Rocky Mountain Remediation Services, L.L.C
protecting the environment

Closeout Report for The Source Removal of Polychlorinated Biphenyls

RF/RMRS-97-044
Rev. 0

Rocky Flats Environmental Restoration Project

July 1997

REVIEWED FOR CLASSIFICATION/UCNI/OUO
By JA Nosheim, EMCBC Classif Office
Date 09-16-08
Verified not class, or UCNI, not OUO, OK for public release.

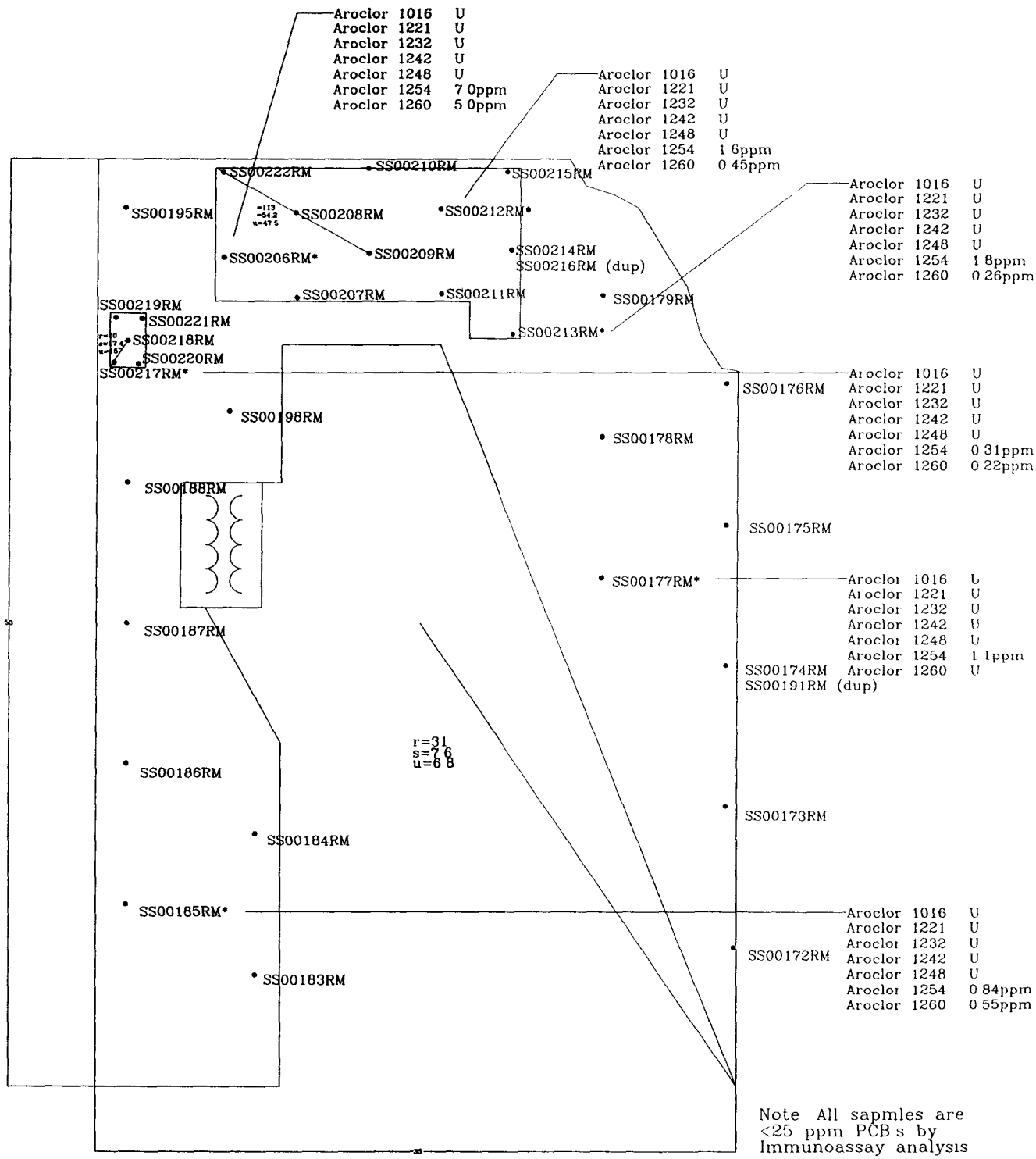
JUL 2000
RECEIVED
RECORDS CENTER

Best Available Copy

ADMIN RECORD

B707-A-000004

Y 790



N

LEGEND

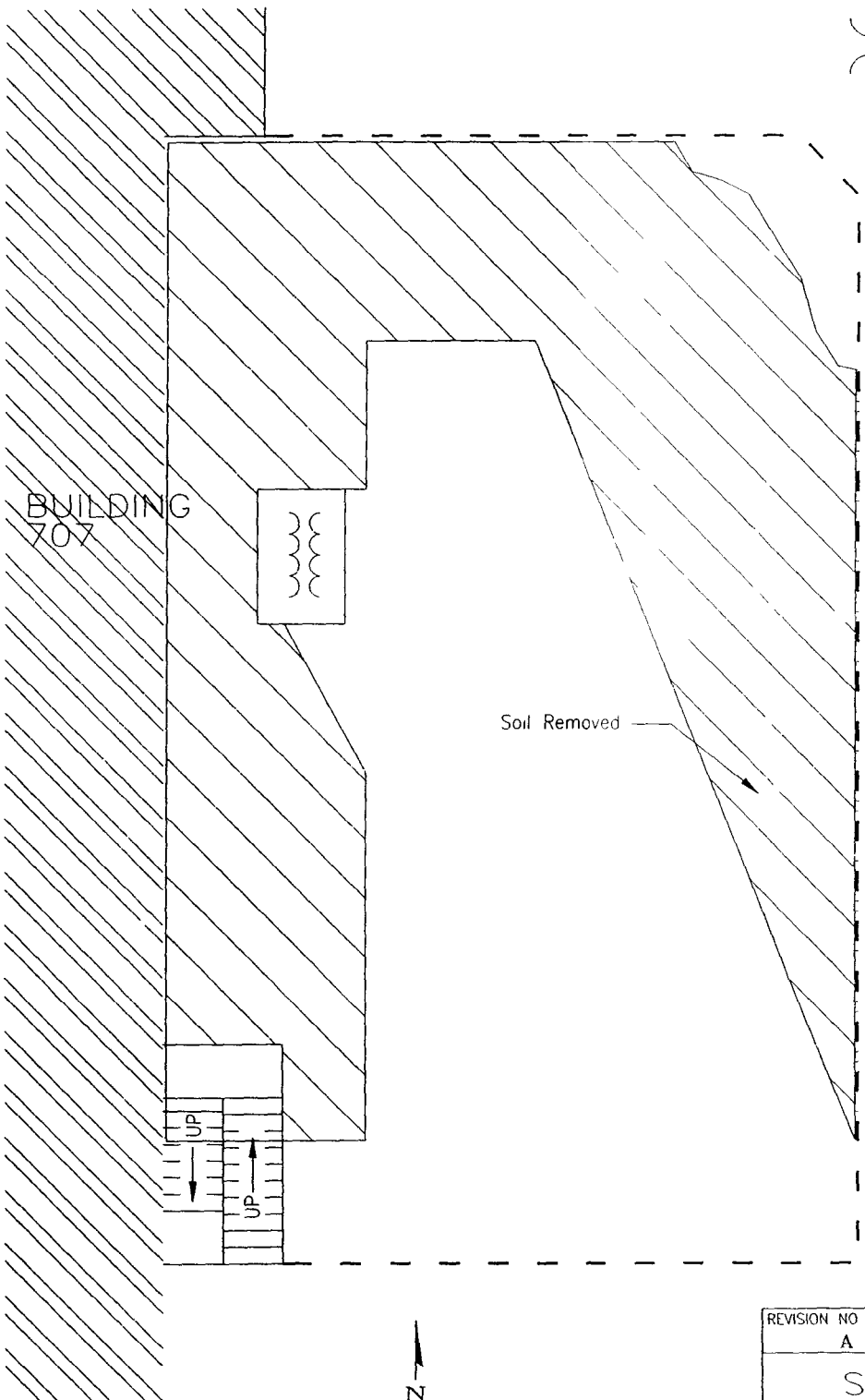
- Sample Point
- * Split Sample
- U Not detected
- SS RM are RFEDS sample numbers

0 5 0' 10 feet

REV NO	DATE	FILENAME
A	3/20/96	707MRI

MRI GRID LAYOUT
PCB-25 (Bldg 707)

DRWN	CHKD	CHARGE NO
RMH	CLB	98806300



LEGEND

WOODEN FENCE (APPROX 3 HIGH)

CONCRETE PAD uneffected by Remediation

ACTIVE TRANSFORMER

N

0 5 10 feet

SCALE 1"=10

REVISION NO	DATE	ACAD FILE
A	3/20/96	707PCB25

SITE SURVEY FOR REMEDIATION OF PCBs PCB SITE #25

DRWN	CLIENT	PROJECT NO
RMH	RFETS	98806300
CHKD	LOCATION	FIGURE NO
CLB	GOLDEN CO	

3

A-1
HISTORICAL CHEMICAL DATA
Lead In Paint

4

COPY

LBP TESTING DATA SHEET

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm^2)	Classification (pos, neg, inc)
11/19/97	J.A. Camp	304	707	paint	drywall	off-white	inside 5 mod. N wall between N-1 and o-1	0.01	negative
11/19/97	J.A. Camp	305	707					-0.14	negative
11/19/97	J.A. Camp	306	707					0.01	negative
11/19/97	J.A. Camp	307	707	Paint	Drywall	white	Corridor E Between door 33A and Mens Restroom	-0.02	Negative
11/19/97	J.A. Camp	308	707	Paint	Drywall	white	Corridor E Between door 33A and Mens Restroom	0.02	Negative
11/19/97	J.A. Camp	309	707	Paint	Drywall	white	Corridor E Between door 33A and Mens Restroom	0.02	Negative

A-1 Historical Chemical Data

Lead in Paint – Set 1

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BULK SAMPLE DATA SHEET

NAME OF COLLECTOR. Fred W Kerchner

1 OF 1

ANALYSIS REQUESTED. Lead

DATE 28 JAN 97

SENT TO FOR ANALYSIS: Schuller

SAMPLE NUMBER	ROOM OR AREA NO.	DESCRIPTION OF SAMPLE	RAD SCREENING ALPHA	RAD SCREENING BETA	ANALYTICAL RESULT UNITS %	ANALYTICAL RESULT UNITS Not used
7079701284401	181	South wall between 181 & 181A	NA	NA	0.11	
7079701284402	181	East wall between 181 & 181B			0.03	
7079701284403	181	East wall Entry to 181B door jamb			0.03	
7079701284404	181B	West wall next to door			0.02	
7079701284405	181C	~~East~~ west wall			0.09	
7079701284406	181A	East wall			0.02	
7079701284407	182A	South wall			<0.009	
7079701284408	182B	North wall			<0.009	

Not used

F W C I E

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Golden, CO 80402-0464

Safety and Hygiene Chain of Custody Record and Analysis Request

Name of Originator: Fred Kerchner Title: IH & Safety Bldg/Ext. T893A/966-6309 Date. Page of

SAMPLE NUMBER Bldg/Y/M/D/P#/S#	ANALYZE FOR	VOLUME liters	SAMPLE TIME/	MEDIA	P A B	Personal Area Bulk	REMARKS	Lab Number
7079701284401	Lead	N/A	N/A	N/A	B			
7079701284402	↓	↓	↓	↓	↓			
7079701284403								
7079701284404								
7079701284405								
7079701284406								
7079701284407								
7079701284408								

Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
[signature]	[signature]	0845 / 11/5/97			
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

Verbal To F Kerchner
Fax To F Kerchner
Report To Kaiser Hill
Bill To Kaiser Hill
P O #/Release /
Lab

Analysis Request

Industrial Hygiene Sample

☐ Standard Service ☐ Rush ☐ Other

Asbestos Samples

☐ Standard Service ☐ 24 Rush ☐ 2 Rush ☐ Other

Seal# (Release #) 9731097

Condition of Seal ☐ Broken ☐ Unbroken

Signature
Comments

RF 47530 (Rev 9/91) White - Return to Originator Yellow - Lab Copy Green - Sample Custodian Blue - Originator

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LABORATORY RESULTS

Cover Page

Jan-31-97

Ms. Ginny Whiteford
Accu-Labs Research, Inc.
4663 Table Mountain Drive
Golden, CO 80403-1650

Laboratory Project No.:	97013001
Client:	Accu-Labs Research, Inc.
PO# / Release #:	
Site Sample #:	
Seal #:	97J1097
Requestor:	Fred Kerchner
Subcontract #:	KH220322

Dear Ms. Whiteford,

Schuller International, Inc , Mountain Technical Center (MTC) has performed the following analytical services as requested. The results are calculated based upon the information supplied on the submission form. All laboratory data has been filed and are available upon request
The industrial hygiene laboratory at MTC has been fully accredited in all aspects by the American Industrial Hygiene Association (AIHA) since 1976 If you have any questions, please call (303) 978-2584

Scope of Work:

Analysis	# of Samples	Matrix	Method	Reporting Limit	OSHA Standard (TWA)
Lead	8	Paint chip	EPA SW846-3051	1 µg	

I certify that this data package is in compliance with the terms and conditions of the subcontract, both technically and for completeness, other than the conditions detailed above Release of the data contained in this hard data package has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature

Scott A. Steiner
Industrial Hygiene Laboratory Manager

1/31/97
Date

Mountain Technical Center
10100 West Ute Avenue (80127)
PO Box 625005
Littleton, CO 80162 5005
Tel 303 978-5200

SCHULLER
A Unit of Schuller International, Inc

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SCHULLER INTERNATIONAL, INC. / MOUNTAIN TECHNICAL CENTER (MTC)

Jan-31-97

Laboratory Project No.: 97013001
Client: Accu-Labs Research, Inc.
PO#/Release #:
Site Sample #:
Seal #: 97J1097
Requestor: Fred Kerchner

TABLE I

Client Sample No	Laboratory Sample No	Analysis	Method	Matrix	Reporting Limit	Backup Section	Total	mg/kg (ppm)	Air Vol. / Time	Air Concentration
7079701284401	S07261	Lead	EPA SW846-3051	Paint chip	0.009%		0.11%	1100 mg/kg		
7079701284402	S07262	Lead	EPA SW846-3051	Paint chip	0.009%		0.03%	300 mg/kg		
7079701284403	S07263	Lead	EPA SW846-3051	Paint chip	0.009%		0.03%	300 mg/kg		
7079701284404	S07264	Lead	EPA SW846-3051	Paint chip	0 009%		0 02%	200 mg/kg		
7079701284405	S07265	Lead	EPA SW846-3051	Paint chip	0 009%		0 09%	900 mg/kg		
7079701284406	S07266	Lead	EPA SW846-3051	Paint chip	0 009%		0 02%	200 mg/kg		
7079701284407	S07267	Lead	EPA SW846-3051	Paint chip	0 009%		< 0 009%	< 90 mg/kg		
7079701284408	S07268	Lead	EPA SW846-3051	Paint chip	0 009%		< 0 009%	< 90 mg/kg		

Analyst: Anthony Cass

AIHA Accreditation No 056

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SCHULLER INTERNATIONAL, INC. / MOUNTAIN TECHNICAL CENTER (MTC)

Jan-31-97

Laboratory Project No.: 97013001
Client: Accu-Labs Research, Inc.
PO#/Release #: 0
Site Sample #: 0
Seal #: 97J1097
Requestor: Fred Kerchner

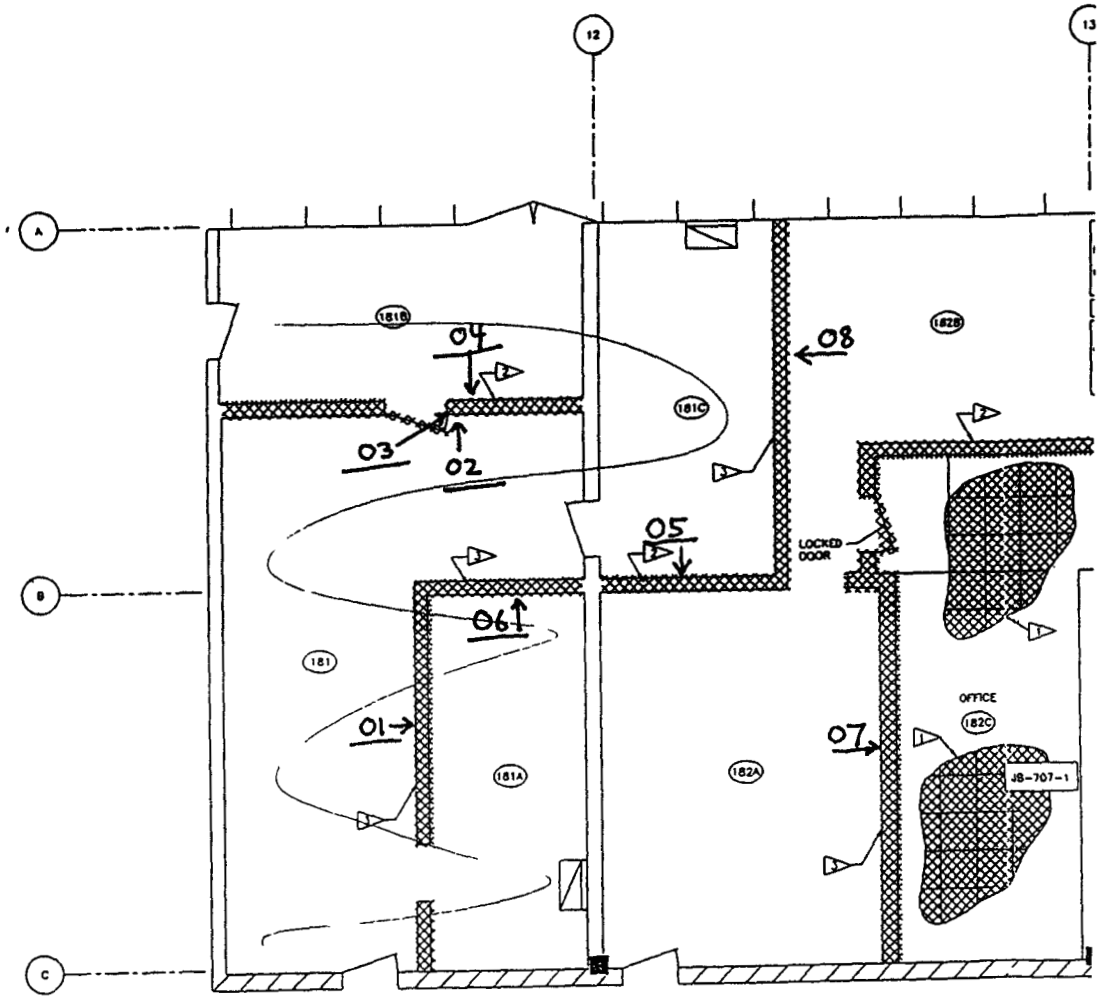
TABLE II: Quality Control

QC No	Analyte	Method	Matrix	Reporting Limit	Amount Spiked	Amount Recovered	Percent Recovery
NBS 1579	Lead	NIOSH 7300	STD	1 µg	11.8%	12.1%	102%

IHQC

AIHA Accreditation No 056

//



SALT STABILIZATION

7079701 2844-01
7079701 2844-02
7079701 2844-03
7079701 2844-04
7079701 2844-05
7079701 2844-06
7079701 2844-07
7079701 2844-08

DRAFTING CHECK

PLOTTED SCALE 1:1

ACAD ARCHIVE = 583 = B ACD 8441 4023.A

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A-1 Historical Chemical Data

Lead in Paint – Set 2

BULK SAMPLE DATA SHEET

NAME OF COLLECTOR. Fred W Kerchner

1 OF 1

ANALYSIS REQUESTED Lead

DATE 30 JAN 97

SENT TO FOR ANALYSIS. Schuller

SAMPLE NUMBER	ROOM OR AREA NO	DESCRIPTION OF SAMPLE	RAD SCREENING ALPHA	RAD SCREENING BETA	ANALYTICAL RESULT UNITS Mg/Kg	ANALYTICAL RESULT UNITS %
707970130440 1	F-Mod RM 125	South Personnel door Brown	NA	NA	400	.04
707970130440 2	↓	South Cargo doors Brown	↓	↓	1300	.13
707970130440 3	↓	North Personnel door Brown	↓	↓	15000	1.5
707970130440 4	↓	North Interior Personnel door Tan	↓	↓	1100	.11
707970130440 5	↓	North wall Next to Sample #4 Tan	↓	↓	27,000	27
707970130440 6	↓	South, Inside personnel Air lock Turquoies	↓	↓	2300	.23

Not used

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BUILDING 707
BERYLLIUM SURFACE (SMEAR) SAMPLES

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
707-04071999-35-001	707	140	1	Floor	L	0 1	0 1
707-04071999-35-002	707	140	2	Floor	L	0 1	0 1
707-04071999-35-003	707	140	3	Floor	L	0 1	0 1
707-04071999-35-004	707	140	4	Homogenizing Furnace	L	0 1	0 1
707-04071999-35-005	707	140	5	Ventilation support (power)	L	0 1	0 1
707-04071999-35-006	707	140	5	Support table for SAAM alarm	L	0 1	0 1
707-04071999-35-007	707	140	5	Floor	L	0 1	0 1
707-04071999-35-008	707	140	6	Floor	L	0 1	0 1
707-04071999-35-009	707	140	7	Floor	L	0 1	0 1
707-04071999-35-010	707	140	8	Portable stairs top step	L	0 1	0 1
707-04071999-35-011	707	140	8	Middle step	L	0 1	0 1
707-04071999-35-012	707	140	8	Bottom step	L	0 1	0 1
707-04071999-35-013	707	140	8	Floor	L	0 1	0 1
707-04071999-35-014	707	140	10	Fire box	L	0 1	0 1
707-04071999-35-015	707	140	10	Fire extingusher	L	0 1	0 1
707-04071999-35-016	707	140	10	Floor	L	0 1	0 1
707-04071999-35-017	707	140	11	Floor	L	0 1	0 1
707-04071999-35-018	707	140	12	Floor	L	0 1	0 1
707-04071999-35-019	707	140	13	Power supply box	L	0 1	0 1
707-04071999-35-020	707	140	14	Floor	L	0 1	0 1
707-04071999-35-021	707	140	15	Oxygen Analyzer	L	0 1	0 1
707-04071999-35-022	707	140	15	Floor	L	0 1	0 1
707-04071999-35-023	707	140	16	Drum top	L	0 1	0 1
707-04071999-35-024	707	140	17	SAAM alarm	L	0 1	0 1
707-04071999-35-025	707	140	18	Floor	L	0 1	0 1
707-04071999-35-026	707	140	19	Gloveport	L	0 1	0 1
707-04071999-35-027	707	140	19	Gloveport	L	0 1	0 1
707-04071999-35-028	707	140	19	Floor	L	0 1	0 1
707-04071999-35-029	707	140	20	Stairs top step	L	0 1	0 1
707 04071999 35-030	707	140	20	Middle step	L	0 1	0 1
707-04071999-35-031	707	140	20	Bottom step	L	0 1	0 1
707-04071999-35-032	707	140	20	Floor	L	0 1	0 1

BUILDING 707
BERYLLIUM SURFACE (SMEAR) SAMPLES

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
707-04071999-35-033	707	140	Selective	Glovebox above opening 0005 (10, 22)	L	0 1	0 1
707-04071999-35-034	707	140	Selective	Cabinet (30 4)	L	0 1	0 1
707-04071999-35-035	707	140	Selective	Conveyor S-16 (65 20)	L	0 1	0 1
707-04071999-35-036	707	140	Selective	SAAM amplifier (1 30)	L	0 1	0 1
707-04071999-35-037	707	132A	1	Work table shelf top	L	0 1	0 1
707-04071999-35-038	707	132A	1	Table top	L	0 1	0 1
707-04071999-35-039	707	132A	1	Shelf	L	0 1	0 1
707-04071999-35-040	707	132A	1	Floor	L	0 1	0 1
707-04071999-35-041	707	132A	2	Auto centering computer - turntable	L	0 1	0 1
707-04071999-35-042	707	132A	2	Table top	L	0 1	0 1
707-04071999-35-043	707	132A	2	Shelf	L	0 1	0 1
707-04071999-35-044	707	132A	2	Floor	L	0 1	0 1
707-04071999-35-045	707	132A	3	UTI Power Supply	L	0 1	0 1
707-04071999-35-046	707	132A	4	Wooden box	L	0 1	0 1
707-04071999-35-047	707	132A	4	Table top	L	0 1	0 1
707-04071999-35-048	707	132A	4	Shelf	L	0 1	0 1
707-04071999-35-049	707	132A	4	Floor	L	0 1	0 1
707-04071999-35-050	707	132A	5	Floor	L	0 1	0 1
707-04071999-35-051	707	132A	Selective	Wall shelf top (1 9)	L	0 1	0 1
707-04071999-35-052	707	132A	Selective	Optical Comparator (13 14)	L	0 1	0 1
707-04071999-35-053	707	132	1	Monitor top	L	0 1	0 1
707-04071999-35-054	707	132	2	Wall shelf top	L	0 1	0 1
707-04071999-35-055	707	132	2	Middle shelf	L	0 1	0 1
707-04071999-35-056	707	132	2	Bottom shelf	L	0 1	0 1
707-04071999-35-057	707	132	2	Floor	L	0 1	0 1
707-04071999-35-058	707	132	3	Floor	L	0 1	0 1
707-04071999-35-059	707	132	4	Wall shelf top	L	0 1	0 1
707-04071999-35-060	707	132	4	Floor	L	0 1	0 1
707-04071999-35-061	707	132	5	Plastic bag sealing unit	L	0 1	0 1
707-04071999-35-062	707	132	5	Floor	L	0 1	0 1
707-04071999-35-063	707	132	6	Visual Comparator	L	0 1	0 1
707-04071999-35-064	707	132	7	Floor	L	0 1	0 1

BUILDING 707
BERYLLIUM SURFACE (SMEAR) SAMPLES

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
707-04071999-35-065	707	132	Selective	Work table top (13,12)	L	0 1	0 1
707-04071999-35-066	707	132	Selective	Precision cutting equipment (2 12)	L	0 1	0 1
707-04071999-35-067	707	130	1	Floor	L	0 1	0 1
707-04071999-35-068	707	130	2	Table top	L	0 1	0 1
707-04071999-35-069	707	130	3	Glovebox top	L	0 1	0 1
707-04071999-35-070	707	130	3	Floor	L	0 1	0 1
707-04071999-35-071	707	130	4	Floor	L	0 1	0 1
707-04071999-35-072	707	130	5	Control Box	L	0 1	0 1
707-04071999-35-073	707	130	5	Floor	L	0 1	0 1
707-04071999-35-074	707	130	6	Floor	L	0 1	0 1
707-04071999-35-075	707	130	7	Floor	L	0 1	0 1
707-04071999-35-076	707	130	8	Floor	L	0 1	0 1
707-04071999-35-077	707	130	10	digital letterwriter 100	L	0 1	0 1
707-04071999-35-078	707	130	11	Compressed gas cylinder	L	0 1	0 1
707-04071999-35-079	707	130	12	Floor	L	0 1	0 1
707-04071999-35-080	707	130	13	Suction hose	L	0 1	0 1
707-04071999-35-081	707	130	13	Floor	L	0 1	0 1
707-04071999-35-082	707	130	14	Floor	L	0 1	0 1
707-04071999-35-083	707	130	15	Power supply	L	0 1	0 1
707-04071999-35-084	707	130	Selective	Valumeter top (30, 17)	L	0 1	0 1
707-04071999-35-085	707	130	Selective	Power supply (79 15)	L	0 1	0 1
707-04071999-35-086	707	130A	1	Floor	L	0 1	0 1
707-04071999-35-087	707	130A	2	Transducer Axis Counter	L	0 1	0 1
707-04071999-35-088	707	130A	2	Shelf	L	0 1	0 1
707-04071999-35-089	707	130A	3	Drum	L	0 1	0 1
707-04071999-35-090	707	130A	4	Floor	L	0 1	0 1
707-04071999-35-091	707	130A	5	Portable air compressor	L	0 1	0 1
707-04071999-35-092	707	130A	5	Floor	L	0 1	0 1
707-04071999-35-093	707	130A	6	Drum	L	0 1	0 1
707-04071999-35-094	707	130A	Selective	Visicorder (20 11)	L	0 1	0 1
707 04071999-35-095	707	130A	Selective	Visicorder (29 12)	L	0 1	0 1
707-04071999 35-096	707	Blank			L	0 1	0 1

BUILDING 707
BERYLLIUM SURFACE (SMEAR) SAMPLES

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
707-04071999-35-097	707	Blank			L	0 1	0 1
707-04071999-35-098	707	Blank			L	0 1	0 1
707-04071999-35-099	707	Blank			L	0 1	0 1
707-04071999-35-100	707	Blank			L	0 1	0 1
707-04071999-35-101	707	Blank			L	0 1	0 1
707-04071999-35-102	707	Blank			L	0 1	0 1
707-04071999-35-103	707	Blank			L	0 1	0 1
707-04071999-35-104	707	Blank			L	0 1	0 1
707-04071999-35-105	707	Blank			L	0 1	0 1
707-04121999-35-108	707	167	1	Antech Sample Preheating Unit PH-4	L	0 1	0 1
707-04121999-35-109	707	167	2	Floor	L	0 1	0 1
707-04121999-35-110	707	167	3	Floor	L	0 1	0 1
707-04121999-35-111	707	167	5	Power supply sample preheating PH-1	L	0 1	0 1
707-04121999-35-112	707	167	6	Preheater	L	0 1	0 1
707-04121999-35-113	707	167	6	Floor	L	0 1	0 1
707-04121999-35-114	707	167	7	Cell AR4	L	0 1	0 1
707-04121999-35-115	707	167	7	Floor	L	0 1	0 1
707-04121999-35-116	707	167	8	Residue storage rack	L	0 1	0 1
707-04121999-35-117	707	167	8	Floor	L	0 1	0 1
707-04121999-35-118	707	167	Selective	Pu assay calormter Cell AR2 (2 6)	L	0 1	0 1
707-04121999-35-119	707	167	Selective	Cell AR6 (33 3)	L	0 1	0 1
707-04121999-35-120	707	169	1	Floor	L	0 1	0 1
707-04121999-35-121	707	169	2	Floor	L	0 1	0 1
707-04121999-35-122	707	169	3	Stainless steel taaable	L	0 1	0 1
707-04121999-35-123	707	169	3	Floor	L	0 1	0 1
707-04121999-35-124	707	169	4	Floor	L	0 1	0 1
707-04121999-35-125	707	169	5	Floor	L	0 1	0 1
707-04121999-35-126	707	169	Selective	Tool box (22 10)	L	0 1	0 1
707-04121999-35-127	707	169	Selective	Pu isotopic system T3 (15 4)	L	0 1	0 1
707-04121999-35-128	707	171	1	Pu assay AR9	L	0 1	0 1
707-04121999-35-129	707	171	2	Desk top	L	0 1	0 1
707-04121999-35-130	707	171	2	Middle drawer	L	0 1	0 1

BUILDING 707
BERYLLIUM SURFACE (SMEAR) SAMPLES

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
707-04121999-35-131	707	171	2	Floor	L	0 1	0 1
707-04121999-35-132	707	171	3	Cabinet top	L	0 1	0 1
707-04121999-35-133	707	171	5	Residue storae rack	L	0 1	0 1
707-04121999-35-134	707	171	5	Floor	L	0 1	0 1
707-04121999-35-135	707	171	6	Floor	L	0 1	0 1
707-04121999-35-136	707	171	7	Floor	L	0 1	0 1
707-04121999-35-137	707	171	8	Floor	L	0 1	0 1
707-04121999-35-138	707	171	11	Floor	L	0 1	0 1
707-04121999-35-139	707	171	Selective	Power supply to P3 (2,43)	L	0 1	0 1
707-04121999-35-140	707	171	Selective	Preheating PH2 (15, 15)	L	0 1	0 1
707-04121999-35-141	707	171	Selective	Breaker box top (10, 46)	L	0 1	0 1
707-04121999-35-142	707	173	1	Floor	L	0 1	0 1
707-04121999-35-143	707	173	2	Floor	L	0 1	0 1
707-04121999-35-144	707	173	3	Cabinet top	L	0 1	0 1
707-04121999-35-145	707	173	3	Cabinet second shelf	L	0 1	0 1
707-04121999-35-146	707	173	3	Cabinet bottom shelf	L	0 1	0 1
707-04121999-35-147	707	173	4	Drum dolly	L	0 1	0 1
707-04121999-35-148	707	173	4	Floor	L	0 1	0 1
707-04121999-35-149	707	173	5	Floor	L	0 1	0 1
707-04121999-35-150	707	173	Selective	Canbera gamma spec (7 1)	L	0 1	0 1
707-04121999-35-151	707	173	Selective	Wall vent (2 10)	L	0 1	0 1
707-04121999-35-152	707	179	1	Pu Antech equipment	L	0 1	0 1
707-04121999-35-153	707	179	2	Pu Antech equipment	L	0 1	0 1
707-04121999-35-154	707	179	3	Floor	L	0 1	0 1
707-04121999-35-155	707	179	4	Printer top	L	0 1	0 1
707-04121999-35-156	707	179	5	Floor	L	0 1	0 1
707-04121999-35-157	707	179	Selective	Trifid Pu Isotopic System (2 7)	L	0 1	0 1
707-04121999-35-158	707	179	Selective	Pu Analysis Isotopic Network (11 7)	L	0 1	0 1
707-04121999-35-159	707	184	1	Drum	L	0 1	0 1
707-04121999-35-160	707	184	2	Tool box	L	0 1	0 1
707-04121999-35-161	707	184	2	Tool box top drawer	L	0 1	0 1
707-04121999-35-162	707	184	2	Tool box bottom shelf	L	0 1	0 1

BUILDING 707
BERYLLIUM SURFACE (SMEAR) SAMPLES

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
707-04121999-35-163	707	184	4	Black drum	L	0 1	0 1
707-04121999-35-164	707	184	5	Floor	L	0 1	0 1
707-04121999-35-165	707	184	6	Floor	L	0 1	0 1
707-04121999-35-166	707	184	7	Floor	L	0 1	0 1
707-04121999-35-167	707	184	8	Table top	L	0 1	0 1
707-04121999-35-168	707	184	8	Floor	L	0 1	0 1
707-04121999-35-169	707	184	9	Floor	L	0 1	0 1
707-04121999-35-170	707	184	10	DT-22	L	0 1	0 1
707-04121999-35-171	707	184	11	Floor	L	0 1	0 1
707-04121999-35-172	707	184	12	Floor	L	0 1	0 1
707-04121999-35-173	707	184	13	Floor	L	0 1	0 1
707-04121999-35-174	707	184	Selective	Desk top (15,2)	L	0 1	0 1
707-04121999-35-175	707	184	Selective	Work table top (28, 36)	L	0 1	0 1
707-04121999-35-176	707	184	Selective	Cabinet top (14 42)	L	0 1	0 1
707-04121999-35-177	707	Blank			L	0 1	0 1
707-04121999-35-178	707	Blank			L	0 1	0 1
707-04121999-35-179	707	Blank			L	0 1	0 1
707 04121999-35-180	707	Blank			L	0 1	0 1
707-04121999-35-181	707	Blank			L	0 1	0 1
707-04131999-35-184	707	126	1	Floor	L	0 1	0 1
707-04131999-35-185	707	126	3	Drum	L	0 1	0 1
707-04131999-35-186	707	126	4	Cart #19	L	0 1	0 1
707-04131999-35-187	707	126	4	Shelf	L	0 1	0 1
707-04131999-35-188	707	126	4	Floor	L	0 1	0 1
707-04131999-35-189	707	126	5	Vent on heaalth physics vacuum	L	0 1	0 1
707-04131999-35-190	707	126	5	Floor	L	0 1	0 1
707-04131999-35-191	707	126	6	Floor	L	0 1	0 1
707 04131999-35-192	707	126	7	Drum	L	0 1	0 1
707-04131999-35-193	707	126	8	Drum	L	0 1	0 1
707-04131999-35-194	707	126	9	Drum	L	0 1	0 1
707-04131999-35-195	707	126	11	Floor	L	0 1	0 1
707 04131999-35-196	707	126	12	Drum	L	0 1	0 1

BUILDING 707
BERYLLIUM SURFACE (SMEAR) SAMPLES

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
707-04131999-35-197	707	126	13	Drum	L	0 1	0 1
707-04131999-35-198	707	126	16	Drum	L	0 1	0 1
707-04131999-35-199	707	126	17	Drum	L	0 1	0 1
707-04131999-35-200	707	126	19	Floor	L	0 1	0 1
707-04131999-35-201	707	126	20	Floor	L	0 1	0 1
707-04131999-35-202	707	126	21	Floor	L	0 1	0 1
707-04131999-35-203	707	126	24	Cart F4-61	L	0 1	0 1
707-04131999-35-204	707	126	24	Shelf	L	0 1	0 1
707-04131999-35-205	707	126	24	Floor	L	0 1	0 1
707-04131999-35-206	707	126	Selective	Control box (49, 16)	L	0 1	0 1
707-04131999-35-207	707	126	Selective	Dry combustible residue storage rack (7,7)	L	0 1	0 1
707-04131999-35-208	707	125	1	Drum	L	0 1	0 1
707-04131999-35-209	707	125	2	Drum	L	0 1	0 1
707-04131999-35-210	707	125	3	Floor	L	0 1	0 1
707-04131999-35-211	707	125	5	Drum	L	0 1	0 1
707-04131999-35-212	707	125	7	Partition	L	0 1	0 1
707-04131999-35-213	707	125	8	Drum	L	0 1	0 1
707-04131999-35-214	707	125	10	Drum	L	0 1	0 1
707-04131999-35-215	707	125	11	Floor	L	0 1	0 1
707-04131999-35-216	707	125	12	Drum	L	0 1	0 1
707-04131999-35-217	707	125	14	Floor	L	0 1	0 1
707-04131999-35-218	707	125	15	Drum	L	0 1	0 1
707-04131999-35-219	707	125	16	Floor	L	0 1	0 1
707-04131999-35-220	707	125	17	Drum	L	0 1	0 1
707-04131999-35-221	707	125	18	Floor	L	0 1	0 1
707-04131999-35-222	707	125	Selective	Vent (25 2)	L	0 1	0 1
707-04131999-35-223	707	125	Selective	Partition (14 32)	L	0 1	0 1
707-04131999-35-224	707	135A	1	Floor	L	0 1	0 1
707-04131999-35-225	707	135A	2	Floor	L	0 1	0 1
707-04131999-35-226	707	135A	3	Floor	L	0 1	0 1
707-04131999-35-227	707	135A	4	Drum	L	0 1	0 1
707 04131999-35-228	707	135A	5	Floor	L	0 1	0 1

BUILDING 707
BERYLLIUM SURFACE (SMEAR) SAMPLES

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
707-04131999-35-229	707	135A	Selective	Paper towel dispenser (5 7)	L	0 1	0 1
707-04131999-35-230	707	135A	Selective	Shelf (6, 1)	L	0 1	0 1
707-04131999-35-231	707	135B	2	Floor	L	0 1	0 1
707-04131999-35-232	707	135B	3	Drum	L	0 1	0 1
707-04131999-35-233	707	135B	4	Drum	L	0 1	0 1
707-04131999-35-234	707	135B	5	Floor	L	0 1	0 1
707-04131999-35-235	707	135B	Selective	Paper towel dispenser (5 7)	L	0 1	0 1
707-04131999-35-236	707	135B	Selective	Autoclave (5,5)	L	0 1	0 1
707-04131999-35-237	707	135D	1	Drum	L	0 1	0 1
707-04131999-35-238	707	135D	2	Floor	L	0 1	0 1
707-04131999-35-239	707	135D	3	Drum	L	0 1	0 1
707-04131999-35-240	707	135D	4	Drum	L	0 1	0 1
707-04131999-35-241	707	135D	5	Autoclave	L	0 1	0 1
707-04131999-35-242	707	135D	Selective	Paper towel dispenser (5, 7)	L	0 1	0 1
707-04131999-35-243	707	135D	Selective	Shelf (5 2)	L	0 1	0 1
707-04131999-35-244	707	135E	1	Floor	L	0 1	0 1
707-04131999-35-245	707	135E	2	Drum	L	0 1	0 1
707-04131999-35-246	707	135E	4	Drum	L	0 1	0 1
707-04131999-35-247	707	135E	5	Floor	L	0 1	0 1
707-04131999-35-248	707	135E	Selective	Shelf (4 1)	L	0 1	0 1
707-04131999-35-249	707	135E	Selective	Floor (6 11)	L	0 1	0 1
707-04131999-35-250	707	135F	1	Floor	L	0 1	0 1
707-04131999-35-251	707	135F	2	Floor	L	0 1	0 1
707-04131999-35-252	707	135F	3	Floor	L	0 1	0 1
707-04131999-35-253	707	135F	4	Floor	L	0 1	0 1
707-04131999-35-254	707	135F	5	Floor	L	0 1	0 1
707-04131999-35-255	707	135F	Selective	Shelf (4 1)	L	0 1	0 1
707-04131999-35-256	707	135F	Selective	Control panel (7 5)	L	0 1	0 1
707-04131999-35-257	707	135	See Map	Cabinet	L	0 1	0 1
707-04131999-35-258	707	135	See Map	Cabinet	L	0 1	0 1
707-04131999-35 259	707	135	See Map	Corrisive Cabinet	L	0 1	0 1
707-04131999-35 260	707	135	See Map	Cabinet	L	0 1	0 1

BUILDING 707
BERYLLIUM SURFACE (SMEAR) SAMPLES

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
707-04131999-35-261	707	135	See Map	Lab table	L	0 1	0 1
707-04131999-35-262	707	135	See Map	Cabinet	L	0 1	0 1
707-04131999-35-263	707	135	See Map	Control unit	L	0 1	0 1
707-04131999-35-264	707	135	See Map	Control unit	L	0 1	0 1
707-04131999-35-265	707	135	See Map	Flammable cabinet	L	0 1	0 1
707-04131999-35-266	707	135	See Map	Monitor top	L	0 1	0 1
707-04131999-35-267	707	135	See Map	Mayo tester	L	0 1	0 1
707-04131999-35-268	707	135	See Map	Canberra Gamma Spectroscopy Instrument	L	0 1	0 1
707-04131999-35-269	707	135	See Map	High vacuum equipment	L	0 1	0 1
707-04131999-35-270	707	135	See Map	Stainless steel lab table	L	0 1	0 1
707-04131999-35-271	707	135	See Map	Shelf	L	0 1	0 1
707-04131999-35-272	707	135	See Map	Control Panel	L	0 1	0 1
707-04131999-35-273	707	135	See Map	Compressed gas cylinder	L	0 1	0 1
707-04131999-35-274	707	135	See Map	Back side of control unit	L	0 1	0 1
707-04131999-35-275	707	Blank			L	0 1	0 1
707-04131999-35-276	707	Blank			L	0 1	0 1
707-04131999-35-277	707	Blank			L	0 1	0 1
707-04131999-35-278	707	Blank			L	0 1	0 1
707-04131999-35-279	707	Blank			L	0 1	0 1
707-04131999-35-280	707	Blank			L	0 1	0 1
707-04131999-35-281	707	Blank			L	0 1	0 1
707-04131999-35-282	707	Blank			L	0 1	0 1
707-04131999-35-283	707	Blank			L	0 1	0 1
707-04131999-35-284	707	Blank			L	0 1	0 1
707-05121999-35-287	707	165E	Selective	Shelf	L	0 1	0 1
707-05121999-35-288	707	165E	Selective	Desk top	L	0 1	0 1
707-05121999-35-289	707	159	Selective	Desk top	L	0 1	0 1
707-05121999-35-290	707	159	Selective	File cabinet	L	0 1	0 1
707-05121999-35-291	707	Ladies Room	Selective	Counter top	L	0 1	0 1
707-05121999-35-292	707	Ladies Room	Selective	Floor	L	0 1	0 1
707-05121999-35-293	707	153A	Selective	File cabinet	L	0 1	0 1
707-05121999-35-294	707	162	Selective	Desk	L	0 1	0 1

BUILDING 707
BERYLLIUM SURFACE (SMEAR) SAMPLES

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
707-05121999-35-295	707	162	Selective	Shelf	L	0 1	0 1
707-05121999-35-296	707	160	Selective	File cabinet	L	0 1	0 1
707-05121999-35-297	707	153	Selective	Desk	L	0 1	0 1
707-05121999-35-298	707	Conference room	Selective	Table top	L	0 1	0 1
707-05121999-35-299	707	Conference room	Selective	Book shelf	L	0 1	0 1
707-05121999-35-300	707	Hallway	Selective	Mailbox	L	0 1	0 1
707-05131999-35-301	707	100	1	Glovebox 0001 top	L	0 1	0 1
707-05131999-35-302	707	100	1	Floor	L	0 1	0 1
707-05131999-35-303	707	100	2	Floor	L	0 1	0 1
707-05131999-35-304	707	100	5	Vent duct - PVC-433	L	0 1	0 1
707-05131999-35-305	707	100	5	Floor	L	0 1	0 1
707-05131999-35-306	707	100	5	Vents	L	0 1	0 1
707-05131999-35-307	707	100	4	Floor	L	0 1	0 1
707-05131999-35-308	707	100	6	Cast furnace top	L	0 1	0 1
707-05131999-35-309	707	100	8	Glovebox 0011 top	L	0 1	0 1
707-05131999-35-310	707	100	8	Floor	L	0 1	0 1
707-05131999-35-311	707	100	10	Floor	L	0 1	0 1
707-05131999-35-312	707	100	13	Glovebox overheat panel	L	0 1	0 1
707-05131999-35-313	707	100	13	Vent	L	0 1	0 1
707-05131999-35-314	707	100	13	Vents	L	0 1	0 1
707-05131999-35-315	707	100	13	Floor	L	0 1	0 1
707-05131999-35-316	707	100	14	Glovebox A-110 -Glove port 003	L	0 1	0 1
707-05131999-35-317	707	100	14	Floor	L	0 1	0 1
707-05131999-35-318	707	100	16	Floor	L	0 1	0 1
707-05131999-35-319	707	100	18	Rolling cart/desk	L	0 1	0 1
707-05131999-35-320	707	100	18	Floor	L	0 1	0 1
707-05131999-35-321	707	100	19	Cabinet top	L	0 1	0 1
707-05131999-35-322	707	100	20	Glovebox A-30	L	0 1	0 1
707-05131999-35-323	707	100	20	Floor	L	0 1	0 1
707-05131999-35-324	707	100	22	Control panel top - BDID-2-112	L	0 1	0 1
707-05131999-35-325	707	100	22	Floor	L	0 1	0 1
707-05131999-35-326	707	100	22	Floor	L	0 1	0 1

BUILDING 707
BERYLLIUM SURFACE (SMEAR) SAMPLES

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
707-05131999-35-327	707	100	23	Cabinet top	L	0 1	0 1
707-05131999-35-328	707	100	23	Interior bottom of csbinet	L	0 1	0 1
707-05131999-35-329	707	100	24	Floor	L	0 1	0 1
707-05131999-35-330	707	100	25	Floor	L	0 1	0 1
707-05131999-35-331	707	100	27	Floor	L	0 1	0 1
707-05131999-35-332	707	100	28	Glovebox A-70	L	0 1	0 1
707-05131999-35-333	707	100	28	Floor	L	0 1	0 1
707-05131999-35-334	707	100	30	707-CNYR-3-3A	L	0 1	0 1
707-05131999-35-335	707	100	30	Floor	L	0 1	0 1
707-05131999-35-336	707	100	31	Glovebox A-67	L	0 1	0 1
707-05131999-35-337	707	100	31	Brace	L	0 1	0 1
707-05131999-35-338	707	100	31	Floor	L	0 1	0 1
707-05131999-35-339	707	100	32	Down draft #3	L	0 1	0 1
707-05131999-35-340	707	100	34	Down draft #2	L	0 1	0 1
707-05131999-35-341	707	100	35	Safe	L	0 1	0 1
707-05131999-35-342	707	100	36	Floor	L	0 1	0 1
707-05131999-35-343	707	100	37	Floor	L	0 1	0 1
707-05131999-35-344	707	100	38	Mable table top	L	0 1	0 1
707-05131999-35-345	707	100	38	Floor	L	0 1	0 1
707-05131999-35-346	707	100	39	Rolling tool box	L	0 1	0 1
707-05131999-35-347	707	100	39	Floor	L	0 1	0 1
707-05131999-35-348	707	100	40	Floor	L	0 1	0 1
707-05131999-35-349	707	100	41	Floor	L	0 1	0 1
707-05131999-35-350	707	100	42	Floor	L	0 1	0 1
707-05131999-35-351	707	100	Selective		L	0 1	0 1
707-05131999-35-352	707	100	Selective		L	0 1	0 1
707-05131999-35-353	707	100	Selective		L	0 1	0 1
707-05131999-35-354	707	100	Selective		L	0 1	0 1
707-05131999-35-355	707	100	Selective		L	0 1	0 1
707-05131999-35 356	707	Step off pad	Selective	Table top	L	0 1	0 1
707-05131999-35-357	707	Step off pad	Selective	Floor	L	0 1	0 1
707-05131999-35-358	707	Count room	Selective	Instrumentaion table	L	0 1	0 1

BUILDING 707
BERYLLIUM SURFACE (SMEAR) SAMPLES

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
707-05131999-35-359	707	Count room	Selective	Floor	L	0 1	0 1
707-05131999-35-360	707	Dressout area	Selective	Locker	L	0 1	0 1
707-05131999-35-361	707	Dressout area	Selective	Bench	L	0 1	0 1
707-05131999-35-362	707	Dressout area	Selective	Anti-C shelf	L	0 1	0 1
707-05131999-35-363	707	178	Selective	Floor	L	0 1	0 1
707-05131999-35-364	707	180	Selective	Shelf	L	0 1	0 1
707-05131999-35-365	707	Corridor F	Selective	Floor in front of door to room 180	L	0 1	0 1
707-05131999-35-366	707	Corridor R	Selective	Wooden box	L	0 1	0 1
707-05131999-35-367	707	Corridor P	Selective	Tool box	L	0 1	0 1
707-05131999-35-368	707	185	Selective	Desk	L	0 1	0 1
707-05131999-35-369	707	Corridor N	Selective	Table top	L	0 1	0 1
707-05131999-35-370	707	Corridor N	Selective	Window Sill outside 125A	L	0 1	0 1
707-05131999-35-371	707	Corridor S	Selective	Floor in front of door to room 140	L	0 1	0 1
707-05131999-35-372	707	Corridor J	Selective	Floor in front of door to room 105	L	0 1	0 1
707-05131999-35-373	707	Corridor K	Selective	Crate	L	0 1	0 1
707-05131999-35-374	707	Corridor L	Selective	Floor in front of door to room 115	L	0 1	0 1
707-05131999-35-375	707	Blank			L	0 1	0 1
707-05131999-35-376	707	Blank			L	0 1	0 1
707-05131999-35-377	707	Blank			L	0 1	0 1
707-05131999-35-378	707	Blank			L	0 1	0 1
707-05131999-35-379	707				L	0 1	0 1

BERYLLIUM LOCATIONS

[illegible]	[illegible] ROOM	[illegible] ACTIVITY	[illegible]
707	100 (Mod A)	Maching beryllium	None
707	125 (Mod F)	PIGMA welding beryllium and cleaning the welds	None
707	125 A (Mod F)	Assembly of parts with beryllium components	Unable to enter
707	125 B (Mod F)	Assembly of parts with beryllium components	Unable to enter
707	126 (Mod F)	Testing parts with beryllium components	None
707	130 (Mod G)	Machining and brazing beryllium, and cleaning PIGMA welds	None
707	130 A (Mod G)	Testinng parts with beryllium components	None
707	132 (Mod G)	Inspecting parts with beryllium components	None
707	132 A (Mod G)	Inspecting parts with beryllium components	None
707	135 (Mod H)	Testing parts with beryllium components	None
707	135 A (Mod H)	Testing parts with beryllium components	None
707	135 B (Mod H)	Testing parts with beryllium components	None
707	135 C (Mod H)	Testing parts with beryllium components	Unable to enter
707	135 D (Mod H)	Testing parts with beryllium components	None
707	135 E (Mod H)	Testing parts with beryllium components	None
707	135 F (Mod H)	Testing parts with beryllium components	None
707	136 (Mod H)	Storage of parts with beryllium components	Unable to enter
707	140 (Mod J)	Thermal stabalization of materials containing beryllium	None
707	167	NDT of parts with beryllium components	None
707	169	NDT of parts with beryllium components	None
707	171	NDT of parts with beryllium components	None
707	173	NDT of parts with beryllium components	None
707	179	NDT of parts with beryllium components	None
707	184	Shipping and recieving of parts with beryllium components	None
707	200	Plenum 101 and 103, exhausting beryllium operations	Unable to enter
707	220	Plenum 107 and 108, exhausting beryllium operations	Unable to enter
707	240	Plenum 102, exhausting beryllium operations	Unable to enter

A-1
HISTORICAL CHEMICAL DATA
Beryllium

ID No 707,731

Date 04/26/00

D&D Facility Characterization Interview Checklist

Check List for - Title D&D Facility Characterization – Interviews

CRITERIA
- Λ *D&D Characterization Protocol*, RFETS MAN-077-DDCP, Rev 0
- Λ *Facility Disposition Program Manual*, RFETS MAN-076-FDPM
- Λ RFETS Radiological Safety Practices, January 12, 1998

Facility Name & Type (1, 2, or 3) Buildings 707,732Manufacturing-Assembly Type 3

Personnel Interviewed (Name & Title/Function) Jeff Paynter/Deactivation Engineer/Planing and Work Authorization

	--	Y/ N
Does a current WSRIC exist for the facility?		Y
If so, are there exceptions to the WSRIC as written?	No Exceptions	

COMMENTS (incl WSRIC contacts)
WSRIC Contact is James M Schoen who is in charge of the WSRIC Reports, T130J, X3579, C-83

Are rad surveys available that indicate current status of the facility?	Y
Are historical rad surveys available that indicate historical status, or evolution, of the facility?	Y

COMMENTS Historical surveys will be in storage at the Federal Center

Is an HRR available for the facility?	Y
Do any other reports exist beyond the HRR (e g , spill reports, reportable incidents, etc) that further Characterize the facility relative to chemical &/or radiological contamination?	Y
Are engineering drawings (esp "as-builts") available?	Y
Are any nonconformances or issues with the facility status currently being tracked in PATS?	Y

If so, what are the issues (note in Comments, below)?
COMMENTS

Have any types of chemical characterization, incl asbestos, been performed recently?	N

If so, what types of characterization were performed (note in Comments, below)?
COMMENTS

Interviewed by D A Burton / [signature] / 04/25/00

Print Name — Signature — Interview Date

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ID No 707,731

Date 04/25/00

D&D Facility Characterization Interview Checklist

What timeframe did the interviewee work in the facility? 1983 to 1987 and 1998 to present

Has the building configuration changed since you worked in the building? If so, in what way?
Yes Equipment was removed from Module A to install salt stabilization process and equipment removed from Module G to make it into a drum storage room

What types of equipment were in the building during the interviewee's time there?
Equipment used in casting, rolling, forming, machining, assemble and inspection of weapons components Offices contained desks, chairs, computers, printers filling cabinets and copiers Utility support equipment on the second floor

Where was the equipment located? (specific rooms/areas) In production Modules A,B,C,D,E,F,G,H,J and K and in the offices in the production areas and the cold areas of the building

Were any radioactive materials or metals handled in the building? If so, what types? Yes Plutonium metal and oxide The salt stabilization process stabilized MSE, DOR, ER and salt scrub salts

Which equipment handled radioactive material? Chainveyors, rolling mill, hydroform press, lathes, drill presses, inspection equipment, and electron beam welders

Were any chemicals handled in the building? If so, what types? Yes Carbon tetrachloride trichloroethane Freon® and machining oils Utilities handled Kathene solutions

Did any spills or uncontrolled releases of radioactive materials or chemicals occur while you were working in the facility? Yes

Were these spills/releases cleaned-up? How were they cleaned-up? Yes Using the methods and to the standards of the time when the spills or releases occurred

Where did these spills/releases occur? In the modules and on the second floor

Interviewed by D A Burton / [signature] / 04/25/00

Print Name / Signature / Interview Date

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A-1

HISTORICAL CHEMICAL DATA

Asbestos

Asbestos Program Management
Baseline Inventory
Building 707 Plutonium Fabrication Building

Executive Summary

Baseline Inventory Procedures

During the months of April and May 1992 a Baseline Inventory was conducted for asbestos containing building materials (ACBM) by the Industrial Hygiene Department, Radiological Operations Maintenance Support Services, and selected pipe fitters Trained personnel on the Asbestos Management Program Team(APMT) using Environmental Protection Agency (EPA) 40CFR 763 Subpart E Asbestos Hazard Emergency Response Act (AHERA) , and Colorado Department of Health (CDH) Regulation 8 guidelines reconstructed original inventory documentation during the months of July and September 1994 These efforts placed original 1994 inventory sample results and sample locations in a more usable format to plan future building renovation or demolition projects In addition, all original sample locations and material conditions were revisited and physically evaluated by team members This process enabled the APMT to determine the present condition of Asbestos Containing Building Materials (ACBM) and assign a current risk assessment category applicable to the health and safety of building occupants

Building Description

Building 707 is a two story building constructed in 1972 and has approximately 197 770 square foot of floor space The structural system for building 707 is a precast prestressed concrete twin-tee roof and second floor, supported on precast concrete columns The first floor is a concrete slab on grade the floor over the basement areas is cast-in-place concrete The process vaults serve as part of the second floor structure, the adjacent beams of the second floor are framed into the vaults insuring the vaults become an integral part of the building In addition, the second floor houses the heating ventilation and air conditioning (HVAC) systems

The wall separating the single story section from the two-story part of building 707 including the walls around the elevator shaft, stairways to the second floor, and the fire-break walls on the second floor are full height concrete block The walls of the production modules are steel studs covered with gypsum board finished with hardboard wainscot Other interior walls (i e offices and restrooms) are of steel stud and concrete construction The process vaults in building 707 consist of poured in place concrete walls The storage vaults have walls of either poured in place concrete or filled concrete block

The production modules have air diffusing, metal pan suspended ceilings All restrooms and janitor closets have suspended gypsum board ceilings, all corridors which surround the modules have suspended acoustical panel ceilings The offices and laboratory in the single story section of building 707 and the office and control room on the second floor have suspended acoustical panel ceilings There are no ceilings in the second floor mechanical equipment areas

All floors in the production areas are finished with coating designed to facilitate decontamination the floors of Modules A B C D E, F J K and the basement under the end of module C are coated with an epoxy finish The floors of modules G and H are finished with a cemetitious hardener and sealed Floors of emergency showers and corridors surrounding the production modules are coated with epoxy finish

Office area floors are finished with resilient floor tile some floors areas are covered with indoor-outdoor carpeting Restroom and shower floors are covered with unglazed ceramic floor tile The second story floor is covered with a clear sealant

Inventory Summary

During the initial baseline inventory of building 707 four -hundred and three (403) samples for suspect ACBM were taken throughout the building, of which one -hundred and eighty-four (184) were positive for asbestos Actual laboratory sample results and material type are available for review in section (4) book (2)

Actual sampled areas were verified by photography Two-hundred and seventy (270) photographs were taken to reconstruct the original location of samples collected In addition sample location sites have been plotted on eighteen (18) drawings using computer assisted drawing (CAD) to identify the exact location and material type Drawings and photographs of each sample area are available for review in book (1) sections (2) and (3)

Hazard Assessment Ranking

The EPA recommends physical inspection as the preferred approach to exposure assessment This is based on the premise that certain observable characteristics of the ACBM and the building environment are good indicators of the current or future fiber release and resulting exposure levels Three types of factors are used to assess the potential for exposure (1) the condition of the ACBM (2) the potential for disturbance and (3) the presence of air flow The condition and disturbance factors taken independently and together describe the likelihood of fiber release, and air flow indicates whether released fibers could be transported throughout the building via the ventilation system This is why a physical inspection and suspect material sampling is conducted for each homogeneous area of suspect ACBM

Based on using these guidelines and the initial inspector's physical assessment of material condition and previous repairs and removal work conducted since the initial effort, material location, and laboratory sampling results, the overall condition of ACBM and non-ACBM in building 707 is good In addition , building occupants in 707 are at low risk for exposure to ACBM and any health hazards associated with asbestos

Health Hazards Associated With Asbestos

Asbestos is the generic name for a group of minerals which are characterized by tiny needle-like fibers which are so small that they are readily inhaled into the lungs when present in the air Asbestos materials have many uses because of their strength, insulating properties and electrical and chemical resistance With over 3 000 uses most urban-area residents have some amount of these fibers in their lungs

Although potential effects at low exposure levels are a matter of controversy it is well documented that major exposures to airborne asbestos fibers often result in fatal diseases After a latency period of 10 to 40 years the following diseases may develop

Asbestosis This progressive disease results in a continuing decrease in lung function as healthy lung tissue is replaced by scar tissue which builds up around the embedded asbestos fibers

Lung Cancer Lung cancer caused by asbestos fibers may also develop in an exposed person This can occur along with asbestosis

Mesothelioma This is a cancer of the lining around the outside of the lungs and is caused by the fibers piercing the lung tissue and entering this layer This cancer is almost always fatal

The major exposures which have produced the bulk of these asbestos-related diseases have occurred in occupational exposed workers. The EPA states that, based upon available data, the average airborne asbestos levels in buildings are very low Accordingly, the health risk to most building occupants also appears to be very low

Maintenance and custodial work in buildings containing friable ACBM (material which may be crumbled pulverized by hand pressure) may result in varying levels of exposure to asbestos fibers through either deliberate or incidental contact

Prevention of Exposure

The mere presence of asbestos materials in a structure is not a risk unless ACBM becomes friable and fibers are released into the air and are then inhaled In a facility such as building 707 asbestos health concerns (if any) usually involve certain maintenance and custodial tasks plus activities associated with building renovations These types of activities can necessitate contact with ACBM and may result in disturbance of the material and subsequent fiber emission Minimizing exposure to asbestos fibers is done by being aware of the following

1 The location of asbestos in the facility (refer to sections 2-4 of the 707 baseline inventory books)

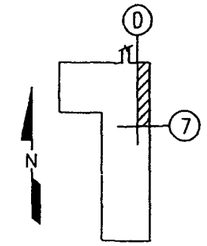
2 The need to avoid physically disturbing materials

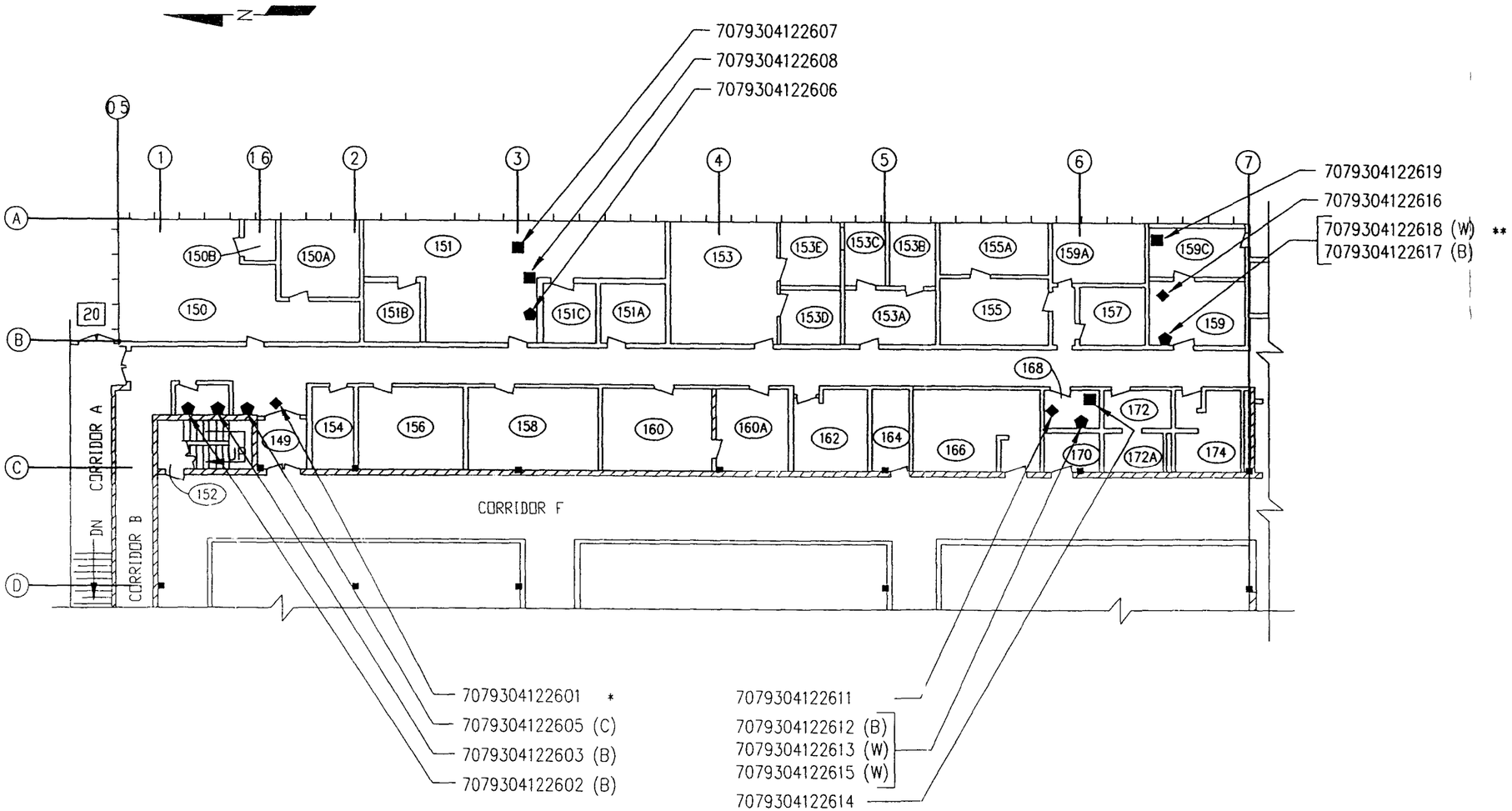
3 Recognizing the need to report such conditions to the building Asbestos Program Manager

Standard of Care

The recommendations and conclusions contained in the Baseline Asbestos Inventory report represents the opinion of the Asbestos Management team These opinions are derived in accordance with currently accepted EPA-AHERA inspection practices Other than this no warranty is implied or intended

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
BLDG 707 - FIRST FLOOR





SAMPLE RESULTS

7079304122601	7% Chrysotile Total 7%
7079304122602	0 Asbestos
7079304122603	0 Asbestos
7079304122605	0 Asbestos
7079304122606	0 Asbestos
7079304122607	0 Asbestos
7079304122608	0 Asbestos
7079304122611	5% Chrysotile Total 5%
7079304122612	0 Asbestos
7079304122613	0 Asbestos
7079304122614	0 Asbestos
7079304122615	0 Asbestos
7079304122616	7% Chrysotile Total 7%
7079304122617	0 Asbestos
7079304122618	1 4% Chrysotile Total 1 4%
7079304122619	0 Asbestos

LEGEND

- ● Pipe samples
- ■ Ceiling samples
- ◆ Floor tile samples
- ⬟ Wall samples
- (C) Caulking
- (B) Baseboard
- (W) Wallboard
- Sample containing asbestos

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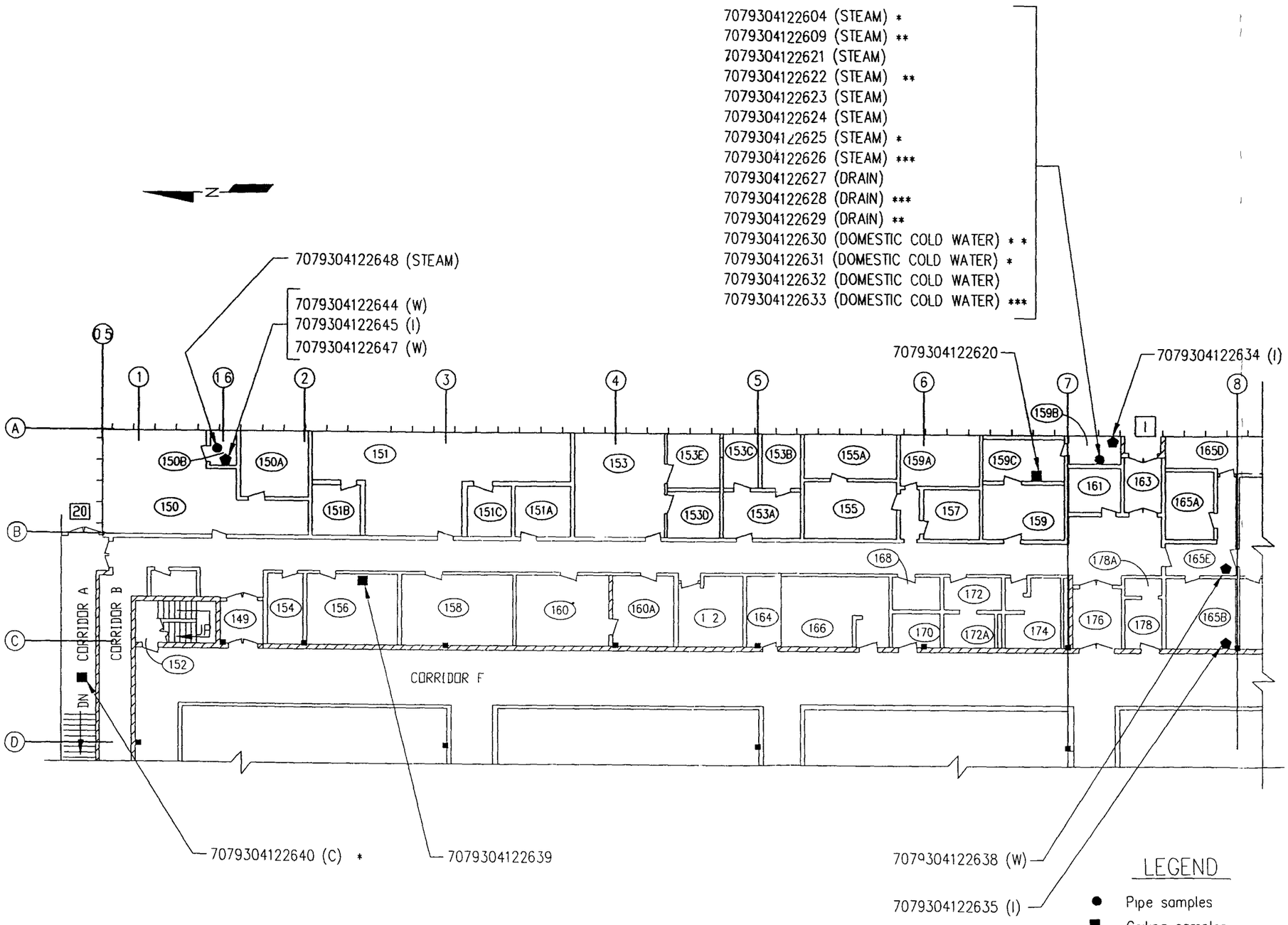
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
BLDG 707 - FIRST FLOOR



SAMPLE RESULTS

7079304122604	15% Chrysotile & Amosite Total 15%
7079304122609	20 9% Chrysotile & Amosite Total 20 9%
7079304122620	0 Asbestos
7079304122621	0 Asbestos
7079304122622	0-8 5% Chrysotile Total 8 5%
7079304122623	0-3 5% Chrysotile & Amosi Total 3 5%
7079304122624	0 Asbestos
7079304122625	0-8% Chrysotile & Amosit Total 8%
7079304122626	0 8 5% Chrysotile Total 8 5%
7079304122627	0 Asbestos
7079304122628	20% Cnrysotile & Amosite Total 20%
7079304122629	18 5% Chrysotile & Amosi Total 18 5%
7079304122630	16 7% Chrysotile & Amosit Total 16 7%
7079304122631	23 4% Chrysotile & Amosit Total 23 4%
7079304122632	0 Asbestos
7079304122633	22 5% Chrysotile & Amosit Total 22 5%
7079304122634	0 Asbestos
7079304122635	0 Asbestos
7079304122638	0 Asbestos
7079304122639	0 Asbestos
7079304122640	1 5% Chrysotile Total 1 5%
7079304122644	0 Asbesto
7079304122645	0 Asbestos
7079304122647	0 Asbestos
7079304122648	0 Asbestos

LEGEND

- ● Pipe samples
- ■ Ceiling samples
- ◆ Floor tile sample
- ⬟ Wall samples
- (C) Caulking
- (B) Baseboard
- (W) Wallboard
- (I) Insulation
- Sample containing asbestos

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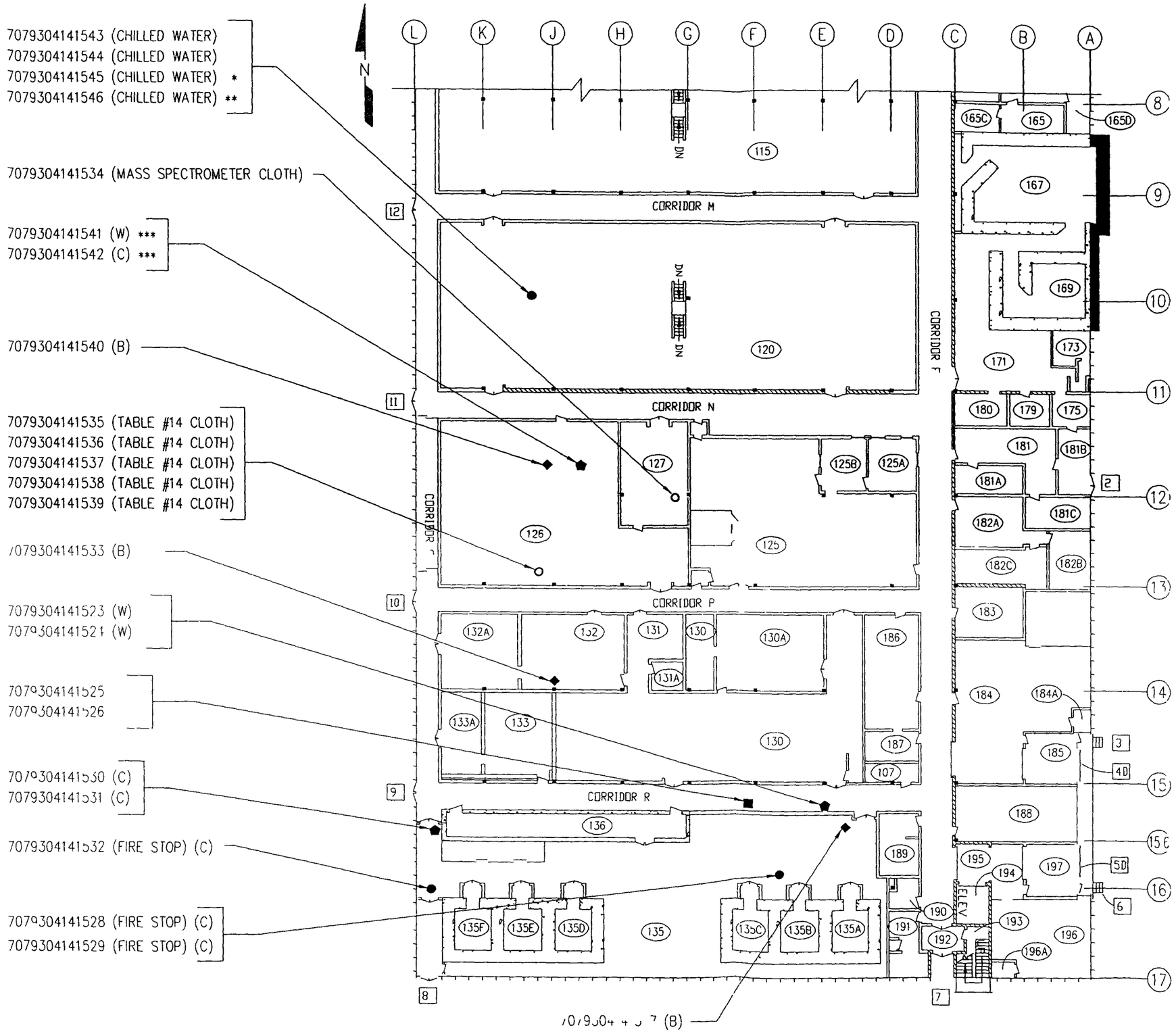
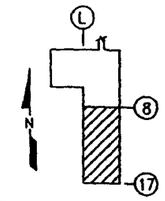
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
BLDG 707 - FIRST FLOOR





SAMPLE RESULTS

7079304141523	0 Asbestos
7079304141524	2 1% Chrysotile
	Total 2 1%
7079304141525	0 Asbestos
7079304141526	3 8% Chrysotile
	Total 3 8%
7079304141527	0 Asbestos
7079304141528	0 Asbestos
7079304141529	0 Asbestos
7079304141530	0 Asbestos
7079304141531	0 Asbestos
7079304141532	0 Asbestos
7079304141533	<1% Trem-Act & Anthophy
	Total <1%
7079304141534	0 Asbestos
7079304141535	0 Asbestos
7079304141536	0 Asbestos
7079304141537	0 Asbestos
7079304141538	0 A bestos
7079304141539	0 Asbestos
7079304141540	0 Asbestos
7079304141541	1 5% Chrysotile
	Total 1 5%
7079304141542	4/ Chrysotile
	Total 4%
7079304141543	0 Asbestos
7079304141544	0 Asbestos
7079304141545	<1% Chrysotile
	Total <1%
7079304141546	1 5% Chrysotile
	Total 1 5%

LEGEND

- ○ Other (Specify)
- ● Pipe samples
- ■ Ceiling samples
- ◆ Floor tile samples
- ⬟ Wall samples
- (C) Caulking
- (B) Baseboard
- (W) Wallboard
- (*) In Lite
- Sample containing asbestos

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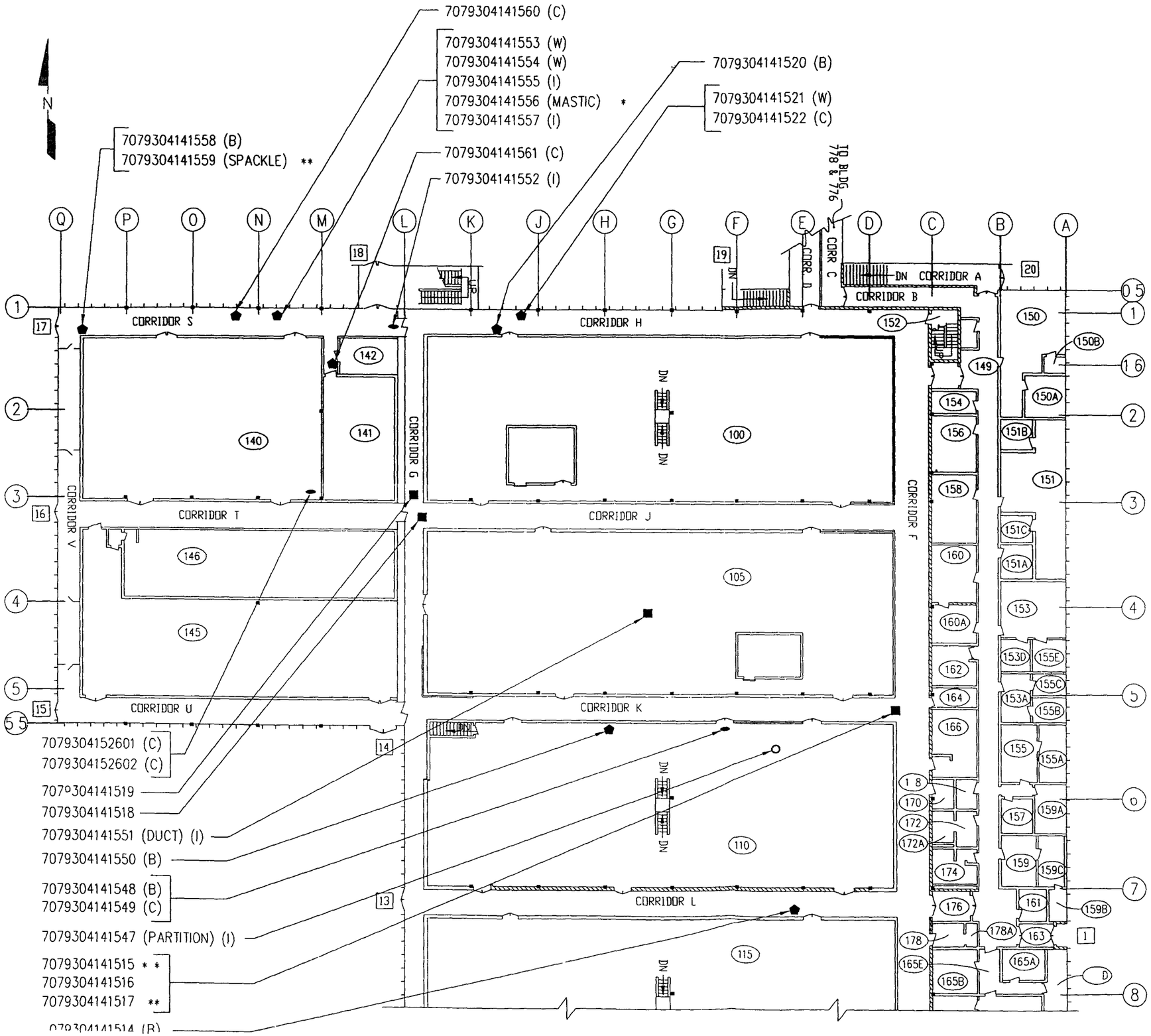
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
BLDG 707 - FIRST FLOOR



SAMPLE RESULTS

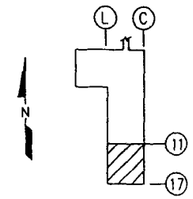
7079304141514	0 Asbestos
7079304141515	4% Chrysotile
	Total 4%
7079304141516	0 Asbestos
7079304141517	3% Chrysotile
	Total 3%
7079304141518	0 Asbestos
7079304141519	0 Asbestos
7079304141520	0 Asbestos
7079304141521	0 Asbestos
7079304141522	0 Asbestos
7079304141547	0 Asbestos
7079304141548	0 Asbesto
7079304141549	0 Asbestos
7079304141550	0 Asbestos
7079304141551	0 Asbestos
7079304141552	0 Asbest
7079304141553	0 Asb s
7079304141554	0 A
7079304141	tos
7079	5 chrysotile
	Total 55%
7079304141557	0 Asbestos
7079304141558	0 Asbestos
7079304141559	% Chrysotil
	Total 3%
7079304141560	0 Asbestos
7079304141561	0 Asbestos
7079304152601	0 Asbestos
7079304152602	0 Asbestos

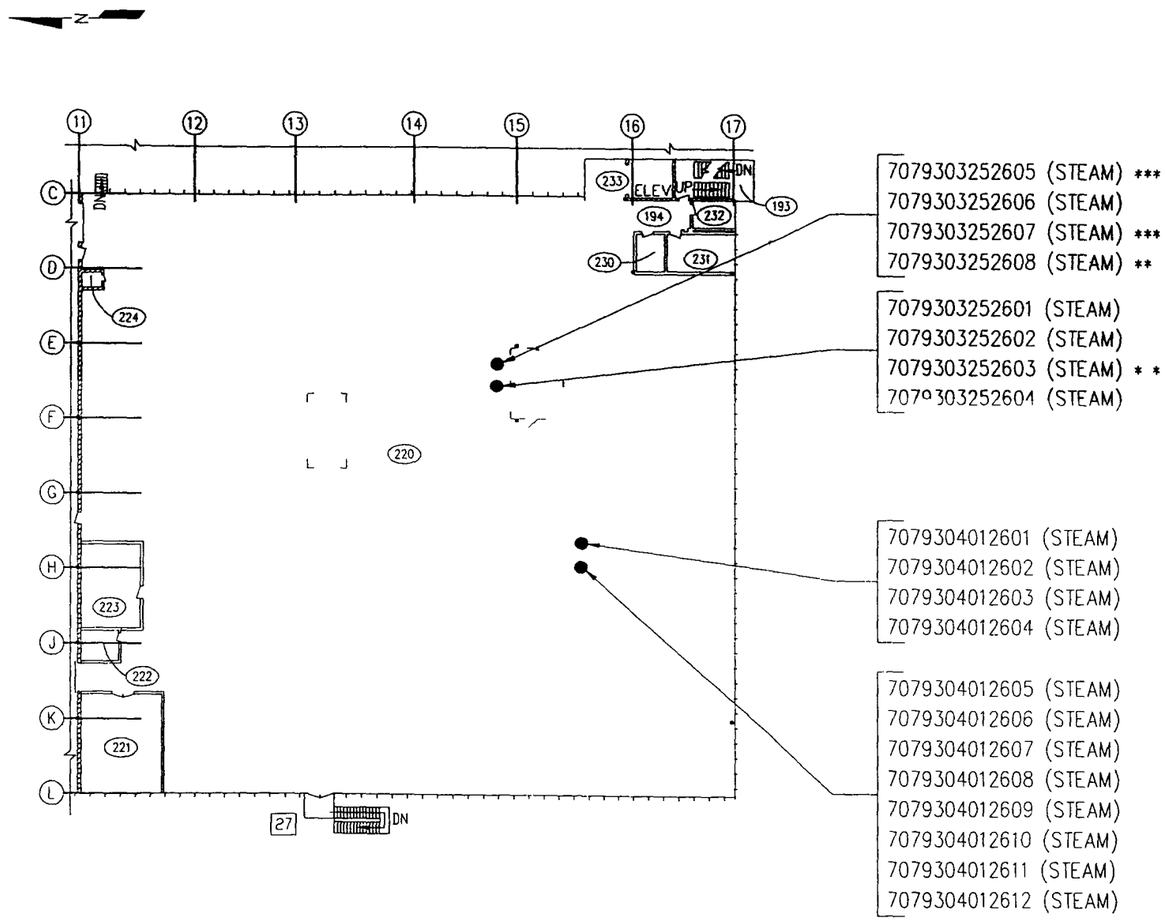
LEGEND

- ○ Other (Specify)
- ● Pipe samples
- ■ Ceiling samples
- ◆ Floor tile samples
- ⬟ Wall samples
- ▬ Door samples
- (C) Caulking
- (B) Baseboard
- (W) Wallboard
- (I) Insulation

Sample

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
BLDG 707 - SECOND FLOOR





SAMPLE RESULTS

7079303252601	0 Asbestos
7079303252602	0 Asbestos
7079303252603	9 9% Chrysotile & Amosite Total 9 9%
7079303252604	<1% Amosite Total <1%
7079303252605	9 2% Chrysotile & Amosite Total 9 2%
7079303252606	0 Asbestos
7079303252607	10 1% Chrysotile & Amosite Total 10 1%
7079303252608	<1% Chrysotile & Amosite Total <1%
7079304012601	5% Amosite Total 5%
7079304012602	0 Asbestos
7079304012603	0 Asbestos
7079304012604	0 Asbestos
7079304012605	0 Asbestos
7079304012606	0 Asbestos
7079304012607	0 A bestos
7079304012608	0 Asbestos
7079304012609	7 9% Chrysotile & Amosite Total 7 9%
7079304012610	8% Chrysotile Total 8%
7079304012611	9 8% Chrysotile & Amosite Total 9 8%
7079304012612	15% Chrysotile & Amosite Total 15%

LEGEND

- ○ Other (Specify)
- ● Pipe samples
- ■ Ceiling samples
- ◆ Floor tile samples
- ⬟ Wall samples
- ▬ Door samples
- (C) Caulking
- (B) Baseboard
- (W) Wallboard
- (I) Insulation
- Sample containing asbestos

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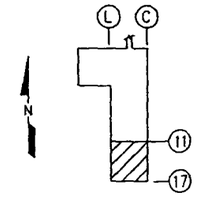
B DWG A d ff

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
BLDG 707 - SECOND FLOOR



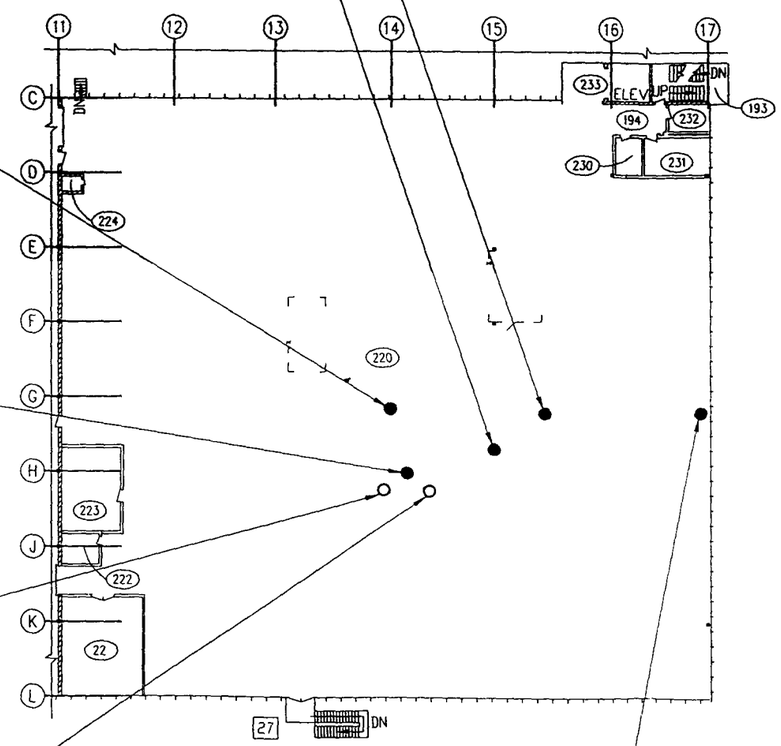
7079304012617 (CHILLED WATER) ***
7079304012618 (CHILLED WATER) ***
7079304012619 (CHILLED WATER) ***

7079304012613 (STEAM) ***
7079304012614 (CHILLED WATER) ***
7079304012615 (CHILLED WATER) ***
7079304012616 (CHILLED WATER) ***

7079304012627 (HIGH TEMP WATER)
7079304012628 (HIGH TEMP WATER) * *
7079304012629 (HIGH TEMP WATER) **
7079304012630 (HIGH TEMP WATER) ***
7079304012631 (HIGH TEMP WATER)
7079304012632 (HIGH TEMP WATER) **
7079304012633 (CONDENSATE STEAM)
7079304012634 (CONDENSATE)
7079304012635 (STEAM) ***
7079304012636 (STEAM)
7079304012637 (STEAM)

7079304012622 (HIGH TEMP WATER)
7079304012623 (BRINE SUPPLY) *

7079304012620 (DEHUMIDIFIER UNIT)
7079304012621 (DEHUMIDIFIER UNIT)
7079304012624 (DEHUMIDIFIER UNIT) *
7079304012625 (DEHUMIDIFIER UNIT)



7079304012626 (KATHENE)

7079304022601 (HIGH TEMP WATER)
7079304022602 (HIGH TEMP WATER)
7079304022603 (STEAM)
7079304022604 (STEAM) *
7079304022605 (STEAM)
7079304022606 (STEAM)

SAMPLE RESULTS

7079304012613	1% Chrysotile & Amosite Total 1%
7079304012614	89% Chrysotile Total 89%
7079304012615	<1% Chrysotile Total <1%
7079304012616	3% Chrysotile & Amosite Total 3%
7079304012617	3 6% Amosite Total 3 6%
7079304012618	2% Amosite Total 2%
7079304012619	3 6% Amosite Total 3 6%
7079304012620	17% Chrysotile & Amosite Total 17%
7079304012621	3 2% Chrysotile & Amosite Total 3 2%
7079304012622	0 Asbestos
7079304012623	2% Chrysotile Total 2%
7079304012624	29 6% Chrysotile & Amosite Total 29 6%
7079304012625	28 4% Chrysotile & Amosite Total 28 4%
7079304012626	30% Chrysotile & Amosite Total 30%
7079304012627	0 Asbestos
7079304012628	6% Chrysotile & Amosite Total 6%
7079304012629	10% Chrysotile & Amosite Total 10%
7079304012630	2% Chrysotile & Amosite Total 2%
7079304012631	0 Asbestos
7079304012632	11 7% Chrysotile & Amosite Total 11 7%
7079304012633	0 Asbestos
7079304012634	10 8% Chrysotile & Amosite Total 10 8%
7079304012635	12% Chrysotile & Amosite Total 12%
7079304012636	8 1% Chrysotile & Amosite Total 8 1%
7079304012637	25% Chrysotile & Amosite Total 25%
7079304022601	10% Chrysotile & Amosite Total 10%
7079304022602	1 7% Chrysotile & Amosite Total 1 7%
7079304022603	11 6% Chrysotile & Amosite Total 11 6%
7079304022604	11 6% Chrysotile & Amosite Total 11 6%
7079304022605	10 8% Chrysotile & Amosite Total 10 8%
7079304022606	15% Chrysotile & Amosite Total 15%

LEGEND

- ○ Other (Specify)
- ● Pipe samples
- ■ Ceiling samples
- ◆ Floor tile samples
- ⬟ Wall samples
- ▬ Door samples
- (C) Caulking
- (B) Bas board
- ( ) [illegible]
- (I) Insulation
- Sample containing asbestos

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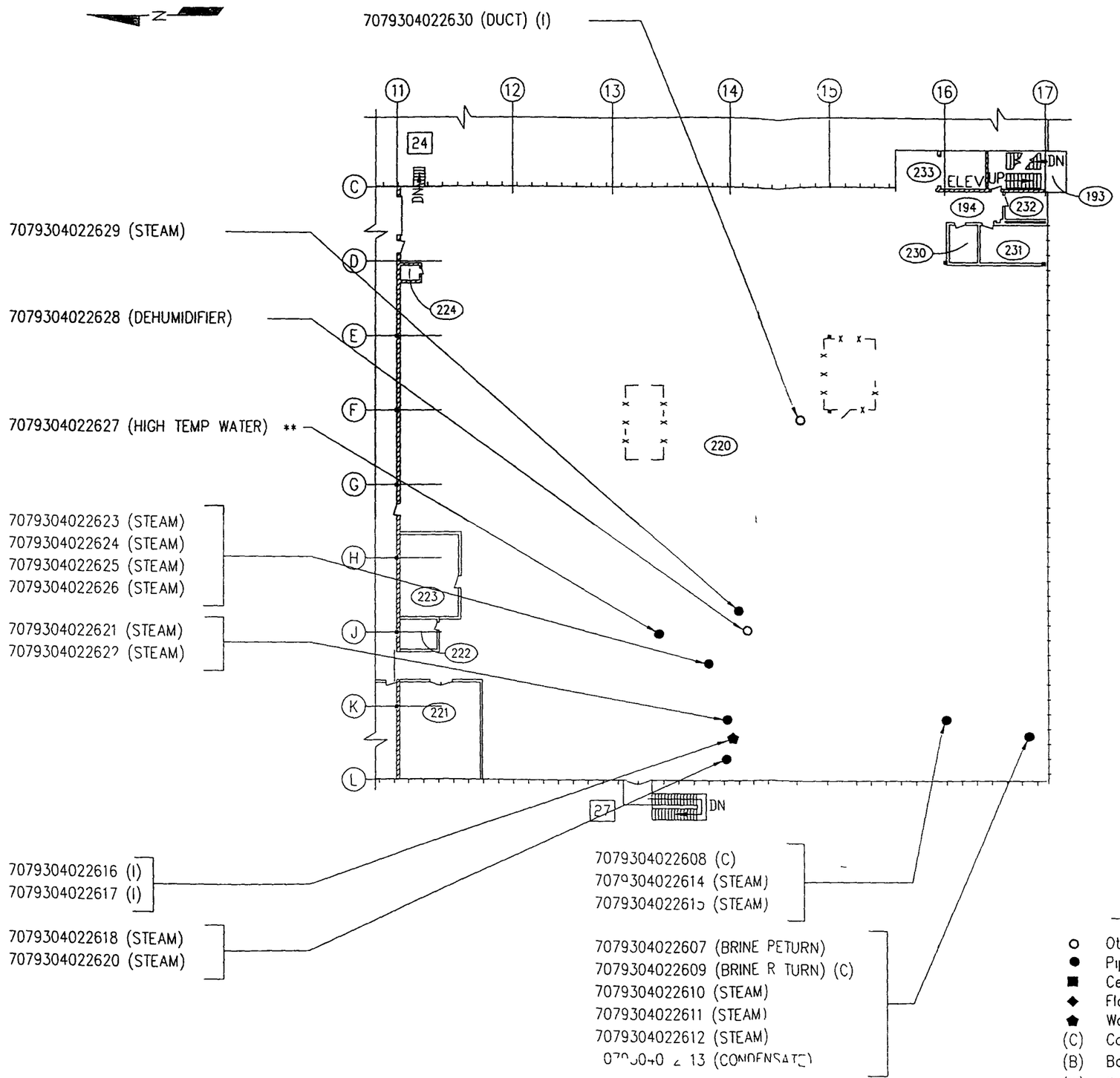
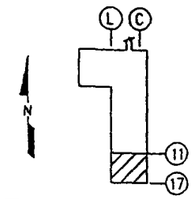
ROCKY FLATS ENVIRONMENTA
TECHNOLOGY SITE
BLDG 707 - SECOND FLOOR





SAMPLE RESULTS

7079304022607	6% Chrysotile & Amosite Total 6%
7079304022608	15 2% Chrysotile & Amosit Total 15 2%
7079304022609	10% Chrysotile Total 10%
7079304022610	<1% Chrysotile & Amosite Total <1%
7079304022611	5 6% Chrysotile & Amosite Total 5 6%
7079304022612	11% Chrysotile & Amosite Total 11%
7079304022613	16% Chrysotile & Amosite Total 16%
7079304022614	8 1% Chrysotile & Amosi Total 8 1%
7079304022615	13% Chrysotile & Amosite Total 13%
7079304022616	0 Asbestos
7079304022617	0 Asbestos
7079304022618	0 Asbestos
7079304022620	12% Chrysotile & Amosite Total 12%
7079304022621	13% Chrysotile & Amosit Total 13%
7079304022622	<1% Chrysotile & Amosit Total <1%
7079304022623	<1% Chrysotile Total <1%
7079304022624	0 Asbestos
7079304022625	<1% Chrysotile Total <1%
7079304022626	5 5% Chrysotile & Amosi Total 5 5%
7079304022627	2% Chrysotile Total 2%
7079304022628	4% Chrysotile & Amosite Total 4%
7079304022629	6 8% Chrysotil & Amos Total 6 8%
7079304022630	10% Chrysotil & Amosi Total 10%

LEGEND

- ○ Other (Specify)
- ● Pipe samples
- ■ Ceiling samples
- ◆ Floor tile samples
- ⬟ Wall samples
- (C) Caulking
- (B) Baseboard
- (W) Wallboard
- (I) Insulation
  Sample containing asbestos

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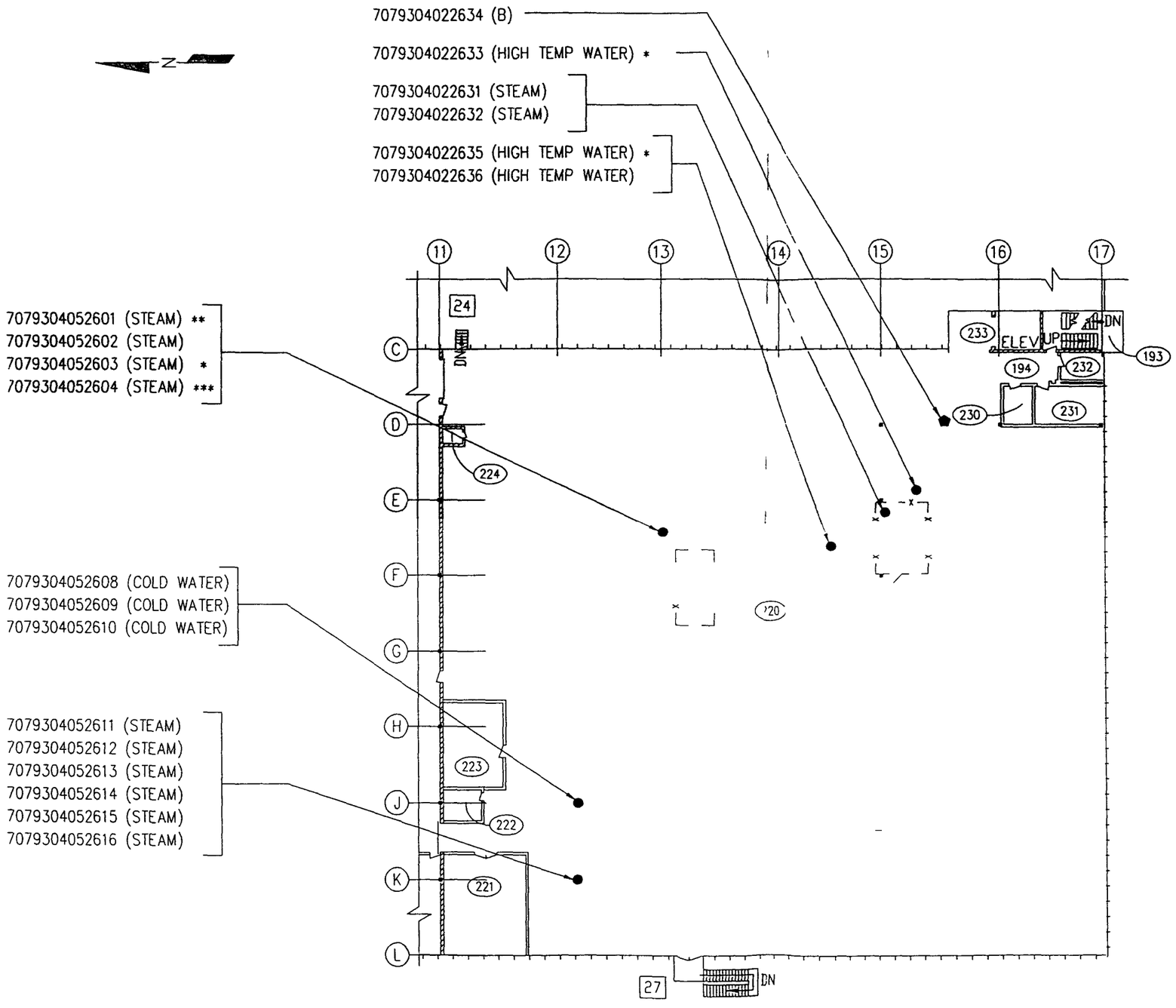
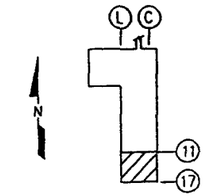
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
BLDG 707 - SECOND FLOOR





SAMPLE RESULTS

7079304022631	0 Asbestos
7079304022632	<1% Chrysotile & Amosite Total <1%
7079304022633	15% Chrysotile & Amosite Total 15%
7079304022634	0 Asbestos
7079304022635	8 4% Chrysotile & Amosit Total 8 4%
7079304022636	15% Chrysotile & Amosite Total 15%
7079304052601	6 3% Chrysotile & Amosit Total 6 3%
7079304052602	9% Chrysotile & Amosite Total 9%
7079304052603	11% Chrysotile & Amosit Total 11%
7079304052604	10 1% Chrysotile & Amosi Total 10 1%
7079304052608	0 Asbestos
7079304052609	0 Asbestos
7079304052610	0 Asbestos
7079304052611	10% Chry otile & Amosit Total 10%
7079304052612	2 5% Chrysotile & Amosi Total 2 5%
7079304052613	0 Asbestos
7079304052614	11% Chrysotile & Amosit Total 11%
7079304052615	0 Asb stos
7079304052616	0 Asbestos

LEGEND

- ○ Other (Specify)
- ● Pipe samples
- ■ Ceiling samples
- ◆ Floor tile samples
- ⬟ Wall samples
- (C) Caulking
- (B) Baseboard
- (W) Wallboard
- (I) Insulation
- Sampl containing asb sto

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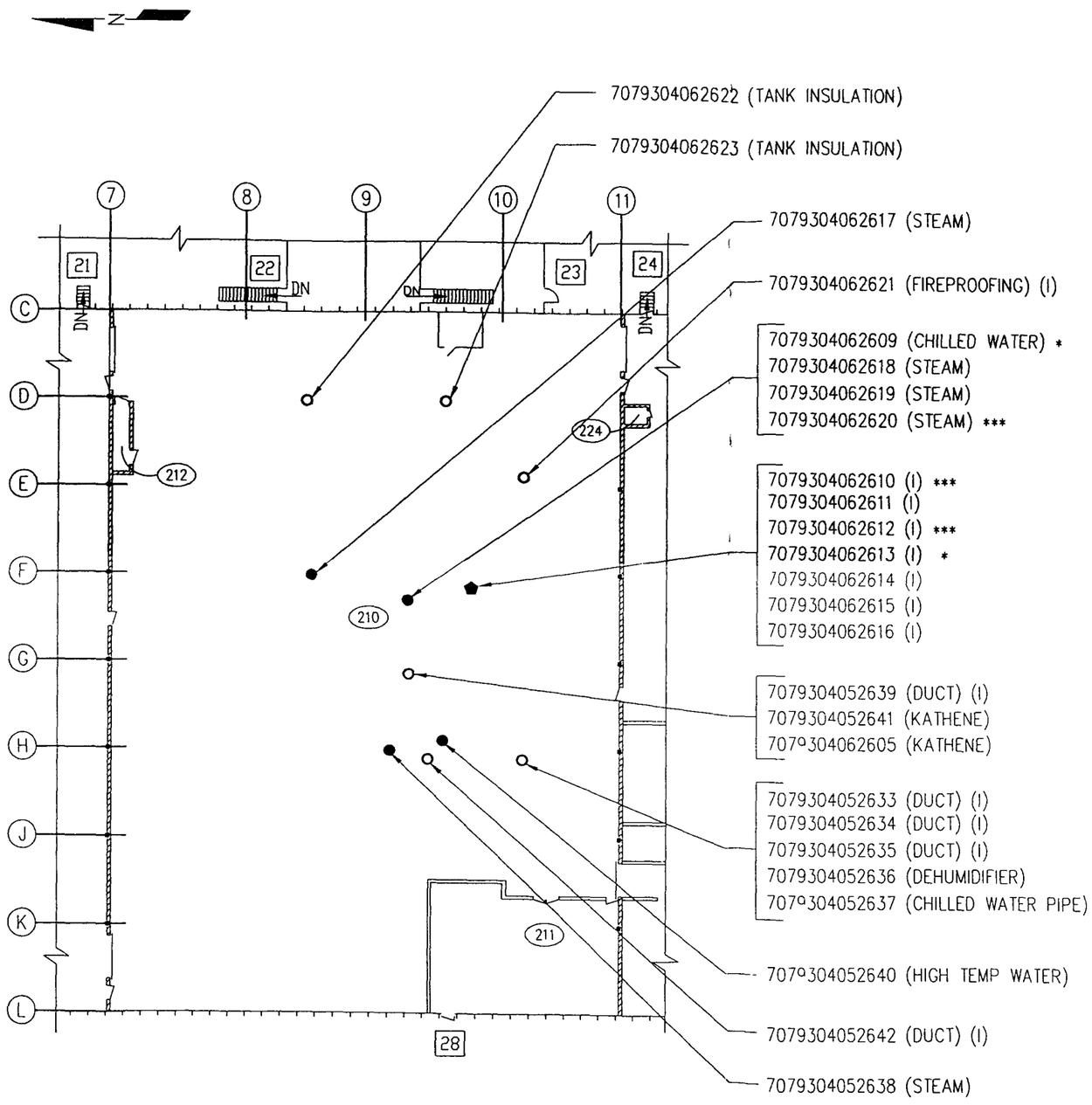
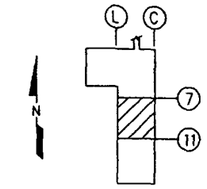
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
BLDG 707 - SECOND FLOOR





SAMPLE RESULTS

7079304052633	1% Chrysotile Total 1%
7079304052634	0 Asbestos
7079304052635	40% Chrysotile & Amosite Total 40%
7079304052636	22 5% Chrysotile Total 22 5%
7079304052637	7 1% Chrysotile & Amosite Total 7 1%
7079304052638	0 Asbestos
7079304052639	0 Asbestos
7079304052640	18% Chrysotile Total 18%
7079304052641	0 Asbestos
7079304052642	0 Asbestos
7079304062605	0 Asbestos
7079304062609	13% Chrysotile & Amosite Total 13%
7079304062610	15 8% Chrysotile Total 15 8%
70793040o2611	o3 8% Chrysotile & Amosit Total o3 8%
7079304062612	25% Chrysotile & Amosite Total 25%
7079304062613	63% Chrysotile Total 63%
7079304062614	0 Asbestos
7079304062615	0 Asbestos
7079304062616	5% Chrysotile & Amosite Total 5%
7079304062617	0 Asbestos
7079304062618	0 Asbestos
70793040o2619	<1% Chrysotile Total <1%
7079304062620	33 4% Chrysotile & Amosit Total 33 4%
7079304062621	0 Asbestos
70793040o2622	0 Asbestos
7079304062623	0 Asbestos

LEGEND

- ○ Other (Specify)
- ● Pipe samples
- ■ Ceiling samples
- ◆ Floor tile samples
- ⬟ Wall samples
- ▬ Door samples
- (C) Caulking
- (B) Baseboard
- (W) Wallboard
- (I) Insulation

Sample containing asbestos

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C 960 2\7072CL9 DWG A K ff

A-1
HISTORICAL CHEMICAL DATA
PCBs

Lead Rocky Flats Plant, Inc.
Golden, CO 80402-0464
Safety and Hygiene Chain of Custody Record and Analysis Request

Name of Originator: Fred Kerchner Title IH Bldg/Ext: T893A 966-6389 Date 30 Jan 97 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
707970130440 1	Lead	T	T	T	B		South Personnel door / Brown	
707970130440 2	↓	↓	↓	↓	↓		South Cargo doors / Brown	
707970130440 3							North Personnel door / Brown	
707970130440 4							North Interior Personnel Tan	
707970130440 5							North wall next to #4 Tan	
707970130440 6							South Inside Air lock per Kerch	

Not Used

Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
		1055 2/3/97			
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

Verbal To F.W. Kerchner
Fax To F.W. Kerchner
Report To Kaiser-Hill
Bill To Kaiser-Hill
P O #/Release Schuller
Lab

Analysis Request

Industrial Hygiene Sample
☒ Standard Service ☐ Rush ☐ Other

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

Seal# (Release #) 97J1165
Condition of Seal ☐ Broken ☐ Unbroken
Signature
Comments

RF 47530 (Rev 9/91) White - Return to Originator Yellow - Lab Copy Green - Sample Custodian Blue - Originator

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LABORATORY RESULTS

Cover Page

MTC

Feb-6-97

Ms Ginny Whiteford
Accu-Labs Research, Inc.
4663 Table Mountain Drive
Golden, CO 80403-1650

Laboratory Project No.:	97020403
Client:	Accu-Labs Research, Inc
PO# / Release #:	
Site Sample #:	
Seal #:	97J1165
Requestor:	Fred Kerchner
Subcontract #:	KH220322

Dear Ms. Whiteford,

Schuller International, Inc., Mountain Technical Center (MTC) has performed the following analytical services as requested. The results are calculated based upon the information supplied on the submission form. All laboratory data has been filed and are available upon request.
The industrial hygiene laboratory at MTC has been fully accredited in all aspects by the American Industrial Hygiene Association (AIHA) since 1976 If you have any questions, please call (303) 978-2584

Scope of Work:

Analysis	# of Samples	Matrix	Method	Reporting Limit	OSHA Standard (TWA)
Lead	6	Paint chip	EPA SW846-3051	1 µg	

I certify that this data package is in compliance with the terms and conditions of the subcontract, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hard data package has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Scott A. Steiner
Industrial Hygiene Laboratory Manager

2/6/97
Date

Mountain Technical Center
10100 West Ute Avenue (80127)
PO Box 625005
Littleton, CO 80162-5005
Tel 303 978-5200

SCHULLER
A Unit of Schuller International, Inc

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SCHULLER INTERNATIONAL, INC. / MOUNTAIN TECHNICAL CENTER (MTC)

Feb-6-97

Laboratory Project No.: 97020403
Client: Accu-Labs Research, Inc.
PO#/Release #:
Site Sample #:
Seal #: 97J1165
Requestor: Fred Kerchner

TABLE I

Client Sample No.	Laboratory Sample No	Analysis	Method	Matrix	Reporting Limit	Backup Section	Total	mg/kg (ppm)	Air Vol / Time	Air Concentration
7079701304401	S07321	Lead	EPA SW846-3051	Paint chip	0.009%		0.04%	400 mg/kg		
7079701304402	S07322	Lead	EPA SW846-3051	Paint chip	0.009%		0.13%	1300 mg/kg		
7079701304403	S07323	Lead	EPA SW846-3051	Paint chip	0.009%		1.5%	15,000 mg/kg		
7079701304404	S07324	Lead	EPA SW846-3051	Paint chip	0.009%		0.11%	1100 mg/kg		
7079701304405	S07325	Lead	EPA SW846-3051	Paint chip	0.009%		2 7%	27,000 mg/kg		
7079701304406	S07326	Lead	EPA SW846-3051	Paint chip	0 009%		0.23%	2300 mg/kg		

Analyst Anthony Carr

AIHA Accreditation No 056

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A-1 Historical Chemical Data

Lead in Paint – Set 3

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LBP TESTING DATA SHEET

Timothy M Gregor 5-19-98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, Inc)
5-19-98	TM GREGO	46	707	SAMPLE	NIST STANDARD	RED	MEN'S LOCKER RM B778	1.0	POS ON 1.0 ± 0.1 TEST STD
		47	707	SAMPLE	NIST STANDARD	YELLOW	MEN'S LOCKER RM B778	3.0	POS ON 3.5 ± 0.3 TEST STD
		48	707	DRYWALL	PAINT	WHITE	MOD. A NW CORNER	0.0	NEG ± 0.2
		49		RE-TESTED SEE TEST No. 50 TMG 5-19-98					NULL
		50	707	DRYWALL	PAINT	WHITE	SPEAKER LOCATION E OF DOOR 34	0.0	NEG ± 0.2
		51	707	DRYWALL	PAINT	WHITE	COL H-1	0.0	NEG ± 0.2
		52	707	DRYWALL	PAINT	ORANGE	COL G-2	1.0	POS ± 0.2
		53	707	DRYWALL	PAINT	WHITE	WEST WALL NEAR NORTH CORNER	0.0	NEG ± 0.2
		54	707	DRYWALL	PAINT	WHITE	DUCT NEAREST NW CORNER	0.0	NEG ± 0.2
		55	707	DRYWALL	PAINT	WHITE	MID POINT OF W WALL	0.0	NEG ± 0.2
		56	707	DRYWALL	PAINT	WHITE	DUCT NEAREST SW CORNER	0.0	NEG ± 0.2
		57	707	DRYWALL	PAINT	WHITE	SW CORNER WEST WALL	0.0	NEG ± 0.2
		58	707	DRYWALL	PAINT	WHITE	SW CORNER SOUTH WALL	0.0	NEG ± 0.2
		59	707	DRYWALL	PAINT	WHITE	SOUTH WALL W OF DOOR 96	0.0	NEG ± 0.2

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LBP TESTING DATA SHEET

Timothy M Grego 5-19-98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
5-19-98	TM GREGO	60	707	DRYWALL	PAINT	WHITE	SOUTH WALL W OF H-3	0.0	NEG ± 0.2
		61	707	DRYWALL	PAINT	WHITE	COL G-3 (DUCT)	0 0	NEG ± 0.2
		62	707	DRYWALL	PAINT	WHITE	WEST OF COL E-3	0.1	NEG ± 0.2
		63	707	DRYWALL	PAINT	WHITE	NORTH WALL E OF G-1	0 0	NEG ± 0.2
		64	707	DRYWALL	PAINT	WHITE	NORTH WALL E OF COL. F-1	0 0	NEG ± 0.2
		65	707	DRYWALL	PAINT	WHITE	MOD. D NORTH WALL E OF DOOR 78	0.0	NEG ± 0 2
		66	707	DRYWALL	PAINT	WHITE	NORTH WALL DUCT @ COL H-7	0 0	NEG ± 0 2
		67	707	DRYWALL	PAINT	WHITE	NORTH WALL W OF COL G-7	0 0	NEG ± 0 2
		68	707	DRYWALL	PAINT	WHITE	NORTH WALL BETWEEN COL. G-7 & F-7	0.0	NEG ± 0 2
		69	707	DRYWALL	PAINT	WHITE	NORTH WALL DUCT @ COL F-7	0 0	NEG ± 0 2
		70	707	DRYWALL	PAINT	WHITE	NORTH WALL W OF DOOR 76	0 0	NEG ± 0.2
		71	707	DRYWALL	PAINT	WHITE	EAST WALL UNDER SPEAKER COL D-8	0.1	NEG ± 0 2
		72	707	DRYWALL	PAINT	WHITE	EAST WALL ON DUCT NEAREST SE CORNER	0 0	NEG ± 0.2
		73	707	DRYWALL	PAINT	WHITE	EAST WALL 10' FROM SE CORNER	0 0	NEG ± 0.2

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LBP TESTING DATA SHEET

Timothy M Grego 5-19-98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
5-19-98	TM GREGO	74	707	DRYWALL	PAINT	WHITE	SOUTH WALL E OF DOOR 84	0.0	NEG. ±0.2
		75	707	DRYWALL	PAINT	WHITE	SOUTH WALL W OF DOOR 84	0.0	NEG. ±0.2
		76	707	DRYWALL	PAINT	WHITE	SOUTH WALL DUCT @ COL F-9	0.0	NEG ±0.2
		77	707	DRYWALL	PAINT	TAN	SOUTH WALL DUCT @ COL G-9	0.0	NEG. ±0.2
		78	707	DRYWALL	PAINT	WHITE	SOUTH WALL W OF COL H-9	0.0	NEG ±0.2
		79	707	DRYWALL	PAINT	WHITE	SOUTH WALL E OF DOOR 83	0.0	NEG. ±0.2
		80	707	CONCRETE	PAINT	ORANGE	MOD E COL K-10	0.7	NEG ±0.2
		81	707	CONCRETE	PAINT	ORANGE	COL. J-10	0.7	NEG ±0.2
		82	707	CONCRETE	PAINT	ORANGE	COL G-10	0.6	NEG. ±0.2
		83	707	CONCRETE	PAINT	ORANGE	COL E-10	0.6	NEG ±0.2
		84	707	DRYWALL	PAINT	WHITE	SOUTH WALL W OF DOOR AT COL E-11	0.0	NEG ±0.2
		85	707	CMU	PAINT	WHITE	WEST OF COL E-11	0.0	NEG. ±0.2
		86	707	DRYWALL	PAINT	WHITE	DUCT AT COL G-11	0.0	NEG ±0.2
		87	707	CMU	PAINT	WHITE	SOUTH WALL BETWEEN COL G-11 & H-11	0.0	NEG ±0.2

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LBP TESTING DATA SHEET

Timothy M Grego 5-19-98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm^2)	Classification (pos, neg, inc)
5-19-98	TM GREGO	88	707	DRYWALL	PAINT	WHITE	DUCT AT COL H-11	0.0	NEG. ± 0.2
5-19-98	TM GREGO	89	707	CMU	PAINT	WHITE	SOUTH WALL E OF DOOR 93	0.0	NEG. ± 0.2
5-19-98	TM GREGO	90	707	SAMPLE	NIST STANDARD	RED	MEN'S LOCKER RM B778	0.9	NEG ON 10 ± 0.1 TEST STD

LBP TESTING DATA SHEET

Timothy M Griego

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, Inc)
5-21 98	TM GRIEGO	92	707	SAMPLE	NIST STANDARD	RED	MEN'S LOCKER RM B778	10	POS ON 10 ± 01 TEST STD
5-21-98	TM GRIEGO	93	707	SAMPLE	NIST STANDARD	YELLOW	MEN'S LOCKER RM B778	2.9	POS ON 3.5 ± 0 3 TEST STD
5-21 98	TM GRIEGO	94	707	CONCRETE	PAINT	ORANGE	MODULE A NORTH SIDE COL. H-2	1.4	POS ± 0.4
5-21-98	TM GRIEGO	95	707	SAMPLE	NIST STANDARD	RED	MEN'S LOCKER RM B778	10	POS ON 10 ± 01 TEST STD

LBP TESTING DATA SHEET

Timothy M Grego 6/1/98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
6/1/98	TM GREGO	97	707	SAMPLE	NIST STANDARD	RED	MEN'S LOCKER RM B778	1.0	POS ON 1.0 ± 0.1 TEST STD
		98	707	SAMPLE	NIST STANDARD	YELLOW	MEN'S LOCKER RM B778	3.0	POS ON 3.5 ± 0.3 TEST STD
		99	707	DRYWALL	PAINT	WHITE	MOD B EAST OF DOOR 50	0.0	NEG ± 0.2
		100	707	DRYWALL	PAINT	WHITE	WEST OF DOOR 51	0.0	NEG ± 0.2
		101	707	DRYWALL	PAINT	WHITE	NORTH WALL COL. F-3	0.0	NEG ± 0.2
		102	707	DRYWALL	PAINT	WHITE	NORTH WALL DUCT COL G-3	0.0	NEG ± 0.2
		103	707	DRYWALL	PAINT	WHITE	NORTH WALL COL H-3	0.1	NEG ± 0.2
		104			RE-TESTED SEE TEST TMG 6/1/98		NO 105		
		105	707	DRYWALL	PAINT	WHITE	NORTH WALL E OF DOOR 52	0.0	NEG ± 0.2
		106	707	DRYWALL	PAINT	WHITE	NORTH WALL W OF DOOR 53	0.0	NEG. ± 0.2
		107	707	DRYWALL	PAINT	WHITE	WEST WALL S OF DOOR 55	0.0	NEG ± 0.2
		108	707	DRYWALL	PAINT	WHITE	SOUTH WALL W OF DOOR 56	0.0	NEG ± 0.2
		109	707	DRYWALL	PAINT	WHITE	SOUTH WALL COL F-5	0.0	NEG ± 0.2
		110			RE-TESTED SEE TEST TMG 6/1/98		NO 111		

LBP TESTING DATA SHEET

Timothy M Grego 6/1/98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
6/1/98	T.M GRIEGO	111	707	DRYWALL	PAINT	WHITE	SOUTH WALL W OF DOOR 60	0 0	NEG ± 0.2
6/1/98	TM GRIEGO	112	707	SAMPLE	NIST STANDARD	RED	MEN'S LOCKER RM B778	1.0	POS ON 10 ± 0 1 TEST STD

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LBP TESTING DATA SHEET

Timothy M Grego 6/4/98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No.	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
6/4/98	TM GREGO	114	707	SAMPLE	NIST STANDARD	RED	MEN'S LOCKER RM B778	1.4	POS ON 1.0 ± 0.1 TEST STD.
		115	707	SAMPLE	NIST STANDARD	YELLOW	MEN'S LOCKER RM B778	3.9	POS ON 3.5 ± 0.3 TEST STD.
		116	707	DRYWALL	PAINT	WHITE	MODULE A NORTH WALL BET COL F-1 & E-1	0.0	NEG ± 0.2
		117	707	DRYWALL	PAINT	WHITE	NORTH WALL W OF DOOR AT COL E-1	0.0	NEG ± 0.2
		118	707	DRYWALL	PAINT	WHITE	NORTH WALL E OF DOOR AT COL. E-1	0.0	NEG ± 0.2
		119	707	DRYWALL	PAINT	WHITE	NORTH WALL AT COL D-1	0.0	NEG ± 0.2
		120	707	DRYWALL	PAINT	WHITE	EAST WALL AT COL D-16	0.0	NEG ± 0.2
		121	707	DRYWALL	PAINT	WHITE	EAST WALL NEAR DUCT AT COL D-16	0.0	NEG. ± 0.2
		122	707	DRYWALL	PAINT	WHITE	EAST WALL BETWEEN COL D-16 & D-2	0.0	NEG ± 0.2
		123	707	DRYWALL	PAINT	WHITE	SOUTH WALL E OF COL E-3	0.0	NEG ± 0.2
		124	707	DRYWALL	PAINT	WHITE	SOUTH WALL OVER DOOR 48	0.1	NEG ± 0.2
		125	707	DRYWALL	PAINT	WHITE	SOUTH WALL DUCT AT COL F-3	0.0	NEG ± 0.2
		126	707	SAMPLE	NIST STANDARD	RED	MEN'S LOCKER RM B778	1.0	POS ON 1.0 ± 0.1 TEST STD

LBP TESTING DATA SHEET

Timothy M Griego 6/18/98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
6/18/98	TM. GRIEGO	144	707	NIST STANDARD	PAINT	RED	MEN'S LOCKER RM B778	1.0	POS ON 1.0 ± 0.1 TEST STD
		145	707	NIST STANDARD	PAINT	YELLOW	MEN'S LOCKER RM B778	3.0	POS ON 3.5 ± 0.5 TEST STD
		146		NOT USED	EQUIPMENT	CALIBRATE			
		147	707	DRYWALL	PAINT	WHITE	CORRIDOR M NORTH WALL COL. J-9 WESTEND	0.0	NEG ± 0.2
		148	707	DRYWALL	PAINT	WHITE	MOD. K EAST WALL COL. L-4	0 0	NEG. ± 0 2
		149	707	DRYWALL	PAINT	WHITE	MOD. K WEST WALL COL. P-4	0.0	NEG. ± 0 2
		150	707	DRYWALL	PAINT	WHITE	MOD. K NORTH WALL OVER DOOR COL P-3	0.0	NEG ± 0 2
		151	707	DRYWALL	PAINT	WHITE	MOD. G NORTH WALL OVER DOOR 103 COL H-13	0 1	NEG ± 0 2
		152	707	DRYWALL	PAINT	WHITE	MOD G RM 130A SOUTH WALL COL F-14	0 0	NEG ± 0 2
		153	707	DRYWALL	PAINT	WHITE	MOD. G RM 130 EAST WALL MID POINT COL D-14	0 0	NEG. ± 0 2
		154	707	NIST STANDARD	PAINT	RED	MEN'S LOCKER RM B778	1.0	POS ON 1 0 ± 0 1 TEST STD

LBP TESTING DATA SHEET

Timothy M Grego 6/23/98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
6/23/98	TM GREGO	156	707	NIST STANDARD	PAINT	RED	MEN'S LOCKER RM B778	1.0	POS ON 1.0 ± 01 TEST STD
		157	707	NIST STANDARD	PAINT	YELLOW	MEN'S LOCKER RM B778	3.0	POS ON 3.5 ± 0.3 TEST STD
		158	707	CONCRETE	PAINT	TAN	MOD. K NORTH WALL COMMON W/ XY RETRIVER	0.0	NEG ± 0.2
		159	707	DRYWALL	PAINT	WHITE	MOD. J WEST WALL COL P-2	0.0	NEG ± 0.2
		160	707	DRYWALL	PAINT	WHITE	MOD. J NORTH WALL COL. O-1	0.0	NEG ± 0.2
		161		RE-TESTED	SEE TEST TING 6/23/98	NO. 162			~~NEG~~ ~~± 0.2~~
		162	707	DRYWALL	PAINT	WHITE	MOD. J EAST WALL COL M-2	0.0	NEG ± 0.2
		163	707	DRYWALL	PAINT	WHITE	CORRIDOR H NORTH WALL COL J-1	0.1	NEG ± 0.2
		164	707	DRYWALL	PAINT	WHITE	CORRIDOR G EAST WALL COL L-2 (S-136)	0.0	NEG ± 0.2
		165	707	DRYWALL	PAINT	WHITE	CORRIDOR G EAST WALL COL L-4 (S-137)	0.1	NEG ± 0.2
		166	707	DRYWALL	PAINT	WHITE	CORRIDOR G EAST WALL COL. L-6 (S-138)	0.0	NEG ± 0.2
		167	707	DRYWALL	PAINT	WHITE	CORRIDOR G EAST WALL COL L-8 (S-139)	0.0	NEG ± 0.2
		168	707	DRYWALL	PAINT	WHITE	CORRIDOR G EAST WALL COL L-10 (S-140)	0.1	NEG ± 0.2
		169	707	DRYWALL	PAINT	WHITE	CORRIDOR G WEST WALL COL L-12 (S-141)	0.0	NEG ± 0.2

LBP TESTING DATA SHEET

Timothy M Grego 6/23/98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No.	Bldg. No.	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
6/23/98	TM. GRIEGO	170	707	DRYWALL	PAINT	WHITE	CORRIDOR G EAST WALL COL L-14 (S-142)	01	NEG. ±0.2
		171	707	DRYWALL	PAINT	WHITE	MOD. H WEST WALL COL. L-15.5 (S-69)	00	NEG ±0.2
		172	707	DRYWALL	PAINT	WHITE	CORRIDOR P NORTH WALL COL. J-13 (S-155)	00	NEG. ±0.2
		173	707	DRYWALL	PAINT	WHITE	CORRIDOR P SOUTH WALL COL E-13 (S-156)	0.0	NEG ±02
		174	707	DRYWALL	PAINT	WHITE	CORRIDOR M SOUTH WALL COL E-9 (S-152)	01	NEG. ±02
		175	707	DRYWALL	PAINT	WHITE	CORRIDOR L NORTH WALL COL J-7 (S-149)	01	NEG. ±0.2
		176	707	DRYWALL	PAINT	WHITE	CORRIDOR L SOUTH WALL COL E-7 (S-150)	00	NEG ±02
		177	707	DRYWALL	PAINT	WHITE	CORRIDOR K NORTH WALL COL. H-5 (S-147)	00	NEG ±02
		178	707	DRYWALL	PAINT	WHITE	CORRIDOR K SOUTH WALL COL. E-5 (S-148)	00	NEG ±02
		179	707	DRYWALL	PAINT	WHITE	CORRIDOR J NORTH WALL COL J-3 (S-145)	01	NEG ±02
		180	707	DRYWALL	PAINT	WHITE	CORRIDOR J SOUTH WALL COL E-3 (S-146)	00	NEG ±02
		181	707	DRYWALL	PAINT	WHITE	CORRIDOR T NORTH WALL COL M-3 (S-162)	00	NEG ±02
		182	707	DRYWALL	PAINT	WHITE	CORRIDOR T SOUTH WALL COL P-3 (S-161)	00	NEG ±02
		183	707	DRYWALL	PAINT	WHITE	CORRIDOR U NORTH WALL COL. P-5 (S-163)	00	NEG ±02

LBP TESTING DATA SHEET

Timothy M Griego 6/23/98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No	Bldg. No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
6/23/98	TM GRIEGO	184	707	DRYWALL	PAINT	WHITE	CORRIDOR U SOUTH WALL COL. M-5.4 (S-164)	0.1	NEG. ±0.2
		185	707	DRYWALL	PAINT	WHITE	CORRIDOR S SOUTH WALL COL. P-1.6 (S-159)	0.0	NEG ±0.2
		186	707	DRYWALL	PAINT	WHITE	CORRIDOR S NORTH WALL COL. M-1 (S-160)	0.0	NEG ±0.2
		187	707	DRYWALL	PAINT	WHITE	CORRIDOR H SOUTH WALL COL. E-1.6 (S-144)	0.1	NEG ±0.2
		188	707	DRYWALL	PAINT	WHITE	CORRIDOR F WEST WALL COL D-2 (S-128)	01	NEG ±0.2
		189	707	DRYWALL	PAINT	WHITE	CORRIDOR F WEST WALL COL. D-4 (S-129)	00	NEG ±0.2
		190	707	DRYWALL	PAINT	WHITE	CORRIDOR F WEST WALL COL D-6 (S-130)	00	NEG ±0.2
		191	707	DRYWALL	PAINT	WHITE	CORRIDOR F WESTWALL COL D-8 (S-131)	0.0	NEG ±0.2
		192	707	DRYWALL	PAINT	WHITE	CORRIDOR F WEST WALL COL D-10 (S-132)	01	NEG ±0.2
		193	707	DRYWALL	PAINT	WHITE	CORRIDOR F WEST WALL COL D-12 (S-133)	00	NEG ±0.2
		194	707	DRYWALL	PAINT	WHITE	CORRIDOR F WEST WALL COL D-14 (S-134)	01	NEG ±0.2
		195	707	DRYWALL	PAINT	WHITE	CORRIDOR F WEST WALL COL. D-16 (S-135)	00	NEG ±0.2
		196	707	DRYWALL	PAINT	WHITE	CORRIDOR R SOUTH WALL COL E-15 (S-158)	00	NEG ±0.2
		197	707	DRYWALL	PAINT	WHITE	2ND FLOOR RM 200 COL C-3	00	NEG ±0.2

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LBP TESTING DATA SHEET

Timothy M Griego 6/23/98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
6/23/98	TM GRIEGO	198	707	DRYWALL	PAINT	WHITE	2ND FLOOR RM 200 COL C-5	0.1	NEG ±0.2
		199	707	CMU	PAINT	WHITE	2ND FLOOR RM 200 COL C-7	0.0	NEG ±0.2
		200	707	CONCRETE	PAINT	WHITE	2ND FLOOR RM 200 COL. E-7	0.1	NEG ±0.2
		201	707	CONCRETE	PAINT	WHITE	2ND FLOOR RM 200 COL. J-7	0.0	NEG ±0.2
		202	707	DRYWALL	PAINT	WHITE	2ND FLOOR RM 200 COL. L-6	0.0	NEG ±0.2
		203	707	DRYWALL	PAINT	TAN	2ND FLOOR RM 200 COL. L-3	0.1	NEG ±0.2
		204	707	DRYWALL	PAINT	TAN	2ND FLOOR RM 200 COL. L-1	0.0	NEG ±0.2
		205	707	DRYWALL	PAINT	TAN	2ND FLOOR RM 210 WEST OF COL G-1 8'AFF	0.0	NEG ±0.2
		206	707	DRYWALL	PAINT	WHITE	2ND FLOOR RM 210 NORTH WALL BETWEEN COL. D1 & E1	0.0	NEG ±0.2
		207	707	CMU	PAINT	WHITE	2ND FLOOR RM 210 COL F-7	0.0	NEG ±0.2
		208	707	CMU	PAINT	WHITE	2ND FLOOR RM 210 COL J-7	0.0	NEG ±0.2
		209	707	DRYWALL	PAINT	WHITE	2ND FLOOR RM 210 COL K-9 CORNER	0.0	NEG ±0.2
		210	707	CMU	PAINT	WHITE	2ND FLOOR RM 210 WEST OF COL J-11	0.0	NEG ±0.2
		211	707	CMU	PAINT	WHITE	2ND FLOOR RM 210 EAST OF COL G-11	0.0	NEG ±0.2

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LBP TESTING DATA SHEET

Timothy M Grego [illegible]/98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
6/23/98	TM GREGO	212	707	CMU	PAINT	WHITE	2ND FLOOR RM 210 COL. C-11	0.0	NEG. ±0.2
		213	707	DRYWALL	PAINT	WHITE	2ND FLOOR RM 220 COL. C-12	0.1	NEG ±0.2
		214	707	DRYWALL	PAINT	WHITE	2ND FLOOR RM 220 COL C-13	0.0	NEG ±0.2
		215	707	DRYWALL	PAINT	WHITE	2ND FLOOR RM 220 COL. C.5-16 CORNER	0.1	NEG ±0.2
		216	707	DRYWALL	PAINT	WHITE	2ND FLOOR RM 220 SOUTH WALL BETWEEN E-17 & F-17	0.0	NEG ±0.2
		217	707	DRYWALL	PAINT	WHITE	2ND FLOOR RM 220 COL L-14	0.1	NEG ±0.2
		218	707	DRYWALL	PAINT	WHITE	2ND FLOOR RM 220 COL L-12	0.0	NEG ±0.2
		219	707	DRYWALL	PAINT	WHITE	2ND FLOOR RM 220 COL K-13 CORNER	0.0	NEG ±0.2
		220	707	DRYWALL	PAINT	WHITE	2ND FLOOR RM 220 COL H-11.5 CORNER	0.0	NEG. ±0.2
		221	707	NIST STANDARD	PAINT	RED	MEN'S LOCKER RM B778	1.2	POS ON 1.0 ± 0.1 TEST STD

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LBP TESTING DATA SHEET

Timothy M Grego 6/24/98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No.	Bldg. No.	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
6/24/98	TM GREGO	223	707	NIST STANDARD	PAINT	RED	MEN'S LOCKER RM B778	1.1	POS ON 1.0 ± 0.1 TEST STD
		224	707	NIST STANDARD	PAINT	YELLOW	MEN'S LOCKER RM B778	3.0	POS ON 3.5 ± 0.3 TEST STD
		225	707	DRYWALL	PAINT	TAN	MOD. F EAST WALL CORNER COL D-13	0.0	NEG ± 0.2
		226	707	DRYWALL	PAINT	WHITE	MOD. H EAST WALL COL G-18 (S-66)	0.0	NEG ± 0.2
		227	707	DRYWALL	PAINT	WHITE	MOD. H SOUTH WALL COL G-17 (S-67)	0.0	NEG ± 0.2
		228	707	NIST STANDARD	PAINT	RED	MEN'S LOCKER RM B778	1.0	POS ON 1.0 ± 0.1 TEST STD

LBP TESTING DATA SHEET

Timothy M Griego 7/8/98

Calibrate with Red and Yellow (NIST-Lead Paint Sample) at start of test
Calibrate with Red (NIST-Lead Paint Sample) at end of test

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
7/8/98	TM GRIEGO	257	707	NIST STANDARD	PAINT	RED	MEN'S LOCKER RM B778	1.0	POS ON 1.0 ± 0.1 TEST STD
7/8/98	TM GRIEGO	258	707	NIST STANDARD	PAINT	YELLOW	MEN'S LOCKER RM B778	28	POS ON 2.5 ± 0.3 TEST STD
7/8/98	TM GRIEGO	259	731	CONCRETE	PAINT	WHITE	BASEMENT B731 WEST WALL	0.0	NEG ± 0.2
		260	708	STEEL "I" BEAM	PAINT	GRAY	SUPPORT COLUMN WITH HV 3 & 4 T-STAT	23	POS ± 0.2
		261	708	STEEL "I" BEAM	PAINT	GRAY	SUPPORT COLUMN WITH AUTO RESTART RELAY PANEL	10.0	POS ± 0.8
		262	708	DRYWALL	PAINT	WHITE	WEST OF DOOR #4	0.0	NEG ± 0.2
		263	708	DRYWALL	PAINT	WHITE	SE CORNER OF RM 280	0.1	NEG ± 0.2
		264	707	NIST STANDARD	PAINT	RED	MEN'S LOCKER RM B778	0.9	NEG ON 1.0 ± 0.1 TEST STD

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COPY

LBP TESTING DATA SHEET

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm²)	Classification (pos, neg, inc)
11/19/97	J.A. Camp	284	707		Mist standard	Red	Mens locker Room 778	1.23	Positive on 1.0±0.1 Test Standard
11/19/97	J.A Camp	285	707		Mist standard	Yellow	Mens Locker Room 778	3.2	Positive on 3.5±0.3 Test standard
11/19/97	J.A. Camp	286	707	Concrete Block	Paint	off-White	Corridor-F South of Rm. 178	0.03	Negative
11/19/97	J.A Camp	287	707	Concrete Block	Paint	off-White	Corridor-F South of Rm 178	0.17	Negative
11/19/97	J.A Camp	288	707	Concrete Block	Paint	off-White	Corridor-F South of Rm. 178	0.08	Negative
11/19/97	J.A. Camp	289	707	Concrete Block	Paint	off-White	Corridor-F South of Rm. 178	0.02	Negative
11/19/97	J.A. Camp	290	707	Drywall	Paint	off-White	Between Column N5:05	0.04	Negative
11/19/97	J.A Camp	291	707	Masonite lower half of wall	Paint	off-White	Between Column N5:05	0.07	Negative
11/19/97	J.A Camp	292	707	Drywall	Paint	off-White	Between Column N5:05	0.05	Negative
11/19/97	J.A Camp	293	707	Masonite lower half of wall	Paint	off-White	Between Column N5:05	0.03	Negative

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LBP TESTING DATA SHEET

COPY

Date	Inspector	Test No	Bldg No	Substrate	Component	Color	Test Locations	XRF Reading (mg/cm^2)	Classification (pos, neg, inc)
11/19/97	J.A. Camp	294	707	Drywall	Paint	off-White	Corridor V South of door 16	0.07	Negative
11/19/97	J.A. Camp	295	707	Drywall	Paint	off-White	Corridor V South of door 16	0.03	Negative
11/19/97	J.A. Camp	296	707	DRYWALL	PAINT	off-white	CORRIDOR S BETWEEN N-1 AND ~~[illegible]~~ OF MODULE N WALL	0.01	NEGATIVE
11/19/97	J.A. Camp	~~[illegible]~~ 297	707	DRYWALL	PAINT	off-white	OUTSIDE S MOD. N WALL CORRIDOR S BETWEEN N-1 AND O-1	0.08	NEGATIVE
11/19/97	J.A. Camp	298	707	MASONITE LOWER SECTION OF WALL	PAINT	off-white		0.01	NEGATIVE
11/19/97	J.A. Camp	299	707	DRYWALL	PAINT	off-white		0.48	NEGATIVE
11/19/97	J.A. Camp	300	707	DRYWALL	PAINT	off-white		0.01	NEGATIVE
11/19/97	J.A. Camp	301	707	MASONITE LOWER SECTION OF WALL	PAINT	off-white		0.03	NEGATIVE
11/19/97	J.A. Camp	302	707	DRYWALL	PAINT	off-white		0.04	NEGATIVE
11/19/97	J.A. Camp	303	707	DRYWALL	PAINT	off-white	INSIDE S MODULE N WALL BETWEEN N-1 AND O-1	0.00	NEGATIVE

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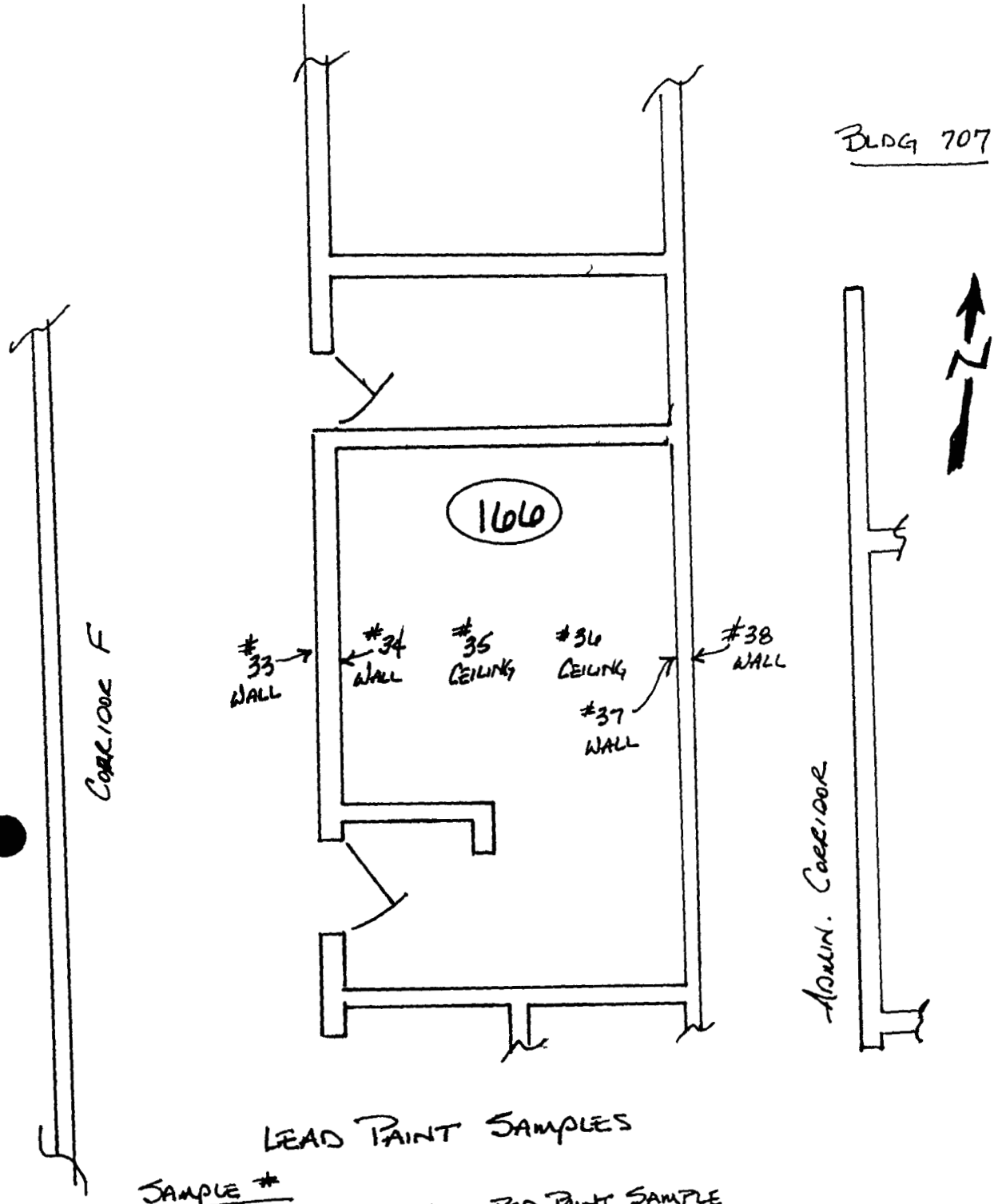
BLDG 707



LEAD PAINT SAMPLES

SAMPLE #			
? > #32	0.9 ± 0.2	NEG	RED PAINT SAMPLE
#33	0.0 ± 0.2	NEG	
#34	0.0 ± 0.2	NEG	
#35	0.0 ± 0.2	NEG	
#36	0.0 ± 0.2	NEG	
#37	0.1 ± 0.2	NEG	
#38	0.0 ± 0.2	NEG	
? > #39	3.1 ± 0.2	POS	YELLOW PAINT SAMPLE

Timothy M Gregg
5-12-98

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A-2

RLC CHEMICAL DATA

Beryllium Sample Log

Survey Area: 707 Cluster	Survey Unit: N/A	Building 707

Survey Unit Description
Characterization Package for B-707 Cluster

Beryllium Sample Log

NAME [redacted] LABORATORY _____
EMPLOY [redacted] DATE OF ANALYSIS _____
DATE [redacted] SAMPLE PREFIX _____

Sample Sequence Number	Bldg and Room Number	Description	Random or Judgment	Area sampled (cm^2)	µg/ sample
001	H	light fixture - East end			
002	H	light fixture - Center of Rm.			
~~003~~	~~H~~	~~light fixture - West~~			
003	H	top of Vault 5 entrance			
004	G	Rm. 133 S.E. Corner			
005	F	Rm. 125 North center			
006	F	Rm. 125 S.E. Corner			
007	F	Rm. 127 S. end center			
008	G	G Mod. E. end center			
009	G	G Mod. N.W entrance way			
010	G	Dup. 009			
011	E	S.W. corner			
012	E	N. side center E. 60 Glove box			
013	E	N.E corner G.B. E-20			
014	D	N.W. G.B. 110			
~~015~~	~~D~~	~~N.E. G.B. 20~~			
015	D	S.E. corner G.B D-35			
016	D	S. end center G.B D-75			
017	C	N.W. Corner G.B. C-120			
018	C	N. end Center G.B. C-70			
019	C	N.E. corner G.B. C-20			
✓ 020	C	" dup. 019			
021	B	S.E. Corner S-8B			
022	B	S Center GB-65			
023	B	N.E. Corner GB-20			
024	A	N.E. Corner GB-30			
025	A	N. end Center S-24			
~~026~~	~~A~~	~~N.W. Corner GB-110~~			
026	A	S. end Center GB 75			

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Survey Area: 707 Cluster	Survey Unit: N/A	Building 707

Survey Unit Description
Characterization Package for B-707 Cluster

Beryllium Sample Log

NAME [redacted] LABORATORY _____
EMPLO[redacted] DATE OF ANALYSIS _____
DATE [redacted] SAMPLE PREFIX _____

Sample Sequence Number	Bldg and Room Number	Description	Random or Judgment	Area sampled (cm^2)	µg/ sample
001		Base of Plenum 101			
002		Floor by Plenum 101			
003		Base of Plenum 103			
004		~~Base~~ Floor of Plenum 103			
005		Base of Plenum 102			
006		Floor by Plenum 102			
007		Base of Plenum 107			
008		Floor by Plenum 107			
009		Base of Plenum 108			
010		Floor by Plenum 108			
011		Blank			
012		Return duct - S. Central wall	Room 125		Mod F
013		Return duct - N. wall	Room 125		Mod F
014		Return duct - Room 133			Mod G
015		Return duct Module			Mod G
016		Return duct - Vault 1			Mod H
017		Return duct Vault 4			Mod H
018		Duplicate of 016			
019		Autoclave in Room 135A	Mod H		
020		Blank			
021		Autoclave in Room 135B	Mod H		
022		Autoclave in Room 135D	Mod H		
023		Stainless steel bench on east side of Room 135			Mod H
024		Duplicate of 023			
025		Blue over on N. Central side of 135 (253-055 ID #)			
026		Room 135A - Tissue dispenser			
027		Room 135A - Shelf on south end			
028		FB			
029		FB			
030		FB			

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Survey Area: 707 Cluster	Survey Unit: N/A	Building 707

Survey Unit Description
Characterization Package for B-707 Cluster

Beryllium Sample Log

NAME [redacted] LABORATORY _____
EMPLOY[redacted] DATE OF ANALYSIS _____
DATE [redacted] SAMPLE PREFIX _____

Sample Sequence Number	Bldg and Room Number	Description	Random or Judgment	Area sampled (cm^2)	µg/ sample
707-04132002-05-001	K Mod	Between S-20 & S18			
002	K Mod	Between 45 & [redacted] S-20			
003	K Mod	" 45 & 55			
004	G Mod	Lathe - West 707-0074 Side			
005	G Mod	Lathe - East 707-0094 Side			
006	G Mod	Updraft Hood - Top			
007	G Mod	Updraft Hood - duplicate - Top			
008	G Mod	680-048 Hood - Top			
009	G Mod	255-079 & 123 082 Hood - Top			
010	J Mod	Top of Electrical Panel			
011	J Mod	Top of Decon Cabinet			
012	J Mod	Top of ACI 670 High level Controller			
013		Blank			
014		Blank			
015		Blank			

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Commodore Advanced Sciences, Inc. RFETS	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 00042408	C.O.C.# 00Z1237#001 Page 1 of 1

Sampler(s) ANDRE GONZALES (Initials)	Contact/Requester CICHORZ, ROGER	Telephone No. 303-966-2155 MSIN FAX
BIN 00Z1237	Sampling Origin 707	Purchase Order/Charge Code KHC70704
Project Title INDUSTRIAL HYGIENE	Logbook No. N/A	Ice Chest No. N/A Temp.
To (Lab) Johns Manville	Method of Shipment HAND DELIVER	Bill of Lading/Air Bill No. N/A
Protocol	Related COC (if any)	PRE [illegible]-001EI-041 REV 1

POTENTIAL SAMPLE HAZARDS/REMARKS
Are acid preserved samples DOT hazardous per 40 CFR Part 136.3 Table II? YES or NO
Are other known hazardous substances present? YES or NO
** ** **

SCREENING REQUIRED ☐

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption Yes ☐ No ☐

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative, Packing
00Z1237-001 001	707-03162000-05-001	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-002 001	707-03162000-05-002	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-003 001	707-03162000-05-003	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-004 001	707-03162000-05-004	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-005 001	707-03162000-05-005	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-006 001	707-03162000-05-006	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-007 001	707-03162000-05-007	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
P. Mills	4/24/00 0840	D. Slate	4/24/00 0840				
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
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time

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

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Commodore Advanced Sciences, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

00042402

C.O.C.# 00Z1237#001

Page 2 of 8

RIN 00Z1237

Contact/Requestor CIONORZ, ROGER

Telephone No. 303-966-2155 MSIN FAX

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Single Analysis	Preservative; Packing
00Z1237-008.001	707-03162000-05-008	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-009.001	707-03162000-05-009	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-010.001	707-03162000-05-010	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-011.001	707-03162000-05-011	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-012.001	707-03162000-05-012	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-013.001	707-03162000-05-013	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-014.001	707-03162000-05-014	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-015.001	707-03162000-05-015	FILTER	03/16/2000	7:00 AM	707	1 FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-016.001	707-03162000-05-016	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-017.001	707-03162000-05-017	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-018.001	707-03162000-05-018	FILTER	03/16/2000	7:00 AM	707	1 FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
P. Mills	4/24/00 0840	P. Mata	4/24/00 0840				
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
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time

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

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Commodore Advanced Sciences, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

00042402

C.O.C.# 00Z1237#001

RIN 00Z1237 | Contact/Requestor: CICHORZ, ROGER | Telephone No. 303-966-2155 | MSN | FAX

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative, Packing
00Z1237-019.001	707-03162000-05-019	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-020.001	707-03162000-05-020	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-021.001	707-03162000-05-021	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-022.001	707-03162000-05-022	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-023.001	707-03162000-05-023	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-024.001	707-03162000-05-024	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-025.001	707-03162000-05-025	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-026.001	707-03162000-05-026	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-027.001	707-03162000-05-027	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-028.001	707-03162000-05-028	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-029.001	707-03162000-05-029	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
P. Daniels	4/24/00 0840	D. Slate	4/24/00 0840				
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
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time

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

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Commodore Advanced Sciences, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

00042402

C.O.C.# 00Z1237#001

Page 4 of 1

RIN 00Z1237

Contact/Requestor: CICHORZ, ROGER

Telephone No.: 303-966-2155

NSSN

FAX

Bottle No.	Designator Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative, Packing
00Z1237-030 001	707-03162000-05-030	FILTER	03/16/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-031.001	707-03232000-05-001	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-032 001	707-03232000-05-002	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-033.001	707-03232000-05-003	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-034 001	707-03232000-05-004	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-035 001	707-03232000-05-005	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-036 001	707-03232000-05-006	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-037.001	707-03232000-05-007	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-038.001	707-03232000-05-008	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-039 001	707-03232000-05-009	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-040 001	707-03232000-05-010	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
P. Miller	4/24/00 0840	J. Slate	4/24/00 0840				
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
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time

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

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Kaiser-Hill

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

00042402

C.O.C.# 00Z1237#001

Page 2 of 2

MIN 00Z1237

Contact/Requester CICHORZ, ROGER

Telephone No. 303-966-2155

MSIN

FAX

Bottle No.	Container Supplier	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative; Positive
00Z1237-041.001	707-03232000-05-011	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-043.001	707-03232000-05-013	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-044.001	707-03232000-05-014	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-045.001	707-03232000-05-015	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-046.001	707-03232000-05-016	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-047.001	707-03232000-05-017	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-048.001	707-03232000-05-018	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-049.001	707-03232000-05-019	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-050.001	707-03232000-05-020	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-051.001	707-03232000-05-021	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-052.001	707-03232000-05-022	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
		R. Slate	4/24/00 0840				
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
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time

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

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Commodore Advanced Sciences, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

00042409

C.O.C # 00Z1237#001

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RIN	Contact/Requestor	Telephone No.	MSIN	FAX
00Z1237	CIOFFORZ, ROGER	303-966-2155		

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative, Packing
00Z1237-052.001	707-03232000-05-022	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-053.001	707-03232000-05-023	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-054.001	707-03232000-05-024	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-055.001	707-03232000-05-025	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-056.001	707-03232000-05-026	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-057.001	707-03232000-05-027	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-058.001	707-03232000-05-028	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-059.001	707-03232000-05-029	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-060.001	707-03232000-05-030	FILTER	03/23/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-061.001	707-04132000-05-001	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-062.001	707-04132000-05-002	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
P. Mills	4/24/00 0840	J. Hale	4/24/00 0840				
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
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time

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

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Commodore Advanced Sciences, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

00042702

C.O.C. # 00Z1237#001

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RIN 00Z1237

Contact/Requestor: CICHORZ, ROGER

Telephone No.: 303-966-2155

NSSR

FAX

Bottle No	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative, Packing
00Z1237-063.001	707-04132000-05-003	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-064.001	707-04132000-05-004	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-065.001	707-04132000-05-005	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-066.001	707-04132000-05-006	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-067.001	707-04132000-05-007	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-068.001	707-04132000-05-008	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-069.001	707-04132000-05-009	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-070.001	707-04132000-05-010	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-071.001	707-04132000-05-011	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-072.001	707-04132000-05-012	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-073.001	707-04132000-05-013	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
D. Mills	4/24/00 0840	D. Stoto	4/24/00 0840				
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
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time

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

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Commodore Advanced Sciences, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

00042402

C.O.C.# 00Z1237#001

Page 1 of 1

RIN 00Z1237 | Contact/Requestor: CICHORZ, ROGER | Telephone No. 303-966-2855 | MSEN | FAX

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative; Packing
00Z1237-074 001	707-04132000-05-014	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None
00Z1237-075 001	707-04132000-06-045	FILTER	04/13/2000	7:00 AM	707	1-FILTER / N/A /1	NR01A001 (Beryllium Filter Analysis) [Routine]	N/A None

hc 4/24/00

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By:	Date/Time
P. Miller	4/24/00 0840	P. Miller	4/24/00 0840				
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
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time

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

** TOTAL PAGE 15 **

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JM Routine Charge # KHCT0704 HC/Fed X 4/21/2000

RFETS Industrial Hygiene	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	COC# 00Z1237#1
		Page 1 of 6

RIN	Contact/Requestor	Telephone No	MSIN	FAX
00Z1237	ANDRE GONZALEZ	3039666727		

Bottle No	Customer Number	Matrix	Date	Time	Location	No/Type Container	Sample Analysis	Preservative Packing
	707-03162000-05-001				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE) NR01A001	N/A None
	707-03162000-05-002				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03162000-05-003				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000-05-004				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000-05 005				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000-05-006				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000 05-007				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000 05 008				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000-05-009				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000 05 010				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000 05 011				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03162000 05-012				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03162000 05 013				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000 05 014				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
[signature]	4/21/00 1240	[signature]	4/21/00 1240				
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
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 procedur, used in process)	Disposed By	Date/Time

OFFICIAL USE ONLY

Contains information which may be exempt from public release under the Freedom of Information Act (5 USC 552), exemption numbers(s) 2
Approval by the Department of Energy prior to public release is required

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RFETS
Industrial Hygiene

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

COC# 00Z1237#2

RIN	Contact/Requestor	Telephone No	MSIN	FAX
00Z1237	ANDRE GONZALEZ	3039666727		

Bottle No	Customer Number	Matrix	Date	Time	Location	No/Type Container	Sample Analysis	Preservative Packing
	707-03162000-05-015				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE) NR01A001	N/A None
	707-03162000-05-016				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000-05-017				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000-05-018				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000-05-019				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000-05-020				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000-05-021				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03162000-05 022				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03162000 05 023				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03162000 05 024				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03162000 05 025				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03162000 05 026				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000 05 027				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03162000 05 028				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
[illegible]	4/21/00 1240	J Yancey	4/21/00 1240				

FINAL SAMPLE DISPOSITION	Disposal method (e g , Return to customer, per lab procedur, used in process)	Disposed By	Date/Time

OFFICIAL USE ONLY

Contains information which may be exempt from public release under the Freedom of Information Act (5 USC 552), exemption numbers(s) 2
Approval by the Department of Energy prior to public release is required

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RFETS
Industrial Hygiene

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

COC# 00Z1237#3

RIN	Contact/Requestor	Telephone No	MSIN	FAX
00Z1237	ANDRE GONZALEZ	3039666727		

Bottle No	Customer Number	Matrix	Date	Time	Location	No/Type Container	Sample Analysis	Preservative Packing
	707-03162000-05 029				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE) NR01A001	N/A None
	707-03162000-05-030				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000-05-001				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000-05-002				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000-05-003				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000-05-004				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000-05 005				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03232000 05 006				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03232000 05 007				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03232000 05 008				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000 05 009				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03232000 05-010				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03232000 05 011				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03232000 05 012				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
[illegible]	4/21/00 1240	[illegible]	4/21/00 1240				

FINAL SAMPLE DISPOSITION	Disposal method (e g , Return to customer, per lab procedur, used in process)	Disposed By	Date/Time

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OFFICIAL USE ONLY

Contains information which may be exempt from public release under the Freedom of Information Act (5 USC 552), exemption numbers(s) 2
Approval by the Department of Energy prior to public release is required

RFETS
Industrial Hygiene

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

COC# 00Z1237#4

RIN	Contact/Requestor	Telephone No	MSIN	FAX
00Z1237	ANDRE GONZALEZ	3039666727		

Bottle No	Customer Number	Matrix	Date	Time	Location	No/Type Container	Sample Analysis	Preservative Packing
	707-03232000 05-013				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE) NR01A001	N/A None
	707 03232000 05 014				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000-05 015				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000-05-016				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000-05-017				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000-05-018				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000 05 019				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000-05 020				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000 05 021				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03232000 05 022				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03232000 05 023				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000 05 024				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03232000 05 025				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 03232000 05 026				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
[illegible] 4/4/00	1240	J Yancey	4/21/00 1240				

FINAL SAMPLE DISPOSITION	Disposal method (e g , Return to customer, per lab procedur, used in process)	Disposed By	Date/Time

OFFICIAL USE ONLY

Contains information which may be exempt from public release under the Freedom of Information Act (5 USC 552), exemption numbers(s) 2
Approval by the Department of Energy prior to public release is required

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RFETS
Industrial Hygiene

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

COC# 00Z1237#5

RIN	Contact/Requestor	Telephone No	MSIN	FAX
00Z1237	ANDRE GONZALEZ	3039666727		

Bottle No	Customer Number	Matrix	Date	Time	Location	No/Type Container	Sample Analysis	Preservative Packing
	707-03232000-05-027				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE) NR01A001	N/A None
	707-03232000-05-028				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000-05-029				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-03232000-05-030				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-04132000-05-001				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-04132000-05-002				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 04132000-05-003				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 04132000 05 004				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 04132000 05 005				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 04132000-05 006				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 04132000 05 007				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 04132000 05 008				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 04132000 05 009				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 04132000 05 010				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
[illegible]	4/21/00 1240	[illegible]	4/21/00 1240				

FINAL SAMPLE DISPOSITION	Disposal method (e g , Return to customer, per lab procedur, used in process)	Disposed By	Date/Time

OFFICIAL USE ONLY

Contains information which may be exempt from public release under the Freedom of Information Act (5 USC 552), exemption numbers(s) 2
Approval by the Department of Energy prior to public release is required

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RFETS Industrial Hygiene	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	COC# 00Z1237#6 Page 6 of 6

RIN	Contact/Requestor	Telephone No	MSIN	FAX
00Z1237	ANDRE GONZALEZ	3039666727		

Bottle No	Customer Number	Matrix	Date	Time	Location	No/Type Container	Sample Analysis	Preservative Packing
	707-04132000-05-011				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE) NR01A001	N/A None
	707 04132000-05-012				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707 04132000-05-013				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-04132000-05-014				707	1-FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None
	707-04132000-05 015				707	1 FILTER N/A	BERYLLIUM AND BE COMPOUNDS (AS BE)	N/A None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
[illegible]	4/21/00 1240	[illegible]	4/21/00 1240				
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
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 procedur, used in process)	Disposed By	Date/Time

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Approval by the Department of Energy prior to public release is required

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RLC CHEMICAL DATA

Beryllium Smear Sampling Maps

Rooms 3206, 3412, 3541

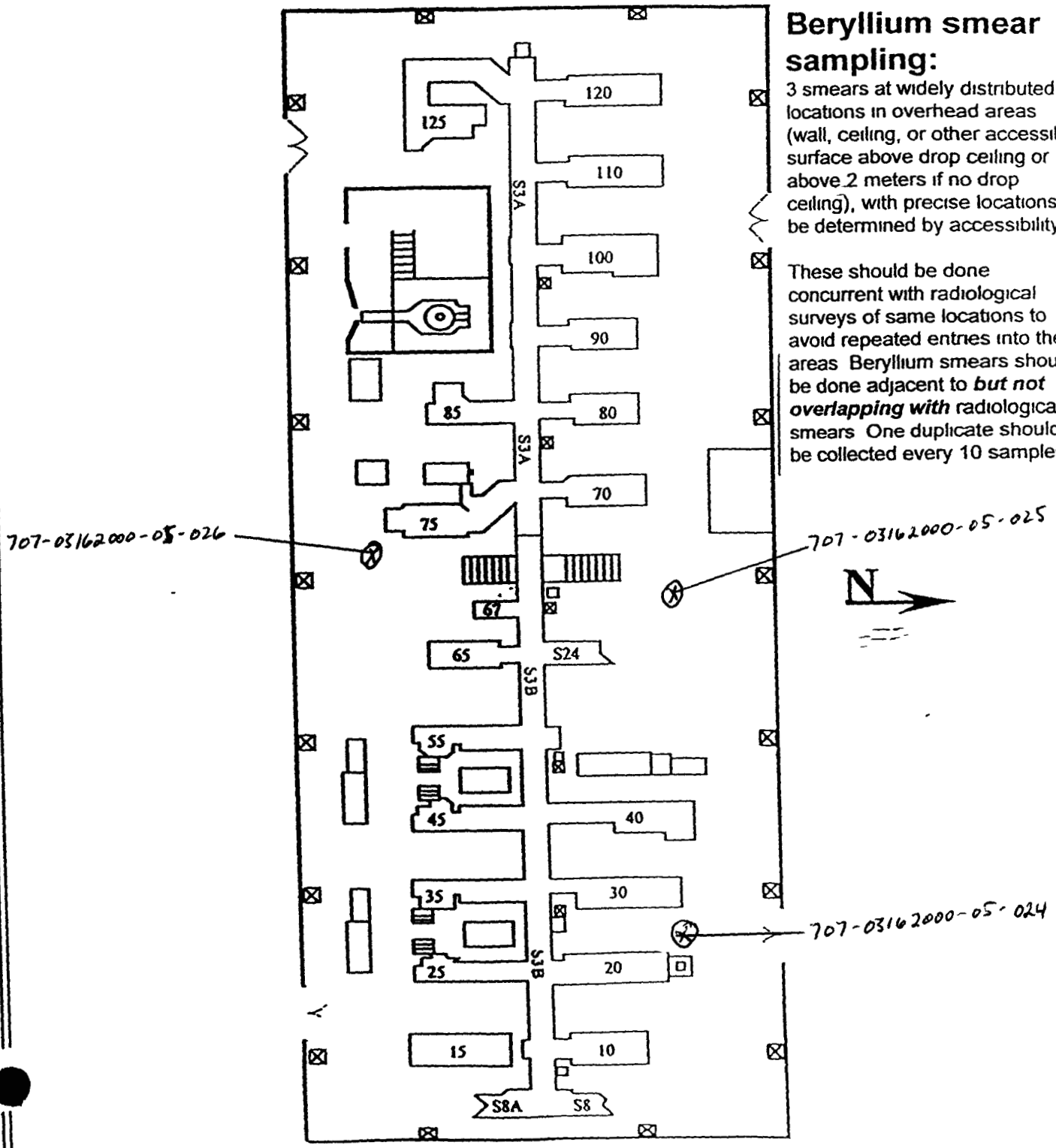
86.

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE A



Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to ***but not overlapping with*** radiological smears One duplicate should be collected every 10 samples

17/466

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

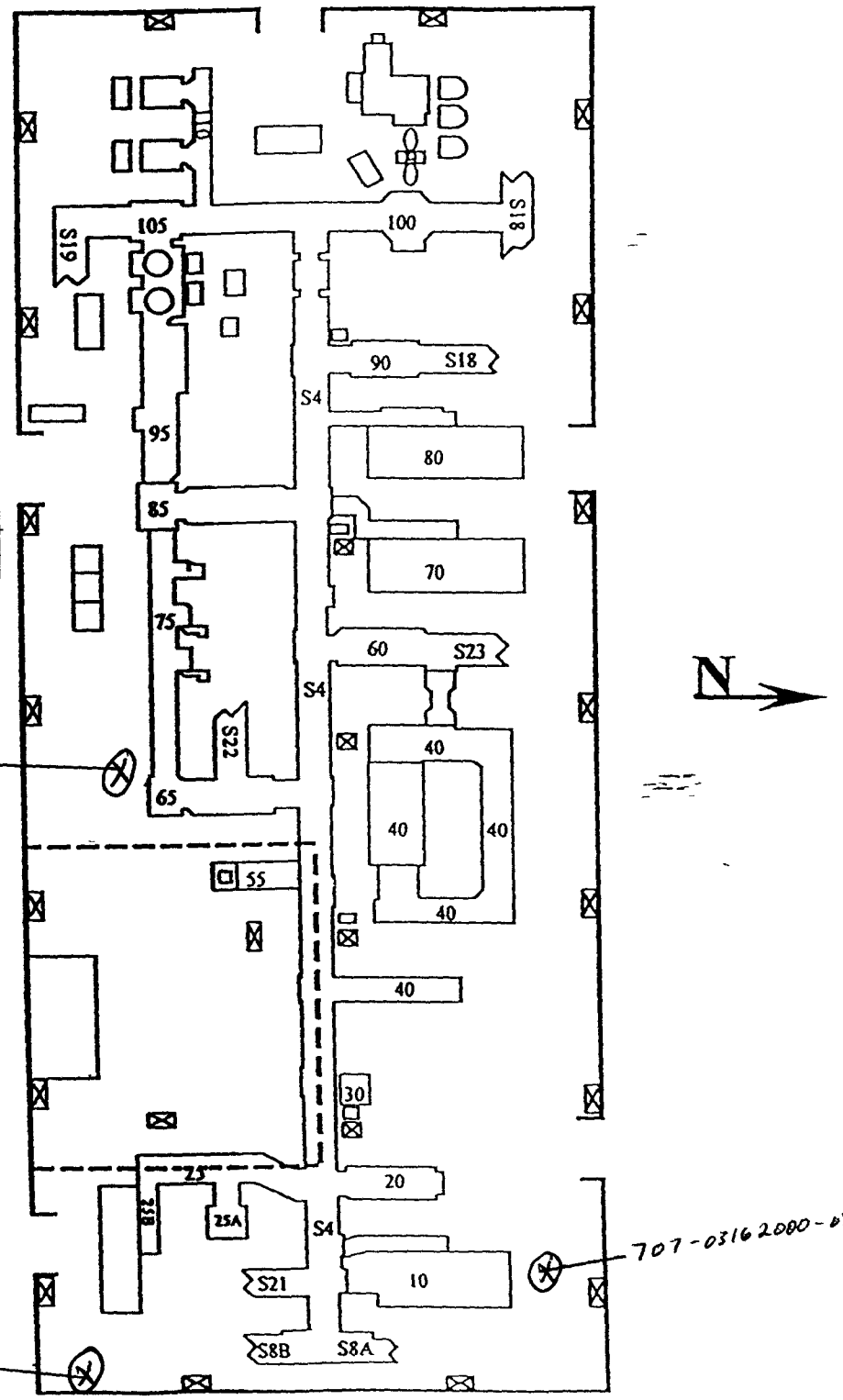
Drawing Showing Survey Points

MODULE B

Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to ***but not overlapping with*** radiological smears One duplicate should be collected every 10 samples



-- Temporary Walls

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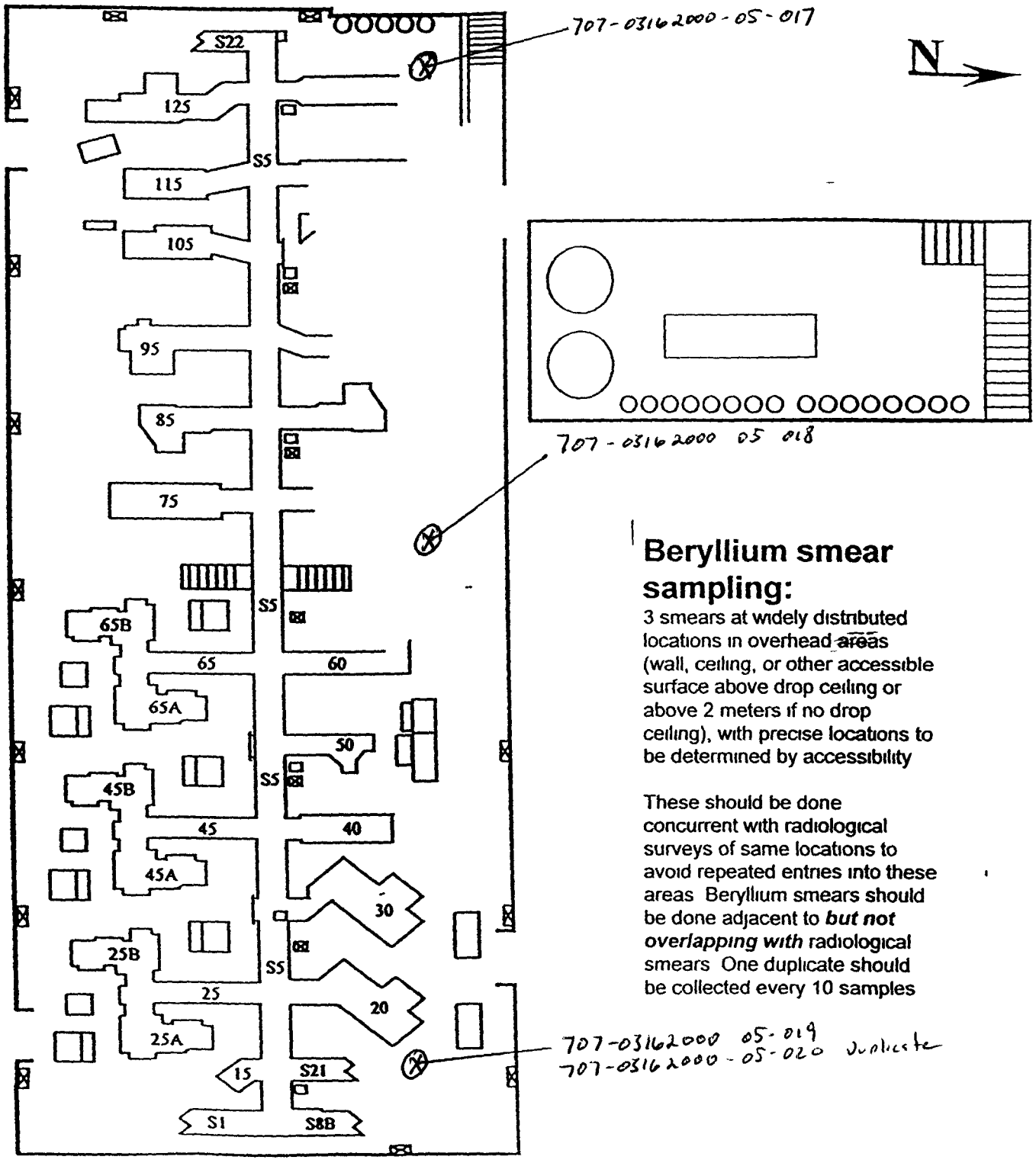
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE C



Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

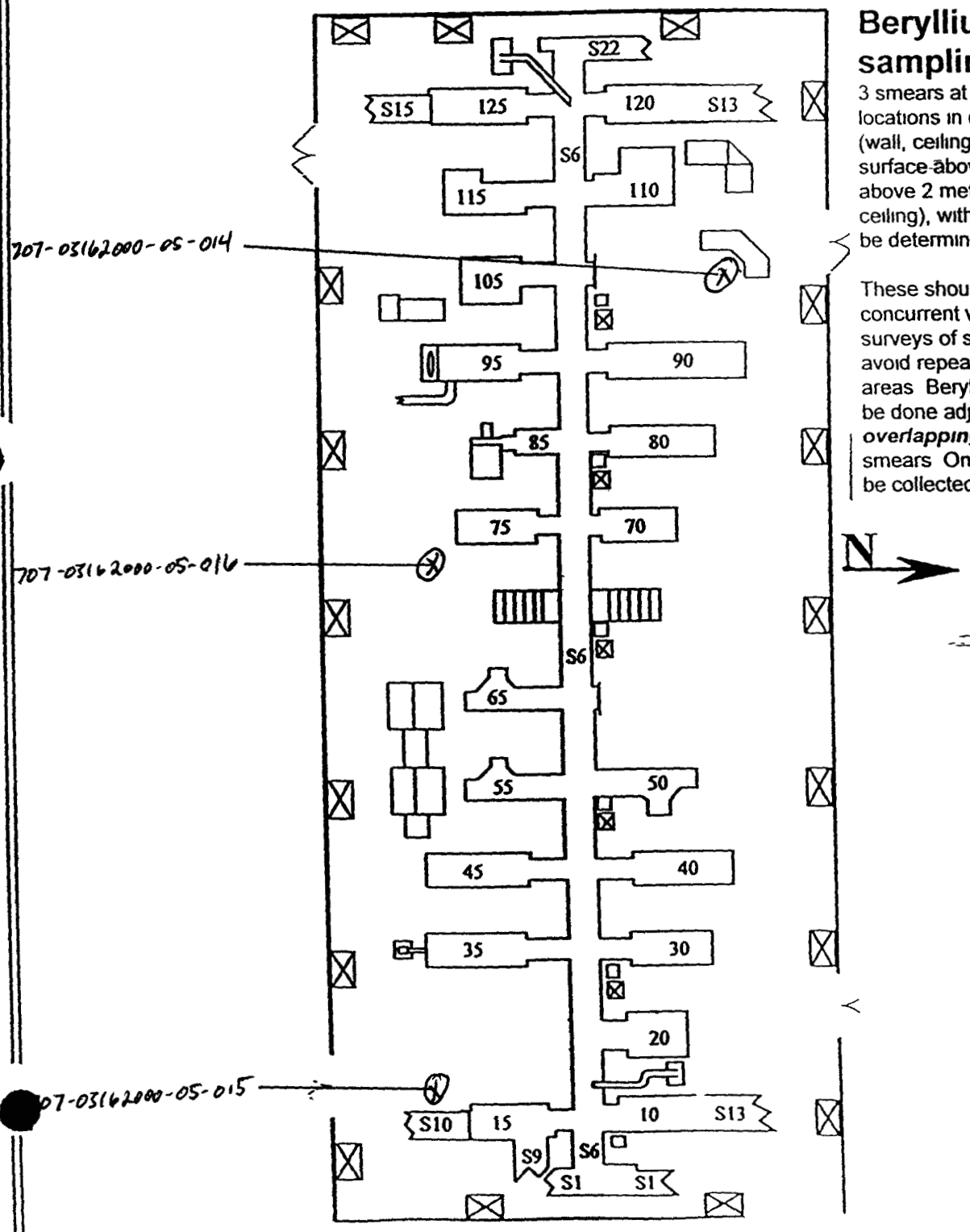
These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to ***but not overlapping with*** radiological smears One duplicate should be collected every 10 samples

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE D



Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

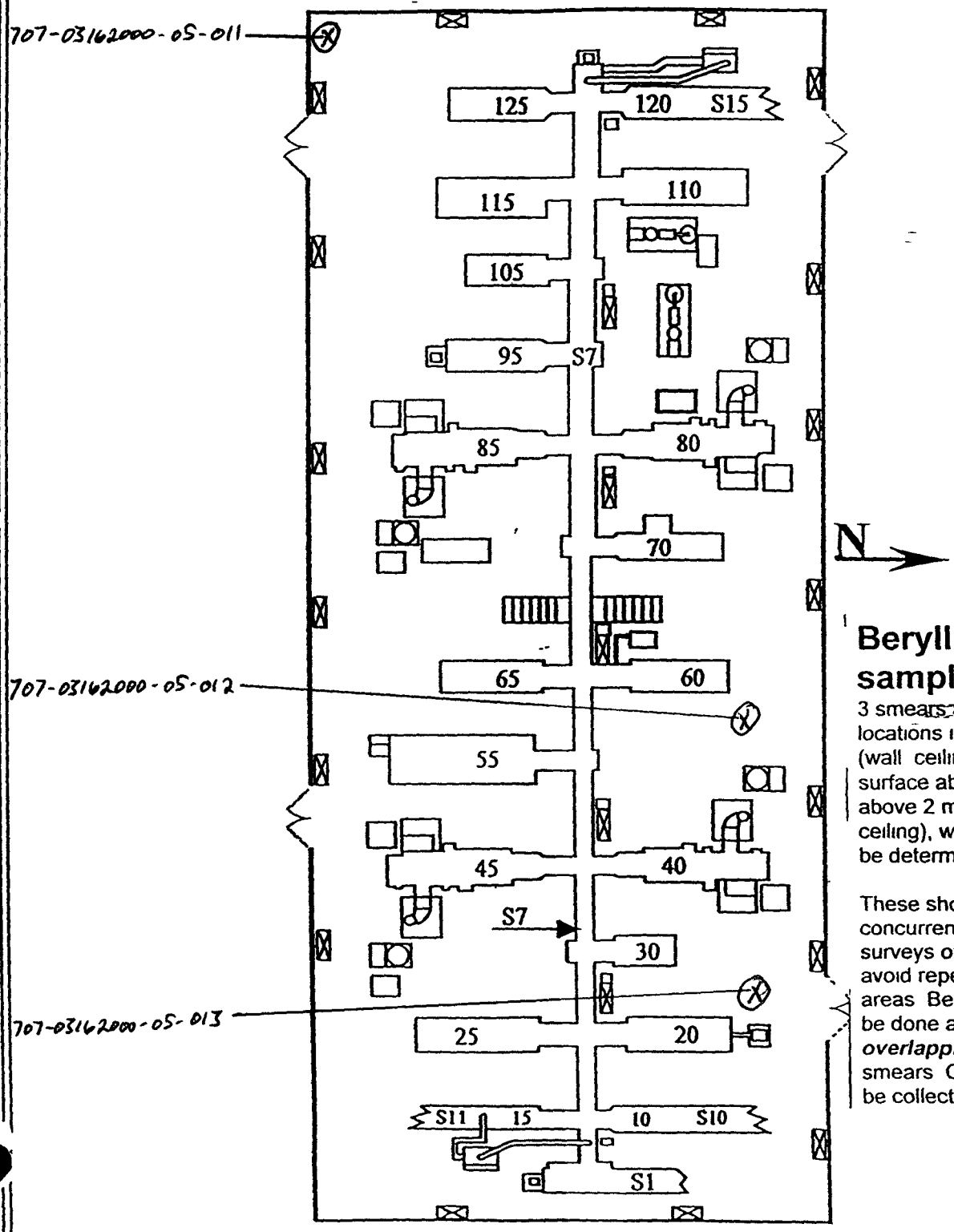
These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to ***but not overlapping with*** radiological smears One duplicate should be collected every 10 samples

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE E



Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to ***but not overlapping with*** radiological smears One duplicate should be collected every 10 samples

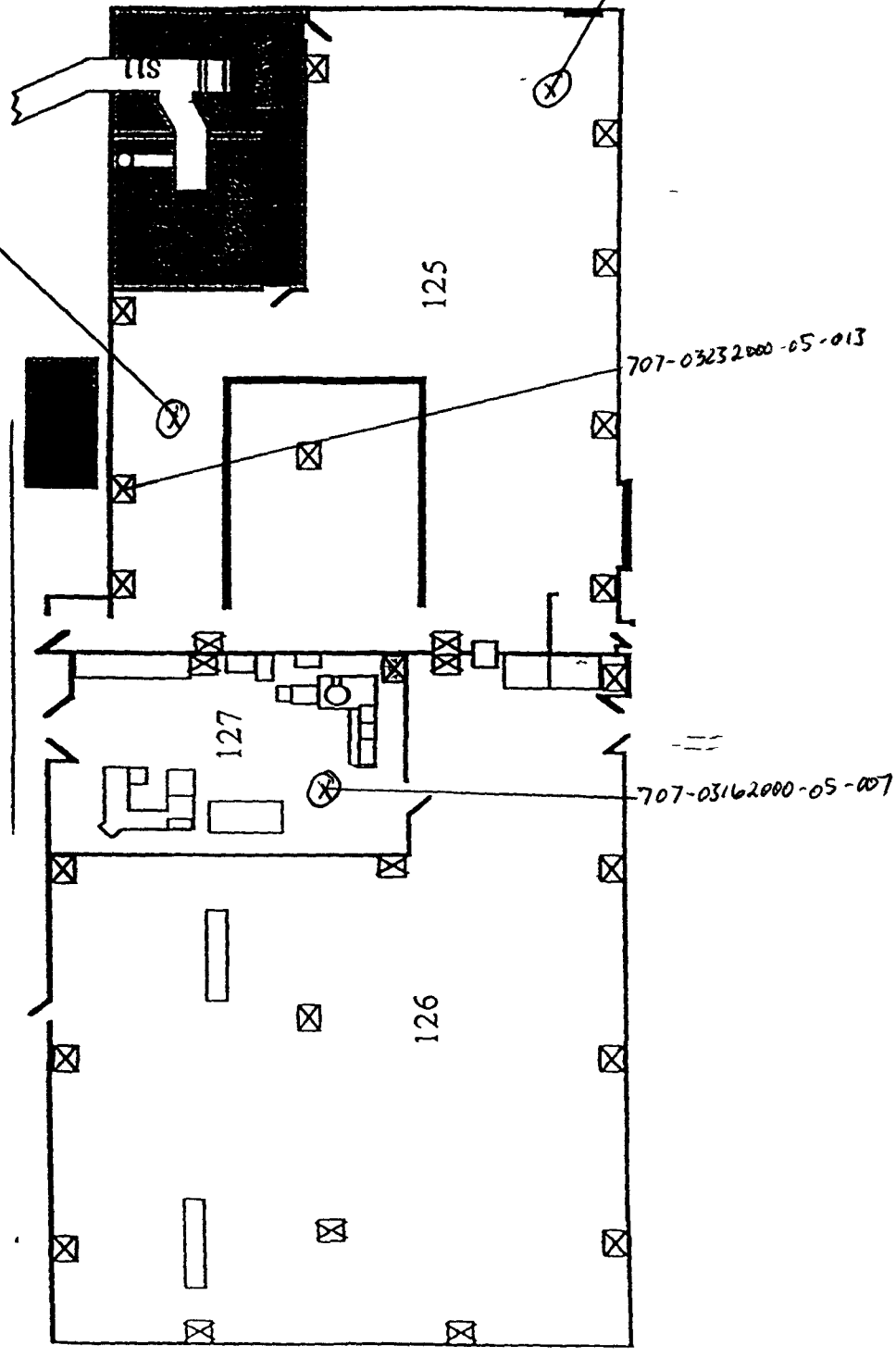
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE F

N



Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to ***but not overlapping with*** radiological smears One duplicate should be collected every 10 samples

1 smear *inside* each of 6 internal return ducts (i e , remove grille and smear inside duct) of Zone 2 HVAC systems serving Modules F, G, and H (collect 1 field duplicate immediately adjacent to one of these samples),

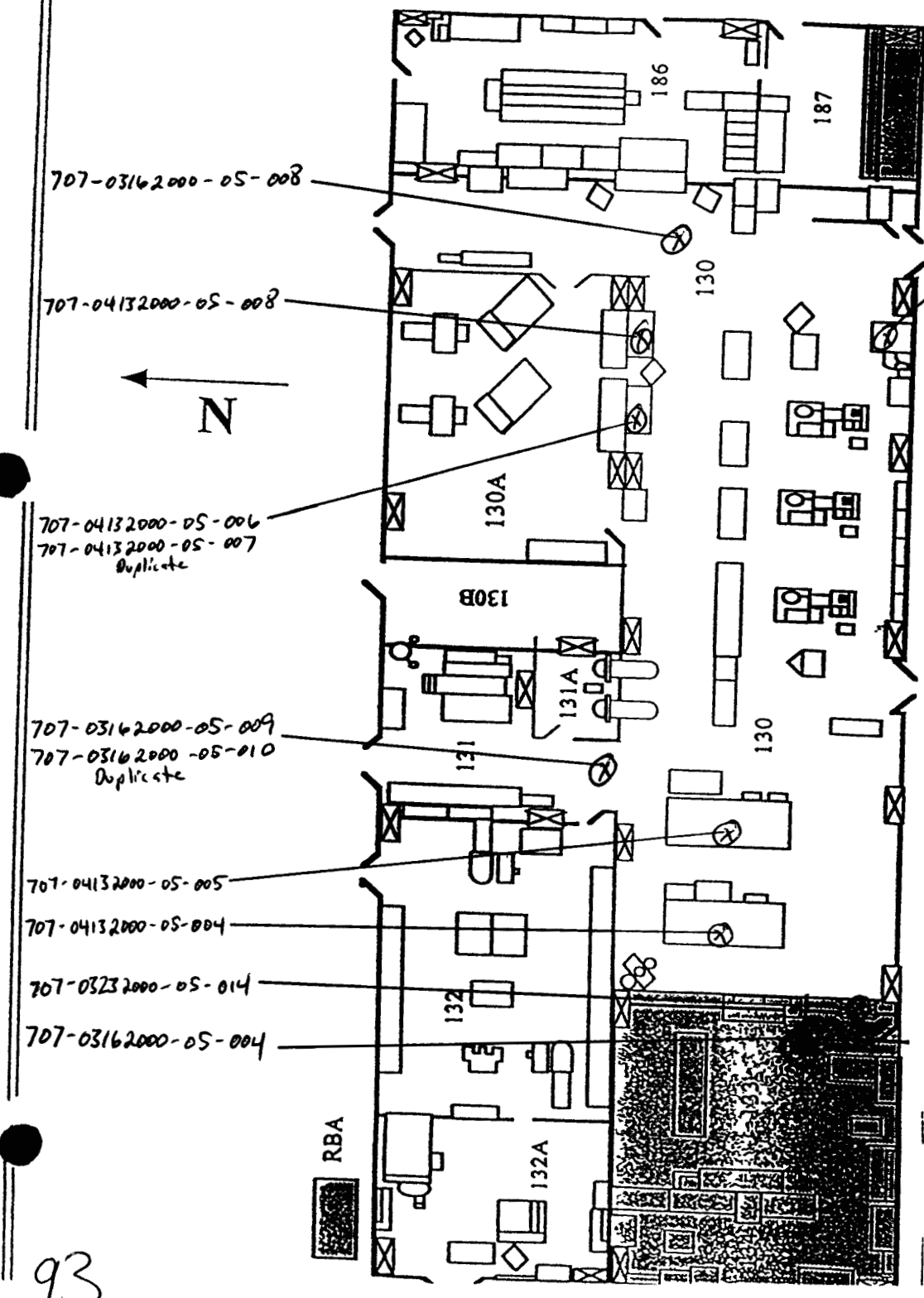
2 smears on horizontal surfaces (excluding floor) in Room 125 A, Module F,
2 smears on horizontal surfaces (excluding floor) in Room 125B, Module F,

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE G



Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to ***but not overlapping with*** radiological smears One duplicate should be collected every 10 samples

1 smear *inside* each of 6 internal return ducts (i e , remove grille and smear inside duct) of Zone 2 HVAC systems serving Modules F, G, and H (collect 1 field duplicate immediately adjacent to one of these samples),

1 smear in each of 5 hoods in Module G (collect 1 field duplicate immediately adjacent to one of these samples),

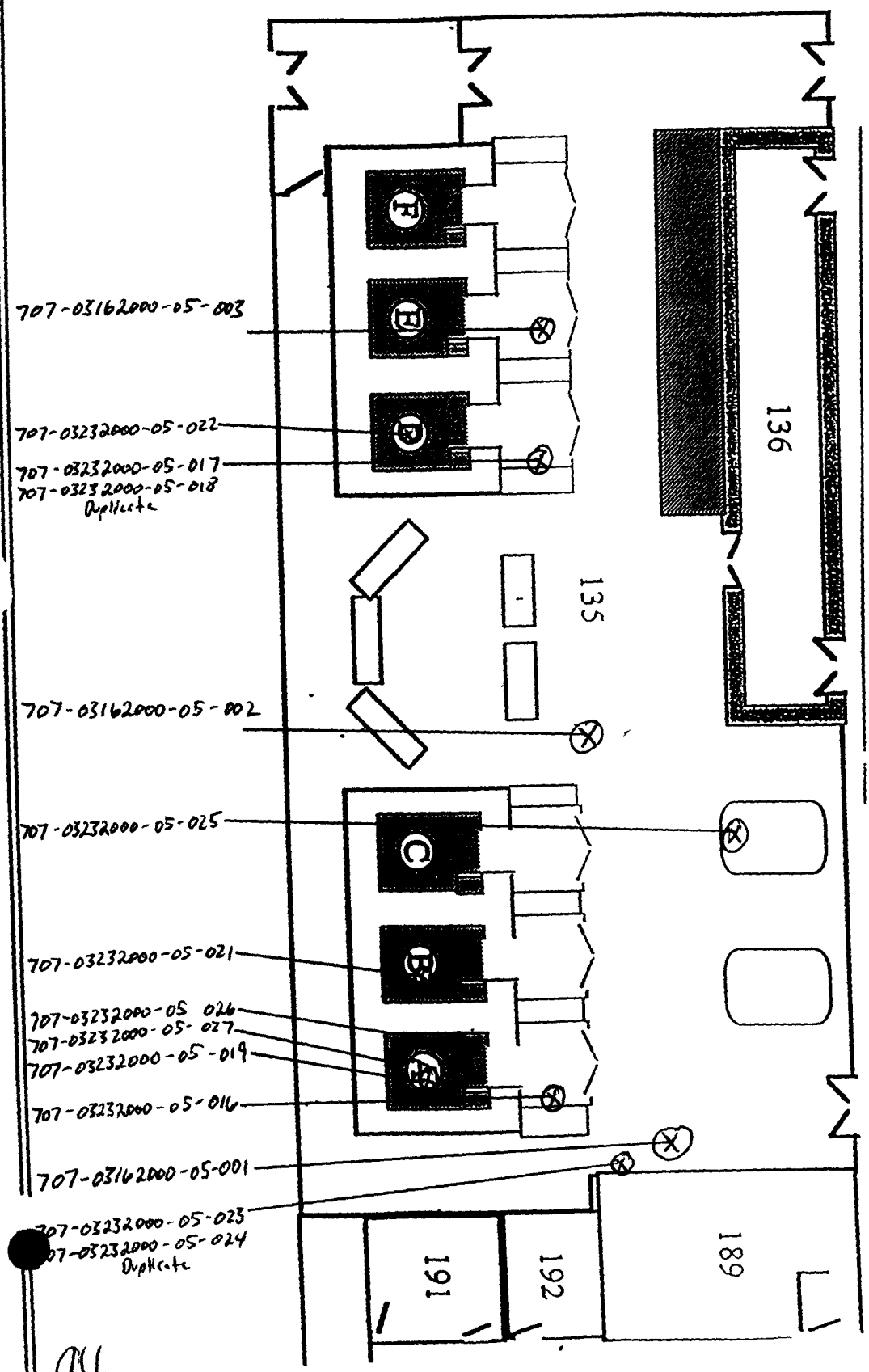
1 smear each from internal areas of 2 pressure chambers in Module G Room 131A

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Module H



Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessibl surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations tc be determined by accessibility

These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to ***but not overlapping with*** radiological smears One duplicate should be collected every 10 samples

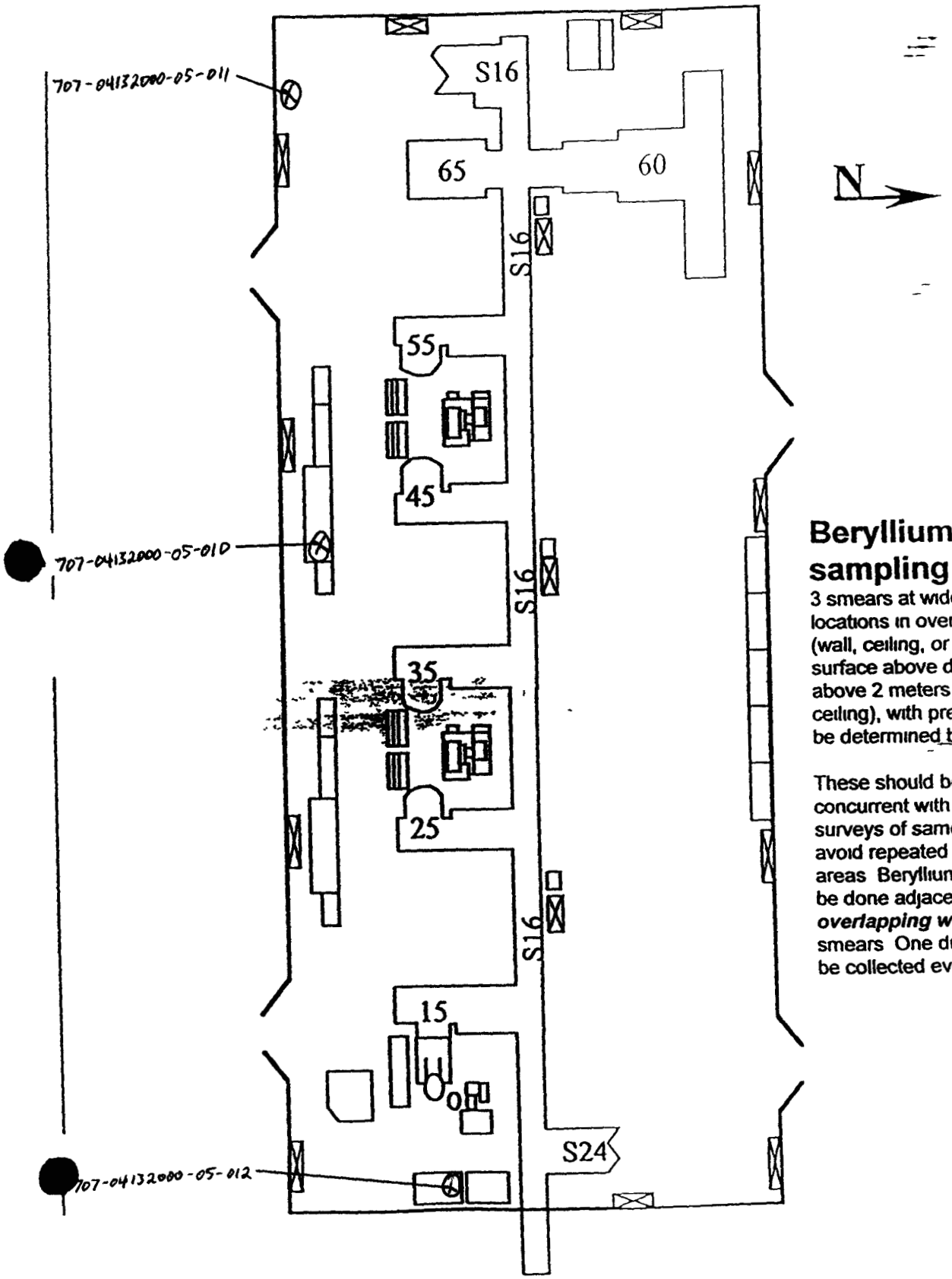
1 smear *inside* each of 6 internal return ducts (i e , remove grille and smear inside duct) of Zone 2 HVAC systems serving Modules F, G, and H (collect 1 field duplicate immediately adjacent to one of these samples),

1 smear each from internal areas of 3 autoclaves in Module H,

2 smears on horizontal surfaces (excluding floor) in Room 135C Module H (collect 1 field duplicate immediately adjacent to one of these samples),

2 smears on horizontal surfaces (excluding floor) in Room 136 Module H (collect 1 field duplicate immediately adjacent to one of these samples)

MODULE J



Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessible surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations to be determined by accessibility

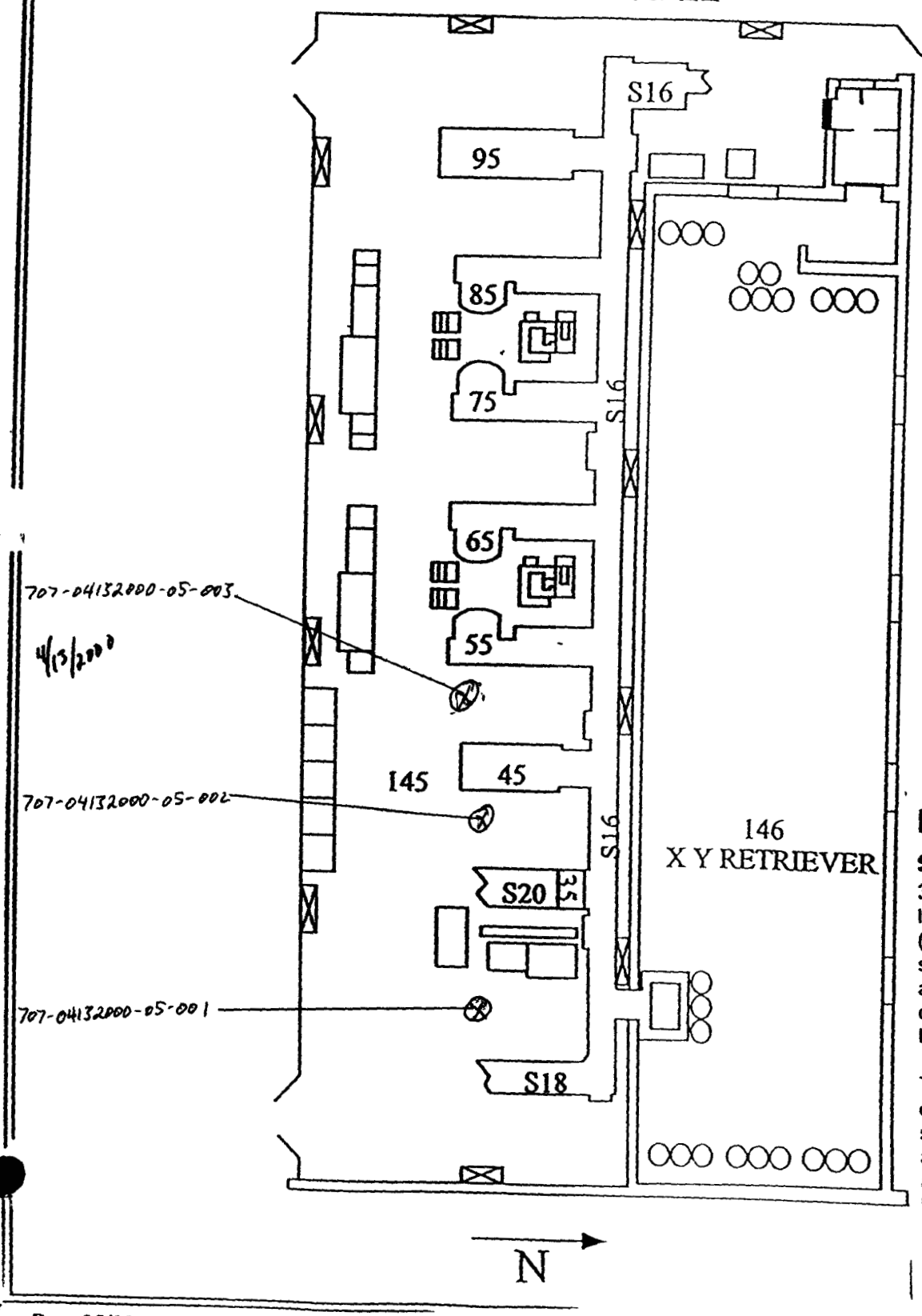
These should be done concurrent with radiological surveys of same locations to avoid repeated entries into these areas Beryllium smears should be done adjacent to ***but not overlapping with*** radiological smears One duplicate should be collected every 10 samples

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE K



Beryllium smear sampling:

3 smears at widely distributed locations in overhead areas (wall, ceiling, or other accessit surface above drop ceiling or above 2 meters if no drop ceiling), with precise locations be determined by accessibility

These should be done concurrent with radiological surveys of same locations to avoid repeated entries into th areas Beryllium smears shou be done adjacent to *but not overlapping with* radiologica smears One duplicate shoul be collected every 10 sample

A-2

RLC CHEMICAL DATA

Beryllium Sample Results

97

Johns Manville

Johns Manville Corporation
10100 W Ute Avenue (80127)
P O Box 625005
Littleton, CO 80162-5005
303 978 2000

COVER PAGE

April 26, 2000

ENTERED 4/27/00

Rocky Flats Environmental Technology Site
Mr. Roger Cichorz
P.O. Box 464, Building 881
Golden, CO 80402-0464

Laboratory Report ID:	00042402
Laboratory Name	JMTC IH Analytical Laboratory
Laboratory Code:	JMANS
Subcontract Number	800188SX6
RIN	00Z1237
Requestor:	Andre Gonzalez
P.O./Charge Code:	KHCT0704

Dear Mr. Cichorz:

The Johns Manville Technical Center (JMTC) has performed the following analytical services as requested The results are calculated based upon the information supplied on the submission form All laboratory data has been filed and are available upon request
The JMTC IH Analytical Laboratory is accredited by the American Industrial Hygiene Association (AIHA) in the industrial hygiene program (Certificate No 056) and participates in the AIHA ELPAT program
If you have any questions, please call (303) 978-2584

Scope of Work:

Requested Analysis	Bottle Number(s)	Customer Number(s)	Laboratory ID Number	Line Item Code	Sample Matrix
Beryllium	00Z1237-001 001	707-03162000-05-001	00042402-001	NR01A001	WIPE
Beryllium	00Z1237-002 001	707-03162000-05-002	00042402-002	NR01A001	WIPE
Beryllium	00Z1237-003.001	707-03162000-05-003	00042402-003	NR01A001	WIPE
Beryllium	00Z1237-004 001	707-03162000-05-004	00042402-004	NR01A001	WIPE
Beryllium	00Z1237-005.001	707-03162000-05-005	00042402-005	NR01A001	WIPE
Beryllium	00Z1237-006 001	707-03162000-05-006	00042402-006	NR01A001	WIPE
Beryllium	00Z1237-007 001	707-03162000-05-007	00042402-007	NR01A001	WIPE
Beryllium	00Z1237-008 001	707-03162000-05-008	00042402-008	NR01A001	WIPE
Beryllium	00Z1237-009 001	707-03162000-05-009	00042402-009	NR01A001	WIPE
Beryllium	00Z1237-010.001	707-03162000-05-010	00042402-010	NR01A001	WIPE
Beryllium	00Z1237-011.001	707-03162000-05-011	00042402-011	NR01A001	WIPE
Beryllium	00Z1237-012.001	707-03162000-05-012	00042402-012	NR01A001	WIPE
Beryllium	00Z1237-013 001	707-03162000-05-013	00042402-013	NR01A001	WIPE
Beryllium	00Z1237-014 001	707-03162000-05-014	00042402-014	NR01A001	WIPE
Beryllium	00Z1237-015 001	707-03162000-05-015	00042402-015	NR01A001	WIPE
Beryllium	00Z1237-016 001	707-03162000-05-016	00042402-016	NR01A001	WIPE
Beryllium	00Z1237-017.001	707-03162000-05-017	00042402-017	NR01A001	WIPE
Beryllium	00Z1237-018.001	707-03162000-05-018	00042402-018	NR01A001	WIPE
Beryllium	00Z1237-019 001	707-03162000-05-019	00042402-019	NR01A001	WIPE
Beryllium	00Z1237-020.001	707-03162000-05-020	00042402-020	NR01A001	WIPE
Beryllium	00Z1237-021.001	707-03162000-05-021	00042402-021	NR01A001	WIPE
Beryllium	00Z1237-022 001	707-03162000-05-022	00042402-022	NR01A001	WIPE
Beryllium	00Z1237-023 001	707-03162000-05-023	00042402-023	NR01A001	WIPE
Beryllium	00Z1237-024 001	707-03162000-05-024	00042402-024	NR01A001	WIPE

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April 26, 2000

Laboratory Report ID: 00042402
Laboratory Name: JMTC IH Analytical Laboratory
Laboratory Code: JMANS
Subcontract Number: 800188SX6
RIN 00Z1237
Requestor Andre Gonzalez
P O /Charge Code: KHCT0704

Scope of Work: *(cont)*

Requested Analysis	Bottle Number(s)	Customer Number(s)	Laboratory ID Number	Line Item Code	Sample Matrix
Beryllium	00Z1237-025 001	707-03162000-05-025	00042402-025	NR01A001	WIPE
Beryllium	00Z1237-026 001	707-03162000-05-026	00042402-026	NR01A001	WIPE
Beryllium	00Z1237-027 001	707-03162000-05-027	00042402-027	NR01A001	WIPE
Beryllium	00Z1237-028.001	707-03162000-05-028	00042402-028	NR01A001	WIPE
Beryllium	00Z1237-029 001	707-03162000-05-029	00042402-029	NR01A001	WIPE
Beryllium	00Z1237-030.001	707-03162000-05-030	00042402-030	NR01A001	WIPE
Beryllium	00Z1237-031.001	707-03232000-05-001	00042402-031	NR01A001	WIPE
Beryllium	00Z1237-032 001	707-03232000-05-002	00042402-032	NR01A001	WIPE
Beryllium	00Z1237-033 001	707-03232000-05-003	00042402-033	NR01A001	WIPE
Beryllium	00Z1237-034 001	707-03232000-05-004	00042402-034	NR01A001	WIPE
Beryllium	00Z1237-035.001	707-03232000-05-005	00042402-035	NR01A001	WIPE
Beryllium	00Z1237-036 001	707-03232000-05-006	00042402-036	NR01A001	WIPE
Beryllium	00Z1237-037 001	707-03232000-05-007	00042402-037	NR01A001	WIPE
Beryllium	00Z1237-038 001	707-03232000-05-008	00042402-038	NR01A001	WIPE
Beryllium	00Z1237-039 001	707-03232000-05-009	00042402-039	NR01A001	WIPE
Beryllium	00Z1237-040 001	707-03232000-05-010	00042402-040	NR01A001	WIPE
Beryllium	00Z1237-041 001	707-03232000-05-011	00042402-041	NR01A001	WIPE
Beryllium	00Z1237-043.001	707-03232000-05-013	00042402-043	NR01A001	WIPE
Beryllium	00Z1237-044 001	707-03232000-05-014	00042402-044	NR01A001	WIPE
Beryllium	00Z1237-045 001	707-03232000-05-015	00042402-045	NR01A001	WIPE
Beryllium	00Z1237-046 001	707-03232000-05-016	00042402-046	NR01A001	WIPE
Beryllium	00Z1237-047.001	707-03232000-05-017	00042402-047	NR01A001	WIPE
Beryllium	00Z1237-048 001	707-03232000-05-018	00042402-048	NR01A001	WIPE
Beryllium	00Z1237-049 001	707-03232000-05-019	00042402-049	NR01A001	WIPE
Beryllium	00Z1237-050.001	707-03232000-05-020	00042402-050	NR01A001	WIPE
Beryllium	00Z1237-051 001	707-03232000-05-021	00042402-051	NR01A001	WIPE
Beryllium	00Z1237-052 001	707-03232000-05-022	00042402-052	NR01A001	WIPE
Beryllium	00Z1237-053.001	707-03232000-05-023	00042402-053	NR01A001	WIPE
Beryllium	00Z1237-054.001	707-03232000-05-024	00042402-054	NR01A001	WIPE
Beryllium	00Z1237-055 001	707-03232000-05-025	00042402-055	NR01A001	WIPE
Beryllium	00Z1237-056.001	707-03232000-05-026	00042402-056	NR01A001	WIPE
Beryllium	00Z1237-057.001	707-03232000-05-027	00042402-057	NR01A001	WIPE
Beryllium	00Z1237-058.001	707-03232000-05-028	00042402-058	NR01A001	WIPE
Beryllium	00Z1237-059 001	707-03232000-05-029	00042402-059	NR01A001	WIPE
Beryllium	00Z1237-060 001	707-03232000-05-030	00042402-060	NR01A001	WIPE
Beryllium	00Z1237-061.001	707-04132000-05-001	00042402-061	NR01A001	WIPE
Beryllium	00Z1237-062 001	707-04132000-05-002	00042402-062	NR01A001	WIPE
Beryllium	00Z1237-063 001	707-04132000-05-003	00042402-063	NR01A001	WIPE
Beryllium	00Z1237-064 001	707-04132000-05-004	00042402-064	NR01A001	WIPE

April 26, 2000

Laboratory Report ID. 00042402
Laboratory Name: JMTC IH Analytical Laboratory
Laboratory Code: JMANS
Subcontract Number 800188SX6
RIN. 00Z1237
Requestor: Andre Gonzalez
P.O./Charge Code: KHCT0704

Scope of Work: *(cont)*

Requested Analysis	Bottle Number(s)	Customer Number(s)	Laboratory ID Number	Line Item Code	Sample Matrix
Beryllium	00Z1237-065.001	707-04132000-05-005	00042402-065	NR01A001	WIPE
Beryllium	00Z1237-066.001	707-04132000-05-006	00042402-066	NR01A001	WIPE
Beryllium	00Z1237-067.001	707-04132000-05-007	00042402-067	NR01A001	WIPE
Beryllium	00Z1237-068.001	707-04132000-05-008	00042402-068	NR01A001	WIPE
Beryllium	00Z1237-069.001	707-04132000-05-009	00042402-069	NR01A001	WIPE
Beryllium	00Z1237-070.001	707-04132000-05-010	00042402-070	NR01A001	WIPE
Beryllium	00Z1237-071.001	707-04132000-05-011	00042402-071	NR01A001	WIPE
Beryllium	00Z1237-072.001	707-04132000-05-012	00042402-072	NR01A001	WIPE
Beryllium	00Z1237-073.001	707-04132000-05-013	00042402-073	NR01A001	WIPE
Beryllium	00Z1237-074.001	707-04132000-05-014	00042402-074	NR01A001	WIPE
Beryllium	00Z1237-075.001	707-04132000-05-015	00042402-075	NR01A001	WIPE

Comments: No problems were encountered with sample receiving and sample analyses

I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hard-copy sample package and the computer-readable EDD, as applicable, submitted on diskette or by modem, has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Scott A. Steiner
Industrial Hygiene Project Manager

4/26/00
Date

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Industrial Hygiene Information System
Surface Sample Report

IHISR_SURFACE_SAMPLE

Date 04/27/2000

00Z1237

Sample Number/Type 707-03162000-05-001 WIPE Hygienist ANDRE GONZALEZ
Location Info LIGHT FIXTURE - EAST END - 8FT HIGH
Room No MOD H
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-002 WIPE Hygienist ANDRE GONZALEZ
Location Info LIGHT FIXTURE - CENTER OF ROOM - 8 FT HIGH
Room No MOD H
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-003 WIPE Hygienist ANDRE GONZALEZ
Location Info TOP OF ENTRANCE TO VAULT 5 - 8 FT HIGH
Room No MOD H
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-004 WIPE Hygienist ANDRE GONZALEZ
Location Info ROOM 133 S E CORNER - ABOVE CEILING TILE
Room No MOD G
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-005 WIPE Hygienist ANDRE GONZALEZ
Location Info MODULE F- NORTH CENTER - ABOVE CEILING TILE
Room No 125
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration 0 4800 UG/100CM2

Sample Number/Type 707-03162000-05-006 WIPE Hygienist ANDRE GONZALEZ
Location Info MODULE F - S E CORNER - ABOVE CEILING TILE
Room No 125
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration 0 1700 UG/100CM2

Sample Number/Type 707-03162000-05-007 WIPE Hygienist ANDRE GONZALEZ
Location Info MODULE F - SOUTH END, CENTER - ABOVE CEILING TILE
Room No 127
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-008 WIPE Hygienist ANDRE GONZALEZ
Location Info EAST END CENTER - CENTER - ABOVE CEILING TILE
Room No Module G
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration 0 1500 UG/100CM2

Sample Number/Type 707-03162000-05-009 WIPE Hygienist ANDRE GONZALEZ
Location Info NW ENTRANCE WAY - ABOVE CEILING TILE
Room No Module G
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration 0 2800 UG/100CM2

Sample Number/Type 707-03162000-05-010 WIPE Hygienist ANDRE GONZALEZ
Location Info DUPLICATE OF 707-03162000-05-009
Room No Module G
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration 0 3600 UG/100CM2

Sample Number/Type 707-03162000-05-011 WIPE Hygienist ANDRE GONZALEZ
Location Info SW CORNER - ABOVE CEILING TILE
Room No MODULE E
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-012 WIPE Hygienist ANDRE GONZALEZ

[redacted]

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Industrial Hygiene Information System
Surface Sample Report

IHISR_SURFACE_SAMPLE

Date 04/27/2000

[redacted] 00Z1237

Sample Number/Type 707-03162000-05-012 WIPE Hygienist ANDRE GONZALEZ
Location Info NORTH END, CENTER - GB F60 - ABOVE CEILING TILE
Room No MODULE E
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-013 WIPE Hygienist ANDRE GONZALEZ
Location Info NE CORNER - BY GLOVEBOX E20 - ABOVE CEILING TILE
Room No MODULE E
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-014 WIPE Hygienist ANDRE GONZALEZ
Location Info NW CORNER - ABOVE CEILING TILE BY GLOVEBOX 110
Room No MODULE D
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-015 WIPE Hygienist ANDRE GONZALEZ
Location Info SE CORNER - BY GBD35 - ABOVE CEILING TILE
Room No MODULE D
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-016 WIPE Hygienist ANDRE GONZALEZ
Location Info S END, CENTER - BY GB D75 - ABOVE CEILING TILE
Room No MODULE D
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-017 WIPE Hygienist ANDRE GONZALEZ
Location Info NW CORNER - BY GB C120 - ABOVE CEILING TILE
Room No Module C
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-018 WIPE Hygienist ANDRE GONZALEZ
Location Info N END, CENTER - BY GB C70 - ABOVE CEILING TILE
Room No Module C
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-019 WIPE Hygienist ANDRE GONZALEZ
Location Info NE CORNER - BY GB C20 - ABOVE CEILING TILE
Room No Module C
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-020 WIPE Hygienist ANDRE GONZALEZ
Location Info DUPLICATE OF 707-03162000-05-019
Room No Module C
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-021 WIPE Hygienist ANDRE GONZALEZ
Location Info SE CORNER - BY S-8B - ABOVE CEILING TILE
Room No MODULE B
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-022 WIPE Hygienist ANDRE GONZALEZ
Location Info SOUTH CENTRAL - BY GB65 - ABOVE CEILING TILE
Room No MODULE B
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-023 WIPE Hygienist ANDRE GONZALEZ

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Industrial Hygiene Information System
Surface Sample Report

00Z1237

Sample Number/Type 707-03162000-05-023 WIPE Hygienist ANDRE GONZALEZ
Location Info NE CORNER - BY GB20 - ABOVE CEILING TILE
Room No MODULE B
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-024 WIPE Hygienist ANDRE GONZALEZ
Location Info NE CORNER - BY GB30 - ABOVE CEILING TILE
Room No MODULE A
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-025 WIPE Hygienist ANDRE GONZALEZ
Location Info NORTH END, CENTER - BY S24 - ABOVE CEILING TILE
Room No MODULE A
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-026 WIPE Hygienist ANDRE GONZALEZ
Location Info S END - BY GB75 - ABOVE CEILING TILE
Room No MODULE A
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03162000-05-027 BLANK Hygienist ANDRE GONZALEZ
Location Info
Room No
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG

Sample Number/Type 707-03162000-05-028 BLANK Hygienist ANDRE GONZALEZ
Location Info
Room No
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG

Sample Number/Type 707-03162000-05-029 BLANK Hygienist ANDRE GONZALEZ
Location Info
Room No
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG

Sample Number/Type 707-03162000-05-030 BLANK Hygienist ANDRE GONZALEZ
Location Info
Room No
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG

Sample Number/Type 707-03232000-05-001 WIPE Hygienist ANDRE GONZALEZ
Location Info BASE OF PLENUM 101
Room No 200
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-002 WIPE Hygienist ANDRE GONZALEZ
Location Info FLOOR BY PLENUM 101
Room No 200
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-003 WIPE Hygienist ANDRE GONZALEZ
Location Info BASE OF PLENUM 103
Room No 200
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-004 WIPE Hygienist ANDRE GONZALEZ

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Industrial Hygiene Information System
Surface Sample Report

IHISR_SURFACE_SAMPLE

Date 04/27/2000

[redacted] 00Z1237

Sample Number/Type 707-03232000-05-004 WIPE Hygienist ANDRE GONZALEZ
Location Info FLOOR BY PLENUM 103
Room No 200
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-005 WIPE Hygienist ANDRE GONZALEZ
Location Info BASE OF PLENUM 102
Room No 240
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-006 WIPE Hygienist ANDRE GONZALEZ
Location Info FLOOR BY PLENUM 102
Room No 240
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-007 WIPE Hygienist ANDRE GONZALEZ
Location Info BASE OF PLENUM 107
Room No 220
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-008 WIPE Hygienist ANDRE GONZALEZ
Location Info FLOOR BY PLENUM 107
Room No 220
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-009 WIPE Hygienist ANDRE GONZALEZ
Location Info BASE OF PLENUM 108
Room No 220
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-010 WIPE Hygienist ANDRE GONZALEZ
Location Info FLOOR BY PLENUM 108
Room No 220
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-011 BLANK Hygienist ANDRE GONZALEZ
Location Info
Room No
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG

Sample Number/Type 707-03232000-05-013 WIPE Hygienist ANDRE GONZALEZ
Location Info MODULE F - RETURN DUCT NORTH WALL
Room No 125
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration 0 4600 UG/100CM2

Sample Number/Type 707-03232000-05-014 WIPE Hygienist ANDRE GONZALEZ
Location Info MODULE G - RETURN DUCT
Room No 133
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-015 WIPE Hygienist ANDRE GONZALEZ
Location Info RETURN DUCT
Room No Module G
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-016 WIPE Hygienist ANDRE GONZALEZ

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Industrial Hygiene Information System
Surface Sample Report

00Z1237

Sample Number/Type 707-03232000-05-016 WIPE Hygienist ANDRE GONZALEZ
Location Info RETURN DUCT IN VAULT 1
Room No MOD H
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-017 WIPE Hygienist ANDRE GONZALEZ
Location Info RETURN DUCT IN VAULT 4
Room No MOD H
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-018 WIPE Hygienist ANDRE GONZALEZ
Location Info DUPLICATE OF 707-03232000-05-016
Room No MOD H
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-019 WIPE Hygienist ANDRE GONZALEZ
Location Info TOP OF AUTOCLAVE
Room No 135A
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-020 BLANK Hygienist ANDRE GONZALEZ
Location Info
Room No
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG

Sample Number/Type 707-03232000-05-021 WIPE Hygienist ANDRE GONZALEZ
Location Info TOP OF AUTOCLAVE
Room No 135B
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-022 WIPE Hygienist ANDRE GONZALEZ
Location Info TOP OF AUTOCLAVE
Room No 135D
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-023 WIPE Hygienist ANDRE GONZALEZ
Location Info STAINLESS STEEL BENCH ON EAST END OF ROOM
Room No 135
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-024 WIPE Hygienist ANDRE GONZALEZ
Location Info DUPLICATE OF 707-03232000-05-023
Room No 135
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-025 WIPE Hygienist ANDRE GONZALEZ
Location Info BLUE OVEN - IDENTIFICATION # 253-055
Room No 135
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-026 WIPE Hygienist ANDRE GONZALEZ
Location Info TISSUE DISPENSER
Room No 135A
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-027 WIPE Hygienist ANDRE GONZALEZ

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Industrial Hygiene Information System
Surface Sample Report

00Z1237

Sample Number/Type 707-03232000-05-027 WIPE Hygienist ANDRE GONZALEZ
Location Info SHELF ON SOUTH END
Room No 135A
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-03232000-05-028 BLANK Hygienist ANDRE GONZALEZ
Location Info
Room No
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG

Sample Number/Type 707-03232000-05-029 BLANK Hygienist ANDRE GONZALEZ
Location Info
Room No
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG

Sample Number/Type 707-03232000-05-030 BLANK Hygienist ANDRE GONZALEZ
Location Info
Room No
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG

Sample Number/Type 707-04132000-05-001 WIPE Hygienist ANDRE GONZALEZ
Location Info BETWEEN S20 & S18 - ABOVE CEILING TILE
Room No MODULE K
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-04132000-05-002 WIPE Hygienist ANDRE GONZALEZ
Location Info BETWEEN 45 & S20 - ABOVE CEILING TILE
Room No MODULE K
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-04132000-05-003 WIPE Hygienist ANDRE GONZALEZ
Location Info BETWEEN 45 & 55 - ABOVE CEILING TILE
Room No MODULE K
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-04132000-05-004 WIPE Hygienist ANDRE GONZALEZ
Location Info WEST LATHE - IDENTIFICATION # 707-0094
Room No Module G
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-04132000-05-005 WIPE Hygienist ANDRE GONZALEZ
Location Info EAST LATHE - IDENTIFICATION # 707-0094
Room No Module G
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration 0 2400 UG/100CM2

Sample Number/Type 707-04132000-05-006 WIPE Hygienist ANDRE GONZALEZ
Location Info UPDRAFT HOOD - TOP
Room No Module G
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-04132000-05-007 WIPE Hygienist ANDRE GONZALEZ
Location Info UPDRAFT TABLE - DUPLICATE OF 707-04132000-05-006
Room No Module G
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-04132000-05-008 WIPE Hygienist ANDRE GONZALEZ

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Industrial Hygiene Information System
Surface Sample Report

IHISR_SURFACE_SAMPLE

Date 04/27/2000

00Z1237

Sample Number/Type 707-04132000-05-008 WIPE Hygienist ANDRE GONZALEZ
Location Info 680-048 HOOD - TOP
Room No Module G
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-04132000-05-009 WIPE Hygienist ANDRE GONZALEZ
Location Info 255-079 & 123-022 HOOD - TOP
Room No Module G
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-04132000-05-010 WIPE Hygienist ANDRE GONZALEZ
Location Info TOP OF ELECTRICAL PANEL - 7 FEET HIGH
Room No MODULE J
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-04132000-05-011 WIPE Hygienist ANDRE GONZALEZ
Location Info TOP OF DECON CABINET - 8 FEET HIGH
Room No MODULE J
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-04132000-05-012 WIPE Hygienist ANDRE GONZALEZ
Location Info TOP OF ACI 670 HIGH LEVEL CONTROLLER - 7 FEET HIGH
Room No MODULE J
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG/100CM2

Sample Number/Type 707-04132000-05-013 BLANK Hygienist ANDRE GONZALEZ
Location Info
Room No
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG

Sample Number/Type 707-04132000-05-014 BLANK Hygienist ANDRE GONZALEZ
Location Info
Room No
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG

Sample Number/Type 707-04132000-05-015 BLANK Hygienist ANDRE GONZALEZ
Location Info
Room No
Analyte BERYLLIUM AND BE COMPOUNDS (AS BE)
Concentration < 0 1000 UG

[redacted]

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A-2

RLC CHEMICAL DATA

TCLP Metals Sample Results

RECRA ENVIRONMENTAL INC.

Chemical and Environmental Measurement Information

Recra LabNet Philadelphia
Analytical Report

Client : K-H RIN#00A1197
RFW# : 0005L180

W.O.# : 11830-001-001-9999-00
Date Received : 05-04-00

SW846 METALS

1. This narrative covers the analyses of 13 TCLP leachate samples

2 The samples were prepared and analyzed in accordance with SW-846 protocol and reported with a CLP deliverable All ICP analytes were analyzed with a five fold dilution due to the sample matrix. Sample 00A1197-006.002 was rerun and reported with a ten fold dilution for Zinc due to the high concentration of this analyte

3 ICVs, CCVs, and LCSs stock standards were purchased from Inorganic Ventures Laboratory and High Purity

4 All analyses were performed within the required holding times

5. The cooler temperature (6.0°C) has been recorded on the Recra Chain of Custody

6. All Initial and Continuing Calibration Verifications (ICV/CCVs) were within control limits

7. All Initial and Continuing Calibration Blanks (ICB/CCBs) were within method criteria.

8 All preparation/method blanks were below the client requested limits found in RDL 3 Refer to form 3.

9 All ICP Interference Check Standards were within control limits Refer to form 4

10 All laboratory control samples (LCS) were within 80 to 120% control limits Uranium was not spiked into the LCS sample. Refer to form 7

11. The serial dilution percent difference for 1 analyte was outside SW-846 control limits Refer to form 9.

12 All duplicate analyses were within the 20% Relative Percent Difference (RPD) control limits Refer to form 6

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 35A pages

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610) 280-3000 • Fax (610) 280-3041

JUN-06-2000 TUE 01:16 PM SOURCE ONE ASD FAX NO. 303 986 4555 P. 02

109

13 The TCLP extract from sample 00A1197-001 002 was selected for the matrix spike (MS) for this analytical batch. The MS recoveries for the eight RCRA analytes and the additional regulatory metal analytes in the TCLP extract were above 50% as per method criteria. The remaining analytes were not spiked Please refer to form 5.

14 All sample IDs were changed to accommodate the EPA naming convention which allows a maximum of 6 characters on all CLP Forms. Refer to the comments section of form 1 for the original ID.

15 Recoveries on the Laboratory Summary Report and CLP forms will vary depending on the number of significant figures used in the recovery calculation.

J. Michael Taylor
Vice President
Philadelphia Analytical Laboratory

5-31-00
Date

alm/m05-180

JUN-06-2000 TUE 01:17 PM SOURCE ONE ASD FAX NO. 303 986 4555 P. 03

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

001002

ab Name: RECRA_LABNET_____ Contract: 11830-1___

ab Code: RECRA_ Case No.: 00A11 SAS No.: _____ SDG No.: 001002

atrix (soil/water): WATER Lab Sample ID: 0005L180-014

evel (low/med): LOW__ Date Received: 05/04/00

Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	143	B		P
7440-36-0	Antimony_	10.2	B		P
7440-38-2	Arsenic__	14.5	U		P
7440-39-3	Barium___	483	B		P
7440-41-7	Beryllium	0.96	B		P
7440-43-9	Cadmium__	1.5	U		P
7440-70-2	Calcium__	1930000			P
7440-47-3	Chromium_	17.0	B		P 10-5/31/00
7440-48-4	Cobalt___	21.7	B		P
7440-50-8	Copper___	8.6	B		P
7439-89-6	Iron____	73.0	U		P
7439-92-1	Lead____	11.5	U		P
7439-95-4	Magnesium	39800			P
7439-96-5	Manganese	340			P
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	118	B		P
7440-09-7	Potassium	30700		E	P
7782-49-2	Selenium_	22.0	U		P
7440-22-4	Silver___	4.5	U		P
7440-23-5	Sodium___	18100	B		P
7440-28-0	Thallium_	18.5	U		P
7440-62-2	Vanadium_	18.2	B		P
7440-66-6	Zinc____	9.8	B		P
7439-98-7	Molybdenu	9.7	B		P
7440-24-6_	Strontium	8260			P
7440-31-5_	Tin_____	9.5	U		P
7439-93-2_	Lithium__	67.1	B		P
7440-61-1_	Uranium__	58.0	U		P

olor Before: _____ Clarity Before: _____ Texture: _____

olor After: _____ Clarity After: _____ Artifacts: _____

mments:

00A1197-001.002_TCLP_LEACHATE_OF_SAMPLE_001

FORM I - IN

JUN-06-2000 TUE 01:19 PM SOURCE ONE ASD FAX NO. 303 986 4555 P. 08

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

002002

Name: RECRA_LABNET_____ Contract: 11830-1___

Code: RECRA_ Case No.: 00A11 SAS No.: _____ SDG No.: 001002

rix (soil/water): WATER Lab Sample ID: 0005L180-015

vel (low/med): LOW__ Date Received: 05/04/00

Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	195	B		P_
7440-36-0	Antimony_	10.6	B		P_
7440-38-2	Arsenic__	14.5	U		P_
7440-39-3	Barium___	381	B		P_
7440-41-7	Beryllium	1.2	B		P_
7440-43-9	Cadmium__	2.8	B		P_
7440-70-2	Calcium__	2080000			P_
7440-47-3	Chromium_	3.9	B		P_
7440-48-4	Cobalt___	94.7	B		P_
7440-50-8	Copper___	33.6	B		P_
7439-89-6	Iron____	73.0	U		P_
7439-92-1	Lead____	11.5	U		P_
7439-95-4	Magnesium	39300			P_
7439-96-5	Manganese	2400			P_
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	218			P_
7440-09-7	Potassium	40600		E	P_
7782-49-2	Selenium_	22.0	U		P_
7440-22-4	Silver___	4.5	U		P_
7440-23-5	Sodium___	20900	B		P_
7440-28-0	Thallium_	18.5	U		P_
7440-62-2	Vanadium_	14.0	B		P_
7440-66-6	Zinc____	178			P_
7439-98-7	Molybdenu	11.9	B		P_
7440-24-6_	Strontium	8230			P_
7440-31-5_	Tin_____	9.5	U		P_
7439-93-2_	Lithium__	347	B		P_
7440-61-1_	Uranium__	58.0	U		P_

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

00A1197-002.002_TCLP_LEACHATE_OF_SAMPLE_002

FORM I - IN

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JUN-06-2000 TUE 01:19 PM SOURCE ONE ASD FAX NO. 303 986 4555 P. 07

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

003002

Lab Name: RECRA_LABNET Contract: 11830-1

Lab Code: RECRA Case No.: 00A11 SAS No.: SDG No.: 001002

Matrix (soil/water): WATER Lab Sample ID: 0005L180-016

Level (low/med): LOW Date Received: 05/04/00

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	154	B		P
7440-36-0	Antimony	9.0	U		P
7440-38-2	Arsenic	14.5	U		P
7440-39-3	Barium	372	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	1950000			P
7440-47-3	Chromium	35.6	B		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	4.0	U		P
7439-89-6	Iron	120	B		P
7439-92-1	Lead	11.5	U		P
7439-95-4	Magnesium	9930	B		P
7439-96-5	Manganese	0.50	U		P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	7.0	U		P
7440-09-7	Potassium	26900		E	P
7782-49-2	Selenium	22.0	U		P
7440-22-4	Silver	4.5	U		P
7440-23-5	Sodium	17300	B		P
7440-28-0	Thallium	18.5	U		P
7440-62-2	Vanadium	112	B		P
7440-66-6	Zinc	7.6	B		P
7439-98-7	Molybdenu	48.1	B		P
7440-24-6	Strontium	8790			P
7440-31-5	Tin	9.5	U		P
7439-93-2	Lithium	106	B		P
7440-61-1	Uranium	58.0	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

00A1197-003.002_TCLP_LEACHATE_OF_SAMPLE_003

FORM I - IN

113

JUN-06-2000 TUE 01:20 PM SOURCE ONE ASD FAX NO. 303 986 4555 P. 08

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

004002

Name: RECRA_LABNET Contract: 11830-1

Code: RECRA Case No.: 00A11 SAS No.: SDG No.: 001002

Matrix (soil/water): WATER Lab Sample ID: 0005L180-017

Level (low/med): LOW Date Received: 05/04/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	142	B		P
7440-36-0	Antimony	9.0	U		P
7440-38-2	Arsenic	14.5	U		P
7440-39-3	Barium	430	B		P
7440-41-7	Beryllium	0.95	B		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	1890000			P
7440-47-3	Chromium	* 3.0	~~U~~ B4		P
7440-48-4	Cobalt	32.9	B		P
7440-50-8	Copper	7.6	B		P
7439-89-6	Iron	73.0	U		P
7439-92-1	Lead	11.5	U		P
7439-95-4	Magnesium	33300			P
7439-96-5	Manganese	834			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	118	B		P
7440-09-7	Potassium	31900		E	P
7782-49-2	Selenium	22.0	U		P
7440-22-4	Silver	4.5	U		P
7440-23-5	Sodium	23500	B		P
7440-28-0	Thallium	18.5	U		P
7440-62-2	Vanadium	7.3	B		P
7440-66-6	Zinc	451			P
7439-98-7	Molybdenu	16.5	B		P
7440-24-6	Strontium	8540			P
7440-31-5	Tin	9.5	U		P
7439-93-2	Lithium	78900			P
7440-61-1	Uranium	58.0	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

00A1197-004.002_TCLP_LEACHATE_OF_SAMPLE_004

FORM I - IN

114

JUN-06-2000 TUE 01:20 PM SOURCE ONE ASD FAX NO. 303 986 4555 P. 09

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

005002

Lab Name: RECRA_LABNET Contract: 11830-1

Lab Code: RECRA Case No.: 00A11 SAS No.: SDG No.: 001002

Matrix (soil/water): WATER Lab Sample ID: 0005L180-018

Level (low/med): LOW Date Received: 05/04/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	988	B		P
7440-36-0	Antimony	9.0	U		P
7440-38-2	Arsenic	14.5	U		P
7440-39-3	Barium	631			P
7440-41-7	Beryllium	1.0	B		P
7440-43-9	Cadmium	14.2	B		P
7440-70-2	Calcium	1980000			P
7440-47-3	Chromium	6.3	B		P
7440-48-4	Cobalt	145	B		P
7440-50-8	Copper	80.5	B		P
7439-89-6	Iron	884			P
7439-92-1	Lead	11.5	U		P
7439-95-4	Magnesium	38000			P
7439-96-5	Manganese	1540			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	225			P
7440-09-7	Potassium	33100		E	P
7782-49-2	Selenium	22.0	U		P
7440-22-4	Silver	6.2			P
7440-23-5	Sodium	22000	B		P
7440-28-0	Thallium	18.5	U		P
7440-62-2	Vanadium	14.5	B		P
7440-66-6	Zinc	24400			P
7439-98-7	Molybdenu	10.4	B		P
7440-24-6	Strontium	8750			P
7440-31-5	Tin	9.5	U		P
7439-93-2	Lithium	142000			P
7440-61-1	Uranium	58.0	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

00A1197-005.002_TCLP_LEACHATE_OF_SAMPLE_005

FORM I - IN

115

JUN-06-2000 TUE 01:21 PM SOURCE ONE ASD FAX NO. 303 988 4555 P. 10

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

006002

Lab Name: RECRA_LABNET Contract: 11830-1

Lab Code: RECRA Case No.: 00A11 SAS No.: SDG No.: 001002

Matrix (soil/water): WATER Lab Sample ID: 0005L180-019

Level (low/med): LOW Date Received: 05/04/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	156	B		P
7440-36-0	Antimony	9.0	U		P
7440-38-2	Arsenic	14.5	U		P
7440-39-3	Barium	501			P
7440-41-7	Beryllium	0.92	B		P
7440-43-9	Cadmium	78.2			P
7440-70-2	Calcium	2020000			P
7440-47-3	Chromium	3.0	~~U~~ BU		P *MO 5/30/00
7440-48-4	Cobalt	103	B		P
7440-50-8	Copper	39.8	B		P
7439-89-6	Iron	3870			P
7439-92-1	Lead	11.5	U		P
7439-95-4	Magnesium	30100			P
7439-96-5	Manganese	3180			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	193	B		P
7440-09-7	Potassium	30800		E	P
7782-49-2	Selenium	22.0	U		P
7440-22-4	Silver	4.5	U		P
7440-23-5	Sodium	28700			P
7440-28-0	Thallium	18.5	U		P
7440-62-2	Vanadium	3.0	U		P
7440-66-6	Zinc	58100			P
7439-98-7	Molybdenu	15.8	B		P
7440-24-6	Strontium	8350			P
7440-31-5	Tin	9.5	U		P
7439-93-2	Lithium	102000			P
7440-61-1	Uranium	58.0	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

00A1197-006.002_TCLP_LEACHATE_OF_SAMPLE_006

FORM I - IN

116

JUN-06-2000 TUE 01:21 PM SOURCE ONE ASD FAX NO. 303 866 4555 P. 11

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

007002

Lab Name: RECRA_LABNET Contract: 11830-1

Lab Code: RECRA Case No.: 00A11 SAS No.: SDG No.: 001002

Matrix (soil/water): WATER Lab Sample ID: 0005L180-020

Level (low/med): LOW Date Received: 05/04/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	161	B		P
7440-36-0	Antimony	9.0	U		P
7440-38-2	Arsenic	14.5	U		P
7440-39-3	Barium	515			P
7440-41-7	Beryllium	0.88	B		P
7440-43-9	Cadmium	75.1			P
7440-70-2	Calcium	2020000			P
7440-47-3	Chromium	*3.0	~~U~~ BU		P *1B 5/20/00
7440-48-4	Cobalt	102	B		P
7440-50-8	Copper	41.6	B		P
7439-89-6	Iron	4820			P
7439-92-1	Lead	11.5	U		P
7439-95-4	Magnesium	30000			P
7439-96-5	Manganese	3190			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	187	B		P
7440-09-7	Potassium	29100		E	P
7782-49-2	Selenium	22.0	U		P
7440-22-4	Silver	4.5	U		P
7440-23-5	Sodium	26100			P
7440-28-0	Thallium	18.5	U		P
7440-62-2	Vanadium	3.0	U		P
7440-66-6	Zinc	48600			P
7439-98-7	Molybdenu	16.2	B		P
7440-24-6	Strontium	8270			P
7440-31-5	Tin	9.5	U		P
7439-93-2	Lithium	90100			P
7440-61-1	Uranium	58.0	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

00A1197-007.002_TCLP_LEACHATE_OF_SAMPLE_007

FORM I - IN

117

JUN-06-2000 TUE 01:22 PM SOURCE ONE ASD FAX NO. 303 986 4555 P. 12

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

008002

ab Name: RECRA_LABNET Contract: 11830-1

ab Code: RECRA Case No.: 00A11 SAS No.: SDG No.: 001002

atrix (soil/water): WATER Lab Sample ID: 0005L180-021

evel (low/med): LOW Date Received: 05/04/00

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	133	B		P
7440-36-0	Antimony	9.0	B		P
7440-38-2	Arsenic	14.5	U		P
7440-39-3	Barium	299	B		P
7440-41-7	Beryllium	0.54	B		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	1930000			P
7440-47-3	Chromium	222			P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	4.4	B		P
7439-89-6	Iron	73.0	U		P
7439-92-1	Lead	11.5	U		P
7439-95-4	Magnesium	12800	B		P
7439-96-5	Manganese	0.95	B		P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	7.9	B		P
7440-09-7	Potassium	43700		E	P
7782-49-2	Selenium	22.0	U		P
7440-22-4	Silver	4.5	U		P
7440-23-5	Sodium	30000			P
7440-28-0	Thallium	18.5	U		P
7440-62-2	Vanadium	22.0	B		P
7440-66-6	Zinc	23.5	B		P
7439-98-7	Molybdenu	17.2	B		P
7440-24-6	Strontium	8930			P
7440-31-5	Tin	9.5	U		P
7439-93-2	Lithium	128000			P
7440-61-1	Uranium	58.0	U		P

olor Before: Clarity Before: Texture:

olor After: Clarity After: Artifacts:

omments:

00A1197-008.002_TCLP_LEACHATE_OF_SAMPLE_008

FORM I - IN

118

JUN-06-2000 TUE 01:22 PM SOURCE ONE ASD FAX NO. 303 986 4555 P. 13

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

009002

Lab Name: RECRA_LABNET_____ Contract: 11830-1___

Lab Code: RECRA_ Case No.: 00A11 SAS No.: _____ SDG No.: 001002

Matrix (soil/water): WATER Lab Sample ID: 0005L180-022

Level (low/med): LOW__ Date Received: 05/04/00

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	175	B		P
7440-36-0	Antimony_	9.0	U		P
7440-38-2	Arsenic__	14.5	U		P
7440-39-3	Barium__	492	B		P
7440-41-7	Beryllium	0.52	B		P
7440-43-9	Cadmium__	1.5	U		P
7440-70-2	Calcium__	1900000			P
7440-47-3	Chromium_	6.7	B		P
7440-48-4	Cobalt___	4.0	U		P
7440-50-8	Copper___	4.0	U		P
7439-89-6	Iron____	451	B		P
7439-92-1	Lead____	11.5	U		P
7439-95-4	Magnesium	2840	B		P
7439-96-5	Manganese	0.70	B		P
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	7.0	U		P
7440-09-7	Potassium	31100		E	P
7782-49-2	Selenium_	22.0	U		P
7440-22-4	Silver___	4.5	U		P
7440-23-5	Sodium___	23100	B		P
7440-28-0	Thallium_	18.5	U		P
7440-62-2	Vanadium_	52.4	B		P
7440-66-6	Zinc____	22.6	B		P
7439-98-7	Molybdenu	19.1	B		P
7440-24-6_	Strontium	8410			P
7440-31-5_	Tin____	9.5	U		P
7439-93-2_	Lithium__	62.3	B		P
7440-61-1_	Uranium__	58.0	U		P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

00A1197-009.002_TCLP_LEACHATE_OF_SAMPLE_009

FORM I - IN

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JUN-06-2000 TUE 01:23 PM SOURCE ONE ASD FAX NO. 303 986 4555 P. 14

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

010002

Lab Name: RECRA_LABNET Contract: 11830-1

Lab Code: RECRA Case No.: 00A11 SAS No.: SDG No.: 001002

Matrix (soil/water): WATER Lab Sample ID: 0005L180-023

Level (low/med): LOW Date Received: 05/04/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	119	B		P
7440-36-0	Antimony	9.0	U		P
7440-38-2	Arsenic	14.5	U		P
7440-39-3	Barium	348	B		P
7440-41-7	Beryllium	0.60	B		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	1960000			P
7440-47-3	Chromium	5.8	B		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	4.0	U		P
7439-89-6	Iron	73.0	U		P
7439-92-1	Lead	11.5	U		P
7439-95-4	Magnesium	1820	B		P
7439-96-5	Manganese	0.50	U		P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	7.0	U		P
7440-09-7	Potassium	32900		E	P
7782-49-2	Selenium	22.0	U		P
7440-22-4	Silver	4.5	U		P
7440-23-5	Sodium	20000	B		P
7440-28-0	Thallium	18.5	U		P
7440-62-2	Vanadium	58.0	B		P
7440-66-6	Zinc	8.0	B		P
7439-98-7	Molybdenu	20.2	B		P
7440-24-6	Strontium	8780			P
7440-31-5	Tin	9.5	U		P
7439-93-2	Lithium	61.3	B		P
7440-61-1	Uranium	58.0	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

00A1197-010.002_TCLP_LEACHATE_OF_SAMPLE_010

FORM I - IN

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

011002

Lab Name: RECRA_LABNET Contract: 11830-1

Lab Code: RECRA Case No.: 00A11 SAS No.: SDG No.: 001002

Matrix (soil/water): WATER Lab Sample ID: 0005L180-024

Level (low/med): LOW Date Received: 05/04/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	85.5	U		P
7440-36-0	Antimony	9.0	U		P
7440-38-2	Arsenic	14.5	U		P
7440-39-3	Barium	340	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	1950000			P
7440-47-3	Chromium	10.1	B		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	5.1	B		P
7439-89-6	Iron	73.0	U		P
7439-92-1	Lead	11.5	U		P
7439-95-4	Magnesium	6290	B		P
7439-96-5	Manganese	0.50	U		P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	7.0	U		P
7440-09-7	Potassium	33200		E	P
7782-49-2	Selenium	22.0	U		P
7440-22-4	Silver	4.5	U		P
7440-23-5	Sodium	20800	B		P
7440-28-0	Thallium	18.5	U		P
7440-62-2	Vanadium	59.8	B		P
7440-66-6	Zinc	6.6	B		P
7439-98-7	Molybdenu	24.7	B		P
7440-24-6	Strontium	8500			P
7440-31-5	Tin	9.5	U		P
7439-93-2	Lithium	54.4	B		P
7440-61-1	Uranium	58.0	U		P

B 6/30/00

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

00A1197-011.002_TCLP_LEACHATE_OF_SAMPLE_011

FORM I - IN

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JUN-06-2000 TUE 01:24 PM SOURCE ONE ASD FAX NO. 303 986 4555 P. 18

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

012002

Lab Name: RECRA_LABNET Contract: 11830-1

Lab Code: RECRA Case No.: 00A11 SAS No.: SDG No.: 001002

Matrix (soil/water): WATER Lab Sample ID: 0005L180-025

Level (low/med): LOW Date Received: 05/04/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	142	B		P
7440-36-0	Antimony	9.9	B		P
7440-38-2	Arsenic	14.5	U		P
7440-39-3	Barium	367	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	1910000			P
7440-47-3	Chromium	22.3	B		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	4.8	B		P
7439-89-6	Iron	73.0	U		P
7439-92-1	Lead	11.5	U		P
7439-95-4	Magnesium	622	B		P
7439-96-5	Manganese	0.50	U		P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	7.0	U		P
7440-09-7	Potassium	52900		E	P
7782-49-2	Selenium	22.0	U		P
7440-22-4	Silver	4.5	U		P
7440-23-5	Sodium	25800			P
7440-28-0	Thallium	18.5	U		P
7440-62-2	Vanadium	129	B		P
7440-66-6	Zinc	4.7	B		P
7439-98-7	Molybdenu	108	B		P
7440-24-6	Strontium	8340			P
7440-31-5	Tin	9.5	U		P
7439-93-2	Lithium	89.1	B		P
7440-61-1	Uranium	58.0	U		P

B 4/20/00

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

00A1197-012.002_TCLP_LEACHATE_OF_SAMPLE_012

FORM I - IN

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

013002

Lab Name: RECRA_LABNET Contract: 11830-1

Lab Code: RECRA Case No.: 00A11 SAS No.: SDG No.: 001002

Matrix (soil/water): WATER Lab Sample ID: 0005L180-026

Level (low/med): LOW Date Received: 05/04/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	130	B		P
7440-36-0	Antimony	9.0	U		P
7440-38-2	Arsenic	14.5	U		P
7440-39-3	Barium	364	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	1910000			P
7440-47-3	Chromium	9.7	B		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	5.4	B		P
7439-89-6	Iron	73.0	U		P
7439-92-1	Lead	11.5	U		P
7439-95-4	Magnesium	822	B		P
7439-96-5	Manganese	0.50	U		P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	7.0	U		P
7440-09-7	Potassium	54700		E	P
7782-49-2	Selenium	22.0	U		P
7440-22-4	Silver	4.5	U		P
7440-23-5	Sodium	28400			P
7440-28-0	Thallium	18.5	U		P
7440-62-2	Vanadium	132	B		P
7440-66-6	Zinc	5.8	B		P
7439-98-7	Molybdenu	110	B		P
7440-24-6	Strontium	8070			P
7440-31-5	Tin	9.5	U		P
7439-93-2	Lithium	89.9	B		P
7440-61-1	Uranium	58.0	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

00A1197-013.002_TCLP_LEACHATE_OF_SAMPLE_013

FORM I - IN

U.S. EPA

3
BLANKS

Lab Name: RECRA_LABNET_____ Contract: 11830-1___

Lab Code. RECRA_ Case No.: 00A11 SAS No.: _____ SDG No.. 001002

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	17.1	U	17.1	U	17.1	U	-20.7	B	85.500	U	P
Antimony	1.8	U	1.8	U	1 8	U	1.8	U	9.000	U	P
Arsenic	2.9	U	2.9	U	2.9	U	2 9	U	14.500	U	P
Barium	0.2	U	0.2	U	0.2	U	0 2	U	1.000	U	P
Beryllium	0.1	U	0.1	U	0.1	B	0.1	U	0.500	U	P
Cadmium	0.3	U	0.3	U	0.3	U	0.3	U	1 500	U	P
Calcium	13.2	U	13.2	U	13.2	U	13 2	U	101 750	B	P
Chromium	0.6	U	0.6	U	0.6	U	0 6	U	3.000	U	P
Cobalt	0.8	U	0.8	U	0.8	U	0.8	U	4 000	U	P
Copper	0.8	U	0.8	U	0.8	U	0.8	U	4.000	U	P
Iron	14.6	U	14.6	U	14.6	U	14.6	U	73.000	U	P
Lead	2.3	U	2.3	U	2.3	U	2 3	U	11.500	U	P
Magnesium	6.5	U	6.5	U	6.5	U	6.5	U	32 500	U	P
Manganese	0.2	B	0.3	B	0.3	B	0.3	B	0.700	B	P
Mercury	0.1	U	0.1	U	0.1	U	0 1	U	0.100	U	AV
Nickel	1.4	U	1.4	U	1.4	U	1.4	U	7.000	U	P
Potassium	19.7	U	19.7	U	19.7	U	19 7	U	98 500	U	P
Selenium	4.4	U	4.4	U	4.4	U	4 4	U	22.000	U	P
Silver	0.9	U	0.9	U	0.9	U	0 9	U	4.500	U	P
Sodium	2.4	U	2.4	U	2.4	U	2.4	U	121.045	B	P
Thallium	3.7	U	3.7	U	3.7	U	3.7	U	18.500	U	P
Vanadium	0.6	U	0.6	U	0.6	U	0.6	U	3.000	U	P
Zinc	0.8	U	0.8	U	0.8	U	0.8	U	6.985	B	P
Molybdenu	1.3	U	1.3	U	1.3	U	1.3	U	6.500	U	P
Strontium	0.1	U	0.1	U	0.1	U	0.1	U	0.500	U	P
Tin	1 9	U	-2.0	B	1.9	U	1.9	U	-14.005	B	P
Lithium	0.4	B	0 4	B	0.5	B	1.8	B	1.120	B	P
Uranium	11.6	U	11.6	U	11.6	U	11 6	U	58 000	U	P

FORM III - IN

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U.S. EPA

3
BLANKS

Lab Name: RECRA_LABNET_____ Contract: 11830-1___

Lab Code: RECRA_ Case No.: 00A11 SAS No : _____ SDG No 001002

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			-34.1	B					45.890	B	P
Antimony			2.0	B					2.790	B	P
Arsenic			2.9	U					2 900	U	P
Barium			0.2	U					89.464	B	P
Beryllium			-0.2	B					0 100	U	P
Cadmium			0.3	U					0.300	U	P
Calcium			13.2	U					284.840	B	P
Chromium			0.6	U					1 691	B	P
Cobalt			0.8	U					0 800	U	P
Copper			0.8	B					9.414	B	P
Iron			14.6	U					27.040	B	P
Lead			2.3	U					25.672	B	P
Magnesium			6.5	U					90.060	B	P
Manganese			0.3	B					1.450	B	P
Mercury									0.100	U	AV
Nickel			1.4	U					1.400	U	P
Potassium			19.7	U					72 047	B	P
Selenium			4.4	U					4.400	U	P
Silver			0.9	U					0.900	U	P
Sodium			2.4	U					3480 241	B	P
Thallium			3.7	U					3 700	U	P
Vanadium			0.6	U					0.600	U	P
Zinc			0.8	U					15.735	B	P
Molybdenu			1.3	U					1.690	B	P
Strontium			0.1	U					1.259	B	P
Tin			1.9	U					2.144	B	P
Lithium			1.5	B					0.297	B	P
Uranium			11.6	U					11.600	U	P

FORM III - IN

125

JUN-06-2000 TUE 01:26 PM SOURCE ONE ASD FAX NO. 303 866 4555 P. 20

U.S. EPA

3
BLANKS

Lab Name: RECRA_LABNET_____ Contract: 11830-1___

Lab Code: RECRA_ Case No.: 00A11 SAS No.: _____ SDG No.: 001002

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc	0.8	U	0.8	U	0.8	U	0.8	U			P
Molybdenu											NR
Strontium											NR
Tin											NR
Lithium											NR
Uranium											NR

FORM III - IN

126

JUN-06-2000 TUE 01:26 PM SOURCE ONE ASD FAX NO. 303 986 4555 P. 21

U.S. EPA

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LABORATORY CONTROL SAMPLE

Lab Name: RECRA_LABNET_____ Contract: 11830-1___

Lab Code: RECRA_ Case No.: 00A11 SAS No.: _____ SDG No.: 001002

Solid LCS Source: _____

Aqueous LCS Source: IV_____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	5000.0	5254.40	105.1						
Antimony	3000.0	3158.88	105.3						
Arsenic	10000.0	10257.70	102.6						
Barium	5000.0	5197.62	104.0						
Beryllium	250.0	262.24	104.9						
Cadmium	250.0	262.18	104.9						
Calcium	25000.0	26009.75	104.0						
Chromium	500.0	530.40	106.1						
Cobalt	2500.0	2631.76	105.3						
Copper	1250.0	1306.48	104.5						
Iron	5000.0	5300.20	106.0						
Lead	2500.0	2627.40	105.1						
Magnesium	25000.0	26068.75	104.3						
Manganese	750.0	816.70	108.9						
Mercury									
Nickel	2000.0	2111.52	105.6						
Potassium	25000.0	26703.58	106.8						
Selenium	10000.0	10244.02	102.4						
Silver	500.0	545.10	109.0						
Sodium	25000.0	25933.80	103.7						
Thallium	10000.0	10595.98	106.0						
Vanadium	2500.0	2667.05	106.7						
Zinc	1000.0	1050.86	105.1						
Molybdenu	5000.0	5481.54	109.6						
Strontium	5000.0	5133.50	102.7						
Tin	5000.0	5348.86	107.0						
Lithium	5000.0	5190.13	103.8						
Uranium	5000.0	58.00	1.2						

FORM VII - IN

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JUN-06-2000 TUE 01:27 PM SOURCE ONE ASD FAX NO. 303 866 4555 P. 22

U.S. EPA

7

LABORATORY CONTROL SAMPLE

Lab Name: RECRA_LABNET_____ Contract: 11830-1___

Lab Code: RECRA_ Case No.: 00A11 SAS No.: _____ SDG No.: 001002

Solid LCS Source: _____

Aqueous LCS Source: IV_____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury	5.0	5.10	102.0						
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Molybdenu									
Strontium									
Tin									
Lithium									
Uranium									

FORM VII - IN

128

JUN-06-2000 TUE 01:27 PM SOURCE ONE ASD FAX NO. 303 986 4555 P. 23

A-2
RLC CHEMICAL DATA
TCLP Metals Chain of Custody

Commodore Advanced Sciences, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.# 00A1197

Page 2 of 2

RIN 00A1197 | Contact/Requestor SZYDLOWSKI, TOM | Telephone No. 8165 | MSIN | FAX

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative, Packing
00A1197-008.002	KC-5	SOLID	5-2-00	1705	BLDG 707 ZPA Level 1	1-SAMPLE / P /1	SS08C006 (TCLP Metals 1311) [Rush]	None None
00A1197-009 002	C1 (2,0) MF 707	SOLID		1930	BLDG 707 Module A	1-SAMPLE / P /1	SS08C006 (TCLP Metals 1311) [Rush]	None None
00A1197-010 002	C4 (2,1) MF 707	SOLID		2000	BLDG 707 Module B	1-SAMPLE / P /1	SS08C006 (TCLP Metals 1311) [Rush]	None None
00A1197-011.002	C3 (0,2) MF 707	SOLID		2020	BLDG 707 Module C	1-SAMPLE / P /1	SS08C006 (TCLP Metals 1311) [Rush]	None None
00A1197-012.002	C2 (5,2) MF 707	SOLID		2045	BLDG 707 Module #J	1-SAMPLE / P /1	SS08C006 (TCLP Metals 1311) [Rush]	None None
00A1197-013 002		SOLID		2050	BLDG 707 Module #J	1-SAMPLE / P /1	SS08C006 (TCLP Metals 1311) [Rush]	None None
00A1197-014 002	Rinsate	AQUEOUS	5-2-00	1720	BLDG 707	1-L / P/G /1	SS05C022 (Total Metals wo/Hg 846 RDL-3) [Priority]	HN03 4 degrees C
00A1197-015 002		AQUEOUS		2100	BLDG 707	1-L / P/G /1	SS05C022 (Total Metals wo/Hg 846 RDL-3) [Priority]	HN03 4 degrees C

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
[signature]	5/2/00 11:00	T89/R Refrig #2	5/2/00 11:00	T89/R Refrig #2	5/3/00 1830	[signature]	5/3/00 1430
[signature]	5/3/00 1545	Fed Ex					
Fed Ex	5/4/00 09:40	[signature]	5/4/00 09:40				

FINAL SAMPLE DISPOSITION | Disposal Method (e.g., returned to customer, disposed of per lab procedure, used in analytical process) | Disposed By | Date/Time

130

Commodore Advanced Sciences, Inc.

RFETS

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.# 00A1197

Page 1 of 2

Sampler(s) (Signature)	Contact/Requester SZYDLOWSKI, TOM	Telephone No. 8165 MSIN	FAX
RIN 00A1197	Sampling Origin Bldg 707 B 262	Purchase Order/Charge Code NO220081	
Project Title Concrete Coring	Logbook No. 94 Bldg VMS	Ice Chest No. N/A	Temp. N/A
To (Lab) RECRA Labnet-PA (L)	Method of Shipment Sample Team	Bill of Lading/Air Bill No. N/A 4533212 6988	
Protocol CAS-SOP.003	Related COC (If any) 00A1197 #001 #003	PRE N/A 000421-00881-001	

POSSIBLE SAMPLE HAZARDS/REMARKS
Are acid preserved samples DOT hazardous per 40 CFR Part 136.3 Table II? YES or NO
Are other known hazardous substances present? YES or NO
** ** **

SCREENING REQUIRED ☐

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☐ No ☐
Entire core to be extracted intact, to simulate a chunk of concrete

Bottle No.	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative, Packing
00A1197-001 002	C5 (0,2) Rm 200	SOLID	5-2-00	1405	BLDG 707 2nd Level Rm 200	1-SAMPLE / P /1	SS08C006 (TCLP Metals 1311) [Rush]	None None
00A1197-002 002	C6 (1,0) Rm 200	SOLID		1440	BLDG 707 2nd Level Rm 200	1-SAMPLE / P /1	SS08C006 (TCLP Metals 1311) [Rush]	None None
00A1197-003 002	C2 (3,0) Rm 240	SOLID		1500	BLDG 707 2nd Level	1-SAMPLE / P /1	SS08C006 (TCLP Metals 1311) [Rush]	None None
00A1197-004 002	KC-1	SOLID		1530	BLDG 707 2nd Level	1-SAMPLE / P /1	SS08C006 (TCLP Metals 1311) [Rush]	None None
00A1197-005 002	KC-2	SOLID		1600	BLDG 707 2nd Level	1-SAMPLE / P /1	SS08C006 (TCLP Metals 1311) [Rush]	None None
00A1197-006 002	KC-3	SOLID		1620	BLDG 707 2nd Level	1-SAMPLE / P /1	SS08C006 (TCLP Metals 1311) [Rush]	None None
00A1197-007 002		SOLID		1630	BLDG 707 2nd Level	1-SAMPLE / P /1	SS08C006 (TCLP Metals 1311) [Rush]	None None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
[signature]	5/2/00 11:00	T891R Refrig #2	5/2/00 11:00	T891R Refrig #2	5/3/00 1430	[signature]	5/3/00 1430
[signature]	5/3/00 1545	FedEx					
FedEx 5-4-00	09:40	[signature]	5-4-00 09:40				

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

131

00054180

A-3
RLC RADIOLOGICAL DATA
Paint

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DESCRIPTION	SURVEY AREA	SAMPLE ID, RIN 00A1196 (event #, bottle code)	NUCLIDE	pCi/g	MDA (pCi/g)	MASS (g)	SURFACE AREA (x100 cm²)	NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) DCGL$_{gr}$=5000	TRANSURANIC TOTAL (dpm/100cm²) DCGL$_{gr}$=100
red paint	M	001 002	U-233/234	0 178	0 076	6 93	3	0 9	0 4		
			U-235	0 013	0 105			0 1	0 5		
			U-238	0 145	0 085			0 7	0 4	2	
			Pu-239/240	7 280	0 047			37 3	0 2		
			Am-241	2 690	0 068			13 8	0 3		51
red paint	M	002 002	U-233/234	0 126	0 057	7 40	1 5	1 4	0 6		
			U-235	-0 003	0 092			0 0	1 0		
			U-238	0 409	0 057			4 5	0 6	6	
			Pu-239/240	12 500	0 041			136 9	0 4		
			Am-241	1 800	0 089			19 7	1 0		157
red paint	M	003 002	U-233/234	0 549	0 034	6 50	1	7 9	0 5		
			U-235	0 015	0 042			0 2	0 6		
			U-238	1 370	0 034			19 8	0 5	28	
			Pu-239/240	15 700	0 042			226 6	0 6		
			Am-241	2 970	0 060			42 9	0 9		269
red paint	M	004 002	U-233/234	0 474	0 039	6 47	1 5	4 5	0 4		
			U-235	0 106	0 048			1 0	0 5		
			U-238	1 420	0 081			13 6	0 8	19	
			Pu-239/240	3 020	0 095			28 9	0 9		
			Am-241	0 330	0 131			3 2	1 3		32
red paint	N	005 001	U-233/234	0 089	0 034	5 49	1 5	0 7	0 3		
			U-235	0 025	0 075			0 2	0 6		
			U-238	0 215	0 034			1 7	0 3	3	
			Pu-239/240	8 560	0 039			69 6	0 3		
			Am-241	1 490	0 215			12 1	1 7		82
red paint	N	006 002	U-233/234	0 230	0 063	7 8	1 5	2 7	0 7		
			U-235	0 048	0 044			0 6	0 5		
			U-238	0 399	0 062			4 6	0 7	8	
			Pu-239/240	5 050	0 098			58 3	1 1		
			Am-241	0 576	0 056			6 6	0 6		65
red paint	N	007 002	U-233/234	0 311	0 066	8 00	1 5	3 7	0 8		
			U-235	0 044	0 081			0 5	1 0		
			U-238	1 120	0 066			13 3	0 8	17	
			Pu-239/240	53 400	0 034			632 3	0 4		
			Am-241	8 940	0 061			105 8	0 7		738

DESCRIPTION	SURVEY AREA	SAMPLE ID, RIN 00A1196 (event #, bottle code)	NUCLIDE	pCi/g	MDA (pCi/g)	MASS (g)	SURFACE AREA (x100 cm²)	NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) DCGL_w=5000	TRANSURANIC TOTAL (dpm/100cm²) DCGL_w=100
red paint	N	008 002	U-233/234	0 147	0 040	7 66	1 5	1 7	0 5		
			U-235	0 073	0 049			0 8	0 6		
			U-238	0 513	0 040			5 8	0 5	8	
			Pu-239/240	4 390	0 040			49 8	0 5		
			Am-241	0 719	0 085			8 2	1 0		58
red paint	O	009 002	U-233/234	0 227	0 036	6 91	1 5	2 3	0 4		
			U-235	0 043	0 079			0 4	0 8		
			U-238	0 180	0 064			1 8	0 7	5	
			Pu-239/240	217 000	0 258			2219 2	2 6		
			Am-241	37 300	0 211			381 5	2 2		2601
red paint	O	010 002	U-233/234	0 057	0 101	7 66	3	0 3	0 6		
			U-235	-0 026	0 139			-0 1	0 8		
			U-238	0 174	0 112			1 0	0 6	1	
			Pu-239/240	301 000	0 374			1706 2	2 1		
			Am-241	22 900	0 144			129 8	0 8		1836
red/purple paint	O	11 002	U-233/234	0 072	0 039	6 06	2	0 5	0 3		
			U-235	0 011	0 085			0 1	0 6		
			U-238	0 057	0 039			0 4	0 3	1	
			Pu-239/240	912 000	0 746			6134 7	5 0		
			Am-241	74 900	0 194			503 8	1 3		6638
red paint	O	012 002	U-233/234	0 078	0 067	5 89	1 5	0 7	0 6		
			U-235	0 052	0 047			0 5	0 4		
			U-238	0 230	0 066			2 0	0 6	3	
			Pu-239/240	8 650	0 083			75 4	0 7		
			Am-241	1 030	0 065			9 0	0 6		84
red paint	P	013 002	U-233/234	0 096	0 032	7 12	2 5	0 6	0 2		
			U-235	0 009	0 071			0 1	0 4		
			U-238	0 174	0 057			1 1	0 4	2	
			Pu-239/240	33 400	0 064			211 2	0 4		
			Am-241	4 460	0 063			28 2	0 4		239
red paint	P	014 002	U-233/234	0 179	0 055	7 41	2 5	1 2	0 4		
			U-235	0 028	0 038			0 2	0 3		
			U-238	0 252	0 031			1 7	0 2	3	
			Pu-239/240	25 000	0 073			164 5	0 5		
			Am-241	3 340	0 141			22 0	0 9		186

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DESCRIPTION	SURVEY AREA	SAMPLE ID, RIN 00A1186 (event #, bottle code)	NUCLIDE	pCi/g	MDA (pCi/g)	MASS (g)	SURFACE AREA (x100 cm²)	NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) DCGL $_w$=5000	TRANSURANIC TOTAL (dpm/100cm²) DCGL $_w$=100
red paint	P	015 002	U-233/234	0 092	0 036	7 67	2 5	0 6	0 2		
			U-235	0 010	0 078			0 1	0 5		
			U-238	0 183	0 035			1 2	0 2	**2**	
			Pu-239/240	2 530	0 060			17 2	0 4		
			Am-241	0 327	0 115			2 2	0 8		**19**
red paint	Q	016 002	U-233/234	0 182	0 060	6 83	2 5	1 1	0 4		
			U-235	0 061	0 042			0 4	0 3		
			U-238	0 533	0 034			3 2	0 2	**5**	
			Pu-239/240	1 860	0 085			11 3	0 5		
			Am-241	0 257	0 058			1 6	0 4		**13**
red paint	Q	17 002	U-233/234	0 408	0 066	6 59	3 5	1 7	0 3		
			U-235	0 051	0 046			0 2	0 2		
			U-238	0 456	0 078			1 9	0 3	**4**	
			Pu-239/240	2 090	0 072			8 7	0 3		
			Am-241	0 238	0 072			1 0	0 3		**10**
red paint	Q	018 002	U-233/234	0 550	0 065	10 38	2 5	5 1	0 6		
			U-235	0 044	0 081			0 4	0 7		
			U-238	0 307	0 065			2 8	0 6	**8**	
			Pu-239/240	3 570	0 085			32 9	0 8		
			Am-241	0 437	0 054			4 0	0 5		**37**
red paint	R	022 002	U-233/234	0 756	0 038	10 45	3	5 8	0 3		
			U-235	0 028	0 083			0 2	0 6		
			U-238	0 223	0 038			1 7	0 3	**8**	
			Pu-239/240	2 010	0 078			15 5	0 6		
			Am-241	1 050	0 065			8 1	0 5		**24**
red/maroon paint	R	023 002	U-233/234	0 301	0 067	7 43	3	1 7	0 4		
			U-235	0 017	0 047			0 1	0 3		
			U-238	0 924	0 066			5 1	0 4	**7**	
			Pu-239/240	0 482	0 065			2 7	0 4		
			Am-241	0 090	0 081			0 5	0 4		**3**
red paint	R	024 002	U-233/234	0 115	0 035	6 27	2	0 8	0 2		
			U-235	0 025	0 075			0 2	0 5		
			U-238	0 427	0 061			3 0	0 4	**4**	
			Pu-239/240	0 962	0 035			6 7	0 2		
			Am-241	0 205	0 069			1 4	0 5		**8**

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DESCRIPTION	SURVEY AREA	SAMPLE ID, RIN 00A1196 (event #, bottle code)	NUCLIDE	pCi/g	MDA (pCi/g)	MASS (g)	SURFACE AREA (x100 cm²)	NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) DCGL_w=5000	TRANSURANIC TOTAL (dpm/100cm²) DCGL_w=100
red/maroon paint	S	019 002	U-233/234	12 700	0 039	8 46	0 75	318 0	1 0		
			U-235	0 518	0 048			13 0	1 2		
			U-238	0 432	0 039			10 8	1 0	342	
			Pu-239/240	1 290	0 067			32 3	1 7		
			Am-241	0 206	0 093			5 2	2 3		37
red paint	S	020 002	U-233/234	18 600	0 061	6 64	0 75	365 6	1 2		
			U-235	0 729	0 075			14 3	1 5		
			U-238	0 664	0 061			13 1	1 2	393	
			Pu-239/240	1 920	0 064			37 7	1 3		
			Am-241	0 390	0 138			7 7	2 7		45
red/maroon paint	S	021 002	U-233/234	0 142	0 035	7 89	0 75	3 3	0 8		
			U-235	0 064	0 043			1 5	1 0		
			U-238	0 183	0 073			4 3	1 7	9	
			Pu-239/240	3 410	0 082			79 6	1 9		
			Am-241	0 597	0 172			13 9	4 0		94
red paint	T	025 002	U-233/234	0 176	0 067	6 55	8 5	0 3	0 1		
			U-235	0 017	0 047			0 0	0 1		
			U-238	0 106	0 067			0 2	0 1	1	
			Pu-239/240	0 431	0 060			0 7	0 1		
			Am-241	0 090	0 231			0 2	0 4		1
red paint	T	026 002	U-233/234	0 180	0 035	5 53	10	0 2	0 0		
			U-235	0 089	0 076			0 1	0 1		
			U-238	0 167	0 035			0 2	0 0	1	
			Pu-239/240	0 265	0 078			0 3	0 1		
			Am-241	0 044	0 133			0 1	0 2		0
red paint	U	030 002	U-233/234	0 306	0 033	2 97	8	0 3	0 0		
			U-235	0 060	0 041			0 0	0 0		
			U-238	0 756	0 033			0 6	0 0	1	
			Pu-239/240	1 980	0 066			1 6	0 1		
			Am-241	0 081	0 074			0 1	0 1		2
tan paint	V	031 002	U-233/234	0 248	0 037	9 41	3	1 7	0 3		
			U-235	0 051	0 046			0 4	0 3		
			U-238	1 650	0 037			11 5	0 3	14	
			Pu-239/240	2 280	0 073			15 9	0 5		
			Am-241	0 661	0 115			4 6	0 8		20

DESCRIPTION	SURVEY AREA	SAMPLE ID, RIN 99A1196 (event #, bottle code)	NUCLIDE	pCi/g	MDA (pCi/g)	MASS (g)	SURFACE AREA (x100 cm²)	NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) DCGL µ=5000	TRANSURANIC TOTAL (dpm/100cm²) DCGL µ=100
tan paint	V	032 002	U-233/234	0 165	0 041	7 83	0 75	3 8	1 0		
			U-235	0 092	0 050			2 1	1 2		
			U-238	0 778	0 084			18 0	1 9	24	
			Pu-239/240	0 604	0 085			14 0	2 0		
			Am-241	0 206	0 093			4 8	2 2		19
tan paint	V	33 002	U-233/234	0 865	0 037	7 88	0 75	20 2	0 9		
			U-235	0 078	0 081			1 8	1 9		
			U-238	6 200	0 037			144 6	0 9	167	
			Pu-239/240	2 080	0 063			48 5	1 5		
			Am-241	0 754	0 048			17 6	1 1		66
tan paint	W	027 002	U-233/234	0 122	0 068	11 44	2	1 5	0 9		
			U-235	0 018	0 047			0 2	0 6		
			U-238	0 566	0 038			7 2	0 5	9	
			Pu-239/240	0 381	0 071			4 8	0 9		
			Am-241	0 075	0 051			1 0	0 6		6
tan paint	W	028 002	U-233/234	0 274	0 071	7 70	2	2 3	0 6		
			U-235	0 036	0 049			0 3	0 4		
			U-238	0 589	0 083			5 0	0 7	8	
			Pu-239/240	0 195	0 090			1 7	0 8		
			Am-241	0 146	0 049			1 2	0 4		3
tan paint	W	029 002	U-233/234	0 129	0 064	9 12	1	2 6	1 3		
			U-235	-0 007	0 079			-0 1	1 6		
			U-238	0 315	0 064			6 4	1 3	9	
			Pu-239/240	0 488	0 070			9 9	1 4		
			Am-241	0 090	0 061			1 8	1 2		12
red/maroon paint	X	034 002	U-233/234	0 160	0 061	7 04	2	1 3	0 5		
			U-235	0 016	0 043			0 1	0 3		
			U-238	0 261	0 061			2 0	0 5	3	
			Pu-239/240	97 000	0 182			758 0	1 4		
			Am-241	21 100	0 231			164 9	1 8		923
red/maroon paint	X	035 002	U-233/234	0 160	0 039	8 66	3	1 0	0 2		
			U-235	0 029	0 086			0 2	0 6		
			U-238	0 341	0 069			2 2	0 4	3	
			Pu-239/240	39 400	0 062			252 5	0 4		
			Am-241	3 860	0 195			24 7	1 2		277

DESCRIPTION	SURVEY AREA	SAMPLE ID, RIN 00A1196 (event #, bottle code)	NUCLIDE	pCi/g	MDA (pCi/g)	MASS (g)	SURFACE AREA (x100 cm²)	NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) DCGL$_w$=5000	TRANSURANIC TOTAL (dpm/100cm²) DCGL$_w$=100
red/maroon paint	X	036 002	U-233/234	0 154	0 063	8 46	1 5	1 9	0 8		
			U-235	0 033	0 044			0 4	0 6		
			U-238	0 198	0 036			2 5	0 5	**5**	
			Pu-239/240	140 000	0 073			1752 9	0 9		
			Am-241	11 700	0 051			146 5	0 6		**1899**
red paint	X	037 002	U-233/234	0 126	0 034	8 78	3	0 8	0 2		
			U-235	0 025	0 074			0 2	0 5		
			U-238	0 238	0 034			1 5	0 2	**3**	
			Pu-239/240	8 130	0 060			52 8	0 4		
			Am-241	1 380	0 203			9 0	1 3		**62**
red/maroon paint	X	038 002	U-233/234	0 292	0 071	11 12	1 5	4 8	1 2		
			U-235	0 092	0 050			1 5	0 8		
			U-238	1 140	0 040			18 8	0 7	**25**	
			Pu-239/240	12 600	0 082			207 4	1 3		
			Am-241	1 940	0 289			31 9	4 8		**239**
red/maroon paint	X	039 002	U-233/234	0 179	0 063	7 26	1 5	1 9	0 7		
			U-235	0 032	0 044			0 3	0 5		
			U-238	0 160	0 074			1 7	0 8	**4**	
			Pu-239/240	14 000	0 067			150 4	0 7		
			Am-241	2 730	0 294			29 3	3 2		**180**
red paint	X	040 002	U-233/234	0 179	0 089	11 09	1 5	2 9	1 5		
			U-235	0 014	0 110			0 2	1 8		
			U-238	0 327	0 089			5 4	1 5	**9**	
			Pu-239/240	10 600	0 068			174 0	1 1		
			Am-241	1 050	0 226			17 2	3 7		**191**
red/maroon paint	X	041 002	U-233/234	0 156	0 078	6 03	1 5	1 4	0 7		
			U-235	0 082	0 108			0 7	1 0		
			U-238	0 232	0 087			2 1	0 8	**4**	
			Pu-239/240	55 700	0 039			497 1	0 3		
			Am-241	9 780	0 500			87 3	4 5		**584**
gray paint & black tar	Z	045 002	U-233/234	0 214	0 045	8 03	0 75	5 1	1 1		
			U-235	0 041	0 055			1 0	1 3		
			U-238	0 164	0 044			3 9	1 0	**10**	
			Pu-239/240	0 099	0 090			2 4	2 1		
			Am-241	0 079	0 054			1 9	1 3		**4**
gray paint &			U-233/234	0 059	0 040	10 73	1 5	0 9	0 6		
			U-235	0 011	0 088			0 2	1 4		

DESCRIPTION	SURVEY AREA	SAMPLE ID, RIN 00A1198 (event #, bottle code)	NUCLIDE	pCi/g	MDA (pCi/g)	MASS (g)	SURFACE AREA (x100 cm²)	NUCLIDE (dpm/100cm²)	ESTIMATED MDA (dpm/100cm²)	URANIUM TOTAL (dpm/100cm²) DCGL$_W$=5000	TRANSURANIC TOTAL (dpm/100cm²) DCGL$_W$=100
gray paint & black tar	Z	046 002	U-238	0 068	0 071			1 1	1 1	2	
			Pu-239/240	0 101	0 073			1 6	1 2		
			Am-241	0 021	0 058			0 3	0 9		2
gray paint	AA	043 002	U-233/234	0 306	0 065	7 02	4 5	1 1	0 2		
			U-235	0 017	0 045			0 1	0 2		
			U-238	0 272	0 076			0 9	0 3	2	
			Pu-239/240	0 191	0 043			0 7	0 1		
			Am-241	0 176	0 128			0 6	0 4		1
gray paint	AA	044 002	U-233/234	0 009	0 069	13 81	6 5	0 0	0 3		
			U-235	0 046	0 085			0 2	0 4		
			U-238	0 095	0 069			0 4	0 3	1	
			Pu-239/240	0 000	0 043			0 0	0 2		
			Am-241	0 011	0 087			0 1	0 4		0
red paint	BB	047 002[A]	U-233/234	0 211	0 098	13 81	1 5	4 3	2 0		
			U-235	0 038	0 135			0 8	2 8		
			U-238	0 169	0 109			3 5	2 2	9	
			Pu-239/240	0 029	0 087			0 6	1 8		
			Am-241	-0 018	0 125			-0 4	2 6		0
gray paint w/ pink tinted substrate	CC	042 002	U-233/234	0 138	0 077	6 08	1 5	1 2	0 7		
			U-235	0 036	0 125			0 3	1 1		
			U-238	0 487	0 076			4 4	0 7	6	
			Pu-239/240	53 600	0 106			482 3	1 0		
			Am-241	8 410	0 052			75 7	0 5		558

[A]conservative estimate of mass, based on highest sample mass in batch 1940

MIN	0 5	0 1
MAX	393 0	6638 5
MEAN	25 6	391 0
SD	76.9	1074 6
DCGL$_W$ =	5000	100

COVER PAGE

Sanford Cohen & Associates
Southeastern Environmental Laboratory
1000 Monticello Court
Montgomery, Alabama 36117

Laboratory Code SCA Subcontract Number KH700325EP6

RIN 00A1196
LIC RC01B004
LIC RC01B001

Laboratory Report Identification Code 1929, 1930, 1931, 1932, 1933, 1940, 1928, 1939

Sample Matrix Waste

Site Sample Numbers	Laboratory Sample Number		
	Uranium	Plutonium	Americium
00A1196-001 002 707-P-01-00 A - Module	KH100-1929-01	KH100-1929-01	KH100-1929-01
00A1196-002 002 707-P-02-00 A - Module	KH100-1929-02	KH100-1929-02	KH100-1929-02
00A1196-003 002 707-P-03-00 A - Module	KH100-1929-03	KH100-1929-03	KH100-1929-03
00A1196-004 002 707-P-04-00 A - Module	KH100-1929-04	KH100-1929-04	KH100-1929-04
00A1196-005 002 707-P-05-00 B - Module	KH100-1929-05	KH100-1929-05	KH100-1929-05
00A1196-006 002 707-P-06-00 B - Module	KH100-1929-06	KH100-1929-06	KH100-1929-06
00A1196-007 002 707-P-07-00 B - Module	KH100-1929-07	KH100-1929-07	KH100-1929-07
00A1196-008 002 707-P-08-00 B - Module	KH100-1929-08	KH100-1929-08	KH100-1929-08
00A1196-009 002 707-P-09-00 C - Module Floor Under N.W Door	KH100-1929-09	KH100-1929-09	KH100-1929-09
00A1196-010 002 707-P-10-00 C - Module Floor Under GB-C110	KH100-1929-10	KH100-1929-10	KH100-1929-10
Laboratory Control Sample (LC)	SCAQC-1929-LC1	SCAQC-1929-LC1	SCAQC-1929-LC1
Duplicate (LD)	SCAQC-1929-LD1	SCAQC-1929-LD1	SCAQC-1929-LD1
Preparation Blank (PB)	SCAQC-1929-PB	SCAQC-1929-PB	SCAQC-1929-PB

Site Sample Numbers	Laboratory Sample Number		
	Uranium	Plutonium	Americium
00A1196-011 002 707-P-11-00 C - Module Floor Under GB-C-120	KH100-1930-01	KH100-1930-01B	KH100-1930-01B
00A1196-012 002 707-P-12-00 C - Module Floor Near HCA-C-60	KH100-1930-02	KH100-1930-02	KH100-1930-02
00A1196-013 002 707-P-13-00 Module D Door 76 & 77	KH100-1930-03	KH100-1930-03	KH100-1930-03
00A1196-014 002 707-P-14-00 Module D G Box D-20	KH100-1930-04	KH100-1930-04	KH100-1930-04
00A1196-015 002 707-P-15-00 Module D Con 8-1	KH100-1930-05	KH100-1930-05	KH100-1930-05
00A1196-016 002 707-P-16-00 Module E G Box E-55	KH100-1930-06	KH100-1930-06	KH100-1930-06
00A1196-017 002 707-P-17-00 Module E SE Door	KH100-1930-07	KH100-1930-07	KH100-1930-07
00A1196-018 002 707-P-18-00 Module E G Box E-25	KH100-1930-08	KH100-1930-08	KH100-1930-08
00A1196-019 002 707-P-19-00 Module G Door 103	KH100-1930-09	KH100-1930-09	KH100-1930-09
00A1196-020 002 707-P-20-00 Module G Door R131A	KH100-1930-10	KH100-1930-10	KH100-1930-10
Laboratory Control Sample (LC)	SCAQC-1930-LC1	SCAQC-1930-LC1	SCAQC-1930-LC1
Duplicate (LD)	SCAQC-1930-LD1	SCAQC-1930-LD1	SCAQC-1930-LD1
Preparation Blank (PB)	SCAQC-1930-PB	SCAQC-1930-PB	SCAQC-1930-PB

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Sanford Cohen & Associates
Southeastern Environmental Laboratory
1000 Monticello Court
Montgomery, Alabama 36117

Laboratory Code SCA Subcontract Number KH700325EP6

RIN 00A1196
LIC RC01B004
LIC RC01B001

Laboratory Report Identification Code 1929, 1930, 1931, 1932, 1933, 1940, 1928, 1939

Sample Matrix Waste

Site Sample Numbers	Laboratory Sample Number		
	Uranium	Plutonium	Americium
00A1196-021 002 707-P-21-00 Module G T-7GA23	KH100-1931-01	KH100-1931-01B	KH100-1931-01
00A1196-022 002 707-P-22-00 Module F E Wall Room 126	KH100-1931-02	KH100-1931-02B	KH100-1931-02
00A1196-023 002 707-P-23-00 Module F Doors 29 & 30	KH100-1931-03	KH100-1931-03B	KH100-1931-03
00A1196-024 002 707-P-24-00 Module F West Wall Rm 127	KH100-1931-04	KH100-1931-04B	KH100-1931-04
00A1196-025 002 707-P-25-00 Module H Near Doors 17&18	KH100-1931-05	KH100-1931-05B	KH100-1931-05
00A1196-026 002 707-P-26-00 Module H Outside Vault 6	KH100-1931-06	KH100-1931-06B	KH100-1931-06
00A1196-027 002 707-P-27-00 Module G Corridor R707-1-9	KH100-1931-07	KH100-1931-07B	KH100-1931-07
00A1196-028 002 707-P-28-00 Module H Outside SE Door	KH100-1931-08	KH100-1931-08B	KH100-1931-08
00A1196-029 002 707-P-29-00 Mod E Corr Outside Dor 26	KH100-1931-09	KH100-1931-09B	KH100-1931-09
00A1196-030 002 707-P-30-00 Corridor F Rm 171 East Wall	KH100-1931-10	KH100-1931-10B	KH100-1931-10
Laboratory Control Sample (LC)	SCAQC-1931-LC1	SCAQC-1931-LC1B	SCAQC-1931-LC1
Duplicate (LD)	SCAQC-1931-LD1	SCAQC-1931-LD1B	SCAQC-1931-LD1
Preparation Blank (PB)	SCAQC-1931-PB	SCAQC-1931-PBB	SCAQC-1931-PB

Site Sample Numbers	Laboratory Sample Number		
	Uranium	Plutonium	Americium
00A1196-031 002 707-P-31-00 Mod C Corr L Door 74 & 75	KH100-1932-01	KH100-1932-01	KH100-1932-01
00A1196-032 002 707-P-32-00 Module A Corridor 707-1-2	KH100-1932-02	KH100-1932-02	KH100-1932-02
00A1196-033 002 707-P-33-00 Mod A Outside Dor 32 & 33	KH100-1932-03	KH100-1932-03	KH100-1932-03
00A1196-034 002 707-P-34-00 Module K under G Box K-35	KH100-1932-04	KH100-1932-04B	KH100-1932-04B
00A1196-035 002 707-P-35-00 Module K Floor by SE Door	KH100-1932-05	KH100-1932-05	KH100-1932-05
00A1196-036 002 707-P-36-00 Mod K Floor by G-Box K-55	KH100-1932-06	KH100-1932-06	KH100-1932-06
00A1196-037 002 707-P-37-00 Mod K near G Box K-95	KH100-1932-07	KH100-1932-07	KH100-1932-07
00A1196-038 002 707-P-38-00 Mod K Floor Near SE Door	KH100-1932-08	KH100-1932-08	KH100-1932-08
00A1196-039 002 707-P-39-00 Mod J Floor Near GB-J-35	KH100-1932-09	KH100-1932-09	KH100-1932-09
00A1196-040 002 707-P-40-00 Mod J Floor Near GB J-15	KH100-1932-10	KH100-1932-10	KH100-1932-10
Laboratory Control Sample (LC)	SCAQC-1932-LC1	SCAQC-1932-LC1	SCAQC-1932-LC1
Duplicate (LD)	SCAQC-1932-LD1	SCAQC-1932-LD1B	SCAQC-1932-LD1B
Preparation Blank (PB)	SCAQC-1932-PB	SCAQC-1932-PB	SCAQC-1932-PB

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Southeastern Environmental Laboratory
1000 Monticello Court
Montgomery, Alabama 36117

Laboratory Code SCA Subcontract Number KH700325EP6

RIN 00A1196
LIC RC01B004
LIC RC01B001

Laboratory Report Identification Code 1929, 1930, 1931, 1932, 1933, 1940, 1928, 1939

Sample Matrix Waste

Site Sample Numbers	Laboratory Sample Number		
	Uranium	Plutonium	Americium
00A1196-021 002 707-P-41-00 Mod J Floor Near Furnace 210-066	KH100-1933-01	KH100-1933-01	KH100-1933-01
Laboratory Control Sample (LC)	SCAQC-1933-LC1	SCAQC-1933-LC1	SCAQC-1933-LC1
Duplicate (LD)	SCAQC-1933-LD1	SCAQC-1933-LD1	SCAQC-1933-LD1
Preparation Blank (PB)	SCAQC-1933-PB	SCAQC-1933-PB	SCAQC-1933-PB

Site Sample Numbers	Laboratory Sample Number		
	Uranium	Plutonium	Americium
00A1196-031 002 707-P-42-00 Bldg 731 Basement	KH100-1940-01	KH100-1940-01	KH100-1940-01
00A1196-032 002 707-P-43-00 Bldg 708 Floor	KH100-1940-02	KH100-1940-02	KH100-1940-02
00A1196-033 002 707-P-44-00 Bldg 708 Floor	KH100-1940-03	KH100-1940-03	KH100-1940-03
00A1196-034 002 707-P-45-00 Bldg 707 Roof	KH100-1940-04	KH100-1940-04	KH100-1940-04
00A1196-035 002 707-P-36-00 Bldg 707 Roof	KH100-1940-05	KH100-1940-05	KH100-1940-05
00A1196-036 002 707-P-63-00 Bldg 708 Roof	KH100-1940-06	KH100-1940-06	KH100-1940-06
Laboratory Control Sample (LC)	SCAQC-1933-LC1	SCAQC-1933-LC1	SCAQC-1933-LC1
Duplicate (LD)	SCAQC-1933-LD1	SCAQC-1933-LD1	SCAQC-1933-LD1
Preparation Blank (PB)	SCAQC-1933-PB	SCAQC-1933-PB	SCAQC-1933-PB

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Southeastern Environmental Laboratory
1000 Monticello Court
Montgomery, Alabama 36117

Laboratory Code SCA Subcontract Number KH700325EP6

RIN 00A1196
LIC RC01B004
LIC RC01B001

Laboratory Report Identification Code 1929, 1930, 1931, 1932, 1933, 1940, 1928, 1939

Sample Matrix Water

Site Sample Numbers	Laboratory Sample Number		
	Uranium	Plutonium	Americium
00A1196-055 002 707-R-55-00 Bldg 707	KH100-1928-01	KH100-1928-01	KH100-1928-01
00A1196-056 002 707-R-56-00 N/A	KH100-1928-02	KH100-1928-02	KH100-1928-02
Laboratory Control Sample (LC)	SCAQC-1928-LC1	SCAQC-1928-LC1	SCAQC-1928-LC1
Duplicate (LD)	SCAQC-1928-LD1	SCAQC-1928-LD1	SCAQC-1928-LD1
Preparation Blank (PB)	SCAQC-1928-PB	SCAQC-1928-PB	SCAQC-1928-PB

Site Sample Numbers	Laboratory Sample Number		
	Uranium	Plutonium	Americium
00A1196-063 002 707-R-63-00 N/A	KH100-1939-01	KH100-1939-01	KH100-1939-01
Laboratory Control Sample (LC)	SCAQC-1928-LC1	SCAQC-1928-LC1	SCAQC-1928-LC1
Duplicate (LD)	SCAQC-1928-LD1	SCAQC-1928-LD1	SCAQC-1928-LD1
Preparation Blank (PB)	SCAQC-1928-PB	SCAQC-1928-PB	SCAQC-1928-PB

Comments There were no problems encountered during sample receiving

"I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above Release of the data contained in this hard-copy sample data package and the computer-readable EDD, as applicable, submitted on diskette or by modem, has been authorized by the laboratory Manager or the Manager's designee, as verified by the following signature "

Joe Stinson
Signature

Joe Stinson
Name

Laboratory Manager
Title

5/15/00
Date

CASE NARRATIVE
RIN 00A1196
Laboratory Report Identification Number: 1929, 1930, 1931, 1932, 1933, 1940, 1928, 1939
PSA Module RC01B.3

May 15, 2000

I. Introduction

On May 2, 2000, 41 waste samples and two water samples, (RIN 00A1196), were received for analysis at the Sanford Cohen and Associates (SC&A) Southeastern Environmental Laboratory, located in Montgomery, Alabama On May 5, 2000, an additional six waste samples and one water sample were received The chain-of-custody accompanying the samples requested they be analyzed on a "rush" basis The samples were analyzed in accordance with Kaiser-Hill specifications stated in the "Statement of Work for Analytical Measurements, Isotopic Determinations by Alpha Spectrometry, Module RCO1-B 3", dated April 24, 1998, and Modification 09, dated July 16, 1998

II. Analytical Methodology

The radioanalytical results reported for each sample include the site and laboratory sample identification numbers, collection date, method of analysis, and the quality control samples that were analyzed concurrently All samples were analyzed by an Eichrom Industries, Inc extraction chromatography method (ACW03) for isotopic uranium, plutonium, and americium

III. Analytical Results

Deficiencies

The FWHM of the U-232 tracer in sample KH100-1929-01 was 82 keV

See Reanalysis

Matrix Interferences

There were no indications of matrix interference

Dilutions

No dilutions were required

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Detection Limits

The required detection limits (RDL) were met for all sample analyses

Reanalysis

Because of the high concentration of Pu-239 and Am-241 in sample KH100-1930-01, the tracer peaks and the radionuclide peaks of interest overlapped and an accurate identification and quantification could not be performed The sample volumes for analysis were reduced and the samples were reanalyzed beginning with preparation The results of the reanalysis were acceptable The Original and Reanalysis Sample I D are listed below

Original Laboratory Sample I D	Reanalysis Laboratory Sample I D	Analysis Type
KH100-1930-01	KH100-1930-01B	Pu-239
KH100-1930-01	KH100-1930-01B	Am-241

The Pu-239 results for samples KH100-1931-01 and its duplicate SCAQC-1931-LD1 did not pass the Quality Control Equivalency Test Therefore, all samples analyzed for Pu-239 in this batch were reanalyzed beginning with sample preparation The results of the reanalysis were acceptable The Original and Reanalysis Sample I D are listed below

Original Laboratory Sample I D	Reanalysis Laboratory Sample I D	Analysis Type
KH100-1931-01	KH100-1931-01B	Pu-239
KH100-1931-02	KH100-1931-02B	Pu-239
KH100-1931-03	KH100-1931-03B	Pu-239
KH100-1931-04	KH100-1931-04B	Pu-239
KH100-1931-05	KH100-1931-05B	Pu-239
KH100-1931-06	KH100-1931-06B	Pu-239
KH100-1931-07	KH100-1931-07B	Pu-239
KH100-1931-08	KH100-1931-08B	Pu-239
KH100-1931-09	KH100-1931-09B	Pu-239
KH100-1931-10	KH100-1931-10B	Pu-239
SCAQC-1931-PB	SCAQC-1031-PBB	Pu-239
SCAQC-1931-LC1	SCAQC-1931-LC1B	Pu-239
SCAQC-1931-LD1	SCAQC -1931-LD1B	Pu-239

Because of the high concentration of Pu-239 and Am-241 in samples KH100-1932-04 and its duplicate SCAQC-1932-LD1, the tracer peaks and the radionuclide peaks of interest overlapped and an accurate identification and quantification could not be performed The spectrums could not be processed by the software, and, therefore, there is no raw data for this original analysis The sample volumes for analysis were reduced and the samples were reanalyzed beginning with preparation The results of the reanalysis were acceptable The Original and Reanalysis Sample I D are listed below

Original Laboratory Sample I D	Reanalysis Laboratory Sample I D	Analysis Type
KH100-1932-04	KH100-1932-04B	Pu-239, Am-241
SCAQC-1932-LD1	SCAQC-1932-LD1B	Pu-239, Am-241

Deviations from Protocols

There were no deviations from the written protocols and analytical methods

Contacts with the CTR

There were no contacts with the contract technical representative (CTR) regarding these samples

IV. Quality Control

Site Samples Used for Quality Control Samples

Site Sample Number	Laboratory Sample Number	Type of Quality Control Analysis Sample
Laboratory Type II Water	SCAQC-1929-LC1	Laboratory Control Sample
002 002 A Module	SCAQC-1929-LD1	Laboratory Duplicate Sample
Laboratory Type II Water	SCAQC-1929-PB	Preparation Blank

Site Samples Used for Quality Control Samples

Site Sample Number	Laboratory Sample Number	Type of Quality Control Analysis Sample
Laboratory Type II Water	SCAQC-1930-LC1	Laboratory Control Sample
012 002 C Module	SCAQC-1930-LD1	Laboratory Duplicate Sample
Laboratory Type II Water	SCAQC-1930-PB	Preparation Blank

Site Samples Used for Quality Control Samples

Site Sample Number	Laboratory Sample Number	Type of Quality Control Analysis Sample
Laboratory Type II Water	SCAQC-1931-LC1	Laboratory Control Sample
021 002 Module G	SCAQC-1931-LD1	Laboratory Duplicate Sample
Laboratory Type II Water	SCAQC-1931-PB	Preparation Blank

Site Samples Used for Quality Control Samples

Site Sample Number	Laboratory Sample Number	Type of Quality Control Analysis Sample
Laboratory Type II Water	SCAQC-1932-LC1	Laboratory Control Sample
034 002 Mod K	SCAQC-1932-LD1	Laboratory Duplicate Sample
Laboratory Type II Water	SCAQC-1932-PB	Preparation Blank

Site Samples Used for Quality Control Samples

Site Sample Number	Laboratory Sample Number	Type of Quality Control Analysis Sample
Laboratory Type II Water	SCAQC-1933-LC1	Laboratory Control Sample
041 002 Mod J	SCAQC-1933-LD1	Laboratory Duplicate Sample
Laboratory Type II Water	SCAQC-1933-PB	Preparation Blank

Site Samples Used for Quality Control Samples

Site Sample Number	Laboratory Sample Number	Type of Quality Control Analysis Sample
Laboratory Type II Water	SCAQC-1928-LC1	Laboratory Control Sample
055 002 Bldg 707	SCAQC-1928-LD1	Laboratory Duplicate Sample
Laboratory Type II Water	SCAQC-1928-PB	Preparation Blank

Six of the soil samples received on 5/5/00, RIN 00A1196 (Batch No 1940), were analyzed concurrently with one soil sample received on 5/2/00, RIN 00A1196, (Batch No 1933) Therefore, the Laboratory Control Sample (SCAQC-1933-LC1), the Laboratory Duplicate Sample (SCAQC-1933-LD1), and the Preparation Blank (SCAQC-1933-PB) were used as quality control samples for both sample batches

One of the water samples received on 5/5/00, RIN 00A1196 (Batch No 1939), was analyzed concurrently with two water samples received on 5/2/00, RIN 00A1196, (Batch No 1928) Therefore, the Laboratory Control Sample (SCAQC-1928-LC1), the Laboratory Duplicate Sample (SCAQC-1928-LD1), and the Preparation Blank (SCAQC-1928-PB) were used as quality control samples for both sample batches

The analytical results of all quality control samples met the acceptance criteria specified in the SOW

Sincerely,

Joe Stinson

Joe Stinson
Laboratory Manager

5/16/00
Date

Commo[illegible] dvanced Sciences, Inc

RFETS

CHAIN OF CUSTOD[illegible]MPLE ANALYSIS REQUEST

COC # [illegible] 1196#013

Page 1 of 2

Sampler(s) 1/1 Hershey 51692 / [illegible] 325/179 (time/date)	Contact/Requester SZYDLOWSKI, TOM	Telephone No 8165	MSIN N/A FAX
RIN 00A1196	Sampling Origin 707	Purchase Order/Charge Code NG2200B1	
Project Title Paint Sampling	Logbook No 1999 Step Van	Ice Chest No	Temp N/A
To (Lab) S Cohen & Associates	Method of Shipment Fed Ex	Bill of Lading/Air Bill No 4533 2125 9720	
Protocol CAS-SOP 003	Related COC (if any) N/A	PRE	

POSSIBLE SAMPLE HAZARDS/REMARKS
Are acid preserved samples DOT hazardous per 40 CFR Part 136 3 Table II? YES or NO
Are other known hazardous substances present? YES or NO
** ** **

SCREENING REQUIRED ☐

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption Yes ☐ No ☐

KH100 1929

Bottle No	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative Packing
00A1196-001 002	707-P-01-00	WASTE	4/25/00	17'10	A-Module	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 01	None None
00A1196-002 002	707-P-02-00	WASTE		17'40		10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 02	None None
00A1196-003 002	707-P-03-00	WASTE		18'20		10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] 03	None None
00A1196-004 002	707-P-04-00	WASTE		18'30		10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 04	None None
00A1196-005 002	707-P-05-00	WASTE		19'05	B-Module	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 05	None None
00A1196-006 002	707-P-06-00	WASTE		19'20		10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 06	None None
00A1196-007 002	707-P 07-00	WASTE		19'45		10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 07	None None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
Hershey	4/25/00 22 30	T891R Ref #2	4/25/00 22 30	T891R Ref. #2	5-1-00/1400	S Miller	5-1-00/1400
S Miller	5-1-00/1500	Fed Ex				C. Owens SCA	5/2/00 915

FINAL SAMPLE DISPOSITION	Disposal Method (e g returned to customer disposed of per lab procedure used in analytical process)	Disposed By	Date/Time

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Commo[illegible] dvanced Sciences, Inc.

CHAIN OF CUSTOD[illegible]MPLE ANALYSIS REQUEST

COC # [illegible] 196#013

RIN	Contact/Requestor	Telephone No	MSIN	FAX
00A1196	SZYDLOWSKI, TOM	8165		

Bottle No	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis KN100 1929	Preservative Packing
00A1196-008 002	707-R08-00	WASTE	4/25/00	20:05	B-Module	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 08	None None

4/25/00 MM

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
Hershey	4/25/00 22 30	T891R Ref #2	4/25/00 22:30	T891R Ref #2	5-1-00/1400	L. Miller	5-1-00/1400
L. Miller	5-1-00/1500	Fed Ex				C. Owen SCA	5/2/00 9:15

FINAL SAMPLE DISPOSITION	Disposal Method (e g returned to customer disposed of per lab procedure used in analytical process)	Disposed By	Date/Time

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Commo[redacted] dvanced Sciences, Inc.

RFETS

CHAIN OF CUSTOD[redacted]MPLE ANALYSIS REQUEST

COC # [redacted] 1196#014

Page 1 of 1

Sampler(s) [signature] / Hershey 51427 (time/date)	Contact/Requester SZYDLOWSKI, TOM	Telephone No 8165 MSIN	FAX 4046
RIN 00A1196 528279	Sampling Origin Bldg. 707	Purchase Order/Charge Code NG2200B1	
Project Title Paint Sampling	Logbook No 1999 Step Van	Ice Chest No	Temp ~~N/A~~ MH
To (Lab) S Cohen & Associates	Method of Shipment Sample Team	Bill of Lading/Air Bill No ~~N/A~~ MH 4533212 9770	
Protocol CAS-SOP.003	Related COC (if any) N/A	PRE ~~N/A~~ MH	

POSSIBLE SAMPLE HAZARDS/REMARKS
Are acid preserved samples DOT hazardous per 40 CFR Part 136 3 Table II? YES or NO
Are other known hazardous substances present? YES or NO
** ** **

SCREENING REQUIRED ☐

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption Yes ☐ No ☐

KH100 1929

Bottle No	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative Packing
00A1196-009 002	707-P-09-00	WASTE	4/26/00	13:15	C-Module Floor Liner N.W. Door	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 09	None None
00A1196-010 002	707-P-10-00	WASTE		13:25	C-Module Floor under GB-C110	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 010	None None
00A1196-011 002	707-P-11-00	WASTE		13:48	C-Module Floor under GB-C-120	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] KH100 1930 -01	None None
00A1196-012 002	707-P-12-00	WASTE		14:42	C-Module Floor Near HCA-C-60	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 02	None None

4/26/00 MH

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
M. Hershey	4/26/00 16:05	T891R Ref. #2	4/26/00 16:05	T891R Ref. #2	5-1-00/1400	L. Miller	5-1-00/1400
L. Miller	5-1-00/1500	Fed Ex				C. Owen SCA	5/2/00 915

FINAL SAMPLE DISPOSITION: Disposal Method (e g returned to customer disposed of per lab procedure used in analytical process) Disposed By Date/Time

009

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Commo[illegible] dvanced Sciences, Inc.

RFETS

CHAIN OF CUSTOD[illegible]MPLE ANALYSIS REQUEST

COC # [illegible] 1196#002

Sampler(s) Nershey 5169271 / [illegible] 525174 (time/date)	Contact/Requester SZYDLOWSKI, TOM	Telephone No 8165 MSIN FAX N/A
RIN 00A1196	Sampling Origin Bldg 707	Purchase Order/Charge Code NG2200B1
Project Title Paint Sampling	Logbook No 1999 Step Van	Ice Chest No 014 Temp N/A
To (Lab) S Cohen & Associates	Method of Shipment Fed Ex	Bill of Lading/Air Bill No 4533 2125 9729
Protocol GAS-SOP 003	Related COC (if any) N/A	PRE

POSSIBLE SAMPLE HAZARDS/REMARKS
Are acid preserved samples DOT hazardous per 40 CFR Part 136 3 Table II? YES or NO
Are other known hazardous substances present? YES or NO
** ** **

SCREENING REQUIRED ☐

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption Yes ☐ No ☐

K4/00 1930

Bottle No	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative Packing
00A1196-013 002	707-P-13-00	WASTE	4/27/00	12:50	Module D Door 76+77	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 03	None None
00A1196-014 002	707-P-14-00	WASTE		13:20	Module D GBox D-20	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 04	None None
00A1196-015 002	707-P-15-00	WASTE		13 35	Module D Con 8-1	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 05	None None
00A1196-016 002	707-P-16-00	WASTE		14:20	Module E GBox E-55	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 06	None None
00A1196-017 002	707-P-17-00	WASTE		14:37	Module E SE Door	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 07	None None
00A1196-018 002	707-P-18-00	WASTE		18:07	Module E GBox E-25	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 08	None None
00A1196-019 002	707-P-19-00	WASTE		14:40	Module G Door 103	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 09	None None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
Nershey	4/27/00 22 50	T891R Ref #2	4/27/00 22:50	T89/R Ref #2	5-1-00/1400	[illegible]	5-1-00/1400
L. Miller	5-1-00/1500	Fed Ex				C. Durm SCA	5/2/00 915

FINAL SAMPLE DISPOSITION: Disposal Method (e g returned to customer disposed of per lab procedure used in analytical process) Disposed By Date/Time

010

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Commo[illegible] dvanced Sciences, Inc

CHAIN OF CUSTOD[illegible]AMPLE ANALYSIS REQUEST

COC # [illegible] .196#002

RIN	Contact/Requestor	Telephone No	MSIN	FAX
00A1196	SZYDLOWSKI, TOM	8165		

Bottle No	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis KN100 1930	Preservative Packing
00A1196-020 002	707-P-20-00	WASTE	4/27/00	14:45	Module G Door R13A	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -010	None None
00A1196-021 002	707-P-21-00	WASTE		15:05	Module G T-76A23	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] KN100 1931-01	None None
00A1196-022 002	707-P-22-00	WASTE		20:40	Module F E Wall Room 126	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -02	None None
00A1196-023 002	707-P-23-00	WASTE		21:10	Module F Doors 29+30	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -03	None None
00A1196-024 002	707-P-24-00	WASTE		21:26	Module F West Wall RM 127	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -04	None None
00A1196-055 002	707-R-55-00	AQUEOUS		13:00	Bldg 707	4-L / P /1	RC01B001 (Isotopic Water) [Rush] KN100 1928-01	HN03 None

4/27/00 MN

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
Hershey	4/27/00 22:50	T891R Ref #2	4/27/00 22:50	T891R Ref #2	5-1-00/1400	L. Miller	5-1-00/1400
L. Miller	5-1-00/1500	Fed Ex				C. Owens SCA	5/2/00 915

FINAL SAMPLE DISPOSITION	Disposal Method (e g returned to customer disposed of per lab procedure used in analytical process)	Disposed By	Date/Time

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Commo[illegible] dvanced Sciences, Inc.

RFETS

CHAIN OF CUSTOD[illegible]AMPLE ANALYSIS REQUEST

COC # [illegible] .1196#004

Page 1 of 2

Sampler(s) Nershey 516927 / [illegible] 525179 (time/date)	Contact/Requester SZYDLOWSKI, TOM	Telephone No 8165 MSIN	FAX N/A
RIN 00A1196	Sampling Origin Bldg 707	Purchase Order/Charge Code NG2200B1	
Project Title Paint Sampling	Logbook No 1999 Step Van	Ice Chest No 014	Temp N/A
To (Lab) S Cohen & Associates	Method of Shipment Fed Ex	Bill of Lading/Air Bill No 4533 2125 9720	
Protocol CAS-SOP.003	Related COC (if any) N/A	PRE	

POSSIBLE SAMPLE HAZARDS/REMARKS
Are acid preserved samples DOT hazardous per 40 CFR Part 136 3 Table II? YES or NO
Are other known hazardous substances present? YES or NO
** ** **

SCREENING REQUIRED ☐

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption Yes ☐ No ☐

KN100 1931

Bottle No	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative Packing
00A1196-025 002	707-P-25-00	WASTE	4/28/00	06:12	Module H near doors 17+18	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -05	None None
00A1196-026 002	707-P-26-00	WASTE		06:51	Module H outside Vault 6	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -06	None None
00A1196-027 002	707-P-27-00	WASTE		09:25	Module G Corridor R 707-1-9	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -07	None None
00A1196-028 002	707-P-28-00	WASTE		09:45	Modle H Outside SE Door	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -08	None None
00A1196-029 002	707-P-29-00	WASTE		09:58	Module E Corridor Outside Door 26	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -09	None None
00A1196-030 002	707-P-30-00	WASTE		10:14	Corridor F Rm 171 East Wall	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -010	None None
00A1196-031 002	707-P-31-00	WASTE		10:53	Module C Corridor L Door 74+75	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] KN100 1932 01	None None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
M Nershey	4/28/00 1345	T891R Ref#2	4/28/00 1345	T891R Ref. #2	5-1-00/1400	S. Miller	5-1-00/1400
S. Miller	5-1-00/1500	Fed Ex				[illegible] SCA	5/2/00 0[illegible]8

FINAL SAMPLE DISPOSITION	Disposal Method (e g returned to customer disposed of per lab procedure used in analytical process)	Disposed By	Date/Time

012

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Comm[illegible] dvanced Sciences, Inc

CHAIN OF CUSTOD[illegible]AMPLE ANALYSIS REQUEST

COC # [illegible] 196#004

RIN	Contact/Requestor	Telephone No	MSIN	FAX
00A1196	SZYDLOWSKI, TOM	8165		

	Bottle No	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis PO 1932	Preservative Packing
‡	00A1196-032 002	707-P-32-00	WASTE	4/28/00	11 08	Module A Corridor 707-1-2	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -02	None None
‡	00A1196-033 002	707-P-33-00	WASTE	↓	11:19	Module A outside Doors 32 & 33	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -03	None None

4/28/00 MN

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
M. Hershey	4/28/00 1345	T89/R Ref.#2	4/28/00 1345	T89/R Ref.#2	5-1-00/1400	D. Miller	5-1-00/1400
D. Miller	5-1-00/1500	Fed Ex				C. Owen SCA	5/2/00 915

FINAL SAMPLE DISPOSITION: Disposal Method (e g returned to customer disposed of per lab procedure used in analytical process) | Disposed By | Date/Time

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Comm[illegible] [illegible]dvanced Sciences, Inc

RFETS

CHAIN OF CUSTOD[illegible]AMPLE ANALYSIS REQUEST

COC # [illegible] .1196#015

Page 1 of 2

Sampler(s) Hershey 516927 / [signature] (time/date)	Contact/Requester SZYDLOWSKI, TOM	Telephone No 8165	MSIN N/A FAX N/A
RIN 00A1196	Sampling Origin Bldg. 707	Purchase Order/Charge Code NG2200B1	
Project Title ~~GAS~~ Paint Sampling	Logbook No 1999 Step Van	Ice Chest No 014	Temp N/A
To (Lab) S Cohen & Associates	Method of Shipment Fed Ex	Bill of Lading/Air Bill No 4533 2125 9720	
Protocol CAS-SOP. 003	Related COC (if any) N/A	PRE	

POSSIBLE SAMPLE HAZARDS/REMARKS
Are acid preserved samples DOT hazardous per 40 CFR Part 136 3 Table II? YES or NO
Are other known hazardous substances present? YES or NO
** ** **

SCREENING REQUIRED ☐

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption Yes ☐ No ☐
Started .056 (rinsate) on 4/29/00 + completed on 4/29/00
KH/00 1932

	Bottle No	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative Packing
#	00A1196-034 002	707-P-34-00	WASTE	4/29/00	14:31	Mod. K under GBox K-35	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -04	None None
#	00A1196-035 002	707-P-35-00	WASTE		14:54	Mod K Floor by SE Door	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -05	None None
#	00A1196-036 002	707-P-36-00	WASTE		15:05	Mod K Floor by G-Box K-55	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -06	None None
#	00A1196-037 002	707-P-37-00	WASTE		15:10	Mod K near GBox K-95	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -07	None None
#	00A1196-038 002	707-P-38-00	WASTE		15:39	Mod K Floor near SE Door	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -08	None None
#	00A1196-039 002	707-P-39-00	WASTE		15:42	Mod J floor near GB-J-35	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -09	None None
#	00A1196-040 002	707-P-40-00	WASTE		15:50	Mod J floor near GB J-15	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -010	None None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
M. Hershey	4/29/00 19:00	T891R Ref #2	4/29/00 19:00	T891R Ref #2	5-1-00/1400	L Miller	5-1-00/1400
L. Miller	5-1-00/1500	Fed Ex				C Owen SCA	5/2/00 915

014

FINAL SAMPLE DISPOSITION	Disposal Method (e g returned to customer disposed of per lab procedure used in analytical process)	Disposed By	Date/Time

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Comm[illegible] Advanced Sciences, Inc.

CHAIN OF CUSTOD[illegible] SAMPLE ANALYSIS REQUEST

COC # [illegible]196#015

RIN	Contact/Requestor	Telephone No	MSIN	FAX
00A1196	SZYDLOWSKI, TOM	8165		

	Bottle No	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis KH100 1933	Preservative Packing
#	00A1196-041 002	707-P-41-00	WASTE	4/29/00	16:05	Mod J floor near fluoro Z10-0666	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 01	None None
#	00A1196-056 002	707-R-56-00	AQUEOUS	4/28/00	06:20	N/A	4-L / P /1	RC01B001 (Isotopic Water) [Rush] KH100 1928 - 02	HN03 None

4/29/00 MN

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
M Hershey	4/29/00 19:00	T891R Rej #2	4/29/00	T891R Ref. #2	5-1-00/1400	L Miller	5-1-00/1400
L Miller	5-1-00/1500	Fed Ex				C Owen SCA	5/2/00 915

FINAL SAMPLE DISPOSITION | Disposal Method (e g returned to customer disposed of per lab procedure used in analytical process) | Disposed By | Date/Time

015

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Commod[illegible] dvanced Sciences, In[illegible]

RFETS

CHAIN OF CUSTODY/[illegible]MPLE ANALYSIS REQUEST

COC # [illegible] 1196#016

Page 1 of 1

Sampler(s) M. Nershey 516927 / [illegible] 5/3/00 (time/date)	Contact/Requester SZYDLOWSKI, TOM	Telephone No 8165 MSIN N/A FAX N/A
RIN 00A1196	Sampling Origin Bldg 707	Purchase Order/Charge Code NG2200B1
Project Title Paint Scraping	Logbook No 1999 Step Van	Ice Chest No 014 Temp N/A
To (Lab) S Cohen & Associates	Method of Shipment Fed Ex.	Bill of Lading/Air Bill No
Protocol CAS-SOP. 003	Related COC (if any) N/A	PRE

POSSIBLE SAMPLE HAZARDS/REMARKS
Are acid preserved samples DOT hazardous per 40 CFR Part 136 3 Table II? YES or NO
Are other known hazardous substances present? YES or NO
** ** **

SCREENING REQUIRED ☐

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption Yes ☐ No ☐
Tars may be present for event 045+046
Purge was started on 4/29/00 + completed on 5/3/00

Bottle No	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis KN100 1940	Preservative Packing
00A1196-042 002	707-P-42-00	WASTE	5/3/00	10:15	Bldg 731 Basement	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -01	None None
00A1196-043 002	707-P-43-00	WASTE		10:49	Bldg 708 Floor	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -02	None None
00A1196-044 002	707-P-44-00	WASTE		11 15	Bldg. 708 Floor	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -03	None None
00A1196-045 002	707-P-45-00	WASTE		13 15	Bldg 707 Roof	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -04	None None
00A1196-046 002	~~707-46-00~~ 5/3/00 707-P-46-00	WASTE		13 24	Bldg 707 Roof	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -05	None None
00A1196-047 002	707-P-47-00	WASTE		13:47	Bldg 708 Roof	10-G / P/G /1	RC01B004 (Isotopic Waste) [Rush] -06	None None
00A1196-063 002	707-R-63-00	AQUEOUS	4/29/00	16:00	N/A	4-L / P /1	RC01B001 (Isotopic Water) [Rush] KN100 1939 01	HN03 None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
M Nershey	5/3/00 15:54	T891R Rep. #2	5/3/00 15:54	T841R Rep #2	5/4/00 1500	[illegible]	5/4/00 1500
[illegible]	5/4/00 1530	Fed EX				C Owens SCA	5/5/00 930

FINAL SAMPLE DISPOSITION: Disposal Method (e g returned to customer disposed of per lab procedure used in analytical process) | Disposed By | Date/Time

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PREPARATION SUMMARY

Sample Volume Received

Sample Prefix: KH100
Sample Batch Number: 1929
Balance I D 1133

Sample Matrix: Waste

SOP No : 302

Sample Number	Approximate Weight or Volume of Sample Received (g-wet of L)	Initials Date
01	6.93	CU 5/24/00
02	7.40	
03	6.50	
04	6.47	
05	5.49	
06	7.80	
07	8.00	
08	7.66	
09	6.91	
10	7.66	

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SCA-Form 302-1 Rev 0

PREPARATION SUMMARY

Sample Volume Received

Sample Prefix KU100
Sample Batch Number 1930
Balance I.D 1133

Sample Matrix Water

SOP No 302

Sample Number	Approximate Weight or Volume of Sample Received (g-wet or L)	Initials Date
01	4.06	CD 5/31/00
02	5.89	
03	7.12	
04	7.41	
05	7.67	
06	6.83	
07	6.59	
08	10.38	
09	8.46	
010	6.64	

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SCA-Form 302-1 Rev 0

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PREPARATION SUMMARY

Sample Volume Received

Sample Prefix KW100 Sample Matrix Water SOP No 302
Sample Batch Number 1931
Balance I D. 1133

Sample Number	Approximate Weight or Volume of Sample Received (g-wet of L)	Initials Date
01	7.89	CO 5/2/00
02	10.45	
03	7.43	
04	6.27	
05	6.55	
06	5.53	
07	11.44	
08	7.70	
09	9.12	
010	2.97	

SC&A Southeastern Environmental Laboratory
SCA-Form 302-1 Rev 0

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PREPARATION SUMMARY

Sample Volume Received

Sample Prefix. KH100
Sample Batch Number 1932
Balance I D 1133

Sample Matrix Waste

SOP No 349

Sample Number	Approximate Weight or Volume of Sample Received (g-wet of L)	Initials Date
01	9.41	CD 5/2/00
02	7.83	
03	7.88	
04	7.04	
05	8.66	
06	8.46	
07	8.78	
08	11.12	
09	7.26	
010	11.09	

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SCA-Form 302-1 Rev 0

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PREPARATION SUMMARY

Sample Volume Received

Sample Prefix KH100 Sample Matrix Waste SOP No 302

Sample Batch Number 1933

Balance I D 1133

Sample Number	Approximate Weight or Volume of Sample Received (g-wet of L)	Initials Date
01	6.03	CO 5/22/00

SC&A - Southeastern Environmental Laboratory

SCA-Form 302-1 Rev 0

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PREPARATION SUMMARY

Sample Volume Received

Sample Prefix: 14K100
Sample Batch Number 1940
Balance I D

Sample Matrix Waste

SOP No . 302

Sample Number	Approximate Weight or Volume of Sample Received (g-wet of L) g dry	Initials Date
01	10.45	CO 5/5/00
02	6.08	↓
03	7.03	↓
04	13.81	↓
05	8.03	↓
06	10.73	↓

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SCA Form 302 1 Rev 0

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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1196#002/015	Matrix	Water
Site Sample ID	055 002				
Other Sample ID	BLDG 707	Collection Date	4/27/00	Date Received	5/2/00
		Batch Number	1928	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/L)	2 σ Counting Error (pCi/L)	Total Error (pCi/L)	MDA (pCi/L)
ACW03	U-233/234	KH100-1928-01	0 015	0 015	0 015	0 010
ACW03	U-235	KH100-1928-01	-0 002	0 004	0 004	0 022
ACW03	U-238	KH100-1928-01	0 002	0 008	0 008	0 017
ACW03	PU-239/240	KH100-1928-01	0 049	0 021	0 023	0 015
ACW03	AM-241	KH100-1928-01	0 052	0 020	0 023	0 005

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Pu	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Am	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB

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025

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 055
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID
CUSTOMER SAMPLE ID 707-R-55-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID
TRIP BLANK

Comments/Problems encountered during sampling: [redacted] for events .001-.020. Used all our clean chisel up before we started rinsate.

Location Description: Bldg 707

Other ID: 707-R-55-00

Sample Appearance: Clean liquid

Sampling Device Direct Pour

Start - 4/24 Time 13 00

7 unused Sample Date 4/27/00 Sample Time 18:15 Rad Screen Sample Date 4/26/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signat[redacted]

Employe[redacted]

Date 4/26/00 4/26/00

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Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1196#002/015	Matrix	Water
Site Sample ID	056 002				
Other Sample ID	N/A	Collection Date	4/27/00	Date Received	5/2/00
		Batch Number	1928	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/L)	2 σ Counting Error (pCi/L)	Total Error (pCi/L)	MDA (pCi/L)
ACW03	U-233/234	KH100-1928-02	0 009	0 015	0 015	0 023
ACW03	U-235	KH100-1928-02	-0 001	0 012	0 012	0 031
ACW03	U-238	KH100-1928-02	0 011	0 017	0 017	0 025
ACW03	PU-239/240	KH100-1928-02	0 031	0 014	0 016	0 004
ACW03	AM-241	KH100-1928-02	0 017	0 011	0 011	0 005

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Pu	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Am	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB

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026

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 0516
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID. _____
CUSTOMER SAMPLE ID 707-R-56-00
FIELD BLANK ID N/A
EQUIPMENT BLANK ID ↓
TRIP BLANK ↓

Comments/Problems encountered during sampling [redacted] for clients 021-040.

Location Description Bldg. 707

Other ID 707-R-56-00

Sample Appearance: Clear liquid

Sampling Device Direct Pour
Start date 4/28/00 Time: 0620
Complete Sample Date 4/29/00 Sample Time 16:00 Rad Screen Sample Date 4/28/00

Was generator notified to receive excess sample? (Yes) X (No) _____

Sampler's Signature [redacted]

Employee Numbe[redacted]

Date 4/28/00 4/28/00

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Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1196#016	Matrix	Water
Site Sample ID	063 002				
Other Sample ID	N/A	Collection Date	4/29/00	Date Received	5/5/00
		Batch Number	1939	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/L)	2 σ Counting Error (pCi/L)	Total Error (pCi/L)	MDA (pCi/L)
ACW03	U-233/234	KH100-1939-01	0 014	0 016	0 016	0 019
ACW03	U-235	KH100-1939-01	0 000	0 000	0 000	0 013
ACW03	U-238	KH100-1939-01	0 005	0 012	0 012	0 022
ACW03	PU-239/240	KH100-1939-01	0 006	0 006	0 006	0 004
ACW03	AM-241	KH100-1939-01	0 003	0 006	0 006	0 010

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068

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 063
DUPLICATE ID. N/A
ISSUE DATE. 4/21/00

WASTE STREAM ID 336
CUSTOMER SAMPLE ID 707-R-63-00
FIELD BLANK ID N/A
EQUIPMENT BLANK ID ↓
TRIP BLANK ↓

Comments/Problems encountered during sampling Duplicate for events 041-047

Location Description Bldg. 707, 708, 731

Other ID N/A

Sample Appearance Clear Liquid

Sampling Device Direct Pour
Start Date 4/29/00 Start time 16:00
Sample Date 5/3/00 Sample Time 14:25 Rad Screen Date 5/3/00

Was generator notified to receive excess sample? (YES) X (NO) _____

Samplers Signa[redacted]
Employee Numb[redacted]

Date 5/3/00 5/3/00

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Radioanalytical Results

Quality Control Sample
Preparation Blank (PB)

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	None	Matrix	Water
Site Sample ID	Blank 1				
Other Sample ID	PB	Collection Date	5/2/00	Date Received	5/2/00
				Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (dpm)	2 σ Counting Error (dpm)	Total Error (dpm)	MDA (dpm)
ACW03	U-233/234	SCAQC-1929-PB	0 036	0 050	0 050	0 067
ACW03	U-235	SCAQC-1929-PB	0 010	0 037	0 037	0 083
ACW03	U-238	SCAQC-1929-PB	0 008	0 030	0 030	0 067
ACW03	PU-238	SCAQC-1929-PB	-0 012	0 017	0 017	0 085
ACW03	PU-239/240	SCAQC-1929-PB	-0 024	0 024	0 025	0 104
ACW03	AM-241	SCAQC-1929-PB	0 050	0 069	0 069	0 092

Quality Control Samples			
Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

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Radioanalytical Results

Quality Control Sample
Preparation Blank (PB)

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	None	Matrix	Water
Site Sample ID	Blank 2				
Other Sample ID	PB	Collection Date	5/2/00	Date Received	5/2/00
				Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (dpm)	2 σ Counting Error (dpm)	Total Error (dpm)	MDA (dpm)
ACW03	U-233/234	SCAQC-1930-PB	0 084	0 075	0 077	0 072
ACW03	U-235	SCAQC-1930-PB	0 052	0 079	0 080	0 117
ACW03	U-238	SCAQC-1930-PB	0 054	0 061	0 062	0 072
ACW03	PU-238	SCAQC-1930-PB	0 016	0 137	0 137	0 229
ACW03	PU-239/240	SCAQC-1930-PB	0 036	0 059	0 060	0 092
ACW03	AM-241	SCAQC-1930-PB	0 048	0 066	0 066	0 088

Quality Control Samples			
Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

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Radioanalytical Results

Quality Control Sample
Preparation Blank (PB)

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	None	Matrix	Water
Site Sample ID	Blank 3				
Other Sample ID	PB	Collection Date	5/2/00	Date Received	5/2/00
				Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (dpm)	2 σ Counting Error (dpm)	Total Error (dpm)	MDA (dpm)
ACW03	U-233/234	SCAQC-1931-PB	0 003	0 037	0 037	0 090
ACW03	U-235	SCAQC-1931-PB	0 035	0 073	0 074	0 124
ACW03	PU-238	SCAQC-1931-PBB	-0 016	0 128	0 128	0 227
ACW03	U-238	SCAQC-1931-PB	0 044	0 067	0 068	0 100
ACW03	PU-239/240	SCAQC-1931-PBB	0 003	0 037	0 037	0 091
ACW03	AM-241	SCAQC-1931-PB	0 021	0 043	0 043	0 058

Quality Control Samples			
Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

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Radioanalytical Results

Quality Control Sample
Preparation Blank (PB)

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	None	Matrix	Water
Site Sample ID	Blank 4				
Other Sample ID	PB	Collection Date	5/2/00	Date Received	5/2/00
				Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (dpm)	2 σ Counting Error (dpm)	Total Error (dpm)	MDA (dpm)
ACW03	U-233/234	SCAQC-1932-PB	0 066	0 065	0 066	0 068
ACW03	U-235	SCAQC-1932-PB	0 028	0 052	0 053	0 084
ACW03	U-238	SCAQC-1932-PB	0 037	0 051	0 051	0 068
ACW03	PU-238	SCAQC-1932-PB	0 000	0 000	0 000	0 053
ACW03	PU-239/240	SCAQC-1932-PB	0 019	0 039	0 039	0 053
ACW03	AM-241	SCAQC-1932-PB	0 042	0 059	0 060	0 057

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

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Radioanalytical Results

Quality Control Sample
Preparation Blank (PB)

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	None	Matrix	Water
Site Sample ID	Blank 5				
Other Sample ID	PB	Collection Date	5/2/00	Date Received	5/2/00
				Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (dpm)	2 σ Counting Error (dpm)	Total Error (dpm)	MDA (dpm)
ACW03	U-233/234	SCAQC-1933-PB	0 025	0 047	0 047	0 076
ACW03	U-235	SCAQC-1933-PB	0 039	0 056	0 057	0 053
ACW03	U-238	SCAQC-1933-PB	-0 013	0 018	0 018	0 089
ACW03	PU-238	SCAQC-1933-PB	-0 026	0 111	0 111	0 208
ACW03	PU-239/240	SCAQC-1933-PB	0 003	0 037	0 037	0 091
ACW03	AM-241	SCAQC-1933-PB	0 010	0 038	0 038	0 084

Quality Control Samples			
Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1933-LC1	SCAQC-1933-LD1	SCAQC-1933-PB
Pu	SCAQC-1933-LC1	SCAQC-1933-LD1	SCAQC-1933-PB
Am	SCAQC-1933-LC1	SCAQC-1933-LD1	SCAQC-1933-PB

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Radioanalytical Results

Quality Control Sample
Preparation Blank (PB)

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	None	Matrix	Water
Site Sample ID	Blank 8				
Other Sample ID	PB	Collection Date	5/2/00	Date Received	5/2/00
				Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/L)	2 σ Counting Error (pCi/L)	Total Error (pCi/L)	MDA (pCi/L)
ACW03	U-233/234	SCAQC-1928-PB	0 006	0 011	0 011	0 018
ACW03	U-235	SCAQC-1928-PB	0 000	0 000	0 000	0 012
ACW03	U-238	SCAQC-1928-PB	0 004	0 011	0 011	0 021
ACW03	PU-239/240	SCAQC-1928-PB	0 001	0 005	0 005	0 009
ACW03	AM-241	SCAQC-1928-PB	0 001	0 006	0 006	0 010

Quality Control Samples			
Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Pu	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Am	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB

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Radioanalytical Results

Quality Control Sample Evaluation

Report Identification Number 00A1196

Project Name Kaiser-Hill | Laboratory Code SCA

Laboratory Contol Sample (LC1) Evaluation

Method Number	Radionuclide	Laboratory Sample ID	(CV) Decay Corrected Activity of Spike Added ~~(pCi/L)~~ dpm	(OV) Laboratory Control Sample Activity ~~(pCi/L)~~ dpm	Laboratory Control Sample % Recovery (Accuracy)	Number of σ Between CV and OV
ACW03	AM-241	* SCAQC-1928-LC1	2 16 ∓ 0 206	2 20 ∓ 0 510	102	0 084
ACW03	PU-239/240	* SCAQC-1928-LC1	1 97 ∓ 0 098	2 01 ∓ 0 461	102	0 137
ACW03	U-233/234	* SCAQC-1928-LC1	3 61 ∓ 0 145	3 11 ∓ 0 740	86 0	1 00
ACW03	U-238	* SCAQC-1928-LC1	3 61 ∓ 0 145	3 36 ∓ 0 795	93 1	0 464
ACW03	AM-241	SCAQC-1929-LC1	4 81 ∓ 0 457	5 23 ∓ 1 43	109	0 430
ACW03	PU-239/240	SCAQC-1929-LC1	4 37 ∓ 0 218	4 23 ∓ 1 12	96 8	0 190
ACW03	U-233/234	SCAQC-1929-LC1	8 02 ∓ 0 321	6 79 ∓ 1 61	84 6	1 12
ACW03	U-238	SCAQC-1929-LC1	8 02 ∓ 0 321	7 59 ∓ 1 79	94 6	0 358
ACW03	AM-241	SCAQC-1930-LC1	4 81 ∓ 0 457	4 72 ∓ 1 29	98 3	0 089
ACW03	PU-239/240	SCAQC-1930-LC1	4 37 ∓ 0 218	4 44 ∓ 1 15	102	0 096
ACW03	U-233/234	SCAQC-1930-LC1	8 02 ∓ 0 321	7 00 ∓ 1 67	87 2	0 903
ACW03	U-238	SCAQC-1930-LC1	8 02 ∓ 0 321	8 37 ∓ 1 97	104	0 261
ACW03	AM-241	SCAQC-1931-LC1	4 81 ∓ 0 457	4 18 ∓ 1 14	87 0	0 741
ACW03	U-233/234	SCAQC-1931-LC1	8 02 ∓ 0 321	7 70 ∓ 1 85	96 0	0 258
ACW03	U-238	SCAQC-1931-LC1	8 02 ∓ 0 321	7 60 ∓ 1 83	94 8	0 342
ACW03	PU-239/240	SCAQC-1931-LC1B	4 37 ∓ 0 218	4 60 ∓ 1 22	105	0 295
ACW03	AM-241	SCAQC-1932-LC1	4 81 ∓ 0 457	4 32 ∓ 1 15	89 8	0 575
ACW03	PU-239/240	SCAQC-1932-LC1	4 37 ∓ 0 218	4 02 ∓ 1 05	92 0	0 502
ACW03	U-233/234	SCAQC-1932-LC1	8 02 ∓ 0 321	7 48 ∓ 1 80	93 2	0 447
ACW03	U-238	SCAQC-1932-LC1	8 02 ∓ 0 321	7 08 ∓ 1 71	88 2	0 817
ACW03	AM-241	SCAQC-1933-LC1	4 81 ∓ 0 457	4 85 ∓ 1 38	101	0 051
ACW03	PU-239/240	SCAQC-1933-LC1	4 37 ∓ 0 218	4 34 ∓ 1 14	99 3	0 039
ACW03	U-233/234	SCAQC-1933-LC1	8 02 ∓ 0 321	7 31 ∓ 1 75	91 1	0 601
ACW03	U-238	SCAQC-1933-LC1	8 02 ∓ 0 321	7 44 ∓ 1 78	92 7	0 486

* Activity Expressed In pCi/L

Laboratory Duplicate Sample (LD1) Evaluation

Method Number	Radionuclide	Laboratory Sample ID	Original Sample Activity (pCi/g)	Duplicate Sample Activity (pCi/g)	Difference Between Original Activity and Duplicate Sample Activity (F)	Ratio of the Difference Between the Sample Activities and the Propagated Measurement Original Activity and Uncertainty of the Difference at 2 σ (F/E)
ACW03	U-233/234	SCAQC-1929-LD1	0 126 ∓ 0 084	0 101 ∓ 0 075	0 024	0 217
ACW03	U-235	SCAQC-1929-LD1	-0 003 ∓ 0 036	0 009 ∓ 0 034	0 012	0 251
ACW03	U-238	SCAQC-1929-LD1	0 409 ∓ 0 166	0 222 ∓ 0 118	0 187	0 916

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Radioanalytical Results

Quality Control Sample Evaluation

Report Identification Number 00A1196

Project Name Kaiser-Hill | Laboratory Code SCA

ACW03	PU-239/240	SCAQC-1929-LD1	12 5	∓	3 11	9 35	∓	2 45	3 14	0 792
ACW03	AM-241	SCAQC-1929-LD1	1 80	∓	0 690	1 18	∓	0 461	0 617	0 743
ACW03	U-233/234	SCAQC-1930-LD1	0 078	∓	0 071	0 138	∓	0 088	0 060	0 526
ACW03	U-235	SCAQC-1930-LD1	0 052	∓	0 062	0 015	∓	0 031	0 036	0 522
ACW03	U-238	SCAQC-1930-LD1	0 230	∓	0 126	0 227	∓	0 120	0 003	0 019
ACW03	PU-239/240	SCAQC-1930-LD1	8 65	∓	2 14	9 05	∓	2 22	0 399	0 130
ACW03	AM-241	SCAQC-1930-LD1	1 03	∓	0 412	0 988	∓	0 372	0 046	0 084
ACW03	U-233/234	SCAQC-1931-LD1	0 142	∓	0 091	0 210	∓	0 115	0 068	0 463
ACW03	U-235	SCAQC-1931-LD1	0 064	∓	0 067	0 049	∓	0 058	0 015	0 171
ACW03	U-238	SCAQC-1931-LD1	0 183	∓	0 108	0 196	∓	0 110	0 013	0 086
ACW03	AM-241	SCAQC-1931-LD1	0 597	∓	0 341	0 438	∓	0 291	0 158	0 353
ACW03	PU-239/240	SCAQC-1931-LD1B	3 41	∓	0 924	2 88	∓	0 787	0 522	0 430
ACW03	U-233/234	SCAQC-1932-LD1	0 160	∓	0 099	0 230	∓	0 123	0 070	0 445
ACW03	U-235	SCAQC-1932-LD1	0 016	∓	0 032	-0 019	∓	0 023	0 035	0 892
ACW03	U-238	SCAQC-1932-LD1	0 261	∓	0 130	0 216	∓	0 118	0 045	0 256
ACW03	PU-239/240	SCAQC-1932-LD1B	97 0	∓	24 1	124	∓	29 9	26 6	0 693
ACW03	AM-241	SCAQC-1932-LD1B	21 1	∓	5 94	24 3	∓	6 54	3 20	0 362
ACW03	U-233/234	SCAQC-1933-LD1	0 156	∓	0 103	0 209	∓	0 117	0 053	0 341
ACW03	U-235	SCAQC-1933-LD1	0 082	∓	0 091	0 010	∓	0 037	0 072	0 732
ACW03	U-238	SCAQC-1933-LD1	0 232	∓	0 129	0 258	∓	0 134	0 025	0 136
ACW03	PU-239/240	SCAQC-1933-LD1	55 7	∓	13 3	70 0	∓	16 3	14 3	0 678
ACW03	AM-241	SCAQC-1933-LD1	8 62	∓	2 70	13 2	∓	4 44	4 62	0 889
ACW03	U-233/234	*SCAQC-1928-LD1	0 015	∓	0 015	0 004	∓	0 008	0 010	0 607
ACW03	U-235	*SCAQC-1928-LD1	-0 002	∓	0 004	0 005	∓	0 010	0 007	0 629
ACW03	U-238	*SCAQC-1928-LD1	0 002	∓	0 008	0 012	∓	0 015	0 010	0 620
ACW03	PU-239/240	*SCAQC-1928-LD1	0 049	∓	0 023	0 037	∓	0 018	0 012	0 401
ACW03	AM-241	*SCAQC-1928-LD1	0 052	∓	0 023	0 066	∓	0 027	0 013	0 375

*Activity Expressed In pCi/L

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A-3

RLC RADIOLOGICAL DATA

Concrete Core

CASE NARRATIVE
RIN 00A1197
Laboratory Report Identification Number· 1936, 1937, 1935
PSA Module RC01B.3

May 16, 2000

I. Introduction

On May 4, 2000, 13 waste samples and two water samples, (RIN 00A1197), were received for analysis at the Sanford Cohen and Associates (SC&A) Southeastern Environmental Laboratory, located in Montgomery, Alabama The chain-of-custody accompanying the samples requested they be analyzed on a "rush" basis The samples were analyzed in accordance with Kaiser-Hill specifications stated in the "Statement of Work for Analytical Measurements, Isotopic Determinations by Alpha Spectrometry, Module RCO1-B 3", dated April 24, 1998, and Modification 09, dated July 16, 1998

II. Analytical Methodology

The radioanalytical results reported for each sample include the site and laboratory sample identification numbers, collection date, method of analysis, and the quality control samples that were analyzed concurrently All samples were analyzed by an Eichrom Industries, Inc extraction chromatography method (ACW03) for isotopic uranium, plutonium, and americium

III. Analytical Results

Deficiencies

The FWHM of the U-232 tracer in sample KH100-1936-LD1 was 86 keV
The FWHM of the U-232 tracer in sample KH100-1936-02 was 89 keV
The FWHM of the U-232 tracer in sample KH100-1936-03 was 84 keV
The FWHM of the U-232 tracer in sample KH100-1936-04 was 92 keV
The FWHM of the U-232 tracer in sample KH100-1936-09 was 89 keV

The FWHM of the Am-243 tracer in sample KH100-1937-01 was 83 keV
The FWHM of the Am-243 tracer in sample KH100-1937-03 was 83 keV

See Reanalysis

Matrix Interferences

There were no indications of matrix interference

Dilutions

No dilutions were required

Detection Limits

The required detection limits (RDL) were met for all sample analyses

Reanalysis

The FWHM of the U-232 tracer in sample KH100-1936-07 was greater than 100 keV The sample was reanalyzed beginning with preparation and the results of the reanalysis were acceptable The Original and Reanalysis Sample I D are listed below

Original Laboratory Sample I D	Reanalysis Laboratory Sample I D	Analysis Type
KH100-1936-07	KH100-1936-07B	U

Deviations from Protocols

There were no deviations from the written protocols and analytical methods

Contacts with the CTR

There were no contacts with the contract technical representative (CTR) regarding these samples

IV. Quality Control

Site Samples Used for Quality Control Samples

Site Sample Number	Laboratory Sample Number	Type of Quality Control Analysis Sample
Laboratory Type II Water	SCAQC-1936-LC1	Laboratory Control Sample
001 003 Bldg 707 2nd Lvl Rm 200	SCAQC-1936-LD1	Laboratory Duplicate Sample
Laboratory Type II Water	SCAQC-1936-PB	Preparation Blank

Site Samples Used for Quality Control Samples

Site Sample Number	Laboratory Sample Number	Type of Quality Control Analysis Sample
Laboratory Type II Water	SCAQC-1937-LC1	Laboratory Control Sample
011 003 Bldg 707 Module C	SCAQC-1937-LD1	Laboratory Duplicate Sample
Laboratory Type II Water	SCAQC-1937-PB	Preparation Blank

Site Samples Used for Quality Control Samples

Site Sample Number	Laboratory Sample Number	Type of Quality Control Analysis Sample
Laboratory Type II Water	SCAQC-1928-LC1	Laboratory Control Sample
055 002 Bldg 707	SCAQC-1928-LD1	Laboratory Duplicate Sample
Laboratory Type II Water	SCAQC-1928-PB	Preparation Blank

These water samples received on 5/4/00, RIN 00A1197 (Batch No 1935), were analyzed concurrently with two water samples received on 5/2/00, RIN 00A1196, (Batch No 1928) Therefore, the Laboratory Control Sample (SCAQC-1928-LC1), the Laboratory Duplicate Sample (SCAQC-1928-LD1), and the Preparation Blank (SCAQC-1928-PB) were used as quality control samples for both sample batches

The analytical results of all quality control samples met the acceptance criteria specified in the SOW

Sincerely,

Joe Stinson

Joe Stinson
Laboratory Manager

5/30/00
Date

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Sanford Cohen & Associates
Southeastern Environmental Laboratory
1000 Monticello Court
Montgomery, Alabama 36117

Laboratory Code SCA Subcontract Number KH700325EP6

RIN 00A1197
LIC: RC01B004
LIC: RC01B001

Laboratory Report Identification Code 1936, 1937, 1935

Sample Matrix Water

Site Sample Numbers	Laboratory Sample Number		
	Uranium	Plutonium	Americium
00A1197-014 003 Rinsate Bldg 707	KH100-1935-01	KH100-1935-01	KH100-1935-01
00A1197-015.003 Rinsate Bldg 707	KH100-1935-02	KH100-1935-02	KH100-1935-02
Laboratory Control Sample (LC)	SCAQC-1928-LC1	SCAQC-1928-LC1	SCAQC-1928-LC1
Duplicate (LD)	SCAQC-1928-LD1	SCAQC-1928-LD1	SCAQC-1928-LD1
Preparation Blank (PB)	SCAQC-1928-PB	SCAQC-1928-PB	SCAQC-1928-PB

Comments There were no problems encountered during sample receiving

"I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hard-copy sample data package and the computer-readable EDD, as applicable, submitted on diskette or by modem, has been authorized by the laboratory Manager or the Manager's designee, as verified by the following signature "

Signature

Joe Stinson
Name

Laboratory Manager
Title

5/16/00
Date

PRELIMINARY INFORMATION

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Sanford Cohen & Associates
Southeastern Environmental Laboratory
1000 Monticello Court
Montgomery, Alabama 36117

Laboratory Code: SCA Subcontract Number KH700325EP6

RIN 00A1197
LIC· RC01B004
LIC: RC01B001

Laboratory Report Identification Code 1936, 1937, 1935

Sample Matrix. Waste

Site Sample Numbers	Laboratory Sample Number		
	Uranium	Plutonium	Americium
00A1197-001 003 C5 (0.2) Rm 200 Bldg 707 2nd Level Rm 200	KH100-1936-01	KH100-1936-01	KH100-1936-01
00A1197-002.003 C6 (1.0) Rm 200 Bldg 707 2nd Level Rm 200	KH100-1936-02	KH100-1936-02	KH100-1936-02
00A1197-003.003 C2 (3.0) Rm 240 Bldg 707 2nd Level Rm 240	KH100-1936-03	KH100-1936-03	KH100-1936-03
00A1197-004.003 KC-1 Bldg 707 2nd Level	KH100-1936-04	KH100-1936-04	KH100-1936-04
00A1197-005 003 KC-2 Bldg 707 2nd Level	KH100-1936-05	KH100-1936-05	KH100-1936-05
00A1197-006.003 KC-3 Bldg 707 2nd Level	KH100-1936-06	KH100-1936-06	KH100-1936-06
00A1197-007.003 KC-3 Bldg 707 2nd Level	KH100-1936-07	KH100-1936-07	KH100-1936-07
00A1197-008.003 KC-5 Bldg 707 2nd Level	KH100-1936-08	KH100-1936-08	KH100-1936-08
00A1197-009.003 C1 (2.0) MF 707 Bldg 707 Module A	KH100-1936-09	KH100-1936-09	KH100-1936-09
00A1197-010.003 C4 (2.1) MF 707 Bldg 707 Module B	KH100-1936-10	KH100-1936-10	KH100-1936-10
Laboratory Control Sample (LC)	SCAQC-1936-LC1	SCAQC-1936-LC1	SCAQC-1936-LC1
Duplicate (LD)	SCAQC-1936-LD1	SCAQC-1936-LD1	SCAQC-1936-LD1
Preparation Blank (PB)	SCAQC-1936-PB	SCAQC-1936-PB	SCAQC-1936-PB

Site Sample Numbers	Laboratory Sample Number		
	Uranium	Plutonium	Americium
00A1197-011 003 C3 (0.2) MF 707 Bldg 707 Module C	KH100-1937-01	KH100-1937-01B	KH100-1937-01B
00A1197-012.003 C2 (5.2) MF 707 Bldg 707 Module J	KH100-1937-02	KH100-1937-02	KH100-1937-02
00A1197-013 003 C2 (5.2) MF 707 Bldg 707 Module I	KH100-1937-03	KH100-1937-03	KH100-1937-03
Laboratory Control Sample (LC)	SCAQC-1937-LC1	SCAQC-1937-LC1	SCAQC-1937-LC1
Duplicate (LD)	SCAQC-1937-LD1	SCAQC-1937-LD1	SCAQC-1937-LD1
Preparation Blank (PB)	SCAQC-1937-PB	SCAQC-1937-PB	SCAQC-1937-PB

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PRELIMINARY INFORMATION

Commodore Advanced Sciences, Inc.

RFETS

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # (.1197#003

Page 1 of 2

Sampler(s)	Contact/Requester SZYDLOWSKI, TOM	Telephone No. 8165 MSIN N/A	FAX N/A
RIN 00A1197	Sampling Origin Bldg. 707	Purchase Order/Charge Code NG2200B1	
Project Title Concrete Coring	Logbook No. 94 Page 44	Ice Chest No.	Temp. N/A
To (Lab) S Cohen & Associates	Method of Shipment Fed EX	Bill of Lading/Air Bill No. 453382125987	
Protocol GAS-SOP. 003	Related COC (if any) 00A1197#001 & #002	PRE 000418-00881-001	

POSSIBLE SAMPLE HAZARDS/REMARKS
Are acid preserved samples DOT hazardous per 40 CFR Part 136.3 Table II? YES or NO
Are other known hazardous substances present? YES or NO
** ** **

SCREENING REQUIRED ☐

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

KN160 1936

Bottle No	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis	Preservative, Packing
00A1197-001 003	C5(0,2) RM 200	SOLID	5-2-00	1405	BLDG 707 2nd Level RM 200	1-SAMPLE / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 01	None None
00A1197-002 003	C6(1,0) RM 200	SOLID		1440	BLDG 707 2nd Level RM 200	1-SAMPLE / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 02	None None
00A1197-003 003	C2 (3,0) RM 240	SOLID		1500	BLDG 707 2nd Level RM 240	1-SAMPLE / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 03	None None
00A1197-004 003	KC-1	SOLID		1530	BLDG 707 2nd Level	1-SAMPLE / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 04	None None
00A1197-005 003	KC-2	SOLID		1600	BLDG 707 2nd Level	1-SAMPLE / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 05	None None
00A1197-006 003	KC-3	SOLID		1620	BLDG 707 2nd Level	1-SAMPLE / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 06	None None
00A1197-007 003	↓	SOLID	↓	1630	BLDG 707 2nd Level	1-SAMPLE / P/G /1	RC01B004 (Isotopic Waste) [Rush] - 07	None None

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
	5/2/00 11:00	T891R Refrig #2	5/2/00 11:00	T891R Refrig #2	5/2/00 1515		5/2/00 1515
	5/2/00 1545	Fed EX					5/4/00 9:15

FINAL SAMPLE DISPOSITION — Disposal Method (e.g., returned to customer, disposed of per lab procedure, used in analytical process) — Disposed By — Date/Time

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05/17/00 11 38 S COHEN & ASSOC 008

Commodo dvanced Sciences, Inc.

CHAIN OF CUSTODY/S..MPLE ANALYSIS REQUEST

C.O.C # 06 197#003

RIN 00A1197 | Contact/Requestor SZYDLOWSKI, TOM | Telephone No. 8165 | MSIN N/A | FAX N/A

Bottle No	Customer Number	Matrix	Date	Time	Location	Container (size/type/quantity)	Sample Analysis KN100 1936	Preservative, Packing
00A1197-008 003	KC-5	SOLID	5-2-00	1705	BLDG 707 enclosure	1-SAMPLE / P/G /1	RC01B004 (Isotopic Waste) [Rush] -08	None None
00A1197-009 003	C1 (3,0) MF 707	SOLID		1930	BLDG 707 Module A	1-SAMPLE / P/G /1	RC01B004 (Isotopic Waste) [Rush] -09	None None
00A1197-010 003	C4 (2,1) MF707	SOLID		2000	BLDG 707 Module B	1-SAMPLE / P/G /1	RC01B004 (Isotopic Waste) [Rush] -010	None None
00A1197-011 003	C3 (0,2) MF707	SOLID		2020	BLDG 707 Module C	1-SAMPLE / P/G /1	RC01B004 (Isotopic Waste) [Rush] KN100 1937 - 01	None None
00A1197-012 003	C2 (5,2) MF 707	SOLID		2045	BLDG 707 Module J	1-SAMPLE / P/G /1	RC01B004 (Isotopic Waste) [Rush] -02	None None
00A1197-013 003	↓	SOLID	↓	2050	BLDG 707 Module J	1-SAMPLE / P/G /1	RC01B004 (Isotopic Waste) [Rush] -03	None None
00A1197-014 003	RINSATE	AQUEOUS	5-2-00	1720	BLDG 707	4-L / P /1	RC01B001 (Isotopic Water) [Rush] KN100 1935 -01	HN03 None
00A1197-015 003	↓	AQUEOUS	5-2-00	2100	BLDG 707	4-L / P /1	RC01B001 (Isotopic Water) [Rush] -02	HN03 None

5/02/00

Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
[signature]	5/2/00 11:00	T891R Refrig#2	5/2/00 11:00	T891R Refrig #2	5/2/00 1515	[signature]	5/2/00 1515
[signature]	5/2/00 1515	Fed Ex				[signature] SCA	5/4/00 9:15

FINAL SAMPLE DISPOSITION | Disposal Method (e.g., returned to customer, disposed of per lab procedure, used in analytical process) | Disposed By | Date/Time

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05/17/00 11 39 S COHEN & ASSOC 009

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1197#003	Matrix	Water
Site Sample ID	014.003				
Other Sample ID	BLDG 707 RINSATE	Collection Date	5/2/00	Date Received	5/4/00
		Batch Number	1935	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/L)	2 σ Counting Error (pCi/L)	Total Error (pCi/L)	MDA (pCi/L)
ACW03	U-233/234	KH100-1935-01	0 009	0 013	0 013	0 017
ACW03	U-235	KH100-1935-01	-0 001	0 011	0 011	0 028
ACW03	U-238	KH100-1935-01	0 009	0 013	0 013	0 017
ACW03	PU-239/240	KH100-1935-01	0 008	0 007	0 007	0 004
ACW03	AM-241	KH100-1935-01	0 007	0 008	0 008	0 010

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Pu	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Am	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB

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Radioanalytical Results

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1197#003	Matrix	Water
Site Sample ID	015.003				
Other Sample ID	BLDG 707 RINSATE	Collection Date	5/2/00	Date Received	5/4/00
		Batch Number	1935	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/L)	2 σ Counting Error (pCi/L)	Total Error (pCi/L)	MDA (pCi/L)
ACW03	U-233/234	KH100-1935-02	-0 001	0 003	0 003	0 018
ACW03	U-235	KH100-1935-02	0 005	0 009	0 009	0 012
ACW03	U-238	KH100-1935-02	0 001	0 009	0 009	0 021
ACW03	PU-239/240	KH100-1935-02	0 007	0 008	0 008	0 006
ACW03	AM-241	KH100-1935-02	0 005	0 005	0 005	0 004

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Pu	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Am	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB

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Radioanalytical Results

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1197#003	Matrix	Water
Site Sample ID	00A1196-055.002				
Other Sample ID	BLDG. 707	Collection Date	4/27/00	Date Received	5/4/00
		Batch Number	1928	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/L)	2 σ Counting Error (pCi/L)	Total Error (pCi/L)	MDA (pCi/L)
ACW03	U-233/234	KH100-1928-01	0 015	0 015	0 015	0 010
ACW03	U-235	KH100-1928-01	-0 002	0 004	0 004	0 022
ACW03	U-238	KH100-1928-01	0 002	0 008	0 008	0 017
ACW03	PU-239/240	KH100-1928-01	0 049	0 021	0 023	0 015
ACW03	AM-241	KH100-1928-01	0 052	0 020	0 023	0 005

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Pu	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Am	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB

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Radioanalytical Results

Quality Control Sample
Preparation Blank (PB)

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	None	Matrix	Water
Site Sample ID	N/A				
Other Sample ID	PB	Collection Date	5/2/00	Date Received	5/4/00
				Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/L)	2 σ Counting Error (pCi/L)	Total Error (pCi/L)	MDA (pCi/L)
ACW03	U-233/234	SCAQC-1928-PB	0 006	0 011	0 011	0 018
ACW03	U-235	SCAQC-1928-PB	0 000	0 000	0 000	0 012
ACW03	U-238	SCAQC-1928-PB	0 004	0 011	0 011	0 021
ACW03	PU-239/240	SCAQC-1928-PB	0 001	0 005	0 005	0 009
ACW03	AM-241	SCAQC-1928-PB	0 001	0 006	0 006	0 010

Quality Control Samples			
Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Pu	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB
Am	SCAQC-1928-LC1	SCAQC-1928-LD1	SCAQC-1928-PB

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Radioanalytical Results

Quality Control Sample
Preparation Blank (PB)

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	None	Matrix	Water
Site Sample ID	Blank 1				
Other Sample ID	PB	Collection Date	5/4/00	Date Received	5/4/00
				Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (dpm)	2 σ Counting Error (dpm)	Total Error (dpm)	MDA (dpm)
ACW03	U-233/234	SCAQC-1936-PB	-0 006	0 012	0 012	0 069
ACW03	U-235	SCAQC-1936-PB	0 053	0 062	0 064	0 048
ACW03	U-238	SCAQC-1936-PB	0 017	0 044	0 044	0 081
ACW03	PU-238	SCAQC-1936-PB	-0 014	0 020	0 020	0 098
ACW03	PU-239/240	SCAQC-1936-PB	0 024	0 066	0 066	0 119
ACW03	AM-241	SCAQC-1936-PB	0 019	0 068	0 069	0 152

Quality Control Samples			
Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Pu	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Am	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB

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Radioanalytical Results

Quality Control Sample
Preparation Blank (PB)

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	None	Matrix	Water
Site Sample ID	Blank 2				
Other Sample ID	PB	Collection Date	5/4/00	Date Received	5/4/00
				Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (dpm)	2 σ Counting Error (dpm)	Total Error (dpm)	MDA (dpm)
ACW03	U-233/234	SCAQC-1937-PB	0 081	0 072	0 074	0 069
ACW03	U-235	SCAQC-1937-PB	-0 021	0 025	0 026	0 112
ACW03	U-238	SCAQC-1937-PB	0 023	0 042	0 042	0 069
ACW03	PU-238	SCAQC-1937-PB	-0 126	0 114	0 117	0 254
ACW03	PU-239/240	SCAQC-1937-PB	0 014	0 057	0 057	0 114
ACW03	AM-241	SCAQC-1937-PB	0 019	0 038	0 038	0 052

Quality Control Samples			
Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Pu	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Am	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB

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Radioanalytical Results

Quality Control Sample Evaluation

Report Identification Number 00A1197

Project Name Kaiser-Hill | Laboratory Code SCA

Laboratory Contol Sample (LC1) Evaluation

Method Number	Radionuclide	Laboratory Sample ID	(CV) Decay Corrected Activity of Spike Added ~~(pCi/L)~~ dpm	(OV) Laboratory Control Sample Activity ~~(pCi/L)~~ dpm	Laboratory Control Sample % Recovery (Accuracy)	Number of σ Between CV and OV
ACW03	AM-241 *	SCAQC-1928-LC1	2 16 ∓ 0 206	2 20 ∓ 0 510	102	0 084
ACW03	PU-239/240 *	SCAQC-1928-LC1	1 97 ∓ 0 098	2 01 ∓ 0 461	102	0 137
ACW03	U-233/234 *	SCAQC-1928-LC1	3 61 ∓ 0 145	3 11 ∓ 0 740	86 0	1 00
ACW03	U-238 *	SCAQC-1928-LC1	3 61 ∓ 0 145	3 36 ∓ 0 795	93 1	0 464
ACW03	AM-241	SCAQC-1936-LC1	4 81 ∓ 0 457	5 06 ∓ 1 39	105	0 264
ACW03	PU-239/240	SCAQC-1936-LC1	4 37 ∓ 0 218	4 93 ∓ 1 30	113	0 663
ACW03	U-233/234	SCAQC-1936-LC1	8 02 ∓ 0 321	6 82 ∓ 1 64	85 0	1 08
ACW03	U-238	SCAQC-1936-LC1	8 02 ∓ 0 321	7 43 ∓ 1 77	92 6	0 497
ACW03	AM-241	SCAQC-1937-LC1	4 81 ∓ 0 457	3 90 ∓ 1 10	81 2	1 11
ACW03	PU-239/240	SCAQC-1937-LC1	4 37 ∓ 0 218	5 06 ∓ 1 37	116	0 788
ACW03	U-233/234	SCAQC-1937-LC1	8 02 ∓ 0 321	8 18 ∓ 1 95	102	0 120
ACW03	U-238	SCAQC-1937-LC1	8 02 ∓ 0 321	7 00 ∓ 1 68	87 2	0 901

*Results Expressed In pCi/L

Laboratory Duplicate Sample (LD1) Evaluation

Method Number	Radionuclide	Laboratory Sample ID	Original Sample Activity ~~(pCi/L)~~ pCi/g	Duplicate Sample Activity ~~(pCi/L)~~ pCi/g	Difference Between Original Activity and Duplicate Sample Activity (F)	Ratio of the Difference Between the Sample Activities and the Propagated Measurement Original Activity and Uncertainty of the Difference at 2 σ (F/E)
ACW03	U-233/234 *	SCAQC-1928-LD1	0 015 ∓ 0 015	0 004 ∓ 0 008	0 010	0 607
ACW03	U-235 *	SCAQC-1928-LD1	-0 002 ∓ 0 004	0 005 ∓ 0 010	0 007	0 629
ACW03	U-238 *	SCAQC-1928-LD1	0 002 ∓ 0 008	0 012 ∓ 0 015	0 010	0 620
ACW03	PU-239/240 *	SCAQC-1928-LD1	0 049 ∓ 0 023	0 037 ∓ 0 018	0 012	0 401
ACW03	AM-241 *	SCAQC-1928-LD1	0 052 ∓ 0 023	0 066 ∓ 0 027	0 013	0 375
ACW03	U-233/234	SCAQC-1936-LD1	0 973 ∓ 0 312	1 16 ∓ 0 355	0 187	0 395
ACW03	U-235	SCAQC-1936-LD1	0 059 ∓ 0 070	0 132 ∓ 0 102	0 072	0 587
ACW03	U-238	SCAQC-1936-LD1	1 04 ∓ 0 329	1 21 ∓ 0 366	0 165	0 335
ACW03	PU-239/240	SCAQC-1936-LD1	0 063 ∓ 0 064	0 021 ∓ 0 039	0 042	0 566
ACW03	AM-241	SCAQC-1936-LD1	0 152 ∓ 0 107	0 109 ∓ 0 087	0 042	0 307
ACW03	U-233/234	SCAQC-1937-LD1	0 924 ∓ 0 303	0 822 ∓ 0 282	0 102	0 248
ACW03	U-235	SCAQC-1937-LD1	0 044 ∓ 0 061	0 105 ∓ 0 092	0 061	0 556
ACW03	U-238	SCAQC-1937-LD1	0 880 ∓ 0 292	0 934 ∓ 0 310	0 054	0 128
ACW03	PU-239/240	SCAQC-1937-LD1	0 000 ∓ 0 000	0 016 ∓ 0 033	0 016	0 496
ACW03	AM-241	SCAQC-1937-LD1	-0 006 ∓ 0 012	0 000 ∓ 0 000	0 006	0 496

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*Results Expressed In pCi/g

A-3

RLC RADIOLOGICAL DATA

Survey Area A

2nd Floor

Radiological Survey/Sample Results for Survey Area A (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	37
MIN	5	N/A
MAX	42	N/A
MEAN	20 6	N/A
STD DEV	9 0	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	26
MIN	5	N/A
MAX	34	N/A
MEAN	14 9	N/A
STD DEV	7 9	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	-10	N/A
MAX	39	N/A
MEAN	9 9	N/A
STD DEV	11 2	N/A
Equipment Biased	# Required	# Obtained
	45	80
MIN	-10	N/A
MAX	404	N/A
MEAN	15 0	N/A
STD DEV	44 9	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	37
MIN	0	-40
MAX	9	68
MEAN	1 1	4 2
STD DEV	2 1	27 7
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	26
MIN	0	-40
MAX	12	48
MEAN	1 0	1 4
STD DEV	2 5	22 1
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-80
MAX	3	48
MEAN	0 1	-11 1
STD DEV	0 5	27 8
Equipment Biased	# Required	# Obtained
	45	80
MIN	0	-80
MAX	39	52
MEAN	1 4	-13 1
STD DEV	5 0	27
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 799	Serial # N/A	Serial # 1518
Cal Due 5-00	Cal Due	Cal Due 6-29-00
Bkg 0.1 cpm	Bkg	Bkg 20 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86%
MDA 11.5 DPM	MDA	MDA 42.5 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # N/A	Serial # N/A
Cal Due 1-14-00	Cal Due	Cal Due
Bkg 41 cpm	Bkg	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 99.2 DPM	MDA	MDA

Survey Type **Contamination**

Building 707

Location Rm 200 (A)

Purpose **Reconnaisance Level Characterization**

RWP # 99-707-1204

Date 1-10-00 Time 1500

[redacted]

RCT _____
Print name / Signature / Emp #

Comments Floors / Walls < 2 meters unbiased survey points – 1 m² Scans 1 min Pats and swipes
Number / Letter (1A) denotes columes, Floor Survey locations see map

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	< 2m – 1G → 1F	3	8	28	16	F	0	-24	32
2.	< 2m 1F → 1E	3	20	23	17	F	0	48	14
3	< 2m 1E → 1D	0	36	19	18	F	9	-8	14
4	< 2m 1D → 1C	0	12	32	19	F	0	54	28
5	< 2m 1C → 2C	0	-16	14	20	F	0	-12	14
6.	< 2m 2C → 3C	3	40	23	21	F	0	-12	28
7.	< 2m 3C → 4C	0	4	14	22	F	0	8	14
8	F	0	-8	32	23	F	0	-4	32
9	F	0	12	14	24	F	0	16	23
10	F	3	-20	14	25	F	0	12	28
11.	F	0	-16	32	26	F	6	-40	14
12	F	6	-24	10	27	F	0	68	14
13	F	3	4	42	28	F	0	-16	23
14	F	0	36	5	29	F	0	-24	10
15	F	3	-4	23	30	F	0	12	23

Date Reviewed 1-24 00 RS Supervision. [redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	F	0	-28	28	61				
32	F	0	-12	5	62				
33	F	0	-20	14	63				
34	F	0	44	28	64				
35	F	0	4	10	65				
36	F	0	52	28	66				
37.	F	0	-28	23	67				
38	end of Survey				68				
39					69				
40					70				
41					71				
42					72				
43					73				
44.					74.				
45					75				
46					76.				
47					77				
48					75				
49					79				
50					80				
51					81				
52					82				
53					83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

RS FORMS 07 02-01

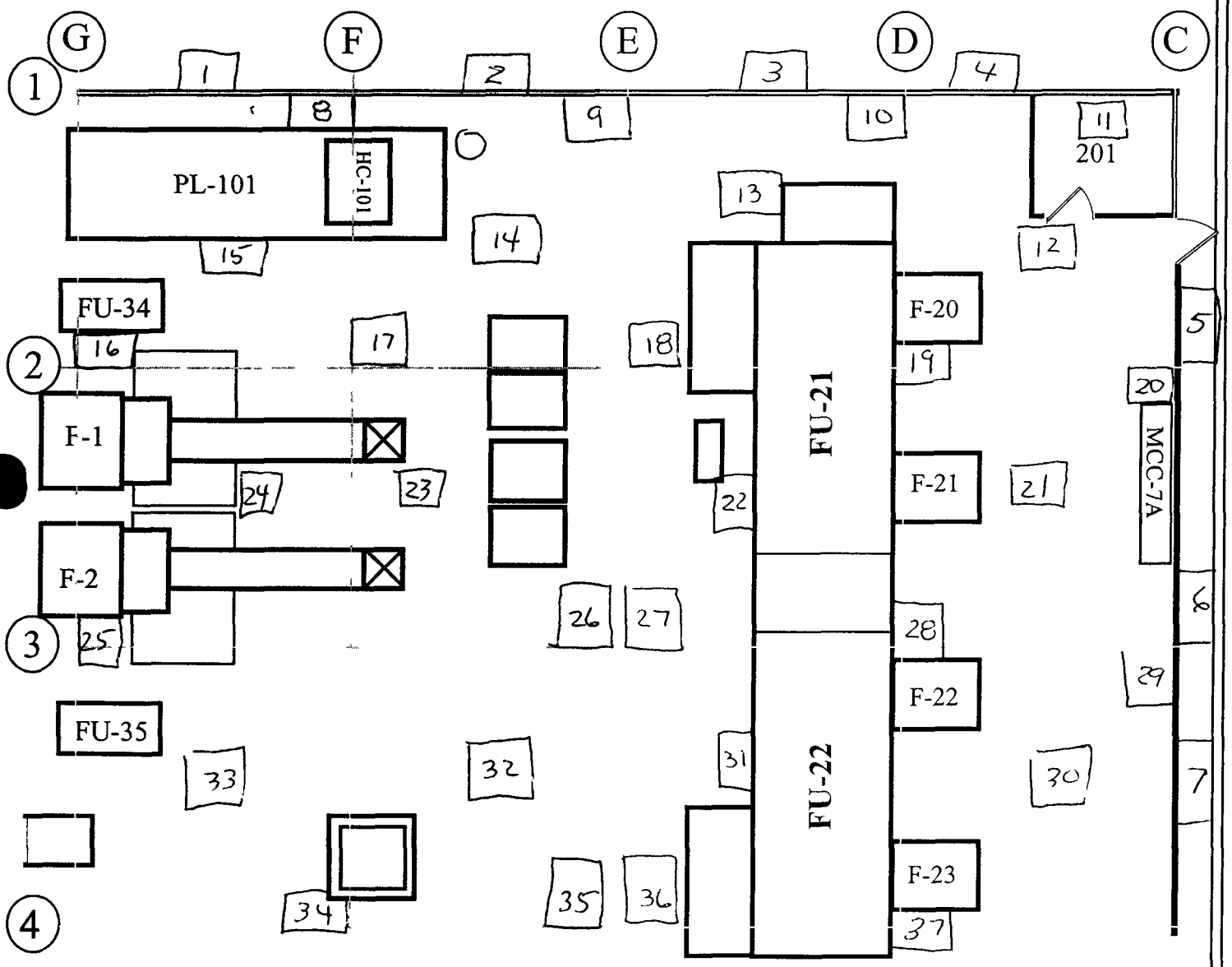
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

2nd FLOOR

RM. 200(A)



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # N/A	Serial # 1389
Cal Due 4-10-00	Cal Due	Cal Due 6-29-00
Bkg 0.4 cpm	Bkg	Bkg 10 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.04%
MDA 148 DPM	MDA	MDA 350 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 872	Serial # N/A	Serial # N/A
Cal Due 4-12-00	Cal Due	Cal Due
Bkg 52 cpm	Bkg	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 DPM	MDA	MDA

Survey Type **Contamination**

Building 707

Location Rm 200 (A)

Purpose **Reconnaisance Level Characterization**

RWP # 99-707-1204

Date 1-14-00 Time 1300

[redacted]

Print name / Signature / Emp #

RCT

Print name / Signature / Emp #

Comments Floors / Walls <2 meters : Biased survey points - 1 m² Scans 1 min Pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F Door	0	-20	19	16	F Plenum Door	0	-32	5
2.	F Fan F 20	0	4	24	17	F Plenum Door	0	28	10
3	F P-trap	0	-40	19	18	F Filter FU 34	0	28	29
4	F Fan F-21	0	24	15	19	F Pipes	3	16	15
5	F Door	0	4	34	20	F Pumps	0	-16	5
6	F Fan F-22	0	8	5	21	F Pumps	0	-12	10
7	F P-trap	0	-16	10	22	F Door F1	0	4	19
8	F Fan F-23	0	48	10	23	F Door F2	0	-4	19
9	F Door	0	16	5	24	F Filter FU 35	3	-24	19
10.	F Pumps	12	4	10	25	F Filter FU 36	0	8	19
11	F Door	0	4	5	26	F Pumps	3	-20	24
12	F P-trap	3	-12	15	27	end of Survey			
13	F Plenum Door (101)	0	16	19	28				
14	F Plenum Door	0	-20	19	29				
15	F Plenum Door	3	40	5	30				

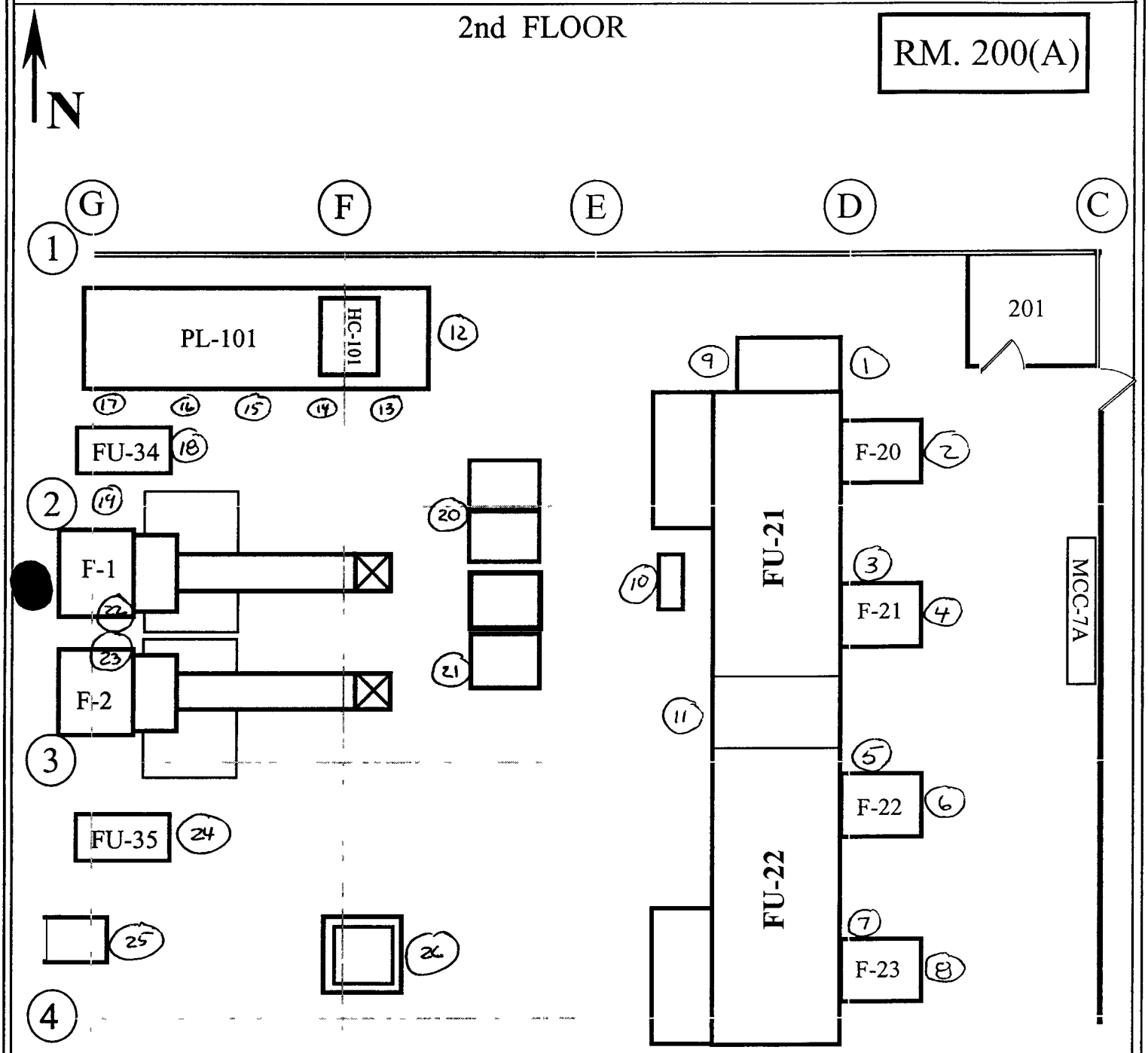
Date Reviewed 1-24-00 RS Supervision: [redacted]

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



200

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 837	Serial # 849	Serial # 3265
Cal Due 5-17-00	Cal Due 4-10-00	Cal Due 7-3-00
Bkg 0.0 cpm	Bkg 0.1 cpm	Bkg 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 8.2 dpm	MDA 11.5 dpm	MDA 12.9 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg 54 cpm	Bkg 53 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 112.3 dpm	MDA 111.3	MDA

Survey Type **Contamination**
Building 707
Location Rm 200 A
Purpose **Reconnaisance Level Characterization**

RWP # 99-707-1204

Date 1-17-00 Time 1530

[redacted]

RCT
Print name / Signature / Emp #

Comments Equipment Biased survey points - 1min Pats and swipes
(9) - Area contained (57) → (80) overheads - -

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Door Plenum (101)	9	8	0	16	Top	18	16	19
2	Door Plenum	3	28	15	17	Side	0	-24	15
3	Door Plenum	0	-12	-5	18	Door	0	8	19
4	Door Plenum	0	-32	5	19	Top F-2	0	-8	10
5	Door Plenum	0	-24	10	20	Pipes	0	12	19
6.	Top Plenum	0	0	5	21	Top	0	4	10
7.	Top Plenum	0	-64	0	22	Side	0	8	15
8.	Top Plenum	0	-16	10	23	Door FU-35	0	0	10
9	Door Heat Chamber	39	24	404	24	Front Screen	0	-28	24
10	~~FU-34~~ SPC 1-17-00	0	12	-5	25	Door FU-36	3	8	15
11	FU-34	0	-40	-10	26	Front Screen	0	-4	19
12	FU-34	0	-24	0	27	Pump + pipes	0	8	15
13	Pipes	0	48	19	28	Pump + pipes	0	-12	24
14	Top F-1	0	-24	24	29	Control box	3	-20	5
15	Door	9	-4	10	30	Pump	0	-64	19

Date Reviewed 1-24-00 RS Supervision [redacted]

201

 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	Pump	0	-28	5	61	Duct	0	-16	5
32	Pump	0	-24	5	62	Duct	0	-12	25
33	Pump	3	-16	0	63	Duct	0	-28	5
34	Cabinet	0	-52	0	64	Pipes	0	4	25
35	Cabinet	0	4	10	65	Duct	0	40	15
36	Pump	0	-12	0	66	Duct	0	0	5
37	Top FU-22	0	-40	24	67	Duct	0	20	0
38	Door	0	8	10	68	Elect Box	0	-28	10
39	Top above door	3	-60	15	69	Pipes	0	-20	5
40	Top FU-21	0	-80	0	70	Duct	0	52	10
41	Door	3	-4	0	71	Duct	0	-60	5
42	Door	0	-40	5	72	Top Heat Chamber	0	12	5
43	Fan F-20	0	-40	15	73	Duct	3	-40	5
44	Top FU-21	0	-20	15	74	Pipes	0	-12	5
45	Fan F-21	6	-16	24	75	Duct	0	-60	10
46	Top above door	0	-24	19	76	Duct	0	-16	34
47	Door	3	-8	5	77	Steam Pipe	0	0	5
48	Fan F-22	3	-36	19	75	Duct	0	8	5
49	Top FU-22	3	0	5	79	Duct	0	-40	0
50	Fan F-23	0	-28	24	80	Duct	0	12	5
51	Elect Panel	0	-52	24	81	end of Survey			
52	Elect Box	0	-36	10	82				
53	Box	0	20	10	83				
54	Box	0	28	5	84				
55	Cabinet	0	0	10	85				
56	Box	0	-40	5	86				
57	Duct	0	-4	20	87				
58	Pipes	0	32	5	88				
59	Duct	0	-44	0	89				
60	Duct	0	-32	10	90				

RS FORMS 07 02-01

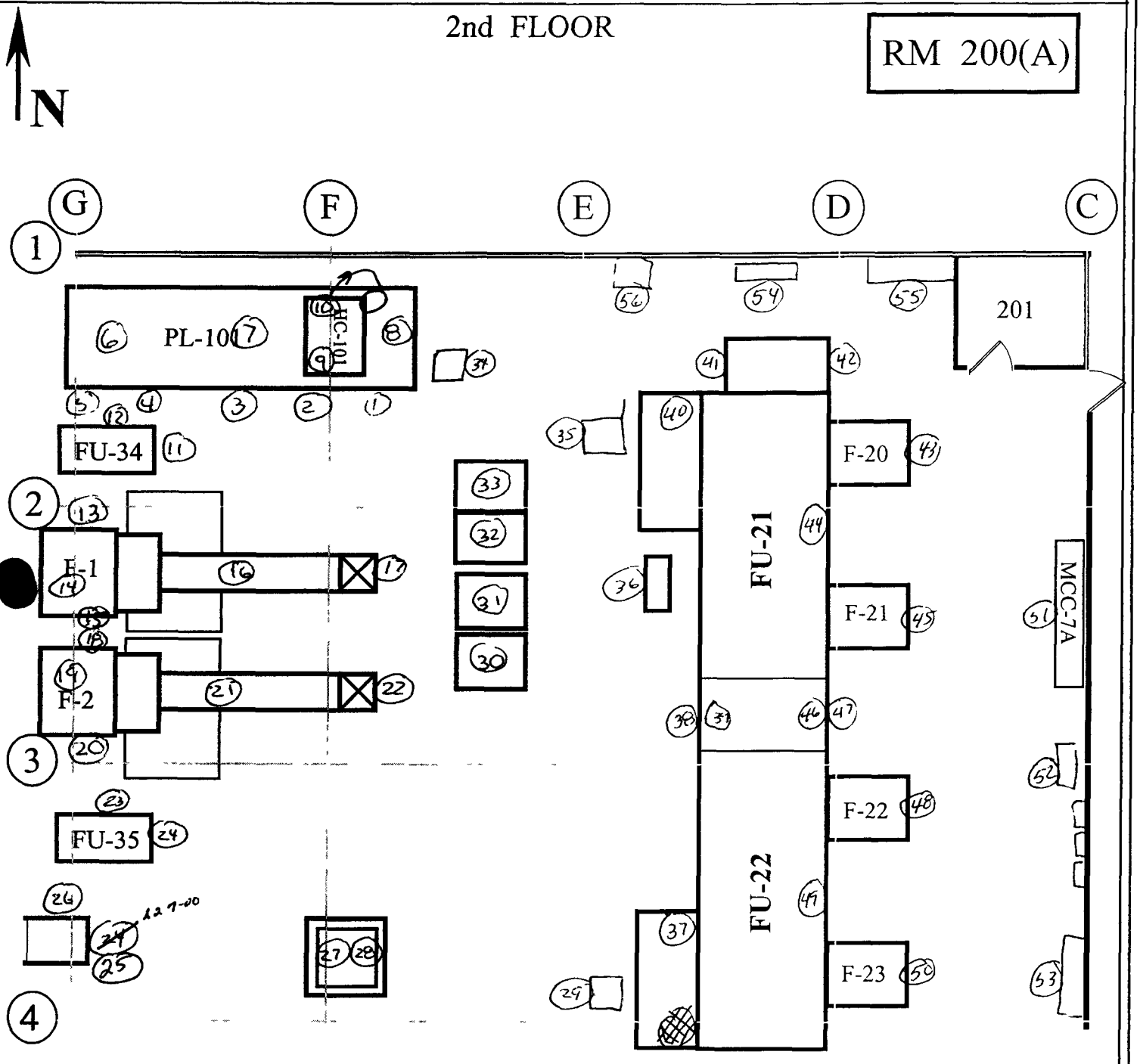
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL [illegible]

Drawing Showing Survey Points

2nd FLOOR

RM 200(A)



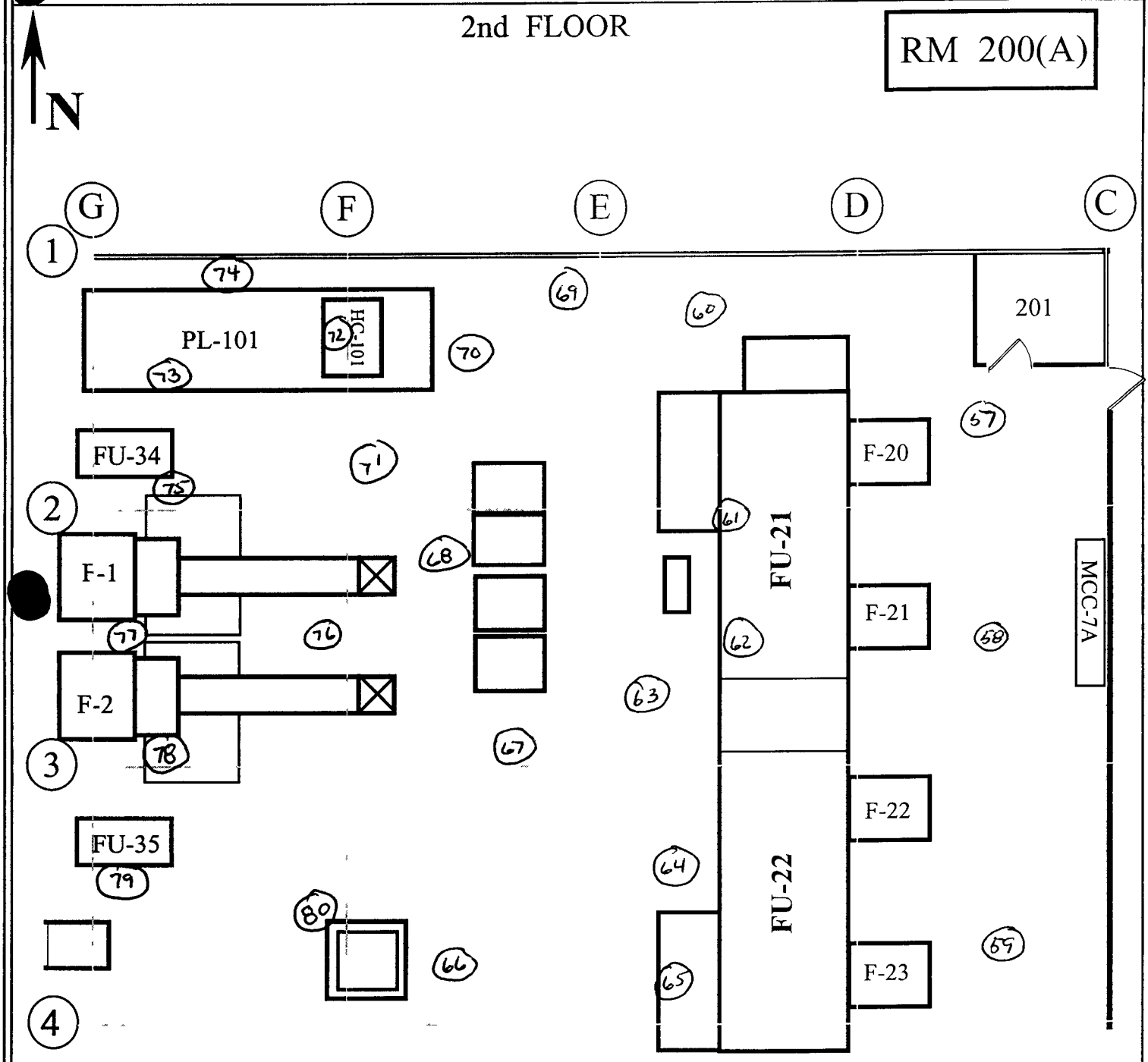
203

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



204

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0.1	Bkg 0.0	Bkg 0.02
Efficiency 33%	Efficiency 33%	Efficiency 20.63
MDA 8.11.5	MDA 8.2	MDA 45.0
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14 00	Cal Due 4-12-00	Cal Due
Bkg 46.0	Bkg 52.0	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 104.5	MDA 110 4	MDA

Survey Type **Contamination**
Building 707
Location Rm 200 (A)
Purpose **Reconnaisance Level Characterization**

RWP # 99-707-1204

Date 1-24-00 Time 1100

[redacted]

Comments Ceiling / Walls >2meters Biased survey points. 1 min pats and swipes

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	>2-W	0	48	0	16	C	0 0	-16	-10
2	>2-W	0	-24	15	17	C	0.0	-32	5.0
3	>2-W	0	-20	10	18	C	0.0	-32	0.0
4	>2-W	3	0	5	19	C	0.0	-44	0.0
5	>2-W	0	20	20	20	C	0.0	-32	-5
6	>2-W	0	36	15	21	C	0.0	-32	5
7	>2-W	0	8	20	22	C	0.0	-28	24
8	>2-W	0	-12	25	23	C	0.0	+16	0.0
9	>2-W	0	-8	29	24	C	0.0	-56	5
10	C	0.0	-80	10	25	C	0.0	+12	10
11	C	0.0	-20	10	26	C	0.0	-4	5
12	C	0.0	-4	5	27	C	0.0	+20	10
13	C	0.0	+24	0.0	28	C	0.0	-44	10
14	C	0.0	0.0	39	29	C	0.0	-16	29
15	C	0.0	-16	[redacted]					

Date Reviewed 1-24 00 RS Supervision [redacted]

RS FORMS 07 02-01

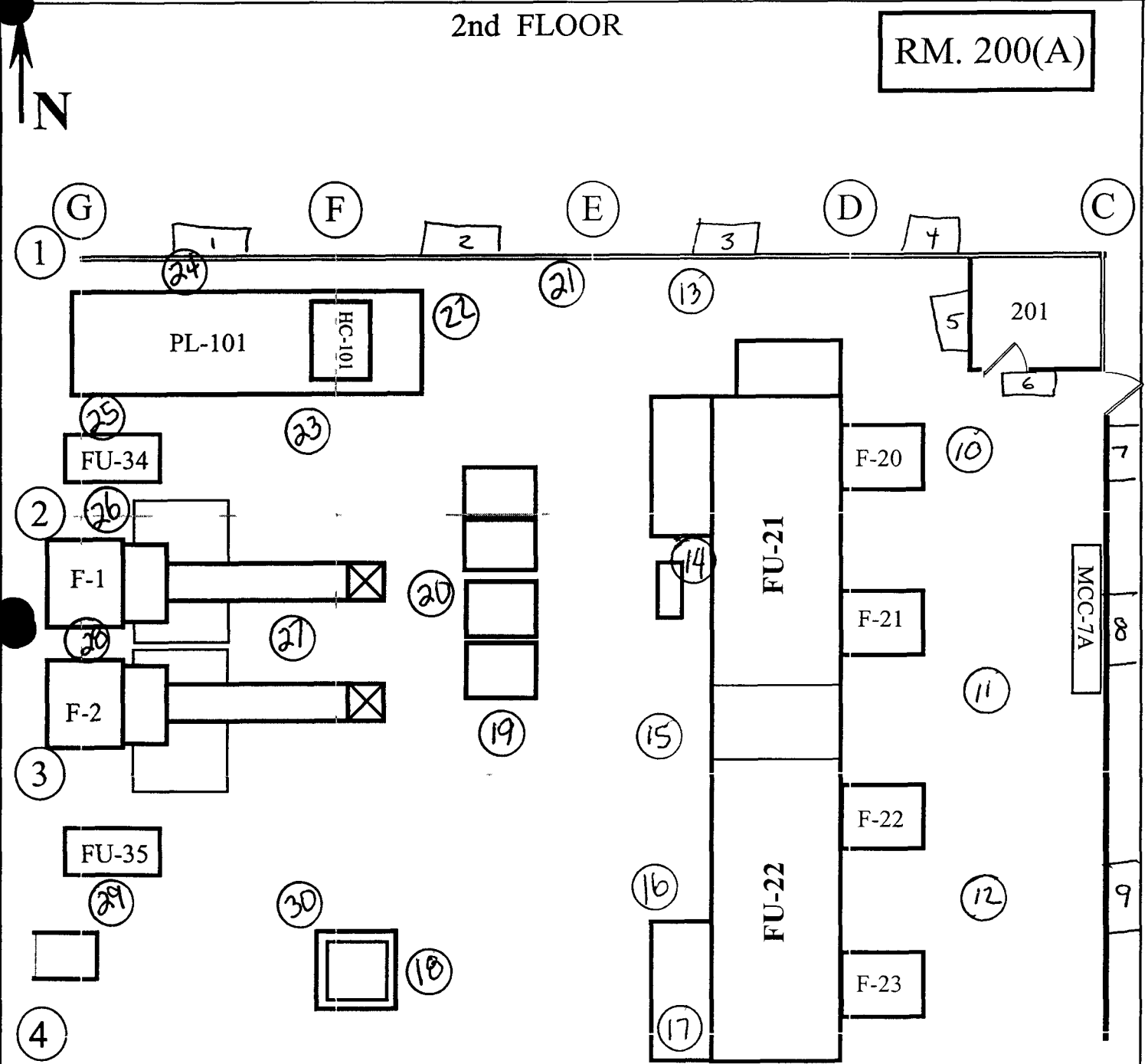
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points

2nd FLOOR

RM. 200(A)



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

COPY

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 843	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0 3 cpm	Bkg 0 2 cpm	Bkg 20 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17 %
MDA 20 dpm	MDA 20 dpm	MDA 94 dpm
~~Mfg Eberline~~	~~Mfg Eberline~~	~~Mfg~~
~~Model BC-4~~	~~Model BC-4~~	~~Model~~
~~Serial # 0~~	~~Serial #~~	~~Serial #~~
~~Cal Due~~	~~Cal Due N/A~~	~~Cal Due~~
~~Bkg~~	~~Bkg~~	~~Bkg~~
~~Efficiency 25%~~	~~Efficiency 25%~~	~~Efficiency~~
~~MDA~~	~~MDA~~	~~MDA~~

Survey Type. Contamination

Building 707

Location HC 101

Purpose Reconnaisance Level Characterization

RWP # 00-707-1204

Date 2-8 00 Time 1130

[redacted]

RCT

Print name / Signature / Emp #

Comments Post survey of contained contamination on HC-101 Bypass Door

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	contained bypass	<20		<94	16				
2	Bottom of Door	<20		<94	17				
3	under Bypass	<20		<94	18				
4	Right side of Door	<20	N/A	<94	19				
5	Right side of Door	<20		<94	20				
6	Top of Door	<20		<94	21				
7	Left of Door	<20		<94	22				
8	Left of Door	<20		<94	23				
9	Grating in Front of Door	<20		<94	24				
10	End of Survey				25				
11					26				
12					27				
13					28				
14					29				
15					30				

Date Reviewed 2-9-00 RS Supervision [redacted]

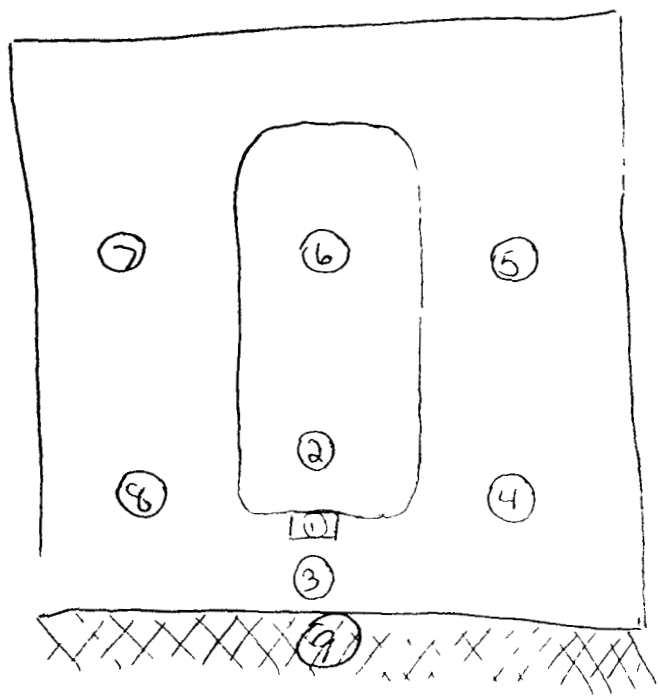
207

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

HC-101



A-3
RLC RADIOLOGICAL DATA
Survey Area B
2nd Floor

209

Radiological Survey/Sample Results for Survey Area B (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	35
MIN	-10	N/A
MAX	24	N/A
MEAN	7 4	N/A
STD DEV	8 6	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	30
MIN	0	N/A
MAX	32	N/A
MEAN	18 4	N/A
STD DEV	8 2	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	-5	N/A
MAX	39	N/A
MEAN	10 1	N/A
STD DEV	9 5	N/A
Equipment Biased	# Required	# Obtained
	45	57
MIN	0	N/A
MAX	124	N/A
MEAN	16 8	N/A
STD DEV	22 0	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	35
MIN	0	-40
MAX	3	36
MEAN	0 4	-4 0
STD DEV	1 1	17 9
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	30
MIN	0	-32
MAX	3	48
MEAN	0 4	-8
STD DEV	1 0	21 1
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-60
MAX	3	40
MEAN	0 5	-11 2
STD DEV	1 1	25 7
Equipment Biased	# Required	# Obtained
	45	57
MIN	0	-96
MAX	6	108
MEAN	0 4	3 5
STD DEV	1 2	36 4
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

COPY

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial #	Serial # 1389
Cal Due 4-10-00	Cal Due	Cal Due 6-29-00
Bkg 0.4 cpm	Bkg N/A	Bkg 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.04%
MDA 14.8 dpm	MDA	MDA 35 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 872	Serial #	Serial # N/A
Cal Due 4-12-00	Cal Due	Cal Due
Bkg 52 cpm	Bkg	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 dpm	MDA	MDA

Survey Type **Contamination**

Building **707**

Location Rm 200 (B)

Purpose **Reconnaisance Level Characterization**

RWP # 99-707-1204

Date 1-14-00 Time 1400

[redacted]

RCT N/A
Print name / Signature / Emp #

Comments Floors / Walls < 2 meters unbiased survey points
1 m² Scans, 1 min pats and swipes See map for locations
Number/letter (1A) denote columes

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	<2m 4L → 3L	3	-40	5	16	F	0	-28	5
2	<2m 3L → 2L	0	-16	0	17	F	0	-28	5
3	<2m 2L → 1L	0	-8	15	18	F	0	-12	20
4	<2m 1L → 1K	3	-8	15	19	F	3	-20	0
5	<2m 1K → 1J	0	0	10	20	F	0	20	5
6	<2m 1J → 1H	0	-16	15	21	F	3	-20	0
7	<2m 1H → 1G	0	-24	15	22	F	0	36	0
8	F	0	8	5	23	F	0	-8	15
9	F	0	-20	-10	24	F	3	16	0
10	F	0	-36	0	25	F	0	8	0
11	F	0	-12	24	26	F	0	-4	10
12	F	0	-12	0	27	F	0	0	5
13	F	0	12	0	28	F	0	24	0
14	F	0	16	5	29	F	0	-8	0
15	F	0	-16	24	30	F	0	24	20

Date Reviewed 1-27-00 **RS Supervision** [redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	F	0	0	0	61				
32	F	0	20	15	62				
33	F	0	-16	0	63				
34	F	0	-24	5	64				
35	F	0	4	20	65				
36	End of Survey				66				
37					67				
38					68				
39					69				
40					70				
41					71				
42					72				
43					73				
44					74				
45					75				
46					76				
47					77				
48					75				
49					79				
50					80				
51					81				
52					82				
53					83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

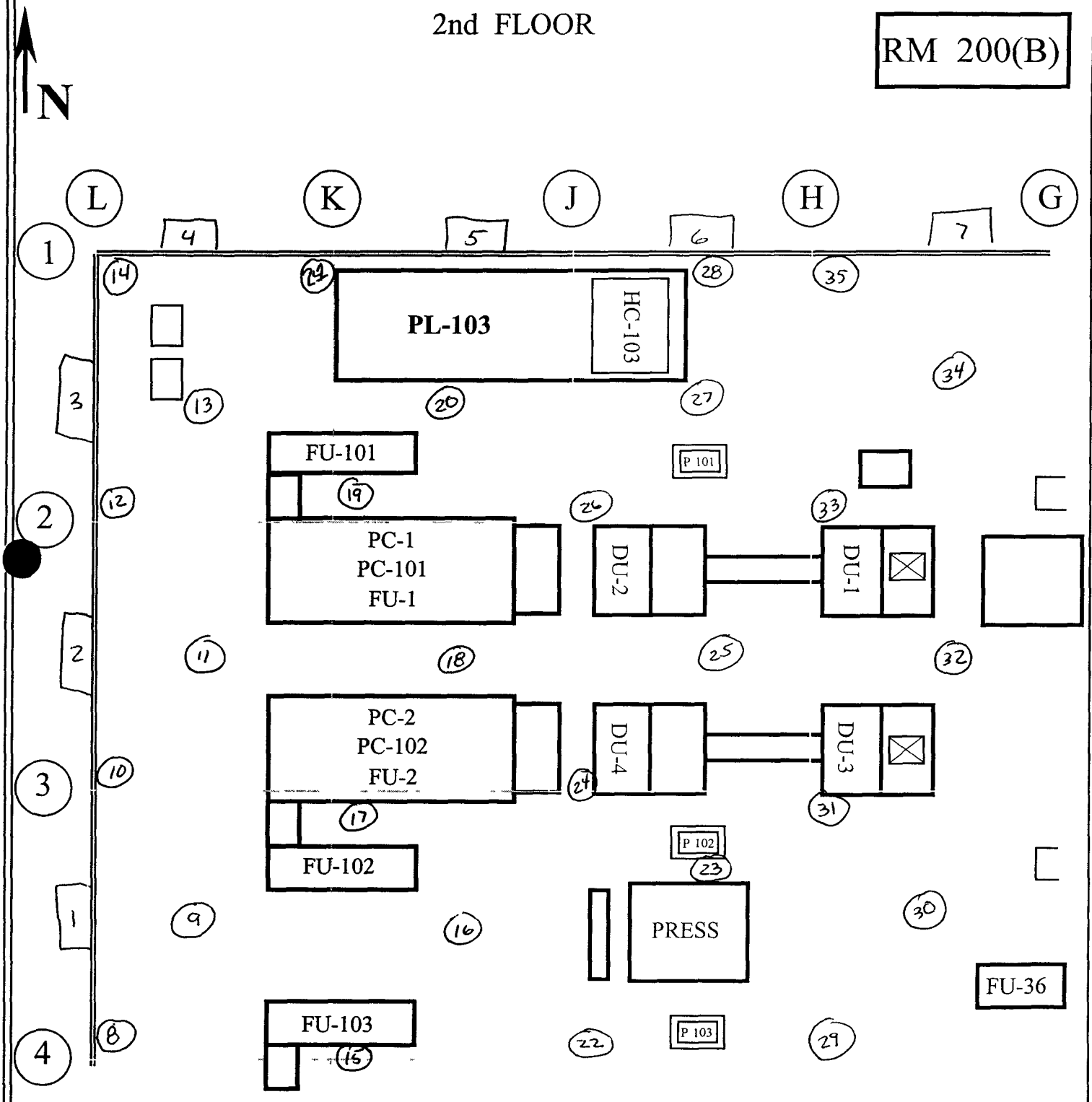
1368/466

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



COPY

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1389
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg 0.3 cpm	Bkg 0.1 cpm	Bkg 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.04%
MDA 13.9 DPM	MDA 11.5 DPM	MDA 12.9 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due N/A
Bkg 50 cpm	Bkg 57 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 108.4 DPM	MDA 115 DPM	MDA

Survey Type **Contamination**
Building 707
Location Rm 200 (B)
Purpose **Reconnaisance Level Characterization**

RWP # 99-707-1204

Date 1-19-00 Time 1500

[redacted]

RCT
Print name / Signature / Emp #

Comments Equipment: Biased survey point
1 min. pats and swipes. See map for locations
(47) → (68) overheads

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	E 103 Plenum Door	0	28	124.0	16	E FU-101	0	24	19.0
2	E 103 Plenum Door	0	-8	10.0	17	E F-101B	0	-36	14.0
3	E 103 Plenum Door	0	-4	0.0	18	E F-101A	3	56	14.0
4	E 103 Plenum Door	3	4	19.0	19	E PH1	0	-12	14.0
5	E 103 Plenum Door	0	-16	38.0	20	E Fire Cabinet	0	-60	14.0
6	E Top of 103 Plenum	0	0	14.0	21	E PH-2	0	32 ~~4~~	5.0
7	E Center top of Plenum	0	40	19.0	22	E FU-1 Door	0	8	24.0
8	E Top HC-103	0	44	5.0	23	E FU-2 Door	0	4	29.0
9	E Door HC-103	0	-12	10.0	24	E Humidity Analizer	0	28	10.0
10	E Filter on HC-103	0	-36	4.0	25	E DU-2	0	-36	10.0
11	E P-Trap interior	6	-48	109.0	26	E DU-4	0	-8	19.0
12	E Exhaust Fan 111A	0	-4	10.0	27	E PU-3A	0	-40	10.0
13	E condensate Return	0	-32	14.0	28	E PU-2B	3	16	14.0
14	E Regen intake	0	-96	14.0	29	E DU-1	0	20	24.0
15	E Pump P-101	0	-48	10.0	30	E DU-3	0	-4	5.0

Date Reviewed 1-27-00 RS Supervision [redacted]

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

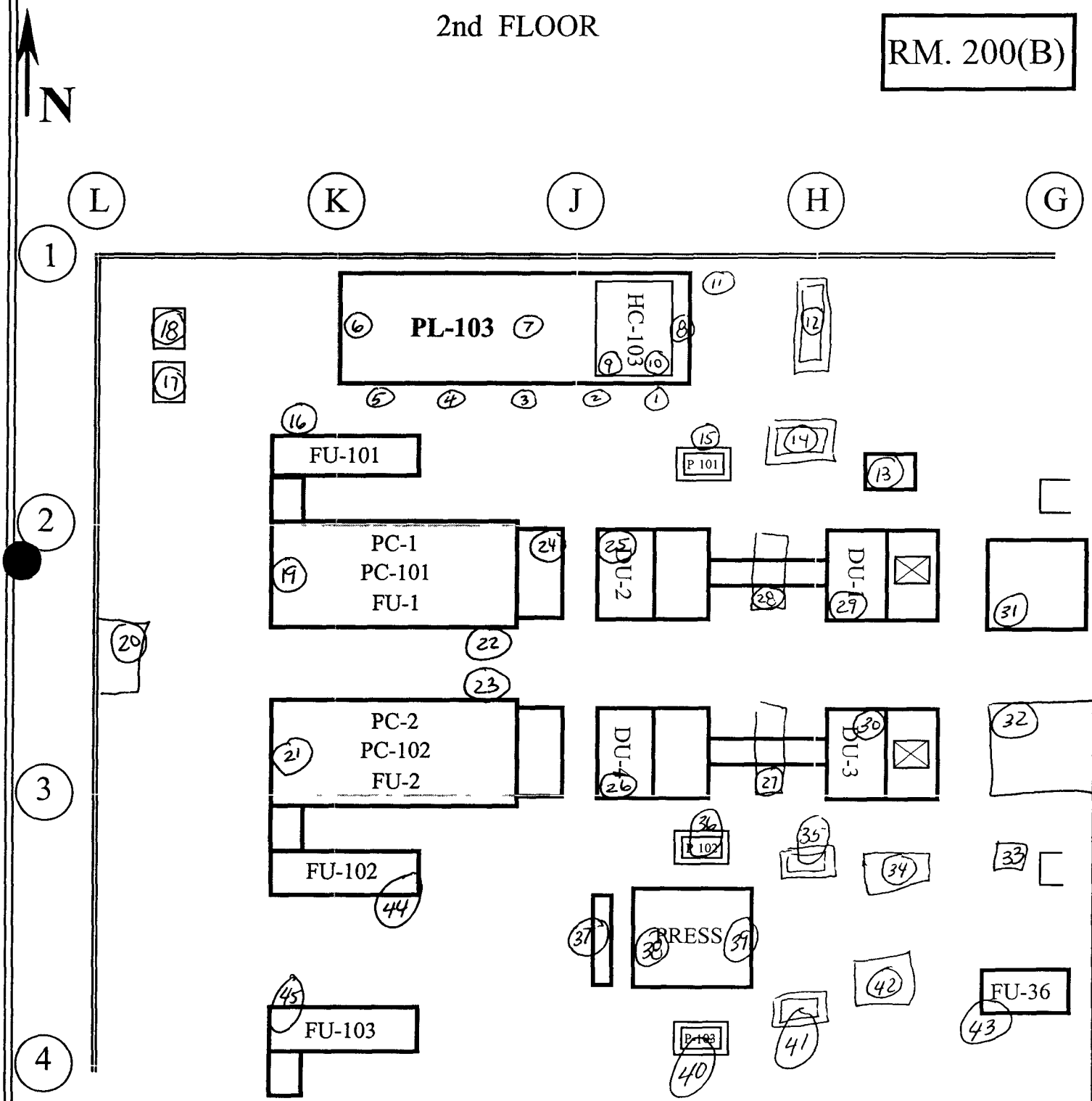
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	E FU-11 Door	0	20	140	61				
32	E FU-12 Door	0	16	140	62				
33	E CU-2	3	-12	290	63				
34	E Regen R-2 intake	0	20	10.0	64				
35.	E PU-4A+B	0	4	240	65				
36	C P-102	0	-4	100	66				
37	E Hydroform Press Panel	0	-12	0.0	67				
38.	E Press	0	36	0.0	68				
39	C Press	0	-12	620	69				
40	C P-103	0	-40	50	70				
41.	E PU-5A+B	0	20	240	71				
42	E Regen R-3 intake	0	-68	190	72				
43.	C FU-36	0	-20	00	73				
44.	E FU-102	0	-12	240	74				
45.	E FU-103	0	-8	00	75				
46	~~END of Survey~~ SPC 1-19-00				76				
47	Duct	0	32	0	77				
48	Pipe	0	36	10	75				
49.	I-Beam	0	16	24	79				
50	Pipe Heating water	0	56	14	80				
51	Steam line	0	12	14	81				
52	Wood decking	3	-6	0	82				
53	Duct	0	12	0	83				
54	Duct	0	84	4	84				
55.	Wire tray	0	36	4	85				
56	Wire tray	0	108	10	86				
57	Conduit	0	28	10	87				
58	Duct	3	52	10	88				
59	End of survey				89				
60.					90				

136E ~~136I~~/466 [illegible] 3/24/00

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

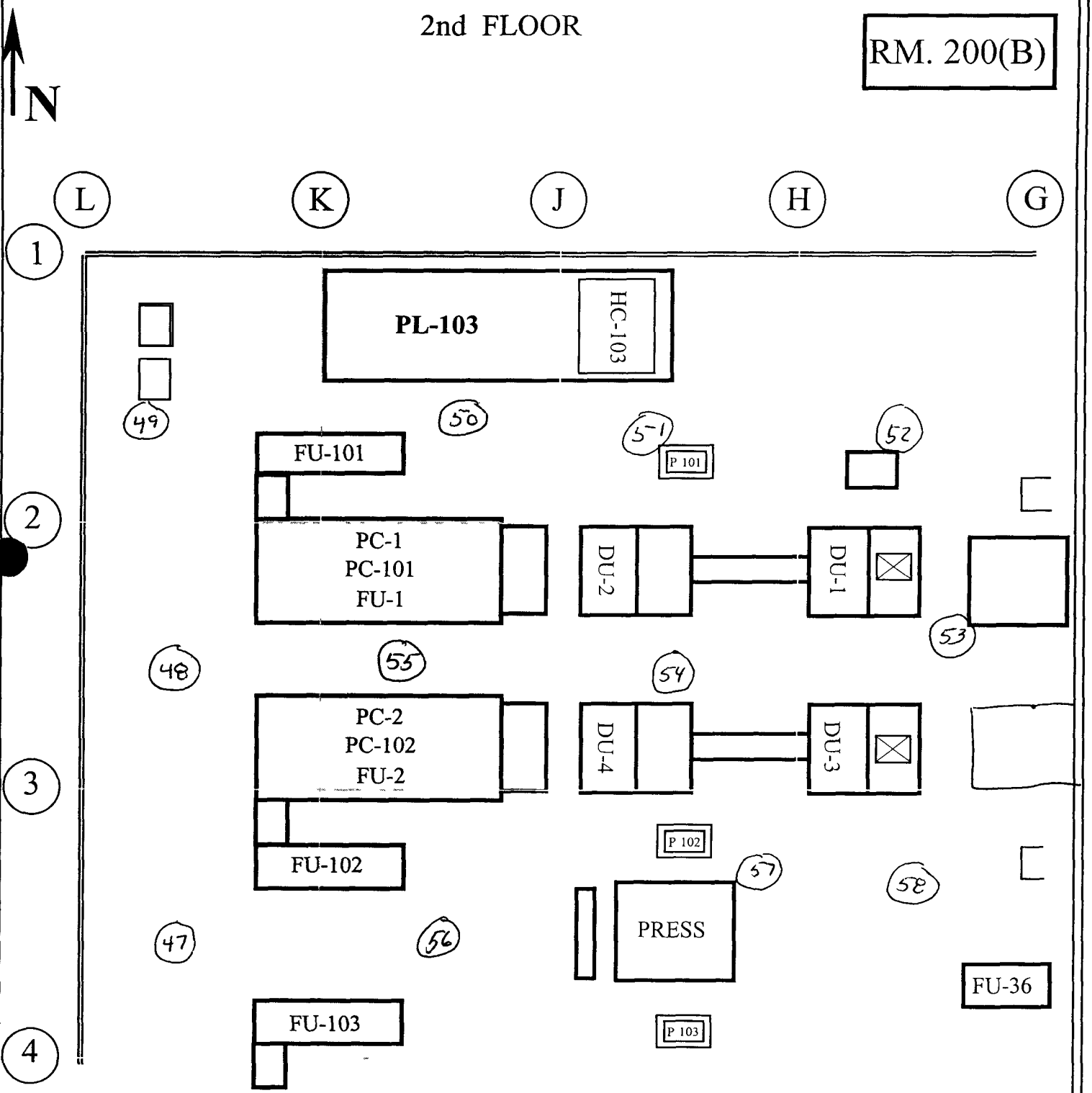


RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg 0.3 cpm	Bkg 0.1 cpm	Bkg 50 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86%
MDA 13.9 DPM	MDA 11.5 DPM	MDA 60 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 50 cpm	Bkg 57 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 1084 DPM	MDA 115 DPM	MDA

Survey Type **Contamination**
Building 707
Location Rm 200 (B)
Purpose **Reconnaisance Level Characterization**

RWP # 99-707-1204

Date 1-19-00 Time 1600

[redacted]

RCT
Print name / Signature / Emp #

Comments Floors / Walls < 2 meters Biased survey points 1m² Scans, 1min pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F Transfer pump	0	-16	19	16	F Filters FU-102	0	0	28
2	F Pumps	0	8	19	17	F Filters FU-102	0	44	23
3	F Fans	0	-16	14	18	F Filters FU-103	0	4	10
4	P-trap (F)	0	-8	23	19	F Filters FU-103	0	-32	5
5	F Plenum Door	0	-20	28	20	F Press	0	-24	28
6	F Plenum Door	0	0	19	21	F Transfer pump	3	-12	5
7	F Plenum Door	0	-24	19	22	F Pumps - tank	0	16	28
8	F Plenum Door	0	8	14	23	F Transfer pump	0	0	14
9	F Plenum Door	0	0	14	24	F Pumps - tank	0	-28	5
10	F Filters FU-101	0	-20	14	25	F Pumps + Tank	3	-32	28
11	F Filters FU-101	0	-20	23	26	F Pumps + Tank	3	24	28
12	F Drain	0	-24	23	27	F Pump-pipes	0	-12	19
13	F Door	0	-32	14	28	F Pump	3	-12	32
14	F Door	0	-32	0	29	F Air exchanger	0	48	14
15	F Drain	0	-28	23	30	F Air exchanger	0	0	19

Date Reviewed. 1-27-00 RS Supervisi[redacted]

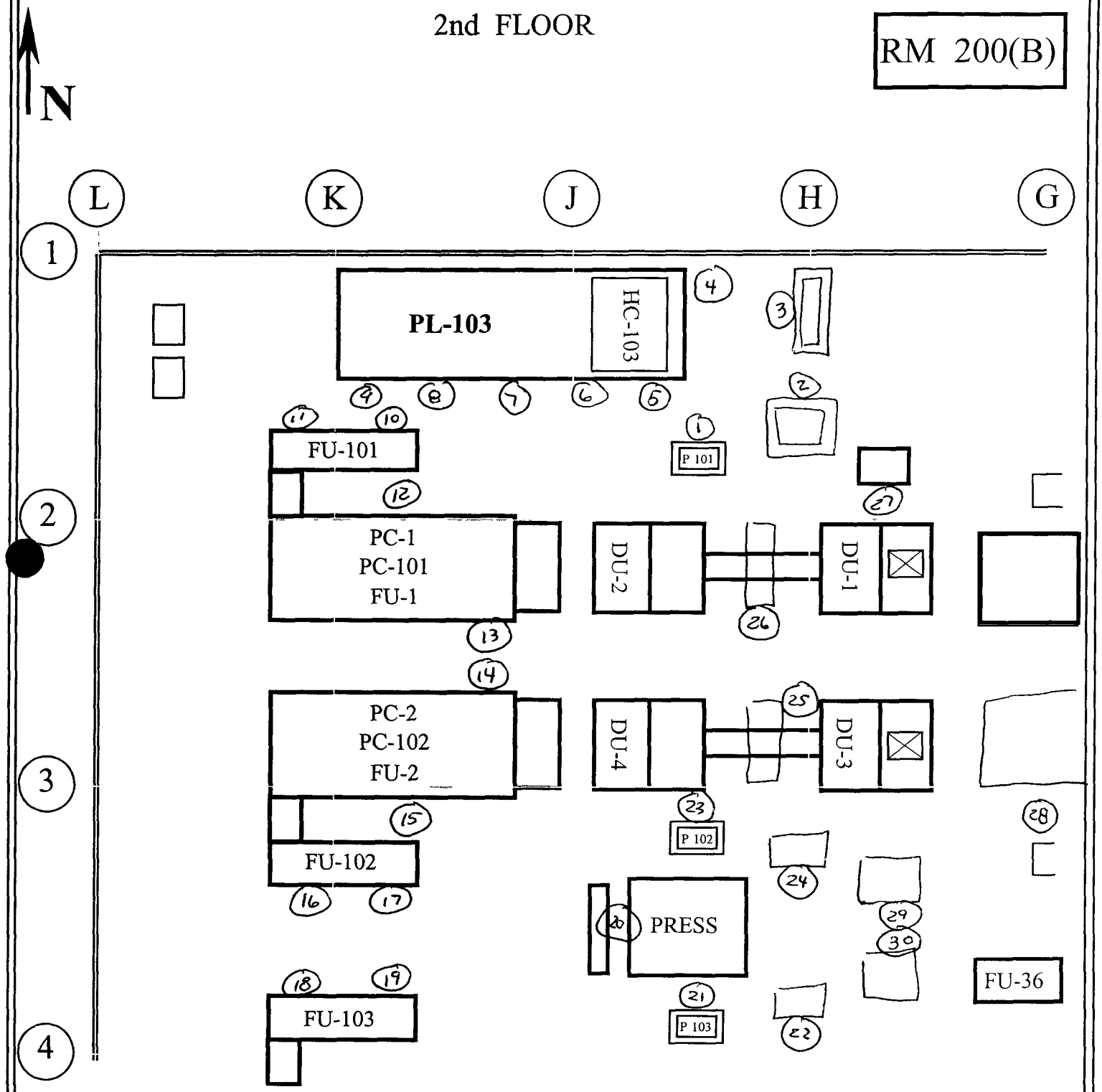
218

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0 1 cpm	Bkg 0 0	Bkg 0 2
Efficiency 33%	Efficiency 33%	Efficiency 20 63
MDA 11.5	MDA 8.2	MDA 45.0
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14 00	Cal Due 4-12-00	Cal Due
Bkg 46 0	Bkg 52.0	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 104.5	MDA 110 4	MDA

Survey Type **Contamination**

Building 707

Location RM 200 (B)

Purpose **Reconnaisance Level Characterization**

RWP # 99 707-1204

Date 1 24-00 Time 1530

[redacted]

Comments CEILINGS/WALLS >2METERS: BIASED SURVEY POINTS /MIN PATS AND SWIPES

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	>2w	3	-36	5	16	C	0	4	15
2	>2w	3	24	0	17	C	0	-60	10
3	>2w	0	-16	19	18	C	0	16	-5
4	>2w	0	24	0	19	C	3	-8	10
5	>2w	0	-32	5	20	C	0	0	10
6	>2w	0	8	-5	21	C	0	-20	5
7	>2w	3	4	5	22	C	0	16	10
8	>2C	3	-20	5	23	C	0	-24	-5
9	C	0	-36	24	24	C	0	40	5
10	C	0	-36	15	25	C	0	-28	39
11.	C	0	0	10	26	C	0	-40	10
12	C	0	12	5	27	C	0	-4	19
13	C	0	-4	19	28	C	0	-40	19
14	C	0	-52	19	29	C	0	-48	15
15	C		8	5	30	C	0	12	15

Date Reviewed 1 2700 RS Supervision [redacted]

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 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

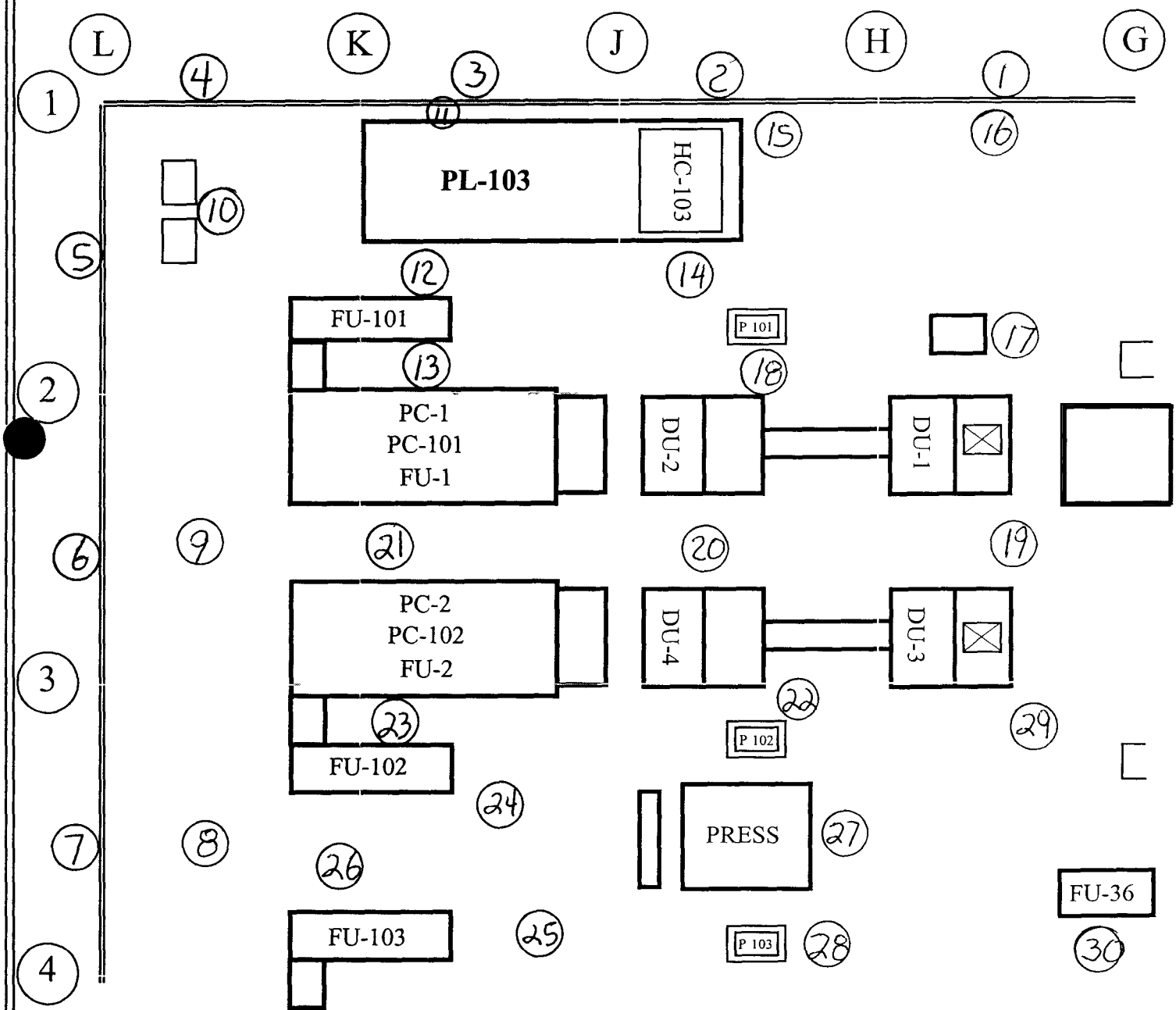
Drawing Showing Survey Points

CEILING/WALLS
>2 METERS BIASED
30 POINTS

2nd FLOOR

RM. 200(B)

DATE: 1-24-00



 136K ~~136~~/466 2/24/00

221

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1197#003	Matrix	Waste
Site Sample ID	002.003				
Other Sample ID	Bldg 707 Rm 200	Collection Date	5/2/00	Date Received	5/4/00
		Batch Number	1936	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1936-02	0 865	0 235	0 292	0 079
ACW03	U-235	KH100-1936-02	0 065	0 081	0 083	0 108
ACW03	U-238	KH100-1936-02	0 842	0 232	0 287	0 087
ACW03	PU-238	KH100-1936-02	0 051	0 100	0 100	0 155
ACW03	PU-239/240	KH100-1936-02	-0 011	0 016	0 016	0 079
ACW03	AM-241	KH100-1936-02	0 050	0 058	0 059	0 045

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Pu	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Am	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB

1000 Monticello Court * Montgomery Alabama * 36117 * 334 272 2234 * FAX 334 213 0407

A-3

RLC RADIOLOGICAL DATA

Survey Area C

2nd Floor

Radiological Survey/Sample Results for Survey Area C (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	34
MIN	0	N/A
MAX	29	N/A
MEAN	15 4	N/A
STD DEV	7 4	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	0	N/A
MAX	24	N/A
MEAN	9 8	N/A
STD DEV	8 1	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	-5	N/A
MAX	29	N/A
MEAN	7 5	N/A
STD DEV	9 2	N/A
Equipment Biased	# Required	# Obtained
	45	58
MIN	0	N/A
MAX	52	N/A
MEAN	11 8	N/A
STD DEV	8 9	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	34
MIN	0	-64
MAX	6	84
MEAN	0 9	3 6
STD DEV	1 6	31 8
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	0	-48
MAX	12	28
MEAN	1 0	-15 7
STD DEV	3 0	22 1
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-56
MAX	9	72
MEAN	1 2	18 3
STD DEV	2 2	25 6
Equipment Biased	# Required	# Obtained
	45	58
MIN	0	-48
MAX	6	80
MEAN	0 4	-2 1
STD DEV	1 2	26 6
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.12 cpm	Bkg 0.0 cpm	Bkg 40 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 12. DPm	MDA 8 DPm	MDA 57 DPm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC 833	Serial # BC-872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 49 cpm	Bkg 53 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 107 DPm	MDA 111 DPm	MDA

Survey Type **Contamination**
Building 707
Location Rm 200 (C)
Purpose **Reconnaisance Level Characterization**

RWP # 99-707-1204

Date 1-18-00 Time 1530

RCT [redacted]

RCT _____
Print name / Signature / Emp #

Comments Floors / Walls <2meters: unbiased survey points - 1m² Scans 1min Pats and swipes
Number / Letter (1A) depote columes Floor Survey locations see map

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	<2 C4 → C5	0	16	0	16	F	0	-8	19
2	<2 C5 → C6	0	8	5	17	F	0	52	10
3	<2 C6 → C7	0	32	10	18	F	3	4	15
4	<2 C7 → D7	0	-16	15	19	F	3	0	24
5	<2 E7 (NEXT TO)	0	16	10	20	F	3	-52	15
6	<2 E7 → F7	0	24	5	21	F	0	-16	29
7	<2 F7 → G7	0	44	24	22	F	0	24	19
8	F	3	28	15	23	F	0	0	19
9	F	0	-64	10	24	F	3	-44	24
10	F	0	28	10	25	F	0	12	24
11	F	0	20	5	26	F	3	4	10
12	F	3	-8	15	27	F	0	-28	10
13	F	0	16	10	28	F	0	-8	24
14	F	6	84	5	29	F	0	24	5
15	F	0	8	10	30	F	0	4	10

Date Reviewed 1/27 00 RS Supervision [redacted]

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	F	3	4	19	61				
32.	F	0	-24	24	62				
33	F	0	16	15	63				
34.	F	0	-60	29	64				
35.	end of Survey				65				
36.					66				
37.					67				
38.					68				
39.					69				
40.					70				
41					71				
42.					72				
43					73				
44.					74				
45					75				
46.					76				
47					77				
48					75				
49					79				
50					80				
51					81				
52					82				
53					83				
54.					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

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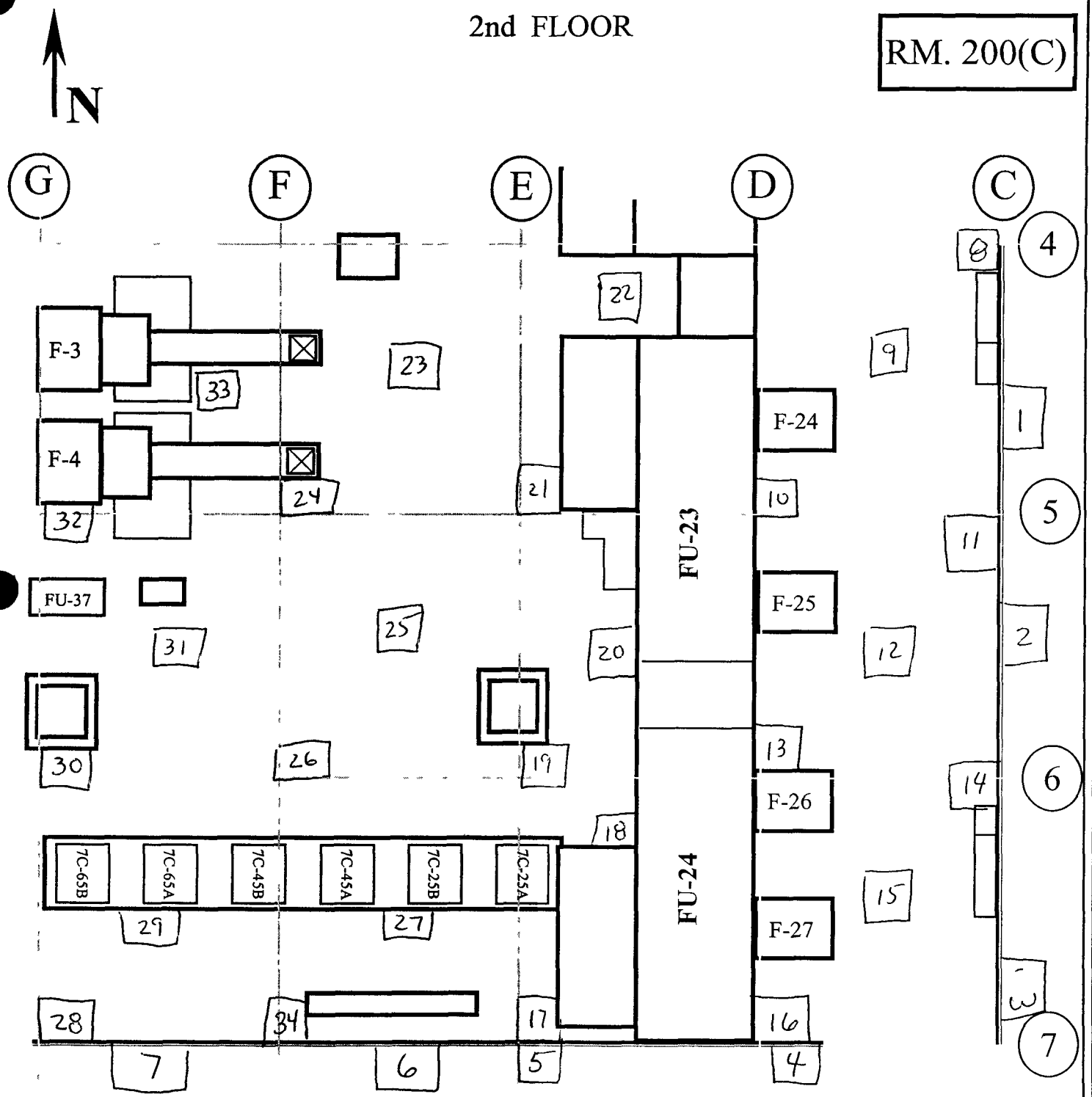
RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.1 cpm	Bkg 0.0 cpm	Bkg 0 0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 11.5 DPM	MDA 8 2 DPM	MDA 12.9 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 46 cpm	Bkg 52 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 104.5 DPM	MDA 110.4 DPM	MDA

Survey Type **Contamination**

Building 707

Location ~~RCT~~ Rm 200(C)

Purpose **Reconnaisance Level Characterization**

RWP # 99-707-1204

Date 1-24-00 Time 1500

[redacted]

RCT _____

Print name / Signature / Emp #

Comments Floor / Walls <2 meters Biased survey points 1m² Scans, 1min pats and swipes. See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F Fan F-27	0	40	0	16	F Pump	0	12	5
2.	F P-trap	0	-8	5	17	F Pump	0	-12	15
3	F FAN-F-26	0	-12	19	18	F Pump	0	+16	10
4.	F Door	0	-12	10	19	F FU-37	0	28	10
5	F FAN-F-25	0	-16	10	20	F Pipes	0	-20	10
6	F FAN-F-24	0	-4	15	21	F Duct	0	-16	5
7	F P-trap	0	20	0	22	F Door	0	4	24
8	F Door	3	40	24	23	F Door	9	-48	15
9.	F Door	0	-24	0	24	F Duct	0	-32	0
10	F Vent	0	-4	5	25	F Pipes	0	-40	0
11	F Door	0	-40	5	26	end of Survey			
12	F Pump	12	-24	15	27				
13	F Pump	0	-48	19	28				
14	F Pump	0	-40	0	29				
15	F Pump	0	[redacted]						

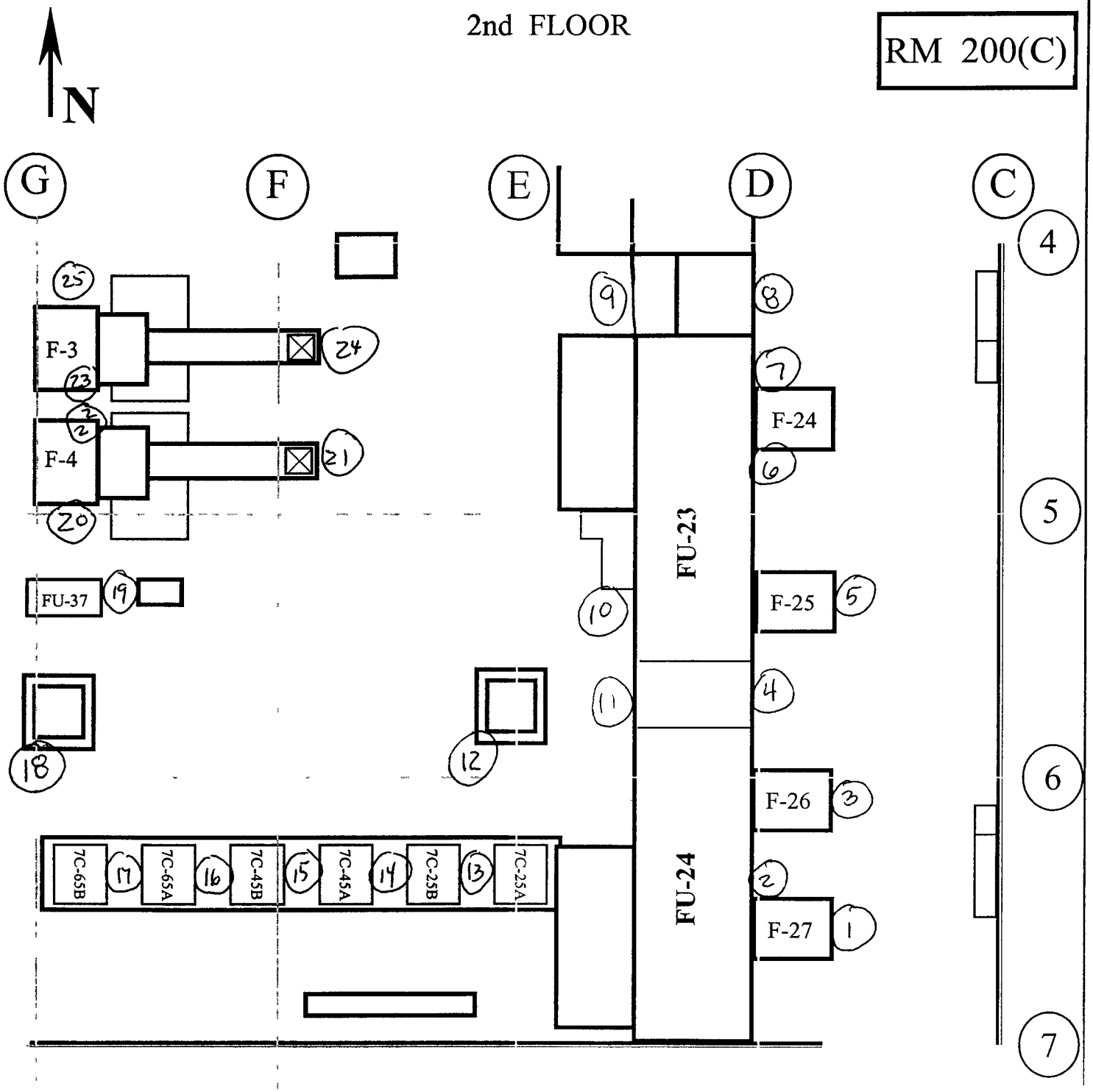
Date Reviewed 12700 RS Supervis[redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.1 cpm	Bkg 0.0 cpm	Bkg 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 11.5 DPM	MDA 8.2 DPM	MDA 12.9 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 46 cpm	Bkg 52 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 104.5 DPM	MDA 110.4 DPM	MDA

Survey Type **Contamination**
Building 707
Location Rm 200 (c)
Purpose **Reconnaisance Level Characterization**

RWP # 99-707-1204

Date 1-24-00 Time 1600

RC [redacted]

RCT
Print name / Signature / Emp #

Comments Equipment: Biased survey points 1 m pats and swipes
See map for locations
(47) → (58) overheads

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	Elect panel	0	-16	19	16	Door	0	-16	9
2	Elect box	3	-20	19	17	Top	0	-24	15
3	Elect box	0	-20	5	18	Top	0	-4	10
4	Elect box	0	24	10	19	Door	0	16	24
5	Elect panel	0	4	10	20	Top FU-23	0	-16	5
6.	Top FU 24	3	-40	10	21	Control box	0	-40	15
7	Fan F-27	3	24	10	22	Cabinet	0	-36	15
8	P-trap	0	-20	15	23	Cabinet	0	-12	0
9	Fan F-26	0	12	0	24	Cabinet	3	-4	5
10	Door	0	-12	0	25	Pump	0	20	52
11	Top	3	-8	19	26	Door	0	0	10
12	Fan F-25	0	-36	29	27	Top	0	-12	15
13	Top FU-23	0	-4	10	28	Top FU-24	0	8	5
14	Fan F~~U~~SF-24	0	24	10	29	Pump	0	12	10
15	P-trap	0	-32	10	30	Pump	0	36	10

Date Reviewed: 1 27 00 RS Supervis [redacted]

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	Pump	0	32	19	61				
32	Pump	0	-40	19	62				
33	Pump	0	-32	10	63				
34	Pump	0	24	10	64				
35	Pump	0	-36	10	65				
36	Control box	0	0	19	66				
37	FU-37	0	8	10	67				
38	Motor	0	32	10	68				
39	Duct	0	-8	19	69				
40	Fan F-4	0	4	5	70				
41	Fan F-3	0	44	24	71				
42	Duct	0	-48	15	72				
43	Motor	0	4	19	73				
44	Cabinet	0	-20	5	74				
45	Elect box	0	-40	0	75				
46	Elect panel	0	-12	0	76				
47	Duct	6	-24	29	77				
48	Duct	0	36	10	75				
49	Duct	0	-40	10	79				
50	Duct	0	0	10	80				
51	Elect Box	0	16	10	81				
52	Duct	0	80	5	82				
53	Duct	3	12	0	83				
54	Steam line	0	12	0	84				
55	Duct	0	0	0	85				
56	Duct	0	4	10	86				
57	Wire tray	0	4	15	87				
58	Conduit	0	56	15	88				
59	end of Survey				89				
60					90				

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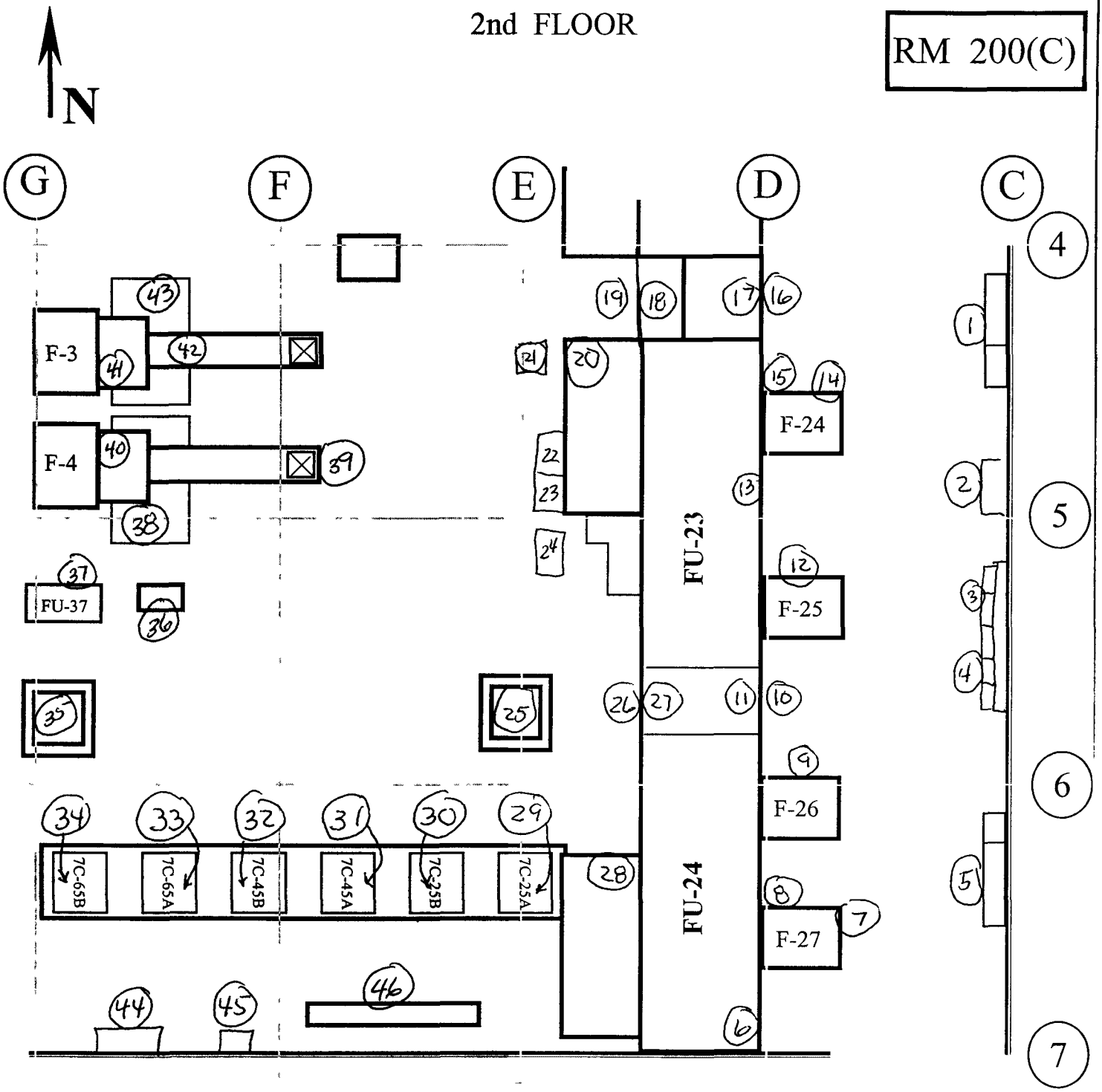
146F/466

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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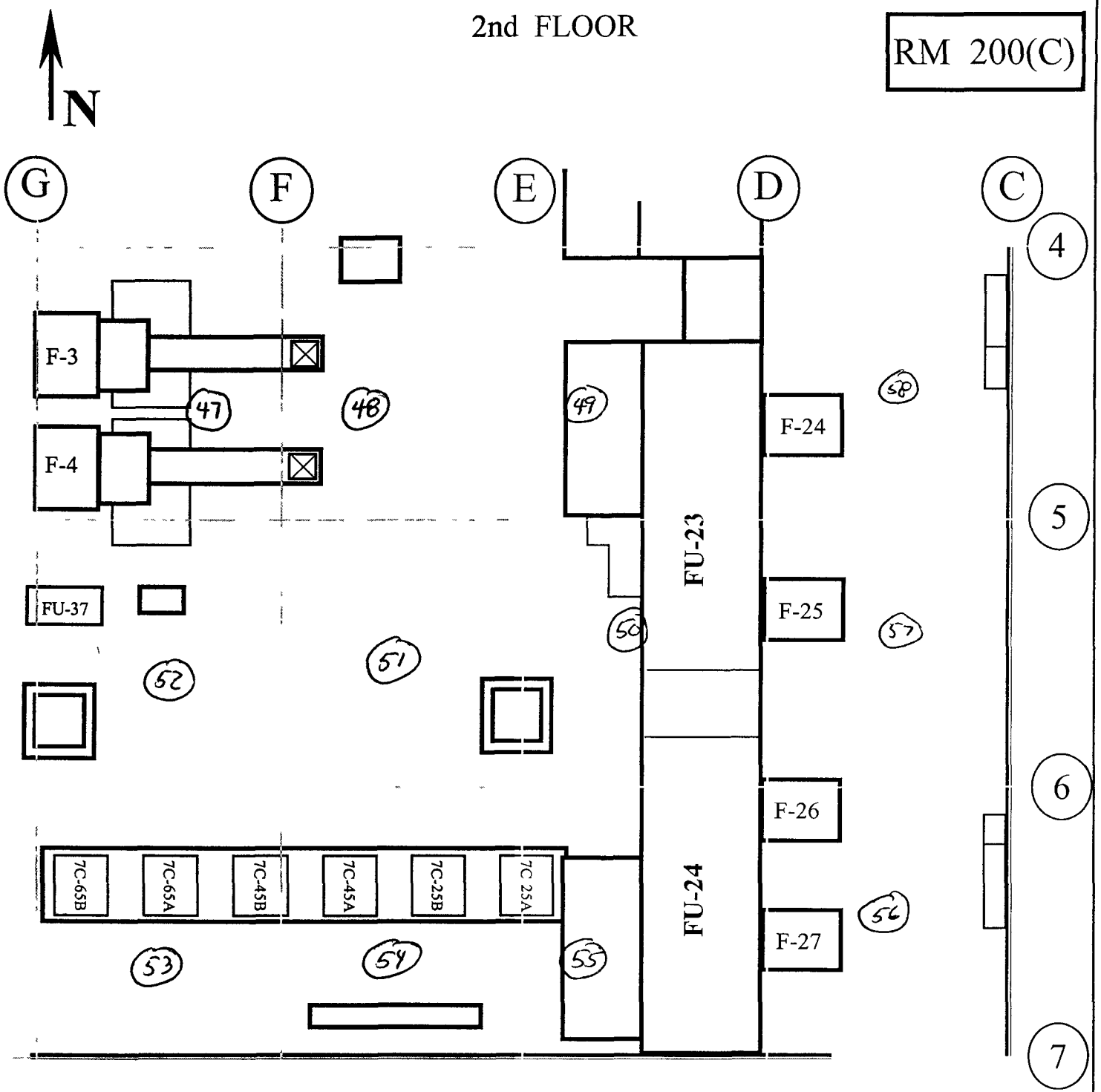
RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0 0 cpm	Bkg 0 0 cpm	Bkg 30 cpm
Efficiency 33%	Efficiency 33%	Efficiency 63%
MDA 8.2 dpm	MDA 8.2 dpm	MDA 52.2 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due N/A
Bkg 43 cpm	Bkg 45 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 101.3 dpm	MDA 103.4 dpm	MDA

Survey Type **Contamination**
Building 707
Location Rm 200 (C)
Purpose **Reconnaisance Level Characterization**

RWP # 99-707-1204
Date 1-26-00 Time 1500

[redacted]

Comments Ceilings / Walls > 2 meter Biased survey points 1min pats and swipes

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	C	0	~~40~~ -16	10	16	>2	0	0	10
2	C	0	8	10	17	>2	0	40	-5
3	C	0	-56	0	18	>2	0	0	5
4	C	0	16	-5	19	C	0	-4	29
5	C	0	-12	29	20	>2	6	24	0
6	C	0	56	0	21	>2	0	72	10
7	C	0	0	0	22	>2	0	20	0
8	C	0	4	10	23	C	3	24	-5
9	C	3	28	0	24	C	0	12	15
10	C	3	32	~~30~~ 0	25	C	3	56	10
11	C	0	12	15	26	C	0	36	5
12	C	9	32	19	27	C	3	32	0
13	C	3	-8	19	28	C	0	36	15
14	C	3	48	10	29	C	0	4	5
15	C	0	24	15	30	>2	0	28	0

Date Reviewed 1-27-00 RS Supervision [redacted]
Print Name Signature Emp #

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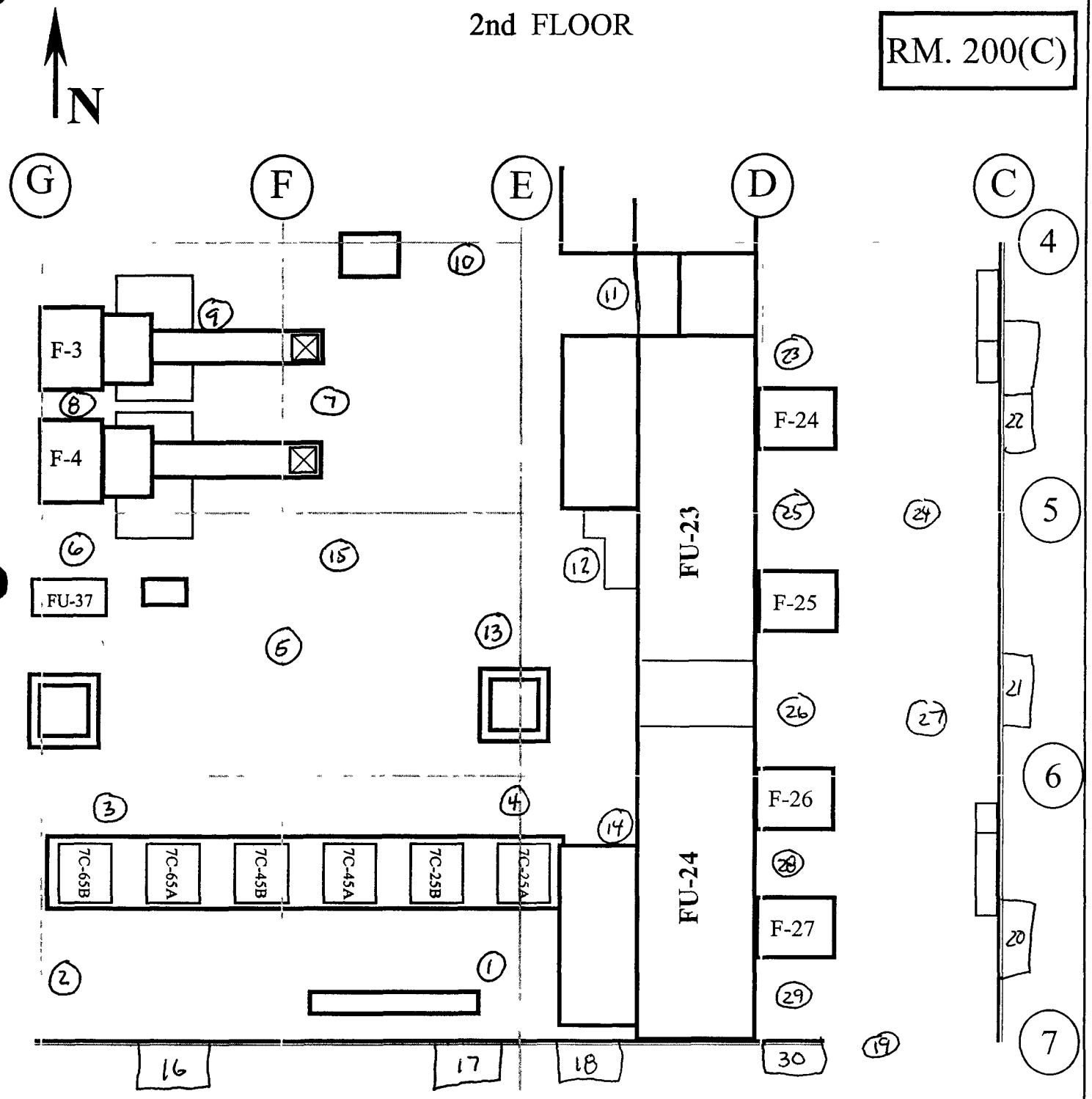
RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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A-3

RLC RADIOLOGICAL DATA

Survey Area D

2nd Floor

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Radiological Survey/Sample Results for Survey Area D (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	43	N/A
MEAN	16 1	N/A
STD DEV	9 9	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	5	N/A
MAX	82	N/A
MEAN	21 0	N/A
STD DEV	15 1	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	-15	N/A
MAX	15	N/A
MEAN	2 0	N/A
STD DEV	6 9	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	-10	N/A
MAX	147	N/A
MEAN	15 2	N/A
STD DEV	34 4	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	9	76
MEAN	0 5	12 3
STD DEV	1 9	28 2
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	0	-44
MAX	6	84
MEAN	0 7	11 4
STD DEV	1 6	30 6
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-44
MAX	3	120
MEAN	0 1	9 6
STD DEV	0 5	33 9
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-48
MAX	6	64
MEAN	0 6	7 7
STD DEV	1 4	25 4
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1197#003	Matrix	Waste
Site Sample ID	008.003				
Other Sample ID	Bldg 707 2nd level	Collection Date	5/2/00	Date Received	5/4/00
		Batch Number	1936	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1936-08	1 07	0 276	0 349	0 042
ACW03	U-235	KH100-1936-08	0 126	0 103	0 110	0 091
ACW03	U-238	KH100-1936-08	0 979	0 264	0 328	0 074
ACW03	PU-238	KH100-1936-08	-0 006	0 011	0 011	0 066
ACW03	PU-239/240	KH100-1936-08	0 000	0 000	0 000	0 038
ACW03	AM-241	KH100-1936-08	0 016	0 031	0 031	0 042

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Pu	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Am	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0.1 cpm	Bkg 02	Bkg 30 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20 63%
MDA 115 dpm	MDA 129	MDA 52.2 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due N/A
Bkg 44 cpm	Bkg 46 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 1024 dpm	MDA 1045 dpm	MDA

Survey Type. **Contamination**
Building 707
Location RM 200(D)
Purpose **Reconnaisance Level Characterization**

RWP # 99-707-1204

Date 1-27-00 Time 1300

[redacted]

Comments Ceiling / Walls > 2 meters : Biased survey points
1 min. pats and swipes

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	>2 W	0	20	0	16	C	0	-24	-5
2	>2 W	0	36	10	17	C	0	120	0
3	>2 W	0	0	5	18	C	0	32	-5
4	>2 W	0	16	0	19	C	0	-44	0
5.	>2 W	0	8	0	20	C	0	-32	5
6	>2 W	0	-28	-5	21	C	0	0	5
7	>2 W	0	-12	5	22	C	0	0	15
8.	C	0	48	5	23	C	0	-32	-15
9	C	0	0	0	24	C	0	28	5
10	C	0	28	15	25	C	0	4	5
11	C	3	-12	10	26	C	0	36	0
12	C	0	16	-5	27	C	0	0	5
13.	C	0	-32	0	28	C	0	52	-5
14	C	0	24	-5	29	C	0	56	5
15.	C	0	-12	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Date Reviewed: 1-28-00 RS Supervision: [redacted]

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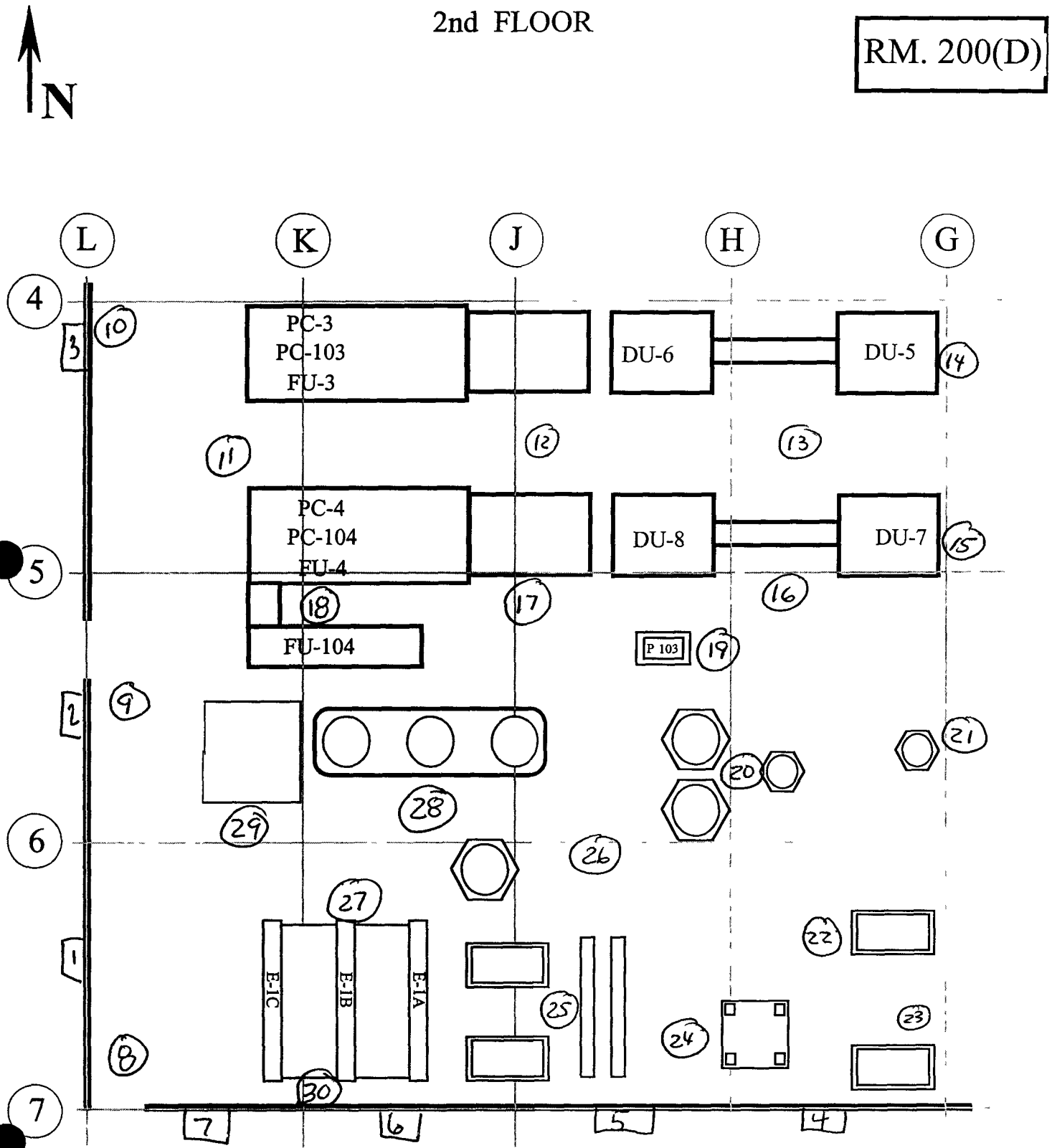
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.1 cpm	Bkg 0.2 cpm	Bkg 2 cpm
Efficiency 33%	Efficiency 33%	Efficiency 210%
MDA 11.5 DPM	MDA 12.9 DPM	MDA 51.3
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 44 cpm	Bkg 46 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 102.4 DPM	MDA 104.5 DPM	MDA

Survey Type: Contamination
Building 707
Location Rm 200 (D)
Purpose Reconnaisance Level Characterization

RWP # 99-707-1204

Date 1-27-00 Time 1500

[redacted]

RCT
Print name / Signature / Emp #

Comments Floors / Walls < 2 meters unbiased survey points 1m² scans, 1 min. pats and swipes see map for locations Number / Letter (1A) denote columes

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	<2 G7 → H7	0	8	0	16	F	0	28	10
2.	<2 H7 → J7	0	12	19	17	F	0	-8	19
3.	<2 J7 → K7	9	52	5	18	F	0	-20	24
4	<2 K7 → L7	0	-12	29	19	F	0	-8	19
5.	<2 L7 → L6	0	-8	29	20	F	0	-40	24
6.	<2 L6 → L5	0	48	0	21	F	0	72	34
7.	<2 L5 → L4	0	12	19	22	F	0	-8	10
8	F	0	16	19	23	F	0	76	5
9.	F	0	-4	5	24	F	0	24	15
10	F	0	-8	10	25	F	0	20	19
11	F	6	-8	10	26	F	0	12	10
12	F	0	8	19	27	F	0	4	43
13.	F	0	48	10	28	F	0	32	10
14	F	0	-24	10	29	F	0	24	24
15	F	0	16	15	30	F	0	0	5

Date Reviewed: 1-28-00 RS Supervision. [redacted]

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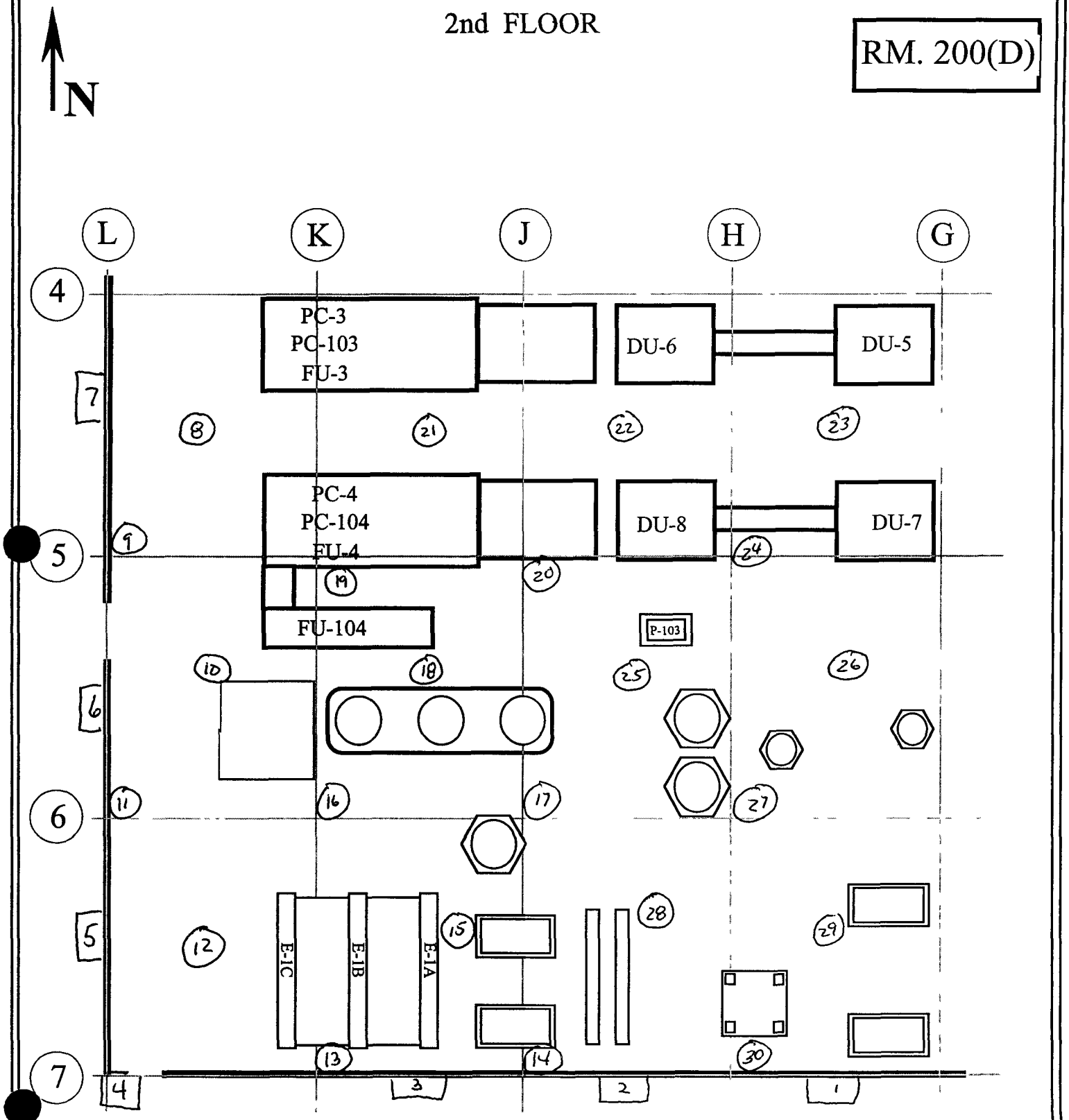
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0.1 cpm	Bkg 0 0 cpm	Bkg 2 0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20 63%
MDA 115 dpm	MDA 8 2 dpm	MDA 45 DPM
Mfg Eberline	Mfg Eberline	Mfg NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 833	Serial # 872	Serial # 3265
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due 7-3-00
Bkg 46 cpm	Bkg 45 cpm	Bkg 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 21 01%
MDA 1045 dpm	MDA 1034 dpm	MDA 35. dpm

Survey Type: Contamination
Building 707
Location Rm 200 D
Purpose Reconnaisance Level Characterization

RWP # 99-707-1204

Date 1-28-00 Time 1430

R [redacted]

R [redacted]

Comments Equipment Biased survey points 1min. pats and swipes see map for locations ① → ⑫ overheads #13-45 <2 meters equipment

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Pipes	0	0	15	16	conditioner pumps	6	16	19
2	Duct	0	64	5	17	Top of DU-7	0	20	0
3	Wire tray	0	-20	0	18	condensate pump	0	20	10
4.	Steamline	0	18	19	19	R-4	3	56	5
5	Elect Box	0	24	5	20	PU-8	0	-4	0
6.	Wire tray	0	12	5	21	P-104	0	4	0
7.	Steam line	0	4	0	22	FU-104	0	24	5
8.	Duct	0	-24	10	23	V-36C	0	-16	-10
9	Pipe process water	0	-24	15	24	V-36B	0	28	147
10.	Heating water return	0	-12	10	25	V-36A	0	-12	14
11	Wire tray	0	52	5	26	Dryer	3	-8	-10
12	Wire tray	0	4	10	27	P-8	0	0	-5
13.	E FU-3 Door	0	12	10	28	P-78	0	28	10
14	E FU-4 Door	0	32	14	29	V-49 surge TANK	0	20	5
15	conditioner pumps	0	56	33	30	V-33	3	36	119

Date Reviewed: 1-28-00 RS Supervision: [redacted]

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	V-32	0	12	14	61				
32	T-34	0	4	0	62				
33.	V-35	0	-4	143	63				
34.	XAS-1 Air seperater	0	32	0	64				
35	P-20B Hot water pump	3	4	-10	65				
36	P-20A Hot water pump	0	-12	14	66				
37.	Pipes	3	-40	33	67				
38	E8-B	0	-8	19	68				
39.	E-8-A	3	-4	14	69				
40	P1A cooling water pumps	0	12	10	70				
41.	P1B cooling water pumps	3	-36	-5	71				
42.	E-1A	0	28	0	72				
43	E-1B	0	-48	0	73				
44.	E-1C	0	-24	-5	74				
45.	Exhaust Duct	0	20	-10	75				
46.	End Of Survey				76				
47.					77				
48.					75				
49.					79				
50.					80				
51.					81				
52					82				
53.					83				
54.					84				
55.					85				
56					86				
57					87				
58.					88				
59.					89				
60.					90				

RS FORMS 07.02-01

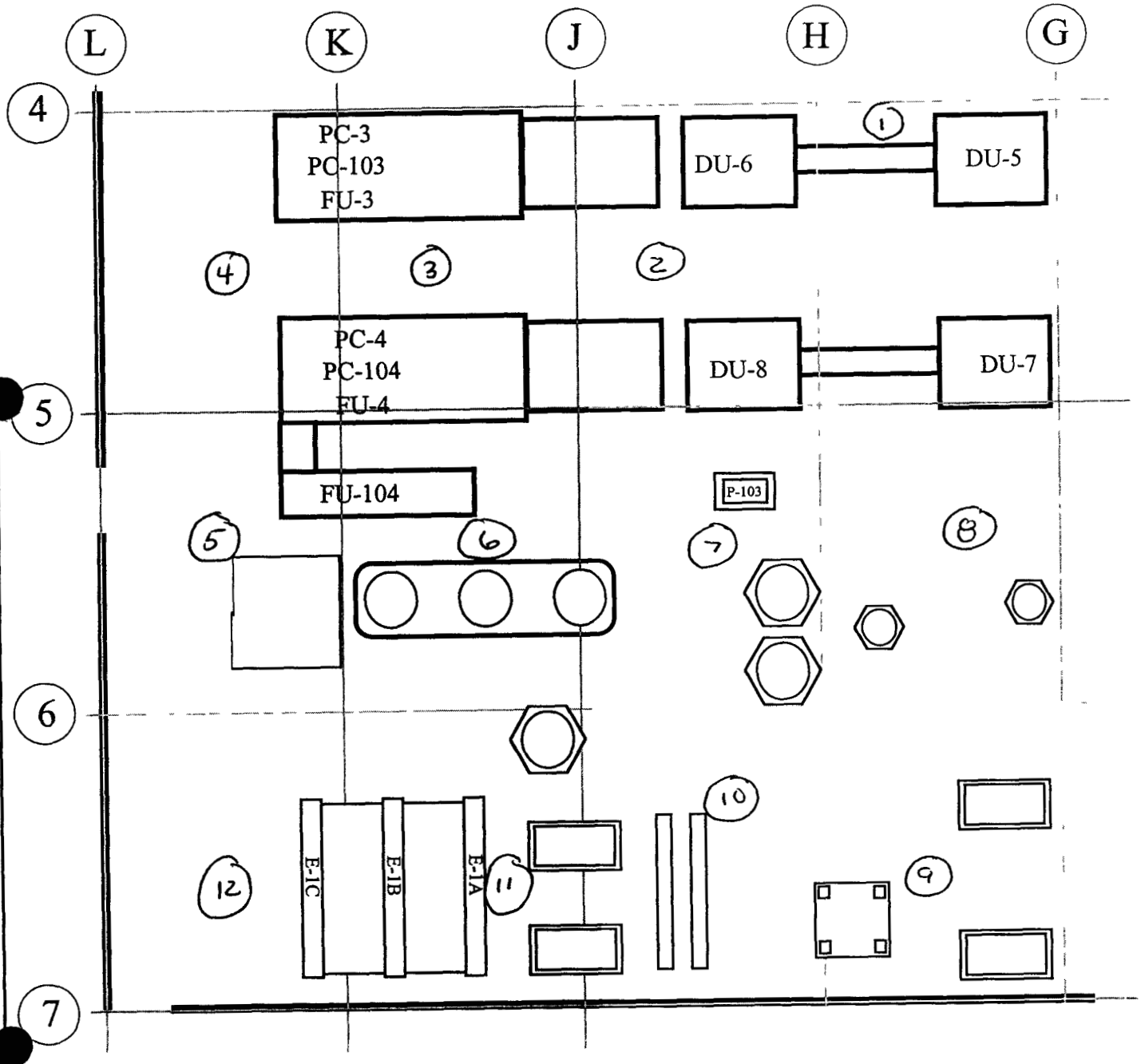
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

2nd FLOOR

RM 200(D)



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RS FORMS 07.02-01

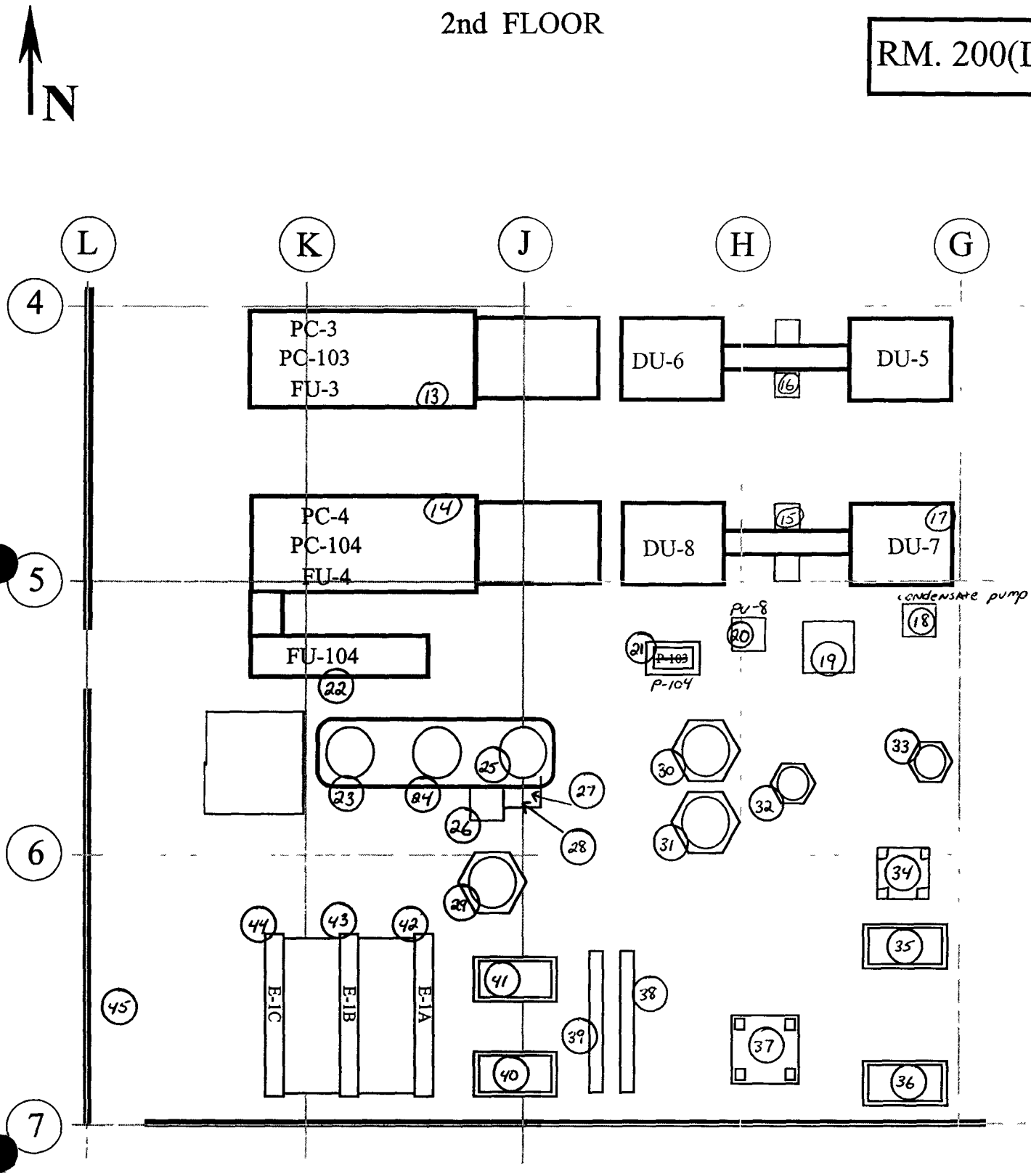
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

2nd FLOOR

RM. 200(D)



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6 29-00
Bkg 0.1	Bkg 0.0	Bkg 3.0
Efficiency 33%	Efficiency 33%	Efficiency 21.86%
MDA 11.5	MDA 8.2	MDA 49.3
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 46.0	Bkg 45.0	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 104.5	MDA 103.4	MDA

Survey Type **Contamination**

Building 707

Location ROOM 200 (D)

Purpose **Reconnaisance Level Characterization**

RWP # 99-707-1204

Date 1-28-00 Time 1430

[redacted]

RCT _____
Print name / Signature / Emp #

Comments FLOOR/WALL BIASED <2 METERS - 25 POINTS
1M² SCANS - 1 MIN - PATS AND SWIPES (SEE MAP FOR LOCATIONS)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F Duct	0	-44	19	16	F Tanks	3	-24	5
2.	F Duct	0	-16	32	17	F Tank	3	44	28
3.	F Pipes	0	32	14	18	F Tank	0	24	9
4.	F Door	0	-4	32	19	F Tank	0	8	19
5.	F Door	0	-4	19	20	F Pump	3	0	14
6.	F Tank	0	32	5	21	F Pump	0	28	14
7.	F Tank	0	20	14	22	F Pipes	0	0	32
8	F Drain	0	4	14	23	F Pump	0	-12	28
9.	F Pump	0	-16	19	24	F Pump	0	32	19
10	F Drain	0	-12	28	25	F Tank	0	84	9
11.	F Filter · FU-104	0	-16	19	26				
12.	F Tanks	0	80	9	27				
13	F Pipes, pump	3	20	23 ~~24~~	28	NA			
14	F ~~SPEC 1-28-00~~ Duct	0	36	~~14~~ 19	29				
15	F Pipe	6	-12	82	30				

Date Reviewed 1·28·00 RS Supervision [redacted]

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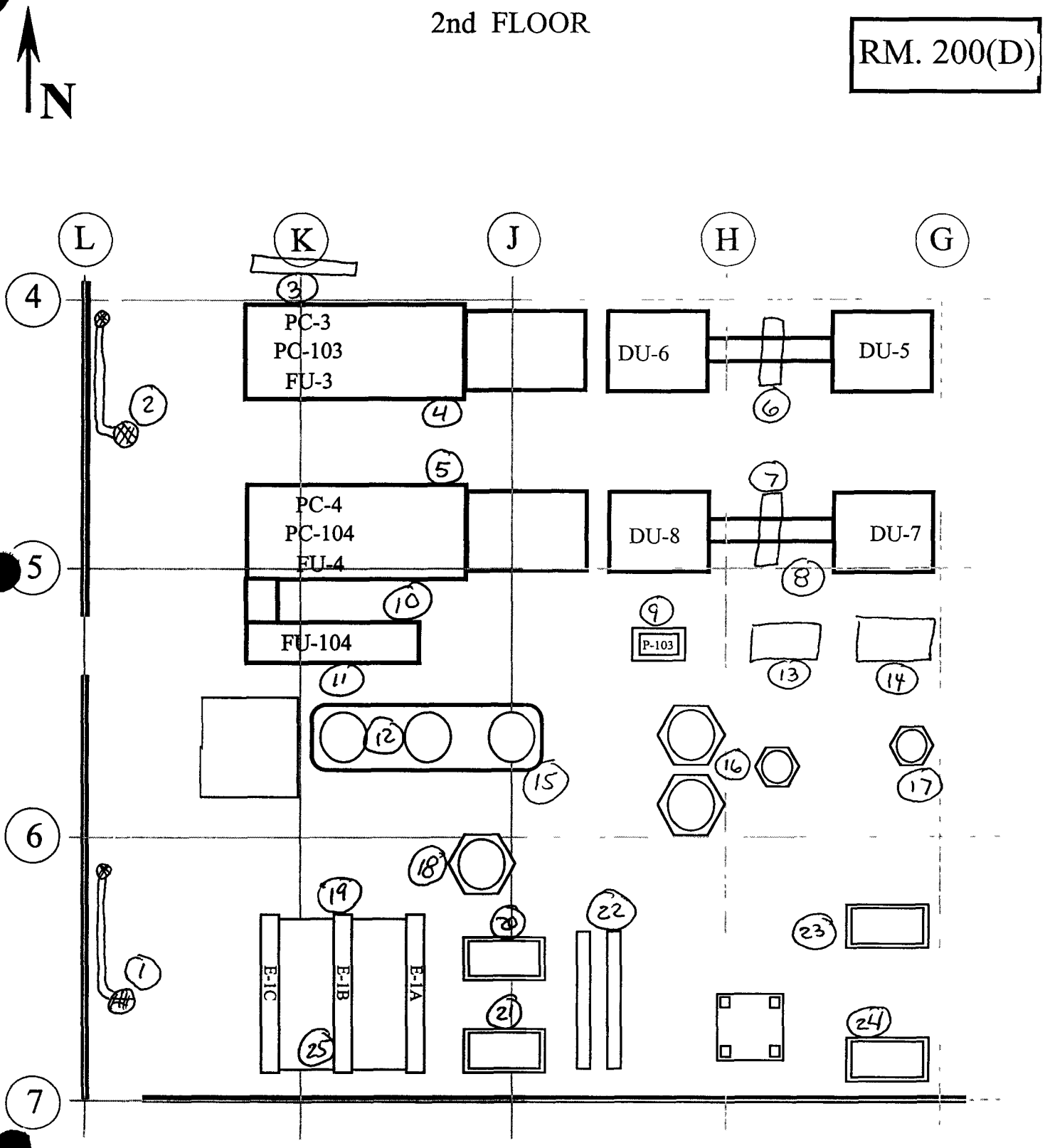
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1197#003	Matrix	Waste
Site Sample ID	001.003				
Other Sample ID	Bldg 707 Rm 200	Collection Date	5/2/00	Date Received	5/4/00
		Batch Number	1936	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1936-01	0 973	0 244	0 312	0 036
ACW03	U-235	KH100-1936-01	0 059	0 067	0 070	0 079
ACW03	U-238	KH100-1936-01	1 04	0 254	0 329	0 064
ACW03	PU-238	KH100-1936-01	-0 148	0 076	0 081	0 199
ACW03	PU-239/240	KH100-1936-01	0 063	0 063	0 064	0 066
ACW03	AM-241	KH100-1936-01	0 152	0 103	0 107	0 046

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Pu	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Am	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB

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017

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A-3
RLC RADIOLOGICAL DATA
Survey Area E
2nd Floor

250

Radiological Survey/Sample Results for Survey Area E (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	-5	N/A
MAX	34	N/A
MEAN	10 1	N/A
STD DEV	11 2	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	35	35
MIN	0	N/A
MAX	32	N/A
MEAN	12 7	N/A
STD DEV	8 7	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	-5	N/A
MAX	29	N/A
MEAN	8 6	N/A
STD DEV	7 7	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	-19	N/A
MAX	48	N/A
MEAN	8 0	N/A
STD DEV	18 9	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-32
MAX	6	88
MEAN	1 2	16 3
STD DEV	2 0	30 7
Floors/Walls < 2 m Biased	# Required	# Obtained
	35	35
MIN	0	-68
MAX	3	60
MEAN	0 7	-4 2
STD DEV	1 3	28 7
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-56
MAX	6	52
MEAN	1 6	0 1
STD DEV	2 3	28 3
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-40
MAX	6	44
MEAN	1 0	-4 1
STD DEV	1 6	19 3
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.2 cpm	Bkg 0.0 cpm	Bkg 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 12.9 DPM	MDA 8.2 DPM	MDA 44.2 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 42 cpm	Bkg 44 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 100.3 DPM	MDA 102.4 DPM	MDA

Survey Type. **Contamination**
Building 707
Location Rm 210 (E)
Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 1-31-00 Time 1100

RCT [redacted]

RCT _____
Print name / Signature / Emp #

Comments Floor / Walls <2 meters: unbiased survey points 1m² scans, 1min pats and swipes. see map for locations Number/Letter (1A) denote colums

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	6	12	10	16	F	0	28	0
2.	F	0	8	5	17	F	0	-8	0
3.	F	0	-28	15	18	F	0	0	-5
4	F	0	-32	-5	19	F	3	-16	24
5	F	0	16	5	20	F	3	20	24
6.	F	0	12	0	21	F	0	0	15
7	F	3	16	5	22	F	0	68	19
8.	F	3	40	0	23	F	6	12	10
9	<2 W C10→C11	0	0	5	24	F	0	40	29
10	<2 W C8→C9	3	40	15	25	F	3	32	5
11	<2 W C7→C8	0	-16	19	26	F	0	48	5
12	F	0	20	5	27	F	6	20	5
13	<2 W C7→D→	0	72	19	28	F	0	32	29
14	F	0	-16	10	29	F	0	-28	-5
15	F	0	-4	0	[redacted]				

Date Reviewed. 2-7-00 RS Supervision [redacted]
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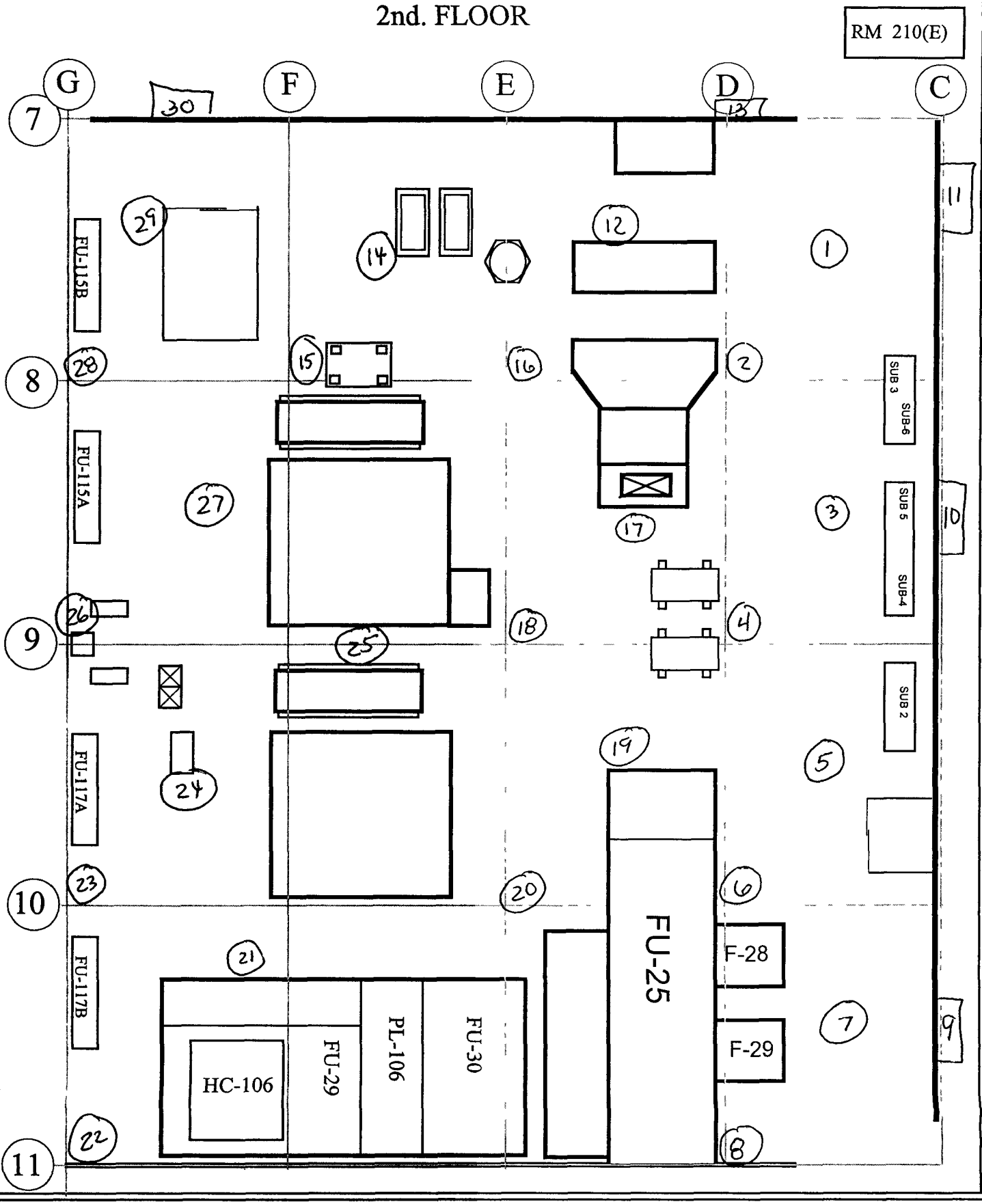
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg 0.2 cpm	Bkg 0.1 cpm	Bkg 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86%
MDA 12.9 DPM	MDA 11.5 DPM	MDA 33.7 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due A
Bkg 41 cpm	Bkg 42 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 99.2 DPM	MDA 100.3 DPM	MDA

Survey Type **Contamination**

Building 707

Location Room 210 (E)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-1-00 Time 1500

R[redacted]

RCT _____

Print name / Signature / Emp #

Comments Floor / Walls < 2 meters Biased survey points

1 m² scans, 1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F-Fan F-29	3	16	5	16	F-Filter FU-115A	0	32	14
2	F-P-trap	0	-68	9	17	F-Filter FU-115B	3	-20	19
3.	F-Fan F-28	0	20	14	18	F-Pad	0	16	32
4	F-Door	0	52	9	19	F-Pump	0	12	0
5	F-Door	0	-32	5	20	F-Tank	0	-16	5
6	F-Door	0	4	14	21	F-Door	3	-32	28
7.	F-Fan	0	4	5	22	F-Door	0	-20	5
8	F-Door	0	12	5	23	F-Duct	0	0	23
9	F-Door	3	-16	9	24	F-Tank	0	-16	0
10	F-Door	0	4	28	25	F-Tank	0	0	5
11	F-Door	3	44	19	26	F-Pipes	0	0	19
12	F-Filter FU-117B	3	-20	32	27	F-Tank	0	60	19
13	F-P-trap	0	-36	5	28	F-Pipes	0	28	14
14	F-Filter FU-117A	0	-36	14	29	F-Pipes	0	-12	5
15	F-Tanks	0	20	19	30	F-Tank	3	-12	9

Date Reviewed: 2-7-00 RS Supervision [redacted]

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1648/466

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	F-Tank	0	-20	14	61				
32	F-Pipes	0	-12	9	62				
33.	F-Compressor	0	-64	5	63				
34	F-Tank	3	-24	9	64				
35	F-Pipes	0	-16	19	65				
36					66				
37.					67				
38					68				
39					69				
40					70				
41					71				
42					72				
43					73				
44					74				
45					75				
46					76				
47					77				
48					75				
49					79				
50					80				
51					81				
52					82				
53					83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60.					90				

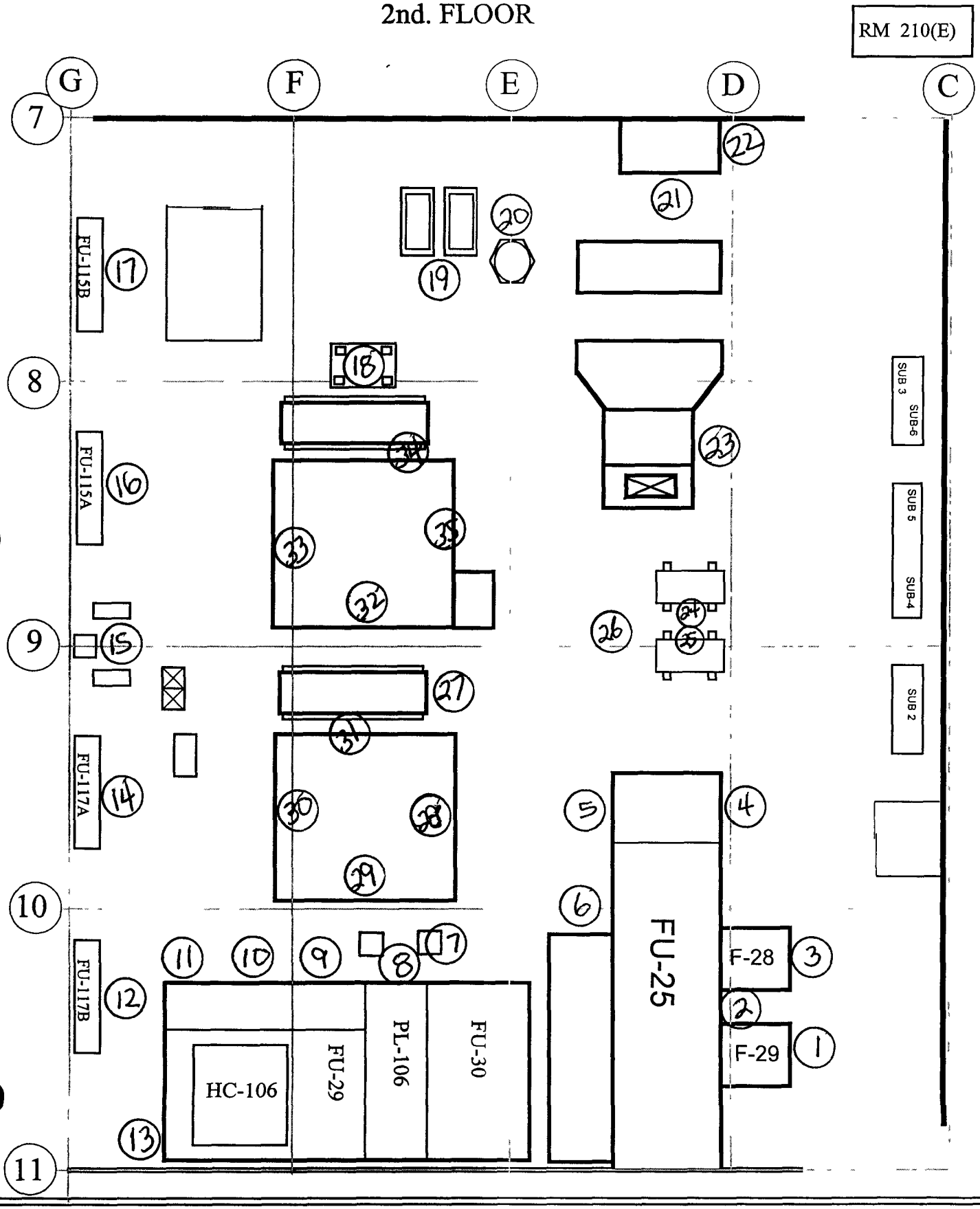
164C/460

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

2nd. FLOOR



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17 00	Cal Due 5-11-00
Bkg 0.1 cpm	Bkg 0 0 cpm	Bkg 0 0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 11.5 DPM	MDA 8.2 DPM	MDA 13.1 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 45 cpm	Bkg 42 DPM	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 103.4 DPM	MDA 100.3 DPM	MDA

Survey Type. **Contamination**

Building 707

Location Room 210 (E)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-4-00 Time 1530

[redacted]

Comments Ceiling / Walls > 2 meters Biased survey points
1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	C	0	-20	19	16	C	0	0	19
2	C	0	~~57~~ 52	5	17	C	6	52	5
3	C	0	0	15	18	C	0	20	29
4	C	3	-12	0	19	>2	0	-8	5
5	C	3	-8	15	20	>2	0	52	5
6	C	0	24	10	21	>2	6	-36	0
7	C	0	-8	0	22	>2	0	-16	10
8	C	0	16	-5	23	>2	3	-40	10
9	C	6	-8	5	24	>2	0	-56	10
10	C	0	-24	0	25	>2	3	-40	15
11	C	3	12	15	26	>2	0	44	15
12	C	0	4	0	27	>2	6	0	5
13	C	0	-12	10	28	>2	3	-16	5
14	C	0	+12	10	29	>2	0	-20	15
15	C	0	0	10	30	>2	6	40	10

Date Reviewed 2-7-00 RS Supervision: [redacted]

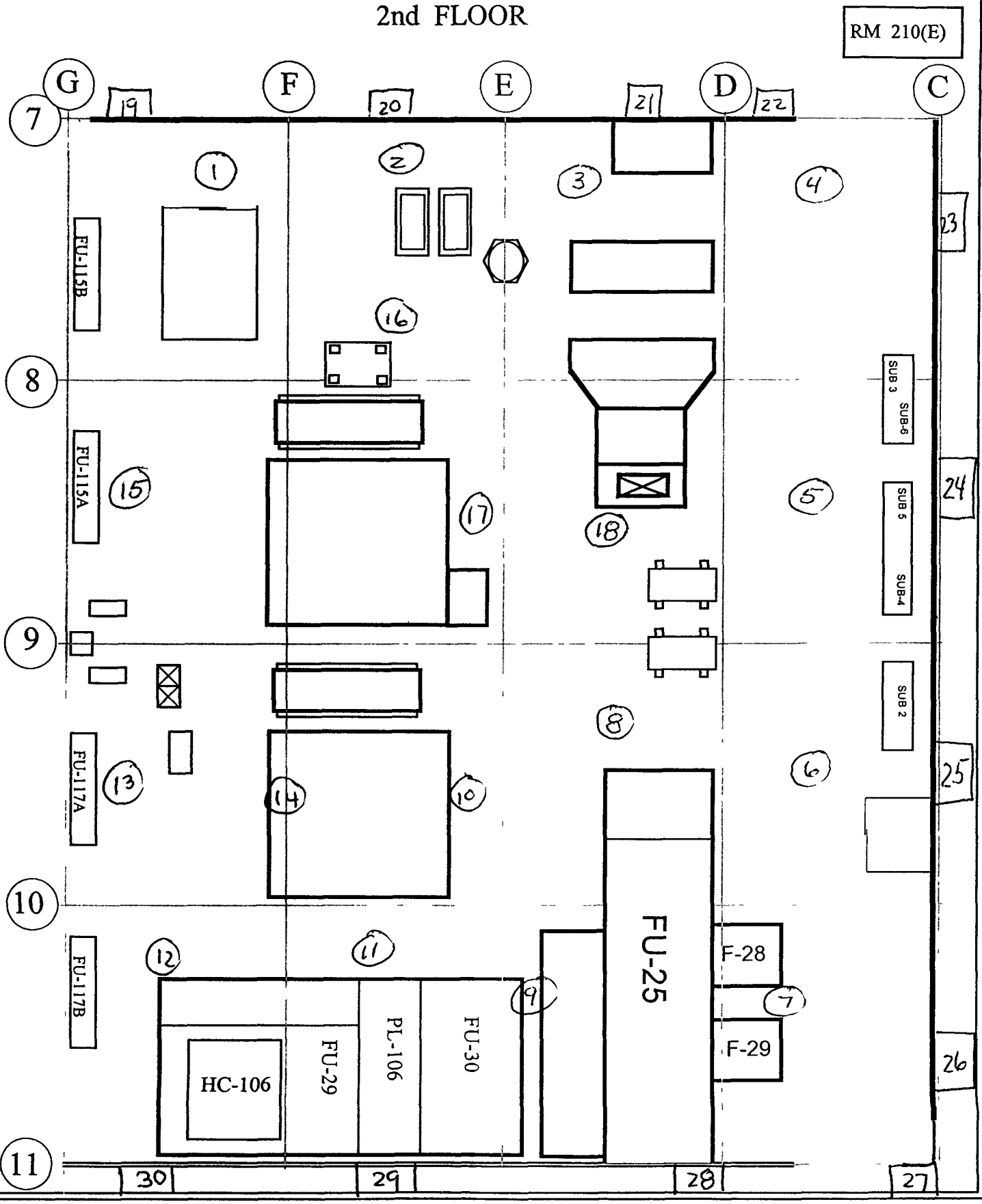
Print Name Signature Emp #

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

2nd FLOOR



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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0.2 cpm	Bkg 0.1	Bkg 0 0 α
Efficiency 33%	Efficiency 33%	Efficiency 20 63%
MDA 12.9 dpm	MDA 115	MDA 13.2 dpm
Mfg Eberline	Mfg Eberline	Mfg [redacted]
Model BC-4	Model BC-4	Model [redacted]
Serial # 833	Serial # 872	Serial # [redacted]
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due [redacted]
Bkg 41 cpm	Bkg 42 cpm	Bkg [redacted]
Efficiency 25%	Efficiency 25%	Efficiency [redacted]
MDA 992 dpm	MDA 100 3 dpm	MDA [redacted]

Survey Type **Contamination**

Building 707

Location Equipment & overhead Rm 210(E)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-1-00 Time 1600

RCT _____
Print name / Signature / Emp #

Comments Equipment Biased survey points 1min pats and swipes
See map for locations
(30)–(45) in overheads

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	FU-25 Roof	0	-16	44	16	FU-117A	0	-12	10
2	F-29	3	-20	34	17	FU-115A	0	-24	50
3	P-Trap	0	12	44	18	FU-115B	0	-40	24
4	F-28	0	24	19	19	Bin	0	0	0
5	Fu-25 Roof	0	-32	150	20	Pump	3	-8	29
6	Fu-25 Door	0	12	0	21	T-44	0	-32	0
7	Fu-25 Door	0	20	48	22	AHC-1	0	-16	15
8	Door	3	44	34	23	450-498	0	12	44
9	Roof	0	8	-5	24	450-497	0	12	34
10	Fu-30 Pipe	0	-8	5	25	RC-1B Pump	3	-8	-5
11	HC-106 Door	3	24	19	26	RC 1B super Heater	0	-24	0
12	Fu-29 Door	0	-8	19	27	RC-1A	0	-16	0
13	Fu-29 Door	0	-32	44	28	RC-1A super Heater	0	12	-19
14	P-Trap	0	-12	10	29	Pump	0	-4	0
15	FU-117B	0	-16	-10	30	>2M Duct	3	-8	-10

Date Reviewed 2-7-00 RS Supervision: [redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

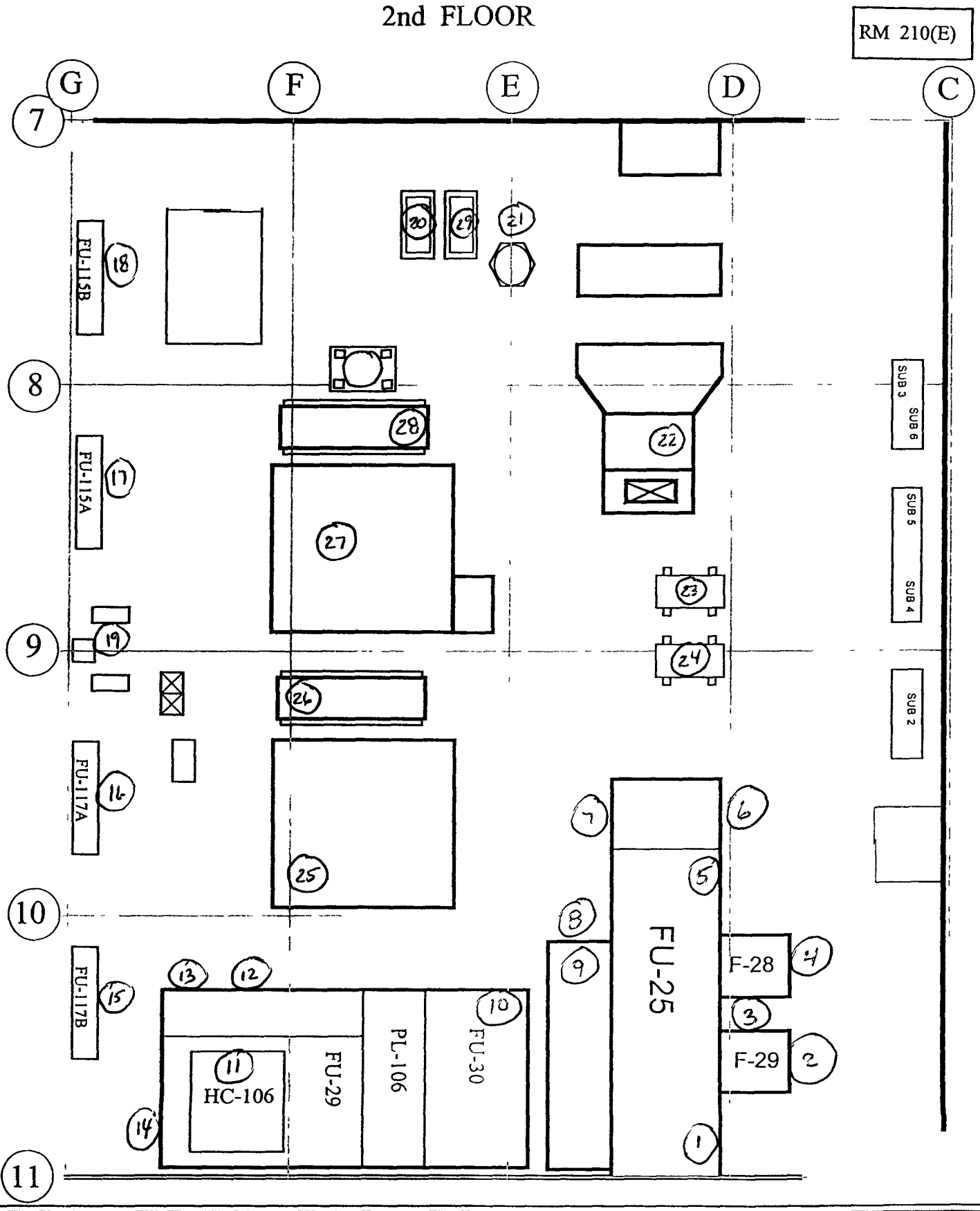
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	>2M Duct	3	-4	0	61				
32.	>2M Duct	0	4	-5	62				
33.	>2M Duct	3	16	-10	63				
34	>2M Duct	3	-8	5	64				
35.	>2M steamline	0	-8	0	65				
36	>2M Duct	0	-8	-10	66				
37.	>2M Duct	3	-16	5	67				
38.	>2M Hot water supply	0	-16	0	68				
39	>2M Duct	6	-16	-19	69				
40	>2M Duct	0	-24	-15	70				
41.	>2M Duct	0	-24	-10	71				
42.	>2M Hot water supply	3	16	-10	72				
43.	>2M Duct	0	32	-5	73.				
44.	>2M Duct	3	36	-10	74				
45.	>2M Duct	3	-8	-5	75	N/A			
46.	END of Survey				76				
47.					77				
48.					75				
49.					79				
50.					80				
51.					81				
52					82				
53.	N/A				83				
54					84				
55.					85				
56					86				
57					87				
58					88				
59					89				
60.					90				

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

2nd FLOOR



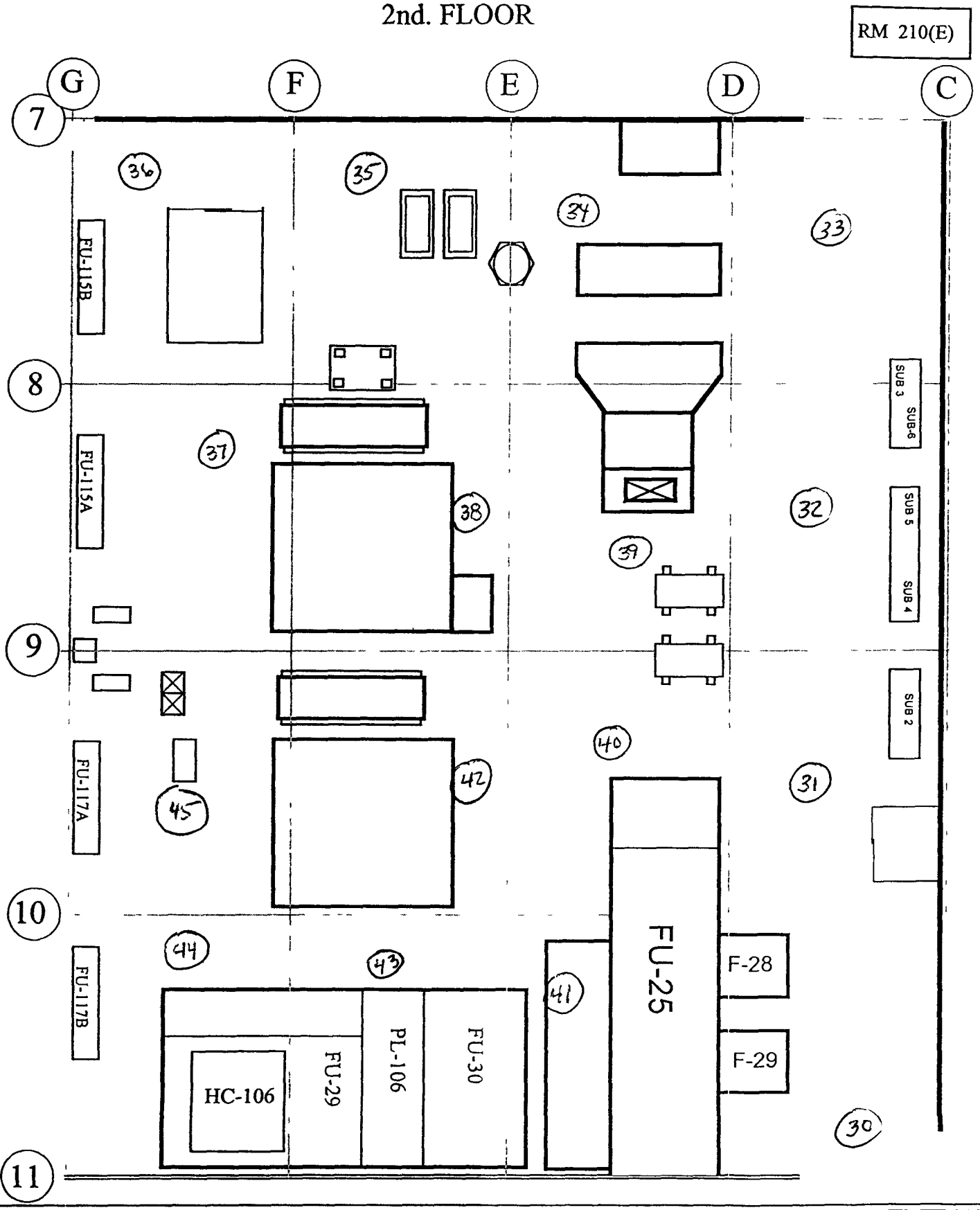
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

2nd. FLOOR



A-3

RLC RADIOLOGICAL DATA

Survey Area F

2nd Floor

Radiological Survey/Sample Results for Survey Area F (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	-10	N/A
MAX	43	N/A
MEAN	16 7	N/A
STD DEV	14 0	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	35	35
MIN	5	N/A
MAX	34766	N/A
MEAN	1619 0	N/A
STD DEV	6453 3	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	-19	N/A
MAX	34	N/A
MEAN	-2 0	N/A
STD DEV	11 0	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	-15	N/A
MAX	1937	N/A
MEAN	49 4	N/A
STD DEV	291 0	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-56
MAX	6	44
MEAN	0 8	0 4
STD DEV	1 6	25 2
Floors/Walls < 2 m Biased	# Required	# Obtained
	35	35
MIN	0	-52
MAX	1083	68
MEAN	32 6	0 0
STD DEV	182 8	31 6
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-56
MAX	9	84
MEAN	0 8	1 1
STD DEV	1 9	29 6
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-68
MAX	6	76
MEAN	0 6	0 5
STD DEV	1 4	28 3
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.2 cpm	Bkg 0.1 cpm	Bkg 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 12.9 DPM	MDA 11.5 DPM	MDA 44 c dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 41 cpm	Bkg 42 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 99.2 DPM	MDA 100.3 DPM	MDA

Survey Type **Contamination**
Building 707
Location Rm 210 (F)
Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-1-00 Time 1500

[redacted]

RCT
Print name / Signature / Emp #

Comments Floor / Walls < 2 meters: unbiased survey points 1m² Scans 1min pats and swipes. See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	<2 W	3	36	0	16	<2 W K7 → J7	0	0	10
2	F	0	12	10	17	F	0	28	0
3	F	0	-12	-10	18	F	0	-40	29
4	F	0	-40	0	19	F	0	28	15
5	F	6	0	5	20	<2 W H7 → G7	0	40	5
6	F	0	-20	43	21	F	0	-4	10
7	F	0	0	19	22	F	0	-12	15
8	F	0	4	43	23	F	0	20	19
9	F	0	-56	19	24	F	0	12	5
10	<2 W L10 → L9	0	-20	19	25	F	0	0	24
11	F	0	28	24	26	F	0	-4	29
12	F	3	-16	0	27	F	0	44	24
13	<2 W L8 → L7	0	-12	29	28	F	3	28	24
14	F	3	-16	10	29	<2 W H11 → G11	0	-20	15
15	F	3	24	34	30	F	3	28	29

Date Reviewed 2-17-00 RS Supervision [redacted]

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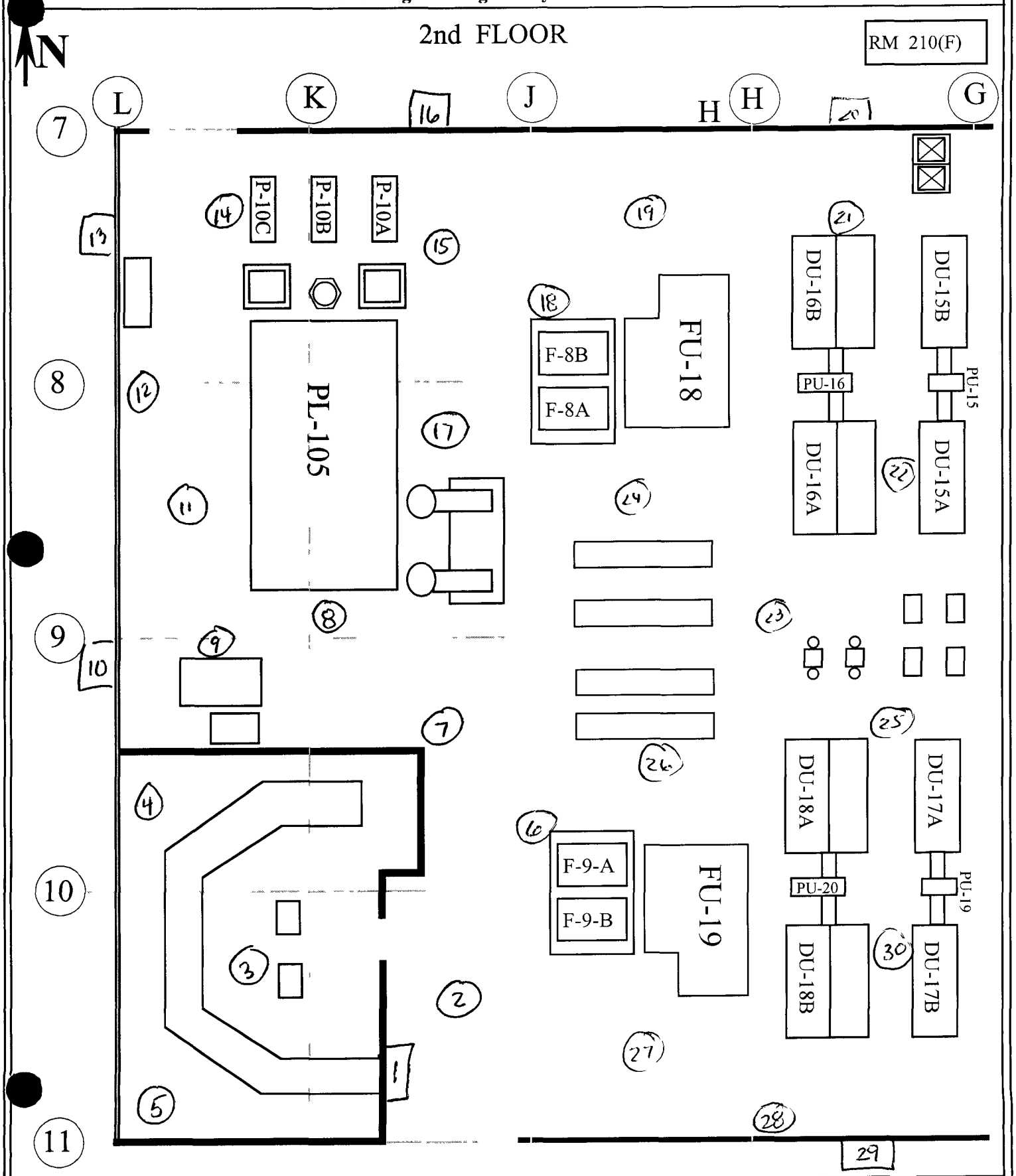
RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0.3 cpm	Bkg 0 1 cpm	Bkg 3 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20 63%
MDA 139 dpm	MDA ~~115 mdA~~ 1217 00 dpm	MDA 52 2 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14 00	Cal Due 4-12-00	Cal Due N/A
Bkg 35 cpm	Bkg 47 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 92 5 dpm	MDA 105 5 dpm	MDA

Survey Type **Contamination**
Building 707
Location Room 210 (F)
Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2 3-00 Time 1530

[redacted]

Comments Equipment Biased survey points
1 minute pats and swipes See map for locations
~~31→45 overheads~~ 1217 00 31→45 overheads
#7 contained contamination on Gasket 43,000 dpm (

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	AF-4	0	-8	-15	16	Pump	0	-8	0
2	PL-105 Door	0	-32	0	17	FU-17A	0	28	0
3	PL-105 Door	0	12	-15	18	PU-19	0	12	0
4	PL-105 Door	0	-28	-10	19	PU-18B	3	28	-5
5	PL-105 Door	0	28	-10	20	PU-20	0	-36	15
6	PL-105 Door	0	-8	5	21	CU-8A	0	-12	5
7	HC-105 Door	0	-8	19	22	Kathene 5B	0	-24	-15
8	HP Pump	0	-4	-15	23	Kathene 6A	3	76	-10
9	P-10C	0	32	10	24	332-77A	0	-12	-10
10	P-10B	0	0	10	25	FU-19 Door	0	-8	5
11	P-10A	3	68	-5	26	F-9 A	0	20	-5
12	F-8B	0	8	0	27	Pump Fans	3	44	10
13	PU-16	0	12	10	28	P TRAP	0	-52	0
14	DU-16B	0	-68	-5	29	Pump	6	-4	1937
15	PU-15	0	40	-10	30	Pump	0	12	285

Date Reviewed 2-17-00 RS Supervision [redacted]

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 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	Top AF-4	0	16	-5	61				
32	I Beam	0	0	0	62				
33	I Beam	0	-16	0	63				
34	HP Vac pipe	0	-16	15	64				
35	Duct	0	-12	15	65				
36	Duct	0	4	-5	66				
37	Kathene line	3	-12	19	67				
38	FU-9B	0	-8	5	68				
39	Top DU18B	0	20	0	69				
40	Duct	0	4	0	70				
41	Duct	0	-32	-5	71				
42	Roof SOE Rm	0	12	-5	72				
43	Duct	3	-64	15	73				
44	Top F-8A	0	-8	-5	74				
45	Duct	3	8	0	75				
46	END of Survey				76				
47					77				
48					75				
49					79				
50					80				
51					81				
52					82				
53					83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

N A

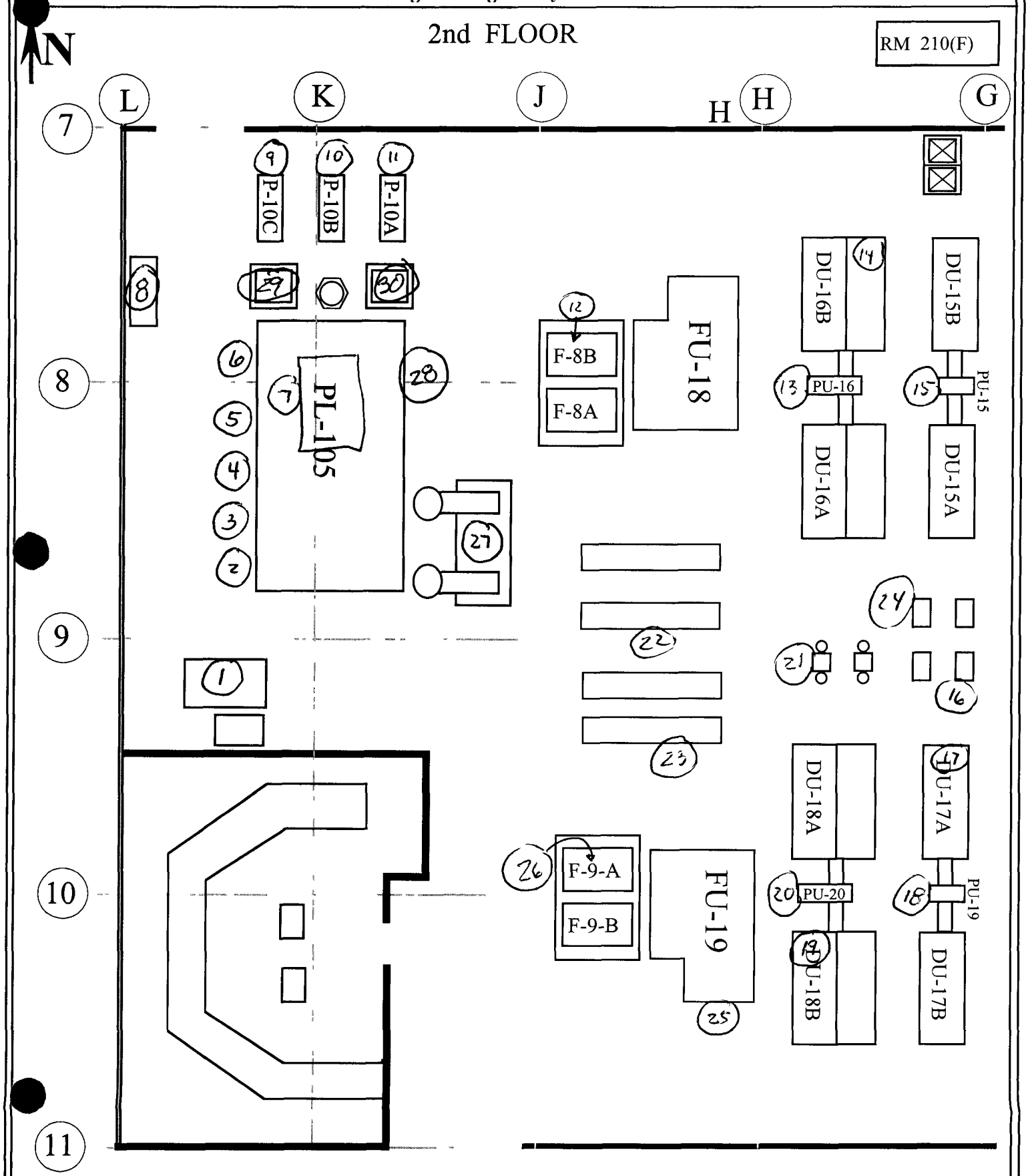
N A

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

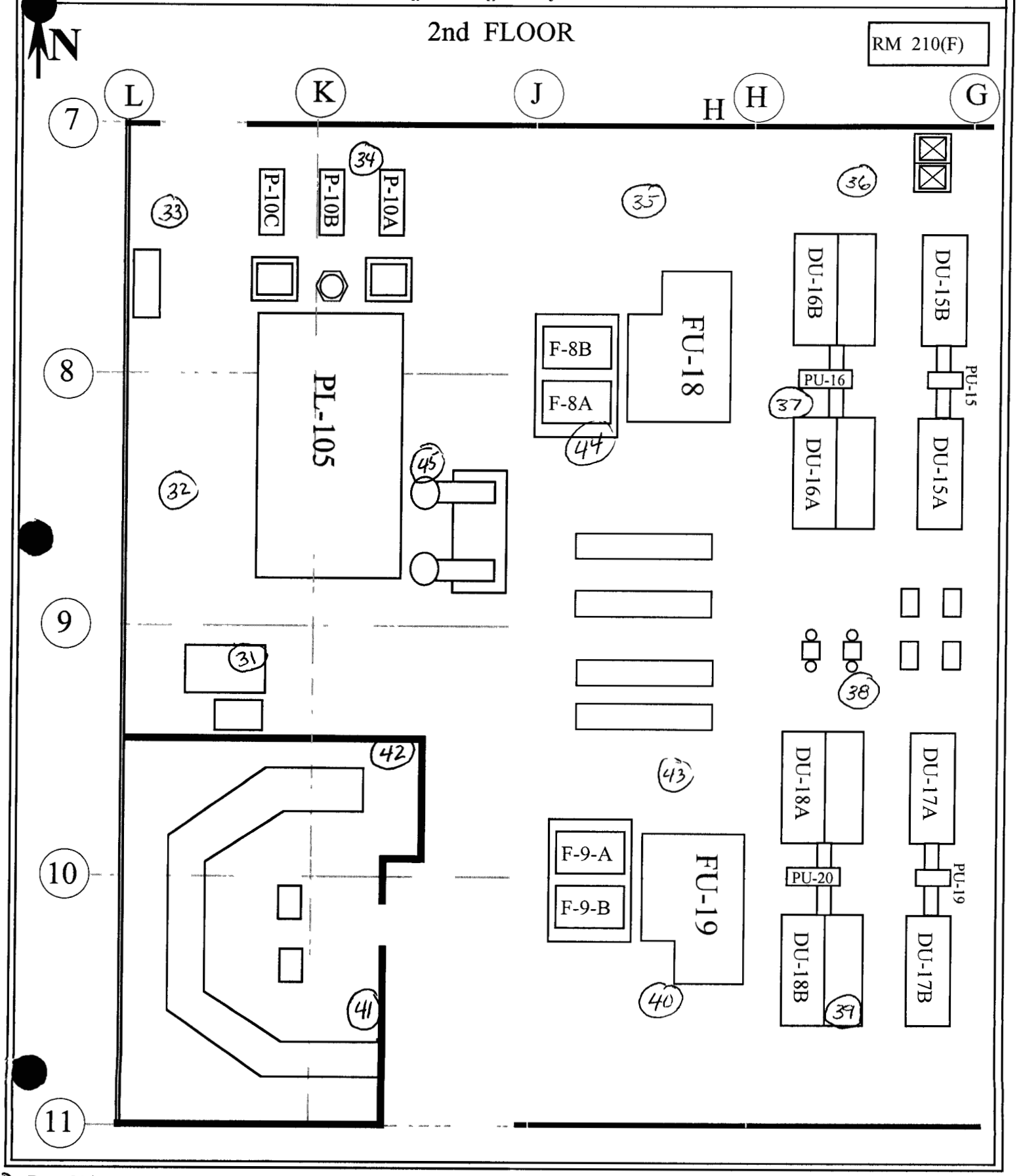


RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg 0.3 cpm	Bkg 0.1 cpm	Bkg 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency ~~23.86~~ 21.86%
MDA 13.9 dpm	MDA 11.5 dpm	MDA 33.7 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial # N/A
Cal Due 2-14-00	Cal Due 4-12-00	Cal Due
Bkg 35 cpm	Bkg 47 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 92.5 dpm	MDA 105.5 dpm	MDA

Survey Type **Contamination**
Building 707
Location Room 210 (F)
Purpose **Reconnaisance Level Characterization**
RWP # 00-707-1204 (2-17-00)
Date 2-3-00 Time 1500
[redacted]
RCT
Print name / Signature / Emp #

Comments Floor / Walls < 2 meters Biased survey points
1 m² scans, 1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F - Pipe	0	-24	23	16	F- Fan F-115-A+B	3	64	37
2	F - AF-4 Filter	0	-32	23	17	F- Unit 5-A	3	8	19
3	F - Air Return	0	40	5	18	F- Unit	0	-28	14
4	F - Door Plemum 105	0	-4	23	19	F- Door FU-1B	0	24	14
5	F - Door Plem	0	52	72	20	F- Pipes	0	0	46
6	F - Door	0	-16	23	21	F- Drain	0	-12	5
7	F - Door	6	-24	9	22	F- Pipe	0	-12	9
8	F - Door	0	-16	19	23	F- Pump	0	0	5
9	F - Pump (39)	3	0	16,675	24	F- Pump	0	-32	23
10	F - HP pump P-11	0	-28	19	25	F- Tanks	0	0	19
11	F - HP pump P-10B+C	3	-16	23	26	F- Pipe	3	68	9
12	F - Under P-10A	3	-24	28	27	F- Tank	0	-52	5
13	F - Surge tank (43)	1083	0	34766	28	F- Fan F-9-A	0	56	19
14	F - Pump (44)	27	0	4574	29	F Fan F9-B	3	-20	5
15	F - Fan F-8A+B	0	-28	42	30	F- Door FU-14	0	-32	19

Date Reviewed 2-17-00 RS Supervis[redacted]

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 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SURVEY

Drawing Showing Survey Points

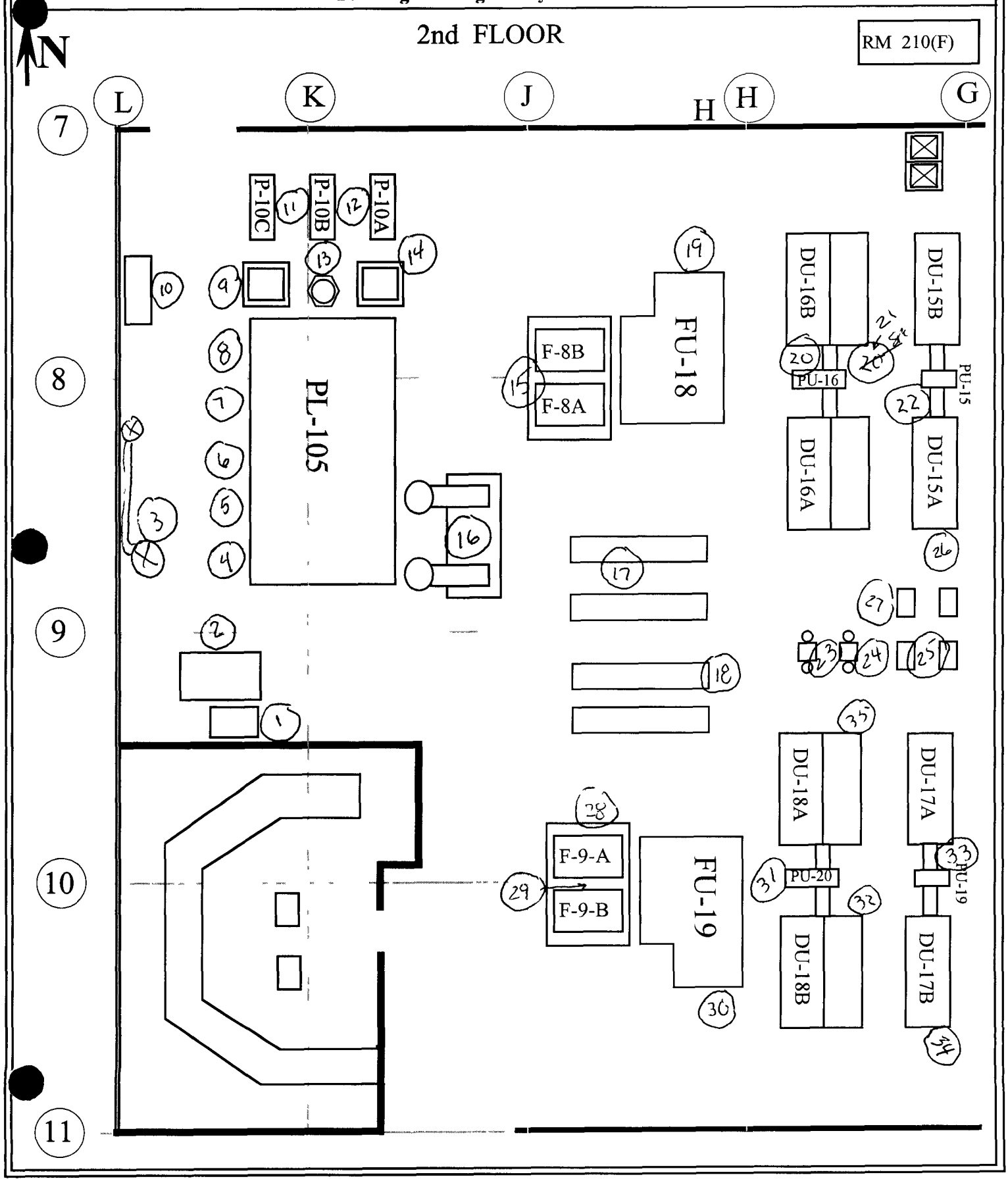
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	F- Tank	0	-16	37	61				
32	F- Drain	0	28	19	62				
33	F- Tank	0	-12	23	63				
34	F- DU-17B	3	64	5	64				
35	F- Drain	0	24	9	65				
36	end of Survey				66				
37					67				
38					68				
39					69				
40					70				
41					71				
42					72				
43					73				
44					74				
45					75				
46					76				
47					77				
48					75				
49					79				
50					80				
51					81				
52					82				
53					83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



RS FORMS 07.02-01

COPY

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NE
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg 0.3 cpm	Bkg 0.1 cpm	Bkg 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.26%
MDA 13.9 dpm	MDA 11.5 dpm	MDA 12.4 dpm
Mfg	Mfg	Mfg
Model	Model N	Model
Serial #	Serial # A	Serial #
Cal Due	Cal Due	Cal Due
Bkg	Bkg	Bkg
Efficiency	Efficiency	Efficiency
MDA	MDA	MDA

Survey Type: Contamination/Radiation

Building: 707

Location: Room 210 (F)

Purpose: Job Coverage

RWP #: 00 707 1204

Date: 2 2 00 Time: 1500

[redacted]

RCT: NA

Print name / Signature / Emp #

PRN/REN # N/A

Comments: pre - during - post areas contained with tape + plastic No β contam found - See Recon Surys

SURVEY RESULTS

ID #		ALPHA DPM/100cm² (SWIPE)	ALPHA DPM/100cm² (DIRECT)	ALPHA DPM (WIPE)		GAMMA/NEUTRON mrem/HR @ 30 cm GAMMA	NEUTRON	TOTAL
39	1	3	16,675		1			
43	2	1083	34,766		2			
44	3	27	4,574		3			
boundary	4	3	23		4			
verification	5	6	46		5			
outside	6	0	9		6			
contam	7	12	5		7			
area	8	0	5		8			
Contam area	9	0	59		9			
after	10	3	41		10			
containing	11	9	5		11			
	12				12			
	13				13			
	14				14			
	15				15			

Date Reviewed: 2 3-00 RS Supervision [redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11 00
Bkg 0 3 cpm	Bkg 0 4 cpm	Bkg 40 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20 63%
MDA 13 9 dpm	MDA 148 dpm	MDA 58 2 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14 00	Cal Due 4-12-00	Cal Due N/A
Bkg 45 cpm	Bkg 48 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 1034 dpm	MDA 1065 dpm	MDA

Survey Type **Contamination**

Building 707

Location Room 210 (F)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-10-00 Time 1600

RCT Hersey / [redacted]
Print name / Signature

RCT
Print name / Signature / Emp #

Comments Ceiling / Walls > 2 meters Biased survey points
1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	w>2	0	-40	0	16	C	3	0	0
2	w>2	0	-24	0	17	C	3	-12	15
3	w>2	0	24	-5	18	C	0	0	10
4	w>2	0	0	-15	19	C	0	-20	-5
5	w>2	3	0	0	20	C	0	-12	0
6	w>2	0	40	0	21	C	3	4	0
7	w>2	0	-20	-5	22	C	0	20	0
8	w>2	0	-4	-5	23	C	9	-36	0
9	w>2	0	-20	-5	24	C	0	16	-10
10	w>2	0	32	-10	25	C	0	44	-15
11	w>2	0	28	-19	26	C	0	20	34
12	w>2	0	12	-15	27	C	0	8	0
13	C	0	-56	-5	28	C	0	84	0
14	C	3	8	10	29	C	0	12	-10
15	C	0	-36	15	30	C	0	-40	-19

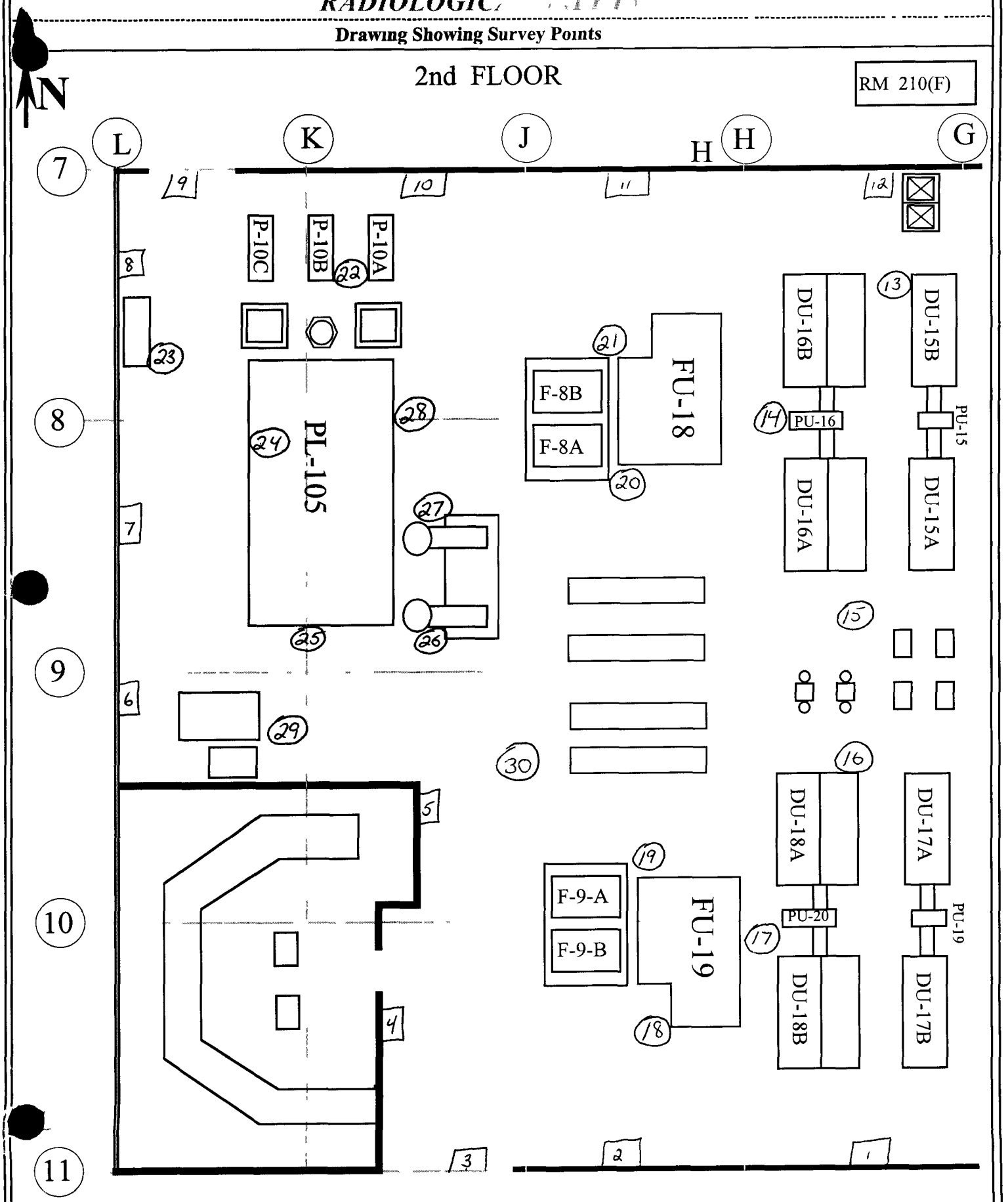
Date Reviewed 2-17 00 **RS Supervision:** Stuckrath / [redacted] /
Print Name Signature

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points

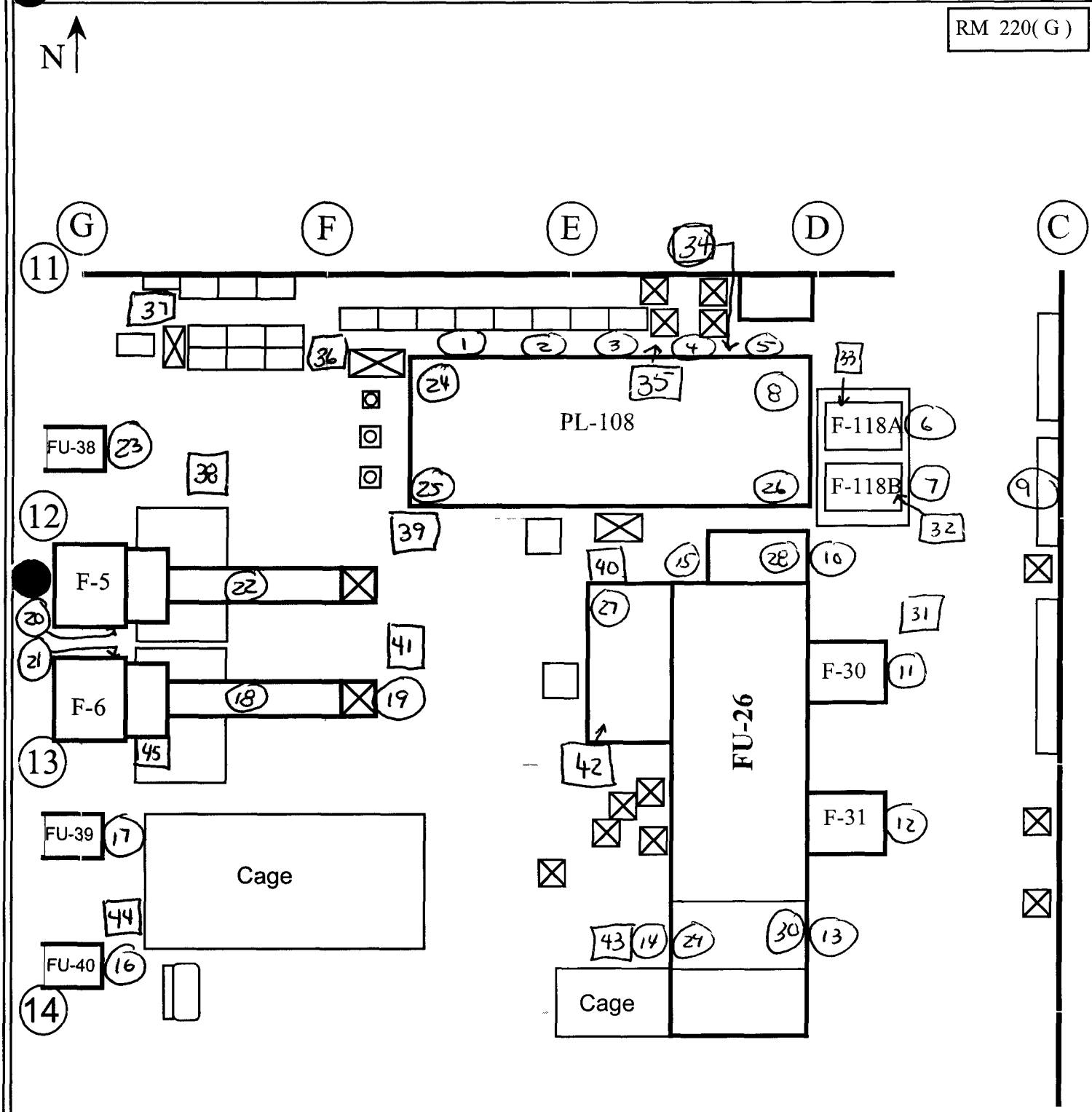


RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1197#003	Matrix	Waste
Site Sample ID	006.003				
Other Sample ID	Bldg 707 2nd level	Collection Date	5/2/00	Date Received	5/4/00
		Batch Number	1936	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1936-06	0 852	0 232	0 288	0 038
ACW03	U-235	KH100-1936-06	0 079	0 079	0 082	0 082
ACW03	U-238	KH100-1936-06	0 945	0 245	0 310	0 038
ACW03	PU-238	KH100-1936-06	0 042	0 107	0 108	0 172
ACW03	PU-239/240	KH100-1936-06	0 039	0 053	0 054	0 072
ACW03	AM-241	KH100-1936-06	0 020	0 040	0 040	0 054

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Pu	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Am	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB

1000 Monticello Court * Montgomery Alabama * 36117 * 334 272 2234 * FAX 334 213 0407

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1197#003	Matrix	Waste
Site Sample ID	007.003				
Other Sample ID	Bldg 707 2nd level	Collection Date	5/2/00	Date Received	5/4/00
		Batch Number	1936	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1936-07B	0 837	0 300	0 344	0 119
ACW03	U-235	KH100-1936-07B	0 061	0 087	0 089	0 083
ACW03	U-238	KH100-1936-07B	0 898	0 313	0 361	0 140
ACW03	PU-238	KH100-1936-07	-0 013	0 018	0 018	0 088
ACW03	PU-239/240	KH100-1936-07	-0 025	0 025	0 026	0 108
ACW03	AM-241	KH100-1936-07	0 047	0 054	0 055	0 042

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Pu	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Am	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB

1000 Monticello Court * Montgomery Alabama * 36117 * 334 272 2234 * FAX 334 213 0407

280

023

A-3

RLC RADIOLOGICAL DATA

Survey Area G

2nd Floor

Radiological Survey/Sample Results for Survey Area G (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	-10	N/A
MAX	38	N/A
MEAN	4 2	N/A
STD DEV	10 6	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	0	N/A
MAX	37	N/A
MEAN	15 3	N/A
STD DEV	9 4	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	-10	N/A
MAX	34	N/A
MEAN	18 4	N/A
STD DEV	10 1	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	N/A
MAX	46	N/A
MEAN	17 1	N/A
STD DEV	9 8	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-48
MAX	6	52
MEAN	0 9	-0 3
STD DEV	1 6	25 1
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	0	-28
MAX	30	72
MEAN	1 7	6 1
STD DEV	6 1	26 3
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-20
MAX	6	56
MEAN	0 8	18 8
STD DEV	1 9	21 7
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-48
MAX	9	48
MEAN	1 8	-1 2
STD DEV	2 6	20 6
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.3 cpm	Bkg 0.2 cpm	Bkg 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 13.9 DPM	MDA 12.9 DPM	MDA 44.2 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 43 cpm	Bkg 47 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 101.3 DPM	MDA 105.5 DPM	MDA

Survey Type **Contamination**

Building 707

Location Room 220 (G)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-8-00 Time 1330

RCT Cloud / SP Cloud / [redacted]
Print name / Signature / Emp #

RCT _____ / _____ / _____
Print name / Signature / Emp #

Comments Floor / Walls < 2 meters Unbiased survey points
1 m² scans, 1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F	0	-16	19	16	F	3	-12	-5
2	F	0	-48	5	17	F	3	-4	0
3	<2 G11 → F11	0	-40	10	18	F	3	-20	10
4	F	0	0	15	19	F	0	4	-10
5	<2 E11 → D11	0	-8	10	20	F	3	40	0
6	F	0	-8	0	21	F	0	-8	0
7	F	0	-8	5	22	F	0	-16	10
8	<2 D11 → C11	6	-16	-5	23	F	3	4	10
9	<2 C11 → C12	0	-20	-5	24	F	0	-8	-5
10	F	0	52	0	25	F	3	0	15
11	<2 C12 → C13	0	0	-5	26	F	0	-24	0
12	F	0	40	10	27	F	0	20	24
13	F	0	-36	-10	28	F	0	-40	10
14	<2 C13 → C14	0	40	0	29	F	0	0	38
15	F	3	16	-5	30	F	0	44	0

Date Reviewed 2 17 00 **RS Supervision:** Steve Kiat / [signature] / [redacted]
Print Name / Signature /

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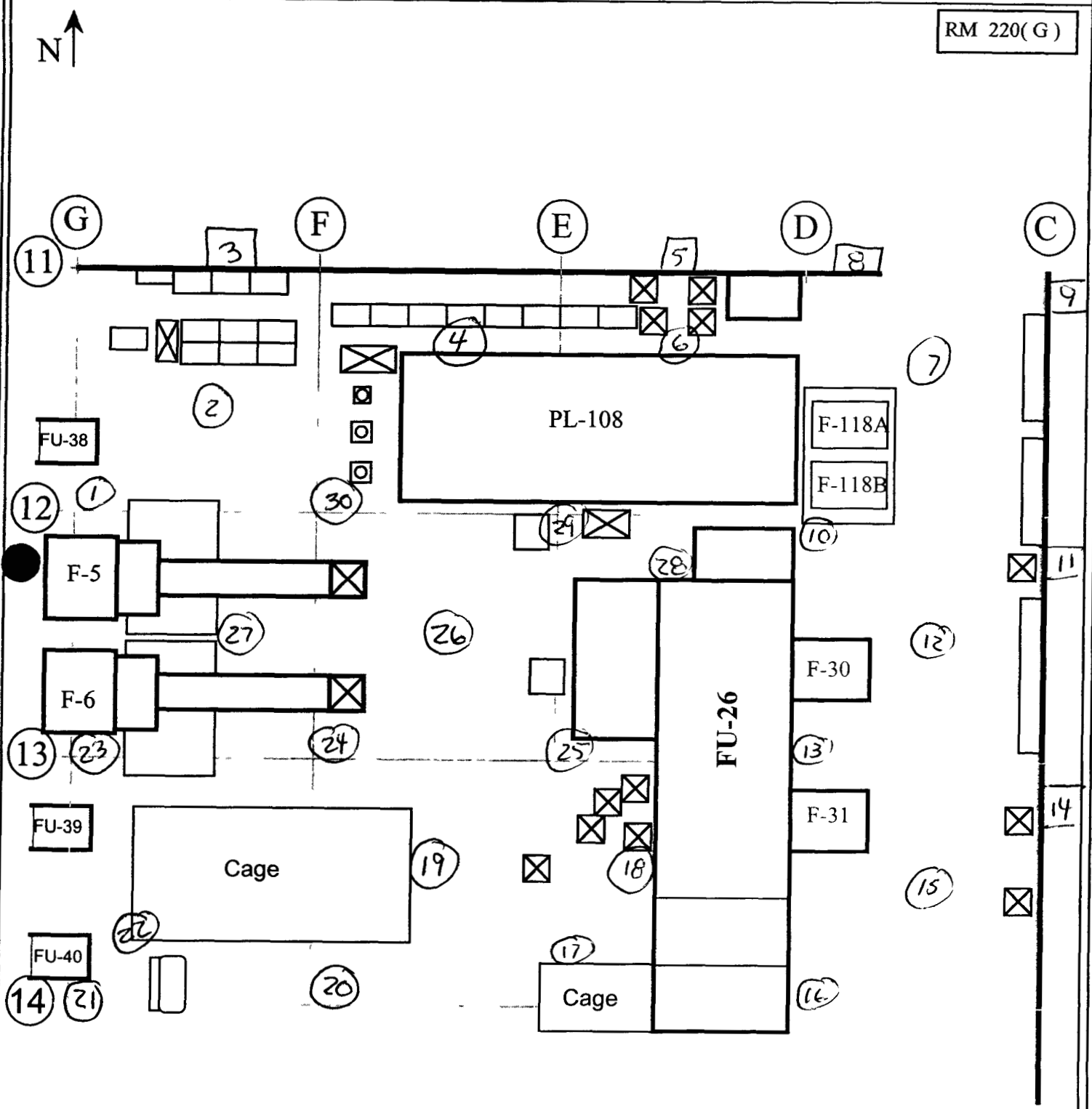
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg 0.3 cpm	Bkg 0.4 cpm	Bkg 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86%
MDA 13.9 DPM	MDA 14.8 DPM	MDA 42.5 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 43 cpm	Bkg 48 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 101.3 DPM	MDA 106.5 DPM	MDA

Survey Type **Contamination**
Building 707
Location Room 220 (G)
Purpose **Reconnaisance Level Characterization**
RWP # 00-707-1204
Date 2-9-00 Time 1500
RCT R Schoen (Print name) / Signature [redacted]
RCT Print name / Signature / Emp #

Comments Floor / Walls < 2 meters Biased survey points
1 m² scans, 1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F	3	-16	19	16	F	0	48	9
2	F	0	+16	0	17	F	0	12	19
3	F	0	-4	23	18	F	0	-24	28
4	F	0	12	0	19	F	0	52	37
5	F	6	-4	5	20	F	0	-12	23
6	F	0	+20	23	21	F	0	36	14
7	F	0	-24	14	22	F	3	72	14
8	F	0	0	5	23	F	0	-12	14
9	F	0	-8	19	24	F	0	8	5
10	F	0	-28	32	25	F	0	-12	19
11	F	0	28	14	26	end of Survey			
12	F	0	-12	9	27				
13	F	3	32	9	28				
14	F	0	-16	19	29				
15	F	0	-12	9	30				

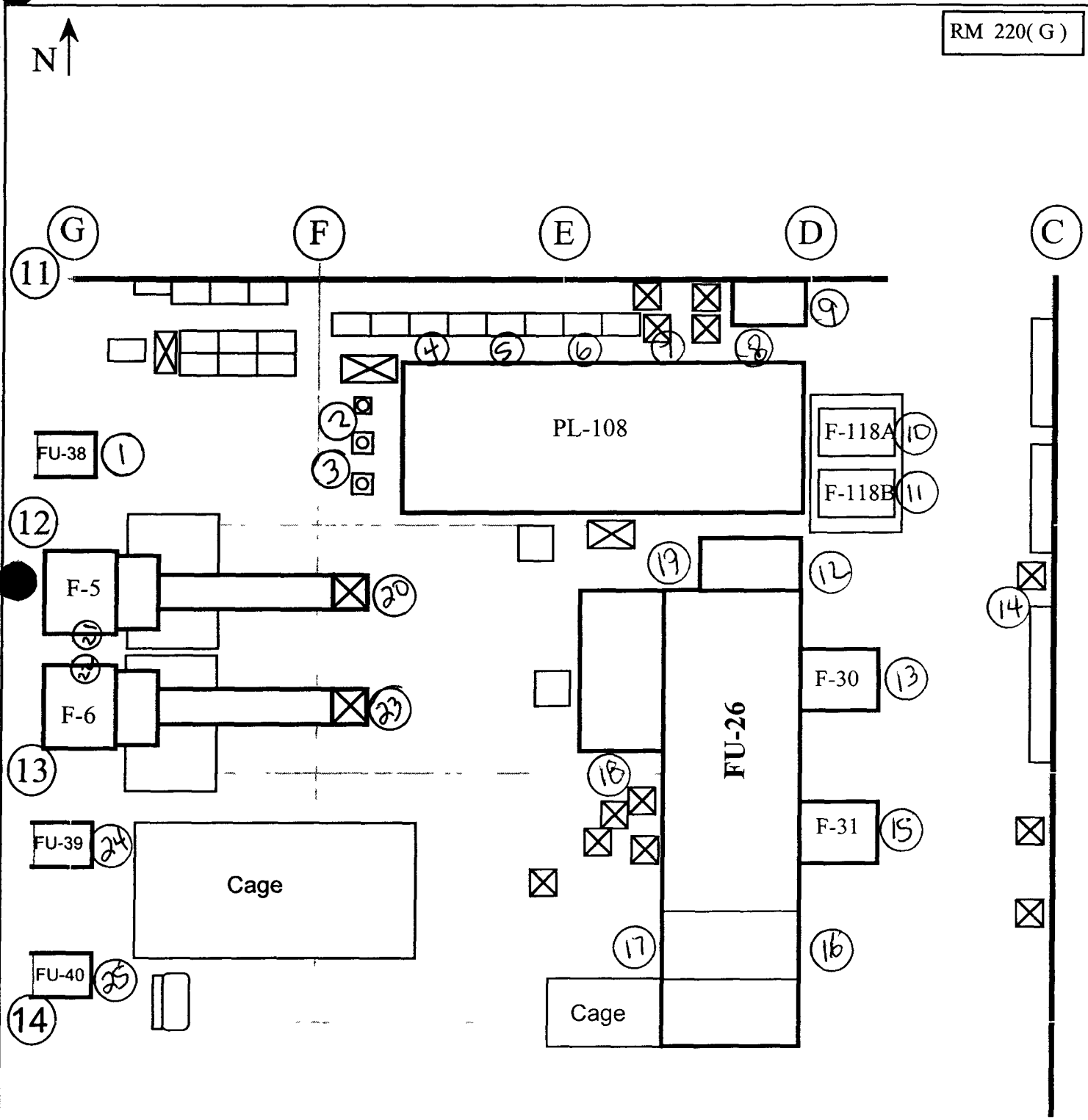
Date Reviewed: 2-17-00 **RS Supervision** Stuart Kathr (Print Name) / Signature [redacted]

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0.0 cpm	Bkg 0.1 cpm	Bkg 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 8.2 dpm	MDA 11.5 dpm	MDA 45.0 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 44 cpm	Bkg 46 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 102.4 dpm	MDA 104.5 dpm	MDA

Survey Type **Contamination**

Building 707

Location Room 220 (G)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-14 00 Time 1620

RCT R Clouch / R Clouch [redacted]
Print name / Signature

RCT S Clouch / S P Clouch
Print name / Signature / Emp #

Comments Ceiling / Walls > 2 meters Biased survey points
1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	C	0	-20	29	16	C	0	4	19
2	C	0	32	29	17	C	6	28	10
3	C	3	40	29	18	C	0	12	24
4	C	0	4	24	19	C	0	28	29
5	C	0	-12	15	20	C	0	56	29
6	C	0	8	-10	21	C	0	-8	29
7	C	3	40	10	22	C	0	0	15
8	C	0	8	5	23	>2	6	40	5
9	C	0	4	10	24	>2	6	28	10
10	C	0	0	19	25	>2	0	40	15
11	C	0	4	24	26	>2	0	24	10
12	C	0	32	29	27	>2	0	12	19
13	C	0	-4	10	28	>2	0	-16	19
14	C	0	40	29	29	>2	0	56	10
15	C	0	36	34	30	>2	0	48	24

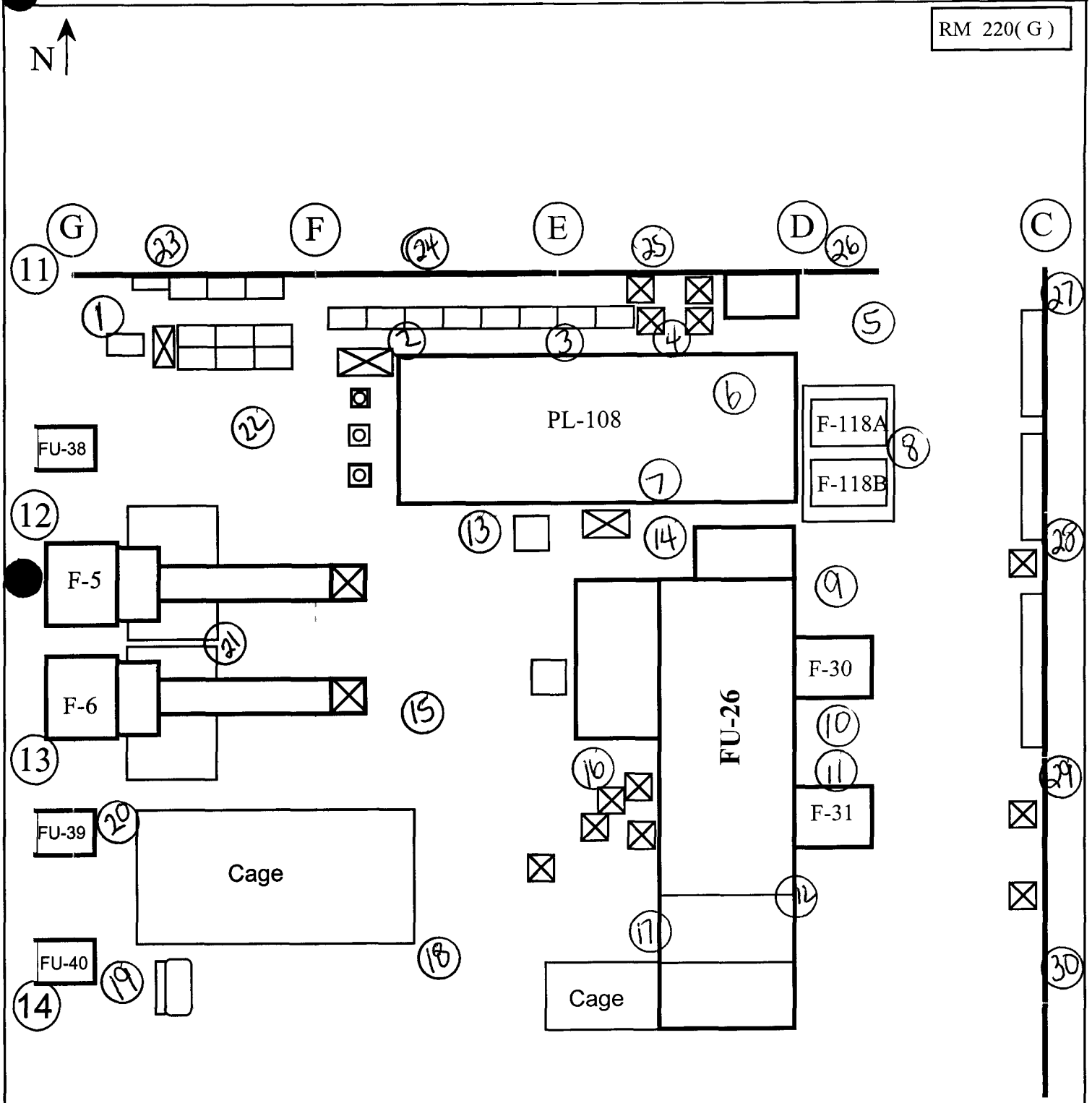
Date Reviewed. 2-17 00 **RS Supervision** Stueckrath / [redacted]
Print Name / Signature

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg 0.2 cpm	Bkg 0.0 cpm	Bkg 210 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86
MDA 12.9 dpm	MDA 8.2 dpm	MDA 42.5 dpm
Mfg Eberline	Mfg Eberline	Mfg NETECH
Model BC-4	Model BC-4	Model ELECTRA
Serial # 833	Serial # 872	Serial # 1233
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 42 cpm	Bkg 46 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency 20.63
MDA 100.3 dpm	MDA 104.5 dpm	MDA

Survey Type **Contamination**

Building 707

Location Room 220 (G)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-16-00 Time 1030

[redacted]

RCT _____
Print name / Signature / Emp #

Comments Equipment Biased survey points
1 minute pats and swipes See map for locations
31-45 >2 meters
No Fixed Equipment in Maintenance Cage

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	Door PL-108	3	12	19	16	FU-40	0	28	14
2	Door PL-108	0	12	23	17	FU-39	0	12	14
3	Door PL-108	0	-12	23	18	Duct	0	0	19
4	Door PL-108	0	8	14	19	Duct	0	-32	46
5	Door PL-108	0	-16	28	20	Door	0	8	23
6	FAN F-118 A	0	-20	28	21	Door	3	-16	23
7	FAN F-118 B	3	-8	9	22	Duct	6	-20	19
8	Top PL-108 ~~Door FU-26~~ sec 2-16-00	0	-28	5	23	FU-38	0	0	23
9	Elect. Panel ~~FAN F-30~~ sec 2-16-00	0	0	5	24	Top PL-108	3	-36	10
10	Door FU-26	0	20	5	25	Top PL-108	6	24	5
11	FAN F-30	0	-8	14	26	Top PL-108	0	-28	5
12	FAN F-31	0	-36	19	27	Top FU-26	3	0	39
13	Door	0	-48	9	28	Top FU-26	3	8	15
14	Door	0	-28	14	29	Top FU-26	3	-8	10
15	Door	0	24	9	30	Top FU-26	6	0	14

Date Reviewed 2 17 00 RS Supervision. [redacted]
Print Name Signature Emp #

 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	Duct	0	-12	19	61				
32	Top F-118 B	3	4	19	62				
33	Top F-118 A	3	4	29	63				
34	Duct	0	-12	19	64				
35	Duct	0	16	24	65				
36	Duct	0	0	5	66				
37	Duct	0	-8	24	67				
38	Duct	0	4	15	68				
39	Duct	3	12	5	69				
40	Duct	6	28	15	70				
41	Duct	3	32	15	71				
42	Top FU-26	0	16	15	72				
43	Duct	9	-16	39	73				
44	Duct	9	20	24	74				
45	Duct	6	48	0	75				
46	END of Survey				76				
47					77				
48					75				
49					79				
50					80				
51					81				
52					82				
53					83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

A-3

RLC RADIOLOGICAL DATA

Survey Area H

2nd Floor

Radiological Survey/Sample Results for Survey Area H (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	-14	N/A
MAX	37	N/A
MEAN	8 3	N/A
STD DEV	14 4	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	-10	N/A
MAX	14	N/A
MEAN	1 9	N/A
STD DEV	8 5	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	48	N/A
MEAN	18 7	N/A
STD DEV	10 4	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	N/A
MAX	102	N/A
MEAN	16 1	N/A
STD DEV	16 0	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-64
MAX	6	56
MEAN	0 8	6 4
STD DEV	1 6	26 7
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	0	-60
MAX	6	76
MEAN	1 2	2 6
STD DEV	1 7	30
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-60
MAX	6	52
MEAN	0 6	-1 7
STD DEV	1 5	27 7
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-56
MAX	18	64
MEAN	2 7	-3 6
STD DEV	4 3	28 5
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg 0 3 cpm	Bkg 0 4 cpm	Bkg 30 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86%
MDA 139 dpm	MDA 148 dpm	MDA 493 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due N/A
Bkg 43 cpm	Bkg 48 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 1013 dpm	MDA 1065 dpm	MDA

Survey Type **Contamination**

Building 707

Location Room 220 (H)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-9-00 Time 1100

[redacted]

RCT N/A
Print name / Signature / Emp #

Comments Floor / Walls < 2 meters Unbiased survey points
1 m² scans, 1 minute pats and swipes See map for locations
Rm 222 lock, full of Equipment (Not accessible)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F	0	24	-10	16	F	0	-4	18
2	F	0	32	10	17	F	0	20	14
3	F	0	52	-14	18	F	3	36	14
4	F	0	-12	5	19	F	0	-16	0
5	F	3	8	23	20	F	0	0	27
6	F	0	12	-10	21	F	0	-24	23
7	F	0	8	-5	22	F	3	8	9
8	F	0	24	23	23	F	3	-8	37
9	F	0	32	14	24	F	3	8	9
10	F	0	-12	23	25	W<2	6	28	0
11	F	0	20	10	26	W<2	0	-64	-14
12	F	0	-24	0	27	W<2	0	48	-14
13	F	3	-8	14	28	W<2	0	4	9
14	F	0	56	23	29	W<2	0	20	-9
15	F	0	0	18	30	W<2	0	-32	-14

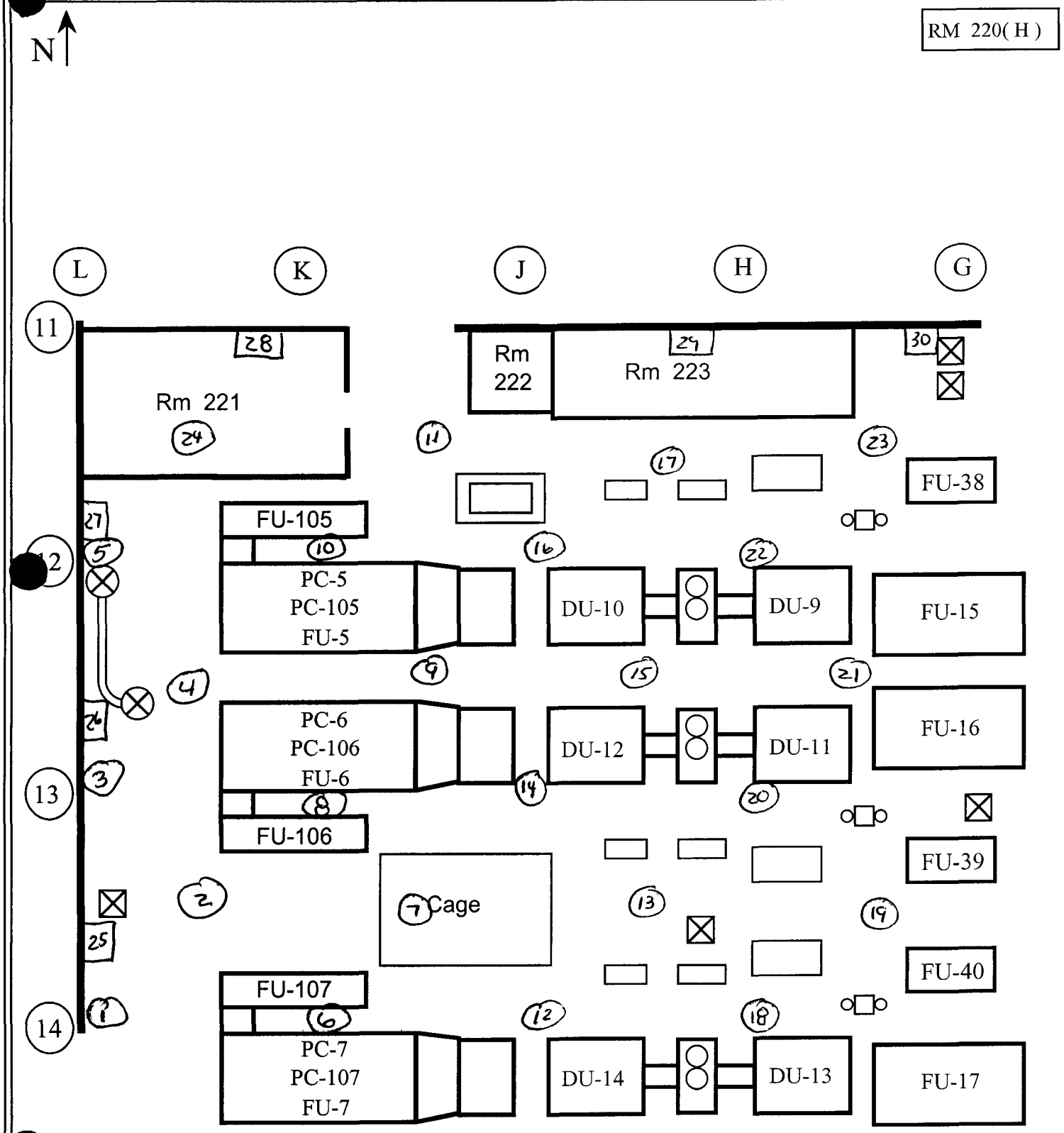
Date Reviewed 2-21-00 **RS Supervision:** [redacted]

Rev 02/00

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



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 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1389
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg 03 cpm	Bkg 04 cpm	Bkg 20 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20 77%
MDA 139 dpm	MDA 148 dpm	MDA 447 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due N/A
Bkg 43 cpm	Bkg 48 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 1013 dpm	MDA 1065 dpm	MDA

Survey Type **Contamination**
Building 707
Location Room 220 (H)
Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2 9 00 Time 1600

RC [redacted]

RCT N/A
Print name / Signature / Emp #

Comments Floor / Walls < 2 meters Biased survey points
1 m² scans, 1 minute pats and swipes See map for locations
No areas in Rms 221, 222, 223 and maintenance cage that needed biased survey due to process knowledge (per RCT judgment/experience)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F	0	40	0	16	F	0	-24	14
2	F	0	-24	10	17	F	0	32	0
3	F	0	4	10	18	F	0	-60	-10
4	F	0	8	0	19	F	0	-36	14
5	F	3	-8	14	20	F	3	-20	-10
6	F	0	32	10	21	F	0	24	5
7	F	0	0	0	22	F	3	4	5
8	F	0	-40	0	23	F	3	-4	0
9	F	0	0	5	24	F	0	28	-10
10	F	3	-16	-5	25	F	6	76	-10
11	F	3	36	10	26	End of Survey			
12	F	3	-16	10	27				
13	F	0	-8	-10	28	N A			
14	F	3	8	-10	29				
15	F	0	28	5	30				

Date Reviewed: 2-21 00 RS Supervision. [redacted]

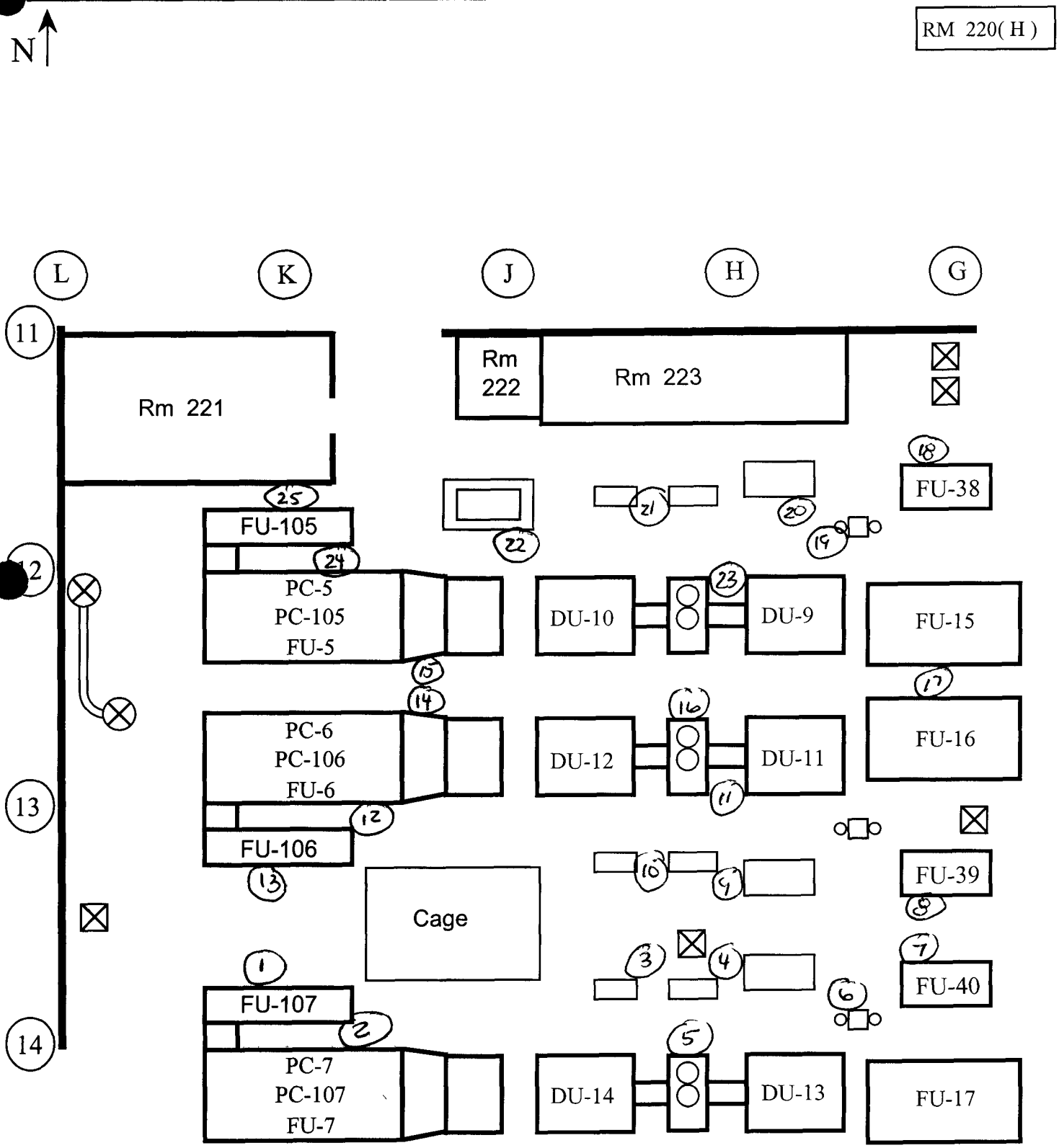
295

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



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 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1389
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg 02 cpm	Bkg 00 cpm	Bkg 00 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20 77%
MDA 129 dpm	MDA 82 dpm	MDA 130 dpm
Mfg Eberline	Mfg Eberline	Mfg NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 833	Serial # 872	Serial # 1233
Cal Due 7-14-00	Cal Due 4 12-00	Cal Due 5-11-00
Bkg 42 cpm	Bkg 46 cpm	Bkg 00 cpm
Efficiency 25%	Efficiency 25%	Efficiency 20 63%
MDA 100 3 dpm	MDA 104 5 dpm	MDA 13 1 dpm

Survey Type **Contamination**

Building **707**

Location Room 220 (H)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2 16 00 Time 1600

[redacted]

RCT

Print name / Signature / Emp #

Comments Equipment Biased survey points
1 minute pats and swipes See map for locations
#31-45 < >2 using Electra #1233
No Fixed Equipment in maintenance Cage

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	Duct Pipe	3	12	5	16	FU-16	3	40	14
2	FU-105	0	-52	5	17	DU-11	0	4	10
3	FU-5	0	-56	34	18	PU-11	0	28	10
4	FU-6	0	-20	5	19	DU-12	0	40	19
5	FU-5 Door	0	-44	29	20	FU-106	3	0	29
6	FU-6 Door	3	-44	10	21	FU-107	0	-20	34
7	DU-10	0	-12	5	22	P-107	0	-12	5
8	PU-10	0	0	14	23	PU-13	3	-28	10
9	DU-9	0	-20	14	24	R-7	0	-16	0
10	J-11	0	8	14	25	FU-40	0	-28	0
11	P-105	0	4	10	26	FU-39	0	0	14
12	PU-9	0	-16	14	27	~~Pipe~~ CU-6	0	4	5
13	R-5	0	-16	14	28	~~PU~~ R-6	0	56	19
14	FU-38	0	-20	5	29	PU-12	0	-16	34
15	FU-15	0	-18	14	30	P-106	3	-16	14

Date Reviewed 2 21 00 **RS Supervision** [redacted]

 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SURVEY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	E>2 Duct	3	64	10	61				
32	E>2 Duct	3	8	24	62				
33	E>2 wires	0	-32	10	63				
34	E>2 Duct	6	32	15	64				
35	E>2 FU-6	6	-8	15	65				
36	E>2 Duct	12	-24	24	66				
37	E>2 Duct	9	32	15	67				
38	E>2 Duct	9	48	15	68				
39	E>2 Duct	0	28	19	69				
40	E>2 FU16	18	-12	102	70				
41	E>2 Duct	9	16	10	71				
42	E>2 Duct	0	-4	5	72				
43	E>2 Duct	12	-28	34	73				
44	E>2 Duct	3	4	0	74				
45	E>2 Duct	12	0	19	75				
46	End of Survey				76				
47					77				
48					75				
49					79				
50					80				
51					81				
52					82				
53					83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

N/A

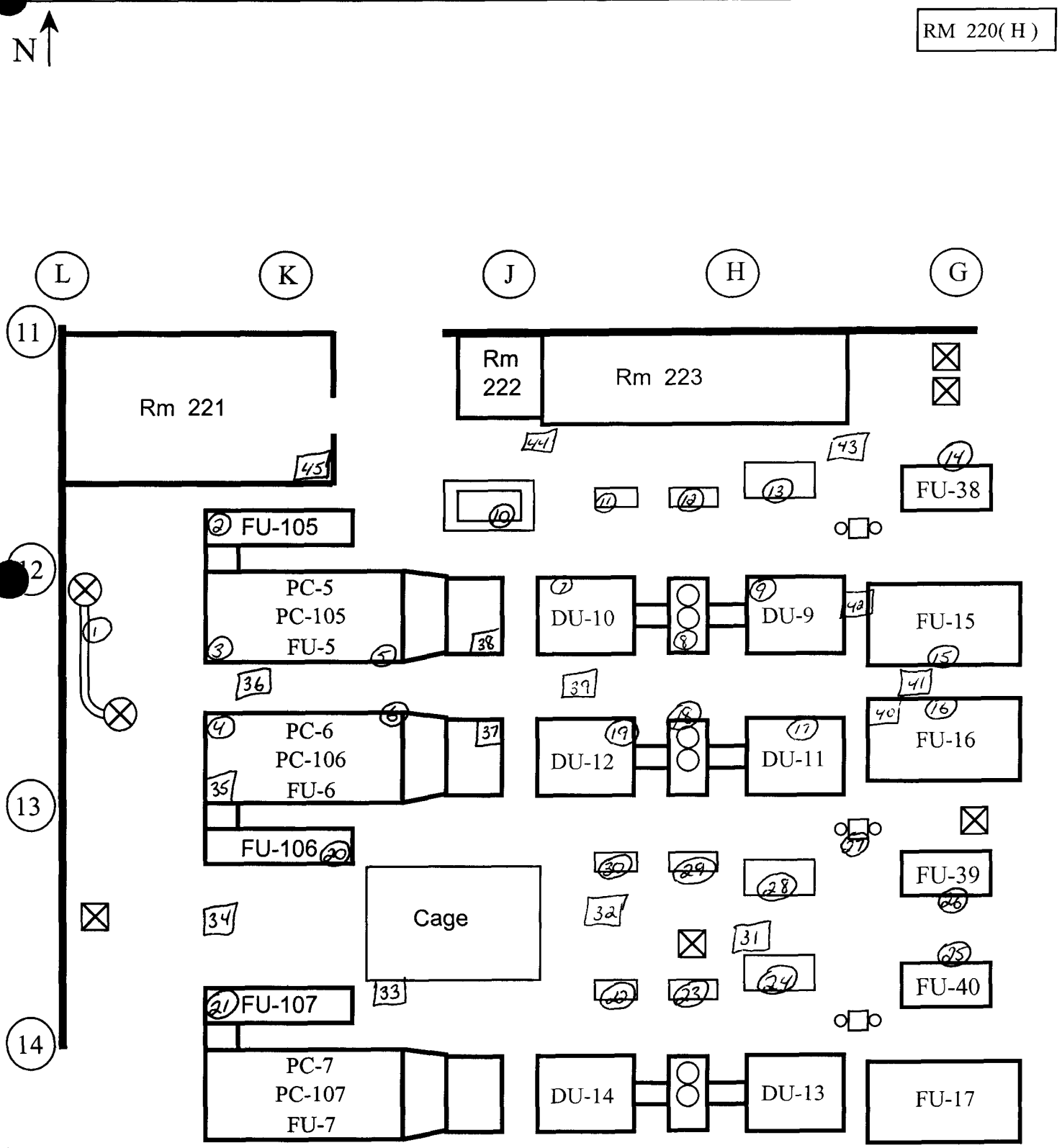
N/A

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17 00	Cal Due 5-11-00
Bkg 0.1 cpm	Bkg 0.0 cpm	Bkg 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 115 dpm	MDA 8.2 dpm	MDA 131 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14 00	Cal Due 4-12-00	Cal Due N/A
Bkg 46 cpm	Bkg 48 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 1045 dpm	MDA 1065 dpm	MDA

Survey Type **Contamination**

Building **707**

Location Room 220 (H)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-17-00 Time 1600

[redacted]

RCT _____
Print name / Signature / Emp #

Comments Ceiling / Walls > 2 meters Biased survey points
1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	w >2	0	-16	24	16	C	0	-24	19
2	w >2	0	-36	10	17	C	0	-4	18
3	w >2	0	20	0	18	C	3	32	10
4	w >2	0	0	15	19	C	0	-20	10
5	w >2	0	-16	34	20	C	0	-40	29
6	w >2	0	12	19	21	C	6	36	5
7	w >2	0	52	19	22	C	0	-40	5
8	C	0	-20	19	23	C	0	-4	15
9	C	0	-20	24	24	C	0	0	19
10	C	0	40	15	25	C	0	-4	29
11	C	3	12	5	26	C	0	8	24
12	C	0	24	15	27	C	0	-12	34
13	C	3	52	29	28	C	3	4	19
14	C	0	4	19	29	C	0	-60	5
15	C	0	0	19	30	C	0	-32	24

Date Reviewed 2-21-00 **RS Supervision** [redacted]

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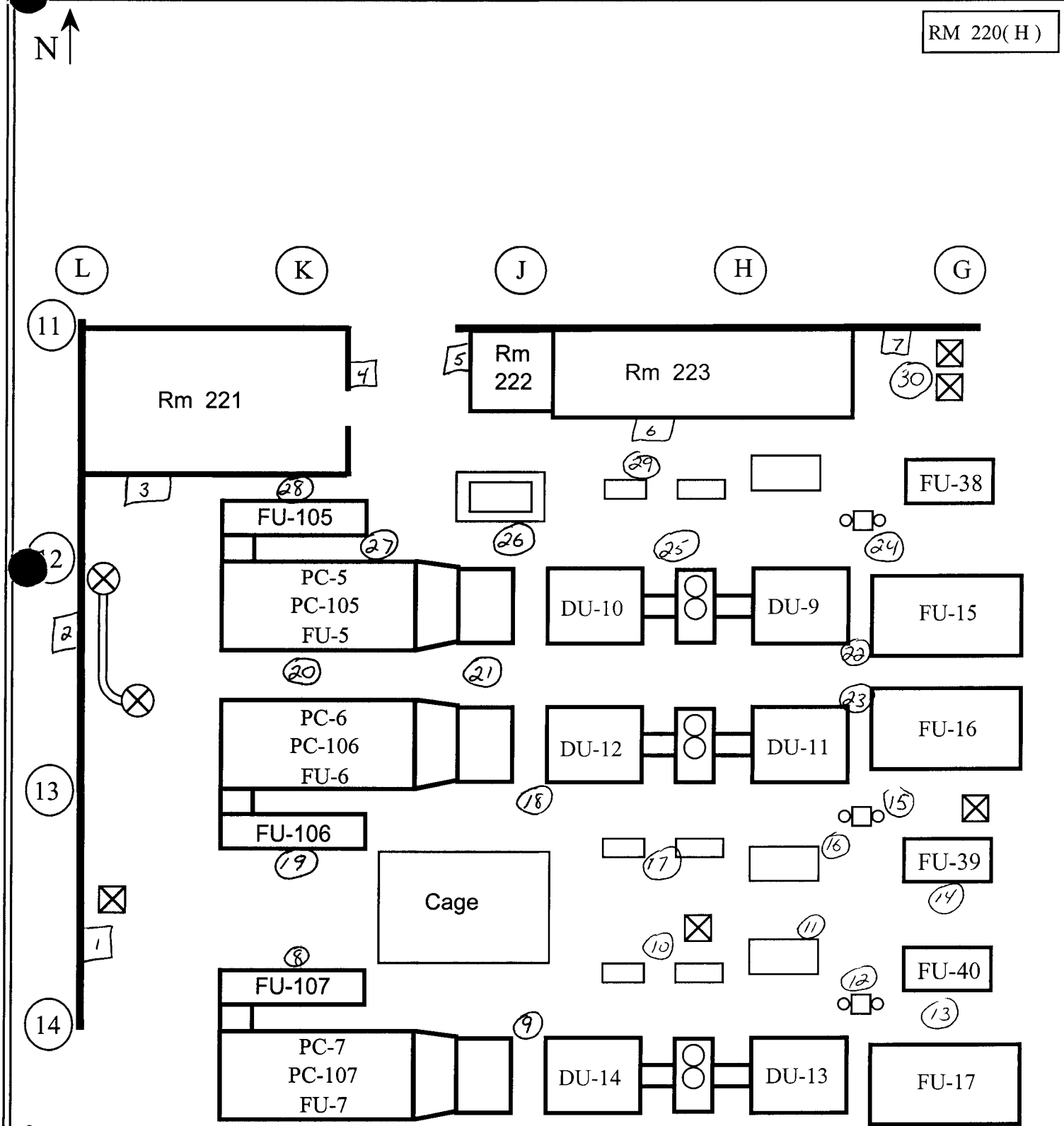
RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1197#003	Matrix	Waste
Site Sample ID	004.003				
Other Sample ID	Bldg 707 2nd level	Collection Date	5/2/00	Date Received	5/4/00
		Batch Number	1936	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1936-04	0 704	0 207	0 250	0 037
ACW03	U-235	KH100-1936-04	0 034	0 048	0 049	0 046
ACW03	U-238	KH100-1936-04	0 893	0 236	0 296	0 037
ACW03	PU-238	KH100-1936-04	-0 133	0 085	0 089	0 209
ACW03	PU-239/240	KH100-1936-04	0 012	0 047	0 047	0 094
ACW03	AM-241	KH100-1936-04	0 010	0 034	0 034	0 076

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Pu	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Am	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB

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020

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1197#003	Matrix	Waste
Site Sample ID	005.003				
Other Sample ID	Bldg 707 2nd level	Collection Date	5/2/00	Date Received	5/4/00
		Batch Number	1936	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1936-05	0 701	0 209	0 251	0 038
ACW03	U-235	KH100-1936-05	0 052	0 060	0 062	0 047
ACW03	U-238	KH100-1936-05	0 944	0 247	0 311	0 067
ACW03	PU-238	KH100-1936-05	0 025	0 103	0 103	0 175
ACW03	PU-239/240	KH100-1936-05	-0 006	0 013	0 013	0 076
ACW03	AM-241	KH100-1936-05	0 033	0 047	0 047	0 044

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Pu	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Am	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB

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021

A-3
RLC RADIOLOGICAL DATA
Survey Area I
2nd Floor

304

Radiological Survey/Sample Results for Survey Area I (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	-10	N/A
MAX	24	N/A
MEAN	3 1	N/A
STD DEV	8 5	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	10	N/A
MAX	52	N/A
MEAN	24 5	N/A
STD DEV	9 8	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	34	N/A
MEAN	18 9	N/A
STD DEV	9 3	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	N/A
MAX	62	N/A
MEAN	14 0	N/A
STD DEV	10 1	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-68
MAX	6	60
MEAN	1 2	3 3
STD DEV	1 9	27 3
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	0	-40
MAX	9	48
MEAN	1 6	7 2
STD DEV	2 9	22 5
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-76
MAX	3	68
MEAN	0 2	3 7
STD DEV	0 8	27 5
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-12
MAX	12	84
MEAN	1 9	27 6
STD DEV	3 0	28 4
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm^2

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.3 cpm	Bkg 0.2 cpm	Bkg 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 13.9 DPM	MDA 12.9 DPM	MDA 44.2 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 43 cpm	Bkg 47 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 101.3 DPM	MDA 105.5 DPM	MDA

Survey Type **Contamination**

Building 707

Location Room 220 (I)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-8-00 Time 1600

[redacted]

RCT _____
Print name / Signature / Emp #

Comments Floor / Walls < 2 meters Unbiased survey points
1 m² scans, 1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F	0	16	0	16	F	6	48	10
2	F	3	-20	-10	17	<2 C15 → C16	0	40	-5
3	F	0	-8	0	18	F	6	28	5
4	F	0	-12	0	19	F	3	24	5
5	F	0	12	-5	20	F	0	12	0
6	F	3	-20	-5	21	F	0	16	-10
7	F	3	28	5	22	F	0	-68	10
8	F	3	-8	10	23	<2 D17 → E17	0	-12	-10
9	F	0	60	-5	24	F	0	24	10
10	F	0	-40	5	25	F	0	12	0
11	F	0	0	5	26	<2 E17 → F17	0	-40	10
12	F	3	-12	-10	27	F	0	8	-5
13	F	3	4	19	28	<2 F17 → G17	0	-8	24
14	<2 C14 → C15	0	12	5	29	F	3	4	10
15	F	0	8	0	30	F	0	-20	10

Date Reviewed 2-17-00 **RS Supervision** [redacted]

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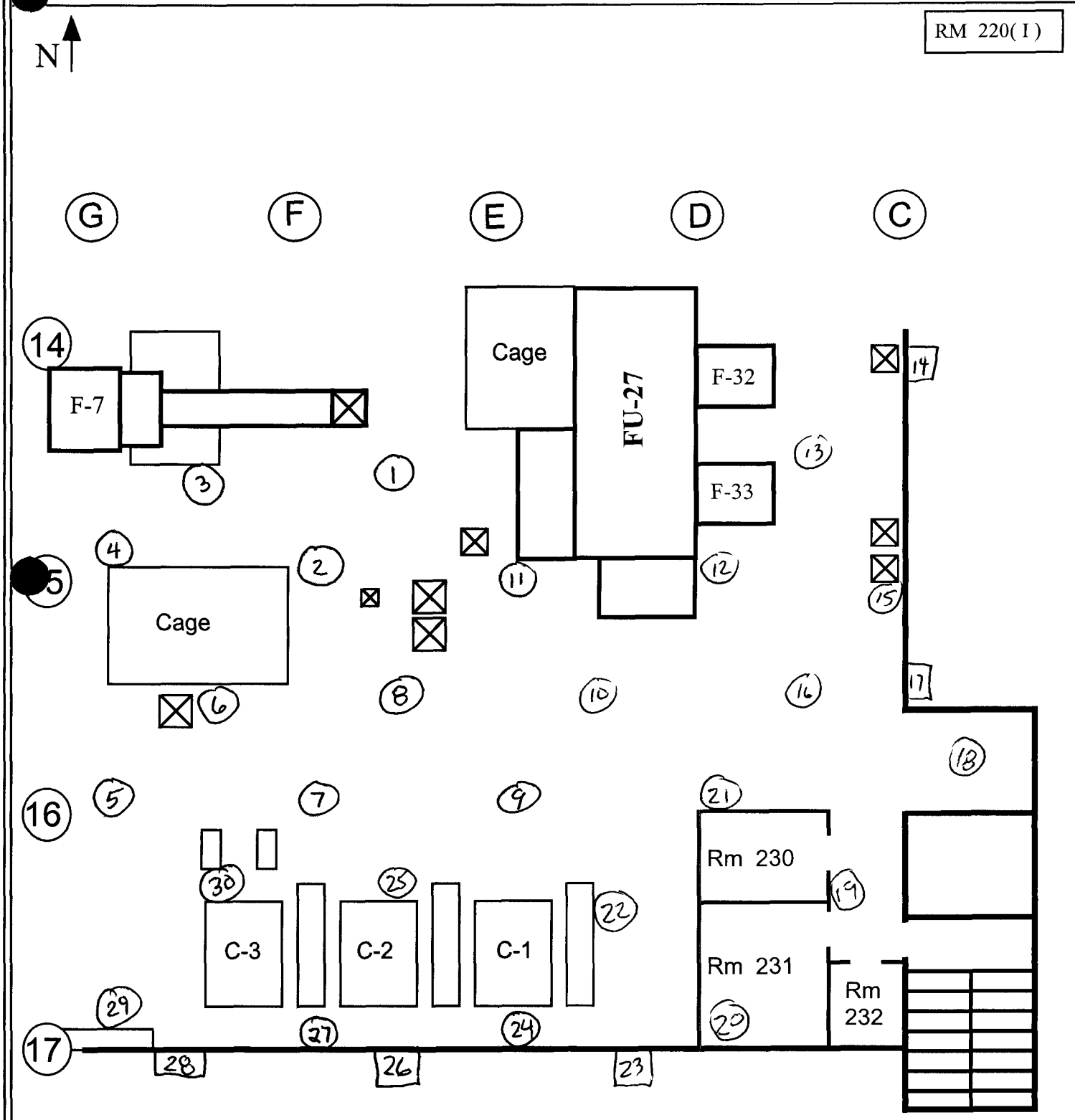
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg	Eberline	Mfg	Eberline	Mfg	NeTech
Model	Sac-4	Model	Sac-4	Model	Electra
Serial #	849	Serial #	837	Serial #	3265
Cal Due	4-10-00	Cal Due	5-17-00	Cal Due	7-3-00
Bkg	0 3 cpm	Bkg	0.4 cpm	Bkg	1.0 cpm
Efficiency	33%	Efficiency	33%	Efficiency	21.01%
MDA	13.9 DPM	MDA	14.8 DPM	MDA	35 DPM

Mfg	Eberline	Mfg	Eberline	Mfg	
Model	BC-4	Model	BC-4	Model	
Serial #	BC-833	Serial #	BC 872	Serial #	N/A
Cal Due	7-14-00	Cal Due	4-12-00	Cal Due	
Bkg	45 cpm	Bkg	48 cpm	Bkg	
Efficiency	25%	Efficiency	25%	Efficiency	
MDA	103.4 DPM	MDA	106.5 DPM	MDA	

Survey Type: **Contamination**

Building: 707

Location: Room 220 (I)

Purpose: **Reconnaisance Level Characterization**

RWP #: 00-707-1204

Date: 2-10-00 Time: 1600

[redacted]

RCT _____
Print name / Signature / Emp #

Comments: Floor / Walls < 2 meters Biased survey points
1 m² scans, 1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F – Pipes	0	48	52	16	F - Pump	0	40	29
2	F - Motor	9	8	38	17	F - Airhead	0	-24	29
3	F - Duct	6	0	15	18	F - Pipes	0	-4	19
4.	F - Duct	0	4	29	19	F - Door FU-77	0	4	29
5	F - Door	0	-12	34	20	F - Door FU-27	0	0	10
6	F- Duct	0	-4	38	21	F - Duct	0	48	15
7	F - Duct	3	28	19	22	F - Duct	0	-8	15
8	F - Duct	3	20	34	23	F - FAN F-33	6	-40	15
9	F - Duct	0	-8	15	24	F - FAN - F32	0	-8	24
10	F - Tanks	0	-16	19	25	F - Duct	9	20	29
11	F - Pump	0	8	19	26	end of Survey			
12	F - Pump	0	0	19	27				
13	F - Pump	0	44	19	28	N A			
14	F - Pump	0	4	29	29				
15	F - Pump	3	28	19	30				

Date Reviewed: 2 17-00 RS Supervis [redacted]

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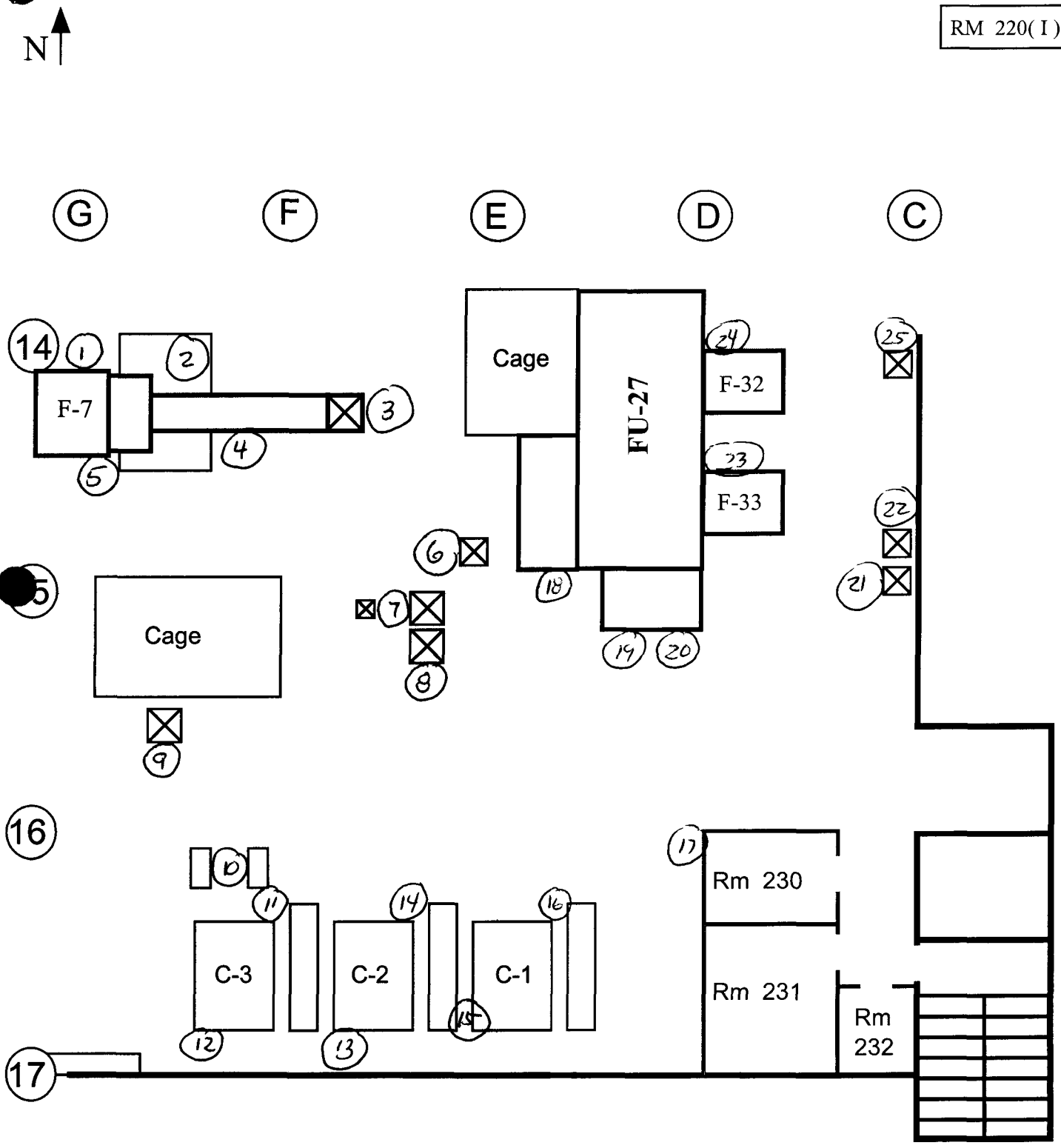
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SURVEY

Drawing Showing Survey Points

RM 220(I)



309

 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.4 cpm	Bkg 0.1 cpm	Bkg 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 14.8 DPM	MDA 11.5 DPM	MDA 44.2 DPM
Mfg Eberline	Mfg Eberline	Mfg NeTech
Model BC-4	Model BC-4	Model Electra
Serial # ~~BC-833~~ BC 833 2-11-00	Serial # BC-872	Serial # 1233
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg 4.1 cpm	Bkg 4.8 cpm	Bkg 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 20.63%
MDA 99.2 DPM	MDA 106.5 DPM	MDA 35.7 DPM

Survey Type **Contamination**

Building 707

Location Room 220 (I)

Purpose **Reconnaisance Level Characterization**

RWP # 00-107-1204

Date 2-11-00 Time 1530

R[redacted]

RCT _____

Print name / Signature / Emp #

Comments Equipment Biased survey points
1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	motor	0	12	19	16	P-trap	0	28	62
2	Duct	0	32	19	17	Fan F-33	0	48	19
3	Duct Door	3	~~62~~ 60	10	18	Fan F-32	3	40	19
4	Door	0	-4	~~85~~ 5	19	Door	3	12	10
5	Tank	3	-8	19	20	Door	0	32	24
6	Tank	0	32	5	21	Top FU-27	12	-4	24
7	Frame wok	0	84	10	22	Duct	3	0	19
8	Pump	0	8	15	23	Duct	12	76	5
9	Sheilding	0	64	0	24	Duct	3	-12	10
10	Pump	6	64	5	25	Heating water pipe	9	68	5
11	Equip.	0	40	19	26	Duct	0	40	19
12	Framework	0	-4	5	27	Crane	3	12	0
13	Equip	3	52	15	28	Duct	0	40	19
14	Sheilding	0	56	15	29	Top FU-27	0	-4	15
15	Equip.	0	-4	15	30	Top FU-27	3	60	10

Date Reviewed. 2-17-00 **RS Supervision** [redacted]

Print Name Signature Emp #

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 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	Sprikler pipe	0	68	10	61				
32	Duct	3	16	15	62				
33	Top FU-27	0	44	19	63				
34	Top FU-27	0	-8	10	64				
35	Top FU-27	0	20	0	65				
36	Elect J-Box	3	16	15	66				
37	Duct	3	-4	29	67				
38	Duct	0	28	19	68				
39	Elect Panel	3	20	5	69				
40	Crane	6	80	19	70				
41	Duct	0	20	19	71				
42	Top F-7	0	44	5	72				
43	Duct	0	-12	15	73	N/A			
44	Duct	0	-12	5	74				
45	Duct	0	4	10	75				
46	END OF SURVEY				76				
47					77				
48					75				
49					79				
50					80				
51					81				
52	N/A				82				
53					83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

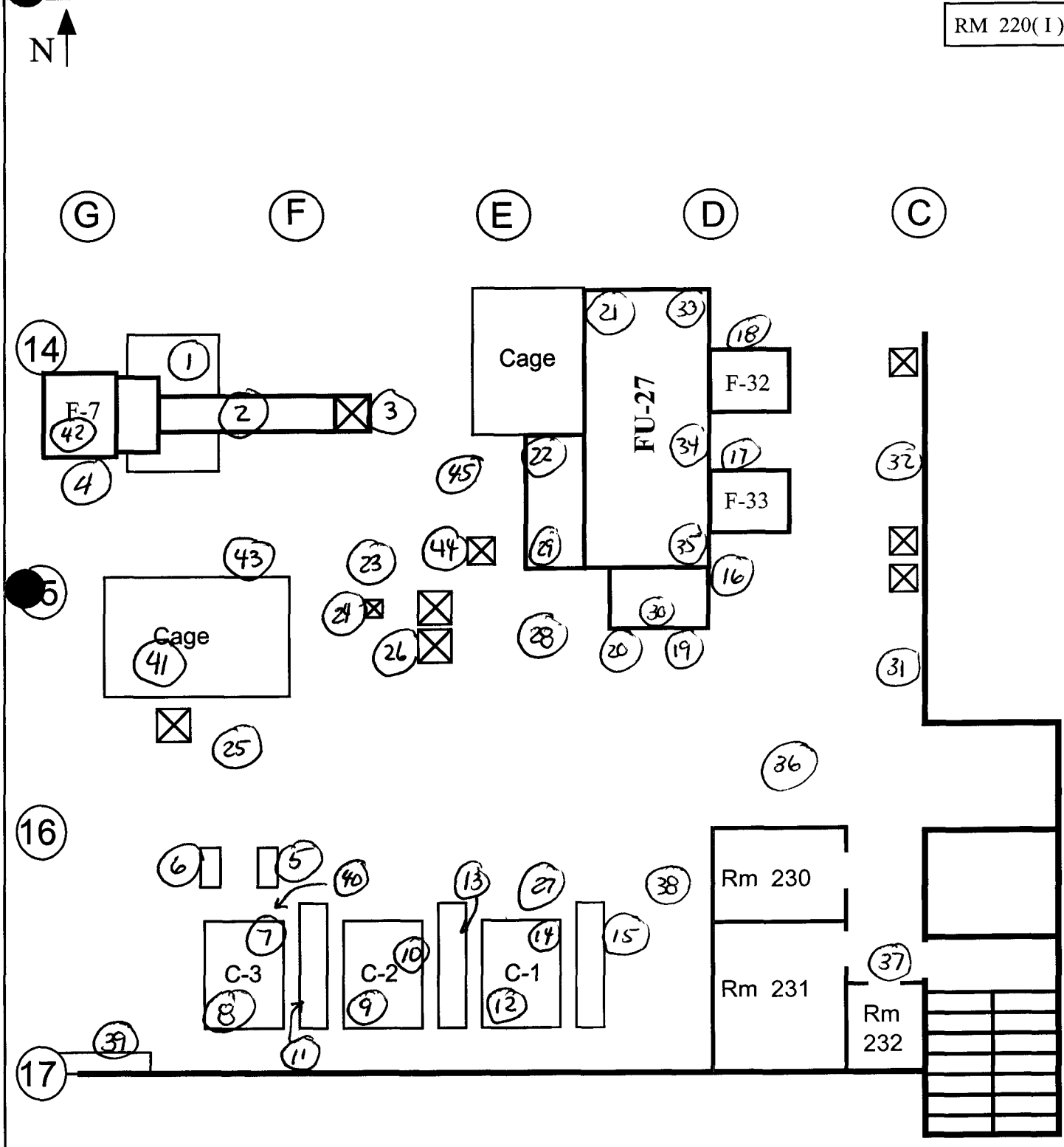
RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SURVEY

Drawing Showing Survey Points

RM 220(I)



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0.3 cpm	Bkg 0 1 cpm	Bkg 2 0
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 13.9 DPm	MDA 11 5 DPm	MDA 45 DPm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 45 cpm	Bkg 49 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 103.4 DPm	MDA 107.5 DPm	MDA

Survey Type **Contamination**

Building **707**

Location Room 220 (I)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-15-00 Time 0900

RC [redacted]

RCT _____
Print name / Signature / Emp #

Comments Ceiling / Walls > 2 meters Biased survey points
1 minute pats and swipes See map for locations

SURVEY RESULTS

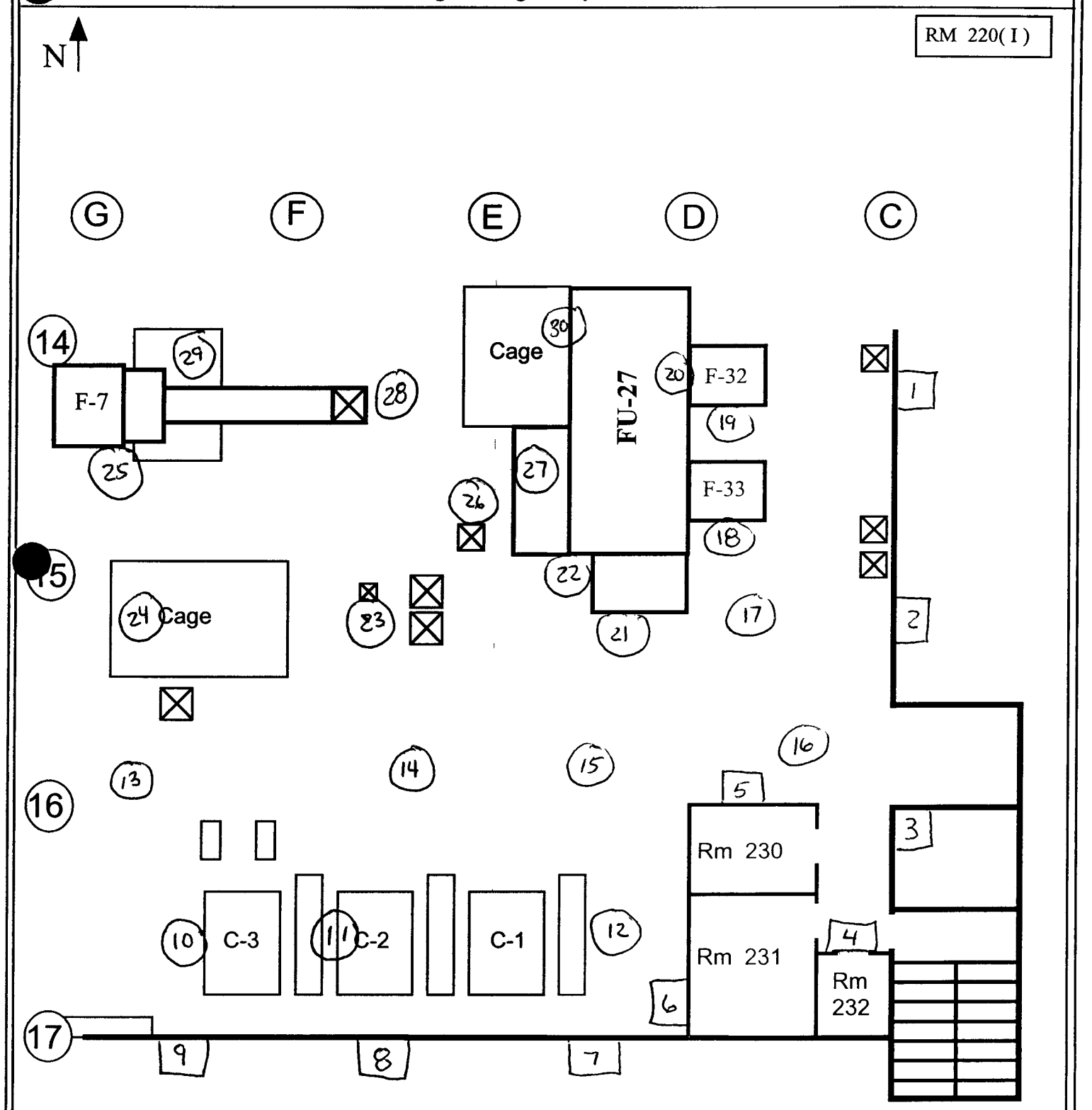
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	>2	0	4	5	16	C	3	12	24
2	>2	0	4	19	17	C	0	24	24
3	>2	0	-8	0	18	C	0	-4	10
4	>2	0	-20	19	19	C	0	-20	15
5	>2	0	8	10	20	C	0	0	24
6	>2	0	68	29	21	C	0	-16	29
7	>2	0	-20	19	22	C	0	12	34
8	>2	0	52	10	23	C	0	-20	24
9	>2	0	-76	15	24	C	0	4	10
10	C	0	4	15	25	C	0	28	29
11	C	0	48	34	26	C	0	-12	15
12	C	0	40	24	27	C	0	28	19
13	C	3	-8	24	28	C	0	-4	5
14	C	0	-12	10	29	C	0	-8	10
15	C	0	-12	29	30	C	0	16	34

Date Reviewed 2 17-00 **RS Supervision.** [redacted]

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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A-3
RLC RADIOLOGICAL DATA
Survey Area J
2nd Floor

Radiological Survey/Sample Results for Survey Area J (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	-18	N/A
MAX	27	N/A
MEAN	7 8	N/A
STD DEV	11 7	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	9	N/A
MAX	46	N/A
MEAN	26 3	N/A
STD DEV	11 7	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	43	N/A
MEAN	20 7	N/A
STD DEV	9 6	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	-19	N/A
MAX	64	N/A
MEAN	20 4	N/A
STD DEV	14 5	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-60
MAX	6	60
MEAN	0 5	0 4
STD DEV	1 4	26 4
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	0	-40
MAX	6	52
MEAN	0 7	2 2
STD DEV	1 8	23 4
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-48
MAX	9	40
MEAN	1 4	0 0
STD DEV	2 3	18 1
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-48
MAX	3	84
MEAN	0 7	0 9
STD DEV	1 3	26 5
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29 00
Bkg 0 3 cpm	Bkg 0 4 cpm	Bkg 30 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21 86%
MDA 13 9 dpm	MDA 148 dpm	MDA 493 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7 14-00	Cal Due 4-12-00	Cal Due N/A
Bkg 43 cpm	Bkg 48 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 101 3 dpm	MDA 106 5 dpm	MDA

Survey Type **Contamination**

Building 707

Location Room 220 (J)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-9 00 Time 1100

RCT [redacted]

RCT N/A
Print name / Signature / Emp #

Comments Floor / Walls < 2 meters Unbiased survey points
1 m² scans, 1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	3	-12	27	16	F	0	8	27
2	F	3	28	5	17	F	0	-12	-5
3	F	0	60	9	18	F	0	-60	18
4	F	0	0	-5	19	F	0	-36	14
5	F	0	-8	-5	20	F	0	4	14
6	F	0	16	0	21	F	0	0	27
7	F	0	-4	18	22	F	0	-20	14
-8	F	0	-32	-9	23	F	0	-16	9
9	F	0	60	-18	24	F	0	20	0
10	F	0	8	23	25	w<2	6	0	9
11	F	0	20	9	26	w<2	0	8	0
12	F	3	28	9	27	w<2	0	-40	9
13	F	0	20	9	28	w<2	0	8	23
14	F	0	8	0	29	w<2	0	-8	0
15	F	0	-24	23	30	w<2	0	4	-5

Date Reviewed: 2-17 00 **RS Supervision:** [redacted]

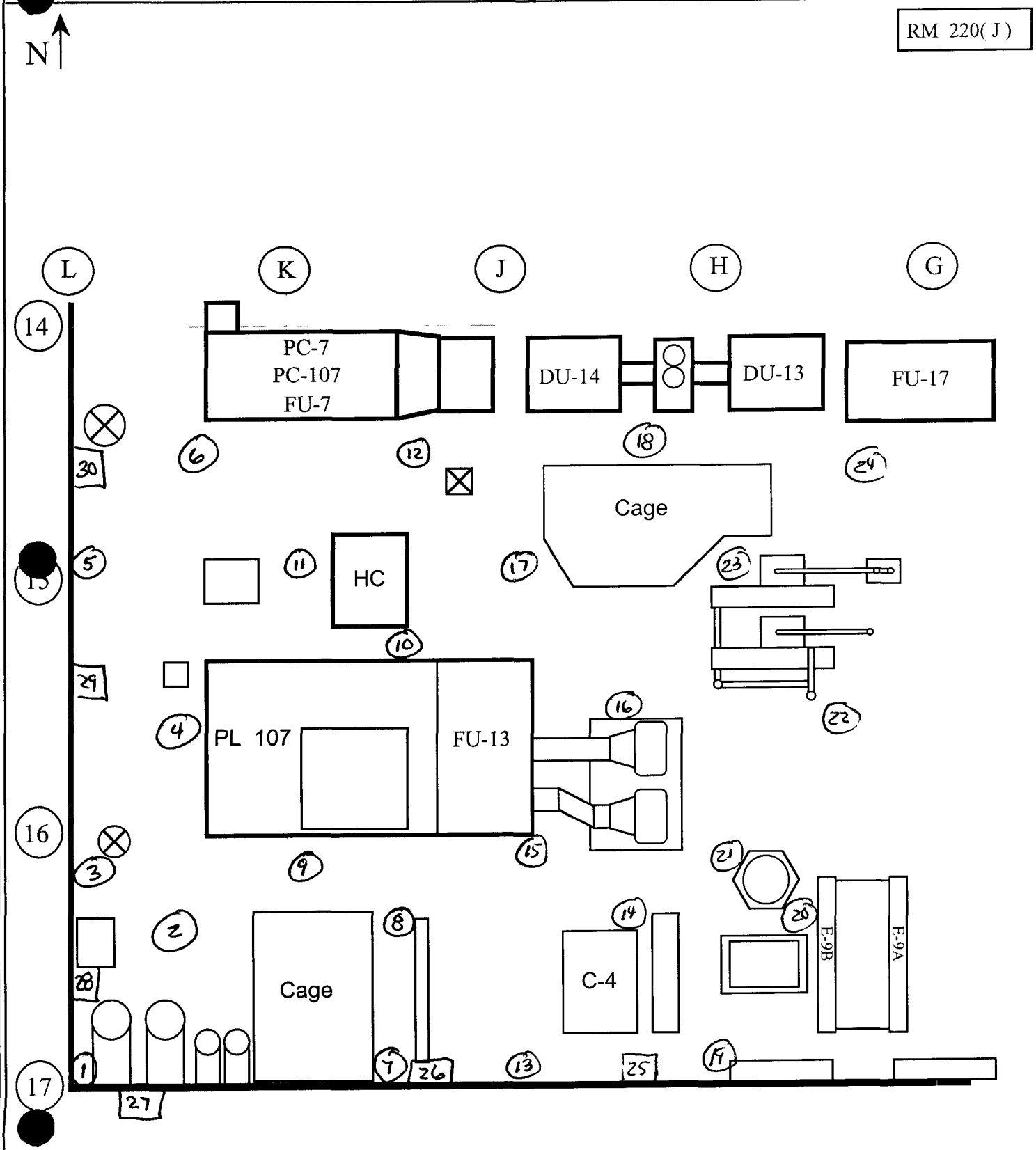
317

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICA

Drawing Showing Survey Points



318

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg 0.3 cpm	Bkg 0.4 cpm	Bkg 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86
MDA 13.9 DPM	MDA 14.3 DPM	MDA 49.3 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 45 cpm	Bkg 48 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 103.4 DPM	MDA 106.5 DPM	MDA

Survey Type **Contamination**
Building 707
Location Room 220 (J)
Purpose **Reconnaisance Level Characterization**

RWP # 00-707 1204
Date 2-10-00 Time 1500

RCT [redacted]
Print name / Signature / Emp #

RCT
Print name / Signature / Emp #

Comments Floor / Walls < 2 meters Biased survey points
1 m² scans, 1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F	0	52	37	16	F	0	8	9
2	F	0	-40	28	17	F	0	16	28
3	F	0	12	37	18	F	0	0	46
4	F	0	28	14	19	F	0	-24	37
5	F	0	-8	19	20	F	0	0	14
6	F	0	0	28	21	F	0	4	14
7	F	0	-16	19	22	F	3	-4	32
8	F	0	-24	46	23	F	6	-32	23
9	F	0	52	46	24	F	0	24	9
10	F	0	-16	23	25	F	6	28	14
11	F	0	24	23	26	end of Survey			
12	F	0	-4	37	27				
13	F	3	0	23	28				
14	F	0	-12	37	29				
15	F	0	-12	14	30				

Date Reviewed: 2-17-00 RS Supervision: [redacted]

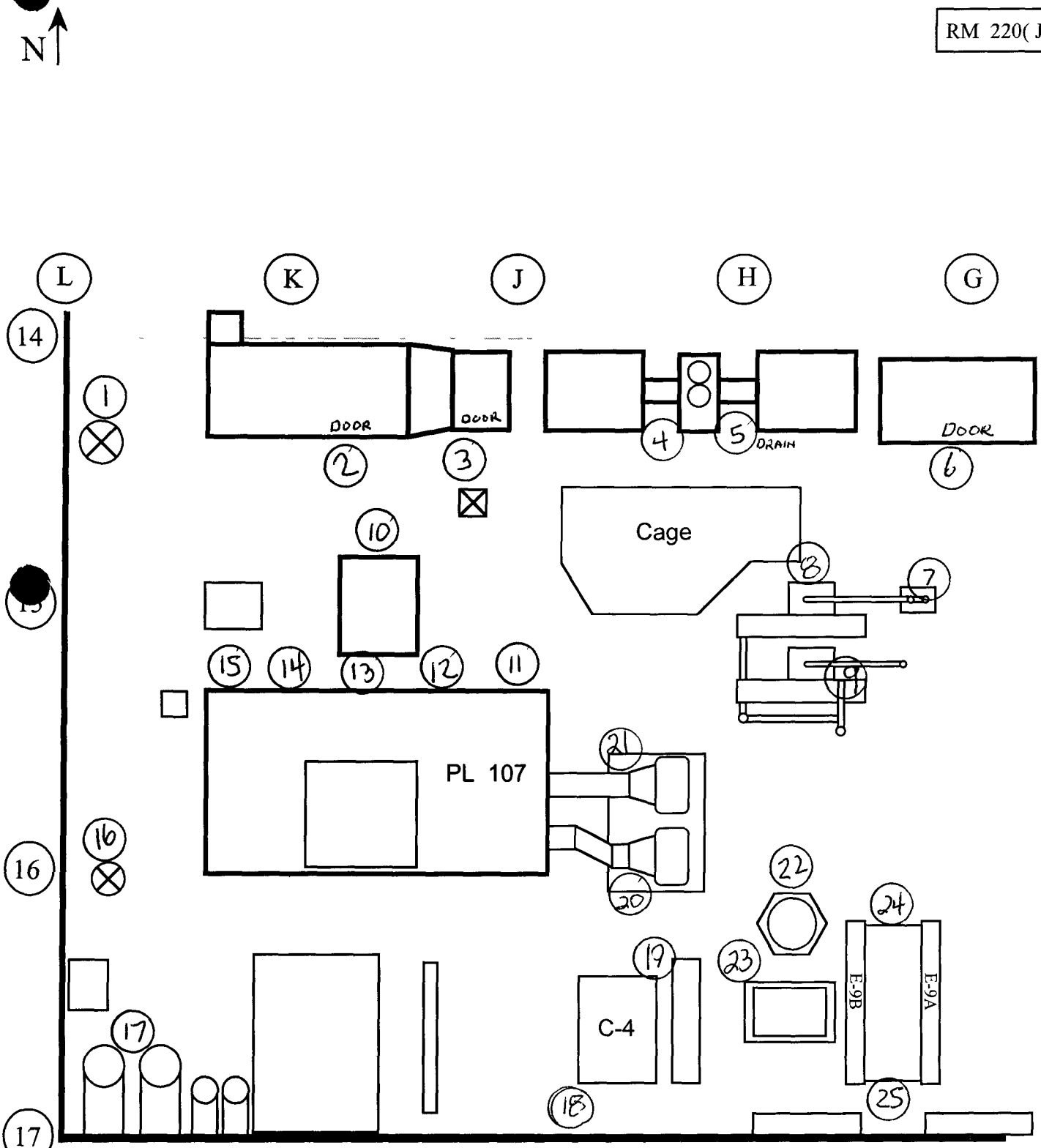
319

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICA

Drawing Showing Survey Points



320

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg 0.0 cpm	Bkg 0.1 cpm	Bkg 0.1 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86%
MDA 8.2 DPM	MDA 11.5 DPM	MDA 33.7 d/m
Mfg Eberline	Mfg Eberline	Mfg NETECH
Model BC-4	Model BC-4	Model ELECTRA
Serial # 833	Serial # 872	Serial # 1233
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg 44 cpm	Bkg 46 cpm	Bkg 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 20.63%
MDA 102.4 DPM	MDA 104.5 DPM	MDA 35.7 d/m

Survey Type: **Contamination**
Building: **707**
Location: Room 200 (J)
Purpose: **Reconnaisance Level Characterization**
RWP #: 00 707-1204
Date: 2-14-00 Time: 1035
[redacted]

Comments: Equipment Biased survey points
1 minute pats and swipes See map for locations
34-44 >2 meters
No Fixed Equipment in maintenance cage

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	Door FU-7	0	28	23 ~~0~~	16	Top PI-107	0	-12	19
2	Door HC-107A	1	-20	37	17	Above SAAM 37	3	-16	37
3	Top HC-107A	3	32	23	18	Fan F-117A	3	20	23
4	Top FU-7	3	-12	32	19	Tank	0	-40	37
5	Tank	0	-12	0	20	Pump	0	-4	23
6	Door FU-17	0	-44	14	21	Pump	0	-20	23
7	Top DU-13	0	-16	37	22	Pump	3	-20	28
8	Door ~~FU-13~~ SK PL 107	3	-4	37	23	C-4	0	-24	32
9	Door ~~FU-13~~ SK PL 107	0	-4	23	24	C-4	3	16	28
10	Door PI-107	0	-20	64	25	E-9B	0	40	23
11	Door PI-107	0	0	42	26	E-9A	0	-12	14
12	Door PI-107	3	16	28	27	Pipe	0	4	9
13	Door HC-107	0	-12	37	28	Pipe	0	784	23
14	Top HC-107	0	0	23	29	Top PI-107	3	-16	0
15	Top PI-107	0	-28	23	30	Top PI-107	0	24	14

Date Reviewed: 2 17 00 **RS Supervision:** [redacted] Print Name [redacted] Signature [redacted] Emp #

 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SURVEY

Drawing Showing Survey Points

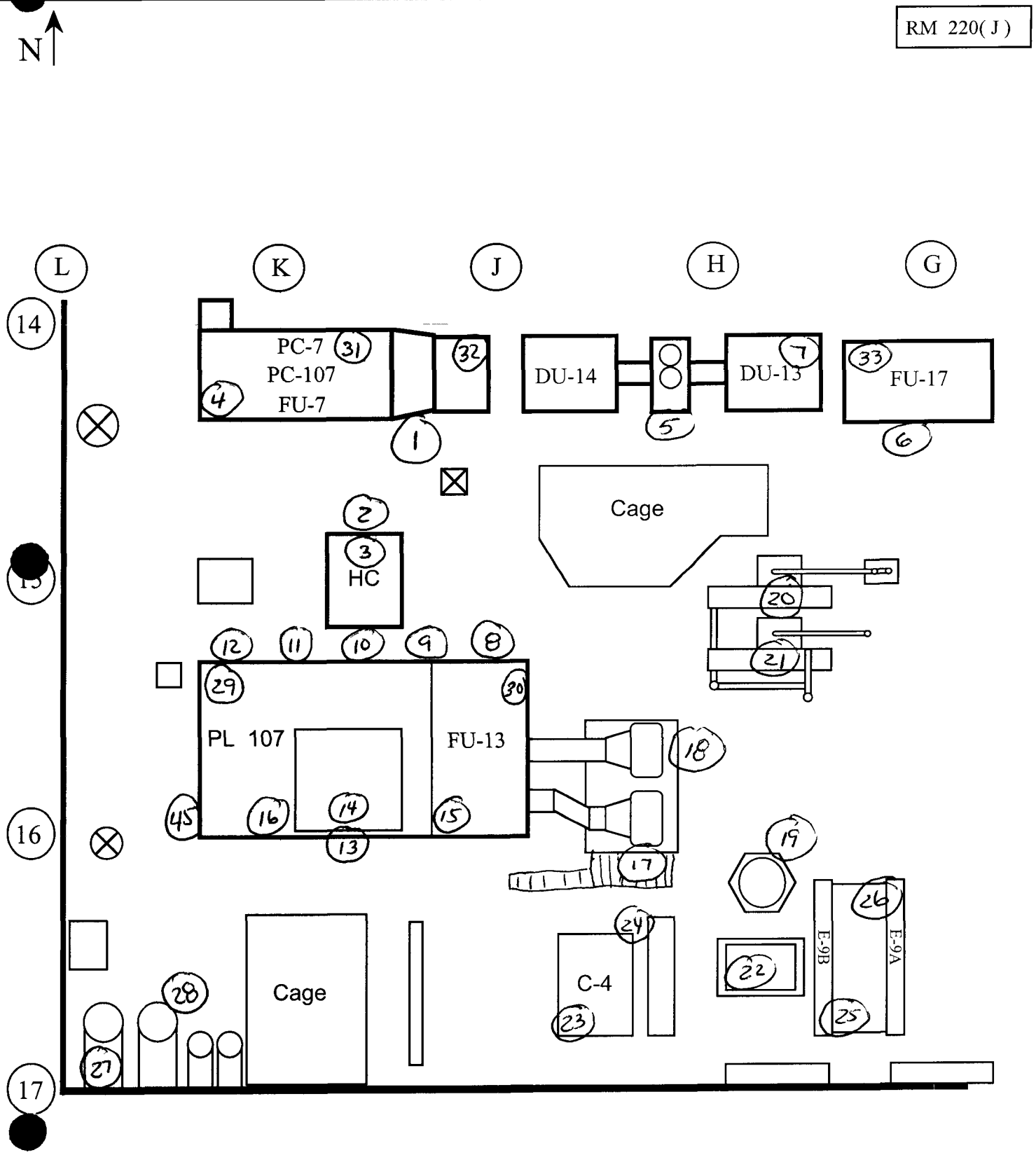
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	Top FU-7	0	-48	1	61				
32	Top FU-7	0	28	5	62				
33	Top FU-17	0	12	9	63				
34	Duct	0	28	5	64				
35	Pipe	0	12	24	65				
36	Duct	0	24	10	66				
37	Brime Water	0	4	15	67				
38	I-Beam	0	60	9	68				
39	Wire tray	3	-12	24	69				
40	Wire tray	0	4	10	70				
41	Pipe	0	-12	10	71				
42	Duct	0	20	19	72				
43	Duct	0	4	10	73				
44	Duct	0	-36	29	74				
45	PE-TRAP	0	24	0	75	N/A			
46	END OF SURVEY				76				
47					77				
48					75				
49					79				
50					80				
51					81				
52					82				
53	N/A				83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICA

Drawing Showing Survey Points



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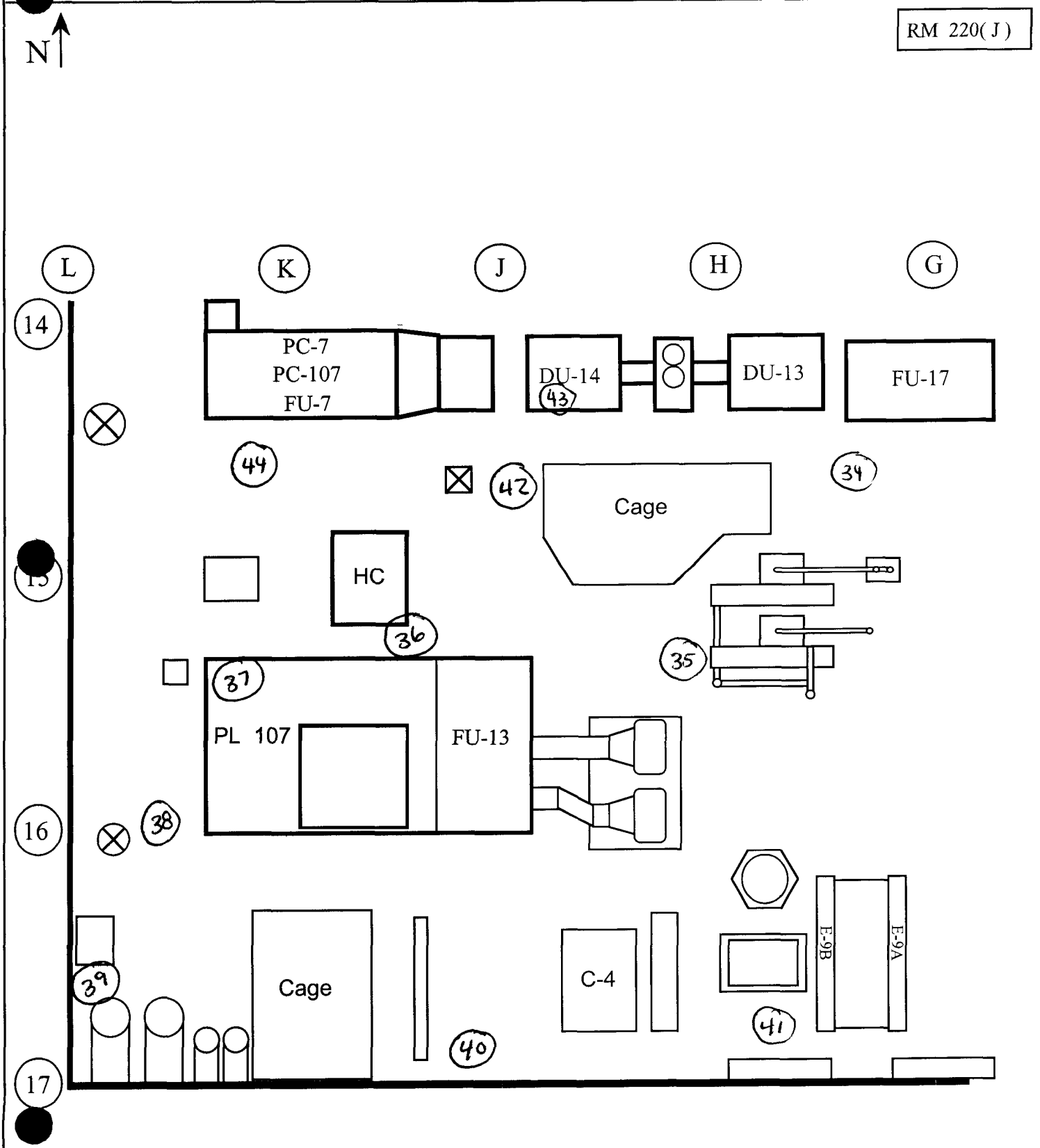
RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL

Drawing Showing Survey Points



324

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0.2 cpm	Bkg 0 0 cpm	Bkg 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 12.9 DPM	MDA 8 2 DPM	MDA 13.1 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N/A
Cal Due 4-14-00	Cal Due 4-12-00	Cal Due
Bkg 42 cpm	Bkg 46 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 100.3 DPM	MDA 104 5 DPM	MDA

Survey Type **Contamination**

Building **707**

Location Room 220 (J)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-4204

Date 2-16-00 Time 1400

[redacted]

RCT _____

Print name / Signature / Emp #

Comments Ceiling / Walls > 2 meters Biased survey points
1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	>2	0	-12	0	16	C	0	-8	34
2	>2	0	0	15	17	C	1	-12	24
3	>2	3	8	10	18	C	0	28	19
4	>2	0	4	0	19	C	0	-8	29
5	>2	6	4	24	20	C	0	40	29
6	>2	0	-20	19	21	C	0	-4	19
7	>2	0	0	10	22	C	0	-12	43
8	C	0	16	19	23	C	0	20	19
9	C	0	12	29	24	C	3	-12	34
10	C	0	-48	24	25	C	0	8	15
11	C	3	12	19	26	C	3	8	24
12	C	9	-24	19	27	C	0	-4	29
13	C	3	-24	19	28	C	6	16	19
14	C	3	-4	10	29	C	0	12	15
15	C	3	24	19	30	C	0	-20	34

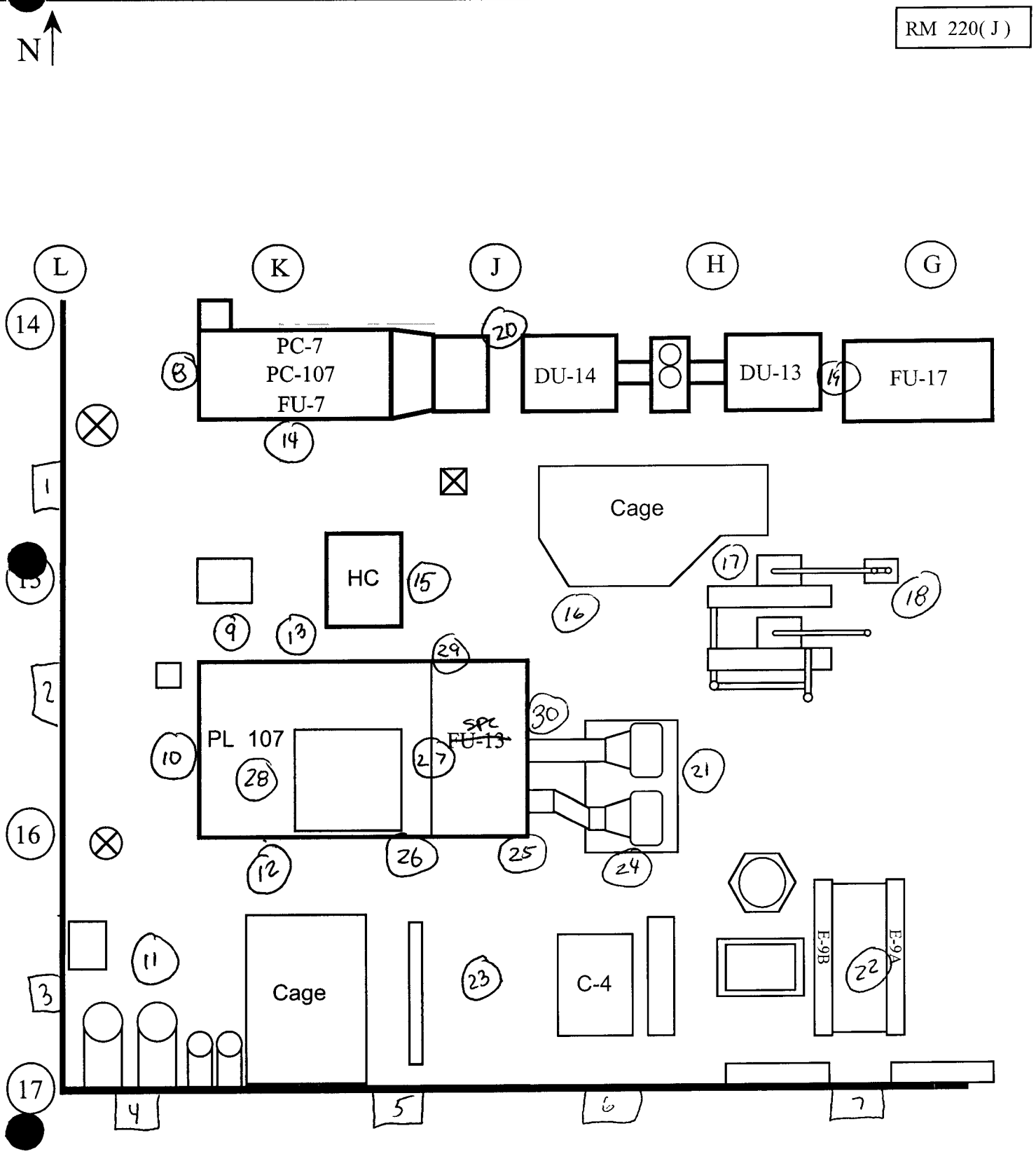
Date Reviewed 2-17 00 **RS Supervision:** [redacted]

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICA

Drawing Showing Survey Points



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A-3

RLC RADIOLOGICAL DATA

Survey Area K

2nd Floor

327

Radiological Survey/Sample Results for Survey Area K (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	5	N/A
MAX	57	N/A
MEAN	33 6	N/A
STD DEV	12 5	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	5	N/A
MAX	48	N/A
MEAN	24 8	N/A
STD DEV	12 0	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	-15	N/A
MAX	53	N/A
MEAN	9 9	N/A
STD DEV	14 3	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	N/A
MAX	290	N/A
MEAN	36 2	N/A
STD DEV	45 6	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	6	68
MEAN	1 3	0
STD DEV	2 0	23 8
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	0	-40
MAX	9	40
MEAN	1 3	-5 0
STD DEV	2 1	23
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-24
MAX	6	52
MEAN	1 2	14 3
STD DEV	1 7	23 4
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-44
MAX	15	68
MEAN	1 3	0 4
STD DEV	2 9	25 3
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.1 cpm	Bkg 0.0 cpm	Bkg 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 11.5 DPM	MDA 8.2	MDA 12.9 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 46 cpm	Bkg 48 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 104.5 DPM	MDA 106 DPM	MDA

Survey Type **Contamination**

Building **707**

Location Room 240 (K)

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-17-00 Time 1500

RC [redacted]

RCT _____

Print name / Signature / Emp #

Comments Floor / Walls < 2 meters Unbiased survey points

1 m² scans, 1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	<2	0	-16	24	16	F	3	68	29
2	<2	0	28	15	17	F	0	4	24
3	<2	0	-4	24	18	F	3	-20	34
4	<2	3	-12	5	19	F	0	-24	34
5	<2	3	-16	10	20	F	0	16	57
6	<2	0	-40	15	21	F	6	-4	43
7	F	0	-4	19	22	F	0	-8	34
8	F	0	40	29	23	F	0	0	38
9	F	0	-8	34	24	F	3	36	38
10	F	6	12	34	25	F	0	-12	38
11	F	3	4	43	26	F	0	0	48
12	F	0	44	43	27	F	0	-20	48
13	F	0	0	43	28	F	0	0	24
14	F	0	4	19	29	F	3	-40	43
15	F	0	-8	42	30	F	6	-8	48

Date Reviewed: 2 23 00 RS Supervision [redacted]

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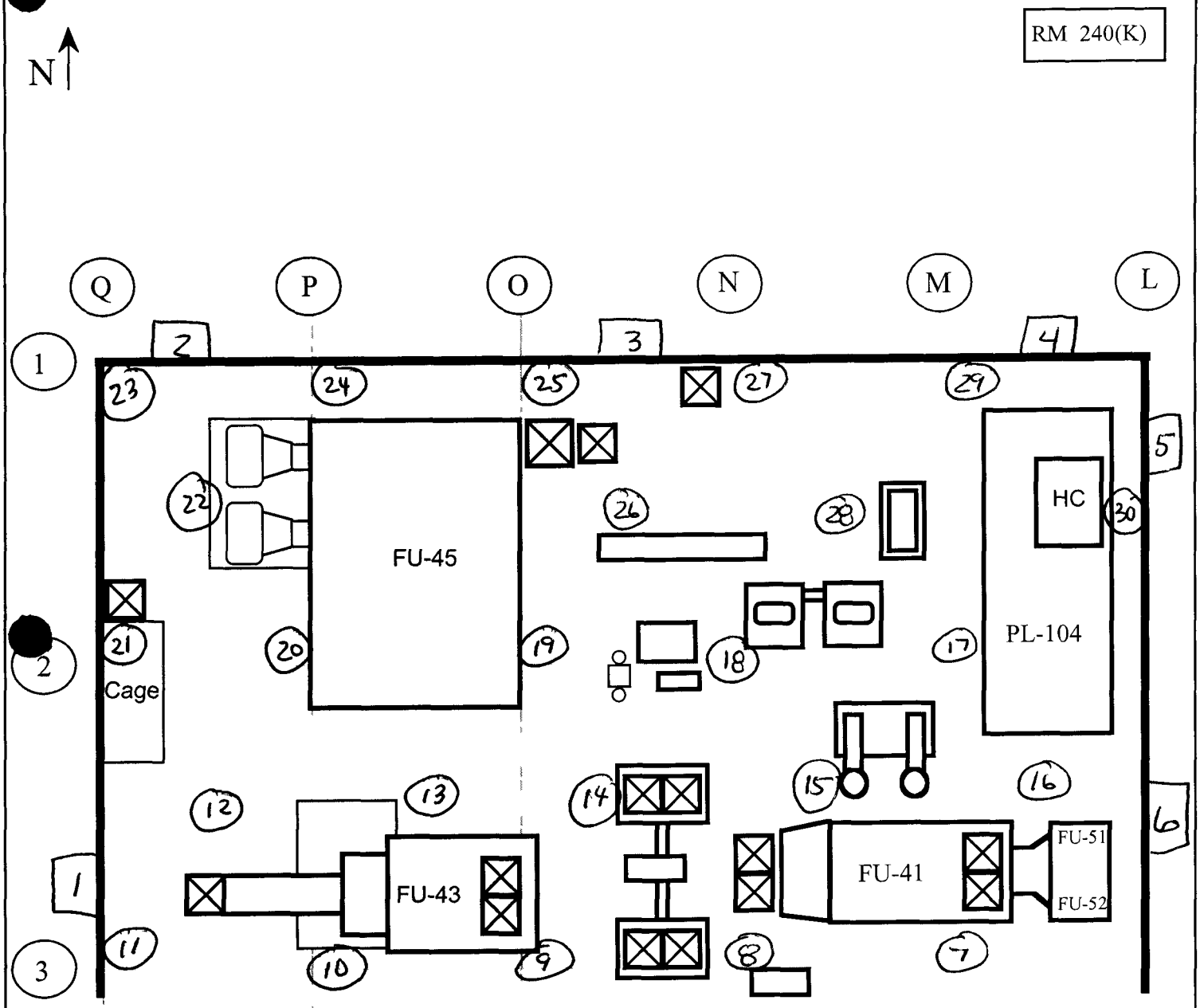
RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL

Drawing Showing Survey Points



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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0.4 cpm	Bkg 0.1 cpm	Bkg 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 14.8 DPM	MDA 11.5 DPM	MDA 13.1 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 44 cpm	Bkg 46 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 102.4 DPM	MDA 104.5 DPM	MDA

Survey Type: **Contamination**
Building **707**
Location Room 240 (K)
Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204
Date 2-18-00 Time 1530
RCT [redacted]
RCT _____
Print name / Signature / Emp #

Comments Floor / Walls < 2 meters Biased survey points
1 m² scans, 1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F - P-trap	0	4	10	16	F - Door FU-45	0	-12	34
2	F - Door PL-104	3	4	34	17	F - FAN	0	-8	5
3	F - Door PL-104	0	-36	19	18	F - FAN	0	-20	5
4	F - Door PL-104	0	-32	19	19	F - P trap	0	-40	5
5	F - Door PL-104	0	8	29	20	F - Door FU-45	0	-16	15
6	F - Door PL-104	3	40	24	21	F - Pump	0	12	19
7	F - Drain	3	-20	24	22	F - Pump	0	0	24
8	F - FAN	9	20	19	23	F - ~~Pump~~ Drain (Spk 2-18-00)	0	-40	15
9	F - FU-51	3	16	39	24	F - Pump	3	-40	34
10	F - FU-52	0	-8	44	25	F - Pump	0	24	39
11	F - Door	3	0	34	26	END OF SURVEY			
12	F - Pump	3	36	48	27				
13	F - Tank	0	-12	34	28	N/A			
14	F - Door - FU-43	3	-16	24	29				
15	F - Door - FU-45	0	12	24	30				

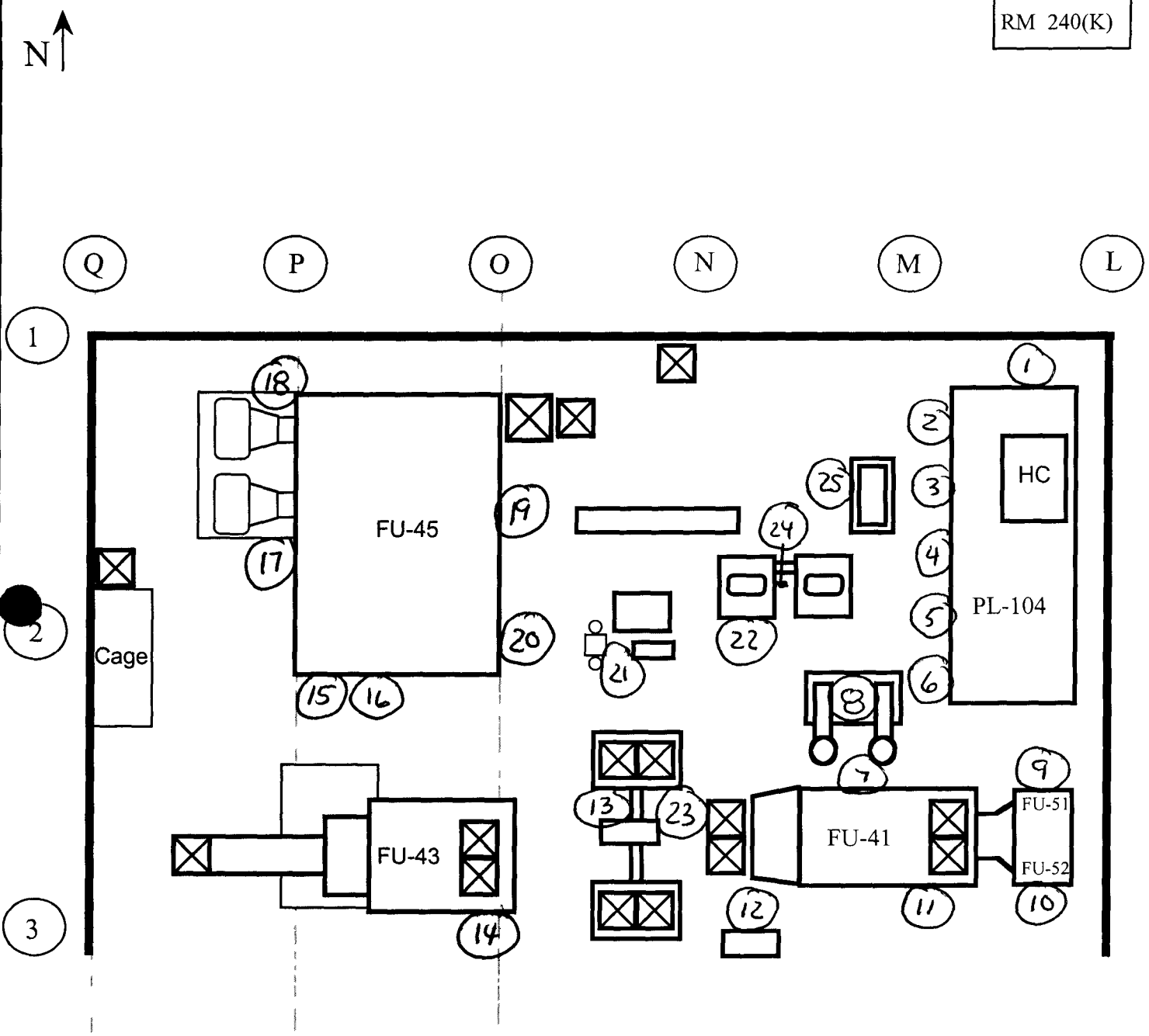
Date Reviewed: 2 23 00 **RS Supervision:** [redacted]

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICA

Drawing Showing Survey Points



332

 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11 00
Bkg 0.2 cpm	Bkg 0.3 cpm	Bkg 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 12.9 DPM	MDA 13.4 DPM	MDA 13.1 DPM
Mfg Eberline	Mfg Eberline	Mfg NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # BC-833	Serial # BC-872	Serial # 3265
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due 7-3-00
Bkg 40 cpm	Bkg 48 cpm	Bkg 2.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 21.01%
MDA 981 DPM	MDA 106.5 DPM	MDA 442 DPM

Survey Type **Contamination**

Building **707**

Location Room 240 (K)

Purpose **Reconnaisance Level Characterization**

RWP # 00 - 707 - 1204

Date 2-21-00 Time 1330

RCT [redacted]

RCT _____
Print name / Signature / Emp #

Comments Equipment Biased survey points
1 minute pats and swipes See map for locations
22 - Labeled 1100 cpm fixed
25 - Labeled 5000 cpm fixed

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	Duct	0	0	10	16	Door PL-104	0	-40	19
2	Duct >2	0	-24	34	17	Door PL-104	3	12	29
3	FU-43	0	28	19	18	Door PL-104	0	-16	24
4	Door FU-43	0	32	19	19	Door PL-104	3	-16	29
5	Duct >2	0	-24	48	20	Door PL-104	6	12	133
6	Duct >2	0	-8	34	21	P-trap	0	68	34
7	Pump	0	16	15	22	Exhaust Duct	0	-40	see Note
8	Top FU-41	0	16	53	23	Pump	0	-8	10
9	Duct >2	0	-8	58	24	Top HC PL104	3	8	38
10	Door FU-41	0	-32	38	25	Door HC PL104	9	20	see NOTE
11	Duct	0	-20	290	26	Top PL 104	0	-8	44
12	Top FU-51+52	0	-44	58	27	Top PL 104	0	0	34
13	Top PL-104	0	20	34	28	Duct >2	6	24	15
14	Top PL-104	15	12	24	29	P-trap	0	8	10
15	Duct >2	0	28	73	30	Duct >2	3	-4	0

Date Reviewed 2 23 00 **RS Supervision** [redacted]

 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

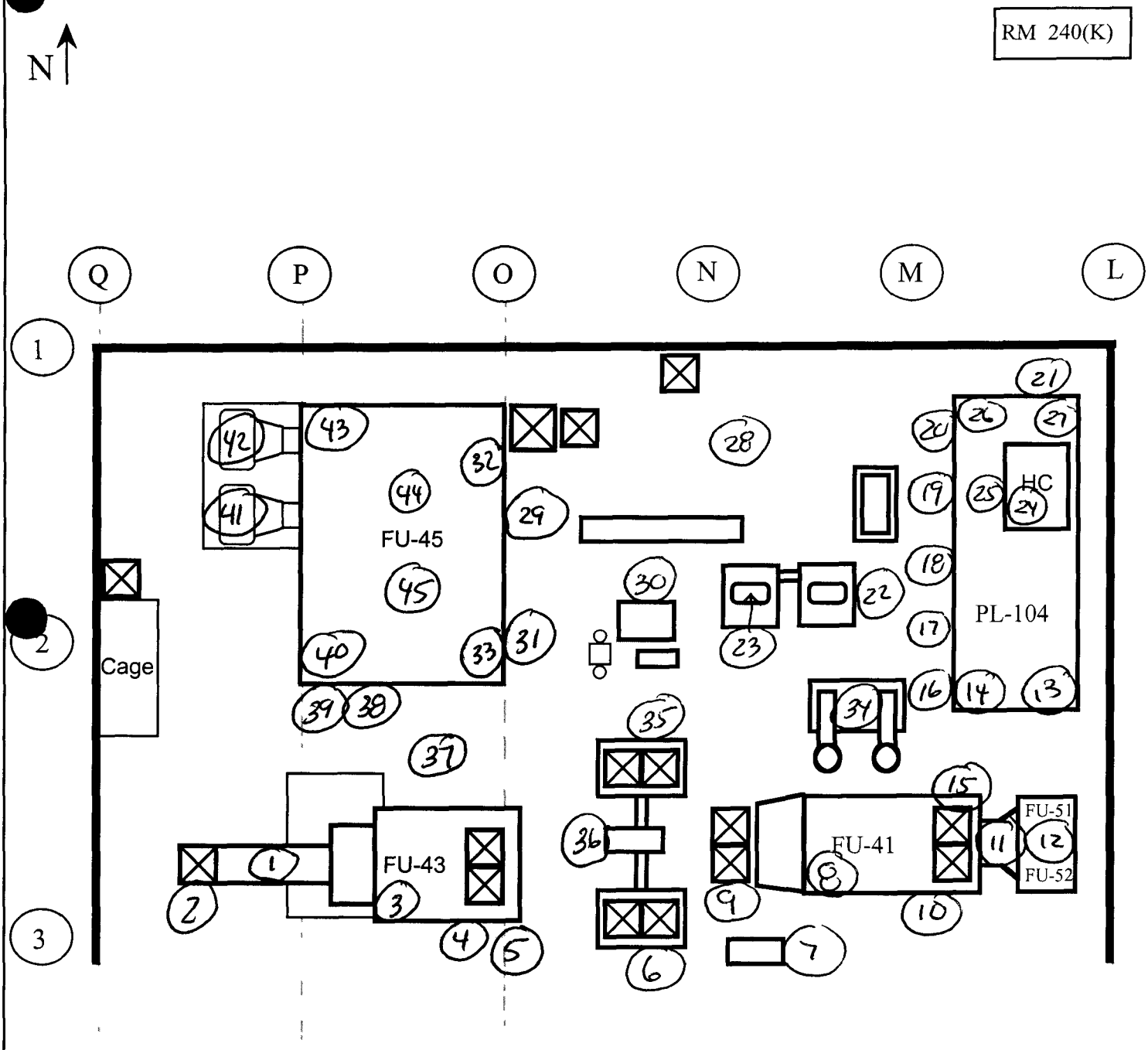
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	Door FU-45	0	-40	0	61				
32	Top FU-45	0	-16	24	62				
33	Top FU-45	3	-32	24	63				
34	FAN	3	4	24	64				
35	Duct >2	0	-12	19	65				
36	Tank	0	-24	29	66				
37	Duct >2	3	40	53	67				
38	Door FU-45	0	8	29	68				
39	Door FU-45	0	24	34	69				
40	Top FU-45	0	48	24	70				
41	FAN	0	-16	5	71				
42	FAN	3	-4	24	72				
43	Top FU-45	0	-16	10	73				
44	Top FU-45	0	36	15	74				
45	Top FU-45	0	8	15	75	N/A			
46	END OF SURVEY				76				
47					77				
48					75				
49					79				
50					80				
51					81				
52					82				
53	N/A				83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



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 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11 00
Bkg 0 3 cpm	Bkg 0 3 cpm	Bkg 40 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20 63%
MDA 139 dpm	MDA 139 dpm	MDA 58 2 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7 14-00	Cal Due 4 12-00	Cal Due N/A
Bkg 40 cpm	Bkg 38 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 98 1 dpm	MDA 95 9 dpm	MDA

Survey Type **Contamination**

Building **707**

Location Room 240 (K) North

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-22 00 Time 1600

[redacted]

RCT _____
Print name / Signature / Emp #

Comments Ceiling / Walls > 2 meters Biased survey points
1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	w>2	3	-24	19	16	C	3	36	-15
2	w>2	0	32	-5	17	C	3	0	5
3	w>2	0	-12	10	18	C	0	12	53
4	w>2	3	-16	-5	19	C	3	40	-10
5	w>2	0	-16	10	20	C	0	36	0
6	w>2	0	12	15	21	C	0	8	-5
7	w>2	0	32	10	22	C	0	28	-5
8	w>2	3	52	19	23	C	0	48	15
9	w>2	3	-24	15	24	C	0	-8	5
10	C	0	24	-5	25	C	6	20	5
11	C	0	12	0	26	C	3	44	24
12	C	3	24	0	27	C	0	16	10
13	C	0	0	34	28	C	0	16	24
14	C	0	48	19	29	C	0	-24	15
15	C	3	-12	24	30	C	0	24	15

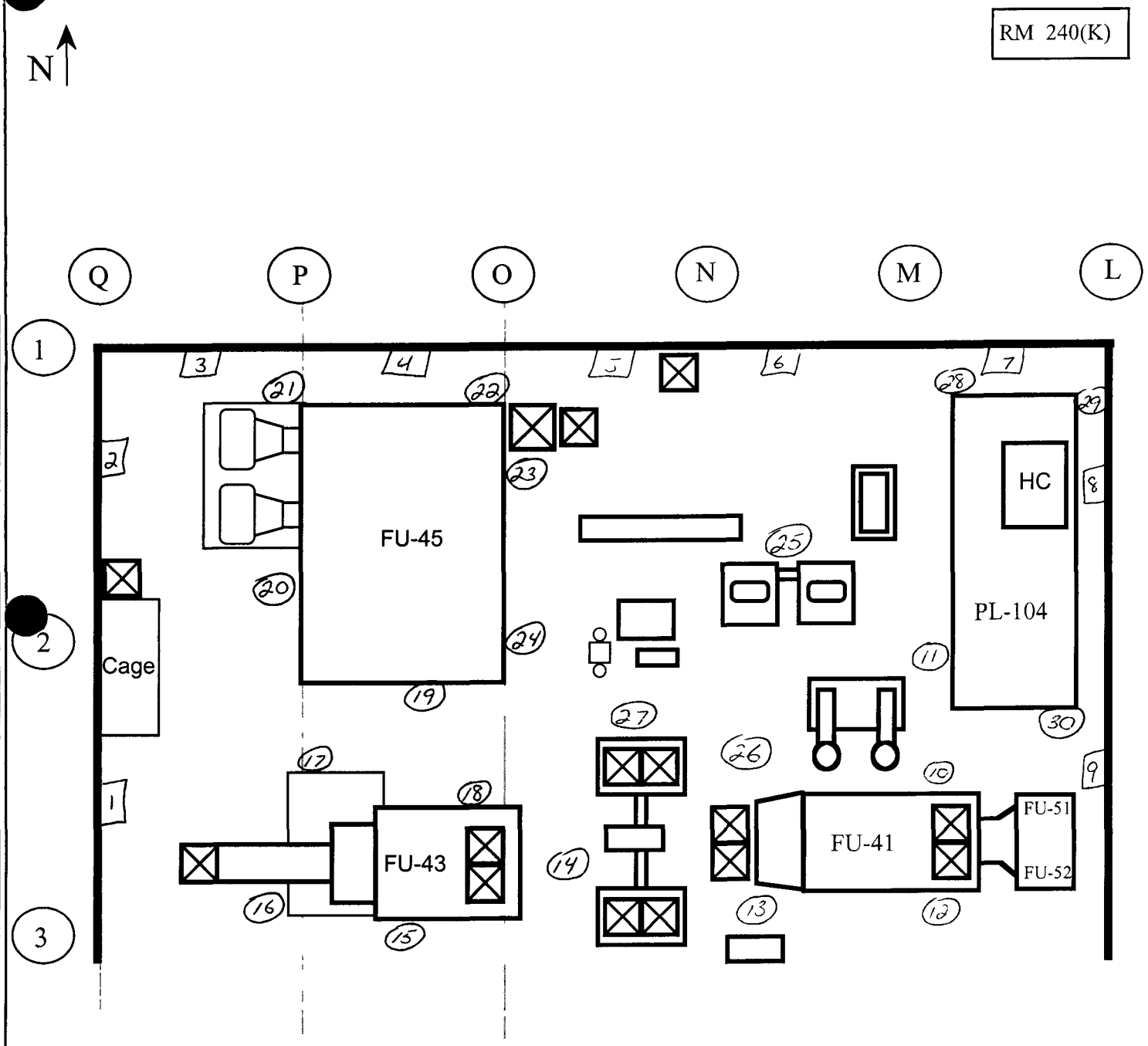
Date Reviewed 2 23-00 **RS Supervision** [redacted]

RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1197#003	Matrix	Waste
Site Sample ID	003.003				
Other Sample ID	Bldg 707 Rm 240	Collection Date	5/2/00	Date Received	5/4/00
		Batch Number	1936	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1936-03	0 880	0 231	0 290	0 063
ACW03	U-235	KH100-1936-03	0 062	0 077	0 079	0 103
ACW03	U-238	KH100-1936-03	1 05	0 254	0 329	0 063
ACW03	PU-238	KH100-1936-03	-0 017	0 083	0 083	0 160
ACW03	PU-239/240	KH100-1936-03	0 008	0 030	0 030	0 067
ACW03	AM-241	KH100-1936-03	0 043	0 059	0 060	0 079

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Pu	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Am	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB

1000 Monticello Court * Montgomery Alabama * 36117 * 334 272 2234 * FAX 334 213 0407

A-3

RLC RADIOLOGICAL DATA

Survey Area L

2nd Floor

Radiological Survey/Sample Results for Survey Area L (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	43	N/A
MEAN	22 7	N/A
STD DEV	11 3	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	0	N/A
MAX	53	N/A
MEAN	20 8	N/A
STD DEV	13 6	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	49	N/A
MEAN	24 1	N/A
STD DEV	11 0	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	5	N/A
MAX	69	N/A
MEAN	29 5	N/A
STD DEV	15 7	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-24
MAX	9	72
MEAN	1 0	5 6
STD DEV	2 1	26 2
Floors/Walls < 2 m Biased	# Required	# Obtained
	25	25
MIN	0	-24
MAX	9	48
MEAN	1 6	12 6
STD DEV	2 3	21 4
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-56
MAX	15	40
MEAN	1 1	-4 1
STD DEV	2 9	20 1
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-44
MAX	6	80
MEAN	0 6	6 4
STD DEV	1 4	28 5
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.1 cpm	Bkg 00 cpm	Bkg 00 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 11.5 dpm	MDA 8.2 cpm	MDA 12.9 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 46 cpm	Bkg 48 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 104.5 dpm	MDA 106.5 dpm	MDA

Survey Type **Contamination**
Building **707**
Location Room 240 (L)
Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204
Date 2-17-00 Time 1300
RCT [redacted]
RCT
Print name / Signature / Emp #

Comments Floor / Walls < 2 meters Unbiased survey points
1 m² scans, 1 minute pats and swipes See map for locations

SURVEY RESULTS

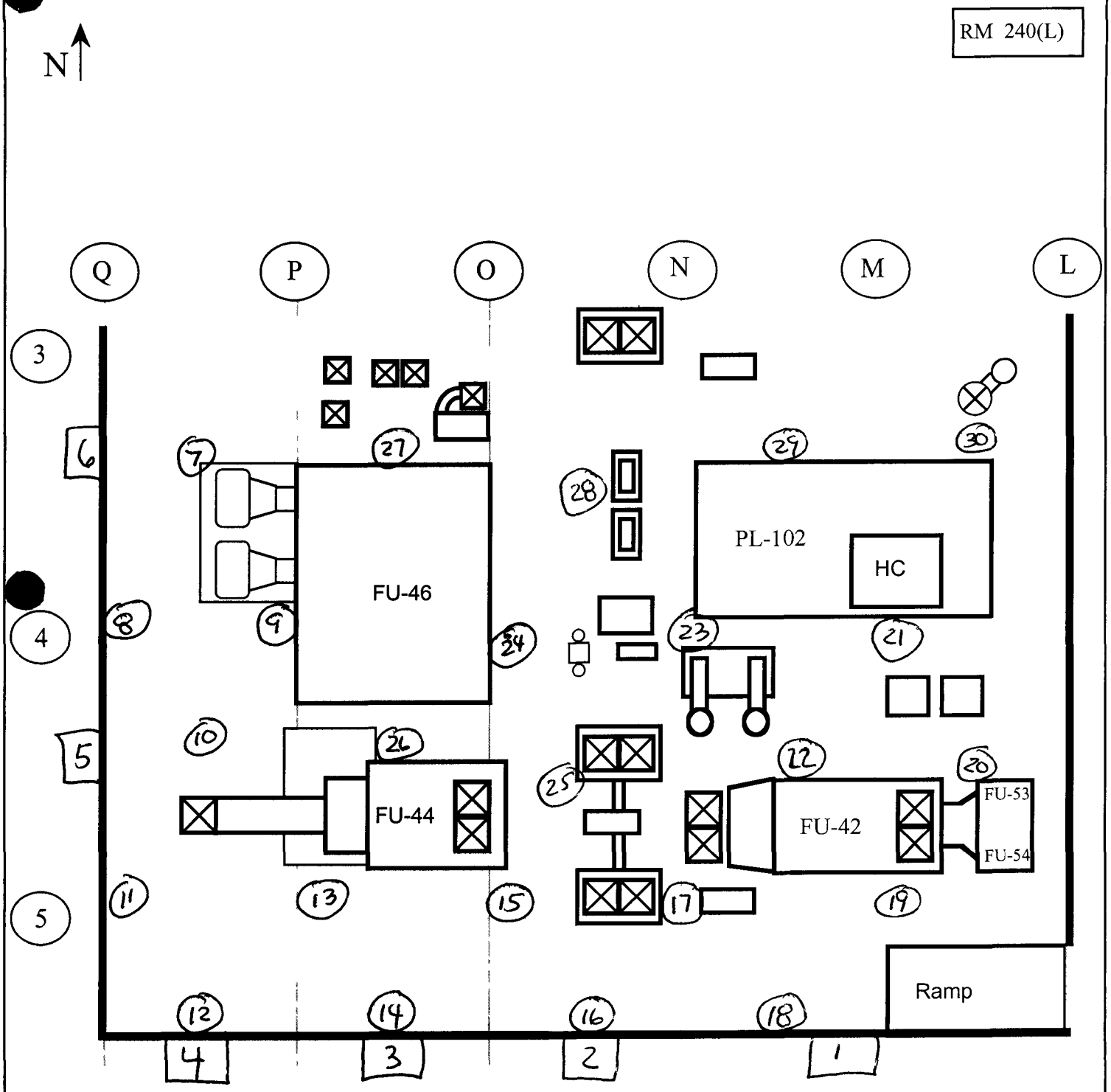
Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	<2	0	20	5	16	F	0	16	34
2	<2	0	-8	24	17	F	3	24	10
3	<2	0	-12	19	18	F	0	-20	0
4	<2	3	-8	24	19	F	0	12	24
5	<2	0	-24	43	20	F	9	-16	38
6	<2	0	4	24	21	F	0	-20	24
7	F	0	-24	19	22	F	0	72	15
8	F	0	-8	5	23	F	0	0	19
9	F	0	20	10	24	F	0	56	34
10	F	0	40	29	25	F	6	0	5
11	F	3	12	29	26	F	3	-20	24
12	F	0	8	24	27	F	0	-20	24
13	F	0	-8	24	28	F	3	-12	43
14	F	0	40	15	29	F	0	0	38
15	F	0	52	15	30	F	0	-8	52

Date Reviewed 2 23 00 **RS Supervision:** [redacted]

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



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 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0.4 cpm	Bkg 0.1 cpm	Bkg 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 26.63%
MDA 14.8 DPM	MDA 115 DPM	MDA 13.1 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC833	Serial # BC-872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due N/A
Bkg 44 cpm	Bkg 46 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 102.4 DPM	MDA 104.5 DPM	MDA

Survey Type **Contamination**
Building **707**
Location Room 240 (L)
Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-18-00 Time 0850

[redacted]

RCT _____
Print name / Signature / Emp #

Comments Ceiling / Walls > 2 meters Biased survey points
1 minute pats and swipes See map for locations
Electra used on 2-17-00

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	~~SR 2-18-00~~ >2	0	40	15	16	C	3	-12	48
2	>2	0	-8	15	17	C	3	-8	34
3	>2	0	12	15	18	C	0	-4	10
4	>2	0	-40	29	19	C	0	-56	15
5	>2	0	-8	24	20	C	0	-4	49
6	>2	0	8	19	21	C	0	8	34
7	>2	3	-4	29	22	C	0	-32	24
8	>2	0	-8	24	23	C	0	4	10
9	>2	3	4	29	24	C	0	-12	34
10	>2	3	4	19	25	C	3	-16	15
11	C	0	-24	24	26	C	0	-20	24
12	C	0	16	15	27	C	0	-8	34
13	C	15	36	15	28	C	0	-12	24
14	C	0	24	39	29	C	0	4	0
15	C	0	4	29	30	C	0	20	29

Date Reviewed 2 23 00 **RS Supervision** S[redacted]
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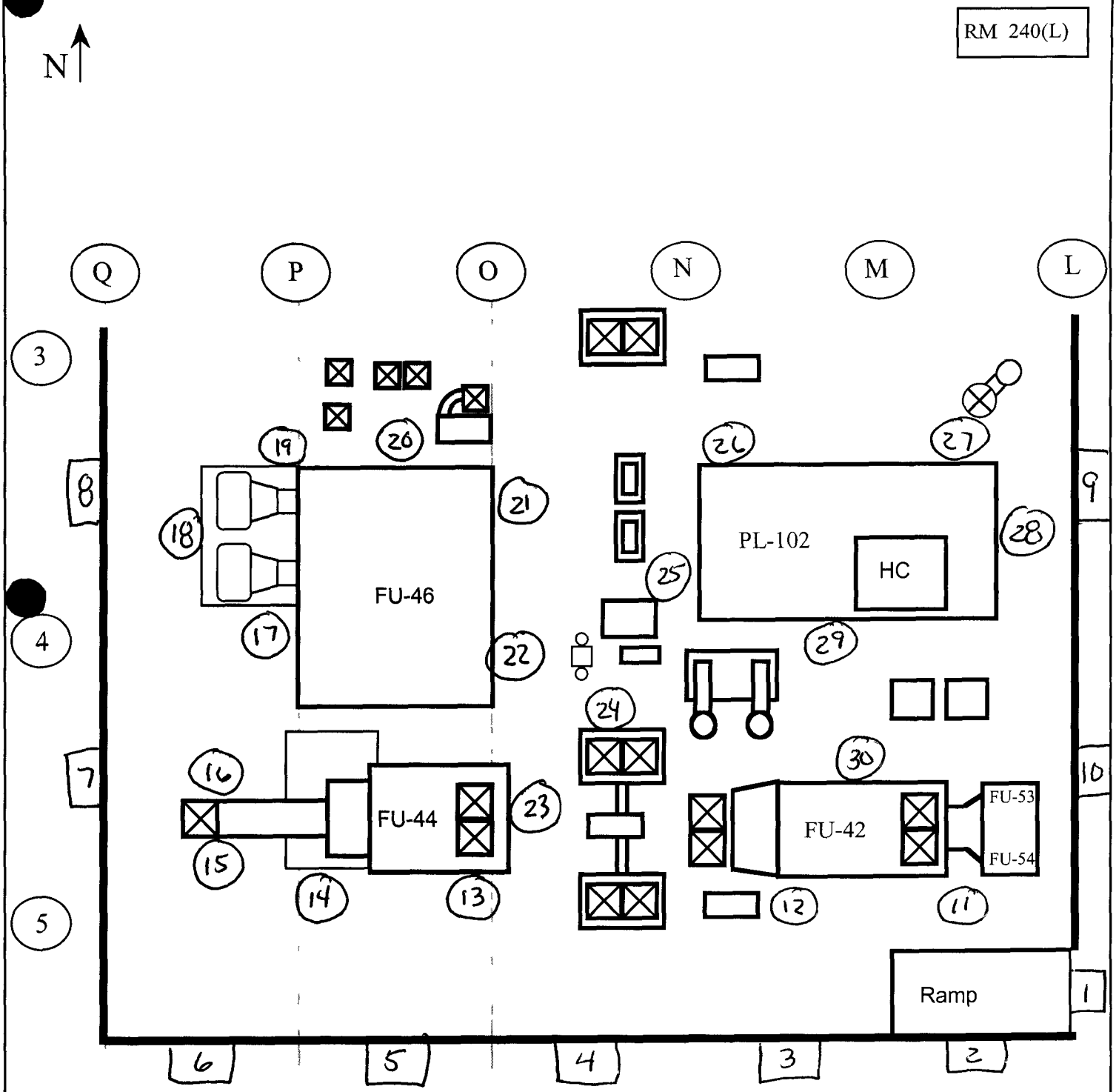
RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 04 cpm	Bkg 01 cpm	Bkg 00 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 14.8 DPM	MDA 11.5 DPM	MDA 13.1 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # BC-833	Serial # BC-872	Serial # N/A
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due
Bkg 44 cpm	Bkg 46 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 102.4 DPM	MDA 104.5 DPM	MDA

Survey Type **Contamination**

Building **707**

Location Room 240 (~~J~~) (L) SPC 2-18-00

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-18-00 Time 1200

RCT [redacted]

RCT _____
Print name / Signature / Emp #

Comments Floor / Walls < 2 meters Biased survey points
1 m² scans, 1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F- Duct	3	12	15	16	F- P-trap	0	16	39
2	F- ~~P-trap~~ SPC 2-18-00 Filter	0	0	34	17	F- FU-53	3	8	15
3	F- P-trap	0	4	10	18	F- FU-54	6	24	15
4	F- FAN	0	32	10	19	F- FAN	0	48	5
5	F- FAN	0	48	15	20	F- Drain	0	44	44
6	F- Door FU-46	0	12	10	21	F- FAN	3	0	5
7	F- Door FU-46	0	48	29	22	F- Drain	0	8	19
8	F- Door FU-46	0	24	0	23	F- Pump	0	20	29
9	F- Pump ~~PL-102~~ SPC 2-18-00	0	4	24	24	F- Tank	3	4	19
10	F- Door PL-102	3	4	34	25	F- Door FU-44	3	40	0
11	F- Door PL-102	3	-24	24	26	END OF SURVEY			
12	F- Door PL-102	3	-4	34	27				
13	F- Door PL-102	0	-20	53	28	N/A			
14	F- Pipe	9	-12	19	29				
15	F- Door PL-102	0	-8	19	30				

Date Reviewed 2 23 00 **RS Supervision.** [redacted]
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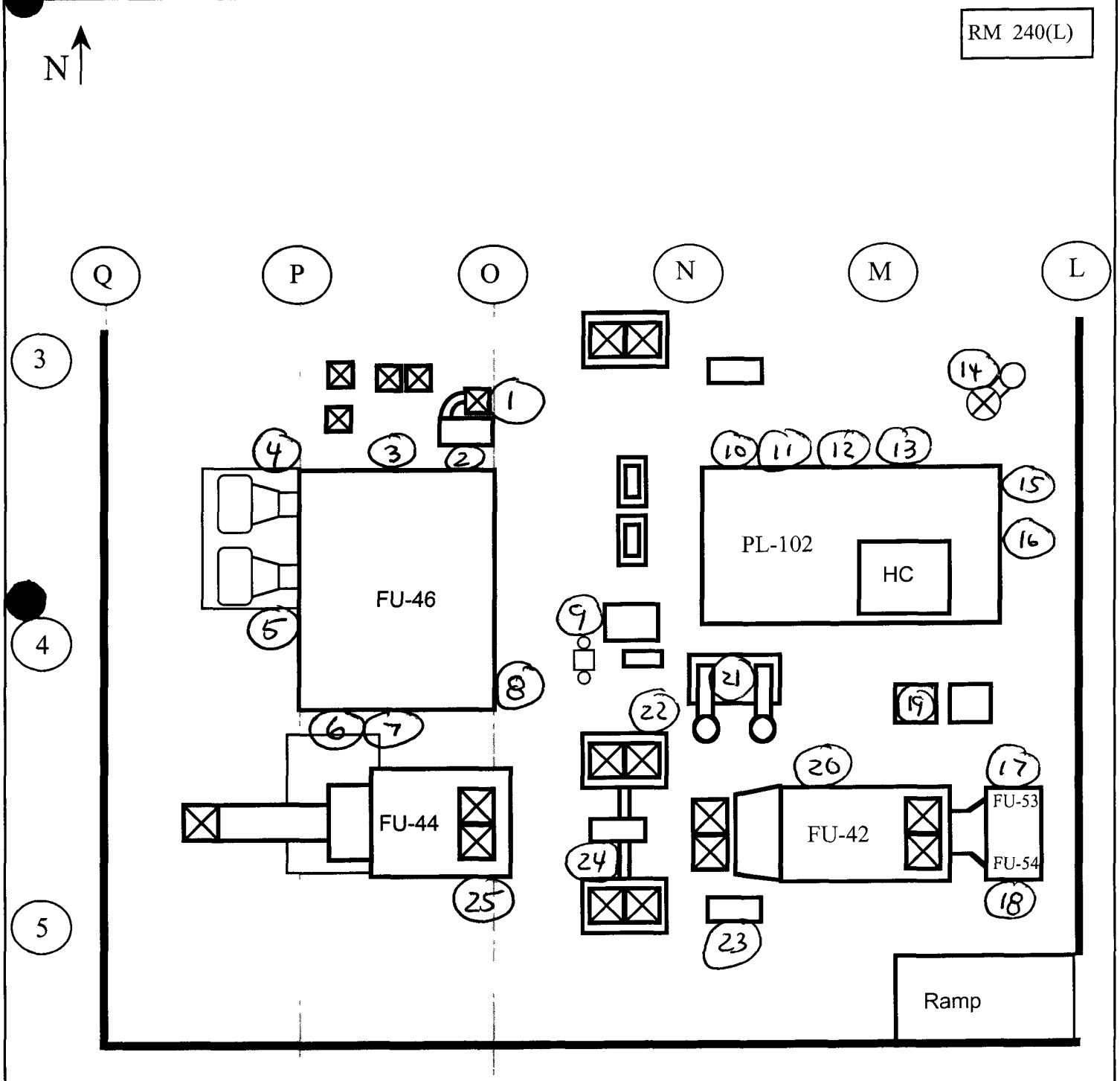
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



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 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg 0.2 cpm	Bkg 0.3 cpm	Bkg 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.86%
MDA 12.9 DPM	MDA 13.9 DPM	MDA 42.5 DPM
Mfg Eberline	Mfg Eberline	Mfg NE TECH
Model BC-4	Model BC-4	Model ELECTRA
Serial # 833	Serial # 872	Serial # 1233
Cal Due 1-14-00	Cal Due 4-12-00	Cal Due 5-1-00
Bkg 40 cpm	Bkg 48 cpm	Bkg 4.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 20.63%
MDA 98.1 DPM	MDA 106.5 DPM	MDA 58.2 DPM

Survey Type **Contamination**

Building 707

Location Room 240 (L/S) 9H 8-1-00

Purpose **Reconnaisance Level Characterization**

RWP # 00-707 1204

Date 2-21-00 Time 1100

RCT [redacted]

RCT [redacted]

Comments Equipment Biased survey points
1 minute pats and swipes See map for locations
Note (15) contamination taken off of current label on pipe - Surveyed previously (alpha only)

NOTE (15) 10,000 REMV PIPE (3 AREAS)
20,000 FIXED 2,000 REV / 40,000
50,000 FIXED / 100,000
units in dpm / 100cm²

SURVEY RESULTS

Remv = Removable fixed = fixed

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	DOOR	3	20	27	16	DUCT	0	-8	18
2	FU54	0	16	37	17	PC102 (TOP)	0	-4	18
3	DOOR FU53/54	0	8	14	18	PC102 (TOP)	0	16	50
4	DUCT FU42	0	4	18	19	DUCT	0	-4	23
5	MOTOR	0	80	18	20	DOOR	0	4	23
6	DOOR PC102	0	-4	18	21	MOTOR	0	-24	23
7	DOOR PC102	6	40	69	22	DOOR (FU-44)	0	-44	18
8	PC102 TOP	3	-20	14	23	DUCT (FU44)	0	36	27
9	~~PC102 TOP~~ DUCT (RM 2 21 00)	0	48	~~9.05~~ 55 (2 21 00)	24	DOOR (FU46)	0	24	14
10	PC102 TOP/DOOR	0	-24	37	25	FU46	3	-12	55
11	DOOR	0	-4	23	26	DOOR (FU46)	3 ~~3~~ (2 21 00)	8	9
12	DOOR	0	-36	27	27	FU48	0	-16	18
13	DOOR	0	-4	23	28	DUCT	0	32	5
14	DOOR	0	-16	27	29	DUCT	3	48	27
15	PIPE (CONTAINED CONTAMINATION)	SEE	NOTE-15		30	MOTOR (FU46	0	-4	32

Date Reviewed 2-25-00 **RS Supervision** [redacted]

 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC SURVEY

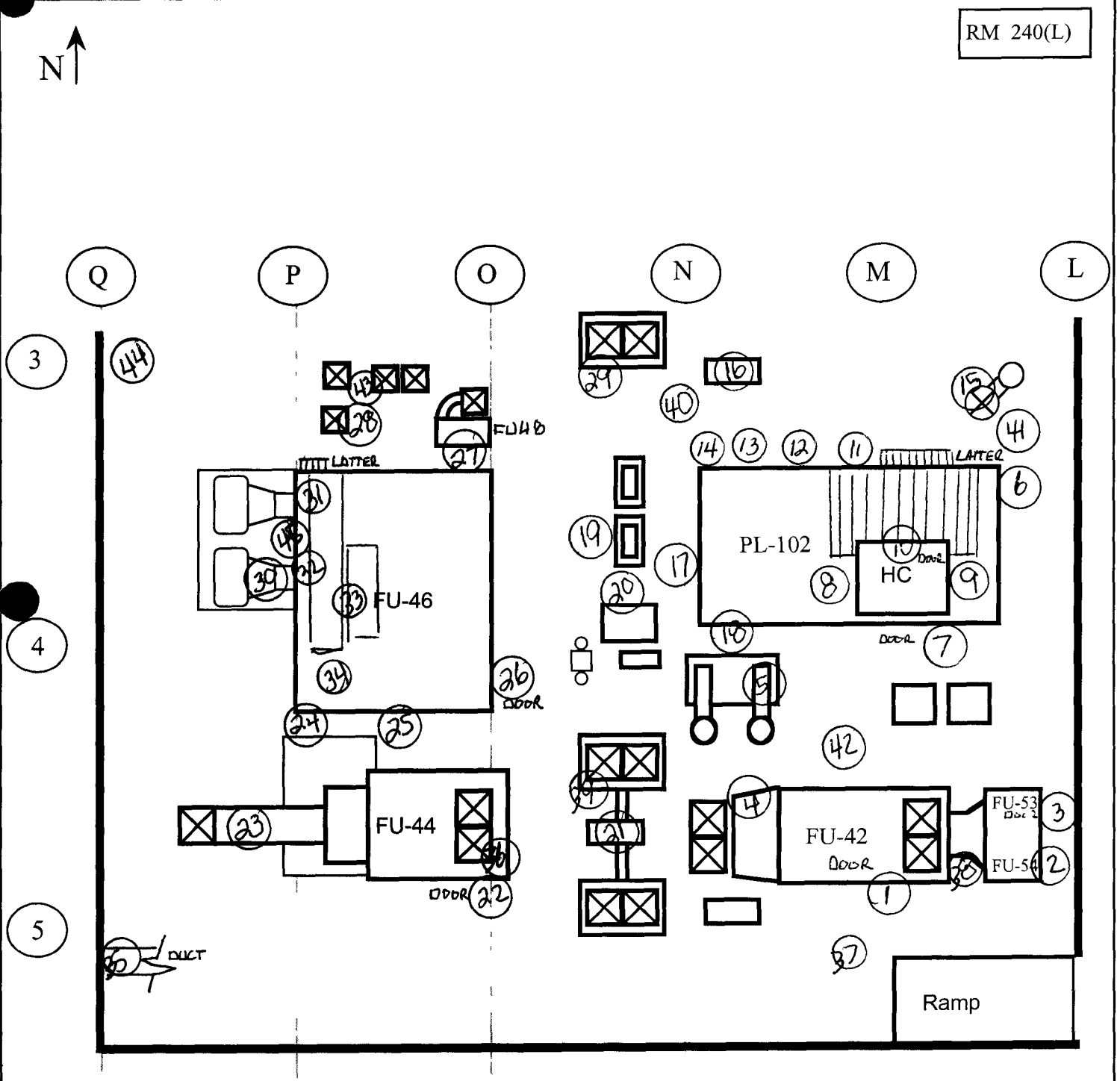
Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	>2	0	4	46	61				
32	12 23-00	0	24	55	62				
33		0	-28	27	63				
34	PLEUM(TOP) FU46 >2	0	28	18	64				
35	DUCT >2	0	4	24	65				
36	DUCT >2	0	-32	67	66				
37	DUCT >2	3	-8	24	67				
38	FU-54 DUCT >2	0	64	44	68				
39	DUCT	0	-20	58	69				
40	PIPE->2	0	20	24	70				
41	PIPE >2	3	52	34	71				
42	PIPE >2	0	40	29	72				
43	DUCT >2	0	-16	24	73				
44	DUCT >2	0	-36	10	74				
45	DUCT FU46 >2	0	24	48	75				
46	END OF SURVEY				76	N A			
47					77				
48					75				
49					79				
50					80				
51					81				
52					82				
53	N A				83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points



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A-3
RLC RADIOLOGICAL DATA
Survey Area M
1st Floor, Module A [Room 100],
Excluding Isopress

350

Radiological Survey/Sample Results for Survey Area M (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	6	N/A
MAX	3540	N/A
MEAN	311 5	N/A
STD DEV	794 7	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	17	17
MIN	12	N/A
MAX	762	N/A
MEAN	128 1	N/A
STD DEV	200 8	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	6	N/A
MAX	54	N/A
MEAN	25 4	N/A
STD DEV	13 4	N/A
Equipment Biased	# Required	# Obtained
	40	45
MIN	0	N/A
MAX	17310	N/A
MEAN	1068 1	N/A
STD DEV	2600 0	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	0	-72
MAX	279	76
MEAN	9 2	1
STD DEV	41 7	34 1
Floors/Walls < 2 m Biased	# Required	# Obtained
	17	17
MIN	0	-52
MAX	6	40
MEAN	1 4	-6 8
STD DEV	1 9	23 5
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-32
MAX	12	272
MEAN	1 4	58
STD DEV	2 7	95 9
Equipment Biased	# Required	# Obtained
	40	45
MIN	0	-56
MAX	1812	68
MEAN	47 4	8 6
STD DEV	269 3	26 6
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
4	4

Total Uranium Results dpm/100 cm^2

MIN	1
MAX	14
MEAN	8 0
STD DEV	7 0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	24
MAX	135
MEAN	69 8
STD DEV	54 3
$DCGL_W$	100

 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3126
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 4-26-00
Bkg 0.5 cpm	Bkg 0.1 cpm	Bkg 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.09%
MDA 15.6 dpm	MDA 11.5 dpm	MDA 94 dpm
Mfg Eberline	Mfg Eberline	Mfg NETech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1389
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg 4.8 cpm	Bkg 5.2 cpm	Bkg 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 20.71%
MDA 106.5 dpm	MDA 110.4 dpm	MDA 94 dpm

Survey Type **Contamination**

Building 707

Location Module A Survey Area M

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 3-2-00 Time 1600

[redacted]

Comments Floor / Walls < 2 meters Unbiased survey points

1 m² scans, 1 minute pats and swipes See map for locations

3 bkgd counts alpha electra ~8 cpm (0,0,1)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F	3	4	18	16	F	0	0	138
2	F	0	28	6	17	F	6	76	54
3	F	3	52	18	18	F	3	16	78
4	F	3	44	2400	19	F	3	20	90
5	F	0	-20	60	20	F	0	28	222
6	F	9	36	24	21	F	9	-12	210
7	F	0	36	168	22	F	0	-4	420
8	F	0	4	42	23	F	0	44	30
9	F	3	12	54	24	F	0	-8	60
10	F	0	48	72	25	F	0	-32	42
11	F	3	4	288	26	F	6	-48	66
12	F	0	0	180	27	Under Glove Box by Crit drain	279	-16	3456
13	F	6	-36	48	28	F	0	-16	30
14	F	3	-36	42	29	F	0	-24	3540
15	F	0	8	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Date Reviewed 3-16-00 RS Supervision [redacted]

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGIC

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	F	0	44	30	61				
32	F	0	-4	60	62				
33	F	3	0	246	63				
34	W	0	66	24	64				
35	W	3	-36	18	65				
36	W	3	-48	12	66				
37	W	3	-52	18	67				
38	W	12	40	1080	68				
39	W	0	-20	24	69				
40	W	42	32	30	70				
41	W	0	-28	18	71				
42	W	0	-12	18	72				
43	W	3	-40	12	73				
44	W	3	-20	6	74				
45	W	0	-12	30	75				
46	End of survey				76	N/A			
47					77				
48					75				
49					79				
50					80				
51					81				
52					82				
53	N/A				83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

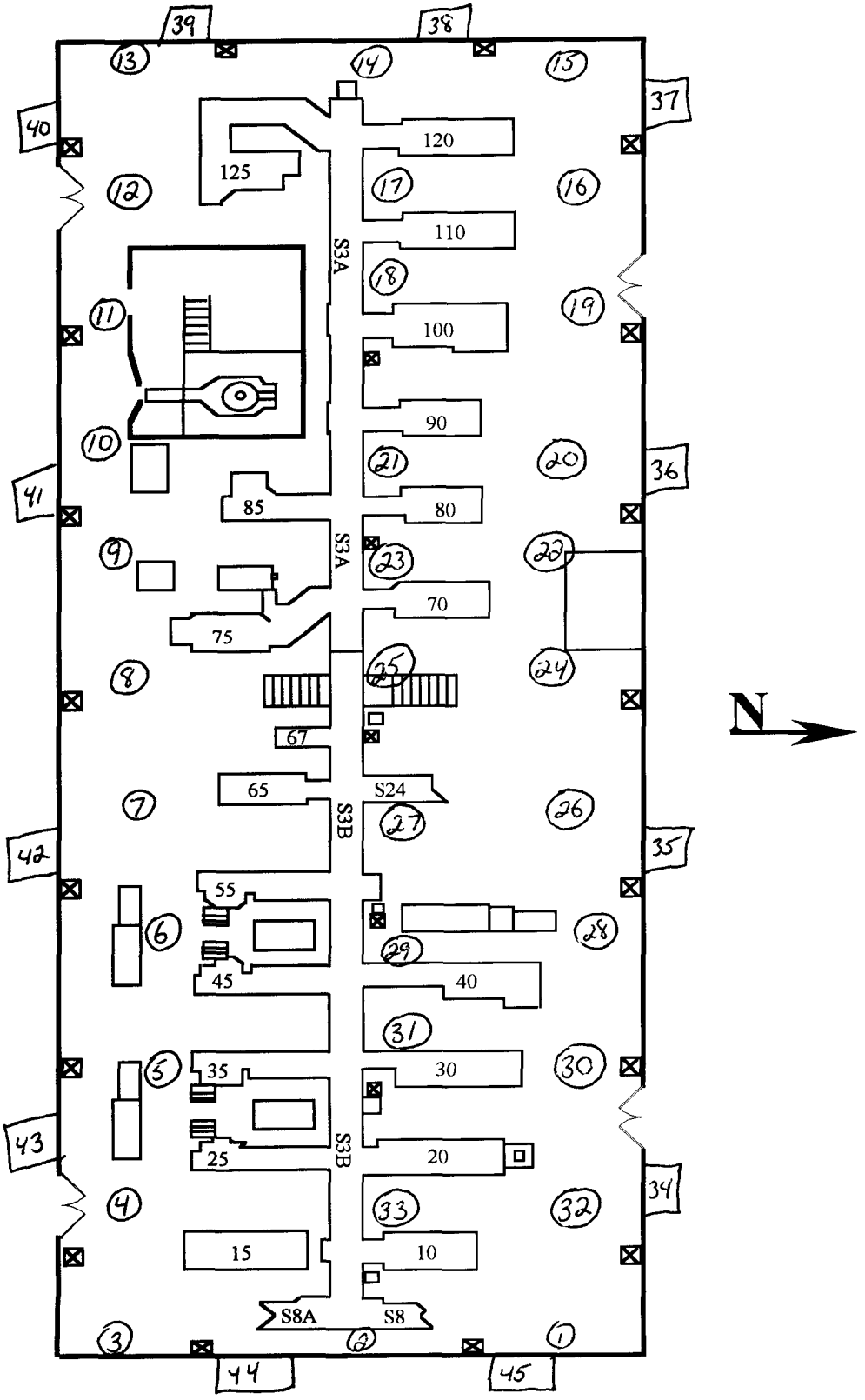
RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE A



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1245
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.1 cpm	Bkg 0.2 cpm	Bkg 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 22.36%
MDA 115 dpm	MDA 12.9 DPM	MDA 94 DPM
Mfg Eberline	Mfg Eberline	Mfg NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1389
Cal Due 4-12-00	Cal Due 7-14 00	Cal Due 6-29-00
Bkg 49 cpm	Bkg 51 cpm	Bkg 10 cpm
Efficiency 25%	Efficiency 25%	Efficiency 20.77%
MDA 1075 DPM	MDA 109.4 DPM	MDA 94 DPM

Survey Type **Contamination**

Building 707

Location module A Survey Area N

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-29-00 Time 1500

[redacted]

Comments Floor / Walls < 2 meters Biased survey points

1 m² scans, 1 minute pats and swipes See map for locations

3 bkgd counts alpha electra <8cpm (1,2,3)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F	0	-4	30	16	F	3	0	192
2	F	3	40	18	17	F	0	0	30
3	F	3	36	36	18	END OF SURVEY			
4	F	6	-52	168	19				
5	F	0	-8	54	20				
6	F	0	-20	48	21				
7	F	3	-32	60	22				
8	F	0	0	48	23				
9	F	0	-8	36	24	N/A			
10	F	0	8	102	25				
11.	F	3	8	762	26				
12	F	3	-28	498	27				
13	F	0	0	54	28				
14	F	0	-28	12	29				
15	F	0	-28	30	30				

Date Reviewed: 3 16 00 **RS Supervision** [redacted]

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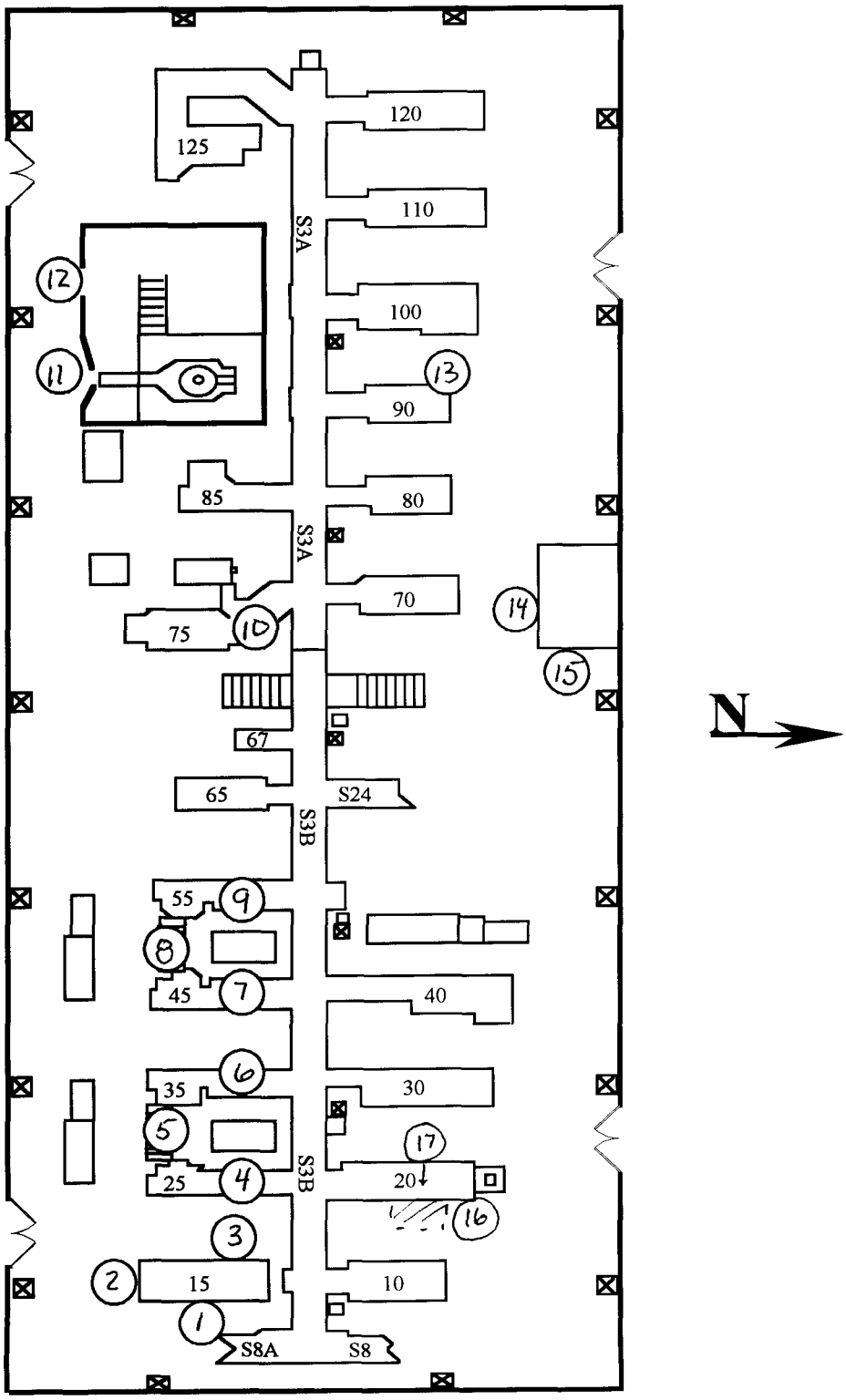
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE A



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3120
Cal Due 4-10-00	Cal Due 5-17 00	Cal Due 4-26-00
Bkg 0.2 cpm	Bkg 0.1 cpm	Bkg 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2107
MDA 12.9 dpm	MDA 11.5 dpm	MDA 94 dpm
Mfg Eberline	Mfg Eberline	Mfg NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1246
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 7-24-00
Bkg 52 cpm	Bkg 51 cpm	Bkg 0.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2174
MDA 110.4 dpm	MDA 109.4 dpm	MDA 94 dpm

Survey Type **Contamination**

Building **707**

Location Module A Survey Area M

Purpose **Reconnaisance Level Characterization**

RWP # CO 707 12C 4

Date 3-13/3 12 00 Time Days

[redacted]

Comments Equipment Biased survey points 1 of 3

1 minute pats and swipes See map for locations BKGD .8cpm area 3cts both days alpha (1,1,3) 3 12 00, (1,2,2) 3 13 00

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	GB-25 Control under Port 5	0	4	408	16	GB 40 Crit Drain	3	-56	702
2	GB-35 Control under Port 007	6	-20	738	17	Air Vent #30	9	32	108
3	GB-45 Control under Port 007	0	12	492	18	GB-70 Port 0014	3	4	36
4	Air Vent #6	6	-44	264	19	Air Vent #32	6	8	150
5	Platform Ladder Top Step	6	-28	672	20	CNVYR S 24 Crit Drain	3	8	102
6	GB-55 Control under Port 0007	3	-12	288	21	CNVYR S-2 Before Decon Port 41	1812	36	2342
7	Air Vent #12	6	12	282	22	CNVYR S 3B	0	0	1038
8	GB 75 Crit Drain	3	-12	288	23	GB 40 Port 005	3	10	48
9	GB-75 Seam at Port A330	0	32	17310	24	Air Vent #38	30	28	438
10	GB 75 CNVYR	0	64	282	25	GB 20 Entry Port 0015	0	24	1314
11	Air Vent #16	3	8	162	26	GB 20	0	44	48
12	GB 125 Seam at Port 0040	0	-8	726	27	GB 10 Port 0011	0	40	294
13	Air Vent #23	12	-32	900	28	Air Vent #42	9	36	174
14	CNVYR S3A Crit Drain	3	16	102	29	GB 10 Port 0003	0	16	30
15	GB 120 Flange under Port 0021	33	-32	2232	30	CNVYR S 3 Crit Drain	60	24	72

Date Reviewed. 3 6-00 RS Supervision: [redacted]

 Rev 02/00

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

2 of 3

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm2)	Removable Alpha	Removable Beta	Total Alpha
31	Air Vent #1	3	16	660	61				
32	CNVYR S-3B	3	4	18	62				
33	GB 35 Port 0002	9	-8	354	63				
34	Platform Ladder Top Step	3	-8	1626	64				
35	Bot. of Control Panel AIT A25D	6	68	462	65				
36	Electrical Pipe End of GB A45	12	12	1932	66				
37	Platform under GB 55	3	24	2514	67				
38	Air Vent #15	6	16	174	68				
39	Bot. of Control Panal AIT A25	6	8	876	69				
40	Steel Box in corner	12	8	990	70				
41	Rubber Mat under GB A125	3	12	120	71				
42	Air Vent #19	36	-40	2814	72				
43	Crit Drain GB A125	0	4	0	73				
44	3 Step stool Rollaround	12	16	2760	74				
45	Cart	0	12	1320	75				
46	End of Survey				76				
47					77	N/A			
48					78				
49					79				
50					80				
51					81				
52					82				
53	N/A				83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

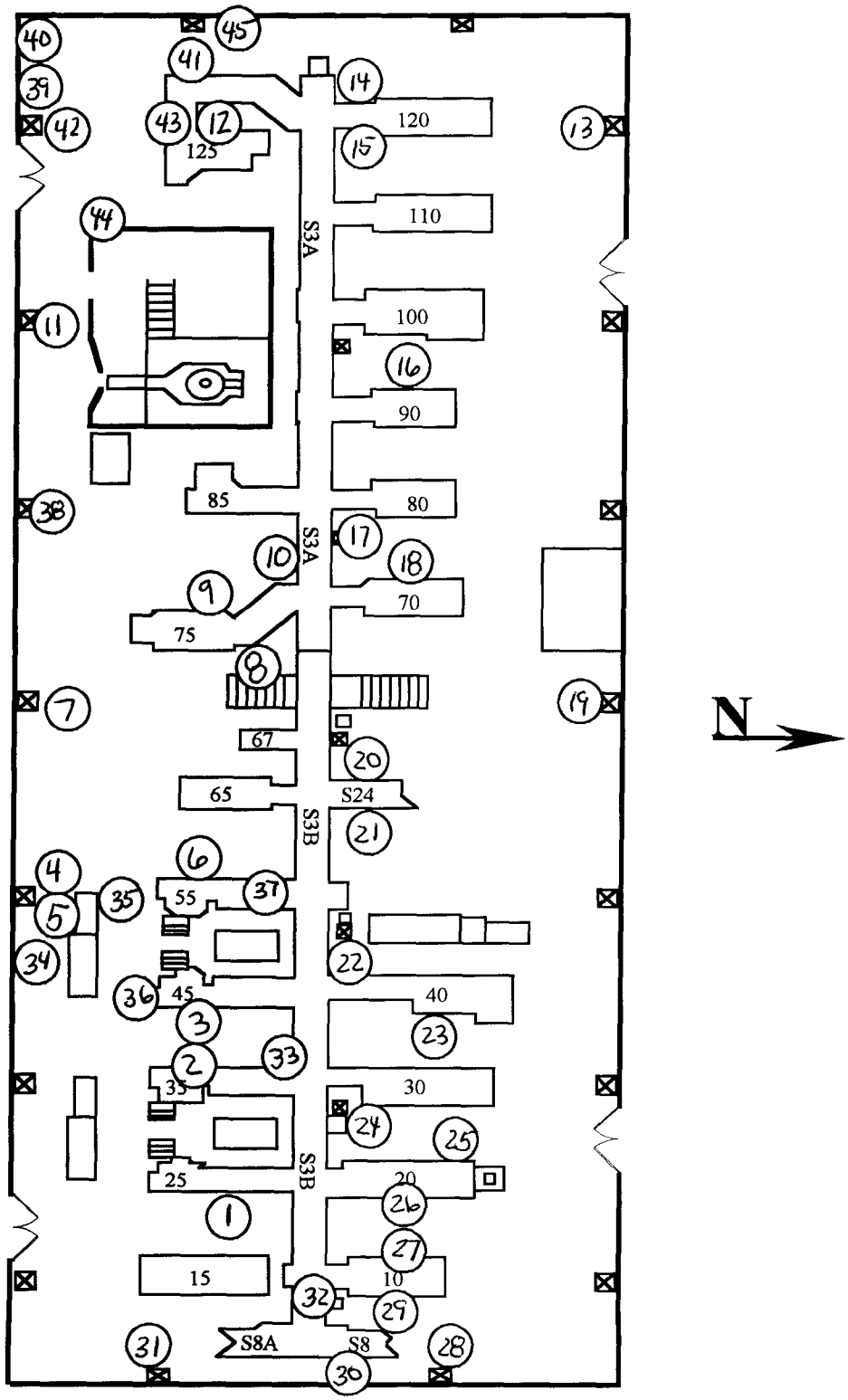
RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE A



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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0.4 cpm	Bkg 0.6 cpm	Bkg 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 14.8 dpm	MDA 16.3 dpm	MDA 94 dpm
Mfg Eberline	Mfg Eberline	Mfg NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1518
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg 53 cpm	Bkg 51 cpm	Bkg 0.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2186
MDA 111.3 dpm	MDA 109.4	MDA 94 dpm

Survey Type **Contamination**

Building 707

Location Module A Survey Area M

Purpose **Reconnaisance Level Characterization**

RWP # CC 707 1209

Date 3 13 00 Time Days

R [redacted]

R [redacted]

Print name / Signature / Emp #

Comments Ceiling / Walls > 2 meters Biased survey points

1 minute pats and swipes See map for locations 1 of 2

3 bkgd counts alpha electra <8cpm (2,2,3)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	W >2m	3	44	24	16	W >2m	0	-12	42
2	" "	0	-8	18	17	" "	12	-12	42
3	" "	0	28	24	18	" "	3	-32	24
4	" "	0	-12	54	19	" "	0	128	18
5	" "	0	-8	54	20	" "	0	92	6
6	" "	6	20	36	21	Ceiling	0	200	18
7	" "	3	-8	36	22	"	0	216	18
8	" "	0	-24	12	23	"	0	272	36
9	" "	3	-8	18	24	"	0	232	36
10	" "	0	8	12	25	"	6	192	30
11	" "	0	-28	18	26	"	0	212	6
12	" "	3	-28	12	27	"	0	124	6
13	" "	0	-32	24	28	"	0	144	12
14	" "	0	44	36	29	"	3	8	36
15	" "	0	-4	36	30	"	0	8	18

Date Reviewed: 3 16-00 **RS Supervis** [redacted]

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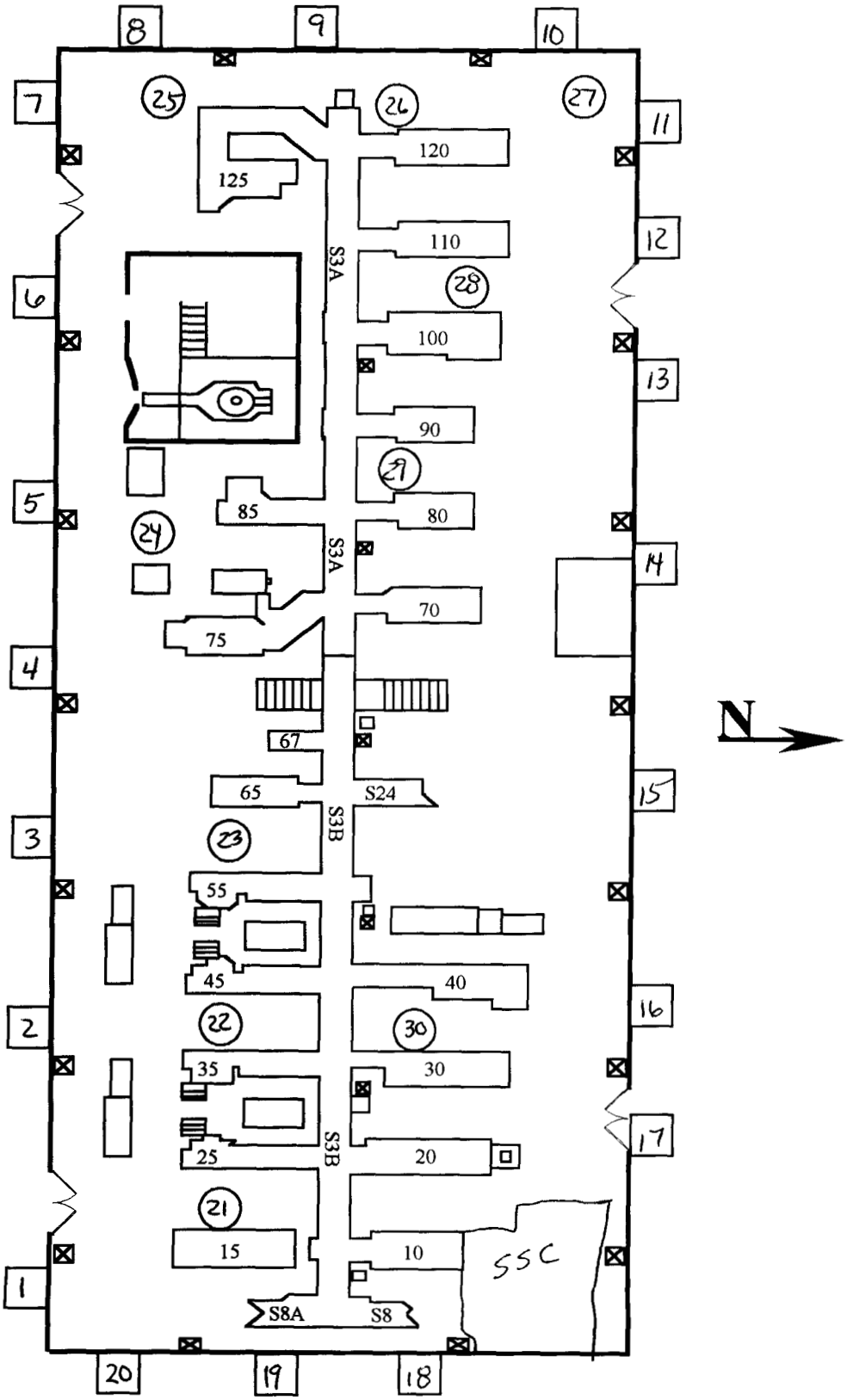
RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE A



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1196#013/014	Matrix	Waste
Site Sample ID	001 002				
Other Sample ID	707-P-01-00	Collection Date	4/25/00	Date Received	5/2/00
		Batch Number	1929	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1929-01	0 178	0 104	0 109	0 076
ACW03	U-235	KH100-1929-01	0 013	0 052	0 053	0 105
ACW03	U-238	KH100-1929-01	0 145	0 096	0 100	0 085
ACW03	PU-238	KH100-1929-01	0 292	0 148	0 159	0 047
ACW03	PU-239/240	KH100-1929-01	7 28	1 23	1 90	0 047
ACW03	AM-241	KH100-1929-01	2 69	0 681	0 868	0 068

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

1000 Monticello Court * Montgomery Alabama * 36117 * 334 272 2234 * FAX 334 213 0407

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 001
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-01-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams, 300 cm² (3 grids), ISO - 7 grams 300 cm² (3 grids) Total = 6 grids - 600 cm². Rinsate for Events .001 through 020 is event ~~.005~~ 055.

Location Description: Building 707, Module A, SW. Door on the floor. Doors are marked 46 & 47 on the outside with yellow stickers

Other ID 707-P-01-00

Sample Appearance: Red paint scrapings

Sampling Device Heat gun, chisel

Sample Date 4/25/00 Sample Time 17 10 Rad Screen Sample Date 4/25/00

Was generator notified to receive excess sample? (Yes) X (No)

[redacted]

Sampler's Si

Emp

Date 04/25/00 4/25/00

363

Lmc 05/26/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1196#013/014	Matrix	Waste
Site Sample ID	002 002				
Other Sample ID	707-P-02-00	Collection Date	4/25/00	Date Received	5/2/00
		Batch Number	1929	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1929-02	0 126	0 080	0 084	0 057
ACW03	U-235	KH100-1929-02	-0 003	0 036	0 036	0 092
ACW03	U-238	KH100-1929-02	0 409	0 144	0 166	0 057
ACW03	PU-238	KH100-1929-02	0 382	0 161	0 178	0 041
ACW03	PU-239/240	KH100-1929-02	12 5	1 85	3 11	0 041
ACW03	AM-241	KH100-1929-02	1 80	0 589	0 690	0 089

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

1000 Monticello Court * Montgomery Alabama 36117 * 334 272 2234 FAX 334 213 0407

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 002
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID 336
CUSTOMER SAMPLE ID: 707-P-02-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID. ↓
TRIP BLANK:

Comments/Problems encountered during sampling Radscreen 2 grams, 100 cm2 (1 grid), TSO - 7 grams, 150 cm2 (1 1/2 grids) Total = 250 cm2 - 2 1/2 grids.

Location Description: Building 707, Module A, near stake pump, #7A019

Other ID. 707-P-02-00

Sample Appearance: Red paint scrapings

Sampling Device Heat gun & chisel

Sample Date 4/25/00 Sample Time 17:40 Rad Screen Sample Date 4/25/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature. [redacted]

Employee Num[redacted]

Date: 04/25/00 4/25/00

345

Lmc 05/26/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1196#013/014	Matrix	Waste
Site Sample ID	003 002				
Other Sample ID	707-P-03-00	Collection Date	4/25/00	Date Received	5/2/00
		Batch Number	1929	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1929-03	0 549	0 172	0 204	0 034
ACW03	U-235	KH100-1929-03	0 015	0 031	0 031	0 042
ACW03	U-238	KH100-1929-03	1 37	0 286	0 396	0 034
ACW03	PU-238	KH100-1929-03	0 376	0 161	0 178	0 042
ACW03	PU-239/240	KH100-1929-03	15 7	2 31	3 90	0 042
ACW03	AM-241	KH100-1929-03	2 97	0 690	0 910	0 060

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

1000 Monticello Court * Montgomery Alabama * 36117 * 334 272 2234 * FAX 334 213 0407

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 003
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID 336
CUSTOMER SAMPLE ID: 707-P-03-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams, 100 cm² (1 grid), ISO - 7 grams 100 cm² (1 grid) Total = 2 grids, 200 cm²

Location Description: Building 707, Module A, near crit. drain A-15 on the floor under ports 0030 + 0031.

Other ID: 707-P-03-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date 4/25/00 Sample Time 18:20 Rad Screen Sample Date 4/25/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Sign [redacted]

Emplo[redacted]

Date 4/25/00 4/25/00

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Lmc 05/26/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1196#013/014	Matrix	Waste
Site Sample ID	004 002				
Other Sample ID	707-P-04-00	Collection Date	4/25/00	Date Received	5/2/00
		Batch Number	1929	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1929-04	0 474	0 171	0 195	0 039
ACW03	U-235	KH100-1929-04	0 106	0 087	0 093	0 048
ACW03	U-238	KH100-1929-04	1 42	0 315	0 424	0 081
ACW03	PU-238	KH100-1929-04	0 058	0 064	0 065	0 078
ACW03	PU-239/240	KH100-1929-04	3 02	0 554	0 819	0 095
ACW03	AM-241	KH100-1929-04	0 330	0 189	0 200	0 131

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

1000 Monticello Court * Montgomery Alabama 36117 * 334 272 2234 FAX 334 213 0407

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030

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 004
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-04-00
FIELD BLANK ID N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling Radscreen - 2 grams 50 cm2 (1/2 grid). ISO - 7 grams 150 cm2 (1 1/2 grid) Total = 200 cm2 - 2 grids

Location Description: Bldg 707, Module A, area under glovebox A-15, on the floor directly under port 0008

Other ID 707-P-04-00

Sample Appearance. Red paint scrapings

Sampling Device Heat gun & chisel

Sample Date 4/25/00 Sample Time 18:30 Rad Screen Sample Date 4/25/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signa[redacted]

Employ[redacted]

Date 4/25/00 4/25/00

369

Lmc 05/26/98

A-3
RLC RADIOLOGICAL DATA
Survey Area M
Concrete Core

370

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1197

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1197#003	Matrix	Waste
Site Sample ID	009.003				
Other Sample ID	Bldg 707 Module A	Collection Date	5/2/00	Date Received	5/4/00
		Batch Number	1936	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1936-09	0 752	0 212	0 260	0 064
ACW03	U-235	KH100-1936-09	0 066	0 066	0 069	0 044
ACW03	U-238	KH100-1936-09	0 966	0 242	0 310	0 036
ACW03	PU-238	KH100-1936-09	0 132	0 119	0 122	0 151
ACW03	PU-239/240	KH100-1936-09	6 14	0 959	1 56	0 066
ACW03	AM-241	KH100-1936-09	0 898	0 306	0 355	0 057

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Pu	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Am	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB

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025

A-3

RLC RADIOLOGICAL DATA

Survey Area N

1st Floor, Module B [Room 105]

372

Radiological Survey/Sample Results for Survey Area N (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	41
MIN	-18	N/A
MAX	204	N/A
MEAN	23 7	N/A
STD DEV	35 3	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	14	14
MIN	0	N/A
MAX	174	N/A
MEAN	51 9	N/A
STD DEV	58 9	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	-6	N/A
MAX	54	N/A
MEAN	18 2	N/A
STD DEV	15 5	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	6	N/A
MAX	247200	N/A
MEAN	7081 3	N/A
STD DEV	37185 8	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	0	-56
MAX	9	40
MEAN	1 3	1 9
STD DEV	2 4	24 9
Floors/Walls < 2 m Biased	# Required	# Obtained
	14	14
MIN	0	-32
MAX	6	104
MEAN	1 1	18
STD DEV	1 9	35 3
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-56
MAX	6	60
MEAN	1 1	12 4
STD DEV	1 7	30 2
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-56
MAX	36	76
MEAN	2 7	-6 3
STD DEV	6 6	31 5
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
4	4

Total Uranium Results dpm/100 cm²

MIN	2
MAX	13
MEAN	6 8
STD DEV	4 6
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	43
MAX	554
MEAN	176 8
STD DEV	251 6
$DCGL_W$	100

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1245
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.1 cpm	Bkg 0.2 cpm	Bkg 50 cpm
Efficiency 33%	Efficiency 33%	Efficiency 22.36%
MDA 11.5 dpm	MDA 129 DPM	MDA 94 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg 49 cpm	Bkg 51 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 107.5 DPM	MDA 109.4 DPM	MDA

Survey Type **Contamination**

Building 707

Location Module B Survey Area N

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 2-29 00 Time 1600

RCT Adkins [signature] (Print name / Signature)

RCT Bahl [signature] (Print name / Signature)

Comments Floor / Walls < 2 meters Unbiased survey points

1 m² scans, 1 minute pats and swipes See map for locations

#1-4 smears only (BKG 33.1 5 min.) 30the bkgd counts alpha electra < 8cpm (2,2,3)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	F	0	-4		16	F	0	8	24
2	F	0	12	N/A	17	F	0	-32	24
3	F	0	-40		18	F	0	24	18
4	F	0	-20		19	F	0	20	6
5	F	0	36	18	20	F	0	16	30
6	F	0	12	60	21	F	0	16	30
7	F	0	12	12	22	F	0	-36	24
8	F	9	0	48	23	F	0	36	204
9	F	3	-4	48	24	F	0	4	36
10	F	9	-32	0	25	F	6	-12	6
11	F	0	-28	6	26	F	0	40	24
12	F	0	16	30	27	F	0	36	-6
13	F	3	36	30	28	F	0	-40	12
14	F	0	4	18	29	F	0	-4	18
15	F	3	-56	-18	30	F	0	12	-12

Date Reviewed 3-24-00 RS Supervision Stroukat, [signature] (Print Name / Signature)

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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	F	0	-4	12	61				
32.	F	0	16	96	62				
33	F	6	-4	48	63				
34	W < 2	0	40	18	64				
35.	W < 2	0	-16	18	65				
36	W < 2	0	52	6	66				
37	W < 2	0	-8	6	67				
38	W < 2	0	-4	12	68				
39	W < 2	0	24	12	69				
40.	W < 2	0	24	18	70				
41.	W < 2	3	28	18	71				
42	W < 2	3	-4	6	72				
43	W < 2	3	16	6	73				
44	W < 2	3	0	-6	74				
45	W < 2	6	-4	12	75				
46	END OF SURVEY				76	N/A			
47					77				
48.					75				
49					79				
50					80				
51					81				
52					82				
53	N/A				83				
54.					84				
55					85				
56.					86				
57					87				
58					88				
59					89				
60					90				

RS FORMS 07.02-01

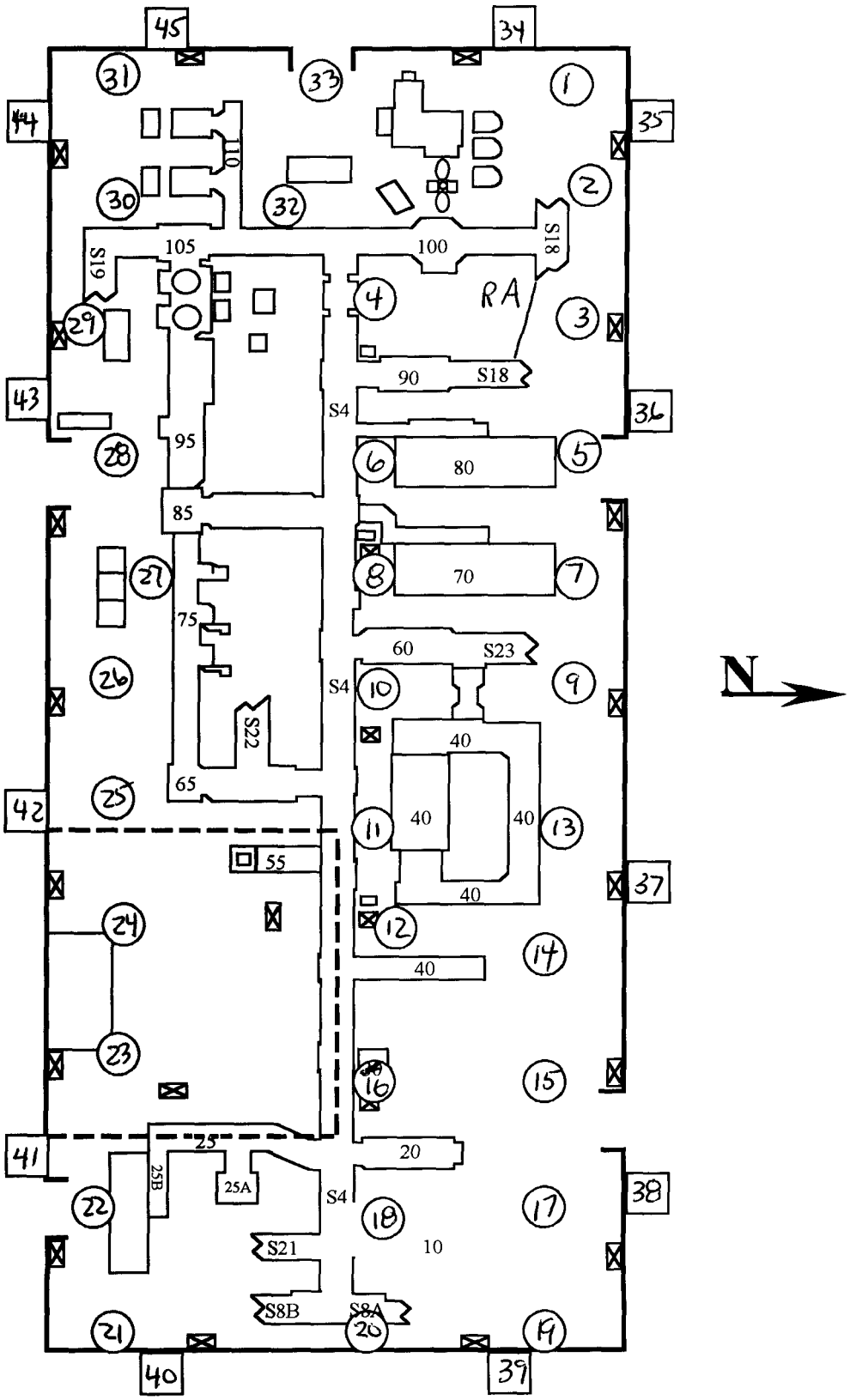
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Floor / Walls <2meters unbiased
12 wall
33 floor
45 total points

MODULE B



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 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1245
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0 7 cpm	Bkg 0 3 cpm	Bkg ∝ 3 0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 22 36%
MDA 16.9 dpm	MDA 13 9 dpm	MDA 94 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg 48 cpm	Bkg 51 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 106 5 dpm	MDA 109 4 dpm	MDA

Survey Type **Contamination**

Building **707**

Location Module B Survey Area N

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 3-1-00 Time 1600

[redacted]

Comments Floor / Walls < 2 meters Biased survey points

1 m² scans, 1 minute pats and swipes See map for locations

3 bkgd counts alpha electra <8cpm (0,1,1)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1	Floor	0	4	138	16				
2	Floor	0	32	54	17				
3	Floor	0	8	12	18				
4	Floor	6	-28	6	19				
5	Floor	0	44	12	20				
6	Floor	3	36	72	21				
7	Floor	0	40	174	22	N/A			
8	Floor	0	-32	6	23				
9	Floor	0	104	0	24				
10	Floor	3	-20	138	25				
11	Floor	0	24	12	26				
12	Floor	0	24	24	27				
13	Floor Crit D	0	24	6	28				
14	Floor Crit D	3	-8	72	29				
15	End of Survey				30				

Date Reviewed: 3-24-00 **RS Supervision** [redacted]

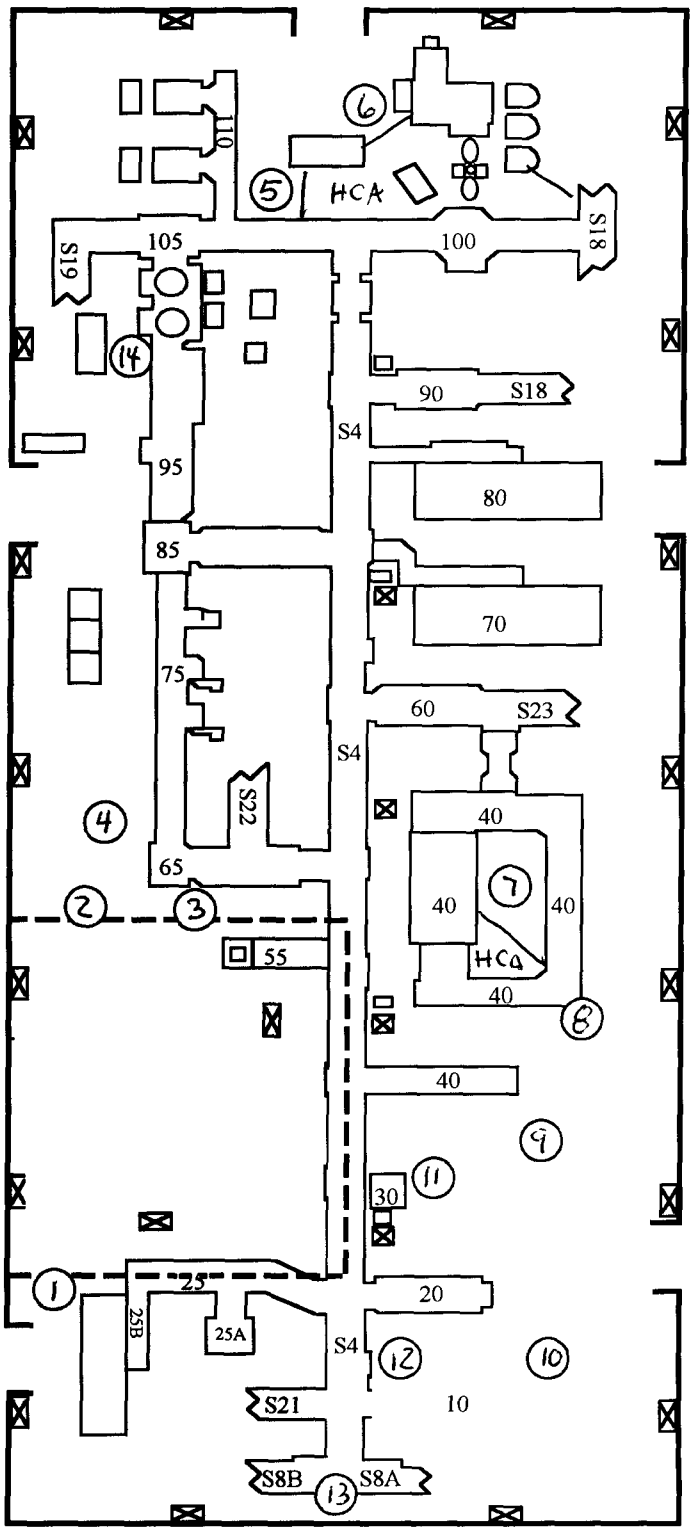
 RS FORMS 07 02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE B



N

Temporary Walls

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1245
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.5 cpm	Bkg 0.1 cpm	Bkg ~30 cpm
Efficiency 33%	Efficiency 33%	Efficiency 22 36%
MDA 15.6 dpm	MDA 11.5 dpm	MDA 94 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg 48 cpm	Bkg 52 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 1065 dpm	MDA 110.4 dpm	MDA

Survey Type **Contamination**
Building 707
Location Module B Survey Area N
Purpose **Reconnaisance Level Characterization**
RWP # 00-707-1204
Date 3-2-00 Time 1600

[redacted]

Comments Equipment Biased survey points
1 minute pats and swipes See map for locations
3 bkgd counts alpha electra <8cpm (2,1,4)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1	GB	0	8	78	16	GB	6	-32	36
2	GB	9	-48	300	17	Window (026)	0	-20	3534
3	GB	0	8	42	18	GB	0	-28	18
4	GB	3	-12	24	19	B.O. (0077)	6	20	36
5	GB	0	-12	12	20	GB	0	-44	30
6	GB	3	-36	13,800	21	Airlock	3	-8	42. K
7	GB	0	-40	18	22	GB	3	-28	48
8	GB (Bottom Gasket)	6	8	247.2 K	23	BO (0007)	0	28	66
9	GB	0	44	12	24	GB	24	-56	36
10	GB	0	-56	4296	25	GB	0	24	48
11	GB	3	72	306	26	GB	0	4	42
12	GB	0	-52	12	27	B.O. (0012)	0	24	36
13.	GB	0	8	6	28	Pump	0	-36	18
14	GB	0	-4	24	29	Exhaust	0	-20	714
15	B O. (0015	0	-16	30	30	Exhaust	36	-8	408

Date Reviewed: 3-24-00 **RS Supervisio**[redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31	Exhaust	0	0	186	61				
32	Exhaust	0	-12	90	62				
33	Exhaust	0	0	198	63				
34	Exhaust	0	-36	156	64				
35	Exhaust	3	-4	180	65				
36	Exhaust	0	4	216	66				
37	Exhaust	3	4	1806.	67				
38	Exhaust	0	12	552	68				
39.	Exhaust	0	76	1026	69				
40	Exhaust	0	-4	228	70				
41	Exhaust Duct - Piping	0	56	132	71				
42	Exhaust Duct - piping	3	16	324	72				
43	Exhaust Duct - piping	12	-16	120	73				
44.	Exhaust Duct - piping	0	-52	126	74				
45	Exhaust Duct - piping	0	-20	90	75				
46	End of Survey				76				
47					77				
48					75				
49					79				
50					80				
51					81				
52	N/A				82				
53					83				
54					84				
55					85				
56					86				
57					87				
58					88				
59					89				
60					90				

N/A

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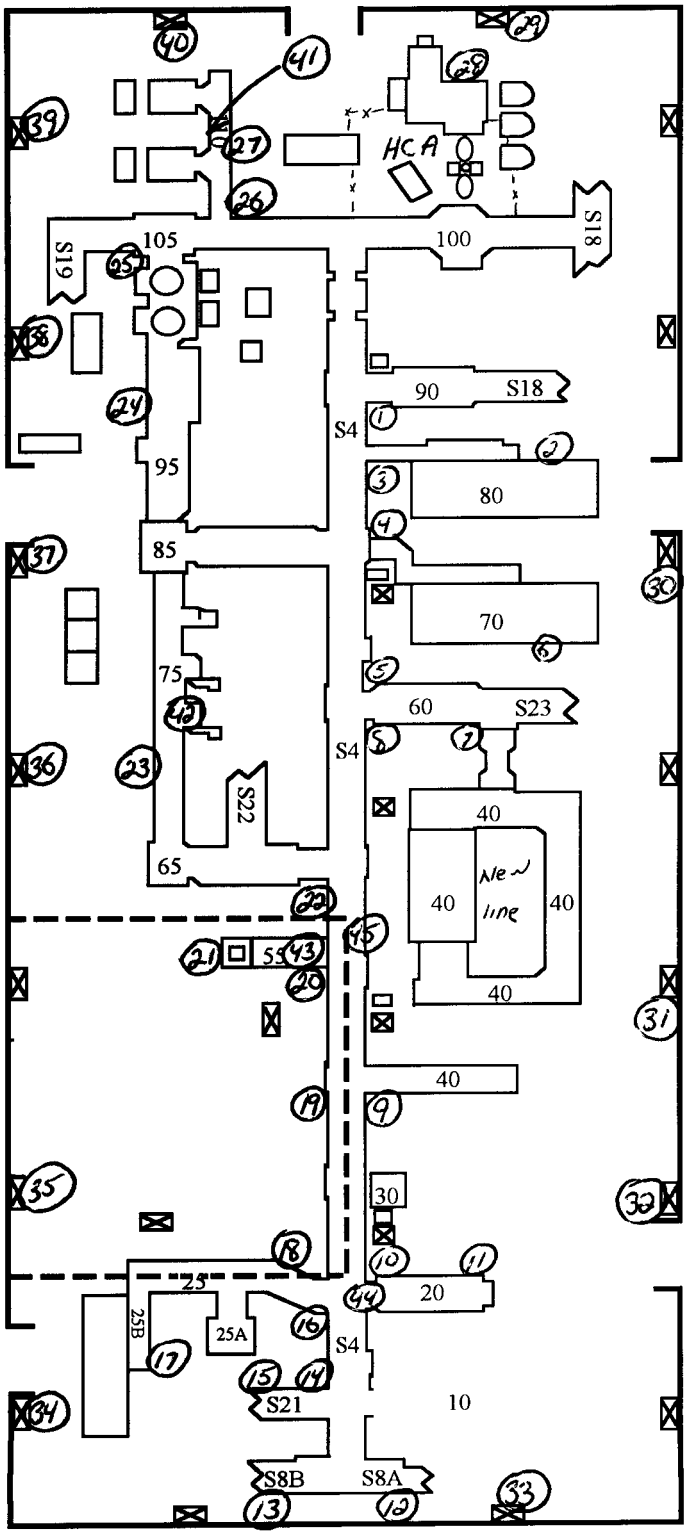
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE B



N

Temporary Walls

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1245
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg 0.7 cpm	Bkg 0.3 cpm	Bkg α 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 22.36%
MDA 16.9 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg 48 cpm	Bkg 51 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 1065 dpm	MDA 109.4 dpm	MDA

Survey Type. **Contamination**

Building **707**

Location Module B Survey Area N

Purpose **Reconnaisance Level Characterization**

RWP # 00 707-1204

Date 3-1-00 Time 1600

R[redacted]

R[redacted]

Comments Ceiling / Walls > 2 meters Biased survey poi[redacted]

1 minute pats and swipes See map for locations

3 blank counts alpha electra <8cpm (0,1,1)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	wall > 2	0	-4	6	16	"	0	-8	24
2	"	6	-40	18	17	"	0	20	6
3	"	0	12	6	18	"	0	36	24
4.	"	3	-28	12	19	"	0	44	6
5	"	0	52	30	20				
6	"	3	32	12	21				
7.	"	0	28	6	22				
8	"	3	24	-6	23				
9.	"	3	-12	6	24				
10	"	3	-56	18	25	N/A			
11	"	0	36	0	26				
12.	"	0	12	24	27				
13	"	0	24	12	28				
14	"	0	-32	-6	29				
15.	"	0	8	24	30				

Date Reviewed: 3-24-00 **RS Supervisi**[redacted]

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg Eberline	Mfg Eberline	Mfg NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg 0.5 cpm	Bkg 00 cpm	Bkg 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 15.6 DPM	MDA 8.2 DPM	MDA 94 DPM
Mfg Eberline	Mfg Eberline	Mfg
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg 54 cpm	Bkg 53 cpm	Bkg
Efficiency 25%	Efficiency 25%	Efficiency
MDA 112.3 DPM	MDA 111.3 DPM	MDA

Survey Type **Contamination**

Building 707

Location B-MOD Survey Area N

Purpose **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date 3-23-00 Time 0900

[redacted]

RCT

Print name / Signature / Emp #

Comments Ceiling / Walls > 2 meters Biased survey points
1 minute pats and swipes See map for locations

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
20	C > 2	3	36	6					
21	C > 2	0	28	0					
22	C > 2	3	40	12					
23	C > 2	0	44	30					
24	C > 2	3	4	36					
25	C > 2	0	-40	42					
26	C > 2	3	48	36					
27	C > 2	0	-4	36		N/A			
28	C > 2	0	60	42					
29	C > 2	0	-4	30					
30	C > 2	0	12	54					
	END OF SURVEY								
	N/A								

Date Reviewed _____ **RS Supervision** _____ / _____ /
Print Name Signature Emp #

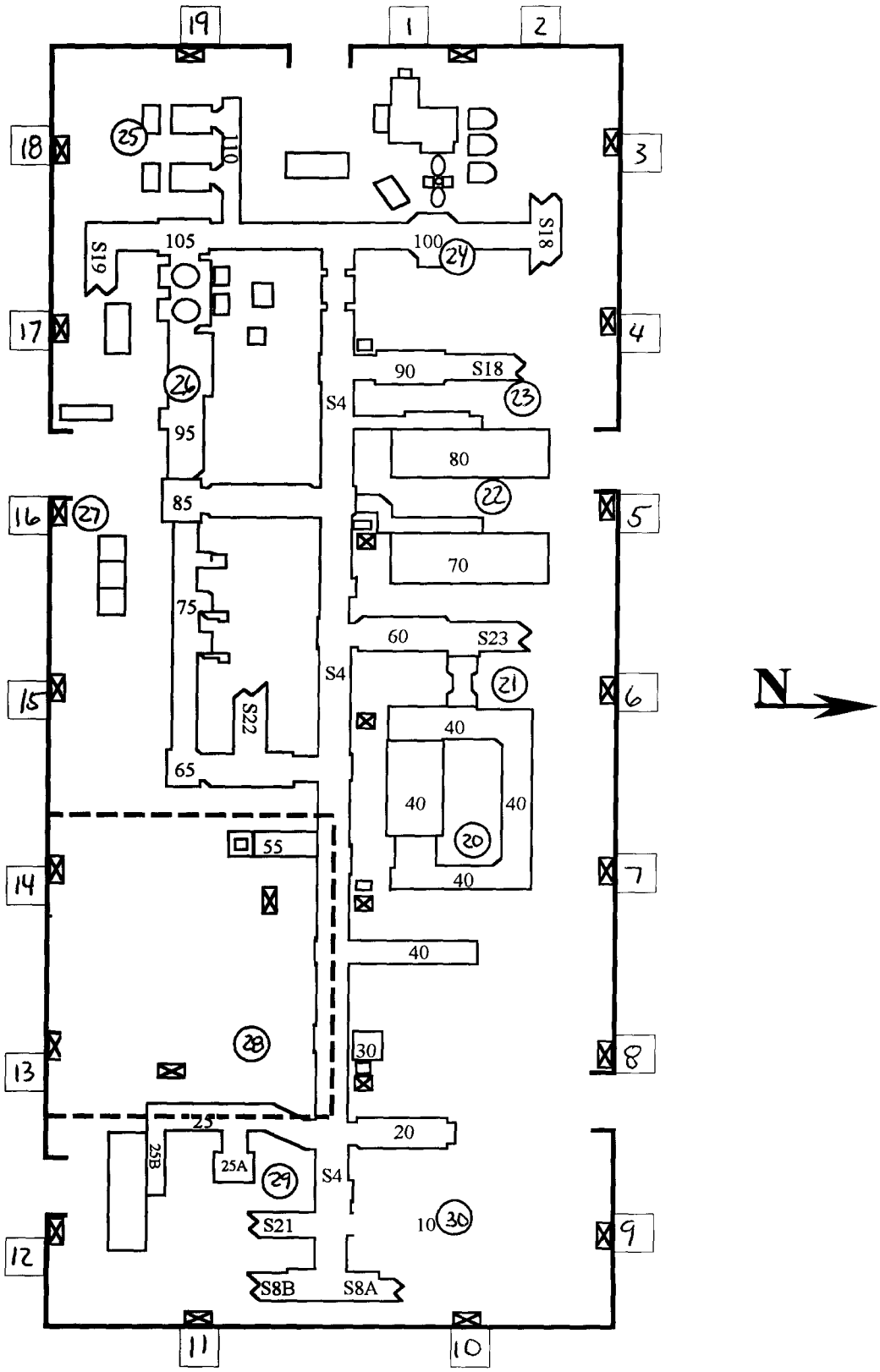
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE B



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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1196#013/014	Matrix	Waste
Site Sample ID	005 002				
Other Sample ID	707-P-05-00	Collection Date	4/25/00	Date Received	5/2/00
		Batch Number	1929	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1929-05	0 089	0 068	0 070	0 034
ACW03	U-235	KH100-1929-05	0 025	0 046	0 047	0 075
ACW03	U-238	KH100-1929-05	0 215	0 106	0 114	0 034
ACW03	PU-238	KH100-1929-05	0 052	0 059	0 060	0 069
ACW03	PU-239/240	KH100-1929-05	8 56	1 30	2 15	0 039
ACW03	AM-241	KH100-1929-05	1 49	0 410	0 507	0 215

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

1000 Monticello Court * Montgomery Alabama * 36117 * 334 272 2234 FAX 334 213 0407

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031

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 005
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID 336
CUSTOMER SAMPLE ID. 707-P-05-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling Radscreen - 2 grams/ 50 cm2 (1/2 grid). ISO - 7 grams over 150 cm2 (1 1/2 grids).
Total = 200 cm2 / 2 grids

Location Description: Bldg 707, Module B, Glovebox B-20 on the floor directly under port 0007.

Other ID: 707-P-05-00

Sample Appearance: Red paint scrapings

Sampling Device. Heat gun + chisel

Sample Date 4/25/00 Sample Time 19:05 Rad Screen Sample Date 4/25/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature [redacted]

Employee Numb [redacted]

Date 4/25/00 4/25/00

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Lmc 05/26/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number 00A1196

Project Name	Kaiser-Hill	Chain-of-Custody Number	00A1196#013/014	Matrix	Waste
Site Sample ID	006 002				
Other Sample ID	707-P-06-00	Collection Date	4/25/00	Date Received	5/2/00
		Batch Number	1929	Laboratory Code	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1929-06	0 230	0 114	0 122	0 063
ACW03	U-235	KH100-1929-06	0 048	0 056	0 058	0 044
ACW03	U-238	KH100-1929-06	0 399	0 150	0 170	0 062
ACW03	PU-238	KH100-1929-06	0 131	0 093	0 096	0 080
ACW03	PU-239/240	KH100-1929-06	5 05	0 830	1 31	0 098
ACW03	AM-241	KH100-1929-06	0 576	0 234	0 261	0 056

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

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ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 006
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-06-00
FIELD BLANK ID. N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK ↓

Comments/Problems encountered during sampling Radscreen - 2 grams / 50 cm2 (1/2 grid) ISO - 7 grams over 150 cm2 (1 1/2 grid) Total = 200 cm2 - 2 grids

Location Description: Bldg. 707, Module B, NE Door inside module on floor

Other ID: 707-P-06-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun & chisel

Sample Date 4/25/00 Sample Time 19:20 Rad Screen Sample Date 4/25/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature [redacted]

Employee Numbe [redacted]

Date 4/25/00 4/25/00

388

Lmc 05/26/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#013/014	Matrix:	Waste
Site Sample ID:	007.002				
Other Sample ID:	707-P-07-00	Collection Date:	4/25/00	Date Received:	5/2/00
		Batch Number:	1929	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1929-07	0.311	0.136	0.149	0.066
ACW03	U-235	KH100-1929-07	0.044	0.061	0.062	0.081
ACW03	U-238	KH100-1929-07	1.12	0.269	0.350	0.066
ACW03	PU-238	KH100-1929-07	1.22	0.288	0.377	0.060
ACW03	PU-239/240	KH100-1929-07	53.4	6.59	12.6	0.034
ACW03	AM-241	KH100-1929-07	8.94	1.65	2.43	0.061

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

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ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 007
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 334
CUSTOMER SAMPLE ID: 707-P-07-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams / 50 cm2 (1/2 grid). ISO - 7 grams / 150 cm2 (1 1/2 grid). Total = 200 cm2 - 2 grids.

Location Description: Bldg. 707, Module B, Near an HCA by Glovebox B-105, east of door 54 + 55.

Other ID: 707-P-07-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/25/00 Sample Time: 19:45 Rad Screen Sample Date: 4/25/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Number [redacted]

Date: 4/25/00 4/25/00

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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#013/014	Matrix:	Waste
Site Sample ID:	008.002				
Other Sample ID:	707-P-08-00	Collection Date:	4/25/00	Date Received:	5/2/00
		Batch Number:	1929	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1929-08	0.147	0.094	0.099	0.040
ACW03	U-235	KH100-1929-08	0.073	0.073	0.076	0.049
ACW03	U-238	KH100-1929-08	0.513	0.180	0.207	0.040
ACW03	PU-238	KH100-1929-08	0.120	0.086	0.089	0.040
ACW03	PU-239/240	KH100-1929-08	4.39	0.766	1.17	0.040
ACW03	AM-241	KH100-1929-08	0.719	0.327	0.358	0.085

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

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ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 008
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-08-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/50cm2 (1/2 grid). ISO - 7 grams/150 cm2 (1 1/2 grid). Total = 200 cm2 - 2 grids.

Location Description: Bldg. 707, Module B, Hallway B-10 on floor next to crit. drain directly under port 0020.

Other ID: 707-P-08-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/25/00 Sample Time: 20:05 Rad Screen Sample Date: 4/25/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Number [redacted]

Date: 4/25/00 4/25/00

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A-3
RLC RADIOLOGICAL DATA
Survey Area N
Concrete Core

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1197

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1197#003	Matrix:	Waste
Site Sample ID:	010.003				
Other Sample ID:	Bldg 707 Module B	Collection Date:	5/2/00	Date Received:	5/4/00
		Batch Number:	1936	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1936-10	0.882	0.246	0.303	0.041
ACW03	U-235	KH100-1936-10	0.068	0.077	0.079	0.090
ACW03	U-238	KH100-1936-10	0.848	0.240	0.294	0.041
ACW03	PU-238	KH100-1936-10	-0.003	0.098	0.098	0.180
ACW03	PU-239/240	KH100-1936-10	0.150	0.101	0.106	0.075
ACW03	AM-241	KH100-1936-10	0.020	0.040	0.041	0.055

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Pu	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB
Am	SCAQC-1936-LC1	SCAQC-1936-LD1	SCAQC-1936-PB

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026

A-3

RLC RADIOLOGICAL DATA

Survey Area O

1st Floor, Module C [Room 110] & Pit C

395

Radiological Survey/Sample Results for Survey Area O (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	58	58
MIN	0	N/A
MAX	8910	N/A
MEAN	762.8	N/A
STD DEV	2017.3	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	14	14
MIN	6	N/A
MAX	1704	N/A
MEAN	576.7	N/A
STD DEV	607.0	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	40	40
MIN	-18	N/A
MAX	888	N/A
MEAN	30.9	N/A
STD DEV	141.1	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	30	N/A
MAX	37806	N/A
MEAN	3895.9	N/A
STD DEV	7673.4	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	58	58
MIN	0	-52
MAX	3480	84
MEAN	80.4	11.2
STD DEV	462.8	32.6
Floors/Walls < 2 m Biased	# Required	# Obtained
	14	14
MIN	0	-40
MAX	45	56
MEAN	6.2	10.9
STD DEV	11.7	28.8
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	40	40
MIN	0	-52
MAX	1032	88
MEAN	33.4	9.1
STD DEV	164.2	36.4
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-48
MAX	147	60
MEAN	18.7	-1.4
STD DEV	32.3	29.7
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
4	4

Total Uranium Results dpm/100 cm^2

MIN	1
MAX	3
MEAN	1.8
STD DEV	1.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	63
MAX	4426
MEAN	1954.3
STD DEV	1827.5
$DCGL_W$	100

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-16-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.0 cpm	Bkg. 0.5 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2101
MDA 8.2 dpm	MDA 15.6 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3120
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 4-26-00
Bkg. 61 cpm	Bkg. 52 cpm	Bkg. 2.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2109
MDA 118.6 dpm	MDA 110.4 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: **707**

Location: Module C Survey Area 0

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 3-9 3-10-00 Time: Days

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations. 1 of 3
3 bkgd counts alpha electra <8cpm (2,2,4)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	GB 5 8 B	0	-4	144	16.	GB-008 Port 12	0	20	996
2.	GB 521	6	-40	108	17.	GB 008 Port 18	30	24	4638
3.	S-5 CNVYR Port 109	60	-40	8490	18.	Crit Drain	21	-4	690
4.	S-5 CNVYR under Port 13	0	-36	84	19.	7-C-110 Port 0029	9	-12	4032
5.	Air Vent #31	0	-32	336	20.	GB-7-C-110 Window 0033	27	44	4344
6.	GB C-50	3	0	66	21.	GB 7-C-110 Port 43	12	-28	216
7.	GB C-60	6	-24	60	22.	GB C120 Bagout Port	0	-48	120
8.	GB C-70 S-5 CNVYR	3	40	66	23.	3 step rollaround stool	0	0	840
9.	Air Vent #27	0	-32	222	24.	S-5 CNVYR Crit Drain	3	24	1080
10.	GB C-80	3	20	90	25.	GB 125 Port 28	3	8	156
11.	GB C-80 S-5 CNVYR	0	16	30	26.	GB 115 Port 18	129	-36	37806
12.	GB C-90 S-5 CNVYR	0	-12	78	27.	GB 115 Port 16	36	-40	9096
13.	GB C-96 Port 345	3	-20	36	28.	GB 115 Port 8	39	28	2646
14.	Air vent #25	3	-28	354	29.	GB 115 Port 5	147	-8	8178
15.	S-5 CNVYR	6	-12	60	30.	GB 105 S-5 CNVYR	3	44	12894

Date Reviewed: 3-16-00 **RS Supervision:** S Hunkhart / [signature]
Print Name Signature

[redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 3

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	GB 105 S-5CNVYR	0	-20	33750	61.				
32.	GB C-95 Port 45	3	52	642	62.				
33.	GB C95 Port 17	0	-32	990	63.				
34.	Crit Drain	3	60	432	64.				
35.	S-5 CNVYR Port 34	0	28	36	65.				
36.	GB C65B Port 0043	21	20	4716	66.				
37.	GB C65 under Port 0034	15	-36	144	67.				
38.	GB C65 Port 0025	6	28	10086	68.				
39.	S-5 CNVYR Port 32	9	24	7578 ~~1263~~	69.				
40.	GB C45 S-5CNVYR	51	-8	2418	70.				
41.	GB C45B on Heald sign	30	24	4338	71.				
42.	GB C45B Port 0057	81	36	3492	72.				
43.	GB 25B S-5CNVYR	0	8	1824	73.				
44.	GB 25B Port 57	12	-24	2238	74.				
45.	GB 25A under Port 32	60	-36	4674	75.	N/A			
46.	END OF SURVEY				76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.	N/A				83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

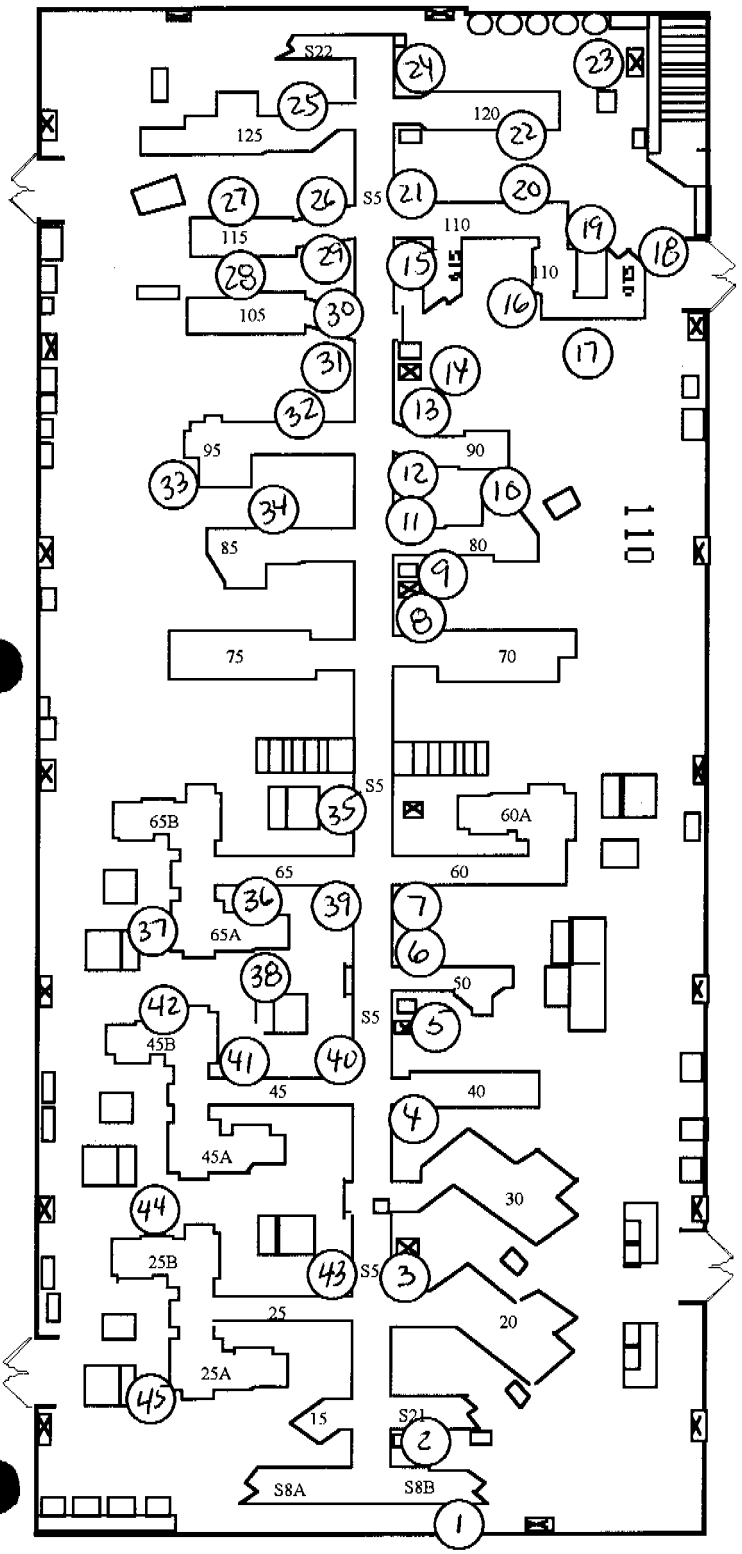
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

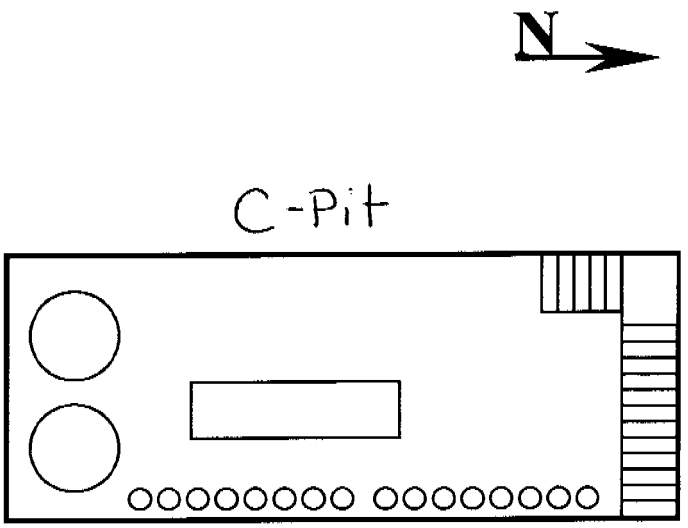
RADIOLOGICAL SAFETY

3 of 3

Drawing Showing Survey Points

MODULE C





 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2101
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3120
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 4-26-00
Bkg. 51 cpm	Bkg. 53 cpm	Bkg. 2.0
Efficiency 25%	Efficiency 25%	Efficiency .2109
MDA 109.4 dpm	MDA 111.3 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: **707**

Location: Module C Survey Area O

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 3-9 3-10-00 Time: Days

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.

1 minute pats and swipes. See map for locations. 1 of 2

3 bkgd Counts alpha electra < 8cpm (0,2,3) 3-9-00

3 bkgd Counts alpha electra < 8cpm (0,0,3) 3-10-00

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	W > 2m	0	64	-12	16.	W > 2m	0	24	0
2.	" "	0	64	-6	17.	" "	6	-40	0
3.	" "	0	-12	-12	18.	" "	0	24	-6
4.	" "	0	-16	6	19.	" "	3	48	-18
5.	" "	0	-12	0	20.	" "	3	-40	-12
6.	" "	0	32	18	21.	Ceiling	3	16	6
7.	" "	0	40	0	22.	"	0	-20	-12
8.	" "	0	88	12	23.	"	0	12	0
9.	" "	0	-40	6	24.	"	3	-16	12
10.	" "	0	4	6	25.	"	0	80	12
11.	" "	0	20	-6	26.	"	3	28	-6
12.	" "	0	16	0	27.	"	0	32	0
13.	" "	3	24	-18	28.	"	0	-40	-12
14.	" "	3	32	12	29.	"	21	40	6
15.	" "	3	36	12	30.	"	0	48	48

Date Reviewed: 3-16-00 **RS Supervision:** Schmukat, [illegible]

Print Name Signature

[redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.2 cpm	Bkg. 1.0 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 12.9 dpm	MDA 11.5 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 53 cpm	Bkg. 52 ~~dpm~~ cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 111.3 dpm	MDA 110.4 dpm	MDA

Survey Type: Contamination

Building: 707

Location: C Pit Survey Area 3-14-00 ~~47~~ 40

Purpose: Reconnaisance Level Characterization

RWP # 00 707 1204

Date: 3-14-00 Time: Days

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations. BKGD <8cpm
3 bkgd counts alpha electra <8cpm (1,1,3)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	W >2m	3	-12	6	16.				
2.	" "	3	-8	66	17.				
3.	" "	6	-28	24	18.				
4.	" "	6	-8	120	19.				
5.	" "	1032	-16	12	20.				
6.	" "	159	16	18	21.				
7.	" "	69	-52	888	22.	N/A			
8.	" "	3	28	24	23.				
9.	Ceiling	0	-48	12	24.				
10.	Ceiling	3	-44	30	25.				
11.	End of Survey				26.				
12.					27.				
13.	N/A				28.				
14.					29.				
15.					30.				

Date Reviewed: 3-16-00 **RS Supervision:** Stuckrath / [redacted]
Print Name Signature

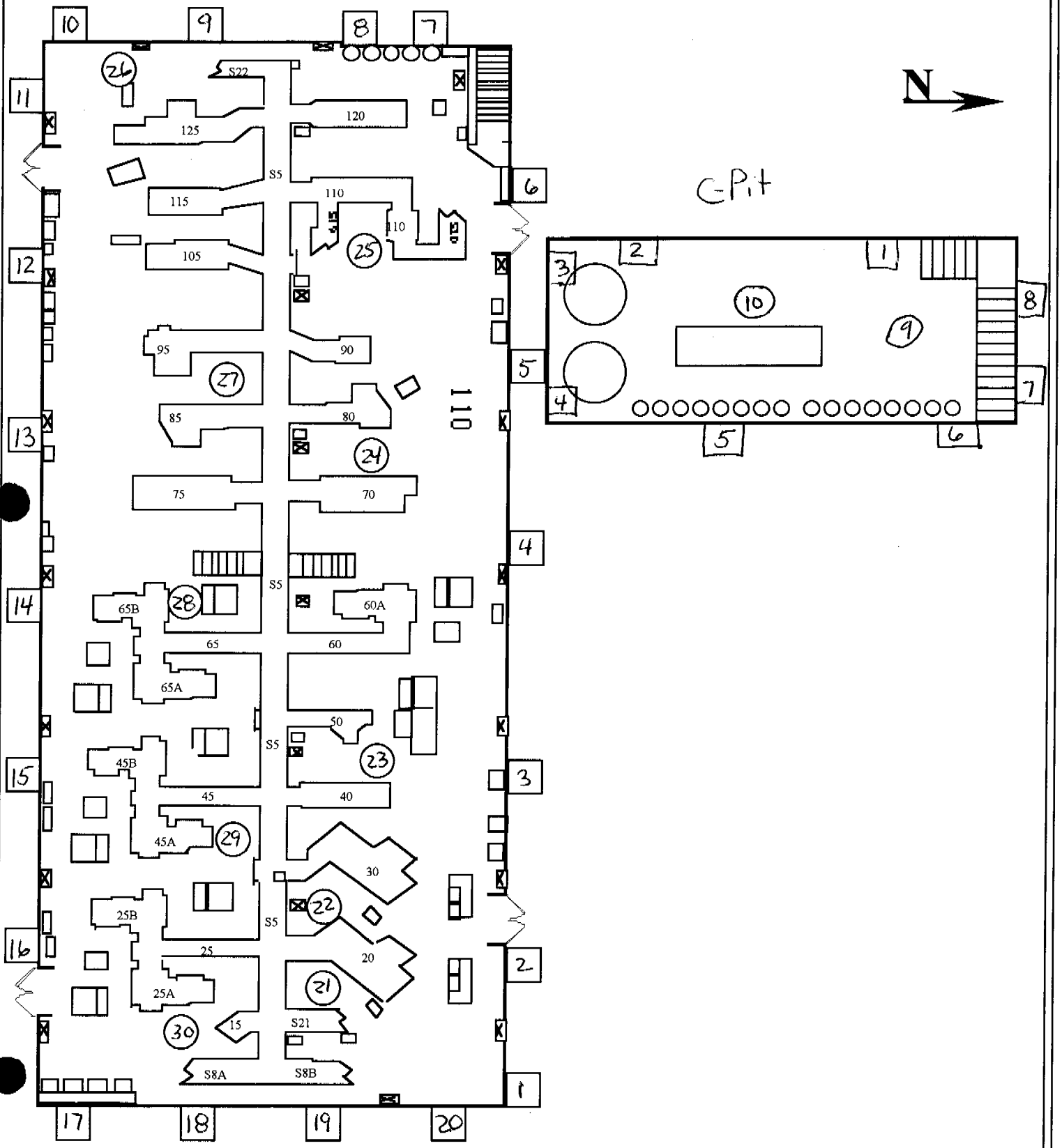
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE C



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.0 cpm	Bkg. 0.5 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2186
MDA 8.2 dpm	MDA 15.6 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3265
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 7-3-00
Bkg. 61 cpm	Bkg. 52 cpm	Bkg. 2.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2101
MDA 118.6 dpm	MDA 110.4 dpm	MDA 94 dpm

Survey Type: Contamination

Building: 707

Location: Module C Survey Area 0

Purpose: Reconnaisance Level Characterization

RWP # 00707 1204

Date: 3-10-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.

1 m² scans, 1 minute pats and swipes. See map for locations. 1 of 2

3 bkgd Counts alpha electra < 8cpm (3,3,5)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F Crit under GB	9	16	360	16.				
2.	S-8B F under GB	3	-20	360	17.				
3.	F under GB C40	12	56	6	18.				
4.	F under GB C80	0	-4	12	19.				
5.	F under S-19 CNVYR	3	-24	1416	20.				
6.	F Crit Drain	3	28	630	21.				
7.	F under GB 125	0	40	18	22.				
8.	F under GB 105	3	32	54	23.	N/A			
9.	F under GB 45B	0	44	30	24.				
10.	F under GB 45B	0	-16	120	25.				
11.	Wall next to GB 45B	0	16	930	26.				
12.	F under GB 45B	6	-40	1350	27.				
13.	F under GB 45A CNVYR 105	45	0	1084	28.				
14.	F mat GB 25B	3	24	1764	29.				
15.	END OF SURVEY				30.				

Date Reviewed: 3-16-00 **RS Supervision:** Stan Kuth (Print Name) [signature] (Signature)

[redacted]

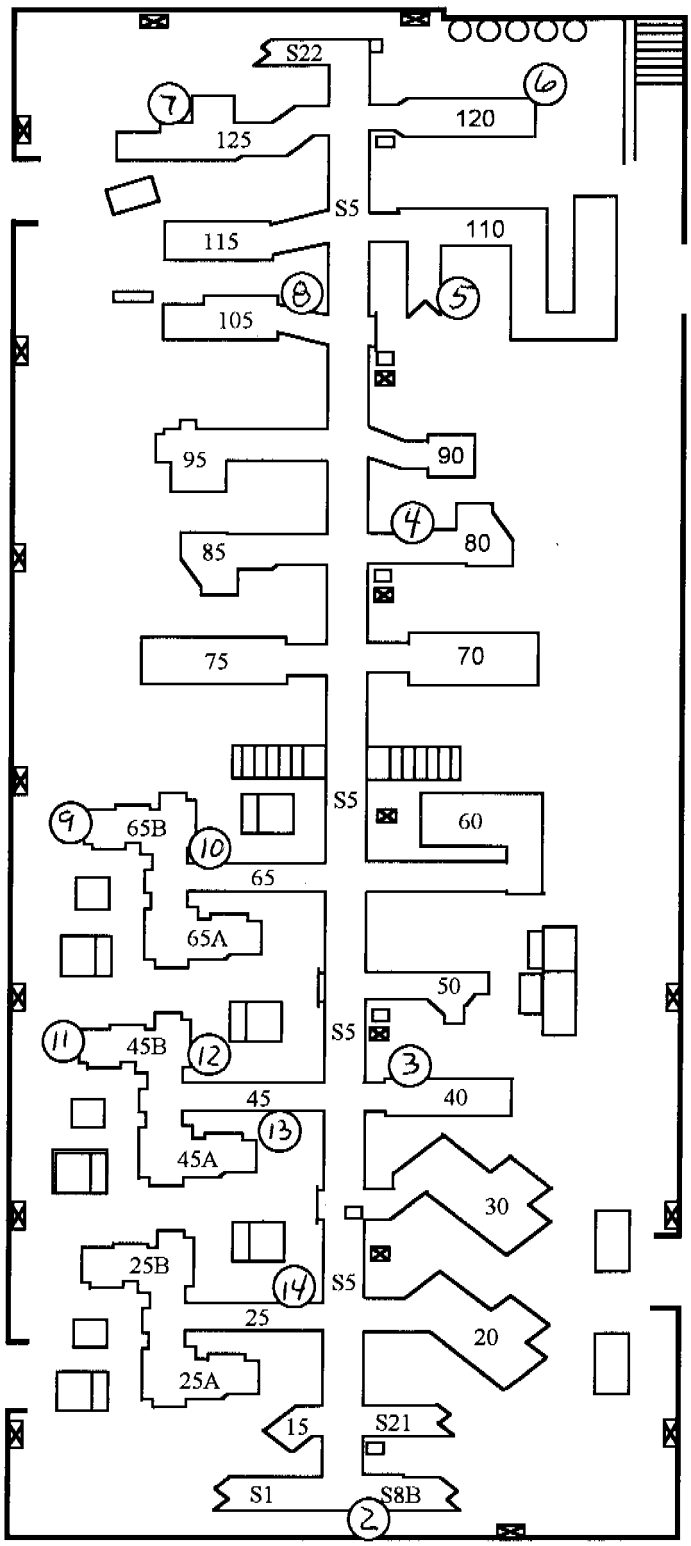
RS FORMS 07.02-01

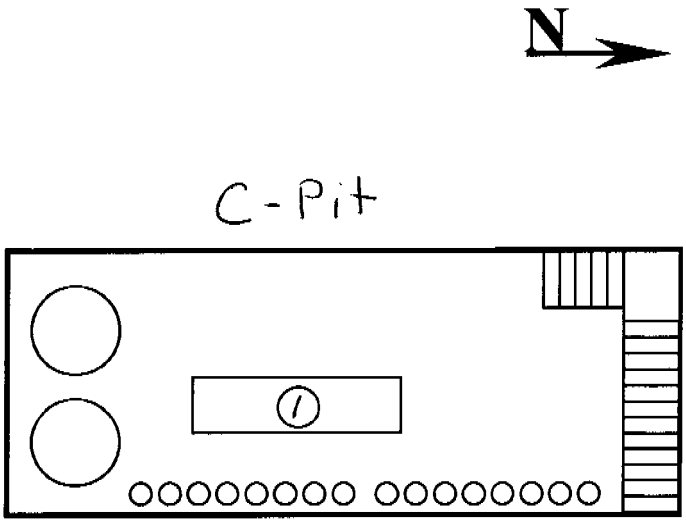
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE C





404

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.1 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2101
MDA 11.5 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1389
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 47 cpm	Bkg. 44 cpm	Bkg. 0.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2077
MDA 105.5 dpm	MDA 102.4 dpm	MDA 94 dpm

Survey Type: Contamination
Building: 707
Location: C Module Survey Area O
Purpose: Reconnaisance Level Characterization

RWP # 00 707 1204

Date: 3-6/3-7-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points. 1 of 24 3-7-00
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd counts alpha electra <8cpm (1,1,3) 3-6-00
3 bkgd counts alpha electra <8cpm (2,3,3) 3-7-00

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	12	6	16.	F	6	16	60
2.	F	6	36	150	17.	F	15	32	144
3.	F	3	28	54	18.	F	9	28	24
4.	F	3	4	6	19.	F	0	24	24
5.	F	0	16	66	20.	F	3	60	486
6.	F	6	76	36	21.	F	12	0	60
7.	F	0	36	12	22.	F	9	-28	258
8.	F	0	-40	18	23.	F	6	44	24
9.	F	6	40	18	24.	F	9	24	162
10.	F	0	32	18	25.	F	0	24	144
11.	F	0	40	18	26.	F	0	40	138
12.	F	0	16	12	27.	F	0	84	78
13.	F	0	-32	66	28.	F	0	-40	12
14.	F	0	8	78	29.	F	0	28	6
15.	F	3	0	0	30.	F	15	4	270

Date Reviewed: 3-16-00 **RS Supervision:** Schmidt, [illegible] [redacted]
Print Name Signature

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2824 SR 3-7-00

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	F	3	-48	30	61.				
32.	F	9	60	54	62.				
33.	F	0	-40	36	63.				
34.	W < 2 meters	6	24	36	64.				
35.	" "	0	12	42	65.				
36.	" "	0	-16	12	66.				
37.	" "	0	4	121	67.				
38.	" "	21	-52	1878	68.				
39.	" "	48	-4	7596	69.				
40.	" "	0	-4	18	70.				
41.	" "	0	84	48	71.				
42.	" "	3	20	18	72.				
43.	" "	3	48	4446	73.				
44.	" "	0	-16	48	74.				
45.	" "	3	-24	36	75.				
46.	END OF SURVEY				76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1245
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2736
MDA 12.9 DPM	MDA 13.9 DPM	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3265
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 7-3-00
Bkg. 52 cpm	Bkg. 50 cpm	Bkg. 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2101
MDA 110.4 DPM	MDA 108.4 DPM	MDA 94 dpm

Survey Type: Contamination
Building: 707
Location: C Pit Survey Area A
Purpose: Reconnaisance Level Characterization

RWP # 00 707 1204

Date: 3-7-00 3-8-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points. 3 of 4
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd counts alpha electra <8 cpm (0, 2, 4) 3-7-00
3 bkgd counts alpha electra <8 cpm (0, 0, 3) 3-8-00

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	6	-4	12	16.	N/A			
2.	F	648	-20	7800	17.				
3.	F	84	4	1650	18.				
4.	F	6	16	78	19.				
5.	F	0	8	36	20.				
6.	10 < 2m	9	-28	678	21.				
7.	" "	3480	-20	8910	22.				
8.	" "	9	-40	366	23.				
9.	" "	6	-12	768	24.				
10.	" "	0	16	186	25.				
11.	" "	3	48	540	26.				
12.	" "	0	40	54	27.				
13.	" "	204	-16	4300	28.				
14.	N/A End of Survey				29.				
15.					30.				

Date Reviewed: 3-16-00 **RS Supervision:** Strueckrath / [signature]
Print Name Signature

[redacted]

RS FORMS 07.02-01

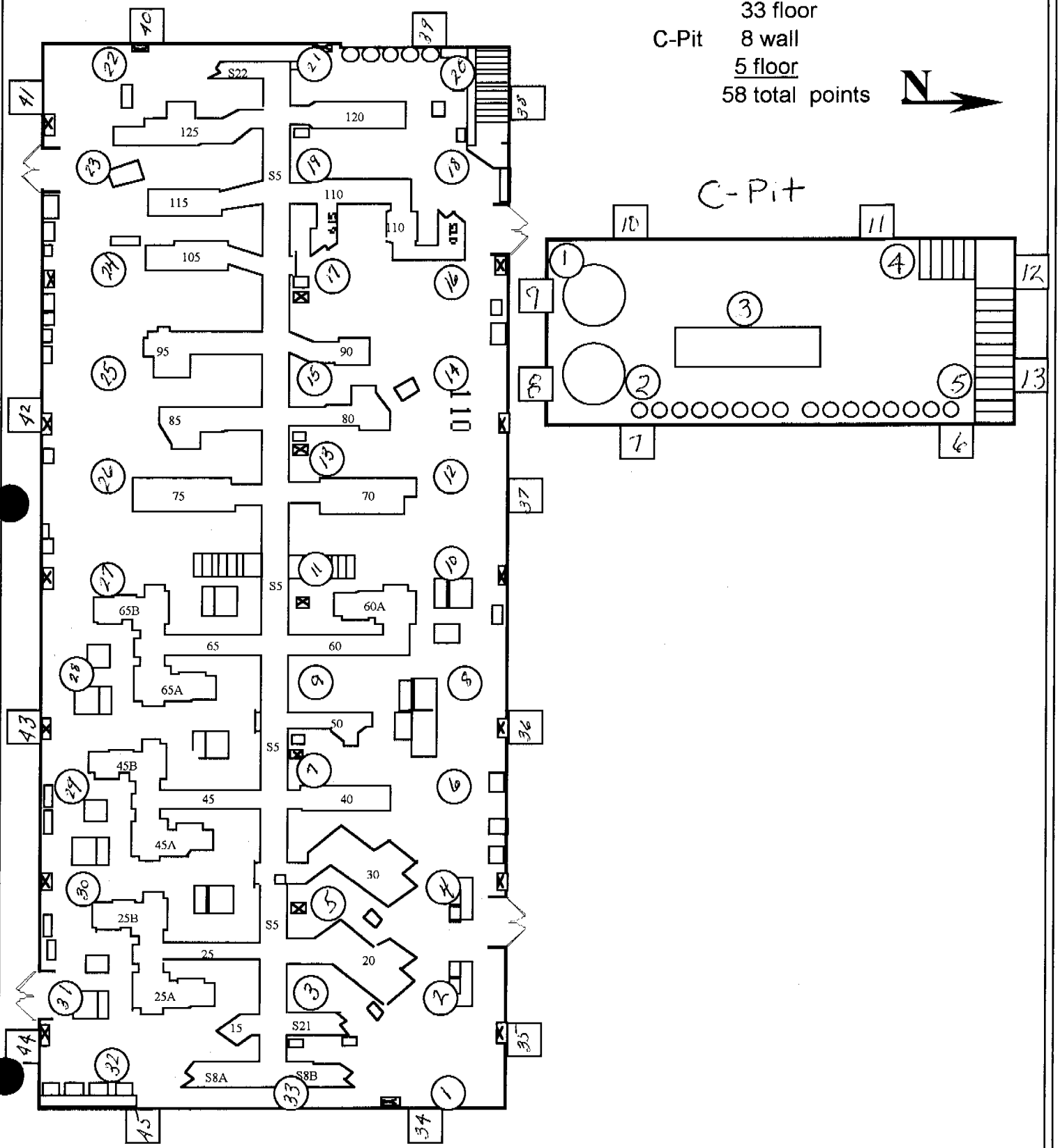
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 4 of 4

MODULE C

Floor / Walls <2meters unbiased
C-mod 12 wall
33 floor
C-Pit 8 wall
5 floor
58 total points



RS FORMS 07.02-01

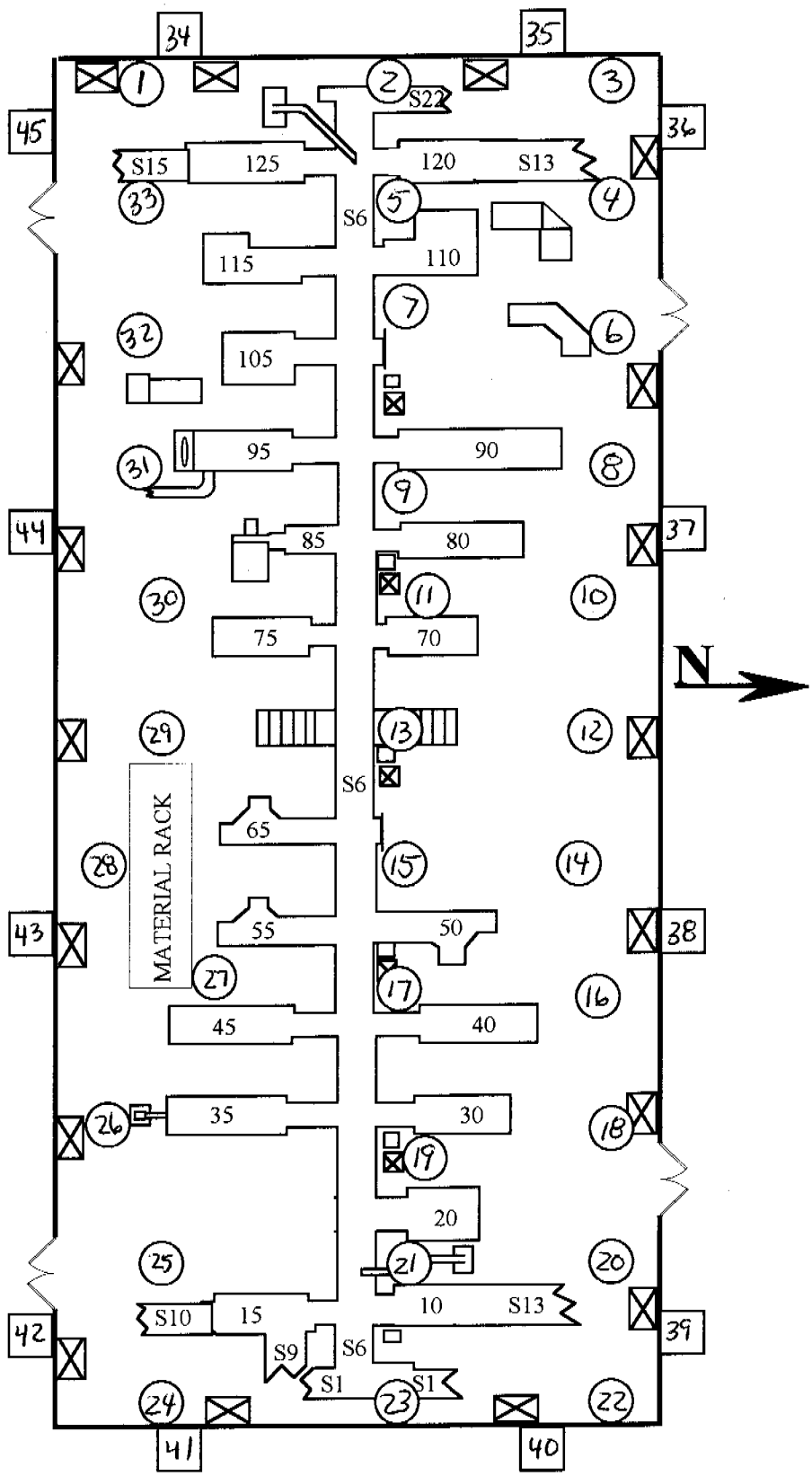
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Floor / Walls <2meters unbiased
12 wall
33 floor
45 total points

MODULE D



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#013/014	Matrix:	Waste
Site Sample ID:	009.002				
Other Sample ID:	707-P-09-00	Collection Date:	4/26/00	Date Received:	5/2/00
		Batch Number:	1929	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1929-09	0.227	0.112	0.121	0.036
ACW03	U-235	KH100-1929-09	0.043	0.059	0.060	0.079
ACW03	U-238	KH100-1929-09	0.180	0.101	0.107	0.064
ACW03	PU-238	KH100-1929-09	7.89	3.00	3.39	0.258
ACW03	PU-239/240	KH100-1929-09	217	68.2	80.9	0.258
ACW03	AM-241	KH100-1929-09	37.3	7.75	10.7	0.211

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

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CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 009
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-09-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams / 50 cm² (1/2 grid). ISO - 7 grams over 150 cm² (1 1/2 grids) Total = 200 cm² - 2 grids.

Location Description: Bldg. 707, Module C, floor next to N.W. Door

Other ID: 707-P-09-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/26/00 Sample Time: 13:15 Rad Screen Date: 4/26/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signature [redacted]
Employee Number: [redacted]

Date: 4/26/00 4/26/00

411

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#013/014	Matrix:	Waste
Site Sample ID:	010.002				
Other Sample ID:	707-P-10-00	Collection Date:	4/26/00	Date Received:	5/2/00
		Batch Number:	1929	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1929-10	0.057	0.074	0.075	0.101
ACW03	U-235	KH100-1929-10	-0.026	0.031	0.032	0.139
ACW03	U-238	KH100-1929-10	0.174	0.122	0.127	0.112
ACW03	PU-238	KH100-1929-10	6.78	2.72	3.04	0.270
ACW03	PU-239/240	KH100-1929-10	301	96.8	114	0.374
ACW03	AM-241	KH100-1929-10	22.9	4.42	6.37	0.144

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Pu	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB
Am	SCAQC-1929-LC1	SCAQC-1929-LD1	SCAQC-1929-PB

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CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 010
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-10-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/ 100 cm² (1 grid). I30 - 7 grams / 300 cm² (3 grids) Total = 400 cm² / 4 grids.

Location Description: Bldg. 707, Module C, floor under Glovebox C-110 directly under port 0014

Other ID: 707-P-10-00

Sample Appearance: Red paint scraping

Sampling Device: Heat gun & chisel

Sample Date: 4/26/00 Sample Time: 13:25 Rad Screen Date: 4/26/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signature: [redacted]
Employee Number: [redacted]

Date: 4/20/00 4/26/00

413

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	011.002				
Other Sample ID:	707-P-11-00	Collection Date:	4/26/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-01	0.072	0.065	0.066	0.039
ACW03	U-235	KH100-1930-01	0.011	0.038	0.038	0.085
ACW03	U-238	KH100-1930-01	0.057	0.058	0.059	0.039
ACW03	PU-238	KH100-1930-01B	26.2	11.1	12.3	0.746
ACW03	PU-239/240	KH100-1930-01B	912	342	388	0.746
ACW03	AM-241	KH100-1930-01B	74.9	10.8	18.5	0.194

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

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CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 011
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707P-11-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams, 100cm² (1 grid). ISO - 7 grams / 200cm² (2 grids) Total = 300cm² / 3 grids. ~~Bypass for events .011 through .040 is event .056~~ MN 4/26/00 MN 4/26/00

Location Description: Bldg. 707, Module C, floor under glovebox C-120 between ports 17 + 18 near Crit. drain.

Other ID: 707-P-11-00

Sample Appearance: Red paint scrapings with some purple paint.

Sampling Device: Heat gun, + chisel

Sample Date: 4/26/00 Sample Time: 13:48 Rad Screen Date: 4/26/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signature [redacted]
Employee Number:

Date: ~~05/01/00~~ 04/26/00 4/26/00

415

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Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	012.002				
Other Sample ID:	707-P-12-00	Collection Date:	4/26/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-02	0.078	0.070	0.071	0.067
ACW03	U-235	KH100-1930-02	0.052	0.060	0.062	0.047
ACW03	U-238	KH100-1930-02	0.230	0.117	0.126	0.066
ACW03	PU-238	KH100-1930-02	0.244	0.166	0.173	0.199
ACW03	PU-239/240	KH100-1930-02	8.65	1.25	2.14	0.083
ACW03	AM-241	KH100-1930-02	1.03	0.356	0.412	0.065

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

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416

038

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 012
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-12-00
FIELD BLANK ID:
EQUIPMENT BLANK ID:
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 gram over 50 cm² (1/2 grid). ISO - 7 grams over 150 cm² (1 1/2 grids). Total = 200 cm² (2 grids)

Location Description: Bldg. 707, Module C, floor outside of HCA, below glovebox C-6.0 under ports 9+10.

Other ID: 707-P-12-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/26/00 Sample Time: 14:42 Rad Screen Sample Date: 4/26/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee Nu[redacted]

Date: 4/26/00 4/26/00

417

Lmc 06/29/98

A-3
RLC RADIOLOGICAL DATA
Survey Area O
Concrete Core

418

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1197

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1197#003	Matrix:	Waste
Site Sample ID:	011.003				
Other Sample ID:	BLDG 707 Module C	Collection Date:	5/2/00	Date Received:	5/4/00
		Batch Number:	1937	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1937-01	0.924	0.240	0.303	0.037
ACW03	U-235	KH100-1937-01	0.044	0.060	0.061	0.080
ACW03	U-238	KH100-1937-01	0.880	0.233	0.292	0.037
ACW03	PU-238	KH100-1937-01	0.030	0.042	0.043	0.040
ACW03	PU-239/240	KH100-1937-01	0.000	0.000	0.000	0.040
ACW03	AM-241	KH100-1937-01	-0.006	0.012	0.012	0.069

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Pu	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Am	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB

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419

027

A-3
RLC RADIOLOGICAL DATA
Survey Area P
1st Floor, Module D [Room 115]

420

Radiological Survey/Sample Results for Survey Area P (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	-12	N/A
MAX	324	N/A
MEAN	22.9	N/A
STD DEV	50.3	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	7	7
MIN	6	N/A
MAX	54	N/A
MEAN	19.7	N/A
STD DEV	17.2	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	6	N/A
MAX	60	N/A
MEAN	20.2	N/A
STD DEV	15.4	N/A
Equipment Biased	# Required	# Obtained
	40	40
MIN	6	N/A
MAX	9700	N/A
MEAN	625.5	N/A
STD DEV	1969.5	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	0	-60
MAX	3	100
MEAN	0.7	26.4
STD DEV	1.3	34.3
Floors/Walls < 2 m Biased	# Required	# Obtained
	7	7
MIN	0	-44
MAX	3	52
MEAN	0.4	-1.7
STD DEV	1.1	35.8
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	0
MAX	3	48
MEAN	0.9	20.3
STD DEV	1.4	11.7
Equipment Biased	# Required	# Obtained
	40	40
MIN	0	0
MAX	39	76
MEAN	3.2	23.3
STD DEV	7.7	19.0
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
4	3

Total Uranium Results dpm/100 cm^2

MIN	1
MAX	3
MEAN	2.0
STD DEV	1.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	16
MAX	199
MEAN	123.3
STD DEV	95.5
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.1 cpm	Bkg. 0.0 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 11.5 DPM	MDA 8.2 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 58 cpm	Bkg. 52 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 116 DPM	MDA 110.4 DPM	MDA

Survey Type: Contamination
Building: 707
Location: D - mod Survey Area P
Purpose: Reconnaisance Level Characterization
RWP # 00-707-1204
Date: 3-8-00 Time: 1530

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd readings < 8cpm alpha (0,0,4) electra

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	CRIT DRAIN	0	-40	6	16.				
2.	Floor	0	52	54	17.				
3.	Floor	0	-44	18	18.				
4.	Crit Drain	0	-4	12	19.				
5.	Floor	3	28	12	20.				
6.	Floor	0	-20	30	21.				
7.	Floor	0	16	6	22.				
8.	END OF SURVEY				23.	N/A			
9.					24.				
10.					25.				
11.	N/A				26.				
12.					27.				
13.					28.				
14.					29.				
15.					30.				

Date Reviewed: 3-14-00 RS Supervision: Stan Kraftn [signature]
Print Name Signature

[redacted]

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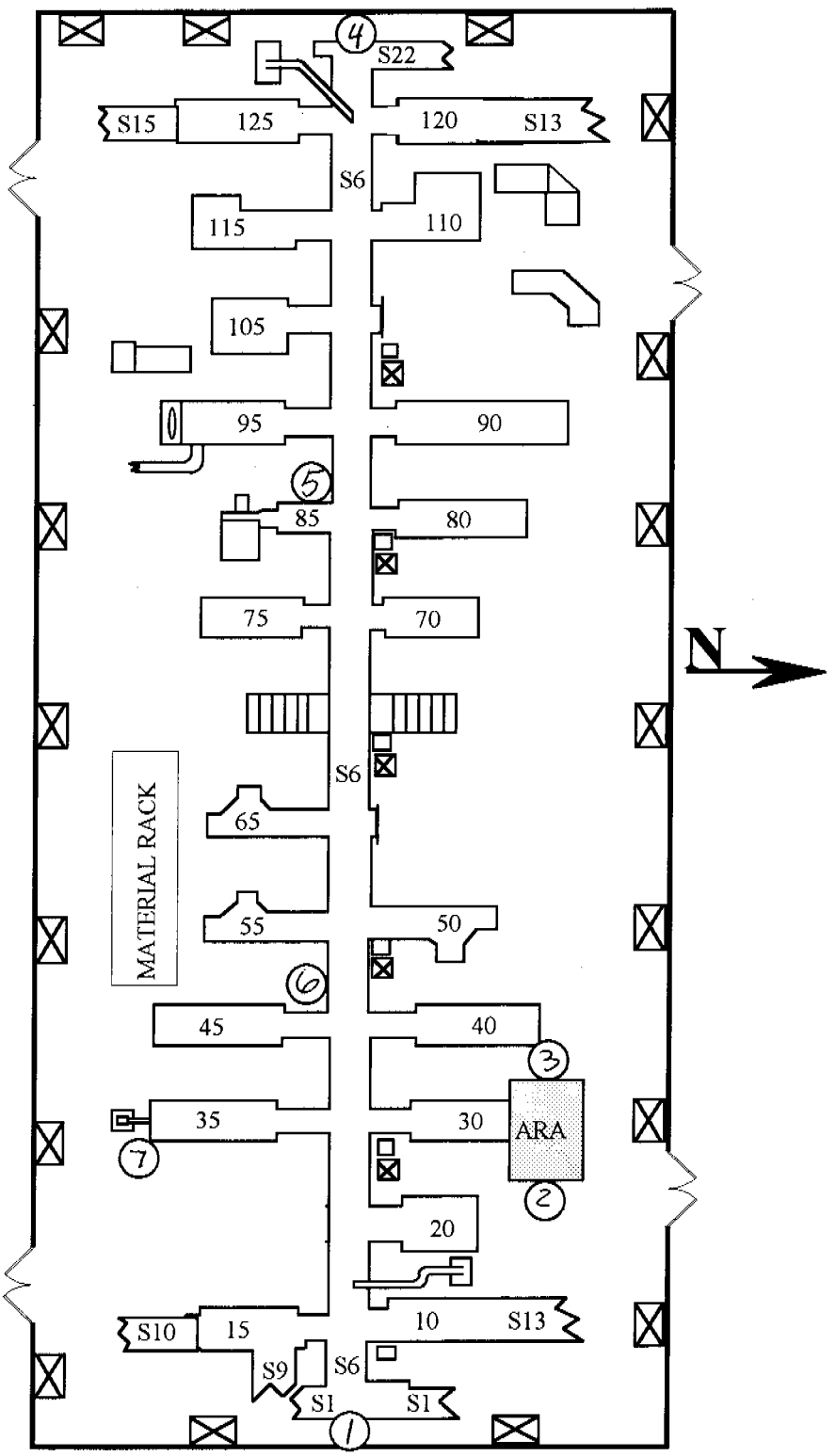
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE D



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1389
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. α 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.77%
MDA 11.5 DPM	MDA 12.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 51 cpm	Bkg. 63 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 109.4 DPM	MDA 120.4 DPM	MDA

Survey Type: Contamination
Building: 707
Location: D-mod Survey Area P
Purpose: Reconnaisance Level Characterization
RWP # 00-707-1204
Date: 3-9-00 Time: 1500

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.
3 background readings alpha <8cpm (1,3,3) electra

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	WALLS	0	12	18.0	16.	WALLS	0	12	12.0
2.	"	0	(28)	54.0	17.	"	3	(20)	30.0
3.	"	0	(40)	30.0	18.	"	3	8	18.0
4.	"	0	0	60.0	19.	"	3	(12)	12.0
5.	"	3	(12.0)	18.0	20.	"	0	(36)	6.0
6.	"	0	(48)	18.0	21.	"	0	(32)	(6.0)
7.	"	0	(28)	(12.0)	22.	"	0	(20)	6.0
8.	"	0	(12)	12.0	23.	"	0	(20)	18.0
9.	"	3	(24)	6.0	24.	OVERHEAD	3	(12)	18.0
10.	"	0	(20)	24.0	25.	"	0	36	6.0
11.	"	0	(32)	(6.0)	26.	"	0	12	48.0
12.	"	0	12	6.0	27.	"	0	(24)	(6.0)
13.	"	3	8	(6.0)	28.	"	3	8	36.0
14.	"	0	24	36.0	29.	"	3	(36)	24.0
15.	"	0	(12)	12.0	30.	"	0	8	42.0

Date Reviewed: 3-14-00 **RS Supervision:** Stan Kraft [redacted]
Print Name Signature

RS FORMS 07.02-01

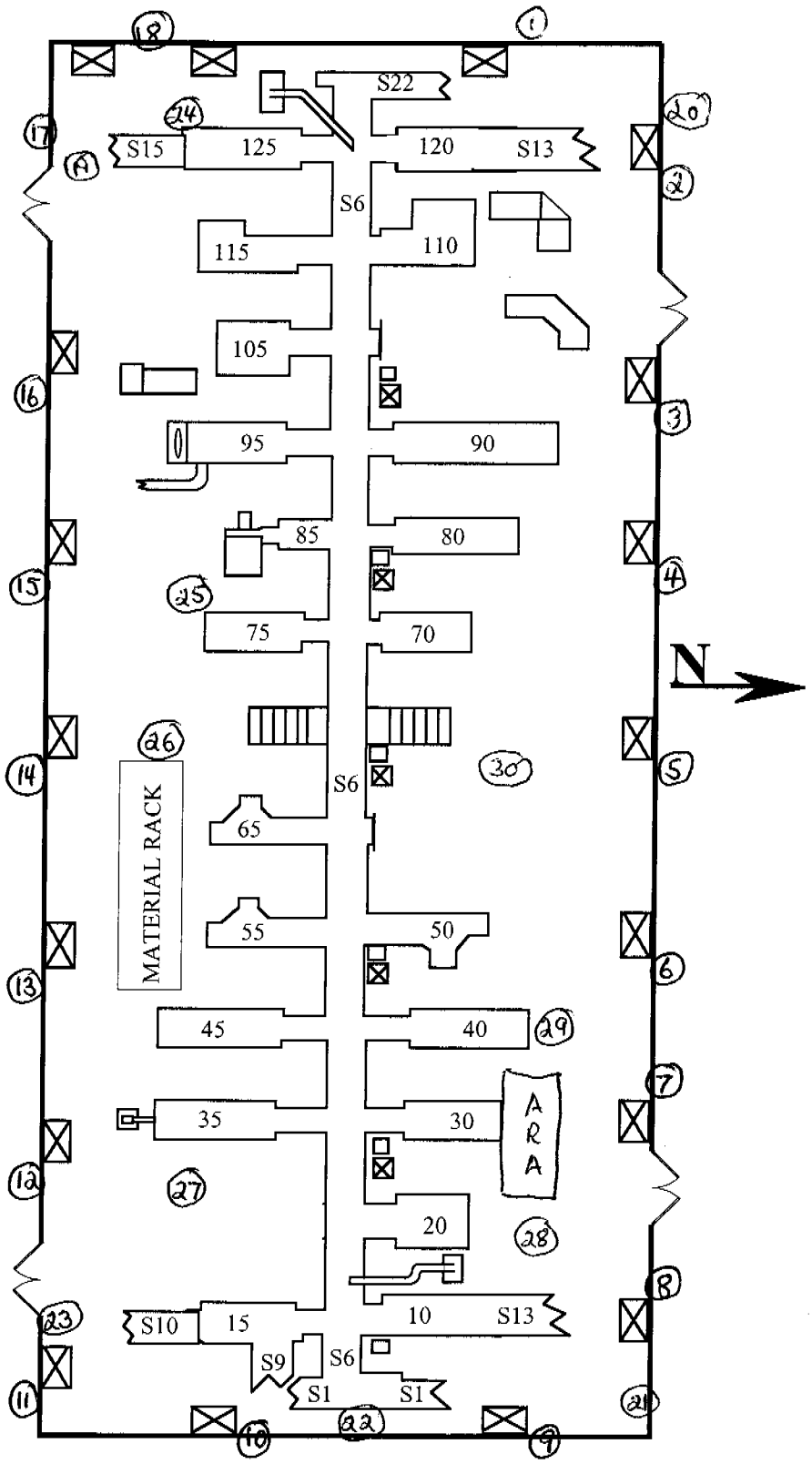
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Ceiling / Walls >2 meters
30 biased points

MODULE D



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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.0 cpm	Bkg. 0.5 cpm	Bkg. ~3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 8.2 DPM	MDA 16.6 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 61 cpm	Bkg. 52 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 118.6 DPM	MDA 110.4 DPM	MDA

Survey Type: Contamination

Building: 707

Location: D-MOD Survey Area P

Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-10-00 Time: 1500

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
3 background counts alpha ~8cpm (0,3,7) electra

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	EXHAUST DUCT	0	(16)	162.0	16.	GB	0	36	48.0
2.	" "	0	(24)	144.0	17.	BAG OUT (0012)	6	(48)	(6.0)
3.	" "	0	(24)	120.0	18.	GB	39	(8)	582.0
4.	" "	0	12	276.0	19.	GB - SAMPLE PORT	3	(12)	54.0
5.	" "	0	36	180.0	20.	GB	0	(4)	(6.0)
6.	" "	0	(4)	102.0	21.	BAG OUT (0016)	3	4	30.0
7.	" "	0	8	270.0	22.	BAG OUT (0012)	3	48	12.0
8.	" "	0	8	102.0	23.	GB	0	(16)	6.0
9.	" "	0	12	90.0	24.	GB	0	76	1818.
10.	" "	0	48	204.0	25.	GB	6	48	8.1K
11.	" "	0	24	60.0	26.	GB	0	8	12.0
12.	" "	3	32	60.0	27.	GB	3	(16)	96.0
13.	BAG OUT (0222)	3	8	30.0	28.	GB	6	(32)	42.0
14.	GB	6	4	6.0	29.	GB	3	(24)	1560.
15.	BAG OUT	0	(20)	72.0	30.	BAG OUT (0183E)	6	72	72.0

Date Reviewed: 3-14-00 RS Supervision: Stan Kraft (Print Name) [signature] (Signature)

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	GB	0	(36)	(6.0)	61.				
32.	GB	0	0	894.0	62.				
33.	GB	30	52	9.7K	63.				
34.	GB	3	(40)	18.0	64.				
35.	GB	0	(16)	6.0	65.				
36.	OVERHEAD PIPING	0	8	6.0	66.				
37.	"	3	(24)	12.0	67.				
38.	"	0	4	6.0	68.				
39.	"	0	8	36.0	69.				
40.	"	0	(12)	12.0	70.				
41.	END OF SURVEY				71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.	N/A			
47.					77.				
48.					75.				
49.					79.				
50.	N/A				80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

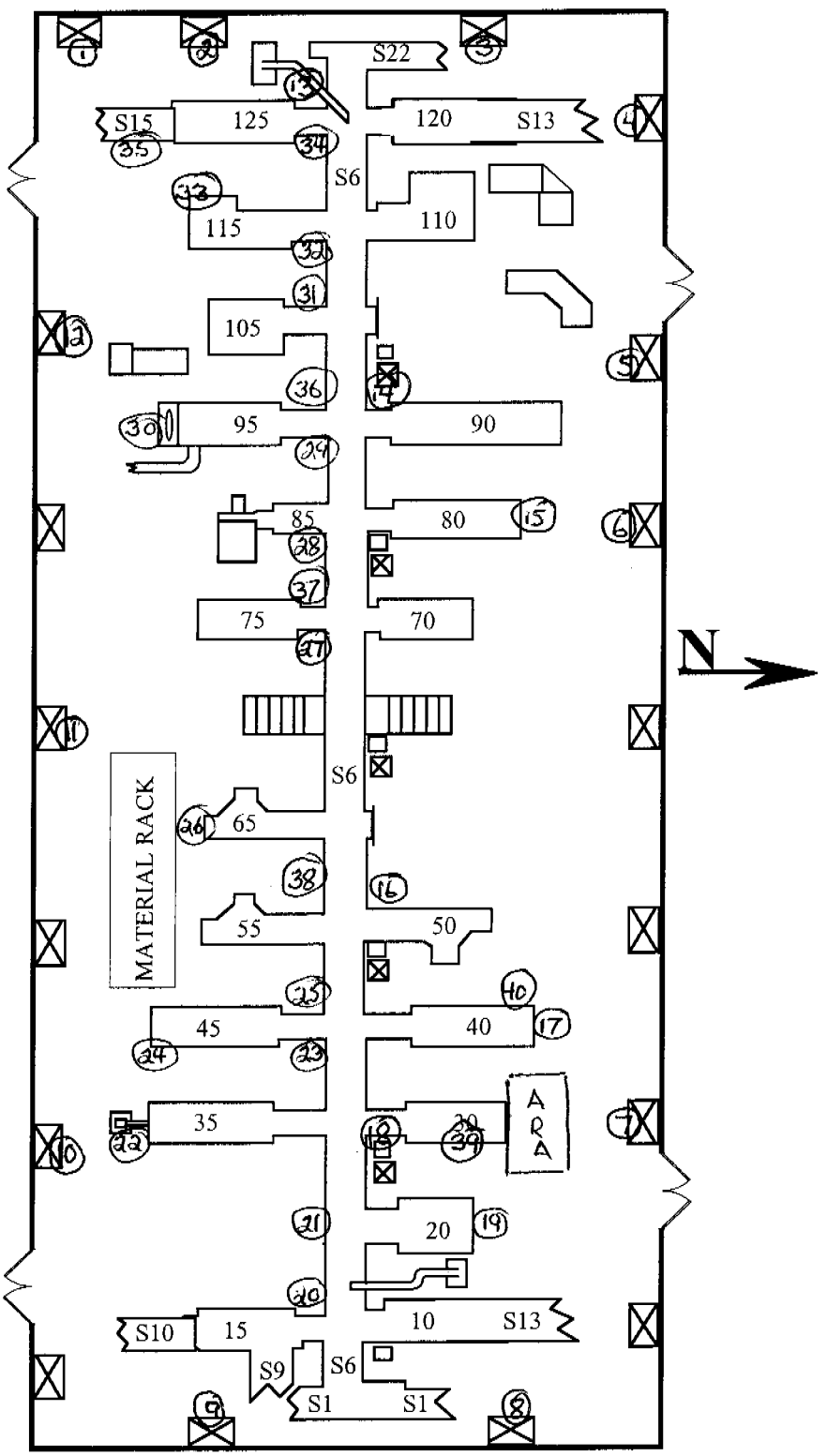
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Equipment
40 biased points

MODULE D



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1245
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.1 cpm	Bkg. 0.4 cpm	Bkg. ≈ 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 22.36%
MDA 11.5 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 47 cpm	Bkg. 44 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 105.5 dpm	MDA 102.4 dpm	MDA

Survey Type: Contamination
Building: 707
Location: Module D Survey Area P
Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-6-00 Time: 1600

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd Counts alpha < 8cpm electra (1,4,5)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	8	12	16.	Floor	0	64	48
2.	Floor	0	28	18	17.	Floor	0	44	12
3.	Floor	0	-4	21	18.	Floor	0	-24	12
4.	Floor	0	56	18	19.	Floor	0	32	6
5.	Floor	0	4	36	20.	Floor	0	32	12
6.	Floor	3	0	18	21.	Floor	3	24	12
7.	Floor	0	88	30	22.	Floor	3	16	24
8.	Floor	0	92	24	23.	Floor	3	-8	-6
9.	Floor	3	20	90	24.	Floor	0	12	324
10.	Floor	0	-12	60	25.	Floor	0	36	0
11.	Floor	3	32	6	26.	Floor	0	68	6
12.	Floor	0	-12	~~32~~ 48	27.	Floor	0	-24	-12
13.	Floor	0	32	24	28.	Floor	0	24	-12
14.	Floor	0	40	12	29.	Floor	0	44	6
15.	Floor	0	88	66	30.	Floor	0	4	12

Date Reviewed: 3-14-00 **RS Supervision:** Stuckert / [illegible] [redacted]
Print Name Signature

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Floor	0	24	12	61.				
32.	Floor	0	-32	6	62.				
33.	Floor	0	64	6	63.				
34.	wall	3	40	18	64.				
35.	wall	0	44	-6	65.				
36.	wall	0	36	0	66.				
37.	wall	3	100	12	67.				
38.	wall	3	28	12	68.				
39.	wall	0	32	-6	69.				
40.	wall	3	16	6	70.				
41.	wall	0	76	6	71.				
42.	wall	0	8	12	72.				
43.	wall	0	4	6	73.				
44.	wall	0	4	-12	74.				
45.	wall	0	-60	30	75.	N/A			
46.	End of Survey				76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.	N/A				83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	013.002				
Other Sample ID:	707-P-13-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-03	0.096	0.068	0.071	0.032
ACW03	U-235	KH100-1930-03	0.009	0.032	0.032	0.071
ACW03	U-238	KH100-1930-03	0.174	0.094	0.100	0.057
ACW03	PU-238	KH100-1930-03	0.545	0.216	0.242	0.196
ACW03	PU-239/240	KH100-1930-03	33.4	4.28	7.93	0.064
ACW03	AM-241	KH100-1930-03	4.46	0.955	1.31	0.063

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

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CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 013
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-13-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen 2 grams/ 50cm² (1/2 grid). ISO-7 grams over 250cm² (2 1/2 grids) Total 300cm² (3 grids).

Location Description: Bldg. 707, Module D, inside on floor just west of doors 76+77.

Other ID: 707-P-13-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/27/00 Sample Time: 12:50 Rad Screen Date: 4/27/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signature: [redacted]
Employee Number: [redacted]

Date: 4/27/00 4/27/00

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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	014.002				
Other Sample ID:	707-P-14-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-04	0.179	0.094	0.100	0.055
ACW03	U-235	KH100-1930-04	0.028	0.040	0.041	0.038
ACW03	U-238	KH100-1930-04	0.252	0.110	0.121	0.031
ACW03	PU-238	KH100-1930-04	0.540	0.234	0.258	0.222
ACW03	PU-239/240	KH100-1930-04	25.0	3.50	6.11	0.073
ACW03	AM-241	KH100-1930-04	3.34	0.864	1.09	0.141

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 014
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-14-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID:
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen 2 grams / 50 cm² (1/2 grid). TSO-7 grams / 250 cm² (2 1/2 grids). Total = 300 cm² (3 grids).

Location Description: Building 707, Module D, floor under glovebox D-20 in between ports 0395 + 0396.

Other ID: 707-P-14-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + Chisel

Sample Date: 4/27/00 Sample Time: 13:20 Rad Screen Date: 4/27/00

Was generator notified to receive excess sample? (YES) X (NO)

Samplers Signature: [redacted]
Employee Number:

Date: 4/27/00 4/27/00

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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	015.002				
Other Sample ID:	707-P-15-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-05	0.092	0.070	0.072	0.036
ACW03	U-235	KH100-1930-05	0.010	0.035	0.035	0.078
ACW03	U-238	KH100-1930-05	0.183	0.099	0.106	0.035
ACW03	PU-238	KH100-1930-05	0.028	0.113	0.113	0.182
ACW03	PU-239/240	KH100-1930-05	2.53	0.469	0.689	0.060
ACW03	AM-241	KH100-1930-05	0.327	0.188	0.199	0.115

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

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041

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 015
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-15-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen 2 grams/50cm² (1/2 grid). ISO-mg 7 gram/250cm² (2 1/2 grids). Total - 300cm² (3 grids) 9 grams

Location Description: Bldg. 707, Module D, on the floor near crit. drain that is connected to conveyor 8-1, directly under ports 0569 + 0570.

Other ID: 707-P-15-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/27/00 Sample Time: 13:35 Rad Screen Date: 4/27/00

Was generator notified to receive excess sample? (YES) X (NO) ____

[redacted]

Samplers Signature:
Employee Number:

Date: 4/27/00 4/27/00

436

A-3
RLC RADIOLOGICAL DATA
Survey Area Q
1st Floor, Module E [Room 120]

Radiological Survey/Sample Results for Survey Area Q (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	-6	N/A
MAX	120	N/A
MEAN	17.5	N/A
STD DEV	23.0	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	7	7
MIN	12	N/A
MAX	108	N/A
MEAN	59.1	N/A
STD DEV	40.0	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	60	N/A
MEAN	20.6	N/A
STD DEV	13.9	N/A
Equipment Biased	# Required	# Obtained
	40	40
MIN	18	N/A
MAX	7536	N/A
MEAN	312.9	N/A
STD DEV	1179.7	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	0	-96
MAX	6	56
MEAN	0.7	-2
STD DEV	1.6	39.1
Floors/Walls < 2 m Biased	# Required	# Obtained
	7	7
MIN	0	-32
MAX	6	88
MEAN	1.3	5.7
STD DEV	2.4	41.9
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-52
MAX	3	60
MEAN	0.7	-2.5
STD DEV	1.3	26.4
Equipment Biased	# Required	# Obtained
	40	40
MIN	0	-40
MAX	195	80
MEAN	7.8	19
STD DEV	30.8	32.3
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
3	3

Total Uranium Results dpm/100 cm^2

MIN	3
MAX	7
MEAN	4.7
STD DEV	2.1
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	8
MAX	31
MEAN	16.7
STD DEV	12.5
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86
MDA 11.5 dpm	MDA 12.9 dpm	MDA ~~49.3~~ 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 51 cpm	Bkg. 63 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 109.4 DPM	MDA 120.4 DPM	MDA

Survey Type: Contamination
Building: 707
Location: MODULE E Survey Area Q
Purpose: Reconnaisance Level Characterization
RWP # 00-707-1204
Date: 3-9-00 Time: 1400

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
Three Background Counts in Module = 3cpm, 1cpm, 4cpm electra (Alpha)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	W	0	8	~~18~~ 18	16.	F	0	-24	0
2.	F	3	-40	12	17.	F	0	20	18
3.	W	0	18	12	18.	F	0	-20	-6
4.	F	0	-28	24	19.	W	0	-4	18
5.	F	6	24	-6	20.	F	0	0	0
6.	F	6	4	0	21.	F	0	40	6
7.	F	0	44	36	22.	F	0	-76	78
8.	F	0	-96	0	23.	F	3	40	12
9.	F	0	16	-6	24.	W	0	24	24
10.	F	0	-15	6	25.	F	0	4	30
11.	F	0	36	12	26.	F	0	-40	18
12.	W	0	-20	6	27.	W	0	20	12
13.	F	0	24	6	28.	F	0	40	18
14.	F	0	-60	12	29.	W	0	-4	-6
15.	F	0	25	60	30.	F	3	36	24

Date Reviewed: 3-10-00 **RS Supervision:** Stueckrath / [signature]
Print Name Signature

[redacted]

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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	W	0	-68	36	61.				
32.	F	3	40	-6	62.				
33.	F	0	-64	24	63.				
34.	F	0	44	24	64.				
35.	W	0	-40	6	65.				
36.	F	0	-12	18	66.				
37.	F	0	-28	30	67.				
38.	F	3	16	18	68.				
39.	W	0	44	0	69.				
40.	F	0	16	120	70.				
41.	F	0	-52	6	71.				
42.	F	0	56	6	72.				
43.	W	3	-32	6	73.				
44.	F	0	52	42	74.				
45.	W	0	-56	18	75.				
46.	END OF SURVEY				76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.	N/A				83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

N/A

RS FORMS 07.02-01

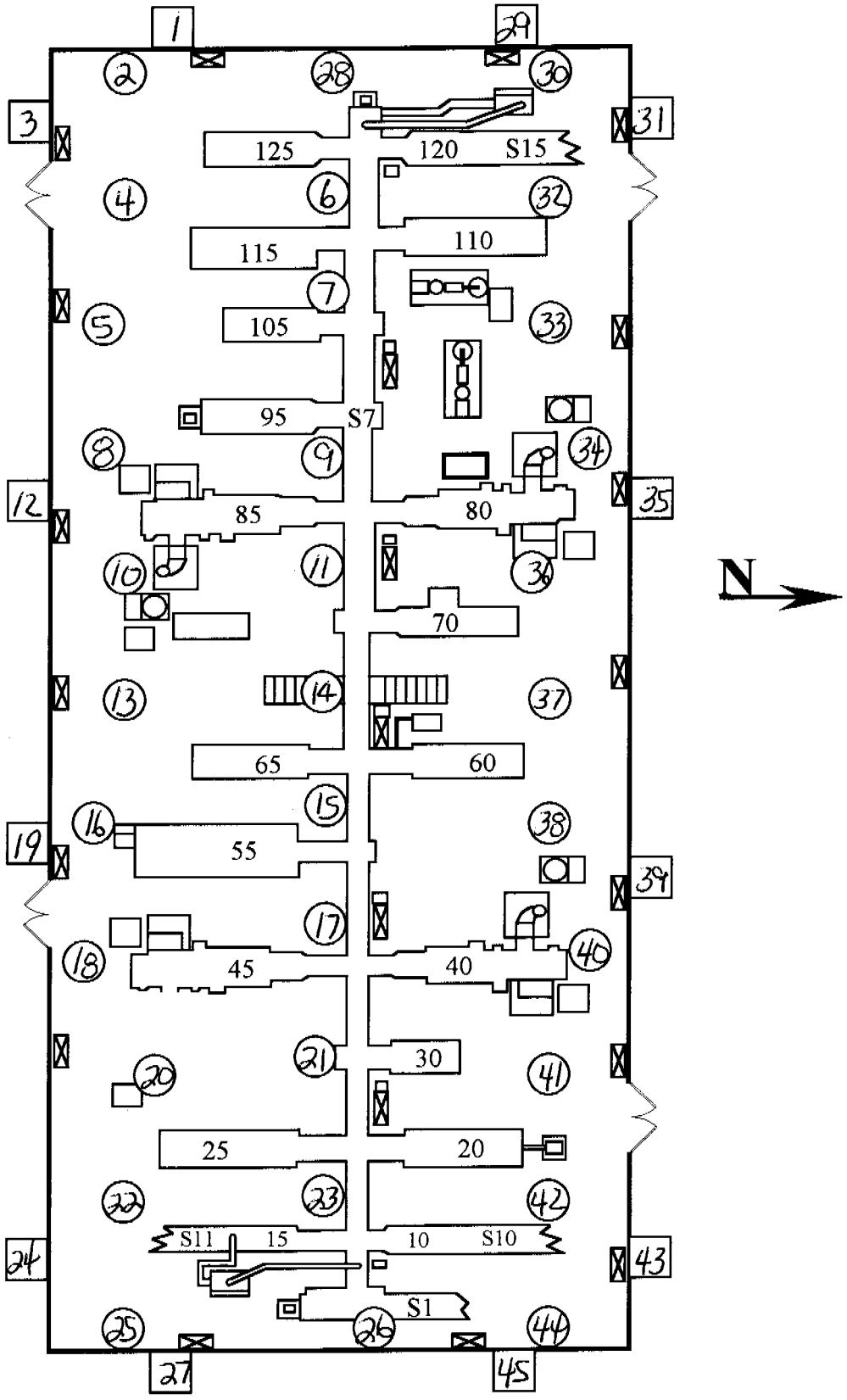
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Floor / Walls <2meters unbiased
12 wall
33 floor
45 total points

MODULE E



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3120
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 4-26-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 51 cpm	Bkg. 53 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 109.4 dpm	MDA 111.3 dpm	MDA

Survey Type: Contamination
Building: 707
Location: Module E Survey Area Q
Purpose: Reconnaisance Level Characterization
RWP # 00-707-1204
Date: 3-9-00 Time: 1630

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd counts <8cpm alpha (2,2,5) - Electra
No Contained Contam areas (but SSC's) - so took more reading by crit drains

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor by SSC (E-65)	0	88	66	16.				
2.	F. crit drain E-45	0	32	108	17.				
3.	F. crit drain centerline	6	-32	102	18.				
4.	F. crit drain E-40	0	-24	78	19.				
5.	Floor by SSC (E-70)	0	-16	12	20.				
6.	F. crit drain E-110	3	-12	36	21.				
7.	F. crit drain centerline	0	4	12	22.				
8.	End of Survey				23.	N/A			
9.					24.				
10.					25.				
11.					26.				
12.	N/A				27.				
13.					28.				
14.					29.				
15.					30.				

Date Reviewed: 3-14-00 **RS Supervision:** Stan Kraft (Print Name) [signature] (Signature) [redacted]

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RS FORMS 07.02-01

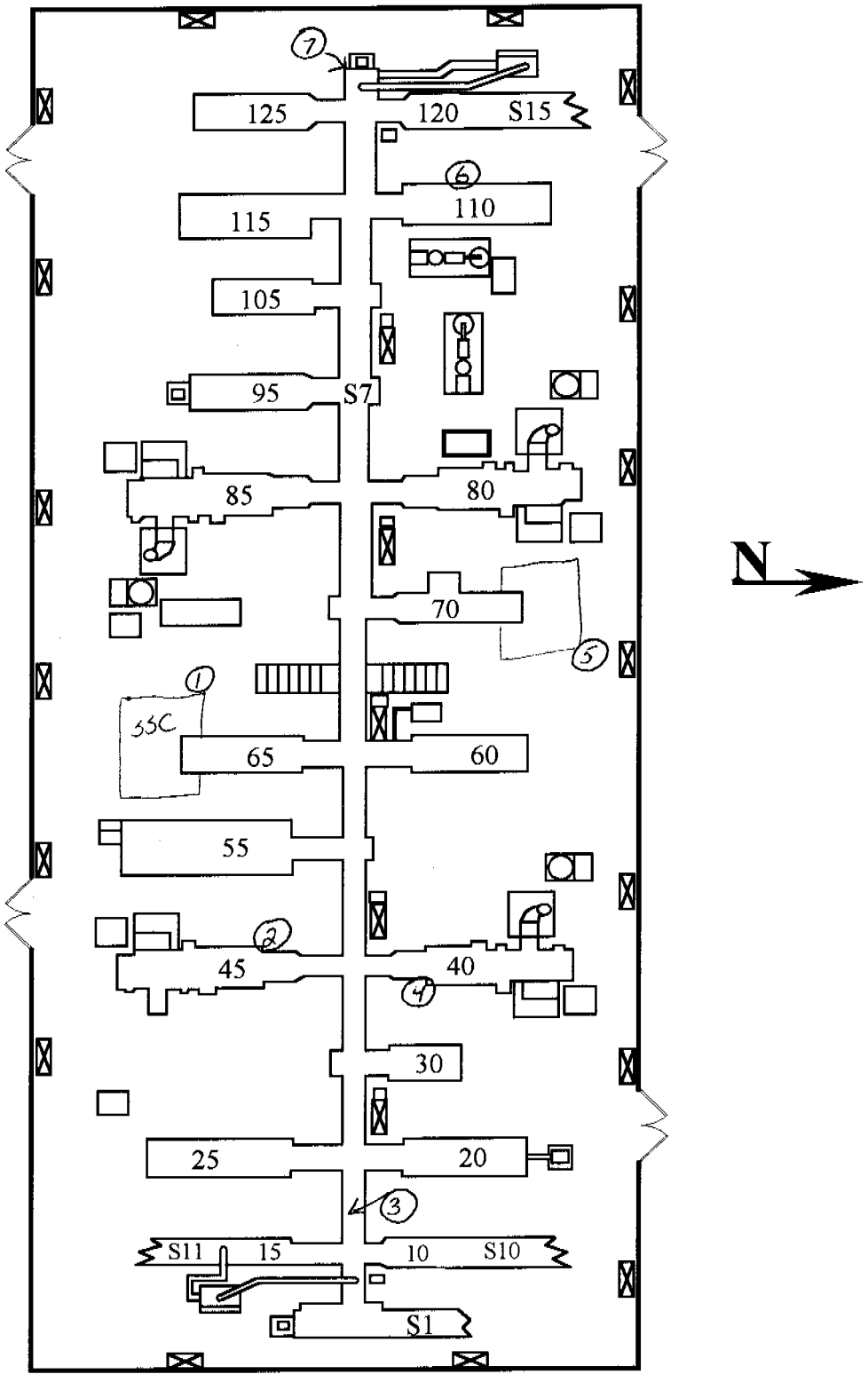
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Floors/walls <2 m Biased

MODULE E



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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3120
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 4-26-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 51 cpm	Bkg. 53 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 109.4 dpm	MDA 111.3 dpm	MDA

Survey Type: **Contamination**

Building: **707**

Location: Module E Survey Area Q

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-9-00 Time: 1630

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
3 bkgd Counts alpha <8cpm (1,1,0) electra
overhead pipes too difficult to access NO survey points in overhead

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	E-125 port 214	0	-8	48	16.	E-45	0	-32	78
2.	E-125 port 216	3	-28	18	17.	centerline Port	0	24	132
3.	E-125	0	-20	600	18.	E-25 port 430	195	0	492
4.	E-115 port 231	3	12	54	19.	E-25 port 432	3	64	132
5.	E-115 port 239	0	60	36	20.	E-25 tooldrop	0	4	102
6.	E-115 port 246	0	76	42	21.	E-15	9	48	102
7.	E-105 connect to centerline	27	12	7536	22.	S-1 tooldrop	6	-40	54
8.	E-95 port 285	3	76	72	23.	E-10	6	16	108
9.	E-95 tooldrop	0	24	42	24.	E-20 Bag Port	0	20	138
10.	E-85 Pump	0	-16	24	25.	E-20 connect	0	80	486
11.	E-85 port 336	0	48	66	26.	E-30 tooldrop	3	-16	90
12.	E-65 tooldrop	0	20	96	27.	E-40	0	56	390
13.	E-65	0	-12	66	28.	E-60	3	12	96
14.	E-55 connect	0	56	126	29.	E-70	0	44	36
15.	E-45 port 411	6	-28	96	30.	E-80 port 182	0	-12	30

Date Reviewed: 3-14-00 **RS Supervision:** Stueckrath / [signature]
Print Name Signature

[redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	E-80	0	20	36	61.				
32.	E-110 Bag Port	0	-8	36	62.				
33.	E-120 port 197	12	40	96	63.				
34.	Vent	6	32	60	64.				
35.	Vent	3	52	108	65.				
36.	Vent	3	12	390	66.				
37.	Vent	18	8	174	67.				
38.	Vent	3	0	156	68.				
39.	vent	0	48	24	69.				
40.	crit drain Pipe	0	16	48	70.				
41.	End of survey				71.				
42.					72.				
43.					73.				
44.					74.	N/A			
45.					75.				
46.					76.				
47.					77.				
48.					75.				
49.					79.				
50.	N/A				80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

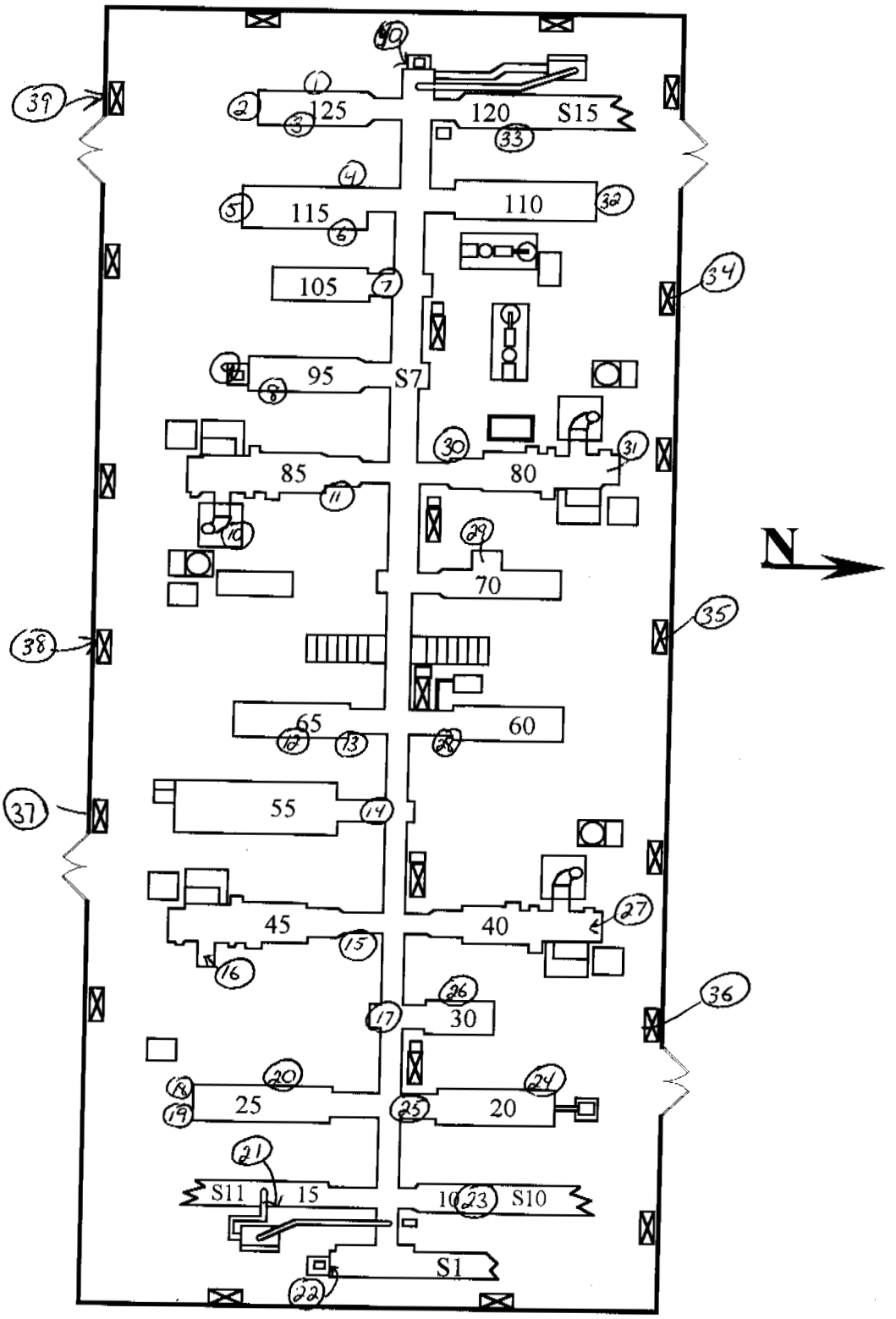
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Equipment

MODULE E



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.1 cpm	Bkg. 0.0 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 115 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 58 cpm	Bkg. 52 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 116.0 dpm	MDA 110.4 dpm	MDA

Survey Type: Contamination
Building: 707
Location: Module E Survey Area Q
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-8-00 Time: 1630

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.
3 background counts alpha <8cpm (4,4,5) electra
Sump below ceiling tiles

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	wall	0	4	6	16.	Ceiling	3	48	12
2.	wall	0	0	18	17.	Ceiling	0	-32	30
3.	wall	0	8	30	18.	Ceiling	0	36	18
4.	wall	3	60	42	19.	Ceiling	0	-24	24
5.	wall	0	-16	48	20.	Ceiling	0	-32	24
6.	wall	0	-4	12	21.	Ceiling	0	-32	18
7.	wall	0	4	30	22.	Ceiling	0	-12	12
8.	wall	0	12	24	23.	Ceiling	0	-8	0
9.	wall	0	-28	6	24.	Ceiling	3	-20	24
10.	wall	0	-8	6	25.	Ceiling	0	32	18
11.	wall	3	-36	6	26.	Ceiling	0	0	30
12.	wall	0	-12	12	27.	Ceiling	0	0	30
13.	wall	0	4	12	28.	Ceiling	3	-4	60
14.	wall	3	-24	18	29.	Ceiling	3	-52	36
15.	wall	0	32	6	30.	Ceiling	0	28	6

Date Reviewed: 3-14-00 **RS Supervision:** Shultrath / [signature]
Print Name Signature

[redacted]

RS FORMS 07.02-01

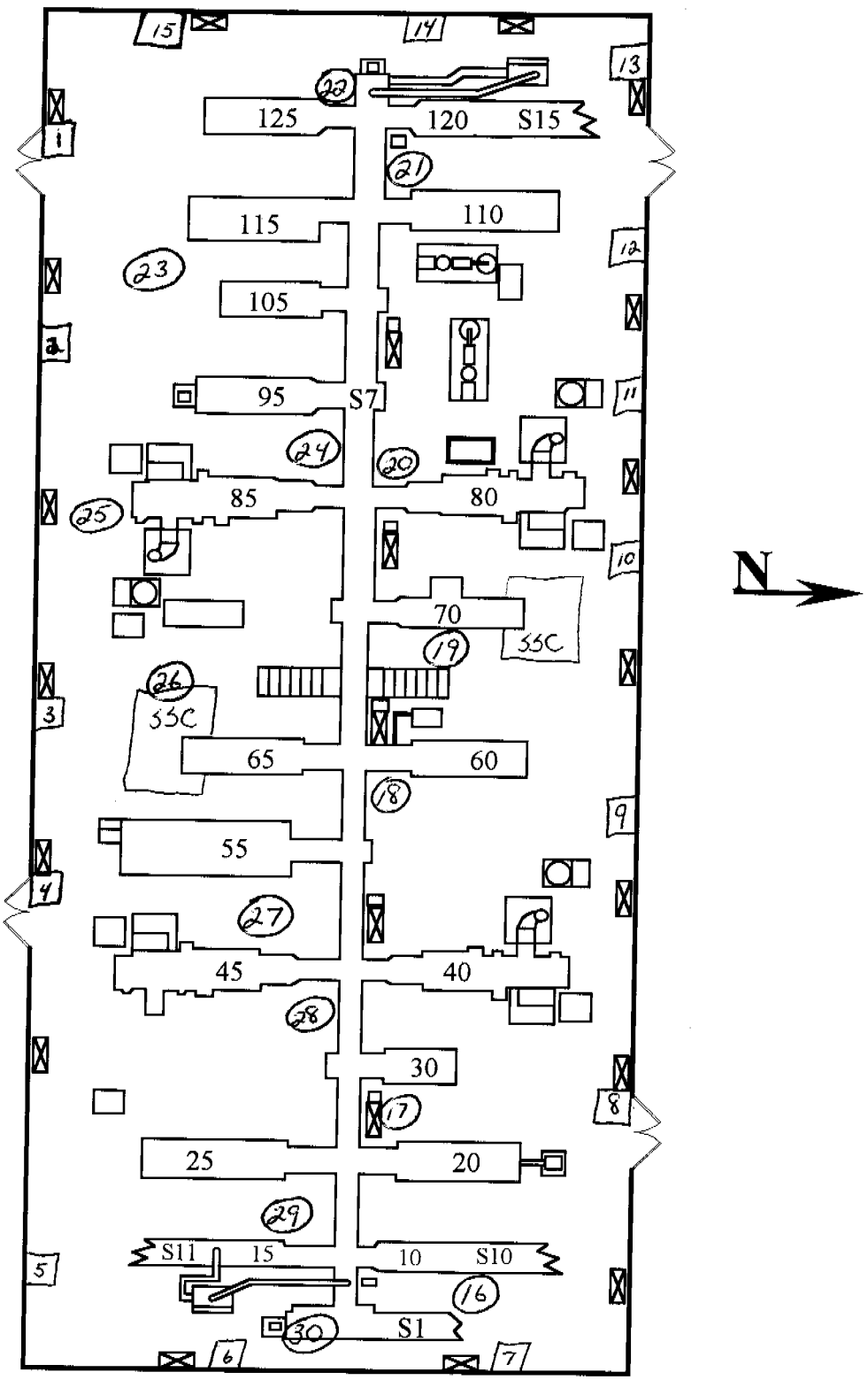
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Ceilings + walls >2M

MODULE E



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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	016.002				
Other Sample ID:	707-P-16-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-06	0.182	0.098	0.105	0.060
ACW03	U-235	KH100-1930-06	0.061	0.062	0.064	0.042
ACW03	U-238	KH100-1930-06	0.533	0.169	0.200	0.034
ACW03	PU-238	KH100-1930-06	0.129	0.127	0.129	0.165
ACW03	PU-239/240	KH100-1930-06	1.86	0.414	0.556	0.085
ACW03	AM-241	KH100-1930-06	0.257	0.154	0.162	0.058

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 016
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-16-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radium 2 gram/100 cm² (1 grid). 250-7 grams over 250 cm² (2½ grids). Total = 9 grams/300 cm² (3 grids).

Location Description: Bldg. 707, Module E, ~~Air~~ 4/27/00 floor near Crit. drain, under glovebox E-55, between ports 0622 + 0623

Other ID: 707-P-16-00

Sample Appearance: Red paint scrapings

Sampling Device: Neat gun + chisel

Sample Date: 4/27/00 Sample Time: 14:20 Rad Screen Date: 4/27/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signature: [redacted]
Employee Number:

Date: 4/27/00 4/27/00

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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	017.002				
Other Sample ID:	707-P-17-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-07	0.408	0.156	0.176	0.066
ACW03	U-235	KH100-1930-07	0.051	0.059	0.061	0.046
ACW03	U-238	KH100-1930-07	0.456	0.166	0.189	0.078
ACW03	PU-238	KH100-1930-07	0.072	0.116	0.117	0.173
ACW03	PU-239/240	KH100-1930-07	2.09	0.445	0.611	0.072
ACW03	AM-241	KH100-1930-07	0.238	0.164	0.170	0.072

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

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CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 017
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-17-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/100cm2 (1 grid). ISO - 7 grams/350cm2 (3 1/2 grids). Total = 450 cm2 (4 1/2 grids).

Location Description: Bldg. 707, Module E, inside ~~clo~~ SE doors on floor, below fire extinguisher 707-45

Other ID: 707-P-17-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/21/00 Sample Time: 14:37 Rad Screen Date: 4/27/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signature: [redacted]
Employee Number: [redacted]

Date: 4/27/00 4/27/00

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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	018.002				
Other Sample ID:	707-P-18-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-08	0.650	0.199	0.238	0.065
ACW03	U-235	KH100-1930-08	0.044	0.060	0.061	0.081
ACW03	U-238	KH100-1930-08	0.307	0.134	0.147	0.065
ACW03	PU-238	KH100-1930-08	-0.060	0.108	0.109	0.212
ACW03	PU-239/240	KH100-1930-08	3.57	0.656	0.969	0.085
ACW03	AM-241	KH100-1930-08	0.437	0.197	0.215	0.054

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

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COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 018
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-18-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/100 cm² (1 grid). ISO - 7 grams/250 cm² (2 1/2 grids) Total - 9 grams/300 cm² (3 grids)

Location Description: Bldg. 707, Module E, floor under Glovebox E-25

Other ID: 707-P-18-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/27/00 Sample Time: 18:07 Rad Screen Sample Date: 4/27/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signat[redacted]

Employe[redacted]

Date: 4/27/00 4/27/00

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Lmc 02/17/99

A-3
RLC RADIOLOGICAL DATA
Survey Area R
1st Floor, Module F [Rooms 125, 126, 127]

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Radiological Survey/Sample Results for Survey Area R (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	50
MIN	0	N/A
MAX	186	N/A
MEAN	37.7	N/A
STD DEV	30.0	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	12	12
MIN	24	N/A
MAX	312	N/A
MEAN	66.5	N/A
STD DEV	78.5	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	6	N/A
MAX	42	N/A
MEAN	25.0	N/A
STD DEV	10.1	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	6	N/A
MAX	960	N/A
MEAN	123.0	N/A
STD DEV	186.7	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	50
MIN	0	-80
MAX	15	88
MEAN	0.9	21.8
STD DEV	2.6	31.3
Floors/Walls < 2 m Biased	# Required	# Obtained
	12	12
MIN	0	-12
MAX	12	68
MEAN	2.8	24.3
STD DEV	3.7	22.9
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	6	76
MEAN	1.9	17.1
STD DEV	2.2	28.7
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-44
MAX	18	48
MEAN	4.9	3.5
STD DEV	4.6	26.2
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
3	3

Total Uranium Results dpm/100 cm^2

MIN	3
MAX	6
MEAN	4.7
STD DEV	1.5
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	2
MAX	18
MEAN	8.3
STD DEV	8.5
$DCGL_W$	100

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3260
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-17-00
Bkg. 0.1 cpm	Bkg. 0.4 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 19.99%
MDA 11.5 DPM	MDA 14.8 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 47 cpm	Bkg. 44 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 105.5 DPM	MDA 102.4 DPM	MDA

Survey Type: **Contamination**

Building: **707**

Location: F-mod Survey Area R

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-6-00 Time: 1500

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 alpha bkgd Counts electra <8cpm (0,2,2)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	20	12	16.	F	0	60	24
2.	F	0	20	42	17.	F	0	44	48
3.	F	0	56	6	18.	F	9	-40	24
4.	F	0	40	36	19.	F	0	-20	30
5.	F	0	12	42	20.	F	0	80	72
6.	F	0	-40	30	21.	F	3	4	36
7.	F	0	48	24	22.	F	0	44	186
8.	F	3	36	48	23.	F	0	4	72
9.	F	3	52	54	24.	F	0	48	18
10.	F	0	20	30	25.	F	0	24	48
11.	F	3	-4	12	26.	F	0	60	36
12.	F	0	-4	12	27.	F	0	12	24
13.	F	0	-20	18	28.	F	0	-12	36
14.	F	3	24	36	29.	F	0	68	102
15.	F	0	20	84	30.	F	2	48	48

Date Reviewed: 3-21-00 **RS Supervision:** Stuart [illegible] (Print Name) [illegible] (Signature)

[redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	F	0	4	12	61.				
32.	F	0	0	48	62.				
33.	F	0	4	72	63.				
34.	W >2	0	12	48	64.				
35.	W >2	0	48	18	65.				
36.	W >2	3	80	18	66.				
37.	W >2	0	24	0	67.				
38.	W >2	15	32	24	68.				
39.	W >2	0	0	48	69.				
40.	W >2	0	88	24	70.				
41.	W >2	0	40	30	71.				
42.	W >2	0	24	12	72.				
43.	W >2	0	20	18	73.				
44.	W >2	0	0	12	74.				
45.	W >2	0	48	42	75.	N/A			
46.	END OF SURVEY				76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.	N/A				84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

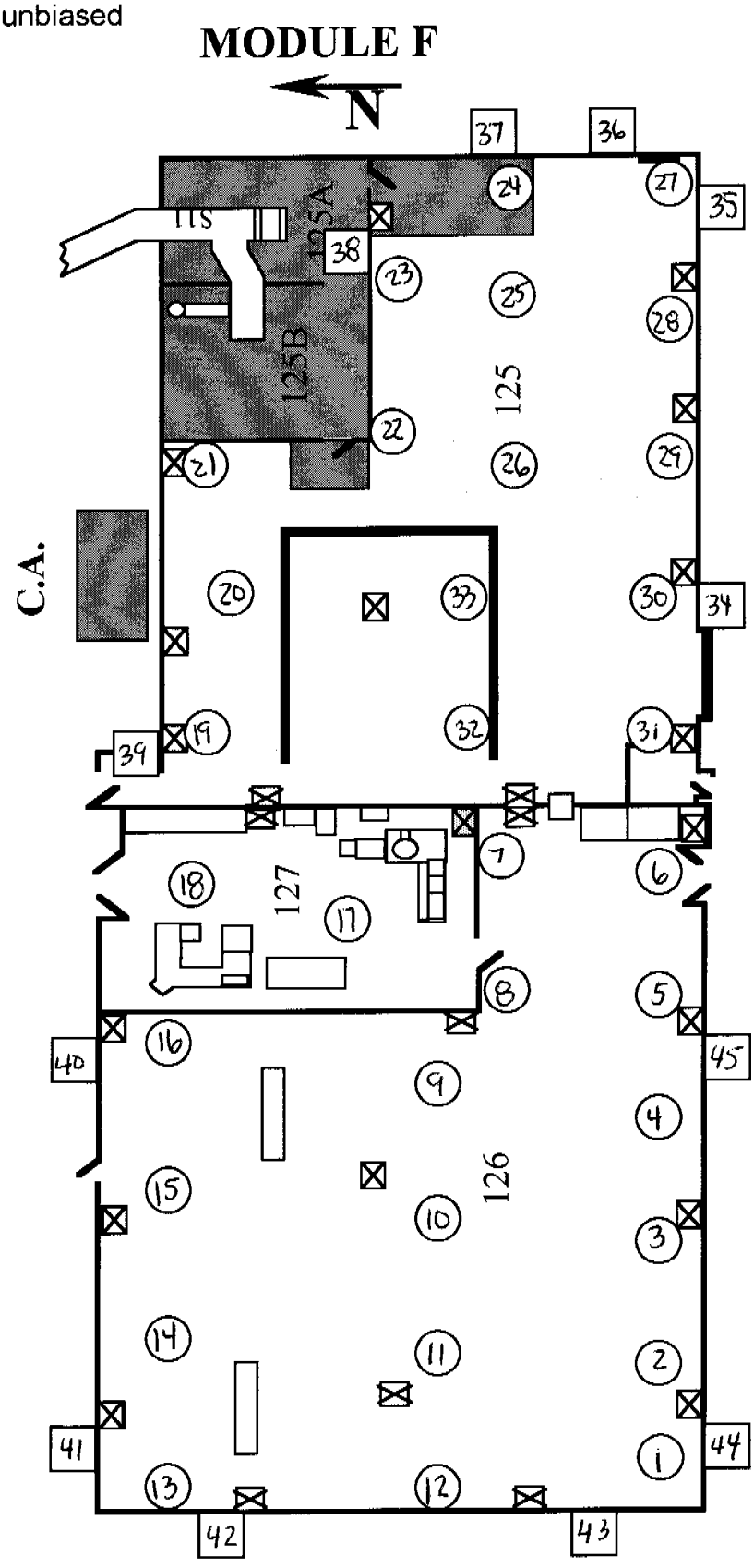
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Floor / Walls <2meters unbiased
12 wall
33 floor
45 total points



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3265
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-3-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 2 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 11.5 DPM	MDA 12.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 35 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 92.5 DPM	MDA 101.3 DPM	MDA NA

Survey Type: **Contamination**

Building: 707

Location: F-mod Survey Area R

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-2-00 Time: 1300

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

Additional Point in Rm 127 Per instructions

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall	0	28	18	16.	NA			
2.	Wall	0	16	36	17.				
3.	Floor	0	4	66	18.				
4.	Floor	0	40	24	19.				
5.	Floor	0	32	24	20.				
6.	END OF SURVEY			NA	21.				
7.					22.				
8.					23.				
9.					24.				
10.					25.				
11.					26.				
12.					27.				
13.					28.				
14.					29.				
15.	NA				30.				NA

Date Reviewed: 5-2-00 **RS Supervision:** Shmukat [redacted]
Print Name Signature

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Rev. 02/00

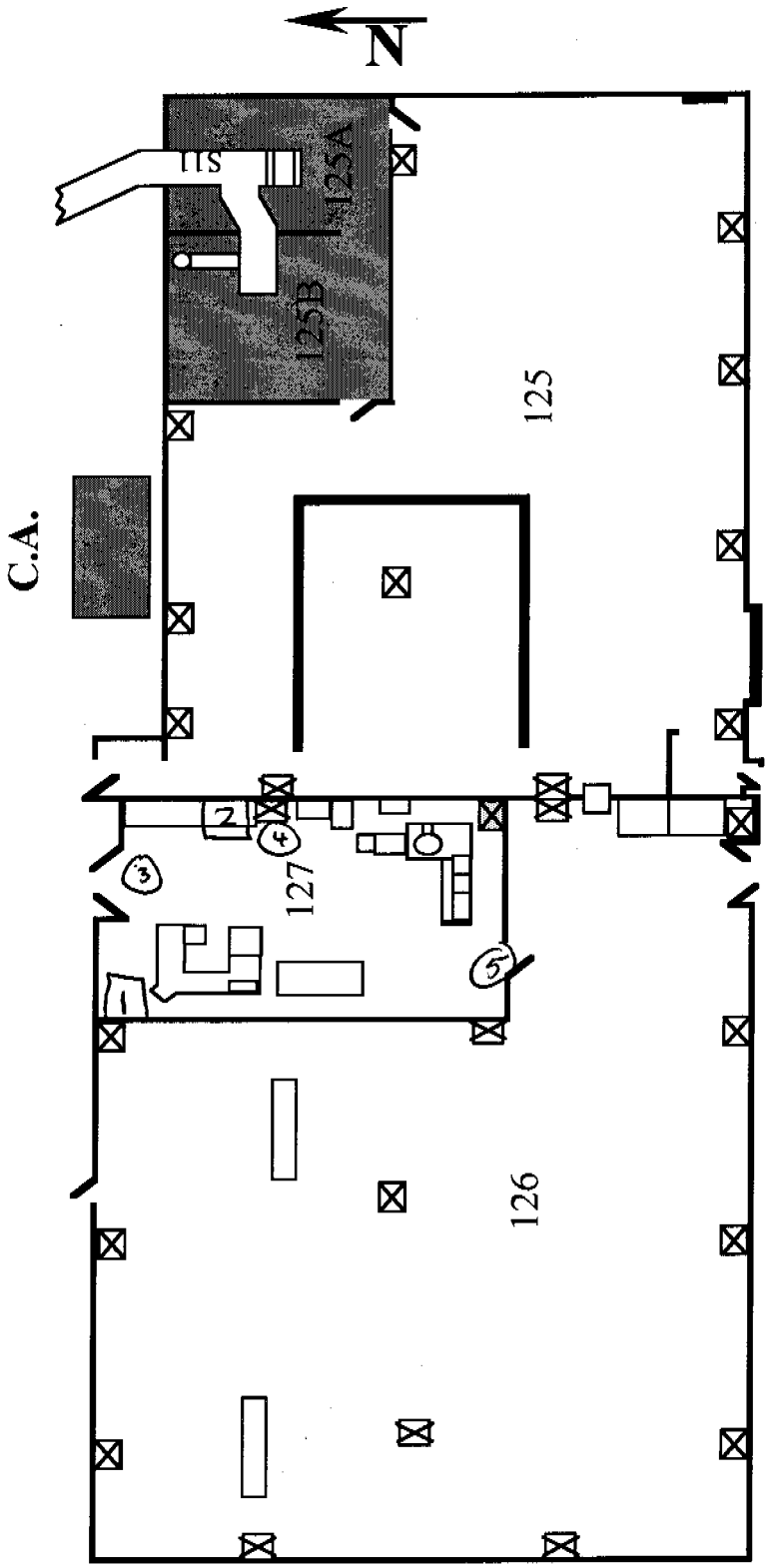
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE F



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 12.9 DPM	MDA 13.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 52 cpm	Bkg. 50 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 DPM	MDA 108.4	MDA

Survey Type: Contamination
Building: 707
Location: F-MOD Survey Area R
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-7-00 Time: 1400

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
⑨ Contained Contamination 600 DPM Removable 3000 DPM Fixed
3 alpha bkgd counts electra < 8cpm (0,0,1)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	B-Box	3	40	48	16.				
2.	B-Box	12	36	48	17.				
3.	Piping	3	68	36	18.				
4.	~~B~~ F	0	32	30	19.				
5.	F	0	-12	24	20.				
6.	F	6	32	48	21.				
7.	F	3	-12	78	22.				
8.	F	0	24	312	23.	N/A			
9.	F	6	24	36	24.				
10.	F	0	4	48	25.				
11.	F	0	40	54	26.				
12.	F	0	16	36	27.				
13.	END OF SURVEY				28.				
14.	N	A			29.				
15.					30.				

Date Reviewed: 3-21-00 **RS Supervision:** Stuckart / [signature]
Print Name Signature

[redacted]

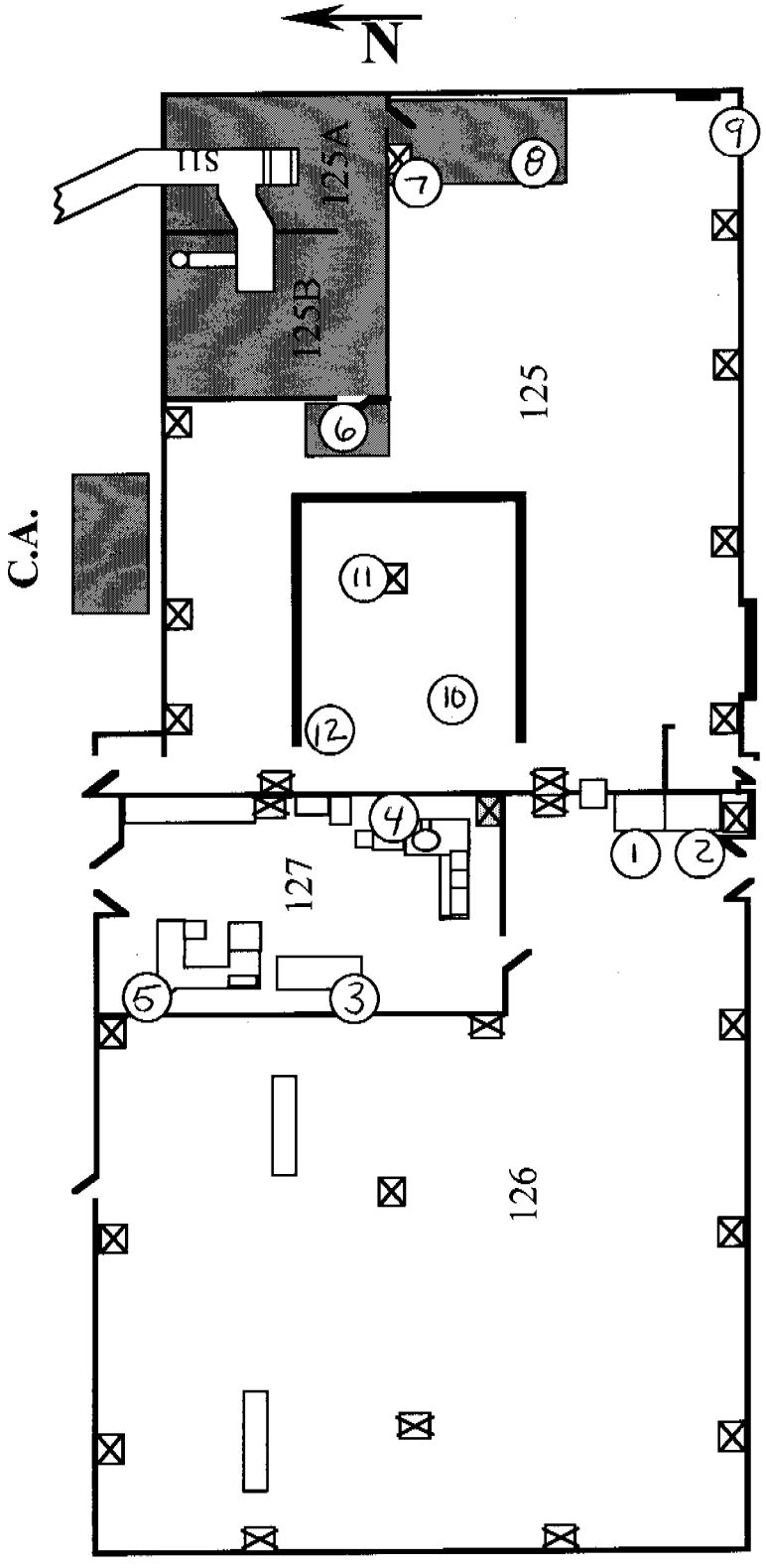
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE F



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3260
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-17-00
Bkg. 0.0 cpm	Bkg. 0.5 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 19.99%
MDA 8.2 DPm	MDA 15.6 DPm	MDA 94 DPm
Mfg. Eberline	Mfg. Eberline	Mfg. Ne Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1233
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 5-11-00
Bkg. 61 cpm	Bkg. 52 cpm	Bkg. 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 20.63%
MDA 118.6 DPm	MDA 110.4 DPm	MDA 94 DPm

Survey Type: Contamination
Building: 707
Location: F-mod Survey Area R
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-10-00 Time: 1100

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
6 - Fixed 2200 DPm under label - Contained
3 alpha blank counts electra <8cpm (2,2,4)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Exhaust	3	-44	114	16.	B-Box	9	16	24
2.	Exhaust	0	-8	24	17.	B-Box	3	-32	114
3.	Exhaust	3	-16	156	18.	Exhaust	3	20	96
4.	Exhaust	0	-32	6	19.	Exhaust	3	-12	72
5.	Elect. Box overhead	0	-16	18	20.	Exhaust	9	16	960
6.	Exhaust overhead	18	40	354	21.	Exhaust	6	-20	150
7.	Elect. Box overhead	6	-20	18	22.	Exhaust	9	4	60
8.	Exhaust	3	28	96	23.	Exhaust	6	36	120
9.	Exhaust	0	40	258	24.	Exhaust	6	0	66
10.	Work bench	3	36	24	25.	Storage	0	-36	72
11.	Equipment	0	0	36	26.	Elect. Box overhead	3	40	24
12.	Exhaust	12	8	378	27.	Elect. Box overhead	9	-12	18
13.	Equipment	6	-16	30	28.	Duct overhead	15	4	42
14.	Equipment	3	-12	6	29.	Duct overhead	0	36	30
15.	Exhaust	3	48	270	30.	Storage	6	8	54

Date Reviewed: 3-21-00 **RS Supervision:** Stunkard / [signature]
Print Name Signature

[redacted]

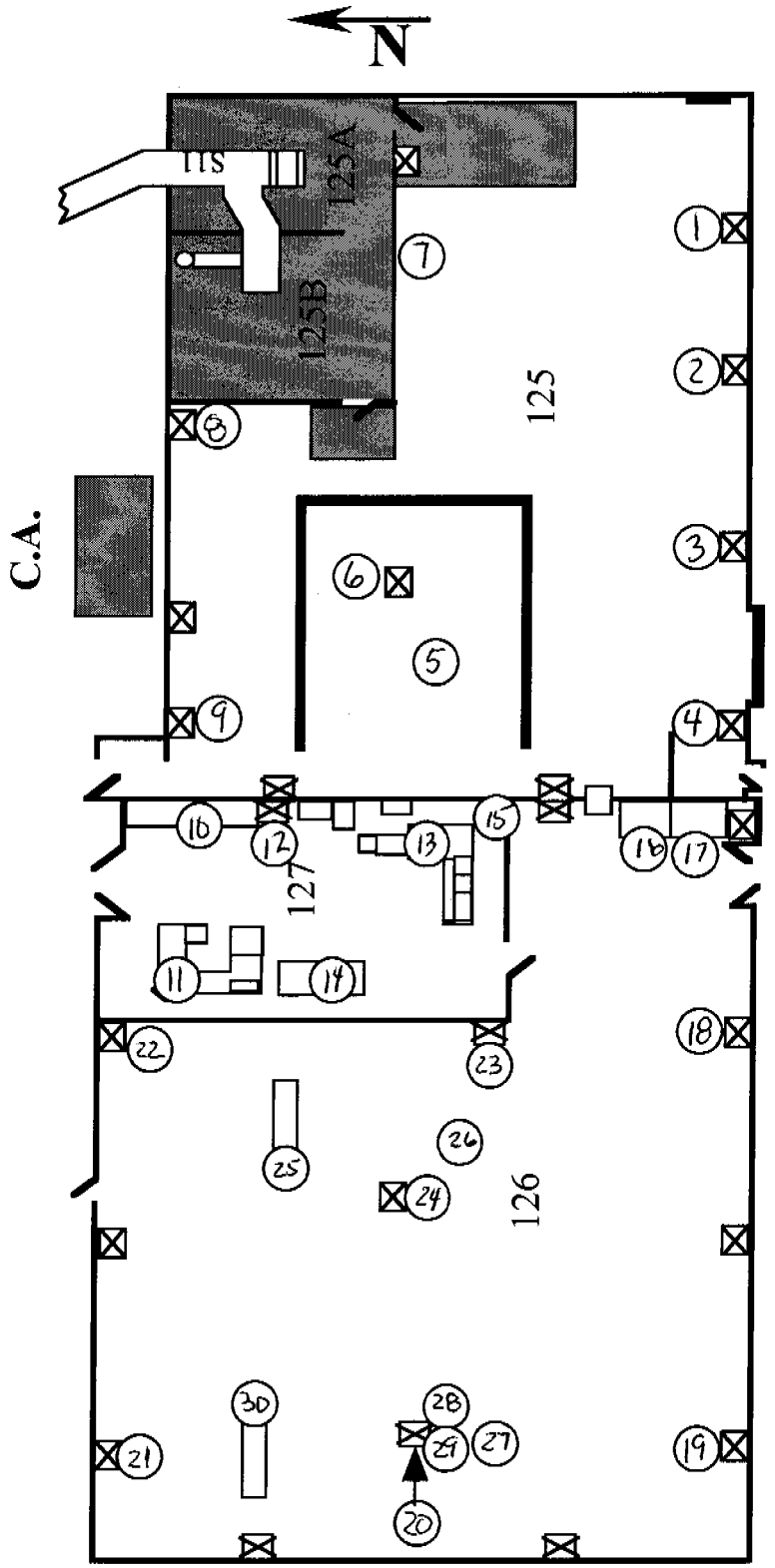
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE F



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.6 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 16.3 DPM	MDA 14.8 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 56 cpm	Bkg. 50 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 DPM	MDA 108.4 DPM	MDA

Survey Type: **Contamination**

Building: **707**

Location: F-MOD Survey Area R

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-16-00 Time: 1500

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.
3 alpha bkgd Counts alpha electra <8 cpm (1,1,1)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	W >2	6	52	36	16.	W >2	3	40	30
2.	W >2	3	76	12	17.	C	6	64	12
3.	W >2	0	-8	42	18.	C	6	60	24
4.	W >2	0	4	30	19.	C	0	-12	12
5.	W >2	3	32	12	20.	C	0	-4	30
6.	W >2	0	28	36	21.	C	0	16	24
7.	W >2	0	-24	24	22.	C	3	4	36
8.	W >2	0	-28	36	23.	C	0	48	24
9.	W >2	3	4	30	24.	C	0	16	12
10.	W >2	6	24	30	25.	C	3	12	36
11.	W >2	3	12	18	26.	C	3	8	30
12.	W >2	3	-40	6	27.	C	0	40	36
13.	W >2	0	-32	12	28.	C	3	16	36
14.	W >2	0	20	18	29.	C	0	44	30
15.	W >2	3	20	12	30.	C	0	20	24

Date Reviewed: 3-21-00 **RS Supervision:** Stinchcomb / [illegible] [redacted]
Print Name Signature

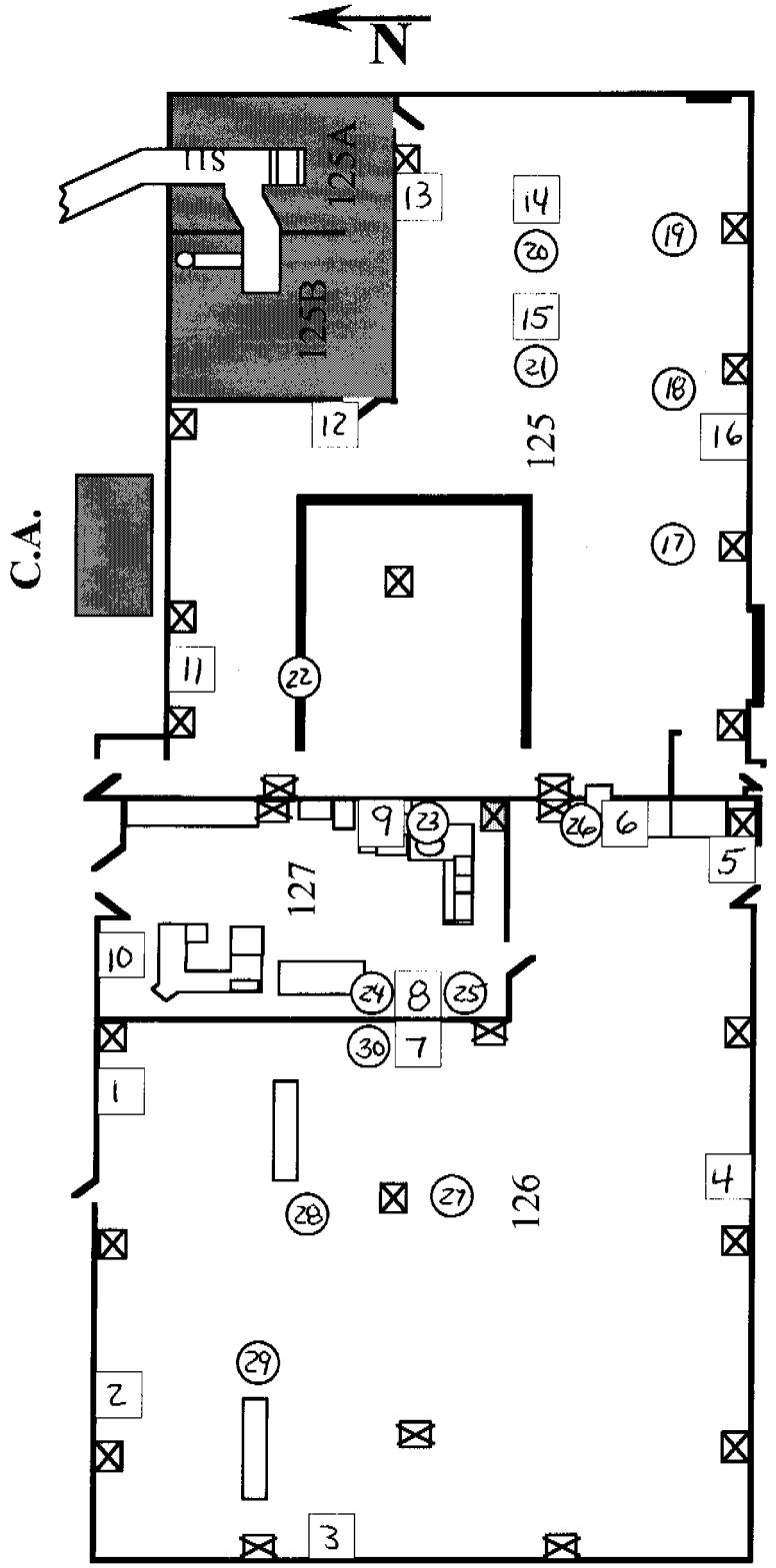
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE F



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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	022.002				
Other Sample ID:	707-P-22-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-02	0.756	0.217	0.265	0.038
ACW03	U-235	KH100-1931-02	0.028	0.051	0.052	0.083
ACW03	U-238	KH100-1931-02	0.223	0.113	0.122	0.038
ACW03	PU-238	KH100-1931-02B	0.059	0.120	0.120	0.181
ACW03	PU-239/240	KH100-1931-02B	2.01	0.398	0.566	0.078
ACW03	AM-241	KH100-1931-02	1.05	0.357	0.414	0.065

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

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048

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 022
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-22-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen 2 grams/100 cm² (1 grid). Iso-7 grams/300 cm² (3 grids). Total = 400 cm² (4 grids) 9 grams. Rinsate event #.056.

Location Description: Bldg. 707, Module F, room 126, east wall on the floor in front of CA.

Other ID: 707-P-22-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/27/00 Sample Time: 20:44 Rad Screen Sample Date: 4/27/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Numb[redacted]

Date: 4/27/00 4/27/00

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Lmc 02/17/99

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	023.002				
Other Sample ID:	707-P-23-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-03	0.301	0.134	0.147	0.067
ACW03	U-235	KH100-1931-03	0.017	0.034	0.035	0.047
ACW03	U-238	KH100-1931-03	0.924	0.243	0.305	0.066
ACW03	PU-238	KH100-1931-03B	0.022	0.118	0.118	0.194
ACW03	PU-239/240	KH100-1931-03B	0.482	0.173	0.198	0.065
ACW03	AM-241	KH100-1931-03	0.090	0.105	0.107	0.081

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 023
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-23-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/100 cm² (1 grid). ISO - 7 grams/300 cm² (3 grids). Total = 9 grams/400 cm², 4 grids. Rinsate - event#: 056.

Location Description: Bldg. 707, Module, inside on the floor to the west of doors 29+30.

Other ID: 707-P-23-00

Sample Appearance: Red/maroon paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/27/00 Sample Time: 21:10 Rad Screen Sample Date: 4/27/00

Was generator notified to receive excess sample? (Yes) X (No)

[redacted]

Sampler's Signature

Employee N

Date: 4/27/00 4/27/00

470

Lmc 02/17/99

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	024.002				
Other Sample ID:	707-P-24-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-04	0.115	0.077	0.081	0.035
ACW03	U-235	KH100-1931-04	0.025	0.046	0.047	0.075
ACW03	U-238	KH100-1931-04	0.427	0.153	0.176	0.061
ACW03	PU-238	KH100-1931-04B	0.013	0.108	0.108	0.181
ACW03	PU-239/240	KH100-1931-04B	0.962	0.251	0.316	0.035
ACW03	AM-241	KH100-1931-04	0.205	0.149	0.154	0.069

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

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050

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 024
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-24-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/100 cm² (1 grid), ISO - 7 grams 200 cm² (2 grids) Total = 300 cm² 3 grids, 9 grams

Location Description: Building 707, Module F, room 127, near west wall

Other ID: 707-P-24-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun & chisel

Sample Date: 4/27/00 Sample Time: 21:26 Rad Screen Date: 4/27/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signature [redacted]
Employee Number: [redacted]

Date: 4/27/00 4/27/00

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A-3
RLC RADIOLOGICAL DATA
SURVEY AREA S
1st Floor [Rooms 187, 186,
130, 130A, 130b, 131, 132,132A, 133, and 133A]

473

Radiological Survey/Sample Results for Survey Area S (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	92	92
MIN	-18	N/A
MAX	3942	N/A
MEAN	67.4	N/A
STD DEV	410.9	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	12	N/A
MAX	6720	N/A
MEAN	1627.6	N/A
STD DEV	2456.9	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	35	35
MIN	-6	N/A
MAX	48	N/A
MEAN	9.1	N/A
STD DEV	11.9	N/A
Equipment Biased	# Required	# Obtained
	40	40
MIN	6	N/A
MAX	22320	N/A
MEAN	1082.7	N/A
STD DEV	3988.7	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	92	92
MIN	0	-52
MAX	12	88
MEAN	1.8	16.5
STD DEV	2.4	31.7
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-52
MAX	6	44
MEAN	3.0	-8.8
STD DEV	2.8	36.3
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	35	35
MIN	0	-40
MAX	6	56
MEAN	0.9	12.2
STD DEV	1.7	23.9
Equipment Biased	# Required	# Obtained
	40	40
MIN	0	-44
MAX	156	72
MEAN	10.1	8.8
STD DEV	27.8	28.8
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
3	3

Total Uranium Results dpm/100 cm^2

MIN	7
MAX	295
MEAN	186.0
STD DEV	156.2
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	28
MAX	70
MEAN	44.0
STD DEV	22.7
$DCGL_W$	100

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.5 cpm	Bkg. 0.0 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2186
MDA 15.6 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 833	Serial # 872	Serial # 2307
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due 7-12-00
Bkg. 62 cpm	Bkg. 64 cpm	Bkg. 20 cpm
Efficiency 25%	Efficiency 25%	Efficiency .1940
MDA 119.5 dpm	MDA 121.3	MDA 94 dpm

Survey Type: **Contamination**

Building: **707**

Location: G Module Survey Area S

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 3-20 3-21 00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters. Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations. 1 of 4
bkgd counts alpha electra <8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	8	6	16.	F	0	36	42
2.	F	0	28	-6	17.	F	3	4	6
3.	F	3	12	24	18.	F	0	-24	48
4.	F	0	-24	0	19.	F	0	76	355
5.	F	6	-32	18	20.	F	0	12	24
6.	F	0	20	-6	21.	F	0	28	-12
7.	F	0	-12	30	22.	F	3	60	12
8.	F	3	8	30	23.	F	3	20	24
9.	F	0	-48	36	24.	F	0	56	24
10.	F	0	12	54	25.	F	3	12	3942
11.	F	3	-40	252	26.	F	0	16	30
12.	F	3	0	24	27.	F	3	-12	6
13.	F	0	76	6	28.	F	6	36	30
14.	F	0	8	6	29.	F	0	76	6
15.	F	3	28	18	30.	F	3	-12	36

Date Reviewed: 4-3-00 **RS Supervision:** Schmuckath [illegible]
Print Name Signature

[redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 4

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	F	6	4	24	61.	W <2m	3	16	18
32.	F	0	16	0	62.	" "	6	28	30
33.	F	3	0	12	63.	" "	0	76	12
34.	F	6	60	54	64.	" "	0	4	24
35.	F	0	12	42	65.	" "	3	44	0
36.	F	0	40	30	66.	" "	0	-20	6
37.	F	0	4	12	67.	" "	0	8	18
38.	F	0	68	30	68.	" "	0	76	18
39.	F	0	20	6	69.	" "	3	-16	18
40.	F	0	-44	12	70.	" "	0	44	0
41.	F	3	8	24	71.	" "	6	48	6
42.	F	0	88	30	72.	" "	3	16	30
43.	F	3	16	-6	73.	" "	3	-28	18
44.	F	0	-4	6	74.	" "	3	8	-6
45.	W <2m	3	-16	0	75.	" "	0	8	42
46.	" "	3	-52	-6	76.	" "	0	54	24
47.	" "	0	44	-18	77.	" "	0	8	12
48.	" "	6	48	12	78.	" "	0	48	24
49.	" "	0	36	24	79.	" "	0	12	66
50.	" "	0	60	12	80.	" "	0	-20	6
51.	" "	3	60	18	81.	" "	0	32	18
52.	" "	3	0	18	82.	" "	0	-12	30
53.	" "	3	20	30	83.	" "	0	-20	12
54.	" "	0	-8	72	84.	" "	6	-24	18
55.	" "	0	28	42	85.	" "	0	8	6
56.	" "	0	-12	18	86.	" "	3	-4	16
57.	" "	12	74	30	87.	" "	0	28	30
58.	" "	0	16	6	88.	" "	9	24	18
59.	" "	0	36	24	89.	" "	0	4	42
60.	" "	3	20	6	90.	" "	6	36	-12

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 4

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
91.	W < 2m	6	-48	18	121.				
92.	W < 2m	0	4	6	122.				
93.	End of Survey				123.				
94.					124.				
95.					125.				
96.					126.				
97.					127.				
98.					128.				
99.					129.				
100.					130.				
101.					131.				
102.					132.				
103.					133.				
104.					134.				
105.					135.				
106.					136.				
107.					137.				
108.					138.				
109.					139.				
110.					140.				
111.					141.				
112.					142.				
113.					143.				
114.					144.				
115.					145.				
116.					146.				
117.					147.				
118.					148.				
119.					149.				
120.					150.				

N/A

N/A

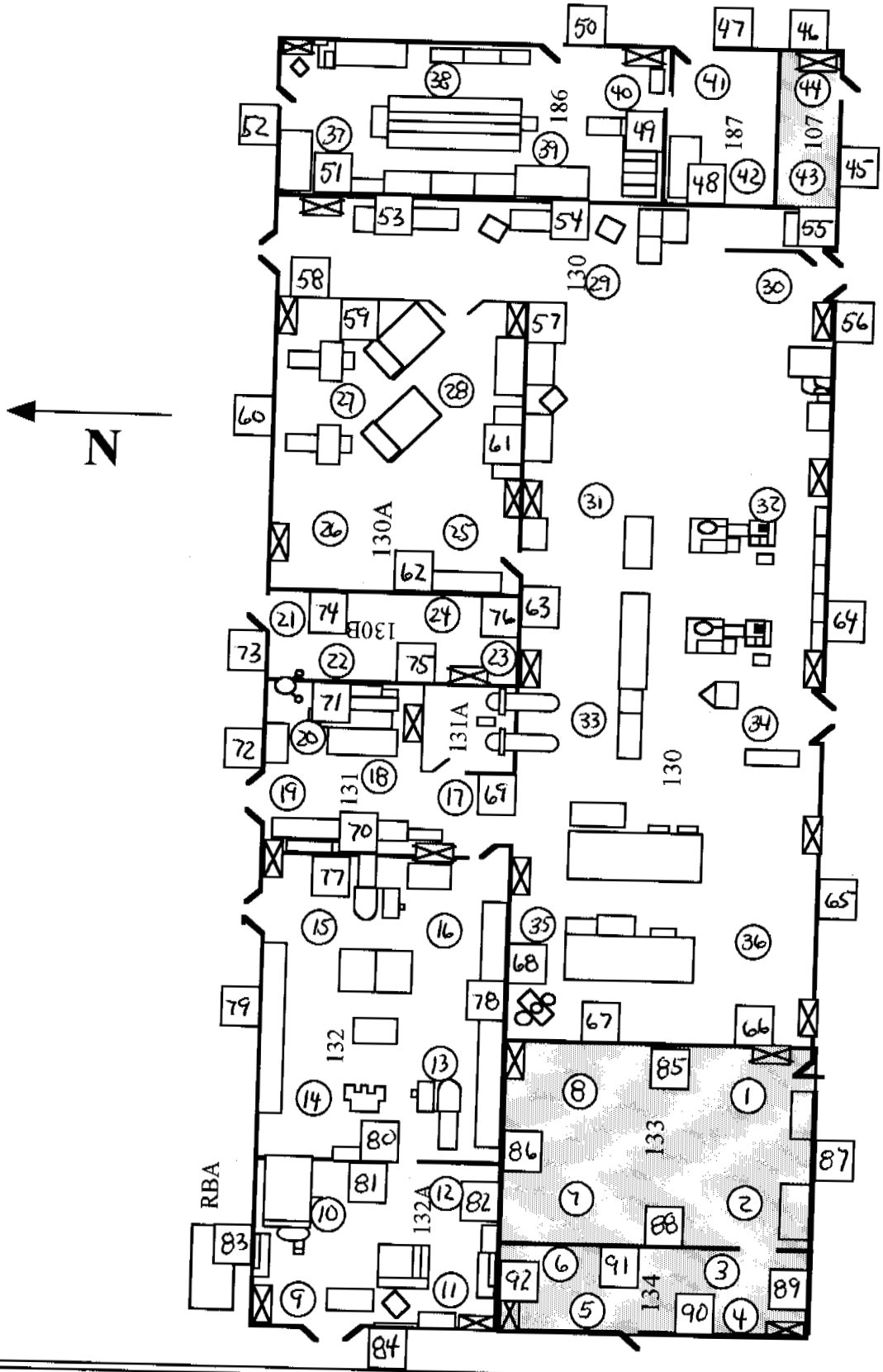
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE G



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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.5 cpm	Bkg. 0.0 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .12186
MDA 15.6 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1389
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 54 cpm	Bkg. 53 cpm	Bkg. 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2096
MDA 112.3 dpm	MDA 111.3 cpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 707

Location: 6 Module Survey Area 5

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 3-23 3-27 - 00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points. 1 of 2

1 m² scans, 1 minute pats and swipes. See map for locations.

bkgd Counts alpha electra < 8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F Rm 132A Center of Rm	6	4	5448	16.				
2.	F Rm 132A Near south wall	0	-20	6720	17.	NA			
3.	F Rm 132 yellow Arrow	3	-16	72	18.				
4.	F Rm 131 Front of Door	3	36	24	19.				
5.	F Rm 130 Old Paint	6	-48	1320	20.				
6.	F Rm 130 Old Paint	0	-20	1980	21.				
7.	F Rm 130 Front of Door	6	32	154	22.				
8.	F Rm 130 Front of Door	0	44	534	23.				
9.	F Rm 130A	0	-52	12	24.				
10.	F Rm 130	6	-48	12	25.				
11.	End of Survey				26.				
12.	NA				27.				
13.					28.				
14.					29.				
15.					30.				

Date Reviewed: 4-3-00 **RS Supervision:** Stumkat [redacted]

Print Name Signature

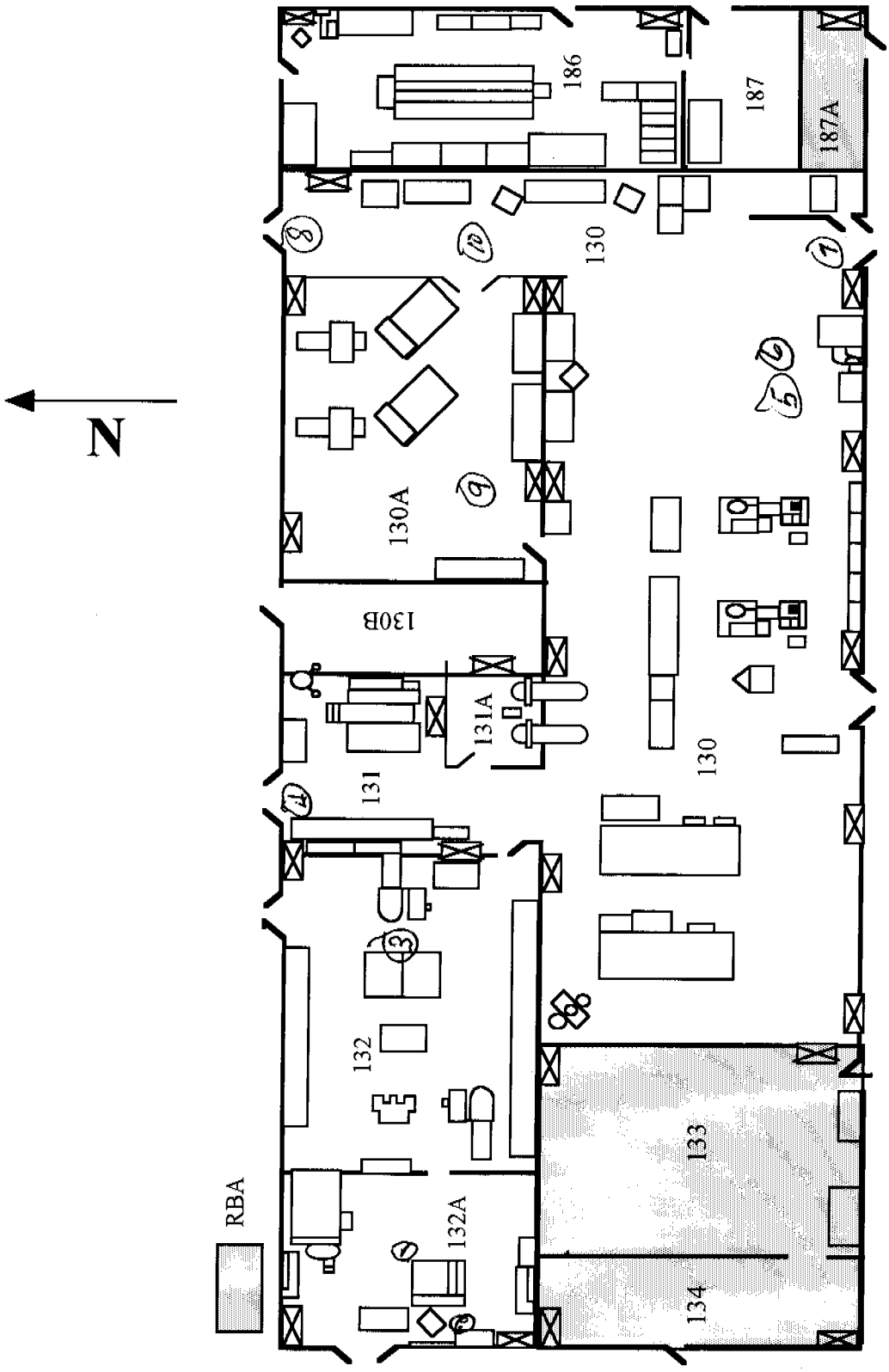
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY 2 of 2

Drawing Showing Survey Points

MODULE G



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.5 cpm	Bkg. 0.3 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 15.6 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 59 cpm	Bkg. 55 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 1169 dpm	MDA 113.2 dpm	MDA

Survey Type: **Contamination**

Building: **707**

Location: Module G Survey Area S

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 3-22-00 Time: Days

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations. 1 of 3
bkgd counts alpha electra <8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	W >2m	0	44	6	16.	W >2m	0	32	6
2.	" "	0	-12	24	17.	" "	0	4	12
3.	" "	0	0	6	18.	" "	0	16	12
4.	" "	0	12	0	19.	" "	0	-8	12
5.	" "	0	28	6	20.	" "	3	44	12
6.	" "	0	24	0	21.	" "	0	4	0
7.	" "	0	20	0	22.	" "	0	-36	12
8.	" "	0	-8	6	23.	" "	0	-24	-6
9.	" "	0	48	0	24.	" "	0	-16	6
10.	" "	3	8	-6	25.	" "	3	-16	6
11.	" "	6	32	6	26.	Ceiling	0	-20	6
12.	" "	0	24	6	27.	"	6	-40	12
13.	" "	3	44	12	28.	"	0	28	12
14.	" "	0	56	-6	29.	"	0	20	12
15.	" "	0	24	0	30.	"	0	24	48

Date Reviewed: 4-3-00 **RS Supervision:** S Munkhati [signature] [redacted]
Print Name Signature

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 2 of 3

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Ceiling	0	8	6	61.				
32.	"	3	4	24	62.				
33.	"	0	16	48	63.				
34.	"	3	32	6	64.				
35.	"	3	12	12	65.				
36.	End of Survey				66.				
37.					67.				
38.					68.				
39.					69.				
40.					70.				
41.					71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.				
47.					77.				
48.					78.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

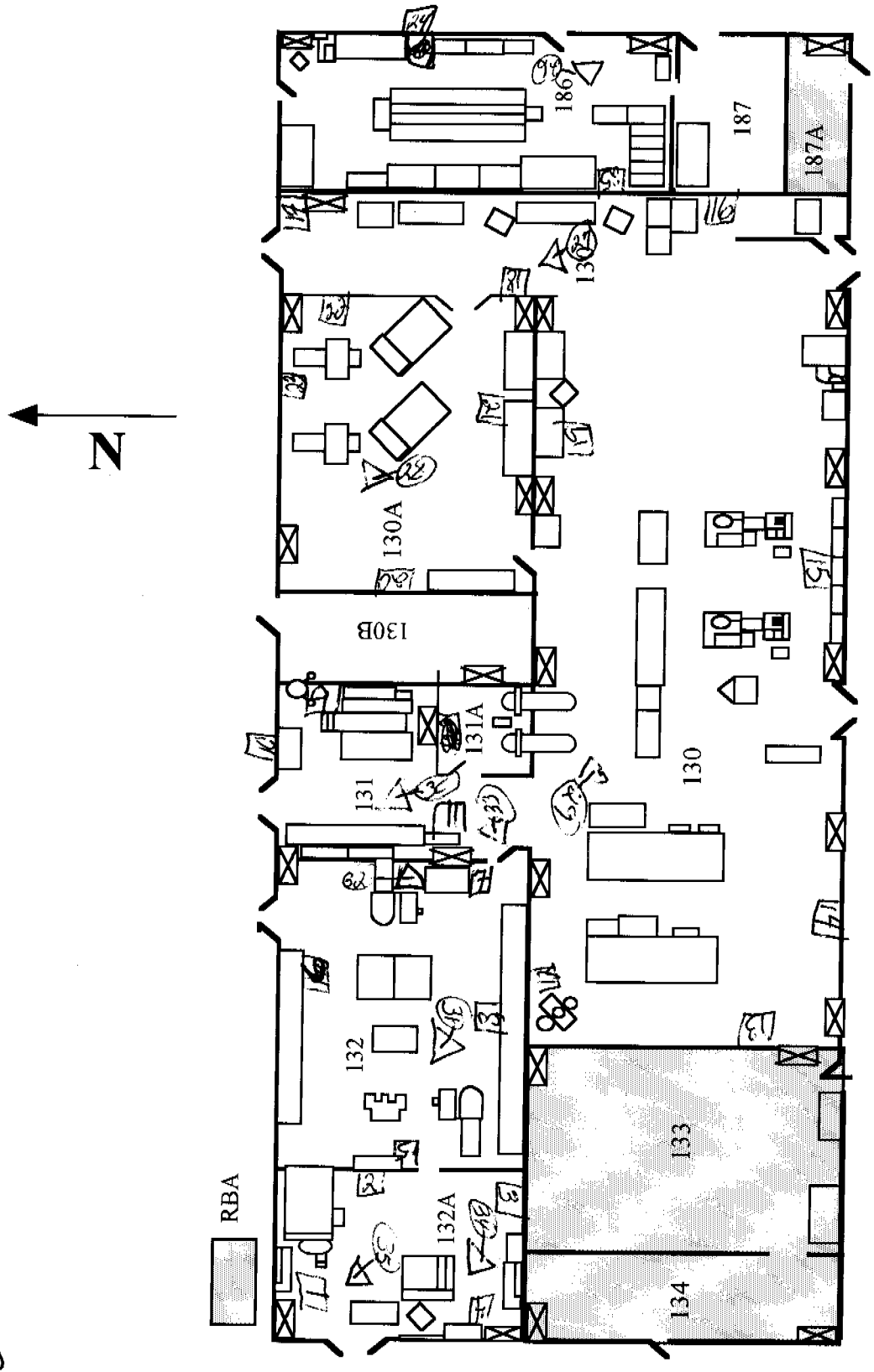
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 3 of 3

MODULE G



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.5 cpm	Bkg. 0.0 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2186
MDA 15.6 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1389
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 54 cpm	Bkg. 53 cpm	Bkg. 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2096
MDA ~~142.6~~ 112.3 dpm	MDA 111.3 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 707

Location: G Module Survey Area S

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 3-23 3-27-00 Time: Days

[redacted]

Comments: Equipment : Biased survey points. 1 of 3

1 minute pats and swipes. See map for locations.

bkgd Counts alpha electra <8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Rm 132A Air Vent # 18	0	36	90	16.	Rm 130 Tank	0	24	12
2.	Rm 132A Air Vent #17	3	32	312	17.	Rm 130 Air Vent # 10	3	36	816
3.	Rm 132A ½" Copper pipe, Valve	3	4	30	18.	Rm 130 Air Vent # 8	12	-20	150
4.	Rm 132A Power Control Box Welder	0	36	18	19.	Rm 130A Boston Gear Ratiotrol	9	64	1500
5.	Rm 132 Pipe, Valve, Box	3	40	30	20.	Rm 130A Air Vent # 7	3	8	60
6.	Rm 132 Air Vent #16	0	0	138	21.	Rm 130A Air Vent #5	9	0	180
7.	Rm 132 Mover Cart	6	48	180	22.	Rm 130 Air Vent # 3	9	-20	210
8.	Rm 132 Air Vent #15	3	4	120	23.	Rm 130 Air Vent	90	4	228
9.	Rm 132 Box	3	52	24	24.	Rm 130 Down Draft Table	0	-32	36
10.	Rm 132 Electrical Pipe Box	0	-20	6	25.	Rm 130 Air Vent # 32	6	72	180
11.	Rm 131 Trich. Tank	156	12	12714	26.	Rm 130 Air Vent # 33	3	44	126
12.	Rm 131 Work Bench	0	-44	654	27.	Rm 130 Manual Table # 28	4	0	22320
13.	Rm 131 Platform	12	-12	300	28.	Rm 130 Manual Tabe # 27	0	-32	120
14.	Rm 131 Top of Trich. Tank	3	32	48	29.	Rm 130 Electrical Connection Box	0	44	108
15.	Rm 130 Air Vent # 17	27	-16	90	30.	Rm 130 Air Vent #25	3	-4	66

Date Reviewed: 4-3-00 RS Supervision: [illegible] [illegible] [redacted]

Print Name Signature

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 3

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Rm 130 Air Vent # 23	3	0	90	61.				
32.	Rm 130 Manual table # 32	3	-8	1962	62.				
33.	Rm 186 Air Vent #2	0	-28	198	63.				
34.	Rm 186 Air Vent	6	0	48	64.				
35.	Rm 187 File Cabinet	0	-28	42	65.				
36.	Rm 187A Air Vent #1	0	0	96	66.				
37.	Rm 133 Air Vent #34	12	16	12	67.				
38.	Rm 133 Air Vent #35	0	-20	18	68.				
39.	Rm 134 Air Vent #37	0	32	12	69.				
40.	Rm 134 Air Vent #36	6	-4	30	70.				
41.	End of Survey				71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.				
47.					77.				
48.					78.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

N/A

N/A

RS FORMS 07.02-01

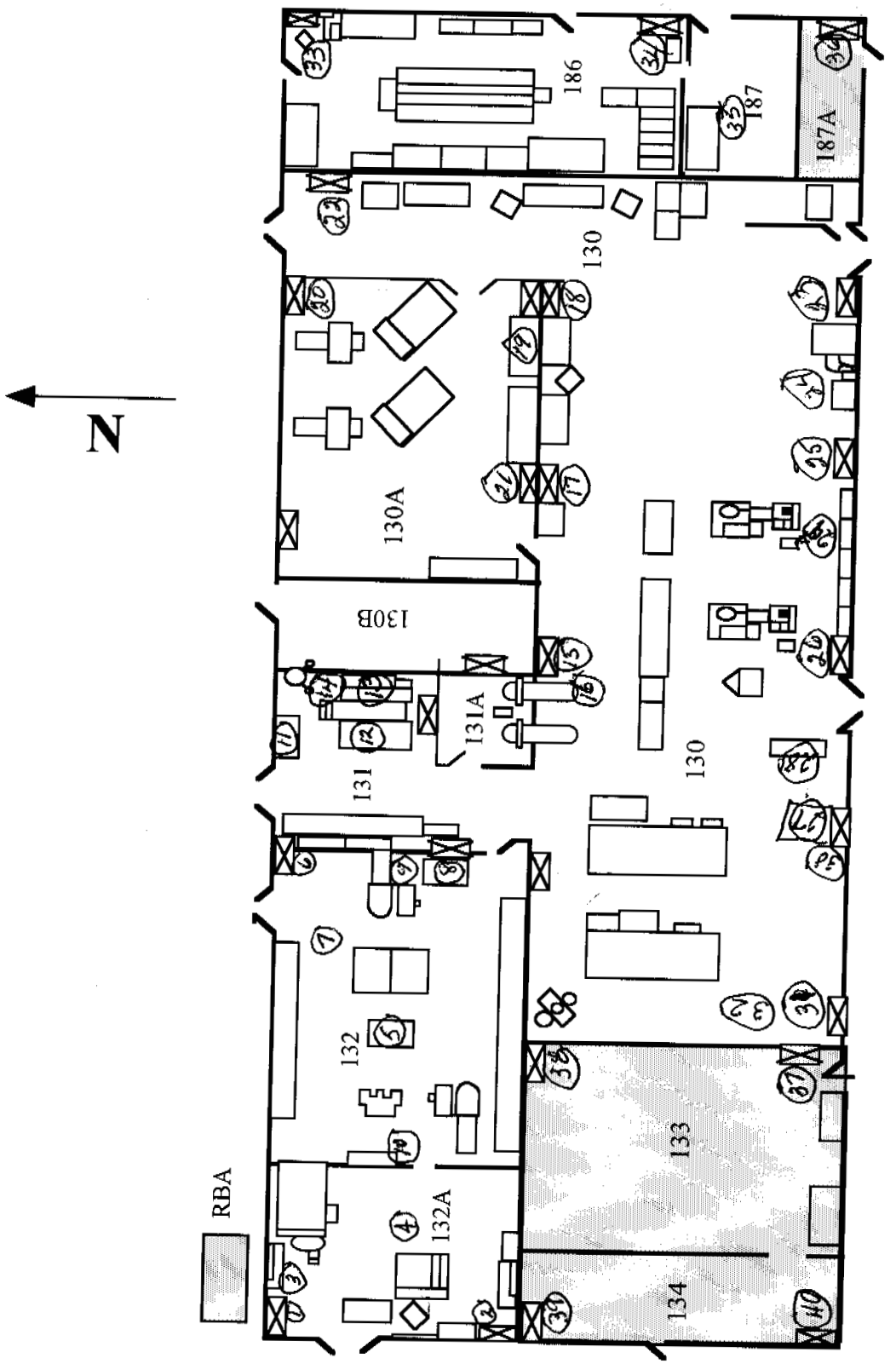
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 3

Drawing Showing Survey Points

MODULE G



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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	019.002				
Other Sample ID:	707-P-19-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-09	12.7	1.45	2.92	0.039
ACW03	U-235	KH100-1930-09	0.518	0.198	0.252	0.048
ACW03	U-238	KH100-1930-09	0.432	0.163	0.184	0.039
ACW03	PU-238	KH100-1930-09	-0.006	0.081	0.081	0.153
ACW03	PU-239/240	KH100-1930-09	1.29	0.313	0.405	0.067
ACW03	AM-241	KH100-1930-09	0.206	0.173	0.178	0.093

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

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045

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 019
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-19-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams/25 cm² (1/4 grid) - ISO - 7 grams/75 cm² (3/4 grid) Total - 9 grams/100 cm² (1 grid)

Location Description: Building 707, Module G, just inside door ~~100~~ 103 on floor. 4/26/00

Other ID: 707-P-19-00

Sample Appearance: Red/maroon paint scrapings

Sampling Device: Heat gun, stainless steel putty knife

Sample Date: 4/26/00 Sample Time: 1440 Rad Screen Sample Date: 4/26/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee Numbe[redacted]

Date: 4/26/00 4/26/00

Lmc 02/17/99

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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#014/002	Matrix:	Waste
Site Sample ID:	020.002				
Other Sample ID:	707-P-20-00	Collection Date:	4/27/00	Date Received:	5/2/00
		Batch Number:	1930	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1930-10	18.6	1.92	4.20	0.061
ACW03	U-235	KH100-1930-10	0.729	0.224	0.313	0.075
ACW03	U-238	KH100-1930-10	0.664	0.193	0.235	0.061
ACW03	PU-238	KH100-1930-10	0.024	0.092	0.092	0.154
ACW03	PU-239/240	KH100-1930-10	1.92	0.398	0.552	0.064
ACW03	AM-241	KH100-1930-10	0.390	0.226	0.240	0.138

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Pu	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB
Am	SCAQC-1930-LC1	SCAQC-1930-LD1	SCAQC-1930-PB

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046

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 020
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-20-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen-2 grams/25 cm² (1/4 grid). ISO-7 grams/75 cm² (3/4 grids) Total-9 grams/100 cm² (1 grid). Completed Rinsate on this event-number: 055.

Location Description: Building 707, Module G, on floor by door R131A.

Other ID: 707-P-20-00

Sample Appearance: Red/Maroon ~~pte~~ Acrylic paint scrapings

Sampling Device: Heat gun + stainless steel putty knife

Sample Date: 4/24/00 Sample Time: 14:45 Rad Screen Sample Date: 4/24/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee Nu[redacted]

Date: 4/26/00 4/24/00

490

Lmc 02/17/99

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name: Kaiser-Hill
Chain-of-Custody Number: 00A11963#002/004
Matrix: Waste
Site Sample ID: 021.002
Other Sample ID: 707-P-21-00
Collection Date: 4/27/00
Date Received: 5/2/00
Batch Number: 1931
Laboratory Code: SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-01	0.142	0.087	0.091	0.035
ACW03	U-235	KH100-1931-01	0.064	0.064	0.067	0.043
ACW03	U-238	KH100-1931-01	0.183	0.102	0.108	0.073
ACW03	PU-238	KH100-1931-01B	0.146	0.144	0.147	0.191
ACW03	PU-239/240	KH100-1931-01B	3.41	0.624	0.924	0.082
ACW03	AM-241	KH100-1931-01	0.597	0.320	0.341	0.172

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

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4/91

047

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 021
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-21-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 gram/25cm² (1/4 grid). TSO - 7 grams/75 cm² (3/4 grid) Total - 9 grams/100 cm². 1 grid. Started another Rinsate. Event .056.

Location Description: Bldg. 707 module G, floor under Downdraft table # 7GA23

Other ID: 707-P-21-00

Sample Appearance: Red/maroon paint scrapings

Sampling Device: Heat gun + Stainless Steel Putty Knife

Sample Date: 4/26/00 Sample Time: 1505 Rad Screen Sample Date: 4/26/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature [redacted]

Employee N [redacted]

Date: 4/26/00 4/26/00

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Lmc 02/17/99

A-3

RLC RADIOLOGICAL DATA

SURVEY AREA T

1ST Floor [Rooms 189, 190, 191, 135, Vaults 135A-135F and 136]

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Radiological Survey/Sample Results for Survey Area T (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	72	63
MIN	6	N/A
MAX	210	N/A
MEAN	56.8	N/A
STD DEV	42.8	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	11
MIN	6	N/A
MAX	126	N/A
MEAN	64.9	N/A
STD DEV	42.1	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	25	25
MIN	12	N/A
MAX	264	N/A
MEAN	58.5	N/A
STD DEV	52.7	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	12	N/A
MAX	144	N/A
MEAN	67.0	N/A
STD DEV	31.7	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	72	63
MIN	0	-80
MAX	6	96
MEAN	1.3	5.1
STD DEV	1.8	31.7
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	11
MIN	0	-44
MAX	6	72
MEAN	1.1	2.2
STD DEV	2.4	32.8
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	25	25
MIN	0	-44
MAX	9	100
MEAN	1.1	29.6
STD DEV	2.4	37.7
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-48
MAX	6	48
MEAN	1.5	-2.7
STD DEV	1.8	23.9
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
3	2

Total Uranium Results dpm/100 cm^2

MIN	0
MAX	0
MEAN	0.0
STD DEV	0.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	0
MAX	1
MEAN	0.5
STD DEV	0.7
$DCGL_W$	100

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial #	Serial # 1518
Cal Due 4-10-00	Cal Due N/A	Cal Due 6-29-00
Bkg. 0.4 cpm	Bkg.	Bkg. 1 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 14.8 dpm	MDA	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 56 cpm	Bkg. 53 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 dpm	MDA 111.3 dpm	MDA

Survey Type: Contamination

Building: 707

Location: Module H Survey Area T

Purpose: **Reconnaisance Level Characterization**

RWP # 00 - 707 - 1204

Date: 3-27-00 Time: 1630

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
All on Floor

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	See map	0	0	114	16.				
2.	See Map	0	-16	24	17.				
3.	See Map	0	-8	6	18.				
4.	See Map	0	72	30	19.				
5.	See Map	0	-20	24	20.				
6.	See Map	0	-32	42	21.				
7.	See Map	0	-44	78	22.				
8.	See Map	6	0	126	23.	N/A			
9.	See Map	6	28	66	24.				
10.	See Map	0	12	108	25.				
11.	See Map	0	32	96	26.				
12.	End of Survey				27.				
13.	N				28.				
14.	A				29.				
15.					30.				

Date Reviewed: 4-26-00 **RS Supervision:** Schmidt

Print Name Signature

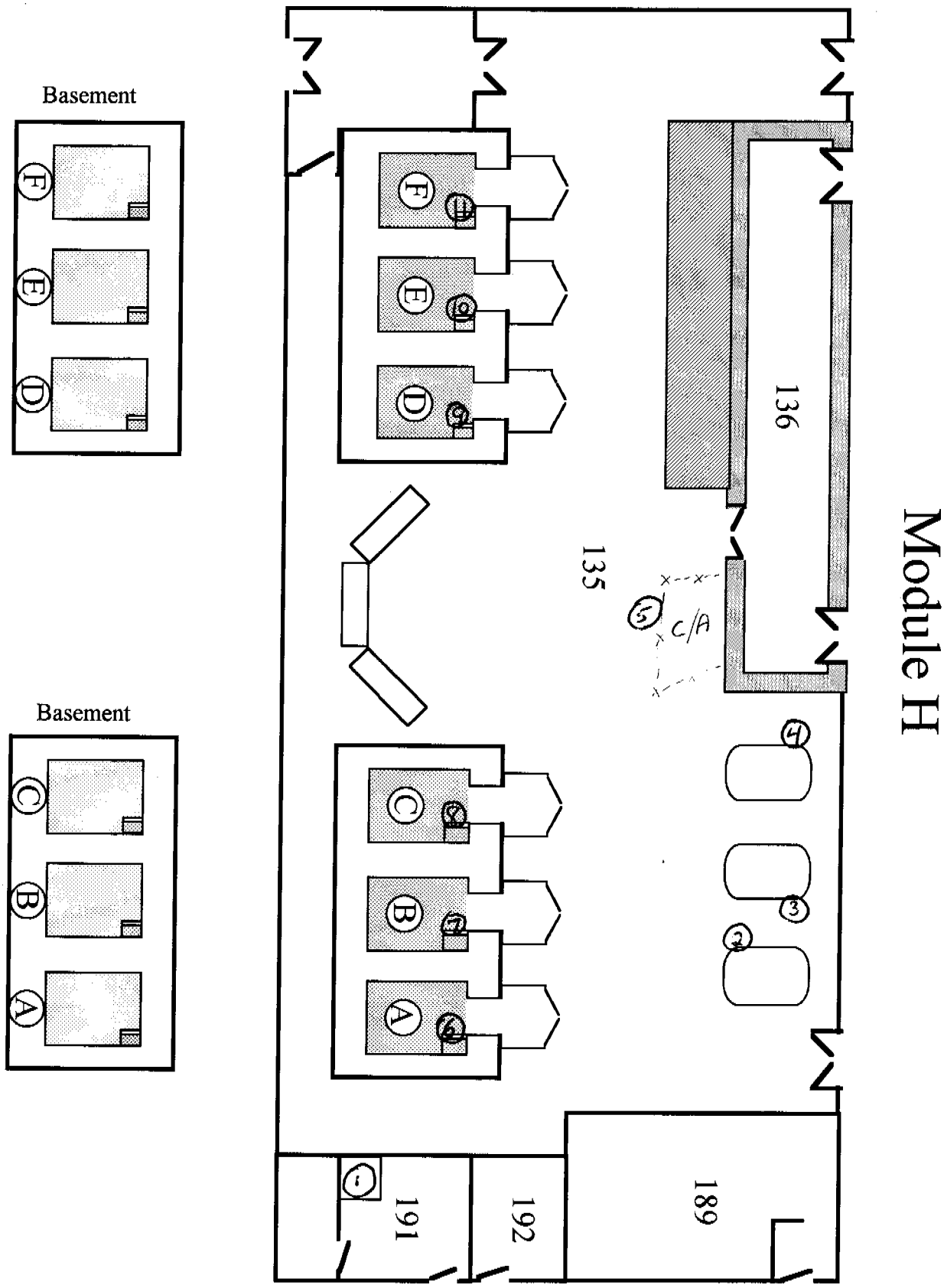
[redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 812	Serial # 849	Serial # 1518
Cal Due 9-25-00	Cal Due 4-10-00	Cal Due 6-29-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 2 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 60 cpm	Bkg. 53 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 117.8 dpm	MDA 111.3 dpm	MDA

Survey Type: **Contamination**
Building: 707
Location: Module 11 Survey Area T
Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-29-00 Time: 1630

[redacted]

Comments: Equipment: Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Panel	3	0	102	16.	canberra equip	3	8	84
2.	Vent	0	-16	48	17.	Transformer	0	0	90
3.	autoclave	0	-16	48	18.	work station	3	0	54
4.	autoclave	3	-16	54	19.	work station	3	-8	42
5.	autoclave	3	-24	66	20.	Hydralic system	6	-16	66
6.	autoclave	3	24	90	21.	Furnace Panel	0	-24	36
7.	Furnace	0	-32	90 30 3-28-00	22.	Furnace Pump	3	32	66
8.	Furnace	3	-16	66	23.	Hydraulic system	0	-40	60
9.	Furnace	0	48	72	24.	cabinet	4	28	78
10.	~~Vent~~ 3-28-00 Panel	0	-20	72	25.	Hydraulic System	0	-4	78
11.	Air lines	0	0	24	26.	Air lines	3	44	144
12.	Helium system (old)	0	0	36	27.	Air lines (cooling lines)	0	20	12
13.	Air lines	0	-48	138	28.	Sink	0	-20	18
14.	Cooling water	0	28	102	29.	Basin	0	-8	66
15.	Furnace Panel	3	-20	108	30.	Mirror Housing	3	16	60

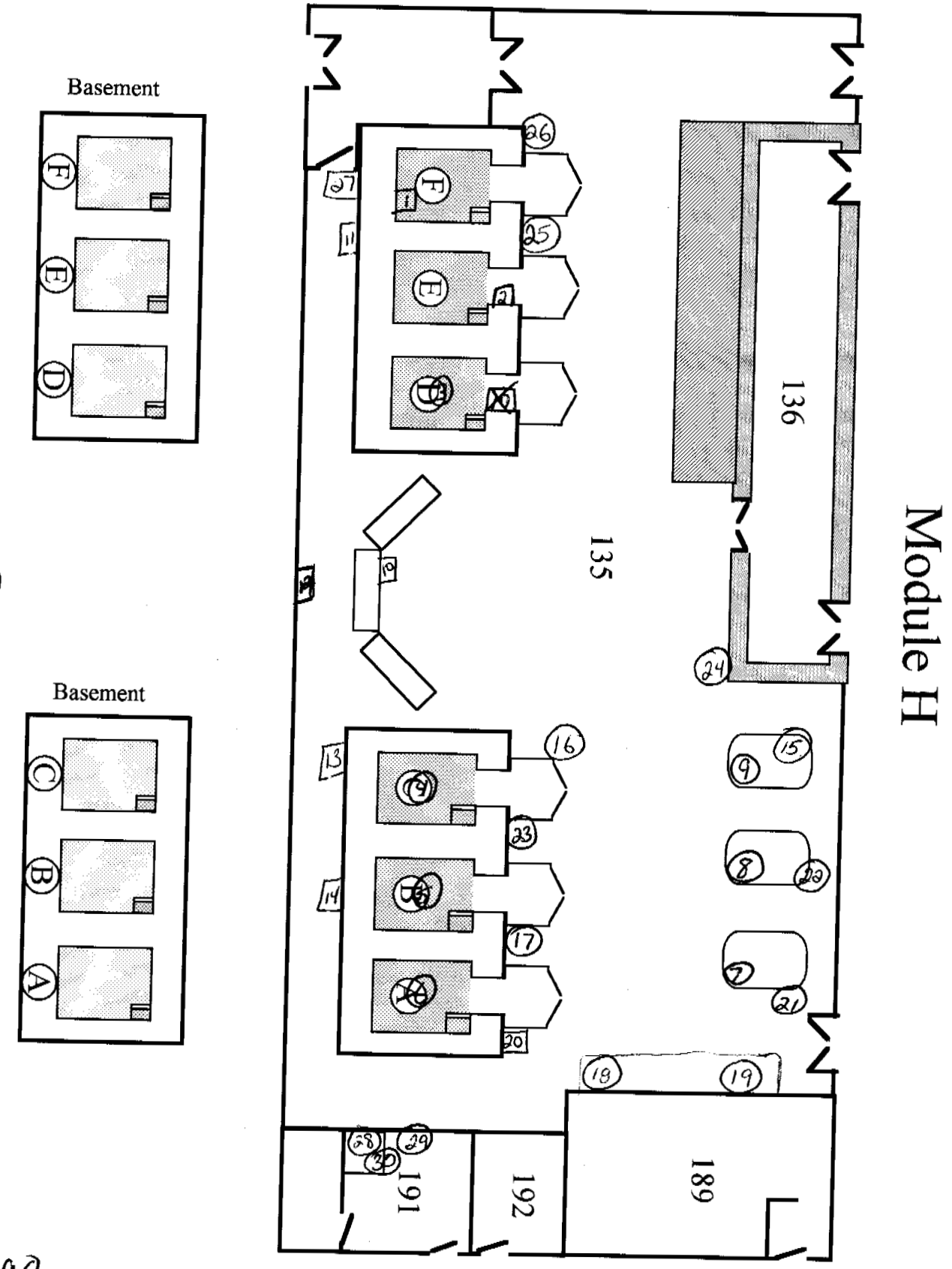
Date Reviewed: 4-26-00 RS Supervision: S Munkus [redacted]
Print Name Signature

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 812	Serial # 849	Serial # ~~1818~~ 944 5-25-00 1233
Cal Due 9-25-00	Cal Due 4-10-00	Cal Due 5-11-00
Bkg. 0.1 cpm	Bkg. 0.6 cpm	Bkg. 1.0
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 16.3 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 52 cpm	Bkg. 54 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 dpm	MDA 112.3 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: Module H Survey Area T

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-28-00 Time: 1630

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points. 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	wall	3	96	48	16.	Ceiling	0	-20	36
2.	wall	0	-8	84	17.	Ceiling	0	32	30
3.	wall	6	20	66	18.	Ceiling	0	-8	42
4.	wall	0	52	90	19.	Ceiling	0	60	54
5.	wall	0	72	30	20.	Ceiling	0	-20	264
6.	wall	0	60	18	21.	Ceiling	0	60	76
7.	wall	0	36	30	22.	Ceiling	0	12	42
8.	wall	0	100	30	23.	Ceiling	6	12	120
9.	wall	3	56	18	24.	Ceiling	0	8	102
10.	wall	0	8	42	25.	Ceiling	0	40	108
11.	wall	0	36	54	26.	End of Survey			
12.	wall	9	-44	12	27.				
13.	Ceiling	0	60	18	28.	N A			
14.	Ceiling	0	-24	30	29.				
15.	Ceiling	0	44	18	30.				

Date Reviewed: 4-26-00 **RS Supervision:** Shumkat [signature] [redacted]

Print Name Signature

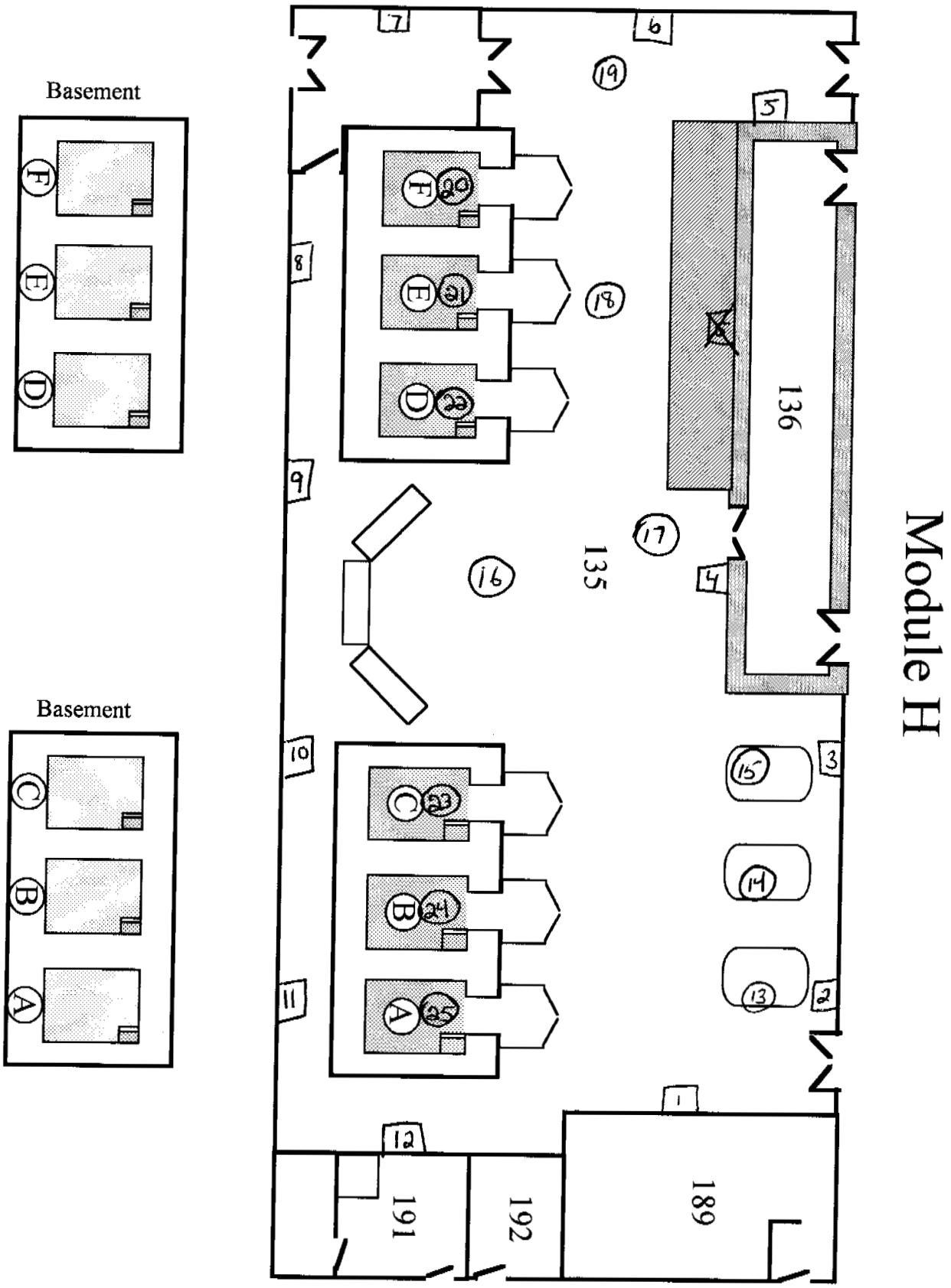
Rev. 02/00

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial #	Serial # 1518
Cal Due 4-10-00	Cal Due N/A	Cal Due 6-29-00
Bkg. 0.4 cpm	Bkg.	Bkg. 1 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 14.8 dpm	MDA	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 56 cpm	Bkg. 53 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 dpm	MDA 111.3 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: Module H Survey Area T

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-27-00 Time: 1630

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points. 1 m² scans, 1 minute pats and swipes. See map for locations. Locations 64-72 in Vault - full of drum.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	28	42	16.	Floor	0	44	90
2.	wall	3	4	72	17.	wall	0	36	6
3.	Floor	0	28	54	18.	Floor	0	36	24
4.	wall	0	16	18	19.	Floor	0	4	42
5.	wall	0	-24	54	20.	wall	0	8	18
6.	Floor	0	-24	60	21.	Floor	6	16	54
7.	wall	3	40	66	22.	wall	0	-4	42
8.	Floor	3	20	60	23.	Floor	0	-32	24
9.	Floor	0	0	24	24.	Floor	3	-12	30
10.	Floor	0	4	24	25.	Floor	6	8	24
11.	wall	0	-28	24	26.	wall	0	-12	42
12.	Floor	3	20	30	27.	Floor	0	12	42
13.	wall	3	20	24	28.	Floor	0	~~42~~ -28	66
14.	Floor	0	0	42	29.	Floor	3	32	60
15.	wall	3	-40	48	30.	Floor	3	48	36

GH 3-27-00

Date Reviewed: 4-26-00 **RS Supervision:** Shum Kiat / [signature] / [redacted]

Print Name Signature

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

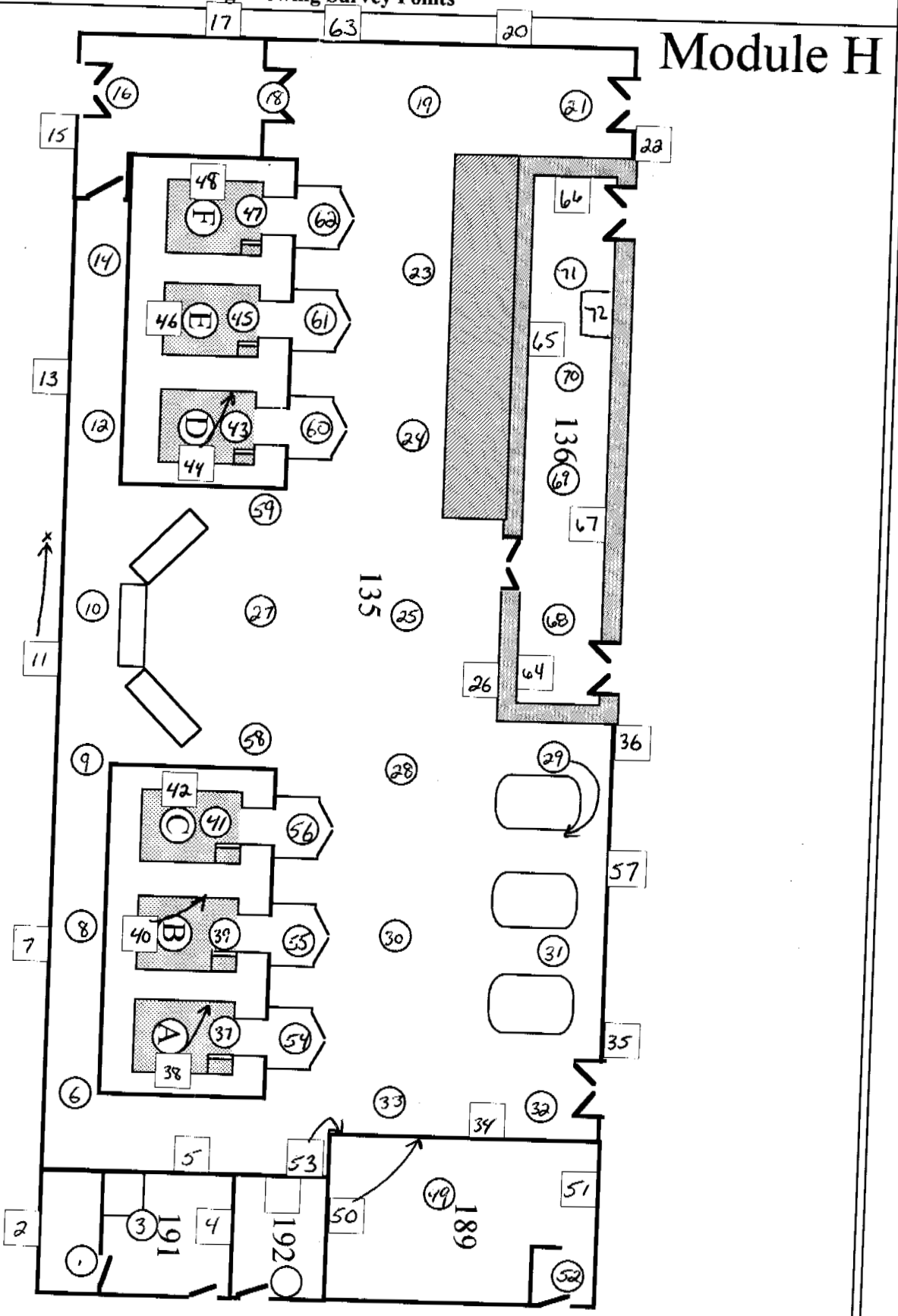
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Floor	3	24	66	61.	Floor	3	20	96
32.	Floor	0	48	60	62.	Floor	0	-32	108
33.	Floor	3	36	30	63.	Wall	3	0	66
34.	wall	3	-12	48	64.	see note			
35.	wall	0	-12	24	65.				
36.	wall	0	96	60	66.				
37.	Floor	0	-20	180	67.				
38.	wall	3	12	180	68.				
39.	Floor	0	20	~~252~~ 210	69.				
40.	wall	3	8	108	70.				
41.	Floor	3	-12	48	71.	see note			
42.	wall	0	48	54	72.	see note			
43.	Floor	0	-28	96	73.	END OF SURVEY			NA
44.	wall	0	40	192	74.				
45.	Floor	3	24	96	75.				
46.	wall	0	-80	78	76.				
47.	Floor	3	-52	66	77.				
48.	wall	3	4	72	78.				
49.	Floor	0	-8	24	79.				
50.	wall	0	-44	6	80.				
51.	wall	0	-20	48	81.				
52.	Floor	0	44	24	82.				
53.	wall	0	60	36	83.				
54.	Floor	3	-28	24	84.				
55.	Floor	0	20	78	85.				
56.	Floor	3	-16	30	86.				
57.	wall	0	8	48	87.				
58.	Floor	0	-32	18	88.				
59.	Floor	6	36	30	89.				
60.	Floor	0	-52	30	90.	NA			

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	025.002				
Other Sample ID:	707-P-25-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-05	0.176	0.103	0.109	0.067
ACW03	U-235	KH100-1931-05	0.017	0.035	0.035	0.047
ACW03	U-238	KH100-1931-05	0.106	0.080	0.083	0.067
ACW03	PU-238	KH100-1931-05B	0.070	0.120	0.120	0.178
ACW03	PU-239/240	KH100-1931-05B	0.431	0.156	0.178	0.060
ACW03	AM-241	KH100-1931-05	0.090	0.150	0.151	0.231

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: OOA1196
EVENT: 025
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-25-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams | 200 cm² (2 grids). ISO - 7 grams | 850 cm² (8 1/2 grids) Total = 9 grams | 1050 cm², 10 1/2 grids. Rinsate ~~[illegible]~~ #. 056.

Location Description: Building 707, Module H, floor near doors 17 + 18.

Other ID: 707-P-25-00

Sample Appearance: Red paint scrapings. Paint is very thin

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 06:12 Rad Screen Sample Date: 4/28/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Numb

Date: 4/28/00 4/28/00

505

Lmc 02/17/99

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	026.002				
Other Sample ID:	707-P-26-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-06	0.180	0.098	0.104	0.035
ACW03	U-235	KH100-1931-06	0.089	0.079	0.084	0.076
ACW03	U-238	KH100-1931-06	0.167	0.094	0.099	0.035
ACW03	PU-238	KH100-1931-06B	0.008	0.085	0.085	0.152
ACW03	PU-239/240	KH100-1931-06B	0.265	0.129	0.139	0.078
ACW03	AM-241	KH100-1931-06	0.044	0.082	0.083	0.133

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

COMMODORE ADVANCED SCIENCES, INC.

SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 026
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-26-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams / 400 cm² (4 grids). I30 - 7 grams / 1000 cm², (10 grids) Total - 9 grams / 1400 cm² (14 grids) Rinsate - event. 056.

Location Description: Bldg. 707, Module H, just outside door to vault 4.

Other ID: 707-P-26-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 04:52 Rad Screen Sample Date: 4/28/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee Num[redacted]

Date: 4/28/00 4/28/00

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Lmc 02/17/99

A-3

RLC RADIOLOGICAL DATA

SURVEY AREA U

1st Floor [Rooms 167, 169, 173, 175, 179, 171, 180, 181, 181A,B,C, 182A,B,C, 183, 184A, 184, 185, 188, 197, 194, 195, 193, 196, 196A]

508

Radiological Survey/Sample Results for Survey Area U (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	93	93
MIN	-18	N/A
MAX	96	N/A
MEAN	25.2	N/A
STD DEV	19.0	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	N/A
MAX	54	N/A
MEAN	26.4	N/A
STD DEV	14.5	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	40	40
MIN	-18	N/A
MAX	72	N/A
MEAN	19.1	N/A
STD DEV	21.7	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	252	N/A
MEAN	55.6	N/A
STD DEV	51.9	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	93	93
MIN	0	-112
MAX	6	84
MEAN	0.7	-23.9
STD DEV	1.5	37.8
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-40
MAX	9	84
MEAN	2.7	21.6
STD DEV	3.6	41.8
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	40	40
MIN	0	-100
MAX	6	60
MEAN	1.0	-6.2
STD DEV	1.8	36.3
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	3	88
MEAN	1.2	-2.7
STD DEV	1.5	33.3
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
1	1

Total Uranium Results dpm/100 cm^2

MIN	1
MAX	1
MEAN	1.0
STD DEV	0.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	1
MAX	1
MEAN	1.0
STD DEV	0.0
$DCGL_W$	100

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.5 cpm	Bkg. 0.0 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 15.6 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 64 cpm	Bkg. 62 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 121.3 dpm	MDA 119.5 dpm	MDA

Survey Type: Contamination
Building: 707
Location: RBA Rooms Survey Area A
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-21-00 Time: 1630

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 blank counts alpha <8 cpm (electra)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	-56	12	16.	Floor	0	-28	18
2.	Floor	0	-48	-6	17.	wall	0	-60	18
3.	Floor	3	36	36	18.	wall	0	-48	30
4.	wall	0	-48	-6	19.	gal 3-21-00 ~~Floor~~ wall	3	-44	12
5.	wall	3	-20	12	20.	Floor	0	-8	48
6.	Floor	6	-16	30	21.	Floor	0	-28	24
7.	Floor	0	4	0	22.	Floor	0	-56	60
8.	wall	0	-40	12	23.	wall	0	-8	48
9.	wall	0	-36	12	24.	wall	0	-60	48
10.	gal 3-24-00 ~~Floor~~ wall	0	28	0	25.	Floor	3	-60	36
11.	Floor	0	-20	24	26.	Floor	0	-16	42
12.	Floor	0	-20	12	27.	wall	0	-8	54
13.	wall	0	-64	54	28.	Floor	0	-36	24
14.	Floor	0	-68	24	29.	wall	0	-96	24
15.	Floor	0	-32	6	30.	Floor	0	56	30

Date Reviewed: 4-3-00 **RS Supervision:** S Cunningham [redacted]
Print Name Signature

Rev. 02/00

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Floor	0	-92	24	61.	Floor	0	-52	18
32.	wall	3	-36	66	62.	wall	0	-44	36
33.	Floor	0	-68	54	63.	Floor	0	-112	0
34.	Floor	0	-32	30	64.	Wall	0	-68	18
35.	wall	0	-12	12	65.	Floor	0	-56	6
36.	Floor	0	-4	36	66.	wall	0	-40	0
37.	Floor	0	64	96	67.	Floor	0	-56	12
38.	wall	0	-60	48	68.	Wall	0	-12	30
39.	Floor	0	-52	36	69.	Floor	0	8	-18
40.	Floor	0	-8	0	70.	Floor	0	0	36
41.	wall	0	-80	12	71.	wall	0	-52	18
42.	wall	0	-40	18	72.	wall	0	44	6
43.	wall	0	-44	0	73.	Wall	3	0	-18
44.	wall	0	-12	18	74.	Floor	6	4	30
45.	wall	0	-56	24	75.	wall	3	-40	18
46.	Floor	0	-68	18	76.	END OF SURVEY			
47.	Floor	0	-16	30	77.				
48.	Floor	3	-40	6	75.				
49.	Floor	0	-44	12	79.				
50.	Floor	0	-28	36	80.				
51.	Floor	0	-24	36	81.				
52.	Floor	0	-28	48	82.				
53.	wall	3	-64	0	83.	N/A			
54.	Wall	0	-16	30	84.				
55.	wall	3	24	48	85.				
56.	Floor	0	4	36	86.				
57.	Floor	0	-64	6	87.				
58.	Floor	0	-8	18	88.				
59.	wall	3	-40	36	89.				
60.	wall	0	-76	24	90.				

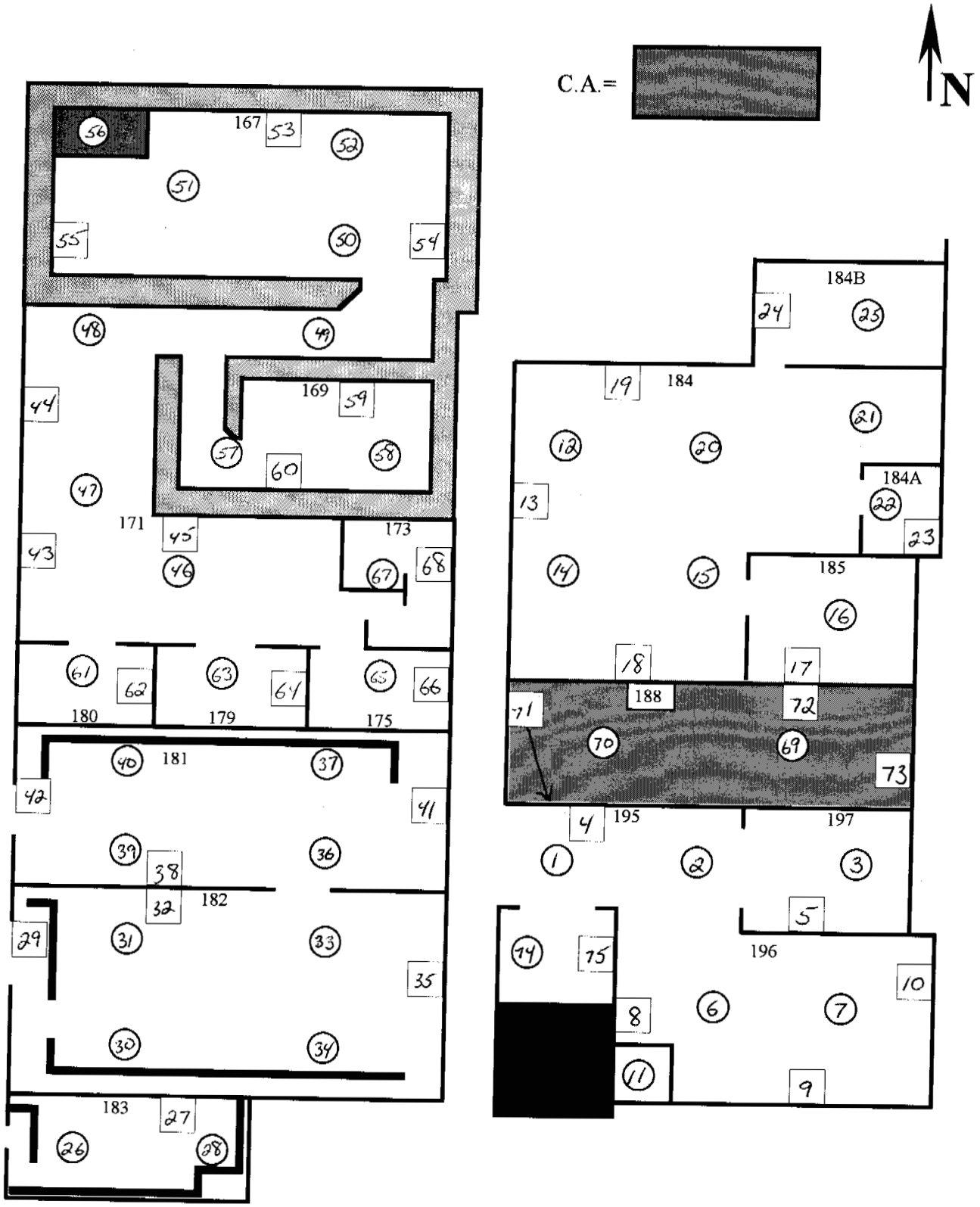
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

707 RBA ROOMS



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.6 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 16.3 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 56 cpm	Bkg. 50 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 dpm	MDA 108.4 dpm	MDA

Survey Type: Contamination

Building: 707 RBA OFFICES U

Location: ~~South Corr.~~ Site Survey Area ~~WPS~~ 3-20-00

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-16-00 Time: 1630

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd counts alpha electra < 8 cpm (0,0,2)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	-88	18	16.	wall	0	32	30
2.	Floor	0	12	12	17.	Floor	0	-4	48
3.	wall	0	4	24	18.	wall	0	84	54
4.	wall	0	16	24	19.	End of Survey			
5.	wall	0	28	42	20.				
6.	Floor	0	-4	12	21.				
7.	wall	3	4	6	22.				
8.	Floor	0	48	24	23.				
9.	Floor	6	-4	30	24.				
10.	wall	0	16	42	25.	N/A			
11.	Floor	3	-20	54	26.				
12.	Floor	3	64	36	27.				
13.	wall	0	4	42	28.				
14.	Floor	0	0	30	29.				
15.	Floor	3	-20	30	30.				

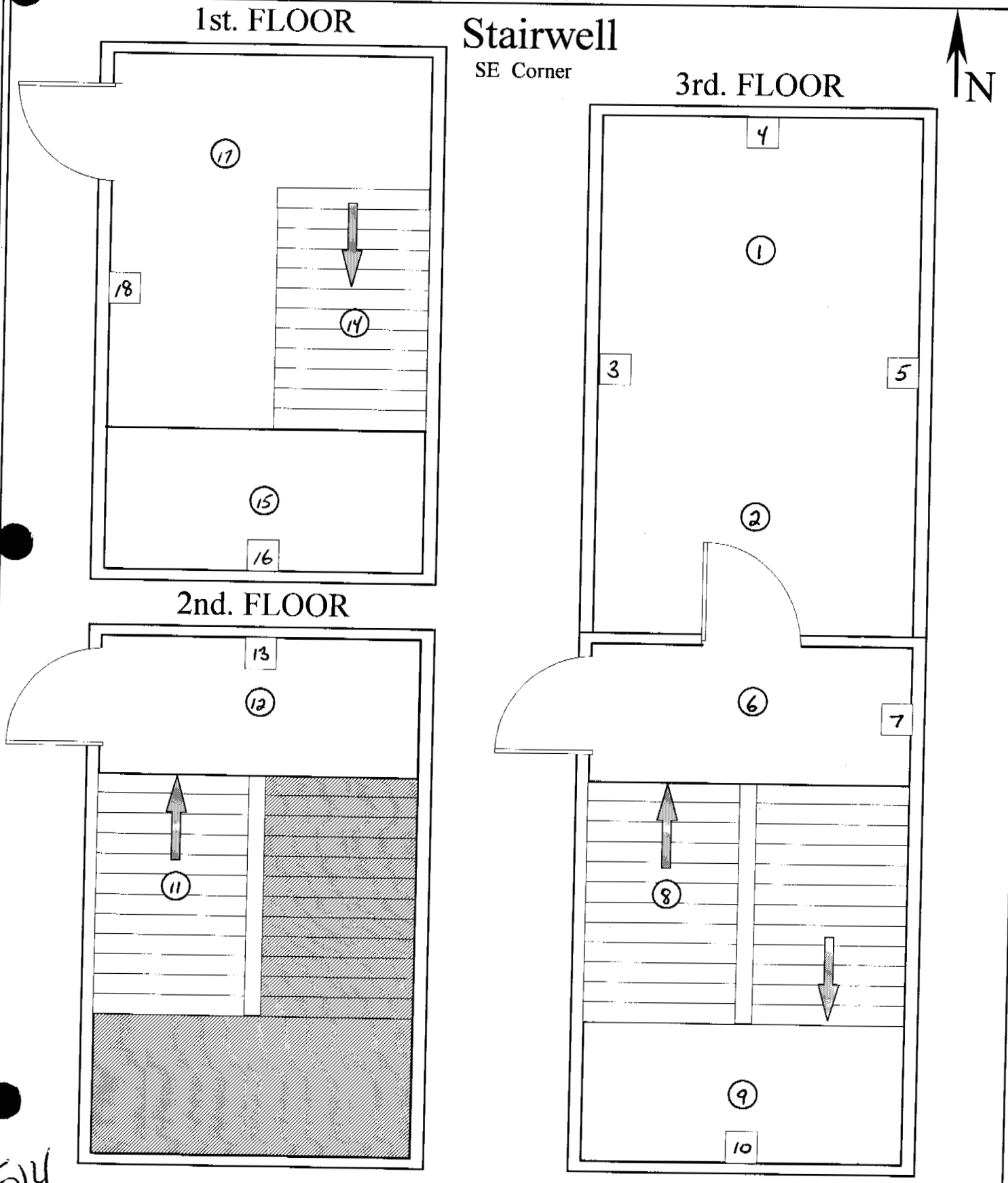
Date Reviewed: 3-16-00 **RS Supervision:** Streekrath, [redacted]
Print Name Signature

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.3 cpm	Bkg. 0.2 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 13.9 DPM	MDA 12.9 DPM	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 63 cpm	Bkg. 54 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 120.4 DPM	MDA 112.3 DPM	MDA

Survey Type: Contamination
Building: 707
Location: RBA Rooms Survey Area U
Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-24-00 Time: 1630

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd counts alpha beta < 8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor by SCALE	9	-12	30	16.				
2.	Floor	0	32	54	17.				
3.	Floor	0	16	30	18.				
4.	Floor	0	84	42	19.				
5.	Floor	3	-40	0	20.				
6.	Floor	0	64	18	21.				
7.	Floor	9	68	24	22.				
8.	Floor	3	28	18	23.	N/A			
9.	Floor	3	4	24	24.				
10.	Floor	0	-28	24	25.				
11.	END OF SURVEY				26.				
12.					27.				
13.	N/A				28.				
14.					29.				
15.					30.				

Date Reviewed: 4-3-00 **RS Supervision:** S Hunkhart [redacted]
Print Name Signature

Rev. 02/00

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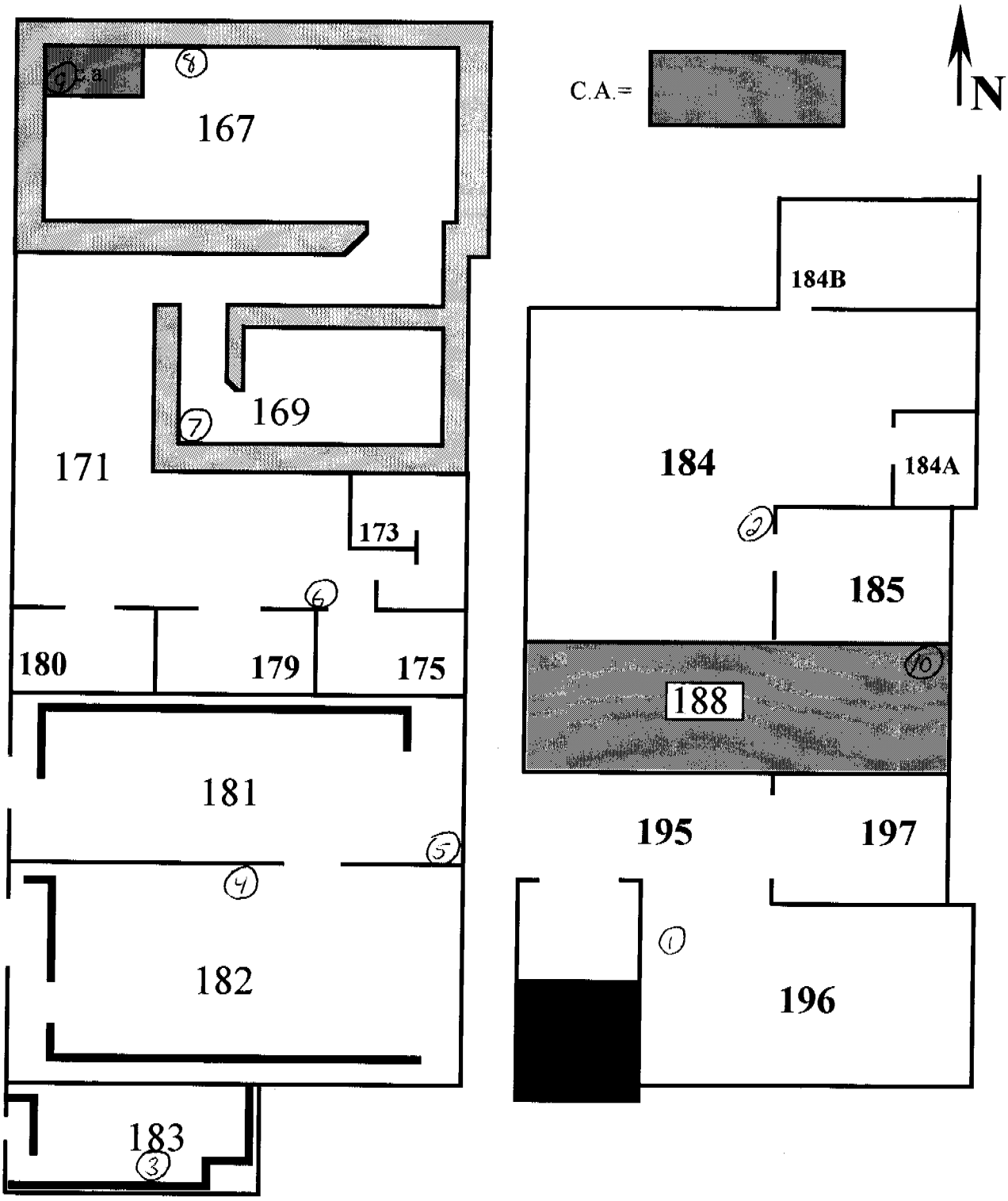
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

707 CAL GAMMA / SHIPPING



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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.5 cpm	Bkg. 0.3 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 15.6 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 59 cpm	Bkg. 55 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 116.9 dpm	MDA 113.2 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: RBA Rooms Survey Area U

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-22-00 Time: 1630

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
3 blank Counts alpha Electra <8 cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	~~Vent~~ storage rack	0	12	54	16.	Vent	0	56	30
2.	Vent	0	-8	90	17.	Vent	3	0	6
3.	Pipe	0	-36	18	18.	Vent	3	88	18
4.	Vent	0	8	54	19.	Vent	0	16	66
5.	Vent	0	-36	120	20.	Pipes	3	-36	0
6.	Vent	3	-24	84	21.	Vent	0	-20	102
7.	Box	0	16	18	22.	Vent	3	-4	252
8.	Vent	0	-28	120	23.	Pipes	0	28	30
9.	Vent	0	-40	48	24.	Scale	0	-40	42
10.	Vent	0	-16	18	25.	Doors	0	16	60
11.	Vent	3	28	72	26.	Vent	0	56	66
12.	Vent	3	0	0	27.	Vent	3	-28	60
13.	Vent	3	20	18	28.	Vent	0	28	102
14.	Vent	3	-36	60	29.	Elevator	3	-40	18
15.	Vent	3	-32	18	30.	Elevator	0	-28	6

Date Reviewed: 4-3-00 RS Supervision: Schmidt [redacted]
Print Name Signature

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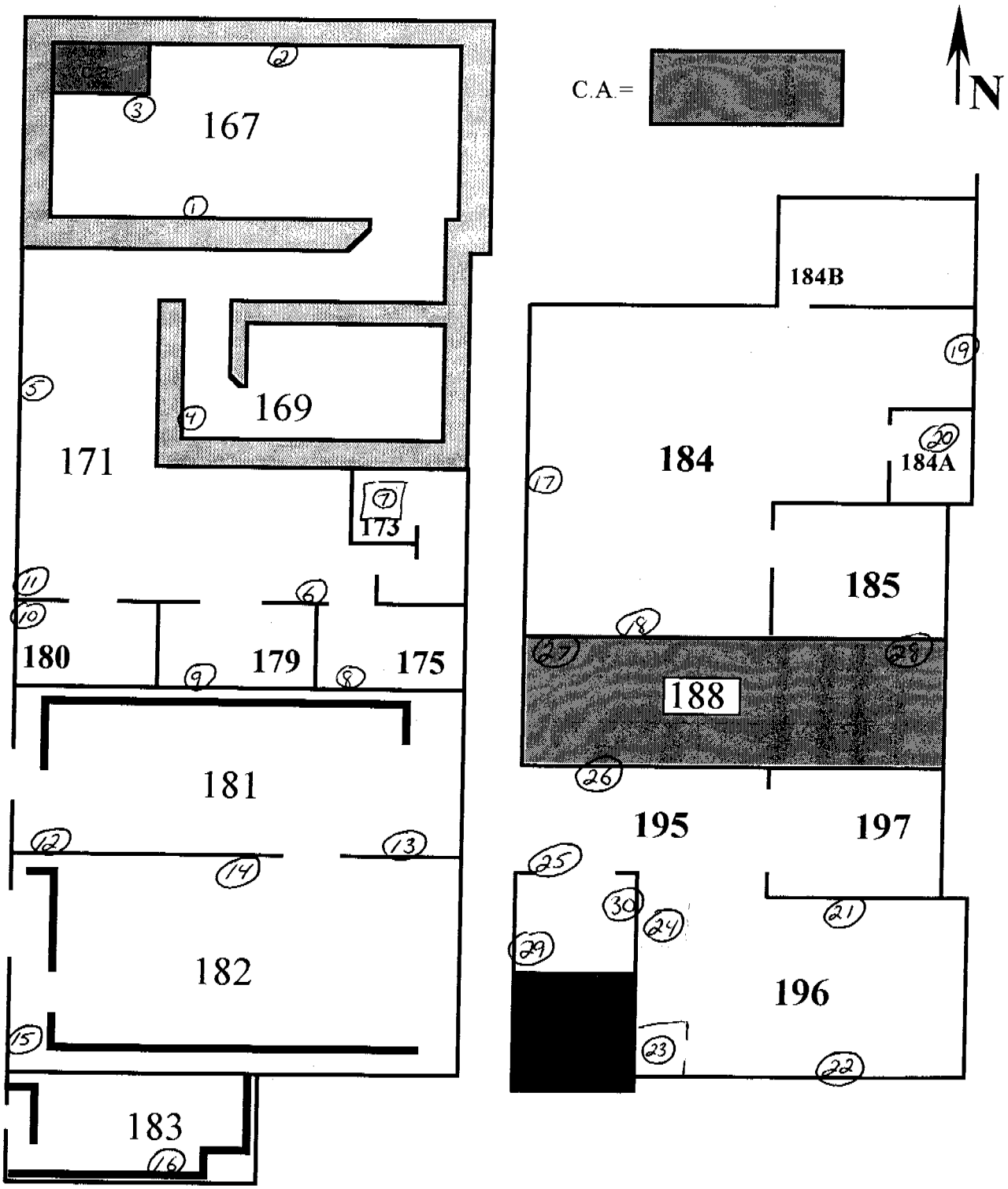
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

707 CAL GAMMA / SHIPPING



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.3 cpm	Bkg. 0.2 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 13.9 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 63 cpm	Bkg. 54 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 120.4 dpm	MDA 112.3 dpm	MDA

Survey Type: Contamination

Building: 707

Location: RBA Room Survey Area U

Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-24-00 Time: 1630

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.
3 bkgd counts alpha electra 48 cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	wall	0	-84	42	16.	wall	3	60	12
2.	wall	0	-16	12	17.	wall	6	-100	12
3.	wall	6	36	18	18.	wall	3	36	6
4.	wall	0	16	-6	19.	Ceiling	0	-20	18
5.	wall	0	-48	54	20.	Ceiling	0	-28	30
6.	wall	0	-28	18	21.	Ceiling	0	28	0
7.	wall	0	-36	66	22.	Ceiling	0	8	6
8.	wall	0	20	24	23.	Ceiling	0	-28	18
9.	wall	3	8	18	24.	Ceiling	0	24	30
10.	wall	0	-36	0	25.	Ceiling	0	0	6
11.	wall	0	28	60	26.	Ceiling	0	-28	42
12.	wall	0	4	72	27.	Ceiling	3	16	24
13.	wall	0	56	18	28.	Ceiling	0	12	12
14.	wall	0	36	30	29.	Ceiling	0	-4	18
15.	wall	0	44	0	30.	Ceiling	0	20	60

Date Reviewed: 4-3-00 RS Supervision: [illegible] [illegible]
Print Name Signature

[redacted]

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Ceiling	3	-56	0	61.				
32.	Ceiling	3	8	0	62.				
33.	Ceiling	6	-20	-12	63.				
34.	Ceiling	0	-32	-18	64.				
35.	Ceiling	0	0	42	65.				
36.	Ceiling	0	8	24	66.				
37.	Ceiling	0	-32	0	67.				
38.	Ceiling	0	-32	0	68.				
39.	wall	0	-36	6	69.				
40.	wall	3	-52	0	70.				
41.	End of Survey				71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

N/A

N/A

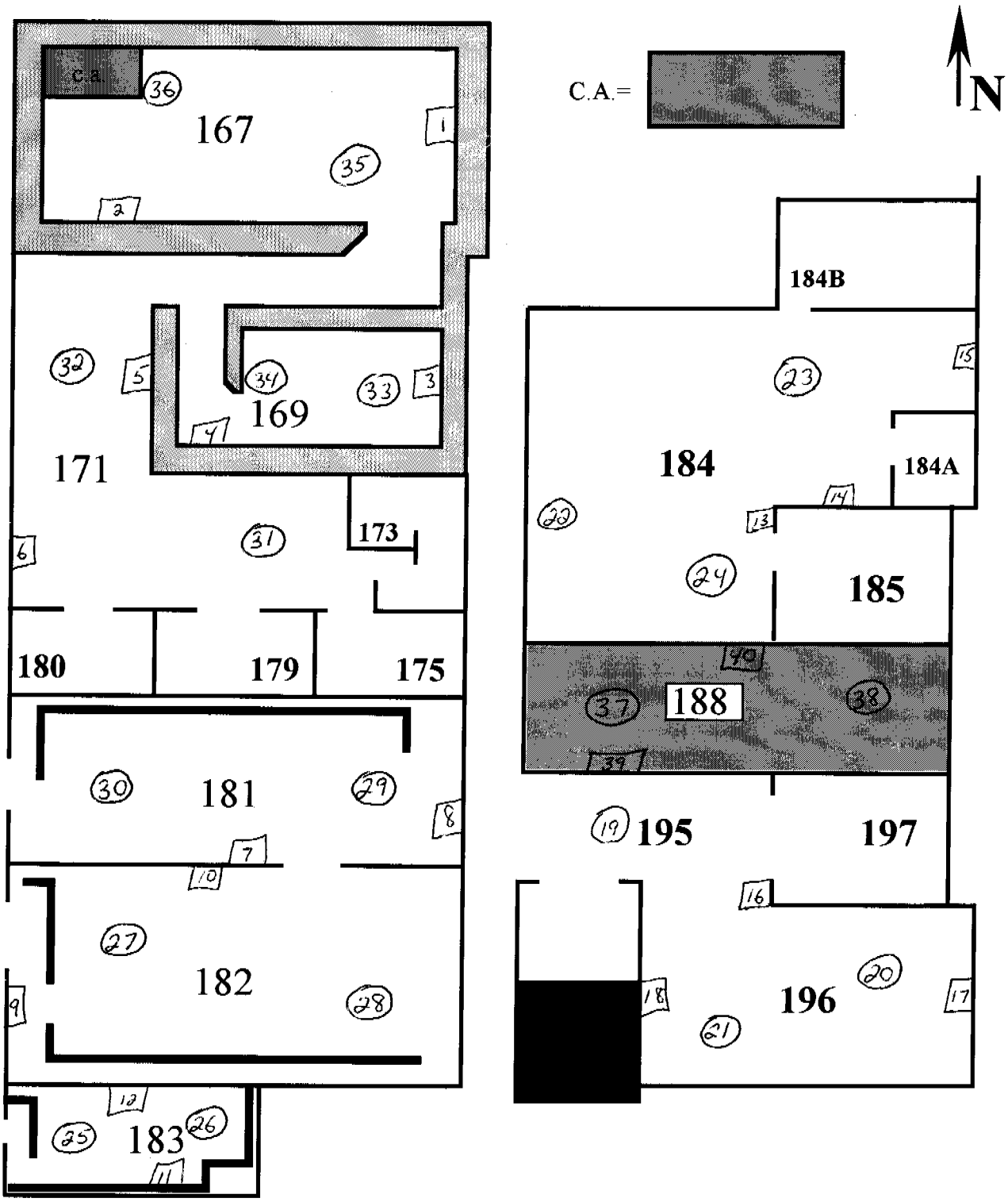
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

707 CAL GAMMA / SHIPPING



521

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	030.002				
Other Sample ID:	707-P-30-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-10	0.306	0.125	0.139	0.033
ACW03	U-235	KH100-1931-10	0.060	0.061	0.063	0.041
ACW03	U-238	KH100-1931-10	0.756	0.203	0.253	0.033
ACW03	PU-238	KH100-1931-10B	0.094	0.114	0.115	0.159
ACW03	PU-239/240	KH100-1931-10B	1.98	0.412	0.571	0.066
ACW03	AM-241	KH100-1931-10	0.081	0.095	0.096	0.074

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

522

056

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 030
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-30-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: /
TRIP BLANK: ✓

Comments/Problems encountered during sampling: Radscreen - 2 grams / 400 cm² (4 grids). ISO - 5 grams / 800 cm² (8 grids) Total = 7 grams / 1200 cm² (12 grids). Rinsate-ement # 056.

Location Description: Bldg. 707, Corridor F, room 171, floor near process drain against last wall. Inside near dark room used to be.

Other ID: 707-P-30-00

Sample Appearance: Red paint scrapings, paint is very thin.

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 10:14 Rad Screen Date: 4/28/00

Was generator notified to receive excess sample? (YES) X (NO) _____

Samplers Signature [redacted]
Employee Number: [redacted]

Date: 4/28/00 4/28/00

523

A-3

RLC RADIOLOGICAL DATA

Survey Area V

1st Floor [Corridors H, J, K, S, T, U, V,

Partial F & G; Rooms 164, 166, 170]

Radiological Survey/Sample Results for Survey Area V (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	110	110
MIN	-18	N/A
MAX	1170	N/A
MEAN	25.0	N/A
STD DEV	114.3	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	35
MIN	6	N/A
MAX	96	N/A
MEAN	44.1	N/A
STD DEV	21.4	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	98	55
MIN	-6	N/A
MAX	84	N/A
MEAN	28.1	N/A
STD DEV	19.4	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	-24	N/A
MAX	384	N/A
MEAN	61.6	N/A
STD DEV	80.3	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	110	110
MIN	0	-92
MAX	12	80
MEAN	1.1	-1.2
STD DEV	1.8	29.1
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	35
MIN	0	-56
MAX	12	72
MEAN	1.9	6.6
STD DEV	2.6	30
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	98	55
MIN	0	-60
MAX	12	68
MEAN	1.5	-1.8
STD DEV	2.4	30.2
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-80
MAX	9	56
MEAN	1.3	-7.1
STD DEV	2.0	32.1
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
3	3

Total Uranium Results dpm/100 cm^2

MIN	10
MAX	125
MEAN	51.0
STD DEV	64.2
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	14
MAX	50
MEAN	26.3
STD DEV	20.5
$DCGL_W$	100

525

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1389
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.3 cpm	Bkg. 0.1 cpm	Bkg. 1 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.77%
MDA 13.9 DPM	MDA 11.5 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3265
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 7-3-00
Bkg. 59 cpm	Bkg. 52 cpm	Bkg. 0.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 21.01%
MDA 116.9 DPM	MDA 110.4 DPM	MDA 94 DPM

Survey Type: **Contamination**

Building: 707

Location: Corridors Survey Area V

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 2-24-00 Time: 1530

[redacted]

RCT: _____
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 background Counts alpha ~8cpm (1,1,1)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	-12	0	16.	F	0	0	6
2.	F	0	-48	12	17.	F	3	-20	-6
3.	F	0	60	-12	18.	F	0	-36	0
4.	F	0	-8	-6	19.	F	3	48	28
5.	F	0	-24	12	20.	F	0	-40	24
6.	F	0	0	18	21.	F	0	-24	6
7.	F	0	0	78	22.	F	0	0	0
8.	F	3	-36	168	23.	F	0	-24	12
9.	F	0	-32	108	24.	F	0	-4	-6
10.	F	0	4	12	25.	F	0	80	-18
11.	F	12	-12	1170	26.	F	3	0	-6
12.	F	3	-4	24	27.	F	6	-36	18
13.	F	3	-4	0	28.	F	3	-52	6
14.	F	3	-48	-6	29.	F	3	20	18
15.	F	0	36	0	30.	F	3	-52	18

Date Reviewed: 3-21-00 **RS Supervision:** Shunkat [signature]
Print Name Signature

[redacted]

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	F	0	16	18	61.	W <2	0	4	18
32.	F	0	-8	0	62.	W <2	3	-4	12
33.	F	0	8	12	63.	W <2	0	-16	36
34.	F	0	0	6	64.	W <2	0	36	12
35.	F	0	-16	6	65.	W <2	0	-28	18
36.	F	0	20	66	66.	W <2	0	0	12
37.	F	3	-16	6	67.	W <2	0	32	12
38.	F	0	0	18	68.	W <2	0	0	30
39.	F	0	54	18	69.	W <2	0	4	0
40.	F	0	-40	12	70.	W <2	0	-4	6
41.	W <2	3	-40	0	71.	W <2	0	20	-6
42.	W <2	0	12	-12	72.	W <2	0	-8	-6
43.	W <2	0	46	18	73.	W <2	0	4	0
44.	W <2	0	-12	30	74.	W <2	0	0	6
45.	W <2	0	-52	24	75.	W <2	0	-36	12
46.	W <2	0	-12	6	76.	W <2	0	52	18
47.	W <2	0	20	6	77.	W <2	0	-16	12
48.	W <2	0	24	0	78.	W <2	3	44	-12
49.	W <2	3	-92	-12	79.	W <2	3	-8	-6
50.	W <2	3	~~69~~ 40	0	80.	W <2	0	-16	0
51.	W <2	6	36	0	81.	W <2	0	-16	6
52.	W <2	0	-8	6	82.	W <2	0	-16	36
53.	W <2	0	54	12	83.	W <2	0	-4	-6
54.	W <2	0	12	18	84.	W <2	3	0	-6
55.	W <2	0	-48	30	85.	W <2	3	-4	-12
56.	W <2	3	-40	12	86.	W <2	0	4	-12
57.	W <2	0	4	36	87.	W <2	0	32	-12
58.	W <2	0	0	120	88.	W <2	3	-4	18
59.	W <2	3	-20	108	89.	W <2	0	32	0
60.	W <2	3	-20	156	90.	W <2	0	52	0

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
91.	W<2	0	-12	0	121.				
92.	W<2	0	36	24	122.				
93.	W<2	3	-4	36	123.				
94.	W<2	0	40	18	124.				
95.	W<2	0	-16	18	125.				
96.	W<2	0	-8	-6	126.				
97.	W<2	3	-8	24	127.				
98.	W<2	0	-28	12	128.				
99.	W<2	0	36	0	129.				
100.	W<2	0	49	-12	130.				
101.	W<2	3	-4	-12	131.				
102.	W<2	3	4	-6	132.				
103.	W<2	0	-8	+18	133.				
104.	W<2	3	8	0	134.				
105.	W<2	0	0	12	135.	N/A			
106.	W<2	3	32	18	136.				
107.	W<2	0	-40	0	137.				
108.	W<2	3	-4	6	138.				
109.	W<2	3	0	18	139.				
110.	W<2	0	4	0	140.				
111.	END OF SURVEY				141.				
112.					142.				
113.					143.				
114.					144.				
115.					145.				
116.	N/A				146.				
117.					147.				
118.					148.				
119.					149.				
120.					150.				

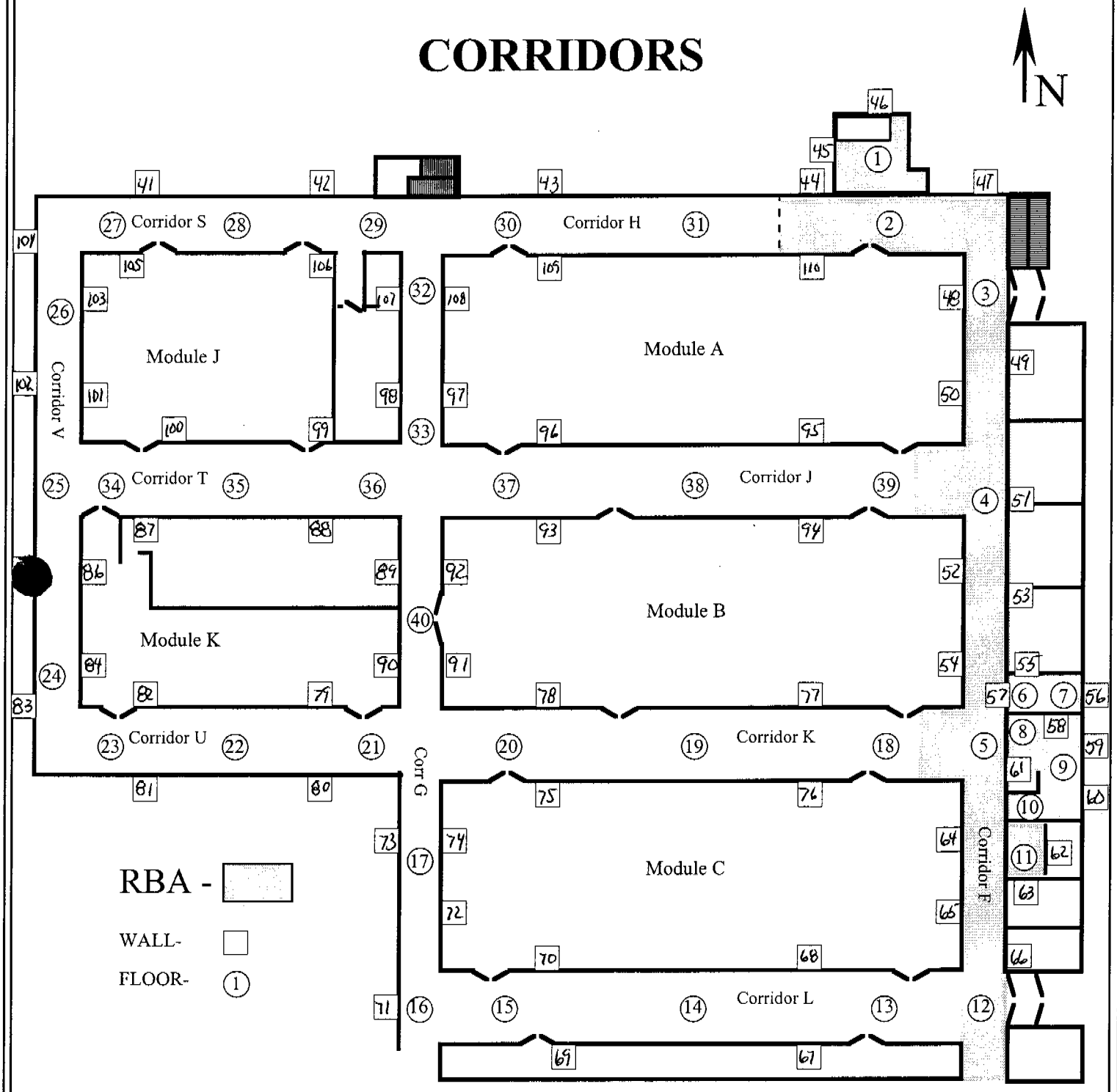
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

CORRIDORS



529

110 – Total Survey Points

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1389
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.5 cpm	Bkg. 0.3 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.77%
MDA 15.6 DPM	MDA 13.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3265
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 7-3-00
Bkg. 49 cpm	Bkg. 52 cpm	Bkg. 0.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 21.01%
MDA 107.5 DPM	MDA 110.4 DPM	MDA 94 dpm

Survey Type: Contamination
Building: 707
Location: Corridors Survey Area V
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 2-29-00 Time: 1500

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 alpha bkgd counts electra ~8cpm (0,0,4)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F - AT DOOR	3	24	64	16.				
2.	F " "	3	-56	48	17.				
3.	F " "	0	-24	24	18.				
4.	F " "	3	-36	48	19.				
5.	F " "	3	-24	12	20.				
6.	F " "	6	20	60	21.				
7.	F " "	0	68	18	22.				
8.	F " "	3	-4	36	23.	N/A			
9.	F " "	0	-36	18	24.				
10.	F " "	0	-16	12	25.				
11.	END OF SURVEY				26.				
12.					27.				
13.	N A				28.				
14.					29.				
15.					30.				

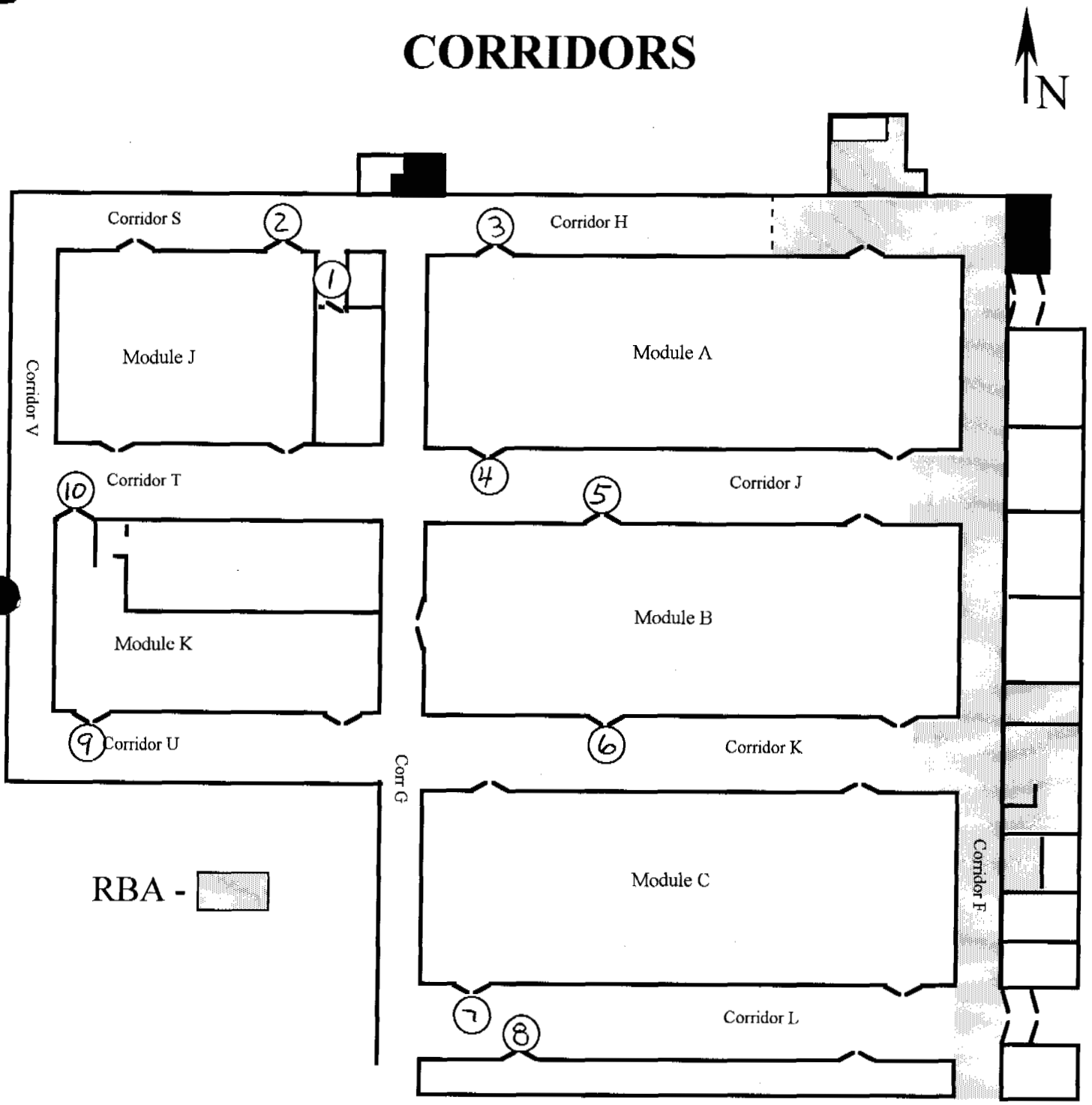
Date Reviewed: 3.21.00 **RS Supervision:** Stuckeat / [redacted]
Print Name Signature

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-29-00
Bkg. 0.6 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 16.3 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 56 cpm	Bkg. 50 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 dpm	MDA 108.4 dpm	MDA

Survey Type: Contamination
Building: 707
Location: North Corr. Survey Area V
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-16-00 Time: 1630

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 alpha bkgd counts electra <8 cpm (2,2,3)
note contained fixed α on Map

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	wall	0	-20	96	16.	Floor	3	8	54
2.	Floor	3	32	60	17.	Floor	3	-12	36
3.	Floor	6	-20	90	18.	Floor	0	4	24
4.	wall	0	48	36	19.	wall	0	-8	60
5.	wall	0	16	42	20.	Floor	0	32	30
6.	Floor	0	32	60	21.	Floor	3	24	66
7.	Floor	0	8	66	22.	wall	3	32	18
8.	wall	0	48	54	23.	Floor	12	8	48
9.	Floor	0	-20	6	24.	Floor	0	-24	54
10.	wall	0	-8	24	25.	wall	6	-4	48
11.	Floor	3	16	24	26.	End of Survey			
12.	wall	0	72	60	27.				
13.	Floor	0	32	66	28.	N/A			
14.	wall	0	32	48	29.				
15.	wall	3	-12	42	30.				

Date Reviewed: 3-21-00 **RS Supervision:** Stunkard [signature] [redacted]
Print Name Signature

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

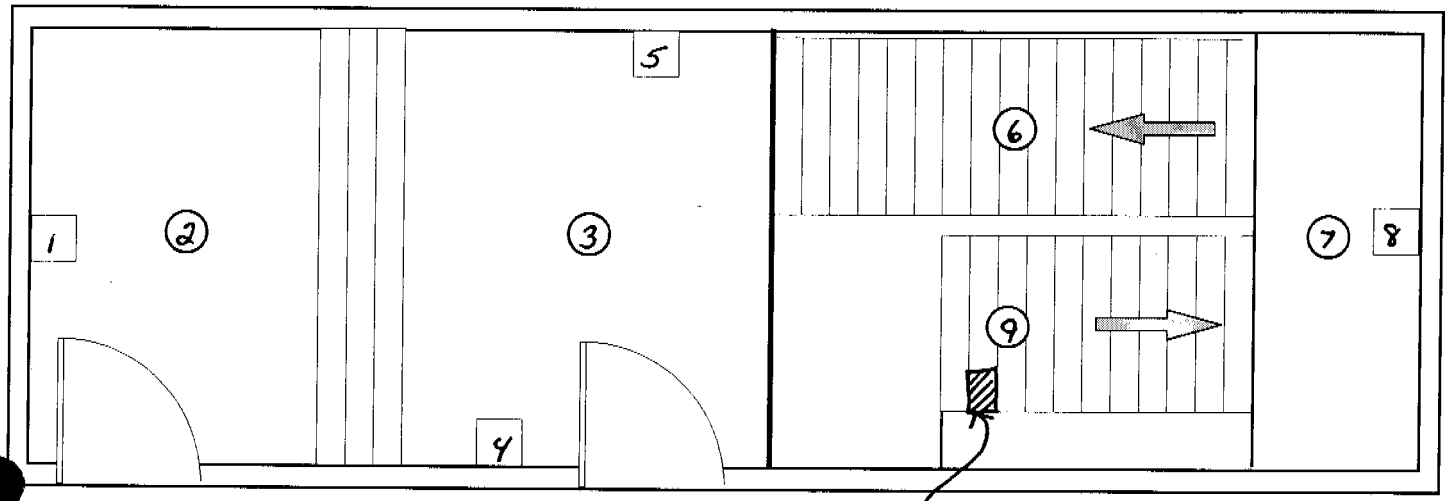
Drawing Showing Survey Points

Stairwell

NW Corner
Rm. 200

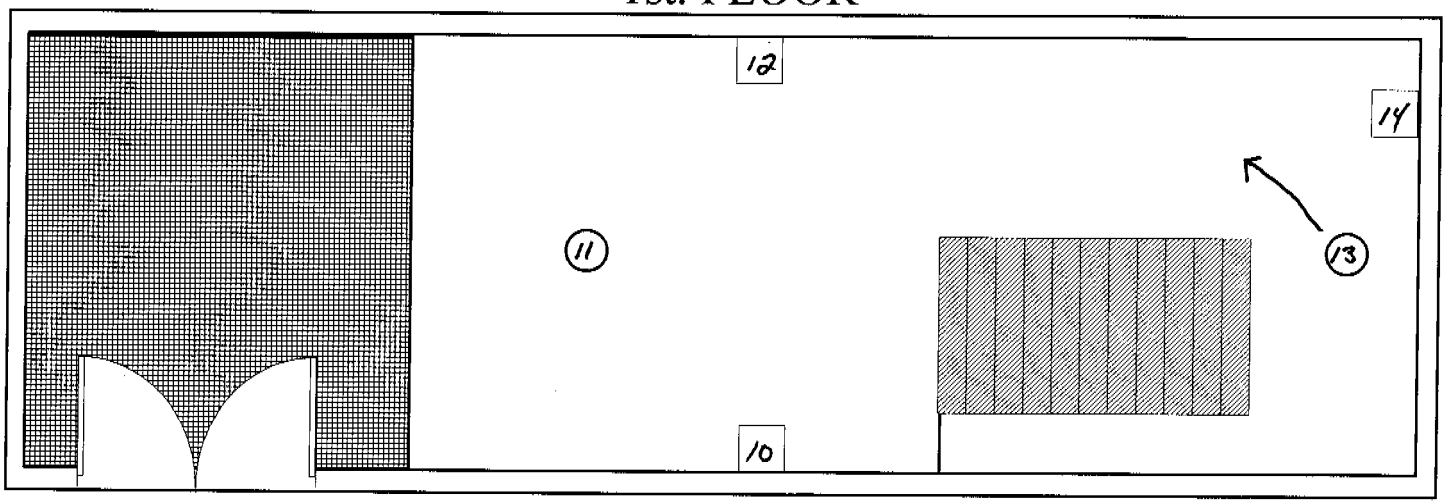
N

2nd. FLOOR



480 dpm
contained Fixed α

1st. FLOOR



533

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

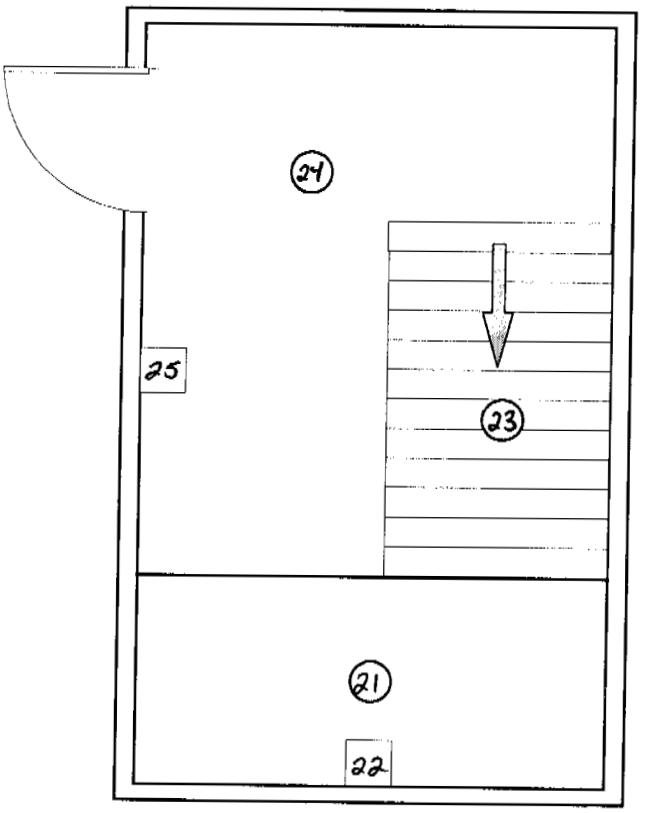
RADIOLOGICAL SAFETY

Drawing Showing Survey Points

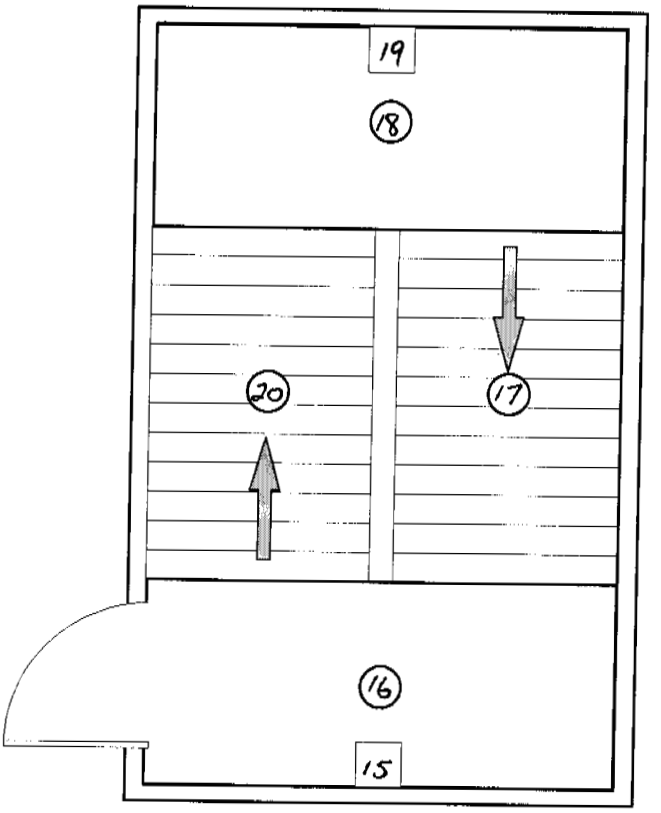
Stairwell

NE Corner

1st. FLOOR



N



2nd. FLOOR

534

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3120
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 4-26-00
Bkg. 0.7 cpm	Bkg. 0.3 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.09%
MDA 16.9 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1389
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 48 cpm	Bkg. 51 cpm	Bkg. 10 cpm
Efficiency 25%	Efficiency 25%	Efficiency 20.71%
MDA 106.5 dpm	MDA 109.4 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: **707**

Location: Corridor Survey Area V

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-1-00 Time: 1600

[redacted]

RCT: _____
Print name / Signature / Emp. #

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
3 bkgd counts alpha electra <8cpm (1,2,3)
Equipment Corridor 10 of 30 All Below Ceiling Tile

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	E Vent	0	20	54	16.				
2.	E Vent	3	-40	186	17.				
3.	E Vent	0	-4	192	18.				
4.	Process Waste Pipe	0	48	24	19.				
5.	E Vent	0	36	90	20.				
6.	E Vent	0	-4	48	21.				
7.	E Vent	0	16	42	22.				
8.	E Vent	9	-4	384	23.				
9.	E Firephone	3	-24	12	24.	N/A			
10.	E Vent	3	-20	84	25.				
11.	END OF SURVEY				26.				
12.					27.				
13.	N/A				28.				
14.					29.				
15.					30.				

Date Reviewed: 3-21-00 **RS Supervision:** Stuart / [signature] [redacted]
Print Name Signature

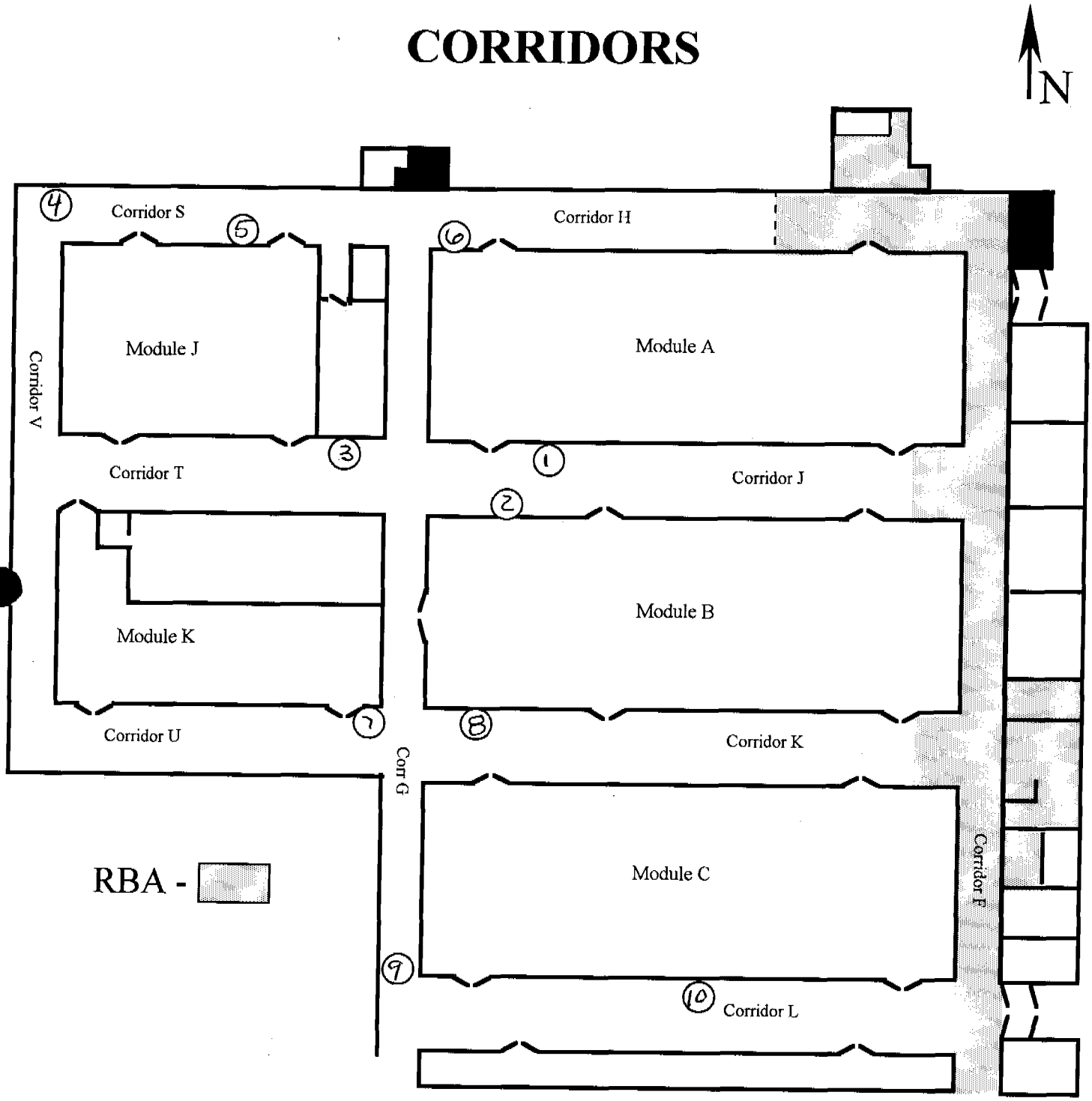
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

CORRIDORS



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3120
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 4-26-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 5 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 2-14-00	Cal Due 4-12-00	Cal Due N/A
Bkg. 54 cpm	Bkg. 53 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 112.3 dpm	MDA 111.3 dpm	MDA

Survey Type: **Contamination**

Building: **707**

Location: North Corridors Survey Area ✓

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-20-00 Time: 1630

[redacted]

RCT: _____
Print name / Signature / Emp. #

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.

Continuation from Survey dated 3-1-00

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Vent	0	-40	6	16.	Vent	3	56	84
2.	Vent	0	-4	36	17.	Vent	0	-20	84
3.	Electrical panel	0	-16	-24	18.	Vent	3	20	90
4.	Box	0	-80	-6	19.	Vent	0	28	36
5.	F/O Box	0	-4	-6	20.	Vent	0	-40	72
6.	Lockers	3	-72	6	21.	End of Survey			
7.	Box	0	-4	-6	22.				
8.	Eye Wash	0	-40	60	23.				
9.	Vent	0	4	66	24.				
10.	Tray	3	-20	12	25.				
11.	Vent	3	-24	24	26.	N/A			
12.	Vent	3	-4	0	27.				
13.	Vent	0	44	96	28.				
14.	Vent	3	-8	0	29.				
15.	Vent	0	-12	102	30.				

Date Reviewed: 4-26-00 **RS Supervision:** Shuttleworth, [illegible]
Print Name Signature

[redacted]

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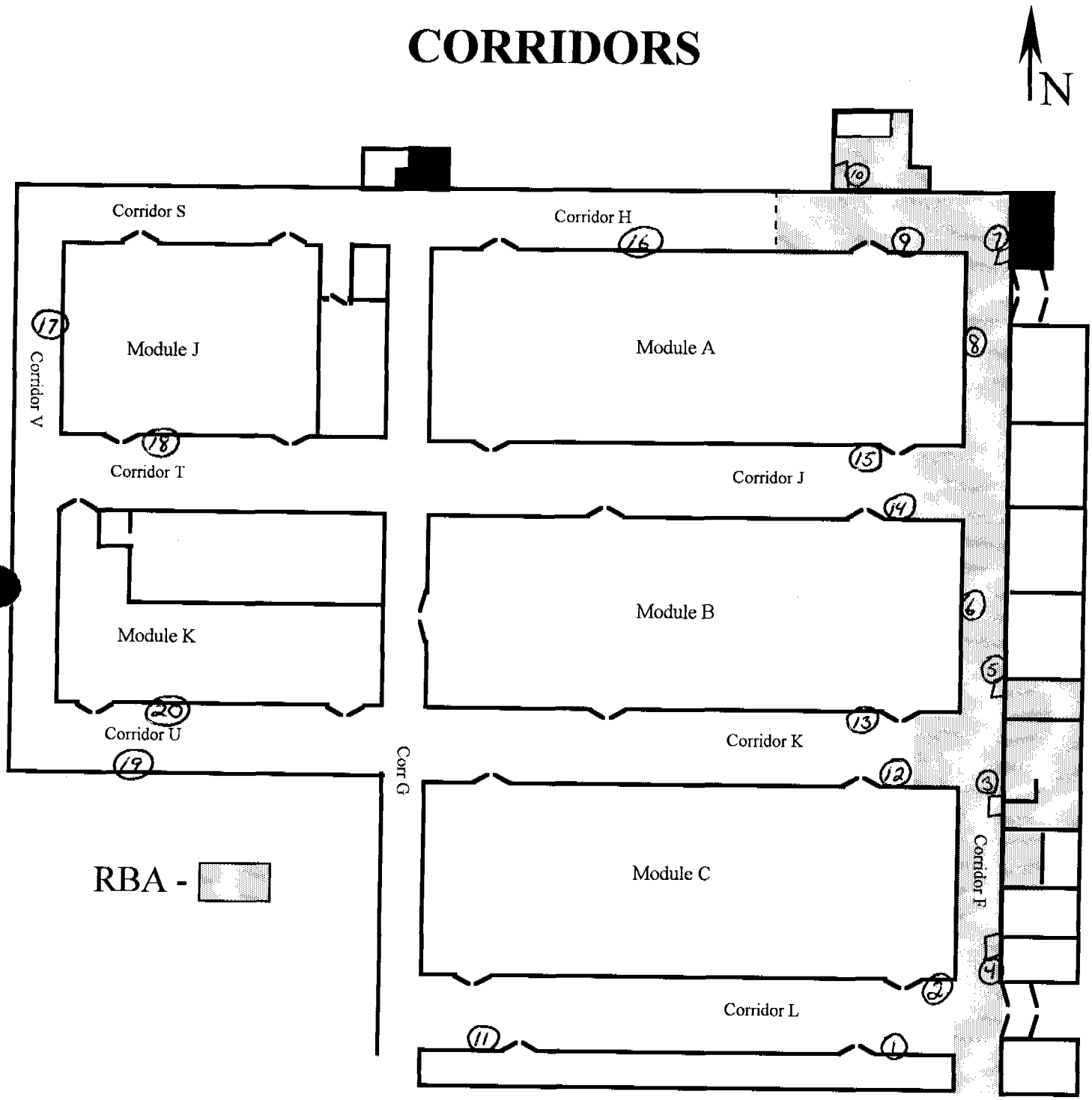
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

CORRIDORS



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.6 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 16.3 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 56 cpm	Bkg. 50 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 dpm	MDA 108.4 dpm	MDA

Survey Type: Contamination
Building: 707
Location: North Corridors Survey Area ✓
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-16-00 Time: 1630

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.
3 bkgd alpha counts electra <8cpm (1,1,2)
continuation to survey dated 2-28-00 RBA only

43 pts not performed due to being inaccessible above ceiling tiles - + this area posted ARA for entry.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Ceiling vent	3	-8	18	16.	End of Survey			
2.	Ceiling Vent	3	28	12	17.				
3.	Ceiling Vent	0	40	6	18.				
4.	Ceiling vent	3	12	12	19.				
5.	Ceiling	0	-36	6	20.				
6.	wall	3	4	12	21.				
7.	wall	6	40	6	22.	N/A			
8.	wall	0	-4	12	23.				
9.	wall	0	-4	6	24.				
10.	wall	0	-8	6	25.				
11.	wall	3	-24	-6	26.				
12.	wall	0	16	12	27.				
13.	wall	0	-24	12	28.				
14.	wall	0	16	6	29.				
15.	wall	0	12	6	30.				

Date Reviewed: 3-21-00 **RS Supervision:** Stuckart / [signature]
Print Name Signature

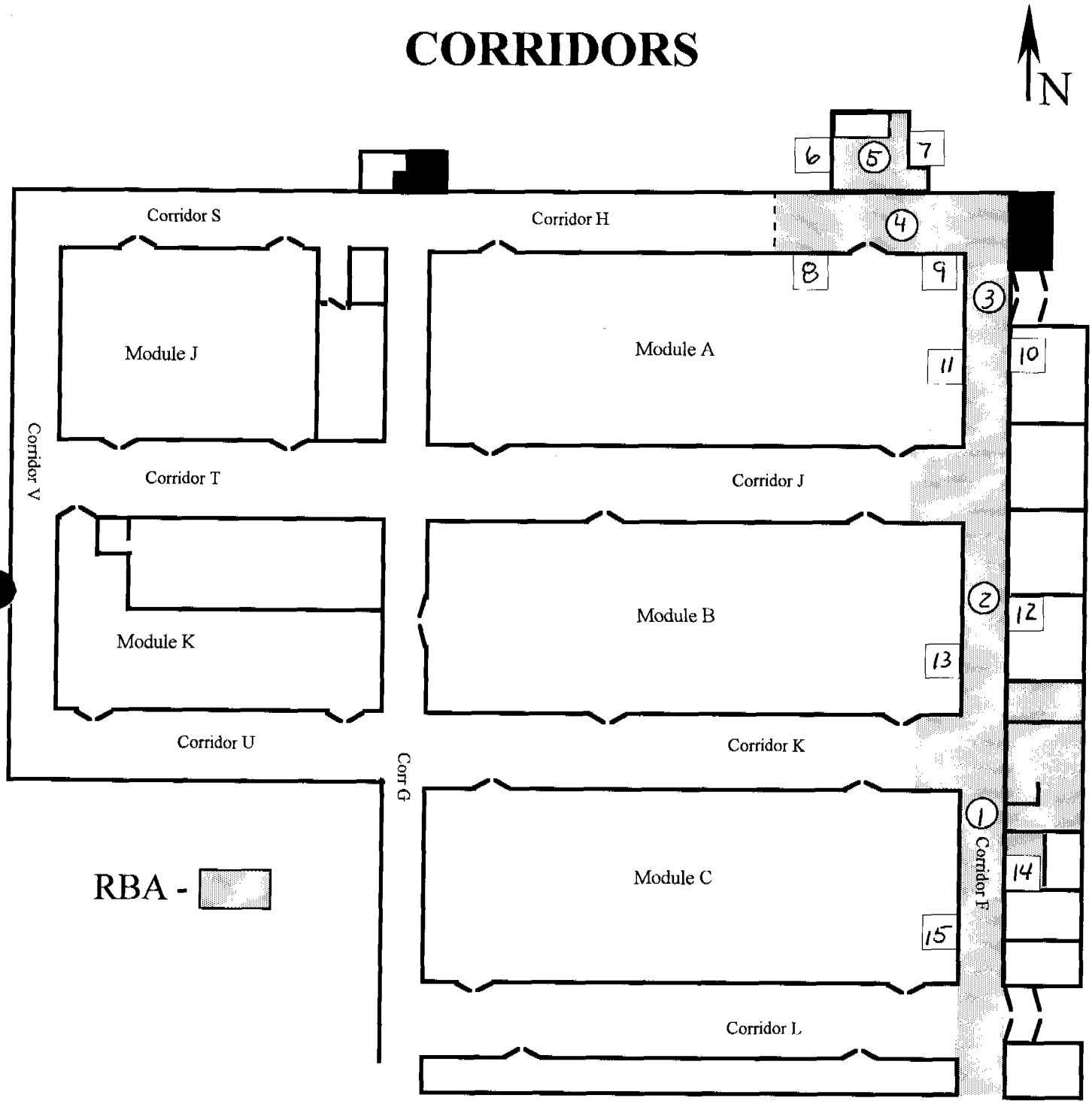
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

CORRIDORS



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.5 cpm	Bkg. 0.3 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 15.6 DPM	MDA 13.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 49 cpm	Bkg. 52 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 107.5 DPM	MDA 110.4 DPM	MDA

Survey Type: **Contamination**

Building: 707

Location: corridors North Survey Area V

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 2-28-00 Time: 1600

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations. 3 bkgd counts alpha electra < 8cpm (0,2,3)
False Ceiling Tiles CA - only
using correction facters SAC4 = x3 BC-4 = x4 Electra alpha = x6

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	W 22m	0	68	84	16.	W "	12	0	36
2.	W "	0	-52	18	17.	W "	0	20	42
3.	W "	0	-8	30	18.	W "	3	-20	48
4.	W "	0	-8	12	19.	W "	0	-24	12
5.	W "	0	-28	36	20.	W "	0	8	60
6.	W "	3	4	18	21.	W "	0	8	30
7.	W "	0	40	18	22.	W "	3	36	18
8.	W "	3	-36	24	23.	W "	0	12	48
9.	W "	3	-8	30	24.	W "	0	-8	12
10.	W "	0	8	24	25.	W "	0	24	24
11.	W "	0	56	18	26.	W "	0	28	48
12.	W "	0	-32	30	27.	W "	0	-48	48
13.	W "	0	-44	60	28.	W "	0	-28	18
14.	W "	3	-36	18	29.	W "	0	-60	42
15.	W "	0	24	48	30.	W "	0	-36	60

Date Reviewed: 3-21-00 RS Supervision: Stuckart [redacted]
Print Name Signature

541

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Ceiling Tiles	3	52	72	61.				
32.	Ceiling Tiles	3	-16	18	62.				
33.	Ceiling Tiles	3	16	30	63.				
34.	Ceiling Tiles	0	-52	54	64.				
35.	Ceiling Tiles	3	-16	36	65.				
36.	Ceiling Tiles	6	-44	36	66.				
37.	Ceiling Tiles	0	44	30	67.				
38.	Ceiling Tiles	9	4	36	68.				
39.	Ceiling Tiles	0	-16	54	69.				
40.	Ceiling Tiles	3	8	42	70.				
41.					71.				
42.					72.				
43.					73.				
44.	N/A				74.				
45.					75.				
46.					76.				
47.					77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

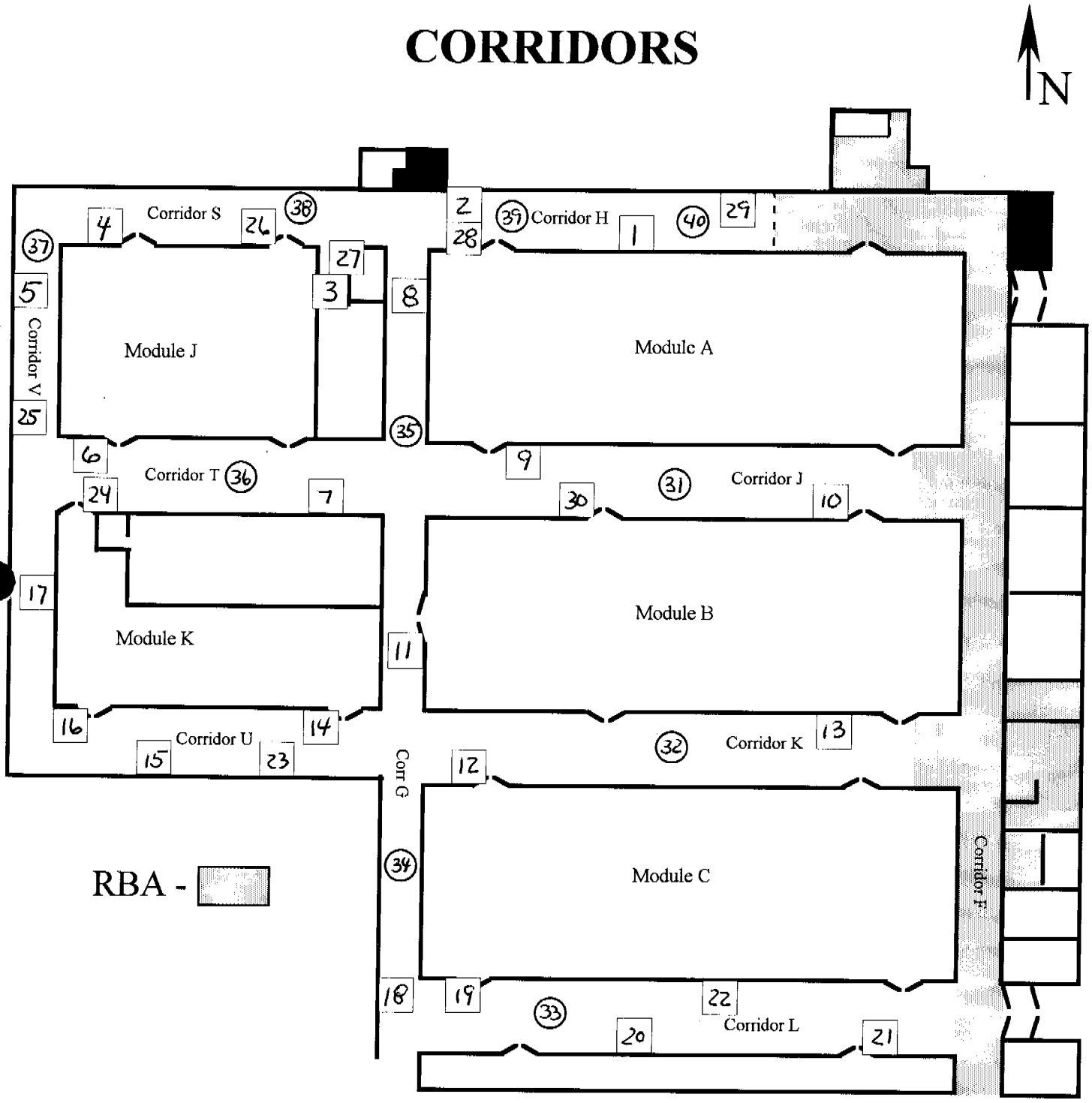
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

CORRIDORS



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	031.002				
Other Sample ID:	707-P-31-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-01	0.248	0.119	0.129	0.037
ACW03	U-235	KH100-1932-01	0.051	0.059	0.061	0.046
ACW03	U-238	KH100-1932-01	1.65	0.335	0.470	0.037
ACW03	PU-238	KH100-1932-01	0.009	0.129	0.129	0.218
ACW03	PU-239/240	KH100-1932-01	2.28	0.477	0.659	0.073
ACW03	AM-241	KH100-1932-01	0.661	0.276	0.306	0.115

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

544

057

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 031
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-31-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID:
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams/5x20 cm² (1 strip). TSO - 15x20 (3 strips) 7 grams. Total - 9 grams/20x20 cm² (4 strips). Rinsate - Event. 056

Location Description: Bldg. 707, Module C, Corridor L, outside doors 74+75, eastside.

Other ID: 707-P-31-00

Sample Appearance: See event. 027 — TAN 5.18.2000

Sampling Device: Heat gun + Chisel

Sample Date: 4/28/00 Sample Time: 10:53 Rad Screen Sample Date: 4/28/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee Numb[redacted]

Date: 4/28/00 4/28/00

545

Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	032.002				
Other Sample ID:	707-P-32-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-02	0.165	0.100	0.106	0.041
ACW03	U-235	KH100-1932-02	0.092	0.083	0.088	0.050
ACW03	U-238	KH100-1932-02	0.778	0.230	0.278	0.084
ACW03	PU-238	KH100-1932-02	0.051	0.128	0.128	0.198
ACW03	PU-239/240	KH100-1932-02	0.604	0.199	0.232	0.085
ACW03	AM-241	KH100-1932-02	0.206	0.134	0.140	0.093

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

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ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 032
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-32-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/ 25 cm² (1/4 grid). ISO - 7 grams, 75 grams. Total 9 grams/100 cm² (1 grid). Rinsate Events. 056.

Location Description: Bldg. 707, Module A, Corridor F, first eyewash in corridor F. Just north of eyewash 707-1-2

Other ID: MW P 707-P-32-00

Sample Appearance: See event. 027 - TAN

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 11:08 Rad Screen Sample Date: 4/28/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee Nu[redacted]

Date: 4/28/00 4/28/00

547

Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	033.002				
Other Sample ID:	707-P-33-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-03	0.865	0.232	0.289	0.037
ACW03	U-235	KH100-1932-03	0.078	0.077	0.081	0.081
ACW03	U-238	KH100-1932-03	6.20	0.814	1.48	0.037
ACW03	PU-238	KH100-1932-03	0.008	0.111	0.111	0.187
ACW03	PU-239/240	KH100-1932-03	2.08	0.415	0.587	0.063
ACW03	AM-241	KH100-1932-03	0.754	0.252	0.294	0.048

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

548

059

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 033
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 0336
CUSTOMER SAMPLE ID: 707-P-33-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 gram/ 25 cm² (1/4 grid). ISO - 7 grams/75 cm² (3/4 grid). Total - 9 grams/100 cm² (1 grid). Minute. 0856

Location Description: Bldg. 707, Module A, floor outside of doors 32 & 33

Other ID: 707-P-33-00

Sample Appearance: See event. 027 - TAN

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 11:19 Rad Screen Sample Date: 4/28/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Num [redacted]

Date: 4/28/00 4/28/00

B4/9

Lmc 06/29/98

A-3

RLC RADIOLOGICAL DATA

Survey Area W

1st Floor Corridors M, N, P, R, Partial F & G; Rooms 178, 178A]

Radiological Survey/Sample Results for Survey Area W (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	79	79
MIN	0	N/A
MAX	2040	N/A
MEAN	73.0	N/A
STD DEV	245.6	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	6	N/A
MAX	48	N/A
MEAN	28.8	N/A
STD DEV	15.2	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	40	40
MIN	-6	N/A
MAX	42	N/A
MEAN	9.9	N/A
STD DEV	10.2	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	102	N/A
MEAN	35.6	N/A
STD DEV	21.6	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	79	79
MIN	0	-44
MAX	6	100
MEAN	1.1	3.3
STD DEV	1.8	28.5
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-52
MAX	3	40
MEAN	1.2	0.4
STD DEV	1.5	30.6
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	40	40
MIN	0	-56
MAX	9	124
MEAN	1.1	7.8
STD DEV	2.0	29.5
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-32
MAX	90	104
MEAN	4.7	14.1
STD DEV	16.4	34.0
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
3	3

Total Uranium Results dpm/100 cm^2

MIN	4
MAX	6
MEAN	0.0
STD DEV	1.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	2
MAX	6
MEAN	4.0
STD DEV	2.0
$DCGL_W$	100

551

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due ~~[illegible]~~ 7-3-00
Bkg. 0.2 cpm	Bkg. 0.1 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 11.5 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 52 cpm	Bkg. 51 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 dpm	MDA 109.4 dpm	MDA

Survey Type: Contamination

Building: 707

Location: South Corridors Survey Area W

Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-14-00 Time: 1630

[redacted]

Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 background alpha counts electra <8cpm (1,1,5)
CA only

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall	0	20	30	16.	Wall	3	-24	36
2.	Floor	6	-40	36	17.	Floor	0	42	12
3.	Wall	0	0	36	18.	Floor	0	20	8
4.	Wall	0	4	54	19.	Wall	0	-8	6
5.	Floor	0	-28	18	20.	Wall	0	-24	12
6.	Wall	0	0	42	21.	Wall	3	-20	18
7.	Wall	3	52	36	22.	Floor	0	56	48
8.	Floor	3	28	12	23.	Floor	0	16	24
9.	Wall	0	-8	0	24.	Wall	6	16	18
10.	Wall	0	-36	6	25.	Wall	0	40	30
11.	Floor	0	0	24	26.	Floor	0	-16	24
12.	Wall	0	-32	12	27.	Wall	0	8	30
13.	Floor	3	12	48	28.	Wall	0	40	36
14.	Wall	3	20	24	29.	Floor	0	-8	0
15.	Wall	0	-12	0	30.	Wall	0	24	48

Date Reviewed: 3-16-00 **RS Supervision:** Stueckrath / [signature] [redacted]
Print Name Signature

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	wall	0	-4	30	61.				
32.	wall	0	12	18	62.				
33.	Floor	0	0	36	63.				
34.	End of survey				64.				
35.					65.				
36.					66.				
37.					67.				
38.					68.				
39.					69.				
40.					70.				
41.					71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.	N/A			
47.	N/A				77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

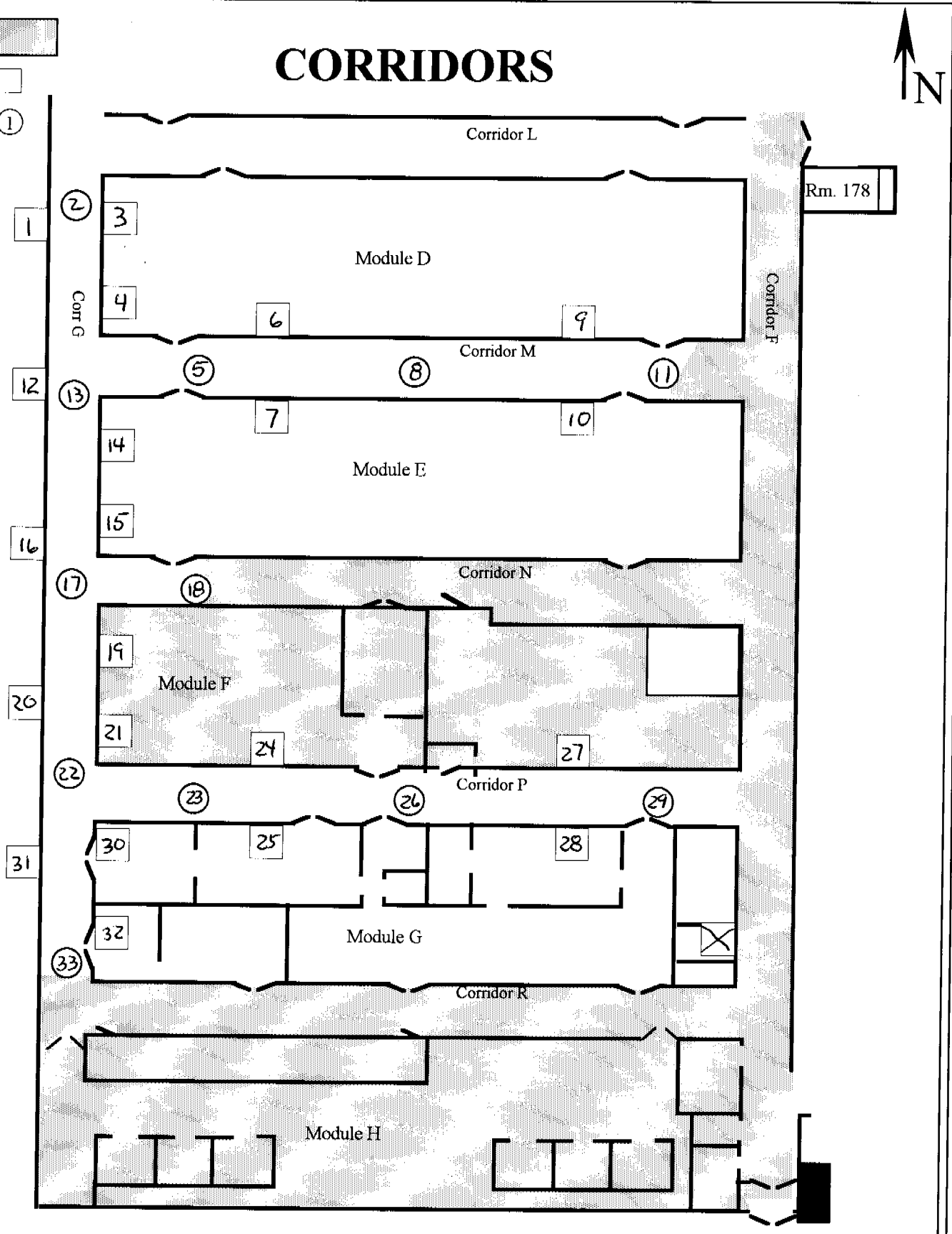
Drawing Showing Survey Points

RBA -

WALL-

FLOOR- 1

CORRIDORS



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1518
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 6-7-00
Bkg. 0.2 cpm	Bkg. 0.1 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86
MDA 12.9 dpm	MDA 82 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 873	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 52 cpm	Bkg. 51 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 dpm	MDA 109.4 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: CORRIDORS Survey Area W

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3/16/00 Time: 1045

[redacted]

RCT: _____
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations. RBA ONLY (SEE MAP)
3 bkgd Counts alpha electra <8cpm (1,0,6)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	FLOOR	3	-12	684	16.	F	0	20	18
2.	"	3	-20	294	17.	"	3	44	24
3.	"	0	4	150	18.	W	0	-12	30
4.	"	3	8	2040	19.	W	3	20	12
5.	W	0	-12	540	20.	F	3	-4	48
6.	"	6	20	120	21.	W	0	-28	54
7.	"	0	-44	108	22.	F	0	20	30
8.	"	0	100	96	23.	W	0	0	12
9.	F	0	60	6	24.	F	0	-32	12
10.	W	3	32	12	25.	W	3	16	36
11.	W	0	-28	12	26.	F	0	-44	12
12.	W	0	8	12	27.	"	0	0	18
13.	F	3	32	12	28.	"	0	-12	36
14.	W	0	44	6	29.	"	3	-8	12
15.	F	0	-28	24	30.	W	3	-32	18

Date Reviewed: 3-15-00 **RS Supervision:** Stuart [illegible] Print Name Signature [redacted]

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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	W	0	-40	24	61.				
32.	W	6	-24	18	62.				
33.	W	0	-16	6	63.				
34.	"	0	-4	24	64.				
35.	"	0	64	6	65.				
36.	"	6	8	6	66.				
37.	"	3	44	6	67.				
38.	"	0	-16	18	68.				
39.	"	0	12	54	69.				
40.	"	0	0	48	70.				
41.	"	0	-40	48	71.				
42.	"	3	28	66	72.				
43.	"	0	-24	48	73.				
44.	"	0	-16	12	74.				
45.	"	0	8	24	75.				
46.	"	3	12	60	76.				
47.	End of Survey				77.				
48.					75.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

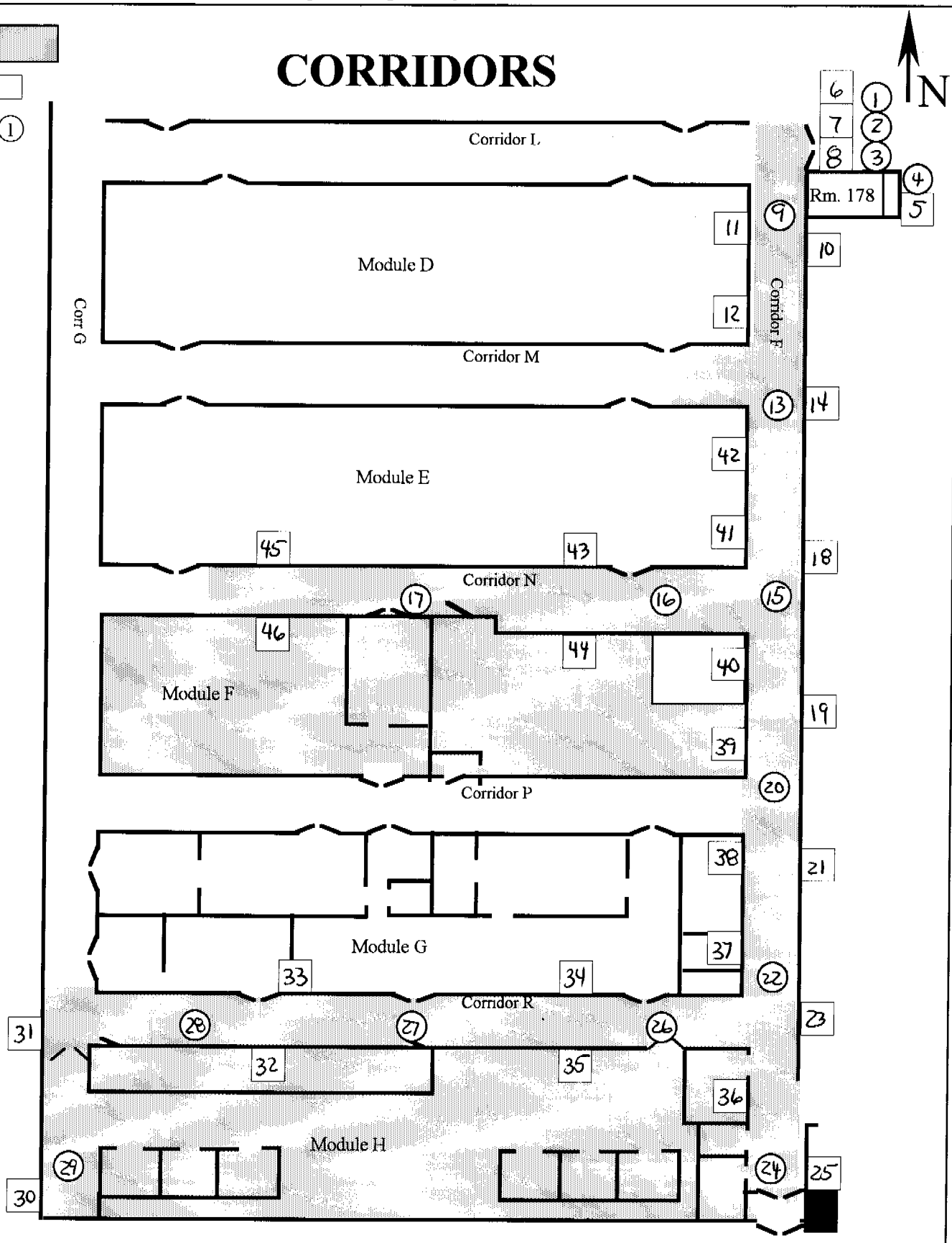
Drawing Showing Survey Points

RBA -

WALL-

FLOOR- 1

CORRIDORS



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.2 cpm	Bkg. 0.1 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 11.5 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 52 cpm	Bkg. 51 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 dpm	MDA 109.4 dpm	MDA

Survey Type: Contamination
Building: 707
Location: South Corridors Survey Area W
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-14-00 Time: 1630

[redacted]

Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
3 bkgd counts alpha electra ~8cpm (1,2,5)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	-52	12	16.				
2.	Floor	3	4	48	17.				
3.	Floor	0	40	24	18.				
4.	Floor	0	16	30	19.				
5.	Floor	0	8	12	20.				
6.	Floor	0	-44	42	21.				
7.	Floor	3	4	30	22.				
8.	Floor	3	-20	48	23.	N/A			
9.	Floor	0	12	6	24.				
10.	Floor	3	36	36	25.				
11.	End of Survey				26.				
12.					27.				
13.	N/A				28.				
14.					29.				
15.					30.				

Date Reviewed: 3-16-00 **RS Supervision:** Stuckert / [signature]
Print Name Signature [redacted]

RS FORMS 07.02-01

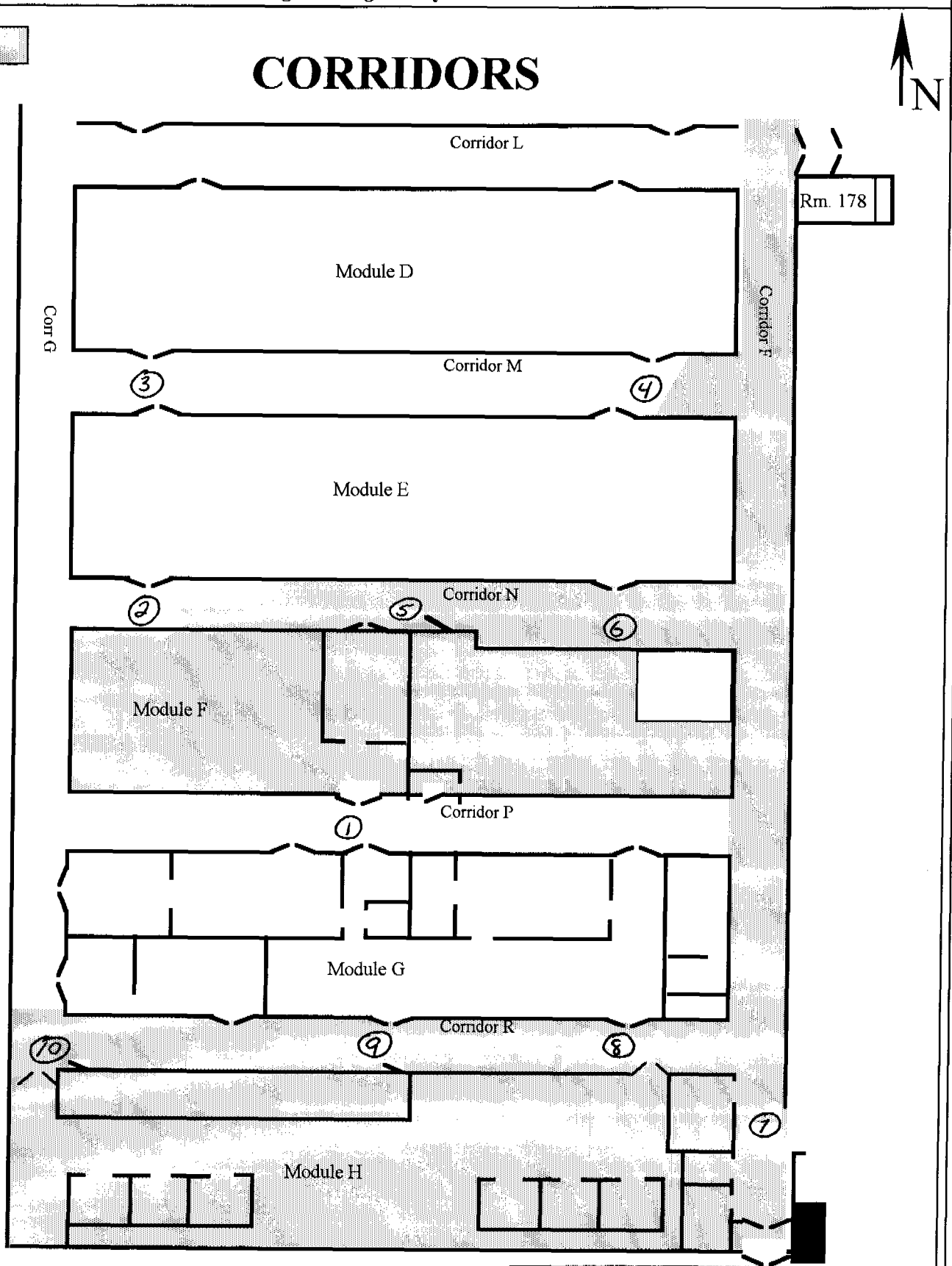
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

RBA -

CORRIDORS



GH 3-14-00 79 - Total Survey Points

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3265
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-3-00
Bkg. 0.2 cpm	Bkg. 0.1 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17 %
MDA 12.9 dpm	MDA 11.5 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 52 cpm	Bkg. 51 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 110.4 dpm	MDA 109.4 dpm	MDA

Survey Type: **Contamination**

Building: 707

Location: South corridors Survey Area W

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-14-00 Time: 1630

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
3 blank counts alpha electra <8cpm (1,4,5)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	vent	3	-16	36	16.	vent	0	16	60
2.	vent	0	-24	18	17.	Drop	0	48	36
3.	vent	0	-32	30	18.	chain layer	6	0	12
4.	vent	9	-8	60	19.	Box	3	12	6
5.	vent	90	76	54	20.	Box	0	40	12
6.	vent	12	24	30	21.	Box	0	0	54
7.	Temp indicater	0	48	36	22.	Box	0	-24	12
8.	Door	0	24	60	23.	cage	0	4	42
9.	Door	0	64	30	24.	vent	0	16	18
10.	vent	3	104	24	25.	cage	0	24	30
11.	vent	0	60	60	26.	Box	0	-8	0
12.	vent	6	-20	30	27.	Box	0	-32	54
13.	vent	6	24	36	28.	Box	0	-8	36
14.	vent	3	16	54	29.	Box	0	-12	18
15.	vent	0	-24	102	30.	Box	0	32	18

Date Reviewed: 3-16-00 **RS Supervision:** Stuckart [redacted]
Print Name Signature

RS FORMS 07.02-01

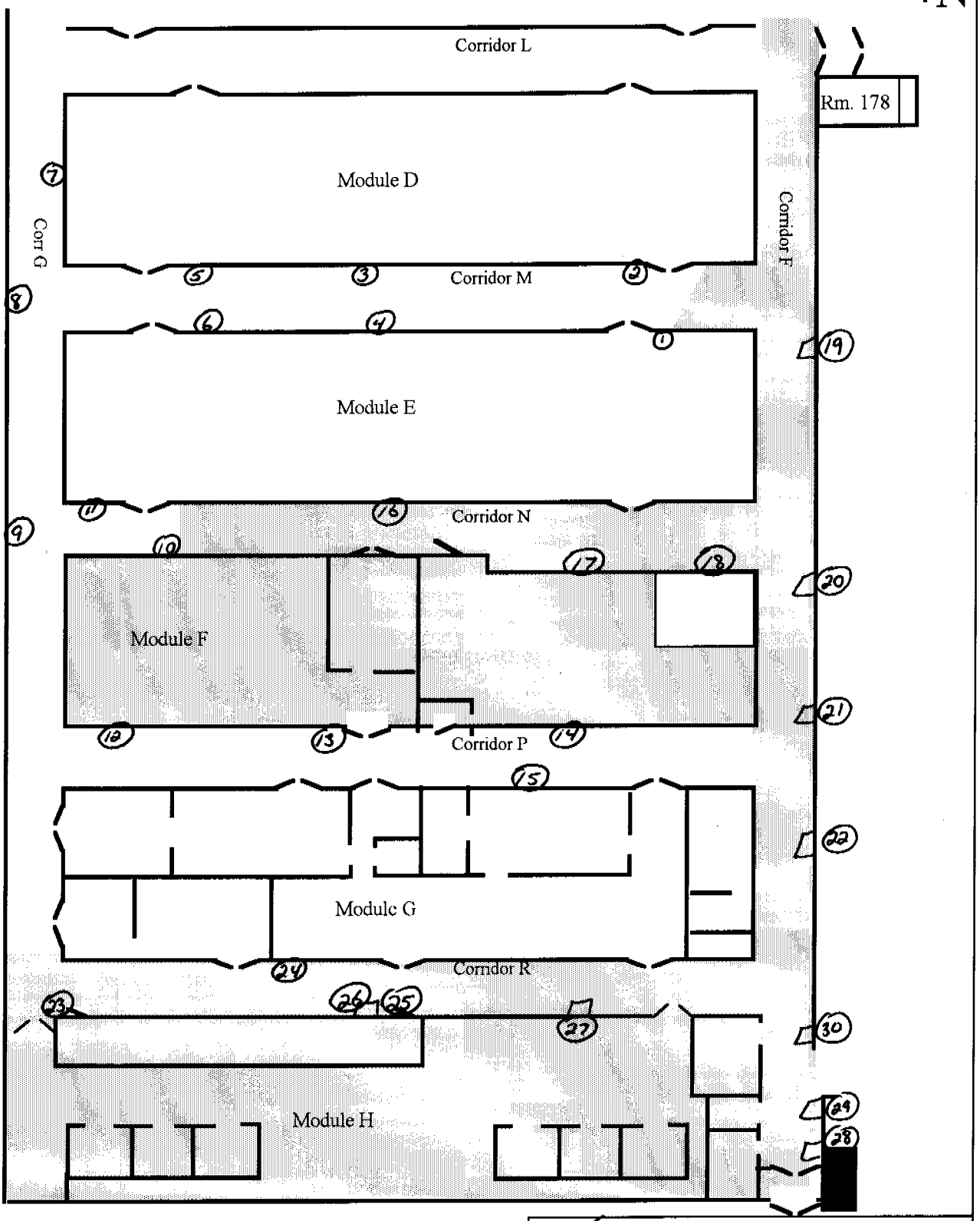
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

RBA -

CORRIDORS



4H 3-14-00 ~~79~~ 30 Total Survey Points

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 1233
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 5-11-00
Bkg. 0.4 cpm	Bkg. 0.1 cpm	Bkg. 1 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 14.8 dpm	MDA 11.5 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 53 cpm	Bkg. 52 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 111.3 dpm	MDA 110.4 dpm	MDA

Survey Type: Contamination

Building: 707

Location: South Corridors Survey Area W

Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-15-00 Time: 1630

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.
3 bkgd Counts alpha electra <8cpm (1,1,4)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Ceiling Tile	0	28	0	16.	wall	0	20	6
2.	Ceiling Vent	0	12	6	17.	wall	3	12	12
3.	Ceiling Vent	3	-56	12	18.	wall	0	124	6
4.	Ceiling Tile	0	0	6	19.	wall	0	0	6
5.	ceiling Vent	3	-4	18	20.	wall on Stain	0	12	18
6.	Ceiling Tile	0	8	24	21.	wall	0	20	12
7.	Ceiling Vent	0	52	0	22.	wall	0	-8	0
8.	Ceiling Vent	3	-28	0	23.	wall	9	-32	6
9.	Ceiling Vent	3	4	42	24.	wall	0	-20	6
10.	wall	0	4	18	25.	wall	6	32	12
11.	wall	3	-12	0	26.	wall	0	-4	6
12.	wall	3	48	12	27.	wall	0	-16	0
13.	wall	3	-8	6	28.	wall	0	12	36
14.	wall	0	-16	6	29.	wall	0	-36	0
15.	wall	0	36	12	30.	wall	0	12	-6

Date Reviewed: 3-16-00 **RS Supervision:** Stuckrath [redacted]
Print Name Signature

562 Rev. 02/00

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	wall	3	20	0	61.				
32.	wall C-N	3	20	18	62.				
33.	Ceiling	0	-24	0	63.				
34.	Ceiling Vent	0	12	24	64.				
35.	Ceiling Vent	0	4	0	65.				
36.	Ceiling Vent	0	40	18	66.				
37.	Ceiling Vent	0	4	6	67.				
38.	Ceiling Vent	0	8	12	68.				
39.	Ceiling Vent	0	8	24	69.				
40.	Ceiling Tile	0	24	12	70.				
41.	End of Survey				71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.	N/A			
47.					77.				
48.					78.				
49.					79.				
50.	N/A				80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

G103

RS FORMS 07.02-01

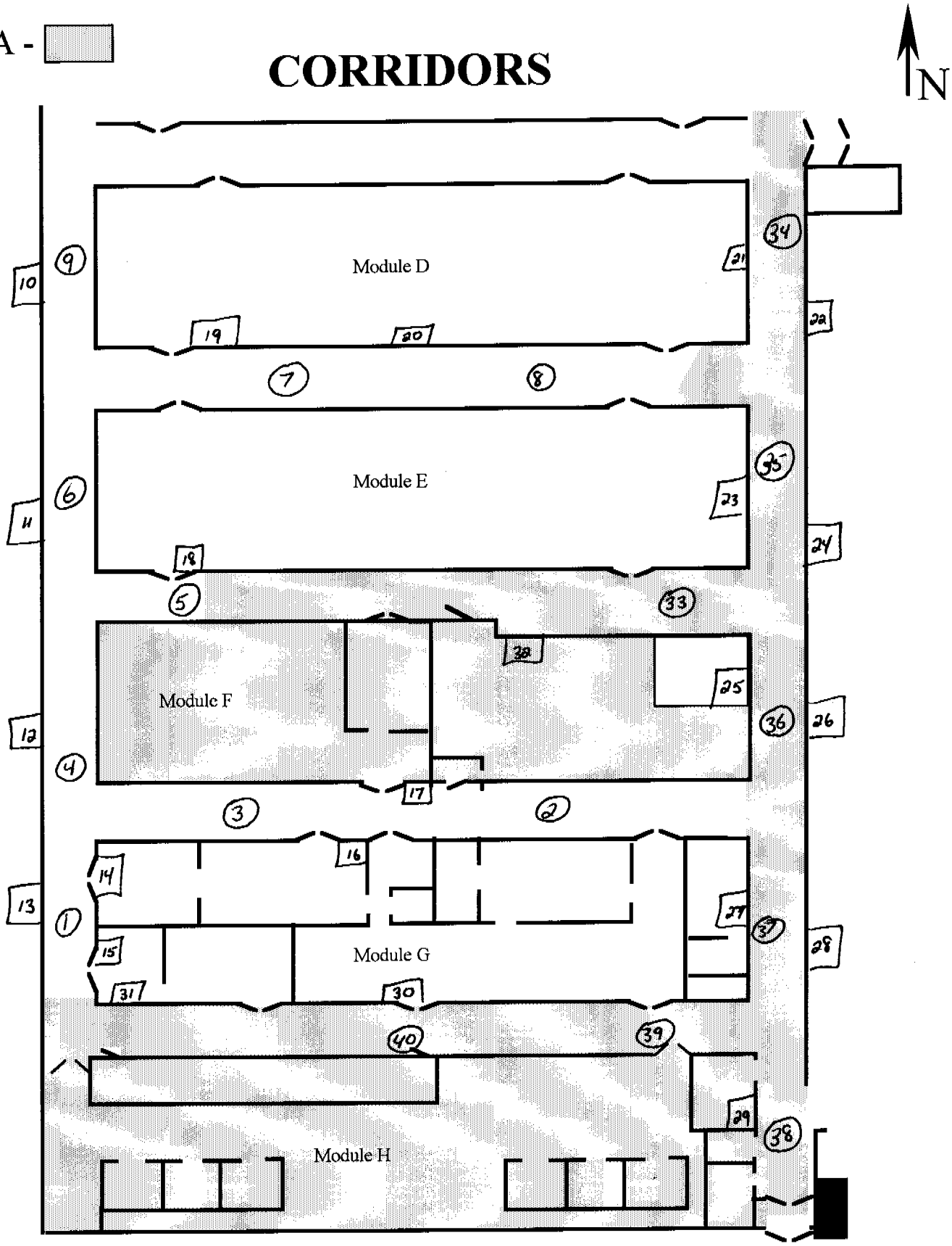
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

RBA -

CORRIDORS



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	027.002				
Other Sample ID:	707-P-27-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-07	0.122	0.087	0.090	0.068
ACW03	U-235	KH100-1931-07	0.018	0.035	0.035	0.047
ACW03	U-238	KH100-1931-07	0.566	0.186	0.218	0.038
ACW03	PU-238	KH100-1931-07B	0.101	0.123	0.125	0.172
ACW03	PU-239/240	KH100-1931-07B	0.381	0.160	0.177	0.071
ACW03	AM-241	KH100-1931-07	0.075	0.076	0.078	0.051

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 027
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-27-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 ~~grams~~ mg grams)
1 strip 5x20. ISO-7 grams / 10x20 cm (2 strips)
Total = 9 grams / 15 x 20 cm2 (3 strips). ~~Total~~ 4/28/00
Kinsate is event #. 056 300 cm² 5.18.2000

Location Description: Bldg. 707, Module G, Corridor R, on the floor below eyewash 707-1-9

Other ID: 707P-27-00

Sample Appearance: Tan paint scraping with some brown + red paint scrapings on bottom side. Looks kind of like vinyl, kind of thick.

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 09:25 Rad Screen Sample Date: 4/28/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee Nu[redacted]

Date: 4/28/00 4/28/00

566

Lmc 10/08/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	029.002				
Other Sample ID:	707-P-29-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-09	0.129	0.086	0.090	0.064
ACW03	U-235	KH100-1931-09	-0.007	0.013	0.013	0.079
ACW03	U-238	KH100-1931-09	0.315	0.134	0.148	0.064
ACW03	PU-238	KH100-1931-09B	0.009	0.090	0.090	0.160
ACW03	PU-239/240	KH100-1931-09B	0.488	0.181	0.205	0.070
ACW03	AM-241	KH100-1931-09	0.090	0.091	0.093	0.061

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

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055

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A11963#002/004	Matrix:	Waste
Site Sample ID:	028.002				
Other Sample ID:	707-P-28-00	Collection Date:	4/28/00	Date Received:	5/2/00
		Batch Number:	1931	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1931-08	0.274	0.131	0.142	0.071
ACW03	U-235	KH100-1931-08	0.036	0.051	0.053	0.049
ACW03	U-238	KH100-1931-08	0.589	0.196	0.229	0.083
ACW03	PU-238	KH100-1931-08B	-0.038	0.124	0.124	0.228
ACW03	PU-239/240	KH100-1931-08B	0.195	0.119	0.125	0.090
ACW03	AM-241	KH100-1931-08	0.146	0.105	0.109	0.049

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB
Pu	SCAQC-1931-LC1B	SCAQC-1931-LD1B	SCAQC-1931-PBB
Am	SCAQC-1931-LC1	SCAQC-1931-LD1	SCAQC-1931-PB

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CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 028
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-28-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams / 5x20 cm² (1 strip) TSO - 7 grams / 10x20 cm² (2 strips). Total = 9 gram / 15x20 cm² (3 strips). ~~300 cm²~~ YL 5.18.2000
Rinsate = event. 056.

Location Description: Bldg. 707, Module H, on floor outside SE door.

Other ID: 707-P-28-00

Sample Appearance: See event. 027 TAN YL

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 09:45 Rad Screen Date: 4/28/00

Was generator notified to receive excess sample? (YES) X (NO)

Samplers Signatur [redacted]
Employee Number: [redacted]

Date: 4/28/00 4/28/00

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CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 029
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-29-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/5x20 cm3 (1 strip). ISO - 7 grams/5x20 cm² (1 strip). Total = 9 grams/10x20 cm² (2 strips). Rinsate - event. 056.
200 cm²

Location Description: Bldg. 707, Module E, corridor N. on floor outside doors 26 + 27.

Other ID: 707-P-29-00

Sample Appearance: See event. 027 TAN

Sampling Device: Heat gun + chisel

Sample Date: 4/28/00 Sample Time: 09:58 Rad Screen Date: 4/28/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signature: [redacted]
Employee Number: [redacted]

Date: 4/28/00 4/28/00

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A-3
RLC RADIOLOGICAL DATA
Survey Area X
1st Floor [Modules J & K]

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Radiological Survey/Sample Results for Survey Area X (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	50	50
MIN	6	N/A
MAX	30800	N/A
MEAN	1000.7	N/A
STD DEV	4510.8	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	20	20
MIN	18	N/A
MAX	11400	N/A
MEAN	860.8	N/A
STD DEV	2543.4	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	6	N/A
MAX	102	N/A
MEAN	41.2	N/A
STD DEV	22.8	N/A
Equipment Biased	# Required	# Obtained
	45	45
MIN	66	N/A
MAX	123600	N/A
MEAN	4656.3	N/A
STD DEV	18416.6	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	50	50
MIN	0	-36
MAX	1086	64
MEAN	27.5	11.2
STD DEV	154.2	23.4
Floors/Walls < 2 m Biased	# Required	# Obtained
	20	20
MIN	0	4
MAX	4200	100
MEAN	213.8	32.6
STD DEV	938.3	25.5
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-36
MAX	6	60
MEAN	1.8	11.7
STD DEV	2.2	25.5
Equipment Biased	# Required	# Obtained
	45	45
MIN	0	-40
MAX	384	156
MEAN	22.7	21.1
STD DEV	61.6	37.9
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
8	8

Total Uranium Results dpm/100 cm^2

MIN	2
MAX	19
MEAN	5.3
STD DEV	5.7
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	6
MAX	1425
MEAN	398.6
STD DEV	454.4
$DCGL_W$	100

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3120
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 4/26/00
Bkg. 0.4 cpm	Bkg. 0.6 cpm	Bkg. 6.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.09%
MDA 14.8 dpm	MDA 16.3 dpm	MDA 94 d/m
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 53 cpm	Bkg. 51 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 111.3 dpm	MDA 109.4 dpm	MDA

Survey Type: Contamination
Building: 707
Location: MODULE J-K Survey Area X
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204
Date: 3/13/00 Time: DAYS

[redacted]

RCT: Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
*Bkg. 5min 14.0cpm 3min PAT

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	FLOOR	0	-36	126.0	16.	FLOOR	3	4	36.0
2.	"	3	0	252.0	17.	"	6	48	54.0
3.	"	3	24	1878.0	18.	"	144	20	60.0
4.	"	3	16	276.0	19.	"	54	-16	2240.0
5.	"	0	-36	480.0	20.	"	0	-12	78.0
6.	"	0	-8	90.0	21.	"	3	8	30.0
7.	"	3	28	30.0	22.	"	3	-24	36.0
8.	"	0	24	72.0	23.	"	0	32	18.0
9.	"	3	8	300.0	24.	"	0	20	144.0
10.	"	3	40	144.0	25.	"	3	-28	(6.0)
11.	"	1086	-4	2454.0	26.	"	0	4	60.0
12.	"	3	12	54.0	27.	"	3	8	78.0
13.	"	0	-36	30.8*	28.	FLOOR *	0	16	206.0
14.	"	3	-12	24.0	29.	FLOOR	3	48	12.0
15.	"	3	36	60.0	30.	"	3	-18	54.0

Date Reviewed: 4-3-00 **RS Supervision:** Schumacher [redacted]
Print Name Signature

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Floor	9	12	9120.0	61.				
32.	WALL	3	(8)	72.0	62.				
33.	"	3	(20)	(12.0)	63.				
34.	"	3	(4)	(12.0)	64.				
35.	"	3	64	12.0	65.				
36.	"	3	(32)	12.0	66.				
37.	"	0	(16)	(18.0)	67.				
38.	"	0	4	6.0	68.				
39.	"	0	(8)	48.0	69.				
40.	"	0	16	24.0	70.				
41.	"	3	16	54.0	71.				
42.	"	0	28	6.0	72.				
43.	"	0	(36)	42.0	73.				
44.	"	0	52	12.0	74.				
45.	"	0	(8)	12.0	75.				
46.	"	0	0	12.0	76.				
47.	"	3	8	18.0	77.	N/A			
48.	"	0	0	12.0	75.				
49.	"	6	(8)	150.0	79.				
50.	"	0	56	12.0	80.				
51.	END OF SURVEY				81.				
52.					82.				
53.					83.				
54.					84.				
55.	N/A				85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

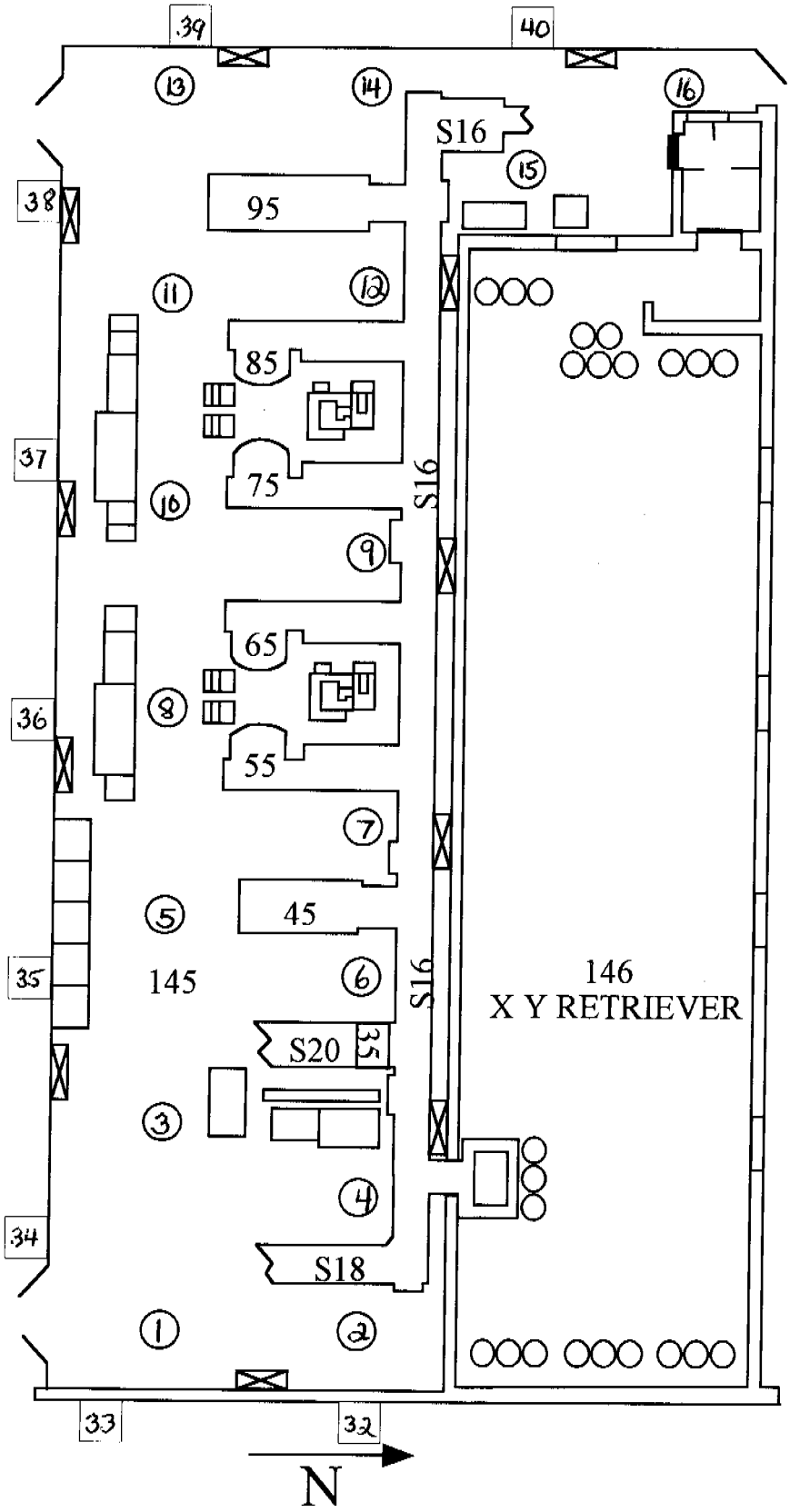
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE K

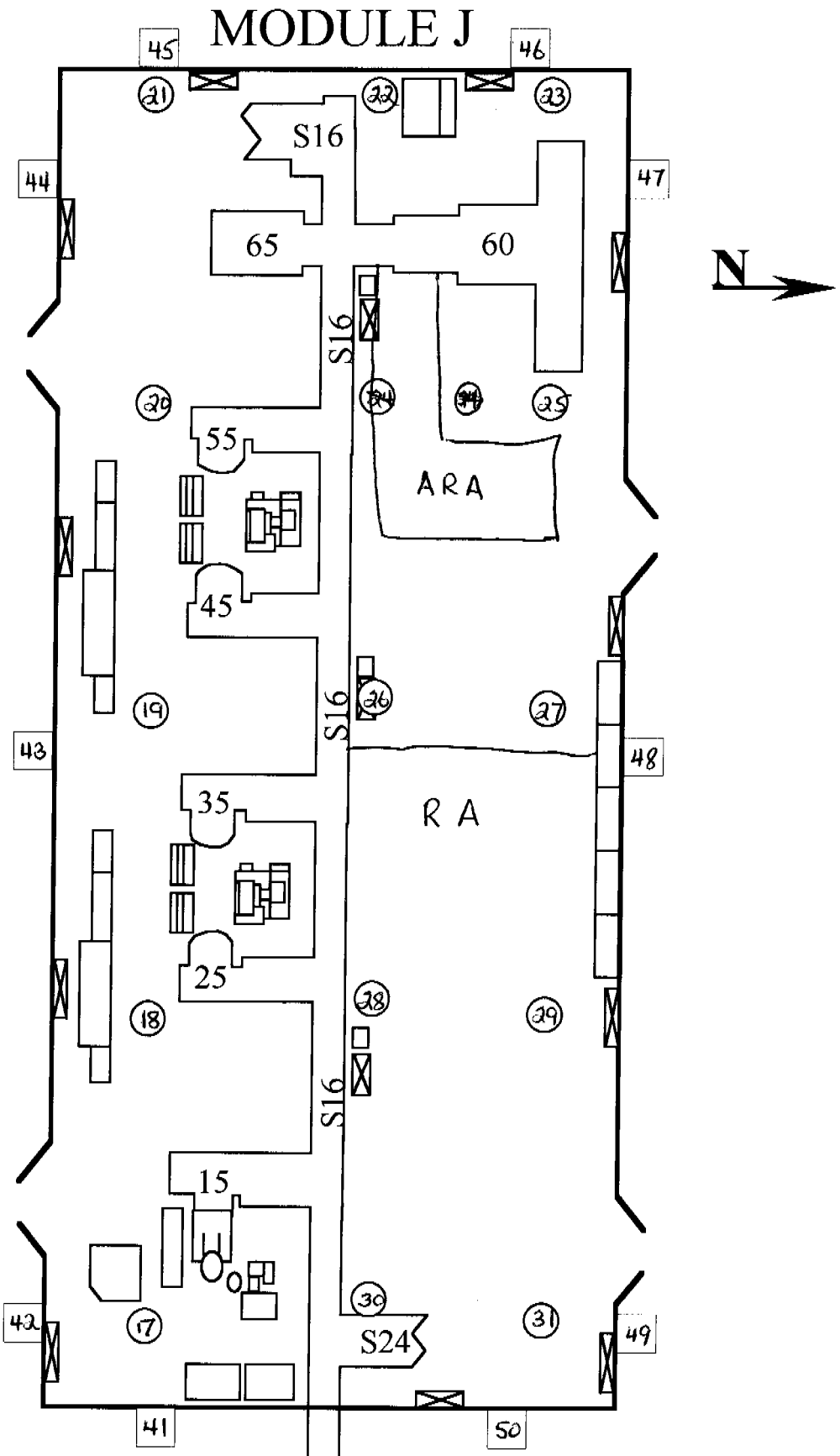


RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial # 837	Serial # 3260
Cal Due 4-10-00	Cal Due 5-17-00	Cal Due 7-17-00
Bkg. 0.6 cpm	Bkg. 0.4 cpm	Bkg. ≈ 30 cpm
Efficiency 33%	Efficiency 33%	Efficiency 19.99%
MDA 16.3 DPM	MDA 14.8 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 56 cpm	Bkg. 50 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 DPM	MDA 108.4 DPM	MDA

Survey Type: Contamination

Building: 707

Location: J-K Mod. Survey Area X

Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 3-16-00 Time: 1500

R[redacted]

RCT: _____
Print name / Signature / Emp. #

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
* ELECTRA 3 DKgd COUNTS ∝ ELECTRA <8 cpm (2, 3, 4)
Location 20 Deconed < 20 DPM

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	CRIT DRAIN	6	(12)	366.0	16.	Floor	3	64	11.4K
2.	Floor	0	40	78.0	17.	Floor	3	(28)	2400.0
3.	Floor	0	4	60.0	18.	Floor	3	12	96.0
4.	CRIT DRAIN	0	(44)	18.0	19.	Floor	3	68	126.0
5.	Floor	0	(24)	78.0	20.	Floor *	4200	N/A	127.2
6.	WALL	6	(24)	42.0	21.	END OF SURVEY			
7.	CRIT DRAIN	6	20	78.0	22.				
8.	Floor	3	56	132.0	23.				
9.	Floor	3	(100)	420.0	24.				
10.	Floor	33	(28)	1224.0	25.				
11.	CRIT DRAIN	0	(44)	30.0	26.	N/A			
12.	Floor	3	(8)	270.0	27.				
13.	Floor	9	(8)	72.0	28.				
14.	Floor	0	4	18.0	29.				
15.	Floor	0	32	180.0	30.				

Date Reviewed: 4-3-00 RS Supervision: Schumkat, [signature]
Print Name Signature

[redacted]

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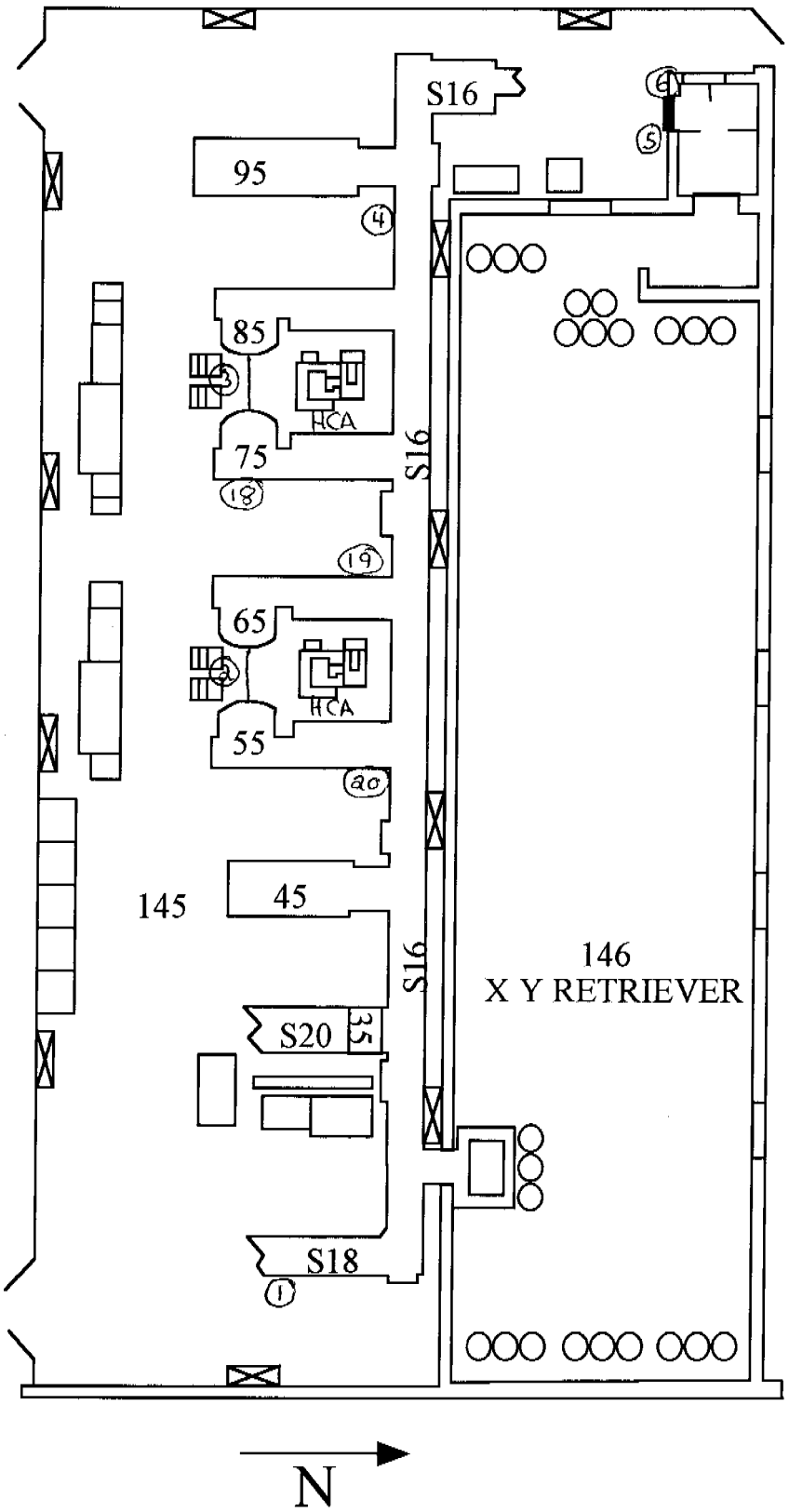
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE K



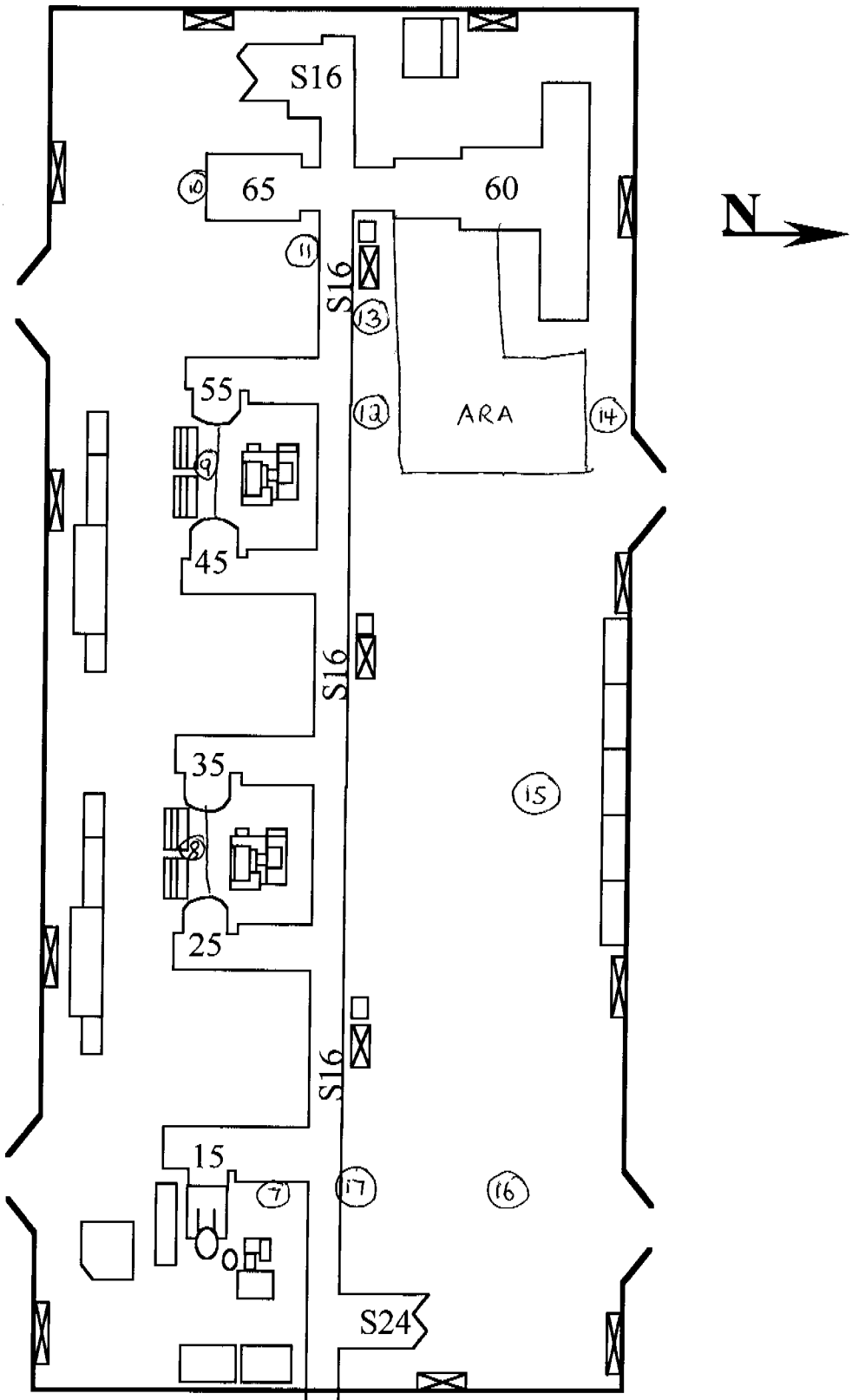
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE J



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 812	Serial # 849	Serial # 1389
Cal Due 9-25-00	Cal Due 4-10-00	Cal Due 6-29-00
Bkg. 0.1 cpm	Bkg. 0.6 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .12096
MDA 11.5 dpm	MDA 16.3 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 1518
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 52 cpm	Bkg. 54	Bkg. 2.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .12186
MDA 110.4 dpm	MDA 112.3 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 707

Location: J & K module Survey Area X

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 3-28-00 Time: Days

[redacted]

Comments: Equipment: Biased survey points.
1 minute pats and swipes. See map for locations.
b kgd Counts alpha ultra <8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Flange	30	44	4284	16.	GB J60 Crit Drain	0	52	1962
2.	S-16 CNVYR	15	4	450	17.	Air Vent # 36	0	-4	2880
3.	Air Vent # 20	12	16	648	18.	S-16 Purple Plate	0	92	11238
4.	Step Platform	57	52	1374	19.	S-16 Crit Drain	0	36	1080
5.	S-16 CNVYR	3	60	7392	20.	S-16 CNVYR	171	12	123600
6.	J45 GB Portal 001	45	36	732	21.	Air Vent # 17	42	-40	1326
7.	Air Vent	12	36	2382	22.	Monitor	0	8	810
8.	GB J45 Front Orange Part	12	4	168	23.	3 step Rollaround Stool	9	-4	1140
9.	GB J55 Lower Raise Switch	15	-12	11016	24.	Crit Drain Tool Storage	3	84	120
10.	Air Vent # 26	3	156	780	25.	Air Vent # 15	12	-12	408
11.	GB J25 Portal 0001	0	40	990	26.	GB K85 under Portal 0003	6	40	816
12.	Air Vent # 28	21	8	2478	27.	GB K95 under Portal 0011	6	36	15600
13.	Dukane 35 Control	3	68	936	28.	S-16 CNVYR under Portal 0040	3	28	2100
14.	GB J60 under Portal 0095	6	44	606	29.	Platform ladder	0	-40	2676
15.	Air Vent # 34	6	-8	300	30.	Air Vent # 6	30	4	180

Date Reviewed: 4-3-00 RS Supervision: Schumacher [redacted]
Print Name Signature

80 Rev. 02/00

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

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Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	GBK45 CNVRY S16	24	12	1344	61.				
32.	FOOT CONTROL	3	-16	1092	62.				
33.	S18 CRIT Drain	30	-36	162	63.				
34.	S20 CRIT Drain	9	4	1584	64.				
35.	AIR Vent #5	30	24	834	65.				
36.	4 Step Rollaround Ladder	3	-12	2004	66.				
37.	ALT-K55 Control Panel	384	60	396	67.				
38.	Wide 3 Step Stool	0	12	270	68.				
39.	Top Cabinet	0	-12	1002	69.				
40.	AIR Vent #1	15	44	402	70.				
41.	END OF SURVEY				71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.				
47.					77.				
48.					78.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

N/A

N/A

RS FORMS 07.02-01

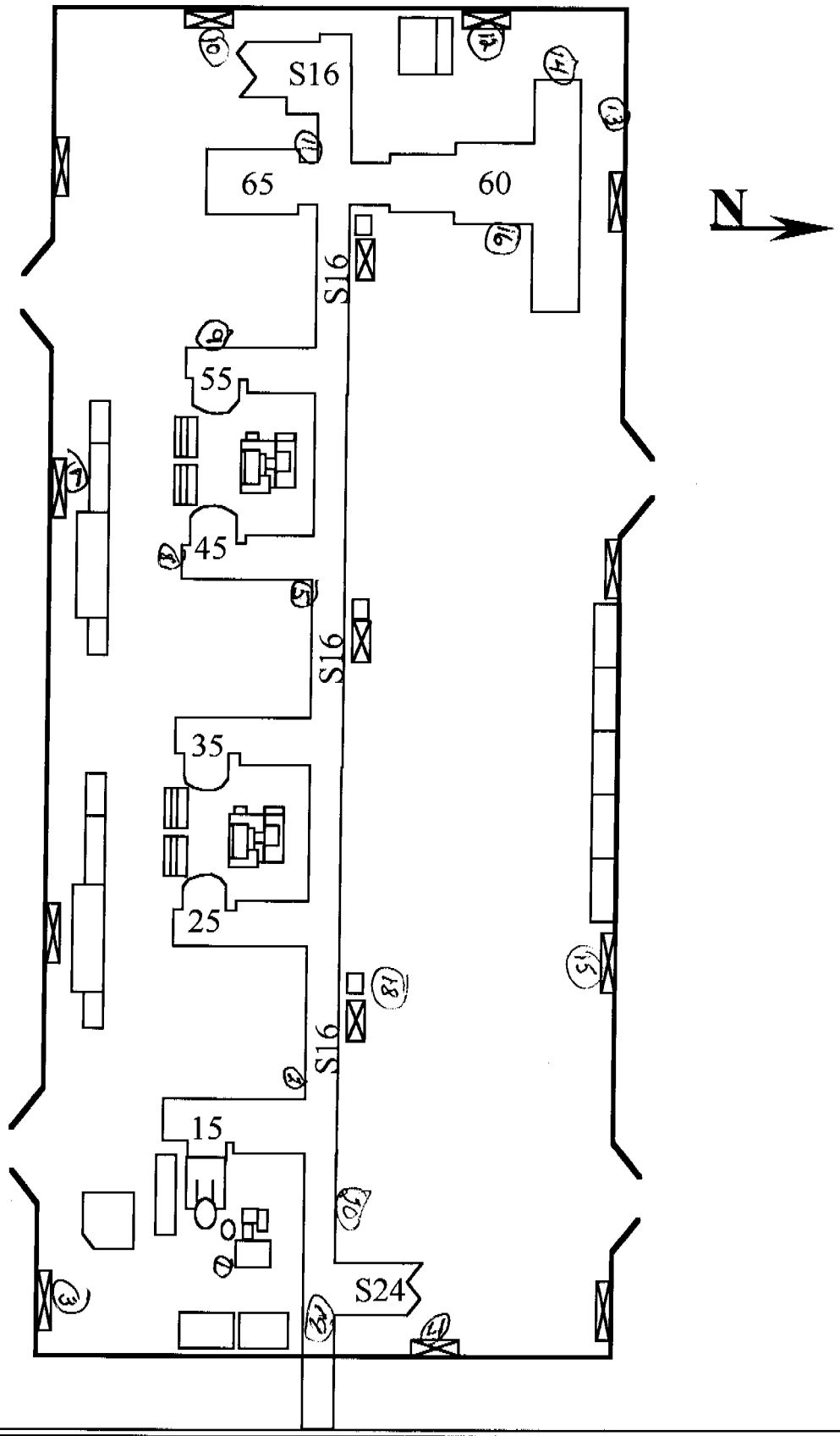
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 4

Drawing Showing Survey Points

MODULE J



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RS FORMS 07.02-01

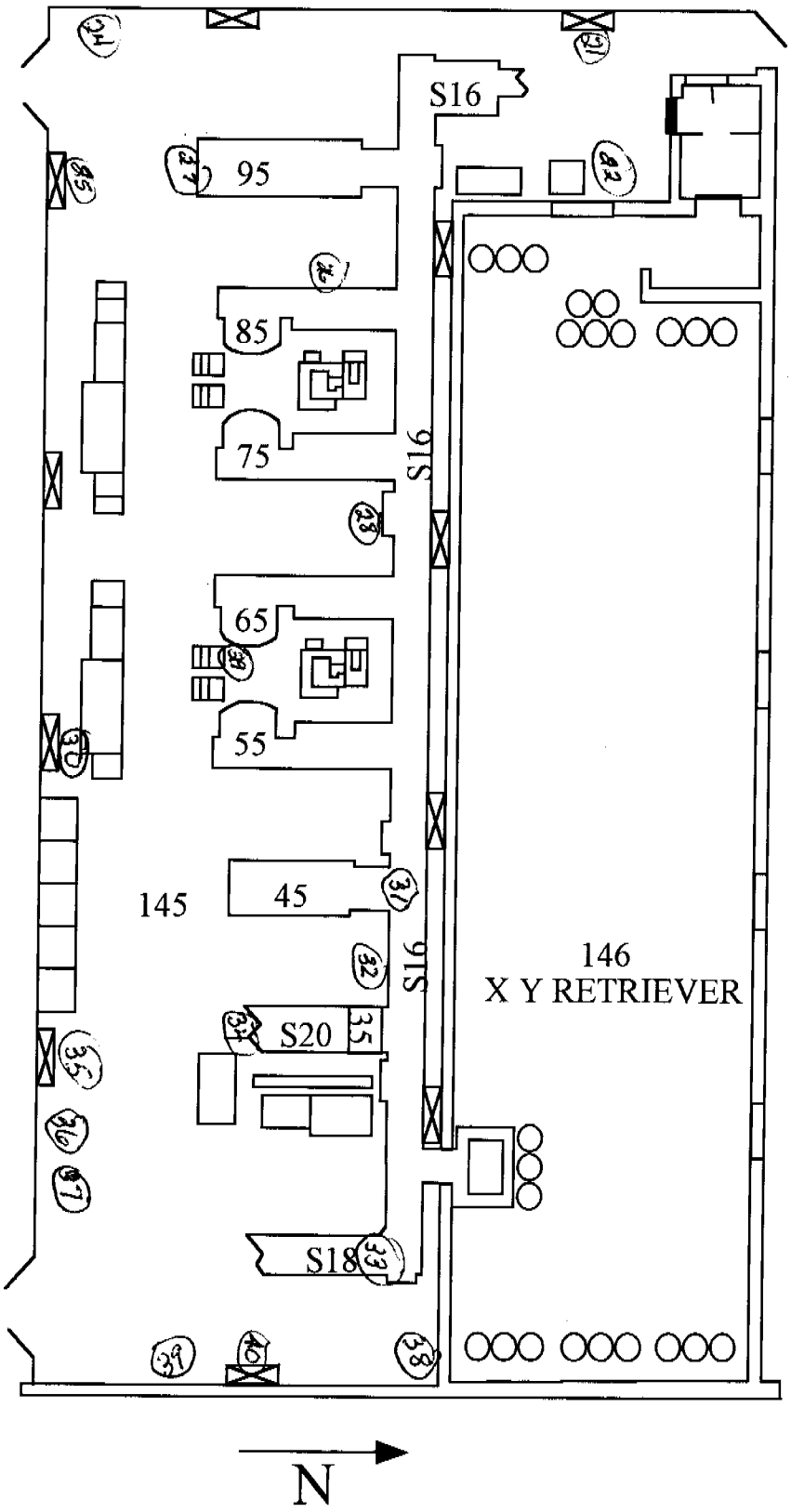
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

4 of 4

Drawing Showing Survey Points

MODULE K



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 849	Serial #	Serial # 1233
Cal Due 4-10-00	Cal Due N/A	Cal Due 5-11-00
Bkg. 0.4 cpm	Bkg.	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 14.8 dpm	MDA	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial #	Serial #
Cal Due 4-12-00	Cal Due N/A	Cal Due
Bkg. 56 cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 114.1 dpm	MDA	MDA

Survey Type: Contamination
Building: 707
Location: J & K Module Survey Area X
Purpose: Reconnaisance Level Characterization

RWP # 00.707.1204

Date: 3-27-00 Time: Days

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations. 1 of 3
b kgd Counts alpha electra <8cpm

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	W > 2m	6	4	24	16.	W > 2m	6	4	48
2.	" "	3	0	6	17.	" "	0	32	48
3.	" "	0	-36	12	18.	" "	0	32	48
4.	" "	0	52	54	19.	" "	3	4	30
5.	" "	0	-4	30	20.	" "	0	12	6
6.	" "	3	-12	30	21.	" "	3	8	30
7.	" "	0	-16	48	22.	" "	3	52	30
8.	" "	3	-12	18	23.	" "	0	24	42
9.	" "	0	20	12	24.	" "	3	8	54
10.	" "	0	24	18	25.	Ceiling	3	-28	54
11.	" "	0	40	42	26.	"	6	52	60
12.	" "	3	0	102	27.	"	0	8	54
13.	" "	0	-12	42	28.	"	3	60	84
14.	" "	6	40	42	29.	"	0	24	72
15.	" "	0	0	24	30.	"	0	-28	72

Date Reviewed: 4-3-00 **RS Supervision:** Stunkard [redacted]
Print Name Signature

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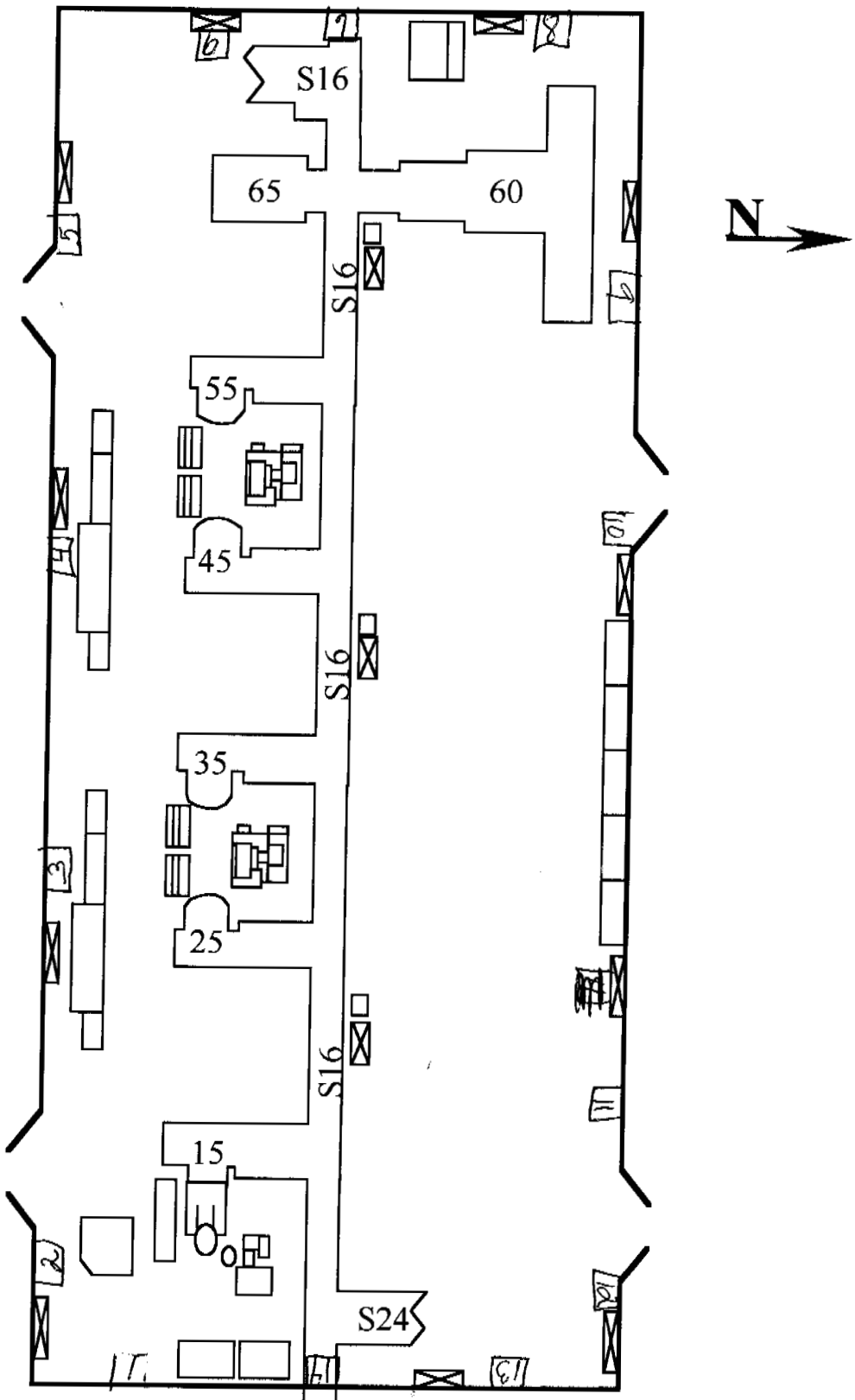
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 2 of 3

MODULE J



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RS FORMS 07.02-01

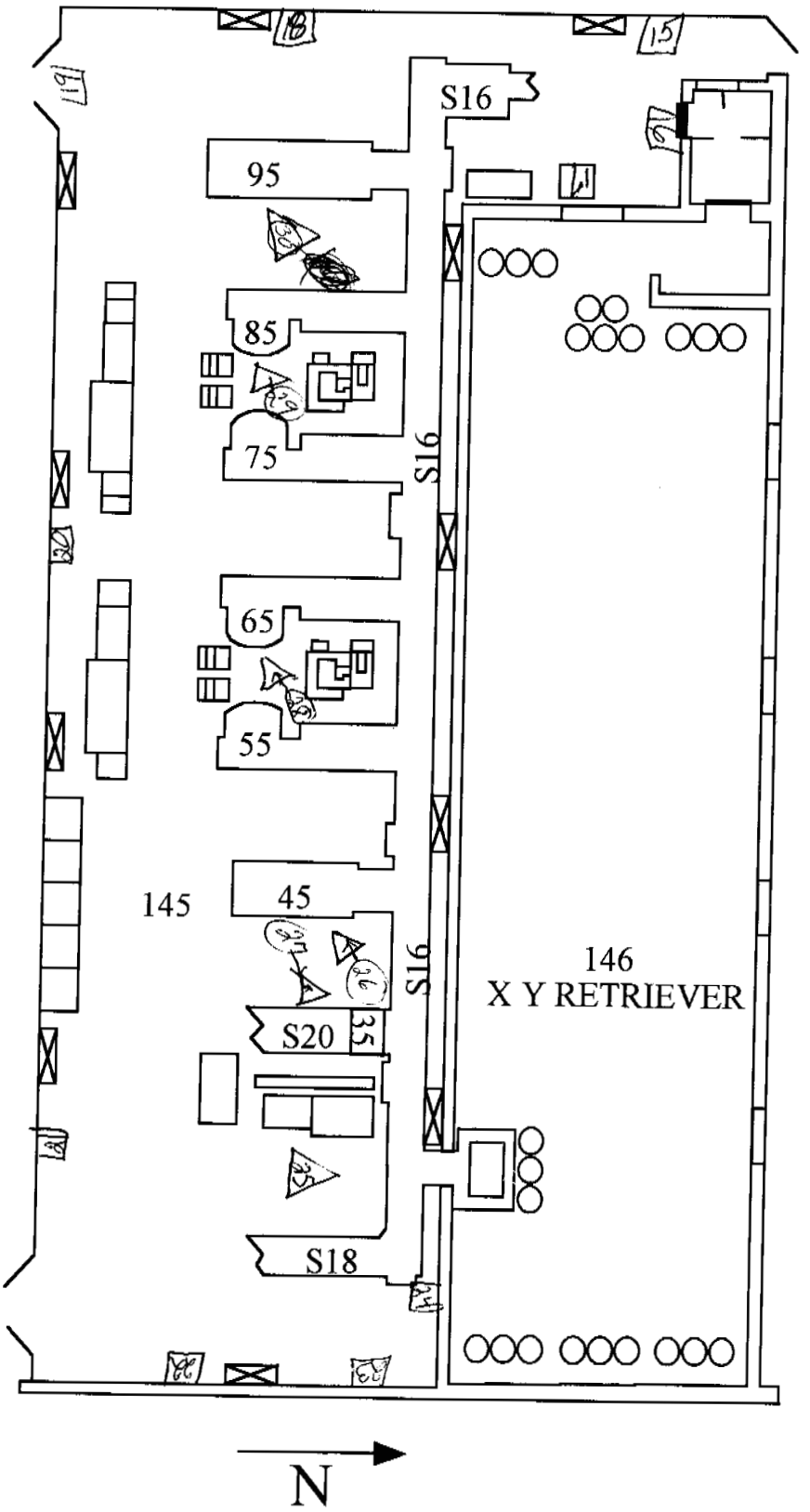
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

3 of 3

MODULE K



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline/NA	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial #	Serial # 3265
Cal Due 8-15-00	Cal Due	Cal Due 7-3-00
Bkg. 0.0 cpm	Bkg.	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.01%
MDA 8.2 DPM	MDA NA	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline/NA	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial #	Serial #
Cal Due 7-19-00	Cal Due	Cal Due
Bkg. 45 cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 103.4 DPM	MDA NA	MDA NA

Survey Type: Contamination

Building: 707

Location: J+K MODULE Survey Area X

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-4-00 Time: PM.

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	SHELF	3	0	72	16.	NA			
2.	SHELF	0	-28	66	17.				
3.	ELECT. CABINET	0	48	72	18.				
4.	CONTROL CABINET	0	32	192	19.				
5.	PIPING	0	-20	168	20.				
6.	END OF SURVEY			NA	21.				
7.					22.				
8.					23.				
9.					24.				
10.					25.				
11.					26.				
12.					27.				
13.					28.				
14.					29.				
15.	NA				30.				NA

Date Reviewed: 5/5/00 **RS Supervision:** R Sawyer (Print Name) R Sawyer (Signature)

[redacted]

Rev. 02/00

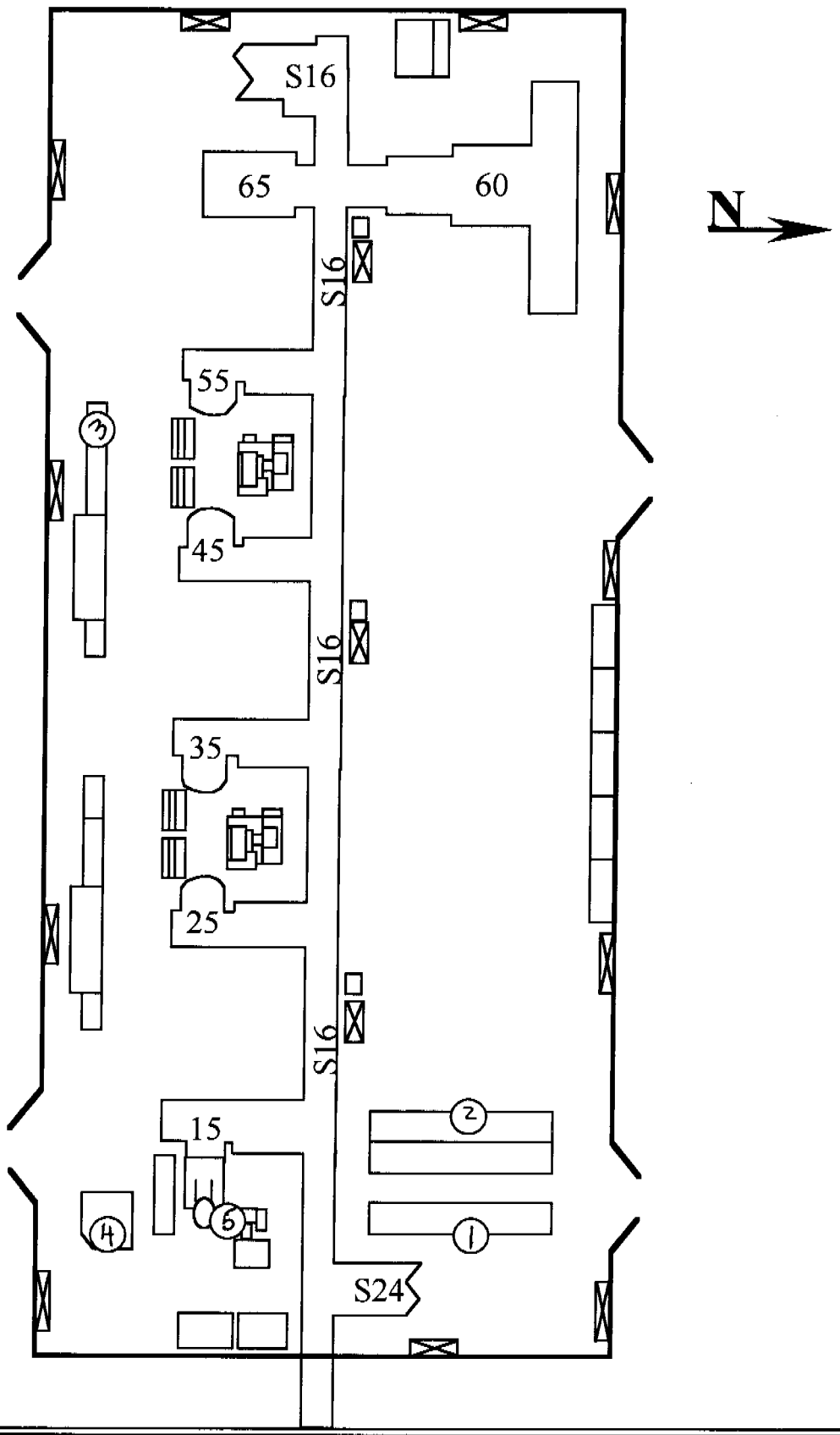
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

MODULE J



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Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	034.002				
Other Sample ID:	707-P-34-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-04	0.160	0.094	0.099	0.061
ACW03	U-235	KH100-1932-04	0.016	0.031	0.032	0.043
ACW03	U-238	KH100-1932-04	0.261	0.119	0.130	0.061
ACW03	PU-238	KH100-1932-04B	2.42	0.874	0.999	0.182
ACW03	PU-239/240	KH100-1932-04B	97.0	14.2	24.1	0.182
ACW03	AM-241	KH100-1932-04B	21.1	4.19	5.94	0.231

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

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ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 034
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-34-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 4 gram/100cm² (1 grid). ISO - 7grams/200cm² (2 grids). Total 11 grams/300cm² (3 grids)

Location Description: Bldg. 707, Module K, ~~underhood~~ 4/28/00 under glovebox K-35. Floor just under port 0008, near crit. drain.

Other ID: 707-P-34-00

Sample Appearance: Red/maroon paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/29/00 Sample Time: 14:31 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee Num[redacted]

Date: 4/29/00 4/29/00

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Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	035.002				
Other Sample ID:	707-P-35-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-05	0.160	0.097	0.102	0.039
ACW03	U-235	KH100-1932-05	0.029	0.053	0.053	0.086
ACW03	U-238	KH100-1932-05	0.341	0.146	0.161	0.069
ACW03	PU-238	KH100-1932-05	1.38	0.332	0.432	0.186
ACW03	PU-239/240	KH100-1932-05	39.4	4.97	9.32	0.062
ACW03	AM-241	KH100-1932-05	3.86	0.754	1.08	0.195

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

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ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 035
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-35-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/100cm² (1 grid). ISO - 7 grams/300cm² (3 grids). Total - 9 grams/400cm² (4 grids). Rinsate is event 056.

Location Description: Bldg. 707, Module K, just inside on the floor. Just west of the SE door in front of a vent.

Other ID: 707-P-35-00

Sample Appearance: Red maroon paint scrapings

Sampling Device: Heat gun + Chisel

Sample Date: 4/29/00 Sample Time: 14:54 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee Nu[redacted]

Date: 4/29/00 4/29/00

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Lmc 06/29/98

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Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	036.002				
Other Sample ID:	707-P-36-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-06	0.154	0.093	0.098	0.063
ACW03	U-235	KH100-1932-06	0.033	0.046	0.047	0.044
ACW03	U-238	KH100-1932-06	0.198	0.104	0.111	0.036
ACW03	PU-238	KH100-1932-06	4.02	0.670	1.05	0.142
ACW03	PU-239/240	KH100-1932-06	140	17.1	32.7	0.073
ACW03	AM-241	KH100-1932-06	11.7	1.92	3.03	0.051

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

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062

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 036
DUPLICATE ID: N/A
ISSUE DATE: 4/29/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-36-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams (1/2 grid) 50 cm². ISO - 7 grams/150 cm² (1 1/2 grid) Total - 200 cm² (2 grids), 9 grams

Location Description: Bldg. 707, Module K, floor under flowhood K-55, directly under port 0008.

Other ID: 707-P-36-00

Sample Appearance: Red/maroon paint scraping

Sampling Device: Heat gun + ~~chipped~~ 4/12 chisel

Sample Date: 4/29/00 Sample Time: 15:05 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Numbe[redacted]

Date: 4/29/00 4/29/00

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Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	037.002				
Other Sample ID:	707-P-37-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-07	0.126	0.080	0.084	0.034
ACW03	U-235	KH100-1932-07	0.025	0.046	0.046	0.074
ACW03	U-238	KH100-1932-07	0.238	0.111	0.121	0.034
ACW03	PU-238	KH100-1932-07	0.186	0.127	0.132	0.145
ACW03	PU-239/240	KH100-1932-07	8.13	1.16	1.99	0.060
ACW03	AM-241	KH100-1932-07	1.38	0.383	0.473	0.203

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

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ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 037
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-37-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams / 100 cm2 (1 grid). ISO - 7 grams / 300 cm2 (3 grids) Total - 9 grams / 400 cm2 (4 grid). Rinsate-rinsent. 056.

Location Description: Bldg. 707, Module K, on the floor under glovebox K-95, port 0007, near an HCA.

Other ID: 707-P-37-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/29/00 Sample Time: 15:10 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No)

[redacted]

Sampler's Signature:

Employee Number

Date: 4/29/00 4/29/00

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Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	038.002				
Other Sample ID:	707-P-38-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-08	0.292	0.137	0.149	0.071
ACW03	U-235	KH100-1932-08	0.092	0.083	0.087	0.050
ACW03	U-238	KH100-1932-08	1.14	0.282	0.364	0.040
ACW03	PU-238	KH100-1932-08	0.188	0.160	0.164	0.204
ACW03	PU-239/240	KH100-1932-08	12.6	1.83	3.12	0.082
ACW03	AM-241	KH100-1932-08	1.94	0.523	0.651	0.289

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

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ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 038
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 0336
CUSTOMER SAMPLE ID: 707-P-38-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/50cm² (1/2 grid). ISO - 7 gram/50 cm² (1 1/2 grids) Total - 9 gram/200 cm² (2 grids). Rinsate is event. 056

Location Description: Bldg. 707, Module J, floor just inside SE door inward of fireextinguisher 707A-66

Other ID: 707-P-38-00

Sample Appearance: Red/maroon paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/29/00 Sample Time: 15:39 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Nun[redacted]

Date: 4/29/00 4/29/00

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Lmc 06/29/98

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Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	039.002				
Other Sample ID:	707-P-39-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-09	0.179	0.100	0.106	0.063
ACW03	U-235	KH100-1932-09	0.032	0.046	0.047	0.044
ACW03	U-238	KH100-1932-09	0.160	0.097	0.102	0.074
ACW03	PU-238	KH100-1932-09	0.553	0.206	0.234	0.154
ACW03	PU-239/240	KH100-1932-09	14.0	1.97	3.43	0.067
ACW03	AM-241	KH100-1932-09	2.73	0.726	0.908	0.294

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

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065

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A 1196
EVENT: 039
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-39-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID:
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams/50cm² (1/2 grid). ISO - 7 grams/150 cm² (1 1/2 grids). Total - 9 grams/200 cm² (2 grids)

Location Description: Bldg. 707, Module J, under glovebox J-35, ports 0004 + 0005

Other ID: 707-P-39-00

Sample Appearance: Red/maroon paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/29/00 Sample Time: 15:42 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee Numb[redacted]

Date: 4/29/00 4/29/00

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Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#004	Matrix:	Waste
Site Sample ID:	040.002				
Other Sample ID:	707-P-40-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1932	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1932-10	0.179	0.120	0.126	0.089
ACW03	U-235	KH100-1932-10	0.014	0.050	0.050	0.110
ACW03	U-238	KH100-1932-10	0.327	0.162	0.175	0.089
ACW03	PU-238	KH100-1932-10	0.366	0.176	0.191	0.164
ACW03	PU-239/240	KH100-1932-10	10.6	1.55	2.63	0.068
ACW03	AM-241	KH100-1932-10	1.05	0.349	0.407	0.226

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1932-LC1	SCAQC-1932-LD1	SCAQC-1932-PB
Pu	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB
Am	SCAQC-1932-LC1	SCAQC-1932-LD1B	SCAQC-1932-PB

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ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 040
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-40-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/50 cm² (1/2 grid). ISO - 7 grams/150 cm² (1 1/2 grid). Total = 9 grams/200 cm² (2 grids). Rinsate is event. 040

Location Description: Bldg. 707, Module J, Hallway J-15, under port 0003, near crit. drain.

Other ID: 707-P-40-00

Sample Appearance: Red paint scrapings

Sampling Device: Heat gun + Chisel

Sample Date: 4/29/00 Sample Time: 15:50 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No) ____

Sampler's Signature: [redacted]

Employee Numl [redacted]

Date: 4/29/00 4/29/00

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Lmc 06/29/98

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#015	Matrix:	Waste
Site Sample ID:	041.002				
Other Sample ID:	707-P-41-00	Collection Date:	4/29/00	Date Received:	5/2/00
		Batch Number:	1933	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1933-01	0.156	0.099	0.103	0.078
ACW03	U-235	KH100-1933-01	0.082	0.088	0.091	0.108
ACW03	U-238	KH100-1933-01	0.232	0.121	0.129	0.087
ACW03	PU-238	KH100-1933-01	1.31	0.346	0.434	0.213
ACW03	PU-239/240	KH100-1933-01	55.7	7.35	13.3	0.039
ACW03	AM-241	KH100-1933-01	8.62	2.08	2.70	0.158

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1933-LC1	SCAQC-1933-LD1	SCAQC-1933-PB
Pu	SCAQC-1933-LC1	SCAQC-1933-LD1	SCAQC-1933-PB
Am	SCAQC-1933-LC1	SCAQC-1933-LD1	SCAQC-1933-PB

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067

ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 041
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-41-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams/50 cm² (1/2 grid). ISO - 7 grams/150 cm² (1 1/2 grids) Total - 9 grams/200 cm² (2 grids). Kinsatt event #057

Location Description: Bldg. 707, Module J. on the floor near an HCA, that's next to furnace #210-046, #7J019

Other ID: 707-P-41-00

Sample Appearance: Red/maroon paint scrapings

Sampling Device: Heat gun + chisel

Sample Date: 4/29/00 Sample Time: 16:05 Rad Screen Sample Date: 4/29/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee Numbe [redacted]

Date: 4/29/00 4/29/00

604

Lmc 06/29/98

A-3
RLC RADIOLOGICAL DATA
Survey Area X
Concrete Core

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1197

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1197#003	Matrix:	Waste
Site Sample ID:	012.003				
Other Sample ID:	BLDG 707 Module J	Collection Date:	5/2/00	Date Received:	5/4/00
		Batch Number:	1937	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1937-02	1.18	0.270	0.358	0.062
ACW03	U-235	KH100-1937-02	0.080	0.072	0.076	0.043
ACW03	U-238	KH100-1937-02	0.913	0.233	0.296	0.062
ACW03	PU-238	KH100-1937-02	-0.069	0.105	0.106	0.209
ACW03	PU-239/240	KH100-1937-02	0.052	0.059	0.060	0.069
ACW03	AM-241	KH100-1937-02	0.029	0.054	0.054	0.087

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Pu	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Am	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

028

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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1197

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1197#003	Matrix:	Waste
Site Sample ID:	013.003				
Other Sample ID:	BLDG 707 Module J	Collection Date:	5/2/00	Date Received:	5/4/00
		Batch Number:	1937	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1937-03	1.18	0.269	0.358	0.035
ACW03	U-235	KH100-1937-03	0.058	0.066	0.068	0.077
ACW03	U-238	KH100-1937-03	0.951	0.238	0.305	0.062
ACW03	PU-238	KH100-1937-03	0.056	0.111	0.112	0.172
ACW03	PU-239/240	KH100-1937-03	0.034	0.057	0.058	0.088
ACW03	AM-241	KH100-1937-03	0.017	0.034	0.034	0.045

Quality Control Samples

Radionuclide	Laboratory Control Sample (LC)	Laboratory Duplicate Analysis (LD)	Preparation Blank (PB)
U	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Pu	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB
Am	SCAQC-1937-LC1	SCAQC-1937-LD1	SCAQC-1937-PB

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A-3

RLC RADIOLOGICAL DATA

Survey Area Y

1st Floors [Non-Rad, Rooms 150, 150A, 150A, 151A,B,C, 153A,B,C,D,E, 155, 155A, 157, 159, 159A,B,C, 161, 163, 165A,B,C,D,E, 172, 172A, 174, 176, 162, 164, 160, 160A, 149, 152, 154, 156, 158]

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Radiological Survey/Sample Results for Survey Area Y (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	129	129
MIN	-30	N/A
MAX	48	N/A
MEAN	11.1	N/A
STD DEV	13.6	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	15	15
MIN	-12	N/A
MAX	12	N/A
MEAN	1.6	N/A
STD DEV	8.0	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	-18	N/A
MAX	42	N/A
MEAN	-1.6	N/A
STD DEV	12.6	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	129	129
MIN	0	-68
MAX	6	64
MEAN	0.4	5.3
STD DEV	1.3	28.3
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	15	15
MIN	0	-56
MAX	3	48
MEAN	0.2	-6.9
STD DEV	0.8	35
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-52
MAX	6	68
MEAN	1.1	4.9
STD DEV	2.0	29.1
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm^2

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1518
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 6-29-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 d/m
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 38 cpm	Bkg. 41 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 95.9 dpm	MDA 99.2 dpm	MDA

Survey Type: Contamination

Building: 707

Location: Offices Main Hall Survey Area Y

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 4-5-00 Time: 1630

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	-60	-12	16.	F	0	16	0
2.	F	0	-4	36	17.	F	0	44	18
3.	W	0	48	42	18.	W	0	-16	12
4.	F	0	36	12	19.	F	0	60	0
5.	F	0	48	42	20.	F	0	24	36
6.	W	0	4	0	21.	W	0	-32	18
7.	F	0	-8	-6	22.	F	0	20	18
8.	F	0	-12	-6	23.	F	0	12	30
9.	W	6	-12	-6	24.	W	0	-28	18
10.	F	0	20	42	25.	F	0	28	0
11.	F	0	16	48	26.	F	0	-24	6
12.	W	6	-4	30	27.	W	3	-12	6
13.	F	0	0	18	28.	F	0	-12	24
14.	F	0	0	18	29.	F	0	-16	6
15.	W	0	36	6	30.	W	0	56	-6

Date Reviewed: 5-2-00 **RS Supervision:** S Munkat / [signature]
Print Name Signature

[redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	F	0	-4	24	61.	F	0	24	12
32.	F	0	44	12	62.	F	0	4	6
33.	W	0	64	18	63.	W	0	32	24
34.	F	0	-8	24	64.	F	0	16	6
35.	F	0	-8	6	65.	W	0	4	6
36.	W	0	28	30	66.	F	0	-48	12
37.	F	0	32	-24	67.	F	0	44	0
38.	F	3	0	-18	68.	F	0	-28	12
39.	W	0	-8	-30	69.	W	0	4	18
40.	F	0	-16	-6	70.	F	0	40	0
41.	F	0	-12	18	71.	F	0	4	18
42.	W	0	-20	6	72.	W	0	12	6
43.	F	0	16	6	73.	F	0	20	18
44.	F	0	0	0	74.	F	0	28	36
45.	W	0	-12	12	75.	W	0	32	6
46.	F	0	-44	12	76.	F	0	44	42
47.	F	0	-28	12	77.	F	3	28	18
48.	W	0	-12	12	78.	~~SP~~ 4500 W	0	-36	24
49.	F	0	-28	18	79.	F	0	-20	30
50.	F	0	-24	24	80.	F	0	44	12
51.	W	3	16	12	81.	W	0	60	6
52.	F	0	4	6	82.	F	0	-64	18
53.	F	3	0	18	83.	F	0	16	0
54.	W	0	-16	0	84.	W	0	-12	0
55.	W	3	16	0	85.	F	0	36	18
56.	F	0	-32	24	86.	F	3	12	6
57.	F	0	20	18	87.	W	0	4	6
58.	F	0	20	24	88.	F	0	-20	6
59.	F	0	44	-6	89.	F	0	52	12
60.	W	0	36	6	90.	W	0	12	0

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

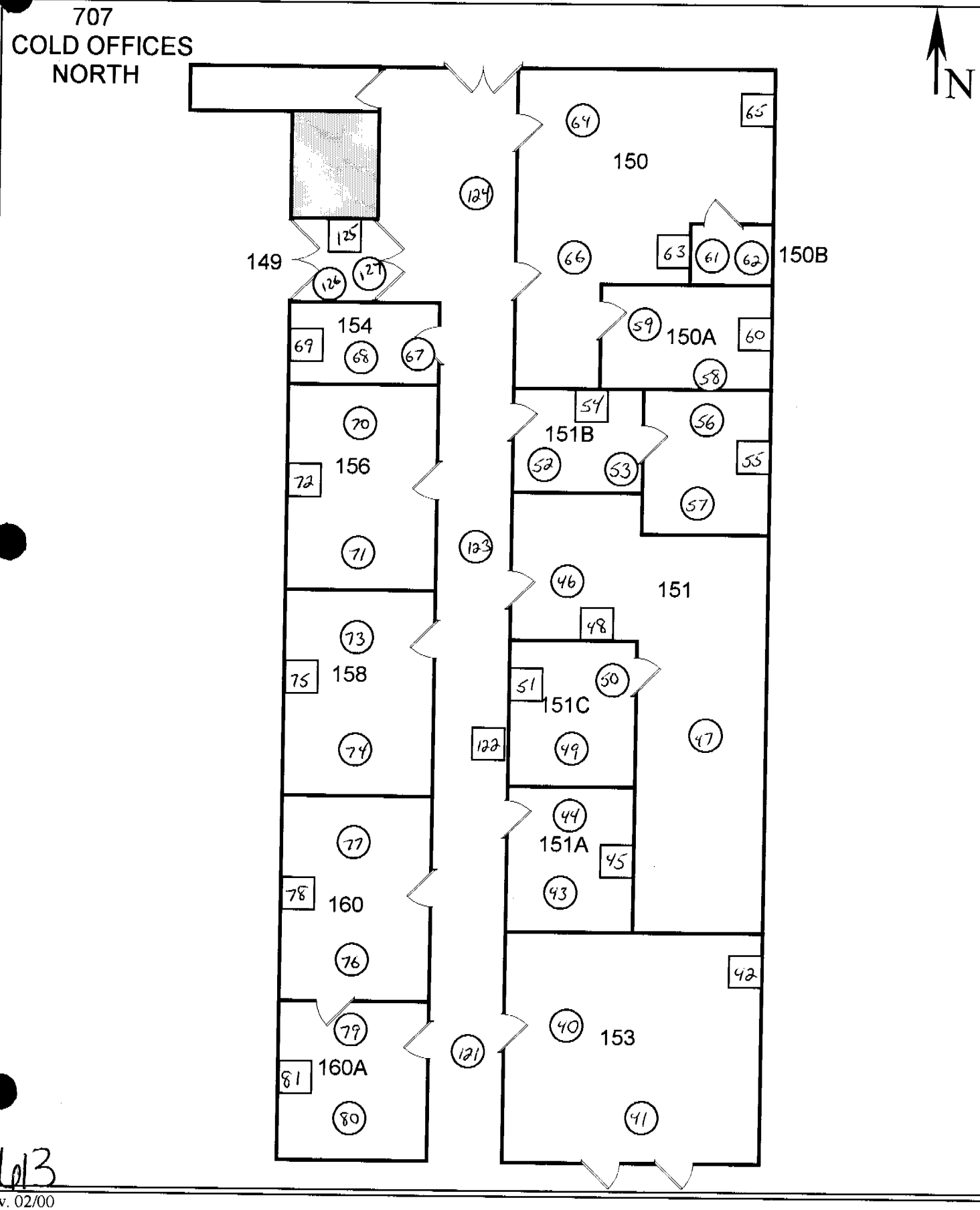
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
91.	F	0	12	0	121.	F	0	36	6
92.	F	0	-12	0	122.	W	0	40	18
93.	W	0	8	12	123.	F	0	12	6
94.	F	0	0	0	124.	F	0	16	6
95.	F	0	4	0	125.	W	0	-68	6
96.	W	6	20	6	126.	F	0	-40	0
97.	F	0	-20	12	127.	F	0	-56	6
98.	F	0	-48	0	128.	F	0	-36	-6
99.	W	0	-8	6	129.	W	0	12	18
100.	F	0	40	36	130.	END OF SURVEY			NA
101.	F	0	20	12	131.				
102.	W	0	36	24	132.				
103.	F	0	16	0	133.				
104.	F	0	20	0	134.				
105.	W	0	0	36	135.				
106.	F	0	-20	6	136.				
107.	F	0	16	0	137.				
108.	F	0	40	30	138.				
109.	F	0	-28	6	139.				
110.	W	0	-12	6	140.				
111.	W	3	-24	0	141.				
112.	F	0	-40	12	142.				
113.	F	0	4	42	143.				
114.	W	0	4	6	144.				
115.	F	0	56	0	145.				
116.	F	0	0	18	146.				
117.	W	3	28	0	147.				
118.	F	3	20	0	148.				
119.	F	0	0	0	149.				
120.	W	6	0	18	150.	NA			

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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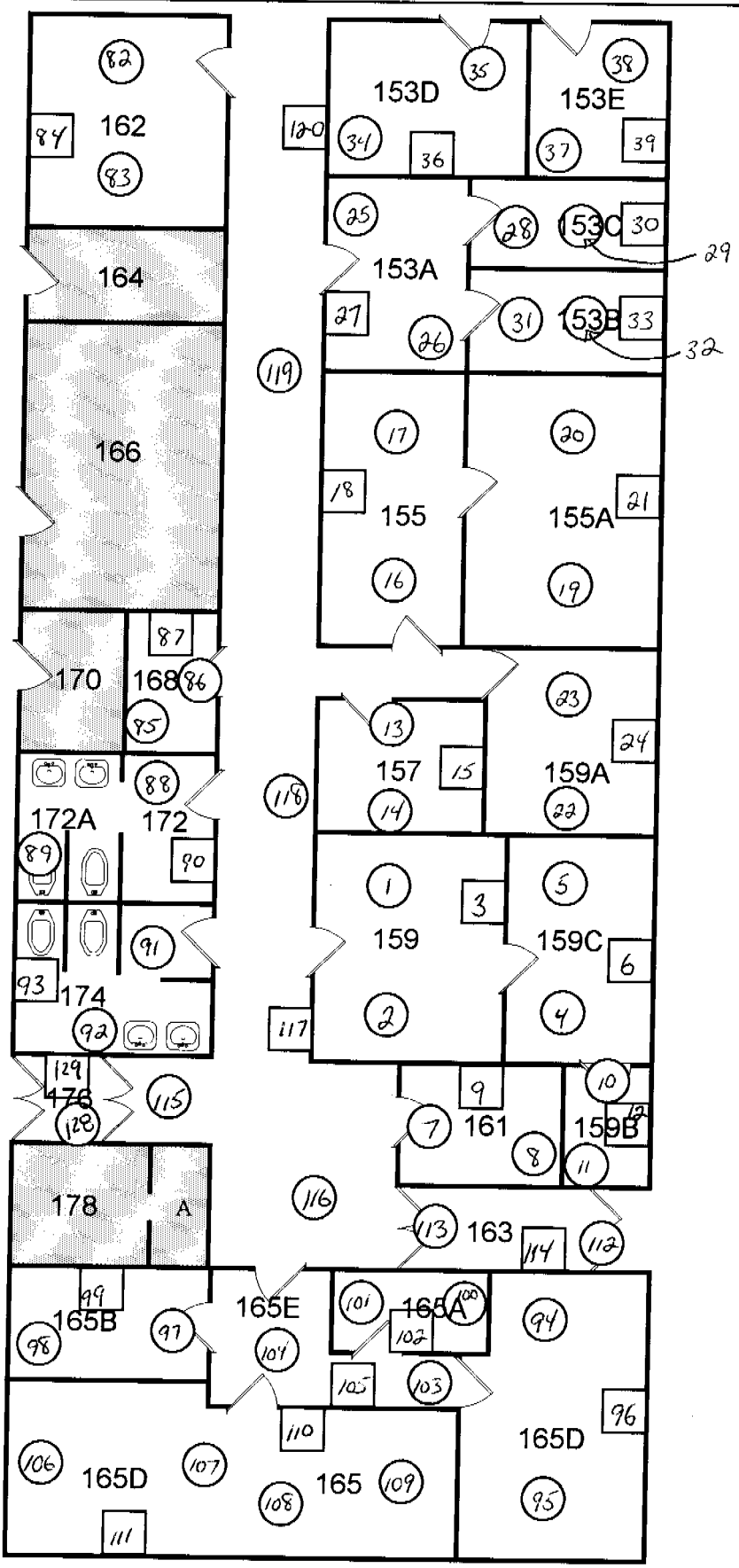
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

707
COLD OFFICES
SOUTH



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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NcTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1245
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-3-00
Bkg. 0.0 cpm	Bkg. 0.6 cpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 22.57%
MDA 8.2 DPM	MDA 16.3 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 39 cpm	Bkg. 38 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 97. DPM	MDA 95.9	MDA NA

Survey Type: Contamination
Building: 707
Location: COLD OFFICES Survey Area Y
Purpose: **Reconnaisance Level Characterization**

RWP # N/A

Date: 4-26-00 Time: 1500

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	overhead pipes Door 444	0	4	-18	16.	PIPING	0	44	12
2.	vent - C	0	12	0	17.	vent	3	24	-6
3.	vent - C	3	-20	0	18.	vent	0	-12	0
4.	piping Door 333	0	-24	-6	19.	vent	0	48	0
5.	piping	0	-12	0	20.	PIPING	3	-52	0
6.	vent	0	-8	-12	21.	PIPING	6	20	-6
7.	vent	0	48	42	22.	vent	0	-24	-12
8.	EQUIPMENT	0	24	-12	23.	vent	0	-12	-6
9.	vent	0	40	12	24.	EQUIP	0	28	18
10.	SINK	0	0	-18	25.	vent	6	68	-18
11.	vent	0	-32	0	26.	EQUIP	0	12	-12
12.	vent	6	-16	-6	27.	vent	0	16	12
13.	EQUIP - Piping - C	3	-12	-12	28.	vent	0	-12	-12
14.	vent	0	40	0	29.	vent	0	8	12
15.	vent	0	4	0	30.	vent	3	40	0

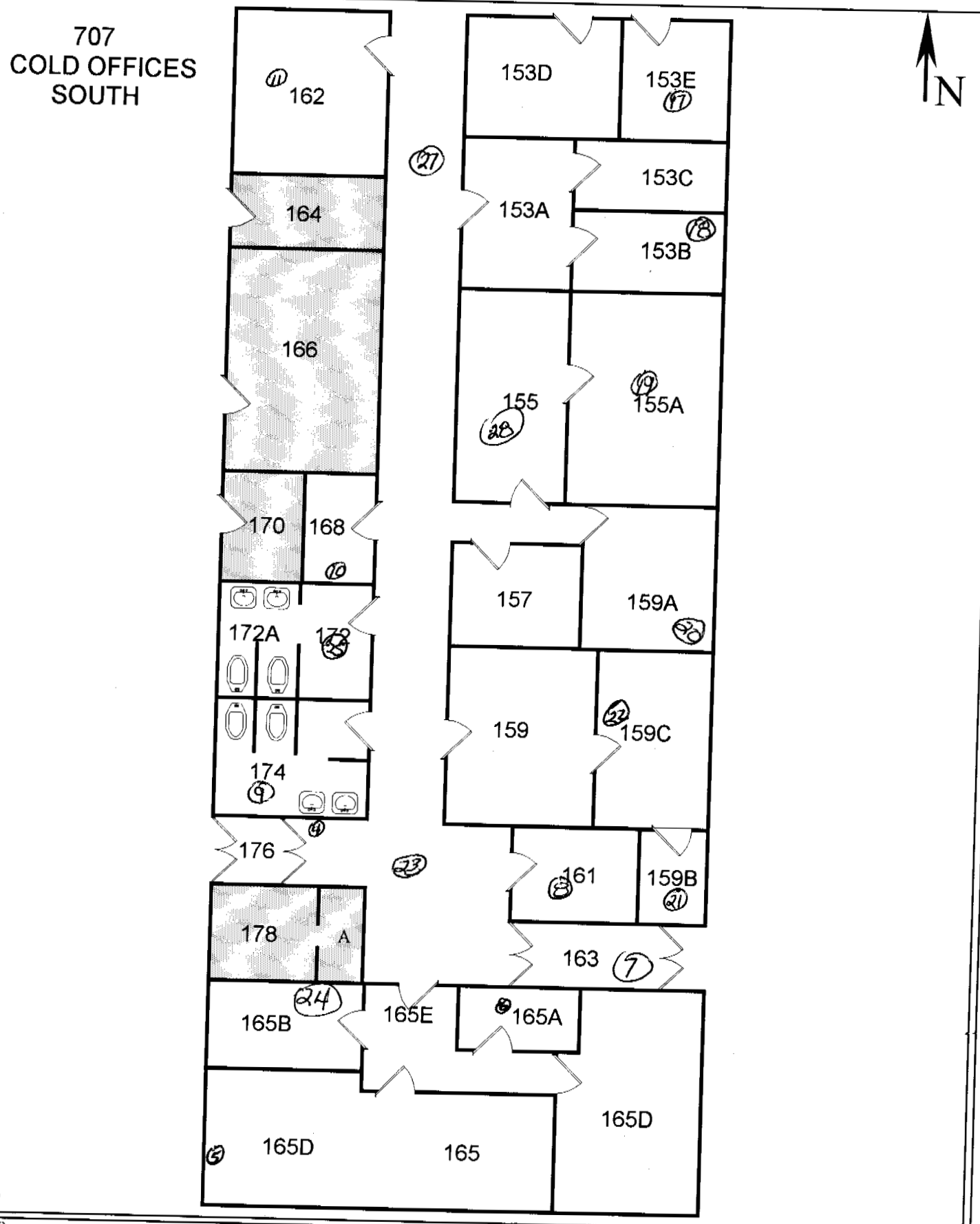
Date Reviewed: 5-2-00 **RS Supervision:** [illegible] [illegible] [redacted]
Print Name Signature

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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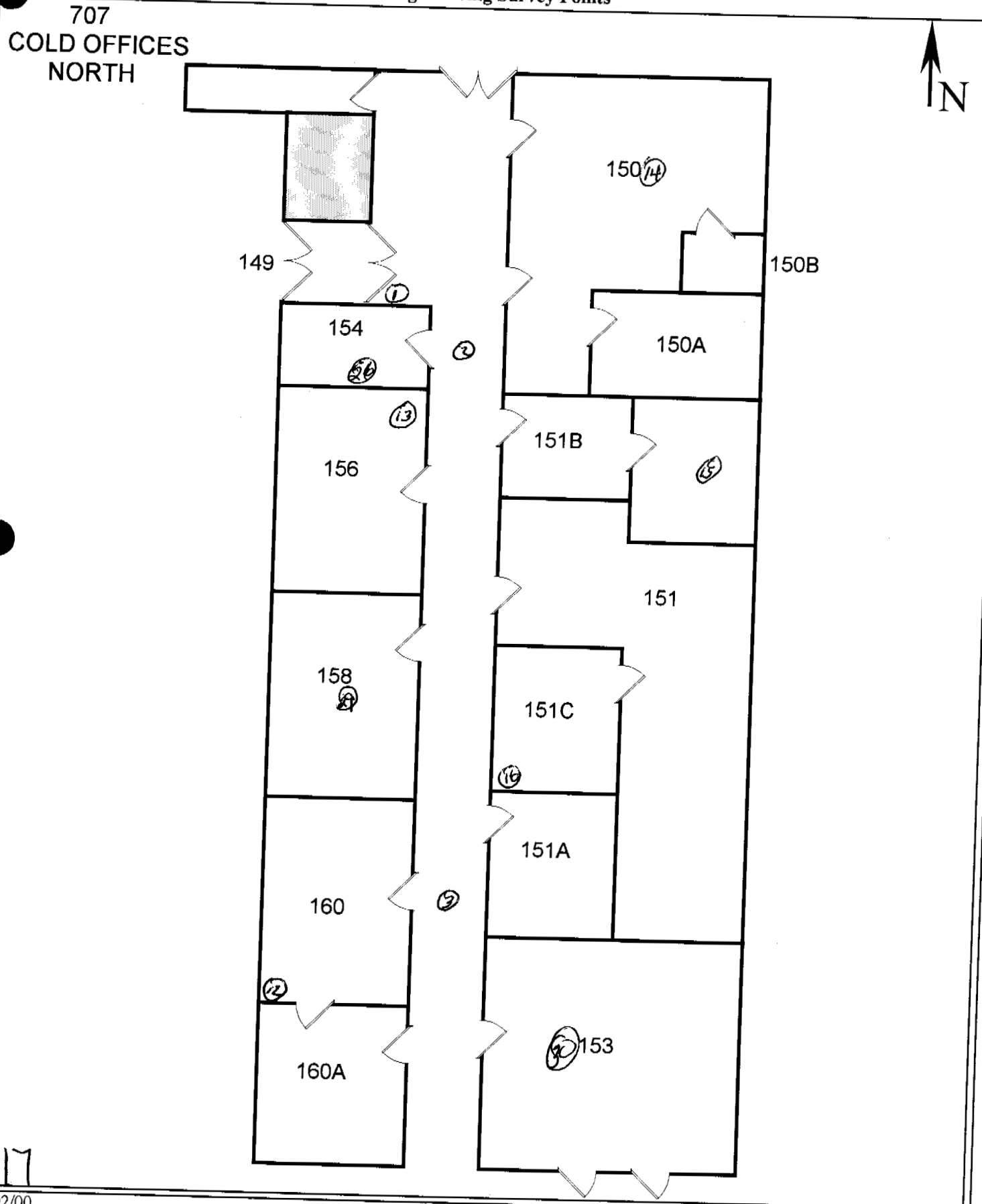
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. N/A Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 876	Serial #	Serial # 1233
Cal Due 8-15-00	Cal Due	Cal Due 5-11-00
Bkg. 0.2 cpm	Bkg.	Bkg. 2. cpm
Efficiency 33%	Efficiency 33%	Efficiency 17 %
MDA ~~20~~ 9H 7-14-00 dpm 129	MDA N/A	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 833	Serial #	Serial #
Cal Due 7-14-00	Cal Due	Cal Due N/A
Bkg. 46.0 cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 107.5 dpm	MDA NA	MDA

Survey Type: **Contamination**

Building: **707**

Location: 707 Main Hall Survey Area Y

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 4-19-00 Time: 1630

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points. 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	-12	0	16.				
2.	See Map	0	-24	0	17.				
3.	See Map	0	-8	12	18.				
4.	See Map	0	48	0	19.				
5.	See Map	0	44	0	20.				
6.	See Map	3	-36	0	21.	N/A			
7.	See Map	0	~~-40~~ 40	0	22.				
8.	See Map	0	-40	12	23.				
9.	See Map	0	0	12	24.				
10.	See Map	0	4	12	25.				
11.	See Map	0	12	6	26.				
12.	See Map	0	-56	0	27.				
13.	See Map	0	36	-12	28.				
14.	See Map	0	-56	-12	29.				
15.	See Map	0	24	-6	30.				

Date Reviewed: 5-2-00 **RS Supervision:** S Lumkat [redacted]

Print Name Signature

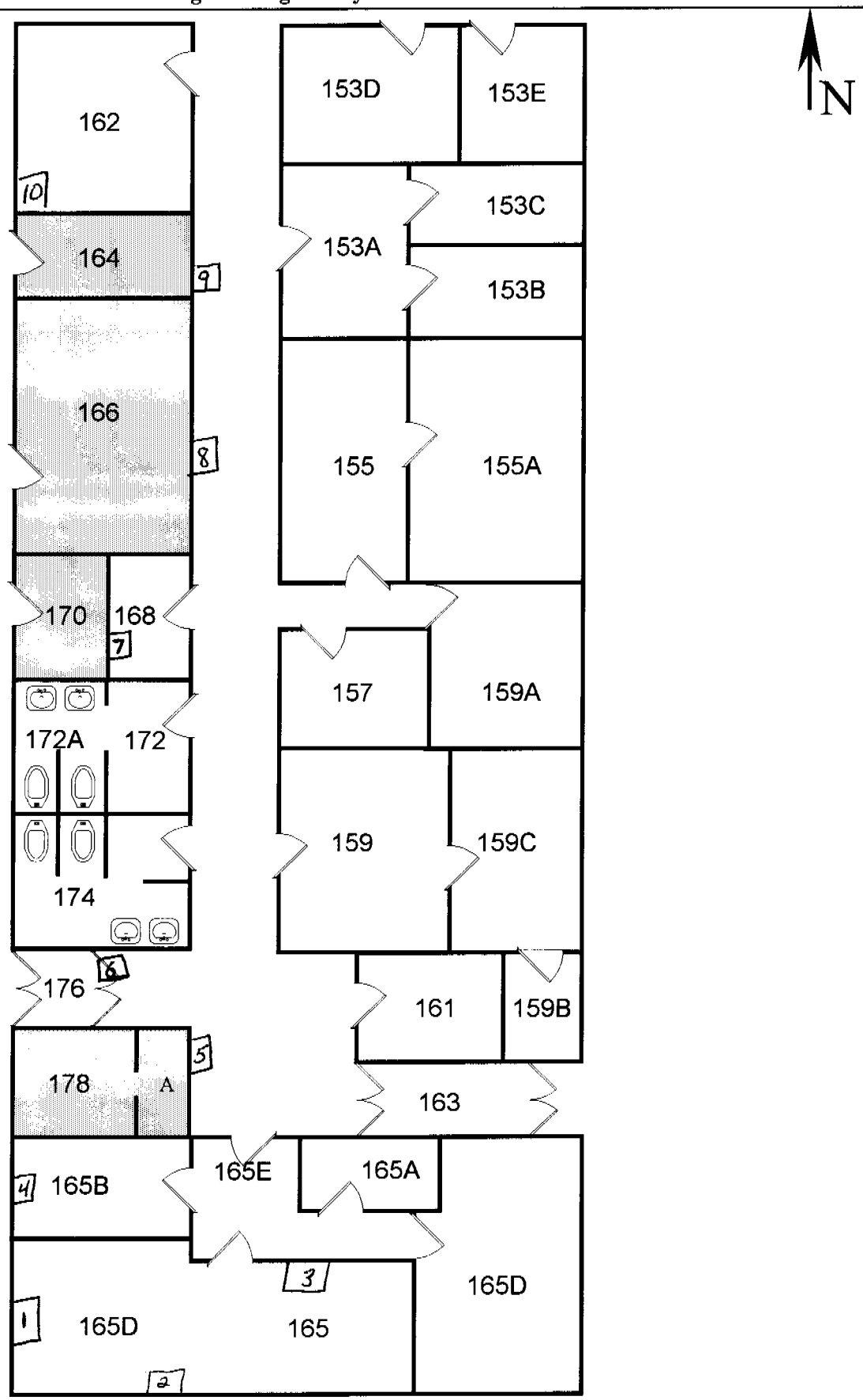
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

707
COLD OFFICES
SOUTH



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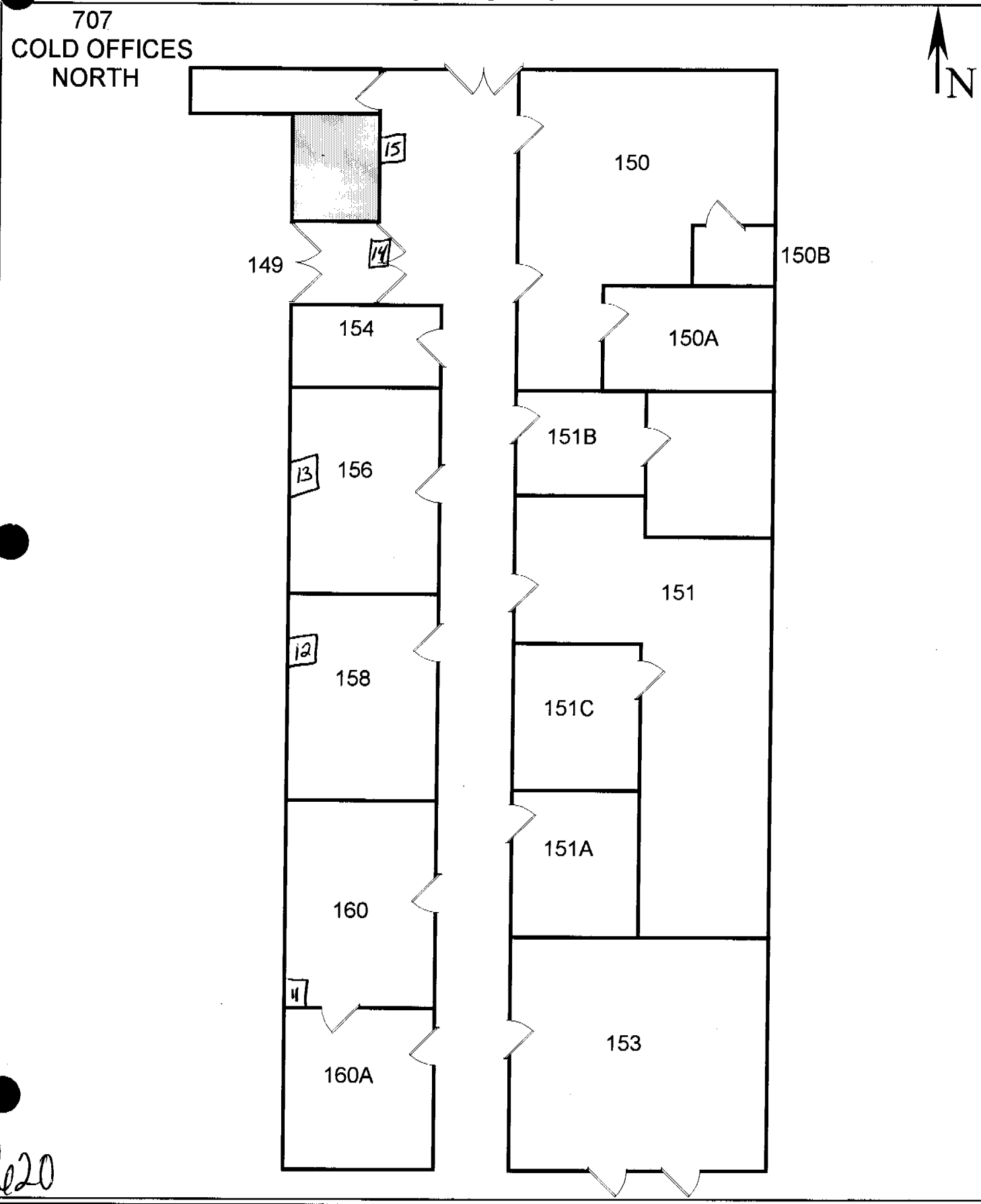
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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A-3

RLC RADIOLOGICAL DATA

Survey Area Z

Manufacturing Building; External Surfaces/Roof Bldg 707

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Radiological Survey/Sample Results for Survey Area Z (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	37	37
MIN	18	N/A
MAX	96	N/A
MEAN	48.0	N/A
STD DEV	20.2	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	26	26
MIN	18	N/A
MAX	162	N/A
MEAN	66.2	N/A
STD DEV	35.6	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	37	37
MIN	0	-48
MAX	9	32
MEAN	0.9	-13.1
STD DEV	2.0	20.5
Floors/Walls < 2 m Biased	# Required	# Obtained
	26	26
MIN	0	-64
MAX	9	56
MEAN	1.2	-3.1
STD DEV	2.1	27.7
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	-56
MAX	N/A	48
MEAN	N/A	-6.9
STD DEV	N/A	35
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	-52
MAX	N/A	68
MEAN	N/A	4.9
STD DEV	N/A	29.1
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
2	2

Total Uranium Results dpm/100 cm^2

MIN	2
MAX	7
MEAN	4.5
STD DEV	3.5
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	1
MAX	3
MEAN	2.0
STD DEV	1.4
$DCGL_W$	100

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3260
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-17-00
Bkg. 0.2 cpm	Bkg. 0.4 cpm	Bkg. 2 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 1518
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 40 cpm	Bkg. 45 cpm	Bkg. 1 cpm
Efficiency 25%	Efficiency 25%	Efficiency 17%
MDA 98.1 dpm	MDA 102.5 dpm	MDA 94 dpm

Survey Type: Contamination

Building: 707

Location: Roof Exterior Survey Area Z

Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 5-3-00 Time: 1630

[redacted]

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
1-25 roof
26-37 wall <2 meters

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	8	48	16.	See Map	3	-36	24
2.	See Map	0	4	54	17.	See Map	0	12	36
3.	See Map	0	-32	36	18.	See Map	3	-28	54
4.	See Map	3	-28	36	19.	See Map	0	-16	30
5.	See Map	0	8	42	20.	See Map	3	-12	24
6.	See Map	0	-16	30	21.	See Map	0	-20	36
7.	See Map	0	-36	24	22.	See Map	0	20	18
8.	See Map	3	-16	96	23.	See Map	0	-32	42
9.	See Map	0	-40	60	24.	See Map	0	-20	36
10.	See Map	0	20	18	25.	See Map	0	-20	66
11.	See Map	0	-32	36	26.	See Map	9	-20	54
12.	See Map	0	-8	54	27.	See Map	0	-12	18
13.	See Map	0	-20	24	28.	See Map	0	-48	48
14.	See Map	0	-28	42	29.	See Map	0	-12	78
15.	See Map	0	24	72	30.	See Map	0	-20	66

Date Reviewed: 5-8-00 **RS Supervision:** Allshouse [redacted]
Print Name Signature

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

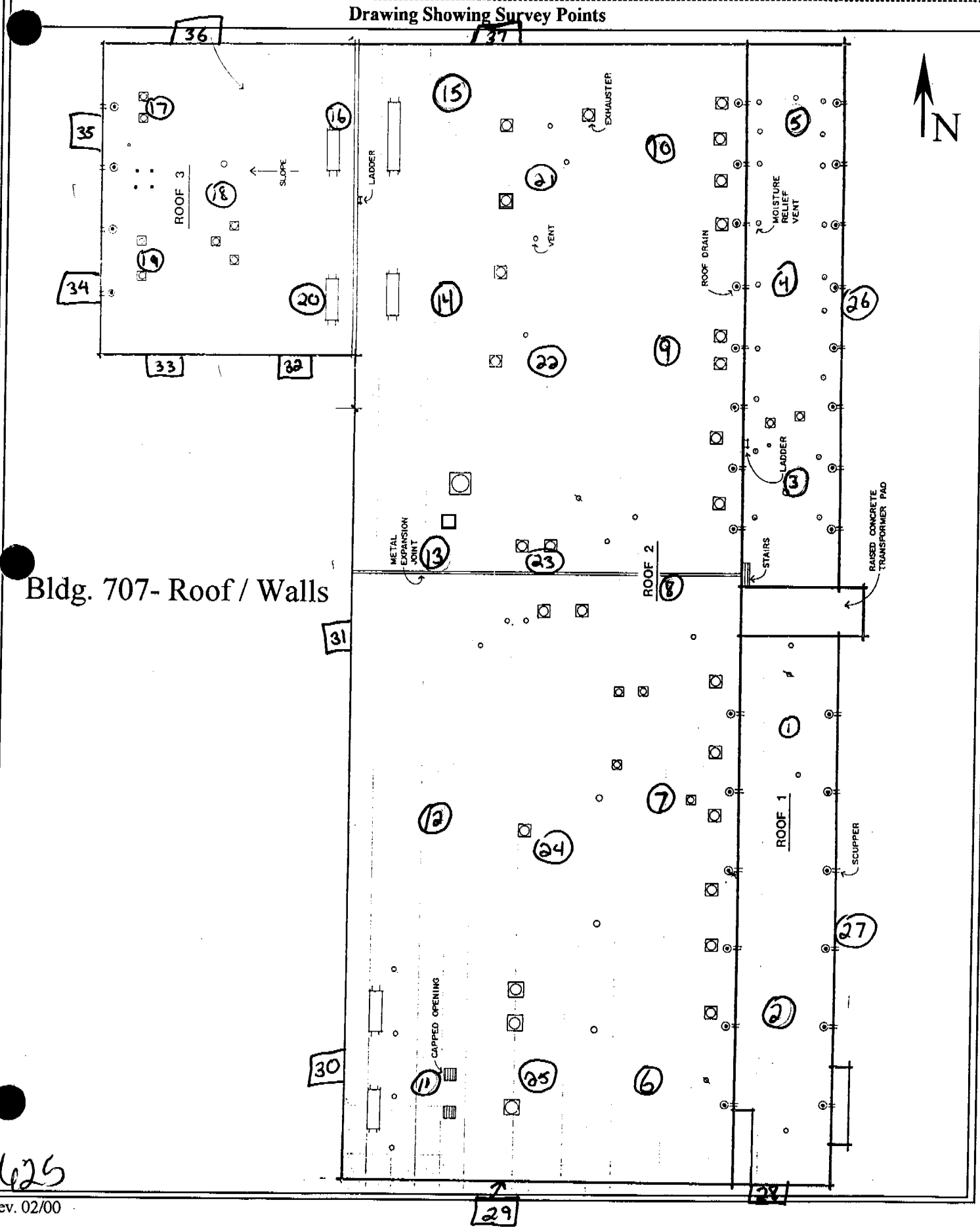
Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	See Map	0	-28	78	61.	NA			
32.	See Map	3	4	66	62.				
33.	See Map	0	32	54	63.				
34.	See Map	0	-32	72	64.				
35.	See Map	0	28	78	65.				
36.	See Map	6	-16	72	66.				
37.	See Map	0	-16	54	67.				
38.	End of Survey			NA	68.				
39.					69.				
40.					70.				
41.					71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.				
47.					77.				
48.					78.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.	NA				90.				NA

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Bldg. 707- Roof / Walls

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3260
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-17-00
Bkg. 0.2 cpm	Bkg. 0.4 cpm	Bkg. 2 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 1518
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 6-29-00
Bkg. 40 cpm	Bkg. 45 cpm	Bkg. 1 cpm
Efficiency 25%	Efficiency 25%	Efficiency 17%
MDA 98.1 dpm	MDA 103.5 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 707

Location: Roof / Exterior Survey Area Z

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-3-00 Time: 1630

[redacted]

Comments: Roof / Exterior Walls : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	16	162	16.	See Map	3	-24	36
2.	See Map	0	40	90	17.	See Map	0	36	30
3.	See Map	3	-4	90	18.	See Map	0	-32	60
4.	See Map	3	-24	90	19.	See Map	0	-4	102
5.	See Map	0	56	54	20.	See Map	0	-28	36
6.	See Map	9	-64	36	21.	See Map	0	36	124
7.	See Map	0	-8	36	22.	See Map	0	4	102
8.	See Map	3	-8	42	23.	See Map	0	-32	60
9.	See Map	3	32	24	24.	See Map	3	0	72
10.	See Map	0	-36	54	25.	See Map	0	-4	18
11.	See Map	0	-8	66	26.	See Map	3	12	36
12.	See Map	0	-24	48	27.	End of Survey			NA
13.	See Map	0	-16	120	28.				
14.	See Map	0	-8	48	29.				
15.	See Map	0	12	84	30.	NA			

Date Reviewed: 5-8-00 **RS Supervision:** Allrhouse / [signature]
Print Name Signature

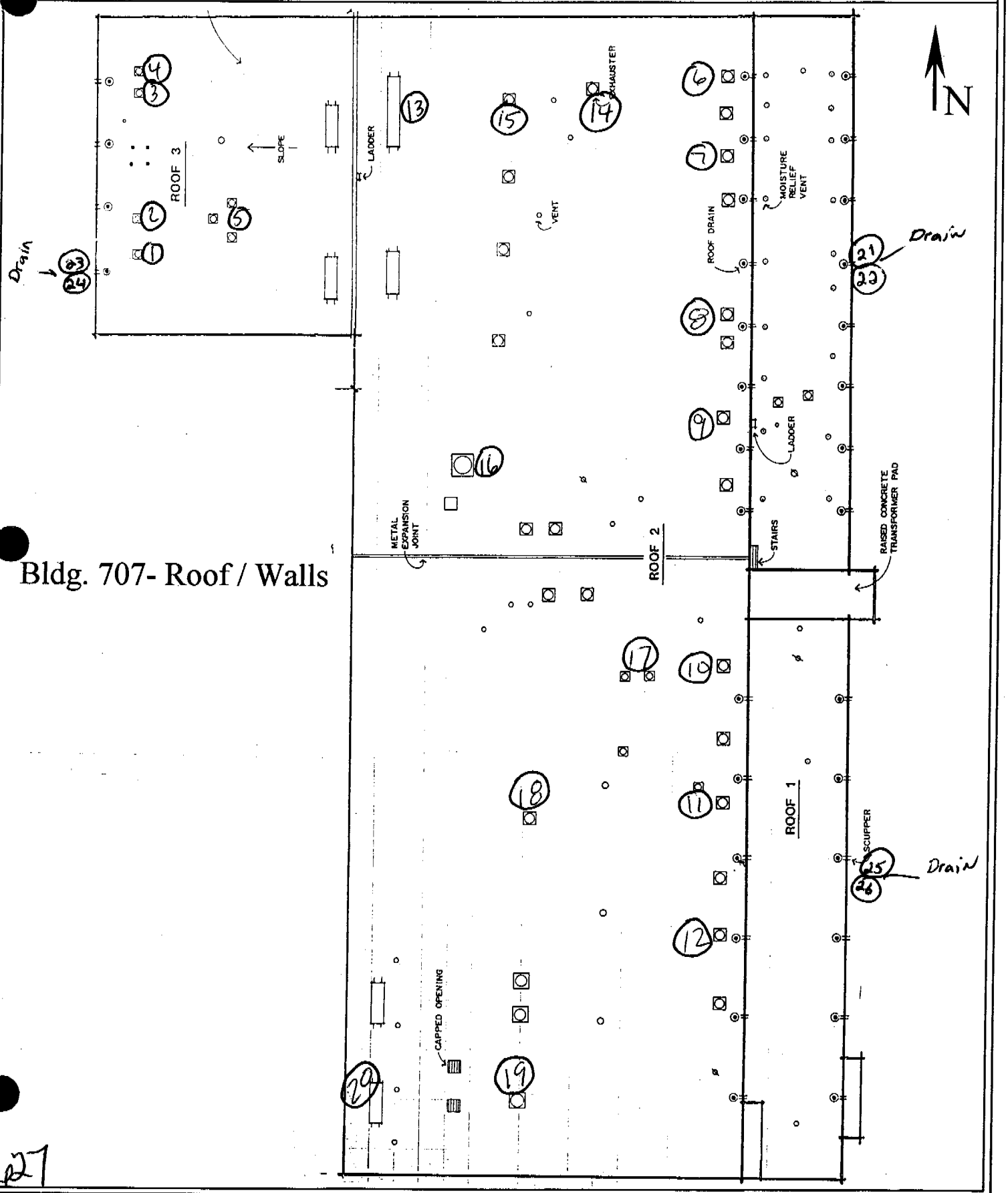
[redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Bldg. 707- Roof / Walls

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#016	Matrix:	Waste
Site Sample ID:	045.002				
Other Sample ID:	Bldg 707 Roof	Collection Date:	5/3/00	Date Received:	5/5/00
		Batch Number:	1940	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1940-04	0.214	0.121	0.128	0.045
ACW03	U-235	KH100-1940-04	0.041	0.058	0.059	0.055
ACW03	U-238	KH100-1940-04	0.164	0.105	0.110	0.044
ACW03	PU-238	KH100-1940-04	0.064	0.146	0.146	0.225
ACW03	PU-239/240	KH100-1940-04	0.099	0.087	0.090	0.090
ACW03	AM-241	KH100-1940-04	0.079	0.080	0.082	0.054

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ASI SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 045
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-45-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID:
TRIP BLANK: ✓

Comments/Problems encountered during sampling: Radscreen - 2 grams/25 cm² (1/4 grid). T.S.O - 7 grams/75 cm² (3/4 grid). Total - 100 cm² (1 grid).

Location Description: Bldg. 707, ~~roof~~ 5/3/00 mu N.W. Corner of ~~of~~ roof.

Other ID: 707-P-45-00

Sample Appearance: Thick gray paint, + black tar

Sampling Device: Chisel

Sample Date: 5/3/00 Sample Time: 13:15 Rad Screen Sample Date: 5/3/00

Was generator notified to receive excess sample? (Yes) X (No)

Sampler's Signature: [redacted]

Employee Nu

Date: 5/3/00 5/3/00

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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#016	Matrix:	Waste
Site Sample ID:	046.002				
Other Sample ID:	Bldg 707 Roof	Collection Date:	5/3/00	Date Received:	5/5/00
		Batch Number:	1940	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1940-05	0.059	0.060	0.061	0.040
ACW03	U-235	KH100-1940-05	0.011	0.039	0.040	0.088
ACW03	U-238	KH100-1940-05	0.068	0.067	0.069	0.071
ACW03	PU-238	KH100-1940-05	-0.027	0.099	0.099	0.190
ACW03	PU-239/240	KH100-1940-05	0.101	0.083	0.085	0.073
ACW03	AM-241	KH100-1940-05	0.021	0.043	0.043	0.058

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630

073

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 046
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-46-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen-2 grams/50cm² (1/2 grid). ISO-7 grams/150cm² (1 1/2 grids). Total-9 grams/200cm² (2 grids). Rinsate is event .063

Location Description: Bldg. 707, on roof near the 5th exhaust vent north of ladder.

Other ID: 707-P-47-00

Sample Appearance: Very thick gray paint with some tar like material

Sampling Device: Chisel

Sample Date: 5/3/00 Sample Time: 13:26 Rad Screen Date: 5/3/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signature [redacted]
Employee Number: [redacted]

Date: 05/3/00 5/3/00

L31

ID No.: 778,732

Date: 04/26/00

D&D Facility Characterization Interview Checklist

Check List for - Title: D&D Facility Characterization – Interviews

CRITERIA:
- Λ *D&D Characterization Protocol*, RFETS MAN-077-DDCP, Rev. 0
- Λ *Facility Disposition Program Manual*, RFETS MAN-076-FDPM
- Λ RFETS Radiological Safety Practices, January 12, 1998

Facility Name & Type (1, 2, or 3) Buildings 778,732 Laundry/Locker Room/Maintenance Shops Type 2

Personnel Interviewed (Name & Title/Function) Dean Burton/Senior Engineer/Closure Planing

	Y/ N
Does a current WSRIC exist for the facility?	Y
If so, are there exceptions to the WSRIC as written?	No Exceptions

COMMENTS (incl. WSRIC contacts)

WSRIC Contact is James M. Schoen who is in charge of the WSRIC Reports, T130J, X3579, C-83.

Are rad surveys available that indicate current status of the facility?	Y
Are historical rad surveys available that indicate historical status, or evolution, of the facility?	Y

COMMENTS Historical surveys will be in storage at the Federal Center.

Is an HRR available for the facility?	Y
Do any other reports exist beyond the HRR (e.g., spill reports, reportable incidents, etc.) that further Characterize the facility relative to chemical &/or radiological contamination?	N
Are engineering drawings (esp. "as-builts") available?	Y
Are any nonconformances or issues with the facility status currently being tracked in PATS?	N

If so, what are the issues (note in Comments, below)?

COMMENTS

Have any types of chemical characterization, incl. asbestos, been performed recently?	N

If so, what types of characterization were performed (note in Comments, below)?

COMMENTS

Interviewed by: D. A. Burton / [signature] / 04/26/00

Print Name / Signature / Interview Date

Interview Checklist

Date: 04/26/00

What timeframe did the interviewee work in the facility? !975 to 1992

Has the building configuration changed since you worked in the building? If so, in what way?
Yes. The locker/shower room was expanded to accommodate the addition of a women's locker/shower Room and the building of an exhaust filter plenum for the laundry.

What types of equipment were in the building during the interviewee's time there?
Equipment used in the building is for machining, sheetmetal, pipe, electrical, and paint maintenance operations for buildings 776/777, 707,708 and 559. Offices have chairs, tables, computers, printers, copiers and file cabinets.

Where was the equipment located? (specific rooms/areas) In the shops and offices.

Were any radioactive materials or metals handled in the building? If so, what types? No

Which equipment handled radioactive material? None

Were any chemicals handled in the building? If so, what types? Yes. Cutting oils for machining and pipe threading and solvents to degrease machining and threading operations.

Did any spills or uncontrolled releases of radioactive materials or chemicals occur while you were working in the facility? No

Were these spills/releases cleaned-up?

Where did these spills/releases occur?

Interviewed by: D. A. Burton / [signature] / 04/26/00

Print Name | Signature | Interview Date

633

B-1
HISTORICAL CHEMICAL DATA
Beryllium

634

BUILDING 778
SURFACE SAMPLE (SMEAR) RESULTS

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	MASS ON FILTER (µg)	CONCENTRATION (µg/100cm²)
778-06231999-35-001	778	100	Selective	Fire phone F-361 SE wall	L	0.1	0.1
778-06231999-35-002	778	100	Selective	Cabinet top (8, 6)	L	0.1	0.1
778-06231999-35-003	778	100	Selective	Shelf top (13, 2)	L	0.1	0.1
778-06231999-35-004	778	100	Selective	Back side of respirator washer (20, 7)	L	0.1	0.1
778-06231999-35-005	778	100	Selective	Floor (20, 7)	L	0.1	0.1
778-06231999-35-006	778	100	Selective	Computer table top (32, 8)	L	0.1	0.1
778-06231999-35-007	778	100	Selective	Computer table shelf (32, 8)	L	0.1	0.1
778-06231999-35-008	778	100	Selective	Shelf top (40, 2)	L	0.1	0.1
778-06231999-35-009	778	100	Selective	PD1-ASW SWGR 776-3/3B (50, 5)	L	0.1	0.1
778-06231999-35-010	778	100	Selective	Floor (14, 10)	L	0.1	0.1
778-06231999-35-011	778	100	Selective	Floor (4, 22)	L	0.1	0.1
778-06231999-35-012	778	100	Selective	Refrigerator top (2, 15)	L	0.1	0.1
778-06231999-35-013	778	100	Selective	Table top (11, 17)	L	0.1	0.1
778-06231999-35-014	778	100	Selective	Floor (33, 14)	L	0.1	0.1
778-06231999-35-015	778	100	Selective	Control panel CKT 9 E-L-2-D-15 (50, 18)	L	0.1	0.1
778-06231999-35-016	778	100	Selective	L59 RF 96 top (42, 26)	L	0.1	0.1
778-06231999-35-017	778	100	Selective	Floor (42, 26)	L	0.1	0.1
778-06231999-35-018	778	100	Selective	L59 RF 53 top (25, 27)	L	0.1	0.1
778-06231999-35-019	778	100	Selective	Floor (25, 27)	L	0.1	0.1
778-06231999-35-020	778	100	Selective	Floor (27, 32)	L	0.1	0.1
778-06231999-35-021	778	100	Selective	Floor (40,37)	L	0.1	0.1
778-06231999-35-022	778	100	Selective	Step ladder 4th step (33, 44)	L	0.1	0.1
778-06231999-35-023	778	100	Selective	L59 RF 71 (53, 38)	L	0.1	0.1
778-06231999-35-024	778	100	Selective	Floor (53, 38)	L	0.1	0.1
778-06231999-35-025	778	100	Selective	L59 RF137 (15, 40)	L	0.1	0.1
778-06231999-35-026	778	100	Selective	Floor (15, 40)	L	0.1	0.1
778-06231999-35-027	778	100	Selective	Hot water line (1, 47)	L	0.1	0.1
778-06231999-35-028	778	100	Selective	HDPE Belts (1, 47)	L	0.1	0.1
778-06231999-35-029	778	100	Selective	L59 RF 62	L	0.1	0.1
778-06231999-35-030	778	Blank			L	0.1	0.1
778-06231999-35-031	778	Blank			L	0.1	0.1
778-06231999-35-032	778	Blank			L	0.1	0.1

BUILDING 778
HISTORICAL BERYLLIUM LOCATIONS

BUILDING	ROOM	ACTIVITY	POSTING REQUIREDMENTS
778	100	Laundry operations	None
778	104 A	Laundry plenum	None

636

B-3
RLC RADIOLOGICAL DATA
Survey Area A
Bldg 778, Interior East

637

Radiological Survey/Sample Results for Survey Area A (00-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	0	N/A
MAX	108	N/A
MEAN	30.6	N/A
STD DEV	21.4	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	N/A
MAX	18	N/A
MEAN	10.8	N/A
STD DEV	8.4	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	11	11
MIN	0	N/A
MAX	30	N/A
MEAN	15.8	N/A
STD DEV	9.8	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	12	N/A
MAX	174	N/A
MEAN	40.2	N/A
STD DEV	35.5	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	45	45
MIN	0	-48
MAX	3	56
MEAN	0.5	-3.8
STD DEV	1.1	27.9
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-44
MAX	6	44
MEAN	0.6	0.8
STD DEV	1.9	34.2
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	11	11
MIN	0	-44
MAX	0	36
MEAN	0.0	-3.3
STD DEV	0.0	23.7
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-48
MAX	3	64
MEAN	0.3	2.1
STD DEV	0.9	23
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1518
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 6-29-00
Bkg. 0.2 cpm	Bkg. 0.0 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2186
MDA 12.9 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3120
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 4-26-00
Bkg. 41 cpm	Bkg. 45 cpm	Bkg. 3.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2109
MDA 99.2 dpm	MDA 103.4 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: ~~707~~ 778

Location: 778 Interior East Survey Area A

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 4-5-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters ~~Biased survey points~~

1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	-12	24	16.	Wall<2m	3	-20	90
2.	F	0	-20	18	17.	F	0	-8	48
3.	F	0	-4	12	18.	F	0	-40	12
4.	F	0	-40	18	19.	F	0	16	0
5.	F	0	36	12	20.	F	0	4	12
6.	F	3	-48	48	21.	F	0	8	18
7.	RL ~~F~~ Wall<2m	0	0	60	22.	F	0	-8	36
8.	RL ~~F~~ Wall<2m	0	-4	18	23.	F	0	4	12
9.	Wall<2m	0	36	18	24.	F	0	4	36
10.	F	3	0	24	25.	F	3	-20	18
11.	F	0	12	16	26.	F	0	0	12
12.	F	0	51	24	27.	F	0	28	54
13.	F	3	-20	66	28.	F	0	-4	42
14.	F	0	32	18	29.	F	0	-44	18
15.	Wall<2m	0	32	24	30.	F	0	32	24

Date Reviewed: 4-17-00 **RS Supervision:** Schumacher, [illegible]

Print Name Signature

[redacted]

Rev. 02/00

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 6

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	F	0	8	18	61.				
32.	F	0	-28	30	62.				
33.	F	0	32	42	63.				
34.	F	0	-48	18	64.				
35.	F	0	-48	30	65.				
36.	Wall < 2m	0	56	66	66.				
37.	Wall < 2m	0	4	30	67.				
38.	Wall < 2m	0	8	18	68.				
39.	Wall < 2m	3	-4	48	69.				
40.	Wall < 2m	0	-44	24	70.				
41.	Wall < 2m	0	-48	18	71.				
42.	Wall < 2m	3	-4	42	72.				
43.	Wall < 2m	0	-40	108	73.				
44.	Wall < 2m	0	4	30	74.				
45.	Wall < 2m	0	-20	24	75.				
46.	END OF SURVEY				76.				
47.	NA				77.				
48.					78.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.					90.				

NA

140

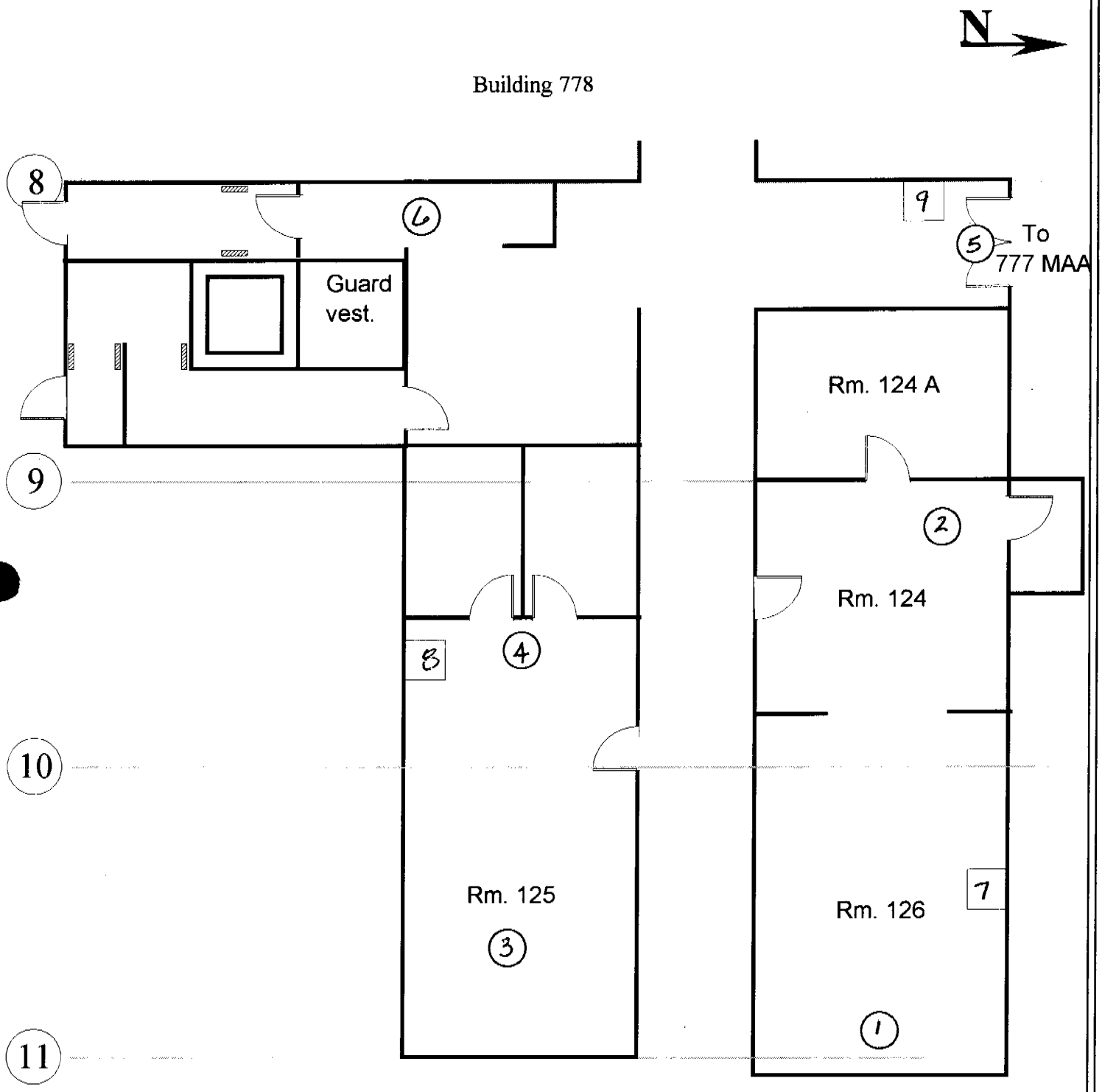
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3086

Drawing Showing Survey Points



6041

RS FORMS 07.02-01

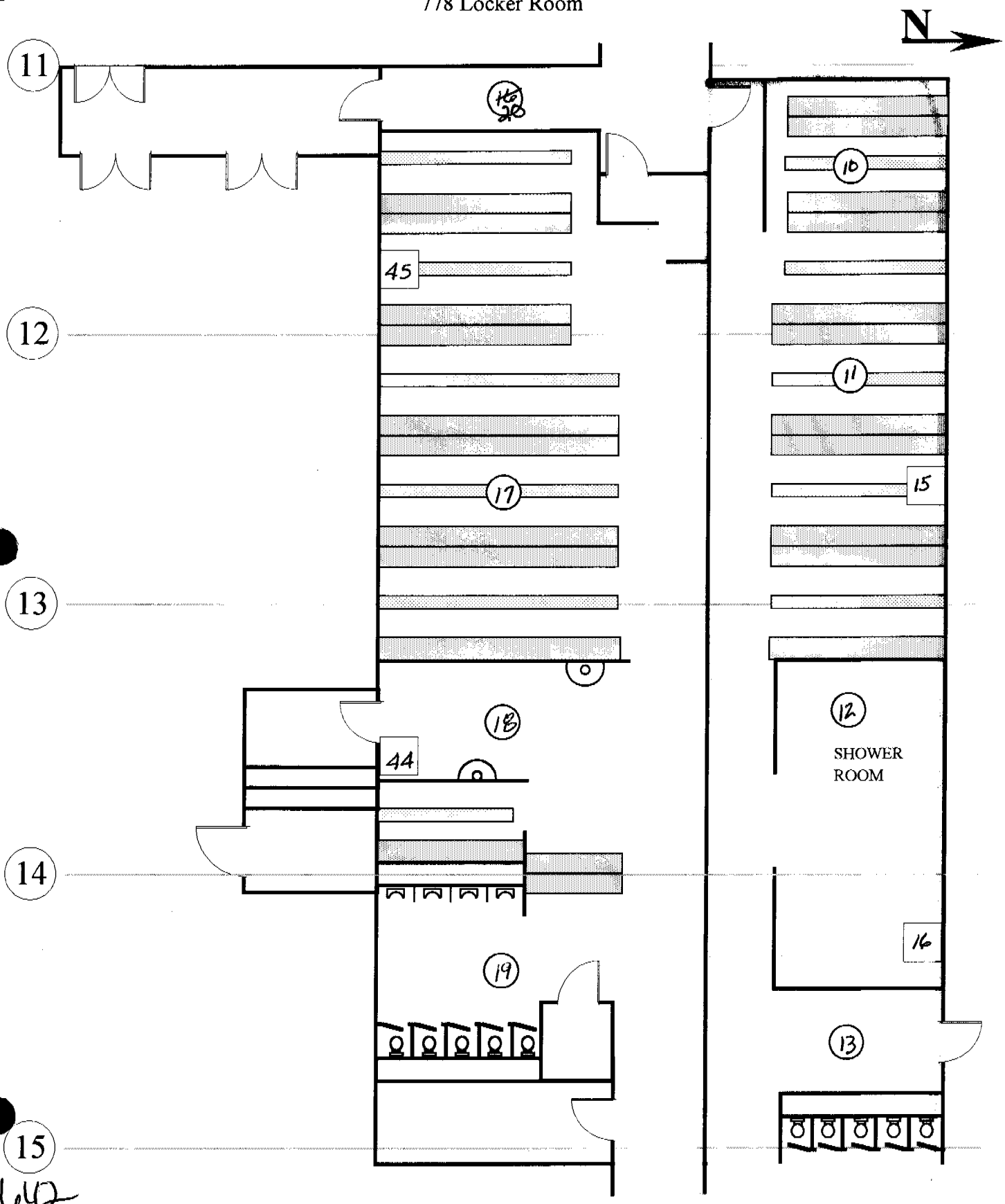
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

4656

Drawing Showing Survey Points

778 Locker Room



642

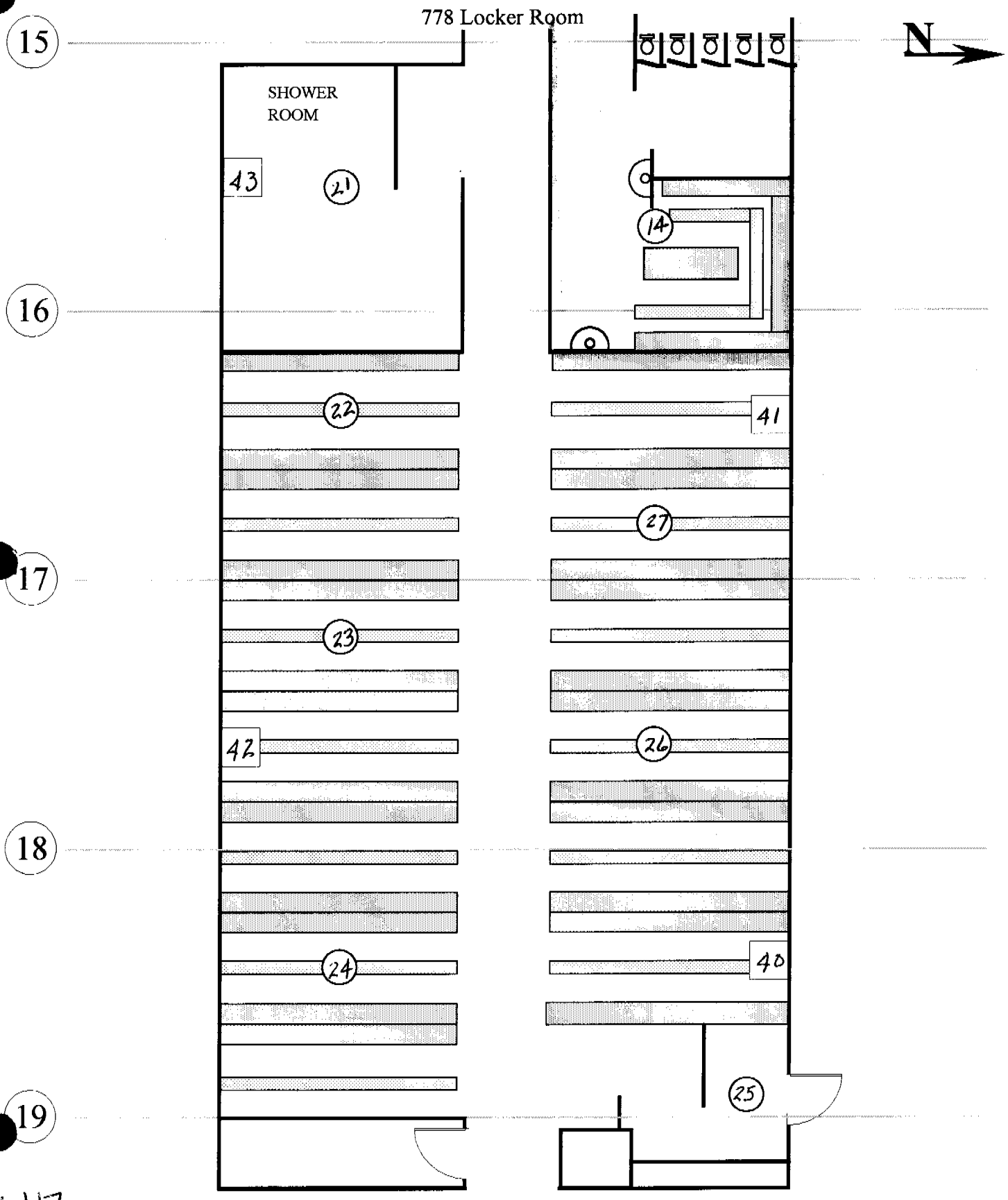
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

5096

Drawing Showing Survey Points



643

RS FORMS 07.02-01

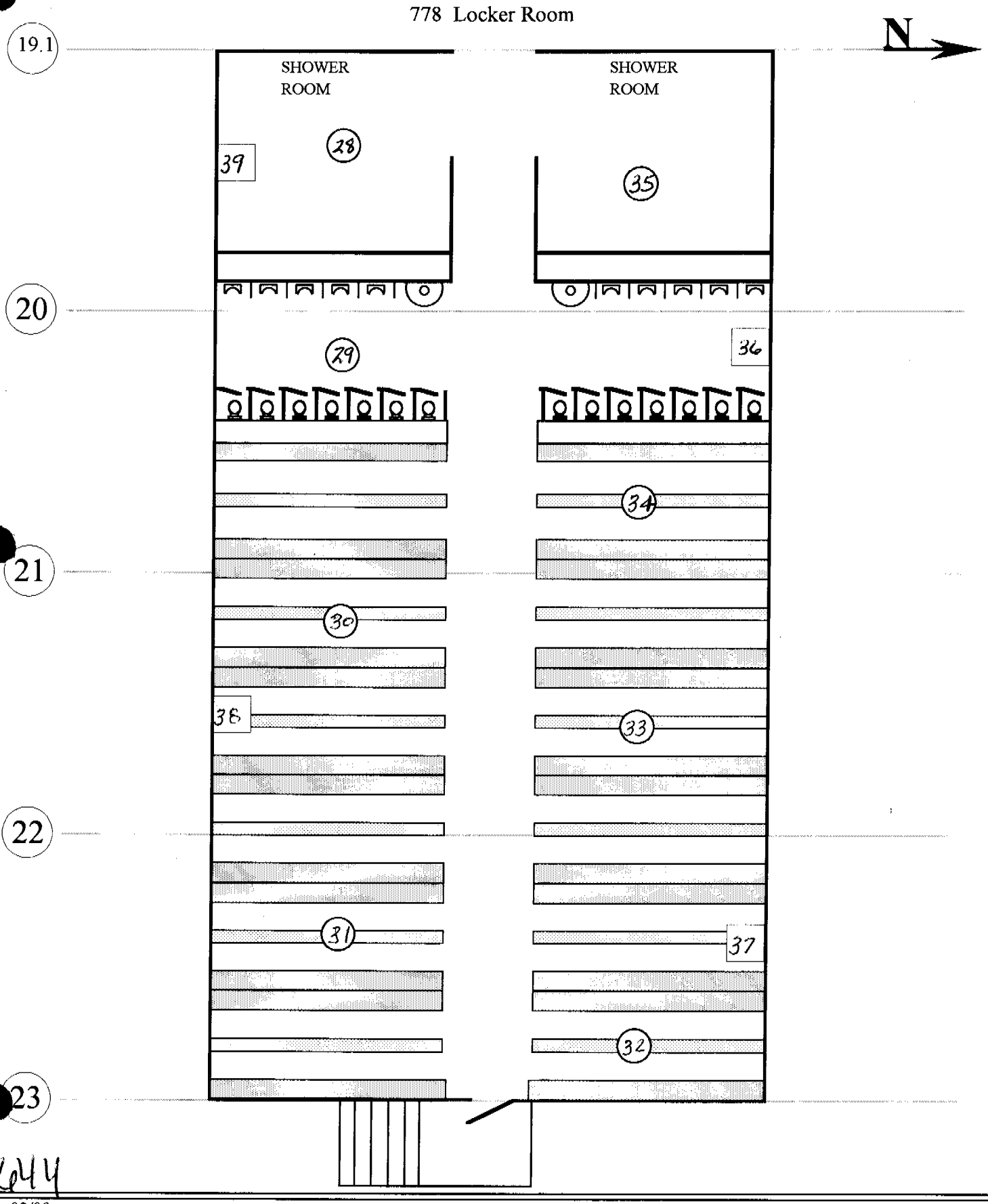
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

6096

Drawing Showing Survey Points

778 Locker Room



644

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 0.0 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 8.2 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 38 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 95.9 dpm	MDA 101.3 dpm	MDA

Survey Type: **Contamination**

Building: ~~708~~ 778

Location: Interior East Survey Area A

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 4-7-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points. 1 of 5

1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Total Beta	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Total Beta
1.	F Drain	0	36	18	NA	16.					
2.	" "	6	-24	18	NA	17.	NA				
3.	" "	0	40	12	NA	18.					
4.	" "	0	-44	0	NA	19.					
5.	" "	0	32	0	NA	20.					
6.	" "	0	-24	0	NA	21.					
7.	" "	0	44	6	NA	22.					
8.	" "	0	-28	18	NA	23.					
9.	" "	0	4	18	NA	24.					
10.	" "	0	-28	18	NA	25.					
11.	NA End of Survey					26.					
12.						27.					
13.						28.					
14.						29.					
15.						30.					

Date Reviewed: 4-17-00 **RS Supervision:** Shumkat / [illegible]

Print Name Signature

[redacted]

15

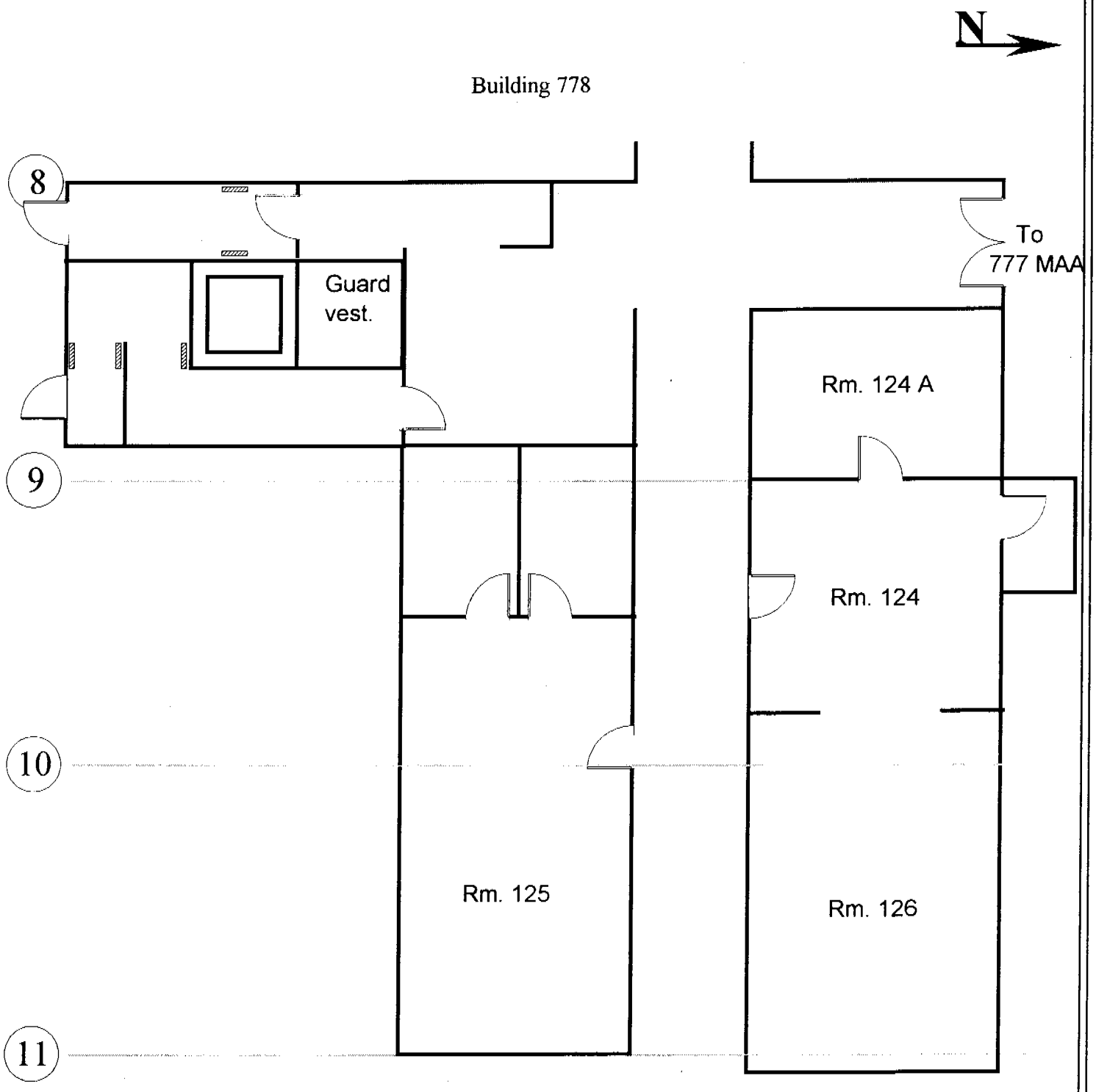
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 5

Drawing Showing Survey Points



646

RS FORMS 07.02-01

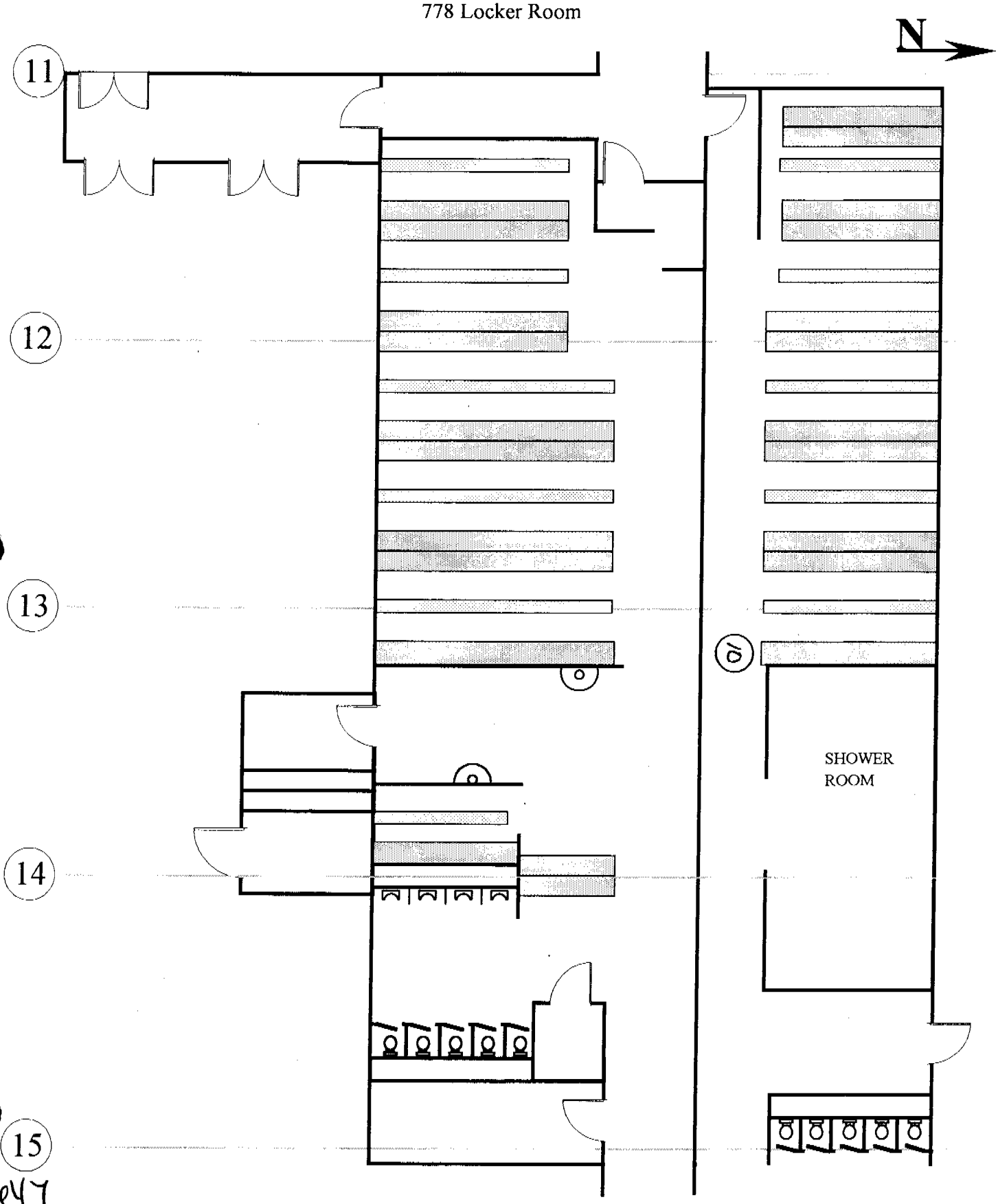
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 5

Drawing Showing Survey Points

778 Locker Room



647

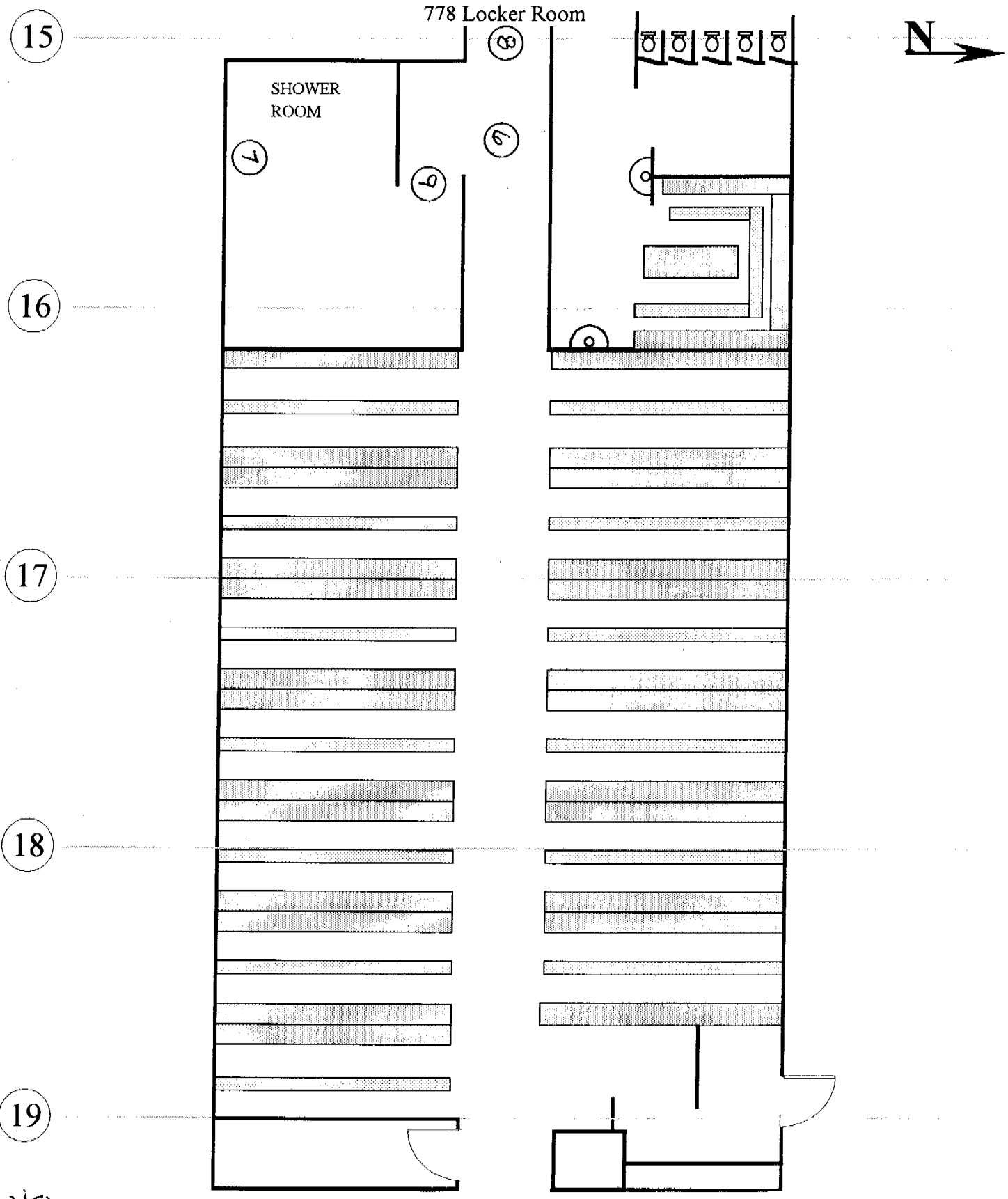
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

4 of 5

Drawing Showing Survey Points



448

RS FORMS 07.02-01

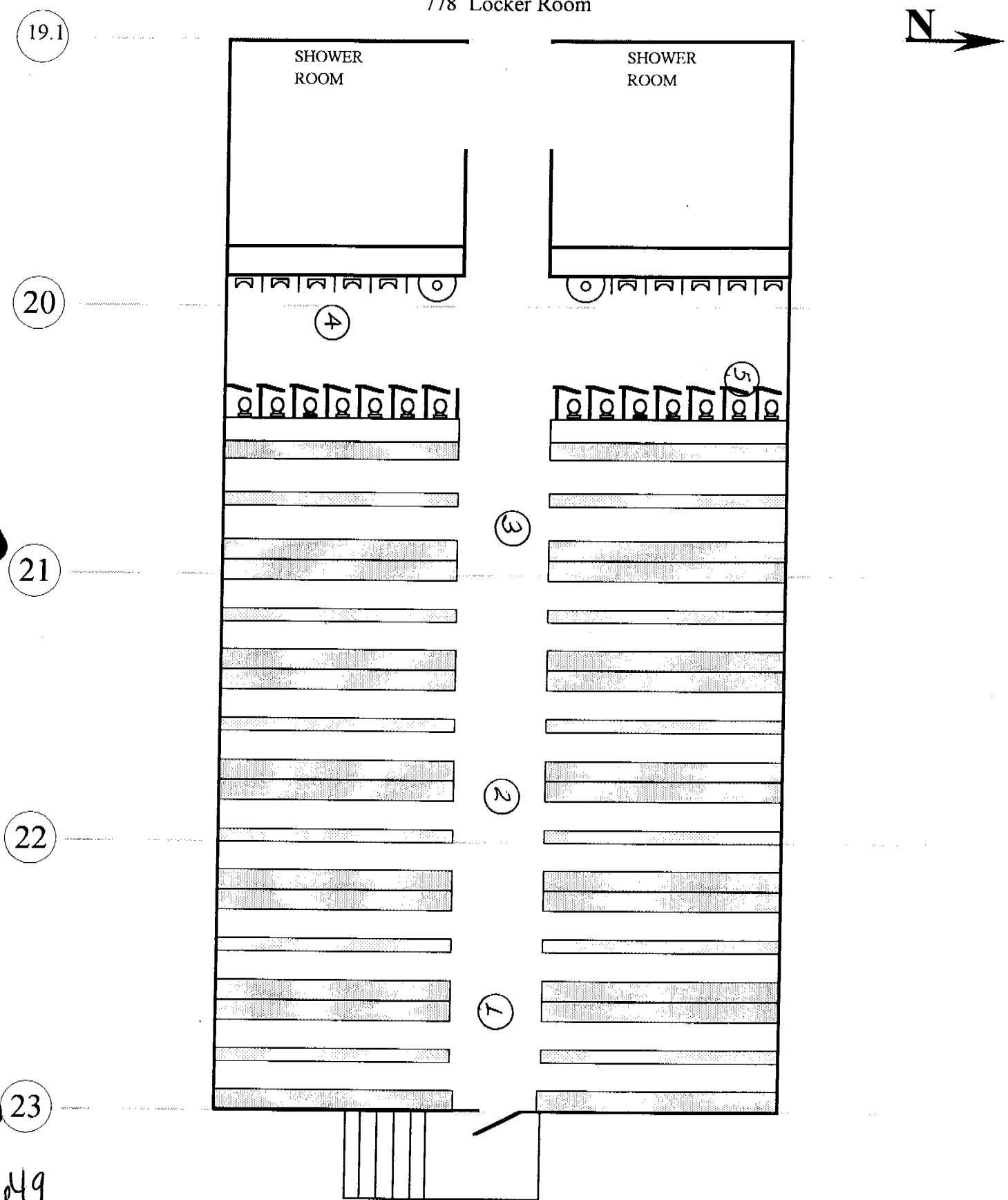
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

585

Drawing Showing Survey Points

778 Locker Room



649

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 0.0 cpm	Bkg. 0.7 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 8.2 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 38 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 95.9 dpm	MDA 101.3 dpm	MDA

Survey Type: **Contamination**

Building: ~~707~~ 778

Location: Interior East Survey Area A

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 4-7-00 Time: Days

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points [illegible] 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall > 2m	0	-8	18	16.				
2.	" "	0	4	12	17.	N/A			
3.	" "	0	36	12	18.				
4.	" "	0	-44	30	19.				
5.	" "	0	-24	24	20.				
6.	" "	0	20	12	21.				
7.	" "	0	-8	18	22.				
8.	" "	0	-12	0	23.				
9.	Ceiling	0	-28	24	24.				
10.	Ceiling	0	8	0	25.				
11.	Ceiling	0	20	24	26.				
12.	N/A End of Survey				27.				
13.					28.				
14.					29.				
15.					30.				

Date Reviewed: 4-17-00 **RS Supervision:** Shumkeat [illegible] [redacted]

Print Name Signature

Rev. 02/00

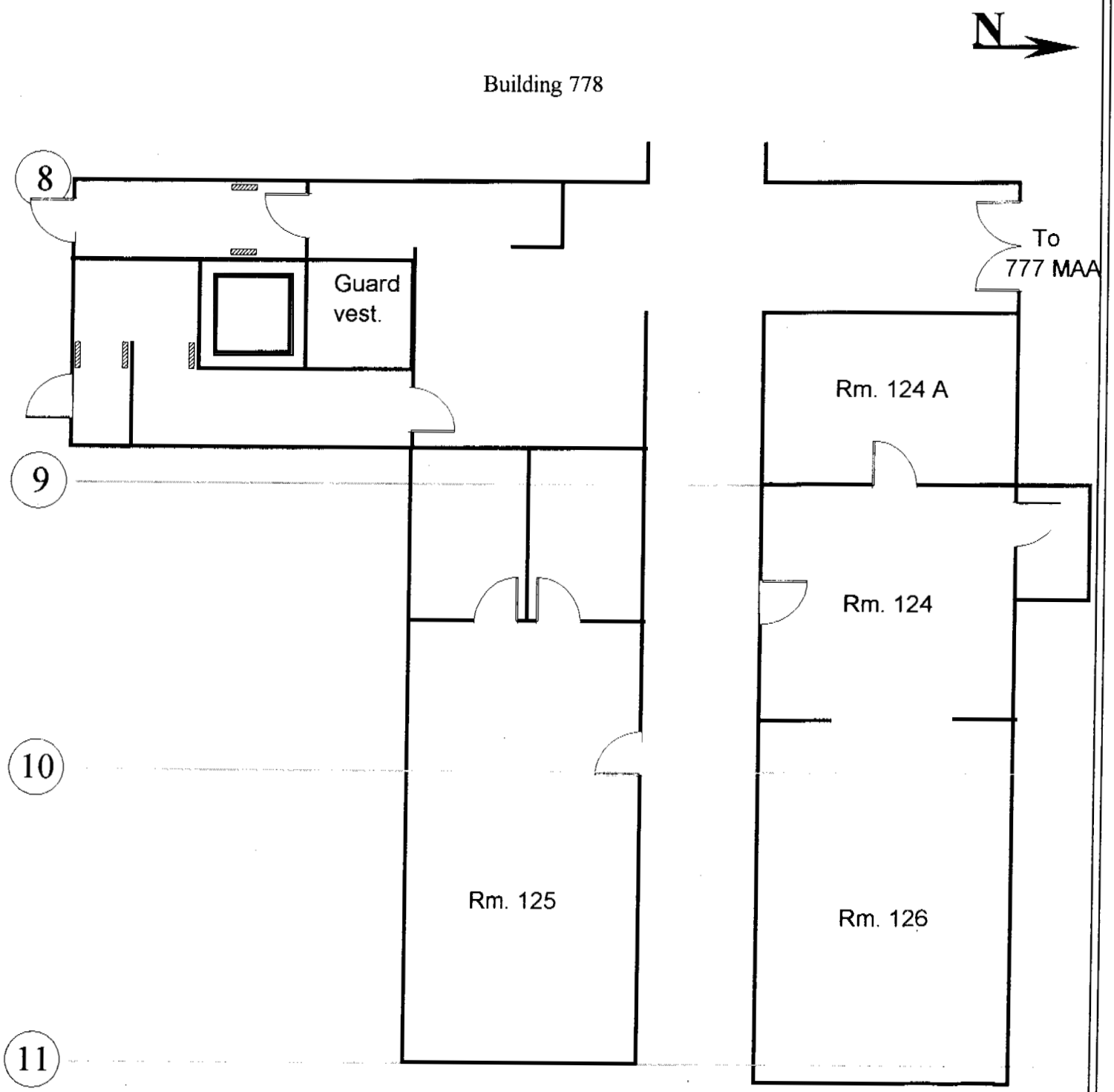
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2085

Drawing Showing Survey Points



651

RS FORMS 07.02-01

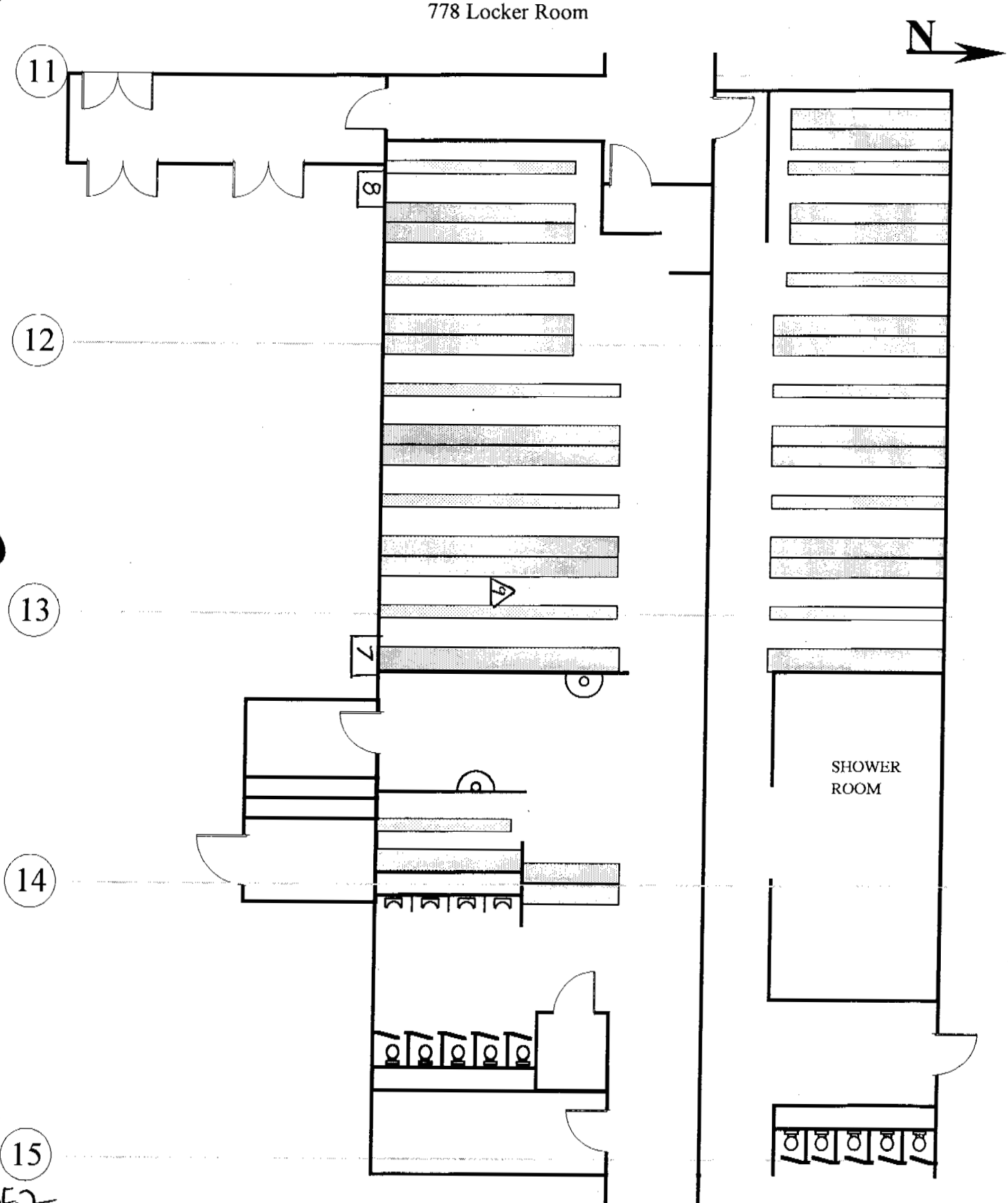
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

345

Drawing Showing Survey Points

778 Locker Room



652

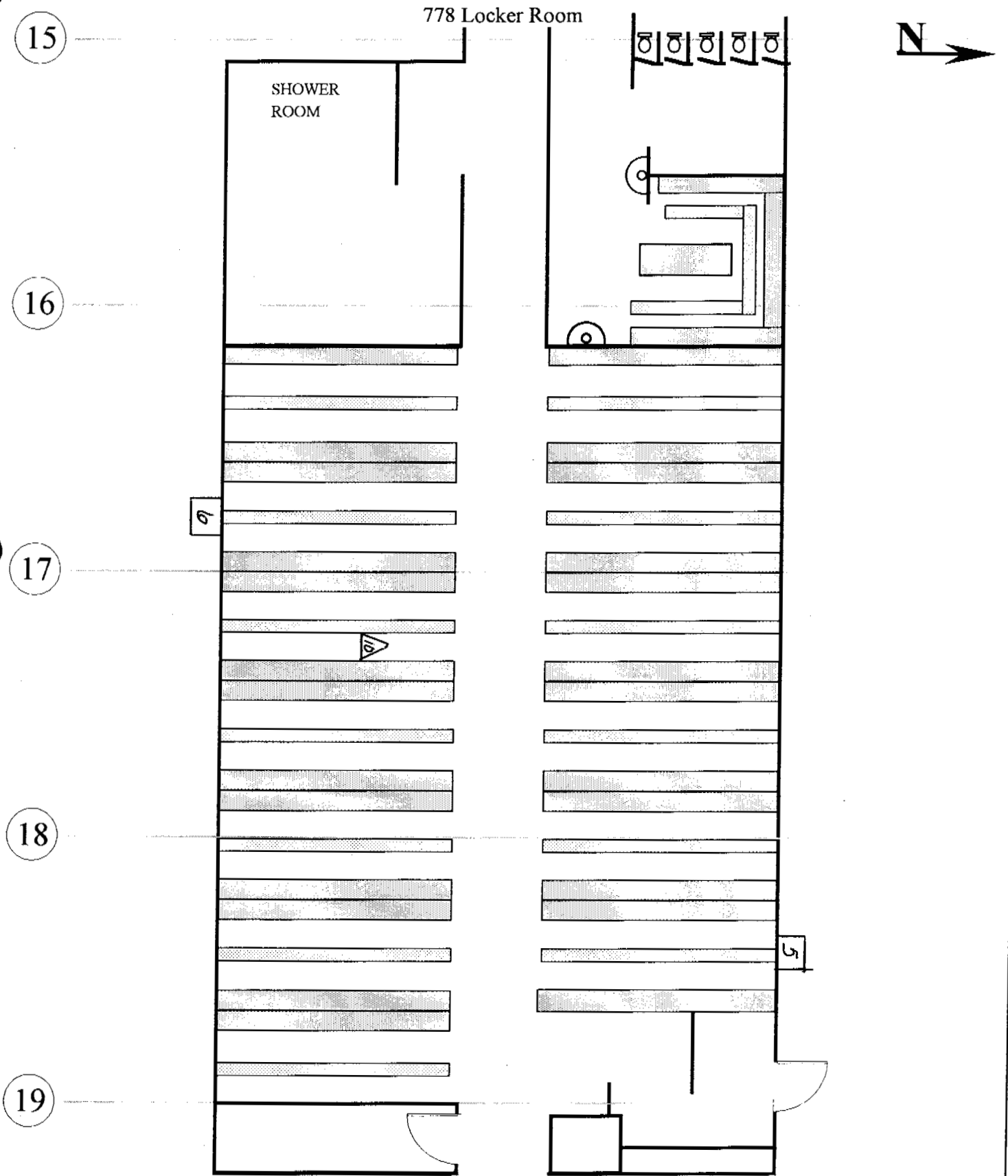
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

4 of 5

Drawing Showing Survey Points



RS FORMS 07.02-01

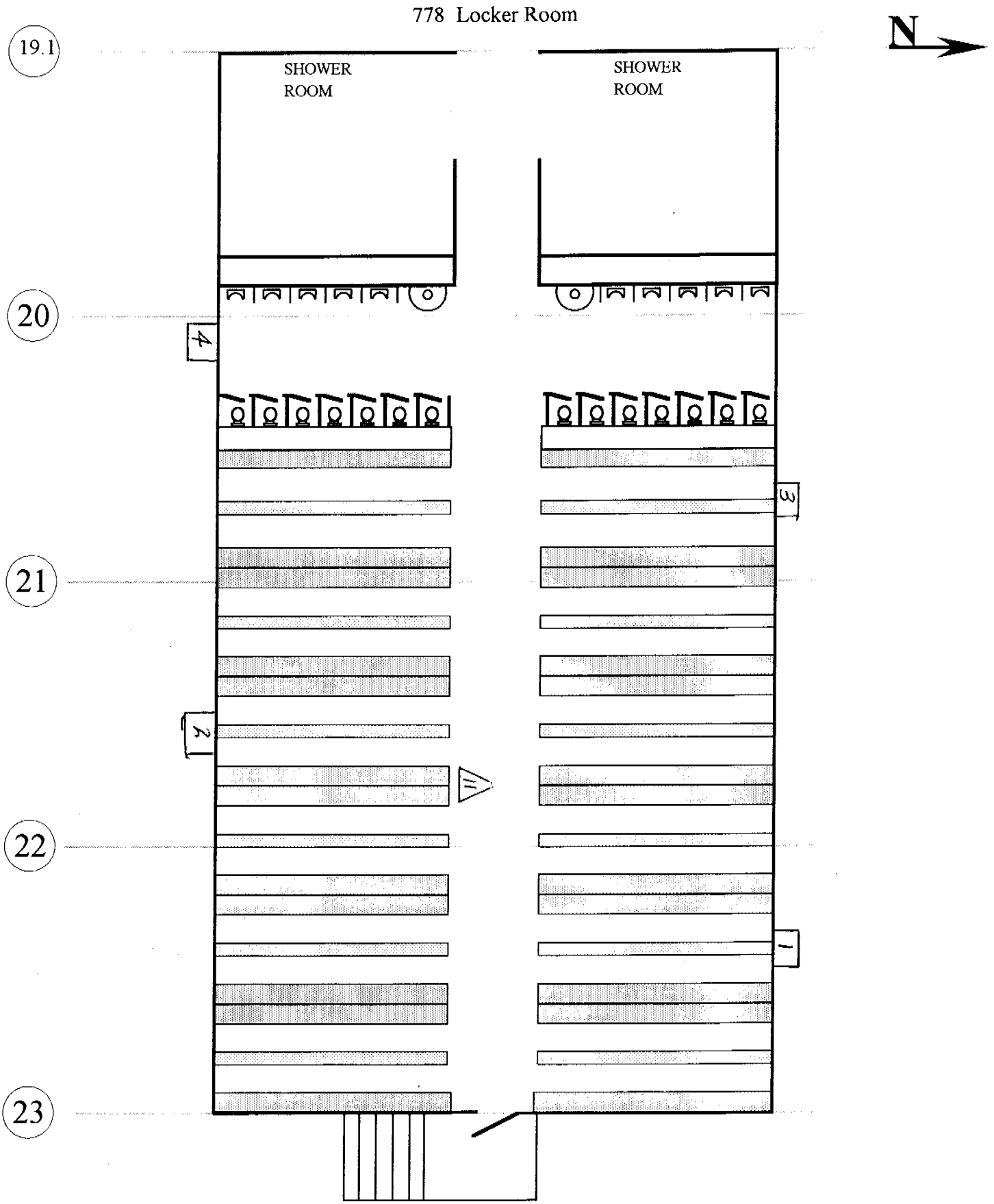
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

KL ~~6~~ 5 of 5

Drawing Showing Survey Points

778 Locker Room



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8.15.00	Cal Due 4.12.00	Cal Due 5-11-00
Bkg. 0.2 cpm	Bkg. 0.0 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 12.9 dpm	MDA 8.2 dpm	MDA 94 dpm

Mfg. Eberline	Mfg. Eberline	Mfg. NE
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 3265
Cal Due 4.12.00	Cal Due 7.14.00	Cal Due 7.3.00
Bkg. 44 cpm	Bkg. 36 cpm	Bkg. 1.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2101
MDA 102.4 dpm	MDA 93.65 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 778

Location: East Interior Survey Area A

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 4-11-00 Time: Days

[redacted]

Print name / Signature / Emp. #

Comments: Equipment : Biased survey points. 1 minute pats and swipes. See map for locations. 185

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Ceiling Vent	0	-4	12	16.	Heater Wall Mount	0	0	18
2.	Ceiling Vent	0	4	84	17.	Vent Ceiling	3	-28	60
3.	Wall Vent	0	-40	30	18.	Sink	0	12	30
4.	Electrical Box	0	32	12	19.	Heater	0	28	48
5.	Steel Beam	0	-8	18	20.	Pump	0	-4	30
6.	Steel Beam	0	12	24	21.	Flange on Steam Tank	0	-20	12
7.	Ceiling Vent	3	-8	114	22.	Cold Water Piping	0	-16	18
8.	Ceiling Vent	0	0	18	23.	Heater Wall Mount	3	4	36
9.	Ceiling Vent	0	-48	18	24.	JIB-19 Electrical Box	0	-4	18
10.	Ceiling Vent	0	64	174	25.	Vent Ceiling Shower	0	28	42
11.	Vent Wall by Locker #353	0	28	12	26.	Vent Ceiling	0	-8	48
12.	Bottom of locker #313	0	24	24	27.	Wall Electrical Panel	0	0	42
13.	Vent by Side door	0	-12	90	28.	Pull down Stair Steps	0	12	36
14.	Sink	0	8	36	29.	Ceiling Vent	0	24	30
15.	Locker # 941	0	-24	12	30.	Ceiling Vent	0	8	60

Date Reviewed: 4-17-00 RS Supervision: Stunkard / [signature] /

Print Name Signature

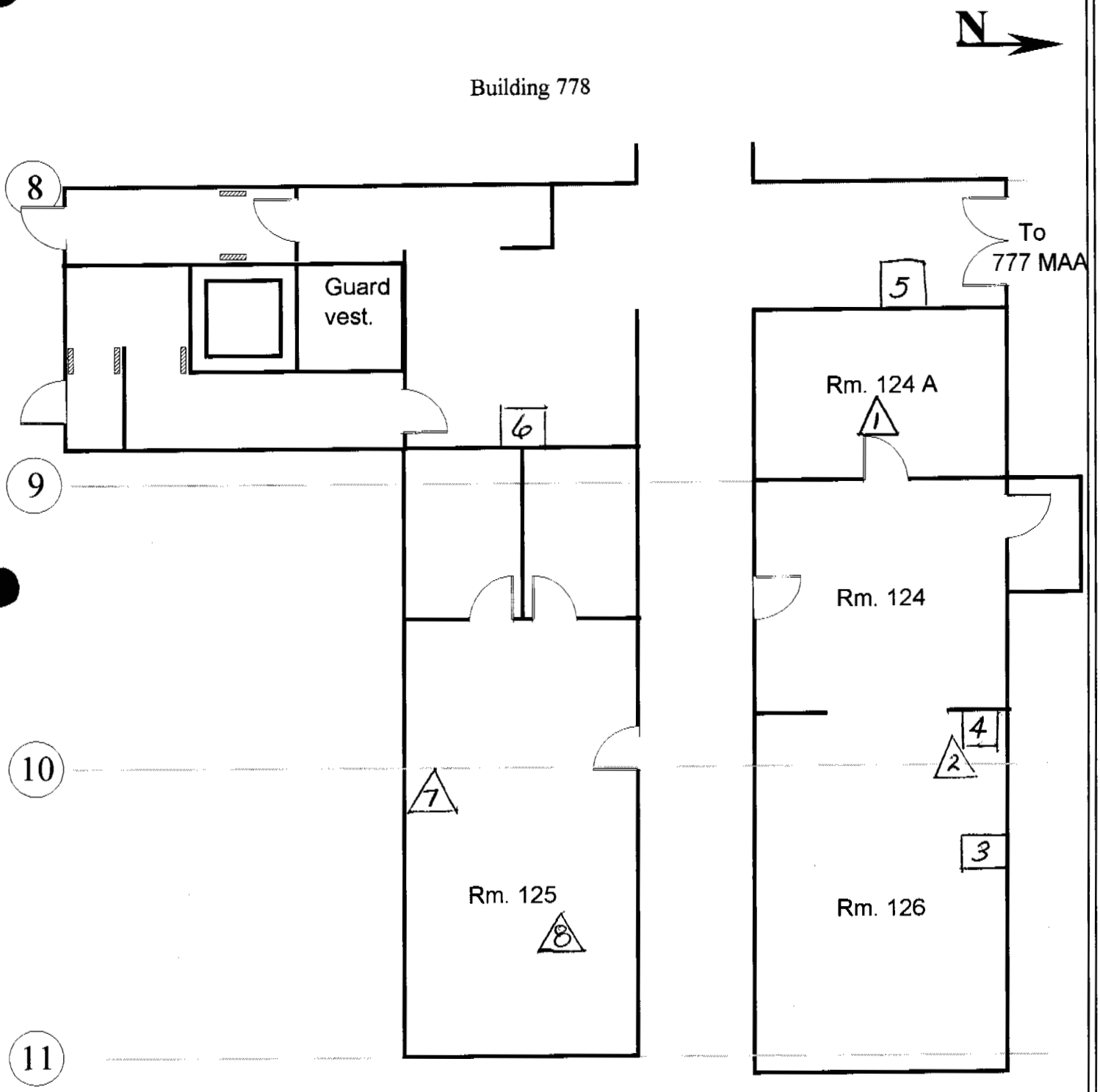
[redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 2 of 5



RS FORMS 07.02-01

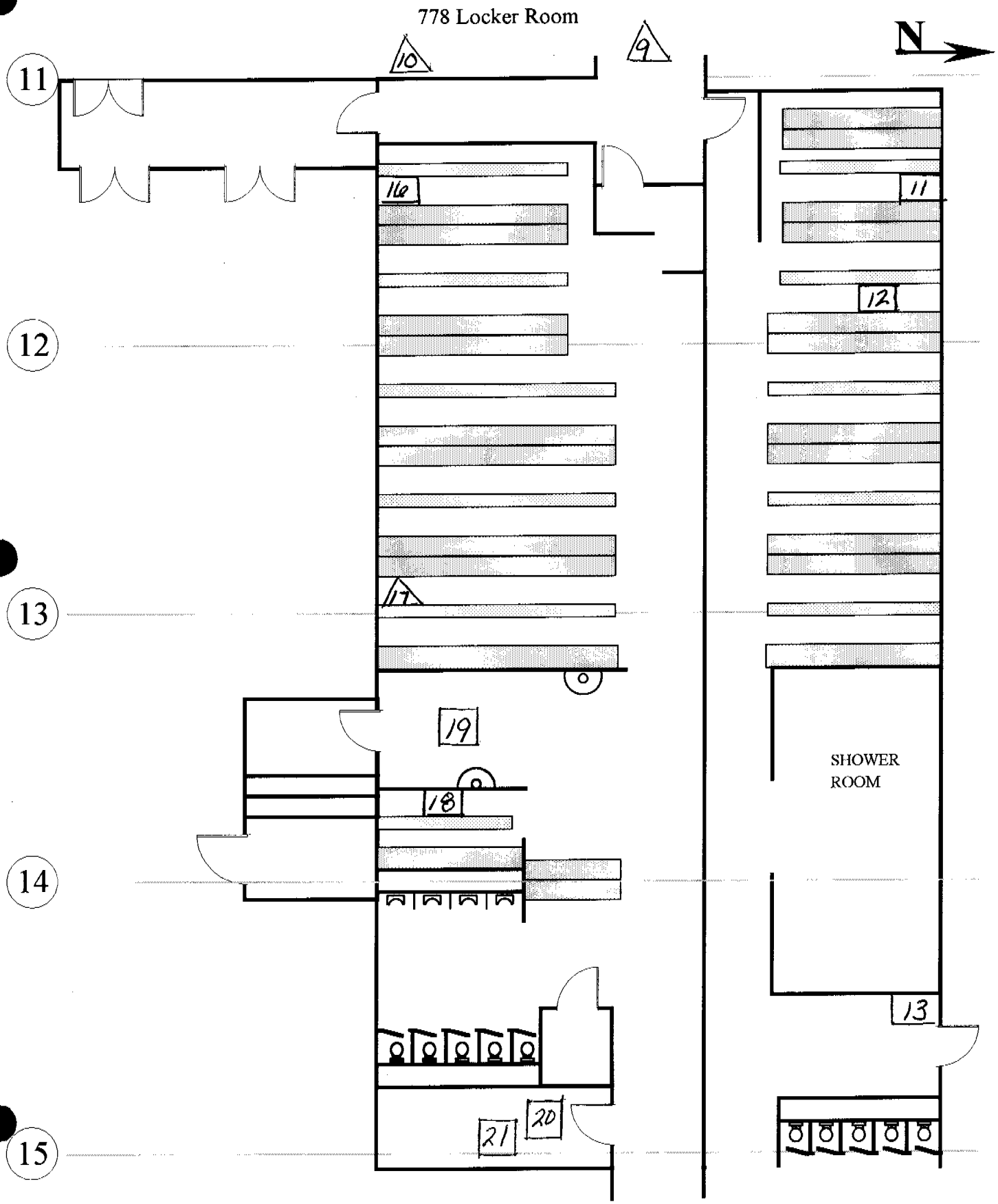
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 5

Drawing Showing Survey Points

778 Locker Room



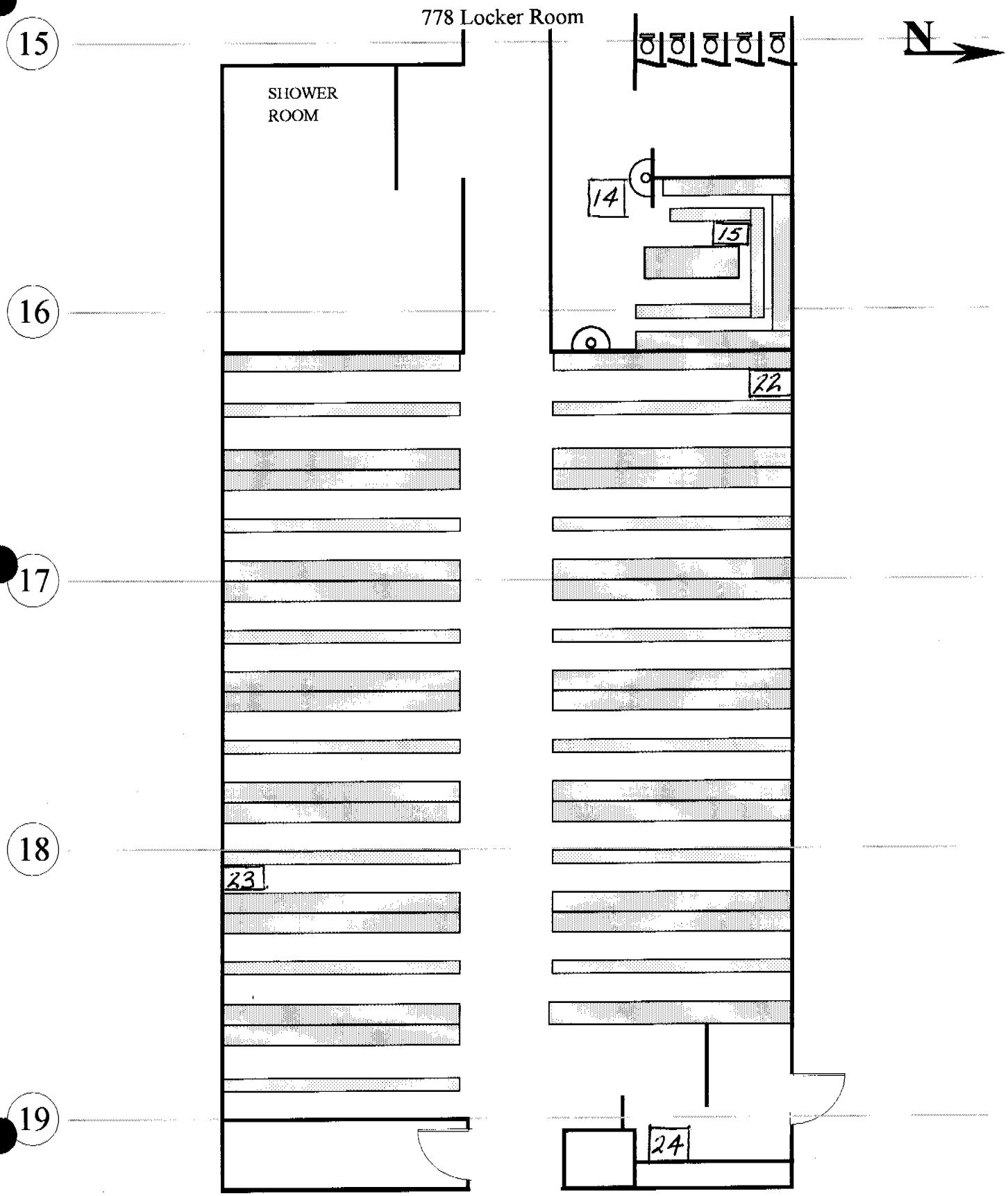
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

4 of 5



RS FORMS 07.02-01

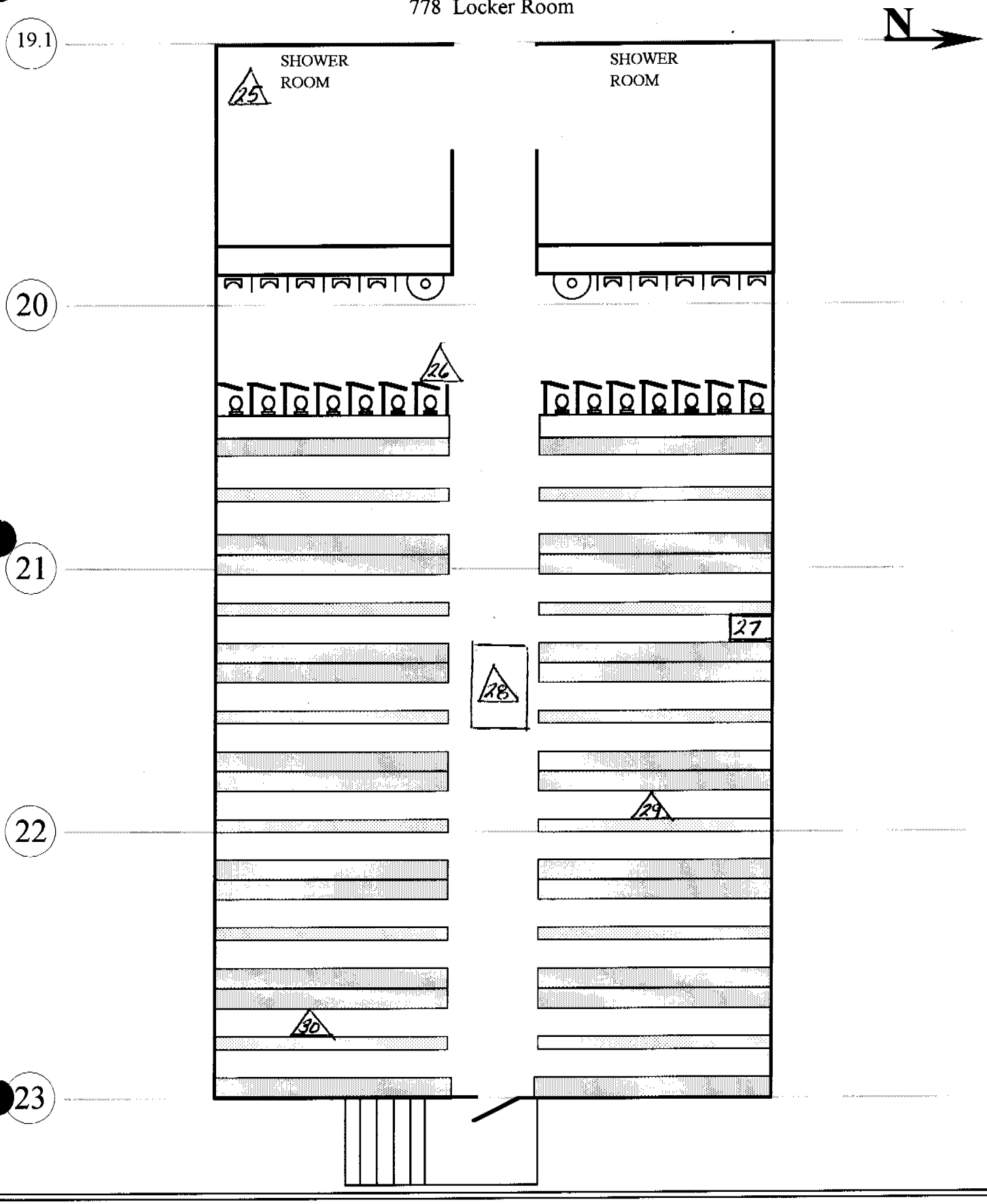
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

595

778 Locker Room



B-3
RLC RADIOLOGICAL DATA
Survey Area B
Bldg 778, Interior West

Radiological Survey/Sample Results for Survey Area B (00-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	56	56
MIN	0	N/A
MAX	66	N/A
MEAN	26.3	N/A
STD DEV	16.0	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	12	N/A
MAX	78	N/A
MEAN	29	N/A
STD DEV	21.9	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	21	23
MIN	6	N/A
MAX	66	N/A
MEAN	24.5	N/A
STD DEV	14.2	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	156	N/A
MEAN	28.6	N/A
STD DEV	32.5	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	56	56
MIN	0	-44
MAX	3	52
MEAN	0.4	-4.9
STD DEV	1.0	20.4
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-60
MAX	6	12
MEAN	1.2	-21.6
STD DEV	2.1	23.3
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	21	23
MIN	0	-36
MAX	9	24
MEAN	0.9	-12.3
STD DEV	2.1	13.3
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-64
MAX	6	36
MEAN	0.9	-18.7
STD DEV	1.8	23.0
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

6161

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3265
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-3-00
Bkg. 0.2 cpm	Bkg. 0.5 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2101
MDA 12.9 dpm	MDA 15.6 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 833	Serial #	Serial # 2307
Cal Due 7-14-00	Cal Due	Cal Due 7-12-00
Bkg. 46 cpm	Bkg.	Bkg. 2.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .1940
MDA 104.5 dpm	MDA	MDA 94 dpm

Survey Type: **Contamination**

Building: 778

Location: West Area Survey Area B

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 4-17 4-19-00 Time: Days

Comments: Floor / Walls < 2 meters : Unbiased survey points. 185
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall < 2m	0	-28	24	16.	F	0	40	48
2.	F	0	-4	6	17.	F	0	-16	30
3.	F	3	-4	18	18.	Wall < 2m	0	52	18
4.	Wall < 2m	0	-32	24	19.	F	0	-16	0
5.	" "	0	0	24	20.	Wall < 2m	0	20	30
6.	" "	0	4	48	21.	" "	0	36	36
7.	F	0	-16	30	22.	F	0	-16	18
8.	F	0	0	12	23.	F	0	24	30
9.	Wall < 2m	0	-16	12	24.	Wall < 2m	3	28	30
10.	" "	0	-40	36	25.	F	0	-28	30
11.	" "	0	-12	30	26.	Wall < 2m	0	-4	24
12.	F	0	-4	30	27.	" "	0	-4	24
13.	F	0	-8	18	28.	F	0	20	18
14.	Wall < 2m	0	8	24	29.	F	0	-4	6
15.	" "	0	0	18	30.	Wall < 2m	0	12	0

Date Reviewed: 5-2-00 **RS Supervision:** Shawn Kraft (Print Name) [signature] (Signature)

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

295

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	Wall < 2m	0	-32	36	61.				
32.	" "	0	4	6	62.	NA			
33.	" "	0	-20	18	63.				
34.	F	0	28	0	64.				
35.	F	0	-16	18	65.				
36.	F	0	-16	0	66.				
37.	F	0	20	24	67.				
38.	Wall < 2m	3	8	18	68.				
39.	" "	0	-28	24	69.				
40.	F	0	-20	30	70.				
41.	F	0	-12	66	71.				
42.	Wall < 2m	0	4	30	72.				
43.	" "	3	-24	42	73.				
44.	" "	0	8	66	74.				
45.	F	0	-8	54	75.				
46.	F	0	-36	66	76.				
47.	F	0	-4	18	77.				
48.	F	0	-24	24	78.				
49.	F	0	-16	12	79.				
50.	Wall < 2m	3	-20	24	80.				
51.	" "	3	12	30	81.				
52.	F	3	-8	24	82.				
53.	F	0	4	60	83.				
54.	F	0	-24	12	84.				
55.	Wall < 2m	0	-44	36	85.				
56.	" "	0	0	36	86.				
57.	NA				87.				
58.					88.				
59.					89.				
60.					90.				

1 of 3

 RS FORMS 07.02-01

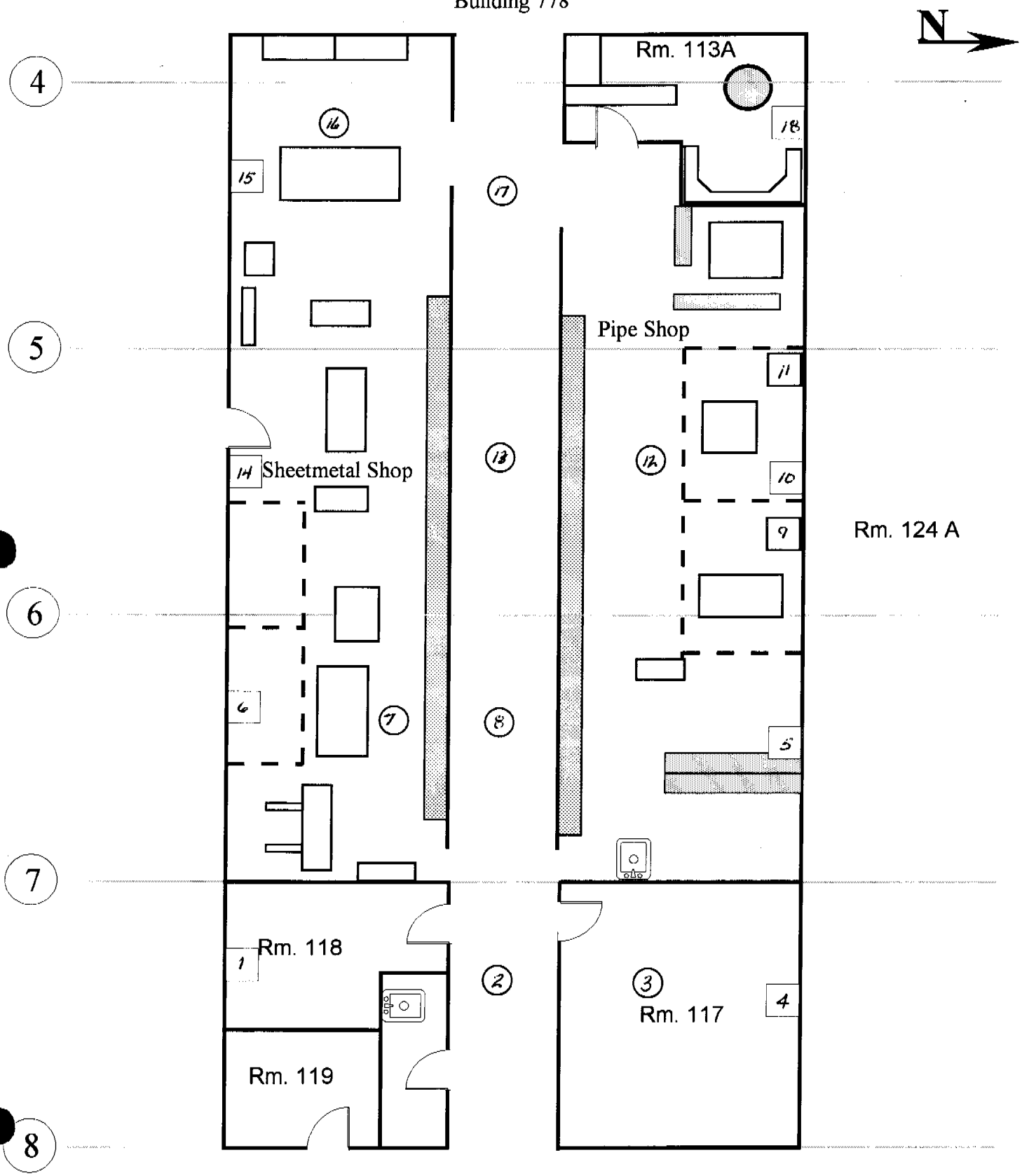
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 5

Drawing Showing Survey Points

Building 778



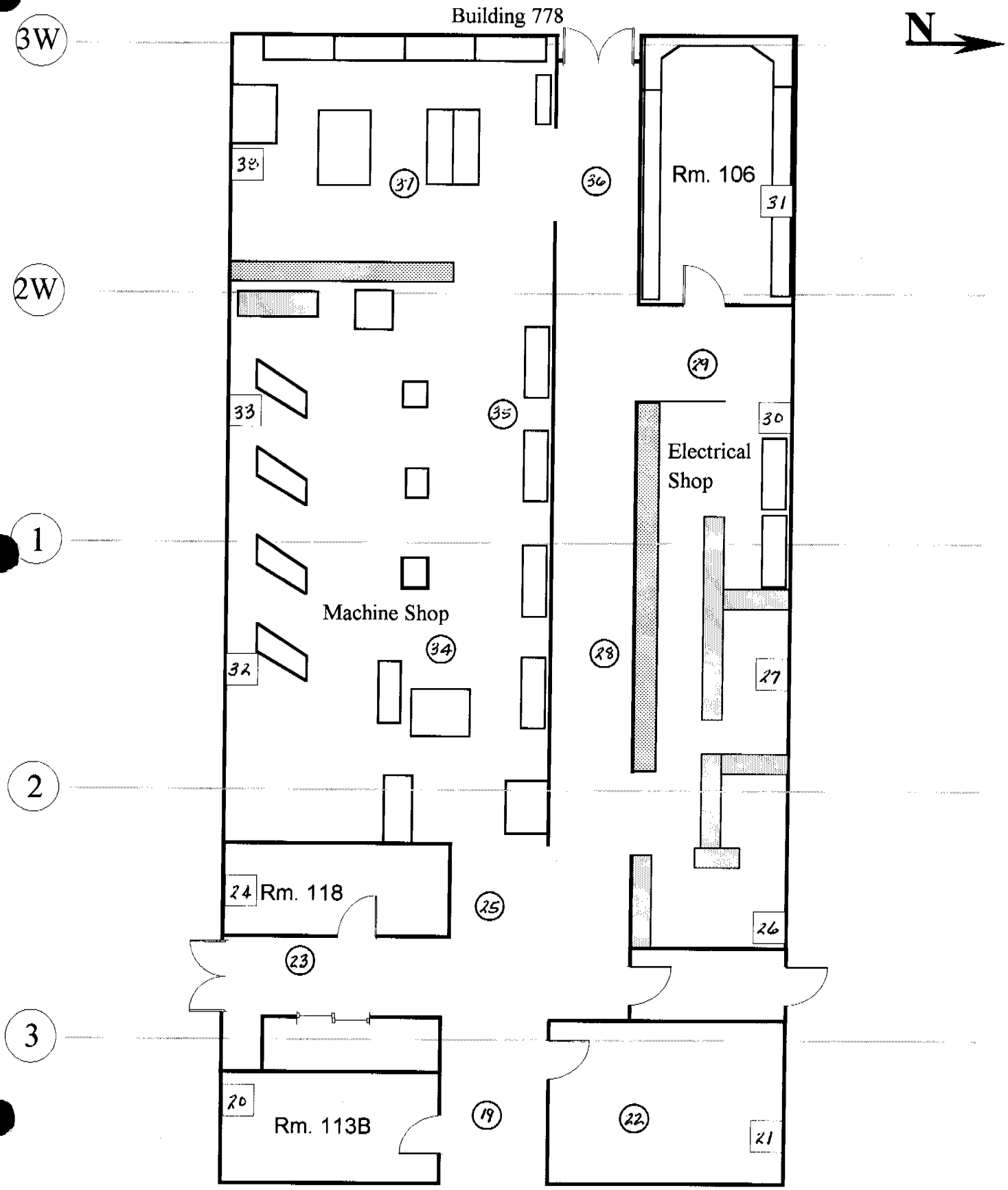
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

485

Drawing Showing Survey Points



 RS FORMS 07.02-01

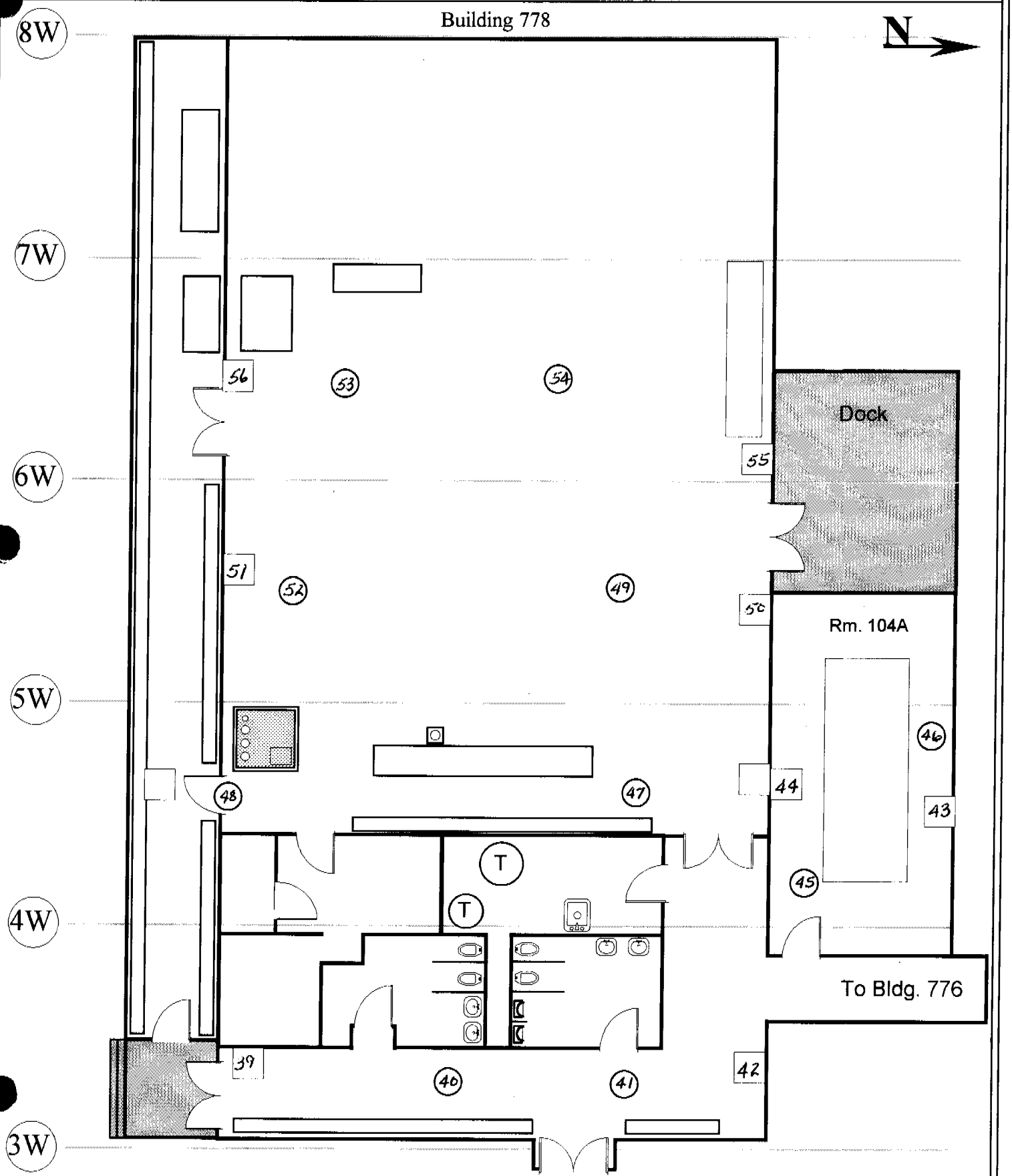
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

545

Drawing Showing Survey Points

Building 778



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 2166
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 9-22-00
Bkg. 0.0 cpm	Bkg. 0.4 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 1700
MDA 8.2 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model N/A
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 43 cpm	Bkg. 45 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 101.3 dpm	MDA 103.4 dpm	MDA

Survey Type: Contamination
Building: 778
Location: West interior Survey Area B
Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 4-24 4-25-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points. 164
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Rm 119 Floor Drain	0	-60	54	16.	N/A			
2.	Rm 117 Floor Drain	3	-52	18	17.				
3.	Rm 104A Floor in front of Plenum Door	0	-8	78	18.				
4.	Rm 104A Floor Drain	0	-20	32	19.				
5.	Front of Sheetmetal Shop Floor Drain Walkway	0	12	18	20.				
6.	Rm 108 Door Floor Drain	0	-12	36	21.				
7.	At Doorway #100	0	-44	12	22.				
8.	Sheetmetal Shop Chipped Concrete	6	-12	12	23.				
9.	Door 119 Walkway Floor Drain	0	-20	12	24.				
10.	At Doorway #222	3	0	18	25.				
11.	N/A				26.				
12.					27.				
13.					28.				
14.					29.				
15.					30.				

Date Reviewed: 5-2-00 **RS Supervision:** Shunkwa [illegible]
Print Name Signature

[redacted]

Rev. 02/00

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RS FORMS 07.02-01

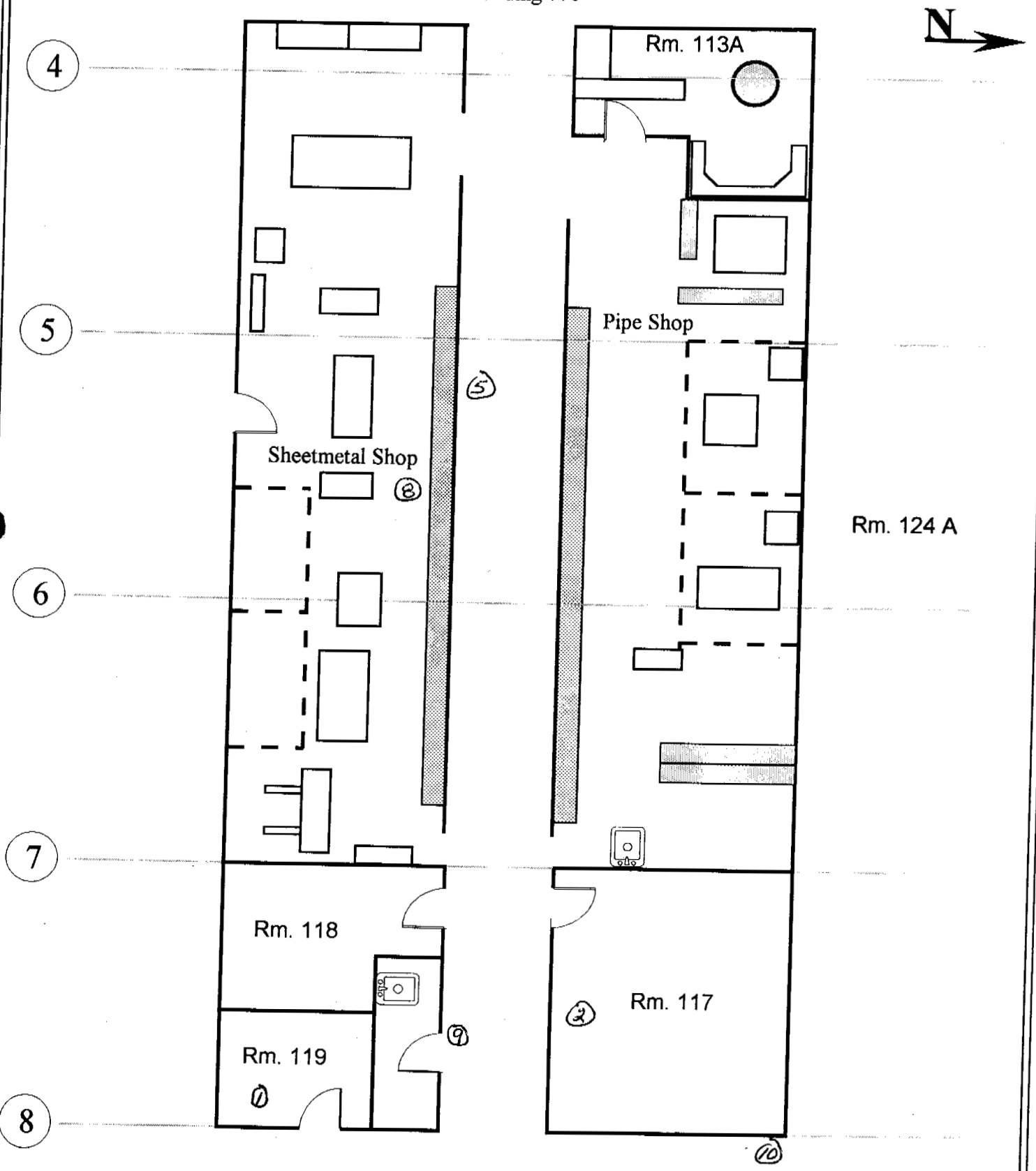
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 4

Drawing Showing Survey Points

Building 778



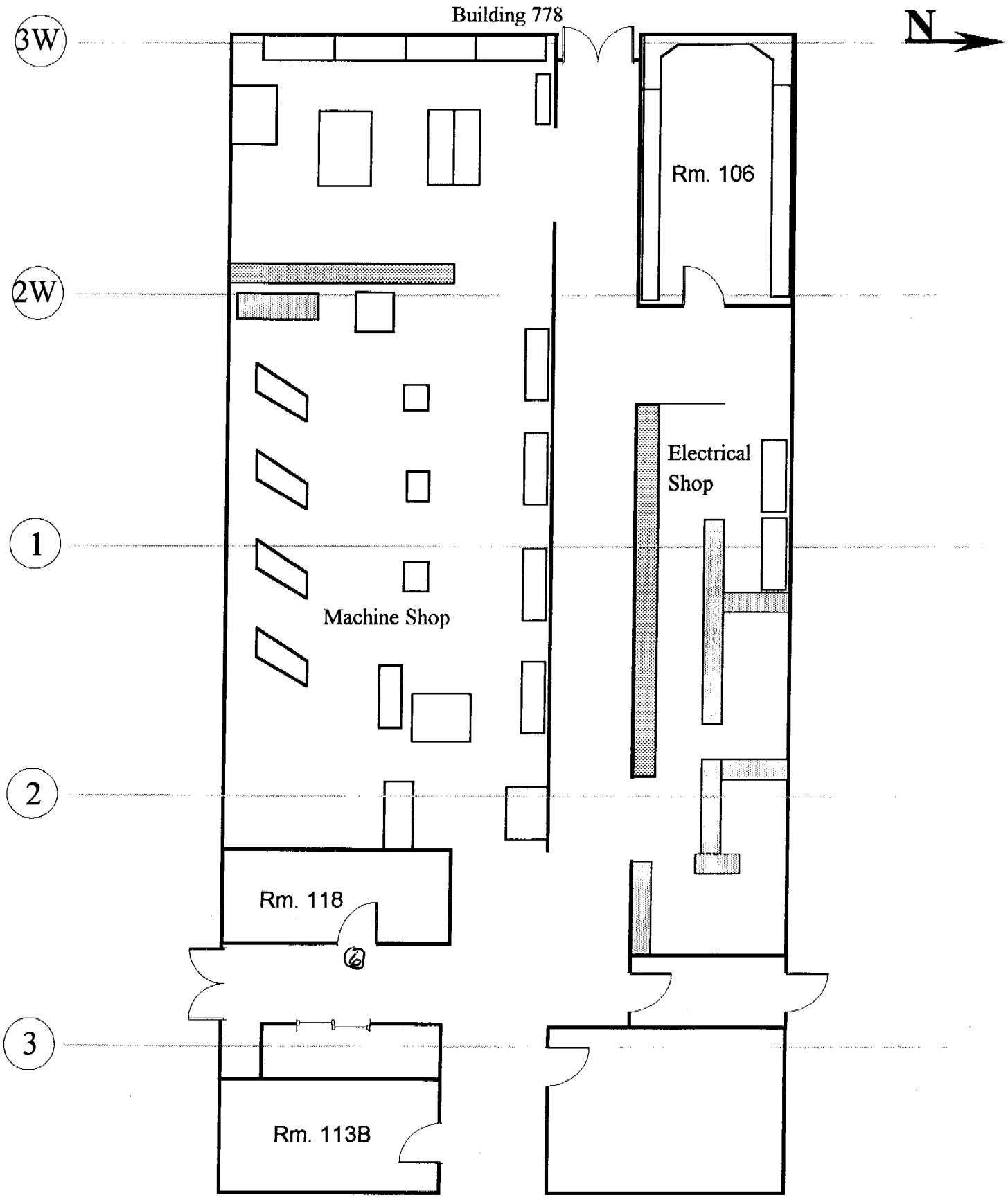
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 4

Drawing Showing Survey Points

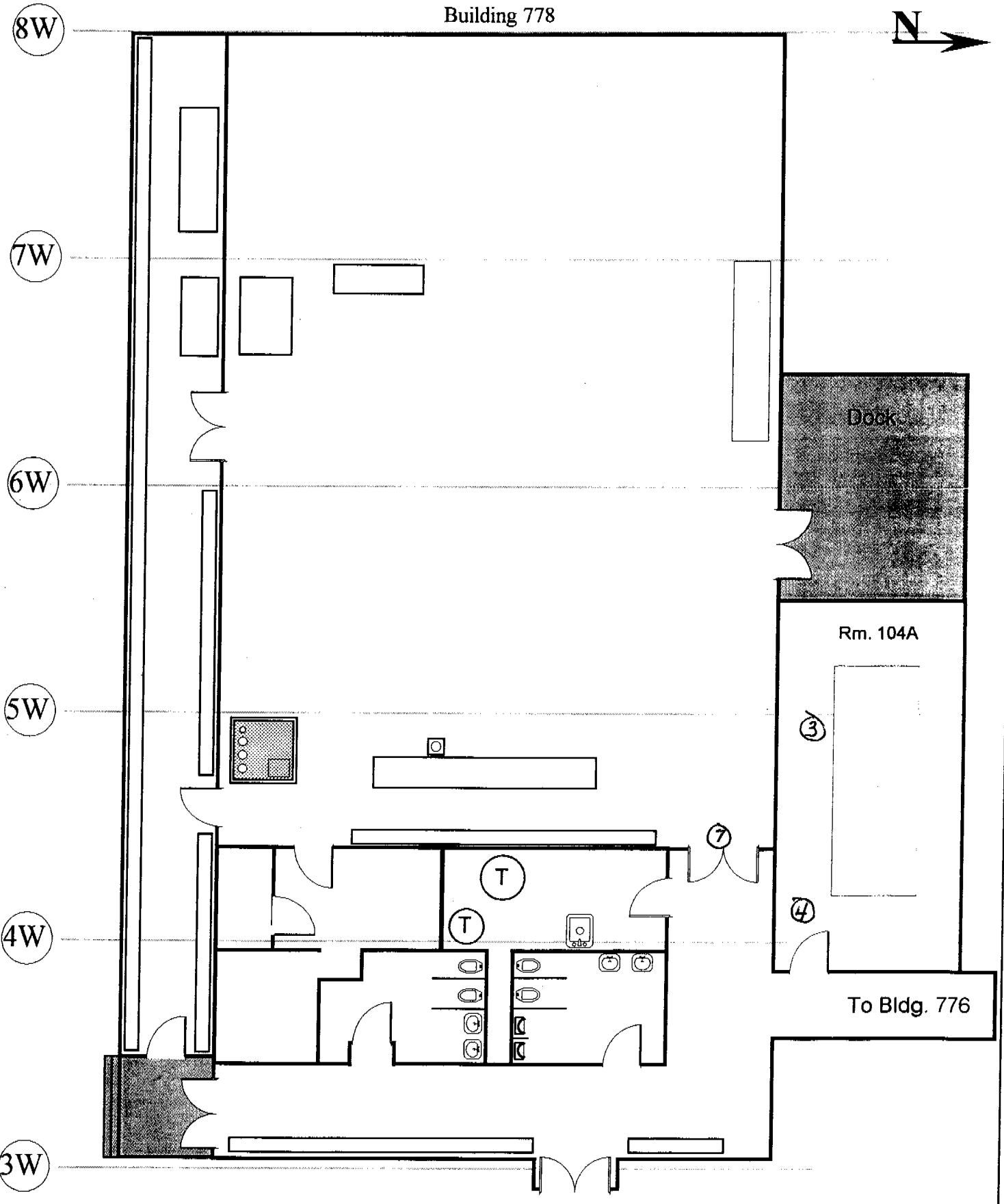


 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY 4 of 4

Drawing Showing Survey Points



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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 2166
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 9-22-00
Bkg. 0.0 cpm	Bkg. 0.4 cpm	Bkg. 2.0 RL 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .1700
MDA 8.2 dpm	MDA 14.8 dpm	MDA 94 Dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 3120
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 4-26-00
Bkg. 43 cpm	Bkg. 45 cpm	Bkg. 2.0
Efficiency 25%	Efficiency 25%	Efficiency .2109
MDA 101.3 dpm	MDA 103.4 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 778

Location: West Interior Survey Area B

Purpose: **Reconnaisance Level Characterization**

RWP # 00 707 1204

Date: 4-19 4-20 4-25-00 Time: Days

[redacted]

Comments: Equipment : Biased survey points. 1 of 4

1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Rm 119 Sink	0	-12	60	16.	Sheet metal Shop Drill Press	0	-8	24
2.	Rm 117 Tank Flange	0	-24	24	17.	Rm 108 Hallway Cabinets	0	-12	18
3.	Pipe Shop Ceiling Hood	0	0	12	18.	Machine Shop Band Saw	0	4	12
4.	Rm 104A Pump Housing	3	-12	54	19.	Machine Shop Engine Lathe	0	-48	18
5.	Rm 104A Vacum Filter	6	-40	6	20.	Machine Shop Bridge Port Lathe	0	-20	12
6.	Rm 104A Pleum Door	0	-8	18	21.	Paint Shop Cabinets	0	-32	12
7.	Rm 104A Pleum Door	0	24	36	22.	Electrical Shop Steel Countertop	3	-28	6
8.	Rm 104A Top of Pleum	6	-24	156	23.	Electrical Shop Wall vent	0	-40	12
9.	Rm 104A Pipe Top of Pleum	0	-8	36	24.	Electrical Shop Cabinets	0	-4	6
10.	Rm 104A Top of Pleum	3	-12	90	25.	Hallway Electrical Panel	0	-32	0
11.	Rm 104A Pleum Squirrel cage	0	-24	24	26.	Door 119 Radiometric scanner	0	4	30
12.	Rm 104A Top Electrical Box	0	36	54	27.	Rm 117 Piping	3	-52	18
13.	Rm 104A Pleum Door	0	-28	24	28.	Walkway By 113A Electrical Box	0	-44	0
14.	Sheetmetal Shop Foot Pedal Sheer Press	0	-56	6	29.	Paint Shop Hood	0	0	12
15.	Sheetmetal Shop Steel Table	0	4	6	30.	Laundry Rm Respirator Washer	3	-64	72

Date Reviewed: 5-2-00 **RS Supervision:** Stumkratt [redacted]

Print Name Signature

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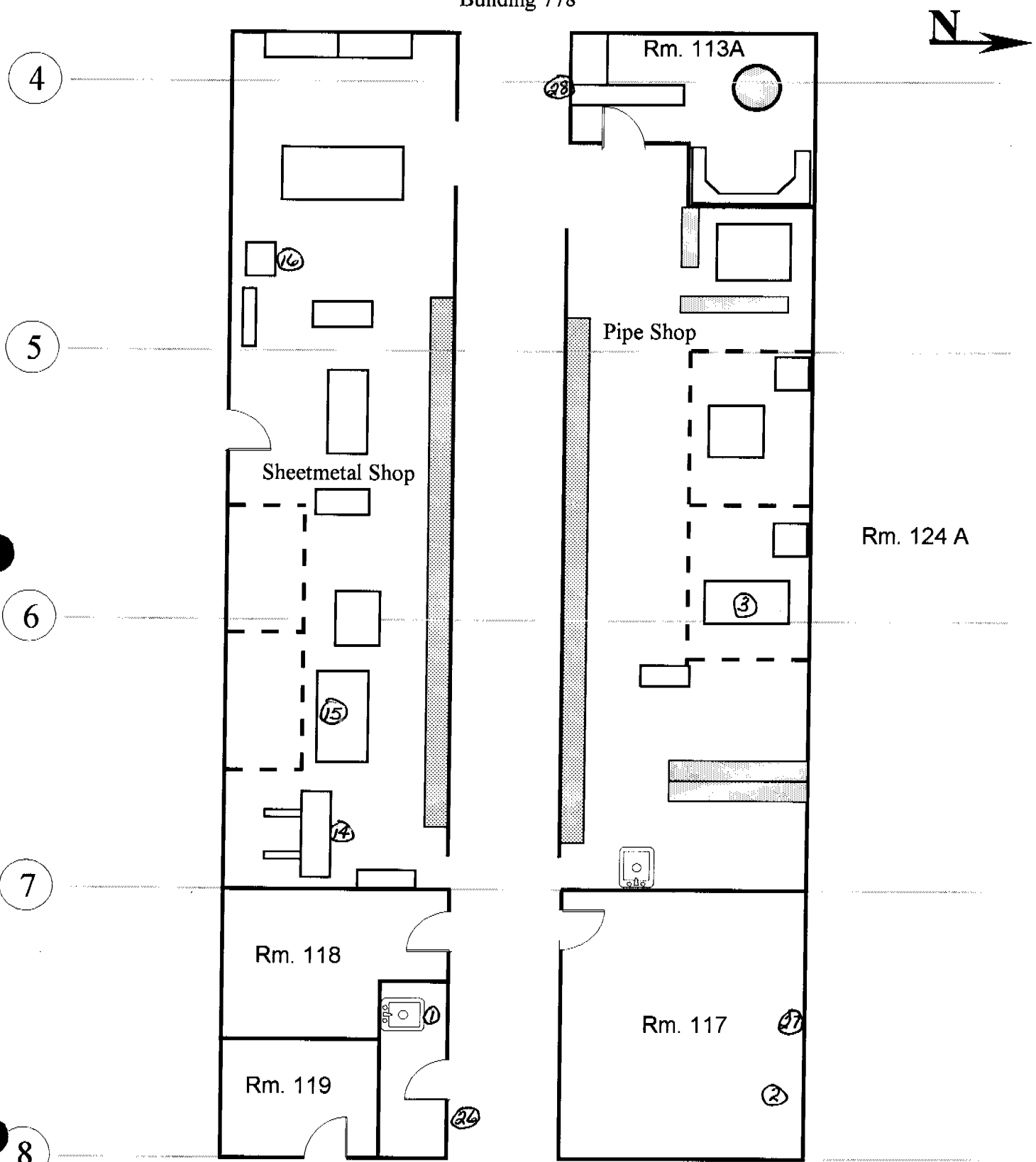
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 4

Drawing Showing Survey Points

Building 778



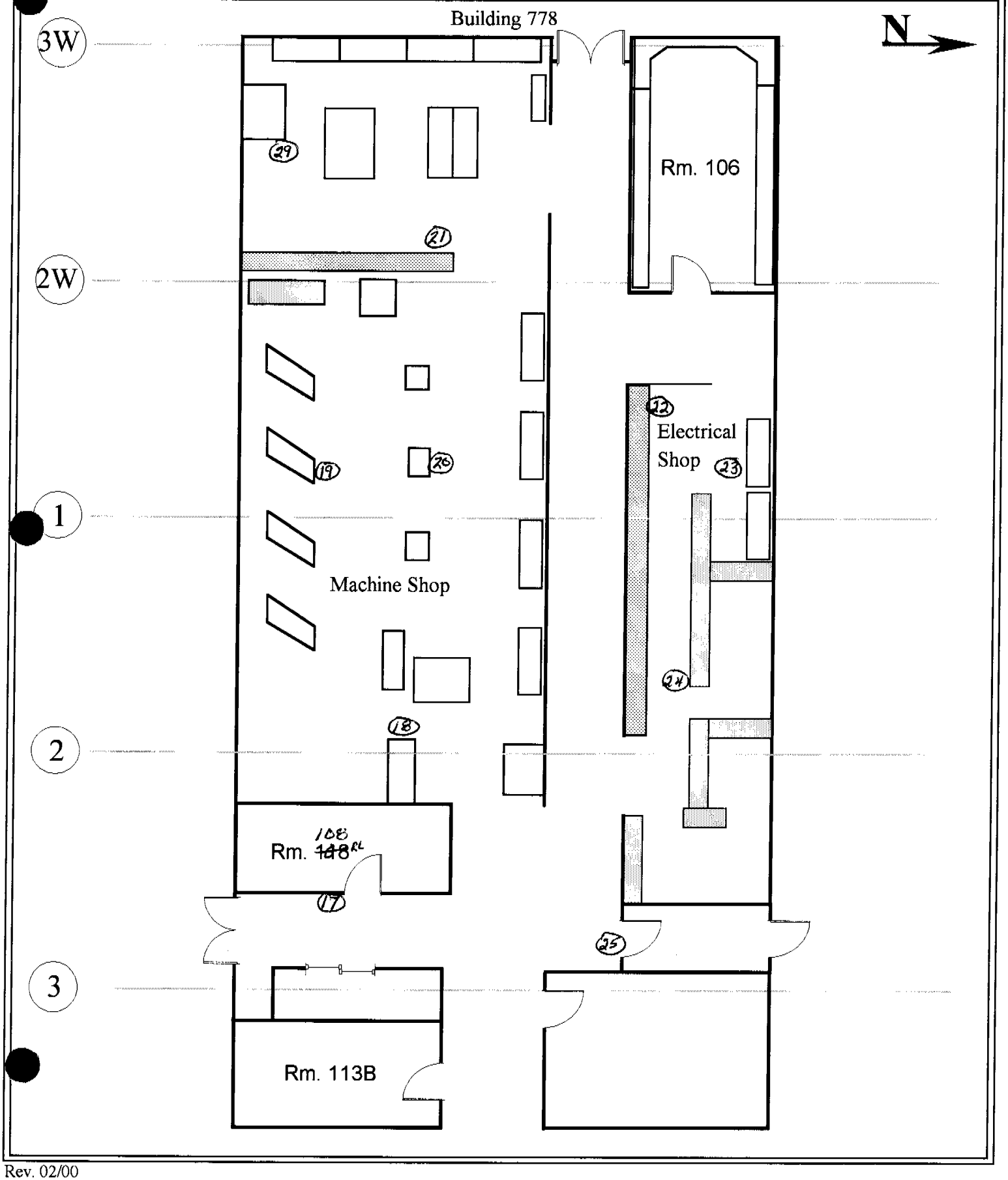
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

3 of 4

Drawing Showing Survey Points



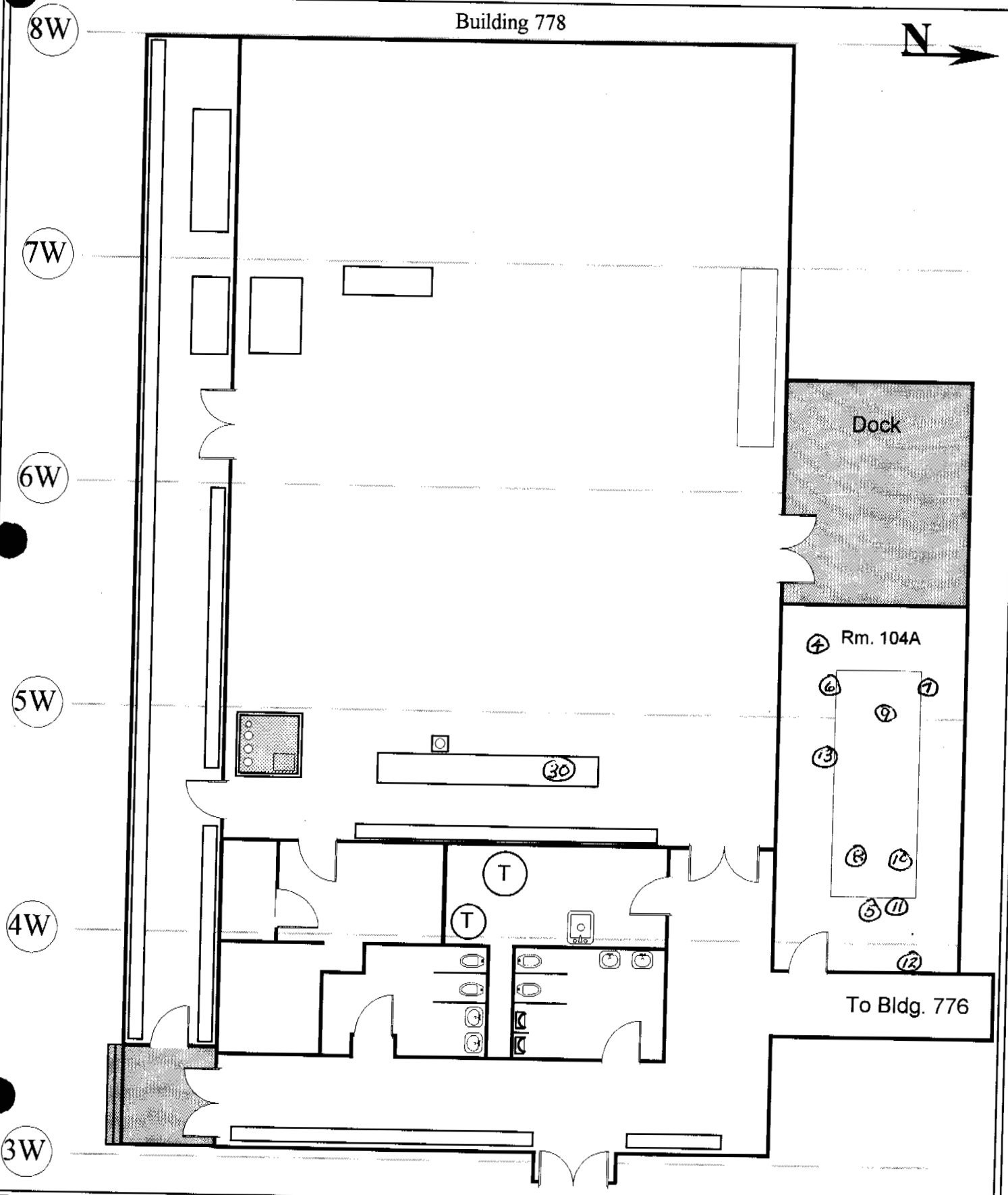
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

4.8.4

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1233
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 5-11-00
Bkg. 0.0 cpm	Bkg. 0.3 cpm	Bkg. 4.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 8.2 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 43 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 101.3 dpm	MDA 101.3 dpm	MDA

Survey Type: Contamination
Building: 778
Location: West Interior Survey Area B
Purpose: Reconnaisance Level Characterization

RWP # 00707 1204

Date: 4-26 4-27-00 Time: Days

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations. 1 of 4

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall >2m	3	-28	6	16.	Wall >2m	0	-12	18
2.	" "	0	4	18	17.	Wall >2m	0	-8	12
3.	" "	0	-24	6	18.	Ceiling	0	-36	36
4.	" "	0	-20	18	19.	Ceiling	0	8	30
5.	" "	0	-16	24	20.	Wall > 2m	0	0	24
6.	" "	0	-12	12	21.	Wall > 2m	0	-12	42
7.	" "	0	-8	36	22.	Wall > 2m	9	-12	66
8.	" "	3	-8	42	23.	Wall >2m	0	24	24
9.	" "	0	-28	12	24.				
10.	" "	3	-4	6	25.				
11.	" "	0	-12	24	26.				
12.	" "	0	-20	36	27.				
13.	" "	0	-20	18	28.				
14.	" "	3	-12	24	29.				
15.	" "	0	-28	30	30.				

Date Reviewed: 5-2-00 **RS Supervision:** Shun Kash [redacted]
Print Name Signature

Rev. 02/00

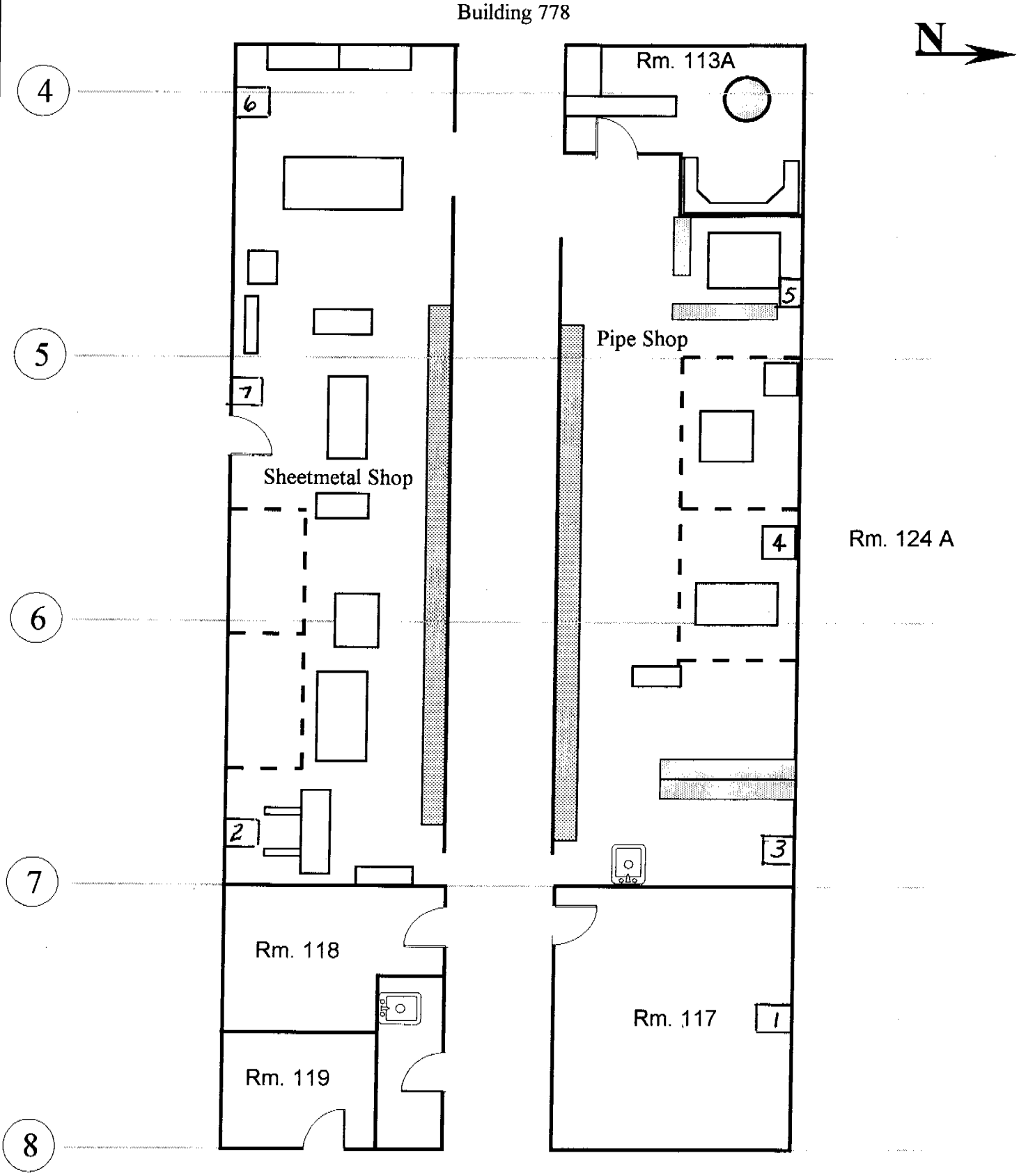
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 2 of 4

Building 778

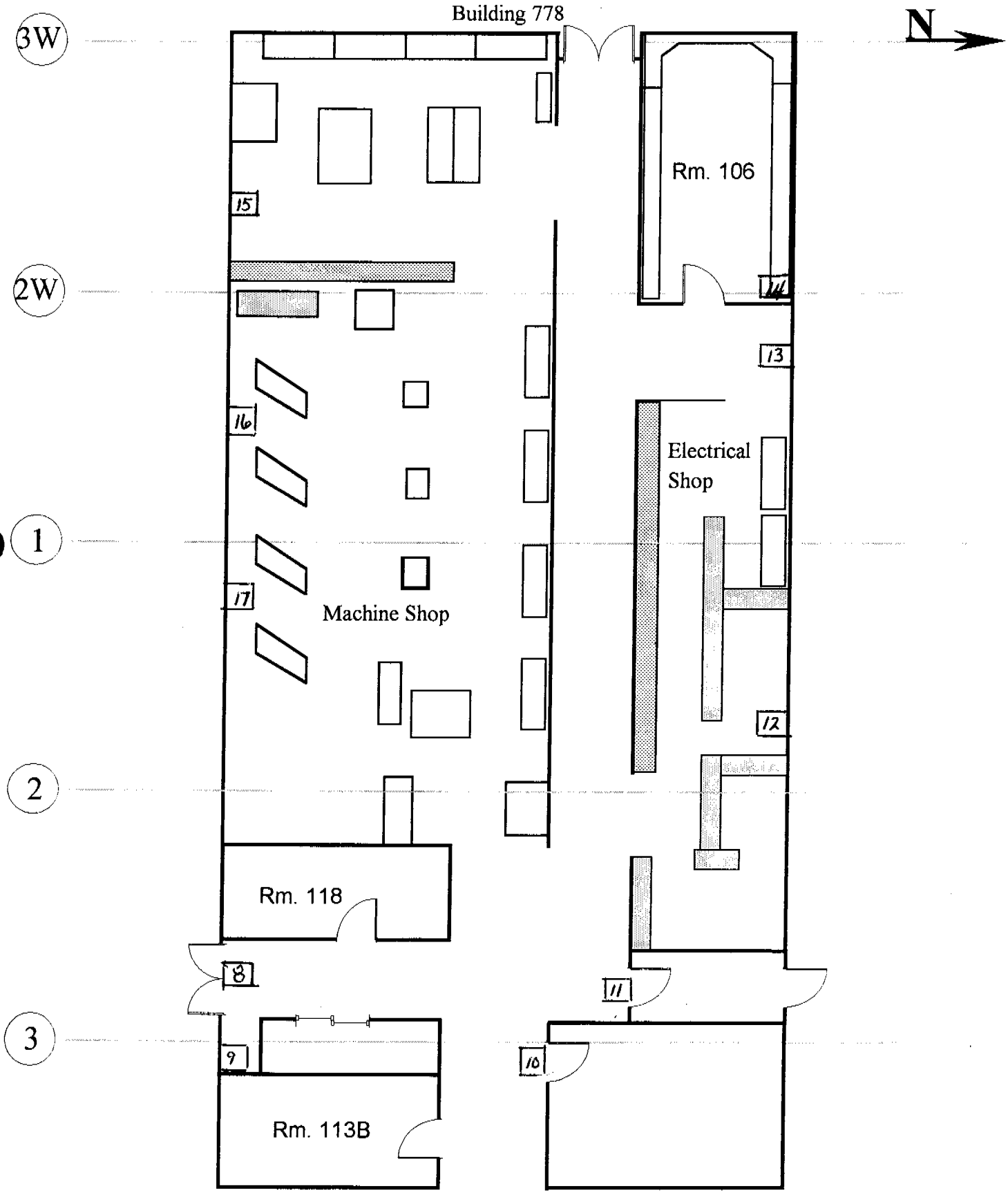


 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 3 of 4

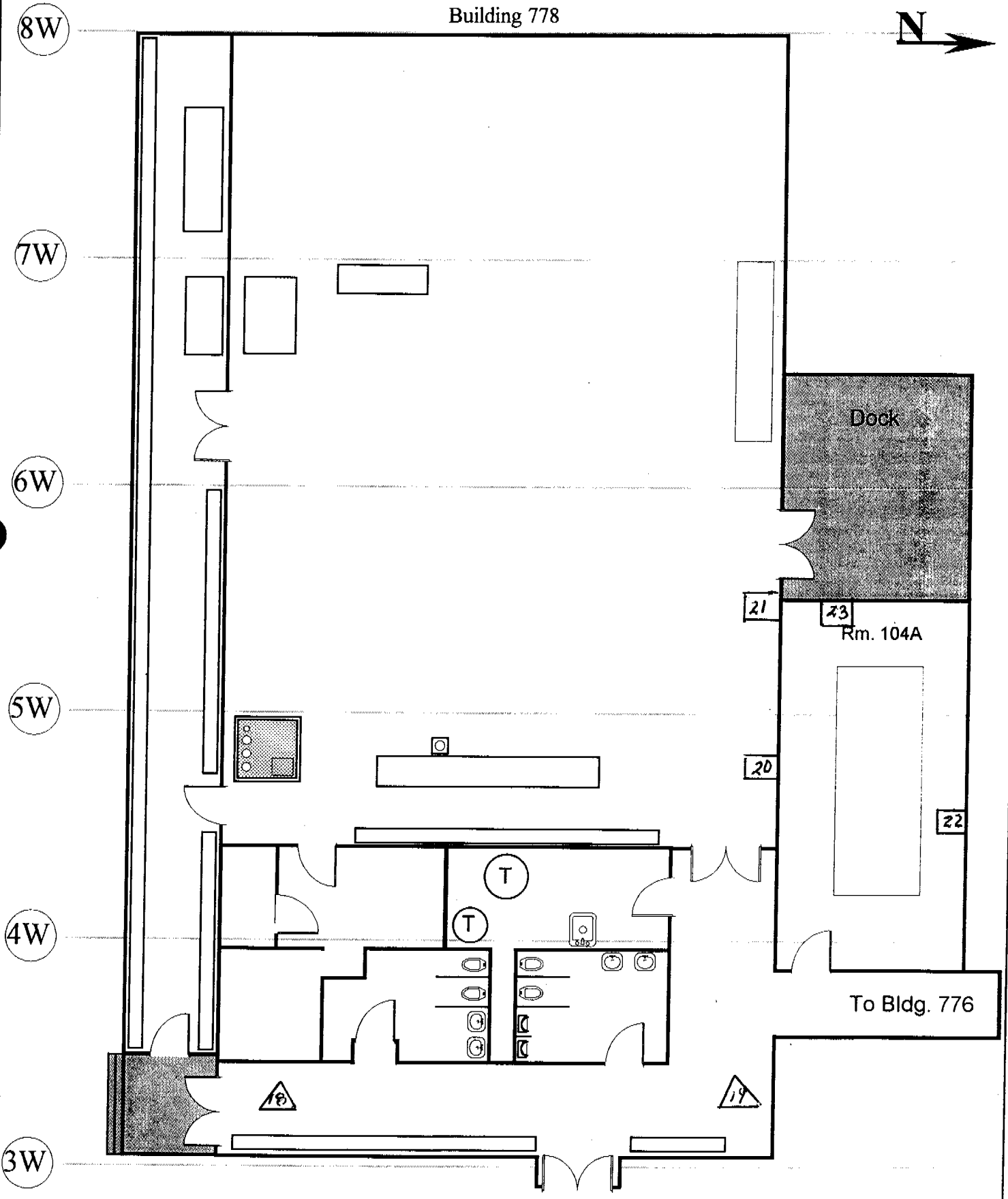


RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points 4 of 4



Rev. 02/00

B-3
RLC RADIOLOGICAL DATA
Survey Area C
Bldg 778, West, CA

Radiological Survey/Sample Results for Survey Area C (00-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	-12	N/A
MAX	84	N/A
MEAN	20.5	N/A
STD DEV	26.8	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	12	N/A
MAX	132	N/A
MEAN	55	N/A
STD DEV	36.7	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	-12	N/A
MAX	12	N/A
MEAN	-3.6	N/A
STD DEV	8.1	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	-12	N/A
MAX	474	N/A
MEAN	42.9	N/A
STD DEV	85.3	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-48
MAX	6	36
MEAN	1.1	-3.9
STD DEV	1.9	22.9
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-44
MAX	6	92
MEAN	2.4	-5.6
STD DEV	2.4	43.3
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-48
MAX	6	72
MEAN	2.4	0.2
STD DEV	2.8	43.8
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-36
MAX	9	40
MEAN	1.7	7.5
STD DEV	2.5	21.4
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

680

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.0 cpm	Bkg. 0.6 cpm	Bkg. 1.0 CPM
Efficiency 33%	Efficiency 33%	Efficiency 21.86%
MDA 8.2 dpm	MDA 16.3 dpm	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline NA	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial #	Serial # 3265
Cal Due 7-19-00	Cal Due	Cal Due 7-3-00
Bkg. ~~42~~ 45 cpm RL 5-4-00	Bkg.	Bkg. 3.0 CPM
Efficiency 25%	Efficiency 25%	Efficiency 21.01%
MDA ~~166.3~~ 183.4 RL 5-4-00 dpm	MDA NA	MDA 94 DPM

Survey Type: Contamination

Building: 778

Location: West - CA Survey Area C

Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 5-~~8~~ 4-00 5-4-00 Time: Days

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall	0	-8	-6	16.	Wall	0	4	-6
2.	|	0	16	-6	17.	Floor	0	20	30
3.	|	0	-4	-6	18.	Floor	3	-48	36
4.	|	0	-12	0	19.	Wall	0	-28	6
5.	Wall	0	24	0	20.	Wall	0	-20	6
6.	Floor	0	-44	~~6168~~ 66 RL 5-4-00	21.	Floor	0	-8	84
7.	|	0	-32	18	22.	Wall	0	36	6
8.	|	6	12	84	23.	Floor	3	24	24
9.	|	0	0	54	24.	Floor	0	4	~~86~~ RL 5-4-00
10.	Floor	6	20	6	25.	Wall	3	-8	30
11.	Wall	0	8	-12	26.	Wall	3	-24	24
12.	|	3	-12	0	27.	Floor	3	-36	54
13.	Wall	0	32	12	28.	|	3	4	48
14.	Floor	0	16	6	29.	Floor	0	-16	12
15.	Floor	0	-32	18	30.	Wall			

Date Reviewed: 5-8-00 **RS Supervision:** Allshouse [redacted]
Print Name Signature

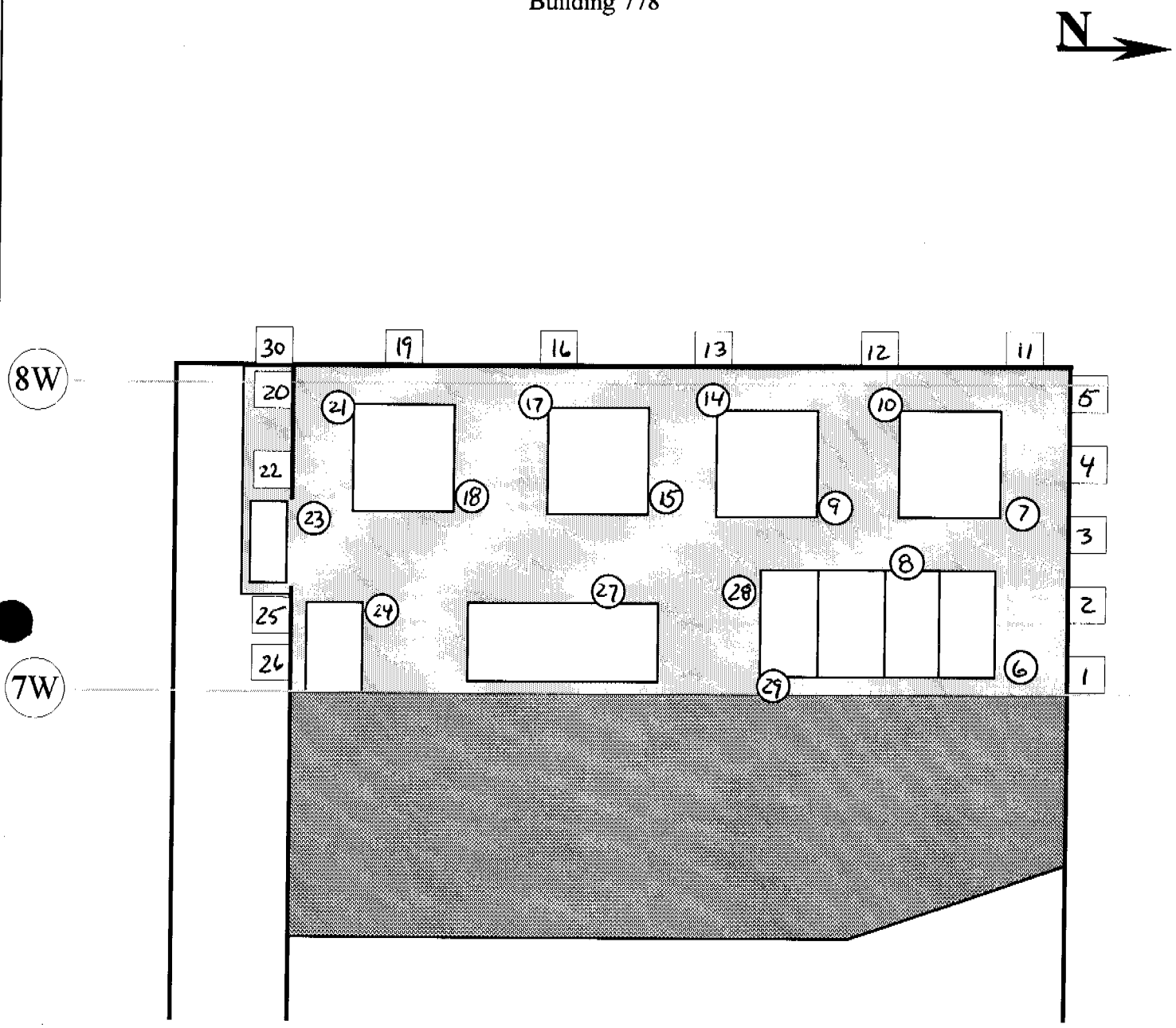
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Building 778



-R.M.A.

-C.A.

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.0 cpm	Bkg. 0.6 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86%
MDA 8.2 dpm	MDA 16.3 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline N/A	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial #	Serial #
Cal Due 7-19-00	Cal Due	Cal Due
Bkg. 45 cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 103.4 dpm	MDA NA	MDA NA

Survey Type: Contamination

Building: 778

Location: West- CA Survey Area C

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 5-4-00 Time: p.m.

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	under washer	3	36	72	16.	NA			
2.	under deck plate	0	92	30	17.				
3.	Drain	0	4	78	18.				
4.	under washer	3	-36	12	19.				
5.	Drain	3	-36	132	20.				
6.	under washer	6	-12	36	21.				
7.	Lint trap	0	-36	28	22.				
8.	Lint trap	6	12	54	23.				
9.	under washer	0	-36	24	24.				
10.	under washer	3	-44	84	25.				
11.	END OF SURVEY			NA	26.				
12.					27.				
13.					28.				
14.					29.				
15.	NA				30.				NA

Date Reviewed: 5-8-00 **RS Supervision:** Allshouse / [redacted] /
Print Name Signature

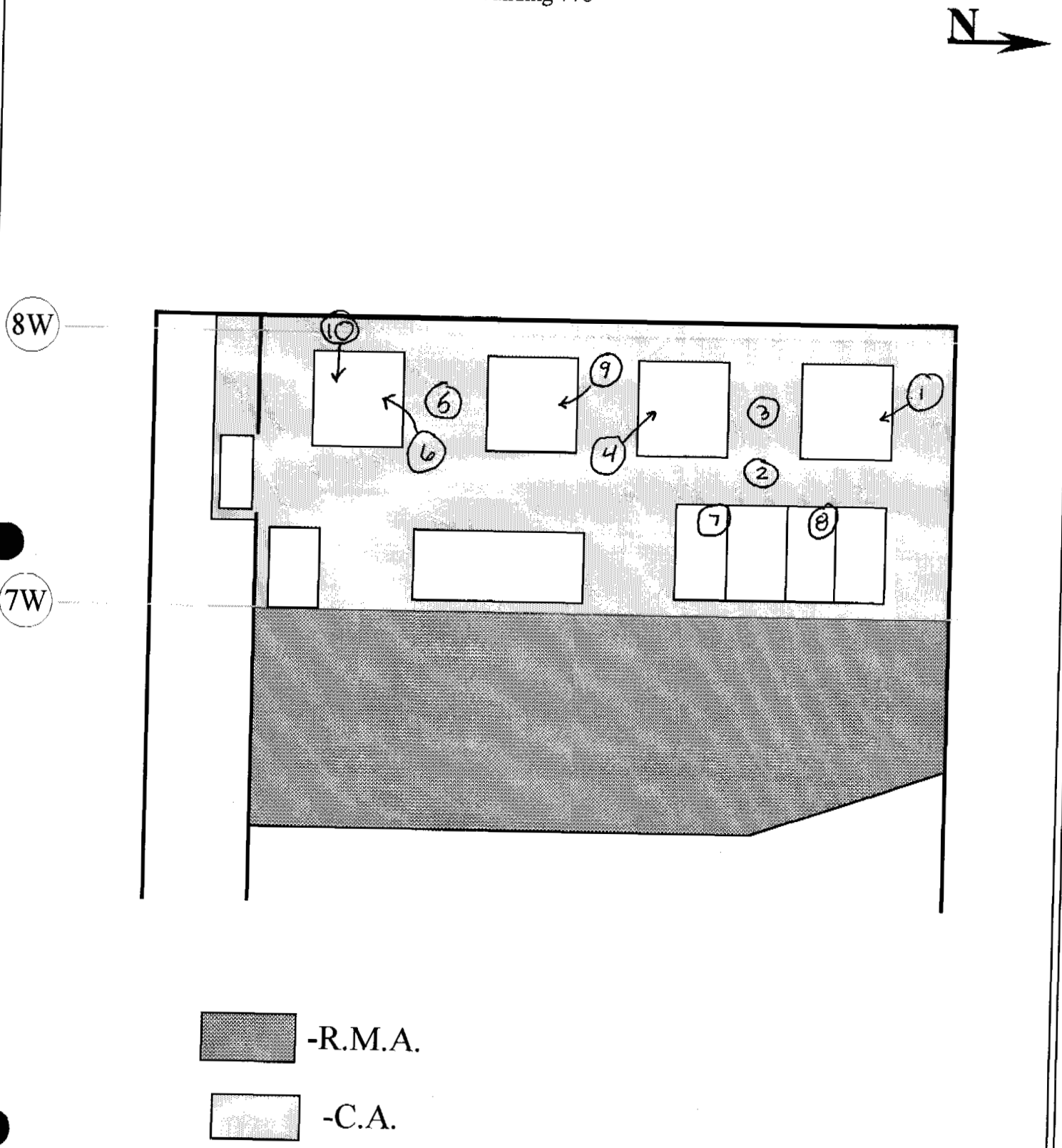
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Building 778



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1233
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 5-11-00
Bkg. 0.0 cpm	Bkg. 0.6 dpm	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 8.2 dpm	MDA 16.3 dpm	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline NA	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial #	Serial #
Cal Due 7-19-00	Cal Due	Cal Due
Bkg. 45cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 103.4 dpm	MDA NA	MDA NA

Survey Type: **Contamination**

Building: **778**

Location: West - CA Survey Area C

Purpose: **Reconnaisance Level Characterization**

RWP # 007071204

Date: 5-4-00 Time: pm

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall >2m	0	-48	0	16.	NA			
2.		0	72	-6	17.				
3.		6	4	6	18.				
4.		3	0	-6	19.				
5.		0	-40	-12	20.				
6.	Wall >2m	6	12	12	21.				
7.	Ceiling	0	72	-12	22.				
8.		0	-48	-6	23.				
9.		6	-32	0	24.				
10.	Ceiling	3	4	-12	25.				
11.	END OF SURVEY			NA	26.				
12.					27.				
13.					28.				
14.					29.				
15.	NA				30.				NA

Date Reviewed: 5-8-00 **RS Supervision:** Allhouse

Print Name Signature

[redacted]

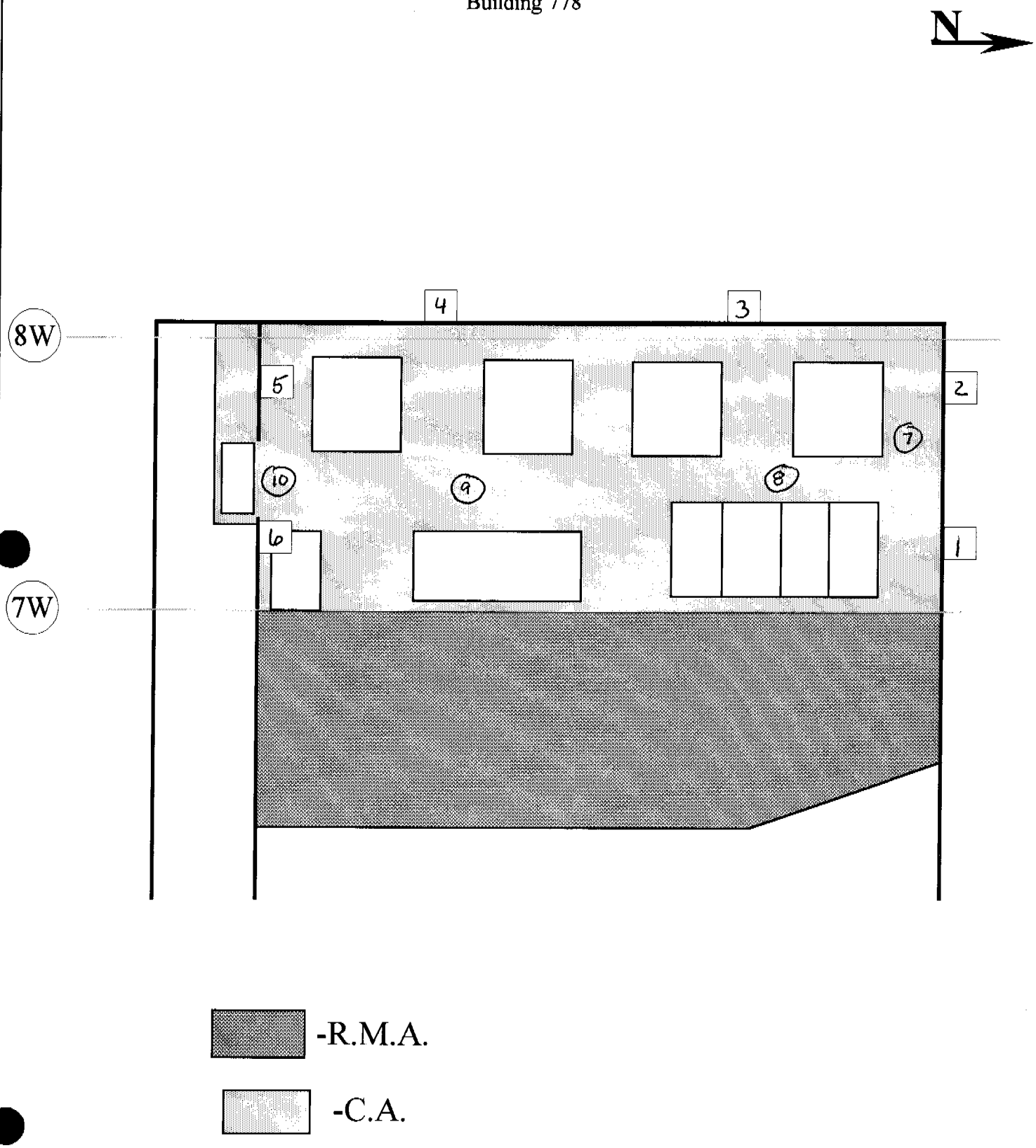
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Building 778



686

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.0 cpm	Bkg. 0.6 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.86%
MDA 8.2 cpm	MDA 16.3	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline NA	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial #	Serial #
Cal Due 7-19-00	Cal Due	Cal Due
Bkg. 45 cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 103.4	MDA NA	MDA NA

Survey Type: Contamination
Building: 778
Location: West - CA Survey Area C
Purpose: Reconnaisance Level Characterization

RWP # 00707 1204

Date: 5-4-00 Time: Days

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Washer	0	40	18	16.	Inside Dryer	0	16	54
2.	|	6	0	48	17.	|	3	-8	24
3.	|	3	20	84	18.	Inside Dryer	0	32	30
4.	|	0	-20	30	19.	~~Spc~~ Dryer	0	28	24
5.	|	0	24	66	20.	Dryer	3	12	-12
6.	|	9	16	42	21.	Duct	0	36	18
7.	WASHER	3	32	6	22.	Piping	0	-4	-6
8.	Dryer	0	-16	48	23.	Duct	0	-4	12
9.	|	0	28	66	24.	Light	0	-20	-6
10.	|	6	-8	48	25.	Duct	0	-24	-6
11.	Dryer	3	-4	474	26.	Top Dryer	0	-12	-12
12.	Table	3	8	30	27.	Vent pipe	0	-12	24
13.	Dryer	3	12	24	28.	Steam pipe	6	4	30
14.	Inside Dryer	0	-36	66	29.	Piping	0	40	6
15.	Dryer	3	4	52	30.	Piping	0	40	6

Date Reviewed: 5-8-00 **RS Supervision:** Allshouse / [redacted] /
Print Name Signature

687

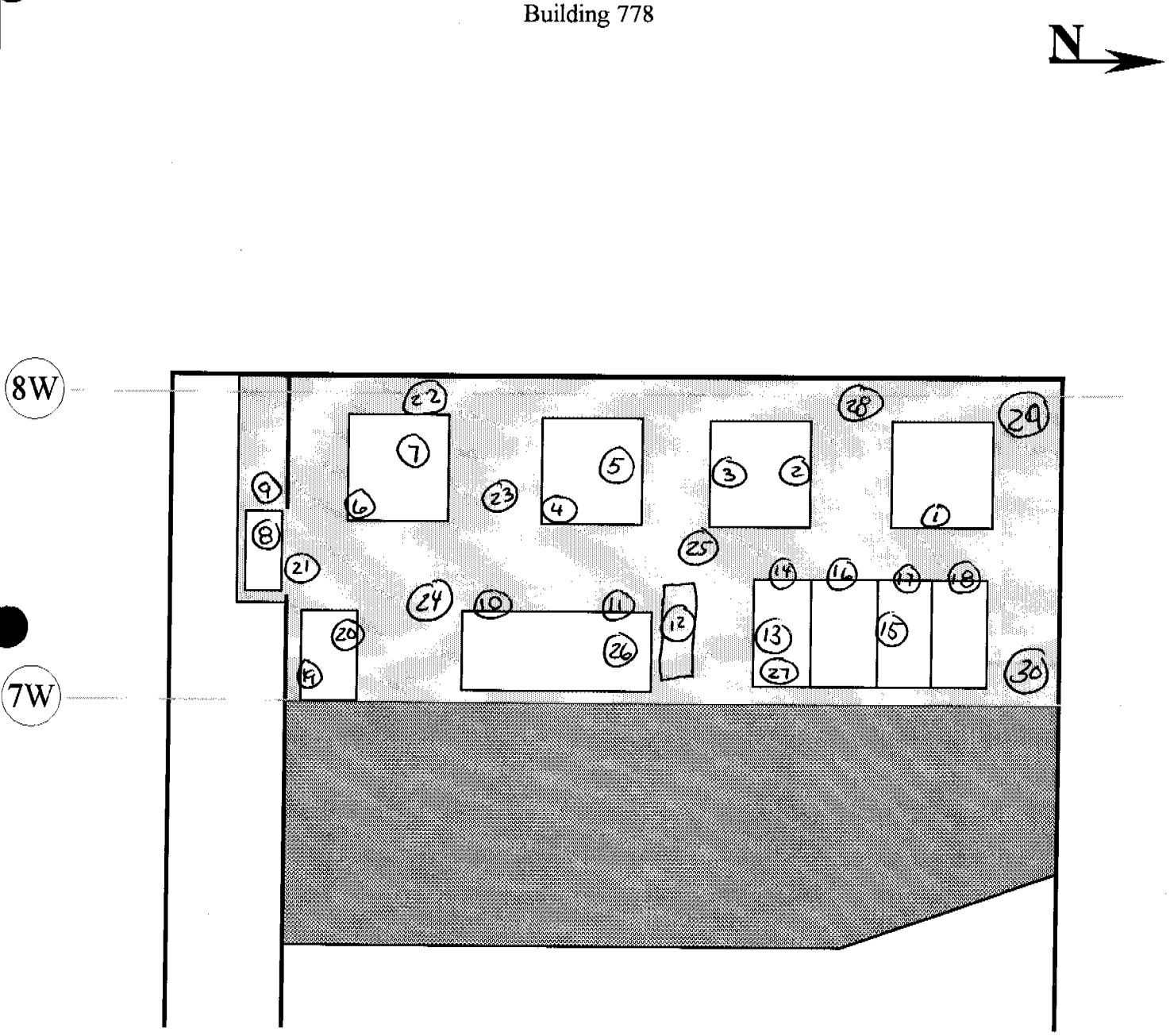
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Building 778



-R.M.A.

-C.A.

688

B-3
RLC RADIOLOGICAL DATA
Survey Area D
Bldg 778, Exterior Roof

689

Radiological Survey/Sample Results for Survey Area D (00-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	24	N/A
MAX	222	N/A
MEAN	82.7	N/A
STD DEV	51	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	42	N/A
MAX	468	N/A
MEAN	168.6	N/A
STD DEV	135.9	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-32
MAX	6	48
MEAN	1.5	10
STD DEV	2	22.4
Floors/Walls < 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-32
MAX	6	60
MEAN	1.2	7.6
STD DEV	2.5	28
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

690

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2186
MDA 12.9 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NETech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 1233
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 5-11-00
Bkg. 40 cpm	Bkg. 36 cpm	Bkg. 0.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .2063
MDA 98.1 dpm	MDA 93.7 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: **778**

Location: Exterior Roof Survey Area A

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 4-27 5-1-00 Time: Days

[redacted]

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points. 142
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall < 2m	0	12	24	16.	Wall < 2m	6	-4	132
2.	" "	0	32	42	17.	" "	3	-32	78
3.	" "	0	36	60	18.	" "	3	40	60
4.	" "	0	4	60	19.	Roof	3	12	66
5.	" "	0	28	52	20.	"	0	20	72
6.	" "	0	-16	102	21.	"	3	32	102
7.	" "	0	12	42	22.	"	3	46	156
8.	" "	0	40	42	23.	"	3	-12	156
9.	" "	0	-4	24	24.	"	0	16	150
10.	" "	3	-28	60	25.	"	0	-4	24
11.	" "	3	16	30	26.	"	0	20	156
12.	" "	0	-28	24	27.	"	0	8	222
13.	" "	6	-12	84	28.	"	0	-12	144
14.	" "	0	28	54	29.	"	0	-8	114
15.	" "	0	48	102	30.	"	6	16	48

Date Reviewed: 5-2-00 RS Supervision: [illegible] [illegible] [redacted]
Print Name Signature

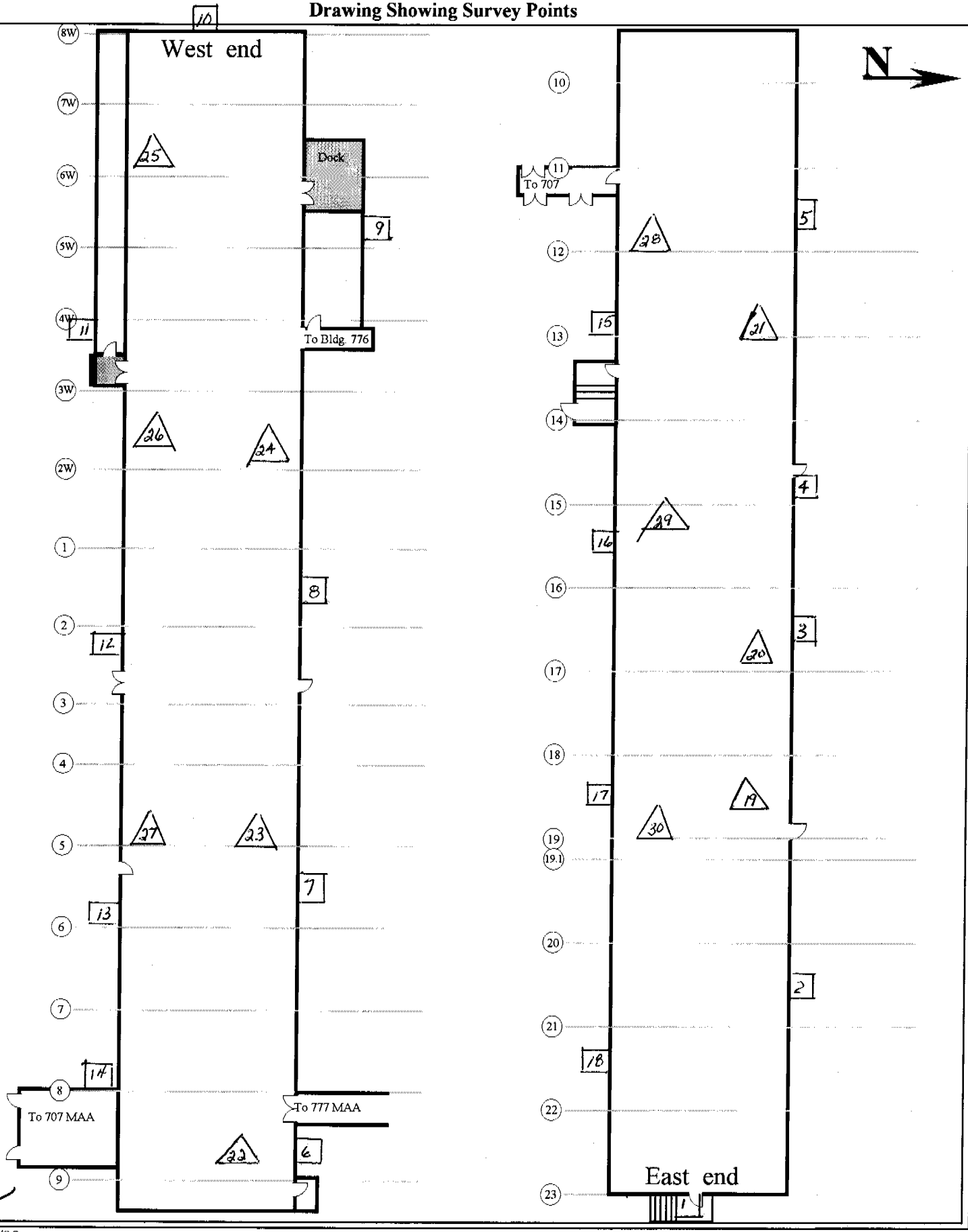
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

242

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial #
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg.
Efficiency 33%	Efficiency 33%	Efficiency
MDA 11.5 dpm	MDA 12.9 dpm	MDA
Mfg. Eberline	Mfg. Eberline	Mfg. NE Tech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 1233
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 5-11-00
Bkg. 35 cpm	Bkg. 43 cpm	Bkg. 0.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency .12063
MDA 92.5 dpm	MDA 101.3 dpm	MDA 94 dpm

Survey Type: Contamination
Building: 778
Location: Exterior Survey Area D
Purpose: Reconnaisance Level Characterization

RWP # 007071204

Date: 5-1 5-2-00 Time: Days

[redacted]

Comments: Roof / Exterior Walls : Biased survey points. 1 of 2
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Down Spout	0	8	168	16.				
2.	Drain	6	-32	48	17.				
3.	Drain	0	32	60	18.				
4.	Downspout	0	20	126	19.				
5.	Downspout	0	20	42	20.				
6.	Grate Over Drain	0	-24	468	21.				
7.	Downspout	0	-12	264	22.				
8.	Downspout	0	20	120	23.				
9.	Downspout	6	-12	294	24.				
10.	Roof Above Door	0	16	96	25.				
11.					26.				
12.					27.				
13.					28.				
14.					29.				
15.					30.				

Date Reviewed: 5-2-00 **RS Supervision:** [illegible] [illegible]
Print Name Signature

[redacted]

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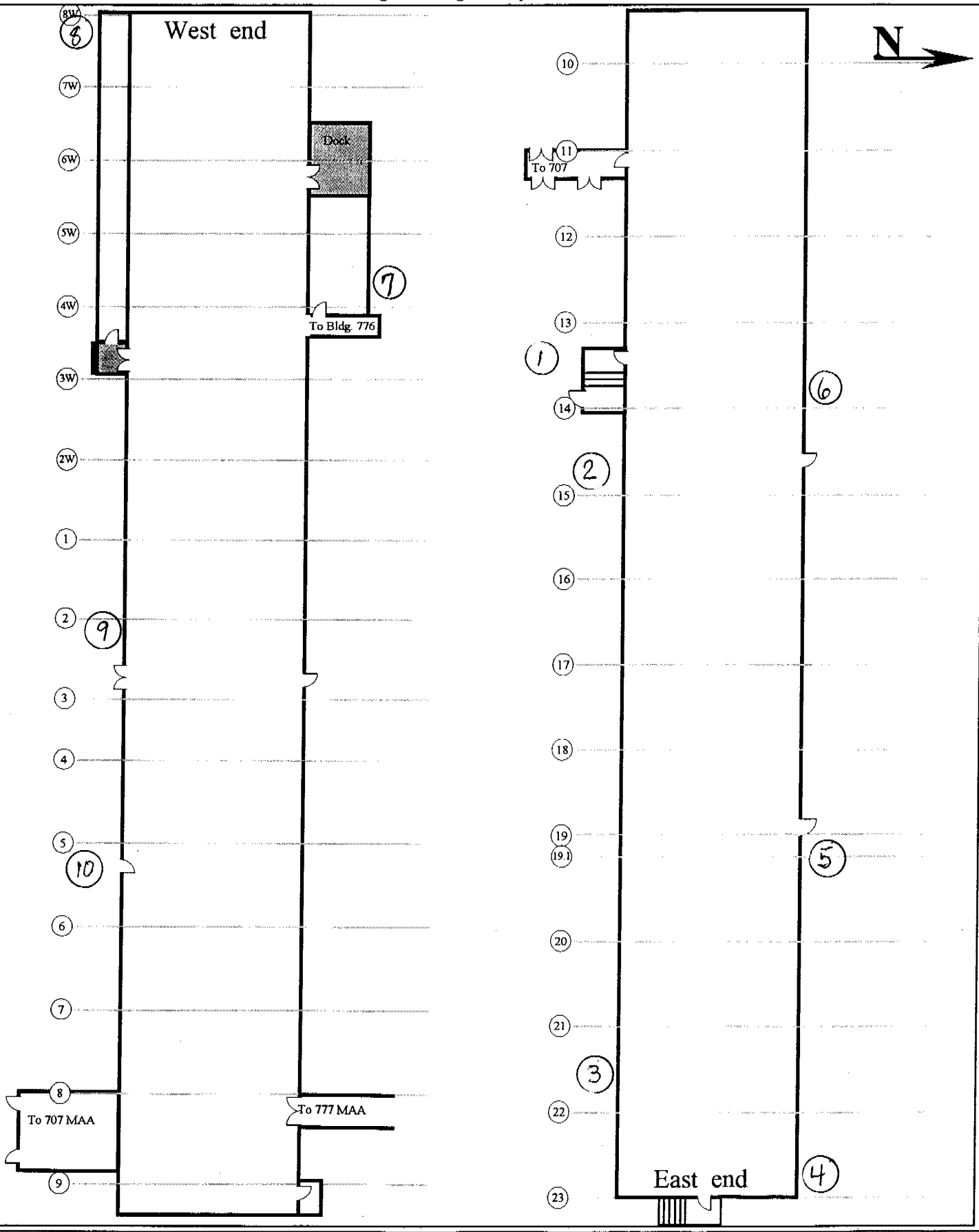
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

2 of 2

Drawing Showing Survey Points



C-1
RLC CHEMICAL DATA

695

Building 707S

ASBESTOS INSPECTOR'S REPORT

Building 707S is a storage shed with a wood floor and metal exterior walls. Fiberglass insulation was identified inside the walls – not sampled. The only suspect material was the drywall and tape joint compound. Analytical results indicate no asbestos containing material in the drywall and tape joint compound.

Sample Number	Sample Location & Description	% Asbestos
707S-05032000-05-001	Drywall and tape joint compound - ceiling	None Detected
707S-05032000-05-002	Drywall and tape joint compound – ceiling	None Detected
707S-05032000-05-003	Drywall and tape joint compound - wall	None Detected

C-2

RLC RADIOLOGICAL DATA

Survey Area G

T707S, Interior

697

Radiological Survey/Sample Results for Survey Area G (2000-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	27
MIN	0	N/A
MAX	42	N/A
MEAN	12.9	N/A
STD DEV	11.6	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	-12	N/A
MAX	24	N/A
MEAN	7.2	N/A
STD DEV	11.6	N/A
Equipment Biased	# Required	# Obtained
	30	19
MIN	-6	N/A
MAX	24	N/A
MEAN	3.8	N/A
STD DEV	8.8	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	27
MIN	0	-44
MAX	3	72
MEAN	1.1	-0.6
STD DEV	1.5	26.1
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-32
MAX	6	40
MEAN	0.9	-8
STD DEV	2	23.6
Equipment Biased	# Required	# Obtained
	30	19
MIN	0	-68
MAX	6	28
MEAN	0.9	-13.9
STD DEV	1.7	22.3
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

698

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3265
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-3-00
Bkg. 0.0	Bkg. 0.4	Bkg. ~~0.3~~ 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 21.6%
MDA ~~20 dpm~~ 8.22 dpm	MDA ~~20 dpm~~ 14.8 dpm	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # BC 833	Serial # BC 959	Serial #
Cal Due 7-14-00	Cal Due 7-19-00	Cal Due
Bkg. 46.0 cpm	Bkg. 38.0 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 104.5 dpm	MDA 95.9 DPM	MDA NA

Survey Type: Contamination
Building: T707-S
Location: Inside Survey Area G
Purpose: Reconnaisance Level Characterization
RWP # N/A
Date: 4-20-00 Time: 1430

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
28-30 unaccessible

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	-36	0	16.	Wall	3	-20	24
2.	Floor	0	8	18	17.	Wall	3	-12	0
3.	Floor	0	32	0	18.	Wall	0	-24	0
4.	Floor	3	8	12	19.	Wall	3	72	12
5.	Floor	3	-24	18	20.	Wall	0	4	0
6.	Floor	3	-44	18	21.	Wall	3	8	0
7.	Floor	0	28	24	22.	Wall	0	-12	42
8.	Floor	0	0	18	23.	Wall	0	-12	30
9.	Floor	0	0	12	24.	Wall	3	-12	30
10.	Floor	0	-16	0	25.	Wall	0	-36	0
11.	Wall	0	-12	18	26.	Wall	3	12	18
12.	Wall	0	48	12	27.	Wall	0	-12	6
13.	Wall	0	4	24	28.	See comment			
14.	Wall	3	4	12	29.				
15.	Wall	0	28	0	30.	See comment			

Date Reviewed: 5-2-00 **RS Supervision:** Shumkat (Print Name) (Signature)

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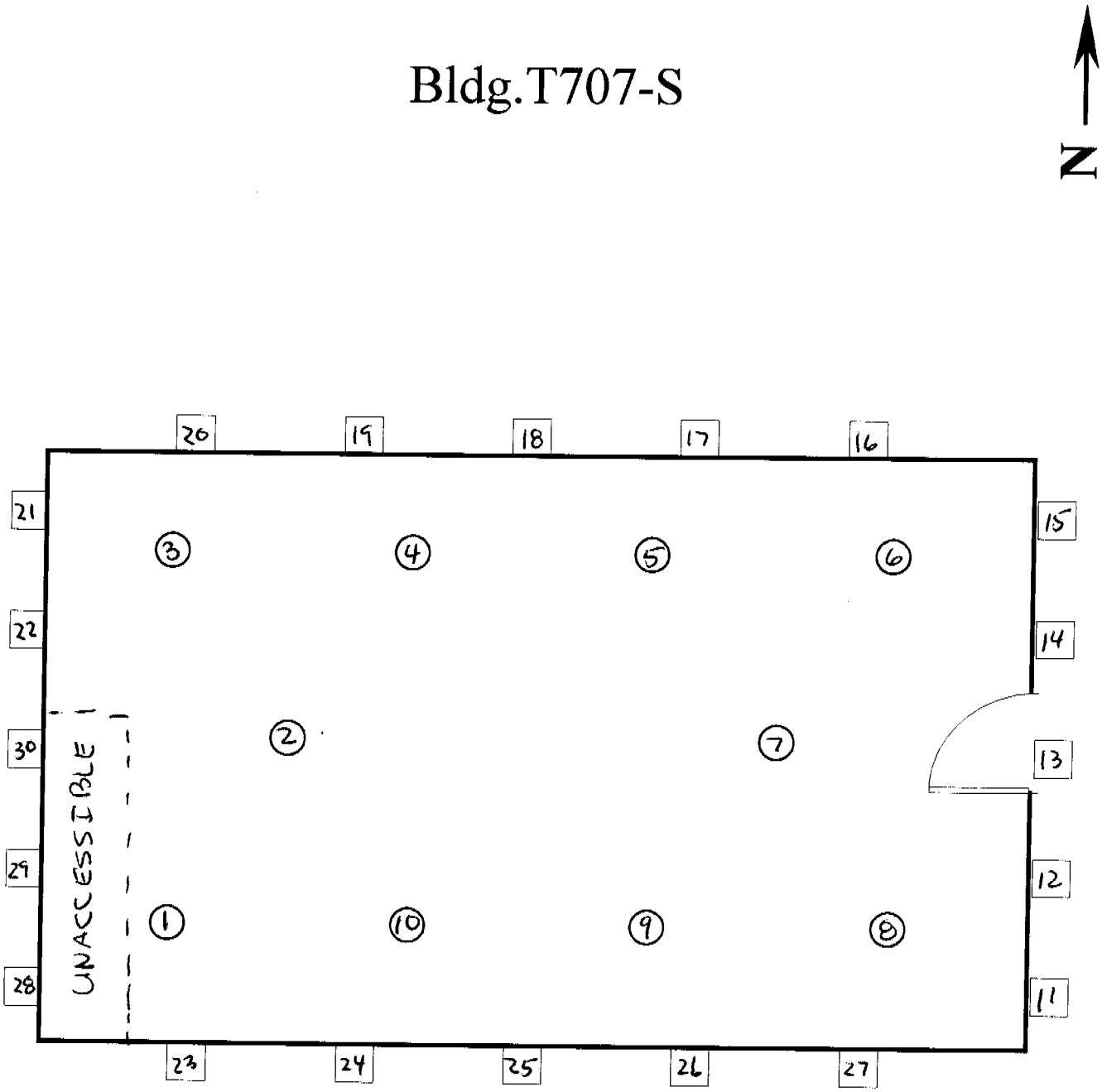
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Bldg.T707-S



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1233
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 5-11-00
Bkg. 0.0 cpm	Bkg. 0.3 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 8.2 DPM	MDA 13.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 43 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 101.3 DPM	MDA 101.3 DPM	MDA NA

Survey Type: Contamination
Building: T707-S
Location: Inside Survey Area G
Purpose: Reconnaisance Level Characterization

RWP # NA

Date: 4-27-00 Time: 1400

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
20-30 not enough equipment to survey.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Elect Box	0	-16	6	16.	window sil	0	4	-6
2.	Elect Box	0	28	0	17.	window sil	0	-24	0
3.	conduit	0	-16	12	18.	conduit	3	8	12
4.	conduit J Box	0	-40	-6	19.	conduit	3	4	-6
5.	SPC 4-27-00 ~~conduit~~ bench	0	-20	24	20.	END of SURVEY			NA
6.	bench	0	0	-6	21.				
7.	conduit	0	-8	6	22.				
8.	cabinet	6	-12	12	23.				
9.	Shelf	0	-16	-6	24.				
10.	Shelf	0	8	12	25.				
11.	Shelf	0	-68	6	26.				
12.	Heater	0	-8	12	27.				
13.	J-Box	3	-52	-6	28.				
14.	Light	3	-12	6	29.				
15.	Light	0	-24	0	30.	NA			

Date Reviewed: 5-2-00 **RS Supervision:** Stumkat [illegible]
Print Name Signature

[redacted]

RS FORMS 07.02-01

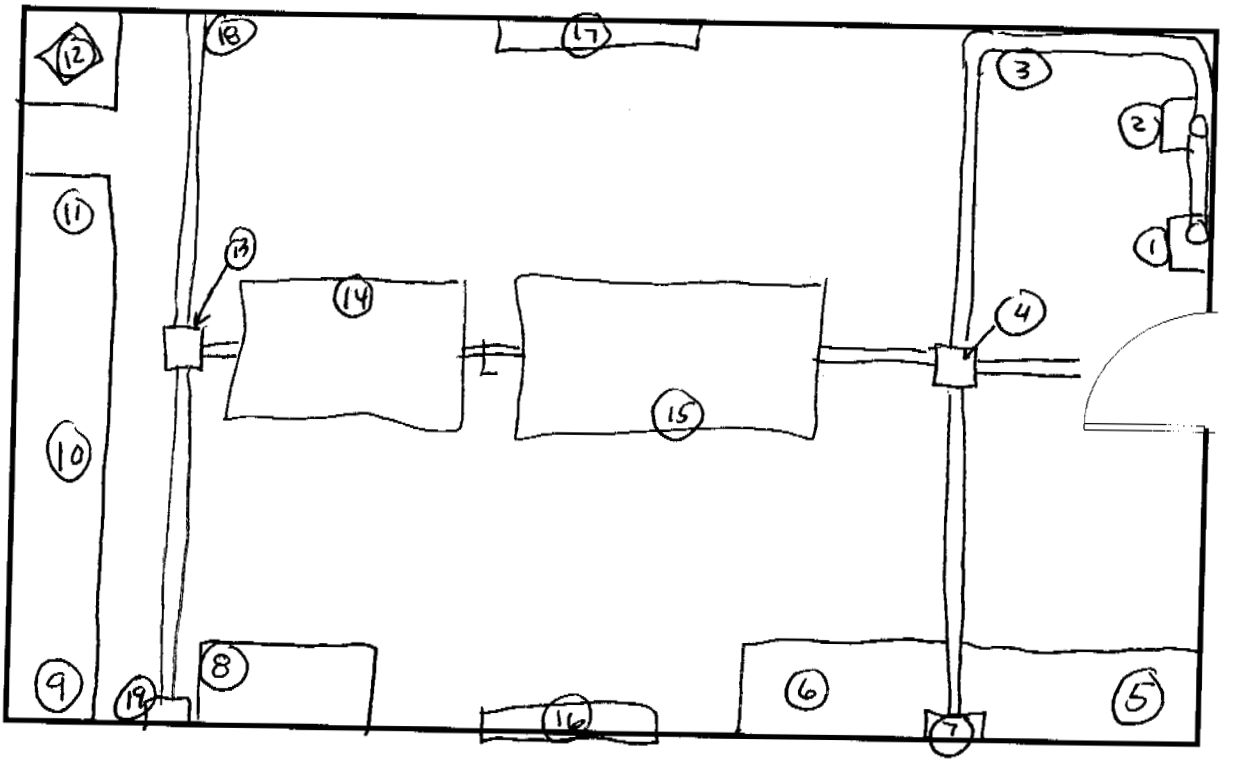
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Bldg.T707-S

N



702

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1233
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 5-11-00
Bkg. 6.0 cpm	Bkg. 0.3 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 8.2 DPM	MDA 13.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 43 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 101.3 DPM	MDA 101.3 DPM	MDA NA

Survey Type: **Contamination**

Building: **T707-S**

Location: Inside Survey Area G

Purpose: **Reconnaisance Level Characterization**

RWP # NA

Date: 4-27-00 Time: 1500

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall	3	-28	12	16.	NA			
2.		0	40	0	17.				
3.		0	-8	18	18.				
4.		0	8	18	19.				
5.		0	-20	6	20.				
6.		6	-28	0	21.				
7.		0	-32	12	22.				
8.	Wall	0	8	-6	23.				
9.	Ceiling	0	-28	24	24.				
10.	Ceiling	0	8	-12	25.				
11.	END OF SURVEY			NA	26.				
12.					27.				
13.					28.				
14.					29.				
15.	NA				30.				NA

Date Reviewed: 5-2-00 **RS Supervision:** [illegible] [illegible]
Print Name Signature

[redacted]

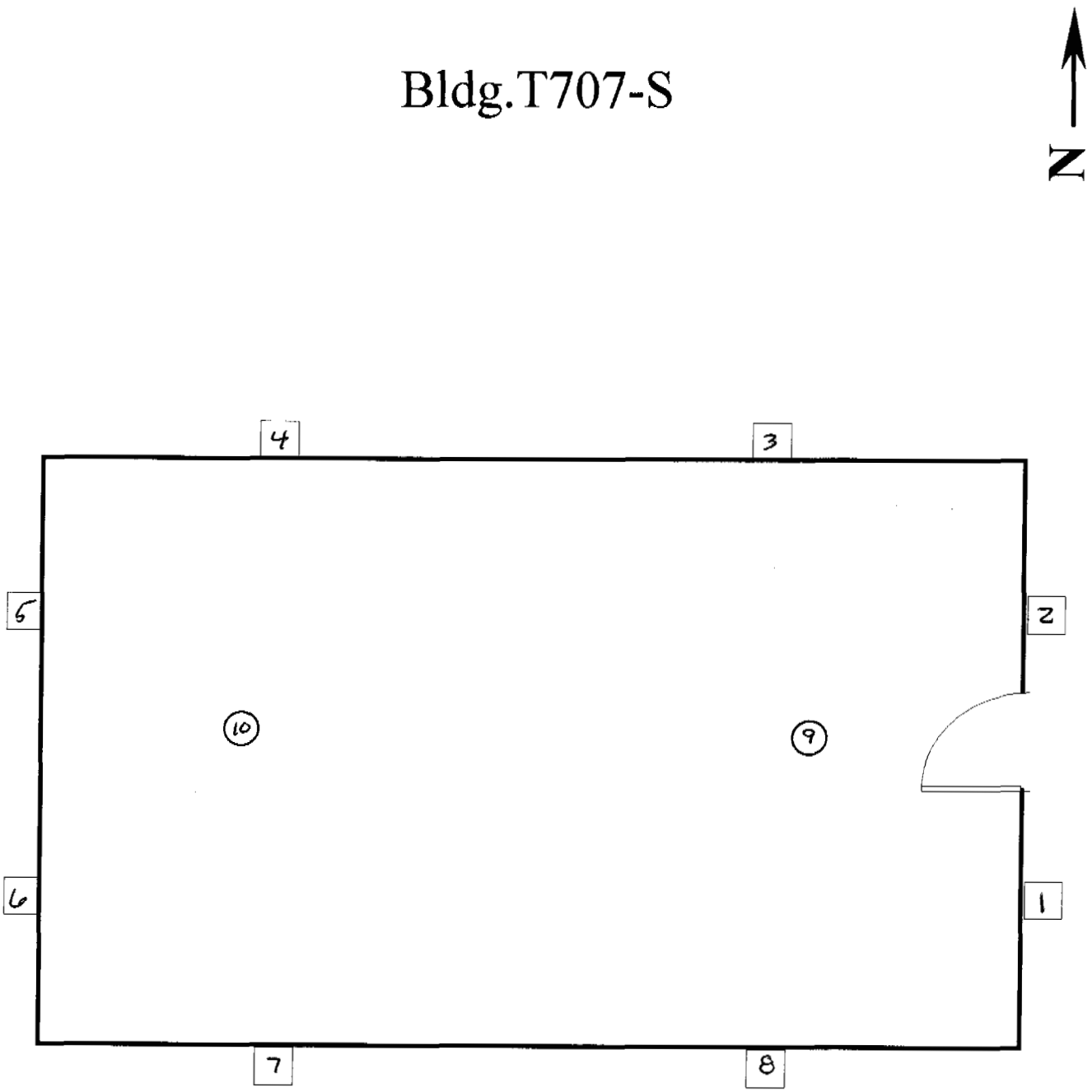
Rev. 02/00

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



704

C-2
RLC RADIOLOGICAL DATA
Survey Area H
T707S, Exterior

705

Radiological Survey/Sample Results for Survey Area H (2000-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	78	N/A
MEAN	27.8	N/A
STD DEV	18.5	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-28
MAX	15	40
MEAN	1.7	1.9
STD DEV	3.8	18.8
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

706

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # C 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 11.5 DPM	MDA 12.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 40 cpm	Bkg. 41 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 98.1 DPM	MDA 99.2 DPM	MDA

Survey Type: **Contamination**

Building: **T707-S**

Location: Roof - Wall Survey Area H

Purpose: **Reconnaisance Level Characterization**

RWP #

Date: 4-5-00 Time: 1500

[redacted]

Comments: Roof / Exterior Walls ~~<2~~ >2 meters : Unbiased survey points. 4-17-00
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Wall	0	20	30	16.	Wall	0	-12	0
2.	Wall	0	-28	36	17.	Wall	3	-8	12
3.	Wall	0	12	18	18.	Wall	3	-20	24
4.	Wall	0	0	12	19.	Wall	0	8	0
5.	Wall	3	-24	24	20.	Wall	3	-8	36
6.	Wall	0	-24	0	21.	Roof	0	8	30
7.	Wall	0	28	12	22.	Roof	0	4	60
8.	Wall	0	-24	30	23.	Roof	0	12	60
9.	Wall	3	16	36	24.	Roof	3	32	48
10.	Wall	0	-8	30	25.	Roof	0	-16	36
11.	Wall	0	40	24	26.	Roof	3	24	54
12.	Wall	0	24	24	27.	Roof	0	-4	6
13.	Wall	0	-8	30	28.	Roof	0	-8	12
14.	Wall	15	-12	24	29.	Roof	0	8	24
15.	Wall	0	28	24	30.	Roof	15	-4	78

Date Reviewed: 4-17 00 **RS Supervision:** Stuart, [signature]
Print Name Signature

[redacted]

Rev. 02/00

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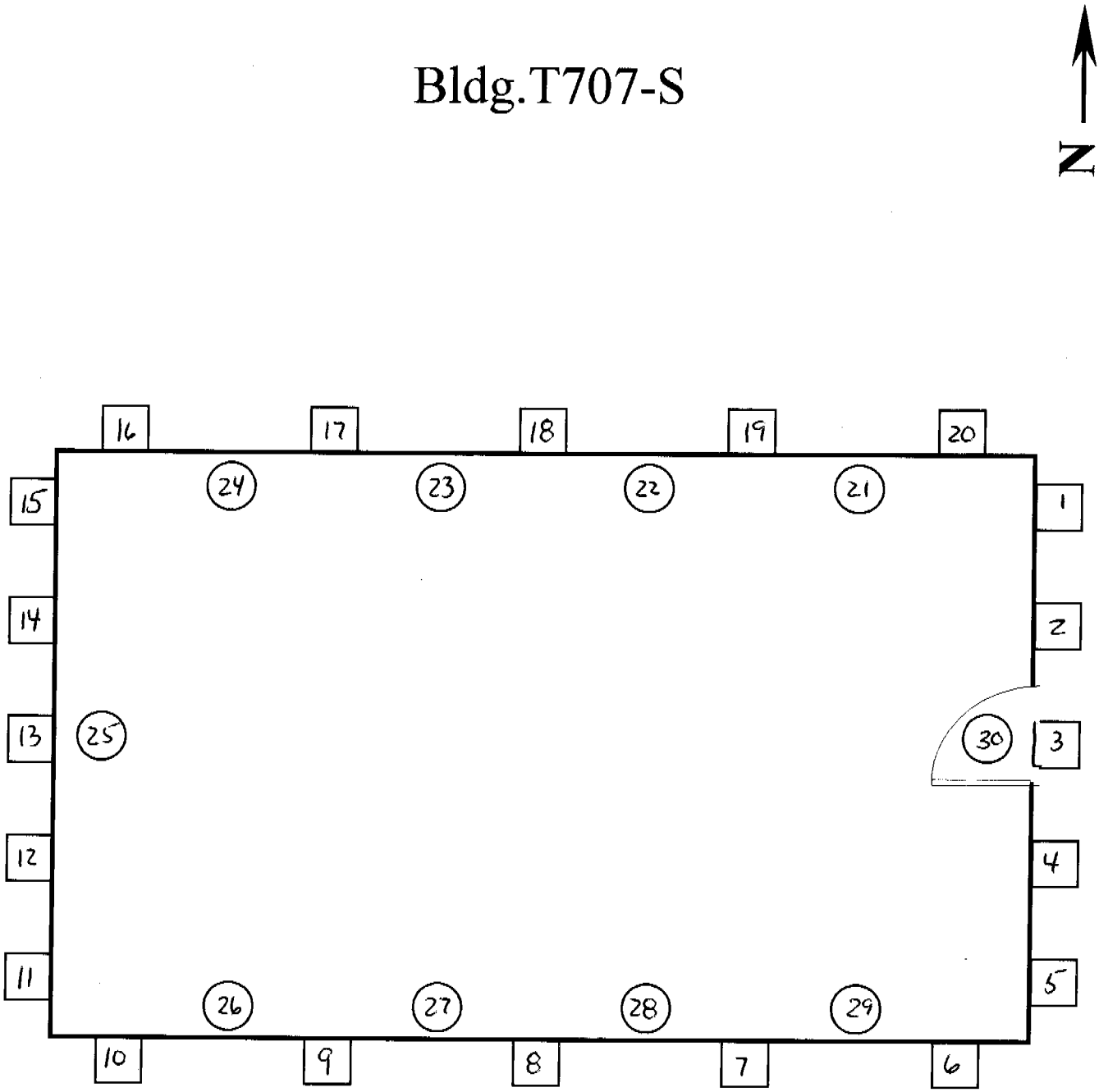
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



708

D-1
HISTORICAL CHEMICAL DATA

709

ID No.: 708, 711
718
Date: 04/26/00

D&D Facility Characterization Interview Checklist

Check List for - Title: D&D Facility Characterization – Interviews

CRITERIA:
- Λ *D&D Characterization Protocol*, RFETS MAN-077-DDCP, Rev. 0
- Λ *Facility Disposition Program Manual*, RFETS MAN-076-FDPM
- Λ RFETS Radiological Safety Practices, January 12, 1998

Facility Name & Type (1, 2, or 3) Buildings 708, 711, 718 Support Utilities Type 1
Personnel Interviewed (Name & Title/Function) Jim Flora Configuration Control Authority/Lead

	Y/ N
Does a current WSRIC exist for the facility?	Y
If so, are there exceptions to the WSRIC as written? No Exceptions	
COMMENTS (incl. WSRIC contacts) WSRIC Contact is James M. Schoen who is in charge of the WSRIC Reports, T130J, X3579, C-83.	
Are rad surveys available that indicate current status of the facility?	N
Are historical rad surveys available that indicate historical status, or evolution, of the facility?	Y
COMMENTS Historical surveys will be in storage at the Federal Center	
Is an HRR available for the facility?	Y
Do any other reports exist beyond the HRR (e.g., spill reports, reportable incidents, etc.) that further Characterize the facility relative to chemical &/or radiological contamination?	Y
Are engineering drawings (esp. "as-builts") available?	Y
Are any nonconformances or issues with the facility status currently being tracked in PATS?	N
If so, what are the issues (note in Comments, below)?	
COMMENTS	
Have any types of chemical characterization, incl. asbestos, been performed recently?	N
If so, what types of characterization were performed (note in Comments, below)?	
COMMENTS	

Interviewed by: D. A. Burton / [signature] / 04/26/00
Print Name / Signature / Interview Date

710

D&D Facility Characterization Interview Checklist

ID No.: 708, 711 718
Date: 04/26/00

What timeframe did the interviewee work in the facility? !980 to present

Has the building configuration changed since you worked in the building? If so, in what way?
Yes. A chiller has been removed from service and is being used as spare parts for the remaining chillers.

What types of equipment were in the building during the interviewee's time there?
Equipment contained in the building 708 are air compressors chillers and diesel powered emergency generators. Building 711 has draft fans and recalculating pumps one of, which is diesel powered for emergencies. Building 718 has lead storage batteries and charger for starting the Building 711 diesel.

Where was the equipment located? (specific rooms/areas) In the buildings or on pads outside them.

Were any radioactive materials or metals handled in the building? If so, what types? No

Which equipment handled radioactive material?

Were any chemicals handled in the building? If so, what types? Yes Ethylene glycol and Freon®.

Did any spills or uncontrolled releases of radioactive materials or chemicals occur while you were working in the facility? Yes.

Were these spills/releases cleaned-up? How were they cleaned-up? Yes. Using the methods and to the standards of the time when the spill or occurred.

Where did these spills/releases occur? In Building 708 at the chillers.

Interviewed by: D. A. Burton / [signature] / 04/26/00

Print Name | Signature | Interview Date

711

D-2
RLC CHEMICAL DATA

712

Building 708

ASBESTOS INSPECTOR'S REPORT

Building 708 has a concrete foundation and roof with concrete exterior walls. Interior walls are drywall with tape joint compound. The following materials were sampled for asbestos content:

Sample Number	Sample Location & Description	% Asbestos
708-05032000-05-001	TSI elbow – cooling water tower system	10%
708-05032000-05-002	Brine supply valve	10%
708-05032000-05-003	Brine tank insulation – long section	65%
708-05032000-05-004	Brine tank insulation – short end	50%
708-05032000-05-005	TSI elbow – brine return line	65%
708-05032000-05-006	Drywall & tape joint compound – between electrical panels on south end	3% Point count - < 1%
708-05032000-05-007	Drywall & tape joint compound – fire panel on south end	Trace Point count - < 1%
708-05032000-05-008	Drywall only	None Detected
708-05032000-05-009	12" x 12" white floor tile with brown mastic – office	None Detected
708-05032000-05-010	12" x 12" white floor tile with brown mastic – office	None Detected
708-05032000-05-011	1' x 1' white ceiling tile – office	None Detected in ceiling tile. 1.5% detected in joint compound stuck to ceiling tile
708-05032000-05-012	1' x 1' white ceiling tile –office	None Detected
708-05032000-05-013	Cove base mastic – office	Point count – < 1%
708-05032000-05-014	Spray applied beam insulation – around garage door	None Detected
708-05032000-05-015	Spray applied beam insulation – around garage door	None Detected
708-05032000-05-016	Spray applied beam insulation – around garage door	None Detected

713

D-3

RLC RADIOLOGICAL DATA

Survey Area AA

Bldg 708 & 708C

714

Radiological Survey/Sample Results for Survey Area AA (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	66	N/A
MEAN	24.4	N/A
STD DEV	16.8	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	4	4
MIN	0	N/A
MAX	12	N/A
MEAN	6	N/A
STD DEV	4.9	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	N/A
MAX	42	N/A
MEAN	22	N/A
STD DEV	11	N/A
Equipment Biased	# Required	# Obtained
	35	30
MIN	0	N/A
MAX	96	N/A
MEAN	17.6	N/A
STD DEV	17.9	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-48
MAX	6	68
MEAN	0.6	5.2
STD DEV	1.5	28.7
Floors/Walls < 2 m Biased	# Required	# Obtained
	4	4
MIN	0	-20
MAX	0	76
MEAN	0.0	15
STD DEV	0.0	42.8
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	30
MIN	0	-64
MAX	3	52
MEAN	0.7	5.3
STD DEV	1.3	25.8
Equipment Biased	# Required	# Obtained
	35	30
MIN	0	-36
MAX	12	64
MEAN	1.1	18.5
STD DEV	2.8	24.8
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
2	2

Total Uranium Results dpm/100 cm²

MIN	1
MAX	2
MEAN	1.5
STD DEV	0.7
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	0
MAX	1
MEAN	0.5
STD DEV	0.7
$DCGL_W$	100

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 3260
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 7-17-00
Bkg. 0.1	Bkg. 0.0	Bkg. 3.0
Efficiency 33%	Efficiency 33%	Efficiency .20
MDA 11.5	MDA 8.2	MDA 94
Mfg. Eberline	Mfg. Eberline	Mfg. NE
Model BC-4	Model BC-4	Model Electra
Serial # 872	Serial # 833	Serial # 2307
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 7-12-00
Bkg. 43	Bkg. 40	Bkg. 2.0
Efficiency 25%	Efficiency 25%	Efficiency .194
MDA 101.3	MDA 98.1	MDA 94

Survey Type: Contamination

Building: ~~707~~ 708

Location: Survey Area AA

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 3-29, 3-30-00 Time: DAYS

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points. 1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Floor	0	12	12	16.	Floor	0	28	24
2.	Floor	0	16	36	17.	Floor	0	-48	0
3.	Floor	0	-16	30	18.	Floor	0	68	12
4.	Floor	3	40	12	19.	Floor	0	-20	36
5.	Floor	6	4	0	20.	Floor	3	24	30
6.	Floor	0	28	12	21.	Floor	0	-12	66
7.	Floor	0	-20	36	22.	Floor	0	-24	24
8.	Floor	0	4	12	23.	Wall < 2m	0	-8	24
9.	Floor	0	-12	18	24.	Wall < 2m	0	24	18
10.	Floor	0	-24	18	25.	Wall < 2m	3	-44	48
11.	Floor	0	8	0	26.	Wall < 2m	0	48	42
12.	Floor	3	4	12	27.	Wall < 2m	0	-28	36
13.	Floor	0	24	24	28.	Wall < 2m	0	20	36
14.	Floor	0	12	12	29.	Wall < 2m	0	36	24
15.	Floor	0	-32	12	30.	Wall < 2m	0	44	66

Date Reviewed: 4-7-00 **RS Supervision:** Shmulkat / [signature] / [redacted]

Print Name Signature

Rev. 02/00

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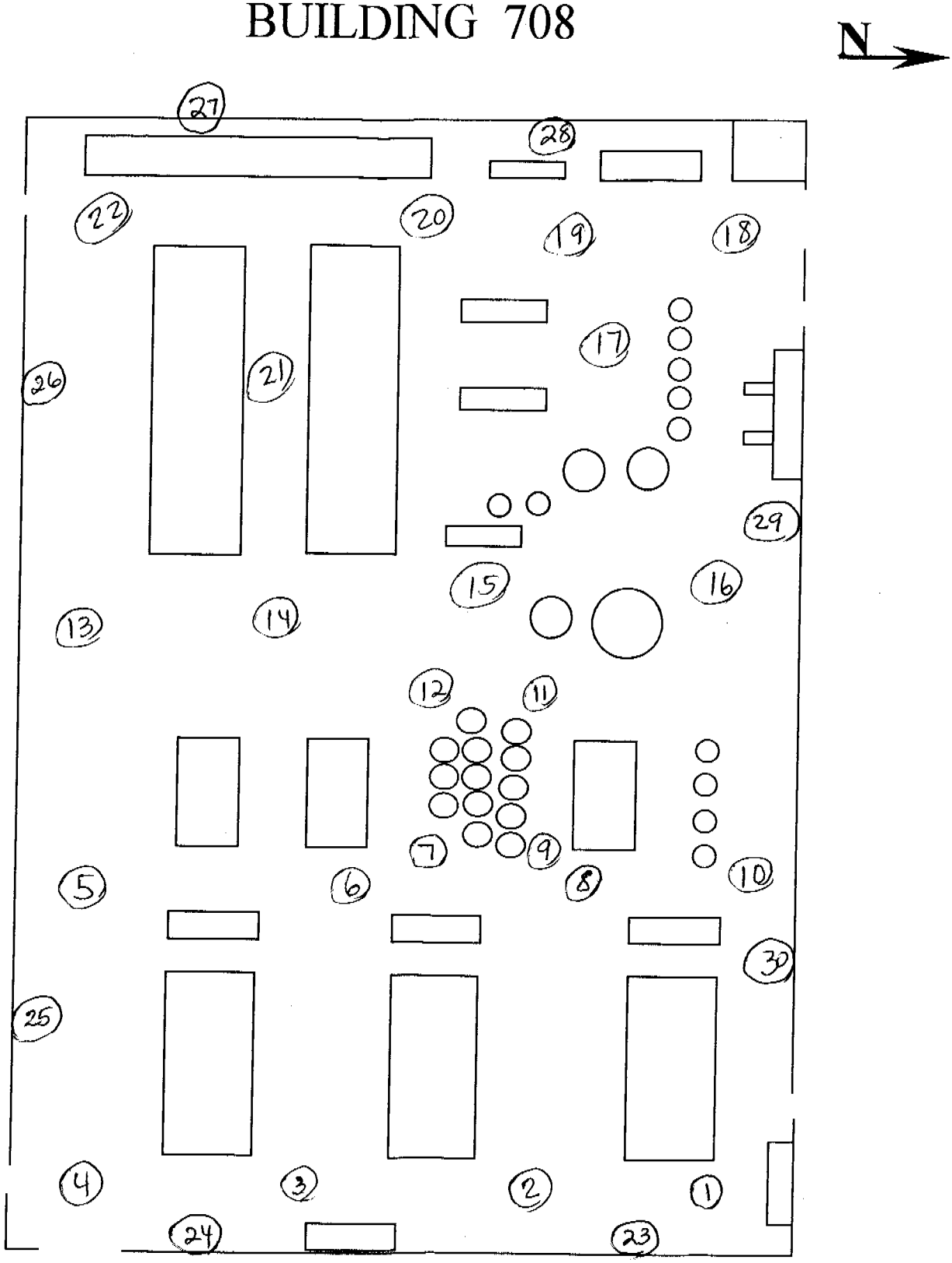
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

BUILDING 708



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NcTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 0.1 cpm	Bkg. 0.0 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 11.5 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Duc 7-14-00	Cal Duc
Bkg. 41 cpm	Bkg. 38 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 99.2 dpm	MDA 95.9 dpm	MDA

4-4-00

Survey Type: Contamination
Building: 708
Location: Survey Area AA
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204
Date: 4-4-00 Time: DAYS

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey poi[redacted]
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Total Beta	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Total Beta
1.	FLOOR	0	-20	6	N/A	16.					
2.	FLOOR	0	12	12	N/A	17.					
3.	FLOOR	0	-8	0	N/A	18.					
4.	FLOOR	0	76	6	N/A	19.					
5.						20.					
6.						21.					
7.						22.					
8.						23.					
9.						24.					
10.						25.					
11.						26.					
12.						27.					
13.						28.					
14.						29.					
15.						30.					

4-4-00

Date Reviewed: 4-6-00 **RS Supervision:** Shum Kiat [illegible]
Print Name Signature

[redacted]

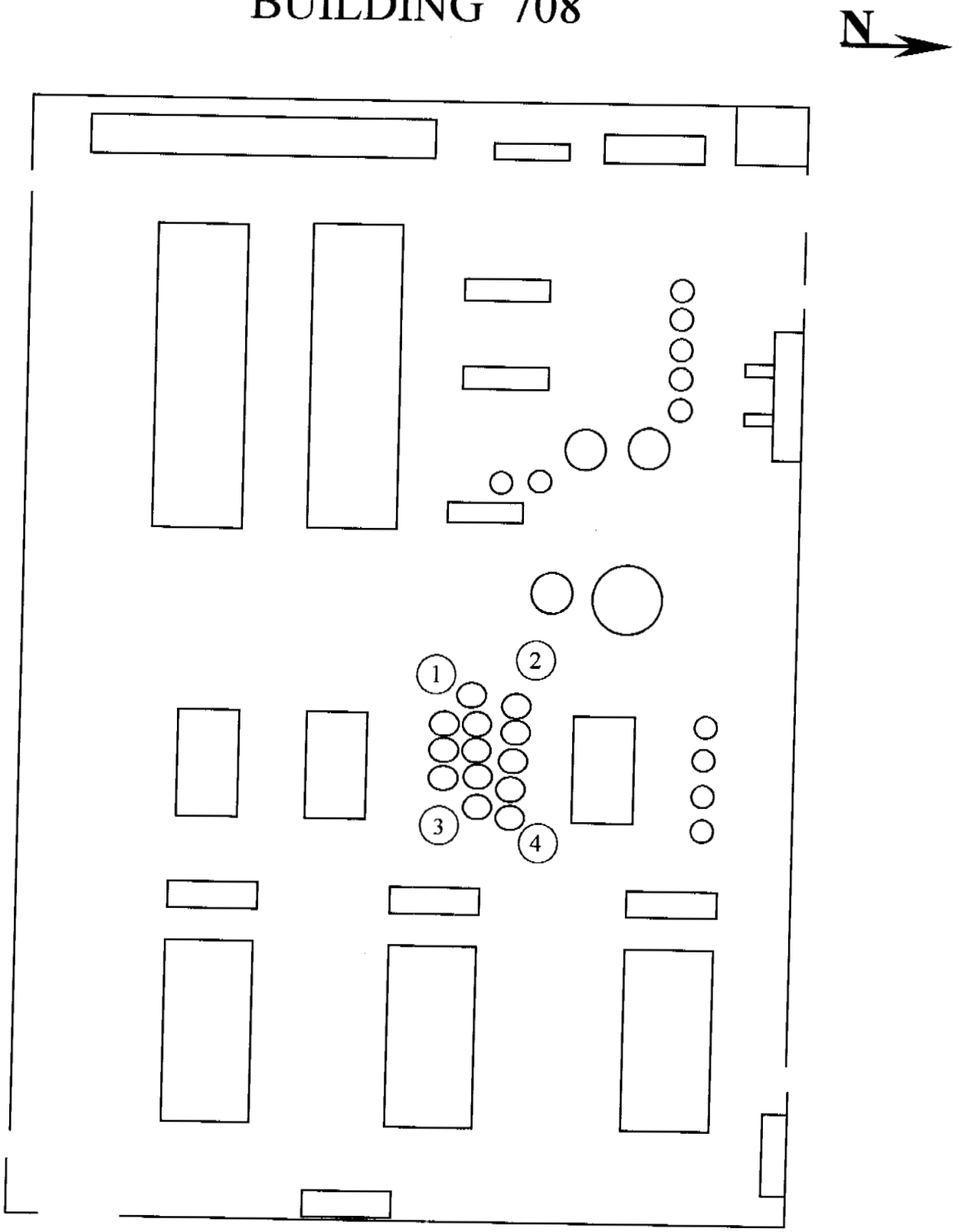
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

BUILDING 708



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 0.1 cpm	Bkg. 0.0 cpm	Bkg. 0.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 12063
MDA 11.5 dpm	MDA 8.2 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 41 cpm	Bkg. 38 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 99.2 dpm	MDA 95.9 dpm	MDA

Survey Type: **Contamination**

Building: 708

Location: Survey Area AA

Purpose: **Reconnaisance Level Characterization**

RWP # 00707 1204

Date: 4-4-00 Time: Days

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations. 182

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	SJ. 4-4-00 ~~Ceiling~~ WALLS >2M	0	4	18	16.	WALLS >2M ~~Ceiling~~ SJ. 4-4-00	0	32	24
2.		0	0	30	17.		0	20	24
3.		0	-16	18	18.		0	-64	0
4.		0	44	30	19.		0	52	12
5.		3	-12	36	20.		0	4	24
6.		0	-16	12	21.		0	44	36
7.		0	12	6	22.		3	4	42
8.		0	16	42	23.		0	24	18
9.		3	36	18	24.		3	24	12
10.		3	-8	6	25.		0	-40	18
11.		0	12	24	26.	Ceiling	0	-8	12
12.		0	-4	18	27.	"	0	-20	18
13.		0	-16	12	28.	"	3	0	24
14.		0	20	30	29.	"	3	-8	30
15.		0	36	24	30.	"	0	-12	42

Date Reviewed: 4-6-00 **RS Supervision:** Shum Kiat SJ
Print Name Signature

[redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

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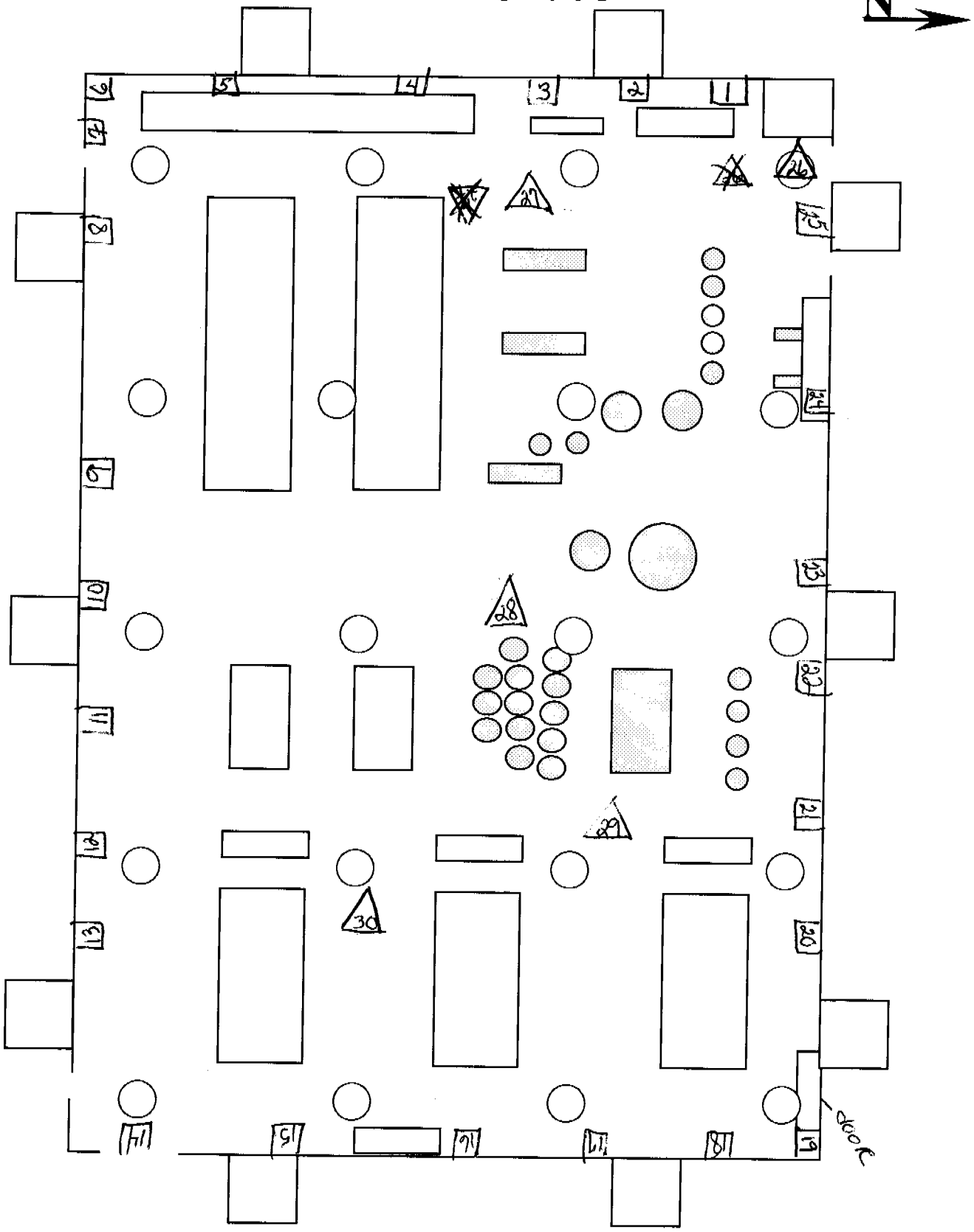
Drawing Showing Survey Points

BUILDING 708



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1518
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 6-24-00
Bkg. 0.0 cpm	Bkg. 0.0 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2186
MDA 8.2 dpm	MDA 8.2 dpm	MDA 94 dpm

Mfg. Eberline	Mfg. Eberline	Mfg. NE
Model BC-4	Model BC-4	Model ELECTRA
Serial # 872	Serial # 833	Serial # 2307
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due 7-12-00
Bkg. 37 cpm	Bkg. 39 cpm	Bkg. 20 cpm
Efficiency 25%	Efficiency 25%	Efficiency .197
MDA 94.8 dpm	MDA 97.0 dpm	MDA 94 dpm

[redacted]

Survey Type: **Contamination**
Building: **708**
Location: Survey Area AA
Purpose: **Reconnaisance Level Characterization**
RWP # 00-707-1204
Date: 4-3-00 Time: DAYS

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
10 pts Biased B708S not preformed. equipment has been removed from Site.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	PUMP P-74B	0	20	12	16.	TANK #0650	0	32	6
2.	TANK 455-756	0	24	0	17.	MOTOR 330-236	0	40	12
3.	Compressor 39411-820	0	20	18	18.	MOTOR 330-237	0	-20	12
4.	Electrical Panel	0	24	0	19.	TANK # 0667	0	36	18
5.	Electrical Box	0	36	18	20.	TANK # 0665	12	0	36
6.	TANK # 0637	3	-36	96	21.	TANK #0663	0	48	18
7.	Generator Panel	0	44	6	22.	TABLE	3	-12	12
8.	TANK # 0638	0	-12	36	23.	Supply Valve	0	64	6
9.	Generator	0	20	18	24.	TANK	0	36	18
10.	PA-AC-3 #321307	0	32	18	25.	TANK	0	40	18
11.	Air Flow	0	24	6	26.	Valve 708-PA-V-4	9	-20	12
12.	Air Compressor 321261	0	-28	0	27.	TANK Fuel filter	0	24	18
13.	TANK #0656	0	4	12	28.	Support	0	0	12
14.	TANK #0642	3	48	18	29.	Sanitary drain	0	16	42
15.	TANK #0635	3	32	6	30.	Motor Housing	0	20	24

Date Reviewed: 4-6-00 RS Supervision: Shunkiat [redacted]
Print Name Signature

Rev. 02/00

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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

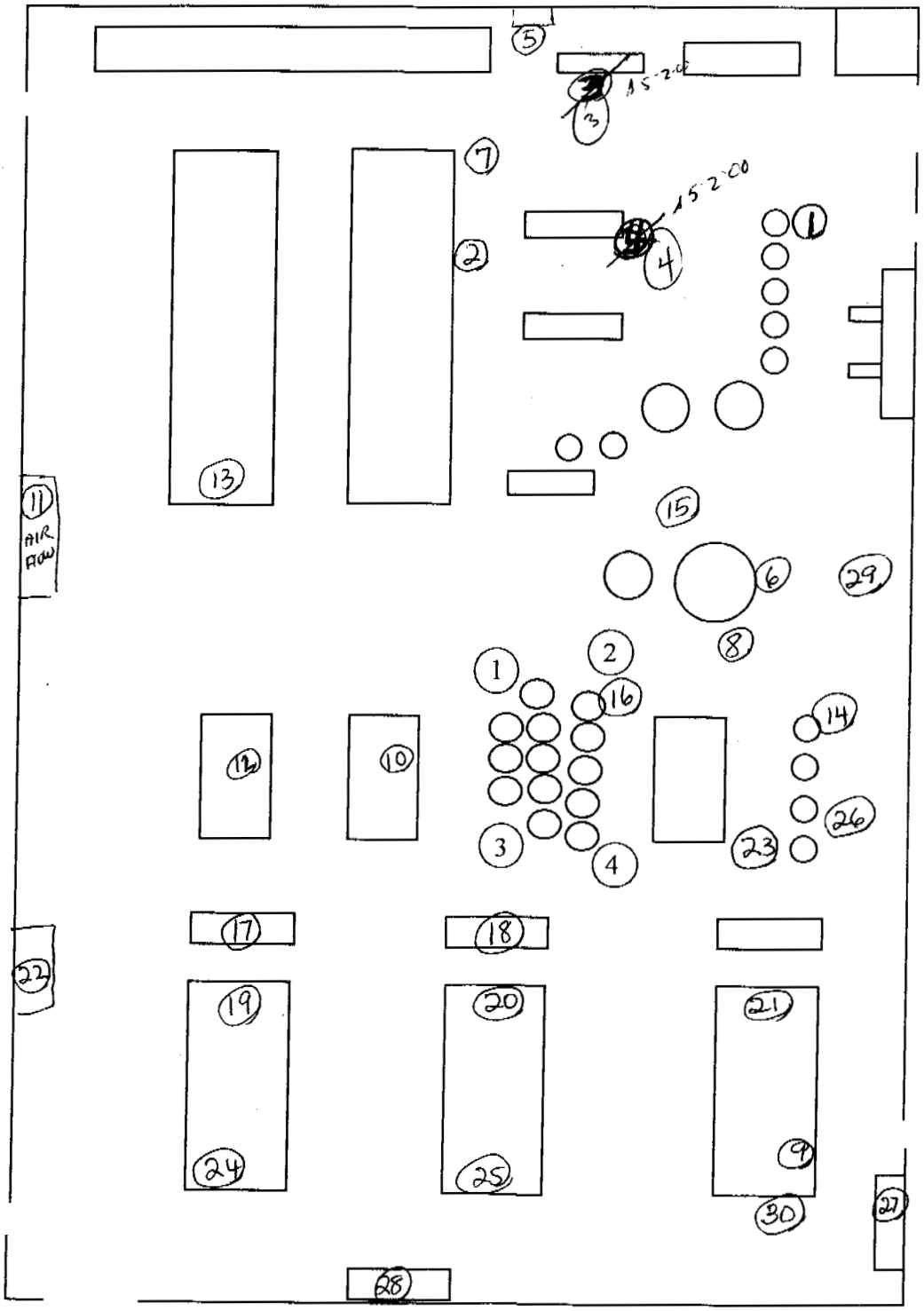
RADIOLOGICAL SAFETY

Drawing Showing Survey Points

BUILDING 708

(EQUIPMENT)

N



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#016	Matrix:	Waste
Site Sample ID:	043.002				
Other Sample ID:	Bldg 708 Floor	Collection Date:	5/3/00	Date Received:	5/5/00
		Batch Number:	1940	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1940-02	0.306	0.133	0.146	0.065
ACW03	U-235	KH100-1940-02	0.017	0.033	0.034	0.045
ACW03	U-238	KH100-1940-02	0.272	0.127	0.138	0.076
ACW03	PU-238	KH100-1940-02	0.057	0.125	0.125	0.194
ACW03	PU-239/240	KH100-1940-02	0.191	0.113	0.119	0.043
ACW03	AM-241	KH100-1940-02	0.176	0.146	0.150	0.128

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CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 043
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-43-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams / 150 cm2 (1 1/2 grids). I 50 - 7 grams, 450 cm2 (4 1/2 grids). Total - 9 grams / 600 cm2 (6 grids)

Location Description: Bldg. 708, floor in between some drums roped off (radioactive material) + an air discharger marked 708-PA-MS-3.

Other ID: 707-P-43-00

Sample Appearance: Gray paint scrapings, very thin paint

Sampling Device: Heat gun + chisel

Sample Date: 5/3/00 Sample Time: 10:49 Rad Screen Date: 5/3/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signature: [redacted]
Employee Number:

Date: 5/3/00 5/3/00

725

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#016	Matrix:	Waste
Site Sample ID:	044.002				
Other Sample ID:	Bldg 708 Floor	Collection Date:	5/3/00	Date Received:	5/5/00
		Batch Number:	1940	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1940-03	0.009	0.031	0.031	0.069
ACW03	U-235	KH100-1940-03	0.046	0.063	0.065	0.085
ACW03	U-238	KH100-1940-03	0.095	0.077	0.080	0.069
ACW03	PU-238	KH100-1940-03	0.009	0.034	0.034	0.075
ACW03	PU-239/240	KH100-1940-03	0.000	0.000	0.000	0.043
ACW03	AM-241	KH100-1940-03	0.011	0.039	0.039	0.087

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071

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 044
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-44-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID:
TRIP BLANK:

Comments/Problems encountered during sampling: Radscreen - 2 grams/200 cm2 (2 grids). ISO - 7 grams/650 cm2 (6 1/2 grids). Total - 9 grams/850 cm2 (8 1/2 grids). Rinsate is clear. 0603

Location Description: Bldg. 708, just inside the S.W. door. About 2 feet North of control panel marked - Brine Pump P-61. IDF5

Other ID: 707-P-44-00

Sample Appearance: Gray paint scrapings, paint is very thin.

Sampling Device: Heat gun + chisel

Sample Date: 5/3/00 Sample Time: 11:15 Rad Screen Date: 5/3/00

Was generator notified to receive excess sample? (YES) X (NO)

Samplers Signature: [redacted]
Employee Number:

Date: 5/3/00

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D-3
RLC RADIOLOGICAL DATA
Survey Area BB
Bldg 708 External Surfaces/Roof

Radiological Survey/Sample Results for Survey Area BB (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	29
MIN	18	N/A
MAX	108	N/A
MEAN	54.6	N/A
STD DEV	20.4	N/A
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	24	24
MIN	24	N/A
MAX	222	N/A
MEAN	74	N/A
STD DEV	56.1	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	29
MIN	0	-72
MAX	3	32
MEAN	0.7	-14.3
STD DEV	1.3	27.6
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	24	24
MIN	0	-48
MAX	15	48
MEAN	1.9	-7.3
STD DEV	3.5	23.1
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
1	1

Total Uranium Results dpm/100 cm^2

MIN	4
MAX	4
MEAN	4.0
STD DEV	0.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	0
MAX	0
MEAN	0.0
STD DEV	0.0
$DCGL_W$	100

Radiological Survey/Sample Results for Survey Area CC (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	12	N/A
MAX	30600	N/A
MEAN	1222.0	N/A
STD DEV	5581.1	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	12	12
MIN	24	N/A
MAX	114	N/A
MEAN	69	N/A
STD DEV	33.7	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	12	N/A
MAX	90	N/A
MEAN	35.4	N/A
STD DEV	25.1	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	18	N/A
MAX	3162	N/A
MEAN	200.0	N/A
STD DEV	566.1	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	216	48
MEAN	15.9	12.8
STD DEV	53.0	25.6
Floors/Walls < 2 m Biased	# Required	# Obtained
	12	12
MIN	0	-20
MAX	9	24
MEAN	2.3	-2.7
STD DEV	4.1	13.5
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-24
MAX	6	20
MEAN	2.1	-7.6
STD DEV	2.5	15.1
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-56
MAX	174	88
MEAN	9.2	3.9
STD DEV	32.6	32.5
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
1	1

Total Uranium Results dpm/100 cm^2

MIN	5
MAX	5
MEAN	5.0
STD DEV	0.0
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	478
MAX	478
MEAN	478.0
STD DEV	0.0
$DCGL_W$	100

730

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3260
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-17-00
Bkg. 0.0 cpm	Bkg. 0.4 cpm	Bkg. 5 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 8.2 DPM	MDA 14.8 DPM	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 2307
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 7-12-00
Bkg. 38 cpm	Bkg. 46.0 cpm	Bkg. 2.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 17%
MDA 95.9 dpm	MDA 104.5 dpm	MDA 94 dpm

Survey Type: Contamination

Building: 708

Location: Exterior / Roof Survey Area BB

Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 4-20-00 Time: 1630

[redacted]

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.
30 - inside High Voltage area could not get

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Roof	0	16	60	16.	Roof	0	0	54
2.	Roof	0	-16	72	17.	Roof	0	16	42
3.	Roof	0	20	66	18.	Roof	3	24	54
4.	Roof	0	4	54	19.	Wall	0	-40	42
5.	Roof	3	16	48	20.	Wall	3	-36	84
6.	Roof	0	-24	78	21.	Wall	0	32	54
7.	Roof	0	4	42	22.	Wall	3	-36	24
8.	Roof	3	-36	60	23.	Wall	0	-40	24
9.	Roof	0	-12	60	24.	Wall	0	-36	30 ~~25~~
10.	Roof	0	16	72	25.	Wall	3	-40	30
11.	Roof	0	0	108	26.	Wall	0	-72	66
12.	Roof	3	-56	78	27.	Wall	0	4	36
13.	Roof	0	-40	54	28.	Wall	0	-52	18
14.	Roof	0	-20	48	29.	Wall	0	4	78
15.	Roof	0	-16	48	30.	see note			

Date Reviewed: 4-26-00 **RS Supervision:** Schumacher [redacted]
Print Name Signature

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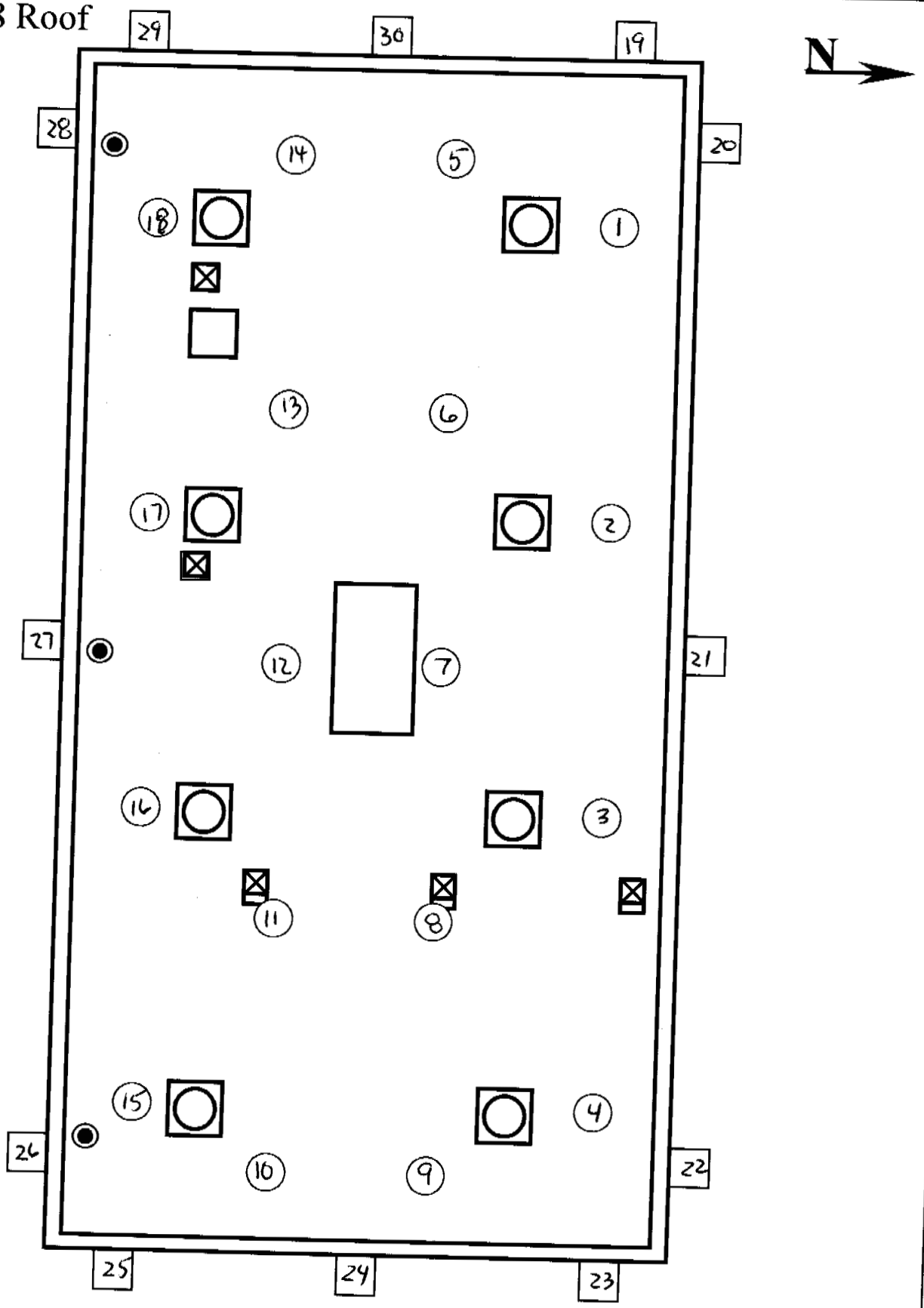
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

BLDG 708 Roof



TB2

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NcTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3260
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-17-00
Bkg. 0.0 cpm	Bkg. 0.4 cpm	Bkg. 5 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 8.2 cpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NcTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 2307
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 7-12-00
Bkg. 38 cpm	Bkg. 46 cpm	Bkg. 2.0 cpm
Efficiency 25%	Efficiency 25%	Efficiency 17%
MDA 95.9 DPM	MDA 104.5 DPM	MDA 94 dpm

Survey Type: Contamination

Building: 708

Location: External Surfaces Survey Area BB

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 4-20-00 Time: 1630

[redacted]

Comments: Roof / Exterior Walls : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.		0	-4	72	16.		0	-12	54
2.		6	-28	30	17.		6	20	168
3.		0	-20	30	18.		0	48	24
4.		3	0	60	19.		0	4	180
5.		3	-48	24	20.		0	-24	48
6.		3	-8	24	21.		0	8	102
7.		0	-40	48	22.		0	-24	60
8.		15	-32	48	23.		0	-8	108
9.		0	8	48	24.		0	-4	54
10.		0	20	48	25.	END OF SURVEY			
11.		0	-12	48	26.				
12.		1	-44	~~232~~ 174	27.				
13.		6	8	72	28.				
14.		0	24	30	29.				
15.		3	-8	222	30.				

N A

Date Reviewed: 4-26-00 **RS Supervision:** Schmukath (Print Name) (Signature)

[redacted]

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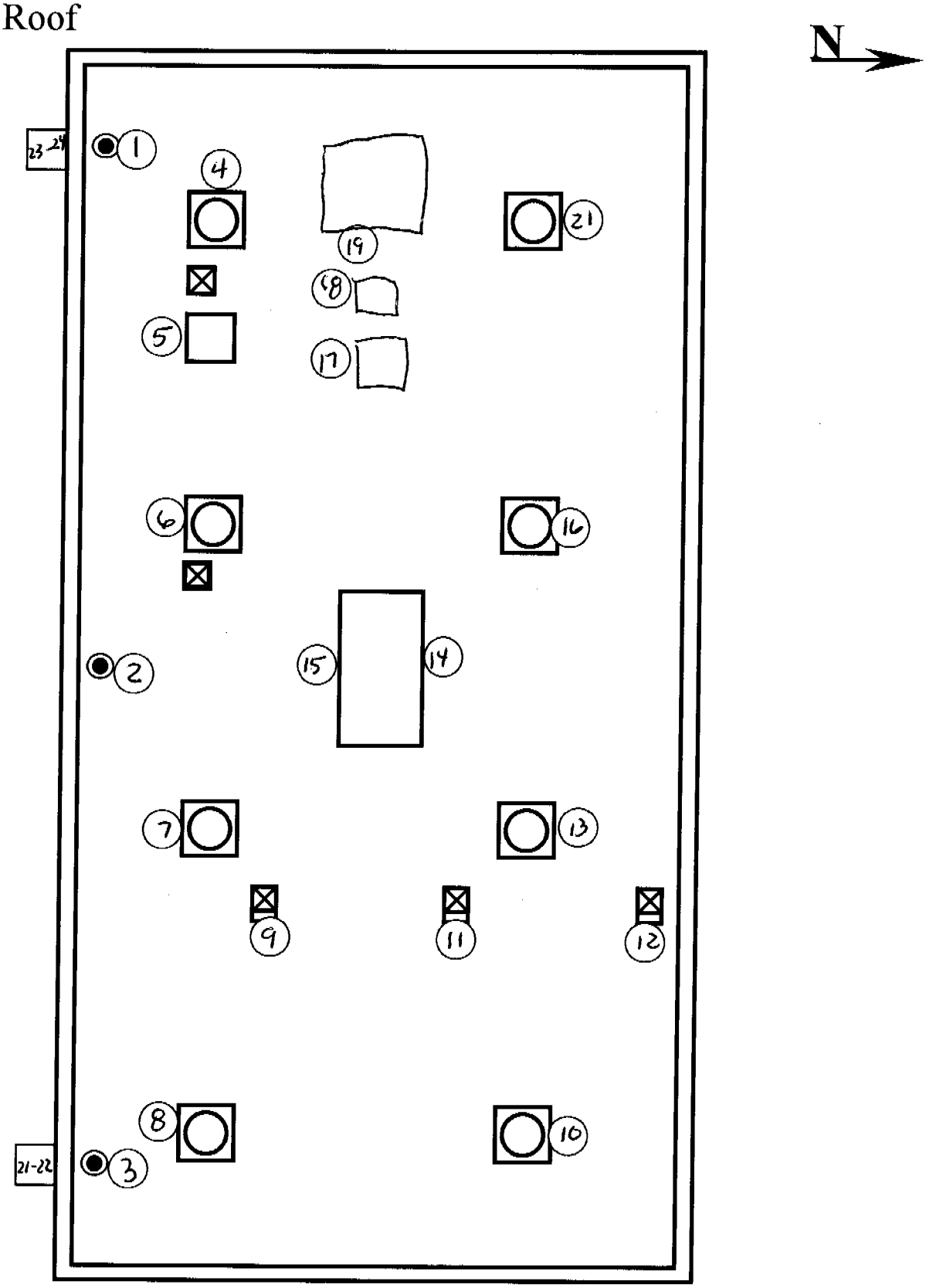
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

BLDG 708 Roof



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Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#016	Matrix:	Waste
Site Sample ID:	047.002				
Other Sample ID:	Bldg 708 Roof	Collection Date:	5/3/00	Date Received:	5/5/00
		Batch Number:	1940	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1940-06	0.211	0.128	0.135	0.098
ACW03	U-235	KH100-1940-06	0.038	0.080	0.081	0.135
ACW03	U-238	KH100-1940-06	0.169	0.118	0.123	0.109
ACW03	PU-238	KH100-1940-06	-0.004	0.156	0.156	0.267
ACW03	PU-239/240	KH100-1940-06	0.029	0.054	0.054	0.087
ACW03	AM-241	KH100-1940-06	-0.018	0.025	0.025	0.125

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074

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 047
DUPLICATE ID: N/A
ISSUE DATE: 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-47-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams/50 cm2 (1/2 grid). TSQ - 7 grams/150 cm2 (1 1/2 grids). Total - 9 grams/200 cm2 (2 grids)

Location Description: Bldg. 708, on the roof, the first support beam for pipes. Beam is S.W. of ladder on South side of beam

Other ID: 707-P-47-00

Sample Appearance: Metalic silver paint, with black + tan fibers.

Sampling Device: Chisel

Sample Date: 5/3/00 Sample Time: 13:47 Rad Screen Date: 5/3/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signature: [redacted]
Employee Number:

Date: 5/3/00 5/3/00

736

E-1
RLC CHEMICAL DATA

737

Building 711

ASBESTOS INSPECTOR'S REPORT

Building 711 is a water-cooling structure constructed of wood. Suspect asbestos containing materials were not observed on the structure itself, but fuel oil lines associated with the structure contained insulation beneath metal protective sleeves. The insulation was sampled.

Sample Number	Sample Location & Description	% Asbestos
711-05032000-05-001	Fuel oil return line	None Detected
711-05032000-05-002	Fuel oil supply line	None Detected

E-2
RLC RADIOLOGICAL DATA
Survey Area EE
Bldg 711, 711A & 718

739

Radiological Survey/Sample Results for Survey Area EE (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	40	15
MIN	-12	N/A
MAX	96	N/A
MEAN	38.3	N/A
STD DEV	30.4	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	10
MIN	0	N/A
MAX	42	N/A
MEAN	22.8	N/A
STD DEV	13.2	N/A
Equipment Biased	# Required	# Obtained
	30	20
MIN	6	N/A
MAX	72	N/A
MEAN	37.5	N/A
STD DEV	18.5	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	40	15
MIN	0	-44
MAX	6	64
MEAN	0.8	8.5
STD DEV	1.8	30.5
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	30	10
MIN	0	-16
MAX	6	40
MEAN	1.2	2.8
STD DEV	2.5	19.3
Equipment Biased	# Required	# Obtained
	30	20
MIN	0	-24
MAX	9	60
MEAN	3.3	6
STD DEV	3.1	25.1
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

740

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 35 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 92.5 dpm	MDA 101.3 dpm	MDA

Survey Type: Contamination
Building: 711, 711A, 718
Location: 711A + 718 Survey Area EE
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 5-2-00 Time: 1630

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

Building 711 (inside not accessible)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	24	24	16.				
2.	See Map	0	-20	18	17.				
3.	See Map	3	4	30	18.				
4.	See Map	0	-36	24	19.				
5.	See Map	0	0	24	20.				
6.	See Map	0	8	-12	21.				
7.	See Map	3	40	36	22.	N/A			
8.	See Map	6	48	42	23.				
9.	See Map	0	32	36	24.				
10.	See Map	0	-20	18	25.				
11.	See Map	0	64	78	26.				
12.	See Map	0	0	96	27.				
13.	See Map	0	16	84	28.				
14.	See Map	0	-44	198	29.				
15.	See Map	0	12	180	30.				

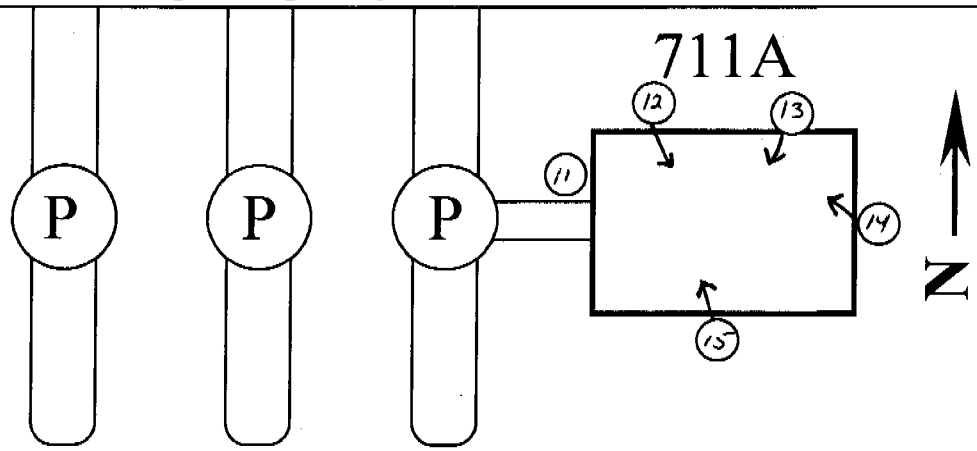
Date Reviewed: 5-2-00 **RS Supervision:** S Hunckler [illegible]
Print Name Signature

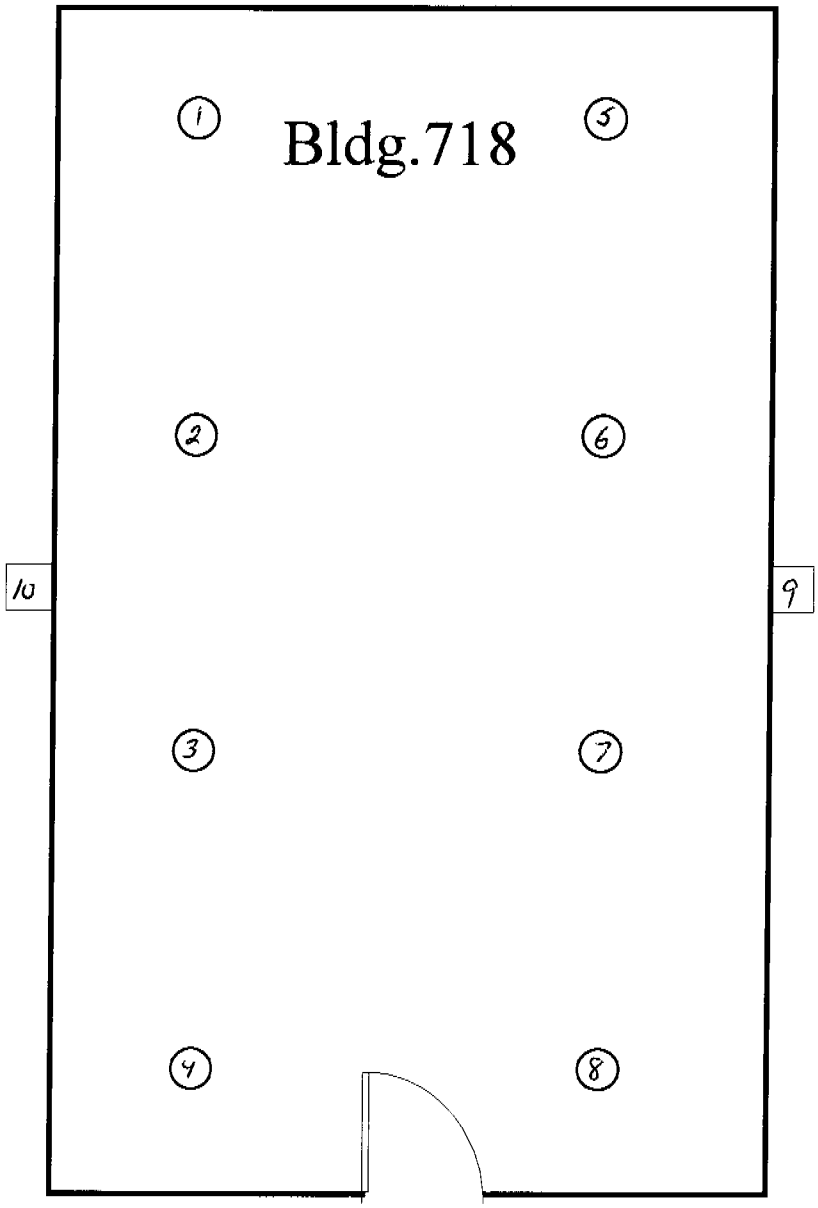
[redacted]

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points





142

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 35 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 925 dpm	MDA 101.3 dpm	MDA

Survey Type: **Contamination**

Building: **711, 711A, 718**

Location: 718 Survey Area EE

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-2-00 Time: 1630

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.

Building 711 (inside not accessible

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	24	24	16.	NA			
2.	See Map	6	-4	24	17.				
3.	See Map	0	-4	18	18.				
4.	See Map	0	-16	36	19.				
5.	See Map	0	24	42	20.				
6.	See Map	0	-8	0	21.				
7.	See Map	0	-4	24	22.				
8.	See Map	6	-16	36	23.				
9.	See Map	0	40	18	24.				
10.	See Map	0	-8	6	25.				
11.	End of Survey			NA	26.				
12.					27.				
13.					28.				
14.					29.				
15.	NA				30.				NA

Date Reviewed: 5-2-00 **RS Supervision:** Shannon Neal [redacted]
Print Name Signature

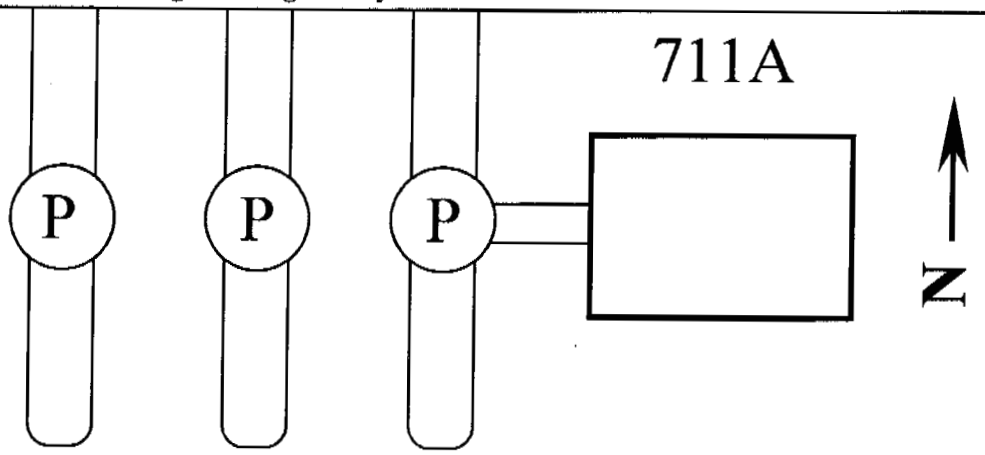
Rev. 02/00

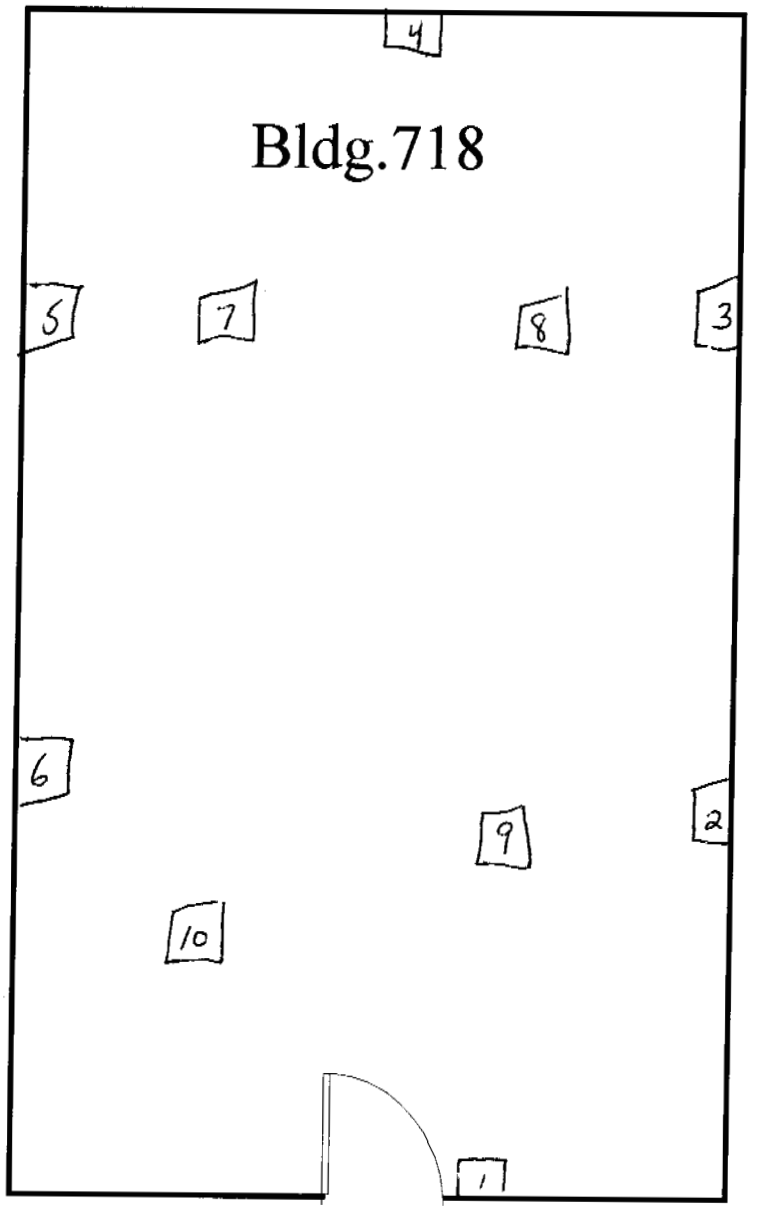
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points





744

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 3265
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-3-00
Bkg. 0.1 cpm	Bkg. 0.2 cpm	Bkg. 4 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 11.5 dpm	MDA 12.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 35 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 92.5 dpm	MDA 101.3 dpm	MDA

Survey Type: Contamination
Building: 711, 711A, 718
Location: 711A + 718 Survey Area EE
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 5-2-00 Time: 1630

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.

Building 711 (inside not accessible)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	12	24	16.	See Map	3	48	48
2.	See Map	3	-12	18	17.	See Map	0	12	12
3.	See Map	0	24	6	18.	See Map	0	-24	72
4.	See Map	6	-12	24	19.	See Map	0	60	60
5.	See Map	6	-16	36	20.	See Map	3	36	66
6.	See Map	3	-24	48	21.	End of Survey			NA
7.	See Map	6	28	18	22.				
8.	See Map	0	-24	42	23.				
9.	See Map	9	28	30	24.				
10.	See Map	6	-8	30	25.				
11.	See Map	9	16	42	26.				
12.	See Map	6	0	24	27.				
13.	See Map	0	4	42	28.				
14.	See Map	3	-20	48	29.				
15.	See Map	3	-8	60	30.	NA			

Date Reviewed: 5-2-00 **RS Supervision:** [illegible] [illegible]
Print Name Signature

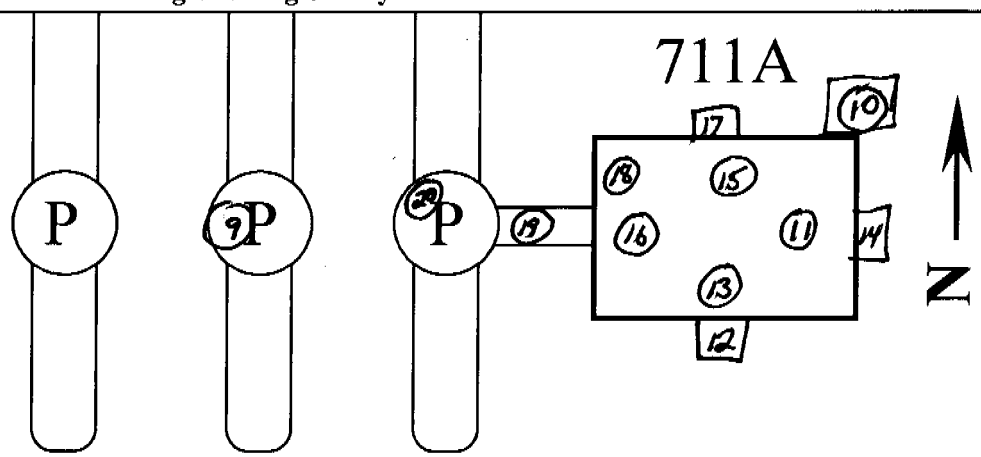
[redacted]

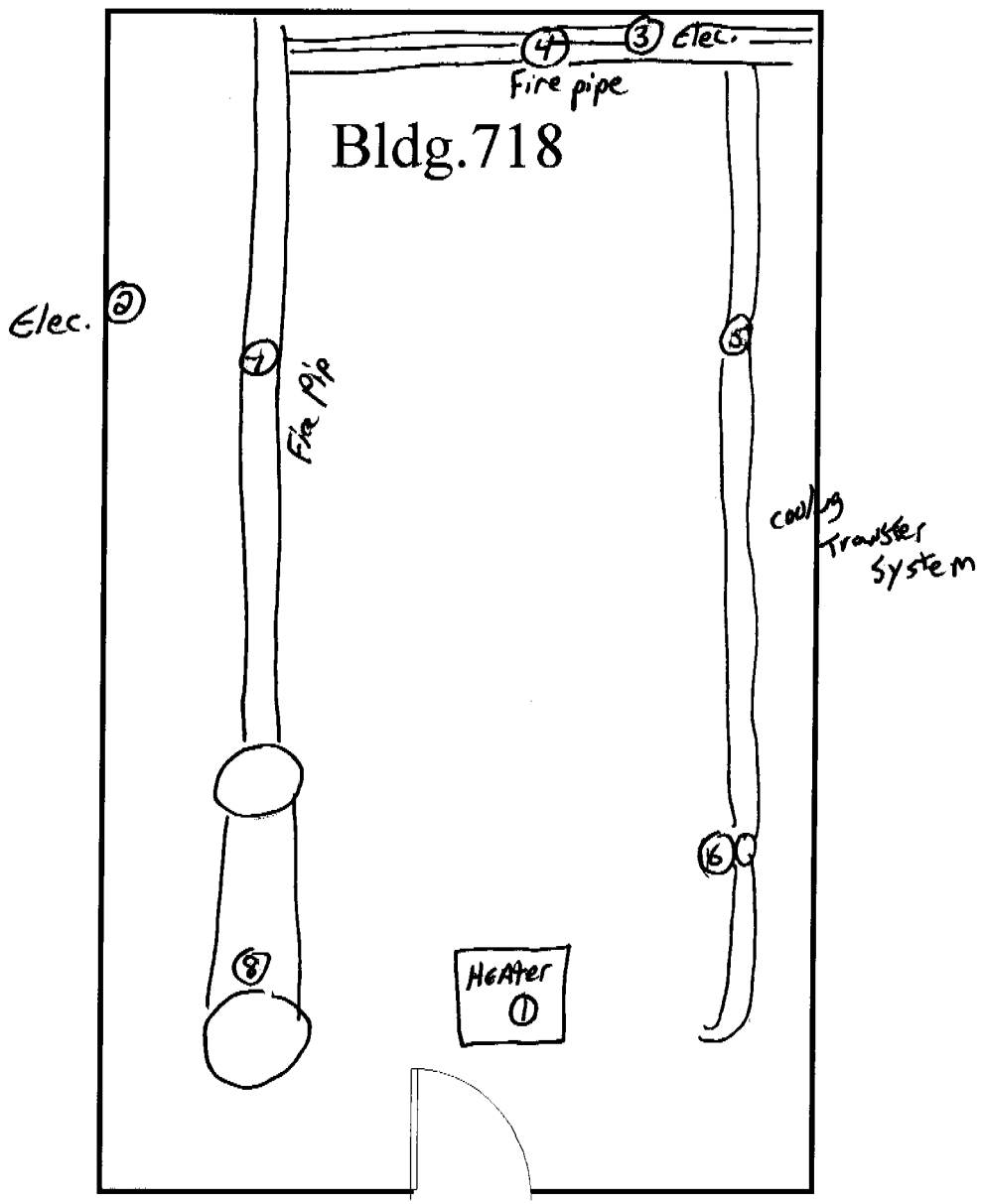
 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points





746

E-2
RLC RADIOLOGICAL DATA
Survey Area FF
Bldg 711 Roof

Radiological Survey/Sample Results for Survey Area FF (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	-12	N/A
MAX	66	N/A
MEAN	20.0	N/A
STD DEV	20.9	N/A
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-52
MAX	6	60
MEAN	1.0	0.5
STD DEV	1.8	28.8
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 2307
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due ~~2cpm~~ 2-12-00 SR
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 2 cpm
Efficiency 33%	Efficiency 33%	Efficiency 19.4%
MDA 12.9 DPM	MDA 13.9 cpm	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg. NA
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 40 cpm	Bkg. 36 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 98.1 DPM	MDA 93.7 DPM	MDA NA

Survey Type: Contamination

Building: 711

Location: 711 Roof Survey Area FF

Purpose: Reconnaisance Level Characterization

RWP # NA

Date: 5-1-00 Time: 1400

[redacted]

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Roof	0	36	18	16.	Roof	3	24	18
2.		6	48	36	17.		0	-4	30
3.		0	-12	36	18.		3	60	36
4.		3	40	36	19.		0	16	-12
5.		0	0	18	20.	Roof	0	32	18
6.		0	-24	18	21.	Wall	0	-20	-12
7.		0	-40	12	22.		3	-28	-12
8.		0	12	54	23.		0	-52	6
9.		0	0	0	24.		6	12	12
10.		0	24	30	25.		0	-32	0
11.		0	36	42	26.		0	0	18
12.		3	-24	66	27.		0	-8	48
13.		0	4	30	28.		0	4	-6
14.		0	-40	36	29.		0	4	0
15.	Roof	3	-40	36	30.	Wall	0	-12	-12

Date Reviewed: 5 2 00 **RS Supervision:** Shmulkat, [signature]
Print Name Signature

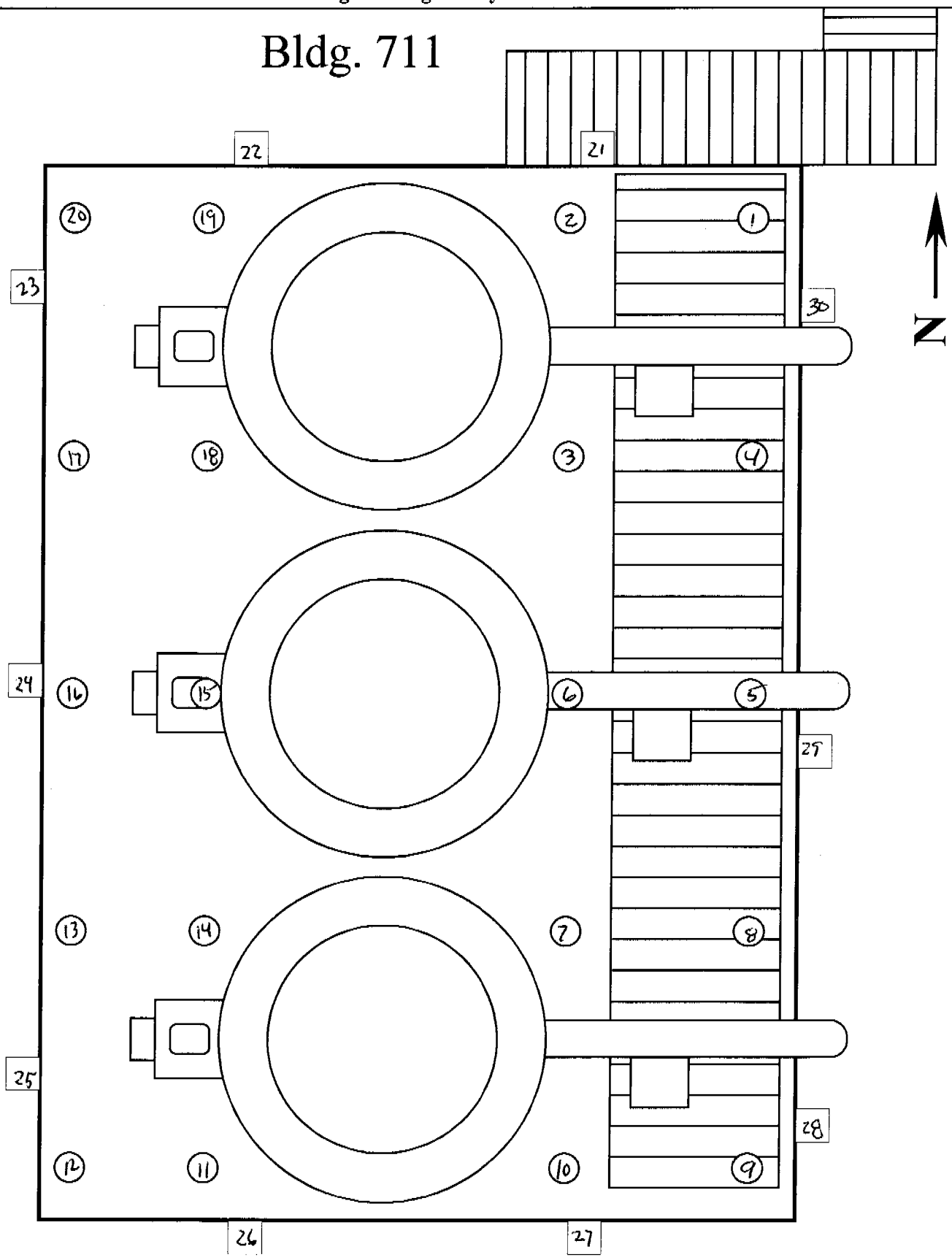
[redacted]

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



750

F-1
RLC CHEMICAL DATA

751

Building 711A

ASBESTOS INSPECTOR'S REPORT

Structure 711A is a generator with approximately 15 linear feet of pipe insulation and 40 square feet of tank insulation. Analytical results indicate no asbestos present.

Sample Number	Sample Location & Description	% Asbestos
711A-05032000-05-001	Fuel oil supply line	None Detected
711A-05032000-05-002	Dry tank insulation	None Detected

G-1
RLC CHEMICAL DATA

Building 718

ASBESTOS INSPECTOR'S REPORT

Building 718 has a concrete foundation. The structure frame, walls and roof are made of metal. All pipelines did not contain insulation. No other suspect materials were observed.

754

G-2

RLC RADIOLOGICAL DATA

Survey Area GG

Bldg 718, Roof/Exterior

755

Radiological Survey/Sample Results for Survey Area GG (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	6	N/A
MAX	186	N/A
MEAN	100.8	N/A
STD DEV	56.0	N/A
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	9	60
MEAN	1.7	-6.1
STD DEV	2.3	23.3
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

756

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial #	Serial # 1233
Cal Due 8-15-00	Cal Due N/A	Cal Due 5-11-00
Bkg. 0.5 cpm	Bkg.	Bkg. 3.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .2063
MDA 15.6 dpm	MDA	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 959	Serial # N/A	Serial # N/A
Cal Due 7-19-00	Cal Due N/A	Cal Due
Bkg. 42 cpm	Bkg.	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 100.3 dpm	MDA	MDA

Survey Type: **Contamination**

Building: **718**

Location: Roof/Exterior Survey Area GG

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-4-00 Time: DAYS

[redacted]

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

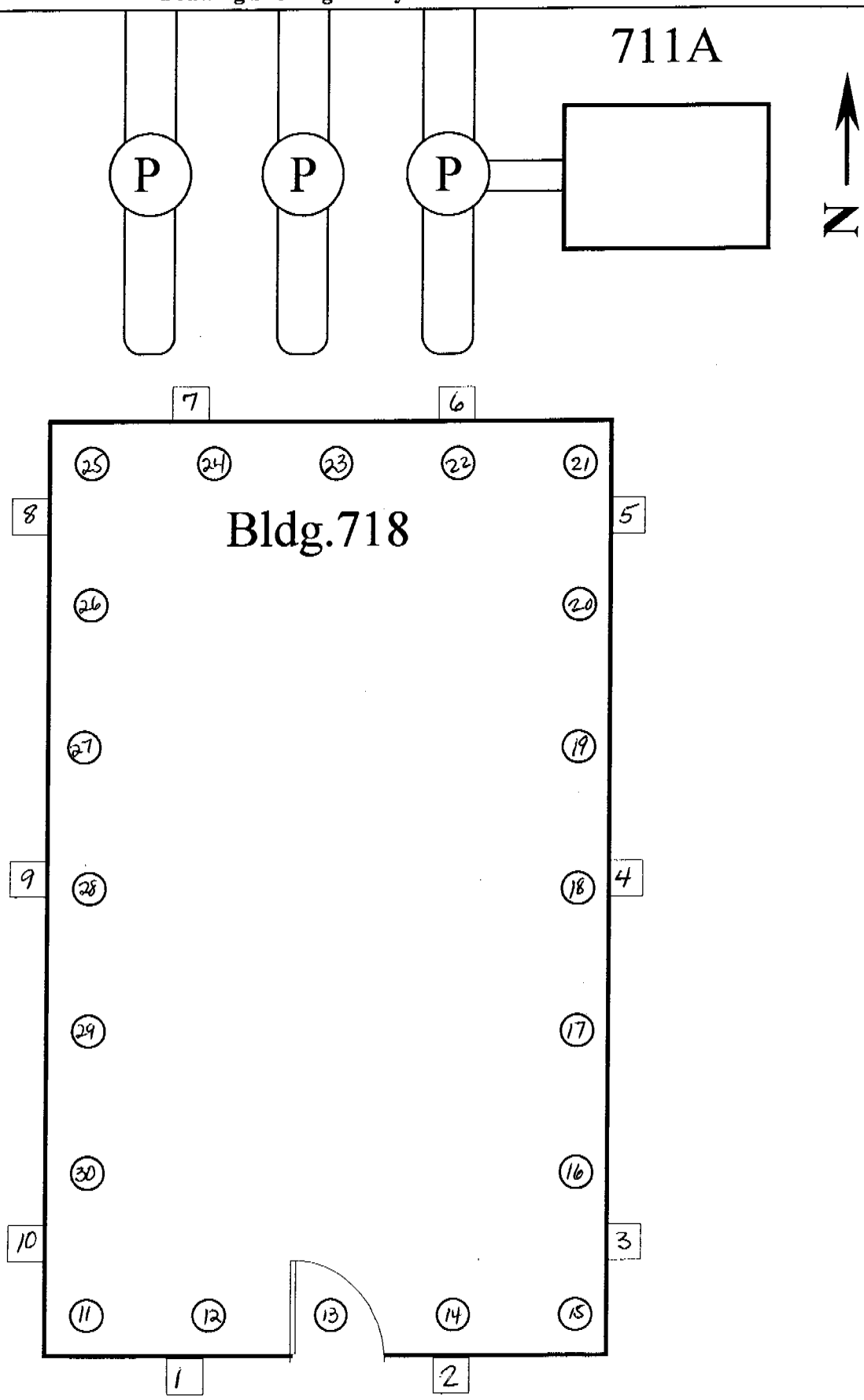
Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Exterior Walls < 2m	0	8	36	16.	Roof	0	-24	96
2.		3	28	6	17.		3	-20	120
3.		0	-16	48	18.		0	-36	138
4.		3	60	36	19.		0	-12	132
5.		0	40	24	20.		3	-20	150
6.		3	12	30	21.		3	-16	150
7.		3	-4	42	22.		9	-4	126
8.		0	-20	12	23.		0	12	180
9.		3	-28	48	24.		0	-8	120
10.		0	-8	42	25.		0	36	138
11.	Roof	6	-24	144	26.		6	-40	108
12.		3	-20	126	27.		0	-28	186
13.		0	-24	186	28.		0	-12	96
14.		0	0	174	29.		0	-20	84
15.		0	-4	156	30.		3	8	90

Date Reviewed: 5-8-00 **RS Supervision:** Allshouse [redacted]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



H-1
RLC CHEMICAL DATA

Building 731

ASBESTOS INSPECTOR'S REPORT

No suspect asbestos containing materials. The building has a concrete foundation and walls with un-insulated pipelines.

160

H-2
RLC RADIOLOGICAL DATA
Survey Area CC
Bldg 731, Interior

761

Radiological Survey/Sample Results for Survey Area CC (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	12	N/A
MAX	30600	N/A
MEAN	1222.0	N/A
STD DEV	5581.1	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	12	12
MIN	24	N/A
MAX	114	N/A
MEAN	69	N/A
STD DEV	33.7	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	12	N/A
MAX	90	N/A
MEAN	35.4	N/A
STD DEV	25.1	N/A
Equipment Biased	# Required	# Obtained
	30	30
MIN	18	N/A
MAX	3162	N/A
MEAN	200.0	N/A
STD DEV	566.1	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	216	48
MEAN	15.9	12.8
STD DEV	53.0	25.6
Floors/Walls < 2 m Biased	# Required	# Obtained
	12	12
MIN	0	-20
MAX	9	24
MEAN	2.3	-2.7
STD DEV	4.1	13.5
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	10	10
MIN	0	-24
MAX	6	20
MEAN	2.1	-7.6
STD DEV	2.5	15.1
Equipment Biased	# Required	# Obtained
	30	30
MIN	0	-56
MAX	174	88
MEAN	9.2	3.9
STD DEV	32.6	32.5
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

162

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 2307
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 7-12-00
Bkg. 0.2 cpm	Bkg. 0.1 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 19.40%
MDA 12.9 DPM	MDA 11.5 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due N/A
Bkg. 42 cpm	Bkg. 42 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 100.3 DPM	MDA 100.3 DPM	MDA

Survey Type: Contamination
Building: 731
Location: Pit Survey Area CC
Purpose: Reconnaisance Level Characterization
RWP #
Date: 4-12-00 Time: 1500

[redacted]

Comments: Floor / Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

28 - wiped down and contained.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F	0	-12	12	16.	W	0	40	30
2.	F	3	32	60	17.	W	0	-8	30
3.	F	0	20	60	18.	W	3	-36	24
4.	F	0	32	84	19.	W	0	-28	30
5.	F	9	0	30	20.	W	0	44	36
6.	F	9	-36	48	21.	W	0	24	48
7.	F	0	-8	48	22.	W	216	12	3000
8.	F	0	24	162	23.	W	3	-40	60
9.	F	0	24	24	24.	W	0	48	36
10.	F	0	12	60	25.	W	0	40	30
11.	F	0	0	48	26.	W	0	24	24
12.	F	27	0	1620	27.	W	0	-8	48
13.	F	0	32	54	28.	W	204	48	30600
14.	F	0	24	54	29.	W	0	20	30
15.	F	0	24	240	30.	W	3	36	30

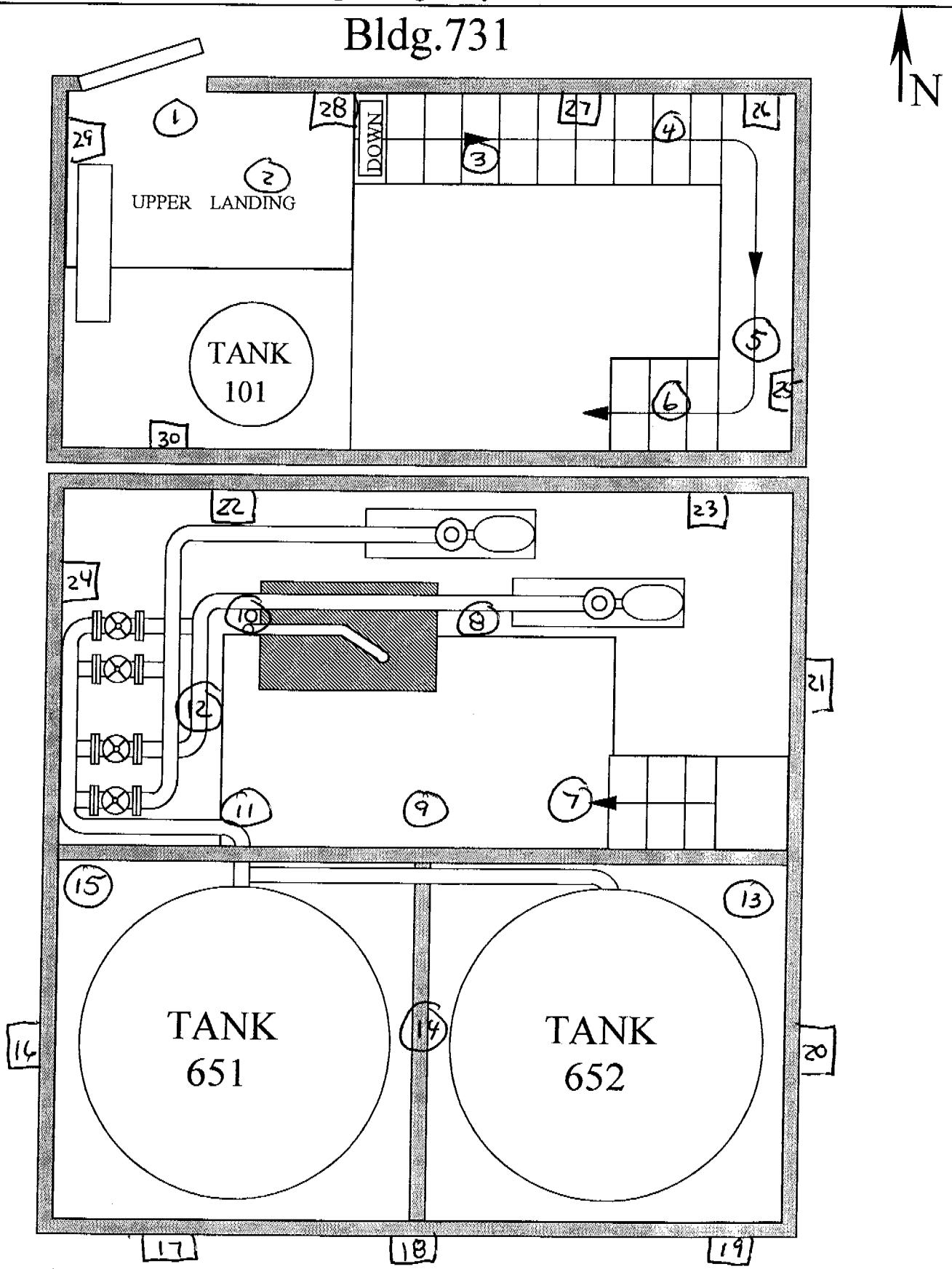
Date Reviewed: 5-8-00 **RS Supervision:** Allshouse [redacted]
Print Name Signature

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 2307
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 7-12-00
Bkg. 0.2 cpm	Bkg. 0.1 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 19.40%
MDA 12.9 DPM	MDA 11.5 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 833	Serial # 872	Serial #
Cal Due 7-14-00	Cal Due 4-12-00	Cal Due NA
Bkg. 42 cpm	Bkg. 42 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 100.3 DPM	MDA 100.3 DPM	MDA

Survey Type: Contamination
Building: 731
Location: Pit Survey Area CC
Purpose: Reconnaisance Level Characterization
RWP #
Date: 4-12-00 Time: 1600

[redacted]

Comments: Floor / Walls < 2 meters : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	F - tank 101	0	-4	108	16.				
2.	F - tank 101	0	-8	90	17.				
3.	F - ~~pipts~~ spc pipes	0	-4	24	18.				
4.	F - tank 651	0	-4	30	19.				
5.	F - tank 651	0	4	60	20.				
6.	F - tank 652	9	24	30	21.				
7.	F - tank 652	0	-16	54	22.				
8.	F - Valve	0	-20	36	23.	NA			
9.	F - Valve	0	-8	84	24.				
10.	F - Valve	0	-16	114	25.				
11.	F - pipes	9	0	96	26.				
12.	F - pipes	9	20	102	27.				
13.	END OF SURVEY				28.				
14.					29.				
15.					30.				

Date Reviewed: 5-8-00 **RS Supervision:** Allshouse / [signature] /
Print Name Signature

[redacted]

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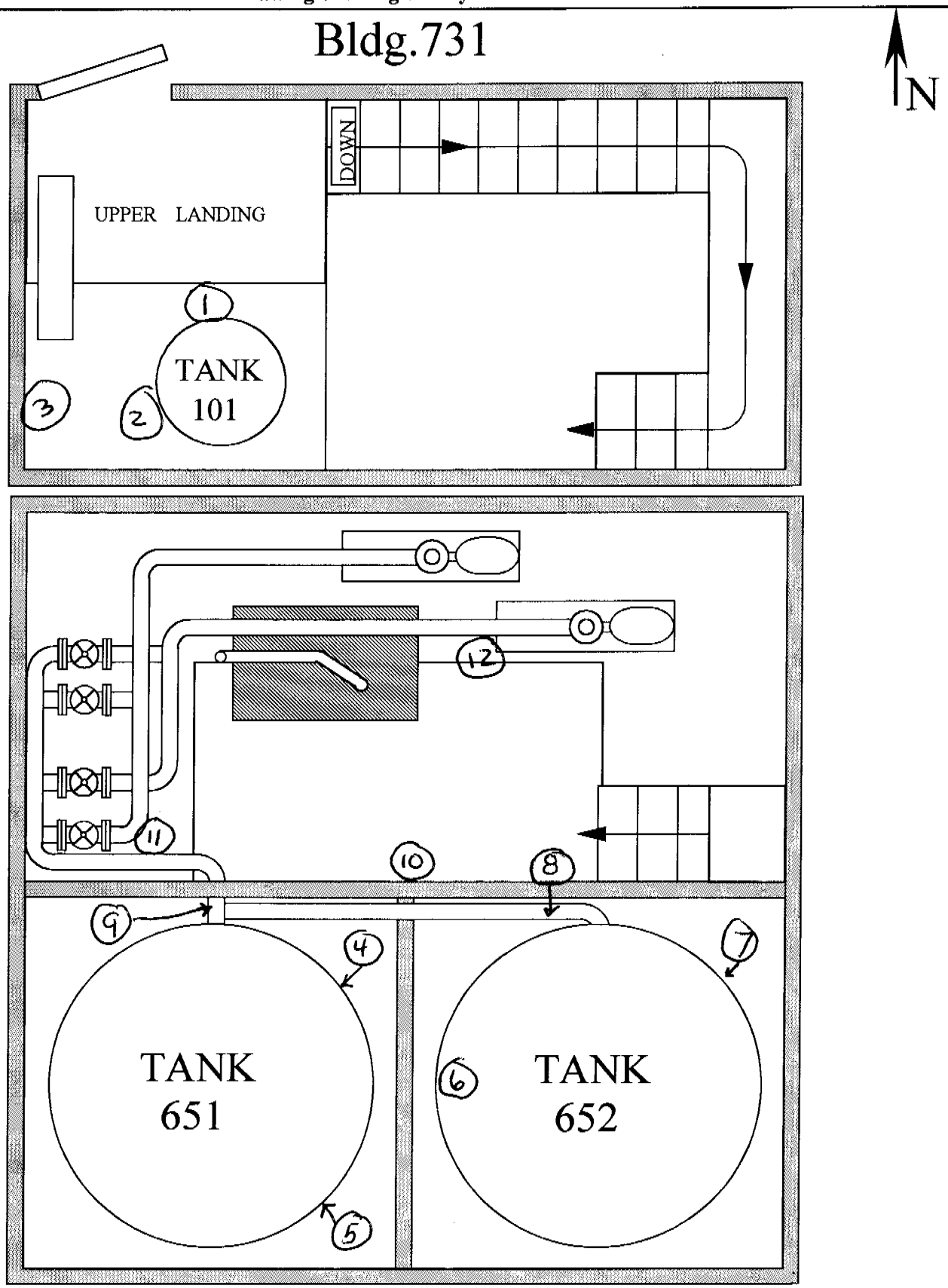
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1233
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 5-11-00
Bkg. 0.2 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 3265
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 7-3-00
Bkg. 40 cpm	Bkg. 45 cpm	Bkg. 1 cpm
Efficiency 25%	Efficiency 25%	Efficiency 17%
MDA 98.1 dpm	MDA 103.5 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 731

Location: Ceiling/walls >2m Survey Area CC

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-3-00 Time: 2200

[redacted]

Comments: Ceiling / Walls > 2 meters : Biased survey points.
1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	-4	24	16.	NA			
2.	See Map	3	-4	18	17.				
3.	See Map	0	-24	60	18.				
4.	See Map	6	-24	18	19.				
5.	See Map	0	-8	90	20.				
6.	See Map	3	12	24	21.				
7.	See Map	0	-16	18	22.				
8.	See Map	3	20	12	23.				
9.	See Map	0	-4	36	24.				
10.	See Map	6	-24	54	25.				
11.	End of Survey			NA	26.				
12.					27.				
13.					28.				
14.					29.				
15.	NA				30.				NA

Date Reviewed: 5-8-00 RS Supervision: Allshouse / [redacted]
Print Name Signature

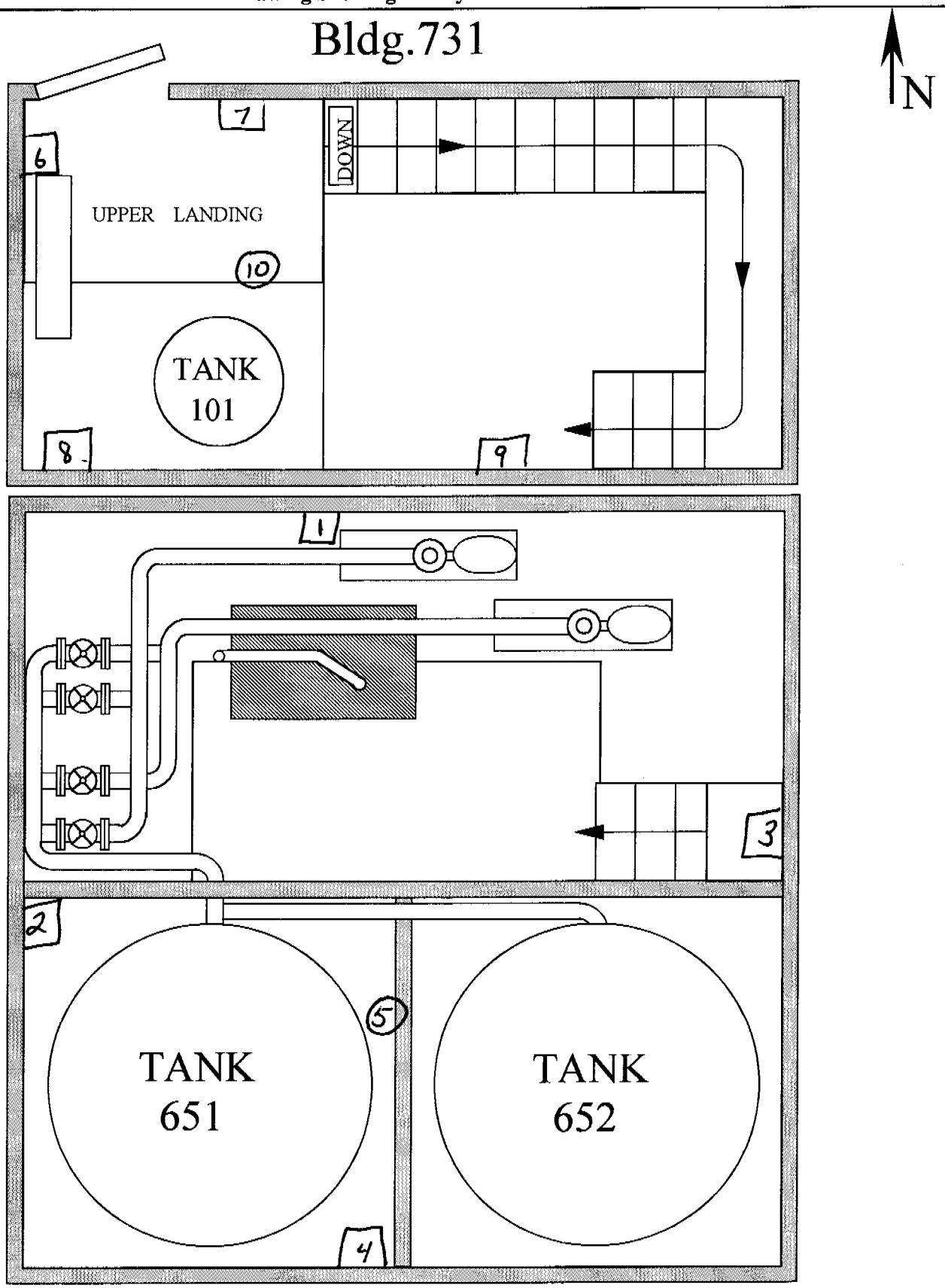
Rev. 02/00

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1233
Cal Due 8-15-00	Cal Due 8-27-00	Cal Due 5-11-00
Bkg. 0.2 cpm	Bkg. 0.4 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 dpm	MDA 14.8 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg. NeTech
Model BC-4	Model BC-4	Model Electra
Serial # 959	Serial # 833	Serial # 3265
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due 7-3-00
Bkg. 40 cpm	Bkg. 45 cpm	Bkg. 1 cpm
Efficiency 25%	Efficiency 25%	Efficiency 17%
MDA 98.1 dpm	MDA 103.5 dpm	MDA 94 dpm

Survey Type: **Contamination**

Building: 731

Location: 731 Equipment Survey Area CC

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-3-00 Time: 2200

[redacted]

Comments: Equipment : Biased survey points.
1 minute pats and swipes. See map for locations.
Area has alot of Fixed contamination posted with labels

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	See Map	0	-12	42	16.	See Map	0	32	42
2.	See Map	3	0	60	17.	See Map	0	24	24
3.	See Map	0	24	192	18.	See Map	3	8	60
4.	See Map	6	76	90	19.	See Map	0	-56	42
5.	See Map	0	-28	48	20.	See Map	9	12	300
6.	See Map	6	-4	180	21.	See Map	0	20	216
7.	See Map	0	-24	30	22.	See Map	3	-20	180
8.	See Map	0	-40	66	23.	See Map	0	-8	42
9.	See Map	3	20	144	24.	See Map	6	-40	192
10.	See Map	3	-28	60	25.	See Map	0	36	30
11.	See Map	18	-24	3162	26.	See Map	3	-12	60
12.	See Map	15	-4	342	27.	See Map	3	20	42
13.	See Map	0	48	180	28.	See Map	174	88	24
14.	See Map	3	0	18	29.	See Map	0	20	24
15.	See Map	0	-8	90	30.	See Map	0	-4	18

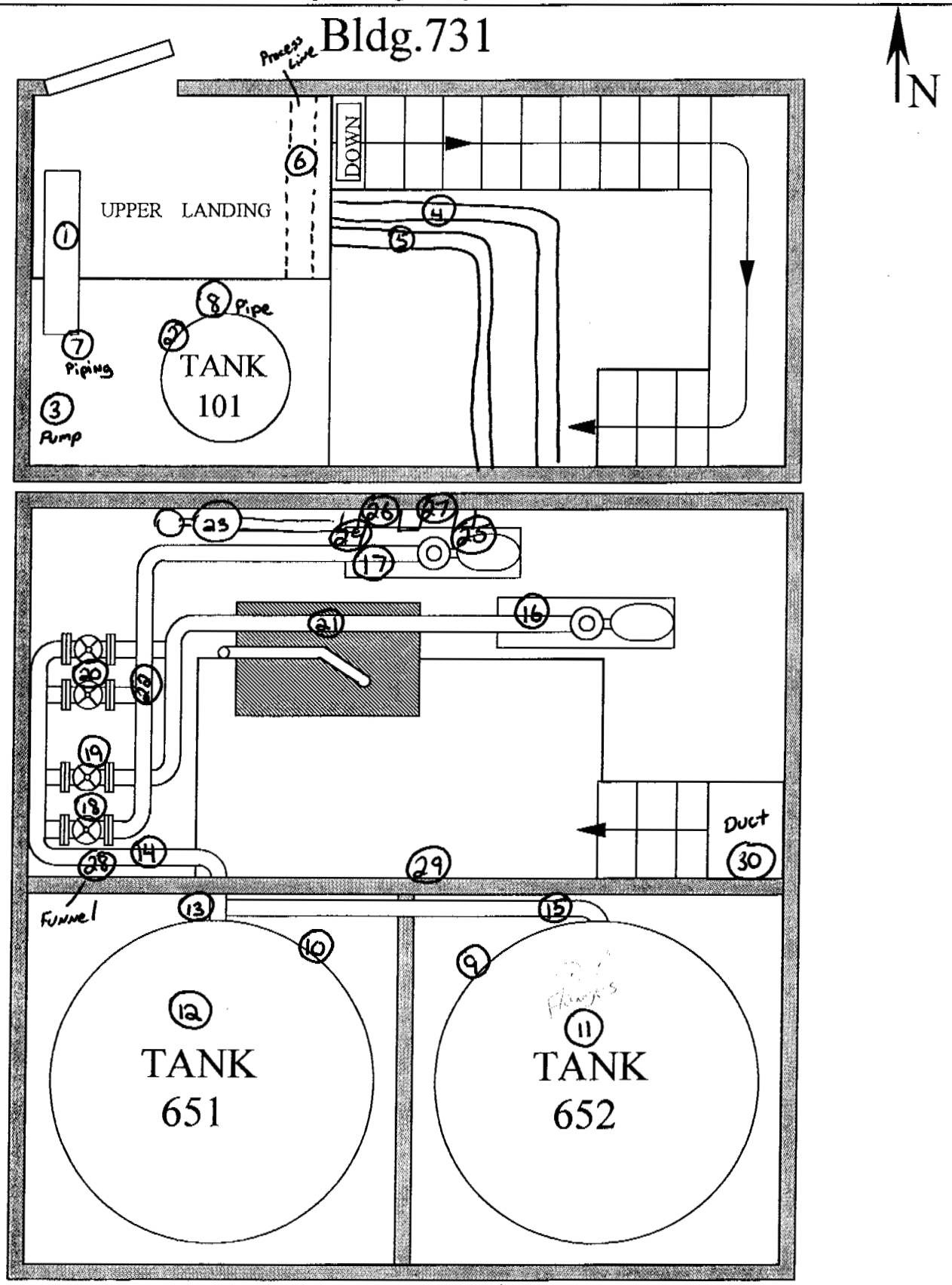
Date Reviewed: 5-8-00 **RS Supervision:** Allshouse [redacted]
Print Name Signature

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 00A1196

Project Name:	Kaiser-Hill	Chain-of-Custody Number:	00A1196#016	Matrix:	Waste
Site Sample ID:	042.002				
Other Sample ID:	Bldg 731 Basement	Collection Date:	5/3/00	Date Received:	5/5/00
		Batch Number:	1940	Laboratory Code:	SCA

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
ACW03	U-233/234	KH100-1940-01	0.138	0.098	0.102	0.077
ACW03	U-235	KH100-1940-01	0.036	0.074	0.074	0.125
ACW03	U-238	KH100-1940-01	0.487	0.184	0.208	0.076
ACW03	PU-238	KH100-1940-01	1.09	0.297	0.369	0.087
ACW03	PU-239/240	KH100-1940-01	53.6	7.19	12.9	0.106
ACW03	AM-241	KH100-1940-01	8.41	1.46	2.23	0.052

1000 Monticello Court * Montgomery, Alabama * 36117 * 334.272.2234 * FAX 334.213.0407

CAS SAMPLE REQUEST WORKSHEET

RIN: 00A1196
EVENT: 042
DUPLICATE ID: N/A
ISSUE DATE: ~~5/3/00~~ 5/3/00 4/21/00

WASTE STREAM ID: 336
CUSTOMER SAMPLE ID: 707-P-42-00
FIELD BLANK ID: N/A
EQUIPMENT BLANK ID: ↓
TRIP BLANK: ↓

Comments/Problems encountered during sampling: Radscreen - 2 grams / 25 cm² (1/4 grid). FS0 - 7 grams / 150 cm² (1 1/2 grids) Total - 9 grams / ~~200~~ 175 cm² (1 3/4 grids). Kinate is event. 063

Location Description: Bldg. 731, lowest level, just outside of CAS near a process drain.

Other ID: 707-P-42-00

Sample Appearance: Gray paint scrapings with a pink tint on bottom side

Sampling Device: Heat gun + Chisel

Sample Date: 5/3/00 Sample Time: 10:15 Rad Screen Date: 5/3/00

Was generator notified to receive excess sample? (YES) X (NO) ____

Samplers Signatur[redacted]
Employee Number[redacted]

Date: 5/3/00 5/3/00

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H-2
RLC RADIOLOGICAL DATA
Survey Area JJ
Bldg 731, Roof/Exterior

T13

Radiological Survey/Sample Results for Survey Area JJ (99-0002)

Total Surface Activity Measurements dpm/100 cm^2

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	18	N/A
MAX	216	N/A
MEAN	91.8	N/A
STD DEV	45.2	N/A
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	5	5
MIN	24	N/A
MAX	60	N/A
MEAN	42.0	N/A
STD DEV	17.0	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm^2

	Alpha	Beta
Roof/Ext. Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-44
MAX	9	64
MEAN	0.9	12.8
STD DEV	2.1	28.5
Roof/Ext. Walls < 2 m Biased	# Required	# Obtained
	5	5
MIN	0	-20
MAX	6	20
MEAN	1.8	-4
STD DEV	2.7	18.8
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm^2

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm^2

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 6.0 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 8.2 DPM	MDA 12.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial # N/A
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due
Bkg. 38 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 95.9 DPM	MDA 101.3 DPM	MDA

Survey Type: **Contamination**
Building: **731**
Location: Roof - Wall Survey Area JJ
Purpose: **Reconnaisance Level Characterization**
RWP #
Date: 4-7-00 Time: 1200

[redacted]

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

2 - backgrounds #1 (1cpm) #2 (4 cpm)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	Roof	3	44	120	16.	Wall	0	4	138
2.	Roof	0	-40	108	17.	Wall	3	16	42
3.	Roof	3	64	66	18.	Wall	0	-28	66
4.	Roof	0	36	42	19.	Wall	0	40	84
5.	Roof	0	44	102	20.	Wall	0	-12	78
6.	Roof	9	-28	66	21.	Wall	0	0	42
7.	Roof	0	-12	90	22.	Roof	0	-16	180
8.	Roof	0	24	120	23.	Roof	0	-44	216
9.	Roof	0	0	78	24.	Roof	3	12	138
10.	Roof	0	56	132	25.	Roof	0	16	48
11.	Roof	6	40	48	26.	Roof	0	0	144
12.	Wall	0	12	72	27.	Roof	0	-16	132
13.	Wall	0	40	42	28.	Roof	0	40	96
14.	Wall	0	28	66	29.	Roof	0	32	114
15.	Wall	0	20	18	30.	Roof	0	12	66

Date Reviewed: 4-17-00 **RS Supervision:** Shumlick, [illegible]
Print Name Signature

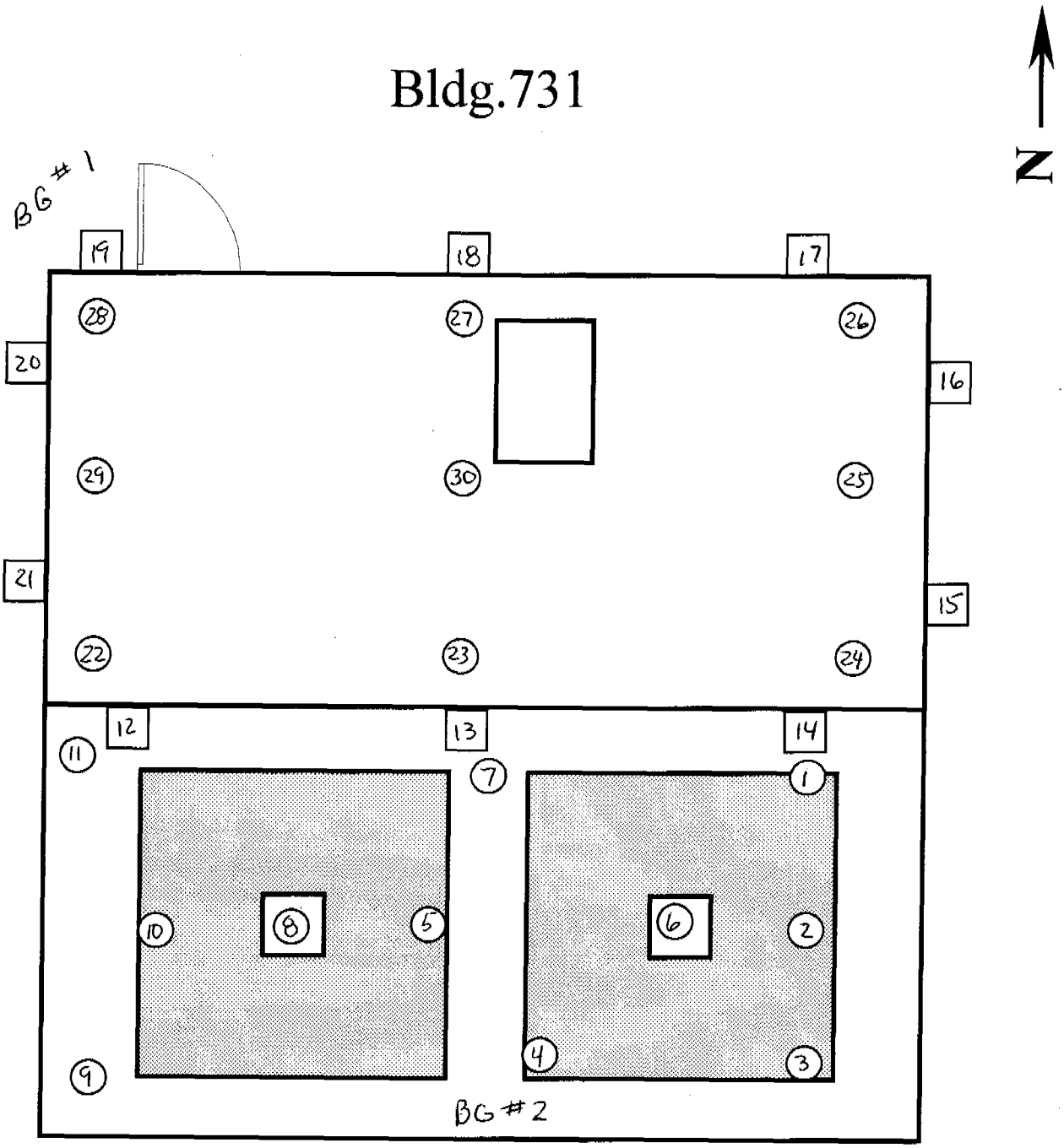
[redacted]

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Note: This half is at ground level.

776

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1270	Serial # 1233
Cal Due 8-15-00	Cal Due 4-12-00	Cal Due 5-11-00
Bkg. 0.0 cpm	Bkg. 0.2 cpm	Bkg. 2.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 20.63%
MDA 8.2 DPM	MDA 12.9 DPM	MDA 94 DPM
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 872	Serial # 833	Serial #
Cal Due 4-12-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 38 cpm	Bkg. ~~7-15~~ 4-7-00 - 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 95.9 DPM	MDA 101.3 DPM	MDA

Survey Type: **Contamination**

Building: **731**

Location: Roof / Wall Survey Area JJ

Purpose: **Reconnaisance Level Characterization**

RWP #

Date: 4-7-00 Time: 1500

[redacted]

Comments: Roof / Exterior Walls : Biased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)	Removable Alpha	Removable Beta	Total Alpha
1.	under duct	0	-20	24	16.				
2.	Elect. conduit	0	-12	60	17.				
3.	duct	6	20	60	18.				
4.	vent	0	-20	36	19.				
5.	Elect. conduit	3	12	30	20.				
6.	END OF SURVEY				21.				
7.					22.				
8.					23.	N/A			
9.					24.				
10.	N/A				25.				
11.					26.				
12.					27.				
13.					28.				
14.					29.				
15.					30.				

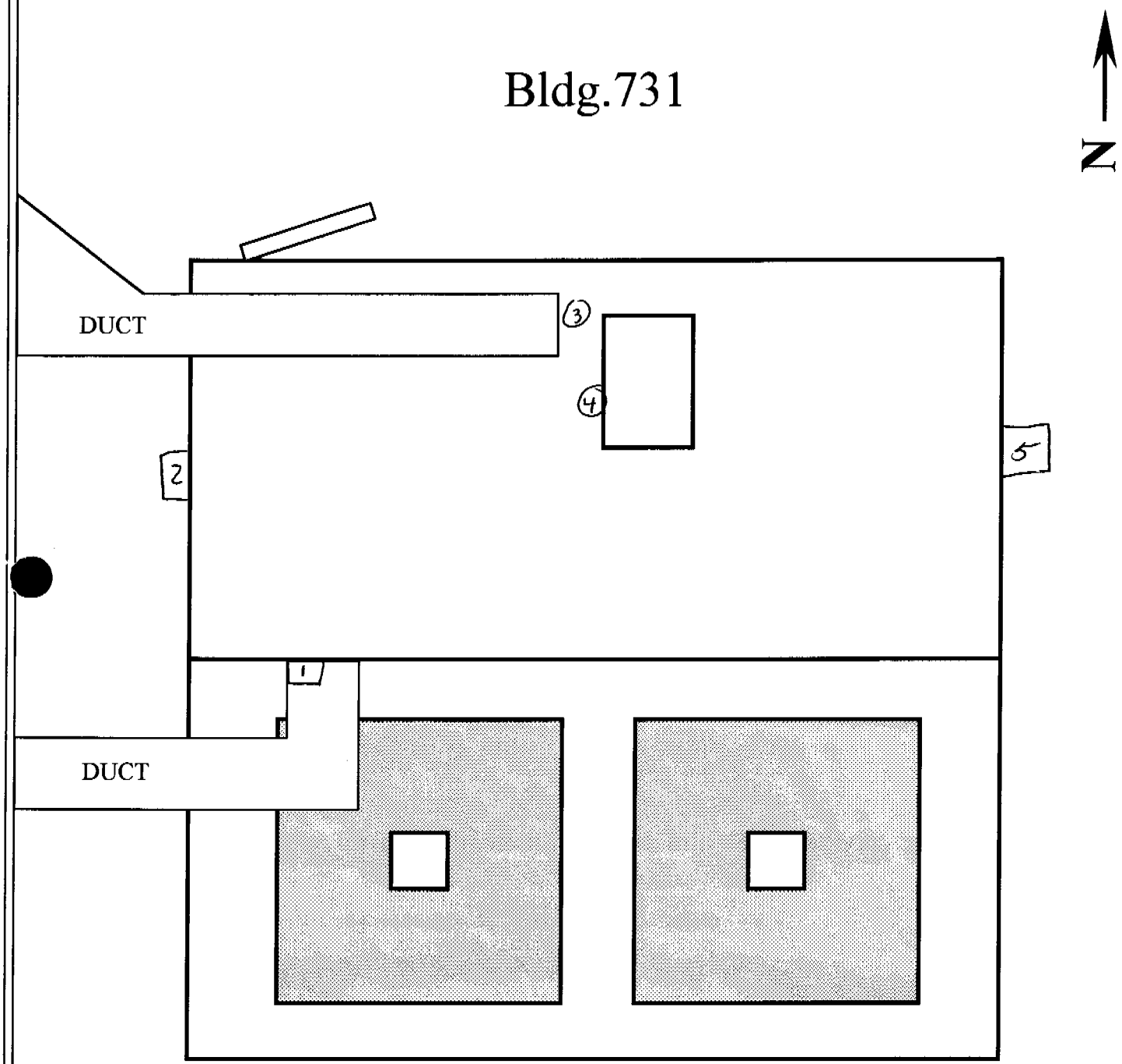
Date Reviewed: 4-17-00 **RS Supervision:** Stuckat [illegible] [redacted]
Print Name Signature

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Note: This half is at ground level.

778

I-1
RLC CHEMICAL DATA

779

Building 732

ASBESTOS INSPECTOR'S REPORT

Building 732 could not be inspected because it is a high airborne radioactive area.

I-2

RLC RADIOLOGICAL DATA

Survey Area E

Bldg 732, Pit Interior

181

I-2

RLC RADIOLOGICAL DATA

Survey Area F

Bldg 732, Pit Exterior/Roof

782

Radiological Survey/Sample Results for Survey Area F (2000-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	18	N/A
MAX	174	N/A
MEAN	88.6	N/A
STD DEV	41.1	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	30	30
MIN	0	-40
MAX	6	52
MEAN	0.5	-4.8
STD DEV	1.4	20.3
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

783

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 32260
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 7-17-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 1.0 cpm
Efficiency 33%	Efficiency 33%	Efficiency .20
MDA 12.9 dpm	MDA 13.9 dpm	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due N/A
Bkg. 40 cpm	Bkg. 43 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 98.1 dpm	MDA 101.3 dpm	MDA

Survey Type: **Contamination**

Building: **732**

Location: 732 PIT Exterior/Roof Survey Area F

Purpose: **Reconnaisance Level Characterization**

RWP # 00-707-1204

Date: 5-3-00 Time: DAYS

[redacted]

Comments: Roof / Exterior Walls < 2 meters : Unbiased survey points.
1 m² scans, 1 minute pats and swipes. See map for locations.

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm²)		Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm²)		Removable Alpha	Removable Beta	Total Alpha
1.	Roof/Exterior Walls<2m		0	-8	42	16.	Roof/Exterior Wall <2m		0	-24	60
2.			0	52	36	17.			0	4	42
3.			0	-24	72	18.			0	0	18
4.			6	-36	30	19.			0	16	114
5.			0	-8	54	20.			0	16	156
6.			3	12	54	21.			0	-20	174
7.			0	-12	78	22.			0	-28	102
8.			3	-28	102	23.			0	-16	144
9.			0	0	60	24.			0	20	120
10.			0	-8	96	25.			0	-28	90
11.			0	-20	84	26.			0	4	108
12.			3	0	84	27.			0	8	84
13.			0	24	90	28.			0	8	156
14.			0	0	54	29.			0	8	150
15.	see map		0	-16	72	30.	see map		0	-40	132

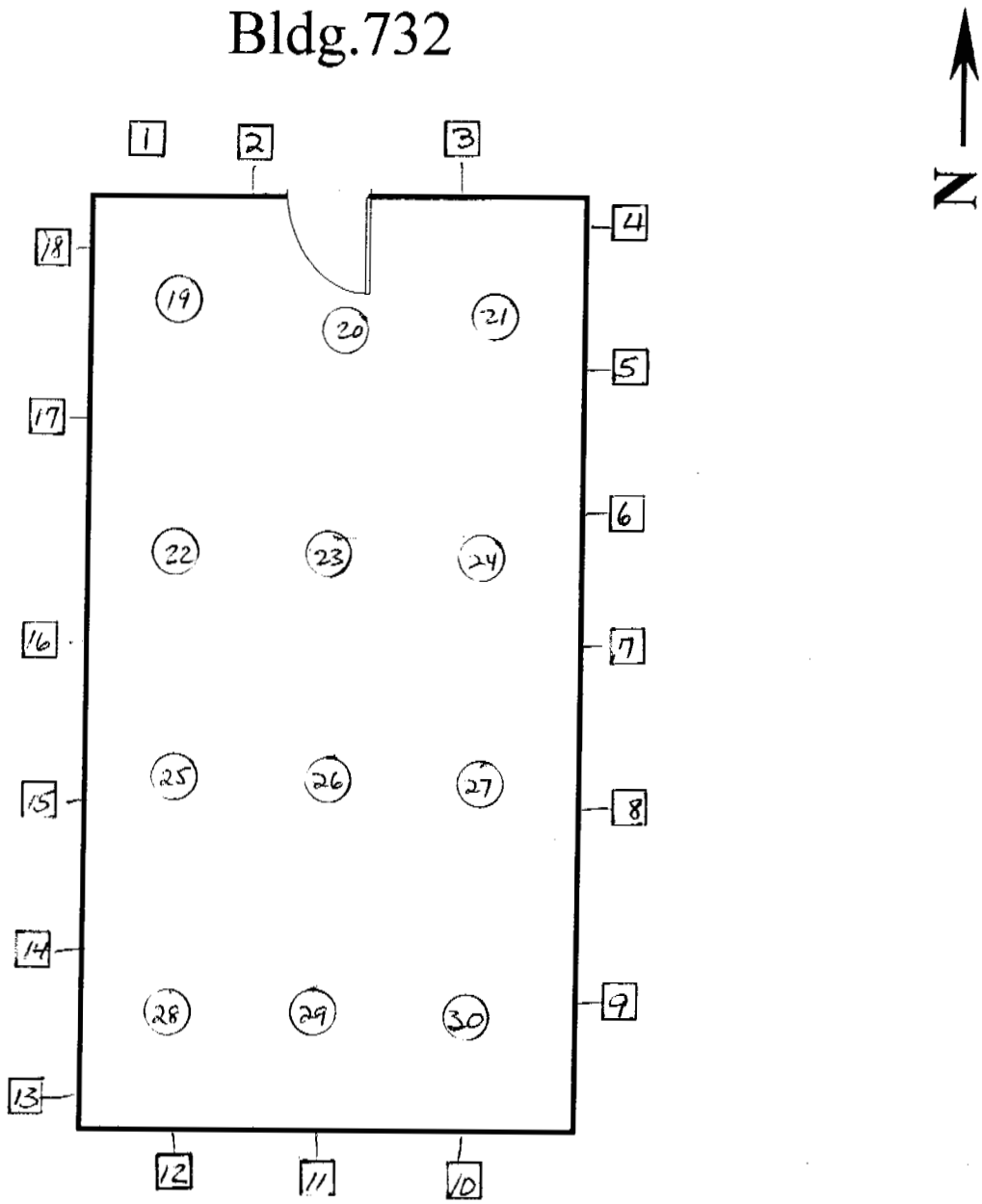
Date Reviewed: 5-3-00 **RS Supervision:** Stuckat / [signature] / [redacted]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Bldg.732



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J-2

RLC RADIOLOGICAL DATA

Survey Area DD

Tanks T-206, T-208, T-209-221, T-223, T-290, T-324, T325

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Radiological Survey/Sample Results for Survey Area DD (99-0002)

Total Surface Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	44	38
MIN	18	N/A
MAX	90	N/A
MEAN	44.4	N/A
STD DEV	16.1	N/A
$DCGL_W$	100	5000

Removable Activity Measurements dpm/100 cm²

	Alpha	Beta
Floors/Walls < 2 m Unbiased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Floors/Walls < 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Ceilings/Walls > 2 m Biased	# Required	# Obtained
	N/A	N/A
MIN	N/A	N/A
MAX	N/A	N/A
MEAN	N/A	N/A
STD DEV	N/A	N/A
Equipment Biased	# Required	# Obtained
	44	38
MIN	0	-42
MAX	6	84
MEAN	1.3	8.7
STD DEV	1.9	26.4
$DCGL_W$	20	1000

Media Sample Activity

# Required	# Obtained
N/A	N/A

Total Uranium Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	5000

Total Transuranic Results dpm/100 cm²

MIN	N/A
MAX	N/A
MEAN	N/A
STD DEV	N/A
$DCGL_W$	100

 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. NeTech.
Model Sac-4	Model Sac-4	Model Electra
Serial # 846	Serial # 1054	Serial # 1518
Cal Due 8-15-00	Cal Due 8-23-00	Cal Due 6-29-00
Bkg. 0.2 cpm	Bkg. 0.3 cpm	Bkg. 0 cpm
Efficiency 33%	Efficiency 33%	Efficiency 17%
MDA 12.9 ~~20~~ dpm 9.2 5-1-00	MDA 13.9 ~~20~~ dpm 9.1 5-1-00	MDA 94 dpm
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # 959	Serial # 833	Serial #
Cal Due 7-19-00	Cal Due 7-14-00	Cal Due
Bkg. 40 cpm	Bkg. 36 cpm	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 98.1 dpm	MDA 93.7 dpm	MDA

Survey Type: Contamination
Building: Exterior 707 Tanks
Location: Various Tanks Survey Area DD
Purpose: Reconnaisance Level Characterization

RWP # 00-707-1204

Date: 5-1-00 Time: 1630

[redacted]

Comments: Equipment : Biased survey points. T-290 tank & piping underground & inaccessible (Also IH contain). 1 minute pats and swipes. See map for locations. T-324, T-325 not found - unable to locate - assume underground tanks or they were taken off site. Did do T-711 Diesel tank. (not on list)

SURVEY RESULTS

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
1.	T-223	0	0	42	16.	T-214 piping	0	-12	18
2.	T-223 piping	0	36	36	17.	T-215	0	8	24
3.	T-16	0	-36	48	18.	T-215 piping	3	56	36
4.	T-16 piping	0	-16	36	19.	T-216	0	16	42
5.	T-209	3	28	90	20.	T-216 piping	3	12	72
6.	T-209 piping	3	12	48	21.	T-217	6	-36	42
7.	T-210	0	16	48	22.	T-217 piping	0	16	54
8.	T-210 piping	3	40	36	23.	T-218	0	-8	30
9.	T-211	0	20	42	24.	T-218 piping	6	-4	30
10.	T-211 piping	3	52	48	25.	T-219	0	16	36
11.	T-212	3	12	60	26.	T-219 piping	0	12	48
12.	T-212 piping	0	8	36	27.	T-220	0	-4	18
13.	T-213	0	-42	48	28.	T-220 piping	0	32	48
14.	T-213 piping	3	-4	42	29.	T-221	3	-36	36
15.	T-214	0	-4	36	30.	T-221 piping	0	4	42

Date Reviewed: 5-2-00 RS Supervision: Shunkraft [redacted]
Print Name Signature

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 RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha	Swipe #	Location\Description (Results in DPM/100cm^2)	Removable Alpha	Removable Beta	Total Alpha
31.	T- 284	0	44	18	61.	NA			
32.	T- 284 piping	3	84	36	62.				
33.	T1 208	0	16	48	63.				
34.	T- 208 piping	0	-4	78	64.				
35.	T-206	0	-16	66	65.				
36.	T-206 piping	6	0	42	66.				
37.	T-711	3	-4	78	67.				
38.	T-711 piping	0	16	48	68.				
39.	END OF SURVEY			NA	69.				
40.					70.				
41.					71.				
42.					72.				
43.					73.				
44.					74.				
45.					75.				
46.					76.				
47.					77.				
48.					78.				
49.					79.				
50.					80.				
51.					81.				
52.					82.				
53.					83.				
54.					84.				
55.					85.				
56.					86.				
57.					87.				
58.					88.				
59.					89.				
60.	NA				90.				NA