams/100cm2***	***Location/Description***	***Smear Results*** ***micro grams/100cm2***	***Sample Method or RIN#***
511	201	4/8/98	W-201-01	0.04	Fire Extinguisher north wall	0.09	98D1678
512	201	4/8/98	W-201-02	0.04	Door north wall	0.09	98D1678
513	201	4/8/98	F-201-03	0.04	Floor North Doorway	0.09	98D1678
514	201	4/8/98	F-201-04	0.04	Floor Middle of Room	0.09	98D1678
515	201	3/19/99	779-99-03-17-13-201-01	0.01	Floor Carpet	<0.01	*
516	201	3/19/99	779-99-03-17-13-201-02	0.01	Floor Carpet	<0.01	*
517	201	3/19/99	779-99-03-17-13-201-03	0.01	Floor Carpet	<0.01	*
518	201	3/19/99	779-99-03-17-13-201-04	0.01	Floor Carpet	<0.01	*
519	201	3/19/99	779-99-03-17-13-201-05	0.01	Floor Carpet	<0.01	*
520	201	3/19/99	779-99-03-17-13-201-06	0.01	Floor Carpet	<0.01	*

* Analysis for Be using NIOSH method 7300 elements by IGP

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

MFG. EBERLINE	MFG.	MFG.
MODEL SAC-4	MODEL	MODEL
SERIAL # 1053	SERIAL #	SERIAL #
CAL. DATE 2-98	CAL. DATE	CAL. DATE
CAL. DUE. 8-98	CAL. DUE.	CAL. DUE.
EFF. 32%	EFF.	EFF.
BKG. 0.3	BKG.	BKG.
MFG.	MFG.	MFG.
MODEL	MODEL	MODEL
SERIAL #	SERIAL #	SERIAL #
CAL. DATE	CAL. DATE	CAL. DATE
CAL. DUE.	CAL. DUE.	CAL. DUE.
EFF.	EFF.	EFF.
BKG.	BKG.	BKG.

CONTAMINATION SURVEY

JOB SPECIFIC SURVEY

BUILDING 779

RWP # _____

ROOM # 201

PRE # 980325-B779-01

ITEM DESCRIPTION/ COMMENTS

Survey of Fire Extinguisher and surrounding area in Room 201, for BE.

SURVEY RESULTS

ALPHA DPM/100 cm 2 REMOVABLE (SWIPE)	ALPHA DPM REMOVABLE (WIPE)	ALPHA DPM/100 cm 2 REMOVABLE (SWIPE)	ALPHA DPM REMOVABLE (WIPE)
1. <20	1.	31.	31.
2. <20	2.	32.	32.
3. <20	3.	33.	33.
4. <20	4.	34.	34.
5.	5.	35.	35.
6.	6.	36.	36.
7.	7.	37.	37.
8.	8.	38.	38.
9.	9.	39.	39.
10.	10.	40.	40.
11.	11.	41.	41.
12.	12.	42.	42.
13.	13.	43.	43.
14.	14.	44.	44.
15.	15.	45.	45.
16.	16.	46.	46.
17.	17.	47.	47.
18.	18.	48.	48.
19.	19.	49.	49.
20.	20.	50.	50.
21.	21.	51.	51.
22.	22.	52.	52.
23.	23.	53.	53.
24.	24.	54.	54.
25.	25.	55.	55.
26.	26.	56.	56.
27.	27.	57.	57.
28.	28.	58.	58.
29.	29.	59.	59.

DATE COMPLETED 4-8-98

[redacted]

DATE REVIEWED: / /

BUILDING 779

BERYLLIUM SMEAR RESULTS

ROOM 201

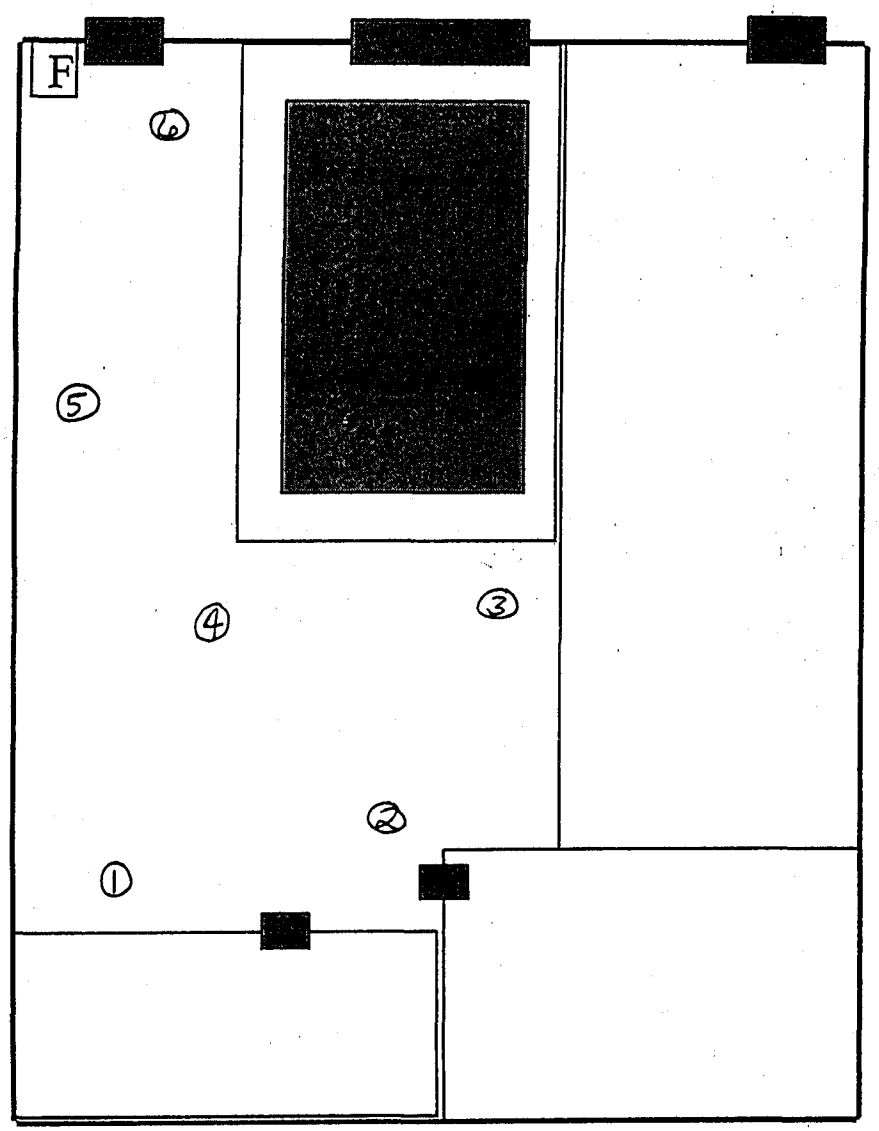
March 19, 1999

Sample Number	Reporting Limit micro grams	Location Totals[1] micro grams/100cm^2
779-99-03-17-13-201-01	0.01 ug	Floor carpet <0.01 ug/100cm^2
779-99-03-17-13-201-02	0.01 ug	Floor carpet <0.01 ug/100cm^2
779-99-03-17-13-201-03	0.01 ug	Floor carpet <0.01 ug/100cm^2
779-99-03-17-13-201-04	0.01 ug	Floor carpet <0.01 ug/100cm^2
779-99-03-17-13-201-05	0.01 ug	Floor carpet <0.01 ug/100cm^2
779-99-03-17-13-201-06	0.01 ug	Floor carpet <0.01 ug/100cm^2

[1] See attached map of room 201 for approximate smear locations on floor.

Building 779, Room 201

April 15, 1999



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

CONTAMINATION SURVEY

INSTRUMENT DATA

MFG. EBERLINE	MFG.	MFG.
MODEL SAC-4	MODEL	MODEL
SERIAL # 1053	SERIAL #	SERIAL #
CAL. DATE 2-98	CAL. DATE	CAL. DATE
CAL. DUE. 8-98	CAL. DUE.	CAL. DUE.
EFF. 32%	EFF.	EFF.
BKG. 0.3	BKG.	BKG.
MFG.	MFG.	MFG.
MODEL	MODEL	MODEL
SERIAL #	SERIAL #	SERIAL #
CAL. DATE	CAL. DATE	CAL. DATE
CAL. DUE.	CAL. DUE.	CAL. DUE.
EFF.	EFF.	EFF.
BKG.	BKG.	BKG.

JOB SPECIFIC SURVEY
BUILDING 779
RWP #
ROOM # 201
PRE # 980325-B779-01

ITEM DESCRIPTION/ COMMENTS

Survey of Fire Extinguisher and surrounding area in Room 201, for BE.

SURVEY RESULTS

ALPHA DPM/100 cm 2 REMOVABLE (SWIPE)	ALPHA DPM REMOVABLE (WIPE)	ALPHA DPM/100 cm 2 REMOVABLE (SWIPE)	ALPHA DPM REMOVABLE (WIPE)
1. <20	1.	31.	31.
2. <20	2.	32.	32.
3. <20	3.	33.	33.
4. <20	4.	34.	34.
5.	5.	35.	35.
6.	6.	36.	36.
7.	7.	37.	37.
8.	8.	38.	38.
9.	9.	39.	39.
10.	10.	40.	40.
11.	11.	41.	41.
12.	12.	42.	42.
13.	13.	43.	43.
14.	14.	44.	44.
15.	15.	45.	45.
16.	16.	46.	46.
17.	17.	47.	47.
18.	18.	48.	48.
19.	19.	49.	49.
20.	20.	50.	50.
21.	21.	51.	51.
22.	22.	52.	52.
23.	23.	53.	53.
24.	24.	54.	54.
25.	25.	55.	55.
26.	26.	56.	56.
27.	27.	57.	57.
28.	28.	58.	58.
29.	29.	59.	59.

DATE COMPLETED 4-8-98

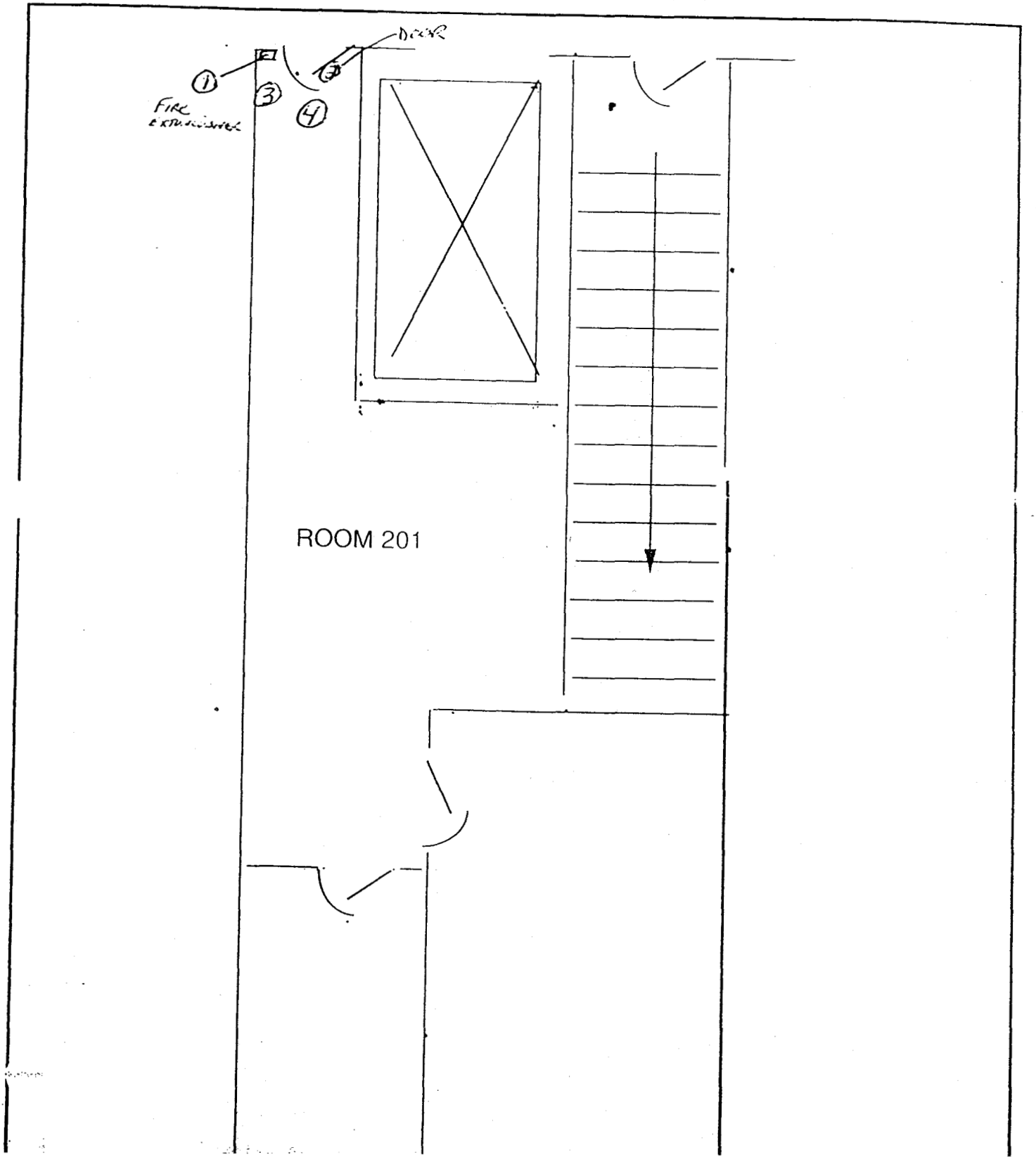
[redacted]

DATE REVIEWED:

51

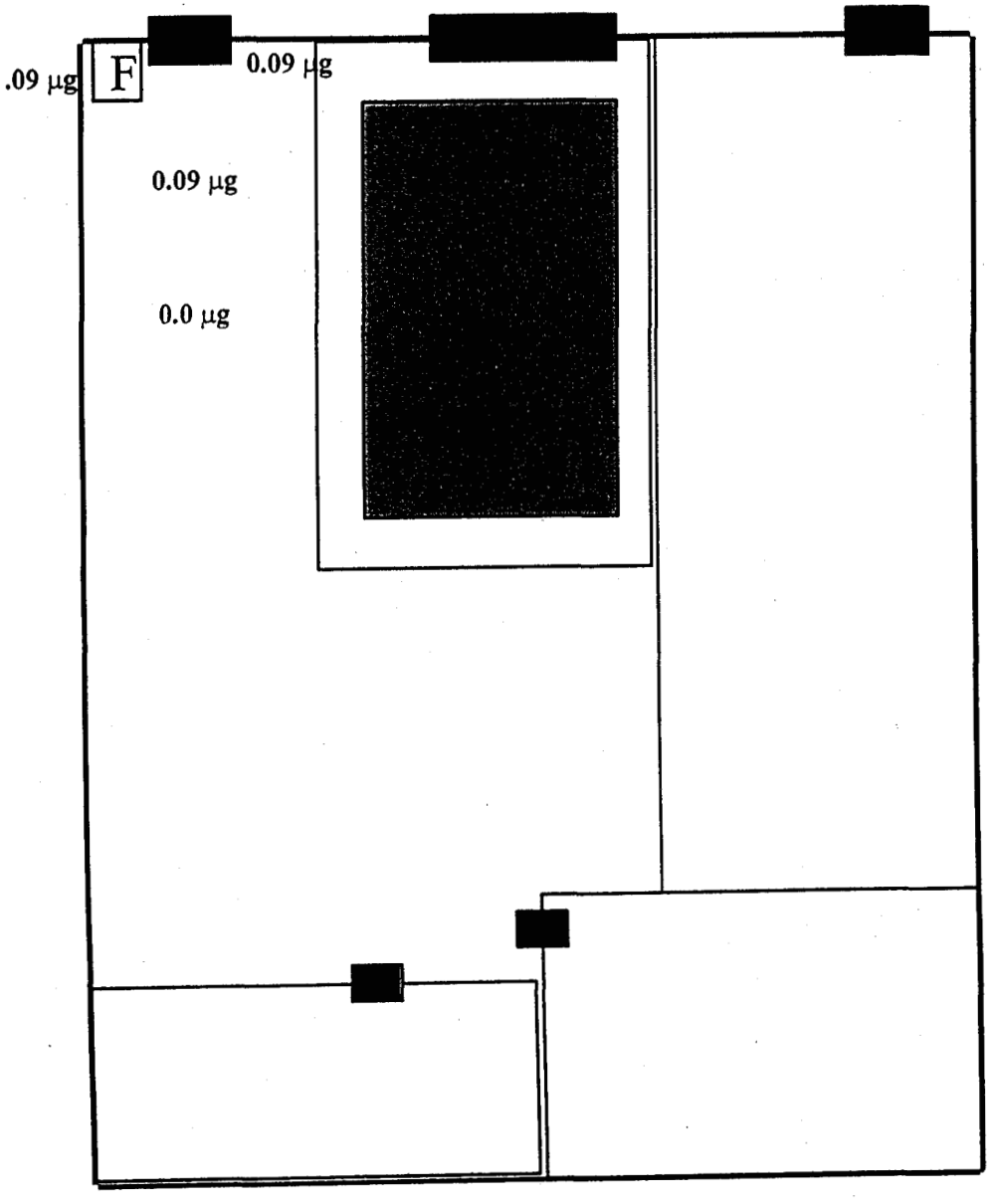
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

Radiological Operations
Drawing Showing Survey Points



Building 779, Room 201 Beryllium Surface Control Levels

May 5, 1998



All smears taken on the floor
- All results below surface control levels
- Reported in Micrograms per square foot

53

_ of _

SAMPLERS (Signature) TONYA SANGALINE / T-779 X-5392 / D-3052 DKO 4-8-98

REPORT IDENTIFICATION NUMBER (RIN) 98D1678 LAB/LOCATION: ~~RECRA~~ SouthWest of Ouatpo

RFETS CONTRACTOR RMRS

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE CHAIN OF CUSTODY NUMBER _____

DATE	TIME	EVENT	BOTTLE	USER ID	LOCATION	CONTAINER	MATRIX	Preservation: Cooled to 4°C	NaOH	HNO3	H2SO4	HCl		Analytes: NR01A001	BE											
4/8/98	1000	001	001	201-1	EXT WALL OF 779	201-1	WHAT-41 FILTER PAPER							R												
		002	002	201-2	DOOR	201-2																				
		003	003	201-3	FLOOR	201-3																				
		004	004	201-4	FLOOR	201-4																				

Relinquished By:	Date	Time	Received By/Organization	Date	Time
C Bent	4-8-98	11:30	Karen Olson	4-8-98	11:30
DKOSA	4-8-98	1430	L. Miller / ASI	4-8-98	1430

LABORATORY USE ONLY (19)	Y/N
PCKG REC'D/CUSTODY SEALS INTACT	
SAMPLE LABELS/COCs AGREE	
TEMPERATURE AT TIME OF RECEIPT ___°C	

REMARKS:

Charge # KT03CX00

Project 779 D&D

Shipping Requirements: Overnight Delivery ☐ 2-Day Delivery ☐ Air Bill No _____

APO COC 6/5/97

INORGANIC ANALYSES DATA SHEET (SUMMARY)

Element: Beryllium
CAS No.: 7440-41-7
Matrix: FILTER

Conc. Units: UG/F
RIN #: 98D1678

Laboratory ID:	Client Sample ID:	Conc.	Flag
33537.01	228-1	0.09	U
33537.02	228-2	0.09	U
33537.03	228-4	0.09	U
33537.04	228-5	0.09	U
33537.05	228-6	0.09	U
33537.06	228-7	0.09	U
33537.07	228-8	0.09	U
33537.08	228-9	0.09	U
33537.09	228-10	0.09	U
33537.10	228-11	0.09	U
33537.11	228-13	0.09	U
33537.12	228-14	0.09	U
33537.13	228-16	0.09	U
33537.14	228-17	0.09	U
33537.15	222-18	0.09	U
33537.16	222-19	0.09	U
33537.17	222-20	0.09	U
33537.18	222-21	0.09	U
33537.19	222-22	0.09	U
33537.20	222-23	0.09	U
33537.21	222-26	0.09	U
33537.22	234-27	0.09	U
33537.23	234-29	0.09	U
33537.24	234-30	0.09	U
33537.25	201-1	0.09	U
33537.26	201-2	0.09	U
33537.27	201-3	0.09	U
33537.28	201-4	0.09	U

	A	B	C	D	E	F	G
1	***Room Number***	***Date***	***Sample Number***	***Reporting Limit*** *micro grams/100cm2*	***Location/Description***	***Smear Results*** *micro grams/100cm2*	***Sample Method or RIN#***
521	208	6/21/99	779-99-05-13-13-208-01	0.1	Plexiglas Access point #4	<0.1	*
522	208	6/21/99	779-99-05-13-13-208-02	0.1	Plexiglas Access point #4	<0.1	*
523	209	6/21/99	779-99-05-12-13-209-01	0.1	Flange Acess Point #1	<0.1	*
524	209	6/21/99	779-99-05-12-13-209-02	0.1	Flange Acess Point #1	<0.1	*
525	214	6/21/99	779-99-05-13-13-214-01	0.1	Flange Access point #2	1.20	*
526	214	6/21/99	779-99-05-13-13-214-02	0.1	Flange Access point #2	0.90	*

* Analysis for Be using NIOSH method 7300 elements by IGP

BUILDING 779

BERYLLIUM SMEAR RESULTS

ROOMS 208, 209 AND 214

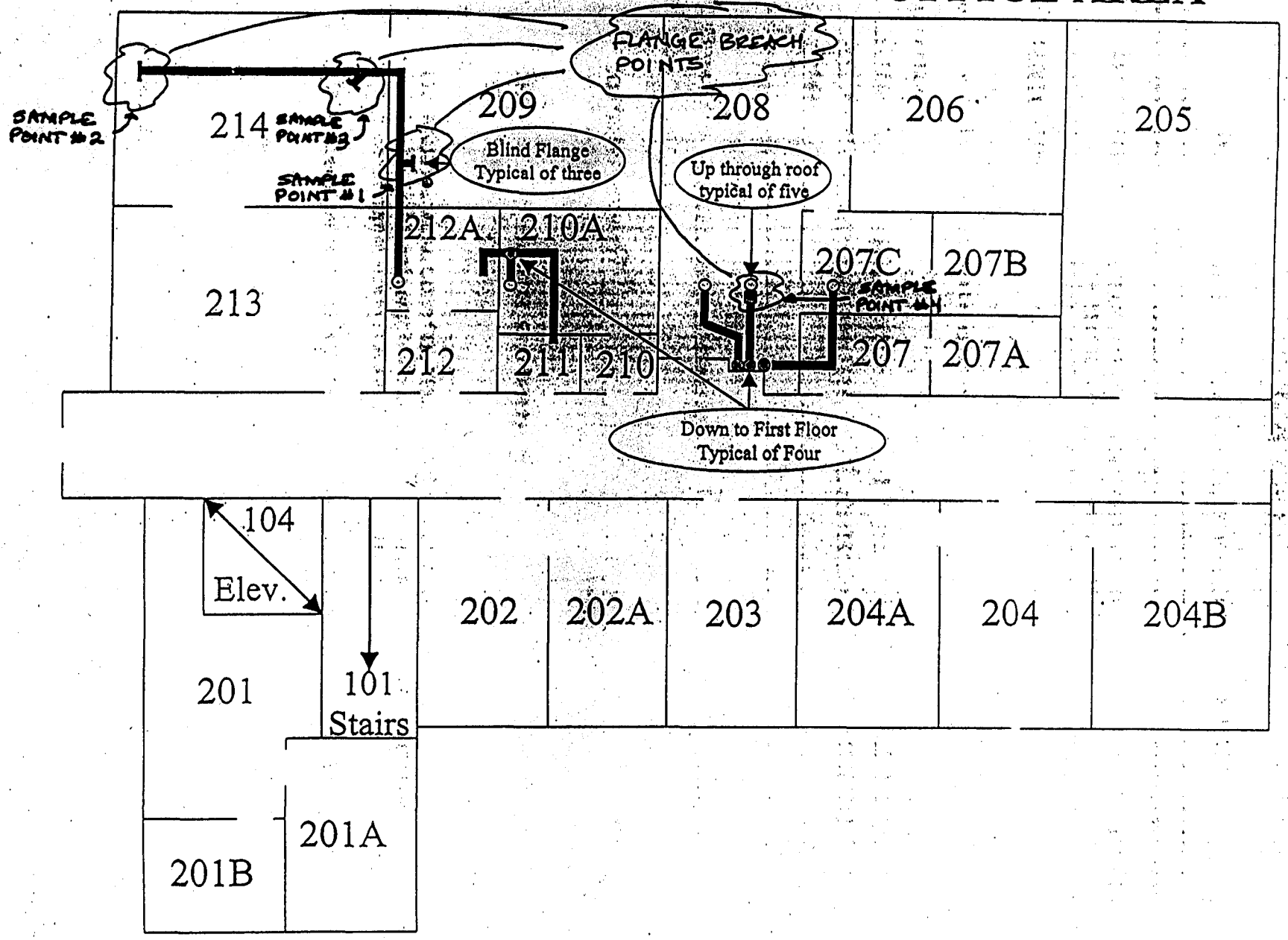
June 21, 1999

Sample Number	Reporting Limit micro grams	Location Totals micro grams / filter
779-99-05-12-13-209-01	0.1_{ug}	Flange Access Point #1 $<0.1_{ug/100cm^2}$
779-99-05-12-13-209-02	0.1_{ug}	Flange Access Point #1 $<0.1_{ug/100cm^2}$
779-99-05-13-13-208-01	0.1_{ug}	Plexiglas Access Point #4 $<0.1_{ug/100cm^2}$
779-99-05-13-13-208-02	0.1_{ug}	Plexiglas Access Point #4 $<0.1_{ug/100cm^2}$
779-99-05-13-13-214-01	0.1_{ug}	Flange Access Point #2 $1.2_{ug/100cm^2}$
779-99-05-13-13-214-02	0.1_{ug}	Flange Access Point #2 $0.9_{ug/100cm^2}$

[1] See attached map of rooms 208, 209 & 214 for smear locations.

51

SECOND FLOOR *"COLD SIDE"* OFFICE AREA



WORK CONTROL NUMBER 1@@99-535
APPENDIX 5
PAGE 3 OF 3

58

Industrial Hygiene Information System
Surface Sample Report

ISR_SURFACE_SAMPLE

ıte: 10/02/1999

N: 99Z0360

Sample Number/Type: 779-09111999-15-501 WIPE Hygienist: WADE RUSSELL
Location Info: BLDG. EXHAUST INTERIOR IN TOWER. SEE MAP.
Room No:
Analyte: BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration: < 0.0000 UG/100CM2

Sample Number/Type: 779-09111999-15-502 WIPE Hygienist: WADE RUSSELL
Location Info: INTREIOR OF BLDG. EXHAUST IN TOWER. SEE MAP.
Room No:
Analyte: BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration: < 0.0000 UG/100CM2

Sample Number/Type: 779-09221999-15-501 BLANK Hygienist: WADE RUSSELL
Location Info:
Room No:
Analyte: BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration: < 0.0000 UG

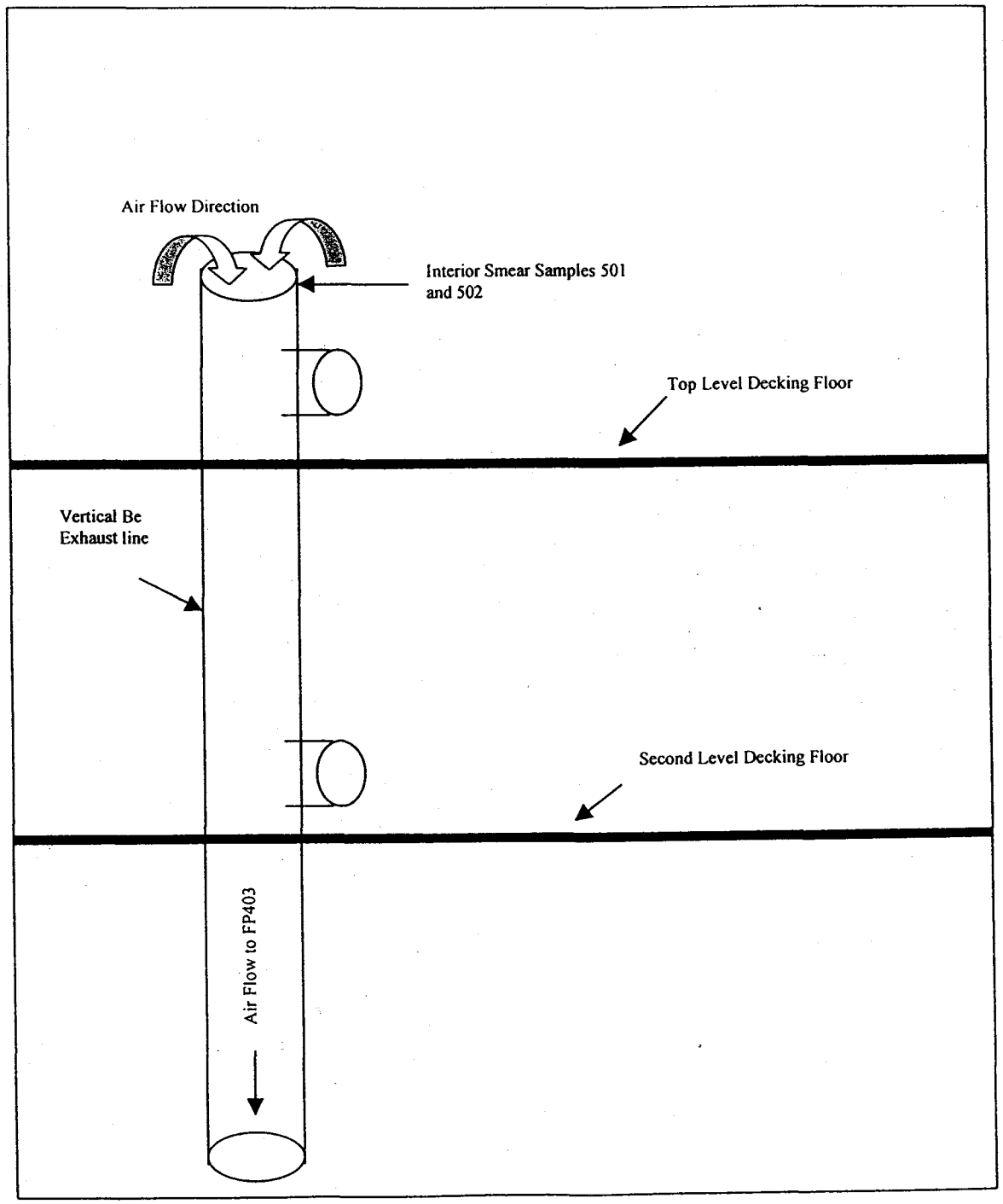
Sample Number/Type: 779-09221999-15-502 BLANK Hygienist: WADE RUSSELL
Location Info:
Room No:
Analyte: BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration: < 0.0000 UG

59

Building 779 Tower

Beryllium Smear Locations

Beryllium Exhaust Line



Smear # 501 is approx. 25cm^2 while # 502 is approx. 50cm^2

Attachment 4

RCRA Hazardous Substances

Results (Solids)

PAINT CHIP BULK SAMPLE DATA TABLE 2-1

Sample Number	Sample Description and Location	Lab Result TCLP * / (ICP)
779-980416-MS-001	Green/white on drywall; from room 150, N wall, 1' W of N exit, 4' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)
779-980416-MS-002	Brown/green/red primer on metal; from room 150 door jamb, N side, 2' from the floor.	ND / (arsenic, barium, cadmium, **chromium, lead**, mercury, **selenium**, silver, others)
779-980416-MS-003	Beige/green on cinderblock; from room 156 N wall, 8' W of NE corner, 6' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)
779-980416-MS-004	Magenta on cinderblock; from room 157 S wall, 3' E of SW corner, 4' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)
779-980416-MS-005	Orange/lt green on cinderblock; from room 157, W wall, 9' N of S wall, 4' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)
779-980416-MS-006	White on concrete; from room 150 ceiling, 10' N of S entry, 28' W of E wall.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)
779-980416-MS-007	Yellow on cinderblock; from room 157, N wall, center.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)
779-980416-MS-008	Blue on cinderblock; from room 157, E wall center, N end.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)
779-980416-MS-009	Off-white on cinderblock; from room 159, W wall, 11' N of SW corner, 5' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)

*Note: TCLP column denotes in excess of max concentration. Otherwise ND, which means None Detected. ICP column denotes metals detected. Please refer to Lab Data Sheets for actual values.

62

Sample Number	Sample Description and Location	Lab Result TCLP * / (ICP)
779-980416-MS-010	Beige/lime green/ on cinderblock; from 237 hall, W wall, 11' S of stairs, 3' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, **selenium**, silver, others)
779-980416-MS-011	Light blue on plaster; from 777 bridge, N wall, 12' W of E entry, 3' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)
779-980416-MS-012	Black on drywall; from room 234B, E wall, 2' S of E entry, 4' from the floor.	ND / (arsenic, **barium**, cadmium, chromium, **lead**, mercury, selenium, silver, others)
779-980416-MS-013	Lime green/pink on cinderblock; from room 234, E wall, 3' N of 228 entry, 4' from the floor.	ND / (arsenic, **barium**, cadmium, chromium, **lead**, **mercury**, selenium, silver, others)
779-980416-MS-014	Red-orange/tan on plaster; from room 234, N wall, 3' E of NW corner, 6' from the floor.	ND / (arsenic, barium, cadmium, **chromium**, **lead**, mercury, selenium, silver, others)
779-980416-MS-015	Lime yellow/tan on plaster; from room 234, W wall, 2' N of SW corner, 3' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, **selenium**, silver, others)
779-980416-MS-016	Forest-lime green on cinderblock; from room 228 W wall, 10' S of W entry, 4' from the floor.	ND / (arsenic, **barium**, cadmium, chromium, **lead**, **mercury**, selenium, silver, others)
779-980416-MS-017	Pea green/tan on plaster; from room 228 far S wall, 6' E of SW corner, 3' from the floor.	ND / (arsenic, barium, cadmium, **chromium**, **lead**, mercury, selenium, silver, others)
779-980416-MS-018	Light yellow/tan on cinderblock; from room 228 N wall, 5' E of NW corner, 4' from the floor.	ND / (arsenic, **barium**, cadmium, chromium, **lead**, **mercury**, selenium, silver, others)
779-980416-MS-019	Aqua/tan on cinderblock and metal; from room 228 S wall and 222 entry door jamb, 3' from the floor.	ND / (arsenic, **barium**, cadmium, chromium, **lead**, **mercury**, selenium, silver, others)

*Note: TCLP column denotes in excess of max concentration. Otherwise ND, which means None Detected. ICP column denotes metals detected. Please refer to Lab Data Sheets for actual values.

63

Sample Number	Sample Description and Location	Lab Result TCLP * / (ICP)
779-980416-MS-020	Light pink/beige on cinderblock; from room 222 E wall, 8' N of SE corner, 4' from the floor.	ND / (arsenic, **barium**, cadmium, chromium, **lead**, **mercury**, selenium, silver, others)
779-980416-MS-021	Pink/beige on concrete; from room 222 W wall, 12' S of NW corner, 3' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, **mercury**, selenium, silver, others)
779-980416-MS-022	Lt. green/lt. blue/tan on concrete and cinderblock; from room 220 W wall, 10' N of 222 entry, 3' from the floor.	ND / (arsenic, **barium**, cadmium, chromium, **lead**, **mercury**, selenium, silver, others)
779-980416-MS-023	Lt. blue/off-white on metal door; from room 220/218 door, lower left.	chromium / (arsenic, barium, **cadmium**, **chromium**, **lead**, mercury, selenium, silver, others)
779-980416-MS-024	Lt. pea green on drywall; from room 277 N wall, 2' W of entry, 4' from the floor.	ND / (arsenic, barium, cadmium, chromium, lead, **mercury**, selenium, silver, others)
779-980416-MS-025	Lt. green/magenta on drywall; from room 274 N wall, 4' W of entry, 4' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, **mercury**, selenium, silver, others)
779-980416-MS-026	Yellow on cinderblock; from room 221C E wall, 3' S of NE corner, 4' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, **mercury**, selenium, silver, others)
779-980416-MS-027	Lt. pink/beige on drywall; from room 275H N wall, 3' W of 275 entry, 5' from the floor.	ND / (arsenic, barium, cadmium, chromium, lead, **mercury**, selenium, silver, others)
779-980416-MS-028	Lime green on drywall; from room 272 E wall, 4' S of entry, 3' from the floor.	ND / (arsenic, barium, cadmium, **chromium**, **lead**, **mercury**, selenium, silver, others)
779-980416-MS-029	V. Lt. Yellow on cinderblock; from room 229 N wall, 1' E of NW corner, 4' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, **mercury**, selenium, silver, others)

*Note: TCLP column denotes in excess of max concentration. Otherwise ND, which means None Detected. ICP column denotes metals detected. Please refer to Lab Data Sheets for actual values.

Sample Number	Sample Description and Location	Lab Result TCLP * / (ICP)
779-980416-MS-030	Blue on plaster; from room 231 S wall, 3' E of SW corner, 3' from the floor.	ND / (arsenic, barium, cadmium, **chromium, lead, mercury,** selenium, silver, others)
779-980416-MS-031	Tan/beige/red/maroon on metal; from room 231/216 Hall, center of door, E jamb.	ND / (arsenic, barium, cadmium, **chromium, lead**, mercury, selenium, silver, others)
779-980416-MS-032	Textured beige/tan on concrete and cinderblock; from 779B exterior S wall, 10' W of door 20, 2' from the floor.	ND / (arsenic, barium, cadmium, chromium, lead, **mercury**, selenium, silver, others)
779-980416-MS-033	Textured beige/tan on cinderblock; from 779A exterior N wall, 12' W of door 6, 3' from the ground.	ND / (arsenic, barium, cadmium, chromium, lead, **mercury**, selenium, silver, others)
779-980416-MS-034	Textured beige/tan on cinderblock; from 779 exterior N wall, 30' W of door 16, 5' from the ground.	ND / (arsenic, barium, cadmium, chromium, lead, **mercury,** selenium, silver, others)
779-980416-MS-035	Textured beige/tan on cinderblock; from 729 exterior W wall, 7' N of W entry, 1' from the ground.	ND / (arsenic, barium, cadmium, chromium, lead, **mercury**, selenium, silver, others)
779-980416-MS-036 (QA)	Textured beige/tan on cinderblock; from 729 exterior W wall, 7' N of W entry, 1' from the ground.	ND / (arsenic, barium, cadmium, chromium, lead, **mercury,** selenium, silver, others)
779-980416-MS-037	White gloss on cinderblock; from 729, room 105 S wall, 10' E of SW corner, 5' from the floor.	ND / (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, others)
779-980416-MS-038	White gloss/grey gloss on concrete; from 782 E wall, 25' S of NE corner, 4' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)
779-980416-MS-039	White/beige/lt. green on cinderblock; from room 160, W entry wall, NW corner, 4' from the floor.	lead / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)

*Note: TCLP column denotes in excess of max concentration. Otherwise ND, which means None Detected. ICP column denotes metals detected. Please refer to Lab Data Sheets for actual values.

45

Sample Number	Sample Description and Location	Lab Result TCLP * / (ICP)
779-980416-MS-040	Lt. blue/white on cinderblock; from room 154 E wall, 15' S of NE corner, 4' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)
779-980416-MS-041	Tan/green ceramic tile; from room 167 restroom area N wall, 4' E of NE corner, 4' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)
779-980416-MS-042 (QA)	Tan/green ceramic tile; from room 167 restroom area N wall, 4' E of NE corner, 4' from the floor.	ND / (arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, silver, others)
779-980416-MS-043	Light brown 6" ceramic tile; from room 167 at N devising wall to restroom/vestibule area, E end.	ND / (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, others)
779-980416-MS-044	Battleship grey on concrete; from 121A floor, 11' N of S entry, 3' E of W wall.	ND / (arsenic, barium, cadmium, **chromium**, lead, mercury, selenium, silver, others)
779-980721-MS-001	Charcoal grey sheet metal flashing; from 779 roof duct plenum far west N-S extention, 7' N of SE angle, west side.	NA / (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, others)
779-980721-MS-002	Lt. brown/white back corrugated sheet metal; 779 from roof duct plenum far west N-S extention wall, 7'N of SE angle.	NA / (arsenic, barium, cadmium, **chromium**, lead, mercury, selenium, silver, others)

*Note: TCLP column denotes in excess of max concentration. Otherwise ND, which means None Detected. ICP column denotes metals detected. Please refer to Lab Data Sheets for actual values.

66

2564
FAX

B776/777
T2B

SAMPLE SUMMARY FOR RIN: 99A8837

RIN Title: NA
Project Name: WASTE PROJECTS
Task Name: BLDG 777
Aggregate Area: NA

Sampling Team: CAS
Sampling Mgr/Coordinator: KATH ZBRUSK
Samplers: JUS CHA DL
Field Logbook ID: 92 VAN
Media: AQUEOUS

This sample summary is supplied to waste generators as notification of sample collection. Inquires into the status of this sampling effort may be directed to the Analytical Services Division (ASD).

Bottle Number	Customer Bottle Number	Location	LIC (See Attached)	Laboratory	Date Collected	Date Shipped	Date Returned	Comments
99A8837-001.001		Bldg 777, Rm 127, Tank T2B	1	Building 559 Laboratory	7/16/99	7/16/99		

Returning Excess Sample Material:

Unmodified sample material remaining after analysis is generally returned to the generator. The generator must be prepared to receive and dispose of excess sample material for applicable state and federal regulations. Regulatory exclusions for returning excess sample material are specified in the Code of Colorado Regulation (CCR) 1007-3, Part 261.4(d) 'Samples'. If problems with the disposal of excess sample material are encountered, the Environmental Coordinator for the generation area should be contacted for resolution of the issues. Only sample material which has not been modified during analysis will be returned. Material which has been acidified for preservation purposes will not be returned.

Customer Acknowledgement: _____
(Sign and Print Name)

Comments:

Line Item Codes:

1) RS05A033 (1 Mil Unfiltered SW846) {Arsenic}

Date: 7/16/99 6:51:56 AM

TITLE:
RIN: 99A8837
Page 1 of 1

67

SIN # MTLS02-A2

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 5

Lab Sample ID: 99A8837-001 Bldg 777 Aqueous Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : <0.5

Date Sampled: 7/16/99 SDG No. : JUN25

Lab Receipt Date: 7/16/99 QC Report No.: SD062599.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V * E O O S + Q	M
Aluminum	0.2105	B		P
Antimony	0.1000	U		P
Arsenic	0.1611	B		P
Barium	0.0500	U		P
Beryllium	0.0055	B		P
Cadmium	0.0100	U		P
Calcium	11.8468	B		P
Chromium	0.0635	B		P
Cobalt	0.0500	U		P
Copper	0.2982	B		P
Iron	3.0795	B		P
Lead	0.1407	B		P
Magnesium	2.4253	B		P
Manganese	0.1053	B		P
Molybdenum	0.0500	U		P
Nickel	0.0400	U		P
Phosphorus	8.2963	B		P
Selenium	0.1000	U		P
Silver	0.0300	U		P
Strontium	0.0501	B		P
Thallium	0.1000	U		P
Titanium	0.0200	U		P
Vanadium	0.0500	U		P
Zinc	1.8363	B		P

Color Before: Colorless Clarity Before: Clear

Color After: Colorless Clarity After: Clear

Texture:

Artifacts:

Comments: Sample < 0.50 % Solids. Total Metals Digestion only !

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 6

Lab Sample ID: X-TCLP Ext. #1 TCLP Extraction Fluid #1 - Reagent Blank

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids for Sample : <0.5

Date Sampled: 7/19/99 SDG No. : JUN25

Lab Receipt Date: 7/19/99 QC Report No.: SD062599.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.2000	U		P
Antimony	0.1000	U		P
Arsenic	0.1000	U		P
Barium	0.0500	U		P
Beryllium	0.0050	U		P
Cadmium	0.0100	U		P
Calcium	0.2000	U		P
Chromium	0.0500	U		P
Cobalt	0.0500	U		P
Copper	0.0500	U		P
Iron	0.1000	U		P
Lead	0.0500	U		P
Magnesium	0.2000	U		P
Manganese	0.0100	U		P
Molybdenum	0.0500	U		P
Nickel	0.0400	U		P
Phosphorus	0.5000	U		P
Selenium	0.1000	U		P
Silver	0.0300	U		P
Strontium	0.0100	U		P
Thallium	0.1000	U		P
Titanium	0.0200	U		P
Vanadium	0.0500	U		P
Zinc	0.0500	U		P

Color Before: Colorless Clarity Before: Clear

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Nothing left on TCLP filter.

Comments: Sample < 0.50 % solids. Therefore, the filtered sample is taken to be the final TCLP extract. Pressure filtration of the initial sample through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the final TCLP filtered sample extract.

69

SIN # MTLS02-A2

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 7

Lab Sample ID: R BLANK #1 Deionized Water Preparation Blank

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : <0.5

Date Sampled: 7/20/99 SDG No. : JUN25

Lab Receipt Date: 7/20/99 QC Report No.: SD062599.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.2000	U		P
Antimony	0.1000	U		P
Arsenic	0.1000	U		P
Barium	0.0500	U		P
Beryllium	0.0050	U		P
Cadmium	0.0100	U		P
Calcium	0.2000	U		P
Chromium	0.0500	U		P
Cobalt	0.0500	U		P
Copper	0.0500	U		P
Iron	0.1000	U		P
Lead	0.0500	U		P
Magnesium	0.2000	U		P
Manganese	0.0100	U		P
Molybdenum	0.0500	U		P
Nickel	0.0400	U		P
Phosphorus	0.5000	U		P
Selenium	0.1000	U		P
Silver	0.0300	U		P
Strontium	0.0100	U		P
Thallium	0.1000	U		P
Titanium	0.0200	U		P
Vanadium	0.0500	U		P
Zinc	0.0500	U		P

Color Before: Colorless Clarity Before: Clear

Color After: Colorless Clarity After: Clear

Texture:

Artifacts:

Comments: Sample < 0.50 % Solids. Total Metals Digestion only !

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories

SAMPLE NO. 8

Lab Sample ID: EPA QC-21 Standard

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract

% Solids (0 - N/A) : 0.0000

Date Sampled: 7/20/99 SDG No.: JUN25

Lab Receipt Date: 7/20/99 QC Report No.: SD062599.RPT

Matrix: Water X Soil ____ Sludge ____ Other ____

Elements Identified and Measured

Concentration Units: (mg/L)

Analyte	Concentration	C	Q	M
Aluminum				P
Antimony	4.1058	B		P
Arsenic	3.9563	B		P
Barium				P
Beryllium	3.9669	B		P
Cadmium	4.0125			P
Calcium	4.4472	B		P
Chromium	4.0322	B		P
Cobalt	3.9498	B		P
Copper	3.8592	B		P
Iron	4.2112	B		P
Lead	4.0795	B		P
Magnesium	4.0364	B		P
Manganese	4.2000	B		P
Molybdenum	4.0417	B		P
Nickel	4.1268	B		P
Phosphorus				P
Selenium	3.7922			P
Silver				P
Strontium	3.9777	B		P
Thallium	4.0034	B		P
Titanium	4.0425	B		P
Vanadium	3.9838	B		P
Zinc	3.9348	B		P

Color Before: Clarity Before: Texture:
Color After: Clarity After:

Artifacts:

Comments: Sample = 0.00 % Solids. Total Metals Digestion only!
EPA QC-21 Trace Metals Aqueous Reference Standard.
(External Control Standard).

71

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories

SAMPLE NO. 9

Lab Sample ID: EPA QC-7A Standard

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids (0 - N/A) : 0.0000

Date Sampled: 7/20/99 SDG No.: JUN25

Lab Receipt Date: 7/20/99 QC Report No.: SD062599.RPT

Matrix: Water X Soil _____ Sludge _____ Other _____

Elements Identified and Measured

Concentration Units: (mg/L)

Analyte	Concentration	C	Q	M
Aluminum	4.1171	B		P
Antimony				P
Arsenic				P
Barium	4.0546	B		P
Beryllium				P
Cadmium				P
Calcium				P
Chromium				P
Cobalt				P
Copper				P
Iron				P
Lead				P
Magnesium				P
Manganese				P
Molybdenum				P
Nickel				P
Phosphorus				P
Selenium				P
Silver	1.9885	B		P
Strontium				P
Thallium				P
Titanium				P
Vanadium				P
Zinc				P

Color Before: Clarity Before: Texture:
Color After: Clarity After:

Artifacts:

Comments: Sample = 0.00 % Solids. Total Metals Digestion only!
EPA QC-7A Trace Metals Aqueous Reference Standard.
(External Control Standard).

72

3400

ANALYTICAL SERVICES DIVISION
SAMPLING AND ANALYSIS REQUEST FORM

ASD USE ONLY

RIN: _____ Priority: _____

ASD Project Lead: _____ Phone: _____ Pager: _____

CUSTOMER INFORMATION

Date: 7-15-99

Project Charge No.: KT95AA00

Requestor: KATHY ZBRYK Phone: 6647 Pager: 212-4197
Bldg: 706 Fax: 2864

Secondary Contact: CARRIE WESLIE Phone: 7594 Pager: 212-2569
Bldg: 374 Fax: _____

Fax Data Results To: KATHY ZBRYK Phone: _____ Fax: _____

SAMPLE INFORMATION

Sample Location: B776/777 TANK T2A, Rm 127 (T2B)

Sample Description and Sample Identifiers: _____

Sample Matrix: [X] Aqueous [ ] Org. Liqui [ ] Solid [ ] Sludge [ ] Multi Phase

When will sample be available for sampling? UPON NOTIFICATION FROM B374

When is data required by requestor? 14 day turnaround

Estimated quantity Available for Sampling: 1000 gal

Waste Stream ID No. (if known) _____ Waste Stream Name (if known) PROCESS WATER

EPA CODES: _____ MSDS: ◯ Yes ◯ No ATTACHED: ◯ Yes ◯ No

COMPATIBILITY CODE: _____ WFC/ IDC: _____

90 Day Area? ◯ Yes ◯ No Start Date: _____ End Date: _____

ANALYSES REQUESTED

[ ] Alpha/Beta Screen	[ ] Total VOA	[ ] TCLP VOA	[ ] pH	Other:
[ ] Gross Alpha/Beta	[ ] Total SVOAS	[ ] TCLP SVOAS	[ ] Fingerprint	
[ ] Isotopics	[X] Total Metals (ICP	[ ] TCLP Metals	[ ] IR	
[ ] g/l Isotopics	[ ] Total PCBs	[ ] TCLP PCBs		
[ ] Gamma Spec	[ ] Total Herbicides	[ ] TCLP Herbicides		

Analyses Criticality Sensitive? ◯ Yes [X] No

If Yes ◯ Single ◯ Double Analyses: _____

FOR ARSENIC ONLY

RADIOLOGICAL ENTRY REQUIREMENTS

IS THIS A RADIOACTIVE WASTE STREAM? Suspected to be radioactive? [X] Yes ◯ No

[X] Pu [ ] Am [ ] U Other: _____

Located In: [ ] RBA [ ] RMA [ ] RMMA [X] CA [ ] HCA [ ] RA [ ] HRA Other Area: _____

RCT Support: [X] Yes ◯ No Comments

RWP Required: [X] Yes ◯ No

PWRE Required: ◯ Yes ◯ No

GENERAL ENTRY REQUIREMENTS/SAFETY CONCERNS

[X] Plan of the Day	[ ] Industrial Hygiene Assistance	[ ] Electrical
[ ] Maintenance Assistance	[ ] Carcinogen Control Area	[ ] IWCP
[ ] Operator's Assistance	[ ] Lock-out/Tag-out	[ ] Confined Space
[ ] Mechanical	[ ] Waste Contains Fluorides	Other: _____

Special Instructions: Total metals for ARSENIC ONLY

Requestor Signature: Kathryn Zbryk Date: 7-15-99

Note: Excess sample will be returned to generator.

73

SAMPLERS (Signature) M Schluterbusch [signature] X4215 P5244 F 6538

REPORT IDENTIFICATION NUMBER (RIN) _____ LAB/LOCATION: 559

RFETS CONTRACTOR SEG/RMRS

ROCKY FLATS
ENVIRONMENTAL TECHNOLOGY SITE
CHAIN OF CUSTODY NUMBER MS-001

DATE	TIME	EVENT	BOTTLE	USER ID	~~LOCATION~~	CONTAINER	MATRIX	Cooled to 4° C	NaOH	HNO3	H2SO4	HCl	Analytes
4/28	1530	001	001	779-980416-	MS-001								
					-002								
					-003								
					-004								
					-005								
					-006								
					-007								
					-008								
					-009								
					-010								
					-011								
					-012 -016 -021 -038								

Relinquished By:	Date	Time	Received By/Organization	Date	Time	LABORATORY USE ONLY	Y/N
M Schluterbusch	4/28/98	1530	779 Redops lock box			PCKG REC'D/CUSTODY SEALS INTACT	
						SAMPLE LABELS/COCs AGREE	
						TEMPERATURE AT TIME OF RECEIPT ___°C	

REMARKS:

Charge #

Project

Shipping Re ents: Overnight Delivery ☐ 2-Day Delivery ☐ Air L

74

APO COC 6/5/97

SAMPLERS (Signature) M Schlutenbusch [signature] Phone 4215 Pge 5244

REPORT IDENTIFICATION NUMBER (RIN) 98A2065 LAB/LOCATION: 559

RFETS CONTRACTOR RMRS/SEG

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE CHAIN OF CUSTODY NUMBER SEG 006

DATE	TIME	EVENT	BOTTLE	USER ID	~~LOCATION~~	CONTAINER	MATRIX	Preservation: Cooled to 4° C	NaOH	HNO3	H2SO4	HCl		Analytes: Total Metals + Hg	TCLP Metals + Hg
5/13/98	—	001	001	779-980416	MS-001									X	X
			002	779-980416	MS-002									X	X
			003		-003									X	X
			004		-004									X	X
			005		-005									X	X
			006		-006									X	X
			007		-007									X	X
			008		-008									X	X
			009		-009									X	X
			010		-010									X	X
			011		-011									X	X
			012		-012									X	X

Relinquished By:	Date	Time	Received By/Organization	Date	Time
Michael M Schlutenbusch [signature]	5/13/98	1410	LB Johnson Labs	5/13/98	1410

LABORATORY USE ONLY	Y/N
PCKG REC'D/CUSTODY SEALS INTACT	N/A
SAMPLE LABELS/COCs AGREE	
TEMPERATURE AT TIME OF RECEIPT ___ °C	
Charge #	
Project	

REMARKS: PRIORITY 2

Shipping Requirements: Overnight Delivery ☐ 2-Day Delivery ☐ Air Bill No.

75

SAMPLERS (Signature) Schlutzebuch / Phone 4215 pgs 5244

REPORT IDENTIFICATION NUMBER (RIN) 98A2065 LAB/LOCATION: 559

RFETS CONTRACTOR RMRS/SEG

ROCKY FLATS
ENVIRONMENTAL TECHNOLOGY SITE
CHAIN OF CUSTODY NUMBER SEG-006

DATE	TIME	EVENT	BOTTLE	USER ID	~~LOCATION~~	CONTAINER	MATRIX	Preservation: Cooled to 4°	NaOH	HNO3	H2SO4	HCl	Analyses: Total Metals+Hg	TCLP Metals+Hg
5/13/98	-	001	013	779-980416	-MS-013								X	X
			014		-014								X	X
			015		-015								X	X
			016		-016								X	X
			017		-017								X	X
			018		-018								X	X
			019		-019								X	X
			020		-020								X	X
			021		-021								X	X
			022		-022								X	X
			023		-023								X	X
			024		-024								X	X

Relinquished By:	Date	Time	Received By/Organization	Date	Time	LABORATORY USE ONLY	Y/N
M Schlutzebuch	5/13/98	1410	LB Johnson Labs	5/13/98	1410	PCKG REC'D/CUSTODY SEALS INTACT	N/A
						SAMPLE LABELS/COCs AGREE	✓
						TEMPERATURE AT TIME OF RECEIPT ___°C	

REMARKS: PRIORITY 2

Charge #

Project

Shipping Requi[illegible] Overnight Delivery ☐ 2-Day Delivery ☐

AP JC 6/5/97

76

SAMPLERS (Signature) Schlutenbusch M Schlutenbusch / Phone 4215 pge 5244

REPORT IDENTIFICATION NUMBER (RIN) 98A2065 LAB/LOCATION: 559

RFETS CONTRACTOR RMRS/SEG

ROCKY FLATS
ENVIRONMENTAL TECHNOLOGY SITE
CHAIN OF CUSTODY NUMBER SEG-006

DATE	TIME	EVENT	BOTTLE	USER ID	LOCATION	CONTAINER	MATRIX	Preservation: Cooled to 4°C	NaOH	HNO3	H2SO4	HCl	Analytes:		Total Metals + Hg		TCLP Metals + Hg										
5/13/98	–	001	025	779-980416	-MS-025								X		X												
			026		-026								X		X												
			027		-027								X		X												
			028		-028								X		X												
			029		-029								X		X												
			030		-030								X		X												
			031		-031								X		X												
			032		-032								X		X												
			033		-033								X		X												
			034		-034								X		X												
			035		-035								X		X												
			036		-036								X		X												

Relinquished By:	Date	Time	Received By/Organization	Date	Time	LABORATORY USE ONLY	Y/N
M Schlutenbusch	5/13/98	1410	LB Johnson Sales	5/13/98	1410	PCKG REC'D/CUSTODY SEALS INTACT	N/A
						SAMPLE LABELS/COCs AGREE	✓
						TEMPERATURE AT TIME OF RECEIPT ___ °C	
							✓

REMARKS: PRIORITY 2

Shipping Requir: Overnight Delivery ☐ 2-Day Delivery ☐

SAMPLERS (Signature) M Schluterbusch [signature] / Ph 4215 pgs 5244

REPORT IDENTIFICATION NUMBER (RIN) 98A2065 LAB/LOCATION: 559

RFETS CONTRACTOR RMRS/SEG

ROCKY FLATS
ENVIRONMENTAL TECHNOLOGY SITE
CHAIN OF CUSTODY NUMBER SEG-006

DATE	TIME	EVENT	BOTTLE	USER ID	~~LOCATION~~	CONTAINER	Preservation	Total Metals+Hg	TCLP Metals+Hg
5/13/98	~	001	037	779-980416	MS-037			X	X
			038		-038			X	X
			039		-039			X	X
			040		-040			X	X
			041		-041				X
			042		-042				X
			043		-043				X
			044		-044			X	X

Relinquished By:	Date	Time	Received By/Organization	Date	Time
Michael N Schluterbusch	5/13/98	1410	LB Johnson Labs	5/13/98	1410

LABORATORY USE ONLY	Y/N
PCKG REC'D/CUSTODY SEALS INTACT	N/A
SAMPLE LABELS/COCs AGREE	✓
TEMPERATURE AT TIME OF RECEIPT ___ °C	

REMARKS:

Charge #

Project

Shipping Requi: Overnight Delivery ☐ 2-Day Delivery ☐ Air Bill

APC 6/5/97

78

ROCKY FLATS
ENVIRONMENTAL TECHNOLOGY SITE
CHAIN OF CUSTODY NUMBER: 98A5204#001

SAMPLERS (Signature): M Schlutenhaus

REPORT IDENTIFICATION NUMBER (RIN): 98A5204

LABORATORY: Building 559 Laboratory

AGGREGATE AREA: 779

RFETS CONTRACTOR: RMRS

Bottle Num.	User Samp. Num.	~~Date~~	Time	Location	Container	Matrix	Preservation	RS08A007 (TCLP Inorganics wo Hg)	PA03A032 (TCLP Mercury - 559)
98A5204-001.001	779-980721-MS	001			100G P/G		None	P	P
98A5204-002.001	779-980722-MS	002			100G P/G		None	P	P
98A5204-003.001					100G P/G		None		
98A5204-004.001					100G P/G		None		
98A5204-005.001					100G P/G		None		

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By: M Schlutenhaus	Date/Time: 7/21/98 @ 1424	Received By: LB Johnson Labs	Date/Time: 7/21/98 1424
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

REMARKS: LAB REQUIRES SHEET METAL SAMPLES TO BE 1 INCH SQUARES OR LESS

Sheet metal samples- burrs & sharp edges

Charge #: KT03CX00

Project: WASTE PROJECTS

Shipping R ments:

Air Bill No.:

79

Turnaround Times for 98A5204

7/17/98 9:31:52 AM

COC Num.	Bottle Num.	Line Item Code	Processing
98A5204#001	LAB: Building 559 Laboratory		
	98A5204-001.001		
		PA03A032	Priority
		RS08A007	Priority
	98A5204-002.001		
		PA03A032	Priority
		RS08A007	Priority
	98A5204-003.001		
		PA03A032	Priority
		RS08A007	Priority
	98A5204-004.001		
		PA03A032	Priority
		RS08A007	Priority
	98A5204-005.001		
		PA03A032	Priority
		RS08A007	Priority

82

ANALYTICAL SERVICES DIVISION
SAMPLING AND ANALYSIS REQUEST FORM

ASD USE ONLY

RIN: 98A5204 Priority: Priority

ASD Project Lead: STONER, NORM Phone: 4289 Pager:

CUSTOMER INFORMATION

Date: 7/17/98 9:03:38

Project Charge No.:

Requestor: SCHLUTERBUSCH,MIKE Phone: 7215 Pager:
Bldg: Fax:

Secondary Contact: Phone: Pager:
Bldg: Fax:

Fax Data Results To: SAME Phone: 6538 Fax:

SAMPLE INFORMATION

Sample Location: BLDG 779

Sample Description and Sample Identifiers SHEET METAL SAMPLES – Roof

Sample Matrix: ☐ Aqueous ☐ Org. Liquid ☒ Solid ☐ Sludge ☐ Multi Phase

When will sample be available for sampling? 7/17/98

When is data required by requestor?

Estimated quantity Available for Sampling:

Waste Stream ID No. (if known): Waste Stream Name (if known):

EPA CODES: MSDS: ○ Yes ● No ATTACHED: ○ Yes ● No

COMPATIBILITY CODE WFC/ IDC:

90 Day Area? ○ Yes ● No Start Date: End Date:

ANALYSES REQUESTED

☐ Alpha/Beta Screen	☐ Total VOA	☐ TCLP VOA	☐ pH	Other:
☐ Gross Alpha/Beta	☐ Total SVOAS	☐ TCLP SVOAS	☐ Fingerprint	TCLP HG
☐ Isotopics	☐ Total Metals (ICP)	☒ TCLP Metals	☐ IR	
☐ g/l Isotopics	☐ Total PCBs	☐ TCLP PCBs	Analyses Criticality Sensitive? ○ Yes ● No	
☐ Gamma Spec	☐ Total Herbicides	☐ TCLP Herbicides	If Yes: ○ Single ○ Double	Analyses:

RADIOLOGICAL ENTRY REQUIREMENTS

IS THIS A RADIOACTIVE WASTE STREAM? Suspected to be radioactive? ○ Yes ● No

☐ Pu ☐ Am ☐ U Other:

Located In: ☐ RBA ☐ RMA ☐ RMMA ☐ CA ☐ HCA ☐ RA ☐ HRA Other Area:

RCT Support: ○ Yes ● No Comments:

RWP Required: ○ Yes ● No

PWRE Required: ○ Yes ● No

GENERAL ENTRY REQUIREMENTS/SAFETY CONCERNS

☐ Plan of the Day	☐ Industrial Hygiene Assistance	☐ Electrical
☐ Maintenance Assistance	☐ Carcinogen Control Area	☐ IWCP
☐ Operator's Assistance	☐ Lock-out/Tag-out	☐ Confined Space
☐ Mechanical	☐ Waste Contains Fluorides	Other:

Special Instructions:

Requestor Signature: **Date:**

Note: Excess sample will be returned to generator.

81

SAMPLE SUMMARY FOR RIN: 98A5204

RIN Title:
Project Name: WASTE PROJECTS
Task Name: BLDG 779
Aggregate Area:

Sampling Team:
Sampling Mgr/Coordinator:
Samplers:
Field Logbook ID:
Matrix Class:

This sample summary is supplied to waste generators as notification of sample collection. Inquires into the status of this sampling effort may be directed to the Analytical Services Division (ASD).

Bottle Number	Customer Bottle Number	Location	LIC (See Attached)	Laboratory	Date Collected	Date Shipped	Date Returned	Comments
98A5204-001.001			1,2	Building 559 Laboratory				
98A5204-002.001			1,2	Building 559 Laboratory				
98A5204-003.001			1,2	Building 559 Laboratory				
98A5204-004.001			1,2	Building 559 Laboratory				
98A5204-005.001			1,2	Building 559 Laboratory				

Returning Excess Sample Material:

Unmodified sample material remaining after analysis is generally returned to the generator. The generator must be prepared to receive and dispose of excess sample material for applicable state and federal regulations. Regulatory exclusions for returning excess sample material are specified in the Code of Colorado Regulation (CCR) 1007-3, Part 261.4(d) 'Samples'. If problems with the disposal of excess sample material are encountered, the Environmental Coordinator for the generation area should be contacted for resolution of the issues. Only sample material which has not been modified during analysis will be returned. Material which has been acidified for preservation purposes will not be returned.

Customer Acknowledgement: _____
(Sign and Print Name)

Comments:

Line Item Code's:

1) PA03A032 (TCLP Mercury - 559)
2) RS08A007 (TCLP Inorganics wo Hg)

RMRS

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # 99A4089#001

Page 001 of 001

Collector: M Schluterbusch	Contact/Requester: SCHLUTERBUSCH,MIKE	Telephone No.: 4215.2126517 MSIN FAX 4308
RIN: 99A4089	Sampling Origin: B782	Purchase Order/Charge Code: KT95AA00
Project Title: 779 D&D	Logbook No.	Ice Chest No. Temp.
To (Lab): Building 559 Laboratory	Method of Shipment: Hand carried	Bill of Lading/Air Bill No.
Protocol:		Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
" "

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
ANALYZE TOTAL METALS FIRST TO DETERMINE IF TCLP METALS ARE REQUIRED.

Bottle No.	Customer Number	Matrix	Date	Time	Location	No/Type Container	Sample Analysis	Preservative ; Packing
99A4089-001.001	782-9812 08-MS-001	Solid	12/8/98	1400	B782 Box 140	5-G G	PA03A016 (Mercury) [Priority]; RS05A022 (Mtls Unfit SW846 w/o Hg) [Priority]	None 4 degrees C
99A4089-001.002	"	"	"	"	"	25-G G	PA03A016 (Mercury) [Priority]; RS08A006 (TCLP Metals) [Priority]	None 4 degrees C

Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
M Schluterbusch	12/14/98 1455	PB Johnson Labs	12/14/98 1455				
PB Johnson Labs	12/14/98 1455	Mig 102-6	12/14/98 1455				

FINAL SAMPLE DISPOSITION: Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

83

RMRS

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # 99A5527 rr001

Page 1 of 1

Collector	Contact/Requester: Mike Schlitterbusch	Telephone No.: 4215 MSIN FAX
RIN: 99A5527	Sampling Origin: Bldg 779	Purchase Order/Charge Code: KT95AA00
Project Title	Logbook No.	Ice Chest No. Temp.
To (Lab): Building 559 Laboratory	Method of Shipment	Bill of Lading/Air Bill No.
Protocol		Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☐ No ☐

Bottle No.	Customer Number	Matrix	Date	Time	Location	No/Type Container	Sample Analysis	Preservative; Packing
99A5527-001.001		SOLID	2/25/99	0900	Bldg 779	5-G P/G	RS05A048 (Mtls SW846) ~~[Rush]~~ PRIORITY MS 2/25/99	None None
99A5527-002.001		SOLID	2/25/99	0700		5-G P/G	RS05A048 (Mtls SW846) ~~[Rush]~~ PRIORITY MS	None None

MS 2/25/99

Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
M Schlitterbusch	2/25/99 @1350	L B Johnson	2/25/99 1350				

FINAL SAMPLE DISPOSITION: Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

Paint from 779B S wall cages

89

99031701-Due: 3/18/99

RMRS

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

FILE COPY

C.O.C.# 99A5968#001

Page 1 of 1

Collector	Contact/Requester: Mike Schinterbusch	Telephone No. MSIN FAX
RIN: 99A5968	Sampling Origin: Bldg 779	Purchase Order/Charge Code: KT03AA00
Project Title	Logbook No.	Ice Chest No. Temp.
To (Lab): Johns Manville	Method of Shipment	Bill of Lading/Air Bill No.
Protocol		Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS: **RUSH** Hold Time

Total Activity Exemption: Yes ☐ No ☐

Bottle No.	Customer Number	Matrix	Date	Time	Location	No/Type Container	Sample Analysis	Preservative; Packing
99A5968-001.001	779990316MS001	IH				6-G P	IH01C012 (Metals by NIOSH 7300 (All)) [Rush]	N/A N/A
99A5968-002.001	779031699MS002	IH				6-G P	IH01C012 (Metals by NIOSH 7300 (All)) [Rush]	N/A N/A

Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	3/16/99 1515	[signature]	3/16/99 1515	[signature]	3/16/99 1530	Fed Ex	
[signature]		[signature]	3/17/99 1030				

FINAL SAMPLE DISPOSITION: Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

** TOTAL PAGE.05 **

Best Available Copy

ROCKY FLATS
ENVIRONMENTAL TECHNOLOGY SITE
CHAIN OF CUSTODY NUMBER: 98A5204#001

SAMPLERS (Signature): M Schlotterbeck

REPORT IDENTIFICATION NUMBER (RIN): 98A5204

LABORATORY: Building 559 Laboratory

AGGREGATE AREA: 779

RFETS CONTRACTOR: RMRS

Bottle Num.	User Samp. Num.	Date	Time	Location	Container	Matrix	Preservation	RS08A007 (TCLP Inorganics wo Hg)	PA03A032 (TCLP Mercury - 559)
98A5204-001.001	779-980721-MS	001			100G P/G		None	P	P
98A5204-002.001	779-980722-MS	002			100G P/G		None	P	P
~~98A5204-003.001~~					~~100G P/G~~		~~None~~		
~~98A5204-004.001~~					~~100G P/G~~		~~None~~		
~~98A5204-005.001~~					100G P/G		None		

LB J 7/21/98

ENTERED

CHAIN OF POSSESSION

Sign/Print Names

Relinquished By: M Schlotterbeck	Date/Time: 7/21/98 @ 1424	Received By: LB Johnson Labs	Date/Time: 7/21/98 1424
Relinquished By: LB Johnson Labs	Date/Time: 7/21/98 1424	Received By: Trig 102-6	Date/Time: 7/21/98 1424
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

REMARKS: LAB REQUIRES SHEET METAL SAMPLES TO BE 1 INCH SQUARES OR LESS
Sheet metal samples - burrs & sharp edges

Charge #: KT03CX00

Project: WASTE PROJECTS

Shipping Requirements:

Air Bill No.:

FAXED 7/21/98 APO

86

Commodore Advanced Sciences

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

9810301 Due: 11/6/98

C.O.C.# 99Z3392#001

Page 1 of 1

Collector: TONYA SANGALINE	Contact/Requester: ROGER CICHORZ	Telephone No.: 966-2155 MSIN FAX
RIN: 99Z3392	Sampling Origin: 779	Purchase Order/Charge Code: KT956A08
Project Title:	Logbook No.: NA	Ice Chest No.: NA Temp.
To (Lab): Johns Manville	Method of Shipment: HAND CARRY	Bill of Lading/Air Bill No.:
Protocol:		Offsite Property No.:

POSSIBLE SAMPLE HAZARDS/REMARKS: ** **

SPECIAL INSTRUCTIONS: Hold Time: Total Activity Exception: Yes ☐ No ☐

Bottle No.	Customer Number	Matrix	Date	Time	Location	No/Type Container	Sample Analysis	Preservative/Packing
99Z3392-001.001	9810152A03013	IH	NA	NA	779	1-SAMPLE P	[H01C012 (Metals by NIOSH 7300 (AIH)) [Routine]	N/A N/A
99Z3392-002.001	9810152A03013	SOLID	NA	NA	779	1-BAG NA	[E101A006 [TCLP Metals) [Routine]	N/A None

Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	10/29/98 [illegible]	[signature]	10/29/98 1620				
Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
		[signature] TC	10/29/98 0630				
Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
Relinquished By:	Date/Time	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time

FINAL SAMPLE DISPOSITION: Disposal Method (e.g. Return to customer, per lab procedure, used in process) Disposed By Date/Time

87

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 4

Lab Sample ID: X-98A2065-018 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ; Soil ; Sludge ; Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	820.1058	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.4881	B		P
Magnesium	0.6000	U		P
Manganese	0.0300	U		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.9408	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids, Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

88

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 5

Lab Sample ID: X-98A2065-019 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V * E O O S + Q	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1536	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	706.0068	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.6177	B		P
Magnesium	6.2292	B		P
Manganese	0.0300	U		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.8277	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: Blue Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh blue solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

89

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 6

Lab Sample ID: X-98A2065-020 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ___ Soil ___ Sludge ___ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V * E O O S + Q	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1695	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	795.4176	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.4821	B		P
Magnesium	0.6000	U		P
Manganese	0.0300	U		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	1.0734	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 7

Lab Sample ID: X-98A2065-021 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	6.5301	B		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1626	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	869.7762	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.5004	B		P
Magnesium	0.6000	U		P
Manganese	0.0579	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	1.1919	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh white solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

91

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 8

Lab Sample ID: X-98A2065-022 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ___ Soil ___ Sludge ___ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	822.3384	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.4761	B		P
Magnesium	0.8172	B		P
Manganese	0.0300	U		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	1.1091	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: White Clarity Before: Cloudy

Color After: Yellow Clarity After: Clear

Texture:

Artifacts: Fine mesh white solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

92

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 4

Lab Sample ID: X-98A2065-023 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY25

Lab Receipt Date: 5/13/98 QC Report No.: SD052598.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.4173	B		P
Arsenic	0.3000	U		P
Barium	0.1719	B		P
Beryllium	0.0150	U		P
Cadmium	0.1857	B		P
Calcium	231.2457	B	*	P
Chromium	19.7658			P
Cobalt	0.5208	B		P
Copper	0.3000	U		P
Iron	33.5013	B		P
Lead	3.5550	B		P
Magnesium	2.6187	B		P
Manganese	0.4710	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	32.0349	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.2319	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	54.6327	B		P

Color Before: Orange Clarity Before: Cloudy

Color After: Orange Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

43

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 9

Lab Sample ID: X-98A2065-024 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No.: MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ___ Soil ___ Sludge ___ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.3660	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	743.0427	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.5508	B		P
Magnesium	24.8946	B		P
Manganese	0.2283	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.6000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.5322	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.9069	B		P

Color Before: Brown Clarity Before: Cloudy

Color After: Yellow Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

94

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 10

Lab Sample ID: X-98A2065-026 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ___ Soil ___ Sludge ___ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	1.0233	B		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.2709	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	743.9100	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.5016	B		P
Magnesium	17.8896	B		P
Manganese	0.2031	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.5481	B		P
Thallium	0.3000	U		P
Titanium	0.1551	B		P
Vanadium	0.2400	U		P
Zinc	1.2618	B		P

Color Before: Brown Clarity Before: Cloudy

Color After: Yellow Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

46

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 11

Lab Sample ID: X-98A2065-026 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V * E O O S + Q	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.4197	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	654.5664	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.4656	B		P
Magnesium	7.3920	B		P
Manganese	0.1935	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	1.2606	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

96

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 12

Lab Sample ID: X-98A2065-027 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ___ Soil ___ Sludge ___ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V * E O O S + Q	M
Aluminum	4.9887	B		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0160	U		P
Cadmium	0.0600	U		P
Calcium	424.5654	B		P
Chromium	0.1500	U		P
Cobalt	0.1506	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.4311	B		P
Magnesium	6.0642	B		P
Manganese	0.2646	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	4.0497	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	2.1984	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	4.3428	B		P

Color Before: Yellow Clarity Before: Cloudy

Color After: Yellow Clarity After: Clear

Texture:

Artifacts: Fine mesh yellow solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

97

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 13

Lab Sample ID: X-98A2065-028 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix:
Water
Soil
Sludge
Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	2.7483	B		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	1003.3158	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.6960	B		P
Magnesium	21.2187	B		P
Manganese	0.2934	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	2.3088	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.8184	B		P

Color Before: Brown Clarity Before: Cloudy

Color After: Yellow Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

98

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 14

Lab Sample ID: X-98A2065-029 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.4017	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	694.4994	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.4788	B		P
Magnesium	7.0923	B		P
Manganese	0.1887	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	1.3122	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 15

Lab Sample ID: X-98A2065-030 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	484.6419	B		P
Chromium	0.1500	U		P
Cobalt	1.6680	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	1.8132	B		P
Magnesium	26.1813	B		P
Manganese	0.6039	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	3.0858	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	1.1697	B		P
Thallium	0.3000	U		P
Titanium	0.1848	B		P
Vanadium	0.2400	U		P
Zinc	3.4983	B		P

Color Before: Blue Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh blue solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

100

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 5

Lab Sample ID: X-98A2085-031 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY25

Lab Receipt Date: 5/13/98 QC Report No.: SD052598.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	2.2635	B		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.3726	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	142.8066	B		P
Chromium	2.1690	B		P
Cobalt	1.3344	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.9438	B		P
Magnesium	3.1509	B		P
Manganese	0.6966	B		P
Molybdenum	0.1500	U		P
Nickel	0.9810	B		P
Phosphorus	28.9704	B		P
Selenium	0.3600	U		P
Silver	0.2130	B		P
Strontium	0.1425	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	29.8029	B		P

Color Before: Pink Clarity Before: Cloudy

Color After: Pink Clarity After: Clear

Texture:

Artifacts: Fine mesh pink solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

101

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 6

Lab Sample ID: X-98A2065-032 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY25

Lab Receipt Date: 5/13/98 QC Report No.: SD052598.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.5889	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	558.1329	B	*	P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	7.0779	B		P
Manganese	0.4161	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	13.6362	B		P
Selenium	0.3600	U		P
Silver	0.3345	B		P
Strontium	1.4829	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	22.2654	B		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 7

Lab Sample ID: X-98A2065-033 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY25

Lab Receipt Date: 5/13/98 QC Report No.: SD052598.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V * E O O S + Q	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.6816	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	324.4050	B	*	P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	4.0929	B		P
Manganese	0.8265	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	30.4491	B		P
Selenium	0.3600	U		P
Silver	0.1752	B		P
Strontium	0.4884	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	52.4913	B		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 1

Lab Sample ID: X-98A5204-001 Bldg 779 Solid Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 7/21/98 SDG No. : JUL14

Lab Receipt Date: 7/21/98 QC Report No.: SD071498.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V * E O O S + Q	M
Aluminum	0.9000	U	N	P
Antimony	0.6165	B		P
Arsenic	0.3000	U		P
Barium	0.2772	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	0.7956	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	18.7782	B		P
Lead	0.6954	B		P
Magnesium	0.6000	U		P
Manganese	0.4095	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	456.4572	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.0300	U		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	797.4954	B		P

Color Before: Colorless Clarity Before: Clear

Color After: Brown Clarity After: Cloudy

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories

Sample No.: 2

Lab Sample ID: X-98A5204-002 Bldg 779 Solid Sample

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 7/21/98

SDG No. : JUL14

Lab Receipt Date: 7/21/98

QC Report No.: SD071498.RPT

Matrix: Water ___ Soil ___ Sludge ___ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V * E O O S + Q	M
Aluminum	1.1823	B	N	P
Antimony	0.7287	B		P
Arsenic	0.3000	U		P
Barium	2.4396	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	2.5125	B		P
Chromium	1.0230	B		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	7.3266	B		P
Lead	0.7362	B		P
Magnesium	0.6000	U		P
Manganese	0.3162	B		P
Molybdenum	0.1500	U		P
Nickel	0.1617	B		P
Phosphorus	359.2050	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.0300	U		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	601.5051	B		P

Color Before: Colorless

Clarity Before: Clear

Color After: Brown

Clarity After: Cloudy

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

105

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories

Sample No.: 3

Lab Sample ID: X-98A5204-002 D Bldg 779 Solid Sample Lab Duplicate

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 7/21/98

SDG No. : JUL14

Lab Receipt Date: 7/21/98

QC Report No.: SD071498.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	1.1409	B	N	P
Antimony	0.6181	B		P
Arsenic	0.3000	U		P
Barium	2.4165	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	2.5632	B		P
Chromium	1.0248	B		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	7.2066	B		P
Lead	0.7371	B		P
Magnesium	0.6000	U		P
Manganese	0.3075	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	347.6838	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.0300	U		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	601.5393	B		P

Color Before: Colorless

Clarity Before: Clear

Color After: Brown

Clarity After: Cloudy

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

ENTERED

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 2

Lab Sample ID: X-99A4089-001 Bldg 782 Solid Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 12/8/98 SDG No. : JAN05

Lab Receipt Date: 12/14/98 QC Report No.: SD010599.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3189	B		P
Arsenic	0.3000	U		P
Barium	0.2169	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	113.1324	B		P
Chromium	0.1500	U		P
Cobalt	1.4133	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	62.4330		*	P
Magnesium	1.3311	B	E	P
Manganese	0.1929	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	10.9944	B		P
Selenium	0.3000	U		P
Silver	0.0900	U		P
Strontium	0.4239	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.1500	U		P
Zinc	16.7907	B		P

Color Before: Orange Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: White and red particulates left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

107

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 8

Lab Sample ID: X-98A2065-034 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY25

Lab Receipt Date: 5/13/98 QC Report No.: SD052598.RPT

Matrix: Water ___ Soil ___ Sludge ___ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	2.7090	B		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.2220	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	633.4569	B	*	P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	13.5216	B		P
Manganese	0.1503	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.1284	B		P
Strontium	1.6563	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.9060	B		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

108

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 1

Lab Sample ID: X-98A2065-035 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample: 100.0000

Date Sampled: 5/13/98 SDG No.: MAY26

Lab Receipt Date: 5/13/98 QC Report No.: SD052698.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.2733	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	712.3143	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	10.8873	B		P
Manganese	0.0930	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	1.9077	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3111	B		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 2

Lab Sample ID: X-98A2065-035 D Bldg 779 Solid Paint Sample Lab Duplicate

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY26

Lab Receipt Date: 5/13/98 QC Report No.: SD052698.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.2601	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	704.5869	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	11.5947	B		P
Manganese	0.0894	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	1.9308	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

10

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 3

Lab Sample ID: X-98A2065-036 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY26

Lab Receipt Date: 5/13/98 QC Report No.: SD052698.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.2751	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	662.6910	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	10.9395	B		P
Manganese	0.0648	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	1.7955	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was perfomed to obtain the TCLP final sample extract.

/11

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 4

Lab Sample ID: X-98A2065-037 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY26

Lab Receipt Date: 5/13/98 QC Report No.: SD052698.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S ^+)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.3129	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	685.1562	B		P
Chromium	0.1500	U		P
Cobalt	0.3162	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	10.8444	B		P
Manganese	1.2897	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	2.4528	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: *Fine mesh brown solids left on TCLP Filter.*

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

112

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 9

Lab Sample ID: X-98A2065-038 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY25

Lab Receipt Date: 5/13/98 QC Report No.: SD052598.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.4584	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	504.6391	B	*	P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	13.4433	B		P
Manganese	0.3594	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	2.0745	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	4.5060	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.6397	B		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

113

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 10

Lab Sample ID: X-98A2065-039 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY25

Lab Receipt Date: 5/13/98 QC Report No.: SD052598.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	59.6622	B	*	P
Chromium	0.1500	U		P
Cobalt	0.2580	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	11.9907			P
Magnesium	2.2767	B		P
Manganese	0.2601	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	6.7209	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.0942	B	*	P
Thallium	0.3000	U		P
Titanium	0.7503	B		P
Vanadium	0.2400	U		P
Zinc	5.4366	B		P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh white solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

114

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories

Sample No.: 11

Lab Sample ID: X-98A2065-040 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98

SDG No. : MAY25

Lab Receipt Date: 5/13/98

QC Report No.: SD052598.RPT

Matrix:
Water
Soil
Sludge
Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V * E O O S + Q	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1695	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	407.7573	B	*	P
Chromium	0.1500	U		P
Cobalt	0.2895	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	3.4590	B		P
Manganese	0.2736	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	6.5436	B		P
Selenium	0.3600	U		P
Silver	0.1227	B		P
Strontium	0.5361	B	*	P
Thallium	0.3000	U		P
Titanium	0.7032	B		P
Vanadium	0.2400	U		P
Zinc	7.3548	B		P

Color Before: White

Clarity Before: Cloudy

Color After: Colorless

Clarity After: Clear

Texture:

Artifacts: Fine mesh white solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

115

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 5

Lab Sample ID: X-98A2065-041 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY26

Lab Receipt Date: 5/13/98 QC Report No.: SD052698.RPT

Matrix:
Water
Soil
Sludge
Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.8208	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	238.9761	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.5562	B		P
Magnesium	140.7270	B		P
Manganese	0.0852	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.8049	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh white solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 12

Lab Sample ID: X-98A2065-042 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY25

Lab Receipt Date: 5/13/98 QC Report No.: SD052598.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.3528	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	176.3730	B	*	P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	53.0968	B		P
Manganese	0.0300	U		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.5094	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.4332	B		P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh white solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

10

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 13

Lab Sample ID: X-98A2065-043 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY25

Lab Receipt Date: 5/13/98 QC Report No.: SD052598.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.4641	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	499.4211	B	*	P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	2.4630	B		P
Manganese	0.5778	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	2.1327	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	1.2758	B		P

N V + E O O S +

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

18

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 14

Lab Sample ID: X-98A2065-044 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY25

Lab Receipt Date: 5/13/98 QC Report No.: SD052598.RPT

Matrix: Water ___ Soil ___ Sludge ___ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.2184	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	720.1941	B	*	P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	6.3591	B		P
Manganese	0.6258	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	3.7047	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.6132	B		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

JOHNS MANVILLE TECHNICAL CENTER (JMTC)

Dec-18-98

Laboratory Project No.: 98103011
Client: Kaiser Hill
PO#/Release #: KT95AA00
Site Sample #:
Seal #: 99Z3392
Requestor: Tanya Sangaline

TABLE I: Sample Results

Client Sample No.	Laboratory Sample No.	Analysis	Method	Matrix	Reporting Limit	Total
779981015MS013	S27999	Silver	SW-846/1311/7470/6010	Bulk	5.0 mg/kg	ND
		Aluminum			5.0 mg/kg	ND
		Arsenic			5.0 mg/kg	ND
		Barium			100 mg/kg	ND
		Beryllium			0.007 mg/kg	ND
		Bismuth			5.0 mg/kg	ND
		Calcium			100 mg/kg	ND
		Cadmium			1.0 mg/kg	ND
		Cobalt			1 mg/kg	ND
		Chromium			5.0 mg/kg	ND
		Copper			5.0 mg/kg	ND
		Iron			5.0 mg/kg	ND
		Magnesium			5.0 mg/kg	ND
		Manganese			5.0 mg/kg	ND
		Molybdenum			5.0 mg/kg	ND
		Sodium			5.0 mg/kg	ND
		Nickel			7.0 mg/kg	ND
		Lead			5.0 mg/kg	ND
		Antimony			1.0 mg/kg	ND
		Selenium			1.0 mg/kg	ND
		Tin			5.0 mg/kg	ND
		Tellurium			5.0 mg/kg	ND
		Vanadium			5.0 mg/kg	ND
		Zinc			5.0 mg/kg	ND
		Mercury			0.2 mg/kg	ND

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 2

Lab Sample ID: X-98A5204-002 Bldg 779 Solid Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 7/21/98 SDG No. : JUL14

Lab Receipt Date: 7/21/98 QC Report No.: SD071498.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	1.1823	B	N	P
Antimony	0.7287	B		P
Arsenic	0.3000	U		P
Barium	2.4396	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	2.5125	B		P
Chromium	1.0230	B		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	7.3266	B		P
Lead	0.7362	B		P
Magnesium	0.6000	U		P
Manganese	0.3162	B		P
Molybdenum	0.1500	U		P
Nickel	0.1617	B		P
Phosphorus	359.2050	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.0300	U		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	601.5051	B		P

Color Before: Colorless Clarity Before: Clear

Color After: Brown Clarity After: Cloudy

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

121

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 1

Lab Sample ID: X-98A5204-001 Bldg 779 Solid Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 7/21/98 SDG No. : JUL14

Lab Receipt Date: 7/21/98 QC Report No.: SD071498.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U	N	P
Antimony	0.6165	B		P
Arsenic	0.3000	U		P
Barium	0.2772	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	0.7956	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	18.7782	B		P
Lead	0.6954	B		P
Magnesium	0.6000	U		P
Manganese	0.4095	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	456.4572	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.0300	U		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	797.4954	B		P

Color Before: Colorless Clarity Before: Clear

Color After: Brown Clarity After: Cloudy

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

122

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories

Sample No.: 3

Lab Sample ID: X-98A5204-002 D Bldg 779 Solid Sample Lab Duplicate

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 7/21/98

SDG No. : JUL14

Lab Receipt Date: 7/21/98

QC Report No.: SD071498.RPT

Matrix:

Water	
Soil	
Sludge	
Other	X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V E O O S + Q	M
Aluminum	1.1409	B	N	P
Antimony	0.6181	B		P
Arsenic	0.3000	U		P
Barium	2.4165	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	2.5632	B		P
Chromium	1.0248	B		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	7.2066	B		P
Lead	0.7371	B		P
Magnesium	0.6000	U		P
Manganese	0.3075	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	347.6838	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.0300	U		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	601.5393	B		P

Color Before: Colorless

Clarity Before: Clear

Color After: Brown

Clarity After: Cloudy

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

123

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 4

Lab Sample ID: X-TCLP EXT #1 TCLP Extraction Fluid Reagent Blank

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : < 0.5000

Date Sampled: 7/27/98 SDG No. : JUL14

Lab Receipt Date: 7/27/98 QC Report No.: SD071498.RPT

Matrix: Water X
Soil
Sludge
Other

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V * E O O S + Q	M
Aluminum	0.3000	U	N	P
Antimony	0.1000	U		P
Arsenic	0.1000	U		P
Barium	0.0500	U		P
Beryllium	0.0050	U		P
Cadmium	0.0200	U		P
Calcium	0.2000	U		P
Chromium	0.0500	U		P
Cobalt	0.0500	U		P
Copper	0.1000	U		P
Iron	0.2000	U		P
Lead	0.0800	U		P
Magnesium	0.2000	U		P
Manganese	0.0100	U		P
Molybdenum	0.0500	U		P
Nickel	0.0500	U		P
Phosphorus	0.5000	U		P
Selenium	0.1200	U		P
Silver	0.0300	U		P
Strontium	0.0100	U		P
Thallium	0.1000	U		P
Titanium	0.0200	U		P
Vanadium	0.0800	U		P
Zinc	0.1000	U		P

Color Before: Colorless Clarity Before: Clear

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Nothing left on TCLP Filter.

Comments: Sample < 0.50 % solids. Therefore, the filtered sample is taken to be the final TCLP extract. Pressure filtration of the initial sample through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the final TCLP filtered sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories

SAMPLE NO. 5

Lab Sample ID: EPA QC-21 Standard

Section: ICPAES

% Solids (0 - N/A) : 0.0000

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

Date Sampled: 7/28/98

SDG No.: JUL14

Lab Receipt Date: 7/28/98

QC Report No.: SD071498.RPT

Matrix: Water X Soil ____ Sludge ____ Other ____

Elements Identified and Measured

Concentration Units: (mg/L)

Analyte	Concentration	C	Q	M
Aluminum				P
Antimony	4.1575	B		P
Arsenic	4.0165	B		P
Barium				P
Beryllium	4.0921	B		P
Cadmium	4.2376			P
Calcium	4.4200	B		P
Chromium	4.3829	B		P
Cobalt	4.0990	B		P
Copper	3.9724	B		P
Iron	4.0057	B		P
Lead	4.3679	B		P
Magnesium	4.3797	B		P
Manganese	4.0136	B		P
Molybdenum	4.3133	B		P
Nickel	4.0577	B		P
Phosphorus				P
Selenium	3.9512			P
Silver				P
Strontium	4.2148	B		P
Thallium	4.0262	B		P
Titanium	3.9559	B		P
Vanadium	4.2749	B		P
Zinc	4.2116	B		P

Color Before:
Color After:

Clarity Before:
Clarity After:

Texture:

Artifacts:

Comments: Sample = 0.00 % Solids. Total Metals Digestion only!
EPA QC-21 Trace Metals Aqueous Reference Standard.
(External Control Standard).

125

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories

SAMPLE NO. 6

Lab Sample ID: EPA QC-7A Standard

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids (0 - N/A) : 0.0000

Date Sampled: 7/20/98 SDG No.: JUL14

Lab Receipt Date: 7/28/98 QC Report No.: SD071498.RPT

Matrix: Water X Soil ____ Sludge ____ Other ____

Elements Identified and Measured

Concentration Units: (mg/L)

Analyte	Concentration	C	Q	M
Aluminum	4.3147	B		P
Antimony				P
Arsenic				P
Barium	4.2273	B		P
Beryllium				P
Cadmium				P
Calcium				P
Chromium				P
Cobalt				P
Copper				P
Iron				P
Lead				P
Magnesium				P
Manganese				P
Molybdenum				P
Nickel				P
Phosphorus				P
Selenium				P
Silver	1.9345	B		P
Strontium				P
Thallium				P
Titanium				P
Vanadium				P
Zinc				P

Color Before: Clarity Before: Texture:
Color After: Clarity After:

Artifacts:

Comments: Sample = 0.00 % Solids. Total Metals Digestion only!
EPA QC-7A Trace Metals Aqueous Reference Standard.
(External Control Standard).

126

SIN # MTLS01-A2 REPORT

COVER PAGE

INORGANIC ANALYSES DATA PACKAGE

Lab Name: Building 559 PA Inorganic Laboratories SOW No.: 7/93

Section: ICPAES

QC Report Number: SD052398.RPT SDG No.: MAY23

Revised TCLP Metals

Lab Sample ID's beginning with 'X' are TCLP Extracts.

Sample No.	APO Sample I. D.	Lab Sample ID.
1	X-98A2065-001	Bldg 779 Solid Paint Sample
2	X-98A2065-001 D	Bldg 779 Solid Paint Sample Lab Duplicate
3	X-98A2065-002	Bldg 779 Solid Paint Sample
4	X-98A2065-003	Bldg 779 Solid Paint Sample
5	X-98A2065-004	Bldg 779 Solid Paint Sample
6	X-98A2065-005	Bldg 779 Solid Paint Sample
7	X-98A2065-006	Bldg 779 Solid Paint Sample
8	X-98A2065-008	Bldg 779 Solid Paint Sample
9	X-98A2065-009	Bldg 779 Solid Paint Sample
10	X-98A2065-010	Bldg 779 Solid Paint Sample
11	X-98A2065-011	Bldg 779 Solid Paint Sample
12	X-98A2065-012	Bldg 779 Solid Paint Sample
13	X-98A2065-014	Bldg 779 Solid Paint Sample
14	X-98A2065-015	Bldg 779 Solid Paint Sample
15	X-TCLP EXT #1	TCLP Extraction Fluid Reagent Blank
16	EPA QC #21 STD	EPA QC # 21 Aqueous Laboratory Control Standard
17	EPA QC #7A STD	EPA QC # 7A Aqueous Laboratory Control Standard

Were ICP Inter-element Corrections applied? Yes/No Y

Were ICP Background Corrections applied? Yes/No Y

I have reviewed the following data for the Sample No.'s listed above.

ENTERED

Signature: R. Kelly

Date: 6/8/98 Title: Analytical Chemist

Signature: Yvonne B Mazza

Date: June 16, 1998 Title: Reviewer

Comments:

FAXED 6/17/98 APO

127

FAXED

SIN # MTLS01-A2 REPORT

COVER PAGE

INORGANIC ANALYSES DATA PACKAGE

Lab Name: Building 559 PA Inorganic Laboratories SOW No.: 7/93

Section: ICPAES

QC Report Number: SD052598.RPT SDG No.: MAY25

ENTERED

TCLP Metals

Lab Sample ID's beginning with 'X' are TCLP Extracts.

Sample No.	APO Sample I. D.	Lab Sample ID.
1	X-98A2065-007	Bldg 779 Solid Paint Sample
2	X-98A2065-017	Bldg 779 Solid Paint Sample
3	X-98A2065-017 D	Bldg 779 Solid Paint Sample · Lab Duplicate
4	X-98A2065-023	Bldg 779 Solid Paint Sample
5	X-98A2065-031	Bldg 779 Solid Paint Sample
6	X-98A2065-032	Bldg 779 Solid Paint Sample
7	X-98A2065-033	Bldg 779 Solid Paint Sample
8	X-98A2065-034	Bldg 779 Solid Paint Sample
9	X-98A2065-038	Bldg 779 Solid Paint Sample
10	X-98A2065-039	Bldg 779 Solid Paint Sample
11	X-98A2065-040	Bldg 779 Solid Paint Sample
12	X-98A2065-042	Bldg 779 Solid Paint Sample
13	X-98A2065-043	Bldg 779 Solid Paint Sample
14	X-98A2065-044	Bldg 779 Solid Paint Sample
15	X-TCLP EXT #1	TCLP Extraction Fluid Reagent Blank
16	EPA QC #21 STD	EPA QC # 21 Aqueous Laboratory Control Standard
17	EPA QC #7A STD	EPA QC # 7A Aqueous Laboratory Control Standard

Were ICP Inter-element Corrections applied? Yes/No Y

Were ICP Background Corrections applied? Yes/No Y

I have reviewed the following data for the Sample No.'s listed above.

Signature: R.C. Kell

Date: 6/11/98 Title: Analytical Chemist

Signature:

Date: Title: Reviewer

Comments:

FAXED 6/11/98 APO

128

SIN # MTLS01-A2 REPORT

TCLP Metals

COVER PAGE

INORGANIC ANALYSES DATA PACKAGE

Lab Name: Building 559 PA Inorganic Laboratories SOW No.: 7/93

Section: ICPAES

QC Report Number: SD052698.RPT SDG No.: MAY26

Lab Sample ID's beginning with 'X' are TCLP Extracts.

Sample No.	APO Sample I. D.	Lab Sample ID.
1	X-98A2065-035	Bldg 779 Solid Paint Sample
2	X-98A2065-035 D	Bldg 779 Solid Paint Sample Lab Duplicate
3	X-98A2065-036	Bldg 779 Solid Paint Sample
4	X-98A2065-037	Bldg 779 Solid Paint Sample
5	X-98A2065-041	Bldg 779 Solid Paint Sample
6	X-TCLP EXT #1	Deionized Water Preparation Blank
7	EPA QC #21 STD	EPA QC # 21 Aqueous Laboratory Control Standard
8	EPA QC #7A STD	EPA QC # 7A Aqueous Laboratory Control Standard

Were ICP Inter-element Corrections applied? Yes/No Y

Were ICP Background Corrections applied? Yes/No Y

I have reviewed the following data for the Sample No.'s listed above.

Signature: Yvonne B Mazza

Date: June 15, 1998 Title: Analytical Chemist

Signature:

Date: Title: Reviewer

Comments:

FAXED 6/17/98 APO

124

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 6

Lab Sample ID: X-TCLP EXT #1 TCLP Extraction Fluid Reagent Blank

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : < 0.5000

Date Sampled: 6/8/98 SDG No. : MAY26

Lab Receipt Date: 6/8/98 QC Report No.: SD052698.RPT

Matrix: Water X
Soil
Sludge
Other

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.3000	U		P
Antimony	0.1000	U		P
Arsenic	0.1000	U		P
Barium	0.0500	U		P
Beryllium	0.0050	U		P
Cadmium	0.0200	U		P
Calcium	0.2000	U		P
Chromium	0.0500	U		P
Cobalt	0.0500	U		P
Copper	0.1000	U		P
Iron	0.2000	U		P
Lead	0.0800	U		P
Magnesium	0.2000	U		P
Manganese	0.0100	U		P
Molybdenum	0.0500	U		P
Nickel	0.0500	U		P
Phosphorus	0.5000	U		P
Selenium	0.1200	U		P
Silver	0.0300	U		P
Strontium	0.0100	U		P
Thallium	0.1000	U		P
Titanium	0.0200	U		P
Vanadium	0.0800	U		P
Zinc	0.1000	U		P

Color Before: Colorless Clarity Before: Clear

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Nothing left on TCLP Filter.

Comments: Sample < 0.50 % solids. Therefore, the filtered sample is taken to be the final TCLP extract. Pressure filtration of the initial sample through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the final TCLP filtered sample extract.

130

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories SAMPLE NO. 7

Lab Sample ID: EPA QC-21 Standard

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids (0 - N/A) : 0.0000

Date Sampled: 6/9/98 SDG No.: MAY26

Lab Receipt Date: 6/9/98 QC Report No.: SD052698.RPT

Matrix: Water X Soil ____ Sludge ____ Other ____

Elements Identified and Measured

Concentration Units: (mg/L)

Analyte	Concentration	C	Q	M
Aluminum				P
Antimony	3.9297	B		P
Arsenic	4.0180	B		P
Barium				P
Beryllium	3.9655	B		P
Cadmium	4.2232			P
Calcium	4.6556	B		P
Chromium	4.2908	B		P
Cobalt	4.1820	B		P
Copper	3.6977	B		P
Iron	3.9019	B		P
Lead	4.2028	B		P
Magnesium	4.1032	B		P
Manganese	3.9144	B		P
Molybdenum	4.1943	B		P
Nickel	3.8687	B		P
Phosphorus				P
Selenium	4.1329			P
Silver				P
Strontium	4.3178	B		P
Thallium	4.0982	B		P
Titanium	3.8017	B		P
Vanadium	4.2908	B		P
Zinc	4.2105	B		P

Color Before: Clarity Before: Texture:
Color After: Clarity After:

Artifacts:

Comments: Sample = 0.00 % Solids. Total Metals Digestion only!
EPA QC-21 Trace Metals Aqueous Reference Standard.
(External Control Standard).

131

SIN # MTLS01-A2 REPORT

COVER PAGE

INORGANIC ANALYSES DATA PACKAGE

Lab Name: Building 559 PA Inorganic Laboratories SOW No.: 7/93

Section: ICPAES

QC Report Number: SD071498.RPT SDG No.: JUL14

ENTERED

Lab Sample ID's beginning with 'X' are TCLP Extracts.

Sample No.	APO Sample I. D.	Lab Sample ID.
1	X-98A5204-001	Bldg 779 Solid Sample
2	X-98A5204-002	Bldg 779 Solid Sample
3	X-98A5204-002 D	Bldg 779 Solid Sample Lab Duplicate
4	X-TCLP EXT #1	TCLP Extraction Fluid Reagent Blank
5	EPA QC #21 STD	EPA QC # 21 Aqueous Laboratory Control Standard
6	EPA QC #7A STD	EPA QC # 7A Aqueous Laboratory Control Standard

Were ICP Inter-element Corrections applied? Yes/No Y

Were ICP Background Corrections applied? Yes/No Y

I have reviewed the following data for the Sample No.'s listed above.

Signature: R.C. Kelly

Date: 7/31/98 Title: Analytical Chemist

Signature:

Date: Title: Reviewer

Comments: FAX 6538 8-3-98

132

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories

SAMPLE NO. 8

Lab Sample ID: EPA QC-7A Standard

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids (0 - N/A): 0.0000

Date Sampled: 6/9/98 SDG No.: MAY26

Lab Receipt Date: 6/9/98 QC Report No.: SD052698.RPT

Matrix: Water X Soil ____ Sludge ____ Other ____

Elements Identified and Measured

Concentration Units: (mg/L)

Analyte	Concentration	C	Q	M
Aluminum	3.7223	B		P
Antimony				P
Arsenic				P
Barium	4.0634	B		P
Beryllium				P
Cadmium				P
Calcium				P
Chromium				P
Cobalt				P
Copper				P
Iron				P
Lead				P
Magnesium				P
Manganese				P
Molybdenum				P
Nickel				P
Phosphorus				P
Selenium				P
Silver	1.7969	B		P
Strontium				P
Thallium				P
Titanium				P
Vanadium				P
Zinc				P

Color Before: Clarity Before: Texture:

Color After: Clarity After:

Artifacts:

Comments: Sample = 0.00 % Solids. Total Metals Digestion only!
EPA QC-7A Trace Metals Aqueous Reference Standard.
(External Control Standard).

133

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 15

Lab Sample ID: X-TCLP EXT #1 TCLP Extraction Fluid Reagent Blank

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids for Sample : < 0.5000

Date Sampled: 6/3/98 SDG No. : MAY25

Lab Receipt Date: 6/3/98 QC Report No.: SD052598.RPT

Matrix: Water X
Soil
Sludge
Other

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V * E Q O O S + Q	M
Aluminum	0.3000	U		P
Antimony	0.1000	U		P
Arsenic	0.1000	U		P
Barium	0.0500	U		P
Beryllium	0.0050	U		P
Cadmium	0.0200	U		P
Calcium	0.2000	U		P
Chromium	0.0500	U		P
Cobalt	0.0500	U		P
Copper	0.1000	U		P
Iron	0.2000	U		P
Lead	0.0800	U		P
Magnesium	0.2000	U		P
Manganese	0.0100	U		P
Molybdenum	0.0500	U		P
Nickel	0.0500	U		P
Phosphorus	0.5000	U		P
Selenium	0.1200	U		P
Silver	0.0300	U		P
Strontium	0.0100	U		P
Thallium	0.1000	U		P
Titanium	0.0200	U		P
Vanadium	0.0800	U		P
Zinc	0.1000	U		P

Color Before: Colorless Clarity Before: Clear

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Nothing left on TCLP Filter.

Comments: Sample < 0.50 % solids. Therefore, the filtered sample is taken to be the final TCLP extract. Pressure filtration of the initial sample through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the final TCLP filtered sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories

SAMPLE NO. 16

Lab Sample ID: EPA QC-21 Standard

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids (0 - N/A) : 0.0000

Date Sampled: 6/9/98 SDG No.: MAY25

Lab Receipt Date: 6/9/98 QC Report No.: SD052598.RPT

Matrix: Water X Soil ____ Sludge ____ Other ____

Elements Identified and Measured

Concentration Units: (mg/L)

Analyte	Concentration	C	Q	M
Aluminum				P
Antimony	4.0113	B		P
Arsenic	4.0375	B		P
Barium				P
Beryllium	3.8866	B		P
Cadmium	4.2610			P
Calcium	3.7052	B		P
Chromium	4.2479	B		P
Cobalt	3.9222	B		P
Copper	3.7413	B		P
Iron	3.9389	B		P
Lead	4.2284	B		P
Magnesium	4.0537	B		P
Manganese	4.0059	B		P
Molybdenum	4.2138	B		P
Nickel	4.0008	B		P
Phosphorus				P
Selenium	3.9656			P
Silver				P
Strontium	4.2906	B		P
Thallium	3.9874	B		P
Titanium	3.9238	B		P
Vanadium	4.2003	B		P
Zinc	4.2171	B		P

Color Before: Clarity Before: Texture:
Color After: Clarity After:

Artifacts:

Comments: Sample = 0.00 % Solids. Total Metals Digestion only!
EPA QC-21 Trace Metals Aqueous Reference Standard.
(External Control Standard).

135

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories

SAMPLE NO. 17

Lab Sample ID: EPA QC-7A Standard

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids (0 - N/A) : 0.0000

Date Sampled: 6/9/98 SDG No.: MAY25

Lab Receipt Date: 6/9/98 QC Report No.: SD052598.RPT

Matrix: Water X Soil ____ Sludge ____ Other ____

Elements Identified and Measured

Concentration Units: (mg/L)

Analyte	Concentration	C	Q	M
Aluminum	3.9198	B		P
Antimony				P
Arsenic				P
Barium	4.1443	B		P
Beryllium				P
Cadmium				P
Calcium				P
Chromium				P
Cobalt				P
Copper				P
Iron				P
Lead				P
Magnesium				P
Manganese				P
Molybdenum				P
Nickel				P
Phosphorus				P
Selenium				P
Silver	1.9399	B		P
Strontium				P
Thallium				P
Titanium				P
Vanadium				P
Zinc				P

Color Before: Clarity Before: Texture:
Color After: Clarity After:

Artifacts:

Comments: Sample = 0.00 % Solids. Total Metals Digestion only!
EPA QC-7A Trace Metals Aqueous Reference Standard.
(External Control Standard).

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 1

Lab Sample ID: X-98A2065-001 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY23

Lab Receipt Date: 5/13/98 QC Report No.: SD052398.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	1.8864	B		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	612.3981	B	*	P
Chromium	0.1500	U		P
Cobalt	0.2559	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	1.1646	B		P
Magnesium	20.6913	B	*	P
Manganese	0.4314	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	3.3699	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	2.0952	B	*	P
Thallium	0.5676	B		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	5.0601	B	*	P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

137

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 2

Lab Sample ID: X-98A2065-001 D Bldg 779 Solid Paint Sample Lab Duplicate

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY23

Lab Receipt Date: 5/13/98 QC Report No.: SD052398.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	2.3262	B		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	199.3578	B	*	P
Chromium	0.1500	U		P
Cobalt	0.2361	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	1.1274	B		P
Magnesium	15.0210	B	*	P
Manganese	0.3924	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	2.2614	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.5085	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	3.8286	B	*	P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

138

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 3

Lab Sample ID: X-98A2065-002 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY23

Lab Receipt Date: 5/13/98 QC Report No.: SD052398.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1668	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	75.9915	B	*	P
Chromium	0.1500	U		P
Cobalt	0.5124	B		P
Copper	0.3000	U		P
Iron	10.3944	B		P
Lead	1.2807	B		P
Magnesium	1.1388	B	*	P
Manganese	0.1668	B		P
Molybdenum	0.1500	U		P
Nickel	0.1506	B		P
Phosphorus	13.2777	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.0765	B	*	P
Thallium	0.3000	U		P
Titanium	0.1422	B		P
Vanadium	0.2400	U		P
Zinc	20.4891	B	*	P

Color Before: Pink Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh orange solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 4

Lab Sample ID: X-98A2065-003 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY23

Lab Receipt Date: 5/13/98 QC Report No.: SD052398.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1866	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	143.2281	B	*	P
Chromium	0.1500	U		P
Cobalt	0.4290	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.3114	B		P
Magnesium	4.2294	B	*	P
Manganese	0.3033	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	7.1619	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.1260	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	6.0285	B	*	P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh white solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

140

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 5

Lab Sample ID: X-98A2065-004 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY23

Lab Receipt Date: 5/13/98 QC Report No.: SD052398.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	430.7598	B	*	P
Chromium	0.1500	U		P
Cobalt	0.2739	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.3093	B		P
Magnesium	4.3296	B	*	P
Manganese	0.2676	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	10.9200	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.4191	B	*	P
Thallium	0.3000	U		P
Titanium	1.5666	B		P
Vanadium	0.2400	U		P
Zinc	15.1728	B	*	P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh white solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 6

Lab Sample ID: X-98A2065-005 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY23

Lab Receipt Date: 5/13/98 QC Report No.: SD052398.RPT

Matrix:
Water
Soil
Sludge
Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	1.2375	B		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	375.6454	B	*	P
Chromium	0.1500	U		P
Cobalt	0.4926	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.3501	B		P
Magnesium	4.0941	B	*	P
Manganese	0.3375	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	22.8552	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.2376	B	*	P
Thallium	0.3000	U		P
Titanium	0.9006	B		P
Vanadium	0.2400	U		P
Zinc	34.3791	B	*	P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh yellow solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 7

Lab Sample ID: X-98A2065-006 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY23

Lab Receipt Date: 5/13/98 QC Report No.: SD052398.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	315.1404	B	*	P
Chromium	0.1500	U		P
Cobalt	0.4884	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.3192	B		P
Magnesium	3.3111	B	*	P
Manganese	0.2601	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	23.9280	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.2001	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	37.8735	B	*	P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh white solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 1

Lab Sample ID: X-98A2065-007 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY25

Lab Receipt Date: 5/13/98 QC Report No.: SD052598.RPT

Matrix: Water ___ Soil ___ Sludge ___ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V * E O O S + Q	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	269.7147	B	*	P
Chromium	0.1500	U		P
Cobalt	0.3501	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	3.0111	B		P
Manganese	0.2322	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	16.4790	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.1875	B	*	P
Thallium	0.3000	U		P
Titanium	0.4491	B		P
Vanadium	0.2400	U		P
Zinc	23.1210	B		P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh yellow solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 8

Lab Sample ID: X-98A2065-008 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY23

Lab Receipt Date: 5/13/98 QC Report No.: SD052398.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	1.4994	B		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	372.2829	B	*	P
Chromium	0.1500	U		P
Cobalt	0.4275	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.3312	B		P
Magnesium	4.0860	B	*	P
Manganese	0.2982	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	19.6062	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.2445	B	*	P
Thallium	0.3000	U		P
Titanium	1.1673	B		P
Vanadium	0.2400	U		P
Zinc	29.1045	B	*	P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh blue solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 9

Lab Sample ID: X-98A2065-009 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY23

Lab Receipt Date: 5/13/98 QC Report No.: SD052398.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S ~+)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1584	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	528.9284	B	*	P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.3024	B		P
Magnesium	5.6970	B	*	P
Manganese	0.3567	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	2.6733	B		P
Selenium	0.3000	U		P
Silver	0.0900	U		P
Strontium	0.3240	B	*	P
Thallium	0.3000	U		P
Titanium	2.7735	B		P
Vanadium	0.2400	U		P
Zinc	2.0754	B	*	P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh white solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 10

Lab Sample ID: X-98A2065-010 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY23

Lab Receipt Date: 5/13/98 QC Report No.: SD052398.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S⁻ +)	M
Aluminum	1.2660	B		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1509	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	297.5400	B	*	P
Chromium	0.1500	U		P
Cobalt	0.1905	B		P
Copper	0.3000	U		P
Iron	1.6692	B		P
Lead	0.3627	B		P
Magnesium	3.4440	B	*	P
Manganese	0.2979	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	2.9499	B		P
Selenium	0.4578	B		P
Silver	0.0900	U		P
Strontium	0.2484	B	*	P
Thallium	0.3000	U		P
Titanium	0.5985	B		P
Vanadium	0.2400	U		P
Zinc	2.7726	B	*	P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh yellow solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 11

Lab Sample ID: X-98A2065-011 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY23

Lab Receipt Date: 5/13/98 QC Report No.: SD052398.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O Q S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	735.1308	B	*	P
Chromium	0.1500	U		P
Cobalt	0.6006	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	3.3189	B		P
Magnesium	7.5087	B	*	P
Manganese	0.7035	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	5.7267	B		P
Selenium	0.3933	B		P
Silver	0.0900	U		P
Strontium	1.4949	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	7.3560	B	*	P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh white solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

148

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 12

Lab Sample ID: X-98A2065-012 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY23

Lab Receipt Date: 5/13/98 QC Report No.: SD052398.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S - +)	M
Aluminum	3.0408	B		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	322.4313	B	*	P
Chromium	0.1500	U		P
Cobalt	3.4104	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	17.2047	B	*	P
Manganese	1.3917	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	2.5350	B		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	2.2371	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	1.2807	B	*	P

Color Before: Colorless Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh gray solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 1

Lab Sample ID: X-98A2065-013 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ___ Soil ___ Sludge ___ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.2982	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	784.9932	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.3912	B		P
Magnesium	9.4527	B		P
Manganese	0.0711	B		P
Molybdenum	0.1500	U		P
Nickel	0.3732	B		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	1.0884	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

150

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 2

Lab Sample ID: X-98A2065-013 D Bldg 779 Solid Paint Sample Lab Duplicate

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ___ Soil ___ Sludge ___ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.2196	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	696.6693	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.4155	B		P
Magnesium	7.7421	B		P
Manganese	0.0300	U		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.9918	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: Brown Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh brown solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 13

Lab Sample ID: X-98A2065-014 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 6/13/98 SDG No. : MAY23

Lab Receipt Date: 6/13/98 QC Report No.: SD052398.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	736.4106	B	*	P
Chromium	0.1500	U		P
Cobalt	0.2616	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.3003	B		P
Magnesium	260.3304	B	*	P
Manganese	0.3513	B		P
Molybdenum	0.1500	U		P
Nickel	0.5751	B		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	1.3734	B	*	P
Thallium	0.3000	U		P
Titanium	0.1266	B		P
Vanadium	0.2400	U		P
Zinc	0.3564	B	*	P

Color Before: Orange Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh orange solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

152

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 14

Lab Sample ID: X-98A2065-015 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY23

Lab Receipt Date: 5/13/98 QC Report No.: SD052398.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

N V * E O O S - +

Analyte	Concentration	C	Q	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	1354.0797	B	*	P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.3648	B		P
Magnesium	69.1389	B	*	P
Manganese	0.0300	U		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	6.5487	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U	*	P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh white solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

153

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 3

Lab Sample ID: X-98A2065-016 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY20

Lab Receipt Date: 5/13/98 QC Report No.: SD052098.RPT

Matrix: Water ___ Soil ___ Sludge ___ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.2202	B		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	741.7095	B		P
Chromium	0.1500	U		P
Cobalt	0.1500	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.4488	B		P
Magnesium	8.2200	B		P
Manganese	0.0300	U		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	0.9084	B		P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: Yellow Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh yellow solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 659 PA Inorganic Laboratories Sample No.: 2

Lab Sample ID: X-98A2065-017 Bldg 779 Solid Paint Sample

Section: ICPAES

Lab Sample I.D.s beginning with X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY25

Lab Receipt Date: 5/13/98 QC Report No.: SD052598.RPT

Matrix: Water ____ Soil ____ Sludge ____ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	Q (N V * E O O S +)	M
Aluminum	0.9000	U		P
Antimony	0.3429	B		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	1035.3561	B	*	P
Chromium	0.2949	B		P
Cobalt	0.1600	U		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	159.9711	B		P
Manganese	0.0300	U		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	4.8177	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	0.3000	U		P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh yellow solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

155

FORM 1A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Building 559 PA Inorganic Laboratories Sample No.: 3

Lab Sample ID: X-98A2065-017 D Bldg 779 Solid Paint Sample Lab Duplicate

Section: ICPAES

Lab Sample I.D.s beginning with 'X' indicates TCLP Extract.

% Solids for Sample : 100.0000

Date Sampled: 5/13/98 SDG No. : MAY25

Lab Receipt Date: 5/13/98 QC Report No.: SD052598.RPT

Matrix: Water ___ Soil ___ Sludge ___ Other X

Elements Identified and Measured

Concentration Units: mg/L

Analyte	Concentration	C	N V * E O O S + Q	M
Aluminum	0.9000	U		P
Antimony	0.3000	U		P
Arsenic	0.3000	U		P
Barium	0.1500	U		P
Beryllium	0.0150	U		P
Cadmium	0.0600	U		P
Calcium	758.2793	B	*	P
Chromium	0.1500	U		P
Cobalt	0.1902	B		P
Copper	0.3000	U		P
Iron	0.6000	U		P
Lead	0.2400	U		P
Magnesium	146.6493	B		P
Manganese	0.3366	B		P
Molybdenum	0.1500	U		P
Nickel	0.1500	U		P
Phosphorus	1.5000	U		P
Selenium	0.3600	U		P
Silver	0.0900	U		P
Strontium	2.1561	B	*	P
Thallium	0.3000	U		P
Titanium	0.0600	U		P
Vanadium	0.2400	U		P
Zinc	1.4304	B		P

Color Before: White Clarity Before: Cloudy

Color After: Colorless Clarity After: Clear

Texture:

Artifacts: Fine mesh yellow solids left on TCLP Filter.

Comments: Sample = 100 % solids. Pressure filtration of the TCLP solids extract through a standard TCLP pressure filtration unit, containing a 0.7 micron borosilicate glass fiber filter, was performed to obtain the TCLP final sample extract.

156

Attachment 5

RCRA Hazardous Substances

Results (Chemicals)

Attachment 5
RCRA Chemicals

Sampling Required						
Room	Item	Component	g/l Pu	Comments	RIN	Sample Numbers
114	chemical	organic solid	4.24E-10		98A1687	0.001
114	chemical	organic solid	4.48E-10	arsenic, cadmium, lead	98A1686	0.001
114	chemical	organic solid	1.25E-07		98A1675	.001.001
114	Drum 24013	oil	2.9 pCi/g		98A5422	.002.001
114	Drum 24014	oil	3.2 pCi/g		98A5422	.001.001
114	Drum GO4513	oil	2.63E-07		97P0954	.006.011
114	Drum GO4510	oil	7.40E-08		98A2064	.002.001
116B	diesel generator	diesel fuel	N/A	sampling for viscosity, particulate contamination, microbial contamination	99A3243	.003.001

158

Attachment 6
Waste and Environmental Management System
Area Location Report
Room 114 RCRA Temporary Unit

159

WEMF_2P00

Waste and Environmental Management System
Area Location Report

10/04/1999 09:36:58 am

Building	Unit	Room	Unit Type	RCRA	Activated	Status	Inactivated	Volume
779	2445	155	RTU	N	06/19/98	I	01/27/99	

Waste Description:
Allowed Waste Types: EMT
Allowed Compat Codes:
Allowed EPA Codes:
Custodian: 514911 LEE, C Owner: 511897 CONILOGUE, M
Ext: 2663 Pager: 212-5868 Ext: 6152 Pager:

Building	Unit	Room	Unit Type	RCRA	Activated	Status	Inactivated	Volume
779	2446	114	RTU	Y	04/29/98	I	05/12/99	N/A

Waste Description: MISC. REMEDIATION WASTE GENERATED DURING D&D ACTIVITI
Allowed Waste Types: EMT, HAZ, LLM, LLW, TSC
Allowed Compat Codes: 1A, 1B, 3A, 4A, NA
Allowed EPA Codes: D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F003, F004, F005
Custodian: 514911 LEE, C Owner: 511897 CONILOGUE, M
Ext: 2663 Pager: 212-5868 Ext: 6152 Pager:

Building	Unit	Room	Unit Type	RCRA	Activated	Status	Inactivated	Volume
779	2446	162	RTU	Y	05/12/99	A		N/A

Waste Description: MISC. REMEDIATION WASTE GENERATED DURING D&D ACTIVITI
Allowed Waste Types: EMT, HAZ, LLM, LLW, TSC
Allowed Compat Codes: 1A, 1B, 3A, 4A, NA
Allowed EPA Codes: D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F003, F004, F005
Custodian: 514911 LEE, C Owner: 517377 ZBRYK, K
Ext: 2663 Pager: 212-5868 Ext: 6647 Pager: 212-4197

Building	Unit	Room	Unit Type	RCRA	Activated	Status	Inactivated	Volume
779	2447	137	RTU	Y	04/29/98	I	10/19/98	N/A

Waste Description: MISC. REMEDIATION WASTE GENERATED DURING D&D ACTIVITI
Allowed Waste Types: EMT, HAZ, LLM, LLW, TRM, TRU, TSC
Allowed Compat Codes: 1A, 1B, 3A, 4A, NA
Allowed EPA Codes: D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D028, F001, F002, F003, F004, F005
Custodian: 514911 LEE, C Owner: 511897 CONILOGUE, M
Ext: 2663 Pager: 212-5868 Ext: 6152 Pager:

Building	Unit	Room	Unit Type	RCRA	Activated	Status	Inactivated	Volume
779	2447	139	RTU	Y	10/19/98	I	03/18/99	N/A

Waste Description: MISC. REMEDIATION WASTE GENERATED DURING D&D ACTIVITI
Allowed Waste Types: EMT, HAZ, LLM, LLW, TRM, TRU, TSC
Allowed Compat Codes: 1A, 1B, 3A, 4A, NA
Allowed EPA Codes: D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F001, F002, F003, F004, F005
Custodian: 514911 LEE, C Owner: 511897 CONILOGUE, M
Ext: 2663 Pager: 212-5868 Ext: 6152 Pager:

Best Available Copy

160

Attachment 7

Inspection Results

4.0 Visual Inspection Check Sheet

779 CLUSTER CLOSURE PROJECT
NON-RADIOLOGICAL CLOSEOUT
VISUAL INSPECTION CHECK SHEET

AREA/ROOMS INSPECTED: Administrative area of B779.

INSPECTION CATEGORY	YES	NO	COMMENTS
STAINING OBSERVED	X		See attached page.
UNUSUAL ODOR PRESENT		X	No odor detected
SPECIFIED COMPONENTS REMOVED	X		See attached page.

ACTIONS REQUIRED: None.

PERFORMED BY: [signature] **DATE:** 10-4-99

162

Staining Observed

The visual inspection completed for the Administrative Area in Building 779 identified the following:

1. There is an oil stain in the custodian closet on the first floor (room 105). The oil was from the elevator's hydraulic storage reservoir that was removed as part of the facility stripout. The hydraulic oil was previously sampled and analyzed. The oil sample results demonstrated that the oil was not hazardous. No further action is required.
2. There is some oil residue in the bottom of the elevator shaft. . The hydraulic oil was previously sampled and analyzed. The oil sample results demonstrated that the oil was not hazardous. No further action is required.
3. There are two areas of staining from cracks in room 113's ceiling. Room 113 was a machine shop used to work on non-contaminated items. There is no obvious leak path from room 205, (conference room) located directly above the machine shop, into room 113. The staining is limited and attributed to rain water leakage along the ceiling cracks. No action is required to further characterize the ceiling staining.
4. There is one area of staining on the ceiling of room 203. Room 203 was used as an office area. The staining is limited and attributed to rain water leakage along the ceiling cracks. No action is required to further characterize the ceiling staining.
5. There are two areas of staining on the ceiling of room 204. Room 204 was used as an office area. The staining is limited and attributed to rain water leakage along the ceiling cracks. No action is required to further characterize the ceiling staining.

Specified Components Removed

The area has been cleaned and all components necessary to complete the radiological closeout survey removed. Some conduit, piping, and electrical panels remain and will be removed from the building rubble during demolition. Sheetrock has been removed in selected areas in order to complete the final radiological closeout survey. The remaining sheetrock will remain and stockpiled with the building rubble. Painted surfaces remain in the Administrative Areas. Although the paint may contain lead the building rubble matrix is considered non-leachable as discussed in the text of this document. Metal support beams will be removed from the building rubble and recycled. All hazardous chemicals have been removed from the facility.