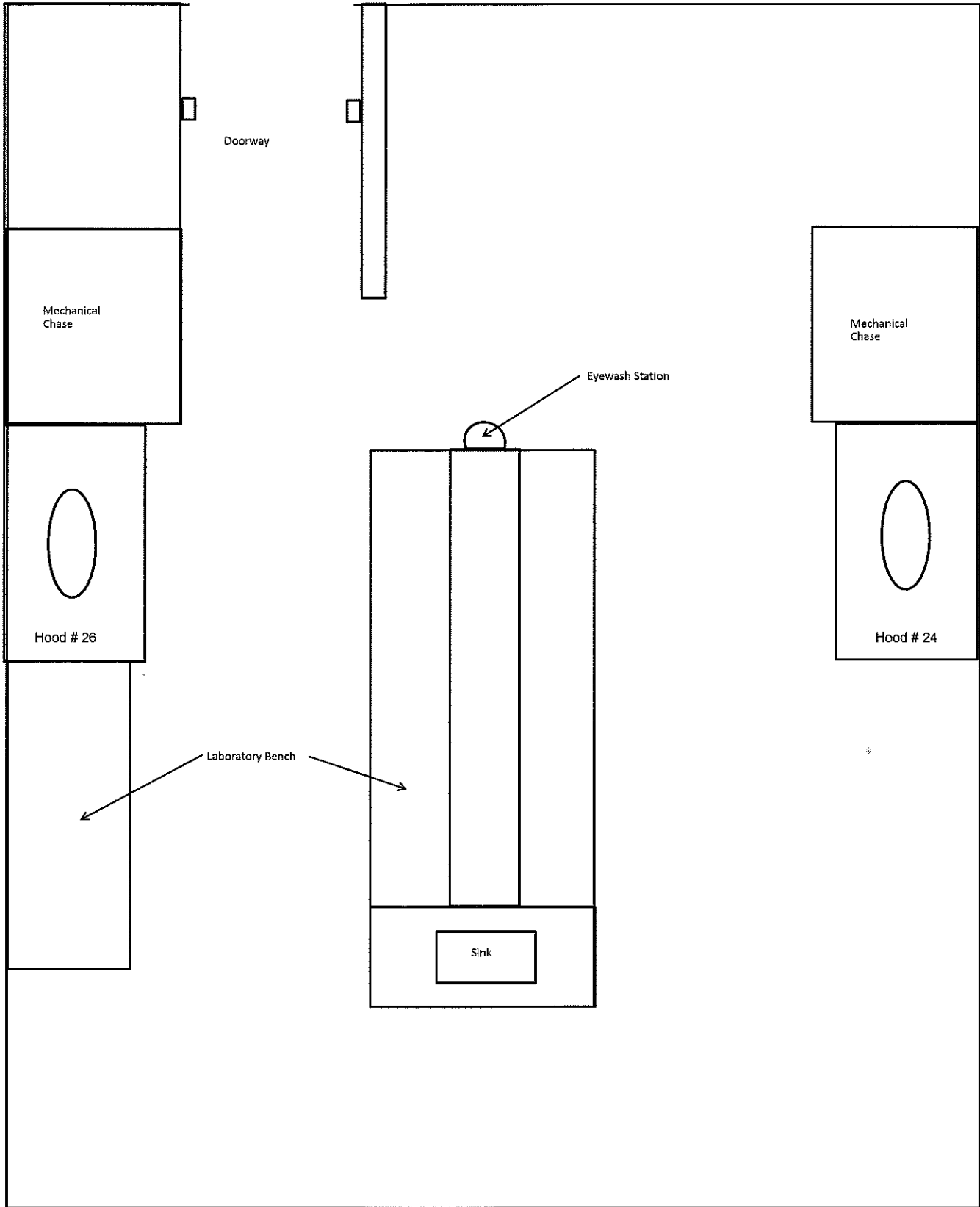


**Room 1223 Scoping Survey**

**Contents**

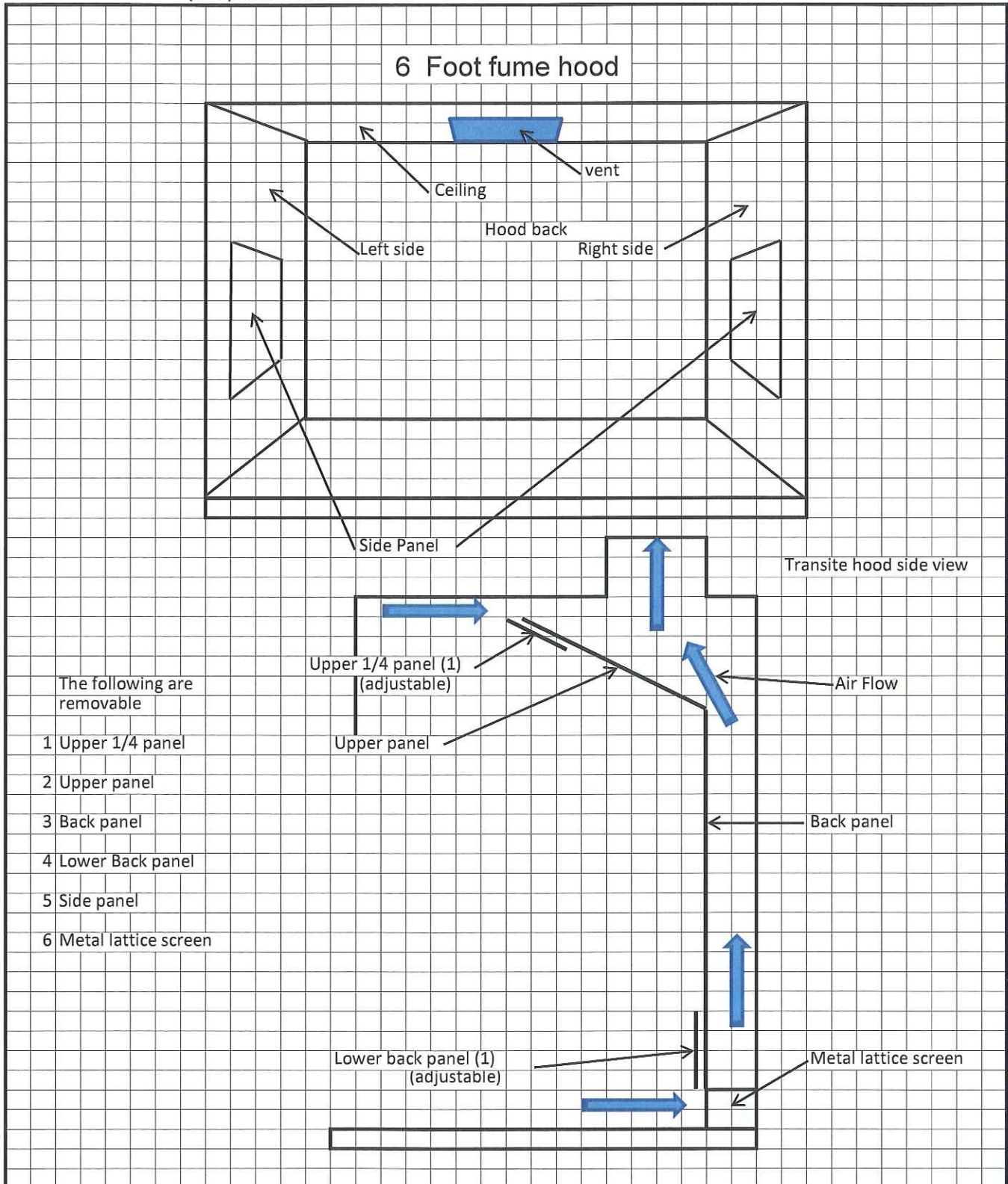
Page	
2	Floor Plan
3	Drawing of a typical 6-foot fume hood
4	Wipe test data for Hood 24
5	Wipe test data for Hood 26



Floor Plan Room 1223

RADIATION SAFETY ASSOCIATES

19 Pendleton Drive  
 Hebron, CT 06248  
 (860) 228-0487



**RSA Laboratories**  
 A Division of Radiation Safety Associates  
**Radiochemistry Analysis Data Sheet**

Page 1 of 1

Report No. **N/A**

Customer: **Chemtura**

Customer Samp No. **N/A**

Location: **1223 Hood 24**

RSA Lab Sample No. **N/A**

Project: **Lab Decommissioning**

Date Collected: **3/9/2011**

Samp. Description: **Survey Wipes**

Date Counted: **3/9/2011**

Matrix: **Wipes**

**C-14 LLD dpm= 45.13**

RSA ID#	CUST. ID#	Location	C-14 CPM	dpm/100 cm sq
	BG	BACKGROUND	44.80	
1		Left Side	6.70	7.30
2		Hood Back Upper Left	9.70	10.60
3		Hood Back Upper Right	15.80	17.30
4		Hood Back Lower Left	19.90	21.70
5		Hood Back Lower Right	8.60	9.40
6		Right Side	3.70	4.00
7		Counter Left	14.50	15.90
8		Counter Right	14.00	15.40
9		Sill	12.70	13.90
10		Ceiling Left	18.60	20.30
11		Ceiling Right	9.60	10.50
12		Glass Left	9.10	10.00
13		Glass Right	10.30	11.20
14		Back Front	7.90	8.60
15		Back Back	10.30	11.30
16		Lower Back Front	22.00	24.00
17		Lower Back Back	33.20	36.00
18		Upper Panel Back	15.30	316.70
19		Upper Panel Front	15.80	17.20
20		Upper 1/4 Panel Front	17.40	19.00
21		Upper 1/4 Panel Back	16.30	17.90
22		Left Cover	13.10	14.30
23		Right Cover	19.40	21.20
C-14		QC C-14	117492.40	1330166.00
24		Screen	28.40	32.40
BL		QC Blank	23.40	25.50

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**Radiochemistry Analysis Data Sheet**

Page 1 of 1

Report No. **N/A**Customer: **Chemtura**Customer Samp No. **N/A**Location: **1223 Hood 26**RSA Lab Sample No. **N/A**Project: **Lab Decommissioning**Date Collected: **3/9/2011**Samp. Description: **Survey Wipes**Date Counted: **3/9/2011**Matrix: **Wipes****C-14 LLD dpm= 39.35**

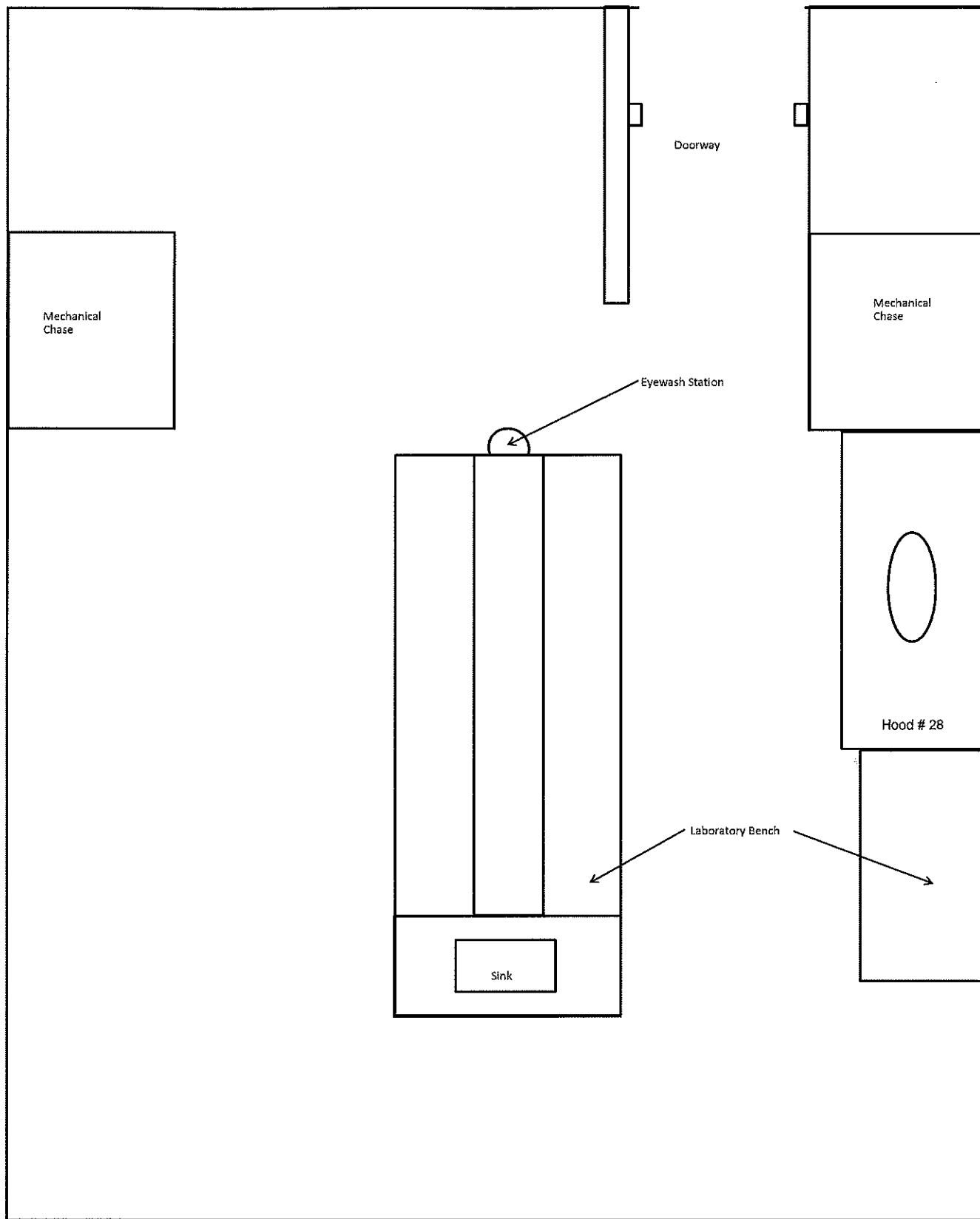
RSA ID#	CUST. ID#	Location	C-14 CPM	dpm/100 cm sq
	BG	BACKGROUND	33.20	
1		Left Side	7.90	8.60
2		Hood Back Upper Left	19.50	21.30
3		Hood Back Upper Right	13.90	15.10
4		Hood Back Lower Left	14.40	15.70
5		Hood Back Lower Right	21.50	23.50
6		Right Side	20.30	22.20
7		Counter Left	19.70	21.60
8		Counter Right	17.80	19.50
9		Sill	0.00	0.00
10		Ceiling Left	15.40	16.90
11		Ceiling Right	13.10	14.30
12		Glass Left	9.10	10.00
13		Glass Right	19.80	21.60
14		Back Panel Front	7.80	8.50
15		Back Panel Back	16.70	18.30
16		Lower Back Front	20.90	22.80
17		Lower Back Back	0.00	0.00
18		Upper Panel Front	14.90	16.30
19		Upper Panel Back	16.00	17.50
20		Upper 1/4 Front	23.30	25.40
21		Upper 1/4 Back	12.10	13.20
22		Right Cover	23.20	25.20
23		Left Cover	15.20	16.50
C-14		QC C-14	122807.00	135488.70
24		Screen	18.90	20.70
BL		QC Blank	19.30	21.00

**Room 1224 Scoping Survey**

**Contents**

Page

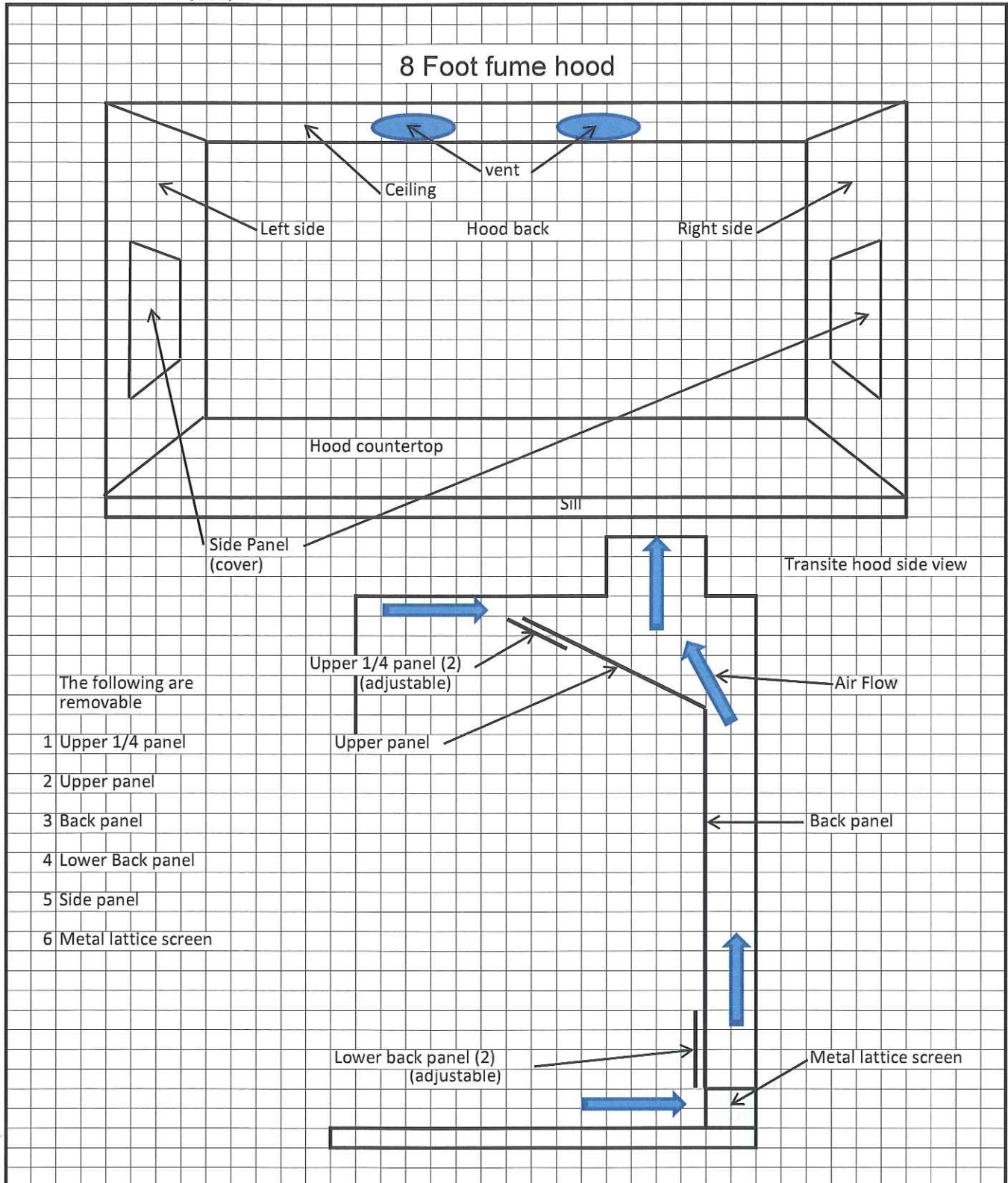
- 2 Floor Plan
- 3 Drawing of a typical 8-foot fume hood
- 4 Wipe test data for Hood 28



Floor Plan Room 1224

RADIATION SAFETY ASSOCIATES

19 Pendleton Drive  
 Hebron, CT 06248  
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**RSA Laboratories**  
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**Radiochemistry Analysis Data Sheet**

Page 1 of 1

Report No. **N/A**Customer Samp No. **N/A**RSA Lab Sample No. **N/A**Date Collected: **3/9/2011**Date Counted: **3/9/2011****C-14 LLD dpm= 35.18**Customer: **Chemtura**Location: **1224 Hood 28**Project: **Lab Decommissioning**Samp. Description: **Survey Wipes**Matrix: **Wipes**

RSA ID#	CUST. ID#	Location			C-14 CPM	dpm/100 cm sq
	BG	BACKGROUND			25.90	
1		Left Side			12.90	14.00
2		Hood Back Left Upper			23.10	25.10
3		Hood Back Right Upper			1.30	1.50
4		Hood Back Left Lower			5.10	5.60
5		Hood Back Right Lower			39.00	42.50
6		Right Side			9.30	10.10
7		Left Counter			4.00	4.40
8		Right Counter			13.10	14.30
9		Sill			14.80	16.50
10		Left Ceiling			2.80	3.00
11		Right Ceiling			13.70	15.00
12		Left Glass			29.20	31.80
13		Right Glass			10.50	11.40
14		Screen			5.50	6.20
15		Back Panel Left Front			19.50	21.30
16		Back Panel Left Back			13.50	14.80
17		Back Panel Right Front			21.80	23.80
18		Back Panel Right Back			16.40	18.00
19		Lower Back Left Front			16.40	17.90
20		Lower Back Left Back			8.90	9.70
21		Lower Back Right Front			22.30	24.40
22		Lower Back Right Back			13.40	14.70
23		Upper Panel Left Front			12.30	13.40
C-14		QC C-14			106892.00	133548.20
24		Upper Panel Left Back			22.20	24.30
25		Upper Panel Right Front			17.90	19.50
26		Upper Panel Right Back			22.40	24.50
27		Left 1/4 Panel Front			9.40	10.30
28		Left 1/4 Panel Back			16.00	17.50
29		Right 1/4 Panel Front			14.70	16.10
30		Right 1/4 Panel Back			7.00	7.60
31		Left Cover			15.10	16.50
32		Right Cover			19.10	20.90
BL		QC Blank			16.00	17.50

**Walk-In Freezer Scoping Survey**

**Contents**

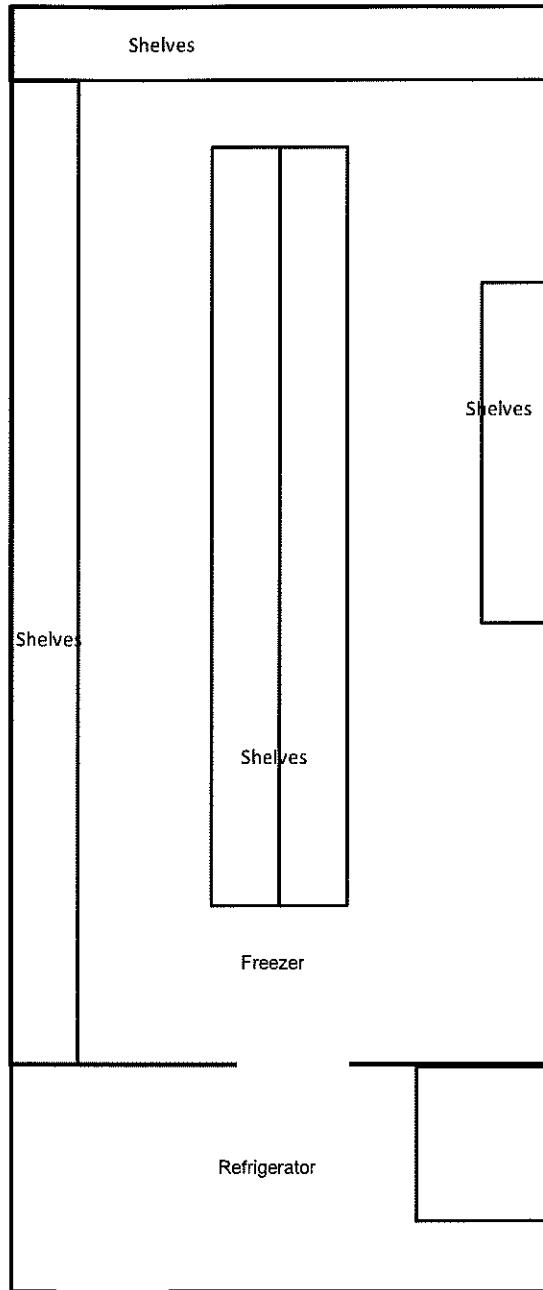
Page	
2	Informational Note
3	Floor Plan
4-5	Wipe test locations
6	Wipe test data
7	Direct survey locations
8	Direct survey results

### NOTE

An extensive scoping survey was performed in the walk-in freezer. This set of sample and direct measurement results was used as the Final Status Survey for the following reasons:

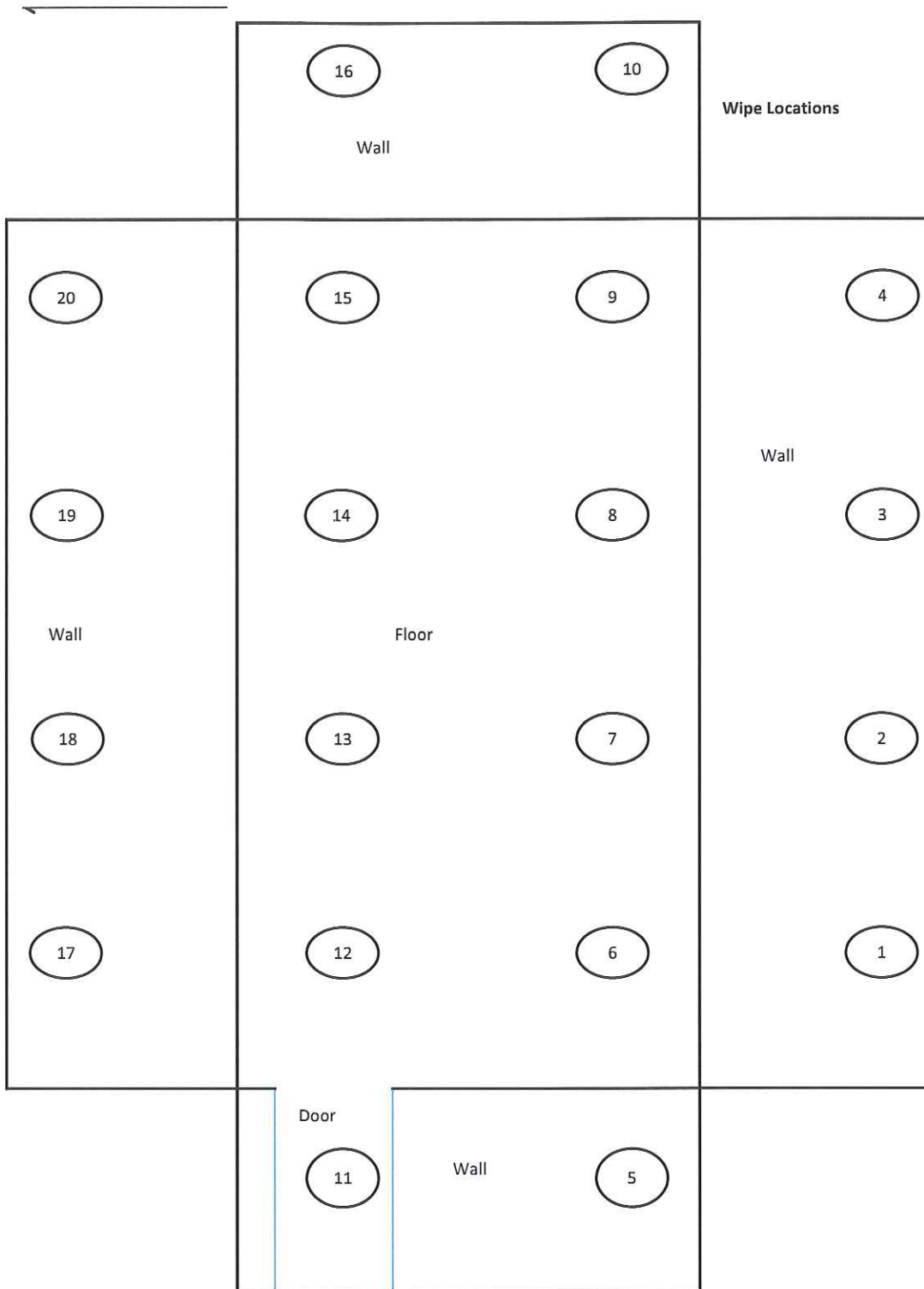
1. No significant contamination was found;
2. The size of the freezer was less than 500 ft<sup>2</sup>, which is a small fraction of the maximum area suggested by MARSSIM for a Class 3 area;
3. The sample density (i.e., samples or measurements per unit area) was very large compared to the MARSSIM Class 3 area divided by the 14-18 samples suggested by ResRad to be taken in this larger area.

Survey Unit 6 Walk-In Freezer

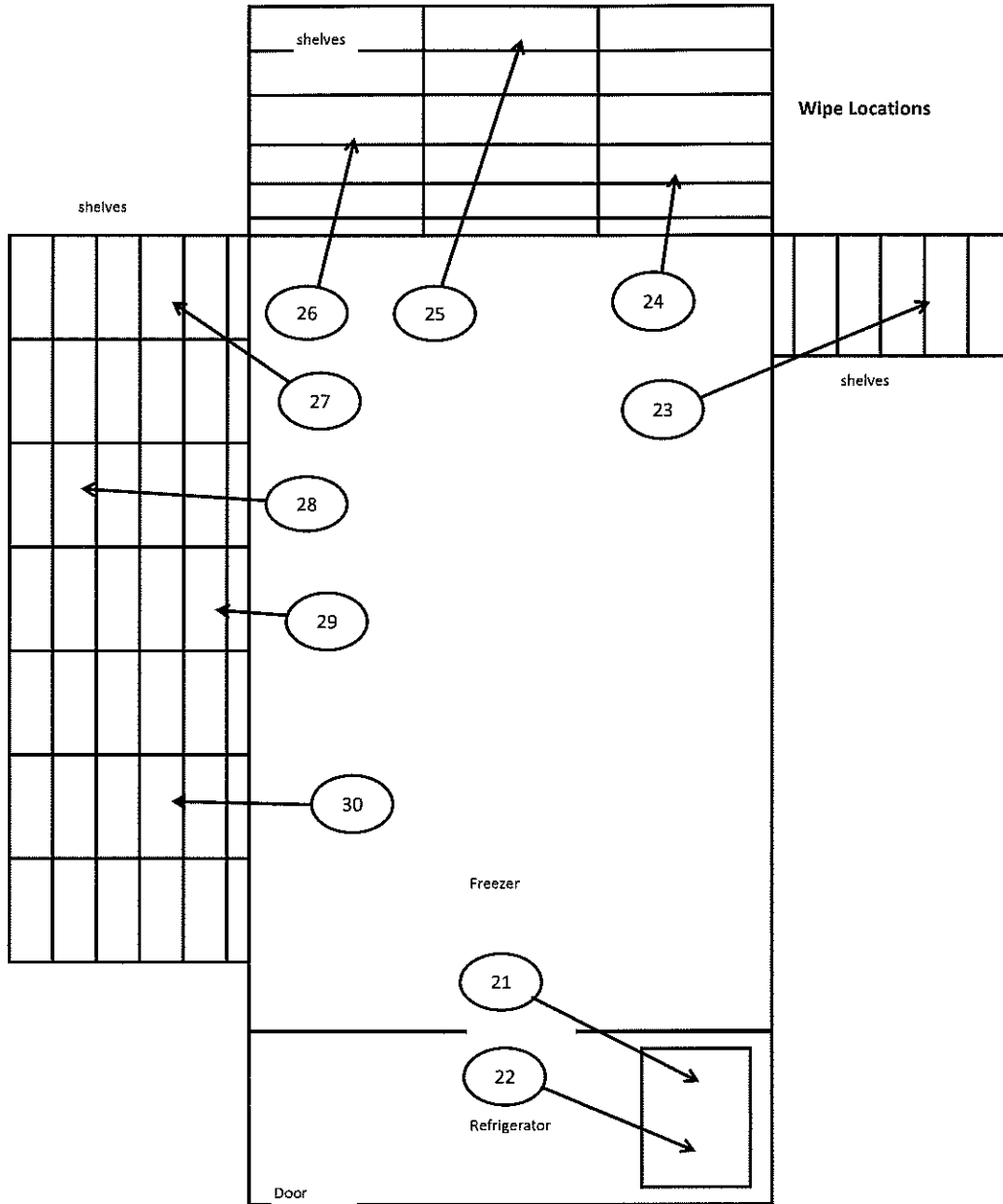


Survey Unit 6

Walk-in Refrigerator/Freezer



walk in refrigerator/freezer



walk in refrigerator/freezer

**RSA Laboratories**  
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**Radiochemistry Analysis Data Sheet**

Page 1 of 1

Report No. **N/A**Customer: **Chemtura**Customer Samp No. **N/A**Location: **Survey Unit 4**RSA Lab Sample No. **N/A**Project: **Lab Decommissioning**Date Collected: **5/3/2011**Samp. Description: **FS Wipes**Date Counted: **5/3/2011**Matrix: **Wipes****C-14 LLD dpm= 39.94**

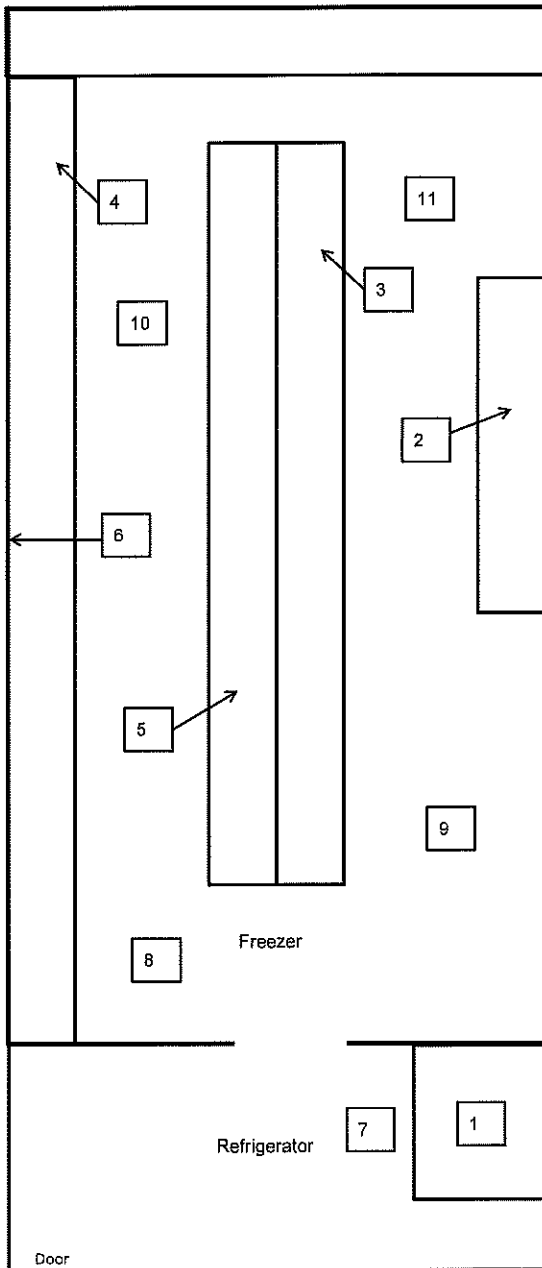
RSA ID#	CUST. ID#	Location	C-14 CPM	dpm/100 cm sq
	BG	BACKGROUND	34.30	
1		Room 1207 Wall	9.30	10.10
2		Room 1207 Countertop	17.60	19.10
3		Room 1207 Shelf	64.70	71.40
4		Room 1207 Wall	9.00	9.80
5		Drawer 224	55.90	61.50
6		Drawer 268	45.60	49.60
7		Drawer 265	28.30	30.90
8		Drawer 245	43.80	47.60
9		Drawer 240	13.30	14.40
10		Drawer 299	13.60	14.80
11		Drawer 292	23.60	25.60
12		Drawer 282	12.60	13.70
13		Drawer 307	14.30	15.50
14		Drawer 321	11.90	12.90
15		Room 1207 Wall	4.50	4.90
16		Room 1207 FS Gridpoint 1	3.60	3.90
17		Room 1207 FS Gridpoint 2	17.00	18.50
18		Room 1207 FS Gridpoint 3	24.30	26.50
19		Room 1207 FS Gridpoint 4	13.30	14.50
20		Room 1207 FS Gridpoint 5	7.40	8.10
21		Room 1207 FS Gridpoint 6	13.20	14.30
22		Room 1207 FS Gridpoint 7	40.50	44.00
23		Room 1207 FS Gridpoint 8	13.40	14.60
C-14		QC C-14	115086.20	124202.70
24		Room 1207 FS Gridpoint 9	12.40	13.40
25		Room 1207 FS Gridpoint 10	16.00	17.40
26		Room 1207 FS Gridpoint 11	31.80	34.60
27		Room 1207 FS Gridpoint 12	23.50	25.70
28		Room 1207 FS Gridpoint 14	2.20	2.30
29		Room 1207 FS Gridpoint 15	21.10	23.00
30		Room 1207 FS Gridpoint 16	21.50	23.50
31		Room 1207 FS Gridpoint 17	16.70	18.20
32		Room 1207 FS Gridpoint 18	1.50	1.60

Jay R. Dockendorff  
Laboratory Director

Chemtura Middlebury

6

Direct Measurement Locations



walk in refrigerator/freezer



Chemtura Corporation, Middlebury, CT

Direct Measurements -- Freezer

Date: 8/5/2008

Meter #1: Ludlum 2224-1 s/n 129459 w/43-68 s/n 111315

MDA: 914 dpm/100 cm<sup>2</sup>

C-14 efficiency (%):

7.2

Background (5 min. count):

2730

Beta cpm:

546

#	Location	Gross Beta (2 min. count)	Gross Beta cpm	Beta dpm/100 cm sq
1	prep table	1110	555	125
2	2nd shelf from bottom - right side wall	1178	589	597
3	2nd shelf from bottom - middle right - back row	1122	561	208
4	2nd shelf from back, 2nd up - left wall	1078	539	-97
5	3rd shelf from bottom - front row - middle left	1040	520	-361
6	left side wall - center	1190	595	681

Meter #2: Ludlum 2224-1 s/n 129459 w/43-37 s/n 103776

MDA: 309 dpm/100 cm<sup>2</sup>

C-14 efficiency (%):

4.7

Background (5 min. count):

2450

Beta cpm:

490

#	Location	Gross Beta (2 min. count)	Gross Beta cpm	Beta dpm/100 cm sq
7	floor - prep area	1113	556.5	333
8	floor - front left	1021	510.5	103
9	floor - front right	1090	545	275
10	floor - rear left	1174	587	486
11	floor - rear right	1128	564	370

**Rad Waste Storage Room Scoping Survey**

**Contents**

Page

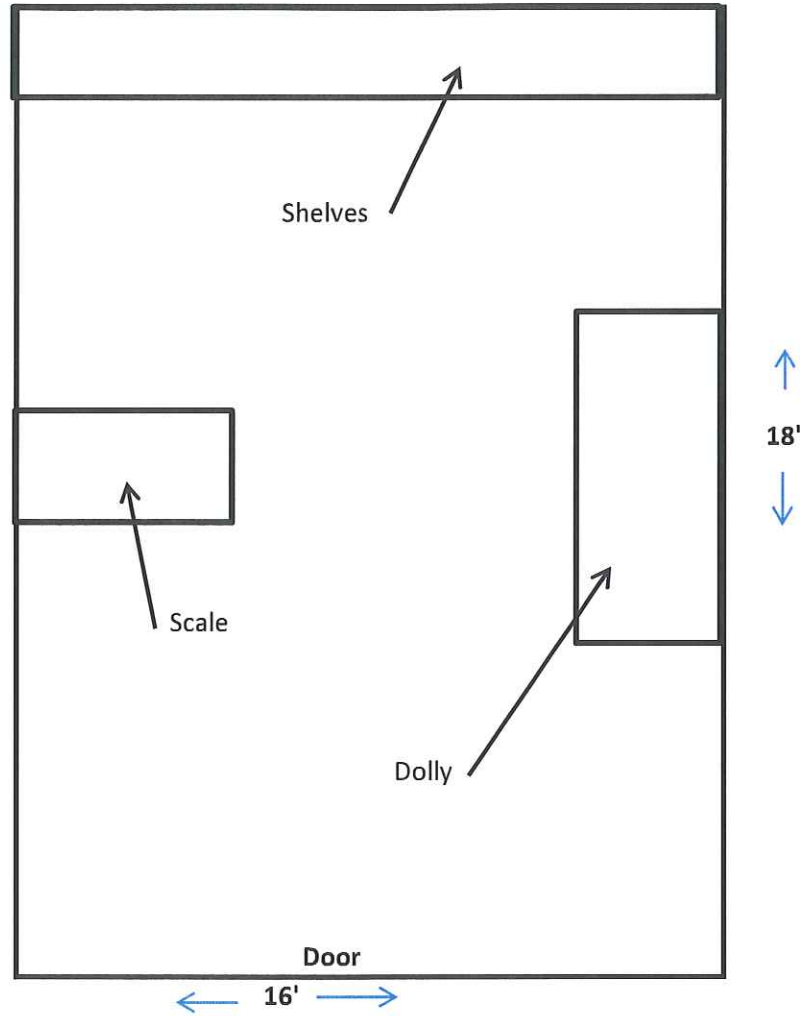
2	Note
3	Floor Plan
4-5	Wipe locations
6	Wipe test data
7	Direct measurement locations
8	Direct measurement results

### NOTE

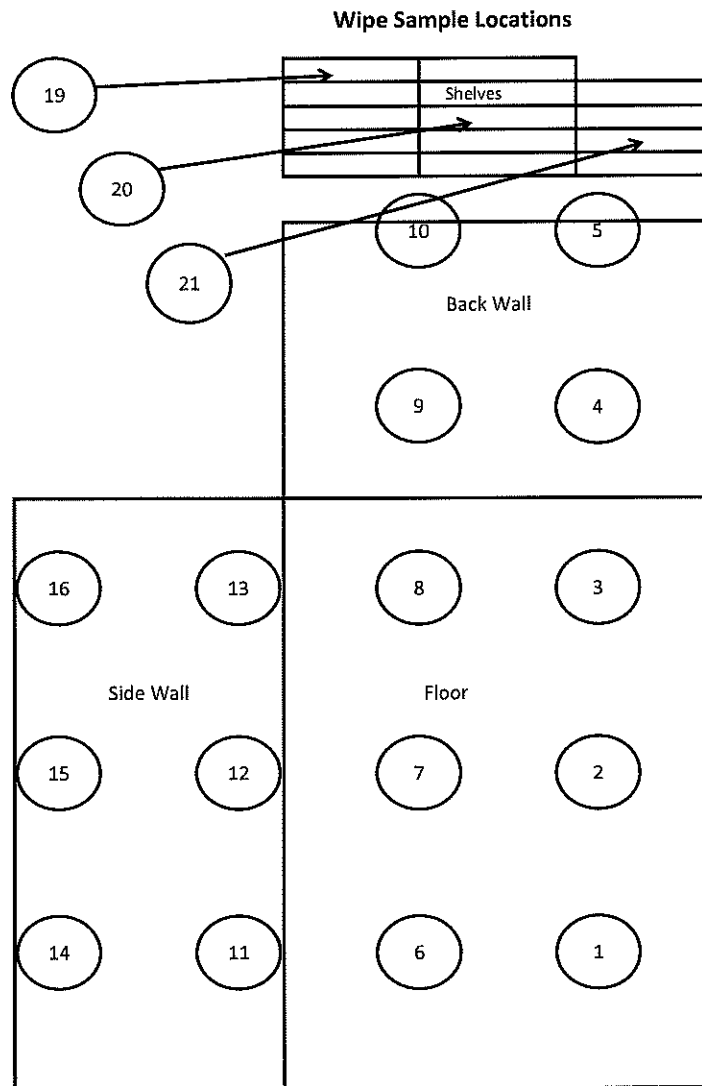
An extensive scoping survey was performed in the Radioactive Waste Storage Area. This set of sample and direct measurement results was used as the Final Status Survey for the following reasons:

1. No significant removable contamination was found;
2. The size of the area was less than 300 ft<sup>2</sup>, which is a small fraction of the maximum area suggested by MARSSIM for a Class 3 area;
3. While direct measurements of activity were elevated, very aggressive decontamination resulted in decontamination factors of less than 2;
4. Fixed contamination levels before decontamination were no greater than 3000 dpm/100cm<sup>2</sup>, so there was no need to reclassify the area;
5. The sample density (i.e., samples or measurements per unit area) was very large compared to the maximum MARSSIM Class 3 area divided by the 14-18 samples suggested by ResRad to be taken in this larger area.

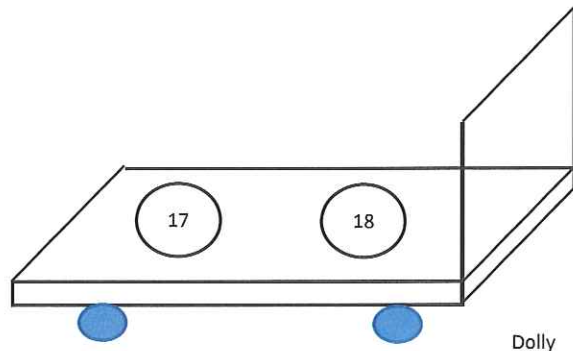
Floor Plan



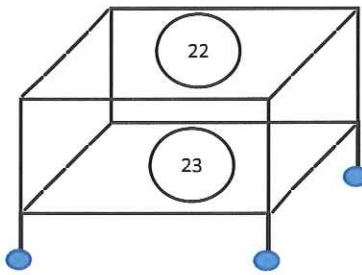
Rad Waste Area



Rad Waste Area

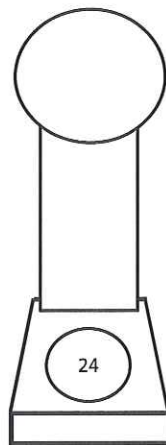


Dolly



Rolling cart

Rad Waste Area  
Objects



Scale

**RSA Laboratories**  
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**Radiochemistry Analysis Data Sheet**

Page 1 of 1

Report No. **N/A**

Customer: **Chemtura**

Customer Samp No. **N/A**

Location: **Survey Unit 7 Rad Waste**

RSA Lab Sample No. **N/A**

Project: **Lab Decommissioning**

Date Collected: **5/11/2011**

Samp. Description: **FS Wipes**

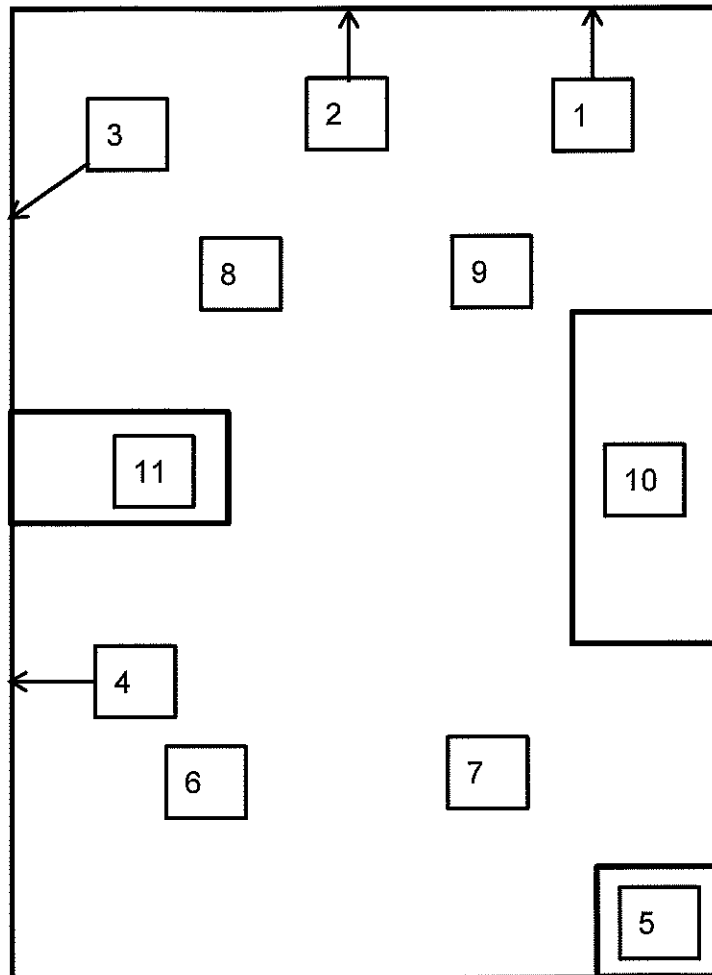
Date Counted: **5/11/2011**

Matrix: **Wipes**

**C-14 LLD dpm= 42.10**

RSA ID#	CUST. ID#	Location			C-14 CPM	dpm/100 cm sq
	BG	BACKGROUND			38.50	
1		Survey Unit Point 1			5.40	5.80
2		Survey Unit Point 2			18.30	19.90
3		Survey Unit Point 3			27.70	30.20
4		Survey Unit Point 4			14.00	15.20
5		Survey Unit Point 5			16.70	18.20
6		Survey Unit Point 6			9.80	10.60
7		Survey Unit Point 7			5.20	5.60
8		Survey Unit Point 8			33.20	36.20
9		Survey Unit Point 9			15.00	16.30
10		Survey Unit Point 10			14.30	15.50
11		Survey Unit Point 11			16.90	18.30
12		Survey Unit Point 12			32.80	35.90
13		Survey Unit Point 13			10.30	11.20
14		Survey Unit Point 14			9.80	10.60
15		Survey Unit Point 15			11.70	12.80
16		Survey Unit Point 16			9.30	10.10
17		Dolly 1			7.90	8.60
18		Dolly 2			0.30	0.30
19		Shelf 1			9.80	10.70
20		Shelf 2			29.70	32.50
21		Shelf 3			20.20	22.20
22		Rolling Table 1			10.60	11.60
23		Rolling Table 2			7.80	8.50
C-14		QC C-14			115923.10	125308.70
BL		QC Blank			13.70	15.00
24		Scale			11.80	12.90
25		Barrel A Top			8.20	8.90
26		Barrel A Sides			0.00	0.00
27		Barrel B Top			20.50	22.50
28		Barrel B Sides			12.70	14.00

Direct Measurement Locations



Rad Waste Area



Chemtura Corporation, Middlebury, CT  
 Direct Measurements -- Radwaste Area  
 Date: 8/5/2008

Floor, Walls, Shelves

Meter #1: Ludlum 2224-1 s/n 129459 w/43-68 s/n 111315

MDA: 914 dpm/100 cm<sup>2</sup>

C-14 efficiency (%):

7.2

Background (5 min. count):

2730

Beta cpm:

546

#	Location	Gross Beta (2 min. count)	Gross Beta cpm	Beta dpm/100 cm sq
1	3rd shelf from bottom - right side	1177	588.5	590
2	back wall - center	1372	686	1944
3	side wall - right	1122	561	208
4	side wall - left	1078	539	-97
5	cart - top shelf	1054	527	-264

Meter #2: Ludlum 2224 s/n 119815 w/43-37 s/n 160827

MDA: 309 dpm/100 cm<sup>2</sup>

C-14 efficiency (%):

4.7

Background (5 min. count):

3075

Beta cpm:

615

#	Location	Gross Beta (2 min. count)	Gross Beta cpm	Beta dpm/100 cm sq
6	floor - front left	1733	866.5	1244
7	floor - front right	2266	1133	2593
8	floor - rear left	2408	1204	2949
9	floor - rear right	1782	891	1382
10	flatbed handtruck	5654	2827	11074
11	scale	822	411	-1021

Disposed

Post Decon

#	Location	Gross Beta (2 min. count)	Gross Beta cpm	Beta dpm/100 cm sq	DF
6	floor - front left	1797	898.5	1419	0.88
7	floor - front right	1759	879.5	1324	1.96
8	floor - rear left	2042	1021	2033	1.45
9	floor - rear right	1537	768.5	768	1.8
10	flatbed handtruck	Disposed			