AZ LICENSE

TERMINATION

INFORMATION

License #: 07-03990-01
Docket #: 030-03868

AstraZeneca Pharmaceuticals LP
1800 Concord Pike
Wilmington, DE 19850-5437

Timothy Coffin, Radiation Safety Officer
Office: 302-886-2682, FAX: 302-886-1235

Binder #4

Coffin, Tim

From: Coffin, Tim
Sent: Sunday, August 15, 2010 9:40 AM
To: Ding, Min; Elmore, Chad S; Terpko, Marc O; Schlank, Bliss M; Civitella, Patricia C; Bristow, Brian K
Subject: Radioactive Lab Decommissioning (B2216)

FOR YOUR INFORMATION/ACTION:

As of Friday, August 13, 2010, Lab B2216 has been decommissioned as a Radioactive Material use lab.

ACTION TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from lab.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. Performed GM meter checks and all readings were at background or less than the AZ Action Level of 3 times background.
4. All required radioactive program postings, radioactive labels, and signs were removed from equipment, benches, etc.
5. Lab B2216 has been removed from the Radioactive Lab Data Bases.
6. Decommission Forms were placed on the equipment and Top Count (still to be removed from lab). Copies placed in lab wipe test book and official radiation safety files.
7. Decommission Check-off Sheet started and radiation section completed. Original copy provided to Marc Terpko and copy placed in radiation files.
8. This E-mail serves as the official notice to the RSO that the lab has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. **Brian Bristow:** Remove the lab from your Radioactive Lab Data Base and please check that all radioactive hazard signs are removed from the lab entry doors.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
Ow1-227, 6-2682

[X] BIO	[X] RAD	[X] CHEM
LAB #: B2216		
DATE: 7/20/2010		
LAB SUPERVISOR: Donna Maier	DEPT: Neuroscience	

Decommissioning Procedure (Version 2010)

Refer to SHEP-104 Commissioning and Decommissioning Laboratories for more information. This Wilmington SH&E SOP can be found on the portal. Click here to access the SOP.

Section A: Radioactive Laboratory Decommissioning Checklist

Responsible Investigator for the Lab: _____

Completed	Questionnaire
☒ Yes ☐ No	Contact Safety (x62682) to remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. DO NOT REMOVE TAPE! ~~Don't Count Counter still there with RAM sticker~~
☒ Yes ☐ No	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas. EXCEPT FUME HOODS. Decommissioning of fume hoods will be done by outside vendor.
☒ Yes ☐ No	Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
☒ Yes ☐ No	Write a letter to RSO in Safety stating that the lab is no longer radioactive and that it should be removed from the list of radioactive labs.
☒ Yes ☐ No	Contact Safety to perform final wipe test of the lab and equipment.

Once the RI has completed the above actions, the lab can be turned over to Radiation Safety for final decommissioning steps and will assume control of the lab (Sign below). RI has completed decommissioning responsibilities.

Timothy J Coffman 7/20/10 — Timothy J Coffman 7/20/10

Radiation Safety Acceptance of the Lab with Actions — Date — Radiation Safety Actions Completed — Date

Section B: Procedure for Vacating a Laboratory

Section A must be completed prior to completing Section B.

Have all chemicals been reassigned/returned or characterized as waste for disposal?	☒ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benches, etc.)	☒ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☒ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☒ No ☐ NA	
Biosafety Hazards:		
Were biohazard/biological material used in laboratory?	☒ Yes ☐ No ☐ NA	
Have all surfaces/areas/equipment been decontaminated using EPA registered disinfectant (bleach, ethanol, etc.).	☒ Yes ☐ No ☐ NA	
Remove/deface all biohazard stickers from the equipment.	☒ Yes ☐ No ☐ NA	
Have all biological/Biohazardous wastes been appropriately disinfected/decontaminated and disposed of.	☒ Yes ☐ No ☐ NA	
Has the Biohazard decommissioning been completed?	☒ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory and were all steps completed in Section A?	☒ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☒ Yes ☐ No ☐ NA	

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission
B2216 REVCO B (-80°)
Freezer

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100719_1311\20100719_1311.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
   Quench Indicator: tSIE/AEC
   External Std Terminator (sec): 0.5 2s%
   Pre-Count Delay (min): 0.00
Quench Sets:
   Low Energy: 3H-UG
   Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	6	0	0	0	697.17	568.08	B
2	1.00	1	0	0	2	0	0.00	560.28	
3	1.00	7	0	0	17	0	0.00	566.81	
4	1.00	5	2	0	10	1	0.00	568.50	
5	1.00	2	4	0	3	4	0.00	555.49	
6	1.00	1	0	0	2	0	0.00	583.13	
7	1.00	4	0	0	11	0	0.00	575.75	
8	1.00	5	0	0	11	0	0.00	611.91	
9	1.00	3	0	0	7	0	0.00	573.46	
10	1.00	9	0	0	22	0	0.00	565.12	
11	1.00	4	4	0	9	4	0.00	566.36	
12	1.00	7	0	0	16	0	0.00	568.75	

13	1.00	1	8	0	0	9	839.87	560.94
14	1.00	5	0	0	11	0	0.00	567.13
15	1.00	7	0	0	16	0	1061.82	557.83

Decommission
B2216 Isotemp (-20°)
Freezer
Fisher Scientific

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100719_1240\20100719_1240.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

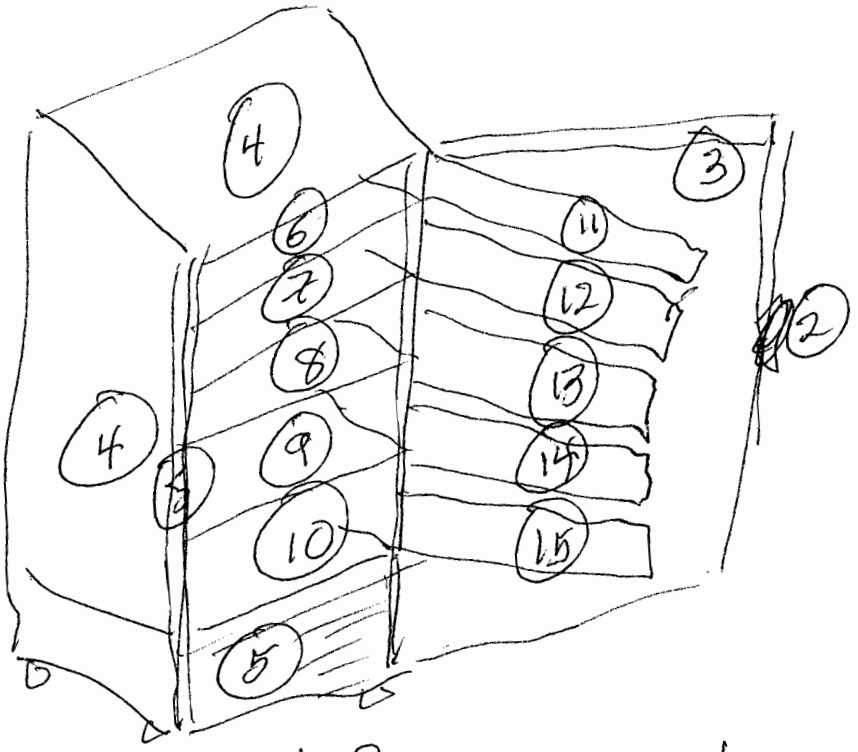
Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	7	0	0	0	709.45	578.75	B
2	1.00	0	0	0	0	0	0.00	567.99	
3	1.00	6	0	0	15	0	0.00	579.09	
4	1.00	0	0	0	0	0	0.00	562.23	
5	1.00	6	0	0	14	0	0.00	555.47	
6	1.00	0	2	0	0	2	0.00	564.34	
7	1.00	2	0	0	6	0	0.00	583.77	
8	1.00	1	0	0	3	0	0.00	588.24	
9	1.00	8	2	0	17	2	279.99	572.36	
10	1.00	1	0	0	3	0	0.00	568.82	

Decommission Freezers in B2216

REVCO B (-80°)

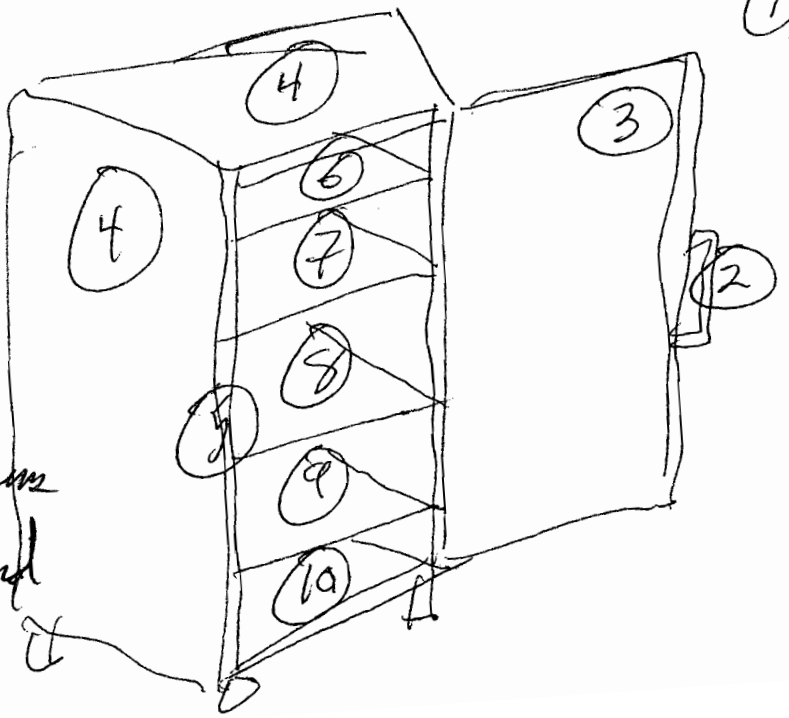
(1) Background



Fisher Scientific, Isotemp (-20°)

Meter Readings

(1) Background



Cadium 3
Ser# 146121
Cal: 11/10/09
Probe: 44-9
PR151749

Background: 40-60cpm
Readings: Background

Decon Trays

B1122B
B2216

Protocol #:15 Name:Wipe Test 09-Jul-2010 06:03
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG	
1	10.00	6.12	4.68	3.30			543.	B	
2	1.00	0.00	3.32	1.70	0.00	4.50	536.		} Tray 1
3	1.00	2.88	0.32	0.00	5.63	0.40	558.		
4	1.00	0.00	0.00	1.70	0.00	0.00	501.		} Tray 2
5	1.00	0.00	0.32	0.00	0.00	0.44	573.		
6	1.00	6.88	0.32	2.70	14.34	0.35	513.		} Tray 3
7	1.00	0.88	6.32	0.70	0.00	8.62	495.		

All Clear!

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission
-80 Freezer in B2216

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100614_1410\20100614_1410.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	7	0	0	0	790.40	592.79	B
2	1.00	3	0	0	7	0	0.00	589.22	
3	1.00	0	0	0	0	0	0.00	572.98	
4	1.00	3	0	0	7	0	0.00	575.31	
5	1.00	7	0	0	17	0	0.00	577.75	
6	1.00	0	2	0	0	2	0.00	574.19	
7	1.00	6	0	0	14	0	0.00	572.05	
8	1.00	5	0	0	12	0	371.26	565.83	
9	1.00	4	0	0	9	0	0.00	593.79	
10	1.00	2	0	0	6	0	0.00	573.68	
11	1.00	3	0	0	7	0	2013.28	567.25	
12	1.00	1	5	0	0	6	743.35	560.99	

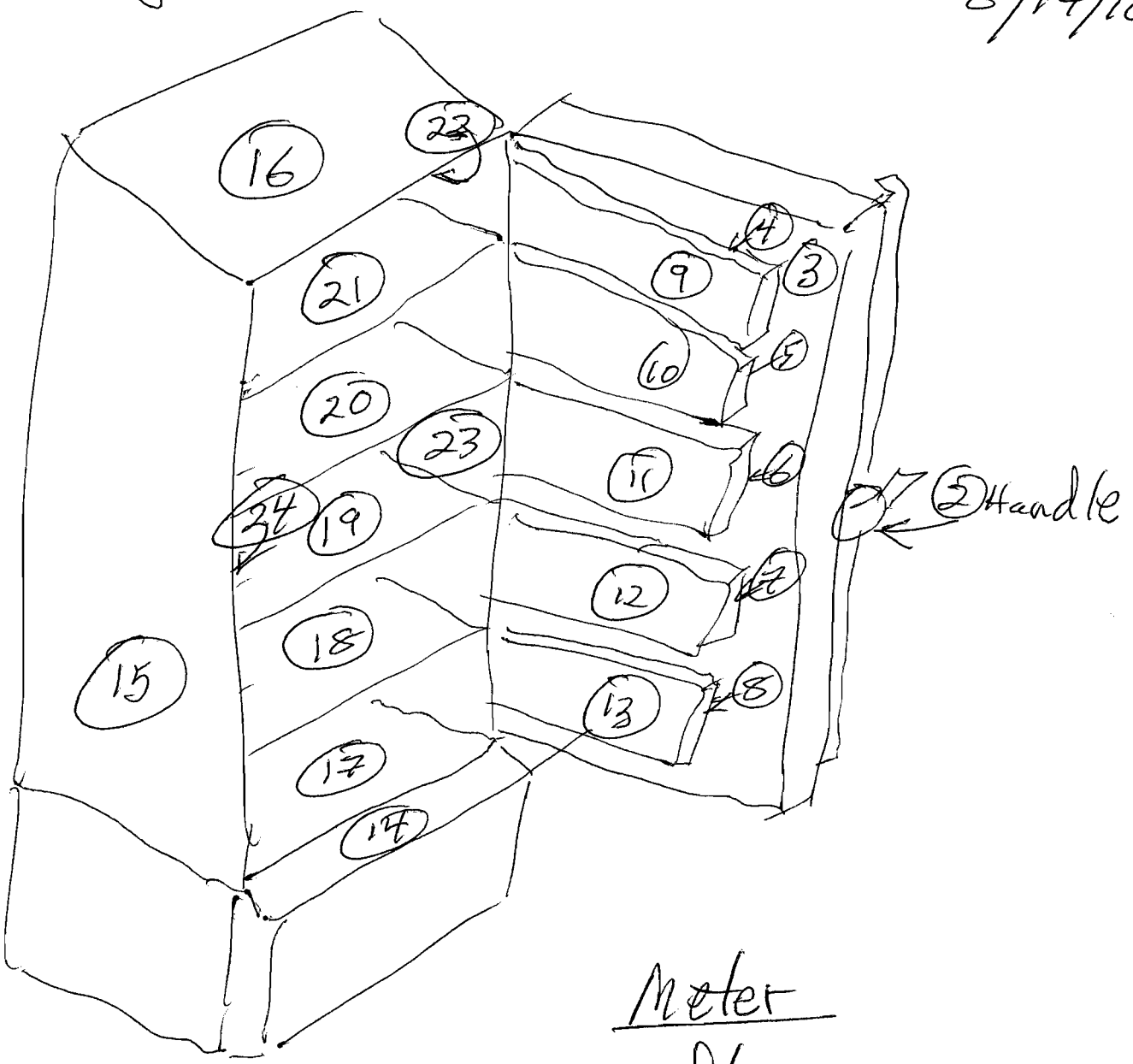
13	1.00	4	0	0	10	0	0.00	572.66
14	1.00	4	0	0	10	0	0.00	572.93
15	1.00	0	0	0	2	0	0.00	567.00
16	1.00	4	0	0	9	0	0.00	581.83
17	1.00	5	0	0	12	0	0.00	577.88
18	1.00	6	0	0	14	0	354.47	576.03
19	1.00	0	0	0	0	0	0.00	612.16
20	1.00	4	0	0	10	0	814.57	613.35
21	1.00	3	0	0	7	0	0.00	571.89
22	1.00	2	0	0	5	0	0.00	572.51
23	1.00	5	4	0	11	4	1060.65	572.28
24	1.00	4	0	0	10	0	821.32	560.40

Looks Good!

Decommission -80 Freezer in B2216

(1) Background

6/14/10



Meter

Ludlum 3

Ser 146121

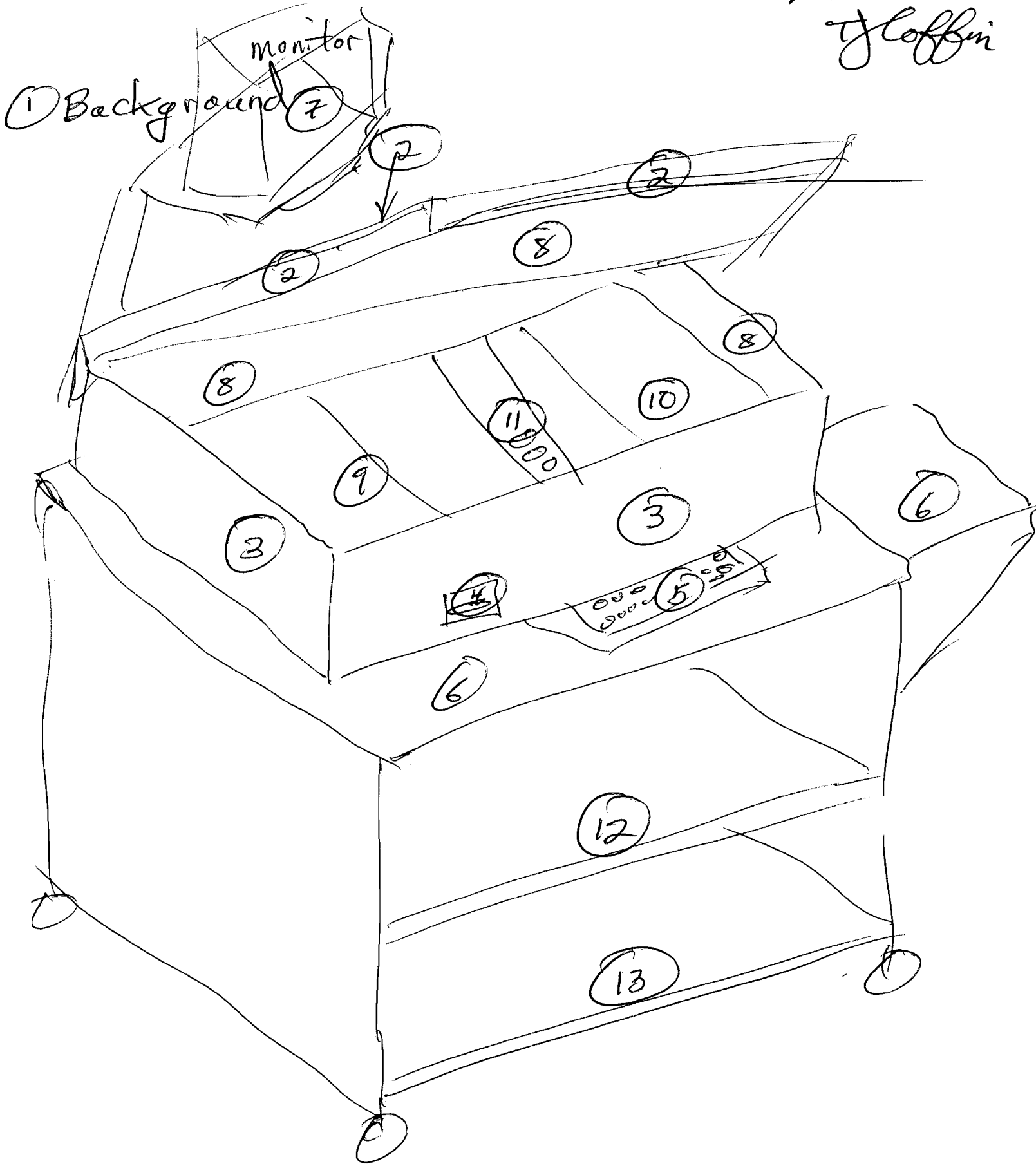
Cal: 11/10/09

Background: 40-60 cpm

Readings; Background

Decommission TriCarb 1900TR
in B2216

6/9/10
TJ Coffin



Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100609_1315\20100609_1315.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
   Quench Indicator: tSIE/AEC
   External Std Terminator (sec): 0.5 2s%
   Pre-Count Delay (min): 0.00
Quench Sets:
   Low Energy: 3H-UG
   Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	7	0	0	0	886.01	584.62	B
2	1.00	0	1	0	0	1	512.93	542.10	
3	1.00	0	0	0	0	0	0.00	547.89	
4	1.00	2	1	0	4	1	0.00	558.88	
5	1.00	4	0	0	10	0	0.00	551.19	
6	1.00	0	2	0	0	2	0.00	461.51	
7	1.00	0	0	0	0	0	0.00	496.61	
8	1.00	2	0	0	6	0	5269.16	565.11	
9	1.00	0	0	0	0	0	0.00	553.12	
10	1.00	2	0	0	6	0	0.00	555.96	
11	1.00	0	0	0	1	0	0.00	546.16	
12	1.00	0	0	0	0	0	0.00	560.14	

13	1.00	2	0	0	4	0	0.00	565.62

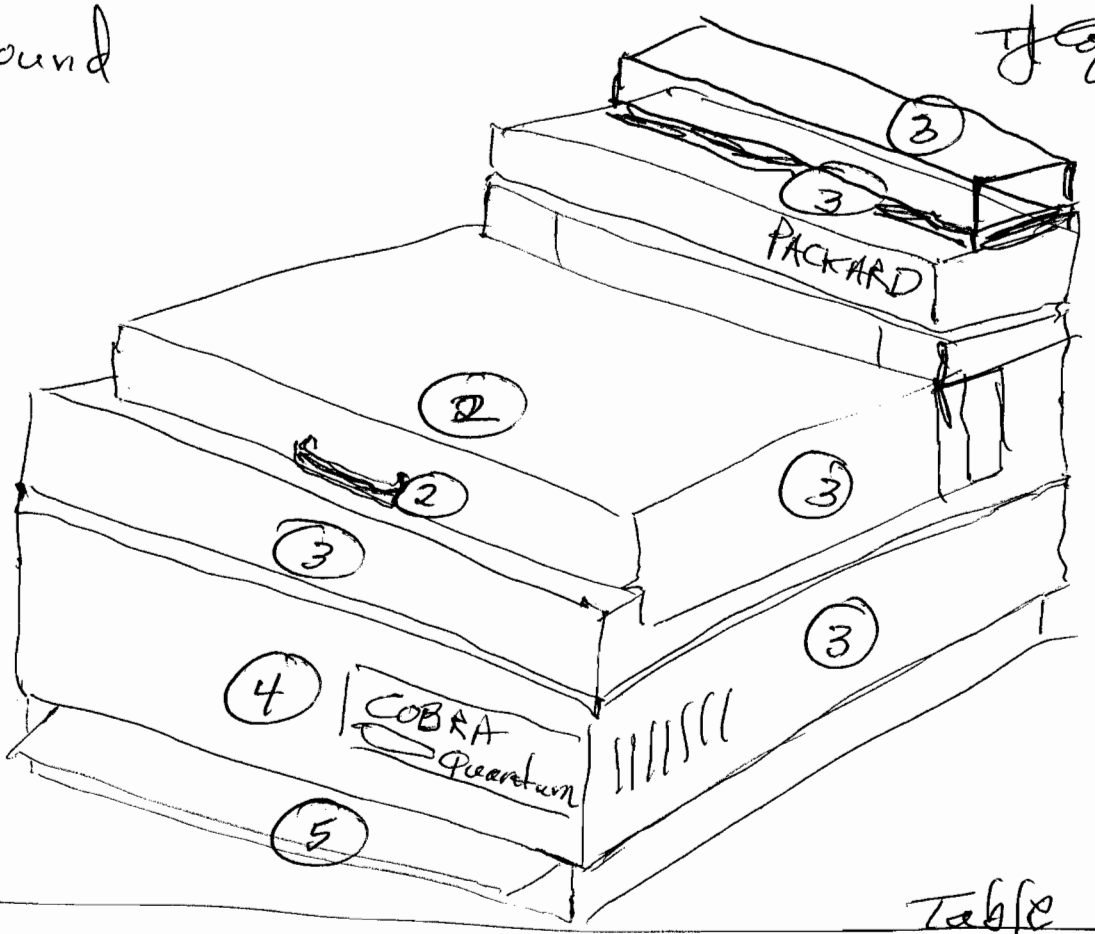
Decommission
COBRA Counter

Lab B2216

6/9/10

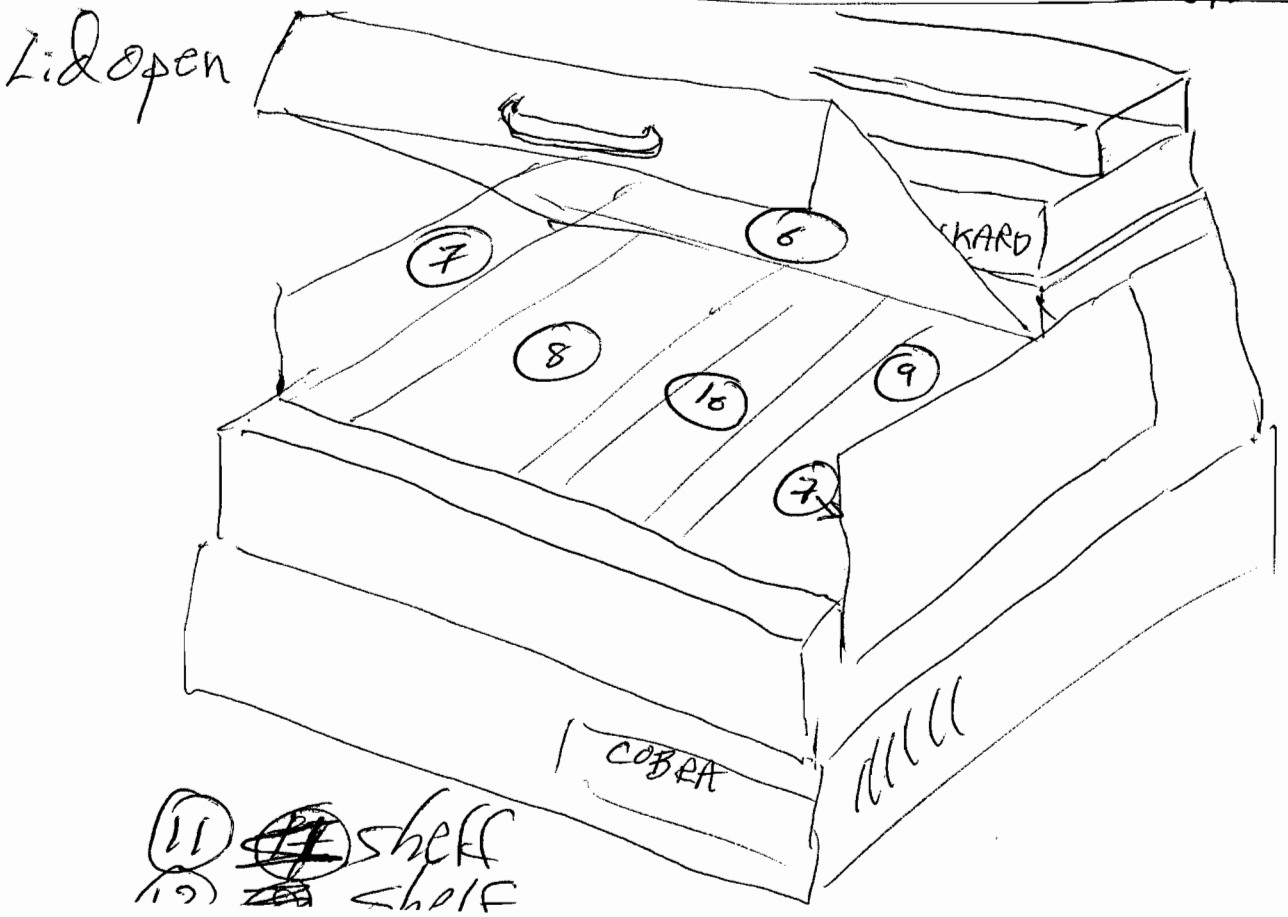
TJ Coffin

① Background



Table

Lid open



11 ~~12~~ shelf

12 ~~shelf~~ shelf

COUNTING

1470, 5 detectors, RiaCalc WIZ, program 3.6, serial #4702200

A AY 10-Jun-2010 06:20:32

Protocol id	1 CHROM
Time limit	180
Count limit	99999999
Isotope	I-125
Protocol date	04-Oct-2007 11:19:23
Run id.	32

POS	RACK	DET	BATCH	TIME	COUNTS	CPM	ERROR %
1	1	1	1	180	57	-5.1	57.15
2	1	2	1	180	42	-2.3	108.40
3	1	3	1	180	60	-1.2	249.70
4	1	4	1	180	60	0.5	594.25
5	1	5	1	180	61	3.2	91.37
6	1	1	2	180	40	-10.7	24.27
7	1	2	2	180	49	-0.1	4239.14
8	1	3	2	180	45	-6.0	43.73
9	1	4	2	180	46	-4.4	59.43
10	1	5	2	180	45	-2.2	115.39
11	2	1	3	180	47	-8.5	32.28
12	2	2	3	180	42	-2.3	108.39

END OF ASSAY

END OF COUNTING

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100609_1241\20100609_1241.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
   Quench Indicator: tSIE/AEC
   External Std Terminator (sec): 0.5 2s%
   Pre-Count Delay (min): 0.00
Quench Sets:
   Low Energy: 3H-UG
   Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	7	0	0	0	716.44	582.73	B
2	1.00	0	0	0	0	0	5026.64	497.31	
3	1.00	1	0	0	2	0	0.00	536.02	
4	1.00	2	2	0	3	2	450.90	576.03	
5	1.00	2	0	0	5	0	0.00	555.53	
6	1.00	0	0	0	0	0	0.00	538.64	
7	1.00	0	0	0	0	0	0.00	541.49	
8	1.00	2	1	0	4	1	5662.80	549.75	
9	1.00	0	0	0	0	0	0.00	524.33	
10	1.00	3	0	0	7	0	0.00	546.26	
11	1.00	0	0	0	0	0	0.00	551.37	
12	1.00	0	0	0	0	0	0.00	562.79	

B2216
Decommission
Lucite Lock Box

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100609_0655\20100609_0655.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	6	0	0	0	1017.98	577.26	B
2	1.00	0	0	0	1	0	0.00	576.07	
3	1.00	5	4	0	11	4	383.60	574.58	
4	1.00	3	6	0	6	7	0.00	561.47	
5	1.00	1	5	0	2	6	0.00	563.94	
6	1.00	5	0	0	13	0	0.00	577.52	
7	1.00	0	0	0	1	0	0.00	559.42	

All Clean!

Protocol# 15 - 3h_14c_dpm.lsa User: Default

B2216
Bench Decontamination

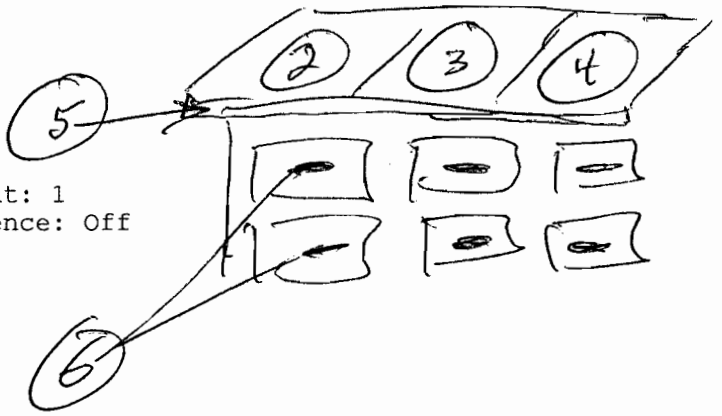
Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100520_0808\20100520_0808.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

① Background

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off



Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	11	11	0	0	0	428.44	598.46	B
2	1.00	0	3	0	0	4	0.00	571.14	– Top Left
3	1.00	0	0	0	0	0	0.00	571.61	– Top center
4	1.00	0	0	0	0	0	0.00	569.73	– Top right
5	1.00	0	2	0	0	3	0.00	575.76	– Edges
6	1.00	0	7	0	0	9	357.47	573.15	– Handles

All clean

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Start Decommission

Wipes on Lab B2216

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100408_0904\20100408_0904.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

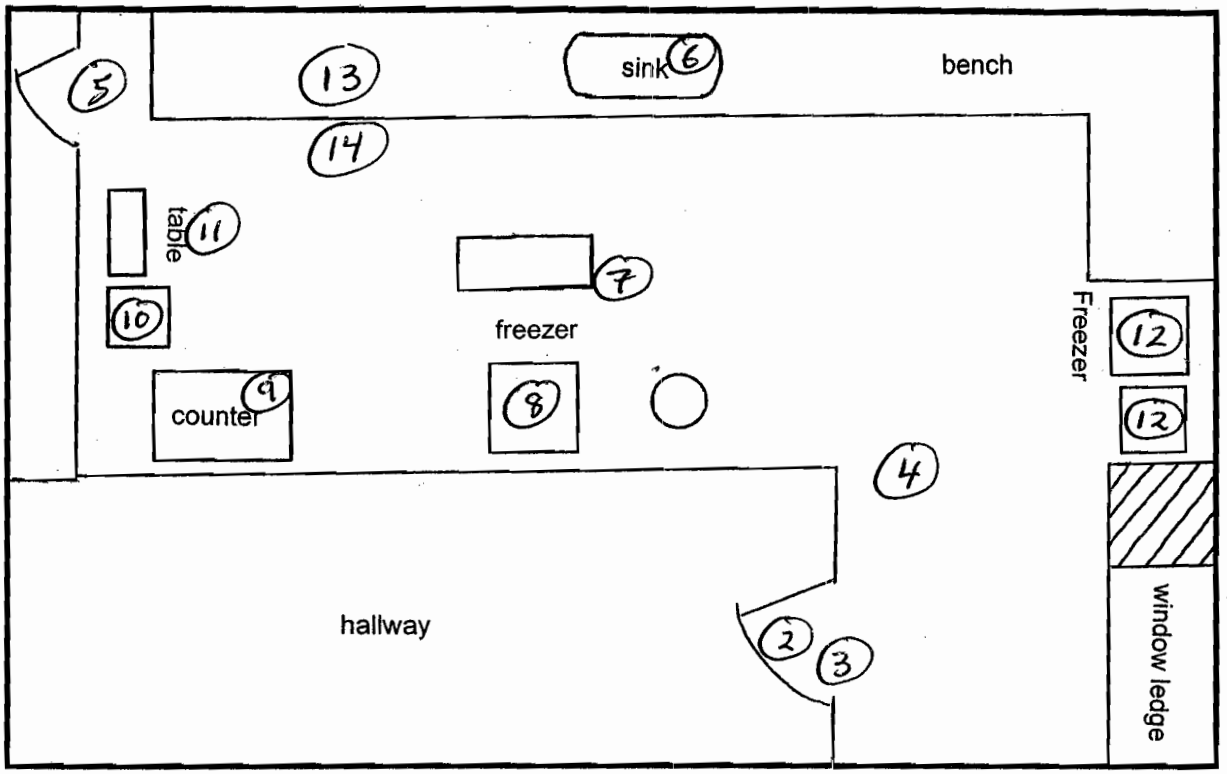
Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	5	0	0	0	858.13	589.95	B
2	1.00	0	2	0	0	3	0.00	598.11	
3	1.00	1	0	0	2	0	0.00	631.13	
4	1.00	0	1	0	0	1	5260.83	589.18	
5	1.00	0	2	0	0	2	1890.88	638.92	
6	1.00	0	1	0	0	1	0.00	583.46	
7	1.00	2	1	0	4	1	1011.16	629.78	
8	1.00	0	0	0	1	0	*****	574.99	
9	1.00	5	1	0	11	0	388.78	573.41	
10	1.00	11	1	0	24	0	344.05	579.27	
11	1.00	6	0	0	14	0	7329.82	588.97	
12	1.00	0	2	0	0	2	0.00	595.77	

13	1.00	7	2	0	15	2	537.60	620.70
14	1.00	0	0	0	0	0	0.00	587.94

WIPE TEST MAP

LAB # B2216



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle & light switch
3. Floor below door
4. Floor
5. Floor below door
6. Sink & handles
7. Floor below table
8. Refrigerator/freezer handles
9. Scintillation Counter
10. Gamma Counter
11. Microscope Table/floor
12. -20 Freezer
13. Bench top & edge
14. Floor below bench

MEMORANDUM: For record and reference purposes

Date: March 22, 2007

Subject: Bio Med Exp Radioactive User Area Room # Change

As of today, the previously designated Radioactive Use Area:

Room # [redacted] Radioactive

Has changed to:

Room # B2219B (radioactive) ~~non-radioactive~~

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Coffin, Tim

From: Coffin, Tim
Sent: Sunday, August 15, 2010 9:45 AM
To: Ding, Min; Elmore, Chad S; Terpko, Marc O; Schlank, Bliss M; Civitella, Patricia C; Bristow, Brian K
Subject: Radioactive Lab Decommissioning (B2219B)

FOR YOUR INFORMATION/ACTION:

As of Friday, August 13, 2010, Lab B2219B has been decommissioned as a Radioactive Material use lab.

ACTION TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from lab.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. Performed GM meter checks and all readings were at background or less than the AZ Action Level of 3 times background.
4. All required radioactive program postings, radioactive labels, and signs were removed from equipment, benches, etc.
5. Lab B2219B has been removed from the Radioactive Lab Data Bases.
6. Decommission Forms were placed on the equipment and Top Count (still to be removed from lab). Copies placed in lab wipe test book and official radiation safety files.
7. Decommission Check-off Sheet started and radiation section completed. Original copy provided to Marc Terpko and copy placed in radiation files.
8. This E-mail serves as the official notice to the RSO that the lab has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. **Brian Bristow:** Remove the lab from your Radioactive Lab Data Base and please check that all radioactive hazard signs are removed from the lab entry doors.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
Ow1-227, 6-2682

[ ] BIO [X] RAD [ ] CHEM
LAB #: B2219B
DATE: 8/13/10
LAB SUPERVISOR: Min Ding DEPT: Neuroscience

Decommissioning Procedure (Version 2010)

Refer to SHEP-104 Commissioning and Decommissioning Laboratories for more information. This Wilmington SH&E SOP can be found on the portal. Click here to access the SOP.

Section A: Radioactive Laboratory Decommissioning Checklist

Responsible Investigator for the Lab: Min Ding

Completed	Questionnaire
☒ Yes ☐ No	Contact Safety (x62682) to remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. DO NOT REMOVE TAPE!
☒ Yes ☐ No	Thoroughly clean all areas that contained RAM; this includes work surfaces, fume hoods and storage areas.
☒ Yes ☐ No	Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
☒ Yes ☐ No	Write a letter to RSO in Safety stating that the lab is no longer radioactive and that it should be removed from the list of radioactive labs. .
☒ Yes ☐ No	Contact Safety to perform final wipe test of the lab and equipment.

Once the RI has completed the above actions, the lab can be turned over to Radiation Safety for final decommissioning steps and will assume control of the lab (Sign below). RI has completed decommissioning responsibilities.

Timothy J Coffin 8/13/10 Timothy J Coffin 8/13/10

Radiation Safety Acceptance of the Lab with Actions Date Radiation Safety Actions Completed Date

Section B: Procedure for Vacating a Laboratory

Section A must be completed prior to completing Section B.

Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benches, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazard/biological material used in laboratory?	☐ Yes ☐ No ☐ NA	
Have all surfaces/areas/equipment been decontaminated using EPA registered disinfectant (bleach, ethanol, etc.).	☐ Yes ☐ No ☐ NA	
Remove/deface all biohazard stickers from the equipment.	☐ Yes ☐ No ☐ NA	
Have all biological/Biohazardous wastes been appropriately disinfected/decontaminated and disposed of.	☐ Yes ☐ No ☐ NA	
Has the Biohazard decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory and were all steps completed in Section A?	☐ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	
Have all cabinets/closets/drawers been emptied?	☐ Yes ☐ No ☐ NA	

Decommission B2219B Waste Con

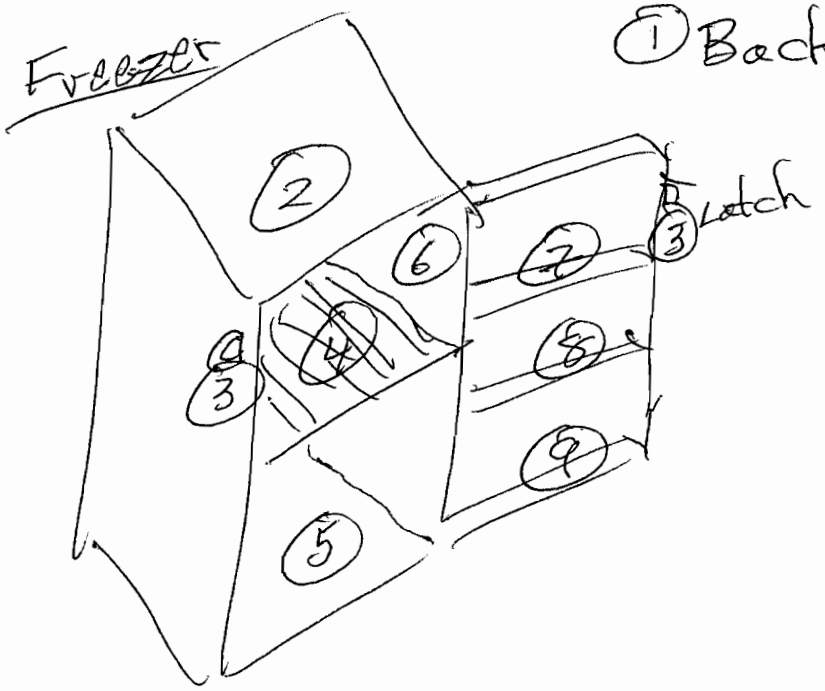
Protocol #:15 Name:Wipe Test 26-Aug-2010 10:38
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Re n C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

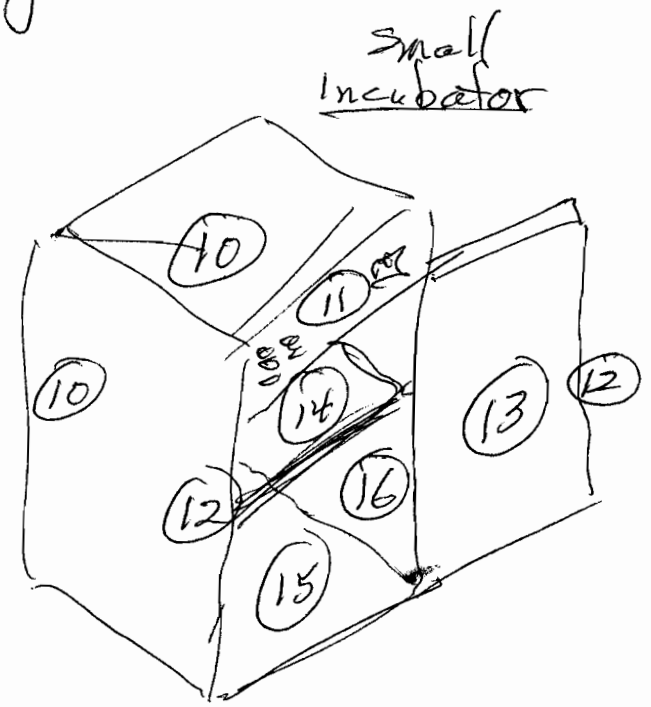
S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.00	3.70	3.90			558.	B
2	1.00	0.00	4.30	0.00	0.00	5.83	537.	
3	1.00	0.00	3.30	0.00	0.00	4.47	536.	
4	1.00	0.00	1.30	0.10	0.00	1.78	481.	
5	1.00	2.00	0.30	0.00	3.99	0.38	535.	

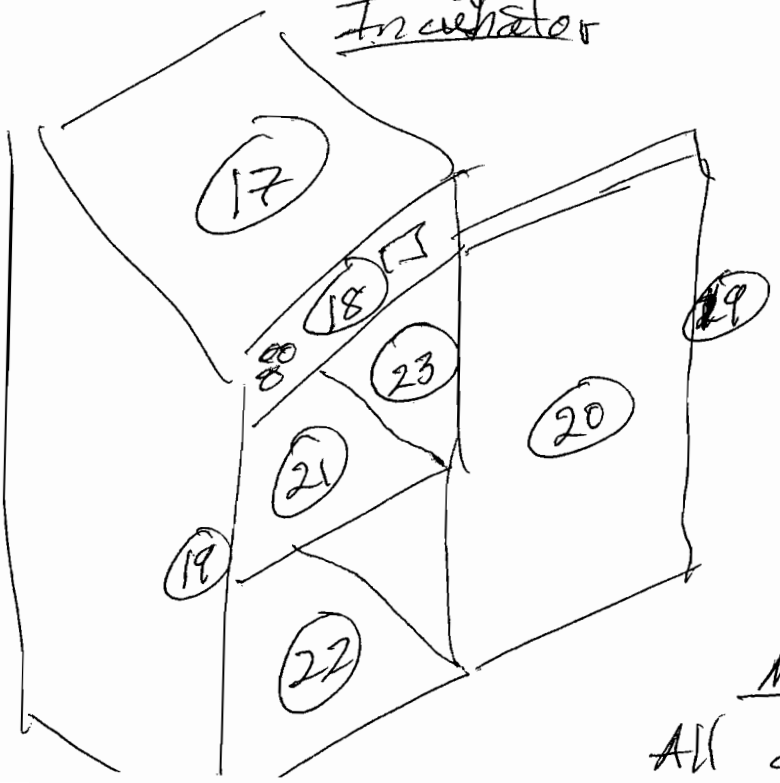
Looks Good

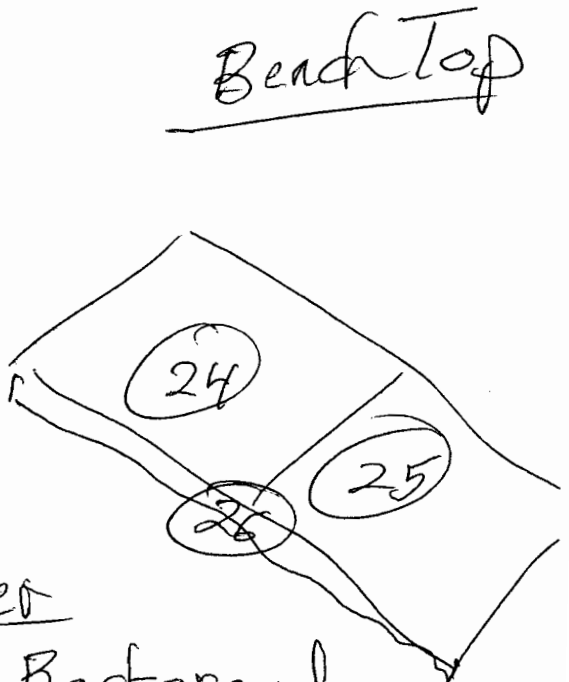
B221B
Decontamination
Small Freezer and
two Incubators and Bench Top
① Background

8/13/10









Meter
All at Background

Decommission B2219B
Equipment & Bench

Protocol #:15 Name:Wipe Test 13-Aug-2010 06:22
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.34	4.36	3.70			564.	B
2	1.00	0.66	0.00	0.00	1.40	0.00	522.	
3	1.00	1.66	1.64	0.30	2.48	2.20	552.	
4	1.00	0.00	0.64	3.30	0.00	0.86	534.	
5	1.00	2.66	3.64	0.30	3.58	4.92	503.	
6	1.00	0.00	4.64	4.30	0.00	6.27	549.	
7	1.00	0.00	0.64	0.30	0.00	0.87	503.	
8	1.00	1.66	2.64	0.00	1.99	3.56	519.	
9	1.00	2.66	0.64	0.00	5.56	0.84	471.	
10	1.00	0.66	2.64	2.30	0.00	3.63	444.	
11	1.00	0.66	1.64	2.30	0.45	2.21	545.	
12	1.00	0.00	3.64	1.30	0.00	4.94	519.	
13	1.00	3.66	0.00	2.30	7.61	0.00	535.	
14	1.00	0.00	2.64	0.00	0.00	3.58	524.	
15	1.00	3.66	0.00	0.00	7.82	0.00	508.	
16	1.00	0.00	5.64	0.30	0.00	7.64	537.	
17	1.00	0.66	0.00	1.30	1.34	0.00	559.	
18	1.00	5.66	4.64	0.00	9.14	6.21	536.	
19	1.00	0.00	1.64	0.30	0.00	2.22	541.	
20	1.00	0.00	2.64	2.30	0.00	3.57	534.	
21	1.00	0.66	0.00	2.30	1.38	0.00	530.	
22	1.00	0.42	0.00	0.00	0.87	0.00	544.	
23	1.00	0.00	4.64	0.30	0.00	6.28	543.	
24	1.00	0.00	0.00	0.30	0.00	0.00	524.	
25	1.00	0.66	0.00	0.00	1.40	0.00	517.	
26	1.00	2.37	0.93	0.00	4.51	1.24	508.	

All Clean!

B2214B

Decommission Equipment

8/12/10

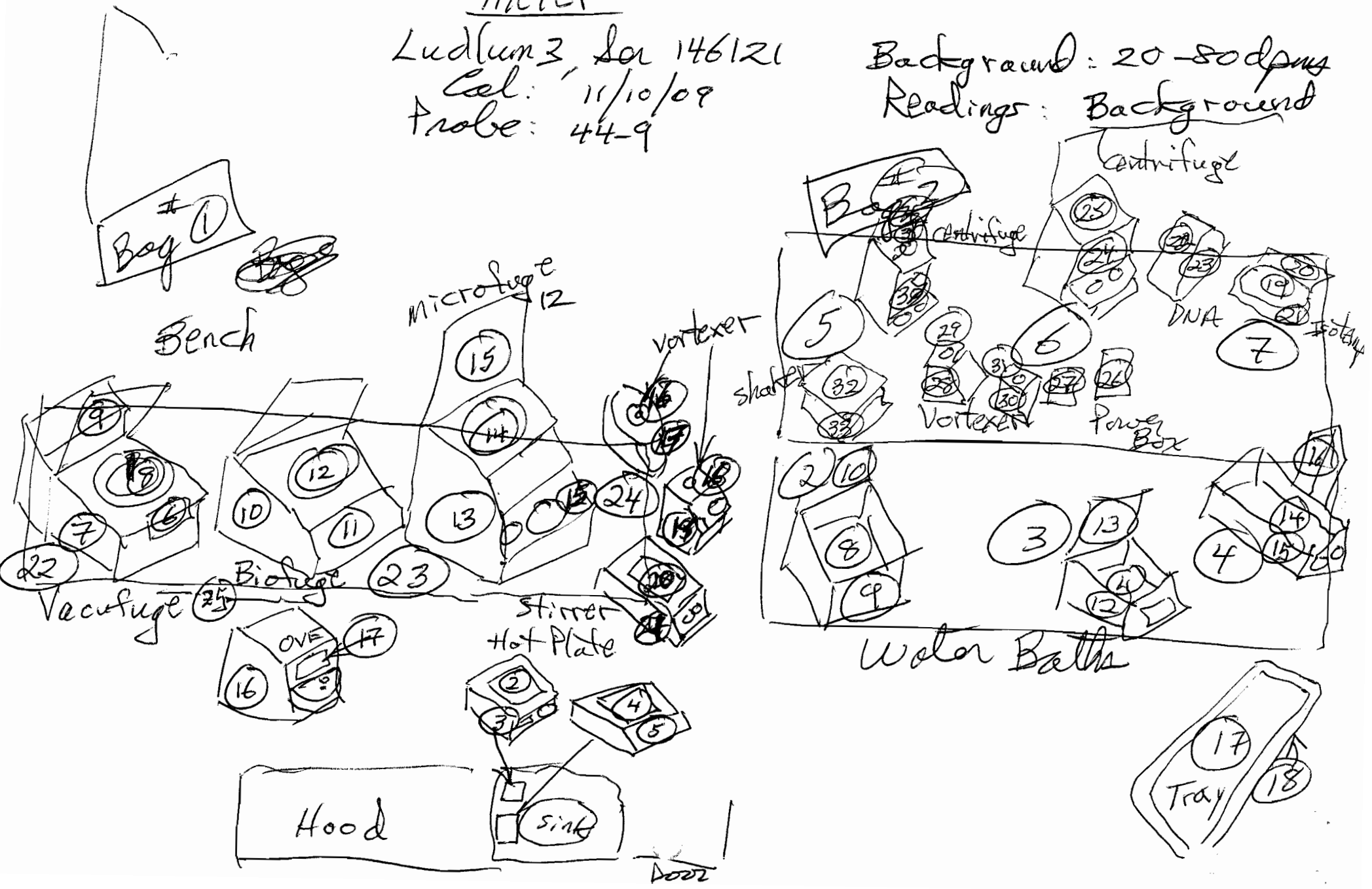
TJ Coffin

① Background

Meter

Ludlum 3 Sn 146121
Cal: 11/10/09
Probe: 44-9

Background: 20-80 cpm
Readings: Background



B2219B
Equip Decommission
Bag #1

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100812_1027\20100812_1027.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

ıckground Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	5	0	0	0	652.82	565.50	B
2	1.00	8	1	0	19	0	0.00	517.30	
3	1.00	2	2	0	4	2	1954.32	522.23	
4	1.00	1	3	0	1	3	1381.83	549.41	
5	1.00	3	0	0	7	0	2997.18	535.54	
6	1.00	3	0	0	7	0	*****	547.14	
7	1.00	1	4	0	1	4	824.32	522.38	
8	1.00	4	16	0	4	19	0.00	542.82	
9	1.00	0	0	0	0	0	0.00	534.77	
10	1.00	6	3	0	13	3	0.00	528.78	
11	1.00	1	0	0	3	0	0.00	545.14	
12	1.00	0	8	0	0	9	0.00	548.98	

13	1.00	2	0	0	5	0	0.00	546.39
14	1.00	4	0	0	9	0	938.41	550.61
15	1.00	3	0	0	7	0	0.00	540.72
16	1.00	2	2	0	4	2	1842.82	553.74
17	1.00	2	0	0	5	0	*****	550.86
18	1.00	1	1	0	2	1	0.00	513.27
19	1.00	15	8	0	34	8	10.21	517.47
20	1.00	4	0	0	10	0	0.00	534.05
21	1.00	3	2	0	6	2	110.09	549.23
22	1.00	2	0	0	6	0	0.00	533.54
23	1.00	0	0	0	0	0	*****	518.17
24	1.00	5	1	0	13	1	0.00	515.45
25	1.00	0	1	0	0	1	1749.36	544.00

B2219B
Lock Box Storage
Area in Freezer

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100812_1004\20100812_1004.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	7	0	0	0	730.18	567.48	B
2	1.00	4	1	0	9	0	976.29	555.53	
3	1.00	2	1	0	5	1	0.00	577.26	
4	1.00	2	0	0	5	0	0.00	555.93	
5	1.00	0	0	0	0	0	0.00	550.25	
6	1.00	3	0	0	8	0	0.00	548.16	

All Clean

Bag #2 B2219B Equip Decommission J Coffin

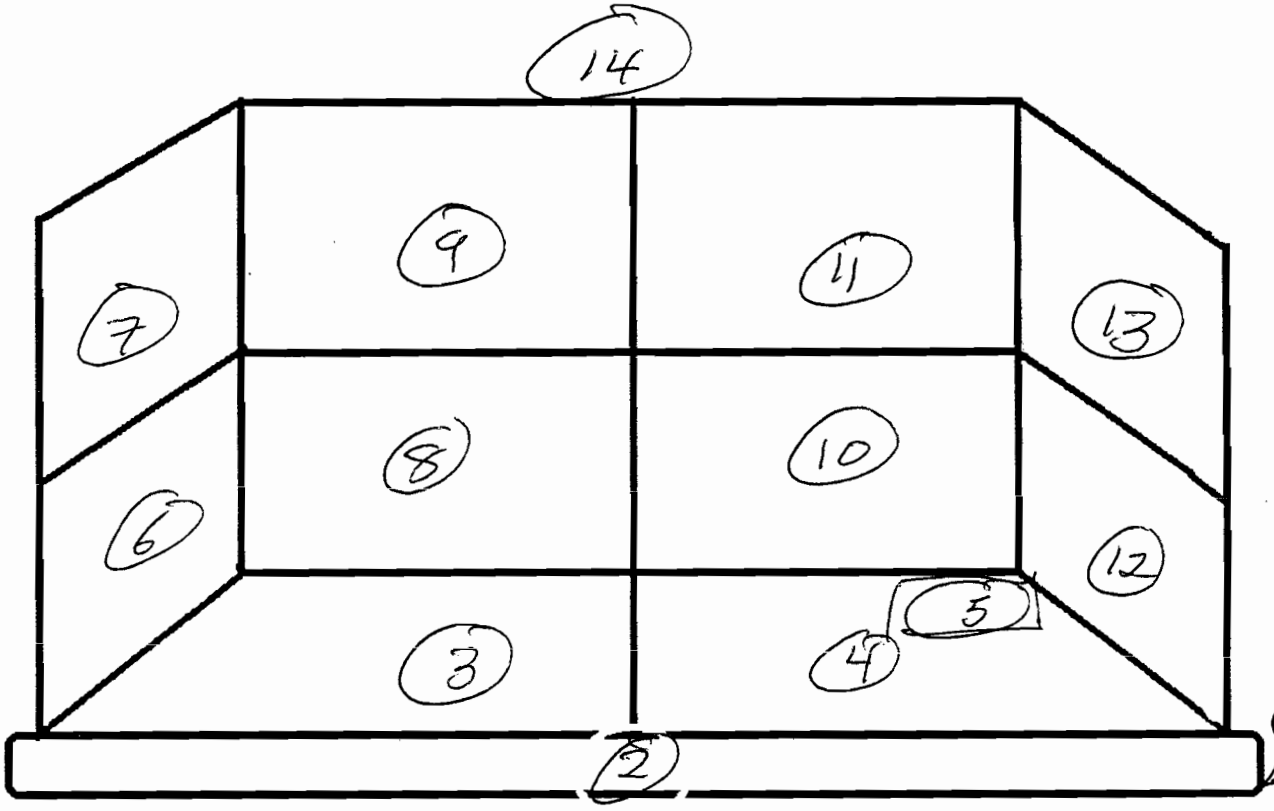
Protocol #:15 Name:Wipe Test 12-Aug-2010 10:48
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.52	4.78	3.80			559.	B
2	1.00	1.48	1.22	0.00	2.36	1.64	545.	
3	1.00	1.48	0.00	2.20	3.06	0.00	537.	
4	1.00	0.00	4.22	0.00	0.00	5.70	564.	
5	1.00	6.48	0.00	3.20	13.72	0.00	516.	
6	1.00	0.48	2.22	3.20	0.00	3.01	522.	
7	1.00	0.00	0.22	0.20	0.00	0.30	510.	
8	1.00	0.00	2.22	0.20	0.00	3.12	368.	
9	1.00	0.00	1.22	0.00	0.00	1.66	534.	
10	1.00	0.00	3.79	4.20	0.00	5.15	533.	
11	1.00	7.48	3.22	0.00	13.94	4.28	518.	
12	1.00	2.48	8.22	3.20	0.48	11.16	512.	
13	1.00	2.25	0.66	0.99	4.41	0.87	510.	
14	1.00	0.48	0.00	0.20	0.98	0.00	544.	
15	1.00	0.48	3.22	2.20	0.00	4.39	502.	
16	1.00	0.48	0.00	0.00	1.02	0.00	507.	
17	1.00	0.48	2.22	0.00	0.00	3.02	514.	
18	1.00	0.00	3.22	0.20	0.00	4.37	531.	
19	1.00	3.87	2.83	0.00	6.69	3.81	498.	
20	1.00	0.00	0.00	0.00	0.00	0.00	559.	
21	1.00	2.48	0.00	1.20	5.04	0.00	555.	
22	1.00	1.48	2.22	1.20	1.77	2.98	568.	
23	1.00	0.00	0.00	0.20	0.00	0.00	533.	
24	1.00	0.48	0.00	0.00	1.02	0.00	510.	
25	1.00	0.48	0.22	0.00	0.87	0.30	529.	
26	1.00	0.00	2.22	0.20	0.00	3.01	535.	
27	1.00	0.48	0.00	1.20	0.99	0.00	535.	
28	1.00	0.00	0.00	0.00	0.00	0.00	528.	
29	1.00	0.48	3.22	0.00	0.00	4.39	500.	
30	1.00	0.00	1.22	0.00	0.00	1.66	518.	
31	1.00	0.00	0.22	0.00	0.00	0.30	541.	
32	1.00	2.48	0.00	0.00	5.23	0.00	519.	
33	1.00	0.00	0.00	2.20	0.00	0.00	525.	
34	1.00	1.48	4.22	2.20	0.68	5.73	507.	
35	1.00	6.48	16.22	0.20	4.33	21.96	519.	
36	1.00	11.48	21.22	0.00	11.98	28.68	522.	

Decommission B2219B

8/12/10

J Coffin



① Background

meter

Ludlum 3, Ser # 146121

Cal 11/10/09

Probe: 44-9, Sn: PR151749

Background: 20-80 cpms

Readings: Background

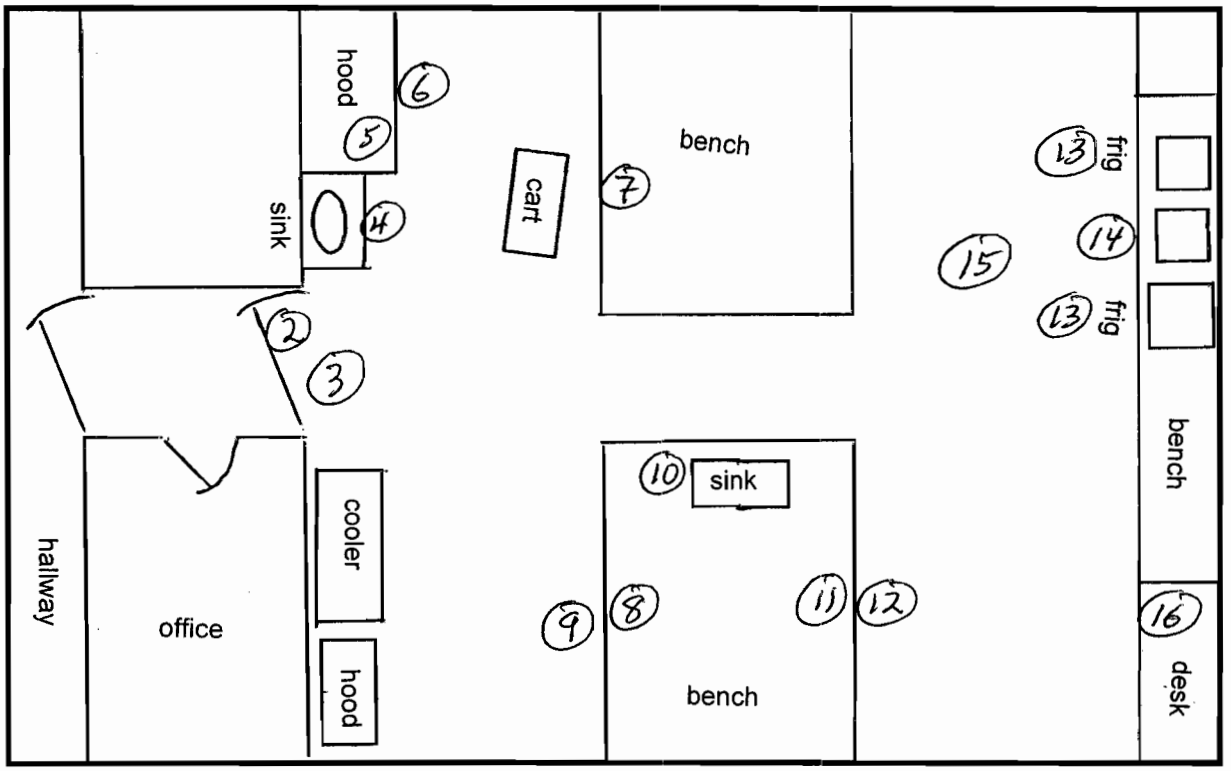
Decommission B2219B Hood

Protocol #:15 Name:Wipe Test 12-Aug-2010 06:28
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.40	4.80	3.60			581.	B
2	1.00	5.15	0.00	0.00	11.07	0.00	503.	
3	1.00	4.54	0.26	1.40	10.30	0.30	449.	
4	1.00	1.60	2.20	1.40	2.25	3.00	455.	
5	1.00	0.00	1.20	0.00	0.00	1.64	502.	
6	1.00	2.38	6.42	0.00	1.34	8.76	477.	
7	1.00	0.00	0.00	0.00	0.00	0.00	487.	
8	1.00	0.00	0.00	3.40	0.00	0.00	462.	
9	1.00	1.60	1.20	0.00	2.77	1.62	490.	
10	1.00	0.00	0.00	0.40	0.00	0.00	478.	
11	1.00	3.60	0.20	0.00	7.71	0.23	493.	
12	1.00	0.00	0.00	0.00	0.00	0.00	547.	
13	1.00	0.00	1.20	1.40	0.00	1.63	523.	
14	1.00	0.00	1.20	5.40	0.00	1.64	503.	
15	1.00	3.60	2.20	1.40	5.99	2.92	581.	

WIPE TEST MAP

LAB # B2219B



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle & light switch
3. Floor below door
4. Sink
5. Hood sash, foil, & handles
6. Floor below hood
7. Bench edge & handles
8. Bench edge & handles
9. Floor below bench
10. Sink
11. Bench edge & handles
12. Floor below bench
13. Freezer/Refrigerator Handles
14. Icubator handles
15. Floor below equipment
16. Desk top & phone handle

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Start Decommissioning

Lab B2219B

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100408_0943\20100408_0943.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	6	6	0	0	0	694.26	594.83	B
2	1.00	1	0	0	2	0	0.00	587.90	
3	1.00	0	2	0	0	3	0.00	576.08	
4	1.00	0	0	0	0	0	0.00	583.01	
5	1.00	0	2	0	0	3	950.02	593.44	
6	1.00	0	6	0	0	8	84.26	560.37	
7	1.00	0	0	0	0	1	0.00	590.38	
8	1.00	0	2	0	0	3	0.00	554.07	
9	1.00	2	0	0	4	0	5370.06	586.36	
10	1.00	0	0	0	0	0	0.00	581.19	
11	1.00	0	0	0	0	0	0.00	631.69	
12	1.00	0	0	0	0	0	9772.44	587.31	

13	1.00	2	4	0	2	5	0.00	583.24
14	1.00	0	4	0	0	4	1902.83	619.25
15	1.00	0	0	0	0	0	0.00	577.88
16	1.00	3	0	0	6	0	1265.63	597.30

Coffin, Tim

om: Coffin, Tim
ent: Friday, September 26, 2003 6:35 AM
To: Jiang, Qiaoling
Cc: Piser, Timothy M; Irwin, David H; Schlank, Bliss M; Terpko, Marc O; Civitella, Patricia C
Subject: Decommissioning of [redacted]om Radioactive Material Use

FOR YOUR INFORMATION:

As of today, 09/26/03, the Lab B2220 was decommissioned from the use of Radioactive Material. The Responsible Investigator taking the lead was Qiaoling Jiang. She signed off on the decommissioning checklist.

The following actions were completed.

1. Decommissioning wipes completed.
2. Radioactive sign removed from the lab entrance door.
3. Radioactive tape removed from equipment, hood, and benches in lab.
4. Wipe Test Book collected and placed in Radiation Safety Files.
5. Required postings removed from the lab.
6. All radioactive material and waste was removed from the lab.
7. The Decommissioning Checklist was completed, signed off, and filed in the Radiation Safety Files.
8. The Lab was removed from the Radiation Lab List.

Give me a call if you have any questions.

Tim Coffin
Radiation Safety Specialist
OW1-235, 6-2682

B2220

AstraZeneca

Decommissioning A Laboratory

From Radioactive Material Use Only!

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: B2220 Lab Supervisor: Tim Piser

Responsible Investigator for the Lab: Qiaoling Jiang 9/25/03

RAM Users in This Lab: Yuetian Zhan

I125 use

Date: 09/22/03

Date Completed	Questionnaire
9/25/03	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
9/22/03	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
9/22/03	Contact Safety to perform final wipe test of the lab and equipment.
9/22/03	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
	After approval by Safety, the radiation signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Timothy Coffin 9/25/03

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

☒ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

☒ NA ☐ Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	(Yes) or No	(If "No" go to the next section.)
Date lab was decommissioned? 9/26/03		
What isotopes were used? I125		
Have all surfaces/areas been decontaminated?	(Yes) or No	
Have all isotopes been transferred or disposed of?	(Yes) or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?	Yes or No	
Have solvents been transferred/disposed of/ reassigned?	Yes or No	
Particularly ether and THF?	Yes or No	
Have all stills been quenched/transferred/ reassigned?	Yes or No	
Have all intermediates/research samples been:	Yes or No	
• Entered into the M collection?		
• Assigned to others on the project and labeled as such?	Yes or No	
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:		/ /	Facilities:		/ /
Safety:		/ /	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

Control Backgrounds

```
Protocol #: 5        Name:DIRECT DPM                  22-Sep-2003 06:27
Region A: LL-UL= 0.0-2000  Lcr=   0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL= 2.0-2000  Lcr=   0  Bkg= 0.00  %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0  Lcr=   0  Bkg= 0.00  %2 Sigma=0.00
Time =  2.00      QIP = tSIE/AEC     ES Terminator = Count
Direct DPM
SNC DPM = 124200

  S#    TIME     DPM1 tSIE FLAG
   1    2.00    22.11 733.
   2    2.00    11.06 734.
   3    2.00    18.04 730.
```

17.1 dpm

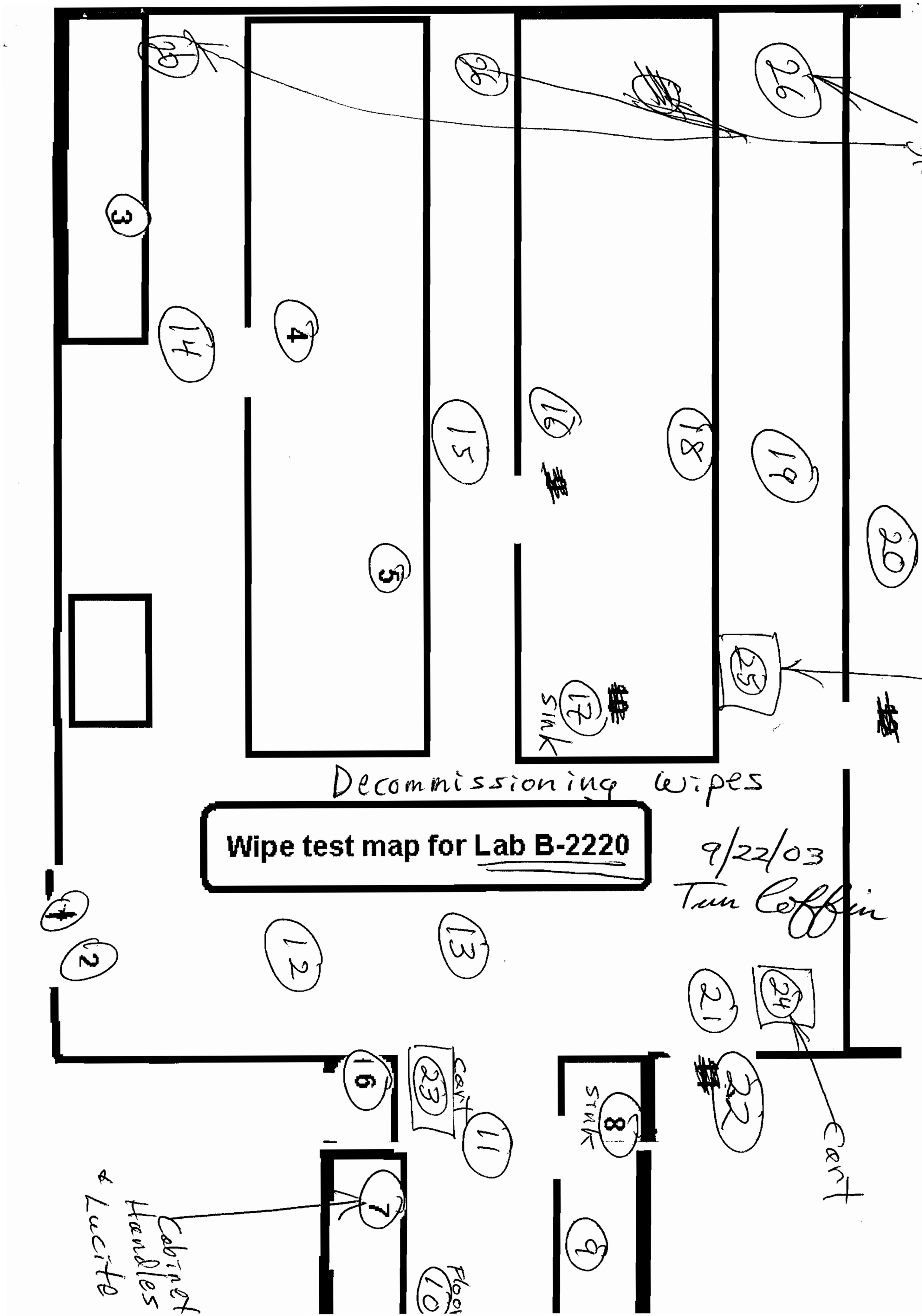
Lab B2220

Decommission
Wipes

Protocol #:15 Name:DIRECT DPM 22-Sep-2003 07:14
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	9.30	628.	
2	2.00	15.38	551.	
3	2.00	15.23	619.	
4	2.00	26.65	575.	
5	2.00	14.16	574.	
6	2.00	13.62	596.	
7	2.00	107.59	492.	
8	2.00	15.95	590.	
9	2.00	9.88	567.	
10	2.00	13.72	532.	
11	2.00	9.78	552.	
12	2.00	9.44	509.	
13	2.00	11.64	573.	
14	2.00	12.55	525.	
15	2.00	16.77	558.	
16	2.00	15.84	617.	
17	2.00	13.28	583.	
18	2.00	16.95	573.	
19	2.00	21.09	511.	
20	2.00	14.34	573.	
21	2.00	10.66	617.	
22	2.00	15.28	543.	
23	2.00	12.27	557.	
24	2.00	12.56	616.	
25	2.00	16.46	613.	
26	2.00	18.92	590.	

— Fume Hood Cabinet Handles & Lucite
107-17.1 = 89.9dpm
Below action level


Decommissioning Wipes
Wipe test map for Lab B-2220
9/22/03
Tim Coffin
Tools
Table
Cart
Cart
Sink
Sink
Cabinet Handles & Lucite
Floor
1
2
3
4
5
7
8
9
10
11
12
13
14
15
16
16
17
18
19
20
21
22
23
24
25
26
26
26

Decommission Wipes

Fume Hood B2220

Protocol #:15 Name:DIRECT DPM 22-Sep-2003 08:29
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	9.78	607.	
2	2.00	12.67	557.	
3	2.00	10.08	546.	
4	2.00	10.07	590.	
5	2.00	15.25	560.	
6	2.00	19.76	566.	
7	2.00	14.55	571.	
8	2.00	19.55	587.	
9	2.00	10.79	550.	
10	2.00	18.40	598.	
11	2.00	13.50	579.	
12	2.00	12.17	578.	
13	2.00	9.69	520.	

clean & rewipe
OK

Decommission

Fume Hood
B2220

Protocol #:15 Name:DIRECT DPM 22-Sep-2003 06:37
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

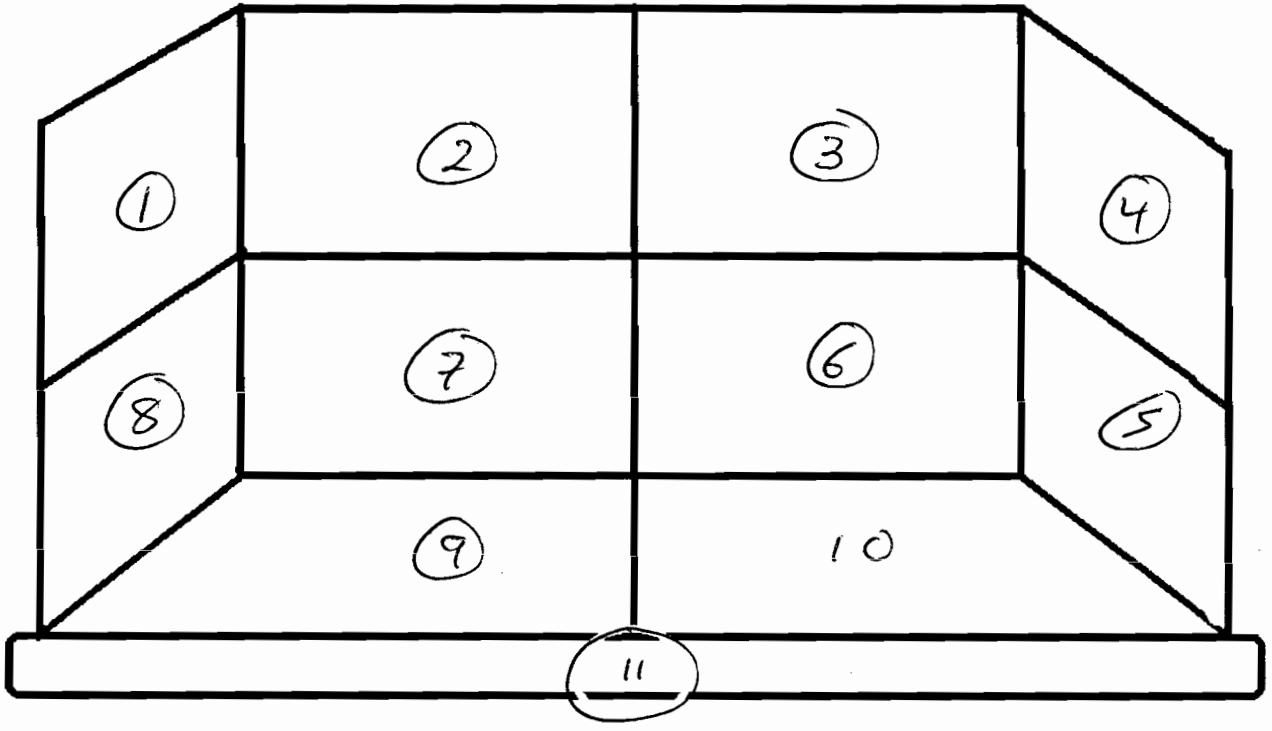
S#	TIME	DPM1	tSIE	FLAG
1	2.00	12.00	609.	
2	2.00		569.	
3	2.00	15.75	568.	
4	2.00	15.27	601.	
5	2.00	12.37	570.	
6	2.00	430.44	570.	
7	2.00	13.96	588.	
8	2.00	13.51	606.	
9	2.00	18.34	546.	
10	2.00	9.23	602.	
11	2.00	13.37	586.	
12	2.00	6.89	583.	
13	2.00	18.27	528.	

9/22/03

Decommission Wipes

Lab B2220

Tim Coffin



12 - Sash & Cabinet Handles

13 - Floor in front of Hood

MEMORANDUM: For record and reference purposes

Date: March 22, 2007

Subject: Bio Med Exp Radioactive User Area Room # Change

As of today, the previously designated Radioactive Use Area:

Room # [redacted] Radioactive

Has changed to:

Room # B222B (radioactive) ~~non-radioactive~~

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

MEMORANDUM: For record and reference purposes

Date: March 22, 2007

Subject: Bio Med Exp Radioactive User Area Room # Change

As of today, the previously designated Radioactive Use Area:

Room # [redacted] Radioactive

Has changed to:

Room # B2223B (radioactive) ~~non-radioactive~~

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Coffin, Tim

From: Coffin, Tim
nt: Thursday, January 12, 2006 2:46 PM
To: Maier, Donna L
Cc: Ding, Min; Petlick, Scott
Subject: Commissioning of [redacted] for Radioactive Material

FOR YOUR INFORMATION/ACTION:

As of today, 01/12/06, Lab B2221 has been commissioned for use of Radioactive Material.

ACTIONS TAKEN:

1. Commissioning wipe test completed and all wipes are at background or below the AZ action level of 100 dpms.

2. Request was sent to have the lab door signed as a Radioactive Lab.

3. ISURF Request also sent to request a Cipher Lock on inner door of B2221.

4. Commissioning Paperwork completed and filed in Radiation Safety Files and a copy placed in the B2221 Lab Wipe Test Book.

5. Lab added to list of Labs to have weekly wipe tests performed.

6. Lab added to other Radiation Safety Data Bases to show responsibility and accountability.

This E-mail serves as the notice to the RSO that the lab was commissioned.

ACTIONS NEEDED BY LAB PERSONNEL:

1. Ensure that all areas and equipment in lab that are used for radioactive material are labeled with radioactive tape.

2. Ensure that all material being used in the lab is appropriately stored at end of each day.

3. If radioactive material is to be stored in the lab, be sure that the location is secured (locked) at all times.

4. Obtain the appropriate Radioactive Waste Containers if waste is to be generated and collected in the lab.

If you have any questions, please give me a call.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

B2221
Radiation use in Existing lab

AstraZeneca

Commissioning A Laboratory

To set up a new laboratory, complete the appropriate sections below. All lab areas need to complete at least sections A & D.

Section A: General & Chemical Laboratory Commissioning
Section B: BioSafety Laboratory Commissioning
Section C: Radioactive Laboratory Commissioning

Section A: General & Chemical Laboratory Commissioning Checklist

This area B2221 has been accepted as a Laboratory as agreed by:
Project Engineer: _____
R&D Scientist: Donna Maier
Date: 01/12/06
R.I. (if applicable) : Min Ding 3H use

Date Completed	NA	Questionnaire
		Ensure that chemical fume hoods, biological safety cabinets and ventilated enclosures have been certified (note the presence of certification stickers).
		Laboratory has a fire extinguisher near the exit.
		The following are required: **"Stop" signs** for the lab door must be appropriate** for the lab function. Safety will provide the signs.
		Obtain a **Laboratory Entry Form** for the lab, naming authorized persons to allow entry.
		Place name plates for the lab occupants, with phone extensions, at the lab entrance. R&D SHE will order.
		Contacts are: **Notification to the Control Room** of the after-hours emergency contact phone numbers. R&D SHE will complete this.
Sent email 1/12/06		Ensure proper **Hazard Warning** signs are in place for unusual hazards (example: Laser hazard, other non-ionizing radiation, high temperature, high magnetic field, emergency phone stickers, "What To Do In An Emergency", Carcinogens, "Reproductive Toxins, In Use)
		Has a hazard review for this lab been completed?
		If the laboratory will contain biohazards then the proper **Biosafety Lab Commissioning** must be done. *Proceed to Section B.*
		If the laboratory will handle radioactivity, then the proper **Radioactive Lab Commissioning** must be done. *Proceed to Section C.*

Safety Personnel: Timothy Coffman Title: Radiation Safety Specialist

*** If the lab still contains desks for occupants, a further request for variance from the Laboratory Default Policy may need to be done. If there are no desks within the lab, no variance from the default policy will be allowed*

Section B: Biosafety Laboratory Commissioning Checklist

Date Completed	The following steps are required to handle biohazardous materials:
	Ensure each employee has completed initial Biosafety Training.
	Make sure each employee, if exposed to Bloodborne Pathogens, is offered a Hepatitis B shot.
	Make sure each employee has access to the Biosafety Manual.
	Update the permit(s) status (new, revised, retired).
	Obtain Biosafety signs from the Safety Department.
	Obtain Biosafety labels for equipment from current lab supply vendor.

Section C: Radioactive Laboratory Commissioning Checklist

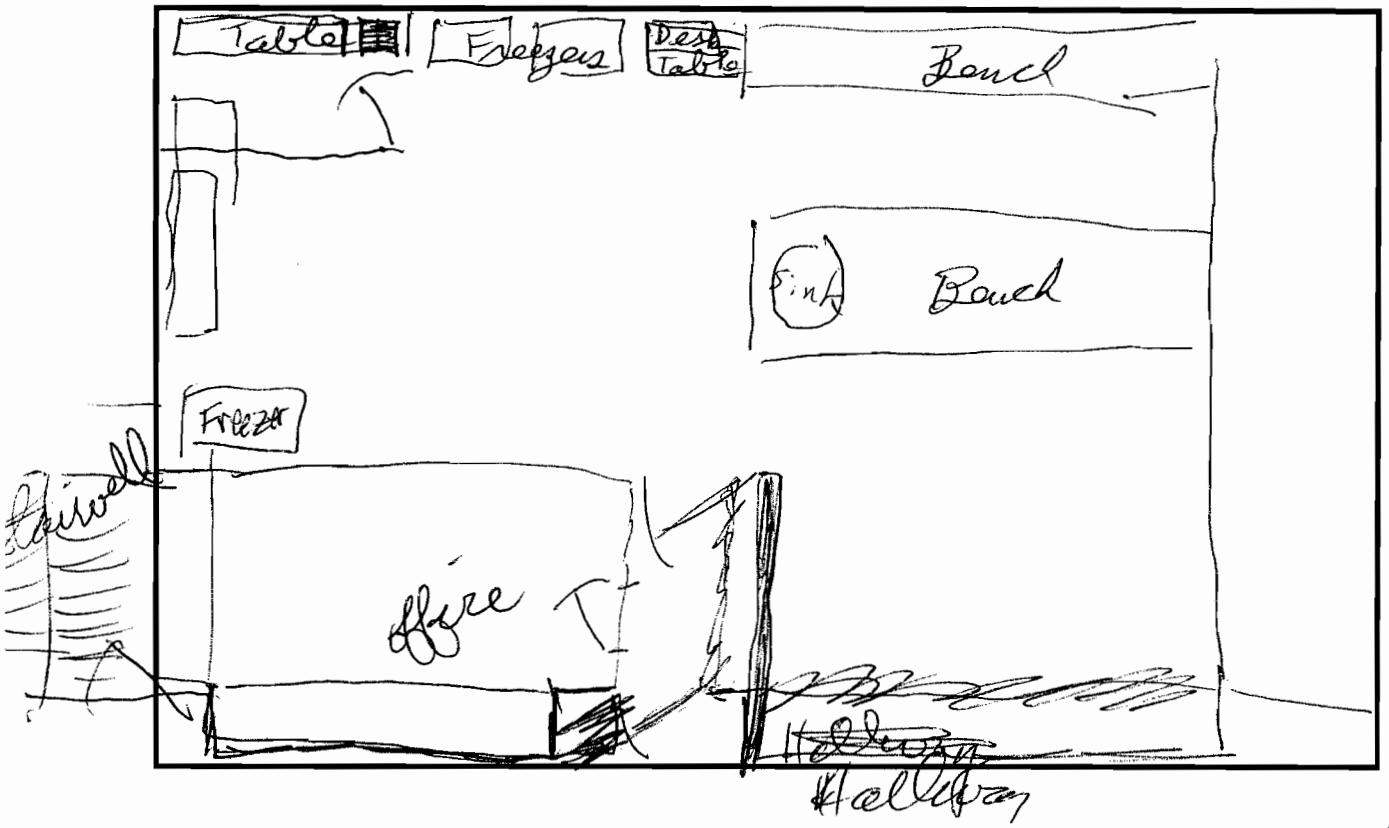
Date Completed	The following steps are required to handle radioactive materials (RAM):
✓	Ensure each employee has completed initial Radiation Training.
✓	All bench and hood surfaces must be either epoxy coated, stainless steel, Formica or some other impervious surface material.
✓	Areas where isotopes are stored or used must be labeled "radioactive"
NA	Refrigerators and cabinets used to store RAM must be lockable, and labeled "Radioactive". Lab Personnel to check
1/12/06	Safety must perform an initial, thorough wipe test of the lab to document the baseline.
1/12/06	Post the proper notices in the laboratory, available from Safety. This includes: 10 CFR, parts 19 and 20; the "Notice to Employees"; a copy of the current Radiation License, and a 3x5 card stating that the NRC 3 full text is available in Safety.

• Need Cypher Lock on Inner Door

ISURF

WIPE TEST MAP

LAB # B2221



WIPE SAMPLE DESCRIPTIONS

A155
(Hamlamb)

MEMORANDUM: For record and reference purposes

Date: March 22, 2007

Subject: Bio Med Exp Radioactive User Area Room # Change

As of today, the previously designated Radioactive Use Area:

Room # [redacted] Radioactive

Has changed to:

Room # B2225B ~~radioactive~~ non-radioactive

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Zuleski Francis FR

From: Irwin David DH
Sent: Monday, May 24, 1999 8:13 AM
To: Zuleski Francis FR; Civitella Patricia PC; Watson Gerald GK
Subject: FW: History of Isotope Usage in [redacted]

Dave
Manager Site Safety and Environmental Operations
LW Basement
(302)886-8946
FAX: (302)886-2909
e-mail: david.irwin@phwilm.zeneca.com
http://safety.uscorp.zeneca.com/safety/

From: Sygowski Linda LA
Sent: Friday, May 21, 1999 10:02 AM
To: Irwin David DH
Cc: Zuleski Francis FR; Schlank Bliss BM; Suchard Suzanne SJ
Subject: History of Isotope Usage in B2222

During the 2 year period in which Suzanne Suchard has supervised work conducted in this laboratory (B2222), radiotracer quantities of 33P, 32P, and 3H have been used. As clearly documented in the weekly wipe test record, no significant radioactive spills or spread of radioactivity occurred throughout this period. The weekly wipe test record will remain in the laboratory for an additional 3 years.

A final wipe test confirming that there is no radioactive contamination in the laboratory has been performed by Site Safety.

Please remove the lab from the radiation safety database as a lab in which radiation work is conducted.

ZENECA

B2222.

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation); complete the appropriate sections below.

Section A: Biosafety Laboratory Decommissioning

Section B: Radioactive Laboratory Decommissioning

✱ Section C: Laboratory Vacating Form
(Only completed when moving out of the laboratory or transferring ownership.)

Section A: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
5/21/99	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
5/20/99	Remove all biohazard stickers from the equipment before moving.
NA	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
B231/B240	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
↓	If vacating the lab or changing ownership, proceed to Section C.

Section B: Radioactive Laboratory Decommissioning Checklist

Laboratory: B222 Lab Supervisor: S. Suchard

Responsible Investigator for the Lab: S. Suchard / L.A. Sygowski

RAM Users in This Lab: V. Gariapati, K. Knappenberger, L. Laganella, S. Suchard, L. A. Sygowski

Date:

Date Completed	Questionnaire
5/19/99	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
5/19/99	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
5/18	Contact Safety to perform final wipe test of the lab and equipment.
5/21/99	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
5/21/99	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
	After approval by Safety, the radiation signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date: 5/21/99	Name: L	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

- The primary solvents used in the hood have been B-Mercapto-ethanol, DMSO, EtOH, MeOH & Acetone. Less than one part in 500 have been placed down the sink in the hood.
- The hood has also been used as a designated area for use of radioisotope tracers.

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	Yes or No	(If "No" go to the next section.)
Date lab was decommissioned?	5-21-99	
What isotopes were used?		32P 35
Have all surfaces/areas been decontaminated?	Yes or No	
Have all isotopes been transferred or disposed of?	Yes or No	
General Housekeeping:		
Has all normal trash been disposed of?	Yes	

Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	Inform lab admin
Other Issues:	Yes or No	
Placed work order the have the locks changed?		lab admin
Return the room keys to Security?	Yes or No	" "
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?	Yes or No	
Have solvents been transferred/disposed of/ reassigned?	Yes or No	
Particularly ether and THF?	Yes or No	
Have all stills been quenched/transferred/ reassigned?	Yes or No	
Have all intermediates/research samples been:	Yes or No	
• Entered into the M collection?	Yes or No	
• Assigned to others on the project and labeled as such?		
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?	NA	
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	
• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Safety retains the form	☑	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, will result in charge backs to departments.

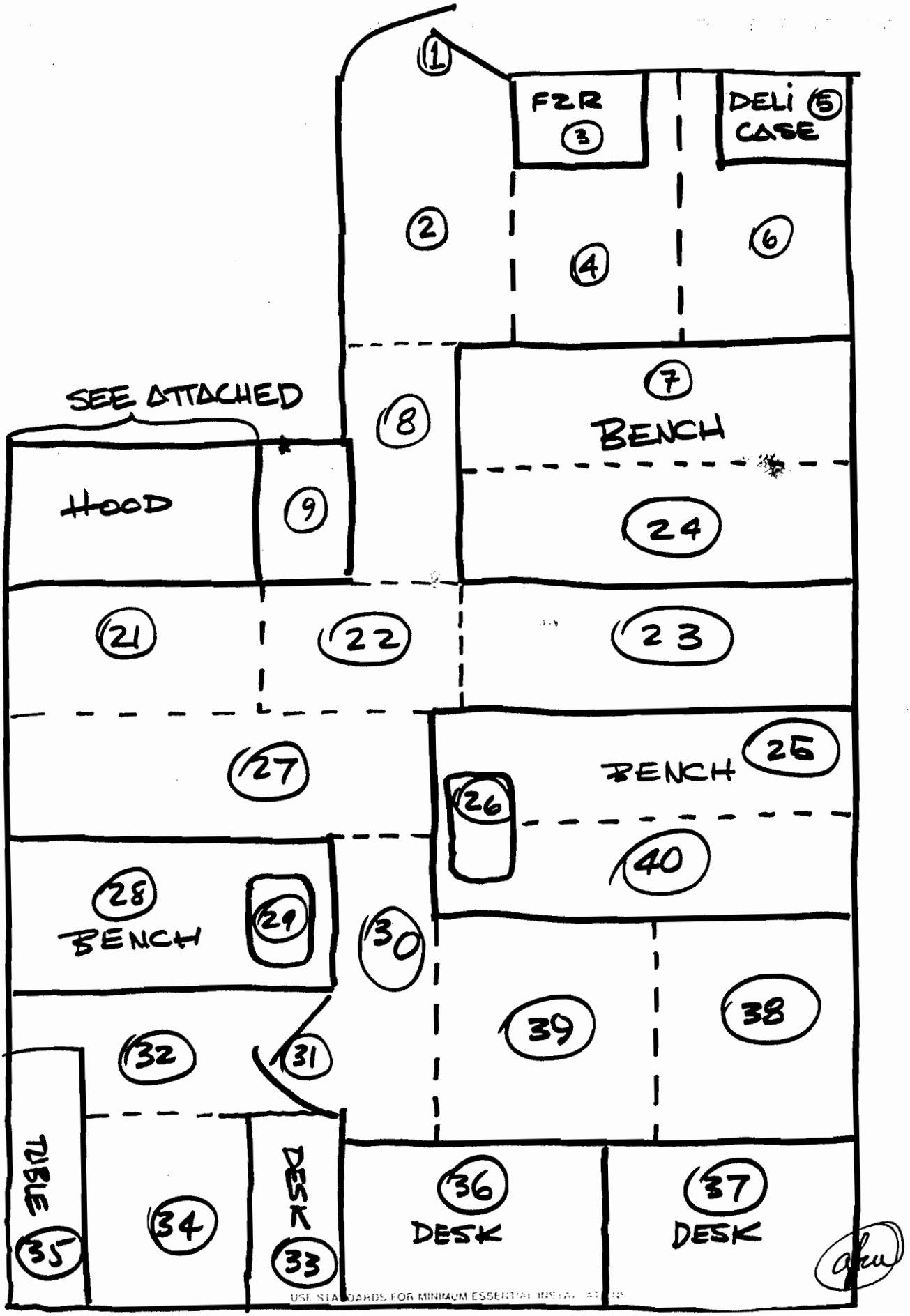
The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:	[signature]	5/25/99	Facilities:		/ /
Safety:	[signature]	5/25/99	Dept. Manager:		/ /

If transferring ownership, please proceed to next page.

DECOMMISSIONING WIPE TEST
FOR LAB B2222



USE STANDARDS FOR MINIMUM ESSENTIAL

Section B: Radioactive Laboratory Decommissioning Checklist

Laboratory: B2222 Lab Supervisor: S. Suchard

Responsible Investigator for the Lab: L. Sygowski

RAM Users in This Lab: L. Sygowski, S. Suchard

Date: _____

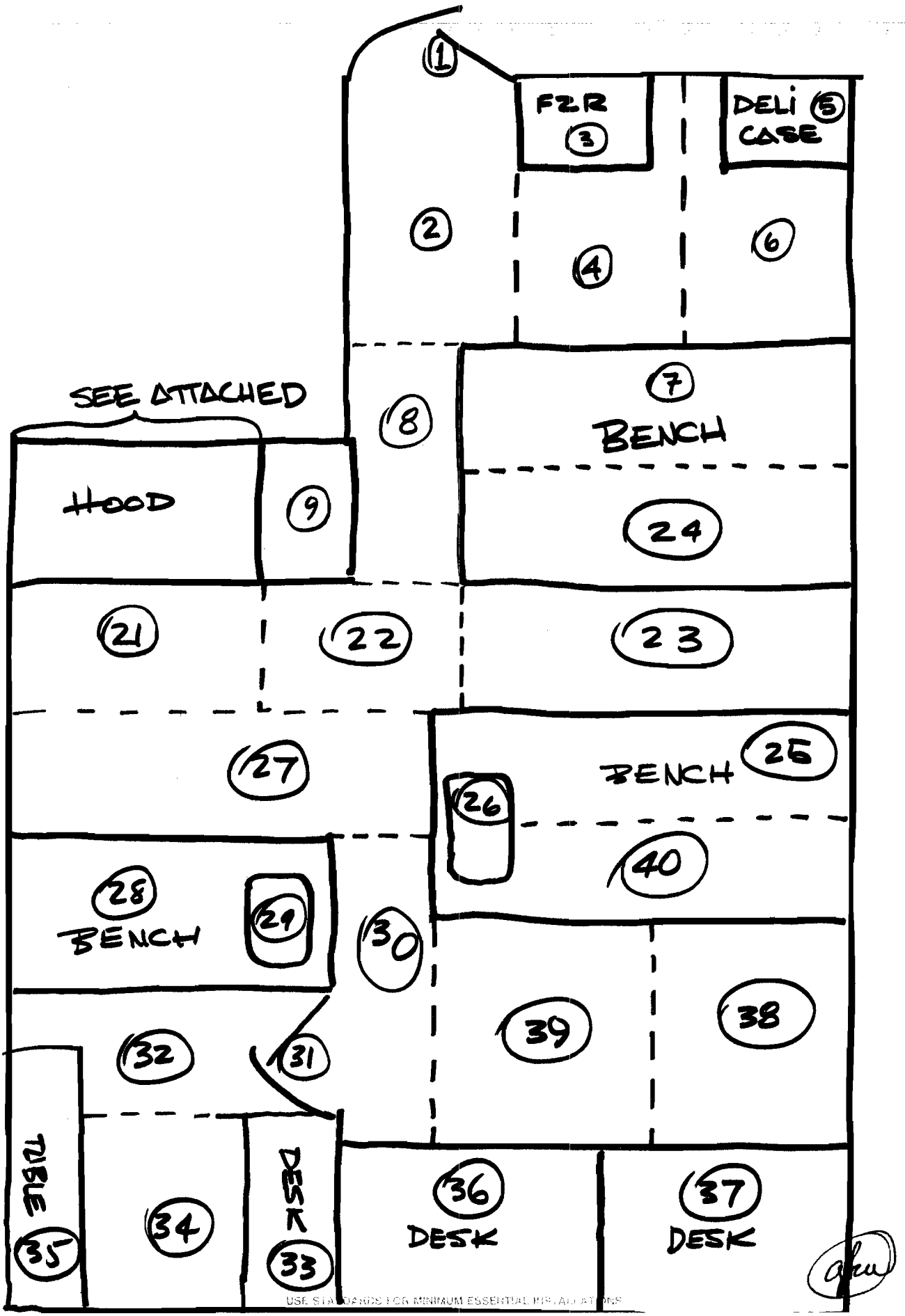
Date Completed	Questionnaire
✓	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
✓	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
✓	Contact Safety to perform final wipe test of the lab and equipment.
✓	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
✓	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
✓	After approval by Safety, the radiation signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

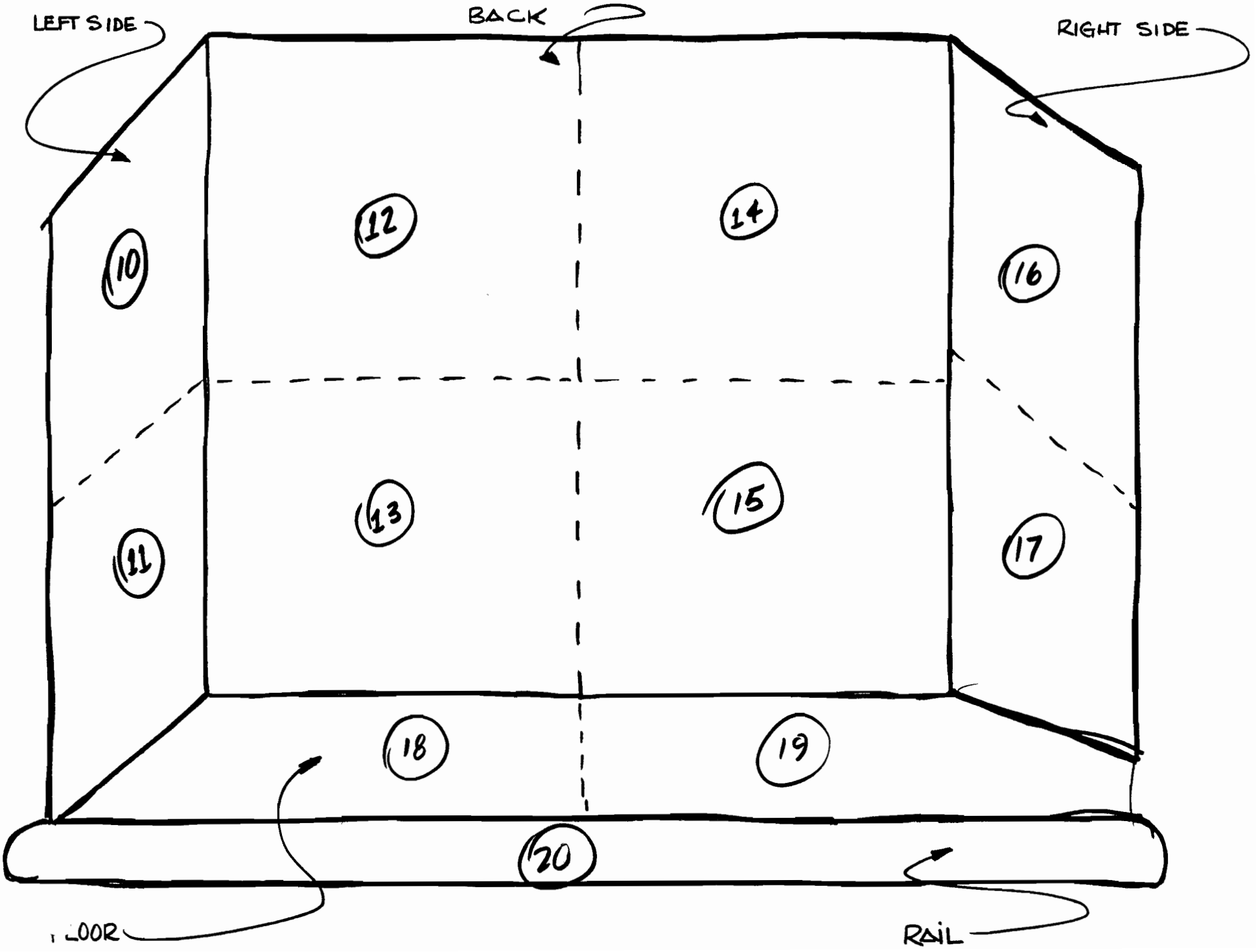
Protocol #: 2 Name:DIRECT DPM 19-May-1999 14:59
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	20.60	559.	
2	2.00	15.25	503.	
3	2.00	13.44	555.	
4	2.00	18.03	523.	
5	2.00	16.91	552.	
6	2.00	24.20	566.	
7	2.00	12.29	522.	
8	2.00	12.80	516.	
9	2.00	18.79	417.	
10	2.00	20.48	540.	
11	2.00	20.35	544.	
12	2.00	16.71	547.	
13	2.00	21.51	548.	
14	2.00	9.85	544.	
15	2.00	17.88	510.	
16	2.00	18.66	419.	
17	2.00	20.07	510.	
18	2.00	16.51	541.	
19	2.00	19.91	485.	
20	2.00	16.78	528.	
21	2.00	17.96	458.	
22	2.00	19.49	512.	
23	2.00	15.45	481.	
24	2.00	15.94	510.	
25	2.00	13.70	514.	
26	2.00	18.93	523.	
27	2.00	16.24	500.	
28	2.00	17.00	483.	
29	2.00	17.42	497.	
30	2.00	18.63	482.	
31	2.00	20.69	506.	
32	2.00	18.05	450.	
33	2.00	20.84	502.	
34	2.00	18.64	466.	
35	2.00	10.14	494.	
36	2.00	17.82	468.	
37	2.00	15.47	467.	
38	2.00	13.14	470.	
39	2.00	16.01	481.	
40	2.00	8.80	379.	

Mark Zuleff
20MAY1999

DECOMMISSIONING WIPE TEST
FOR LAB B2222




LEFT SIDE
BACK
RIGHT SIDE
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19
20
FLOOR
RAIL

Coffin, Tim

From: Coffin, Tim
t: Wednesday, December 19, 2007 8:46 AM
Zacco, Anna; Bristow, Brian K; Petlick, Scott
Cc: Widzowski, Dan
Subject: Decommissioning of [redacted] B2222B from Radioactive Material Use

FOR YOUR INFORMATION/ACTION:

As of today, 12/19/07, Lab B2222B has been decommissioned from Radioactive Material Use.

ACTIONS TAKEN:

1. Decommission wipe tests completed and all wipes were at background or below the AZ Action Level of 100 dpms.

2. Meter monitoring of all equipment, benches, floors was done and found to be at background or below. Floor monitoring was done, with the results all at background.

3. All radioactive materials in the lab had been disposed or transferred to another radioactive lab.

4. All radioactive wastes have been removed. Empty waste cans and Lucite holders were cleaned and moved to appropriate storage areas.

5. All labeled radioactive equipment, benches, fume hood, material, supplies, freezers, etc. have been cleaned and radioactive stickers/labels removed.

Required Radioactive Postings removed from door and wall.

7. Decommissioning paperwork completed and filed in the official Radiation Safety Files. A copy of the paperwork was placed in the respective Wipe Test Records for the lab. The Wipe Test Book was removed from the lab and placed in SH&E Storage.

8. The Lab was removed from the Radiation Safety Data Base Lists of active labs and the monthly wipe test schedule.

9. This E-mail serves as notice to the RSO that the lab have been decommissioned.

ACTIONS FOR BRIAN BRISTOW:

1. Please update your list of labs to reflect that B2222B is no longer a Radiation Lab.

2. Please remove the Radioactive Hazard Sign from the entrance door sign.

If anyone has any questions, please give me a call.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

B2222B
Decommission

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation); complete the appropriate sections below. To schedule a decommissioning and/or lab vacation – please contact - Scott Petlick (x61083), Bliss Schlank (x62185), or Marc Terpko (x62671).

Section A: Radioactive Laboratory Decommissioning
Section B: Biosafety Laboratory Decommissioning
Section C: Laboratory Vacating Form (Only completed when moving out of the laboratory or transferring ownership)

☐ ***NA***

Section A: Radioactive Laboratory Decommissioning Checklist / Dan Widzowski

Laboratory: B2222B Lab Supervisor: Anna Zacco

Responsible Investigator for the Lab: Anna Zacco

RAM Users in This Lab: NONE

Date: 12/18/07

Date Completed	Questionnaire
12/17/07	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
12/18/07	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
12/17/07	Contact Safety to perform final wipe test of the lab and equipment.
3H 125I	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
12/19/07	Write a letter to S. Petlick in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
12/18/07	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Timothy Koffman 12/19/07

Signature of Safety Professional Date

(1) Rad Cans removed to waste room.
(2) Lucite Dry Collection container, cleaned, and placed in storage
(3) Labels, Tape, and diapers removed from lab bench to dry waste.

☐ *NA*

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment-using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
NA	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Note BSC must be decontaminated before moving by contacting Ed Ryan*
	Update the permits status (new, revised, retired, renew) and remove permit posting found by the fire extinguisher.
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Section C: Procedure for Vacating a Laboratory

Section A and/or B must be completed prior to completing Section C. Please provide the following information and call to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Department:

Chemical Hazards:		
Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	☐ Yes ☐ No ☐ NA	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	☐ Yes ☐ No ☐ NA	
Has the decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	☒ Yes ☐ No ☐ NA	(If "No" go to the next section.)
Date lab was decommissioned?		
What isotopes were used?		^3H, ^{125}I
Have all surfaces/areas been decontaminated?	☒ Yes ☐ No ☐ NA	

Have all isotopes been transferred or disposed of?	☒ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	
Have arrangements been made to return furniture?	☐ Yes ☐ No ☐ NA	
Have all cabinets/closets/drawers been emptied?	☐ Yes ☐ No ☐ NA	
Has Housekeeping (x-4121) been notified to clean?	☐ Yes ☐ No ☐ NA	
Have all building alarm systems (BAS) been disconnected?	☐ Yes ☐ No ☐ NA	
Fume Hood(s)/Bench Areas:		
Is bench free of samples, glassware, etc.?	☐ Yes ☐ No ☐ NA	
Have solvents been transferred/disposed of/ reassigned?	☐ Yes ☐ No ☐ NA	
Ether and THF?	☐ Yes ☐ No ☐ NA	
Have all stills been quenched/transferred/ reassigned?	☐ Yes ☐ No ☐ NA	
Have all intermediates/research samples been:	☐ Yes ☐ No ☐ NA	
• Entered into the M collection?	☐ Yes ☐ No ☐ NA	
• Assigned to others on the project and labeled as such?	☐ Yes ☐ No ☐ NA	
• Disposed of if no notebook number on label?	☐ Yes ☐ No ☐ NA	
• Is the wall cabinet free of research samples?	☐ Yes ☐ No ☐ NA	
• Are the center bench drawers free of research samples?	☐ Yes ☐ No ☐ NA	
Has all the waste been property removed?		
• Waste silica?	☐ Yes ☐ No ☐ NA	
• Broken or glass thermometers?	☐ Yes ☐ No ☐ NA	
• Sharps containers?	☐ Yes ☐ No ☐ NA	
• Spent catalysts?	☐ Yes ☐ No ☐ NA	
• Drying agents?	☐ Yes ☐ No ☐ NA	
• Lecture bottles?	☐ Yes ☐ No ☐ NA	
• Used vacuum pump oil?	☐ Yes ☐ No ☐ NA	
• Metals (i.e. sodium, potassium, lithium, etc.)	☐ Yes ☐ No ☐ NA	
• Containers of used pipets/pipet tips?	☐ Yes ☐ No ☐ NA	
• Oil baths?	☐ Yes ☐ No ☐ NA	
Has all other waste been properly disposed of?	☐ Yes ☐ No ☐ NA	
Pass Inspection?	☐ Yes ☐ No ☐ NA	
Form has been given to R&D Engineering?	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant: Yutian Zhan, Anna Zacco	
Safety: Tim Coffin	
~~Dept. Manager:~~ RSO Scott Pellick	
R&D Engineering:	
Technical Services Supervisor:	

Decommission Wipes

B2222B

Protocol #:26 Name:Wipe Test 17-Dec-2007 13:23
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.10	4.20	3.00			574.	B
2	1.00	0.00	0.80	0.00	0.00	1.09	553.	
3	1.00	5.45	6.25	2.00	10.13	8.48	537.	
4	1.00	0.00	1.80	0.00	0.00	2.46	555.	
5	1.00	0.90	3.80	4.00	0.00	5.17	560.	
6	1.00	2.90	0.00	2.00	7.49	0.00	560.	
7	1.00	0.90	0.00	0.00	2.34	0.00	554.	
8	1.00	0.90	0.80	0.00	1.82	1.08	542.	
9	1.00	0.00	0.00	1.00	0.00	0.00	533.	
10	1.00	2.90	1.80	3.00	6.42	2.42	541.	
11	1.00	0.00	1.80	1.00	0.00	2.46	555.	
12	1.00	1.90	0.00	2.00	4.80	0.00	581.	
13	1.00	3.90	2.80	1.00	8.53	3.78	524.	
14	1.00	2.90	2.80	0.00	5.74	3.79	539.	
15	1.00	46.90	47.80	35.00	95.10	65.08	501.	

Meter Readings

Bicron PGM, Serial# C176F, Cal: 11/23/07

Background: 10-20 cpms

Readings: 10-20 cpms

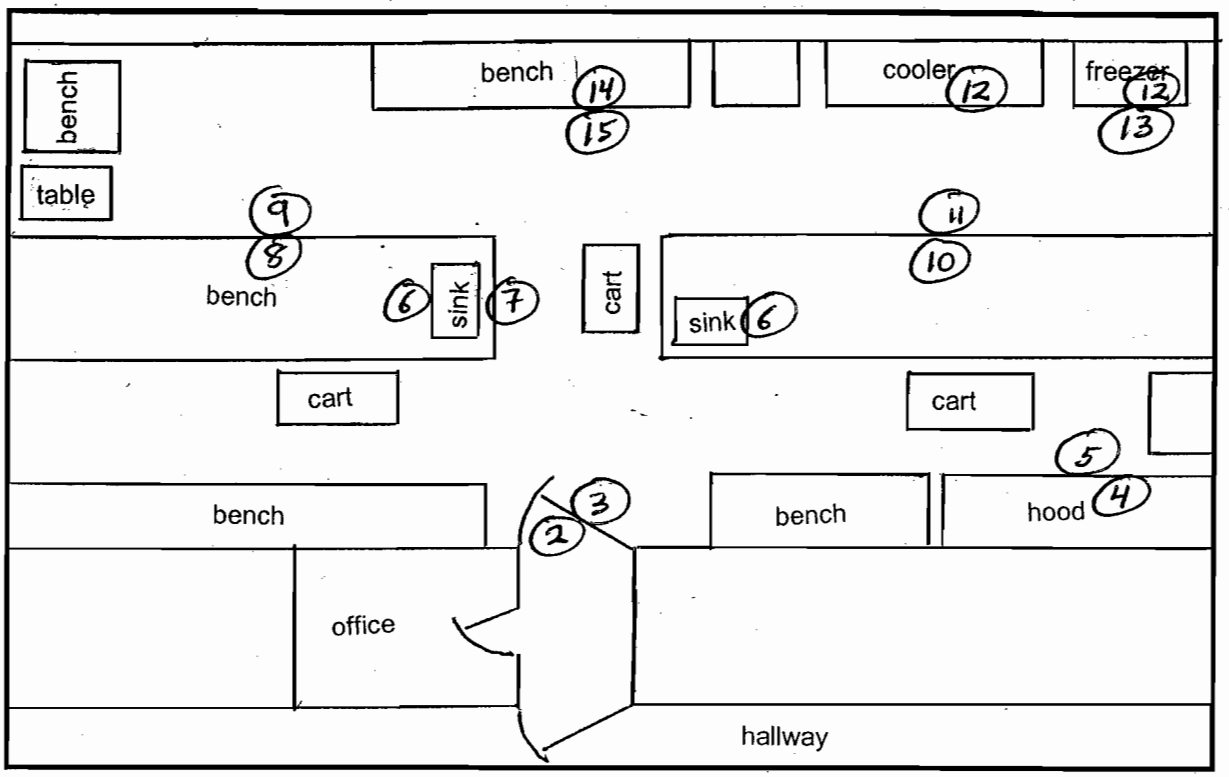
Ludlum Model 3, Probe 41-3, Cal: 8/25/07

Background: 50-200 cpms

Readings: 100-200 cpms

WIPE TEST MAP

LAB # B2222B



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle & light switch
3. Floor below door
4. Hood sash
5. Floor below hood
6. Sink
7. Floor below sink
8. Bench top and handles
9. Floor below bench
10. Bench top and handles
11. Floor below bench
12. Freezer handles
13. Floor below freezer
14. Bench top
15. Floor below bench

Decommission
Bench surface under diapers

B2222B

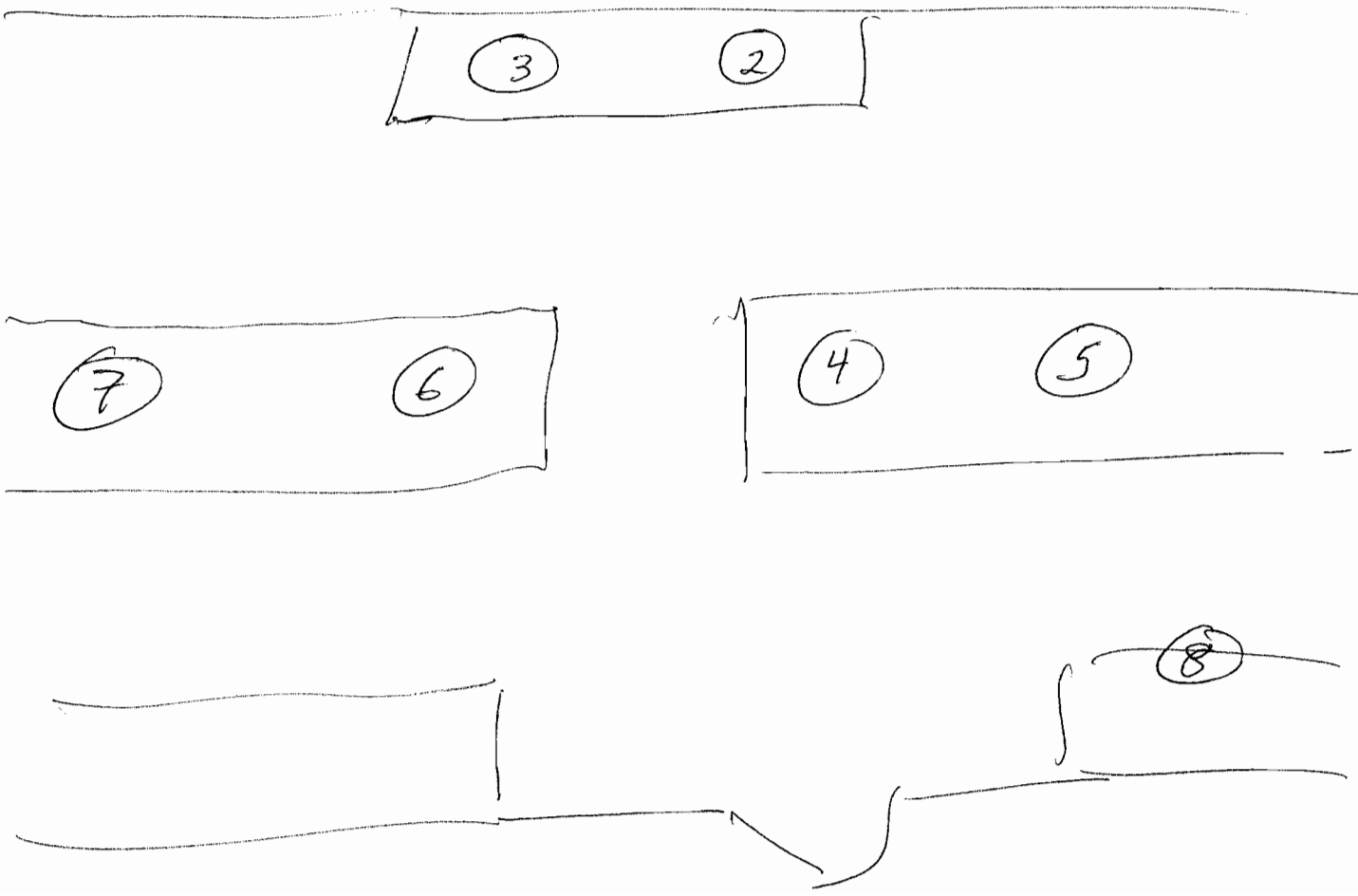
Protocol #:23 Name:Wipe Test 18-Dec-2007 14:30
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
ion B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA23.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.86	6.14	2.10			573.	B
2	1.00	6.14	0.00	2.90	15.83	0.00	562.	
3	1.00	0.00	0.00	0.90	0.00	0.00	564.	
4	1.00	3.14	0.00	1.90	7.89	0.00	586.	
5	1.00	0.00	0.00	3.90	0.00	0.00	614.	
6	1.00	0.00	0.00	0.00	0.00	0.00	551.	
7	1.00	2.14	0.00	0.00	5.34	0.00	593.	
8	1.00	1.14	0.00	4.90	2.96	0.00	554.	

See attached Map

B222B Wipes under Lab Bench diapers 12/18/07 J Coffin

① Background



For B2222B Decommission

Calibration for Ludlum Model 2221 Gas Proportional Floor Meter

Equipment:	Ludlum Model 2221 Scaler/Ratemeter, s/n 147378	
Conditions:	Window set on "Out"	☑
	Response set to "Fast"	☑
	Digital Indicator set to "Rate"	☑
Calibration Date:	NOV 5, 2007	
Probe Calibrated:	Floor probe, s/n PR 178829	
	430 cm^2	
Probe Area:	^{14}C	
Calibration Source:	0.028	
Cal. Source Activity (uCi):	8/10/2004	
Cal. Source Date:	61800	
Cal. Source Activity (dpm) :	Argon with 10% Methane	
Counting Gas:	Prior to calibration, allow the probe to purge for one hour with the gas flow adjusted to 100 cc/min. Operate probe at 50-60 cc/min. Confirm that all chambers of the probe are similarly responsive when a calibration source is put in close proximity to the chamber of interest.	
Instructions:		
	Battery reading	6.2
Instrument Settings:	HV reading	1685
	THR reading	100
	WIN reading	4056
Instructions:	Place the calibration source in position. Roll the detector over the calibration source. Set counter in scaler mode, set "TIME" to "x1", obtain a one minute count. Repeat for until data has been obtained for three source positions over the entire probe area.	

Calibration Data:	Background (B)	Cal. Source (S)
1	321	4242
2	347	4702
3	278	3583
Mean	315	4176
Calculated Counting Eff:	[redacted]	% 6.8

Instructions:	If calculating survey limits by hand, use 1 dpm/cm^2 for removable and 5 dpm/cm^2 for fixed contamination limits. Enter into equation: Survey Limit = [(Contamination Limit)(Probe Area)(Abs. Eff.)] + Background	
Fixed Survey Limit		
Removable Survey Limit		
Calibrated by:	370 cpm's	
	Signature Timothy Koffler	Date 12/19/07

Coffin, Tim

From: Coffin, Tim
nt: Wednesday, November 08, 2006 7:07 AM
: Petlick, Scott; Bristow, Brian K; Zacco, Anna
Cc: Matthews, Cory M; Civitella, Patricia C; Schlank, Bliss M; Terpko, Marc O; Palermo, Sal F; Piser, Timothy M; Ding, Min; Maier, Donna L
Subject: Decommissioning of Lab B2223 from the use of Radioactive Material

FOR YOUR INFORMATION/ACTION:

As of today, Wednesday, November 8, 2006, Lab B2223 has been decommissioned from the use of Radioactive Material.

ACTIONS TAKEN:

1. All radioactive material and waste has been removed and disposed or relocated to B154. All secondary radioactive waste cans were moved to B154 for reuse.

2. Decommissioning wipe tests were completed with all wipe tests of equipment, benches, floors, etc. at or below the AZ Action Level of 100 dpms. All meter readings were at background or lower than three times background.

3. Decommissioning Form completed and placed in the Lab Wipe Test Book and in the official Radiation Safety Decommissioning Files.

4. Lab B2223 was removed from the Radiation Data Bases and monthly wipe testing.

5. All radioactive tape, labels, and required postings have been removed from the lab equipment, benches, and materials.

6. This E-mail serves as the official notification to the Radiation Safety Officer that the lab is now decommissioned from radioactive material use.

ACTIONS TO BE COMPLETED:

1. Brian Bristow, please remove Lab B2223 from the Lab Data Base and remove the Radioactive Hazard Sign from the lab entrance door.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227, 6-2682

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation); complete the appropriate sections below. To schedule a decommissioning and/or lab vacation – please contact - Scott Petlick (x61083), Bliss Schlank (x62185), or Marc Terpko (x62671).

Section A: Radioactive Laboratory Decommissioning
Section B: Biosafety Laboratory Decommissioning
Section C: Laboratory Vacating Form (Only completed when moving out of the laboratory or transferring ownership)

☐ ***NA***

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: B2223 Lab Supervisor: Anna Zacco

Responsible Investigator for the Lab: Anna Zacco

RAM Users in This Lab: 3H, 125I

Date: 10/20/06

Date Completed	Questionnaire
10/13/06	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
11/7/06	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
10/20/06	Contact Safety to perform final wipe test of the lab and equipment.
11/7/06	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas. 3H, I125,
11/8/06	Write a letter to S. Petlick in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
11/8/06	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Timothy Coffin 11/8/06

Signature of Safety Professional Date

☒ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment-using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Note BSC must be decontaminated before moving by contacting Ed Ryan*
	Update the permits status (new, revised, retired, renew) and remove permit posting found by the fire extinguisher.
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

NA

Section C: Procedure for Vacating a Laboratory

Section A and/or B must be completed prior to completing Section C. Please provide the following information and call to schedule a walk through before vacating a laboratory:

Date: 11/8/06	Name: Anna Zocco	Lab #: B2223	Department: Neuro

Chemical Hazards:		
Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	☐ Yes ☐ No ☐ NA	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	☐ Yes ☐ No ☐ NA	
Has the decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	☒ Yes ☐ No ☐ NA	(If "No" go to the next section.)
Date lab was decommissioned? 11/8/06		
What isotopes were used? ^{3}H, ^{125}I		
Have all surfaces/areas been decontaminated?	☒ Yes ☐ No ☐ NA	

Have all isotopes been transferred or disposed of?	☒ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	
Have arrangements been made to return furniture?	☐ Yes ☐ No ☐ NA	
Have all cabinets/closets/drawers been emptied?	☐ Yes ☐ No ☐ NA	
Has Housekeeping (x-4121) been notified to clean?	☐ Yes ☐ No ☐ NA	
Have all building alarm systems (BAS) been disconnected?	☐ Yes ☐ No ☐ NA	
Fume Hood(s)/Bench Areas:		
Is bench free of samples, glassware, etc.?	☐ Yes ☐ No ☐ NA	
Have solvents been transferred/disposed of/ reassigned?	☐ Yes ☐ No ☐ NA	Decommissioned from radioactive material use!
Ether and THF?	☐ Yes ☐ No ☐ NA	
Have all stills been quenched/transferred/ reassigned?	☐ Yes ☐ No ☐ NA	
Have all intermediates/research samples been:	☐ Yes ☐ No ☐ NA	
• Entered into the M collection?	☐ Yes ☐ No ☐ NA	
• Assigned to others on the project and labeled as such?	☐ Yes ☐ No ☐ NA	
• Disposed of if no notebook number on label?	☐ Yes ☐ No ☐ NA	
• Is the wall cabinet free of research samples?	☐ Yes ☐ No ☐ NA	
• Are the center bench drawers free of research samples?	☐ Yes ☐ No ☐ NA	
Has all the waste been property removed?		
• Waste silica?	☐ Yes ☐ No ☐ NA	
• Broken or glass thermometers?	☐ Yes ☐ No ☐ NA	
• Sharps containers?	☐ Yes ☐ No ☐ NA	
• Spent catalysts?	☐ Yes ☐ No ☐ NA	
• Drying agents?	☐ Yes ☐ No ☐ NA	
• Lecture bottles?	☐ Yes ☐ No ☐ NA	
• Used vacuum pump oil?	☐ Yes ☐ No ☐ NA	
• Metals (i.e. sodium, potassium, lithium, etc.)	☐ Yes ☐ No ☐ NA	
• Containers of used pipets/pipet tips?	☐ Yes ☐ No ☐ NA	
• Oil baths?	☐ Yes ☐ No ☐ NA	
Has all other waste been properly disposed of?	☐ Yes ☐ No ☐ NA	
Pass Inspection?	☐ Yes ☐ No ☐ NA	
Form has been given to R&D Engineering?	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, will result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

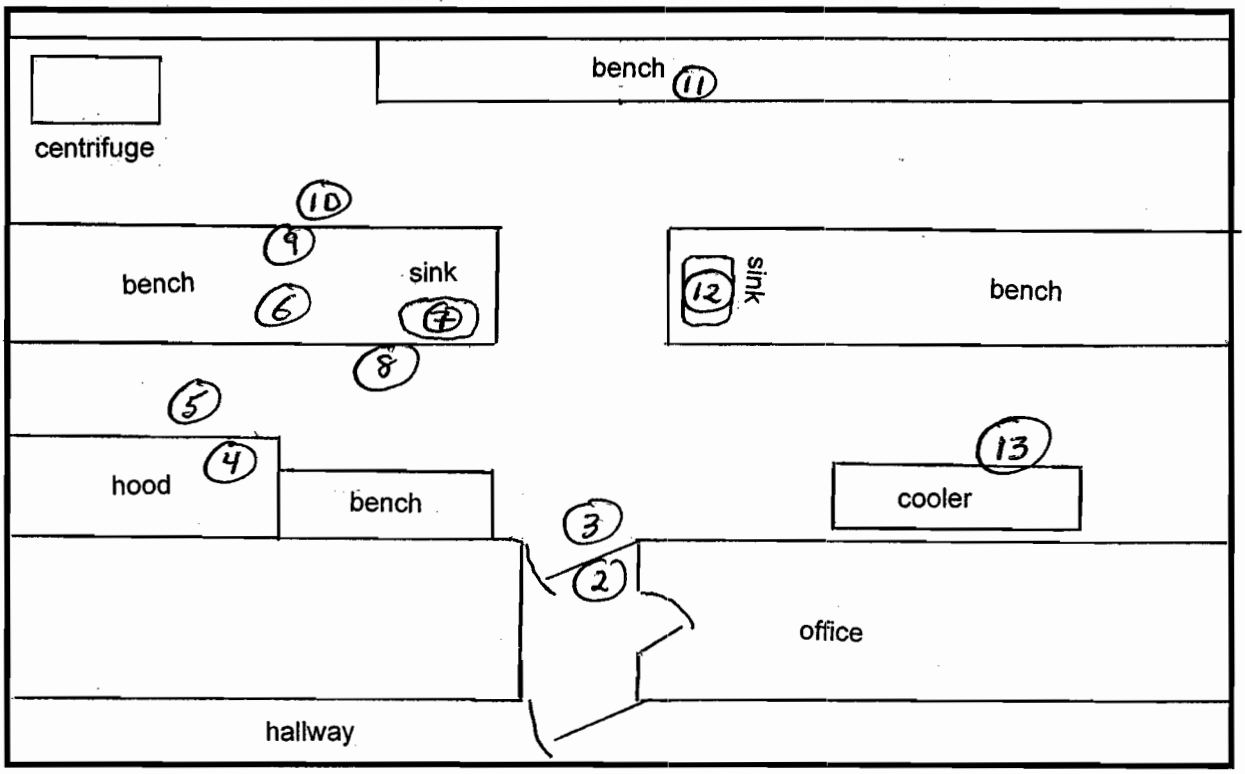
Lab Occupant:	Anna Zacco	
Safety:	Tim Coffin	Tim Coffin
Dept. Manager:	Tim Piser	
~~R&D Engineering:~~ RSO	Scott Petlick	
Technical Services Supervisor:		

Decommission Wipes

10/24/06

WIPE TEST MAP

LAB # B2223



WIPE SAMPLE DESCRIPTIONS

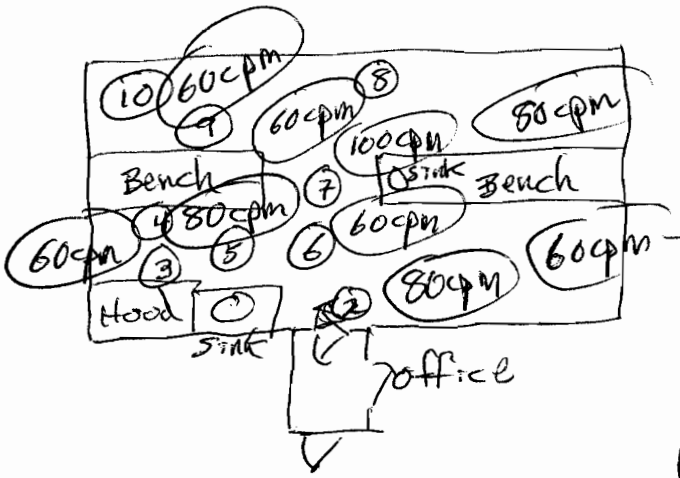
1. Background
2. Door handle & light switch
3. Floor below door
4. Hood sash, foil, and Handles
5. Floor below hood
6. Bench & handles
7. Sink
8. Floor below bench & sink
9. Bench & handles
10. Floor below bench
11. Bench top by equipment
12. Sink
13. Cooler

Page 13

B2223 Floor Counts

Protocol #:15 Name:Wipe Test 07-Nov-2006 11:35
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	3.37	4.23	2.80			608.	B
2	1.00	8.63	5.77	0.20	16.31	7.67	623.	
3	1.00	0.63	0.77	0.20	1.06	1.04	546.	
4	1.00	0.00	1.77	0.00	0.00	2.40	562.	
5	1.00	3.63	0.00	3.20	8.59	0.00	585.	
6	1.00	11.63	0.77	0.20	26.73	0.89	597.	
7	1.00	15.63	0.00	0.20	37.74	0.00	565.	
8	1.00	8.63	1.77	5.20	20.92	2.30	513.	
9	1.00	4.63	1.77	4.20	9.75	2.33	597.	
10	1.00	4.63	0.00	0.20	11.32	0.00	553.	



Meter Readings

Ludlum 3, Cal: 12/14/05
Ser: 212037
Probe: 44-9
Ser: PR223552

Background: 40-60 cpm's

Readings: All Less than 3 times background
40-100 cpm's

B2223 Koffin Page (12)
Containers

Protocol #:15 Name:Wipe Test 07-Nov-2006 12:04
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.68	3.82	3.80			610.	B
2	1.00	28.32	1.18	0.00	65.99	1.22	590.	
3	1.00	7.32	0.00	1.20	17.26	0.00	589.	
4	1.00	41.32	2.18	0.00	94.69	2.41	604.	

Page (11) B2223 Containers J Coffman

Protocol #:15 Name:Wipe Test 07-Nov-2006 09:15
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	3.93	4.57	2.91			625.	B
2	1.00	103.07	0.00	0.00	246.70	0.00	573.	
3	1.00	15.07	0.00	0.00	35.17	0.00	599.	
4	1.00	112.07	0.00	2.09	259.39	0.00	608.	
5	1.00	126.07	0.00	5.09	294.90	0.00	597.	
6	1.00	16.07	2.43	3.09	35.94	3.08	602.	
7	1.00	10.07	4.43	0.00	20.78	5.86	601.	
8	1.00	39.07	0.43	0.00	90.99	0.08	598.	
9	1.00	34.07	24.43	2.09	65.59	32.59	585.	
10	1.00	40.39	0.00	1.09	92.19	0.00	625.	
11	1.00	23.07	1.43	2.09	55.29	1.63	557.	
12	1.00	13.53	0.00	0.00	31.52	0.00	601.	

Clean & rewipe
See page (12)

(1) Background
(2) Bottom #9
(3) ~~Bo~~ Ends #9
(4) Inside bottom #9

B2223 Hoffman Page (8)
Containers

Protocol #:15 Name:Wipe Test 06-Nov-2006 11:08
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG	
1	10.00	3.80	4.50	4.50			617.	B	
2	1.00	56.20	0.00	0.00	131.20	0.00	599.		#9 Outside bottom
3	1.00	8.20	0.50	2.50	18.61	0.58	611.		
4	1.00	5.87	4.83	1.50	10.71	6.44	607.		
5	1.00	14.20	2.50	2.50	31.40	3.20	606.		
6	1.00	76.52	0.00	0.50	179.05	0.00	596.		#9 Ends
7	1.00	150.20	0.00	0.00	344.37	0.00	619.		#9 Inside bottom
8	1.00	13.20	0.00	1.50	30.48	0.00	610.		
9	1.00	43.20	0.50	0.00	98.90	0.14	617.		#9 Inside leftside
10	1.00	33.20	0.00	0.00	75.17	0.00	635.		
11	1.00	15.20	2.50	0.00	33.78	3.19	604.		
12	1.00	44.20	0.00	0.00	101.53	0.00	617.		#8 outside Top
13	1.00	19.20	0.00	1.50	44.27	0.00	612.		
14	1.00	26.20	0.00	0.00	61.13	0.00	599.		
15	1.00	32.20	0.50	0.00	73.88	0.27	613.		
16	1.00	46.20	0.00	0.00	106.77	0.00	609.		#8 Inside bottom
17	1.00	63.20	0.50	0.00	146.79	0.00	602.		#8 Inside Top
18	1.00	66.20	0.00	1.50	152.69	0.00	612.		#8 Inside left side
19	1.00	34.20	0.00	0.00	79.31	0.00	606.		

Clean & rewipe
see Page (11)

(1) Background
(2) #9 Bottom
(3) #9 Legs
(4) #9 Ends
(5) #9 Inside Bottom
(6) #9 Inside Left
(7) #8 Outside Top
(8) #8 Inside Bottom
(9) #8 Inside Top
(10) #8 Inside Left
(11) Cart Top Left
(12) Cart " right

Page (10) B2223 Lucite + Lead treated containers J Coffin

Protocol #:15 Name:Wipe Test 06-Nov-2006 08:51
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.45	4.55	3.60			669.	B
2	1.00	1.55	0.00	0.00	3.68	0.00	585.	
3	1.00	4.55	0.00	1.40	11.12	0.00	554.	
4	1.00	0.00	0.45	0.00	0.00	0.60	593.	
5	1.00	0.00	4.45	0.00	0.00	6.00	607.	
6	1.00	0.00	0.00	3.40	0.00	0.00	591.	
7	1.00	0.55	0.00	1.38	1.33	0.00	570.	
8	1.00	0.00	3.45	0.40	0.00	4.65	616.	

all clean!
Remove Labels

B2223

11/6/06 Page (9)

4/ Coffin

(1) Background
(2) Clear Cylinder
(3) Lucite Box (1) ~~Clear Cylinder~~
(4) Lucite Box (2)
(5) Plastic Jug
(6) Small Lead Box
(7) Large Lead Box
(8) Blue Plastic Rods

See Page (10)

B2223
Containers

Protocol #:15 Name:Wipe Test 06-Nov-2006 09:16
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.16	4.64	3.50			606.	B
2	1.00	3.84	0.00	0.50	8.98	0.00	596.	
3	1.00	9.84	3.36	0.00	20.70	4.41	610.	
4	1.00	10.84	0.00	2.50	25.20	0.00	603.	
5	1.00	0.00	1.36	0.00	0.00	1.84	608.	
6	1.00	3.78	2.42	2.50	7.25	3.22	614.	
7	1.00	2.84	0.00	1.50	6.45	0.00	630.	
8	1.00	0.84	0.36	0.50	1.66	0.48	652.	
9	1.00	8.84	0.00	0.00	20.58	0.00	601.	
10	1.00	4.84	1.36	0.00	10.58	1.78	587.	
11	1.00	3.84	0.00	0.00	8.98	0.00	595.	
12	1.00	15.84	0.36	0.50	36.05	0.29	621.	

} Glass Dish

} Container #4

all Clean!

B2223

Containers

Protocol #:15 Name:Wipe Test 03-Nov-2006 08:39
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG	
1	10.00	5.60	4.60	4.20			624.	B	
2	1.00	1395.20	3.60	4.80	3218.29	0.00	610.		— Glass Tray Inside
3	1.00	130.33	1.47	0.00	299.08	0.33	614.		— Glass Tray outside
4	1.00	3.40	0.40	0.00	7.64	0.50	606.		— Plastic "
5	1.00	12.40	0.00	0.00	29.03	0.00	595.		— Plastic "
6	1.00	31.63	5.17	0.80	71.05	6.58	593.		— #4 Inside
7	1.00	48.40	0.00	0.00	113.14	0.00	597.		— #4 Out
8	1.00	168.40	0.00	0.00	392.42	0.00	600.		— #9 In
9	1.00	50.40	0.00	0.00	117.82	0.00	597.		— #9 out
10	1.00	222.40	0.00	0.00	515.01	0.00	607.		— #8 In
11	1.00	52.40	0.00	2.80	124.23	0.00	582.		— #8 Out
12	1.00	0.40	3.40	0.80	0.00	4.58	604.		— Plastic Tray

Clean & Rewipe

See Page 7

1. Background
2. Glass Dish (Inside)
3. " " (Outside)
4. #4 Outside (Bottom)
5. " " (Top)
6. " " (Left side)
7. " " (right side)
8. #4 Outside Ends
9. #4 Inside (Bottom)
10. #4 " (Top)
11. #4 " (Left side)
12. #4 " (right side)

1. Background
2. #9 Outside (Bottom)
3. " " (Top)
4. " " (Left side)
5. " " (right side)
6. " " Ends
7. #9 Inside (Bottom
8. " " Top
9. " " Left side
10. " " right side
11. #8 Outside (Bottom)
12. " " (Top)
13. " " (Left side)
14. " " (right side)
15. " " Ends
16. #8 Inside (Bottom)
17. " " (Top)
18. " " (Left side)
19. " " (right side)

See Page 8

B2223 11/3/06

Wipe Containers

1. Background
2. Glass Tray Inside
3. Glass Tray outside
4. Plastic Tray inside (white)
5. " " outside (white)
6. Stool #4 (Inside)
7. Stool #4 (Outside)
8. Stool #9 (Inside)
9. " #9 (Outside)
10. " #8 (Inside)
11. " #8 (Outside)
12. Plastic Tray Bottom (white, inside)

Protocol #:15 Name:Wipe Test 24-Oct-2006 07:31
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG	
1	10.00	5.02	4.58	3.10			647.	B	
2	1.00	9.98	0.42	0.00	22.35	0.44	633.		
3	1.00	6.98	0.42	0.00	16.35	0.47	577.		
4	1.00	230.98	0.00	0.90	538.55	0.00	598.		Lucite Stool
5	1.00	9.24	3.16	1.90	19.50	4.14	605.		
6	1.00	0.98	3.42	1.90	0.23	4.61	579.		
7	1.00	17.22	1.18	0.00	39.60	1.38	593.		
8	1.00	76.98	0.00	0.00	180.82	0.00	590.		Lucite Stool
9	1.00	1275.98	2.42	2.90	2891.75	0.00	631.		Lucite Stool
10	1.00	11598.9	71.50	0.00	28140.1	0.00	557.		Baking Dish
11	1.00	5.98	0.00	0.00	14.39	0.00	567.		
12	1.00	0.98	1.42	0.00	1.49	1.91	557.		
13	1.00	0.00	2.42	0.00	0.00	3.29	534.		
14	1.00	2.58	0.00	0.00	6.98	0.00	471.		
15	1.00	0.00	0.00	0.00	0.00	0.00	525.		
16	1.00	3.98	0.00	0.00	9.52	0.00	573.		
17	1.00	1.98	2.42	0.00	3.26	3.25	565.		
18	1.00	15.98	0.00	0.00	40.13	0.00	528.		
19	1.00	3.98	0.00	0.00	9.09	0.00	622.		
20	1.00	6.98	4.42	0.90	14.49	5.91	537.		
21	1.00	10.98	0.00	0.00	25.19	0.00	616.		
22	1.00	12.98	2.42	0.90	28.31	3.10	618.		
23	1.00	13.98	0.42	1.90	32.91	0.38	580.		
24	1.00	1.98	0.00	0.00	4.74	0.00	572.		
25	1.00	1.98	0.00	0.00	4.83	0.00	554.		
26	1.00	0.98	8.42	0.90	0.00	11.35	603.		
27	1.00	4.98	0.42	0.90	11.96	0.50	548.		

Rewipe (See page ②)

① Background
② Sample #4 Outside
③ " Inside
④ Sample #8 Outside
⑤ " Inside
⑥ Sample #9 Outside
⑦ " Inside
⑧ Sample #10 Outside
⑨ " Inside
⑩ Sample #4 Tubing

10/24/06 Lab Decommissioning

B2223

J Coffman

Containers

1. Background
2. Metal Rack
3. Lucite Holder
4. Lucite Stool
5. Baking Dish
6. Lucite Holder
7. Baking Dish
8. Lucite Stool
9. Lucite Stool
10. Baking Dish
11. Plastic Large Tray
12. Bench Top where items were sitting
13. Centrifuge Controls & Exterior Top
14. " Inside Lid & Seal
15. " Inside Barrel sides/Bottom
16. " Inside sample Holder
17. Spectra Max 250 Exterior
18. Table Below Spectra Max 250
19. Water Bath Exterior
20. Water Bath Interior
21. Bench Top unda Bath
22. Centrifuge 5415C Exterior
23. " " Interior
24. Centrifuge 5417 Exterior
25. " " Interior
26. Incubator Exterior
27. Incubator Interior

```
Protocol #:15        Name:Wipe Test                    25-Oct-2006 07:29
Region A: LL-UL= 0.0-18.6  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL=18.6-156.  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region C: LL-UL=156.-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Time =  1.00      QIP = tSIE/AEC      ES Terminator = Count
A:Half-life = 108624      Ref = 03/10/2004   12:00
B:Half-life = 999999      Ref = 03/10/2004   12:00
Conventional DPM
Nuclide 1 = 276900      Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT
```

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	11.35	4.85	3.30			594.	B
2	1.00	1.65	0.00	0.00	3.93	0.00	578.	
3	1.00	220.65	4.15	0.70	527.02	2.68	569.	
4	1.00	120.65	0.15	0.00	282.30	0.00	594.	
5	1.00	84.65	4.15	0.00	194.62	4.51	599.	
6	1.00	358.86	3.94	0.00	871.28	0.51	555.	
7	1.00	2301.18	7.62	0.00	5565.42	0.00	561.	
8	1.00	342.65	1.15	3.70	825.29	0.00	565.	
9	1.00	17178.2	127.63	0.70	42316.1	0.00	543.	
10	1.00	92.65	0.00	0.00	214.63	0.00	605.	

Check wipes

10/31/06

Need to clean & wipe

See Page (3)

(1) Background
(2) Glass Tray Inside (#10)
(3) " " Outside (#10)
(4) Stool Inside (#4)
(5) " Outside (#4)
(6) Stool Inside (#9)
(7) " Outside (#9)
(8) Stool Inside (#8)
(9) Stool Outside (#8)
(10) Tubing (#4)

```
Protocol #:15        Name:Wipe Test                    31-Oct-2006 10:03
Region A: LL-UL= 0.0-18.6  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
 gion B: LL-UL=18.6-156.   Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
 gion C: LL-UL=156.-2000   Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Time =  1.00      QIP = tSIE/AEC      ES Terminator = Count
A:Half-life = 108624      Ref = 03/10/2004   12:00
B:Half-life = 999999      Ref = 03/10/2004   12:00
Conventional DPM
Nuclide 1 = 276900      Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT
```

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.05	4.85	3.50			591.	B
2	1.00	2169.72	3.38	1.50	5143.16	0.00	581.	
3	1.00	249.85	3.25	0.00	590.20	1.11	582.	
4	1.00	33.95	1.29	0.00	79.33	1.31	586.	
5	1.00	50.95	2.15	0.00	118.30	2.24	592.	
6	1.00	472.95	0.00	0.00	1111.76	0.00	590.	
7	1.00	331.95	1.15	1.50	784.02	0.00	585.	
8	1.00	233.21	0.00	3.50	546.24	0.00	594.	
9	1.00	359.82	0.00	2.50	853.71	0.00	581.	
10	1.00	8.67	0.00	1.50	19.17	0.00	665.	

— Glass Tray
— Glass Tray

} Clean & rewipe see page 5 and 6

Clean & Rewipe (See page 4)

1 Background
2 Glass Tray Inside
3 " " Outside
4

} Glass Tray

B2223

Page 4

Protocol #:15 Name:Wipe Test 01-Nov-2006 07:10
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	2.50	3.60	2.60			586.	B
2	1.00	12.50	0.40	0.40	29.26	0.38	586.	
3	1.00	7.50	1.40	4.40	16.69	1.79	596.	

Glass Tray looks Good!

white Tray B2223

Protocol #:15 Name:Wipe Test 31-Oct-2006 09:44
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
ne = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	3.62	3.68	3.80			676.	B
2	1.00	92.38	2.32	1.20	218.07	1.93	579.	
3	1.00	53.38	2.32	0.00	122.95	2.45	600.	
4	1.00	16.38	0.32	0.00	37.47	0.23	614.	
5	1.00	33.38	0.00	0.00	78.92	0.00	584.	

clean & rewipe

(1) Background
(2) Inside ~~bottom~~ sides
(3) Inside bottom

See Page 5 and 6

rotocol #:15 Name:Wipe Test 26-Oct-2006 10:05
egion A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
eg n B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
g n C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
ime = 1.00 QIP = tSIE/AEC ES Terminator = Count
1:Half-life = 108624 Ref = 03/10/2004 12:00
3:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	3.52	3.38	3.90			632.	B
2	1.00	0.00	0.00	0.00	0.00	0.00	558.	
3	1.00	0.00	1.62	0.10	0.00	2.18	587.	
4	1.00	0.48	0.00	0.00	1.13	0.00	594.	
5	1.00	0.00	1.62	1.10	0.00	2.18	594.	
6	1.00	4.48	2.62	0.00	9.20	3.49	562.	
7	1.00	22.01	11.50	0.00	53.99	15.58	435.	
8	1.00	11.48	0.00	0.10	33.43	0.00	423.	
9	1.00	6.48	3.62	0.00	13.04	4.80	590.	
10	1.00	27.48	2.62	0.10	65.08	3.18	558.	
11	1.00	16.48	0.62	0.10	39.43	0.61	563.	
12	1.00	415.81	13.29	3.10	1002.04	12.42	557.	
13	1.00	37.48	1.62	0.10	91.99	1.68	538.	
14	1.00	7.89	2.21	0.10	17.62	2.89	565.	
15	1.00	8.48	0.62	0.00	19.40	0.72	599.	
16	1.00	16.48	6.62	0.00	34.87	8.73	585.	
	1.00	14.48	4.62	0.00	31.81	6.06	571.	

– White Tray

clean & Rewipe White Tray
Sample #12 10/31/06

1. Background
2. Inside sides
3. Inside bottom
4. Outside sides
5. Outside bottom

10/26/06 B2223

J Coffin

Decommission Containers

1. Background
2. Lead Lined Outside
3. " " ~~Lid~~ Lid
4. ~~5~~
5. " " Inside
6. Lucite Hopper Outside
7. " " Inside
8. White Tray Inside
9. " " Outside
10. Bench Top
11. Sink
12. Rack in Hood
13. Long white tray in Hood
14. Square white tray in Hood
15. Vortexer
16. Scint ~~Rack~~ rack
17. Eppendorf Mixer
18. Sonicator

B2223

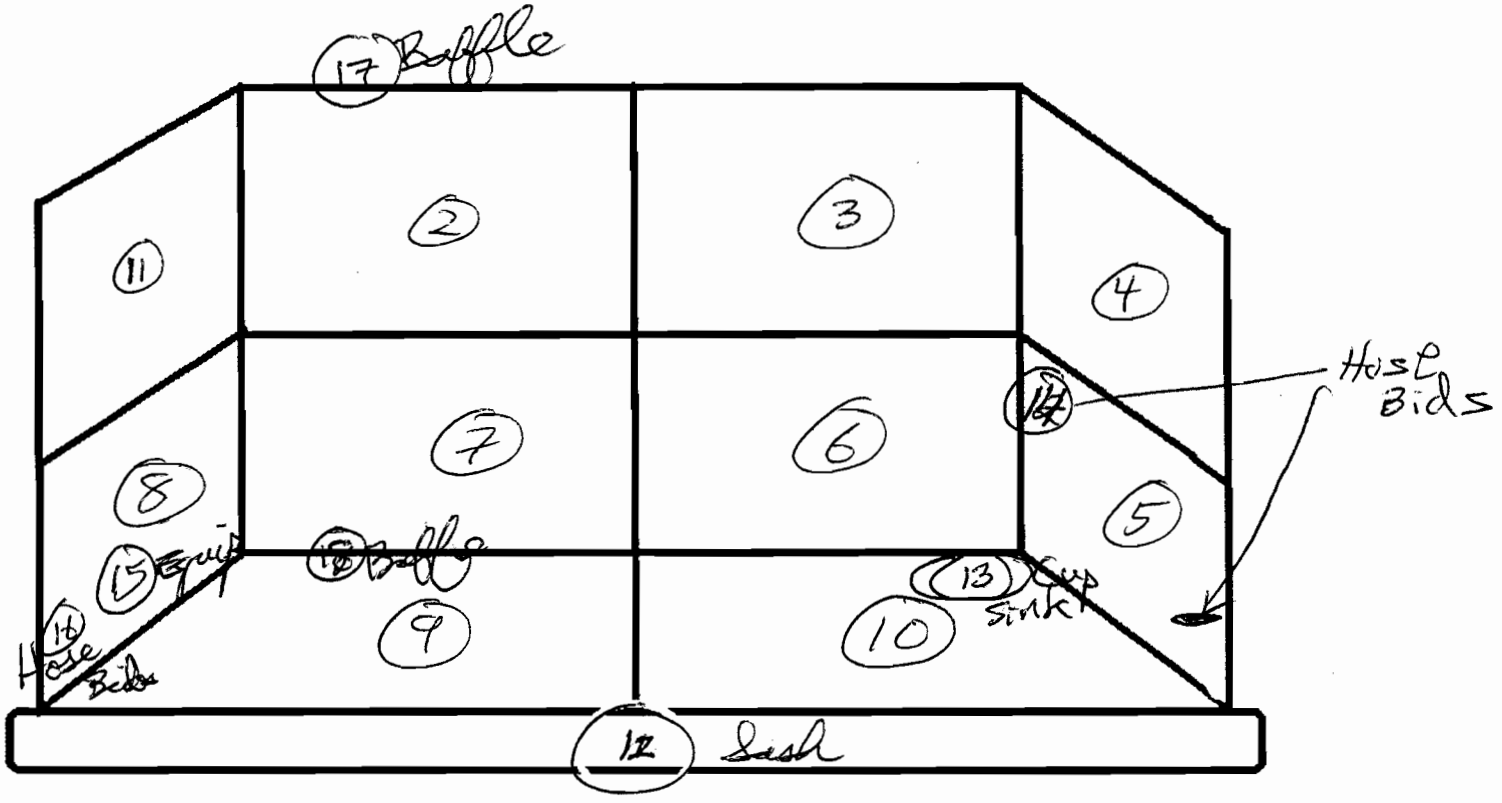
Decommission Fume Hood

Protocol #:15 Name:Wipe Test 31-Oct-2006 10:31
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	6.60	3.90	3.50			603.	B
2	1.00	3.40	4.10	1.50	5.53	5.50	584.	
3	1.00	16.40	3.10	0.00	36.90	3.98	584.	
4	1.00	12.40	0.00	0.50	29.15	0.00	590.	
5	1.00	7.40	0.10	0.00	17.70	0.04	570.	
6	1.00	20.40	2.10	0.50	49.36	2.58	537.	
7	1.00	28.40	3.10	0.00	63.22	3.82	619.	
8	1.00	2.40	0.00	0.00	5.87	0.00	552.	
9	1.00	8.40	3.10	1.50	19.46	4.11	512.	
10	1.00	13.40	1.10	2.50	31.91	1.31	557.	
11	1.00	18.40	0.10	0.50	45.83	0.00	535.	
12	1.00	14.40	2.10	0.00	33.70	2.65	557.	
13	1.00	4.40	1.10	0.00	10.05	1.43	553.	
14	1.00	8.40	2.10	0.00	19.16	2.74	554.	
15	1.00	3.40	3.10	0.00	6.68	4.18	506.	
16	1.00	16.40	1.10	0.00	37.80	1.27	593.	
[illegible]	1.00	9.40	0.00	0.00	23.42	0.00	535.	
[illegible]	1.00	8.40	0.10	0.00	20.40	0.02	556.	

10/31/06

B2223
Decommission Hood



Meter Readings

Bicron Surveyor 2000
Ser#: C176F
Cal: 11/20/05
Background: 20-40 cpm

Readings:

all at Background
20-40 cpms

MEMORANDUM: For record and reference purposes

Date: March 22, 2007

Subject: Bio Med Exp Radioactive User Area Room # Change

As of today, the previously designated Radioactive Use Area:

Room # [redacted] Radioactive

Has changed to:

Room # B2228B (radioactive) ~~non-radioactive~~

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Coffin, Tim

From: Coffin, Tim
t: Friday, February 01, 2008 9:53 AM
...: Petlick, Scott; Maier, Donna L; Bristow, Brian K; Medd, Amy; Walczak, Ed; Jennings, Richard; Smith, Jeff S (Neuroscience); Porter, Paul; McElwain, Mary E
Cc: Ding, Min; Schlank, Bliss M; Zacco, Anna; Mrzljak, Ladislav; Widzowski, Dan; Hagan, Kevin W; Doherty, James J
Subject: Decommissioning of Lab [redacted] from Radioactive Material Use

FOR YOUR INFORMATION/ACTION:

As of today, February 1, 2008, Lab B2223B has been decommissioned from Radioactive Material Use. New lab occupants cannot begin moving into the lab until the final Chemical and Biosafety portions of the Lab Decommissioning Checklist are completed and signed. Please see Donna Maier and Bliss Schlank for confirmation.

ACTIONS TAKEN:

1. All radioactive material removed from lab and disposed or relocated to alternate labs or storage areas.

2. All radioactive waste and waste containers removed from lab.

3. Decommission wipe tests completed and all wipes were at background or below the AZ Action Level of 100 dpms.

4. Floor monitoring for contamination with Gas Proportional Analyzer was done and all readings were at background (100 - 500 cpms).

All labeled radioactive equipment, benches, fume hoods, misc. supplies and equipment have been cleaned and radioactive stickers/labels removed.

6. All lab benches/cabinet tops, window ledges, and side ledges were wiped down with 10% bleach solution after wipe tests were completed

7. Required radioactive postings and wipe test book have been removed from the lab.

8. Decommissioning paperwork completed and filed in the official Radiation Safety Files. A copy of the paperwork was placed in the respective Wipe Test Records for the lab.

9. The lab was removed from the Radiation Safety Data Base Lists of active labs and monthly lab wipe test schedule.

10. This E-mail serves as notice to the RSO that the lab has been decommissioned.

ACTIONS FOR BRIAN BRISTOW:

1. Please update your list of labs to reflect that B2223B is no longer a Radiation Lab.

2. Please removed the Radioactive Hazard Sign from the entrance door lab sign.

ACTIONS FOR RICH JENNINGS and PAUL PORTER:

1. Arrange to have Cipher Combination Locks removed from the Radioactive Decommissioned Labs (B2222B and B2223B) so that they can be held for use on future designated radioactive labs.

NOTE: I will submit an ISURF Request for the Cipher Lock removal through Mary McElwain

ACTIONS FOR MARY MCELWAIN:

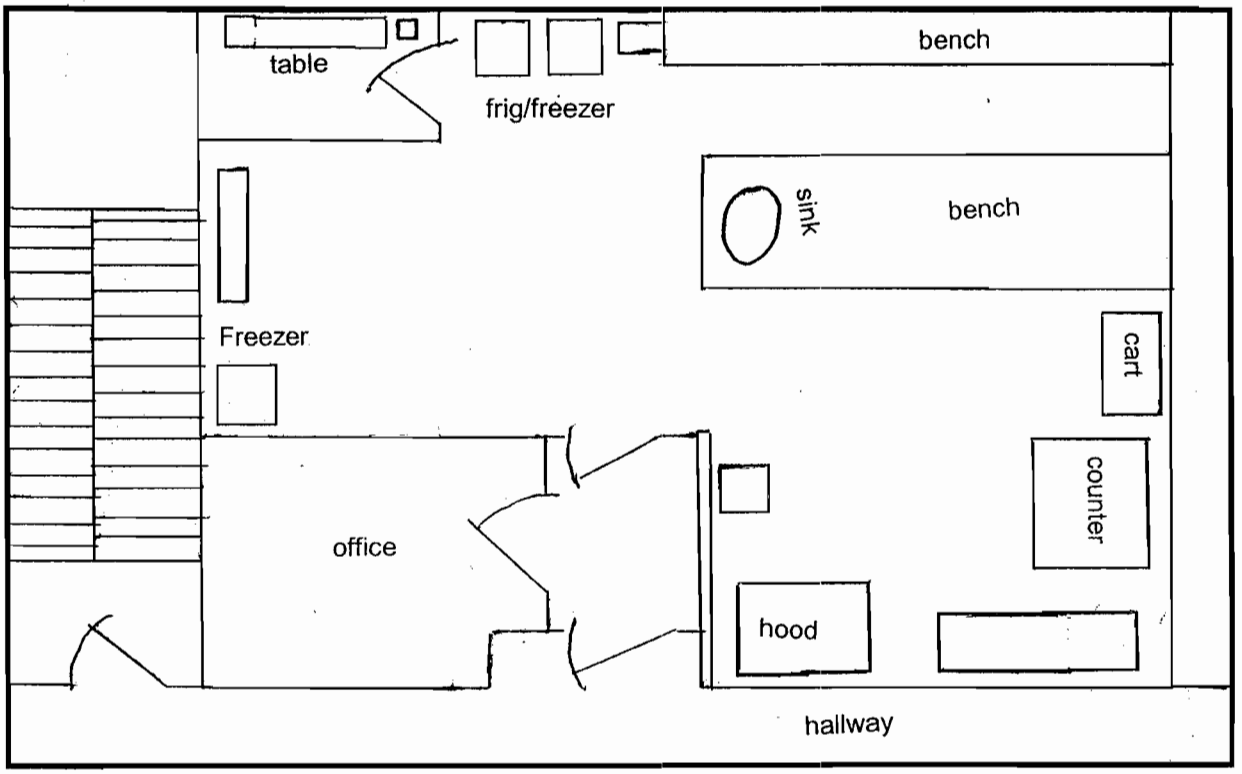
1. Please submit an ISURF Request to have the Cipher Locks removed from the decommissioned Radioactive Labs (B2222B and B2223B).

If anyone has any questions, please give me a call.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

WIPE TEST MAP

LAB # B2223B



WIPE SAMPLE DESCRIPTIONS

Decommission
B2223B
Radioactive

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation); complete the appropriate sections below. To schedule a decommissioning and/or lab vacation – please contact - Scott Petlick (x61083), Bliss Schlank (x62185), or Marc Terpko (x62671).

Section A: Radioactive Laboratory Decommissioning
Section B: Biosafety Laboratory Decommissioning
Section C: Laboratory Vacating Form (Only completed when moving out of the laboratory or transferring ownership)

☐ ***NA***

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: B2223B Lab Supervisor: Donna Maier

Responsible Investigator for the Lab: Min Ding, Anna Zacco

RAM Users in This Lab: Amy Medd, Jennifer Wertheiser, Mk Linh Do Anna Zacco, Teng Peng

Date: 1/31/08

Date Completed	Questionnaire
1/30/08	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
2/1/08	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
2/1/08	Contact Safety to perform final wipe test of the lab and equipment.
[signature]	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas. 3H, Animals (Rats)
2/1/08	Write a letter to S. Petlick in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
2/1/08	After approval by Safety, the radiation signs can be removed and returned to Safety.
Yes	If vacating the lab or changing ownership, proceed to Section C. Donna Maier

Radiation Decommissioning has been completed:

[signature] 2/01/08

Signature of Safety Professional Date

☐ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment-using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
NA	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Note BSC must be decontaminated before moving by contacting Ed Ryan*
	Update the permits status (new, revised, retired, renew) and remove permit posting found by the fire extinguisher.
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Section C: Procedure for Vacating a Laboratory

Section A and/or B must be completed prior to completing Section C. Please provide the following information and call to schedule a walk through before vacating a laboratory:

Date: 1/30/08	Name: Donna Maier	Lab #: B2223B	Department: Neuro Bio

Chemical Hazards:		
Have all chemicals been reassigned/returned or characterized as waste for disposal?	☒ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	☒ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☒ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☒ No ☐ NA	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	☒ Yes ☐ No ☐ NA	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	☒ Yes ☐ No ☐ NA	
Has the decommissioning been completed?	☒ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	☒ Yes ☐ No ☐ NA	(If "No" go to the next section.)
Date lab was decommissioned?		
What isotopes were used? 3H		
Have all surfaces/areas been decontaminated?	☒ Yes ☐ No ☐ NA	Wipe Tests Meter Checks

Have all isotopes been transferred or disposed of?	☒ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☒ Yes ☐ No ☐ NA	
Have arrangements been made to return furniture?	☒ Yes ☐ No ☐ NA	
Have all cabinets/closets/drawers been emptied?	☒ Yes ☐ No ☐ NA	
Has Housekeeping (x-4121) been notified to clean?	☐ Yes ☐ No ☐ NA	
Have all building alarm systems (BAS) been disconnected?	☐ Yes ☐ No ☐ NA	
Fume Hood(s)/Bench Areas:		
Is bench free of samples, glassware, etc.?	☒ Yes ☐ No ☐ NA	
Have solvents been transferred/disposed of/ reassigned?	☒ Yes ☐ No ☐ NA	
Ether and THF?	☐ Yes ☐ No ☒ NA	
Have all stills been quenched/transferred/ reassigned?	☐ Yes ☐ No ☒ NA	
Have all intermediates/research samples been:	☐ Yes ☐ No ☐ NA	
• Entered into the M collection?	☐ Yes ☐ No ☒ NA	
• Assigned to others on the project and labeled as such?	☒ Yes ☐ No ☐ NA	
• Disposed of if no notebook number on label?	☒ Yes ☐ No ☐ NA	
• Is the wall cabinet free of research samples?	☒ Yes ☐ No ☐ NA	
• Are the center bench drawers free of research samples?	☒ Yes ☐ No ☐ NA	
Has all the waste been property removed?		
• Waste silica?	☐ Yes ☐ No ☒ NA	
• Broken or glass thermometers?	☒ Yes ☐ No ☐ NA	
• Sharps containers?	☒ Yes ☐ No ☐ NA	
• Spent catalysts?	☐ Yes ☐ No ☒ NA	
• Drying agents?	☒ Yes ☐ No ☐ NA	
• Lecture bottles?	☒ Yes ☐ No ☐ NA	
• Used vacuum pump oil?	☒ Yes ☐ No ☐ NA	
• Metals (i.e. sodium, potassium, lithium, etc.)	☐ Yes ☐ No ☒ NA	
• Containers of used pipets/pipet tips?	☒ Yes ☐ No ☐ NA	
• Oil baths?	☐ Yes ☐ No ☒ NA	
Has all other waste been properly disposed of?	☒ Yes ☐ No ☐ NA	
Pass Inspection?	☒ Yes ☐ No ☐ NA	
Form has been given to R&D Engineering?	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, will result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

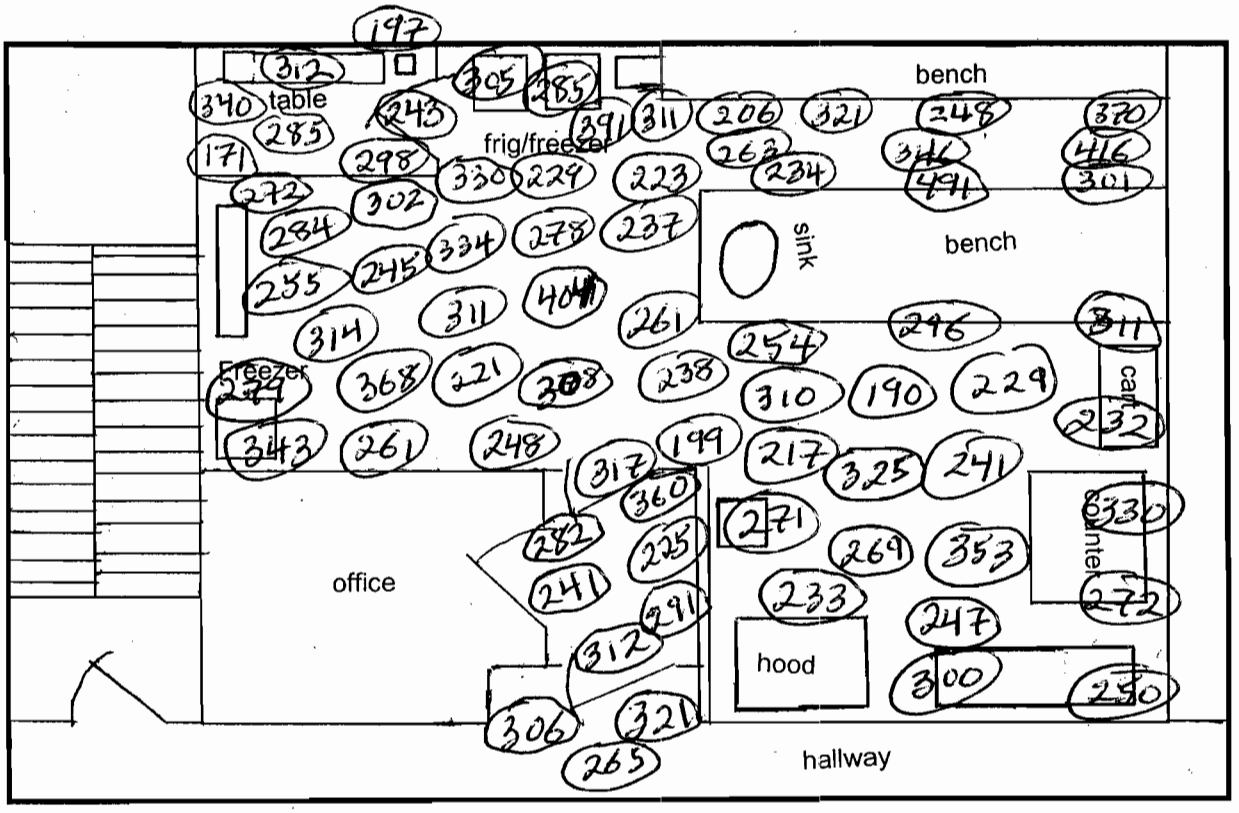
SIGNATURES and DATE:

Lab Occupant:	Donna Maier	1/30/08
Safety:	Tim Coffin	1/30/08
Dept. Manager:		
R&D Engineering:		
Technical Services Supervisor:		

Decommission Floor Meter Gas Proportional Readings 1/31/08 J Coffin

WIPE TEST MAP

LAB # B2223B



WIPE SAMPLE DESCRIPTIONS

Calibration for Ludlum Model 2221 Gas Proportional [redacted] Meter

Equipment:	Ludlum Model 2221 Scaler/Ratemeter, s/n 147378	
Conditions:	Window set on "Out"	☐
	Response set to "Fast"	☐
	Digital Indicator set to "Rate"	☐
Calibration Date:	11/05/07	
Probe Calibrated:	Hand probe, s/n PR 190486	
Probe Area:	100	cm^2
Calibration Source:	^{14}C	
Cal. Source Activity (uCi):	0.028	
Cal. Source Date:	8/10/2004	
Cal. Source Activity (dpm) :	61800	
Counting Gas:	Argon with 10% Methane	

Instructions: Prior to calibration, allow the probe to purge for 1 hour with the gas flow adjusted to 100 cc/min. Operate probe at 50-60 cc/min. Confirm that all chambers of the probe are similarly responsive when a calibration source is put in close proximity to the chamber of interest.

Instrument Settings:		
	Battery reading	6.1
	HV reading	1689
	THR reading	101
	WIN reading	4066

Instructions: Place the detector over the calibration source. Set counter in scaler mode, set "TIME" to "x1", obtain a one minute count. Repeat to obtained three standard counts. Check source count before and after static operation. A decrease in detector efficiency should be less than 10%.

Calibration Data:

	Pre-Survey		Post-Survey	
	Background (B)	Cal. Source (S)	Cal. Source (S)	
1	285	3923		
2	326	3620		
3	290	3506		
Mean	301	3683		
	Cal. Counting Eff.	5.5 %		%

3683 − 301 = 3382 ÷ 61800 = .05 × 100 = 5.5

Instructions: If calculating survey limits by hand, use 1 dpm/cm^2 for removable and 5 dpm/cm^2 for fixed contamination limits. Enter into equation:
Survey Limit = [(Contamination Limit)(Probe Area)(Abs. Eff.)] + Background

Fixed Survey Limit		
Removable Survey Limit		

Calibrated by: Timothy J Coffin

Signature Timothy J Coffin Date 1/31/08

B2223B
Final Follow-up Wipe of Cabinet (Samples #6, #10)

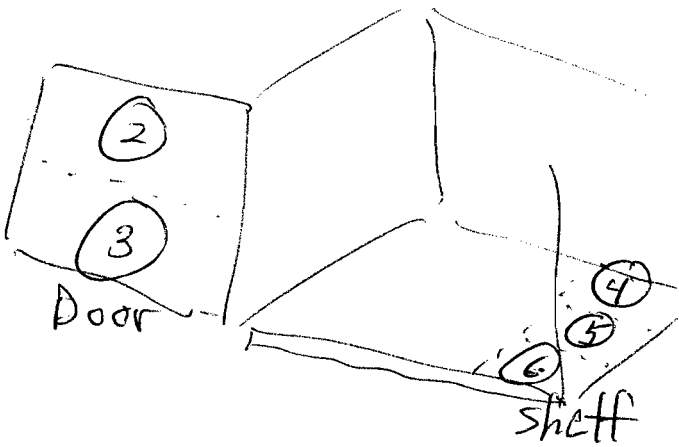
Protocol #:15 Name:Wipe Test 01-Feb-2008 09:13
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	3.90	5.50	4.70			595.	B
2	1.00	1.10	2.50	0.00	1.15	3.39	583.	
3	1.00	6.10	0.50	0.00	15.13	0.60	585.	
4	1.00	4.31	3.29	0.00	8.69	4.43	592.	
5	1.00	0.00	0.00	0.30	0.00	0.00	589.	
6	1.00	0.00	0.50	0.00	0.00	0.68	578.	

Follow-up Wipes
on Samples #6 and #10
B2228B

① Background
② Door Top
③ " Bottom
④ shelf Back
⑤ " Center
⑥ " Front

#10 ② ③
#6 ④ ⑤ ⑥



Follow-up Wiper
Sample #10

J Coffon

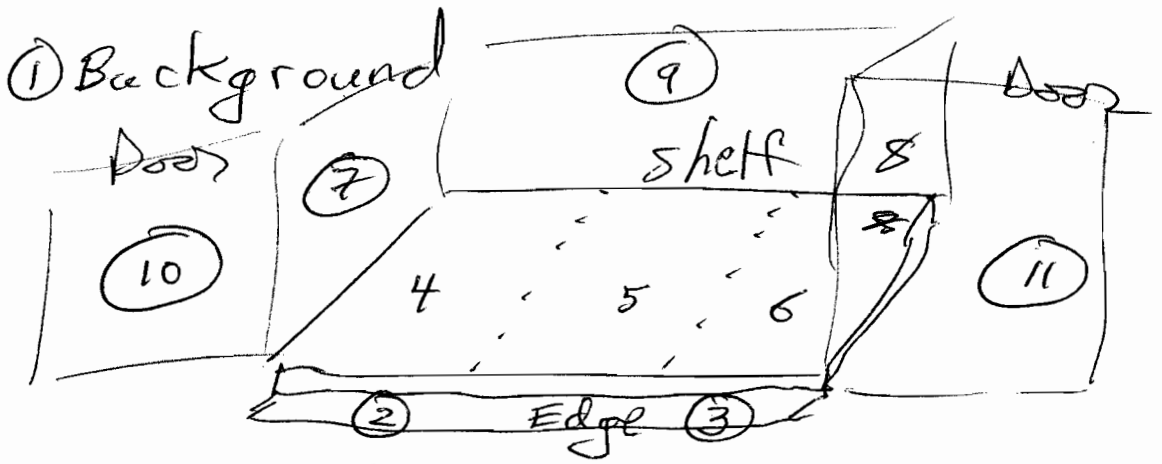
Protocol #:15 Name:Wipe Test 01-Feb-2008 08:11
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG	
1	10.00	5.00	5.20	3.20			616.	B	
2	1.00	8.00	0.00	0.00	20.53	0.00	573.		
3	1.00	12.00	1.80	0.00	29.53	2.30	575.		
4	1.00	6.00	0.00	0.00	15.29	0.00	580.		
5	1.00	7.00	0.00	1.80	17.32	0.00	610.		
6	1.00	44.00	1.80	1.80	111.76	1.87	572.		- right side shelf
7	1.00	8.00	2.80	0.00	18.36	3.71	589.		
8	1.00	2.00	1.80	0.00	3.94	2.43	570.		
9	1.00	7.00	0.00	0.00	17.31	0.00	611.		
10	1.00	154.00	0.80	0.00	399.89	0.00	560.		- Left Door
11	1.00	16.00	0.80	0.80	40.93	0.88	563.		

clean & rewipe

Follow-up Wipes
on Sample [redacted] 10
Cabinet Drawer / shelf

J Coffman
2/1/10



(2) Edge left
(3) Edge right
(4) shelf left
(5) " center
(6) " right
(7) sides (left)
(8) sides (right
(9) Back
(10) Door left
(11) " right

Other Scint Counter Follow-up Wipes B2223B / Drawer (Sample #5)

Protocol #:15 Name:Wipe Test 01-Feb-2008 07:42
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
.egion C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG	
1	10.00	3.50	4.20	3.90			551.	B	
2	1.00	2.50	0.80	0.00	5.87	1.06	576.		
3	1.00	0.00	0.00	0.10	0.00	0.00	542.		
4	1.00	0.00	0.00	2.10	0.00	0.00	522.		
5	1.00	16.50	0.00	0.00	43.52	0.00	547.		
6	1.00	8.50	3.80	0.00	19.98	5.08	540.		
7	1.00	5.42	0.00	0.00	14.27	0.00	549.		
8	1.00	7.50	0.80	2.10	19.01	0.99	558.		
9	1.00	2.50	4.80	0.00	3.33	6.54	540.		
10	1.00	929.50	8.80	0.00	2477.56	0.00	536.		— shelf

See attached Map

Wipe & clean

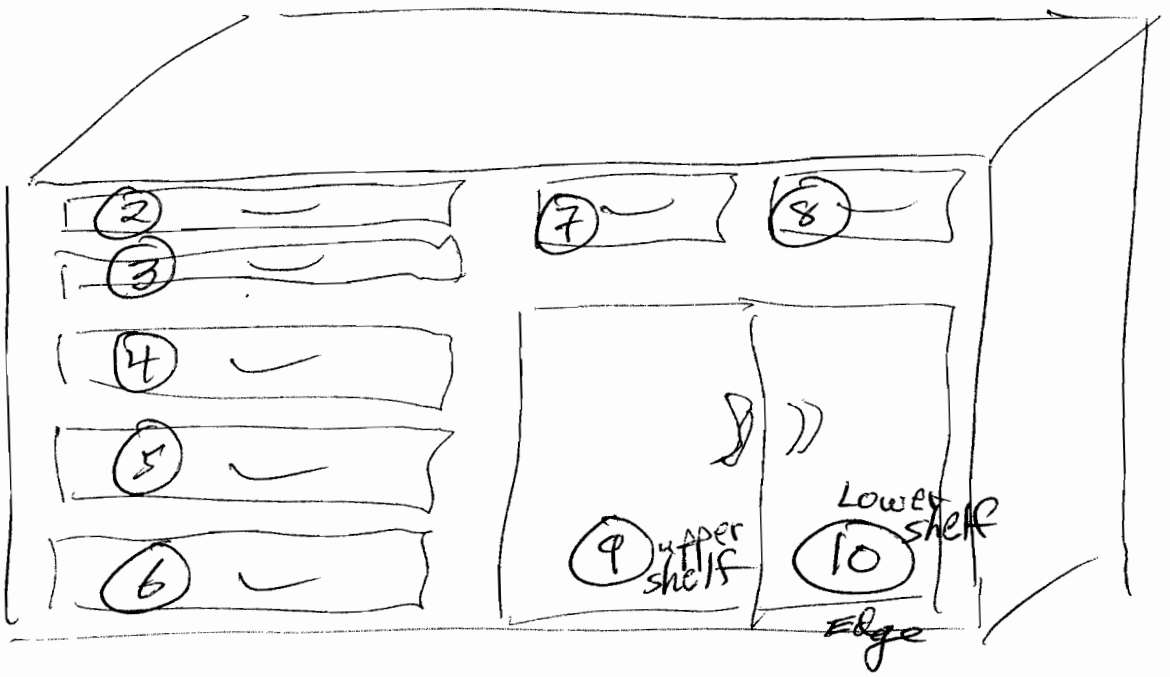
Follow-up Wipes
B222BB Drawers
Sample #28

Protocol #:15 Name:Wipe Test 01-Feb-2008 03:01
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
Conventional DPM
Nuclide 1 = 250871 Nuclide 2 = 123068

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG	
1	10.00	6.10	5.60	3.70			574.	B	
2	1.00	0.90	0.00	0.00	1.91	0.00	597.		
3	1.00	0.00	0.00	0.00	0.00	0.00	552.		
4	1.00	0.00	0.00	1.30	0.00	0.00	536.		
5	1.00	0.00	0.00	0.00	0.00	0.00	565.		
6	1.00	7.90	0.40	0.30	17.45	0.43	551.		
7	1.00	0.00	0.00	0.00	0.00	0.00	557.		
8	1.00	0.00	0.00	4.30	0.00	0.00	574.		
9	1.00	0.00	0.00	0.00	0.00	0.00	554.		
10	1.00	909.90	7.40	0.30	2049.14	0.00	544.		- Shelf

See attached Map

Follow-up Wipes
B2223B Drawers
Sample #28



① Background

Follow-up Wipes
B222aB Bench Top
Samples #15 and #16

Protocol #:15 Name:Wipe Test 01-Feb-2008 02:41
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
Conventional DPM
Nuclide 1 = 250871 Nuclide 2 = 123068

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.30	5.00	4.80			578.	B
2	1.00	3.70	0.00	0.20	7.92	0.00	590.	
3	1.00	2.70	0.00	2.20	5.83	0.00	582.	
4	1.00	2.70	0.00	0.00	5.87	0.00	576.	
5	1.00	0.00	0.00	0.00	0.00	0.00	583.	

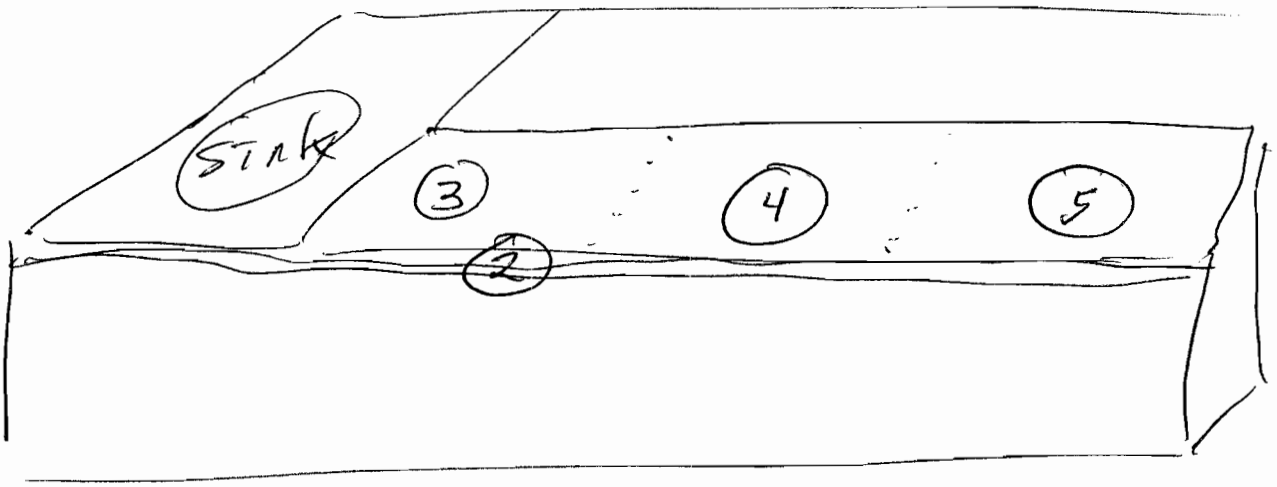
all Clean

See Map attached

Follow-up Wipes

B2223B Bench Top

Samples ~~#~~15 and ~~#~~16



1. Background
2. Edge
3. Top Left
4. Top center
5. Top right

Duplicate Set (other counter)
Benches/shelves/Drawers

Protocol #:15 Name:Wipe Test 01-Feb-2008 06:34
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG	
1	10.00	3.83	3.47	3.70			574.	B	
2	1.00	19.17	0.00	1.30	55.26	0.00	475.		
3	1.00	1.17	1.53	0.30	2.01	2.08	555.		
4	1.00	0.00	0.00	1.30	0.00	0.00	557.		
5	1.00	0.00	1.53	0.30	0.00	2.10	553.		
6	1.00	16.17	1.53	0.30	41.35	1.88	552.		
7	1.00	11.35	3.35	0.30	28.37	4.44	524.		
8	1.00	1.52	1.18	0.30	3.27	1.59	530.		
9	1.00	2.17	1.53	0.00	4.79	2.07	522.		
10	1.00	8.17	2.53	3.30	20.89	3.37	501.		
11	1.00	7.17	2.53	1.30	17.35	3.37	538.		
12	1.00	0.00	0.00	0.00	0.00	0.00	521.		
13	1.00	3.17	0.00	0.00	8.38	0.00	544.		
14	1.00	0.00	1.53	0.00	0.00	2.10	545.		
15	1.00	53.17	1.53	2.30	142.70	1.36	526.		— Bench Top
16	1.00	40.17	4.53	0.30	106.45	5.66	518.		— Bench Top
17	1.00	14.29	4.41	0.00	34.33	5.84	556.		
18	1.00	1.17	3.53	3.30	0.67	4.84	514.		
19	1.00	2.17	2.53	0.00	4.02	3.44	537.		
20	1.00	1.17	3.53	0.30	0.66	4.82	542.		
21	1.00	10.27	1.43	0.00	25.89	1.81	555.		
22	1.00	7.41	2.29	0.00	19.17	3.05	493.		
23	1.00	2.17	0.00	0.00	5.90	0.00	519.		
24	1.00	2.17	0.00	1.30	5.70	0.00	549.		
25	1.00	1.17	5.53	0.30	0.00	7.57	529.		
26	1.00	7.17	0.53	0.30	19.46	0.63	506.		
27	1.00	21.76	0.00	2.30	57.98	0.00	538.		
28	1.00	190.63	2.07	0.00	584.43	0.01	433.		— Drawers

See attached Map
(clean & rewipe #15, #16 and #28)

Decommission Wipes
Benches/shelves

J Coffin

Protocol #:15 Name:Wipe Test 31-Jan-2008 09:51
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
Conventional DPM
Nuclide 1 = 250871 Nuclide 2 = 123068

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	6.30	5.50	4.70			601.	B
2	1.00	14.70	2.50	0.00	33.48	3.18	501.	
3	1.00	3.70	0.50	0.00	7.75	0.62	577.	
4	1.00	0.00	0.00	0.00	0.00	0.00	590.	
5	1.00	0.00	1.50	0.00	0.00	2.01	575.	
6	1.00	9.70	0.00	0.00	21.01	0.00	579.	
7	1.00	8.70	0.00	0.00	19.43	0.00	553.	
8	1.00	0.00	0.00	0.00	0.00	0.00	552.	
9	1.00	2.70	0.00	0.00	6.02	0.00	554.	
10	1.00	7.70	0.00	0.30	17.82	0.00	524.	
11	1.00	1.70	0.00	0.00	3.73	0.00	568.	
12	1.00	0.00	2.50	0.00	0.00	3.36	559.	
13	1.00	0.00	0.00	1.30	0.00	0.00	578.	
14	1.00	2.70	0.00	0.00	5.93	0.00	567.	
15	1.00	42.70	4.50	0.00	93.50	5.48	546.	
16	1.00	48.70	0.00	0.00	109.17	0.00	550.	
17	1.00	3.70	0.00	0.00	7.98	0.00	584.	
18	1.00	7.70	0.50	1.30	17.04	0.57	546.	
19	1.00	0.00	0.50	1.30	0.00	0.67	583.	
20	1.00	0.00	2.50	0.00	0.00	3.35	572.	
21	1.00	5.70	0.00	0.00	12.26	0.00	586.	
22	1.00	0.70	0.00	0.30	1.66	0.00	507.	
23	1.00	0.00	0.00	0.00	0.00	0.00	528.	
24	1.00	0.00	0.50	0.00	0.00	0.67	579.	
25	1.00	0.70	1.50	2.30	0.67	2.01	562.	
26	1.00	0.00	0.00	3.30	0.00	0.00	526.	
27	1.00	15.70	0.00	0.00	34.34	0.00	570.	
28	1.00	190.70	0.50	0.00	487.03	0.00	455.	

See attached Map

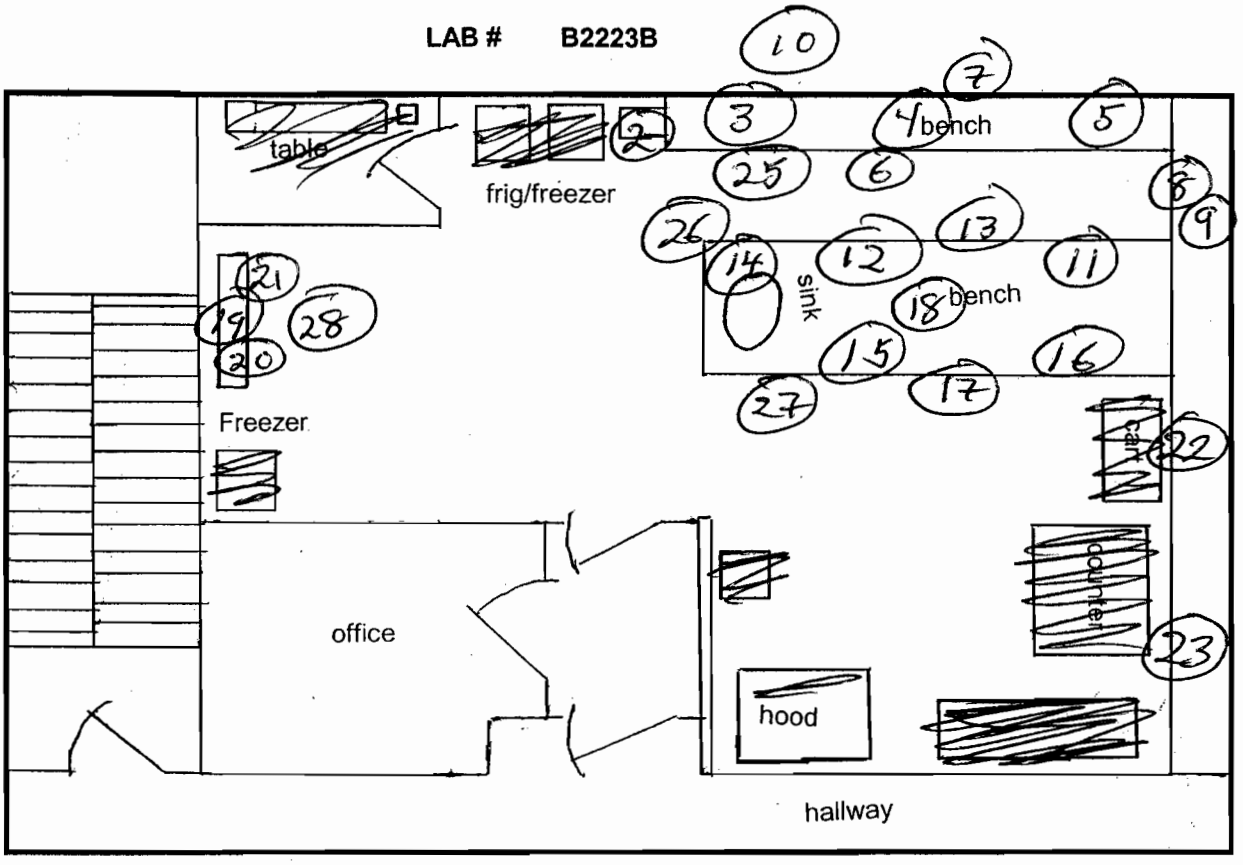
(clean & rewipe #15, #16 and #28)

Decommission Wipes
Benches Shelves

4/31/02

WIPE TEST MAP

LAB # B2223B



WIPE SAMPLE DESCRIPTIONS

1 Background	17 Handles
2 Bench Top	18 Center Shelf
3 "	19 Shelf
4 "	20 Bench
5 "	21 Handles
6 Handles	22 Ledge
7 Ledge	23 Ledge
8 "	24 Door Handle/Phone/Light
9 Shelf	25 Drawers
10 Window Ledge	26 Drawers
11 Bench	27 Drawers
12 "	28 Drawers
13 Handles	
14 Sink & Tap	
15 Bench	
16 "	

Decommission Wipes B2223B Floor

A

J Coffin

Protocol #:15 Name:Wipe Test 31-Jan-2008 10:59
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.34	5.46	2.90			590.	B
2	1.00	0.66	1.54	0.00	0.67	2.09	573.	
3	1.00	0.00	0.00	0.00	0.00	0.00	578.	
4	1.00	1.66	0.00	1.10	4.12	0.00	608.	
5	1.00	0.00	0.00	0.00	0.00	0.00	583.	
6	1.00	0.00	0.00	0.10	0.00	0.00	571.	
7	1.00	0.00	1.54	0.00	0.00	2.10	574.	
8	1.00	0.11	2.09	0.10	0.00	2.85	567.	
9	1.00	6.66	0.00	0.10	16.84	0.00	588.	
10	1.00	2.66	0.00	0.10	6.68	0.00	596.	
11	1.00	8.66	0.00	0.10	22.80	0.00	549.	
12	1.00	1.66	0.00	2.10	4.17	0.00	596.	
13	1.00	0.00	0.00	0.00	0.00	0.00	565.	
14	1.00	2.66	0.00	0.10	6.77	0.00	581.	
15	1.00	3.65	1.55	0.10	8.53	2.07	551.	
6	1.00	1.66	0.00	0.10	4.26	0.00	573.	
17	1.00	0.00	0.00	2.10	0.00	0.00	566.	
18	1.00	0.00	0.00	0.00	0.00	0.00	574.	

See Map attached (Section A)

Decommission Wipes — B2223B Floor

B

Koffman

Protocol #:15 Name:Wipe Test 31-Jan-2008 11:44
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	3.10	4.70	3.50			572.	B
2	1.00	2.90	2.30	0.50	5.96	3.10	565.	
3	1.00	7.90	0.00	1.50	20.01	0.00	586.	
4	1.00	0.00	0.00	0.50	0.00	0.00	547.	
5	1.00	0.00	1.30	0.00	0.00	1.78	555.	
6	1.00	13.90	0.30	1.50	34.73	0.23	594.	
7	1.00	5.90	1.30	0.00	14.60	1.70	552.	
8	1.00	5.90	0.30	0.00	18.25	0.33	421.	
9	1.00	3.90	0.30	0.00	10.06	0.36	549.	
10	1.00	5.90	0.00	0.50	15.67	0.00	541.	
11	1.00	2.90	3.30	0.00	5.30	4.47	562.	
12	1.00	1.90	0.00	0.00	4.95	0.00	559.	
13	1.00	3.90	3.30	0.00	7.93	4.46	558.	

See Map attached
(Section )

Decommission Wipes B2223B

Protocol #:15 Name:Wipe Test 31-Jan-2008 12:19
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.79	4.31	2.60			584.	B
2	1.00	1.21	0.69	0.40	2.71	0.93	551.	
3	1.00	13.21	1.69	1.40	33.32	2.13	557.	
4	1.00	26.21	0.00	0.40	66.44	0.00	585.	
5	1.00	7.21	0.69	0.40	19.22	0.84	516.	
6	1.00	0.21	0.00	2.40	0.55	0.00	559.	
7	1.00	4.21	0.00	0.40	11.10	0.00	548.	
8	1.00	5.21	2.69	1.40	11.46	3.59	584.	
9	1.00	1.21	2.69	0.40	1.34	3.66	553.	
10	1.00	2.21	0.00	0.00	5.83	0.00	548.	
11	1.00	5.07	0.00	1.40	13.38	0.00	547.	
12	1.00	0.00	4.69	0.00	0.00	6.41	547.	
13	1.00	6.21	0.00	1.40	16.65	0.00	533.	
14	1.00	2.21	1.69	1.40	4.66	2.28	550.	
15	1.00	0.00	0.69	0.00	0.00	0.94	560.	
16	1.00	3.21	0.69	1.40	7.98	0.90	549.	
17	1.00	0.00	0.00	2.40	0.00	0.00	552.	
18	1.00	0.00	0.00	0.40	0.00	0.00	530.	

See attached Map (section C)

Decommission wipes B2223B Floor

D

J Coffman

Protocol #:26 Name:Wipe Test 31-Jan-2008 10:38
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.40	4.54	4.26			591.	B
2	1.00	4.60	0.00	0.00	11.59	0.00	591.	
3	1.00	0.00	3.46	0.00	0.00	4.72	573.	
4	1.00	8.60	2.46	0.74	20.66	3.24	562.	
5	1.00	0.00	0.00	0.00	0.00	0.00	559.	
6	1.00	3.60	0.00	0.00	9.20	0.00	576.	

See Map attached (Section D)

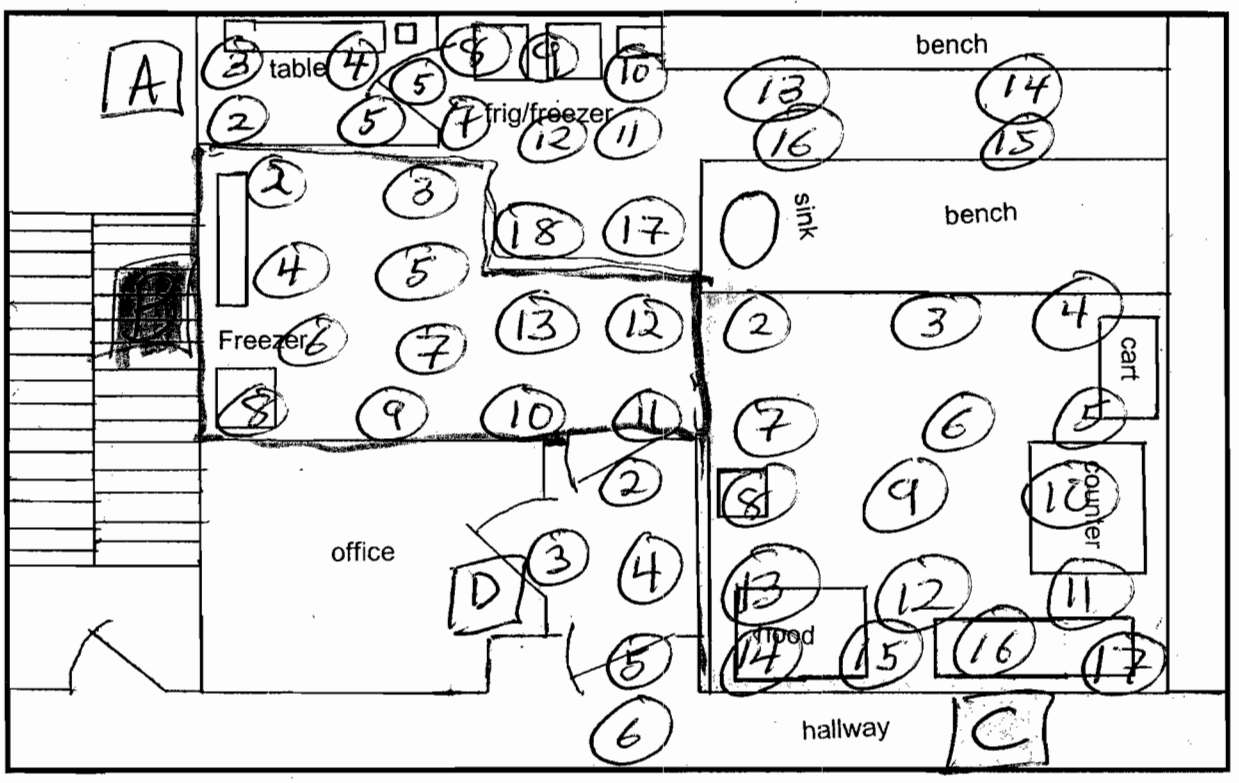
Decommission Floor Wipe Tests

1/31/08

J Coffin

WIPE TEST MAP

LAB # B2223B



WIPE SAMPLE DESCRIPTIONS

D
1) Background
2) Floor
6

A
1) Background
4
Floor
18

B
1) Background
2
Floor
13

C
1) Background
2
Floor
18
Shoe Bottoms

Decommission Wipes Fume Hood

Protocol #:15 Name:Wipe Test 31-Jan-2008 13:03
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

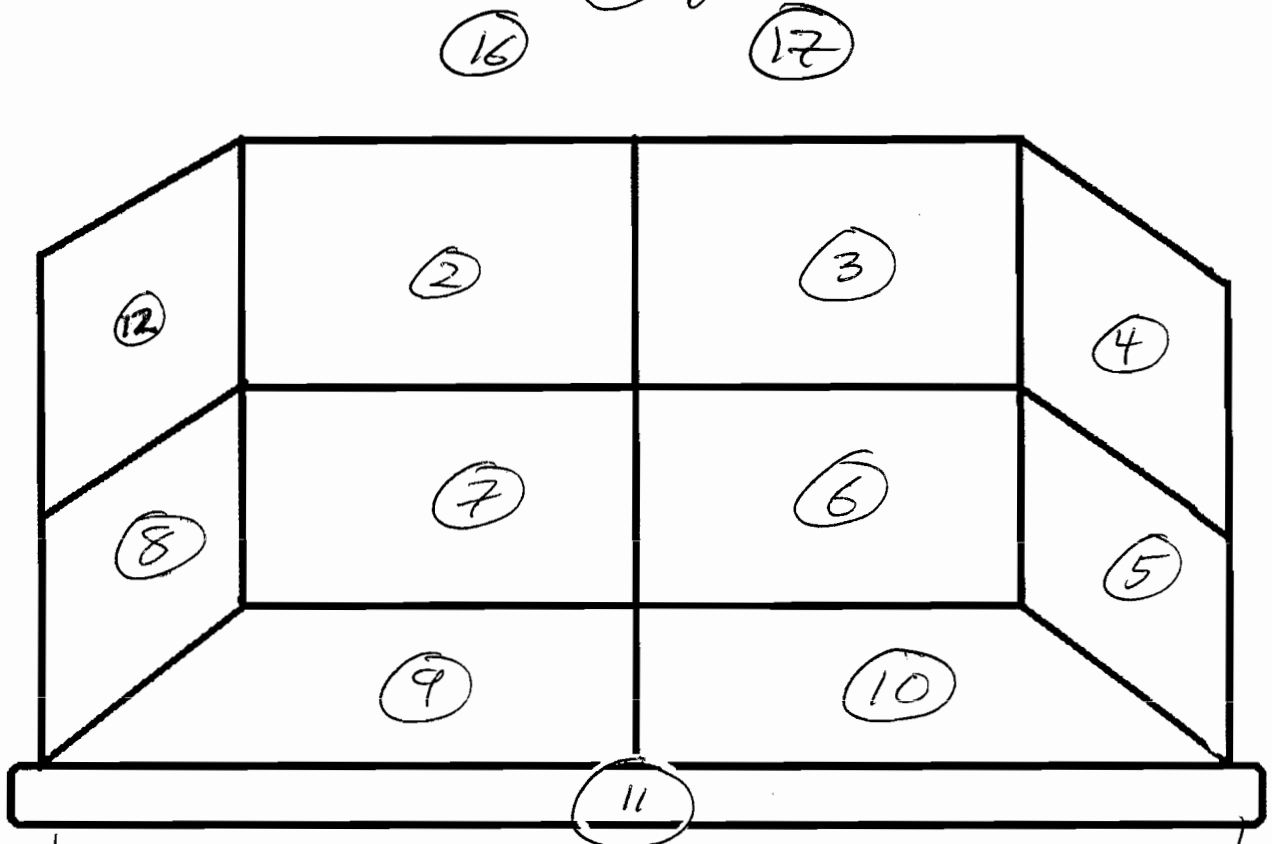
S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	3.69	6.51	3.60			582.	B
2	1.00	2.31	0.00	0.00	6.02	0.00	558.	
3	1.00	4.31	0.00	0.00	11.25	0.00	557.	
4	1.00	3.31	0.49	0.40	8.60	0.62	526.	
5	1.00	1.31	0.00	0.00	3.42	0.00	558.	
6	1.00	3.95	0.00	0.00	10.50	0.00	540.	
7	1.00	25.31	0.49	2.40	67.41	0.32	534.	
8	1.00	0.00	0.00	0.00	0.00	0.00	537.	
9	1.00	1.31	0.00	2.40	3.40	0.00	563.	
10	1.00	3.31	0.00	0.40	9.24	0.00	500.	
11	1.00	0.00	0.00	1.40	0.00	0.00	564.	
12	1.00	6.31	0.00	0.40	16.71	0.00	543.	
13	1.00	3.31	0.00	1.40	8.72	0.00	549.	
14	1.00	4.31	0.00	2.40	11.97	0.00	504.	
15	1.00	6.31	0.49	0.40	16.64	0.58	529.	
16	1.00	2.31	0.49	3.40	5.82	0.64	537.	
17	1.00	0.00	0.49	1.40	0.00	0.67	508.	
18	1.00	0.00	0.74	0.40	0.00	1.01	510.	

See Attached Map

Decommission Wipes

2223B Fume Hood

J Coffman 1/31/08



1 Background
2
3
4
5
6
7

8
9
10
11
12
13 Hood Door
14 Cabinet Handles

13
14
8
14

15 Cabinet Shelves
16 Vent
17 Vent
18 Duct

Decommission Dessicator in B2223B

Protocol #:15 Name:Wipe Test 04-Feb-2008 08:20
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

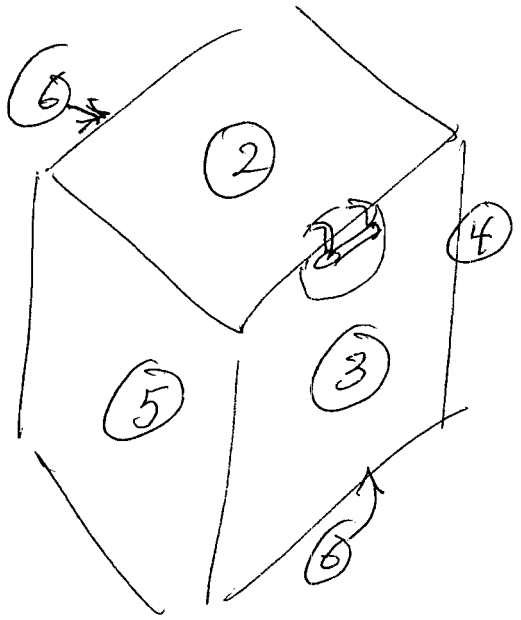
S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	19.09	8.21	3.30			584.	B
2	1.00	0.00	2.44	0.00	0.00	3.34	563.	
3	1.00	18.91	0.00	0.70	48.03	0.00	583.	
4	1.00	0.00	0.00	1.70	0.00	0.00	577.	
5	1.00	7.91	0.79	1.70	19.60	0.97	582.	
6	1.00	5.30	0.00	5.70	12.94	0.00	627.	

Done!

See attached Map

Decommission
Dessicator Box
B2228B

J Coffin
2/4/08



1. Background
2. Top
3. Front
4. right side
5. left side
6. Back & Bottom

Page (1)

B2223B
Freeze Ice

Protocol #:15 Name:Wipe Test 28-Jan-2008 15:24
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.62	6.78	7.40			677.	B
2	1.00	2870.69	187.94	100.57	7259.29	217.92	570.	
3	1.00	2407.23	26.37	2.60	6188.52	3.62	568.	
4	1.00	1879.41	20.19	0.60	4843.78	2.25	565.	
5	1.00	1926.27	28.33	4.60	4944.47	12.78	568.	
6	1.00	3121.13	117.47	3.60	7954.79	118.39	569.	
7	1.00	2501.41	95.19	0.00	6378.96	96.29	569.	
8	1.00	2511.38	22.22	0.00	6454.31	0.00	569.	
9	1.00	2387.90	24.70	8.60	6125.18	1.67	570.	
10	1.00	3238.93	287.67	394.60	8158.84	349.06	568.	
11	1.00	2390.91	18.69	0.60	6145.34	0.00	569.	
12	1.00	2567.35	18.25	0.00	6602.54	0.00	568.	
13	1.00	2503.66	25.60	0.00	6488.06	1.08	560.	
14	1.00	2449.36	29.24	1.60	6290.24	7.00	568.	
15	1.00	2444.73	33.87	1.60	6281.50	13.36	567.	

See Page (2)

Page (2)

Melted Ice from B2223B Freezer

J Keffer
1/28/08

1. Background
2. Sample #1
3. " #1
4. " #2
5. " #2
6. " #3
7. " #3
8. " #4
9. " #4
10. " #5
11. " #5
12. " #6
13. " #6
14. " #7
15. " #7

Contain & Dispose all.

Page (1)

B2223B Equipment - Coffin

Protocol #:26 Name:Wipe Test 28-Jan-2008 14:52
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	3.70	4.10	2.70			586.	B
2	1.00	103.30	0.00	3.30	268.59	0.00	560.	
3	1.00	0.30	0.90	0.30	0.17	1.23	554.	
4	1.00	6.91	1.29	1.30	16.86	1.66	574.	
5	1.00	2.30	1.90	0.30	4.65	2.56	570.	
6	1.00	26.04	3.16	0.30	66.79	3.96	543.	
7	1.00	487.30	1.90	2.30	1286.61	0.00	545.	
8	1.00	3.30	0.00	0.00	8.62	0.00	555.	
9	1.00	3.30	0.00	0.00	8.55	0.00	563.	
10	1.00	0.00	2.90	0.00	0.00	3.96	570.	
11	1.00	23.30	0.90	0.00	59.89	0.91	561.	
12	1.00	1.30	0.90	0.00	2.75	1.21	569.	

- Desicator
- Vortex knob & Rubber

See page (2)

B2223B Equip

J Coffin
1/28/08

(1) Background
(2) Desicator Exterior
(3) " Inside sides
(4) " Bottom inside
(5) " White Tray
(6) Vortexor Sides
(7) " Knob & Rubber
(8) Balance Pan
(9) Balance Controls
(10) " Sides & Bottom
(11) Cords
(12) Desicator Shelves

Page ① B2223B Equip

Protocol #:26 Name:Wipe Test 25-Jan-2008 10:01
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.70	4.20	3.60			587.	B
2	1.00	0.30	0.00	0.00	0.80	0.00	536.	
3	1.00	5.93	1.17	0.00	16.25	1.54	472.	
4	1.00	0.00	0.00	0.00	0.00	0.00	577.	
5	1.00	0.00	0.80	0.40	0.00	1.09	577.	
6	1.00	1.30	0.80	0.40	2.79	1.07	578.	
7	1.00	6.30	2.80	0.40	14.00	3.73	593.	
8	1.00	1.30	1.80	2.40	2.14	2.44	572.	
9	1.00	0.30	0.00	0.00	0.77	0.00	568.	
10	1.00	1.30	0.80	0.00	2.85	1.08	557.	
11	1.00	0.00	0.80	0.00	0.00	1.09	568.	
12	1.00	13.30	0.00	1.40	34.96	0.00	549.	
13	1.00	6.30	2.80	0.40	14.55	3.74	555.	
14	1.00	6.30	0.80	1.40	15.66	1.01	570.	
15	1.00	0.00	2.80	0.00	0.00	3.82	582.	
16	1.00	91.30	0.00	0.40	236.10	0.00	564.	
17	1.00	4.30	1.80	2.40	10.03	2.40	553.	
18	1.00	4.30	0.00	0.00	11.61	0.00	526.	
19	1.00	0.00	0.00	2.40	0.00	0.00	558.	
20	1.00	0.30	0.00	0.40	0.77	0.00	568.	
21	1.00	3.30	0.00	0.00	8.55	0.00	563.	
22	1.00	8.30	1.80	0.00	20.60	2.35	549.	

– Desicator Box

See Page ②

Page (2) B2223B JCoffin

Wipe Test of Movable Equipment for relocation

1. Background
2. Freezer Exterior
3. " Handles
4. Freezer Handle/Door
5. Shelf Top/Sides
6. Lab Stool
7. Lab Stool
8. Foot Stool
9. Microscope
10. Microscope
11. Trash Can (Inside)
12. Trash Can (Outside)
13. Centrifuge Interior
14. OK Centrifuge ~~Exterior~~
15. Balance Exterior
16. Desicator Box
17. Oven ~~Exterior~~
18. Wheeled Table

---

19. Flammable Cabinet (Inside)
20. " " (outside)
21. Lucite Dry Waste holder (inside)
22. " " " " (outside)

Page ①

B2223B Scint Counter

Protocol #:15 Name:Wipe Test 25-Jan-2008 09:30
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.45	5.85	3.90			623.	B
2	1.00	2.55	1.15	3.10	5.88	1.54	552.	
3	1.00	3.55	0.15	1.10	8.98	0.16	574.	
4	1.00	0.55	0.00	0.00	1.42	0.00	559.	
5	1.00	24.55	0.00	0.00	63.78	0.00	560.	
6	1.00	0.55	0.00	0.00	1.40	0.00	570.	
7	1.00	94.55	0.00	1.10	237.98	0.00	591.	
8	1.00	0.00	0.00	0.10	0.00	0.00	510.	
9	1.00	0.00	0.15	1.10	0.00	0.21	554.	
10	1.00	1.55	2.15	0.00	2.76	2.95	494.	
11	1.00	4.55	0.00	0.00	11.97	0.00	548.	

- Balance

Balance relocated to rad lab by Donna Maier.

J Coffman

See Page ②

B2223B

Scint Counter
for relocation

1. Background
2. Top & Sides (Exterior)
3. Keyboard
4. Printer
5. Monitor
6. Shelf
7. Balance Exterior
8. Computer
9. Table (No wheels)
10. Shelf of Equip
11. " " "

Section B: Radioactive Laboratory Decommissioning Checklist

Laboratory: [redacted] Lab Supervisor: D. Aharony

Responsible Investigator for the Lab: D. Aharony

RAM Users in This Lab: _____

Date: May 20, 1999

Date Completed	Questionnaire
✓	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
✓	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
✓	Contact Safety to perform final wipe test of the lab and equipment.
✓	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
✓	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
✓	After approval by Safety, the radiation signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

ZENECA Pharmaceuticals Group

Internal Memorandum

BioScience
Wilmington, DE 19850-5437
Telephone (302) 886-8049

DATE: 20-May-99

TO: Dave Irwin

FROM: David Aharony **CC:** Frank Zuleski

SUBJECT: Lab B-2224: Decommissioning as radioactive lab and request to remove from the list.

Lab B-2224 was used for radiotracer work with only μCi quantities of [^{3}H] and [^{125}I], from 1990 to 1999. There were no significant spills or unusual occurrences involving radioisotopes during this time. The wipe test books will remain on file in the laboratory for a period of three years following decommissioning

As the lab is no longer radioactive, please remove it from the list of isotope using labs.

Thanks.

Protocol #: 2 Name:DIRECT DPM 19-May-1999 20:44
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
me = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	23.76	524.	BACKGROUND
(1 missing vial)				
3	2.00	16.96	494.	B2223 - STATION
(1 missing vial)				
5	2.00	27.80	495.	B2224 - STATION

Mark Zuleski
20 MAY 1999

Protocol #:15 Name:DIRECT DPM 18-May-1999 17:39
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
ime = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

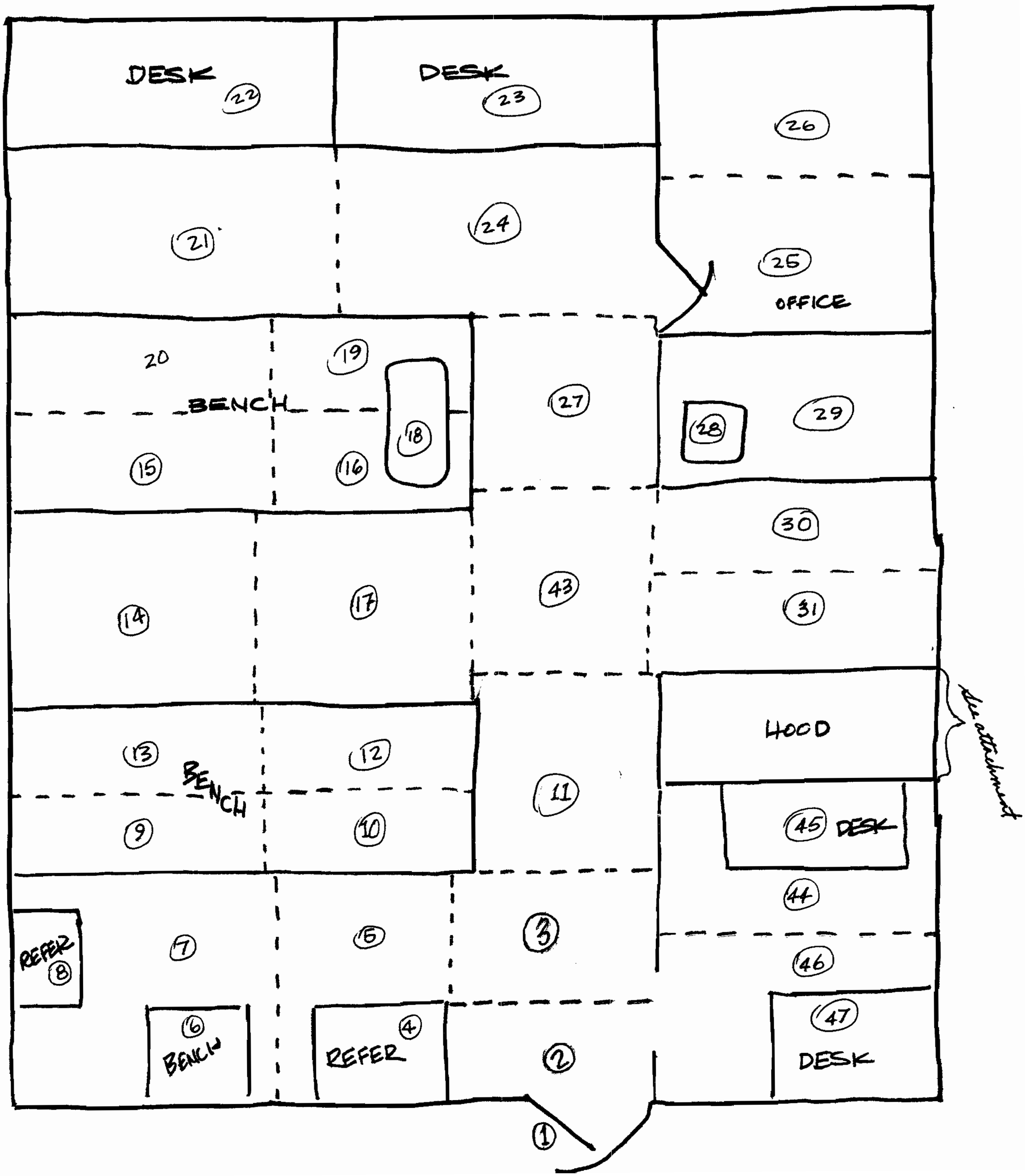
S#	TIME	DPM1	tSIE	FLAG
1	2.00	18.82	527.	
2	2.00	16.59	499.	
3	2.00	12.54	516.	
4	2.00	15.45	517.	
5	2.00	17.84	505.	
6	2.00	17.11	460.	
7	2.00	13.94	559.	
8	2.00	17.06	559.	
9	2.00	14.77	482.	
10	2.00	18.31	512.	
11	2.00	22.23	504.	
12	2.00	20.85	501.	
13	2.00	14.54	507.	
14	2.00	19.02	526.	
15	2.00	20.24	488.	
16	2.00	14.82	492.	
17	2.00	12.47	489.	
18	2.00	18.75	514.	
19	2.00	15.74	489.	
20	2.00	18.70	509.	
21	2.00	18.46	459.	
22	2.00	17.82	423.	
23	2.00	19.56	437.	
24	2.00	12.81	454.	
25	2.00	16.09	432.	
26	2.00	16.70	420.	
27	2.00	17.37	494.	
28	2.00	17.09	475.	
29	2.00	24.56	478.	
30	2.00	18.41	496.	
31	2.00	14.43	491.	
32	2.00	22.73	442.	
33	2.00	31.93	496.	
34	2.00	17.74	488.	
35	2.00	27.67	500.	
36	2.00	21.09	486.	
37	2.00	18.83	506.	
38	2.00	21.35	500.	
39	2.00	20.12	487.	
40	2.00	221.74	466.	— Left half of hood floor (see attached map)
41	2.00	17.95	484.	
42	2.00	23.93	493.	
43	2.00	19.10	440.	
44	2.00	30.84	464.	
45	2.00	16.49	437.	
46	2.00	16.05	324.	
47	2.00	18.71	477.	

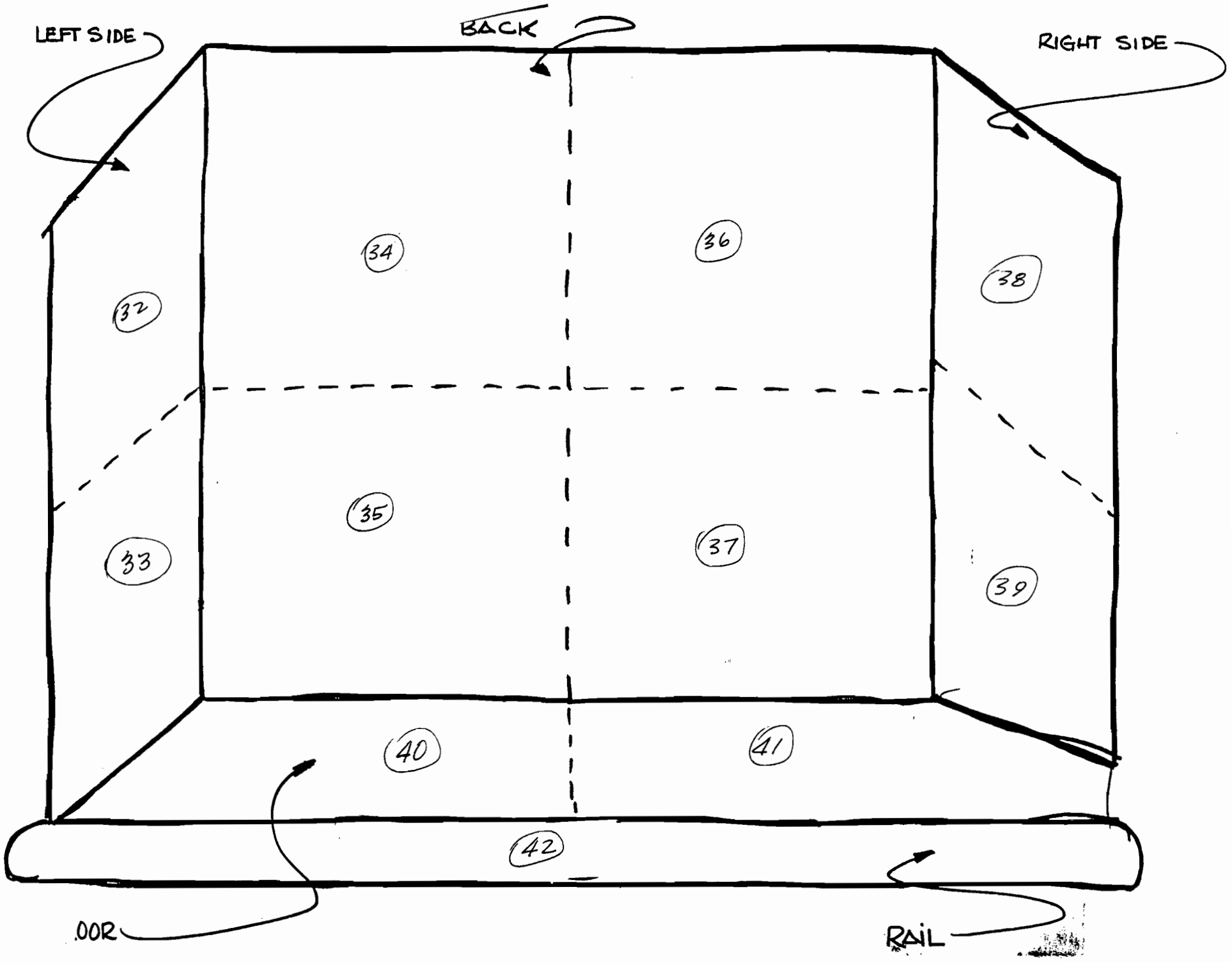
Decommissioning Wipe test
for Lab B 2224

A.B.C.
= 16.68 dpm
G K Waters

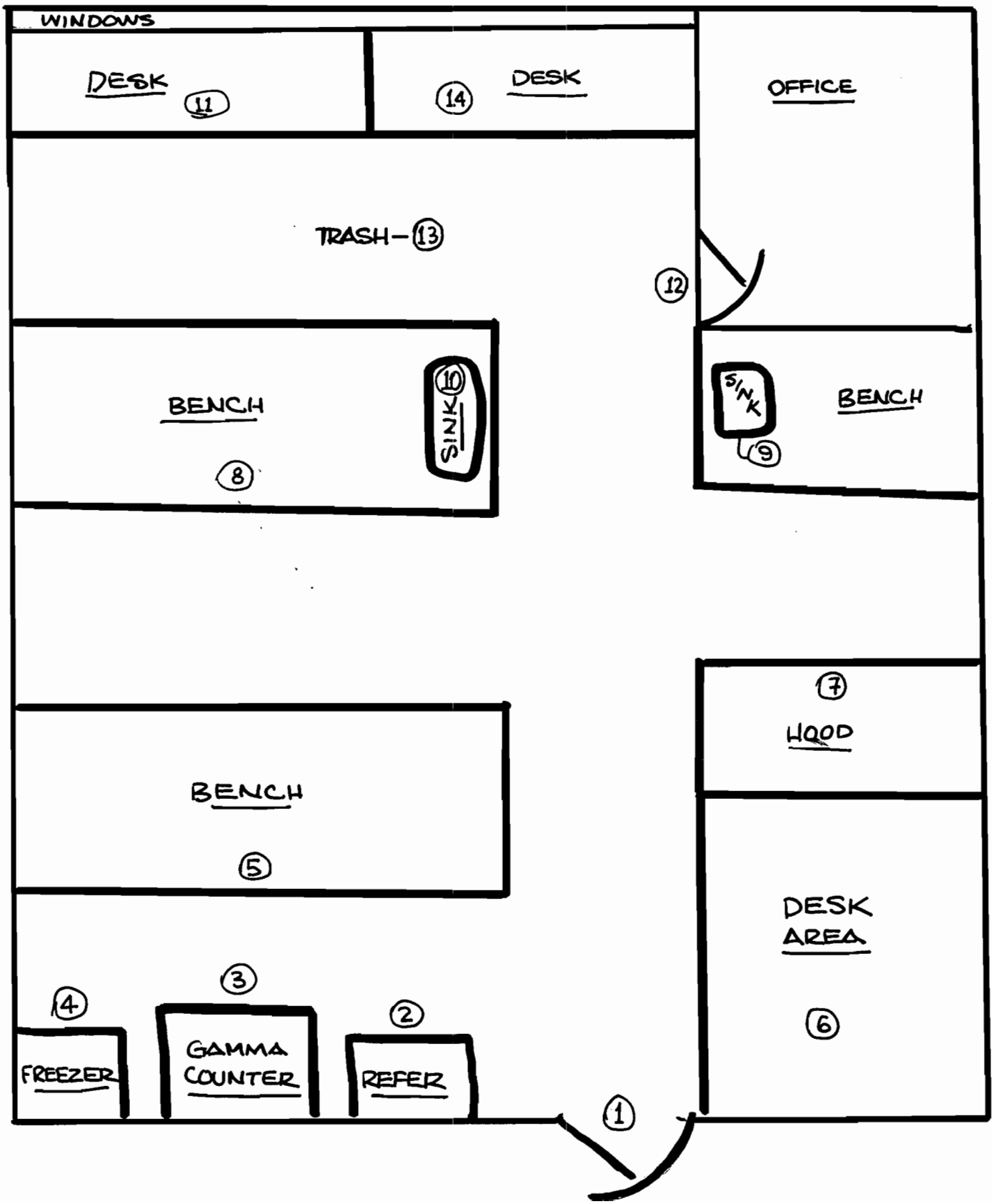
Mark Zulek
19 MAY 1999

Decommissioning Wipe Map
For Lab B2224 Guy




LEFT SIDE
BACK
RIGHT SIDE
32
34
36
38
33
35
37
39
40
41
42
OOR
RAIL

WIPE TEST MAP FOR LAB B-2224



Protocol #:15 Name:DIRECT DPM 21-May-1999 10:11
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	16.13	629.	Blank
2	2.00	16.05	509.	Vac pump #1
3	2.00	17.65	511.	Vac pump #2

Lab 2224

Vacuum pumps

Mark Zulat

21 May 1999

MEMORANDUM: For record and reference purposes

Date: March 22, 2007

Subject: Bio Med Exp Radioactive User Area Room # Change

As of today, the previously designated Radioactive Use Area:

Room # [redacted] Radioactive

Has changed to:

Room # B229C ~~radioactive~~ non-radioactive

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Coffin, Tim

From: Coffin, Tim
Sent: Thursday, July 22, 2004 9:13 AM
To: Zacco, Anna; Piser, Timothy M; Petlick, Scott
Cc: Schlank, Bliss M; Terpko, Marc O
Subject: Decommissioning of Lab [redacted]25 from use of Radioactive Material

FOR YOUR INFORMATION/ACTION:

As of today, 7/22/04, Lab B2225 has been decommissioned from the use of Radioactive material. The following actions were completed.

1. All Radioactive material removed from the room.
2. All equipment used for storage of use of radioactive material has been wipe tested and removed from the room.
3. Final wipe tests of the room were completed with all samples at background.
4. Monitoring of floor area and remaining sink and cabinet was done and all readings were at background or below. The Ludlum Model 3 Meter (Ser # 146121) with 44-9 Probe (Ser #PR 151749) was used for the monitoring.
5. All Radioactive material tape removed form lab and radioactive hazard sign removed from the door.
6. The Radioactive Wipe Test Record Book was removed from B2225 and placed in the official Radioactive Safety Files.
7. There was no radioactive waste or secondary containers to be removed from the lab.
8. B2225 was removed from the active list of Radioactive Labs.

Let me know if you have any questions.

Tim Coffin
Radiation Safety Specialist
OW1-235, 6-2628

B2225

AstraZeneca

from use of Radioactive Material

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: B2225 Lab Supervisor: Anna Zacco, Tim Piser

Responsible Investigator for the Lab: Anna Zacco

RAM Users in This Lab: H3, C14, F125, S35, P33

Date: 7/22/04

Date Completed	Questionnaire
7/21/04	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
7/21/04	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
7/22/04	Contact Safety to perform final wipe test of the lab and equipment.
7/22/04	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
	Write a letter to Scott Patrick in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
7/22/04	After approval by Safety, the radiation signs can be removed and returned to Safety.
See C	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Timothy Coffin 7/22/04

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA

Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	Yes or No	(If "No" go to the next section.)
Date lab was decommissioned?	7/22/04	
What isotopes were used?	C14, H3, I125, S35, P33	
Have all surfaces/areas been decontaminated?	Yes or No	
Have all isotopes been transferred or disposed of?	Yes or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?		Yes or No
Have solvents been transferred/disposed of/ reassigned?		Yes or No
Particularly ether and THF?		Yes or No
Have all stills been quenched/transferred/ reassigned?		Yes or No
Have all intermediates/research samples been:		Yes or No
• Entered into the M collection?	Yes or No	
• Assigned to others on the project and labeled as such?		
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

Stored & Scint Counting

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:	Anna Zacco	/ /	Facilities:		/ /
Safety:	Tim Coffin	7/22/04	Dept. Manager:	Tim Piser	/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

Decommission Wipes B2225

Protocol # 15   Name:Wipe Test   [illegible] Jul 2004 06:44
Region A: LL-UL= 0.0-18.6 Lcr = [illegible] Bkg= [illegible] [illegible] Sigma=0.00
Region B: LL-UL=18.6-156. Lcr = 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156 -2000 Lcr = 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00   QIP = tSIE/AEC   ES Terminator = Count
A:Half-life = 108624   Ref = 03/10/2004   12:00
B:Half-life = 999999   Ref = 03/10/2004   12:00
Conventional DPM
Nuclide 1 = 276900   Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.05	4.85	[illegible].40			[illegible]	B
2	1.00	2.95	0.00	1.60	5.83	0.00	645.	
3	1.00	0.00	1.34	0.60	0.00	1.78	611.	
4	1.00	1.95	0.00	0.00	4.54	0.00	486.	
5	1.00	0.23	0.00	0.60	0.46	0.00	624.	
6	1.00	0.00	0.00	0.00	0.00	0.00	623.	
7	1.00	0.00	1.92	0.00	0.00	2.63	425.	
8	1.00	0.00	0.00	0.60	0.00	0.00	632.	
9	1.00	0.00	0.00	0.00	0.00	0.00	563.	
10	1.00	0.95	1.15	0.60	1.37	1.52	570.	
11	1.00	1.95	0.15	2.60	4.06	0.18	564.	
12	1.00	0.95	0.00	0.60	2.02	0.00	565.	
13	1.00	1.87	0.00	1.60	4.11	0.00	[illegible]	
14	1.00	1.95	0.00	0.00	4.86	0.00	441.	
15	1.00	1.95	0.15	0.00	[illegible]	0.18	[illegible]	
16	1.00	0.95	0.00	[illegible].60	[illegible]	0.00	477	
17	1.00	0.00	0.00	0.60	0.00	0.00	459	
18	1.00	0.00	0.00	0.60	0.00	0.00	431.	
19	1.00	0.95	2.15	0.00	0.95	[illegible]	418.	

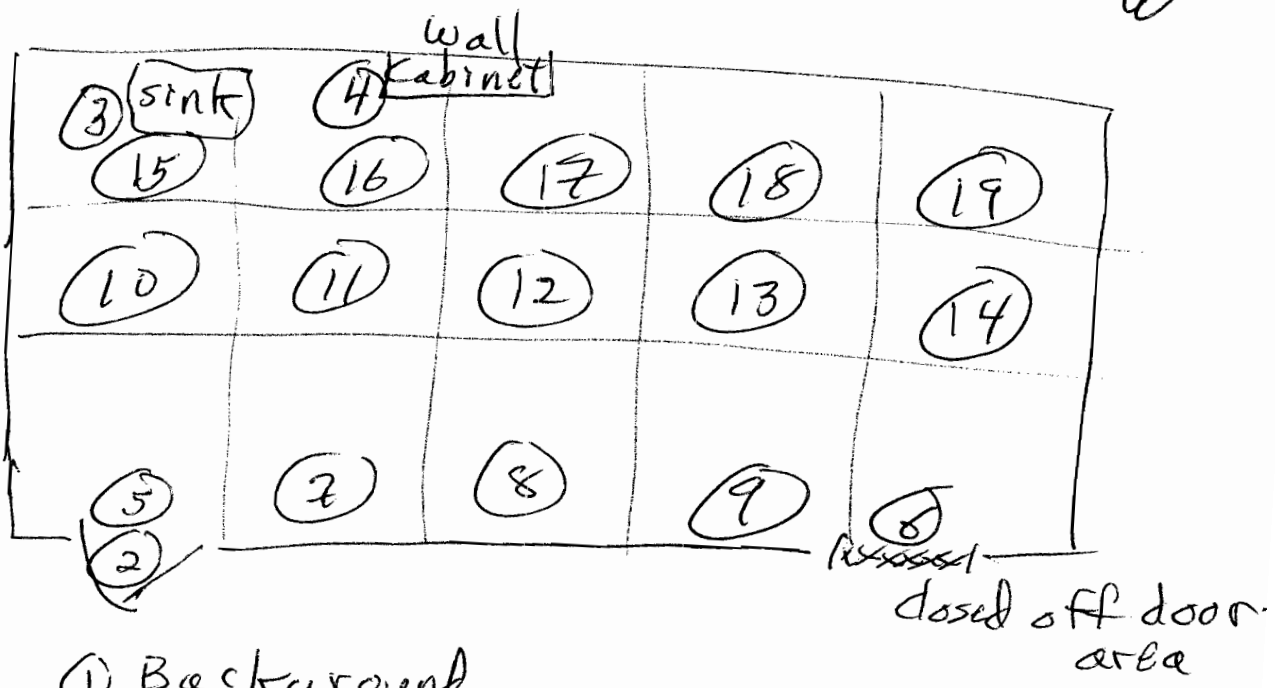
Jim Coffen

See Attached

B2225 Decommissioning 7/22/04

Wipes

Jim Coffin



(1) Background
(2) Door Handle & Light Switch
(3) Sink
(4) Cabinet (on wall)
(5) Floor below door
(6) Floor below closed door area
(7)-(19) Floor area as shown

Meter Readings

Ludlum 3, Ser# 146121
Calibrated 12/14/03
Probe: 44-9, Ser# PR 151749
Background: 0 - 0.02
Readings: all at Background

Coffin, Tim

From: Petlick, Scott
Sent: Tuesday, June 22, 2004 1:59 PM
To: Coffin, Tim
Subject: Commissioning and Decommissioning B2216 and B2225

Tim,

DiSabitino is conducting some work in B2225 and B2216.

The freezers and counters in B2225 will need to be moved out to B2216. Before this happens B2216 will need to be commissioned.

Anna Zacco will wipe down her freezers and the counters on Wednesday. The counters and freezers will need to be surveyed on the outside where people will touch during the move. If you can, could you please survey the equipment on Thursday morning. Also the right door (as your facing the lab from the hall) in B2225 will need to be surveyed. The door is going to be swapped with the door in B2216.

Once the equipment is moved out, we will have to do a full decommissioning of B2225.

Also, we have to find out if Lab B2226 was ever a rad lab. That lab is going to be renovated into offices.

Let's discuss.

Decommissioned
Yes 1998

Thanks,
Scott

6/23/04 B2225
Meter Readings of Frig at Background.
Also Counters.

Ludlum 3 Ser# 146121
Probe 44-9, Ser# PR 151749

rec'd 1/24/96

ZENECA

Internal Memorandum

ZENECA Pharmaceuticals
Bioscience Department
Wilmington, DE
Telephone: 2694

From: Edward J. Kusner

To: D. Irwin Pfizer

Copies to:

Date: 23-Jan-1996

Subject: [redacted]

Dave,

I would like to have room B2226 decommissioned as a radioisotope laboratory. All radioactive materials, as well as the liquid scintillation counter, have been removed from this room.

A copy of the laboratory map for B2226 is enclosed. Radioactive material (^3H) was used in the areas indicated by numbers on the map. Copies of the final wipe tests are enclosed.

The first set (dated 9-28-95) contains counts for map items 1 and 6. No contamination was found, and these items were removed from B2226. The second set (dated 11-8-95) contains counts for map items remaining in the room as of Nov. 8, 1995. Again, no contamination was found. The scintillation counter was recently removed from B2226. Map item number 4, a low temperature freezer, had previously been moved to David Aharony's laboratory. Another set of counts (dated 10-31-95) contains wipe test results for various items, equipment, and areas in B2226. No contamination was found, and most of the items have since been removed.

B2226 was used as a radioisotope laboratory for ^3H from 1989 until late 1995. There were no noticeable spills of radioactive materials or other incidents in this laboratory.

Please remove my name from the list of radioisotope users.

If you need any additional information, please notify me.

Thank you.

EJ Kusner
Ed Kusner

B2226

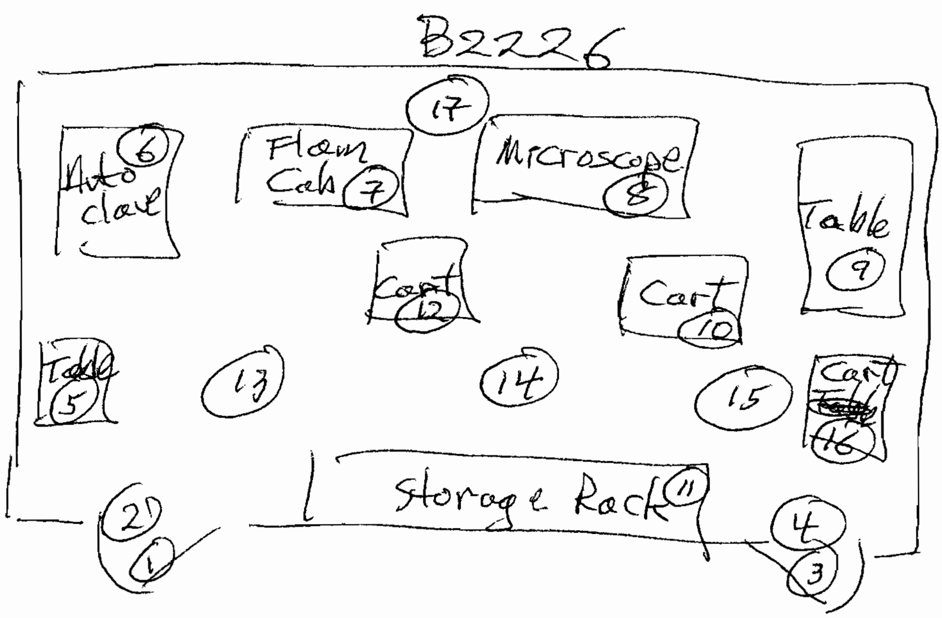
```
Protocol #:13          Name: DIRECT DPM                    24-Jun-2004 1?:40
Region A: LL-UL= 0.0-2000  Lc=     0  Bkg= 0.00  %2 Sigma 0.00
Region B: LL-UL= 2.0-2000  Lc=     0  Bkg= 0.00  %2 Sigma=0.00
Region C: LL-UL= 0.0   0.0  Lc=    0  Bkg= 0.00  %2 Sigma=0.00
Time =  2.00       QIP = tSIE/AEC       ES Terminator = Count
Direct DPM
SNC DPM = 174200
```

Tim Coffin

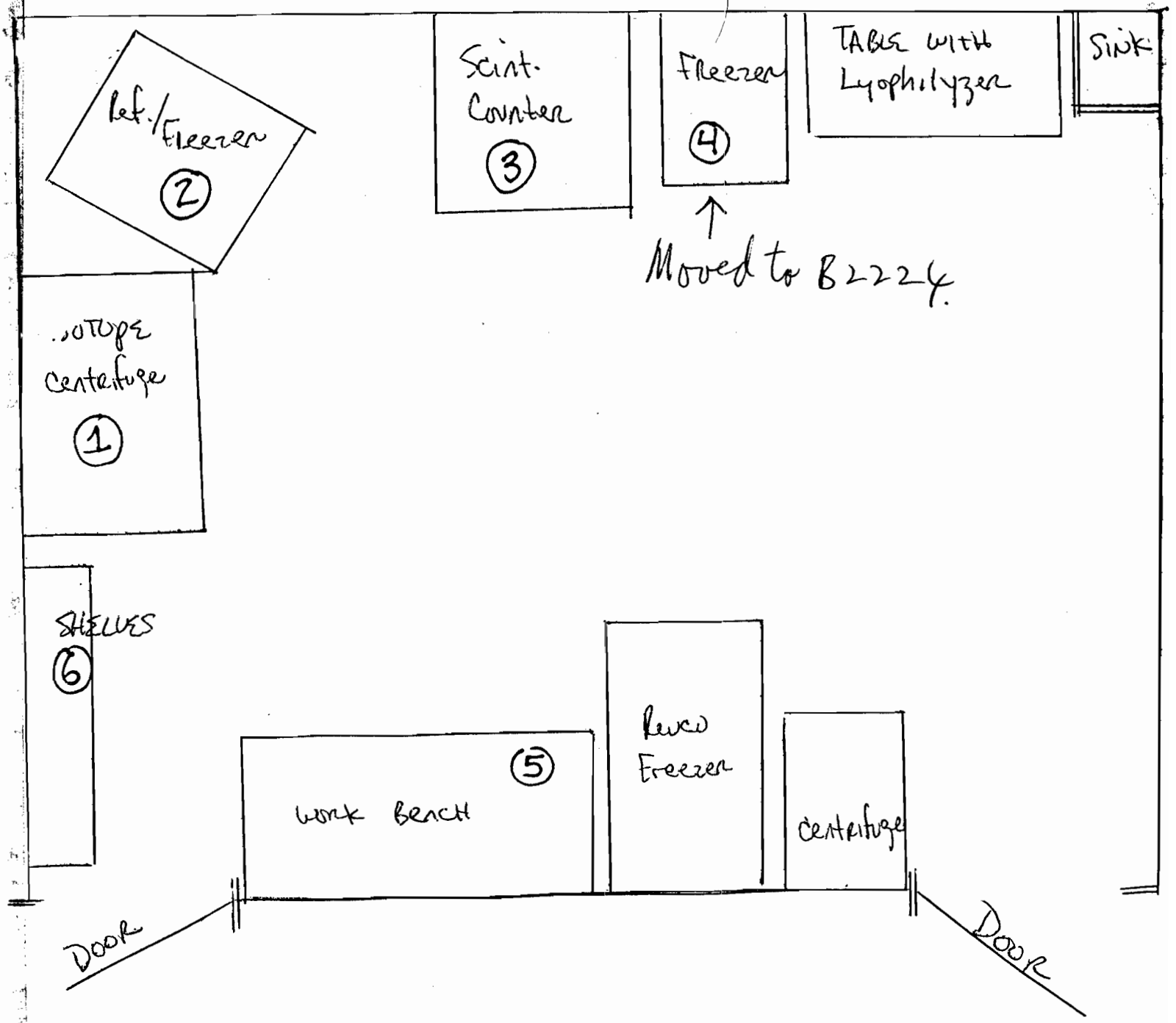
S#	TIME	DPM1	tSIE	FLAG
1	2.00	18.21	659.	– Door Handle (R)
2	2.00	14.80	574	– Floor by Door
3	2.00	14.51	663.	– Door Handle (L)
4	2.00	18.92	577.	– Floob by Door
5	2.00	17.72	497.	– Fold up Table
6	2.00	12.09	525.	– Auto clave Handle/side
7	2.00	15.50	554.	– Flamable Cabinet
8	2.00	16.06	602.	– Microscope Table
9	2.00	14.66	634.	– Storage Table
10	2.00	8.70	563.	– Large Cart
11	2.00	18.47	634.	– Storage Rack
12	2.00	13.70	513.	– Small Cart
13	2.00	11.??	577.	– Floor, right
14	2.00	17.16	595.	– Floor, center
15	2.00	9.77	583.	– Floor, left
16	2.00	1?.50	590.	– Small Cart
17	2.00	15.24	604	– Floor by Back Wall

Lab Check wipes
(Current Autoclave Room)
ABC
= 12.2 dpm

Note: Was decommissioned from Radioactive use in 1996.



B2226 Isotope Work / Storage Rm.
Swipe MAP effective 1/1/93.



9/28/95

#	Description
1	Blank
2	Racks R
3	cent. lid
4	" chamber
5	" rotor
6	" carrier (-in)
7	" carrier arm
8	" " med
9	" " lg
10	shelf low 1-2
11	" lid 3-4

otocol #:10 Name:SWIPES 28-Sep-95 13:59
gion A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
me = 1.00 QIP = tSIE ES Terminator = Count
nventional DPM
clide 1 = 224428

S#	TIME	CPMA	SIS	DPM1	FLAG
1	1.00	17.00	21.050	31.27	
2	1.00	13.00	17.280	23.82	
3	1.00	17.00	19.920	32.57	
4	1.00	14.00	25.220	27.15	
5	1.00	14.00	17.540	26.81	
6	1.00	16.00	25.270	29.90	
7	1.00	10.00	17.010	18.70	
8	1.00	27.00	15.030	49.91	
9	1.00	14.00	26.820	25.78	
10	1.00	8.00	33.700	15.73	
11	1.00	16.00	28.680	31.43	

11/8/95

Wipe Test = B2226

Sample #	Description
1	Blk
2	Map Area 2
3	" " 3
4	" " 5
5	Cart
6	Floor

Swipe Map		Description
Area 1	cent.	Moved to storage (wiped, no > bkg)
" 2	ref-freezer	
" 3	scint ctr	
" 4	isotope freezer	Moved to B2224
" 5	work table	
" 6	shelf	Trashed, (wiped, no > bkg)

otocol #:10 Name:SWIPES 08-Nov-95 16:39
gion A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
me = 1.00 QIP = tSIE ES Terminator = Count
nventional DPM
clide 1 = 224428

S#	TIME	CPMA	SIS	DPM1	FLAG
1	1.00	19.00	18.070	36.95	
2	1.00	18.00	18.540	33.71	
3	1.00	18.00	21.750	33.87	
4	1.00	20.00	12.750	36.87	
5	1.00	13.00	14.840	23.90	
6	1.00	20.00	18.690	43.52	

10/31/95

Wipe Tests: B2226

Sample #	Description
1	Blanks
2	Table
3	Hot Plate - 1
4	" 2
5	Ice Bucket
6	Rods - Table
7	Vortex Mixer
8	Refrig - Lower
9	" - Upper (Freezer)
10	Table - 2
11	Shelf
12	Rods - Small Table
13	" Med "
14	" Stainless
15	Ep. Repeater Pipet
16	Adj. Pipet 1000
17	" " 200
18	Forceps
19	Fan
20	Vac Pump
21	Floor Left
22	" Right
23	Freezer Rods
24	Upright Freezer

25 Scint. counter
26 Cruise

rotocol #:10 Name:SWIPES 31-Oct-95 14:52
egion A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
egion B: LL-UL= 2.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
egion C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
.me = 1.00 QIP = tSIE ES Terminator = Count
onventional DPM
uclide 1 = 224428

S#	TIME	CPMA	SIS	DPM1	FLAG
1	1.00	9.00	17.470	17.04	
2	1.00	12.00	19.120	22.99	
3	1.00	13.00	18.020	23.87	
4	1.00	11.00	25.380	20.89	
5	1.00	7.00	33.240	13.06	
6	1.00	12.00	28.620	22.62	
7	1.00	15.00	27.390	28.50	
8	1.00	9.00	25.320	17.41	
9	1.00	13.00	19.750	25.53	
10	1.00	14.00	13.980	26.30	
11	1.00	18.00	24.070	33.87	
12	1.00	14.00	18.760	26.87	
13	1.00	25.00	7.570	49.22	
14	1.00	15.00	22.040	31.80	
15	1.00	11.00	23.630	20.14	
16	1.00	17.00	26.430	30.74	
17	1.00	35.00	14.300	63.50	
18	1.00	14.00	20.970	25.51	
19	1.00	18.00	14.440	33.81	
20	1.00	10.00	15.240	18.65	
21	1.00	13.00	18.140	26.86	
22	1.00	15.00	21.720	31.37	
23	1.00	19.00	20.320	37.72	
24	1.00	14.00	15.240	25.72	
25	1.00	7.00	8.940	12.91	
26	1.00	9.00	18.010	16.65	

MEMORANDUM: For record and reference purposes

Date: March 22, 2007

Subject: Bio Med Exp Radioactive User Area Room # Change

As of today, the previously designated Radioactive Use Area:

Room # [redacted]

Has changed to:

Room # B2220 ~~radioactive~~ non-radioactive
and B2221 Two Offices

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

MEMORANDUM: For record and reference purposes

Date: March 22, 2007

Subject: Bio Med Exp Radioactive User Area Room # Change

As of today, the previously designated Radioactive Use Area:

Room # B2226 Radioactive

Has changed to:

Room # B2226 and B2227 ~~radioactive~~ non-radioactive ½ Storage B2226 ½ office (B2227

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Coffin, Tim

From: Coffin, Tim
t: Sunday, August 15, 2010 9:50 AM
To: Zacco, Anna; Elmore, Chad S; Terpko, Marc O; Schlank, Bliss M; Civitella, Patricia C; Bristow, Brian K
Subject: Radioactive Lab Decommissioning ([redacted])

FOR YOUR INFORMATION/ACTION:

As of Friday, August 13, 2010, Lab B2228B has been decommissioned as a Radioactive Material use lab.

ACTION TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from lab.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. Performed GM meter checks and all readings were at background or less than the AZ Action Level of 3 times background.
4. All required radioactive program postings, radioactive labels, and signs were removed from equipment, benches, etc.
5. Lab B2228B has been removed from the Radioactive Lab Data Bases.
6. Decommission Forms were placed on the equipment and Top Count (still to be removed from lab). Copies placed in lab wipe test book and official radiation safety files.
7. Decommission Check-off Sheet started and radiation section completed. Original copy provided to Marc Terpko and copy placed in radiation files.
8. This E-mail serves as the official notice to the RSO that the lab has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. **Brian Bristow:** Remove the lab from your Radioactive Lab Data Base and please check that all radioactive hazard signs are removed from the lab entry doors.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
Ow1-227, 6-2682

[ ] BIO	☒ RAD	☒ CHEM
LAB #: BMRL, EXP [redacted] 2228		
DATE: 8/13/10		
LAB SUPERVISOR: Anna Zacco	DEPT: Neuroscience	

Decommissioning Procedure (Version 2010)

Refer to SHEP-104 Commissioning and Decommissioning Laboratories for more information. This Wilmington SH&E SOP can be found on the portal. Click here to access the SOP.

Section A: Radioactive Laboratory Decommissioning Checklist

Responsible Investigator for the Lab: Anna Zacco

Completed	Questionnaire
~~☒~~ Yes ☐ No	Contact Safety (x62682) to remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. DO NOT REMOVE TAPE!
~~☒~~ Yes ☐ No	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas. ~~EXCEPT FUME HOODS.~~ Decommissioning of fume hoods will be done by outside vendor. Done 8/13/10 [signature] Done
~~☒~~ Yes ☐ No	Document any spills or unusual occurrences involving the spread of contamination of contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
~~☒~~ Yes ☐ No	Write a letter to RSO in Safety stating that the lab is no longer radioactive and that it should be removed from the list of radioactive labs.
~~☒~~ Yes ☐ No	Contact Safety to perform final wipe test of the lab and equipment.

Once the RI has completed the above actions, the lab can be turned over to Radiation Safety for final decommissioning steps and will assume control of the lab (Sign below). RI has completed decommissioning responsibilities.

[signature] 8/13/10 [signature] 8/13/10

Radiation Safety Acceptance of the Lab with Actions — Date — Radiation Safety Actions Completed — Date

Section B: Procedure for Vacating a Laboratory

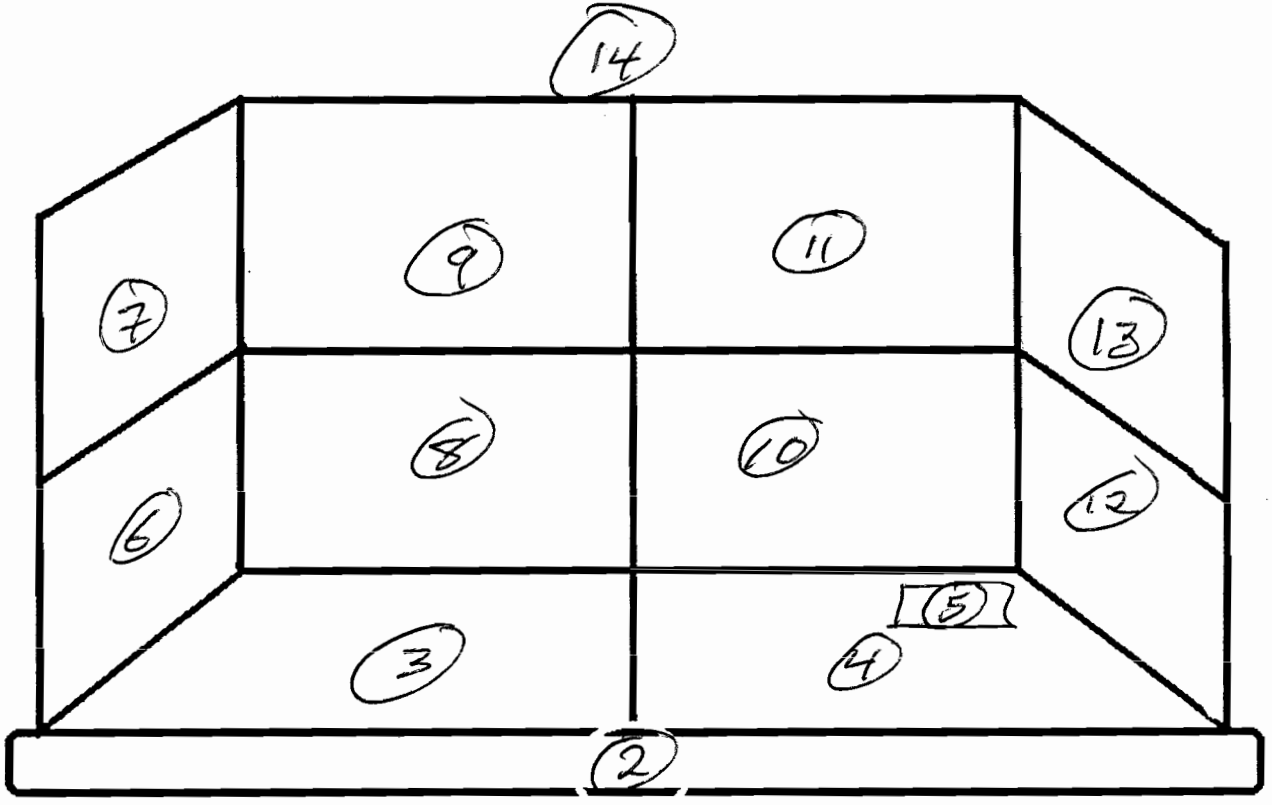
Section A must be completed prior to completing Section B.

Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benches, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazard/biological material used in laboratory?	☐ Yes ☐ No ☐ NA	
Have all surfaces/areas/equipment been decontaminated using EPA registered disinfectant (bleach, ethanol, etc.).	☐ Yes ☐ No ☐ NA	
Remove/deface all biohazard stickers from the equipment.	☐ Yes ☐ No ☐ NA	
Have all biological/Biohazardous wastes been appropriately disinfected/decontaminated and disposed of.	☐ Yes ☐ No ☐ NA	
Has the Biohazard decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory and were all steps completed in Section A?	☐ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	

Decommission B228B

8/12/10

(1) Background



Meter
Ludlum 3, Ser 146121
Cal: 11/10/09
Probe: 44-9, Ser PR151749
Background: 20-80 cpms
Readings: Background

Decommission B2228B

Protocol #:15 Name:Wipe Test 12-Aug-2010 07:07
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.23	5.47	4.30			539.	B
2	1.00	0.77	0.00	0.00	1.62	0.00	526.	
3	1.00	17.77	1.53	0.00	36.66	1.85	518.	
4	1.00	3.32	0.98	0.00	6.55	1.29	503.	
5	1.00	0.00	0.53	0.00	0.00	0.72	489.	
6	1.00	7.77	0.00	0.70	16.52	0.00	513.	
7	1.00	0.77	3.53	2.70	0.00	4.79	509.	
8	1.00	11.77	0.00	0.00	25.71	0.00	489.	
9	1.00	0.00	1.53	0.00	0.00	2.09	479.	
10	1.00	9.77	0.00	2.70	20.91	0.00	507.	
11	1.00	2.77	0.00	0.70	6.21	0.00	470.	
12	1.00	0.00	1.53	2.70	0.00	2.08	508.	
13	1.00	2.77	0.00	0.00	5.92	0.00	509.	
14	1.00	0.00	0.00	0.00	0.00	0.00	476.	
15	1.00	3.06	1.24	0.00	5.69	1.65	528.	

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission B2228B Red Lab Bench

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100514_0835\20100514_0835.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	8	14	0	0	0	535.45	611.50	B
2	1.00	11	2	0	26	1	0.00	515.02	– Shelf
3	1.00	4	0	0	12	0	0.00	513.81	– Shelf
4	1.00	2	2	0	5	2	0.00	503.62	– Bench Top
5	1.00	5	0	0	12	0	80.62	563.30	– Edges

Clean

Protocol# 15 - 3h_14c_dpm.lsa User: Default

B2228B Decommission Wipes of Lab Table

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100513_1227\20100513_1227.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	11	13	0	0	0	459.33	660.23	B
2	1.00	8	13	0	14	15	114.07	565.30	– Top
3	1.00	0	0	0	2	0	0.00	576.53	– Edges
4	1.00	0	2	0	0	3	0.00	568.49	– under side
5	1.00	3	7	0	5	9	0.00	584.01	– drawer handles

Clean

B2228B
Wipes of Shielding & Tray

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100510_1343\20100510_1343.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

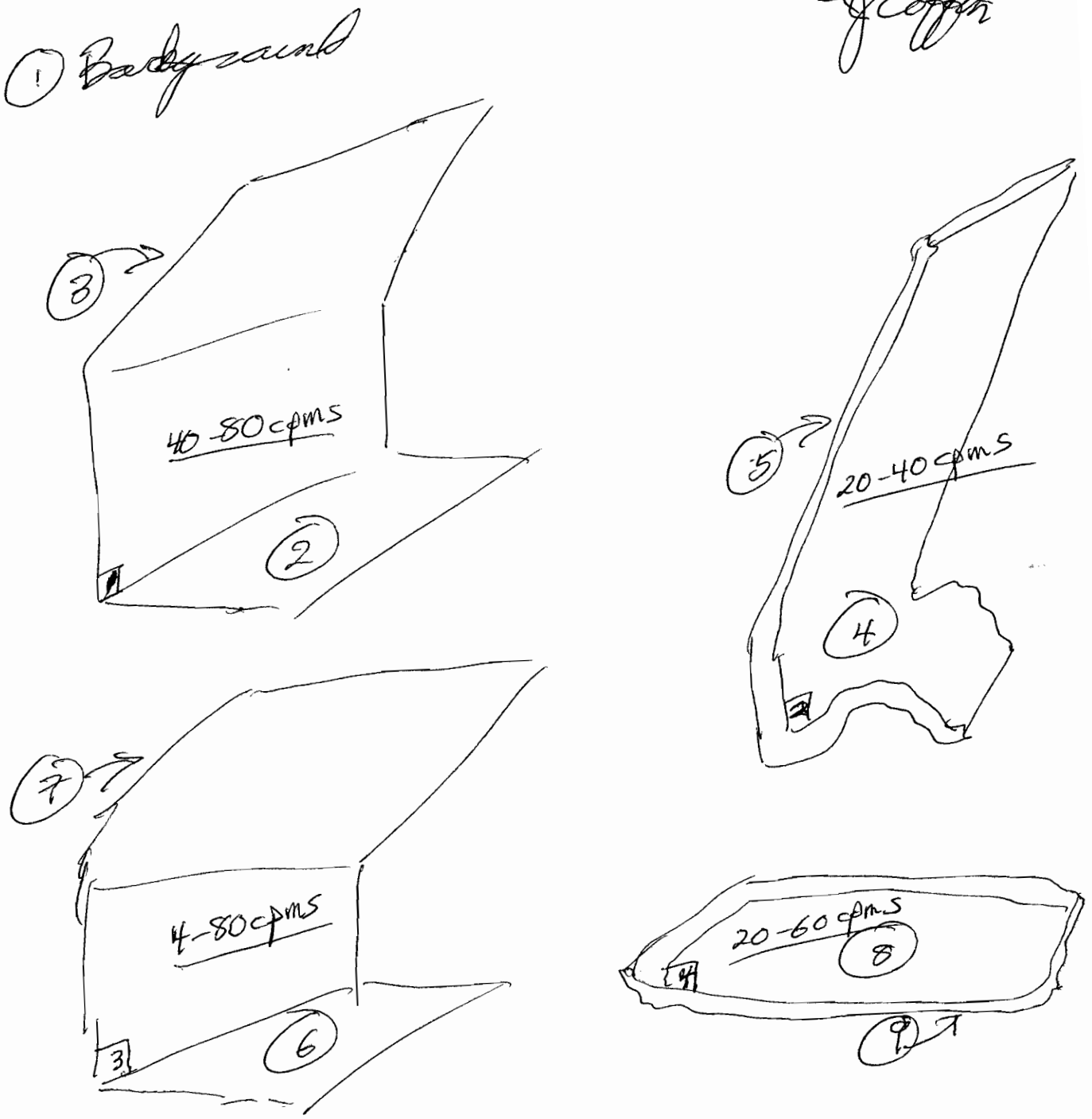
Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	13	18	0	0	0	499.58	639.03	B
2	1.00	0	5	0	0	6	1323.95	582.58	} shield #1
3	1.00	4	8	0	6	10	0.00	531.41	
4	1.00	14	10	0	28	11	0.00	581.17	} " #2
5	1.00	4	2	0	8	3	0.00	556.62	
6	1.00	8	2	0	19	1	0.00	577.14	} " #3
7	1.00	0	0	0	0	0	0.00	550.65	
8	1.00	4	0	0	10	0	0.00	581.99	} Tray
9	1.00	4	14	0	4	17	0.00	582.92	

Wipes of B2228B shielding + Trax

J Coffin



Meter Surveys

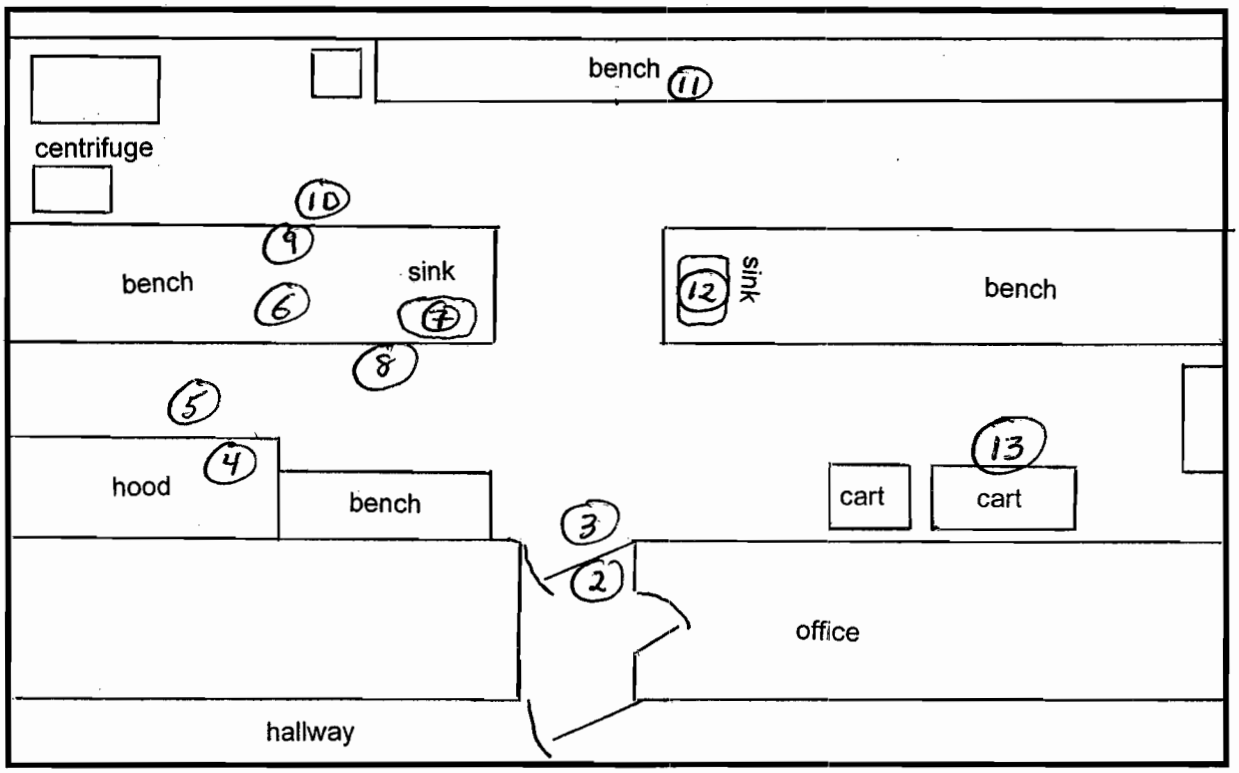
Meter: Ludlum 3, Probe 44-9 Cal: 11/10/09
#146121 #PR151749

Background: ~~20~~-60 cpm's

Readings: 40-80 cpm's

WIPE TEST MAP

LAB # B2228B



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle & light switch
3. Floor below door
4. Hood sash, foil, and Handles
5. Floor below hood
6. Bench & handles
7. Sink
8. Floor below bench & sink
9. Bench & handles
10. Floor below bench
11. Bench top by equipment
12. Sink
13. Carts

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Start Decommissioning

Lab B2228B

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100408_1026\20100408_1026.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	6	0	0	0	811.28	584.69	B
2	1.00	0	0	0	0	0	0.00	589.35	
3	1.00	0	0	0	0	0	0.00	596.72	
4	1.00	0	0	0	1	0	0.00	591.68	
5	1.00	0	2	0	0	3	0.00	566.14	
6	1.00	0	0	0	0	0	0.00	602.96	
7	1.00	1	0	0	2	0	0.00	617.43	
8	1.00	0	0	0	0	0	0.00	566.69	
9	1.00	0	0	0	0	0	0.00	599.34	
10	1.00	1	0	0	3	0	0.00	589.07	
11	1.00	0	0	0	0	0	0.00	593.92	
12	1.00	2	0	0	4	0	0.00	590.90	

13	1.00	1	0	0	2	0	536.87	563.14

C - CRDL Wings

Coffin, Tim

From: Coffin, Tim
Sent: Monday, January 14, 2008 6:21 AM
To: Morelli, James K; Petlick, Scott; Bristow, Brian K
Cc: Milano, Joseph; Ochalski, Rafal
Subject: Decommissioning of Lab [redacted]om Radioactive Material Use

FOR YOUR INFORMATION/ACTION:

As of today, 1/14/08, Lab C102 has been decommissioned from Radioactive Material Use.

ACTIONS TAKEN:

1. All radioactive material removed from lab.

2. All radioactive waste and waste containers removed from lab.

3. Decommission wipe tests completed and all wipes were at background or below the AZ Action Level of 100 dpms.

4. Meter monitoring of all equipment, benches, floors, biohoods, and misc. equipment was done and found to be at background or less than the AZ Action Level of 3 times background.

5. All labeled radioactive equipment, benches, biohoods, incubator, and misc. supplies have been cleaned and radioactive stickers/labels removed.

6. Required radioactive postings and wipe test book removed from lab.

7. Decommissioning paperwork completed and filed in the official Radiation Safety Files. A copy of the paperwork was placed in the respective Wipe Test Records for the lab.

8. The lab was removed from the Radiation Safety Data Base Lists of active labs and monthly lab wipe test schedule.

9. This E-mail serves as notice to the RSO that the lab has been decommissioned.

ACTIONS FOR BRIAN BRISTOW:

1. Please update your list of labs to reflect that C102 is no longer a Radiation Lab.

2. Please remove the Radioactive Hazard Sign from the entrance door sign.

If anyone has any questions, please give me a call.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

Decommission Rad Use C102

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation); complete the appropriate sections below. To schedule a decommissioning and/or lab vacation – please contact - Scott Petlick (x61083), Bliss Schlank (x62185), or Marc Terpko (x62671).

Section A: Radioactive Laboratory Decommissioning
Section B: Biosafety Laboratory Decommissioning
Section C: Laboratory Vacating Form (Only completed when moving out of the laboratory or transferring ownership)

☐ ***NA***

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: C102 Lab Supervisor: James Morelli

Responsible Investigator for the Lab: James Morelli Milano

RAM Users in This Lab: 3H, 14C, 125I, Joe

Date: 1/10/08

Date Completed	Questionnaire
T Coffin 1/10/08	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. Waste Sharps, Waste Cans
1/10/08	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
1/11/08	Contact Safety to perform final wipe test of the lab and equipment.
T Coffin 1/10/08	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas. 3H, 14C, 125I
T Coffin 1/14/08	Write a letter to S. Petlick in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
T Coffin 1/14/08	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Timothy Coffin 1/14/08

Signature of Safety Professional Date

☒ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment-using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Note BSC must be decontaminated before moving by contacting Ed Ryan*
	Update the permits status (new, revised, retired, renew) and remove permit posting found by the fire extinguisher.
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Section C: Procedure for Vacating a Laboratory

Section A and/or B must be completed prior to completing Section C. Please provide the following information and call to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Department:

Chemical Hazards:		
Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	☐ Yes ☐ No ☐ NA	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	☐ Yes ☐ No ☐ NA	
Has the decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	☒ Yes ☐ No ☐ NA	(If "No" go to the next section.)
Date lab was decommissioned?		1/14/08
What isotopes were used? 3H, 14C, 125I		
Have all surfaces/areas been decontaminated?	☒ Yes ☐ No ☐ NA	

Have all isotopes been transferred or disposed of?	☐ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	
Have arrangements been made to return furniture?	☐ Yes ☐ No ☐ NA	
Have all cabinets/closets/drawers been emptied?	☐ Yes ☐ No ☐ NA	
Has Housekeeping (x-4121) been notified to clean?	☐ Yes ☐ No ☐ NA	
Have all building alarm systems (BAS) been disconnected?	☐ Yes ☐ No ☐ NA	
Fume Hood(s)/Bench Areas:		
Is bench free of samples, glassware, etc.?	☐ Yes ☐ No ☐ NA	
Have solvents been transferred/disposed of/ reassigned?	☐ Yes ☐ No ☐ NA	
Ether and THF?	☐ Yes ☐ No ☐ NA	
Have all stills been quenched/transferred/ reassigned?	☐ Yes ☐ No ☐ NA	
Have all intermediates/research samples been:	☐ Yes ☐ No ☐ NA	
• Entered into the M collection?	☐ Yes ☐ No ☐ NA	
• Assigned to others on the project and labeled as such?	☐ Yes ☐ No ☐ NA	
• Disposed of if no notebook number on label?	☐ Yes ☐ No ☐ NA	
• Is the wall cabinet free of research samples?	☐ Yes ☐ No ☐ NA	
• Are the center bench drawers free of research samples?	☐ Yes ☐ No ☐ NA	
Has all the waste been property removed?		
• Waste silica?	☐ Yes ☐ No ☐ NA	
• Broken or glass thermometers?	☐ Yes ☐ No ☐ NA	
• Sharps containers?	☐ Yes ☐ No ☐ NA	
• Spent catalysts?	☐ Yes ☐ No ☐ NA	
• Drying agents?	☐ Yes ☐ No ☐ NA	
• Lecture bottles?	☐ Yes ☐ No ☐ NA	
• Used vacuum pump oil?	☐ Yes ☐ No ☐ NA	
• Metals (i.e. sodium, potassium, lithium, etc.)	☐ Yes ☐ No ☐ NA	
• Containers of used pipets/pipet tips?	☐ Yes ☐ No ☐ NA	
• Oil baths?	☐ Yes ☐ No ☐ NA	
Has all other waste been properly disposed of?	☐ Yes ☐ No ☐ NA	
Pass Inspection?	☐ Yes ☐ No ☐ NA	
Form has been given to R&D Engineering?	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, will result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant: James Morelli	1/14/08
Safety: RSO Scott Petlick	1/14/08
Dept. Manager:	
R&D Engineering:	
Technical Services Supervisor:	

Decommission
Wipes C102

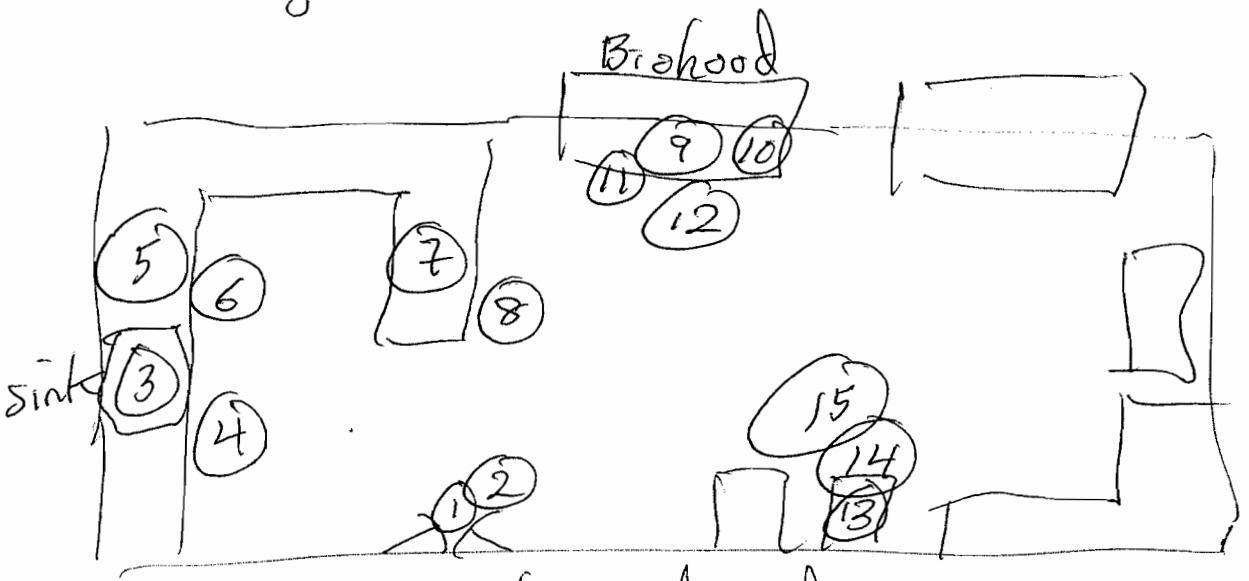
Protocol #:15 Name:Wipe Test 11-Jan-2008 09:29
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.04	3.86	4.20			566.	B
2	1.00	3.96	0.00	0.00	10.21	0.00	564.	
3	1.00	0.00	0.00	1.80	0.00	0.00	542.	
4	1.00	0.00	0.00	0.00	0.00	0.00	374.	
5	1.00	0.00	1.14	0.00	0.00	1.56	545.	
6	1.00	1.78	0.00	0.00	4.70	0.00	546.	
7	1.00	0.00	1.14	2.80	0.00	1.56	552.	
8	1.00	6.07	0.00	0.00	16.44	0.00	522.	
9	1.00	1.96	0.14	0.00	4.85	0.17	585.	
10	1.00	4.26	0.00	0.00	11.02	0.00	562.	
11	1.00	5.96	2.14	0.80	14.35	2.85	537.	
12	1.00	0.96	5.14	0.00	0.00	7.07	496.	
13	1.00	1.96	1.14	0.80	4.24	1.53	574.	
14	1.00	0.96	0.00	0.00	2.40	0.00	594.	
15	1.00	2.96	3.14	0.00	5.62	4.26	548.	

Decommission Wipes ClO2

1/11/08
J Coffin

1. Background
2. Door, Phone, Light
3. Floor
4. Sink
5. Bench
6. Floor
7. Bench
8. Floor
9. Biohood Left
10. " right
11. Biohood Door & Edge
12. Floor
13. Incubator outside
14. " Inside
15. Floor



Meter Readings

Ludlum Model 3, Serial # 46224

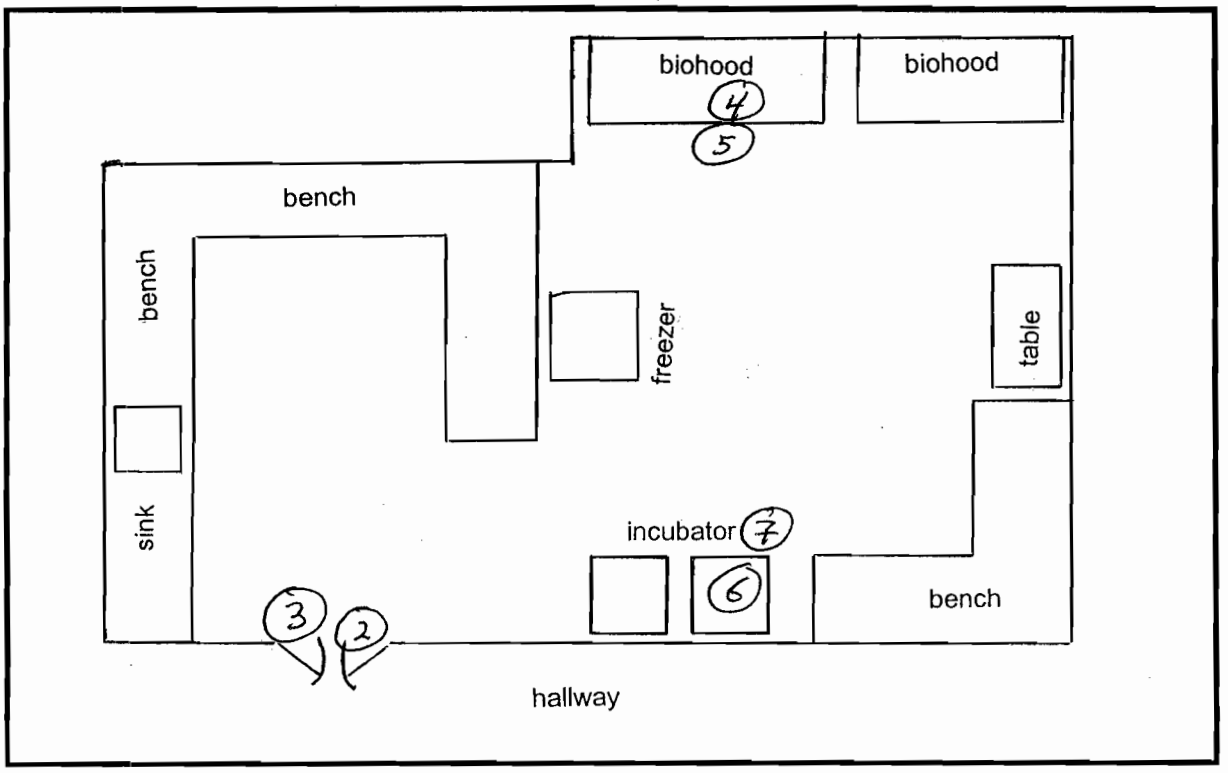
Probe 44-9; PR 223872

Probe 44-3; PR 033127

Background:	20-80 cpms	150-320 cpms	Floor Tile
Readings:	50-90 cpms	180-340 cpms	

WIPE TEST MAP

LAB # C102



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle, light switch, and phone
3. Floor below doors
4. Biohood
5. Floor below Biohood
6. Incubator
7. Floor below incubator

Coffin, Tim

From: Coffin, Tim
nt: Wednesday, May 19, 2004 3:11 PM
To: Norris, Tyrell E; Ellis, Amanda J
Cc: Petlick, Scott
Subject: Lab Decommissioning [redacted]

FOR YOUR INFORMATION/ACTION:

As of today, 05/19/04, the Lab [redacted]112A has been decommissioned and the following actions completed.

1. Completed check wipes and meter surveys of the lab. All wipes and readings were at background or below.

2. All radioactive materials and waste have been removed from the lab.

3. All radioactive secondary waste cans were removed and placed in the Radioactive Waste Room, B136.

4. The Wipe Test Record Book was placed in the Radioactive Records.

5. The Decommissioning Sheet was completed and placed in the Radiation Safety Files.

6. The Radioactive Hazard signs were removed from the doors, and all radioactive tape and labels were removed from equipment, hoods, and benches in the lab.

7. The Lab C112A was removed from the Radiation Program Lab Listing.

If you have any questions, please give me a call.

Tim Coffin
SH&E
Radiation Safety Specialist
OW1-235, 6-2682

Lab C112A
Decommission Wipes

Protocol # 0 Name=DIRECT DPM 27-May-2004 12:18
Region A: LL-UL= 0.0-2000 Ler= 0 Bkg= 0.00 %2 sigma=0.00
Region B: LL-UL= 2.0-2000 Ler= 0 Bkg= 0.00 %2 sigma=0.00
Region C: LL-UL= 0.0- 0.0 Ler= 0 Bkg= 0.00 %2 sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	19.61	620.	
2	2.00	11.78	606.	
3	2.00	16.65	593.	
4	2.00	20.49	601.	
5	2.00	16.17	619.	
6	2.00	15.39	614.	
7	2.00	16.99	643.	
8	2.00	16.60	576.	
9	2.00	14.49	612.	
10	2.00	13.30	594.	

Jim Coffin

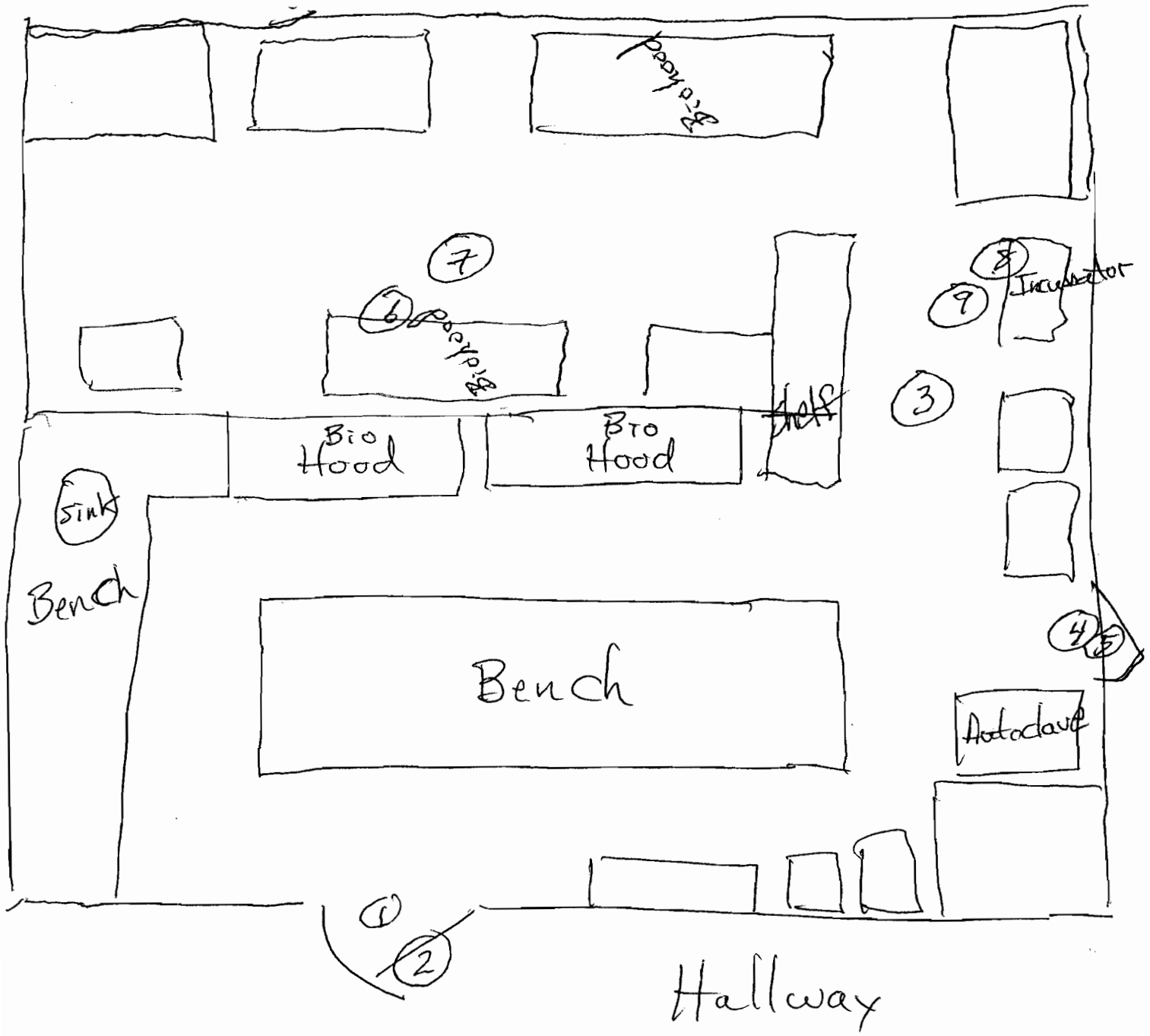
ABC
= 12.1 dpm

Lab C112A

5/19/04

Decommission Wipes

Jim Coffin



Decommission C112A Radiation Only

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: C112A Lab Supervisor: Ty Norris

Responsible Investigator for the Lab: Ty Norris

RAM Users in This Lab: Amanda [redacted] Ellis

3H, 14C

Date: 5/19/04

Date Completed	Questionnaire
5/18/04	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
5/18/04	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
5/19/04	Contact Safety to perform final wipe test of the lab and equipment.
5/19/04	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas. P32 H3, C14
5/19/04	Write a letter to [redacted] in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
5/19/04	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Timothy Coffin 5/19/04

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	Yes or No	(If "No" go to the next section.)
Date lab was decommissioned? 5/19/04		
What isotopes were used? ^3H, ^{14}C		
Have all surfaces/areas been decontaminated?	Yes or No	
Have all isotopes been transferred or disposed of?	Yes or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?	Yes or No	
Have solvents been transferred/disposed of/ reassigned?	Yes or No	
Particularly ether and THF?	Yes or No	
Have all stills been quenched/transferred/ reassigned?	Yes or No	
Have all intermediates/research samples been:	Yes or No	
• Entered into the M collection?	Yes or No	
• Assigned to others on the project and labeled as such?		
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, will result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:	Ty Norris	5/19/04	Facilities:		/ /
Safety:	Jim Coffin	5/19/04	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

Decommission Wipes of Centrifuge in Lab C112

```
Protocol #:15          Name:DIRECT DPM                    16 Mar 2004 14:54
Region A: LL-UL= 0.0-2000  Lcr=    0  Bkg= 0.00  2 sigma=0.00
Region B: LL-UL= 2.0-2000  Lcr=    0  Bkg= 0.00  2 sigma=0.00
Region C: LL-UL= 0.0- 0.0  Lcr=    0  Bkg= 0.00  2 sigma=0.00
Time =  2.00      QIP = tsit/Abt      LS Termination = Count
Direct DPM
SNL DPM = 124200

 SN#    TIME     DPM1 tSIE FLAG
   1    2.00    15.33 686.
   2    2.00    17.36 642.
   3    2.00    17.17 634.
   4    2.00    12.32 692.
   5    2.00    14.73 642.
   6    2.00    14.39 634
   7    2.00    14.74 631.
   8    2.00    11.04 628.
   9    2.00    16.96 640.
```

All readings for fixed contamination were at background or below, using Model 44-3 and 44-9 Probe on Ludlum Model 3 Meters, Serial #s 151795 and 146121 respectively.

Jim Coffin

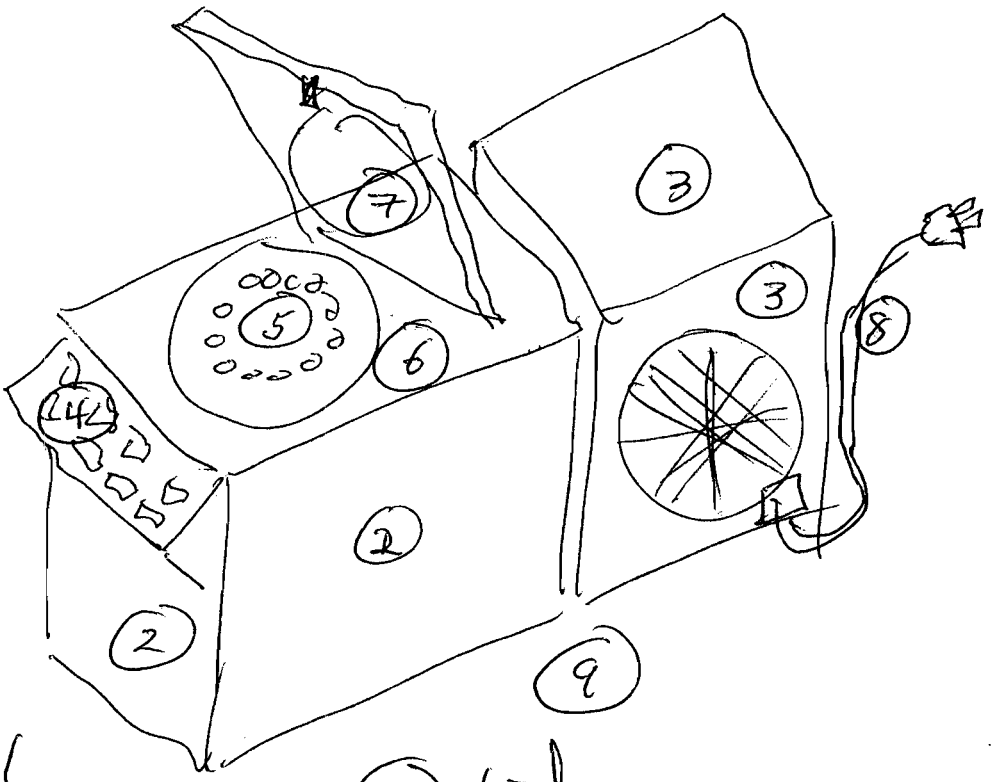
3/17/04

(A) Meters showed no fixed contamination

3/16/04

Decommission Wipes

on Centrifuge C112A



1. Control
2. Cabinet
3. Cabinet
4. Controls
5. Spinningholder
6. Inside cabinet
7. Lid
8. Cord
9. Bench Top

MEMORANDUM: For record and reference purposes

Date: October 12, 2004

Subject: CRDL Radioactive User Area Room # Change

As of today, the previously designated Radioactive Use Area:

Room # [redacted] Radioactive

Has changed to:

Room # C110 radioactive (non-radioactive)

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Coffin, Tim

From: Coffin, Tim
Sent: Tuesday, October 12, 2004 8:38 AM
To: Norris, Tyrell E
Cc: Sygowski, Linda A; Hastings, Richard C; Peng, Teng; Petlick, Scott
Subject: RADIOACTIVE LAB DECOMMISSIONING (C112B AND C112C)

FOR YOUR INFORMATION/ACTION:

As of October 12, 2004, Labs C112B (C111) and C112C (C112) have been decommissioned from the use of Radioactive Material (3H, 32P, and 125I).

The following actions were completed.

1. Area meter surveys were performed. The purpose of this survey was to identify if any area required decontamination prior to the decommissioning of the labs. No contaminated areas were found.

Survey Meter Used: Bicron 2000, Ser # 1015A with PGM Probe #C176F
Calibrated: 11/15/03

2. Final wipe tests of the bench tops, cabinets handles, sinks, doors, floors, equipment (centrifuge, refrigerator/freezer, incubator, etc.), waste area, light switches, phones, computer keyboards, etc. All wipe tests were below the AZ action level of 100 dpm.

Scintillation Counter Used: Packard Tri-Carb 2100TR, Ser #419674
Lab L044

Wipe tests were filed in decommission file and Lab Wipe Records.

4. Decommissioning Form completed and filed as appropriate.

5. The wipe test books and postings were removed from the labs and filed as appropriate in Radiation Safety Files.

6. All Radioactive labels, tape, and signs were removed from inside lab and entrance doors.

7. All radioactive material and radioactive waste was removed from labs.

8. Lab was removed from Radioactive Lab Listings and Weekly Wipe Test schedule.

9. Radioactive secondary containers were returned to the Radiation Safety Waste Room (B136).

If you have any questions, please give me a call.

Tim Coffin
Radiation Safety Specialist
OW1-235, 6-2682

C112B
New (C111)

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: C112B (C111) Lab Supervisor: Ty Norris

Responsible Investigator for the Lab: Ty Norris

RAM Users in This Lab: Teng Peng, Richard Hastings, Mike Wood, Linda Sygowski, James Morelli

Date: 10/12/04

Date Completed	Questionnaire
10/05/04	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
10/05/04	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
10/07/04	Contact Safety to perform final wipe test of the lab and equipment.
Map 3H, 32P, 125I	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas. Scott Pattick
10/12/04	Write a letter to ~~B. H. Irwin~~ in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
10/12/04	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Timothy Coffin 10/12/04

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

☒ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

☒ NA ☐ Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	NA
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	Yes or No	(If "No" go to the next section.)
Date lab was decommissioned? 10/12/04		
What isotopes were used? 3H, 32P, 125I		
Have all surfaces/areas been decontaminated?	Yes or No	
Have all isotopes been transferred or disposed of?	Yes or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware, etc.?	Yes or No	
Have solvents been transferred/disposed of/ reassigned?	Yes or No	
Particularly ether and THF?	Yes or No	NA
Have all stills been quenched/transferred/ reassigned?	Yes or No	
Have all intermediates/research samples been:	Yes or No	
• Entered into the M collection?		
• Assigned to others on the project and labeled as such?	Yes or No	
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

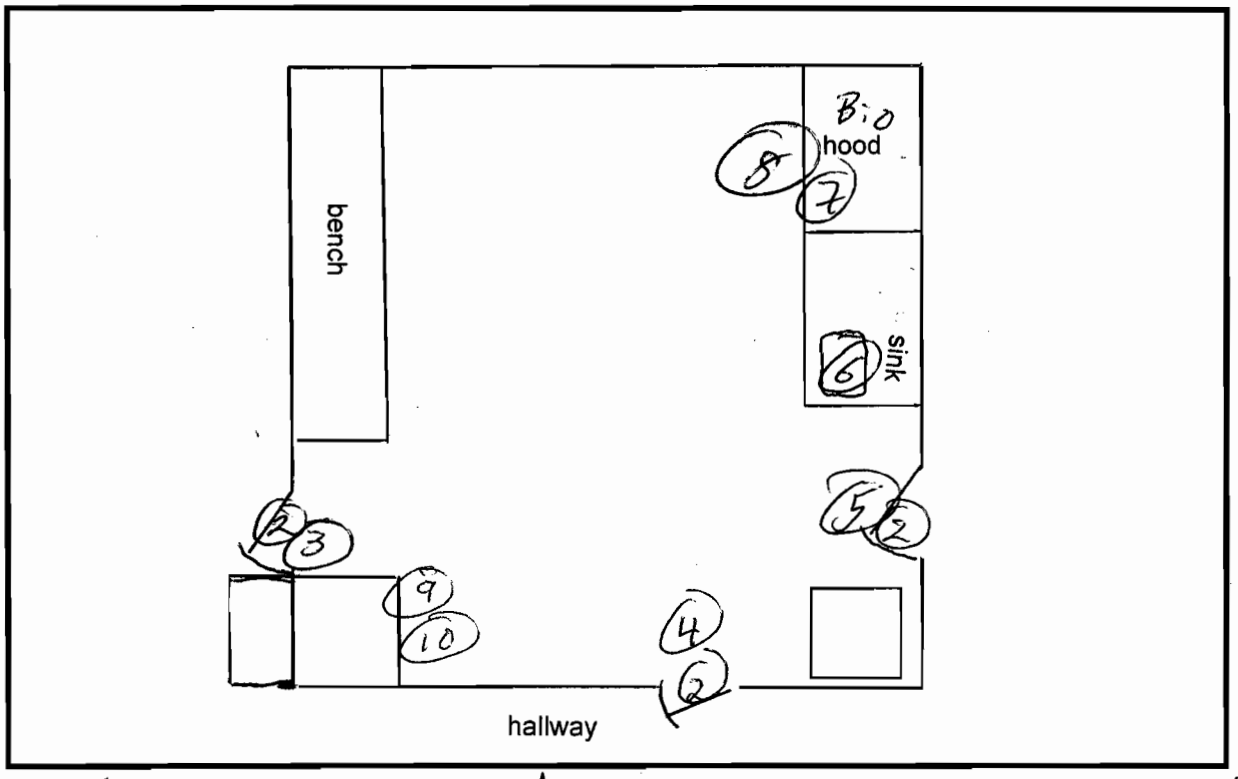
Lab Occupant:		10/12/04	Facilities:		/ /
Safety:		10/12/04	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

New #
C111

WIPE TEST MAP

LAB # **C112C**



Decommission Wipes 10/07/04
J Coffon

WIPE SAMPLE DESCRIPTIONS

(1) Background
(2) Door Handle/Switch
(3) Floor
(4) Floor
(5) Floor
(6) Sink
(7) Biohood
(8) Floor
(9) Incubator
(10) Floor

Meter Checks

Bicron 2000
#1015A
PGM Probe #C176F
Calibrated 11/15/03

Background <0.1 mR/h
Readings <0.1 mR/h

C112C
(C112)

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	1.00	4.1	[illegible]	0.00	[illegible]	[illegible]	[illegible]
4	1.00	1.17	[illegible]	1.70	1.92	[illegible]	[illegible]
5	1.00	1.17	0.00	1.70	[illegible]	0.00	[illegible]
6	1.00	[illegible]	0.00	0.00	[illegible]	0.00	[illegible]
7	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	1.70	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	1.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.00	0.00	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.00	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	1.00	[illegible]	0.00	0.00	[illegible]	0.00	[illegible]

Used Scint Counter
Lab L044
Ser # 419674
Model Packard
Tri-Carb 2100TR

Lead Pigs

C112C

Used Scint Counter

Lab 2044

Ser# 419674

Model: Packard

TriCarb 2100TR

Centrifuge C112C

— Exterior Lid
— Inside Lid
— Inside Chamber & wells

Used Scint Counter
Lab L044
Ser# 419674
Model: Packard
Tri-Carb 2100TR

MEMORANDUM: For record and reference purposes

Date: October 12, 2004

Subject: CRDL Radioactive User Area Room # Change

As of today, the previously designated Radioactive Use Area:

Room # [redacted] Radioactive

Has changed to:

Room # C111 radioactive ~~non-radioactive~~

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Coffin, Tim

From: Coffin, Tim
nt: Tuesday, October 12, 2004 8:38 AM
: Norris, Tyrell E
Cc: Sygowski, Linda A; Hastings, Richard C; Peng, Teng; Petlick, Scott
Subject: RADIOACTIVE LAB DECOMMISSIONING (C112B AND C112C)

FOR YOUR INFORMATION/ACTION:

As of October 12, 2004, Labs C112B (C111) and [redacted]C112) have been decommissioned from the use of Radioactive Material (3H, 32P, and 125I).

The following actions were completed.

1. Area meter surveys were performed. The purpose of this survey was to identify if any area required decontamination prior to the decommissioning of the labs. No contaminated areas were found.

Survey Meter Used: Bicron 2000, Ser # 1015A with PGM Probe #C176F
Calibrated: 11/15/03

2. Final wipe tests of the bench tops, cabinets handles, sinks, doors, floors, equipment (centrifuge, refrigerator/freezer, incubator, etc.), waste area, light switches, phones, computer keyboards, etc. All wipe tests were below the AZ action level of 100 dpm.

Scintillation Counter Used: Packard Tri-Carb 2100TR, Ser #419674
Lab L044

Wipe tests were filed in decommission file and Lab Wipe Records.

4. Decommissioning Form completed and filed as appropriate.

5. The wipe test books and postings were removed from the labs and filed as appropriate in Radiation Safety Files.

6. All Radioactive labels, tape, and signs were removed from inside lab and entrance doors.

7. All radioactive material and radioactive waste was removed from labs.

8. Lab was removed from Radioactive Lab Listings and Weekly Wipe Test schedule.

9. Radioactive secondary containers were returned to the Radiation Safety Waste Room (B136).

If you have any questions, please give me a call.

Tim Coffin
Radiation Safety Specialist
OW1-235, 6-2682

C112C

New (C112)

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: C112C (C112) Lab Supervisor: Ty Norris

Responsible Investigator for the Lab: Ty Norris

RAM Users in This Lab: Teng Peng, Richard Hastings, Mike Wood, Linda Sygowski

Date: 10/12/04

Date Completed	Questionnaire
10/05/04	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
10/05/04	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
10/07/04	Contact Safety to perform final wipe test of the lab and equipment.
Map 3H, 32P	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
10/12/04	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
10/12/04	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Timothy Koffin 10/12/04

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

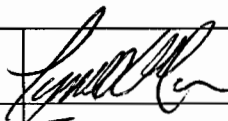
QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	N/A
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	(Yes) or No	(If "No" go to the next section.)
Date lab was decommissioned? 10/12/84		
What isotopes were used? 3H, 32P		
Have all surfaces/areas been decontaminated?	(Yes) or No	
Have all isotopes been transferred or disposed of?	(Yes) or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?		Yes or No
Have solvents been transferred/disposed of/ reassigned?		Yes or No
Particularly ether and THF?		Yes or No
Have all stills been quenched/transferred/ reassigned?		Yes or No
Have all intermediates/research samples been:		Yes or No
• Entered into the M collection?		N/A
• Assigned to others on the project and labeled as such?	Yes or No	
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:		10/12/04	Facilities:		/ /
Safety:		10/12/04	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

Internal Memorandum

AstraZeneca Pharmaceuticals
R&D SHE Services
Wilmington, DE 19850-5437
Telephone (302) 886-2860
FAX No. (302) 886-2909

DATE: 22 January, 2003

FROM: P. Civitella

TO: *(Dept. Manager)* CC: *(Lab Occupant initiating)*

SUBJ: **Laboratory Closure - Lab #** _____

This is to advise you of the closure of the above referenced laboratory within your department. The Procedure for Vacating a Laboratory has been satisfactorily completed. The attached copy is for your records.

-OR-

This is to advise you of the pending closure of the above referenced laboratory within your department. The following items need to be addressed by the occupant(s) or department before the Procedure for Vacating a Laboratory can be completed and approved by the applicable personnel:

items

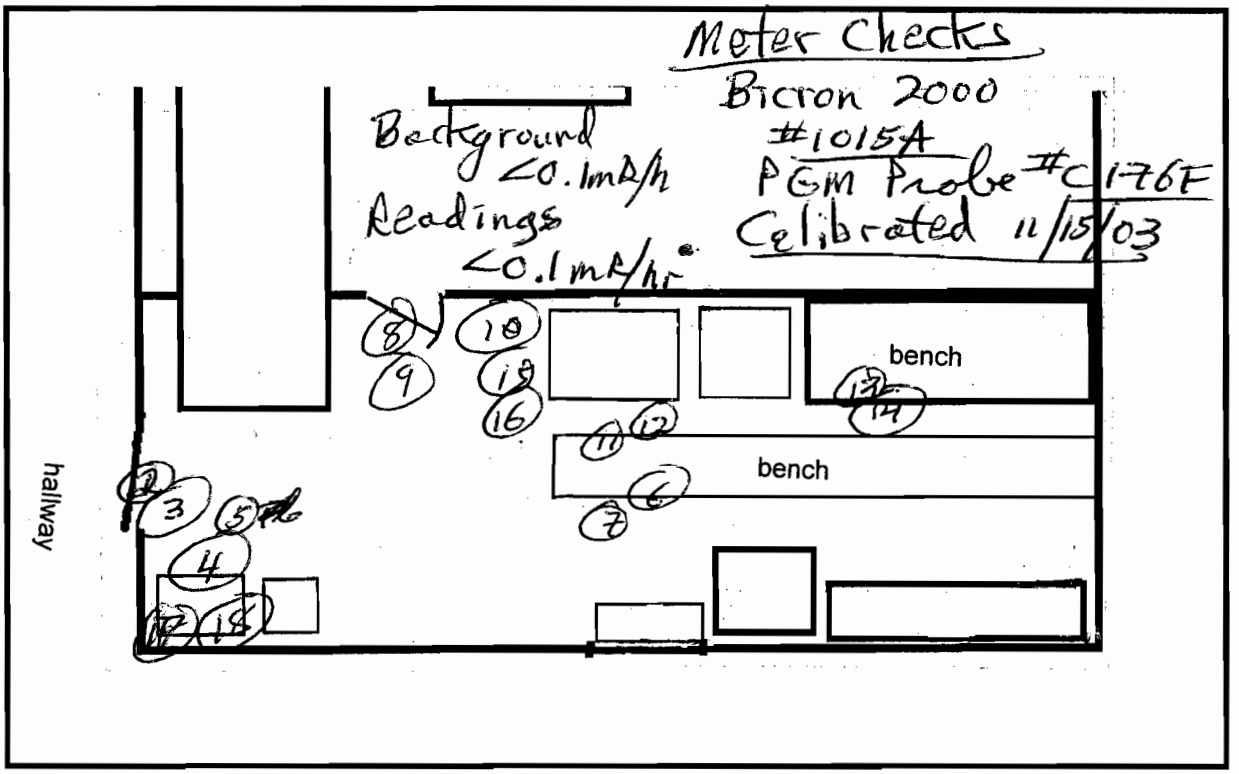
If arrangements cannot be made within the department to resolve these issues, then it may be handled by other personnel and it could result in charge backs. Please contact me to either discuss the arrangements made to resolve the issue or to advise that the issues have been resolved and another walk through can be scheduled.

_____
Environmental Specialist

New #
C112

WIPE TEST MAP

LAB # C112B



Decommission 10/07/04

WIPE SAMPLE DESCRIPTIONS

J Coffin

1. Background
2. Door & light switch
3. Floor, below door
4. Freezer Handles
5. Floor
6. Bench & Handles
7. Floor
8. Door Handle/Switch
9. Floor
10. Floor
11. Bench & Handles
12. Floor/Mat
13. Bench
14. Floor
15. Lucite Box
16. ~~Dup~~ Lucite Box
17. ~~Dup~~ Inside Fry Top
18. Inside Fry Bottom

C112B (C111)

Used Scint Counter

Lab L044

Ser# 4199674

Model = Packard

Tri Carb 2100TR

MEMORANDUM: For record and reference purposes

Date: October 12, 2004

Subject: CRDL Radioactive User Area Room # Change

As of today, the previously designated Radioactive Use Area:

Room # [redacted] Radioactive

Has changed to:

Room # C112 ~~radioactive~~ non-radioactive

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Coffin, Tim

From: Coffin, Tim
nt: Friday, February 17, 2006 9:00 AM
: Sygowski, Linda A; Zysk, John
Cc: Petlick, Scott; Bristow, Brian K
Subject: Decommissioning of [redacted] and C126 from Radioactive Material Use

FOR YOUR INFORMATION/ACTION:

As of today, 02/17/06, Labs C111 and C126 have been decommissioned from Radioactive Material Use.

ACTIONS TAKEN:

1. Decommissioning Wipe Tests completed and all wipes were at background or below the AZ action level of 100 dpms.

2. Meter monitoring of all equipment, benches, floors was done and found to be at background or below. Floor monitoring was done, with the same results.

3. All radioactive materials in the labs have been disposed or transferred to storage in C114, B237, or B246.

4. All radioactive wastes have been picked up and placed in the AZ Radioactive Waste Rooms, B135/B136. Empty waste cans were placed in C114 for use.

5. All labeled radioactive equipment, material, and supplies has been cleaned or relocated to C114 or B237.

All radioactive labels and tape were removed from the fume hoods, freezers, benches, etc.

7. Decommissioning paperwork completed and filed in the official Radiation Safety Files. A copy of the paperwork was placed in the respective Wipe Test Records for the labs. The Wipe Test Books were removed from the labs.

8. The labs were removed from the Radiation Safety Data Base lists of active labs and the weekly wipe test schedule.

9. This E-mail serves as notice to the RSO that the labs are decommissioned.

ACTIONS FOR BRIAN BRISTOW:

1. Please update your list of labs to reflect these labs are no longer Radiation Labs.

2. Please removed the radioactive hazard sign from the entrance door sign.

If you have any questions, please give me a call.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

C111

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: C111 Lab Supervisor: Mike Wood

Responsible Investigator for the Lab: Linda Sygowski

RAM Users in This Lab: 3H

Date: 02/16/06

Date Completed	Questionnaire
02/02/06	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
02/02/06	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
02/16/06	Contact Safety to perform final wipe test of the lab and equipment.
JKoffin	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
2/17/06	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
2/17/06	After approval by Safety, the radiation signs can be removed and returned to Safety.
N.A.	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

James Koffin 2/16/06

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

☐ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

☐ NA ☐ Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	Yes or No	(If "No" go to the next section.)
Date lab was decommissioned? 2/16/06		
What isotopes were used? 3H		3H
Have all surfaces/areas been decontaminated?	Yes or No	
Have all isotopes been transferred or disposed of?	Yes or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?	Yes or No	
Have solvents been transferred/disposed of/ reassigned?	Yes or No	
Particularly ether and THF?	Yes or No	
Have all stills been quenched/transferred/ reassigned?	Yes or No	
Have all intermediates/research samples been:	Yes or No	
• Entered into the M collection?	Yes or No	
• Assigned to others on the project and labeled as such?		
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:		/ /	Facilities:		/ /
Safety:	Sam Coffin	2/16/06	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

Decommission Wipes C111

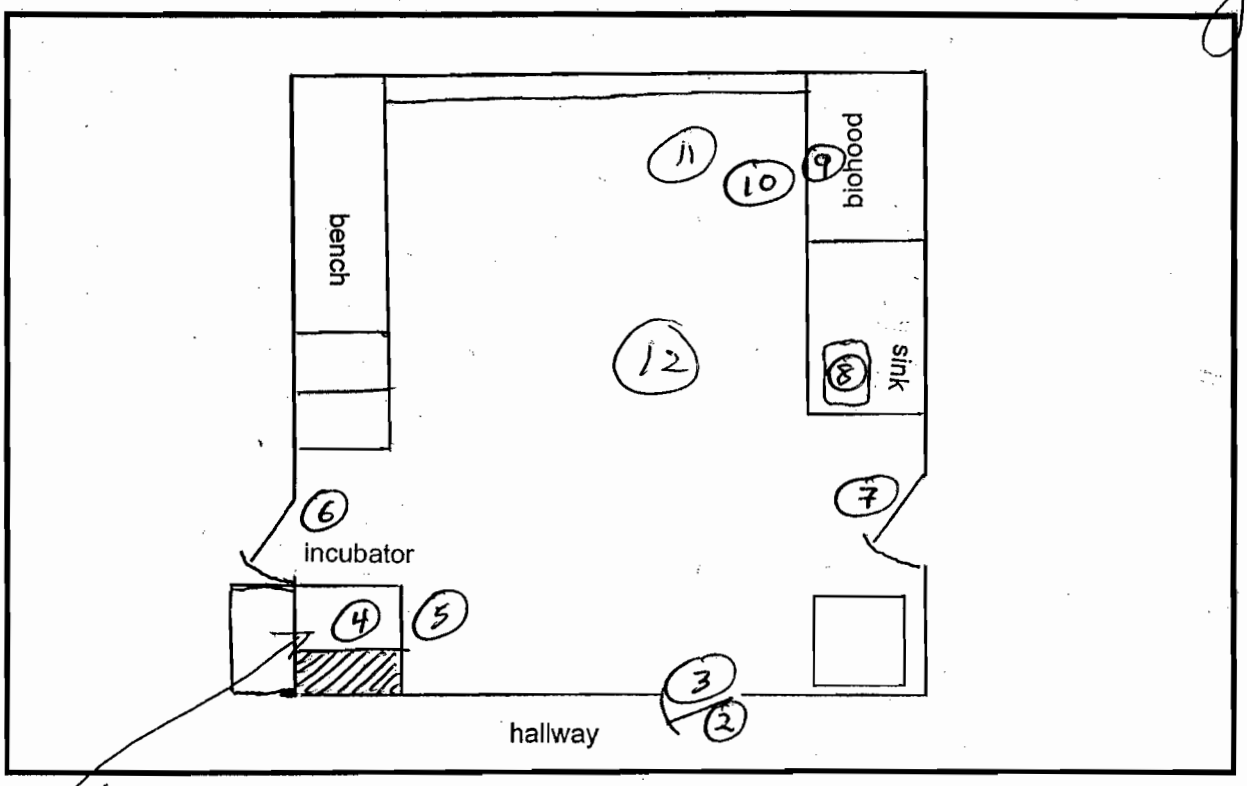
Decommission Wipes

02/16/05

Koffin

WIPE TEST MAP

LAB # **C-111**



Relocated to B240.

WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle, light switch, and phone
3. Floor below doors
4. Incubator handle
5. Floor below incubator
6. Floor below door
7. Floor below door
8. Sink
9. Biohood sash
10. Floor below Biohood
11. Lab Stool
12. Floor

Meter Readings

Ser# C176 Bicron 2000 Surveyor

Pancake Probe C187G

Background

.03 mr/hr

Readings

Background or less

Calibration for Ludlum Model 2221 Gas Proportional Floor Meter

Equipment:	Ludlum Model 2221 Scaler/Ratemeter, s/n 147378	
Conditions:	Window set on "Out"	☑
	Response set to "Fast"	☑
	Digital Indicator set to "Rate"	☑
Calibration Date:	May 24, 2005	
Probe Calibrated:	Floor probe, s/n PR 178829	
Probe Area:	430 cm^2	
	^{14}C	
Calibration Source:	0.028	
Cal. Source Activity (uCi):	8/10/2004	
Cal. Source Date:	61800	
Cal. Source Activity (dpm) :	Argon with 10% Methane	
Counting Gas:	Prior to calibration, allow the probe to purge for one hour with the gas flow adjusted to 100 cc/min. Operate probe at 50-60 cc/min. Confirm that all chambers of the probe are similarly responsive when a calibration source is put in close proximity to the chamber of interest.	
Instructions:		
Instrument Settings:	Battery reading	5.9
	HV reading	1725
	THR reading	101
	WIN reading	4082
Instructions:	Place the calibration source in position. Roll the detector over the calibration source. Set counter in scaler mode, set "TIME" to "x1", obtain a one minute count. Repeat for until data has been obtained for three source positions over the entire probe area.	

Calibration Data:	Background (B)	Cal. Source (S)
1	352	5145
2	386	4923
3	404	5222
Mean	381	5097
Calculated Counting Eff:		% 7.6%

5097
-381
4716

61800 ⟌ 4716
.076 x 100
= 7.6%

Instructions:	If calculating survey limits by hand, use 1 dpm/cm^2 for removable and 5 dpm/cm^2 for fixed contamination limits. Enter into equation: Survey Limit = [(Contamination Limit)(Probe Area)(Abs. Eff.)] + Background	
Fixed Survey Limit		
Removable Survey Limit		
Calibrated by:		
Signature	Jennifer Coffin	Date 02/16/05

Background: 300-500 cpm

Readings:
Lab C111: Background
Lab C126: 600 cpm

Coffin, Tim

From: Coffin, Tim
t: Tuesday, April 18, 2006 6:55 AM
: Petlick, Scott; Sygowski, Linda A; Zysk, John; Matthews, Cory M; Bristow, Brian K; Norris, Tyrell E
Subject: Decommissioning of Lab [redacted] from use of Radioactive materials

FOR YOUR INFORMATION/ACTION:

As of today, April 18, 2006 the CRDL [redacted] has been decommissioned from the use of Radioactive Material.

ACTIONS TAKEN:

1. All radioactive materials and wastes removed from the lab and relocated to appropriate new storage and use areas.

2. All radioactive equipment (i.e., freezers, centrifuge, cell harvester, etc.) that will continue to be used for radioactive material was cleaned on the exterior and relocated to other radioactive use areas.

3. Decommissioned wipe tests completed and all wipes were at background or below the AZ Action Level of 100 dpms.

4. Meter checks of all use areas and floor showed readings at background or less than the AZ requirement of 3 X Background.

5. All radioactive waste containers were relocated to another radioactive lab or to the Radiation Safety Storage Area.

6. All radioactive tape, labels, and signs were removed from inside the lab on all the equipment and furniture that was used for radioactive work and cleaned.

7. Decommissioning paperwork completed and filed in the official Radiation Safety Files. A copy of the paperwork was placed in the respective Wipe Test Records for the lab. The Wipe Test Book was removed from the lab once decommissioned and placed in the Radiation Safety Archives.

8. The lab was removed from the Radiation Safety Data Base Lists of active labs and routine wipe test schedule.

9. This E-mail serves as the notice to the RSO that the lab has been decommissioned.

ACTIONS FOR BRIAN BRISTOW:

1. Please update your list of labs to reflect that C114 is no longer a Radioactive Material Use Lab.

2. Please remove the Radioactive Hazard sign from the entrance doors of the lab.

If you have any questions, please give me a call.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

C 114

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: C114 Lab Supervisor: Linda Sygowski

Responsible Investigator for the Lab: Linda Sygowski

RAM Users in This Lab: John Zysk, Teng Peng, Ty Norris

Date: 3/20/06 3H, 35S, I125

Date Completed	Questionnaire
04/14/06	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
03/20/06	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
03/21/06	Contact Safety to perform final wipe test of the lab and equipment.
	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas. ASO
04/18/06	Write a letter to ~~D. Irwin~~ in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
04/18/06	After approval by Safety, the radiation signs can be removed and returned to Safety.
???	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Timothy Koffini 4/18/06

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

_____

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date: 03/20/06	Name: Linda Sygowski	Lab #: C114	Building: R&D
Department: Lead Dis	Cost Center:	Extension: 6-8069	New Location: B237 Invitro Pharmacology

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

I125 Spill by walk in freezer Door - 10/27/03

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	(Yes) or No	(If "No" go to the next section.)
Date lab was decommissioned?		4/15/06
What isotopes were used?		34, 355, 125 I
Have all surfaces/areas been decontaminated?	(Yes) or No	
Have all isotopes been transferred or disposed of?	(Yes) or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?	Yes or No	
Have solvents been transferred/disposed of/ reassigned?	Yes or No	
Particularly ether and THF?	Yes or No	
Have all stills been quenched/transferred/ reassigned?	Yes or No	
Have all intermediates/research samples been:	Yes or No	
• Entered into the M collection?	Yes or No	
• Assigned to others on the project and labeled as such?		
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

ONLY Yes

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, will result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

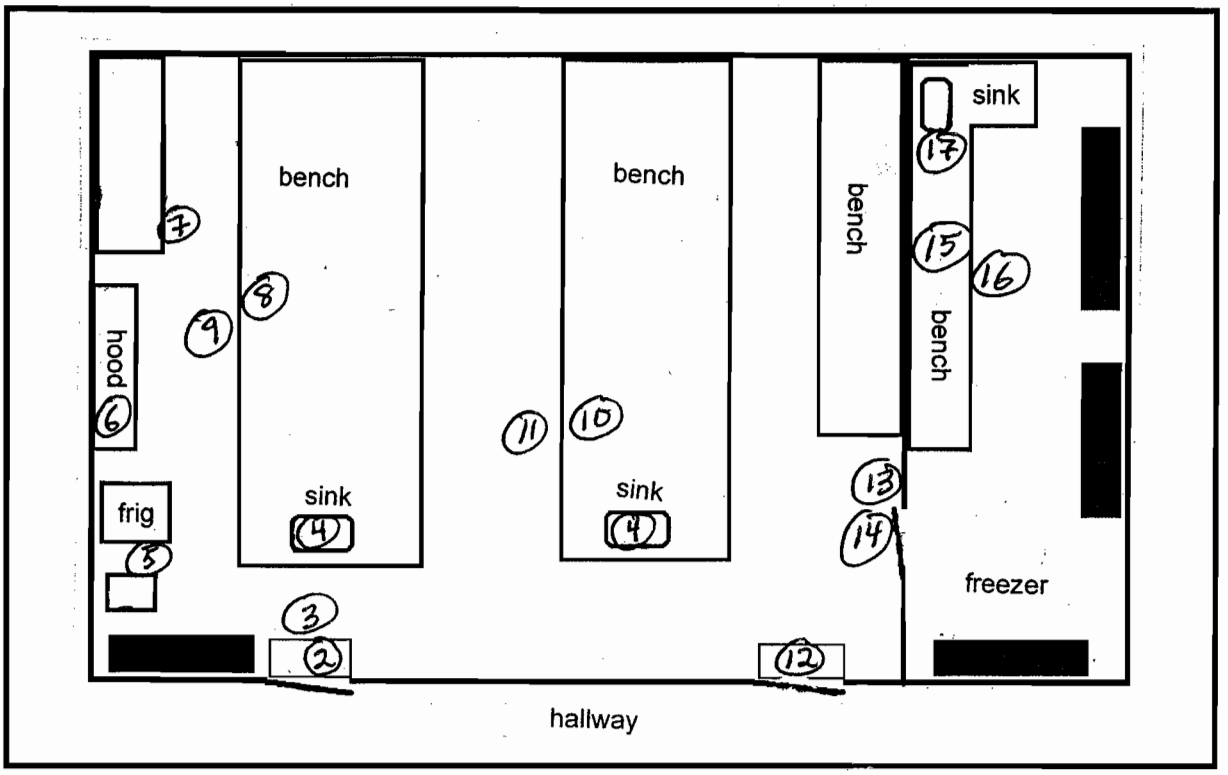
SIGNATURES and DATE:

Lab Occupant:		/ /	Facilities:		/ /
Safety:	Sam Coffin	4/18/06	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

WIPE TEST MAP

LAB # C114



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle & light switch
3. Floor below door
4. Sink
5. Refrigerator/freezer handles
6. Hood sash, foil, & handles
7. Bench & Equip
8. Bench edge & handles
9. Floor below hood & bench
10. Bench edge and handles
11. Door handel & light switch
12. Floor below door
13. Freezer door handle & switch
14. Floor below door
15. Bench edge & handles
16. Floor below bench
17. Sink

Gamma Coffin C114 Floor where -80 Freezer was located.

1470, 5 detectors, RiaCalc WIZ, program 3.6, serial #4702200

ASSAY 17-Apr-2006 14:38:49

Protocol id	1 I-125
Time limit	180
Count limit	99999999
Isotope	I-125
Protocol date	06-Jan-2005 08:11:33
Run id.	39

POS	RACK	DET	BATCH	TIME	COUNTS	CPM	ERROR %
1	1	1	1	180	57	2.8	99.71
2	1	2	1	180	101	15.3	24.19
3	1	3	1	180	52	3.0	90.68
4	1	4	1	180	60	2.7	109.09
5	1	5	1	180	61	3.3	88.32

END OF ASSAY

END OF COUNTING

Bela Koffini C114 Floor where -80 Freezer was located.

Protocol #:15 Name:Wipe Test 17-Apr-2006 13:50
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.10	4.90	3.30			642.	B
2	1.00	0.00	2.10	0.70	0.00	2.85	526.	
3	1.00	0.00	0.00	0.00	0.00	0.00	515.	
4	1.00	0.00	0.10	0.00	0.00	0.14	556.	
5	1.00	0.06	0.94	1.70	0.00	1.27	557.	

BACK PIN JAM FWD

C114 4/17/06 J Coffin

Decommission Space

Where -80 Freezer was.

Floor

(1) Background

Floor Sections

2	3
4	5

Fume Hood

Meter Readings

Ludlum Mode 3, Ser# 211688

Calibrated: 12/11/05

Probe: #PR 223872

44-9

Background: .02 - .03

Readings: Background or lower

BACK PIN JAM FWD

Coffin, Tim

From: Bristow, Brian K
Sent: Friday, April 14, 2006 9:19 AM
To: Sygowski, Linda A; Coffin, Tim
Cc: Petlick, Scott; Zysk, John
Subject: RE: Relocation of C114 REVCO -80 Freezer use for Storage of Radioactive Samples

Freezer and contents all moved from C114 to B239 @ 9:15am today.
Let me know if anything else is needed. BKB

-----Original Message-----
From: Sygowski, Linda A
Sent: Wednesday, April 12, 2006 4:07 PM
To: Coffin, Tim; Bristow, Brian K
Cc: Petlick, Scott; Zysk, John
Subject: RE: Relocation of C114 REVCO -80 Freezer use for Storage of Radioactive Samples

Hi Tim and Brian,

Thanks, Tim for your message. Brian, as I'd mentioned today it is okay to relocate the Forma -80 that's currently in B239 to the designated spot in B228.

Tomorrow, I intend to remove the radioactive material form the REVCO freezer in CRDL 114. in addition, I need to physically secure some of the non-radioactive samples into boxes so that individual tubes don't get jostled during the move.

I will let you know Brian when I have completed the pre-move tasks on the Revco freezer.

Thanks.
Linda

-----Original Message-----
From: Coffin, Tim
Sent: Wednesday, April 12, 2006 7:09 AM
To: Sygowski, Linda A; Bristow, Brian K
Cc: Petlick, Scott; Zysk, John
Subject: Relocation of C114 REVCO -80 Freezer use for Storage of Radioactive Samples

FOR YOUR INFORMATION/ACTION:

As of this today, April 12, 2006, the external surfaces of the C114 - 80 degree REVCO Freezer has been checked for radioactive contamination and found to be clean for relocation to Radioactive Lab B239.

ACTIONS TAKEN:

1. Wipe test were done and all results were at background or below the AZ Action Level of 100 dpms.

2. Decontamination Sign was completed by me and posted on the door of the unit so that it can be relocated to B239.

3. Leave Radioactive Labels and Stickers on the Unit because it will be used in another radioactive lab (B239).

4. Non-radioactive samples will remain in the unit during the relocation.

ACTIONS TO BE TAKEN:

1. Linda Sygowski to remove the radioactive samples from the REVCO Freezer in C114 and coordinate with Brian Bristow when the unit can be moved. DO NOT MOVE THE UNIT UNTIL LINDA HAS REMOVED THE RADIOACTIVE SAMPLES!!.

2. To make room for the REVCO Freezer in B239, Brian must first relocate the FORMA

SCIENTIFIC, - 80 degree Bio Freezer (non-radioactive unit) from B239 to B228. Contact Linda for information on this unit also. I believe the samples will remain inside during the more.

3. Linda and Brian, please let me know when the units have been relocated so I can complete the Radioactive Lab Decommissioning of C114.

Let me know if you have any questions.

Timothy J. Coffin
Radiation Safety Specialist
OW1-227, 6-2682

Coffin, Tim

From: Coffin, Tim
Sent: Thursday, March 23, 2006 1:25 PM
To: Sygowski, Linda A; Zysk, John
Cc: Petlick, Scott
Subject: Status of Decommissioning Lab C114 from Radioactive Material Use

FOR YOUR INFORMATION/ACTION:

As of today, March 23, 2006, I have completed the following portions of the decommissioning process for Lab C114.

1. All wipe test of floors, fume hoods, lab benches, equipment, etc.

2. All meter readings of floors, fume hood, lab benches, shielding, equipment, etc.

3. Removed radioactive tape and signs from all benches, fume hood, equipment, etc. that has been wipe tested and found clean.

4. Removed all radioactive waste containers, Lucite Shielding, and Geiger counters.

STILL TO BE DONE BEFORE LAB CAN BE DECOMMISSIONED:

1. Remove all radioactive material from Freezer.
2. Clean and wipe test freezer used for radioactive material storage.
3. Remove all door signs from lab
4. Remove lab from all data bases and wipe test schedule.
5. Send final decommissioning E-mail notice.

Let me know when the last radioactive material is removed from the lab and the Freezer is empty, turned off, and cleaned. I will then do the wipe tests of the freezer. Let me know if it needs a decommission sign on it so the unit can be relocated to a new lab.

Any questions, please give me a call.

C114 Decommissioning
Floors

1470, 5 detectors, RiaCalc WIZ, program 3.6, serial #4702200

ASSAY 23-Mar-2006 10:37:26

Protocol id	1 I-125
Time limit	180
Count limit	99999999
Isotope	I-125
Protocol date	06-Jan-2005 08:11:33
Run id.	29

POS	RACK	DET	BATCH	TIME	COUNTS	CPM	ERROR %
1	1	1	1	180	51	1.1	238.39
2	1	2	1	180	87	10.3	33.41
3	1	3	1	180	61	6.0	48.37
4	1	4	1	180	63	3.8	78.42
5	1	5	1	180	65	4.6	64.73
6	1	1	2	180	54	1.9	143.27
7	1	2	2	180	114	19.5	20.02
8	1	3	2	180	49	2.2	122.91
9	1	4	2	180	67	5.0	61.33
10	1	5	2	180	48	0.0	319.61
11	2	1	3	180	47	0.0	908.57
12	2	2	3	180	102	15.5	23.97
13	2	3	3	180	55	4.1	67.31
14	2	4	3	180	58	2.0	144.31
15	2	5	3	180	57	2.2	131.68
16	2	1	4	180	48	0.0	7366.34
17	2	2	4	180	107	17.0	22.26
18	2	3	4	180	52	2.8	95.22
19	2	4	4	180	53	0.3	862.36
20	2	5	4	180	62	3.7	80.24
21	3	1	5	180	44	0.0	185.51
22	3	2	5	180	121	21.9	18.38
23	3	3	5	180	54	3.8	72.18
24	3	4	5	180	48	0.0	194.76
25	3	5	5	180	44	0.0	117.80
26	3	1	6	180	55	2.3	120.16
27	3	2	6	180	95	13.1	27.46
28	3	3	6	180	53	3.3	82.38
29	3	4	6	180	59	2.2	133.22
30	3	5	6	180	45	0.0	128.59
31	4	1	7	180	53	1.7	157.25
32	4	2	7	180	109	17.9	21.43
33	4	3	7	180	55	4.0	69.43

END OF ASSAY

END OF COUNTING

C114 Decommissioning
High Floor Monitor Areas

Clean & recipe

COUNTING

1470, 5 detectors, RiaCalc WIZ, program 3.6, serial #4702200

SAY 23-Mar-2006 10:24:22

Protocol id 1 I-125
Time limit 180
Count limit 99999999
Isotope I-125
Protocol date 06-Jan-2005 08:11:33
Run id. 28

POS	RACK	DET	BATCH	TIME	COUNTS	CPM	ERROR %
1	1	1	1	180	52	1.4	192.32
2	1	2	1	180	98	14.1	25.73
3	1	3	1	180	40	0.0	205.01
4	1	4	1	180	62	3.2	93.03
5	1	5	1	180	50	0.0	1399.41
6	1	1	2	180	44	0.0	222.44
7	1	2	2	180	106	16.9	22.39
8	1	3	2	180	55	4.0	69.54
9	1	4	2	180	65	4.3	69.69
10	1	5	2	180	60	3.2	92.47
11	2	1	3	180	52	1.4	200.79
12	2	2	3	180	115	19.8	19.76
13	2	3	3	180	73	10.0	31.48
14	2	4	3	180	77	8.2	39.71
15	2	5	3	180	55	1.5	189.01
16	2	1	4	180	53	1.6	168.05
17	2	2	4	180	113	19.3	20.16
18	2	3	4	180	57	4.6	60.49
19	2	4	4	180	59	2.3	124.48

END OF ASSAY

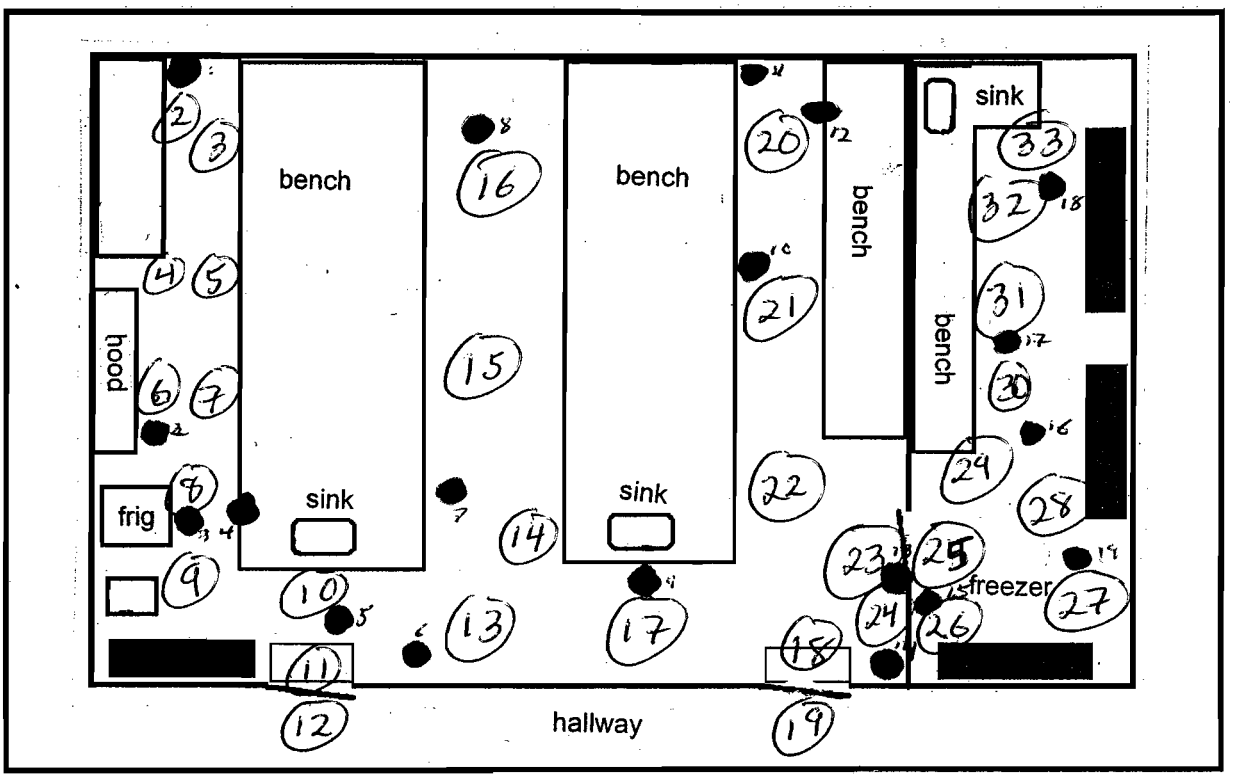
C111
Decommission

Follow-up spots on Floor Look good after cleaning.

3/22/06 C114 Decommission Floors J Coffin

WIPE TEST MAP

LAB # C114



WIPE SAMPLE DESCRIPTIONS

(1) Background

Readings: 200-500 Background

- Floor Monitoring Areas to Check with wipes! over 500 cpm (500 - 800 dpms)

Calibration for Ludlum Model 2221 Gas Proportional Floor Meter

Equipment:	Ludlum Model 2221 Scaler/Ratemeter, s/n 147378	
Conditions:	Window set on "Out"	☑
	Response set to "Fast"	☑
	Digital Indicator set to "Rate"	☑
Calibration Date:	May 24, 2005	
Probe Calibrated:	Floor probe, s/n PR 178829	
Probe Area:	430	cm^2
Calibration Source:	^{14}C	
Cal. Source Activity (uCi):	0.028	
Cal. Source Date:	8/10/2004	
Cal. Source Activity (dpm) :	61800	
Counting Gas:	Argon with 10% Methane	
Instructions:	Prior to calibration, allow the probe to purge for one hour with the gas flow adjusted to 100 cc/min. Operate probe at 50-60 cc/min. Confirm that all chambers of the probe are similarly responsive when a calibration source is put in close proximity to the chamber of interest.	
Instrument Settings:	Battery reading	5.8
	HV reading	1726
	THR reading	102
	WIN reading	4088
Instructions:	Place the calibration source in position. Roll the detector over the calibration source. Set counter in scaler mode, set "TIME" to "x1", obtain a one minute count. Repeat for until data has been obtained for three source positions over the entire probe area.	

Calibration Data:	Background (B)	Cal. Source (S)
1	398	5047
2	421	4838
3	446	5276
Mean	422	5054
Calculated Counting Eff:		% 7.5

5054
−422
4632

61800)4632 .0749

x100 =

= 7.49%

Instructions:	If calculating survey limits by hand, use 1 dpm/cm^2 for removable and 5 dpm/cm^2 for fixed contamination limits. Enter into equation: Survey Limit = [(Contamination Limit)(Probe Area)(Abs. Eff.)] + Background	
Fixed Survey Limit		
Removable Survey Limit		
Calibrated by:		
	Signature Timothy Coffman	Date 03/22/06

Coffin, Tim

From: Coffin, Tim
nt: Wednesday, March 22, 2006 7:02 AM
.o: Sygowski, Linda A
Cc: Zysk, John; Bristow, Brian K; Petlick, Scott
Subject: Decommissioning Process of C114 (Centrifuge completed, can not be relocated)

FOR YOUR INFORMATION/ACTION:

The decommissioning of Lab C114 is underway but not yet complete. Will let you know when all items are completed and the lab can be considered decommissioned from radioactive material use. The designated radioactive use lab benches and fume hood are clean and decommissioned. The floors and walk-in cold room are next.

As of yesterday, the wipe tests were completed on the Centrifuge in C114 and it can be relocated to B230 when desired.

ACTIONS:

1. Wipe tests completed on centrifuge and all wipes are at background or below the AZ action level of 100 dpms.

2. Meter monitoring found no contamination on the interior, exterior, or racks.

3. All radioactive tape and signs were removed from the Centrifuge and bench where it sits.

4. A sign was placed on the unit and signed by me to indicate that it has been cleaned of any radioactive contamination and can be moved or relocated without concern for radiation.

Let me know if you have any questions.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

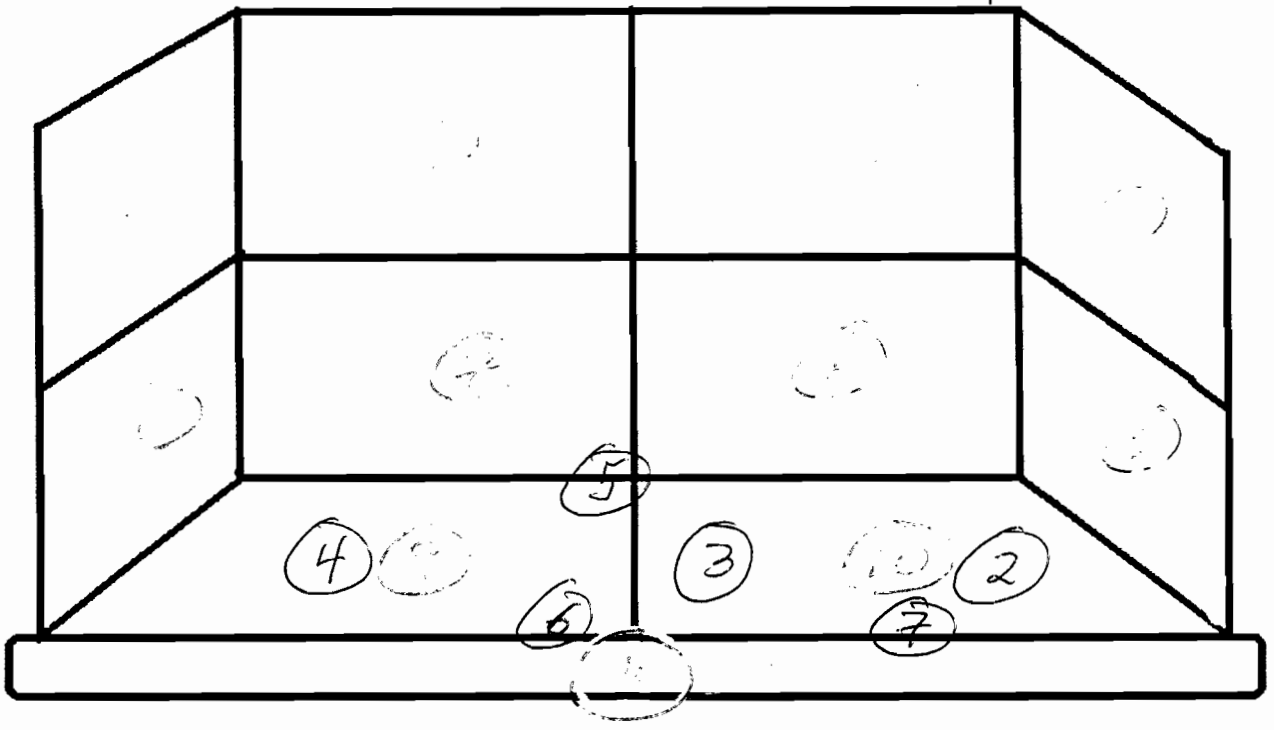
C114
Hood Decommission

clean & Follow-up
Wipes on previous
Sample #10 & ~~#~~16

C114

Decommission Hood

Follow up Wipes of Area #10 & #16 from previous wipes



(1) Background

C114 Hood

Decommission wipes

Clean & rewipe

1470, 5 detectors, RiaCalc WIZ, program 3.6, serial #4702200

ASSAY 21-Mar-2006 13:18:32

Protocol id 1 I-125
Time limit 180
Count limit 99999999
Isotope I-125
Protocol date 06-Jan-2005 08:11:33
Run id. 27

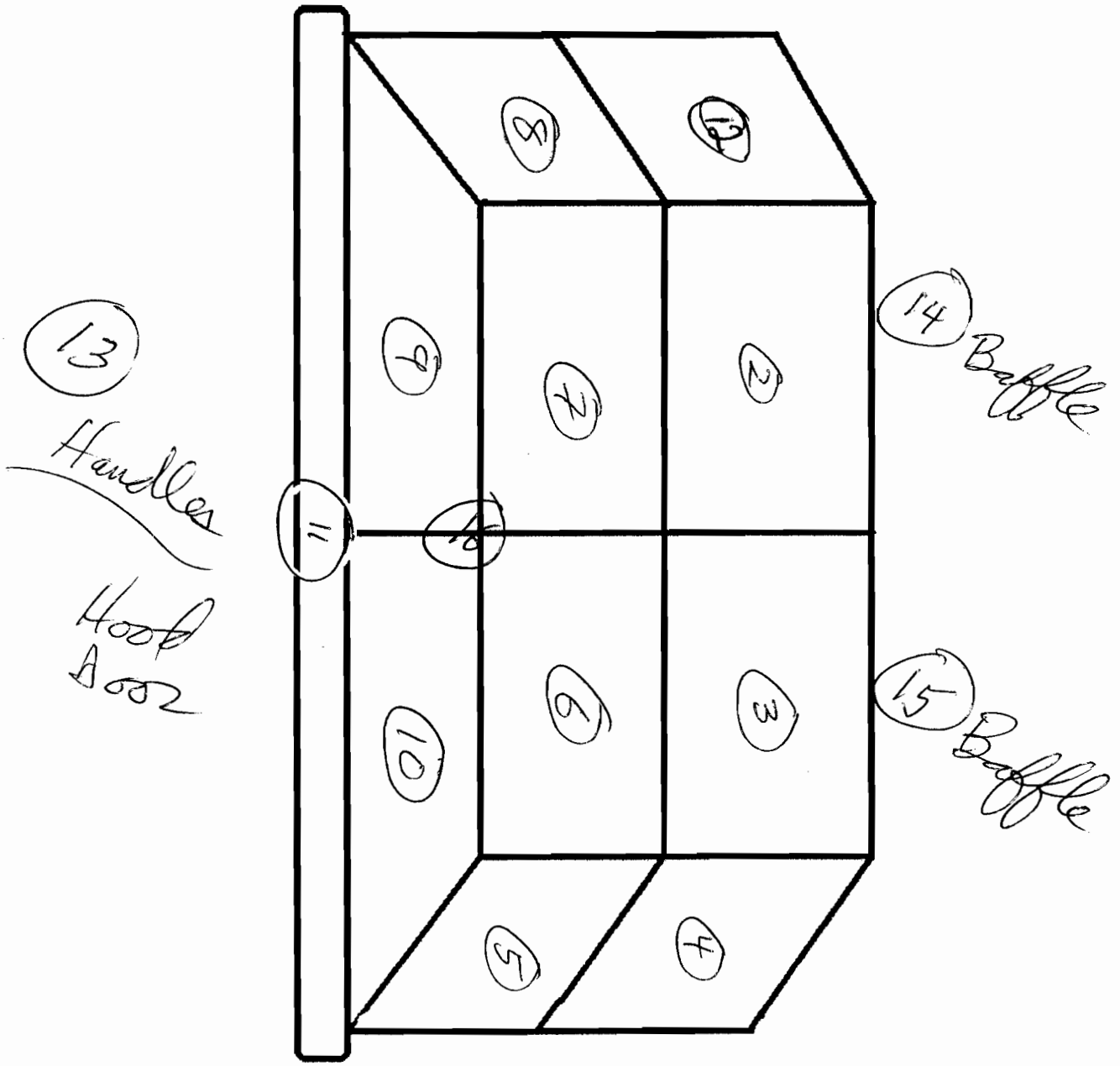
POS	RACK	DET	BATCH	TIME	COUNTS	CPM	ERROR %
1	1	1	1	180	56	2.6	107.04
2	1	2	1	180	106	16.8	22.45
3	1	3	1	180	47	1.3	197.29
4	1	4	1	180	70	6.1	50.85
5	1	5	1	180	53	0.8	337.28
6	1	1	2	180	47	0.0	549.24
7	1	2	2	180	93	12.5	28.51
8	1	3	2	180	44	0.5	536.91
9	1	4	2	180	69	5.5	56.08
10	1	5	2	180	59	2.6	108.99
11	2	1	3	180	55	2.2	128.09
12	2	2	3	180	96	13.4	26.80
13	2	3	3	180	52	3.1	86.05
14	2	4	3	180	73	6.8	46.35
15	2	5	3	180	49	0.0	397.15
16	2	1	4	180	50	0.5	515.64

END OF ASSAY

END OF COUNTING

3/21/06

C114 Decommission Fume Hood



Meter Readings

Benches C114 Decommission Wipes

COUNTING

1470, 5 detectors, RiaCalc WIZ, program 3.6, serial #4702200

.Y 21-Mar-2006 13:08:38

Protocol id	1 I-125
Time limit	180
Count limit	99999999
Isotope	I-125
Protocol date	06-Jan-2005 08:11:33
Run id.	26

POS	RACK	DET	BATCH	TIME	COUNTS	CPM	ERROR %
1	1	1	1	180	58	3.2	89.96
2	1	2	1	180	107	17.1	22.10
3	1	3	1	180	61	6.1	47.23
4	1	4	1	180	68	5.3	57.85
5	1	5	1	180	56	1.7	169.92
6	1	1	2	180	61	4.3	67.37
7	1	2	2	180	107	17.0	22.26
8	1	3	2	180	49	2.0	133.11
9	1	4	2	180	70	6.1	50.85
10	1	5	2	180	47	0.0	193.95
11	2	1	3	180	64	5.2	57.23

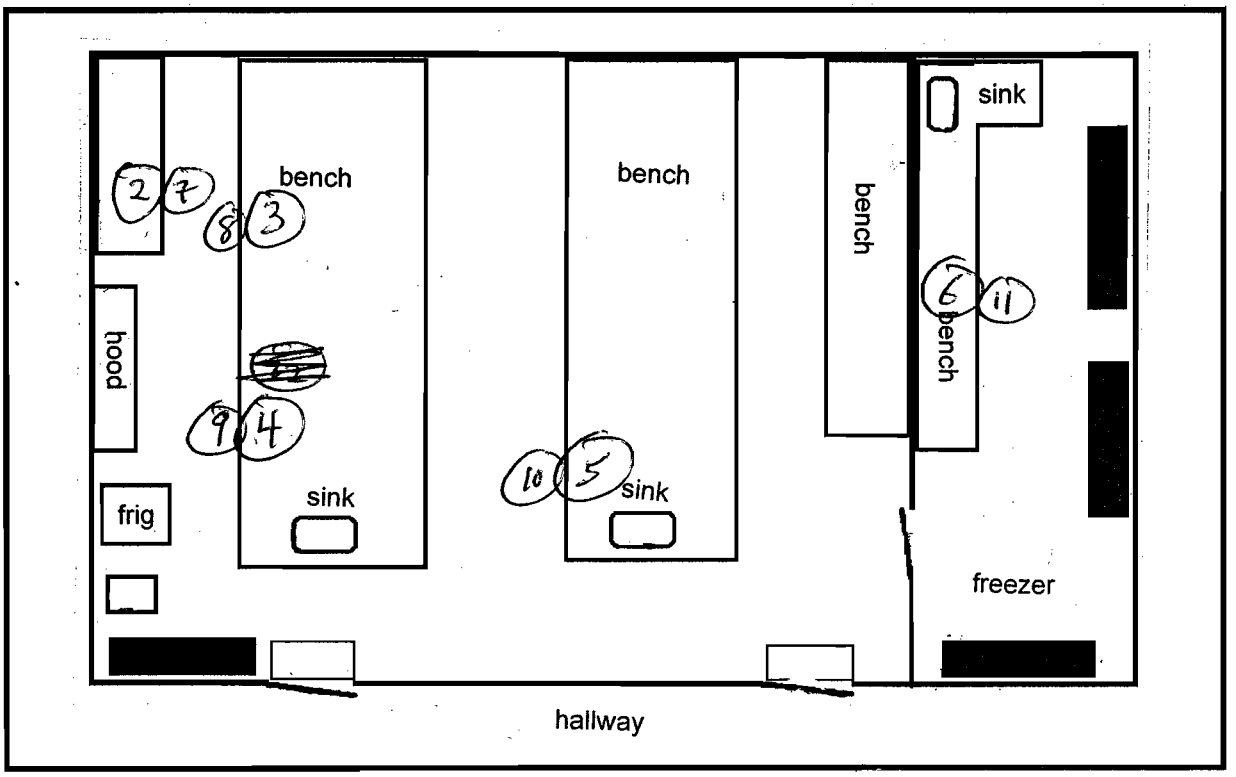
END OF ASSAY

03/21/06

Decommission Wipes Koffin

WIPE TEST MAP

LAB # C114



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Bench Top
3. " "
4. " "
5. " "
6. " "
7. Handles
8. "
9. "
10. "
11. Handles
12. ~~Splash Shield~~

Decommission
C114

Meter Readings

Ludlum Model 3
44-9
PR223872
ser 211688
Cal: 12/11/05

Background: .03 mr/hr
60 cpm

Readings: Background

Ludlum 3
44-3
PR-033127
ser # 46224
Cal: 8/15/05

Background: 300 cpm

Readings: Background

1470, 5 detectors, RiaCalc WIZ, program 3.6, serial #4702200

ASSAY 21-Mar-2006 08:56:55

Protocol id	1 I-125
Time limit	180
Count limit	99999999
Isotope	I-125
Protocol date	06-Jan-2005 08:11:33
Run id.	25

POS	RACK	DET	BATCH	TIME	COUNTS	CPM	ERROR %
1	1	1	1	180	55	2.4	116.57
2	1	2	1	180	90	11.4	30.62
3	1	3	1	180	61	6.1	47.23
4	1	4	1	180	66	4.6	65.31
5	1	5	1	180	58	2.3	123.78
6	1	1	2	180	55	2.2	125.45
7	1	2	2	180	128	24.1	17.10
8	1	3	2	180	51	2.8	95.87
9	1	4	2	180	52	0.0	10108.53
10	1	5	2	180	53	0.8	337.27
11	2	1	3	180	60	4.1	71.40
12	2	2	3	180	109	17.8	21.43
13	2	3	3	180	57	4.8	58.62
14	2	4	3	180	57	1.6	173.54
15	2	5	3	180	57	2.2	132.49
16	2	1	4	180	49	0.4	726.05
17	2	2	4	180	115	19.7	19.88
18	2	3	4	180	47	1.5	175.03

END OF ASSAY

END OF COUNTING

C114
Decommission

J Coffey

(1) ~~Background~~
(2) Inside lead Pig
(3) Metal Tins
(4) Plastic Bottle
(5) Storage area
(6) Lucite Shield

} Under Hood Left side

(7) Other Bottles of Chemicals
(8) Rubber Container

(9) Cabinet ~~Shelf~~ — Right side Under Hood

(10) Centrifuge Exterior
(11) " Inside Seal & Lid
(12) Lab Bench around Centrifuge
(13) Centrifuge Inside Black Racks (Drum)
(14) Balance
(15) Brown Racks
(16) Green Racks
(17) Blade Holder
(18) Metal Round ~~Rack~~ Lazy Susan

} Centrifuge Bench Stuff

Move Centrifuge from C114 to B230.

Decommission C114
Equip, Shields, etc.

Sample Racks

~~Item to Receive~~ #3
Disposed of Racks
Rad Waste

COUNTING

1470, 5 detectors, RiaCalc WIZ, program 3.6, serial #4702200

AY 21-Mar-2006 08:37:17

Protocol id 1 I-125
Time limit 180
Count limit 99999999
Isotope I-125
Protocol date 06-Jan-2005 08:11:33
Run id. 24

POS	RACK	DET	BATCH	TIME	COUNTS	CPM	ERROR %
1	1	1	1	180	55	2.3	120.84
2	1	2	1	180	106	16.8	22.42
3	1	3	1	180	49	2.1	123.29
4	1	4	1	180	57	1.6	173.54
5	1	5	1	180	54	1.0	283.40
6	1	1	2	180	45	0.0	287.85
7	1	2	2	180	84	9.3	36.56
8	1	3	2	180	52	3.1	86.58
9	1	4	2	180	59	2.3	124.48
10	1	5	2	180	52	0.5	548.01
11	2	1	3	180	49	0.2	1413.47
12	2	2	3	180	106	16.7	22.58
13	2	3	3	180	55	3.8	72.06
14	2	4	3	180	74	7.3	43.54
15	2	5	3	180	67	5.3	57.23
16	2	1	4	180	47	0.0	678.87
17	2	2	4	180	118	20.8	19.04
18	2	3	4	180	55	4.0	69.54
19	2	4	4	180	73	7.0	45.42
20	2	5	4	180	56	1.8	154.45
21	3	1	5	180	48	0.2	1656.23
22	3	2	5	180	113	19.0	20.41
23	3	3	5	180	48	1.8	144.20
24	3	4	5	180	65	4.2	72.36
25	3	5	5	180	52	0.3	801.14
26	3	1	6	180	51	0.9	287.72
27	3	2	6	180	114	19.4	20.14

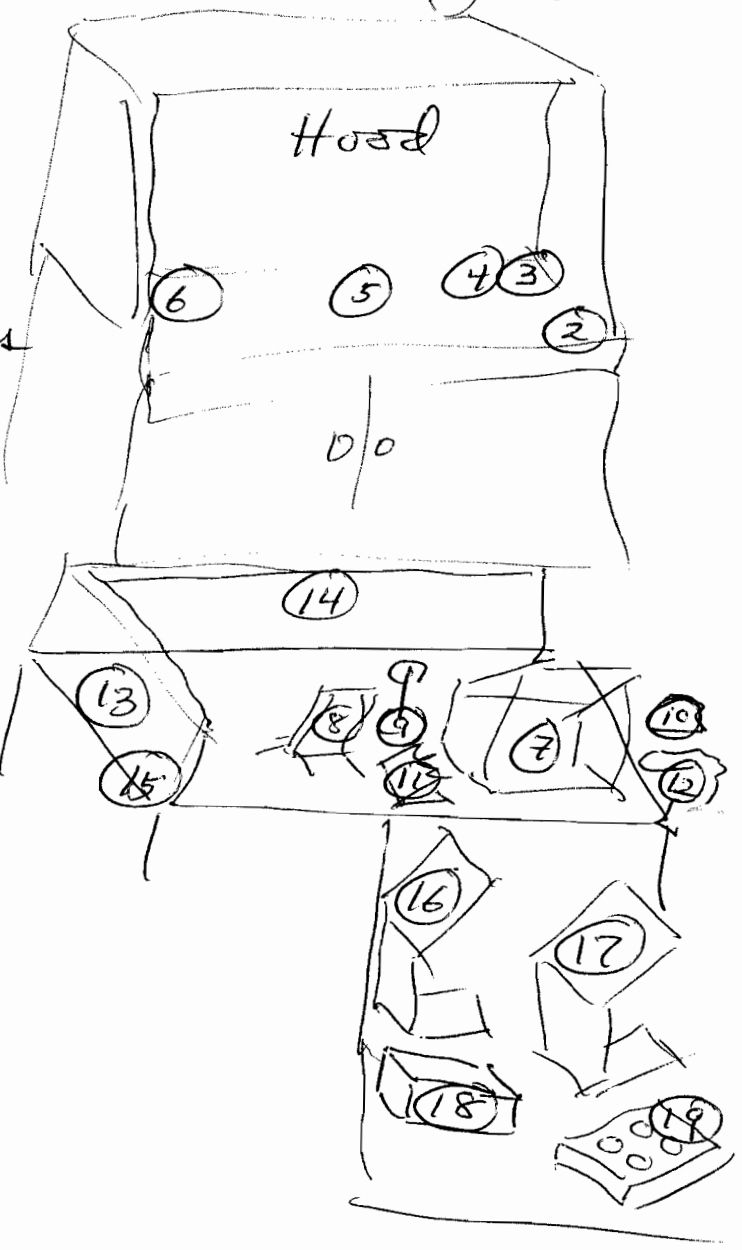
END OF ASSAY

Decommission C114

3/20/06
J Coffin

Hood
1 Background
2 Lead Bricks
3 Sample Racks
4 Styrofoam
5 Dispensers / Bottle
6 Racks & Vials / Bottles
Lead Pig

Bench
7 Lucite Shield Large
8 Lucite Shield Small
9 Orange Metal Stand
10 Small Centrifuge
11 Pipettes Rack
Lucite
12 Pipetter Handle
13 Bottle, Plate, Stuff
14 Lucite Back Splash
15 " " "
16 Lucite Shield
17 " "
18 " Box
19 Plastic Tray
~~20~~



In Walk In Freezer
20 Dessicator Box
21 Lucite Box Small
22 ~~Large~~ " " Medium
23 " " Medium
24 " " "

25 Lucite Box ~~Medium~~ ~~Large~~
26 " " Large
27 " " "

ZENECA

Internal Memorandum
From:
Frank Zuleski
Radiation Safety Specialist, L&S

ZENECA Pharmaceuticals
Safety Department
Tel: 302-886-8485
Fax: 302-886-2909

Date: **September 3, 1998**

To: **David Irwin, Radiation Safety Officer** **CC: P. Civitella**

Subject: **Request for Decommissioning of Lab CRDL as a Radioactive Laboratory**

Dave:

CRDL laboratory 122 has been discontinued as a radioactive lab. The lab has been given a thorough decontamination and final wipe test check. The documentations (lab history and wipe test) are included. Sam Palermo examined Lab 122 on 2 SEP 1998 and issued the form for **Radioactive Laboratory Decommissioning.** All "radioactive" signs were removed from the doors and within the lab by Sam.
To the best of my knowledge the decommissioning file is complete and I request that CRDL lab 122 be removed from the list of radioactive labs. Please inform me if all items are in order and I will contact Patricia Civitella to have the lab removed from the database.

CR+DL Rm. 122 is decommissioned as of 9/16/98.
Radiation Safety Officer

complete file located in Radiation file cabinet under "decommissioning. pCL.

Radioactive Laboratory Decommissioning

Laboratory: C122

A. Responsible Investigator for the Lab: Frank Zuleski

B. Lab Supervisor: F. Zuleski

C. RAM users in this lab: F. Zuleski
S. Long

(Read also the section , "Radioisotope Laboratory Decommissioning" on p. 15 of the Radiation Safety Manual.)

✓ 1. Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.

✓ 2. Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.

✓ 3. Perform a complete final wipe test of all areas in the lab; clean and rewipe any hot areas, until counts are below 100 dpm.

→ 4. Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after clean up. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.

✓ 5. Write a letter to the Radiation Safety Officer (D. H. Irwin) stating that the lab is no longer radioactive, and that it should be removed from the list of radioactive labs. Include the documentation (lab history and wipe test) separately. Contact P.Civitella to have the lab removed. from the database. Remove the "radioactive" signs from the door and all areas now non-radioactive after approval by the RSO. Return door signs to P.Civitella.

S. Palermo

S. Palermo (Needs #4 to be completed)

OK FRZ 3SEP 1998

History of the Radioisotope Usage in Lab CRDL 122

I moved into Lab CRDL 122 in July 1991. Previously the lab had been the radioisotope synthesis lab and ^{14}C, ^{3}H and ^{125}I had been used in synthesis.

The lab was used mostly by me for low-level ^{14}C and ^{3}H radiotracer in vivo and in vitro animal work. Several radiochemical syntheses with ^{14}C on scales of 5 to 30.75 mCi were performed by me in Lab 122.

There were no spills or unusual occurrences involving the spread of contamination or contamination remaining after clean up in lab CRDL 122. Wipe tests on the lab for the last three years will be kept on file.

In view of the Lab's past history as a radioisotope synthesis lab, wipe tests were performed on the four hoods and attention was given to the baffles at the back of the hood. Also the duct work from the hood to the HEPA filters in the ceiling and the immediate post-HEPA filter ductwork were wipe tested. The two hood fans in the penthouse which drew air for the four hoods were wipe tested (see Appendices 1 and 2).

Unacceptable contamination was found in hoods A and B (see wipe test map in Appendix 5).

Ecology Services, Inc. (ESI) of Columbia, Maryland were contracted to decontaminate hoods A and B. ESI removed the baffles in the hoods and the duct work including the housings for the HEPA filters and these items were discarded as radioactive waste by ESI. The inside surfaces of hoods A and B were decontaminated essentially by grinding the stainless steel with abrasives.

ESI then performed wipe tests on the two hoods. ESI counted one set (Appendix 3 including test map and report) but they forgot the second set and I counted them (Appendix 4 including test map). The data shows several hot spots for hood B and one hot spot for hood A. I decontaminated the spots by cleaning in triplicate. G. Watson then wipe tested the entire lab (see results including the test map in Appendix 5). Several hot spots were again noted and I cleaned them in triplicate again. I then wipe tested these spots and all areas were acceptable (see Appendix 6). A report on the decontamination of the hoods in Lab C122 was issued by ESI on August 31, 1998 (Appendix 7).

Frank Zuleski

Frank Zuleski

16 SEP 1998

Protocol #:15 Name:DIRECT DPM 09-Feb-2001 08:48
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Live = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

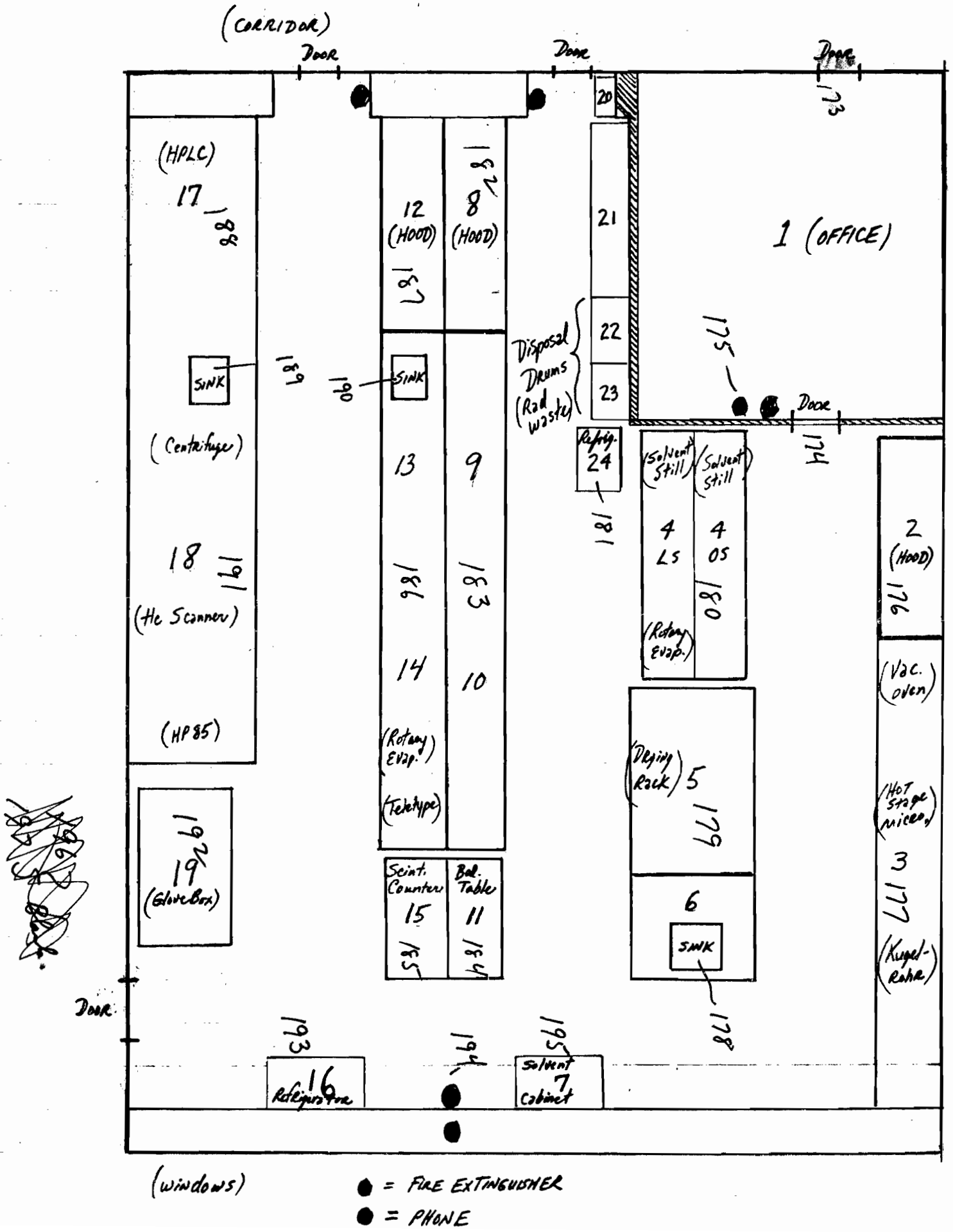
S#	TIME	DPM1	tSIE	FLAG
1	2.00	19.43	610.	BACKGROUND
2	2.00	16.79	516.	OUTSIDE OF TOOL BOX
3	2.00	14.26	519.	INSIDE OF TOOL BOX
4	2.00	18.19	444.	DRILL
5	2.00	20.21	470.	TIP

WIPE TEST FOR ELECTRIC SEWER SNAKE FROM C-122

NO RADIOACTIVITY FOUND

D. K Watson RSA.
2/9/01

CRDL-122


(CORRIDOR)
DOOR
DOOR
DOOR
20
173
(HPLC)
17
188
12
(HOOD)
181
8
(HOOD)
182
21
1 (OFFICE)
Disposal Drums (Rad waste)
22
23
175
DOOR
174
SINK
189
SINK
190
(Centrifuge)
Refrig.
24
181
(Solvent Still)
(Solvent Still)
13
9
4
LS
4
OS
2
(HOOD)
176
18
191
(He Scanner)
184
183
180
(Rotary Evap.)
14
10
(HP85)
(Rotary Evap.)
(Teletype)
(Vac. oven)
(Drying Rack)
5
179
(Hot Stage micro)
19
192
(GloveBox)
Scint. Counter
15
185
Bal. Table
11
186
3
177
6
SINK
178
(Kugel-Rohr)
DOOR
193
16
Refrigerator
194
195
Solvent Cabinet
7
(windows)
= FIRE EXTINGUISHER
= PHONE

Memorandum

DATE: November 9, 1995

TO: David Irwin
Sam Palermo

FROM: Norman C. LeDonne Jr.
Frank Zuleski

RE: [redacted] CR&DL 123

Room CR&DL 123 and exhaust system from its hood have been wipe tested for radioactive contamination. The results of these wipe tests demonstrate that there are no unacceptable levels of radioactive contamination present. Documentation of these results are included with this memo.

As of 9 November 1995, this room was found to be free from radioactive contamination. It is being decommissioned for the use of radioactive materials.

Norman C. LeDonne Jr.
Research Scientist
DDM

9 NOV 95
Date

Frank Zuleski
Research Scientist
DDM

9 NOV 1995
Date

Protocol #: 4 Name:WIPE TEST C123 08-Nov-95 11:43
Region A: LL-UL= 0.0-156. Lcr= 0 Bkg=25.00 %2 Sigma=2.00
Region B: LL-UL= 4.0-156. Lcr= 0 Bkg=25.00 %2 Sigma=2.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
T e = 1.00 QIP = tSIE ES Terminator = Count
Conventional DPM
Nuclide 1 = 121300

S#	TIME	CPMA	SIS	DPM1	FLAG
1	1.00	0.00	81.142	0.00	BLK
2	1.00	0.00	80.785	0.00	BLK
3	1.00	0.00	50.047	0.00	1
4	1.00	0.00	74.044	0.00	
5	1.00	0.00	59.668	0.00	
6	1.00	0.00	146.06	0.00	
7	1.00	0.00	59.239	0.00	
8	1.00	0.00	94.611	0.00	
9	1.00	0.00	73.075	0.00	
10	1.00	0.00	62.101	0.00	
11	1.00	0.00	73.616	0.00	
12	1.00	14.00	87.328	14.94	
13	1.00	0.00	99.982	0.00	
14	1.00	227.00	106.57	241.73	position 12 hood
15	1.00	0.00	73.746	0.00	
16	1.00	0.00	76.063	0.00	
17	1.00	0.00	47.508	0.00	
18	1.00	3.00	96.185	3.21	
19	1.00	0.00	161.14	0.00	
20	1.00	0.00	87.004	0.00	
21	1.00	0.00	65.881	0.00	
22	1.00	0.00	84.727	0.00	
23	1.00	9.00	74.491	9.60	
24	1.00	0.00	65.725	0.00	
25	1.00	3.00	58.869	3.21	
26	1.00	0.00	101.74	0.00	
27	1.00	0.00	76.310	0.00	
28	1.00	0.00	55.212	0.00	26
~~29~~	~~1.00~~	~~0.00~~	~~100.75~~	~~0.00~~	

See attached area wipe test map

Frank Zuker
9 NOV 1995

Door
7
work TABLE
18
flammable cabinet
8
19
5
work TABLE
17
20
50
4
16
counter top
9
21
3
Counter Top
15
sink
10
22
49
2
14
counter top
11
23
Hood
24
1
TANKS
LAB C123
13
Door

Protocol #: 8 Name:c123 HOOD WIPES 09-Nov-95 08:19
Region A: LL-UL= 0.0-156. Lcr= 0 Bkg=25.00 %2 Sigma=2.00
Region B: LL-UL= 4.0-156. Lcr= 0 Bkg=25.00 %2 Sigma=2.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
T e = 5.00 QIP = tSIE ES Terminator = Count
Conventional DPM
Nuclide 1 = 121300

S#	TIME	CPMA	SIS	DPM1	FLAG
1	5.00	0.00	77.629	0.00	BLANK
2	5.00	12.60	78.449	13.51	TOP
3	5.00	82.20	68.796	88.01	SIDES
4	5.00	0.00	69.138	0.00	BACK
5	5.00	267.80	65.533	286.98	CUP SINK

Frank Zuleta
9 NOV 1995

Protocol #: 4 Name:C123 REWIPES 09-Nov-95 08:49
Region A: LL-UL= 0.0-156. Lcr= 0 Bkg=25.00 %2 Sigma=2.00
Region B: LL-UL= 4.0-156. Lcr= 0 Bkg=25.00 %2 Sigma=2.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
T = 5.00 QIP = tSIE ES Terminator = Count
Conventional DPM
Nuclide 1 = 121300

S#	TIME	CPMA	SIS	DPM1	FLAG
1	5.00	0.00	69.247	0.00	BLANK
2	5.00	0.00	59.501	0.00	HOOD SIDES
3	5.00	53.40	55.663	57.11	CUP SINK

Rewipes Hood
C123

Mark Zalon

9NOV95

Protocol #: 2 Name:WIPES HOOD C123 09-Nov-95 07:42
Region A: LL-UL= 0.0-156. Lcr= 0 Bkg=25.00 %2 Sigma=2.00
Region B: LL-UL= 4.0-156. Lcr= 0 Bkg=25.00 %2 Sigma=2.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
T e = 5.00 QIP = tSIE ES Terminator = Count
Conventional DPM
Nuclide 1 = 121300

S#	TIME	CPMA	SIS	DPM1	FLAG
1	5.00	0.00	80.422	0.00	BLANK
2	5.00	49.80	50.944	53.50	DOOR
3	5.00	71.20	46.171	77.74	Housing (inside)
4	5.00	56.00	59.941	63.56	Squirrel Cage
5	5.00	16.80	60.867	18.05	Squirrel Cage

HOOD WIPES FOR HOOD
IN CR & DL 123
(upper level)

Mark Zuber

9 NOV 1995

To: David Irwin
Radiation Safety Officer
ZENECA Pharmaceuticals

Date: 5 JAN 1996

Subject: History of [redacted] CR&DL 123

Laboratory CR&DL 123 was brought on-line as a radioisotope lab on 30 October 1990 by the Department of Drug Disposition and Metabolism and I was responsible for its status and maintenance. On 15 October 1993 the laboratory became the responsibility of Dr. Norman LeDonne also a member of the Drug Disposition and Metabolism Department. I continued to do some radioisotope research in lab 123 so I continued by agreement to be responsible for the wipe testing of the lab until it was vacated by us in November 1995. There were no adverse incidents in lab 123 during the time it was under our supervision. The lab was only used for the analyses low level (tracer) quantities of ^{14}C.

Final wipe tests were performed on this laboratory when it was decommissioned and the results were submitted to Mr. Irwin. The wipe test records are currently on file in my laboratory, CR&DL 122.

Frank Zuleski
Drug Disposition and Metabolism

Frank Zuleski

Memo To: D. Irwin **Date:** 9 NOV 1995

From: F. Zuleski
N. LeDonne

Subject: History of Lab CR&DL 123

In October 1990, I (FZ) started to occupy Lab CR&DL 123 and I occupied the lab until July 1993 when it became the responsibility of N. Ledonne. Only tracer levels of carbon-14 were used in this lab while we occupied it. There have never been any significant incidents of radioisotope mis-handling (eg. large spills) in this lab to the best of our knowledge. The wipe test records for this lab have been continuous since 1990 and they will remain on file.

RECORDS NOT LOCATED

LAB # C124

INACTIVE DATE: September 1998

Was part of C122 Lab,
the Old Radiosynthesis Lab.

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Coffin, Tim

From: Coffin, Tim
Sent: Friday, February 17, 2006 9:00 AM
To: Sygowski, Linda A; Zysk, John
Cc: Petlick, Scott; Bristow, Brian K
Subject: Decommissioning of Lab C111 and [redacted] from Radioactive Material Use

FOR YOUR INFORMATION/ACTION:

As of today, 02/17/06, Labs C111 and [redacted] have been decommissioned from Radioactive Material Use.

ACTIONS TAKEN:

1. Decommissioning Wipe Tests completed and all wipes were at background or below the AZ action level of 100 dpms.

2. Meter monitoring of all equipment, benches, floors was done and found to be at background or below. Floor monitoring was done, with the same results.

3. All radioactive materials in the labs have been disposed or transferred to storage in C114, B237, or B246.

4. All radioactive wastes have been picked up and placed in the AZ Radioactive Waste Rooms, B135/B136. Empty waste cans were placed in C114 for use.

5. All labeled radioactive equipment, material, and supplies has been cleaned or relocated to C114 or B237.

All radioactive labels and tape were removed from the fume hoods, freezers, benches, etc.

7. Decommissioning paperwork completed and filed in the official Radiation Safety Files. A copy of the paperwork was placed in the respective Wipe Test Records for the labs. The Wipe Test Books were removed from the labs.

8. The labs were removed from the Radiation Safety Data Base lists of active labs and the weekly wipe test schedule.

9. This E-mail serves as notice to the RSO that the labs are decommissioned.

ACTIONS FOR BRIAN BRISTOW:

1. Please update your list of labs to reflect these labs are no longer Radiation Labs.

2. Please removed the radioactive hazard sign from the entrance door sign.

If you have any questions, please give me a call.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

C126

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: C126 Lab Supervisor: _____

Responsible Investigator for the Lab: Linda Sygowski

RAM Users in This Lab: Mike Wood

Date: 02/16/06 3H, I125

Date Completed	Questionnaire
2/02/06	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
2/02/06	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
2/16/06	Contact Safety to perform final wipe test of the lab and equipment.
[signature]	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
2/17/06	Write a letter to [redacted] in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
2/17/06	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

[signature] 2/16/06

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

☐ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

☐ NA ☐ Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	N/A
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	Yes or No	(If "No" go to the next section.)
Date lab was decommissioned?	2/16/06	
What isotopes were used?		3H, I125
Have all surfaces/areas been decontaminated?	Yes or No	
Have all isotopes been transferred or disposed of?	Yes or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?		Yes or No
Have solvents been transferred/disposed of/ reassigned?		Yes or No
Particularly ether and THF?		Yes or No
Have all stills been quenched/transferred/ reassigned?		Yes or No
Have all intermediates/research samples been:		Yes or No
• Entered into the M collection?		
• Assigned to others on the project and labeled as such?	Yes or No	
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:		/ /	Facilities:		/ /
Safety:	Sam Coffin	02/16/06	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

E126 Decommissioning Wipes

Lab C126 Decommissing Wipes

COUNTING

1470, 5 detectors, RiaCalc WIZ, program 3.6, serial #4702200

A .Y 16-Feb-2006 13:08:04

Protocol id	1 I-125
Time limit	180
Count limit	99999999
Isotope	I-125
Protocol date	06-Jan-2005 08:11:33
Run id.	18

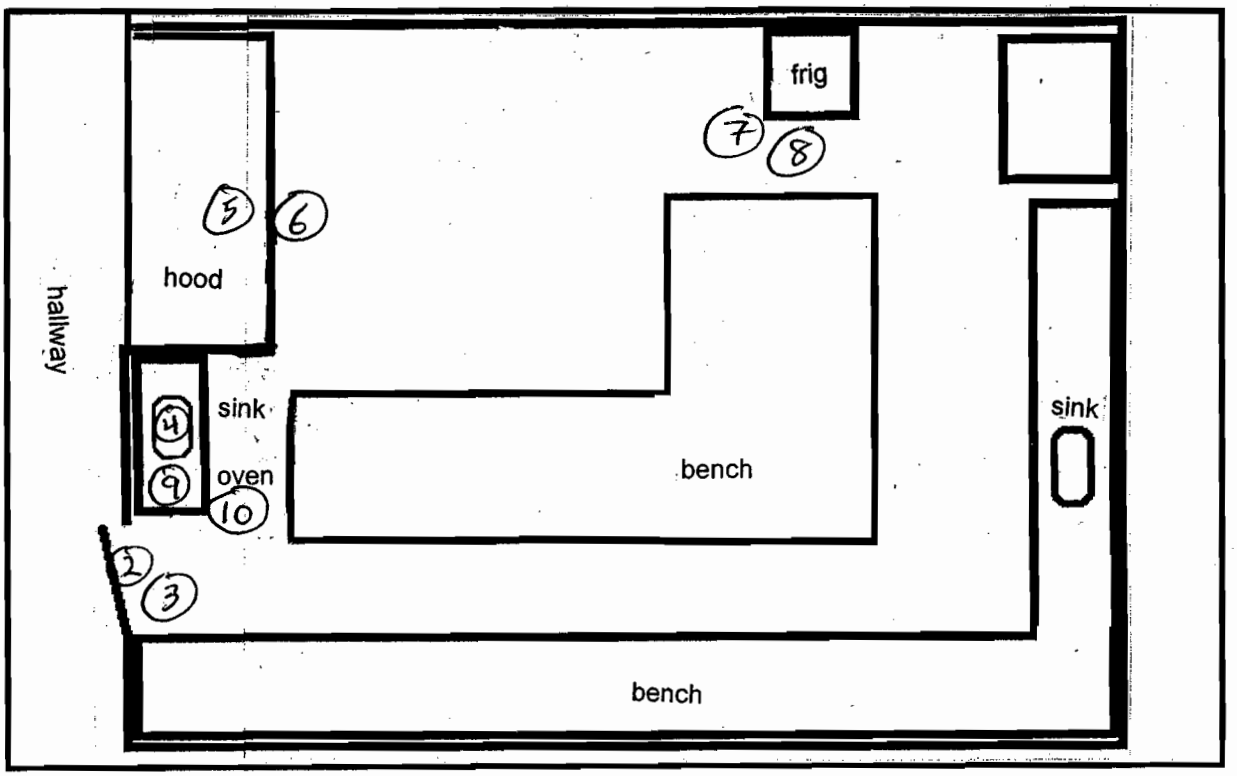
POS	RACK	DET	BATCH	TIME	COUNTS	CPM	ERROR %
1	1	1	1	180	42	0.0	125.47
2	1	2	1	180	101	15.2	24.32
3	1	3	1	180	55	4.0	69.32
4	1	4	1	180	72	6.5	48.44
5	1	5	1	180	54	1.0	275.76
6	1	1	2	180	46	0.0	361.70
7	1	2	2	180	134	26.1	16.12
8	1	3	2	180	41	0.0	470.42
9	1	4	2	180	64	3.8	77.89
10	1	5	2	180	50	0.0	794.34
11	2	1	3	180	50	0.8	341.85
12	2	2	3	180	111	18.6	20.78
13	2	3	3	180	50	2.5	107.90
14	2	4	3	180	64	4.0	75.26
15	2	5	3	180	53	0.8	337.27
16	2	1	4	180	47	0.0	777.19
17	2	2	4	180	102	15.3	24.16
18	2	3	4	180	42	0.0	1363.78
19	2	4	4	180	60	2.6	110.17
20	2	5	4	180	55	1.3	213.13
21	3	1	5	180	49	0.2	1125.63

END OF ASSAY

Decommissioning Wipes

WIPE TEST MAP

LAB # C126



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle & light switch
3. Floor below door
4. Sink
5. Hood sash, foil, & handles
6. Floor below hood
7. Refigerator/freezer handles
8. Floor below refrigerator
9. Bench edge & oven handle
10. Floor below bench

11 - Inside oven
12 - Pigs (two)
13 - Lead Shield
14 - Lucite Box (Inside)
15 " " Outside
16 Lead Foil
17 " "
18 " "

19 Freezer Inside Door
20 " " Shelfs
21 " " Sides

Meter Readings

Bicron Surveyor 2000, ser C117G
Cal: 10/09/05 Background: .03 mr/hr
Readings: .03 mr/hr

Ludlum 3 ser # 100508
44-3 Probe
Cal: 08/06/05 PR098449
Background = 250 cpm

C126 Hood Decommissioning Wipes

Lab C126 Fume Hood Decommissioning Wipes

1470, 5 detectors, RiaCalc WIZ, program 3.6, serial #4702200

ASSAY 16-Feb-2006 13:24:26

Protocol id	1 I-125
Time limit	180
Count limit	99999999
Isotope	I-125
Protocol date	06-Jan-2005 08:11:33
Run id.	19

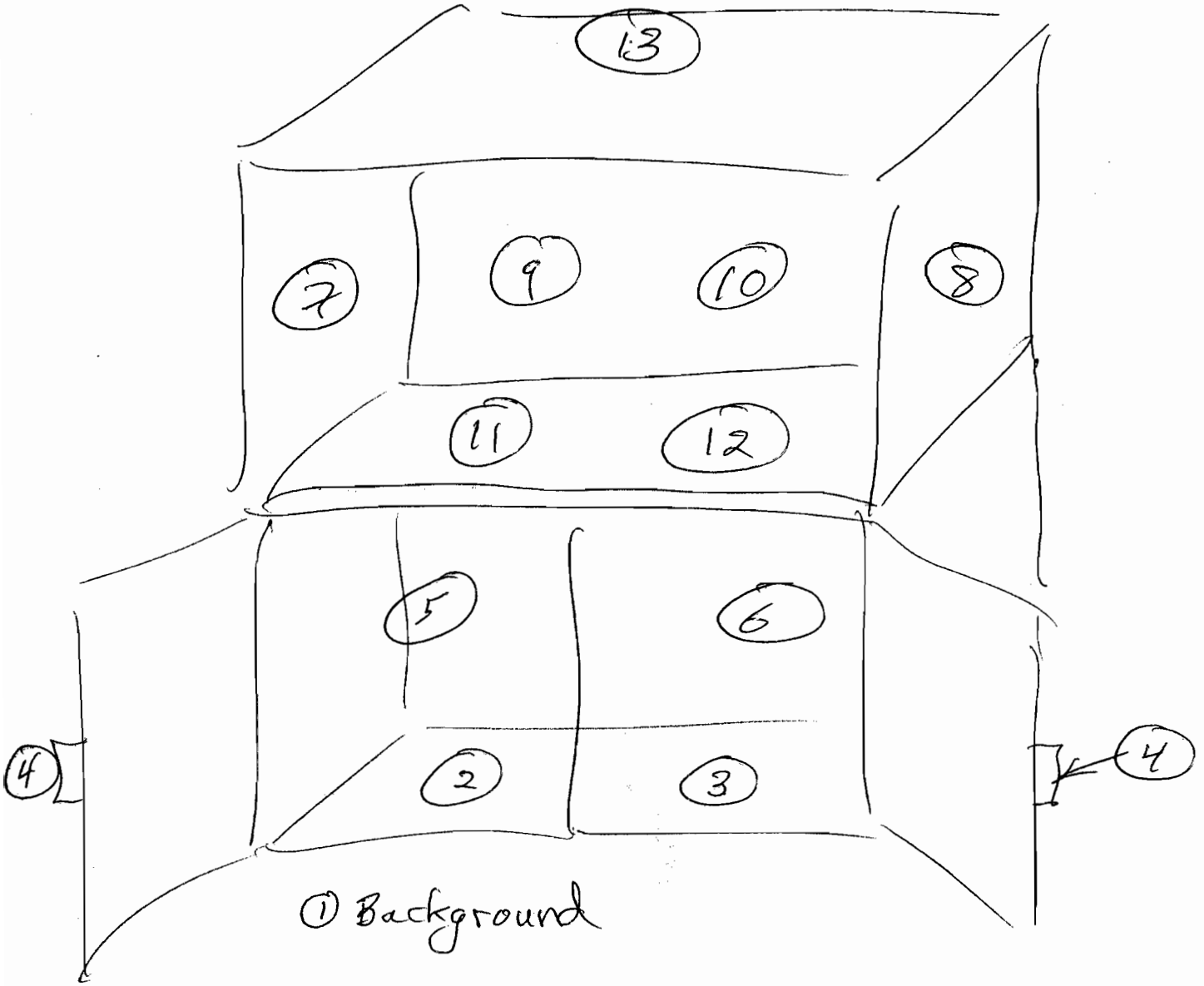
POS	RACK	DET	BATCH	TIME	COUNTS	CPM	ERROR %
1	1	1	1	180	49	0.4	621.97
2	1	2	1	180	100	14.7	25.00
3	1	3	1	180	40	0.0	236.76
4	1	4	1	180	67	5.0	61.33
5	1	5	1	180	46	0.0	155.60
6	1	1	2	180	52	1.2	221.49
7	1	2	2	180	113	19.2	20.29
8	1	3	2	180	64	7.0	42.41
9	1	4	2	180	66	4.5	67.42
10	1	5	2	180	60	3.2	92.47
11	2	1	3	180	47	0.0	1125.22
12	2	2	3	180	118	20.9	19.02
13	2	3	3	180	56	4.5	62.59

END OF ASSAY

END OF COUNTING

2/16/05

Hood



Meter Monitoring (see front)

Background

250 cpm

Readings

300-400 cpm

Calibration for Ludlum Model 2221 Gas Proportional Floor Meter

Equipment:	Ludlum Model 2221 Scaler/Ratemeter, s/n 147378		
Conditions:	Window set on "Out"	☑	
	Response set to "Fast"	☑	
	Digital Indicator set to "Rate"	☑	
Calibration Date:	May 24, 2005		
Probe Calibrated:	Floor probe, s/n PR 178829		
Probe Area:	430	cm^2	
Calibration Source:	^{14}C		
Cal. Source Activity (uCi):	0.028		
Cal. Source Date:	8/10/2004		
Cal. Source Activity (dpm) :	61800		
Counting Gas:	Argon with 10% Methane		
Instructions:	Prior to calibration, allow the probe to purge for one hour with the gas flow adjusted to 100 cc/min. Operate probe at 50-60 cc/min. Confirm that all chambers of the probe are similarly responsive when a calibration source is put in close proximity to the chamber of interest.		
Instrument Settings:	Battery reading	5.9	
	HV reading	1725	
	THR reading	101	
	WIN reading	4082	
Instructions:	Place the calibration source in position. Roll the detector over the calibration source. Set counter in scaler mode, set "TIME" to "x1", obtain a one minute count. Repeat for until data has been obtained for three source positions over the entire probe area.		

Calibration Data:	Background (B)	Cal. Source (S)
1	352	5145
2	386	4923
3	404	5222
Mean	381	5097
Calculated Counting Eff:		% 7.6%

5097
-381
4716

61800 ⟌ 4716
.076 x 100
= 7.6%

Instructions:	If calculating survey limits by hand, use 1 dpm/cm^2 for removable and 5 dpm/cm^2 for fixed contamination limits. Enter into equation: Survey Limit = [(Contamination Limit)(Probe Area)(Abs. Eff.)] + Background		
Fixed Survey Limit			
Removable Survey Limit			
Calibrated by:			

Signature [signature] Date 02/16/05

Background: 300-500 cpm

Readings:
Lab C111: Background
Lab C126: 600 cpm

ERROR

LAB #: C132

WAS NEVER A RADIOACTIVE LAB

should have been C122

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Coffin, Tim

From: Coffin, Tim
ent: Friday, August 08, 2003 7:28 AM
To: Pognan, Francois; Irwin, David H; Morelli, James K
Cc: Otieno, Monicah
Subject: Decommissioning of Lab [redacted]om Radioactive Material Use

FOR YOUR INFORMATION:

As of today, Friday, August 8, 2003, the Safety Assessment Lab C-144 has been decommissioned from Radioactive Material Use. The following have been accomplished and documented.

1. The decommissioning wipes were completed with no contamination found. Final wipes posted in Wipe Book and also in Decommissioning Files in Radiation Safety.

2. The Wipe Book Records were placed in the Radiation Safety Archives.
3. The Decommissioning Form was completed and signed by the appropriate individuals of the lab and Safety.

4. All Radioactive material and waste has been removed form the room to the new Radioactive Lab C147.

5. All equipment (freezer, scint counter, meters, scales, etc.) and supplies used for radioactive work have been relocated to the new Radioactive Lab C147.

6. All radioactive tape on benches and fume hoods have been removed in C144.

7. Radioactive signs were removed from the lab doors.

8. Lab C144 has been removed from the Radiation Safety Rad Lab Data Base and will be removed from the weekly schedule for wipe tests.

If you have any questions, please let me know.

Tim Coffin
Laboratory SHE Specialist
OW1-235, 6-2682

Safety Assessment

C144 Radioactive Use Decommission

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist ONLY!

Laboratory: C144 Lab Supervisor: ~~Tom~~ Francois Pognan

Responsible Investigator for the Lab: James Morelli

RAM Users in This Lab: Monicah Otieno

Use of I125, C14, S35, H3

Date: 08/07/03

Date Completed	Questionnaire
08/07/03	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
08/07/03	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
08/07/03	Contact Safety to perform final wipe test of the lab and equipment.
08/07/03	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
08/08/03	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
08/08/03	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

TJ Coffin

Same owner

Radiation Decommissioning has been completed:

Timothy J Coffin 08/08/03

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

NA

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION: NA

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	NA
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	NA
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	(Yes) or No	(If "No" go to the next section.)
Date lab was decommissioned? 8/8/03		J Coffin
What isotopes were used? I125, C14, H3, S35		
Have all surfaces/areas been decontaminated?	(Yes) or No	J Coffin
Have all isotopes been transferred or disposed of?	(Yes) or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	NA
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	NA
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?	Yes or No	
Have solvents been transferred/disposed of/ reassigned?	NA ~~Yes~~ or No	
Particularly ether and THF?	Yes or No	
Have all stills been quenched/transferred/ reassigned?	Yes or No	
Have all intermediates/research samples been:	Yes or No	
• Entered into the M collection?	Yes or No	
• Assigned to others on the project and labeled as such?		
• Disposed of if no notebook number on label?	Yes or No	NA
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:		/ /	Facilities:		/ /
Safety:	Tim Coffin	05/05/03	Dept. Manager:		08/08/03

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

Decommission Wipes C144

Tom Coffey

Protocol #: 5 Name:DIRECT DPM 07-Aug-2003 13:54
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

Lab-Wipe Test
ABC
= 12.6 dpm

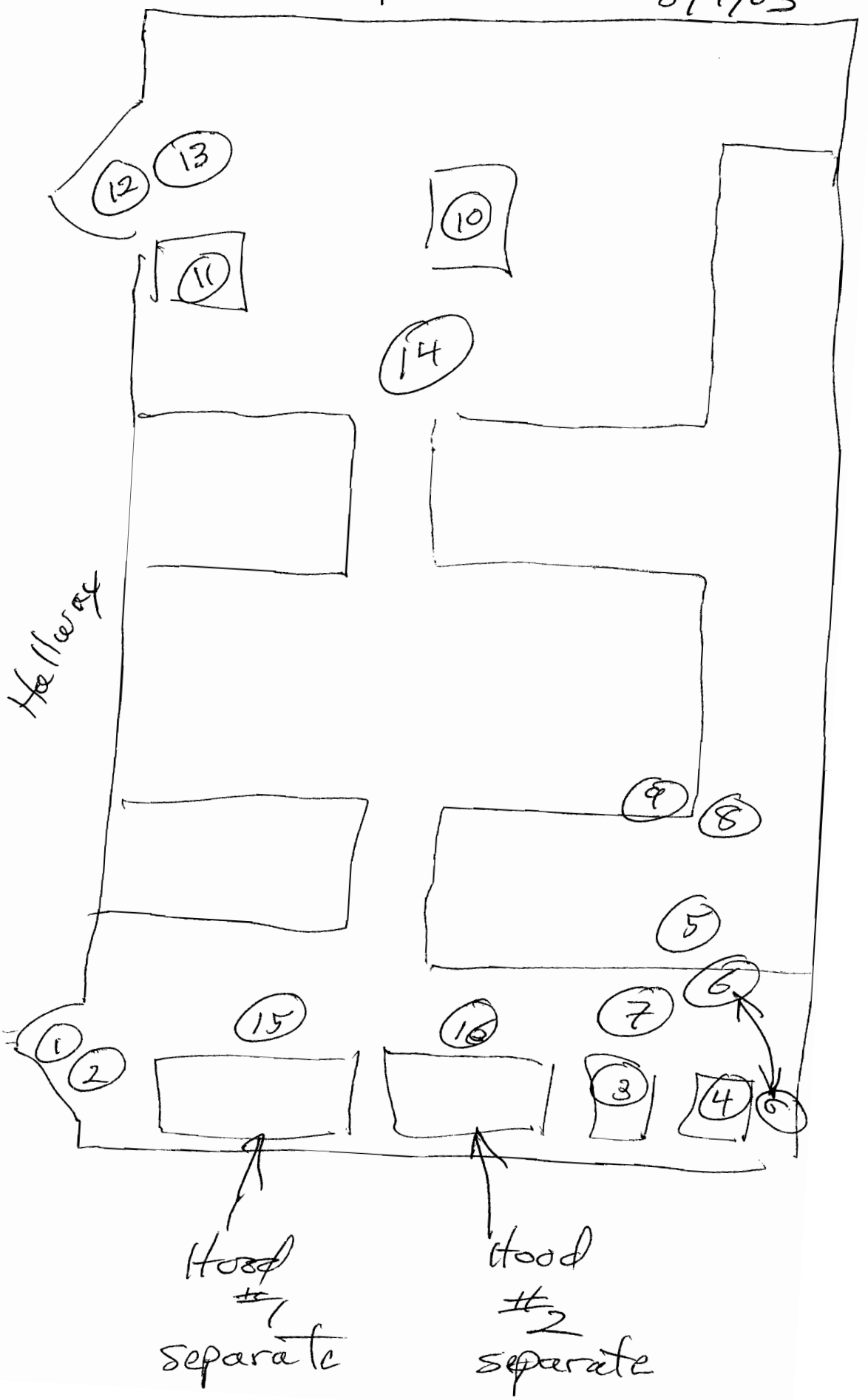
S#	TIME	DPM1	tSIE	FLAG
1	2.00	15.83	593.	
2	2.00	11.81	564.	
3	2.00	10.90	595.	
4	2.00	11.13	592.	
5	2.00	17.73	593.	
6	2.00	12.63	539.	
7	2.00	10.82	559.	
8	2.00	16.80	579.	
9	2.00	16.44	561.	
10	2.00	12.42	617.	
11	2.00	16.23	544.	
12	2.00	7.32	591.	
13	2.00	12.12	585.	
14	2.00	13.25	555.	
15	2.00	12.50	555.	
16	2.00	11.95	573.	

Tim Coffin

Decommission Wipes

Lab C144

8/7/03



Hood #1
Decommission wipes
Lab C144
Tim Coffin

```
Protocol #:15        Name:DIRECT DPM                  07-Aug-2003 14:51
Region A: LL-UL= 0.0-2000  Lcr=   0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL= 2.0-2000  Lcr=   0  Bkg= 0.00  %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0  Lcr=   0  Bkg= 0.00  %2 Sigma=0.00
Time =  2.00      QIP = tSIE/AEC      EO Terminator = Count
Direct DPM
SNC DPM = 124200

  S#    TIME     DPM1 tSIE FLAG
   1    2.00    12.33 588.
   2    2.00     8.85 587.
   3    2.00    16.10 573.
   4    2.00    25.60 573.
   5    2.00    11.86 565.
   6    2.00    11.94 533.
   7    2.00    16.16 560.
   8    2.00    19.90 570.
   9    2.00    11.49 579.
  10    2.00    13.64 574.
  11    2.00    10.77 584.
  12    2.00    20.68 571.
```

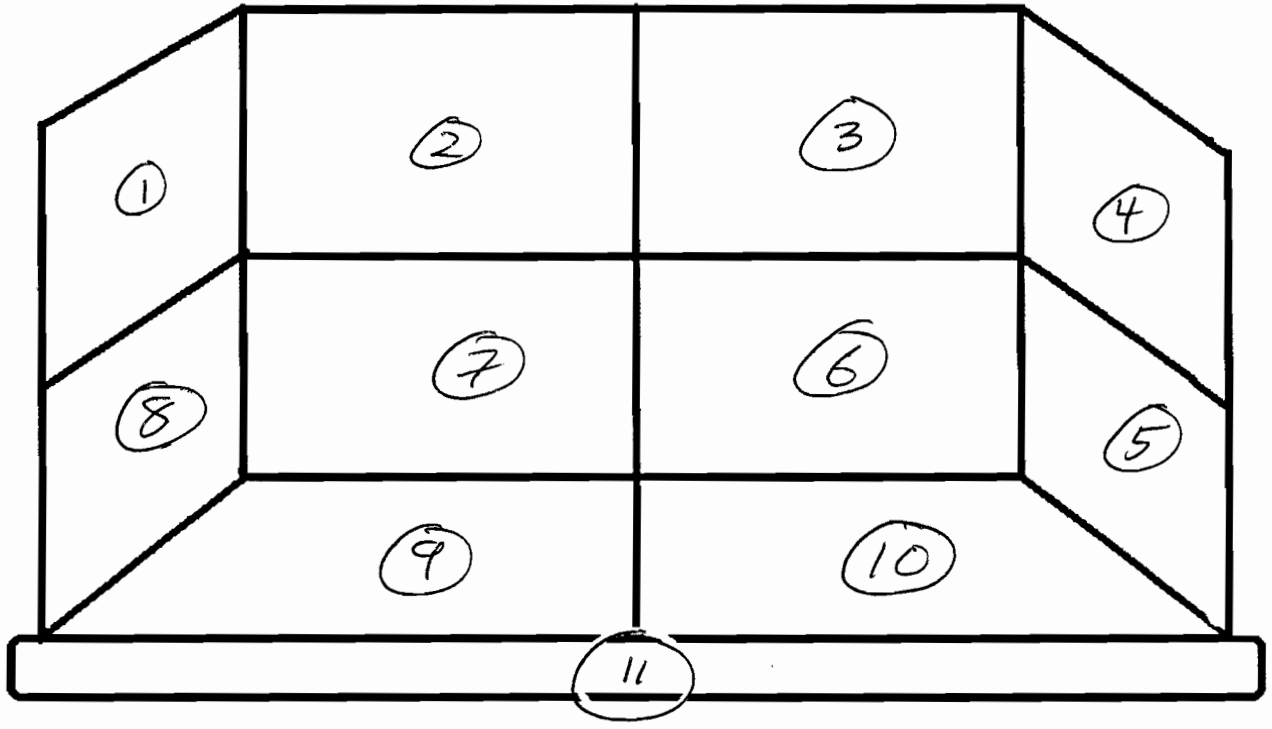
Tim Coffin

Decommission

8/7/03

Lab C144

Hood #1



(12) Lift sash & Handles

Hood #2
Decommission Wipes
Lab C144
Tim Coffin

Protocol #:15 Name:DIRECT DPM 07-Aug-2003 15:25
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	16.77	568.	
2	2.00	18.44	573.	
3	2.00	8.74	561.	
4	2.00	17.50	597.	
5	2.00	10.00	570.	
6	2.00	9.13	547.	
7	2.00	14.34	567.	
8	2.00	16.48	564.	
9	2.00	14.12	509.	
10	2.00	10.03	454.	
11	2.00	12.40	579.	
12	2.00	14.13	591.	

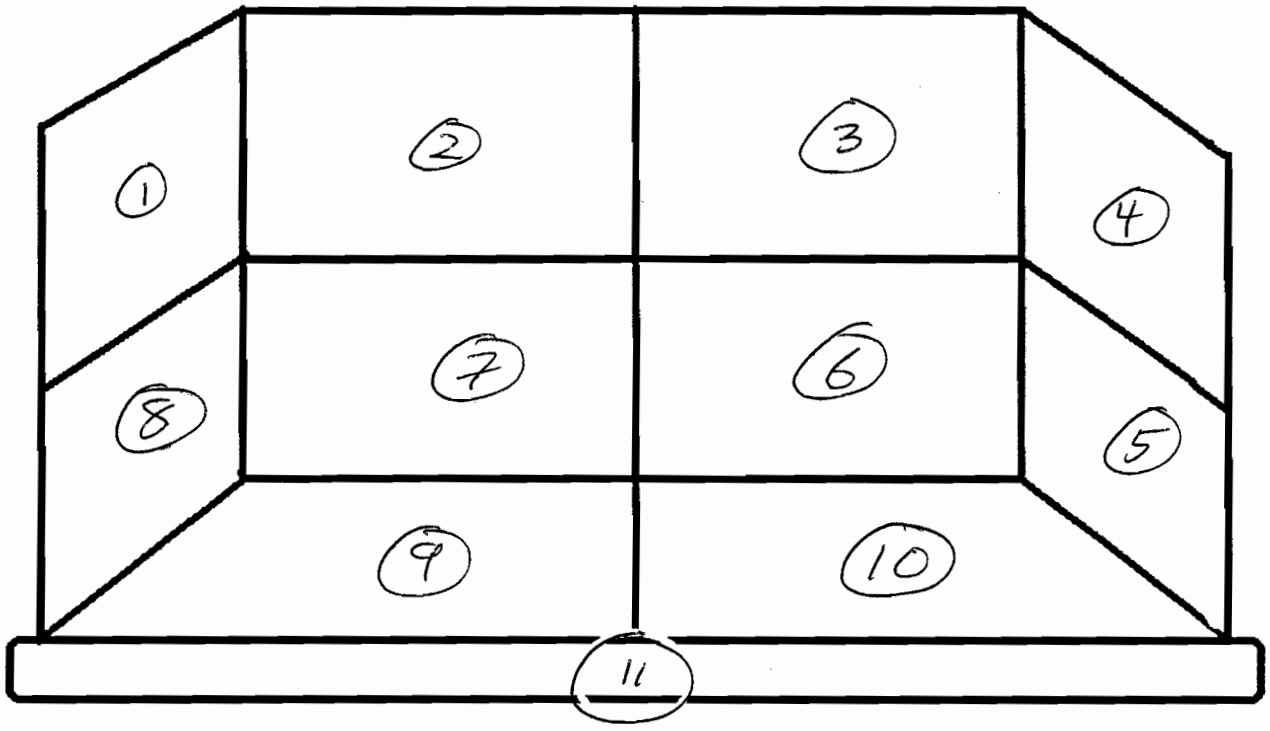
Tim
Coffin

Decommission

8/7/03

Lab C144

~~Hood #2~~



(12) sash & Handles

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: [redacted] Lab Supervisor: BRUCE GOMES

Responsible Investigator for the Lab: BRUCE GOMES

RAM Users in This Lab: GARY KASOF

Date: 10·17·00

Date Completed	Questionnaire
10·17·00	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
10·17·00	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
10·17·00	Contact Safety to perform final wipe test of the lab and equipment.
10·19·00	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
10·19·00	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
10·19·00	After approval by Safety, the radiation signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Gerald K Watson 10·19·00

Signature of Safety Professional Date

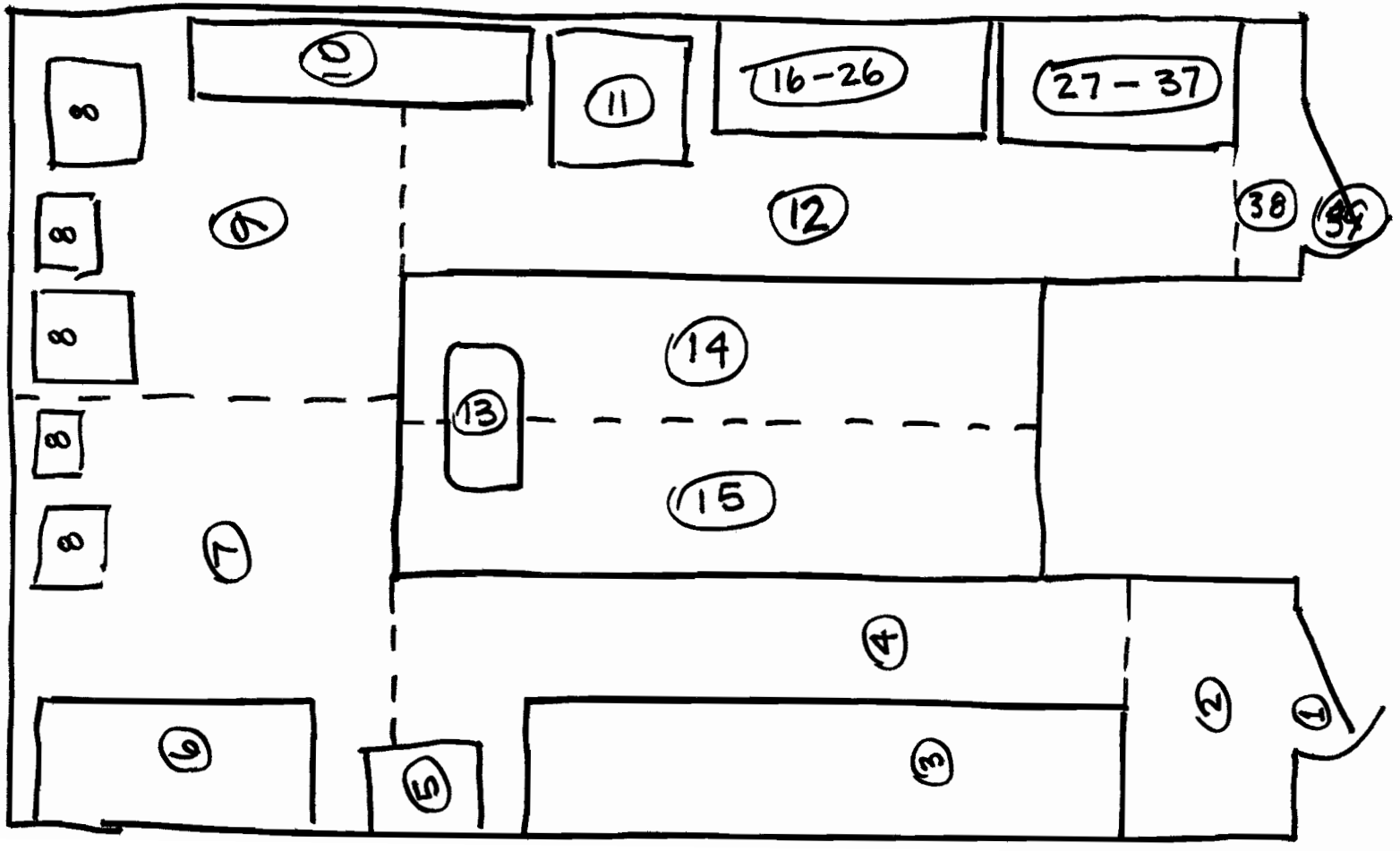
Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

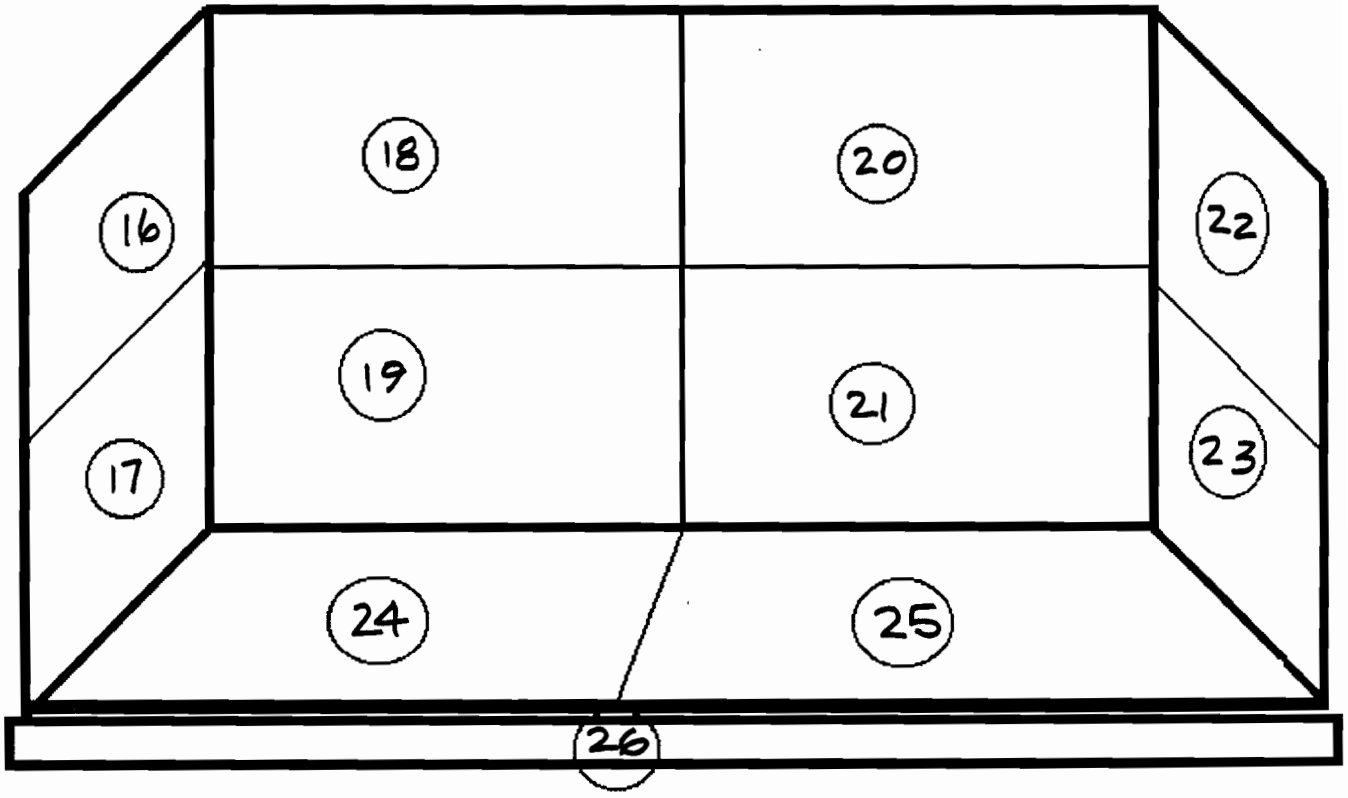
Protocol #: 2 Name:DIRECT DPM 18-Oct-2000 14:25
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

FINAL DECOMMISSIONING WIPE TEST
FOR LAB L-146 -
A.B.C. = 17.38 dpm
J.K Watson R.S.A.

S#	TIME	DPM1	tSIE	FLAG
1	2.00	16.97	473.	
2	2.00	18.88	451.	
3	2.00	13.69	486.	
4	2.00	25.23	413.	
5	2.00	18.27	432.	
6	2.00	18.91	438.	
7	2.00	11.43	407.	
8	2.00	21.02	501.	
9	2.00	19.01	436.	
10	2.00	15.22	456.	
11	2.00	27.24	428.	
12	2.00	19.40	460.	
13	2.00	21.30	412.	
14	2.00	15.86	491.	
15	2.00	12.94	475.	
16	2.00	17.83	445.	
17	2.00	19.39	339.	
18	2.00	18.63	493.	
19	2.00	17.56	422.	
20	2.00	19.10	440.	
21	2.00	23.19	395.	
22	2.00	24.39	456.	
23	2.00	14.45	480.	
24	2.00	16.14	474.	
25	2.00	40.45	435.	
26	2.00	22.39	460.	
27	2.00	26.27	452.	
28	2.00	14.63	501.	
29	2.00	24.21	466.	
30	2.00	23.03	494.	
31	2.00	21.89	475.	
32	2.00	20.12	451.	
33	2.00	13.94	447.	
34	2.00	25.26	257.	
35	2.00	16.66	329.	
36	2.00	17.94	327.	
37	2.00	19.03	507.	
38	2.00	14.15	521.	
39	2.00	13.71	522.	

Final decommissioning work list for lab C146

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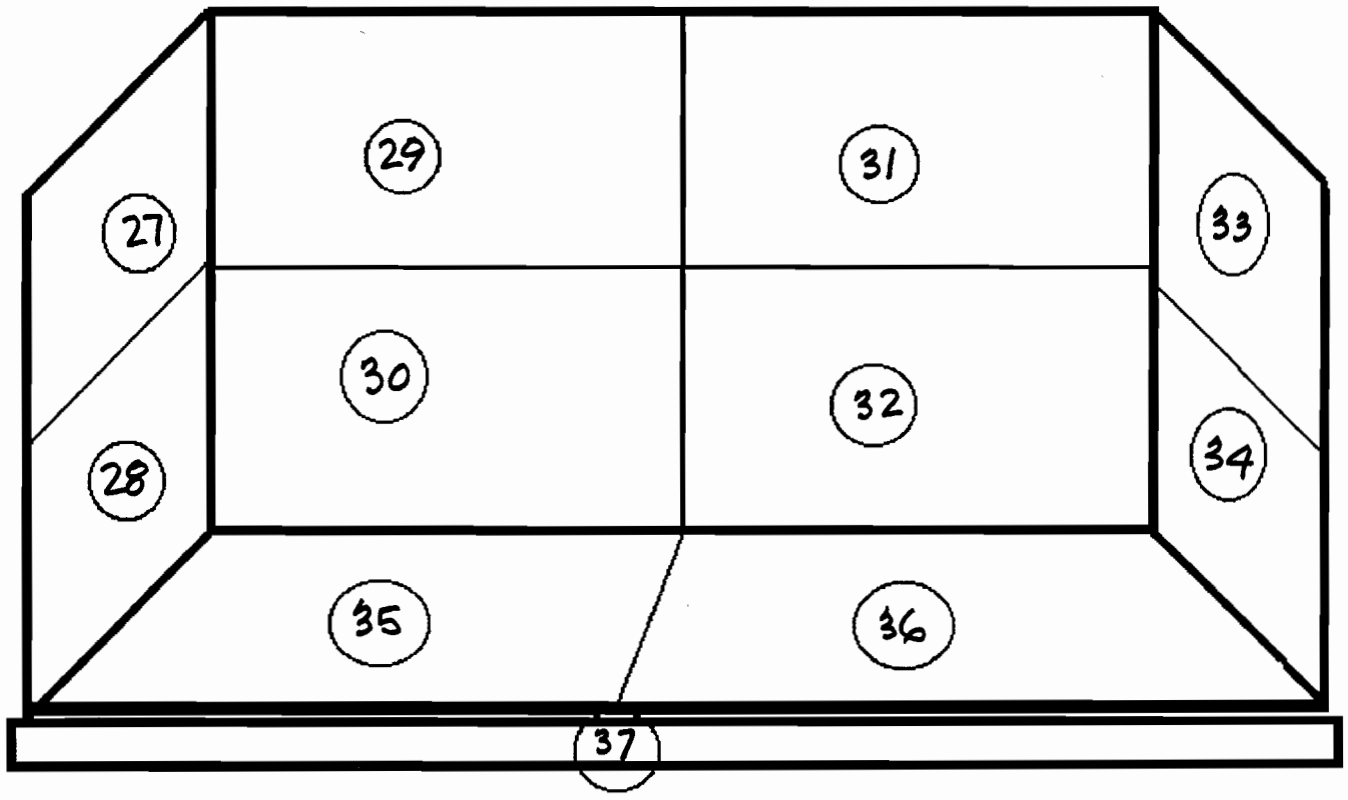
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Coffin, Tim

From: Coffin, Tim
Sent: Friday, April 22, 2011 7:24 AM
To: Gu, Chungang (Chuck); Guo, Jian
Cc: Terpko, Marc O; Civitella, Patricia C; Schlank, Bliss M; Goddard, Chris M
Subject: Decommission of Lab [redacted] from Radioactive Material Use

FOR YOUR INFORMATION/ACTION:

As of today, April 22, 2011, Lab [redacted] has been decommissioned as a Radioactive Material use lab.

ACTIONS TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from lab.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. GM Meter Checks were done and all results were at background or less than the AZ Action Level of 3 times background. GeneVac Centrifuge Spin Chamber will be disposed in radioactive waste since it has fixed contamination in chamber. Will be removed from lab and placed in B154 radioactive waste area.
4. All equipment and freezers were decommissioned.
5. All required radioactive program postings, radioactive labels, and signs were removed from equipment and benches.
6. Lab C147 has been removed from the Radioactive lab Data Bases.
7. Decommission Forms were placed on the fume hoods, freezers, benches, and other equipment in the labs. Copies placed in the Wipe Test Book and in the official Radiation Safety Files.
8. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
9. This E-mail serves as the official notice that the lab has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. **Brian Bristow**: Remove the lab from your Radioactive lab Data Base and please remove the radioactive hazard signs from the C147 entrance door.

2. **Tim Coffin & Jian Guo**: Remove GeneVac centrifuge from lab C147 to B154 Radioactive waste room.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227, 6-2682

[ ] BIO [X] RAD [ ] CHEM

LAB #: C147

DATE: April 22, 2011

LAB SUPERVISOR: Chuck Gu DEPT: CPD DMPK

Decommissioning Procedure (Version 2010)

Refer to SHEP-104 Commissioning and Decommissioning Laboratories for more information. This Wilmington SH&E SOP can be found on the portal. Click here to access the SOP.

Section A: Radioactive Laboratory Decommissioning Checklist

Responsible Investigator for the Lab: Chuck Gu

Completed	Questionnaire
X Yes ☐ No	Contact Safety (x62682) to remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. DO NOT REMOVE TAPE!
X Yes ☐ No	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas. EXCEPT FUME HOODS. Decommissioning of fume hoods will be done by outside vendor.
X Yes ☐ No	Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
X Yes ☐ No	Write a letter to RSO in Safety stating that the lab is no longer radioactive and that it should be removed from the list of radioactive labs.
X Yes ☐ No	Contact Safety to perform final wipe test of the lab and equipment.

Once the RI has completed the above actions, the lab can be turned over to Radiation Safety for final decommissioning steps and will assume control of the lab (Sign below). RI has completed decommissioning responsibilities.

Timothy J Coffman 4/22/2011 Timothy J Coffman 4/22/2011

Radiation Safety Acceptance of the Lab with Actions Date Radiation Safety Actions Completed Date

Section B: Procedure for Vacating a Laboratory

Section A must be completed prior to completing Section B.

Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benches, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazard/biological material used in laboratory?	☐ Yes ☐ No ☐ NA	
Have all surfaces/areas/equipment been decontaminated using EPA registered disinfectant (bleach, ethanol, etc.).	☐ Yes ☐ No ☐ NA	
Remove/deface all biohazard stickers from the equipment.	☐ Yes ☐ No ☐ NA	
Have all biological/Biohazardous wastes been appropriately disinfected/decontaminated and disposed of.	☐ Yes ☐ No ☐ NA	
Has the Biohazard decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory and were all steps completed in Section A?	☐ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	

Decommission Wipes

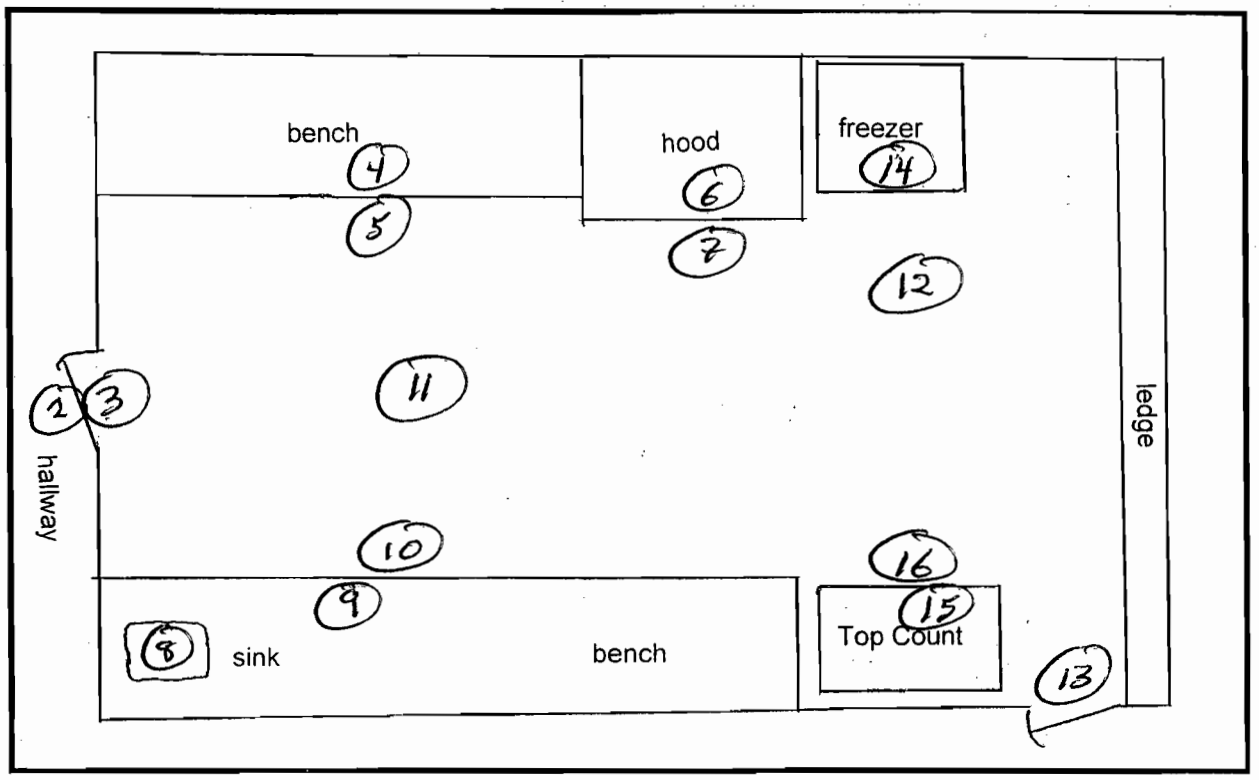
Protocol #:15 Name:Wipe Test 01-Apr-2011 05:43
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
= 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

C147

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.26	5.24	3.40			559.	B
2	1.00	2.27	1.23	1.60	4.16	1.64	536.	
3	1.00	5.74	8.76	0.00	7.06	11.79	566.	
4	1.00	2.74	0.00	4.60	5.92	0.00	529.	
5	1.00	0.00	0.00	3.60	0.00	0.00	517.	
6	1.00	2.74	0.00	0.00	5.74	0.00	561.	
7	1.00	0.00	0.00	2.60	0.00	0.00	529.	
8	1.00	0.00	0.76	1.60	0.00	1.04	512.	
9	1.00	11.46	25.04	0.60	9.66	33.58	608.	
10	1.00	5.74	0.00	0.00	12.83	0.00	499.	
11	1.00	0.74	0.00	0.60	1.62	0.00	515.	
12	1.00	2.74	0.00	4.60	5.95	0.00	525.	
13	1.00	0.00	0.09	0.00	0.00	0.13	574.	
14	1.00	0.00	2.76	0.00	0.00	3.76	537.	
15	1.00	4.74	1.76	0.00	9.22	2.34	528.	
16	1.00	0.00	0.76	0.00	0.00	1.04	523.	

WIPE TEST MAP

LAB # C147

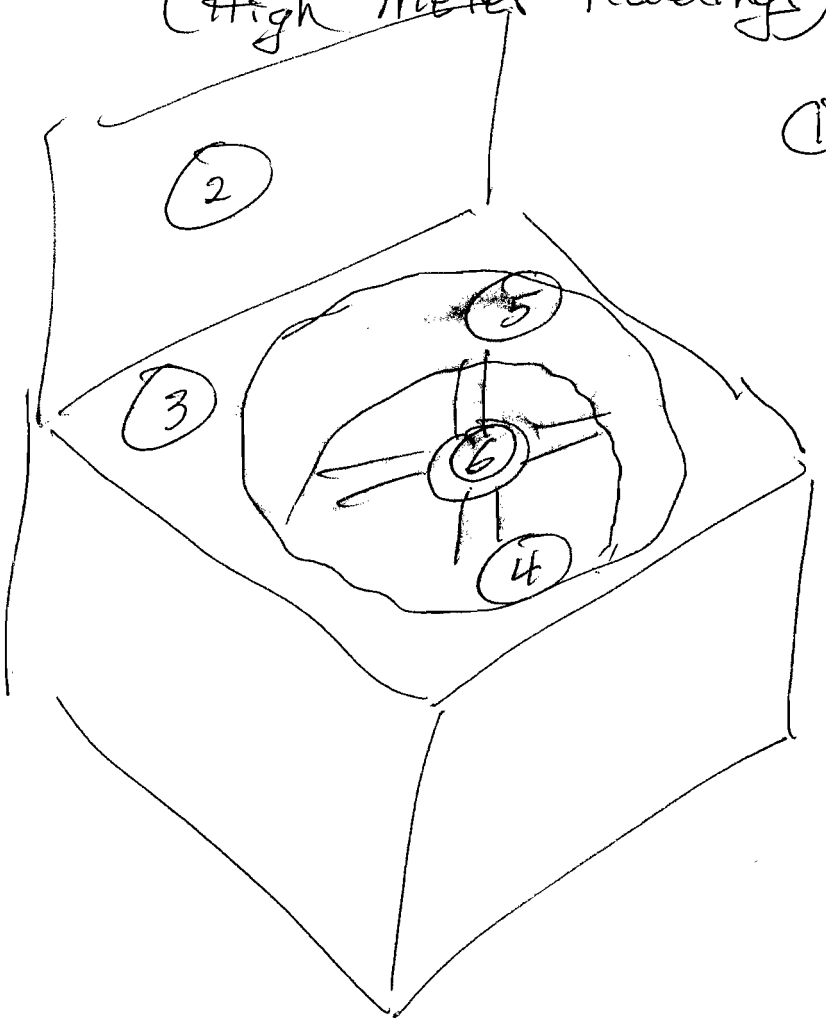


WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle, light switch, and phone
3. Floor below door
4. Bench edge and handles
5. Floor below bench
6. Hood sash, foil, and handles
7. Floor below hood
8. Sink
9. Bench & handles
10. Floor below bench
11. Floor
12. Floor
13. Floor by side door
14. Freezer handles
15. Top Count
16. Floor

Decommission
GeneVac Centrifuge
in C147
(High Meter Readings)

4/22/11
T Coffin



Could not get
Contamination out of
Material.

Fixed
Disposed

Coffin, Tim

From: Coffin, Tim
Sent: Friday, April 22, 2011 6:44 AM
To: Gu, Chungang (Chuck)
Cc: Guo, Jian
Subject: RE: Buckets removed

Good Morning Chuck and Jian,

I tried to clean the GeneVac Centrifuge this morning, but it cannot be cleaned. There is Fixed (embedded) radioactive contamination in the material of the centrifuge spin chamber. Chamber Will have to be removed or dispose of entire piece in radioactive waste.

To do so, I will need the lid removed or closed, and fluids emptied from chamber unit.

I will send out a note on the decommission of the lab, but will need your help Jian to remove The equipment from the lab this morning. Please give me a call when you arrive so we can lift the unit Onto my cart in Lab C147.

Thanks.

Tim

From: Gu, Chungang (Chuck)
Sent: Thursday, April 21, 2011 4:04 PM
To: Coffin, Tim
Cc: Guo, Jian
Subject: Buckets removed

Hi Tim:

I guess that you meant GeneVac centrifugal evaporator, but not Eppendorf centrifuge. Anyway, I removed buckets from both for your easier reach to the bottom.

I will go to Philly for my wife's oath to become a citizen as well on Friday morning, but will be back around noon.

Thanks,

Chuck

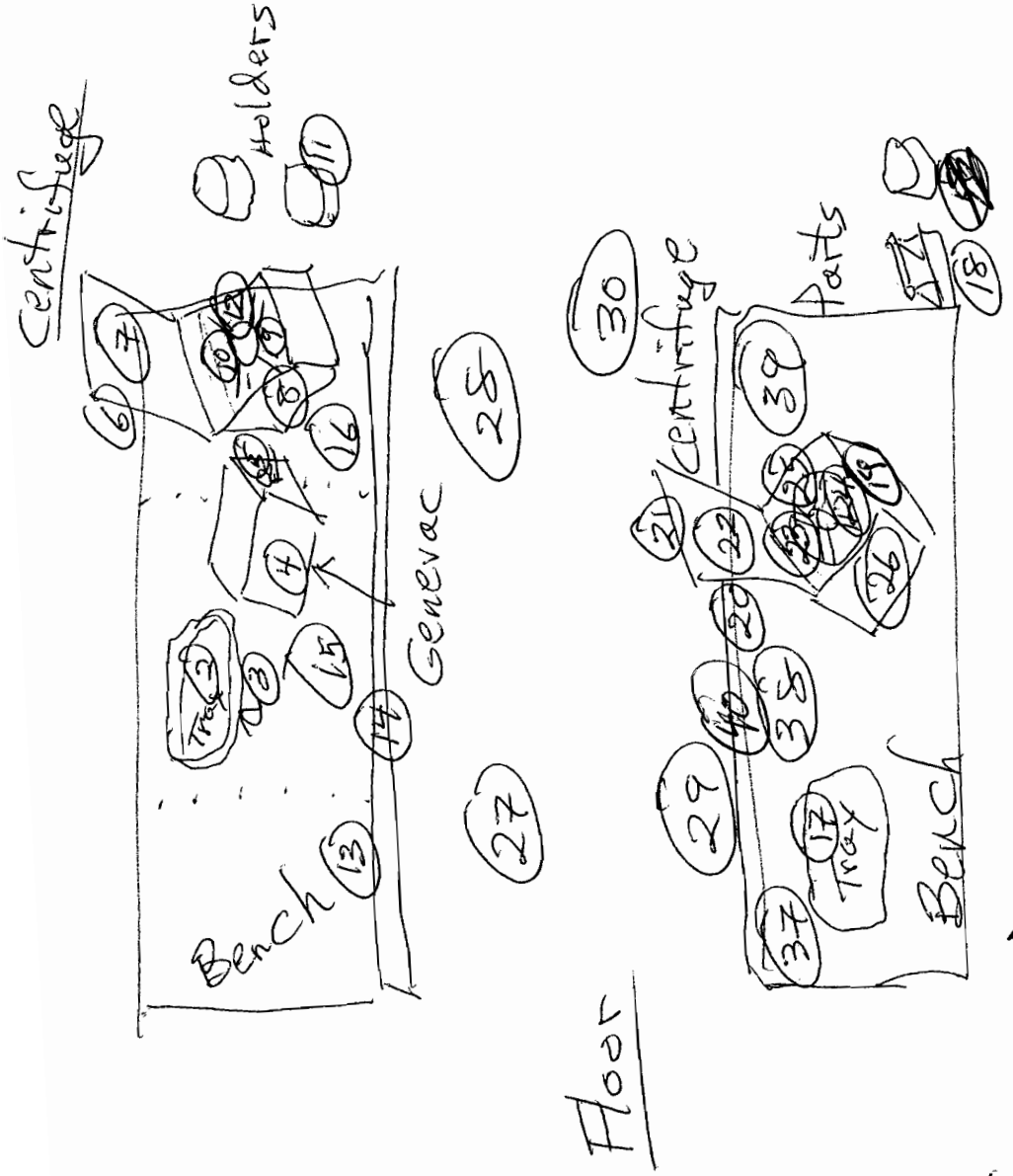
Chungang (Chuck) Gu, PhD
Principal Scientist I

AstraZeneca Pharmaceuticals LP
R&D: Clinical Pharmacology and Development DMPK (CPD)
CRDL-233G, 1800 Concord Pike, Wilmington, DE 19850
Tel +1 (302) 885 4687 FAX +1 (302) 886 5345
chungang.gu@astrazeneca.com

Decommission Wipes
C147
Lab, Benches & Equip

4/21/11
~~T. Coffen~~

(1) Background



Meter Readings
Ludlum 3, Ser# 145121
Cal: 10/12/10
Probe: 44-9
PR151749

Background: 40-80 cpm

Readings: Background

Clean & rewipe → except for Genevac inside 300 cpm

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission Wipes
C147

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110421_0930\20110421_0930.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

ckground Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	6	6	0	0	0	769.23	586.26	B
2	1.00	14	0	0	32	0	0.00	563.29	
3	1.00	17	0	0	40	0	47.79	597.13	
4	1.00	24	0	0	57	0	165.96	557.94	
5	1.00	17	1	0	39	0	137.69	570.48	
6	1.00	17	0	0	39	0	359.61	590.51	
7	1.00	21	0	0	49	0	0.00	572.12	
8	1.00	8	0	0	19	0	0.00	569.87	
9	1.00	27	29	0	52	33	62.17	581.43	
10	1.00	15	18	0	29	20	179.95	577.58	
11	1.00	18	15	0	36	17	99.03	567.11	
12	1.00	40	13	0	83	12	0.00	607.88	

13	1.00	19	0	0	44	0	167.12	590.87
14	1.00	10	1	0	22	0	0.00	576.86
15	1.00	20	3	0	47	1	0.00	544.35
16	1.00	10	4	0	24	3	182.72	498.60
17	1.00	18	7	0	41	6	242.33	551.21
18	1.00	14	5	0	32	4	22.49	536.96
19	1.00	35	0	0	81	0	0.00	577.68
20	1.00	3	0	0	7	0	0.00	563.45
21	1.00	21	0	0	47	0	900.20	593.25
22	1.00	47	2	0	107	0	236.95	578.40
23	1.00	25	0	0	57	0	0.00	596.61
24	1.00	15	0	0	36	0	618.23	570.74
25	1.00	17	19	0	32	22	136.16	556.60
26	1.00	13	1	0	30	0	0.00	581.50
27	1.00	18	0	0	44	0	0.00	526.65
28	1.00	7	0	0	22	0	544.53	371.65
29	1.00	14	3	0	32	2	739.96	565.30
30	1.00	13	0	0	32	0	0.00	566.31
31	1.00	4	11	0	7	13	48.93	549.09
32	1.00	10	0	0	24	0	13.49	561.40
33	1.00	5	0	0	12	0	851.59	560.75
34	1.00	14	6	0	30	6	0.00	584.24
35	1.00	8	1	0	19	0	358.99	566.51
36	1.00	14	0	0	38	0	330.01	481.64
37	1.00	20	3	0	45	1	0.00	568.14
38	1.00	6	0	0	15	0	0.00	575.16
39	1.00	14	1	0	34	0	0.00	553.62
40	1.00	14	0	0	30	0	350.29	663.00

clean inside cover of Centrifuge. (Sample #22)

All others clean

Coffin, Tim

From: Coffin, Tim
Sent: Thursday, April 14, 2011 11:27 AM
To: Gu, Chungang (Chuck); Guo, Jian
Cc: Bristow, Brian K
Subject: Decommission Isotemp Freezer in C147 from Storage of Radioactive Materials

Good Morning Chuck and Jian,

FOR YOUR INFORMATION/ACTION:

Just a quick note to let you know that the Fisher Scientific Isotemp Freezer in Lab C147 as been decommissioned from use of radioactive material. It can now be relocated without concern for radioactive contamination.

ACTIONS TAKEN:

1. All radioactive material and samples were removed from the freezer.
2. Decommission wipe tests were done and all results were below the AZ Action Level of 100 dpms.
3. Meter readings were taken of the freezer and all results were at background or less than the AZ Action Level of less than three times background.
4. All radioactive labels, signs, tape were removed from the freezer.
5. Copies of the wipe tests were placed in the Lab Wipe Test Binder and in the official radiation safety files.
6. A completed Decommission Form was placed on the freezer with copies of the wipe tests.

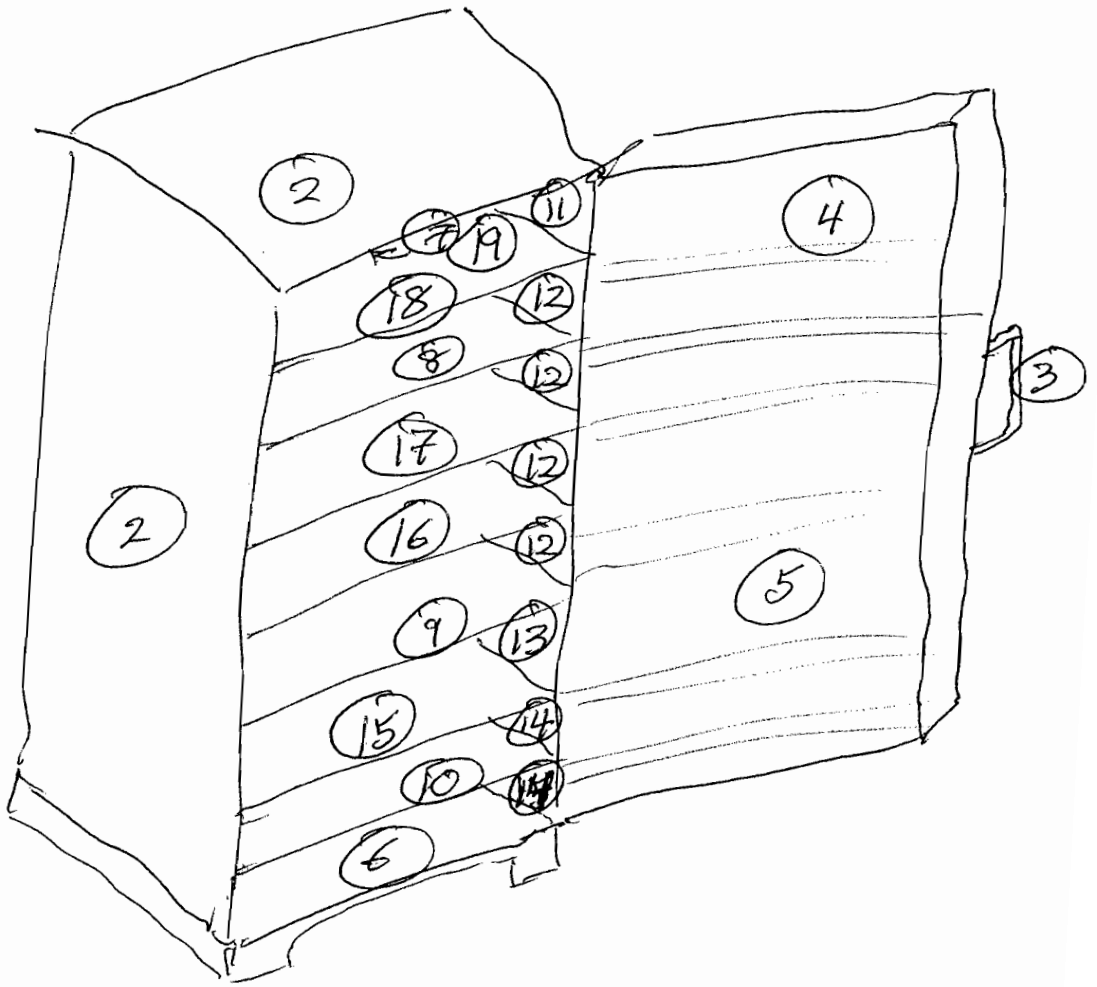
Please let me know if you have any questions.

Tim Coffin
Radiation Safety Specialist/Radiation Safety Officer
OW1-227, 6-2682

Decommission
Fisher Scientific Isotemp freezer in C137

4/14/2011

(1) Background



Meter Readings

Ludlum 3, Ser# 146121
Cal: 10/12/10
Probe: 44-3, PR 151749
Background: 40-60 cpms
Readings: Background

Decommission C137 Freezer

Protocol #:15 Name:Wipe Test 14-Apr-2011 05:03
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
T = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	8.60	3.80	4.40			554.	B
2	1.00	0.00	0.20	2.60	0.00	0.27	548.	
3	1.00	14.40	7.20	0.00	26.01	9.56	568.	
4	1.00	3.40	2.20	0.00	6.00	2.95	543.	
5	1.00	1.40	0.00	0.00	3.07	0.00	517.	
6	1.00	0.00	2.20	0.00	0.00	2.98	558.	
7	1.00	0.00	2.68	2.60	0.00	3.64	536.	
8	1.00	0.40	1.20	0.60	0.16	1.62	573.	
9	1.00	2.28	11.32	0.00	0.00	15.35	548.	
10	1.00	4.40	7.20	0.00	5.30	9.75	527.	
11	1.00	3.40	1.20	0.60	6.70	1.59	524.	
12	1.00	0.00	4.20	0.00	0.00	5.75	502.	
13	1.00	0.00	0.20	0.00	0.00	0.27	529.	
14	1.00	0.00	8.89	1.60	0.00	12.12	528.	
15	1.00	0.40	10.20	0.00	0.00	13.91	522.	
16	1.00	0.00	0.20	0.00	0.00	0.27	539.	
17	1.00	2.40	9.20	0.00	0.00	12.48	539.	
18	1.00	4.61	22.99	0.00	0.00	31.30	522.	
19	1.00	2.40	23.20	0.00	0.00	31.62	521.	

All Clean!

Coffin, Tim

From: Coffin, Tim
Sent: Friday, April 15, 2011 10:03 AM
To: Gu, Chungang (Chuck); Guo, Jian
Subject: Decommission of Fume Hoods in Labs C147 and C148 for use with Radioactive Material

Good Morning Chuck and Jian,

FOR YOUR INFORMATION/ACTION:

Just a quick note to let you know that I decommissioned the fume hoods in Labs C147 And C148 today from the use of Radioactive Materials.

ACTIONS TAKEN:

1. All radioactive material removed from the hoods.
2. Fume hoods and equipment/materials in hoods were wipe tested and all result were below the AZ Action Level of 100 dpms.
3. Meter checks of the hood showed all readings to be at background or below the AZ Action level of three times background.
4. All radioactive stickers and signs were removed from the hood.
5. The completed Decommission Form with wipe tests was placed on the front window of each hood.
6. Copies of the decommission wipes were placed in the Lab Wipe Test Book and in the official radiation safety files.

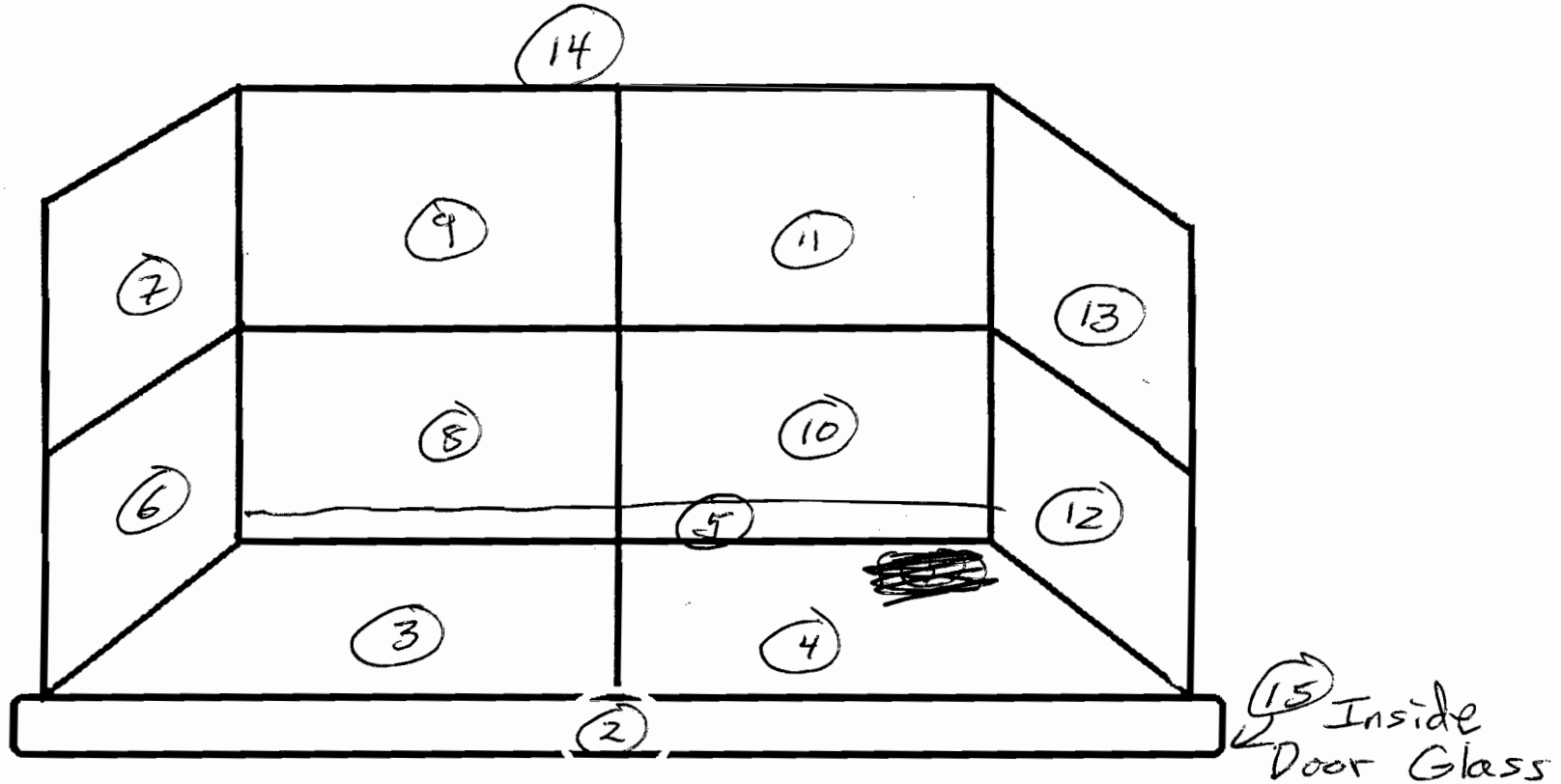
Please let me know if you have any questions.

Tim Coffin
Radiation Safety Specialist/Radiation Safety Officer
OW1-227, 6-2682

Decommis: on C147

Date
4/15/2011
Joffin

(1) Background



Meter
Ludlum 3, Ser# 146121, Cal: 10/12/10
Probe: 44-9, Ser# PR151749

Background: 20-80 cpms
Readings: Background

Decommission
C147 Hood

TJ Coffey

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110415_0753\20110415_0753.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	6	0	0	0	862.81	595.73	B
2	1.00	6	2	0	14	2	0.00	549.45	
3	1.00	8	5	0	21	5	0.00	460.37	
4	1.00	5	5	0	11	5	0.00	497.04	
5	1.00	2	6	0	3	7	0.00	508.90	
6	1.00	2	4	0	3	5	0.00	581.61	
7	1.00	2	1	0	5	1	0.00	556.00	
8	1.00	0	5	0	0	6	609.65	574.22	
9	1.00	1	0	0	3	0	7045.15	500.62	
10	1.00	2	0	0	6	0	1037.86	518.71	
11	1.00	7	4	0	16	4	632.95	550.68	
12	1.00	2	0	0	6	0	0.00	524.08	

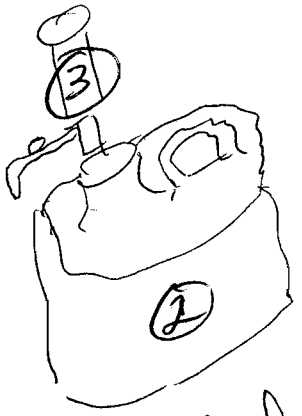
13	1.00	2	0	0	5	0	1836.43	537.28
14	1.00	2	0	0	6	0	842.71	549.40
15	1.00	1	1	0	3	1	0.00	523.30

All Clean!

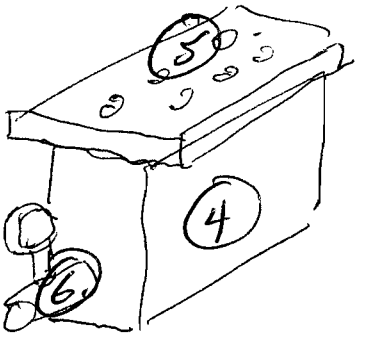
Decommission
C147 Hood Items

4/15/2011

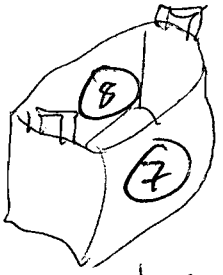
① Background



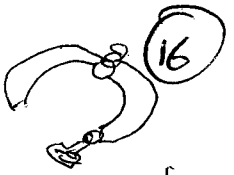
Scint fluid



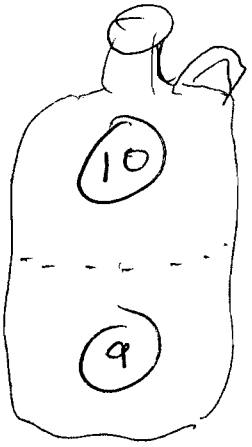
Instrument



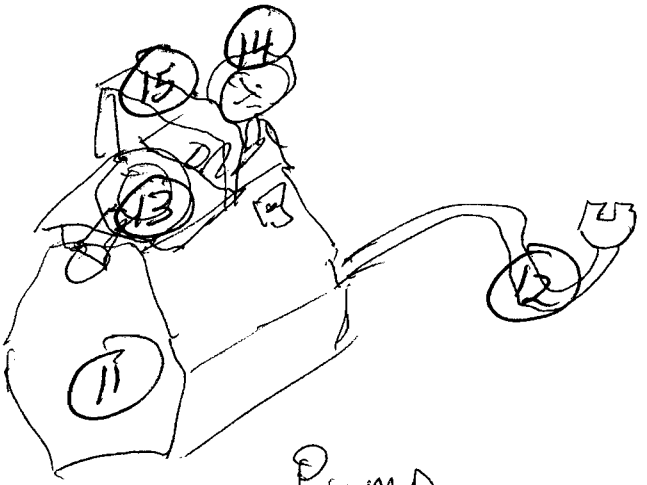
Container



Bracket



Bottle
pump fluid



Pump

Decommission
C147 Hood Items

4/15/2011

Protocol #:15 Name:Wipe Test 15-Apr-2011 06:57
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
T = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	6.75	5.25	5.40			535.	B
2	1.00	0.00	2.75	2.60	0.00	3.78	481.	
3	1.00	4.25	2.75	0.60	7.64	3.69	523.	
4	1.00	7.25	0.00	0.60	15.84	0.00	522.	
5	1.00	1.25	4.75	0.00	0.00	6.41	571.	
6	1.00	2.25	0.00	0.60	4.85	0.00	535.	
7	1.00	0.00	0.00	0.00	0.00	0.00	524.	
8	1.00	0.25	0.00	0.00	0.53	0.00	548.	
9	1.00	7.25	1.75	1.60	14.86	2.29	518.	
10	1.00	0.00	0.00	0.00	0.00	0.00	471.	
11	1.00	9.25	9.75	0.00	15.45	13.33	457.	
12	1.00	2.25	0.75	1.60	4.43	0.99	531.	
13	1.00	0.00	0.00	0.00	0.00	0.00	486.	
14	1.00	0.54	3.46	0.00	0.00	4.71	528.	
15	1.00	0.25	0.00	0.00	0.54	0.00	541.	
16	1.00	1.25	1.75	0.00	1.67	2.36	540.	

All Clean

Coffin, Tim

From: Coffin, Tim
Sent: Wednesday, April 06, 2011 7:11 AM
To: Gu, Chungang (Chuck)
Subject: Decommission Top count in C147 and Turbo Vap in C148 Hood

Good Morning Chuck,

FOR YOUR INFORMATION/ACTION:

As of today, April 06, 2011, the Top Count in Lab C147 and the Turbo Vap in the C148 fume hood have been decommissioned from use with radioactive material.

ACTIONS TAKEN:

1. Removed all radioactive material, samples, etc. from equipment.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. GM Meter Checks were done and all results were at background or less than the AZ Action Level of 3 times background.
4. The radioactive calibration plates were placed in radiation safety storage room B154.
5. All radioactive labels were removed from the equipment.
6. Decommission Forms were placed on the Top Count and Terbo Vap. Copies placed in the Wipe Test Book and in the official Radiation Safety Files.

The units can be moved, relocated, or shipped as needed without concern for radiation.

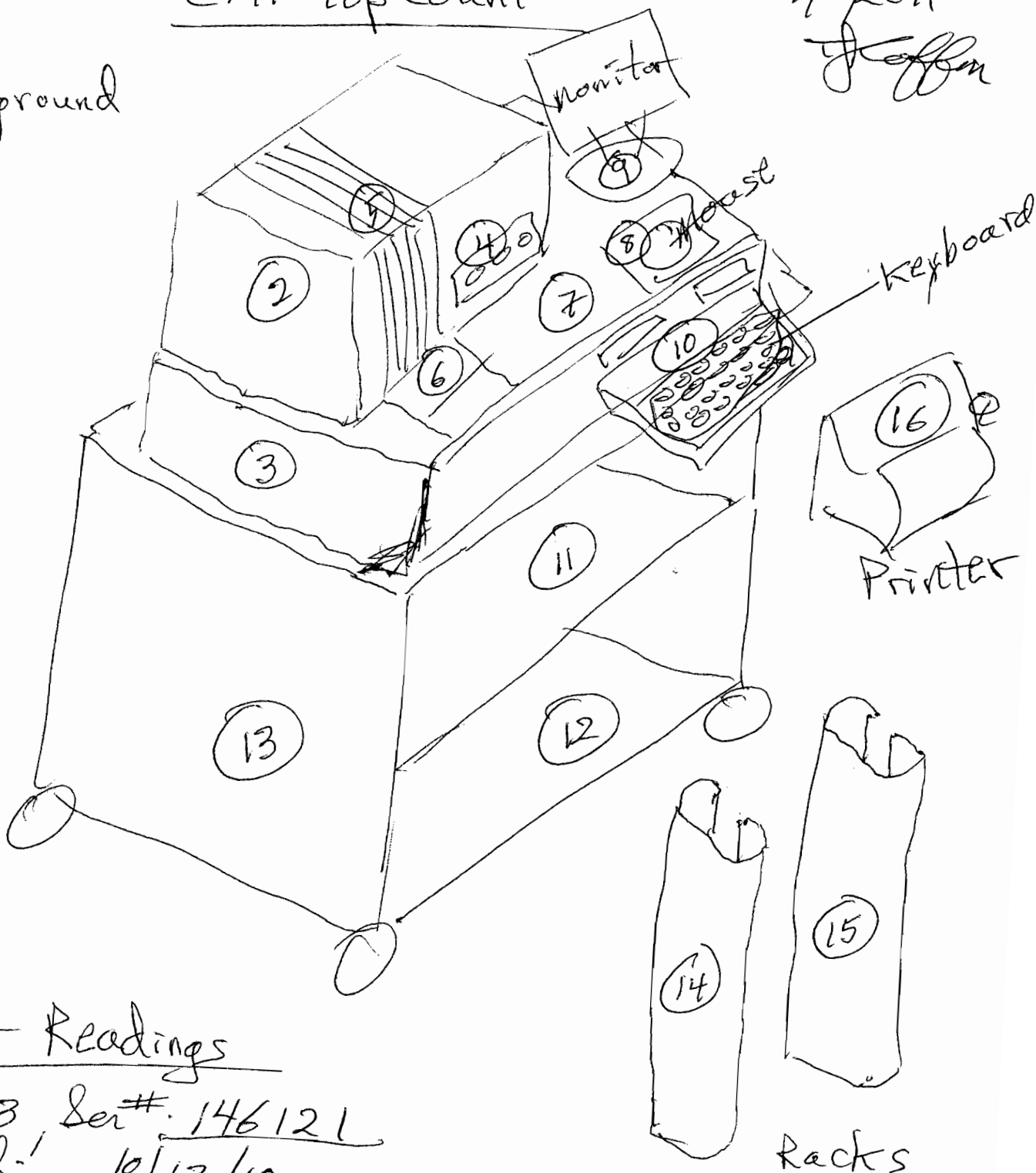
Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227. 6-2682

Decommission C147 Top Count

4/5/2011 [signature]

① Background



Meter Readings

Ludlum 3, Ser# 146121
Cal: 10/12/10
Probe: 44-9, PR 151749

Background: 20 - 60 cpms

Readings: Background

Decommission
C147 Top Count

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110405_1325\20110405_1325.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	3.84	10	8	0	0	0	766.95	574.98	B
1	10.00	11	5	0	0	0	598.26	577.52	B
2	1.00	10	30	0	13	36	0.00	539.36	
3	1.00	0	0	0	0	0	0.00	555.81	
4	1.00	1	4	0	1	5	1006.52	544.26	
5	1.00	0	0	0	0	1	0.00	516.99	
6	1.00	0	1	0	0	2	0.00	530.34	
7	1.00	0	0	0	0	0	0.00	570.05	
8	1.00	0	0	0	0	0	0.00	558.54	
9	1.00	0	1	0	0	2	0.00	530.15	
10	1.00	5	0	0	12	0	1536.44	503.74	
11	1.00	3	0	0	7	0	143.47	519.06	

12	1.00	0	3	0	0	5	524.76	463.96
13	1.00	0	4	0	0	6	0.00	493.76
14	1.00	2	0	0	5	0	0.00	541.06
15	1.00	2	0	0	5	0	0.00	549.70
16	1.00	0	0	0	1	0	0.00	539.06

All Clean!

Coffin, Tim

From: Coffin, Tim
Sent: Friday, April 22, 2011 7:25 AM
To: Gu, Chungang (Chuck); Guo, Jian; Goddard, Chris M
Cc: Terpko, Marc O; Civitella, Patricia C; Schlank, Bliss M
Subject: Decommission of Lab C148 from Radioactive Material Use

FOR YOUR INFORMATION/ACTION:

As of today, April 22, 2011, Lab C148 has been decommissioned as a Radioactive Material use lab.

ACTIONS TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from lab.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. GM Meter Checks were done and all results were at background or less than the AZ Action Level of 3 times background.
4. All equipment and freezers were decommissioned.
5. All required radioactive program postings, radioactive labels, and signs were removed from equipment and benches.
6. Lab C148 has been removed from the Radioactive lab Data Bases.
7. Decommission Forms were placed on the fume hoods, freezers, benches, and other equipment in the labs. Copies placed in the Wipe Test Book and in the official Radiation Safety Files.
8. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
9. This E-mail serves as the official notice that the lab has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. **Brian Bristow**: Remove the lab from your Radioactive lab Data Base and please remove the radioactive hazard signs from the C148 entrance doors.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227, 6-2682

[ ] BIO [X] RAD [ ] CHEM

LAB #: C148

DATE: April 22 2011

LAB SUPERVISOR: Chuck Gu DEPT: CPD DMFK

Decommissioning Procedure (Version 2010)

Refer to SHEP-104 Commissioning and Decommissioning Laboratories for more information. This Wilmington SH&E SOP can be found on the portal. Click here to access the SOP.

Section A: Radioactive Laboratory Decommissioning Checklist

Responsible Investigator for the Lab: Chuck Gu

Completed	Questionnaire
☒ Yes ☐ No	Contact Safety (x62682) to remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. DO NOT REMOVE TAPE!
☒ Yes ☐ No	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas. EXCEPT FUME HOODS. Decommissioning of fume hoods will be done by outside vendor.
☒ Yes ☐ No	Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
☒ Yes ☐ No	Write a letter to RSO in Safety stating that the lab is no longer radioactive and that it should be removed from the list of radioactive labs.
☒ Yes ☐ No	Contact Safety to perform final wipe test of the lab and equipment.

Once the RI has completed the above actions, the lab can be turned over to Radiation Safety for final decommissioning steps and will assume control of the lab (Sign below). RI has completed decommissioning responsibilities.

Samantha Coffman 4/22/2011 Samantha Coffman 4/22/11

Radiation Safety Acceptance of the Lab with Actions Date Radiation Safety Actions Completed Date

Section B: Procedure for Vacating a Laboratory

Section A must be completed prior to completing Section B.

Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benches, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazard/biological material used in laboratory?	☐ Yes ☐ No ☐ NA	
Have all surfaces/areas/equipment been decontaminated using EPA registered disinfectant (bleach, ethanol, etc.).	☐ Yes ☐ No ☐ NA	
Remove/deface all biohazard stickers from the equipment.	☐ Yes ☐ No ☐ NA	
Have all biological/Biohazardous wastes been appropriately disinfected/decontaminated and disposed of.	☐ Yes ☐ No ☐ NA	
Has the Biohazard decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory and were all steps completed in Section A?	☐ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	

Decommission Wipes

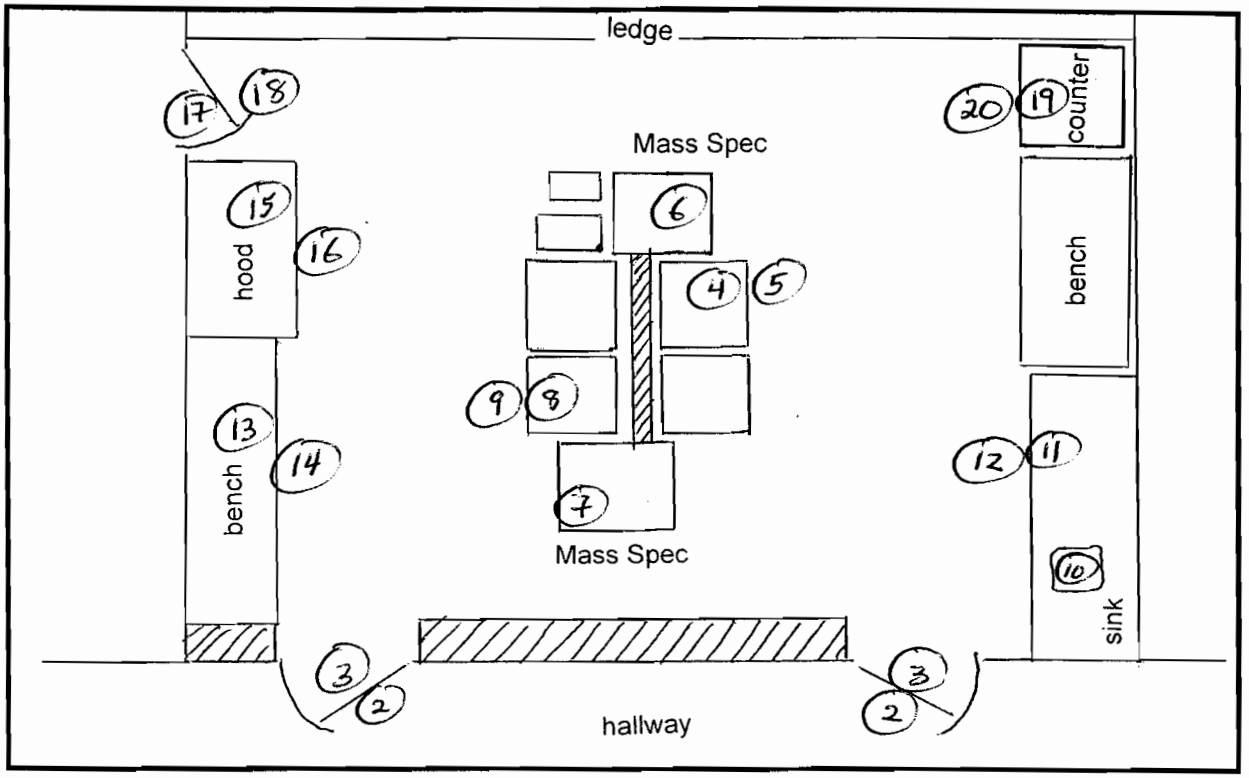
Protocol #:15 Name:Wipe Test 01-Apr-2011 06:25
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
= 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

C148

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.47	4.63	3.70			575.	B
2	1.00	0.00	3.37	0.00	0.00	4.59	532.	
3	1.00	0.53	0.00	0.00	1.25	0.00	451.	
4	1.00	4.53	3.37	0.00	7.79	4.53	531.	
5	1.00	0.00	0.00	0.00	0.00	0.00	498.	
6	1.00	0.00	0.37	0.30	0.00	0.51	526.	
7	1.00	14.98	17.92	0.30	22.46	24.34	500.	
8	1.00	0.00	2.37	4.30	0.00	3.24	519.	
9	1.00	0.00	0.00	0.00	0.00	0.00	494.	
10	1.00	0.53	0.37	0.30	0.94	0.50	505.	
11	1.00	0.00	4.37	0.00	0.00	5.95	533.	
12	1.00	1.53	0.37	0.00	3.27	0.49	477.	
13	1.00	0.00	0.00	6.30	0.00	0.00	524.	
14	1.00	0.00	0.00	1.30	0.00	0.00	514.	
15	1.00	0.00	0.00	0.00	0.00	0.00	532.	
16	1.00	1.53	1.37	0.00	2.73	1.88	450.	
17	1.00	6.27	0.00	3.30	13.37	0.00	543.	
18	1.00	0.00	1.37	0.30	0.00	1.87	520.	
19	1.00	0.00	0.37	0.00	0.00	0.51	492.	
20	1.00	0.53	3.37	3.30	0.00	4.60	518.	

WIPE TEST MAP

LAB # C148



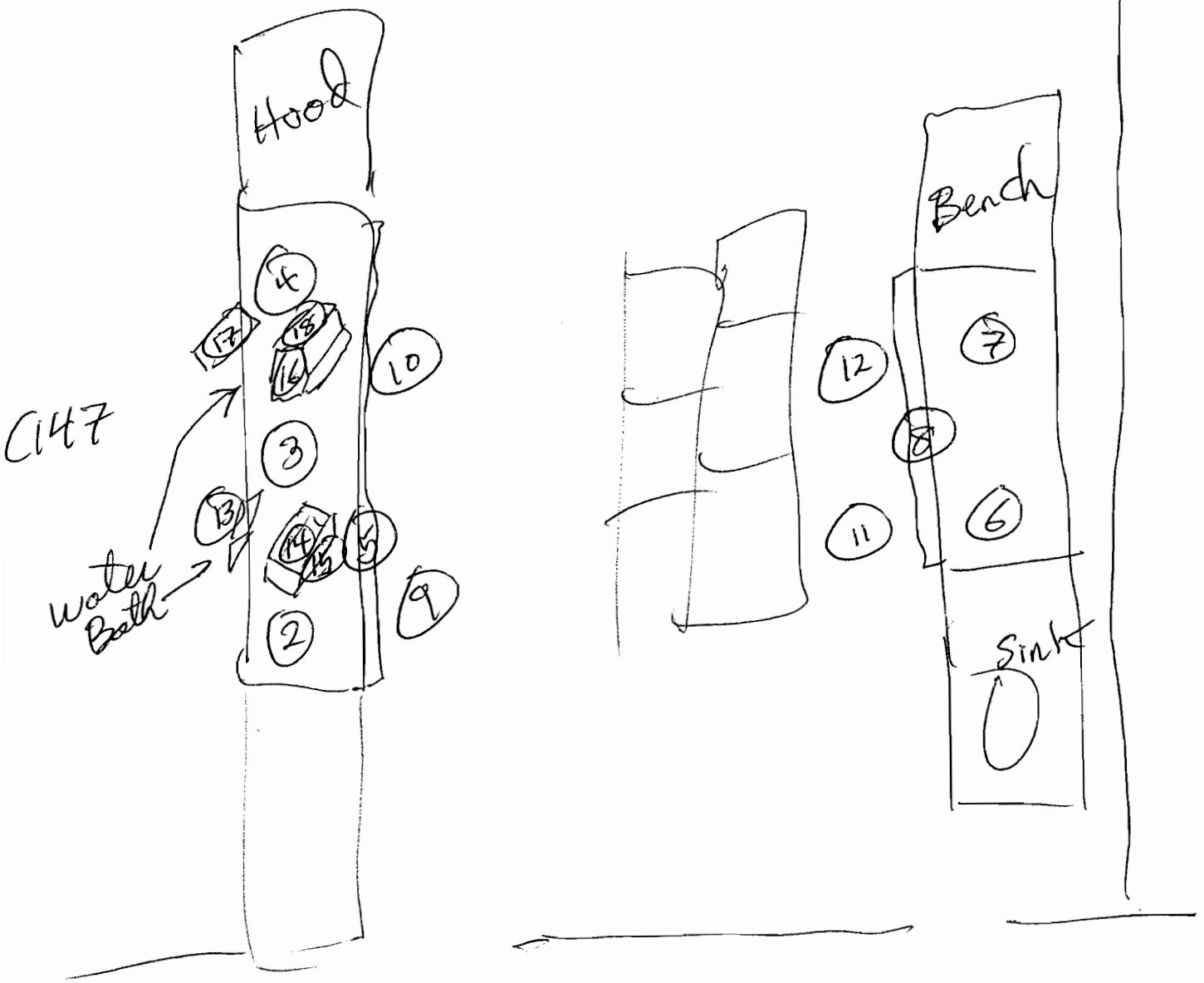
WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle, light switch, & phone
3. Floor below doors
4. Bench top & handles
5. Floor below bench & Mass Spec
6. Mass Spec
7. Mass Spec
8. Bench top & handles
9. Floor below bench
10. Sink
11. Bench top & handles
12. Floor below bench
13. Bench top & handles
14. Floor below bench
15. Hood
16. Floor below hood
17. Door handle
18. Floor below door
19. Scint Counter
20. Floor below Counter

Decommission C148
Lab, Benches & Equipment

~~J Coffin~~
4/21/2011

① Background



Meter Readings

Ludlum 3 Sn ~~IE~~ 145121
Cal: 10/12/10
Probe 44-9
PR 151749

Background:
40-80 cpms

Readings:
Background

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission C148
Lab, Benches, Equipment

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110421_1258\20110421_1258.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

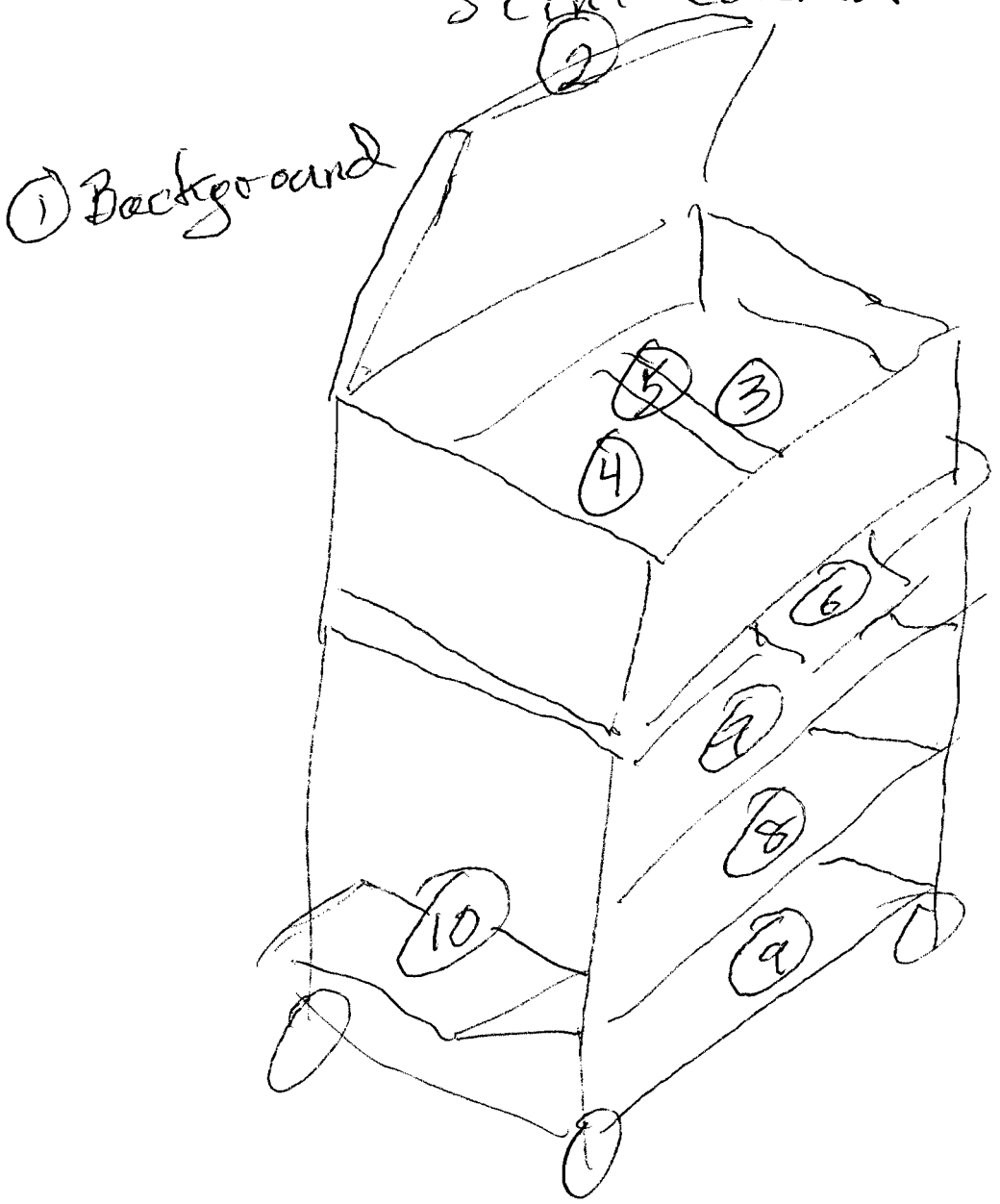
S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	5	0	0	0	819.37	582.70	B
2	1.00	2	1	0	4	1	1374.07	566.74	
3	1.00	4	0	0	8	0	919.83	593.56	
4	1.00	3	6	0	4	7	0.00	589.04	
5	1.00	7	2	0	14	2	0.00	585.79	
6	1.00	1	4	0	2	5	335.05	535.44	
7	1.00	4	0	0	8	0	0.00	566.98	
8	1.00	5	1	0	10	1	1370.69	605.16	
9	1.00	4	2	0	8	2	964.46	549.10	
10	1.00	12	5	0	25	5	0.00	542.63	
11	1.00	3	1	0	5	1	1358.95	561.16	
12	1.00	7	1	0	15	1	587.61	537.41	

13	1.00	5	3	0	11	4	0.00	571.88
14	1.00	5	0	0	11	0	0.00	536.39
15	1.00	7	6	0	13	7	0.55	566.23
16	1.00	8	5	0	17	6	0.00	580.90
17	1.00	7	0	0	15	0	0.00	581.96
18	1.00	7	9	0	12	10	747.39	569.22

All Clean!

Decommission
C148
Scint Counter

4/21/2011
J Coffin



Decommission Wipes of C148 Scint Counter

J Coffin

Protocol #:15 Name:Wipe Test 21-Apr-2011 05:09
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
T = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

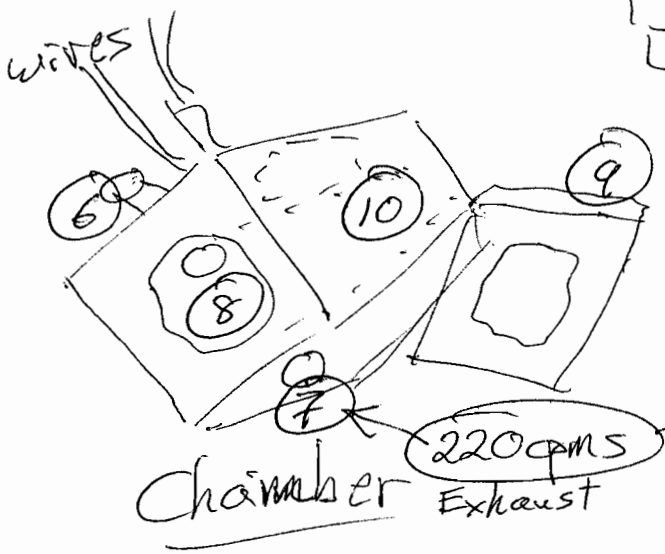
S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.69	5.11	4.00			582.	B
2	1.00	4.31	0.89	4.00	8.69	1.15	545.	
3	1.00	4.31	0.00	3.00	8.84	0.00	589.	
4	1.00	0.31	0.00	0.00	0.66	0.00	545.	
5	1.00	0.31	0.00	0.00	0.66	0.00	543.	
6	1.00	0.00	0.00	0.00	0.00	0.00	547.	
7	1.00	4.31	0.00	0.00	9.20	0.00	545.	
8	1.00	2.31	0.89	0.00	4.43	1.18	542.	
9	1.00	1.31	0.89	0.00	2.29	1.19	541.	
10	1.00	2.31	0.00	0.00	4.87	0.00	558.	

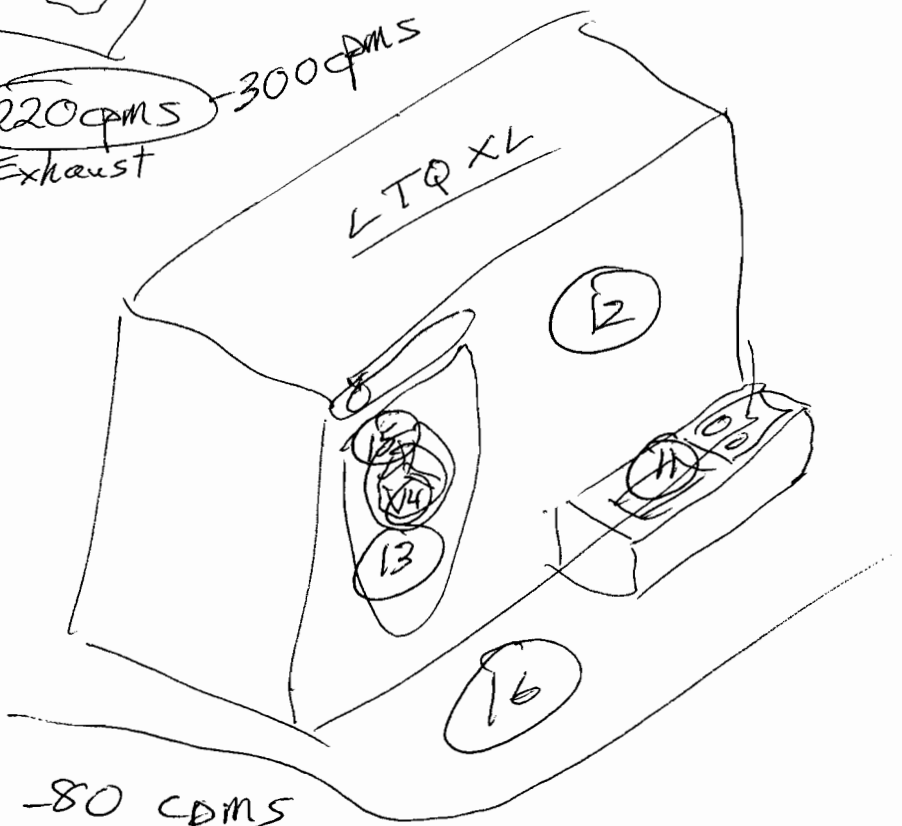
All Clean!

Decommission
Mass Spec in
C148
#1 Unit

J Coffin
4/19/2011

(1) Background





Meter
Ludlum3 #242761
Cal: 4/12/11
Probe · 44-9
PR257040

Background: 40 - 80 cpms

Readings: Background (except Chamber Exhaust)

Decommission Mass Spec in C148

Protocol #:15 Name:Wipe Test 19-Apr-2011 05:59
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
T: = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

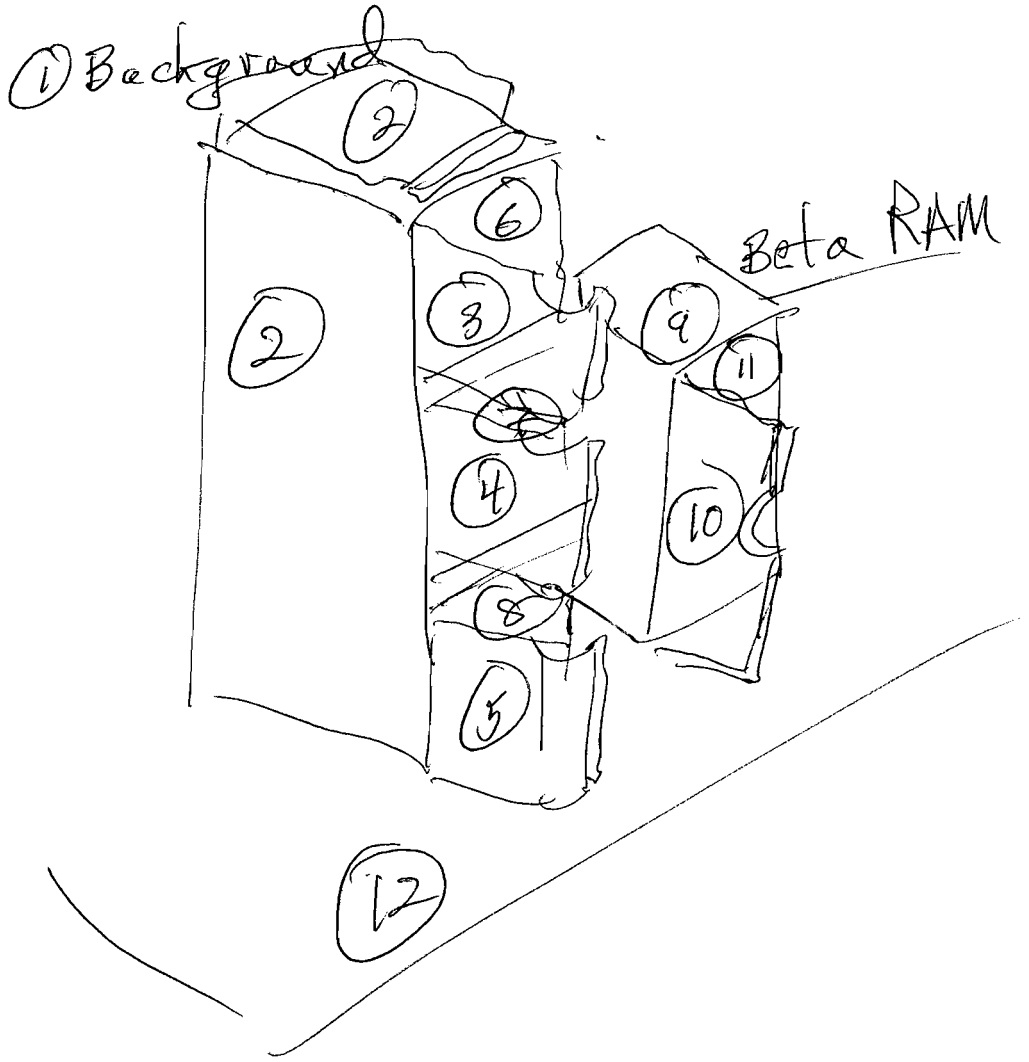
S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.53	4.07	2.80			555.	B
2	1.00	0.83	9.57	6.20	0.00	13.03	530.	
3	1.00	0.00	7.93	1.20	0.00	10.73	571.	
4	1.00	0.00	1.93	1.20	0.00	2.62	550.	
5	1.00	0.00	0.93	1.20	0.00	1.26	539.	
6	1.00	0.00	3.93	0.00	0.00	5.34	545.	
7	1.00	0.00	4.93	0.20	0.00	6.69	548.	
8	1.00	0.00	0.00	2.20	0.00	0.00	597.	
9	1.00	0.00	0.00	2.20	0.00	0.00	546.	
10	1.00	0.00	0.93	0.20	0.00	1.27	532.	
11	1.00	3.41	4.99	2.20	4.39	6.73	550.	
12	1.00	0.00	0.00	0.20	0.00	0.00	530.	
13	1.00	0.47	0.00	2.20	1.02	0.00	534.	
14	1.00	6.47	19.93	1.20	2.29	27.05	533.	
15	1.00	0.47	0.00	2.20	1.01	0.00	539.	
16	1.00	2.47	0.00	0.20	5.23	0.00	553.	

Unit All Clean

Note: Send Chamber Part as Radioactive

Decommission
AcQuity
Ultra LC
C148 #1 unit

J. Coffen
4/19/2011



Meter

Ludlum 3 #242761
Cal: 4/12/11
Probe: 44-9 PR257040
Background: 40-80 cpms
Readings: Background

Decommission LC ~~& Beta Ram~~ in C148

T Koffman

Protocol #:15 Name:Wipe Test 19-Apr-2011 06:41
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
T = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

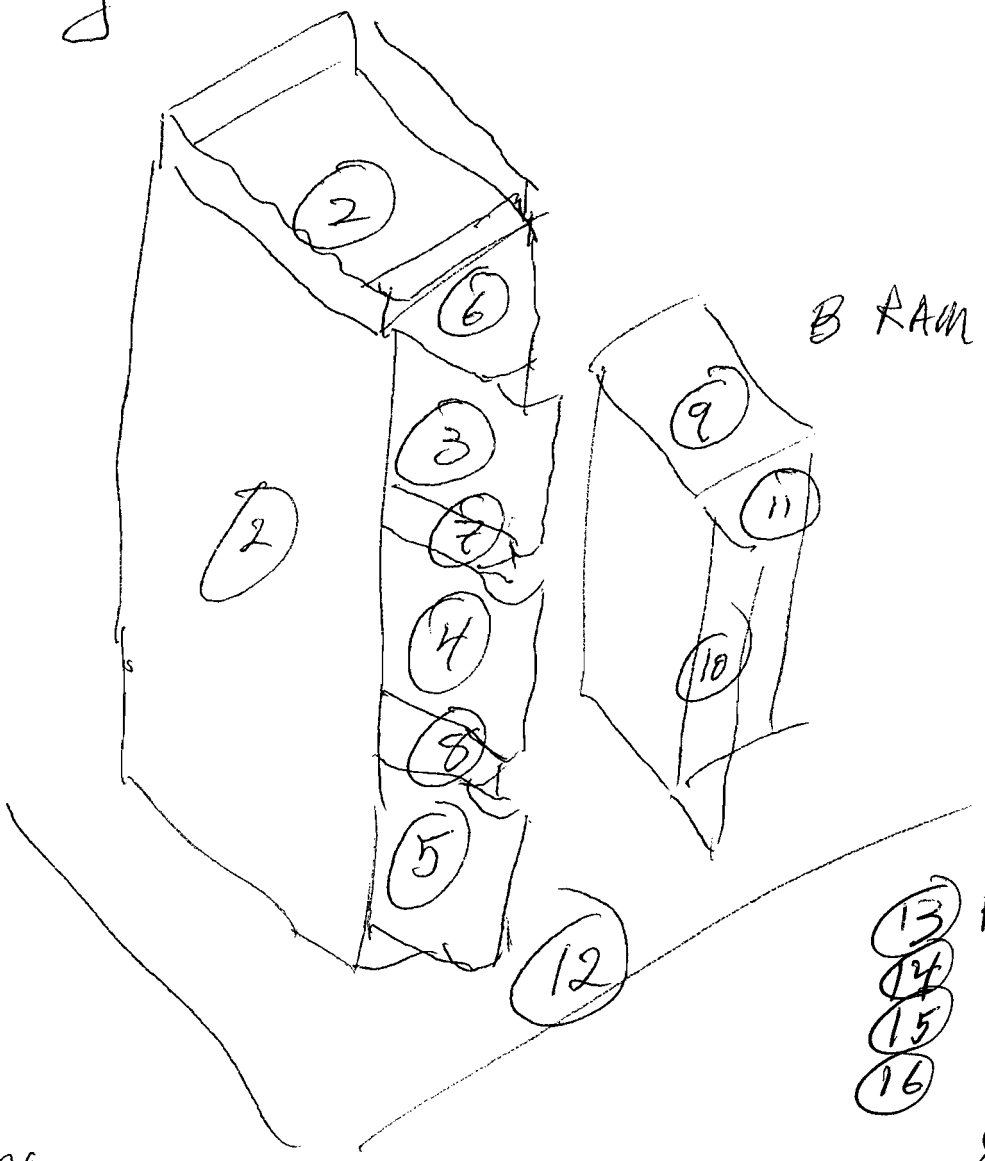
S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.48	4.52	4.30			549.	B
2	1.00	0.52	0.00	0.00	1.14	0.00	517.	
3	1.00	0.00	0.28	0.00	0.00	0.38	525.	
4	1.00	1.06	2.94	0.00	0.55	3.97	570.	
5	1.00	0.00	0.00	0.00	0.00	0.00	569.	
6	1.00	0.00	0.00	0.00	0.00	0.00	557.	
7	1.00	5.52	1.48	3.70	11.22	1.95	519.	
8	1.00	3.52	0.00	0.00	7.72	0.00	519.	
9	1.00	0.89	0.11	0.00	1.80	0.14	564.	
10	1.00	0.00	0.00	2.70	0.00	0.00	528.	
11	1.00	1.52	0.00	4.70	3.20	0.00	557.	
12	1.00	3.52	0.00	0.00	7.65	0.00	527.	

All Clean!

Decommission
LC + Beta Ram
C148
Unit #2

~~J Coffman~~
4/19/2011

① Background



13 Robot Drawer #1
14 " " #2
15 " " 3
16 " " 4

See Mass Doc unit #2

Meter
Ludlum 3 #242701
Cal: 4/12/11
Probe: 44-9 PR257040
Background: 40-80 cpms
Readings: Background

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission LC
of B Ram in C148 TJ Coffman.

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110419_0637\20110419_0637.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

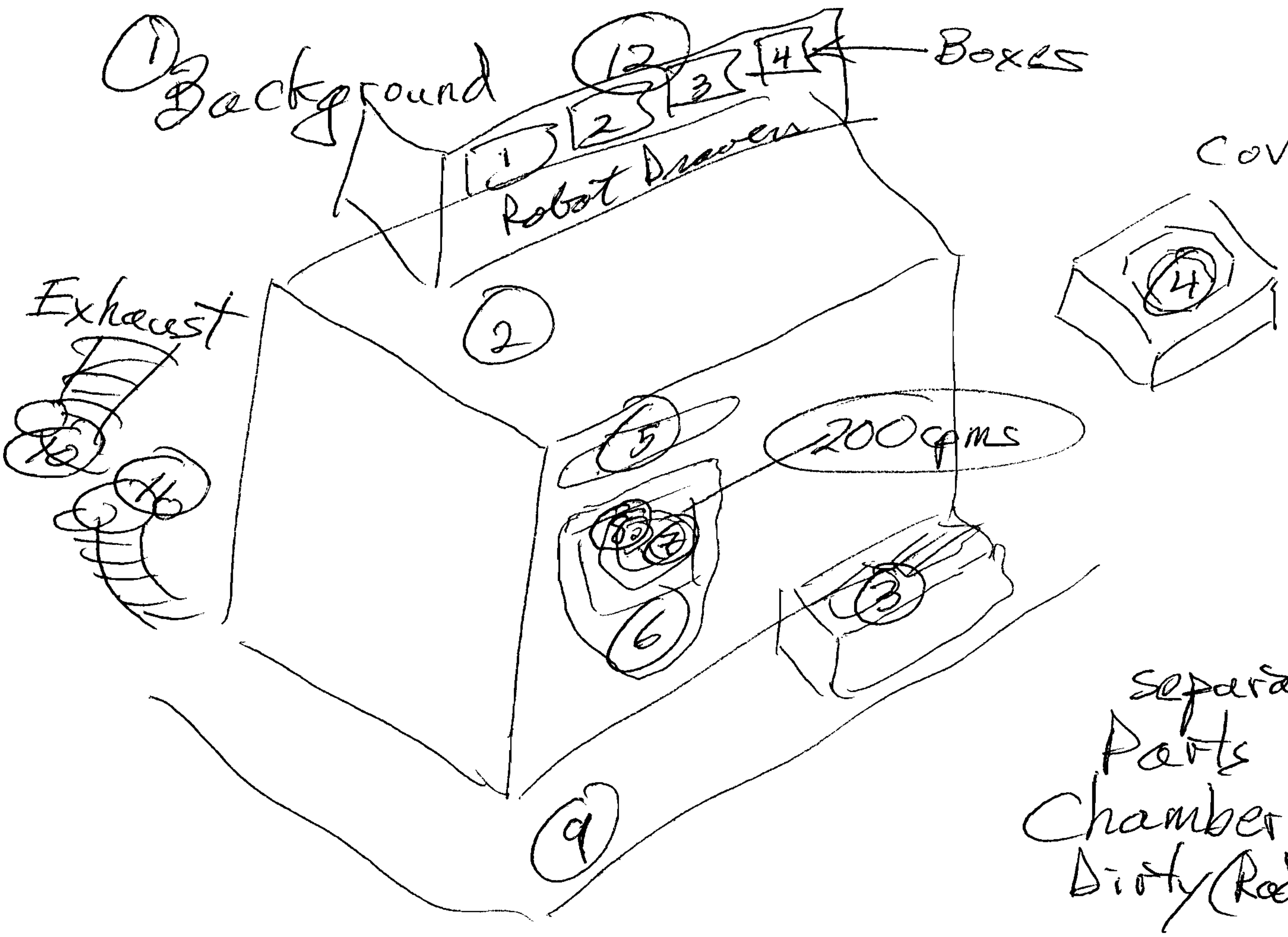
Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	6	6	0	0	0	737.92	575.02	B
2	1.00	0	5	0	0	6	0.00	557.90	
3	1.00	3	1	0	6	1	0.00	544.11	
4	1.00	3	4	0	5	4	0.00	542.77	
5	1.00	4	2	0	8	2	0.00	561.40	
6	1.00	2	5	0	2	6	0.00	540.17	
7	1.00	4	6	0	7	7	551.05	512.38	
8	1.00	45	63	0	82	73	60.68	571.04	
9	1.00	8	0	0	17	0	0.00	578.46	
10	1.00	5	0	0	11	0	3188.97	566.73	
11	1.00	7	2	0	14	1	809.97	567.09	
12	1.00	3	0	0	7	0	0.00	606.04	

Decommission
Mass Spec
C148
#2 Unit

4/19/2011



separate Parts and Chamber all Dirty (Radioactive)

Meter

Ludlum 3 # 242761
Cal ; 4/12/11
Probe: 44-9, PR 257040
Background: 40 - 80 cpms
Readings: Background (except Back of Chamber & Parts 200-300 cpms)

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission
Mass Spec in C148

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110419_0602\20110419_0602.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Note:
Send Chamber parts as radioactive package

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Basic Unit is clean

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	7	0	0	0	465.96	596.01	B
2	1.00	2	0	0	5	0	4130.65	597.09	
3	1.00	19	43	0	29	51	174.08	562.74	
4	1.00	3	0	0	7	0	2953.20	589.11	
5	1.00	0	1	0	0	1	906.82	564.66	
6	1.00	4	2	0	8	2	560.62	573.49	
7	1.00	171	621	0	183	746	78.49	571.30	
8	1.00	7	8	0	13	9	150.85	565.27	
9	1.00	13	0	0	29	0	342.48	623.45	
10	1.00	60	54	0	117	60	45.69	580.81	
11	1.00	64	51	0	126	56	0.00	603.90	
12	1.00	8	0	0	18	0	1568.19	559.15	

13	1.00	0	1	0	405	6	0.00	10.49	E
14	1.00	0	0	0	359	0	0.00	10.11	E
15	1.00	0	0	0	342	0	0.00	10.08	E
16	1.00	0	0	0	343	0	0.00	10.19	E

All Clean!

Coffin, Tim

From: Coffin, Tim
Sent: Friday, April 15, 2011 10:03 AM
To: Gu, Chungang (Chuck); Guo, Jian
Subject: Decommission of Fume Hoods in Labs C147 and C148 for use with Radioactive Material

Good Morning Chuck and Jian,

FOR YOUR INFORMATION/ACTION:

Just a quick note to let you know that I decommissioned the fume hoods in Labs C147 And C148 today from the use of Radioactive Materials.

ACTIONS TAKEN:

1. All radioactive material removed from the hoods.
2. Fume hoods and equipment/materials in hoods were wipe tested and all result were below the AZ Action Level of 100 dpms.
3. Meter checks of the hood showed all readings to be at background or below the AZ Action level of three times background.
4. All radioactive stickers and signs were removed from the hood.
5. The completed Decommission Form with wipe tests was placed on the front window of each hood.
6. Copies of the decommission wipes were placed in the Lab Wipe Test Book and in the official radiation safety files.

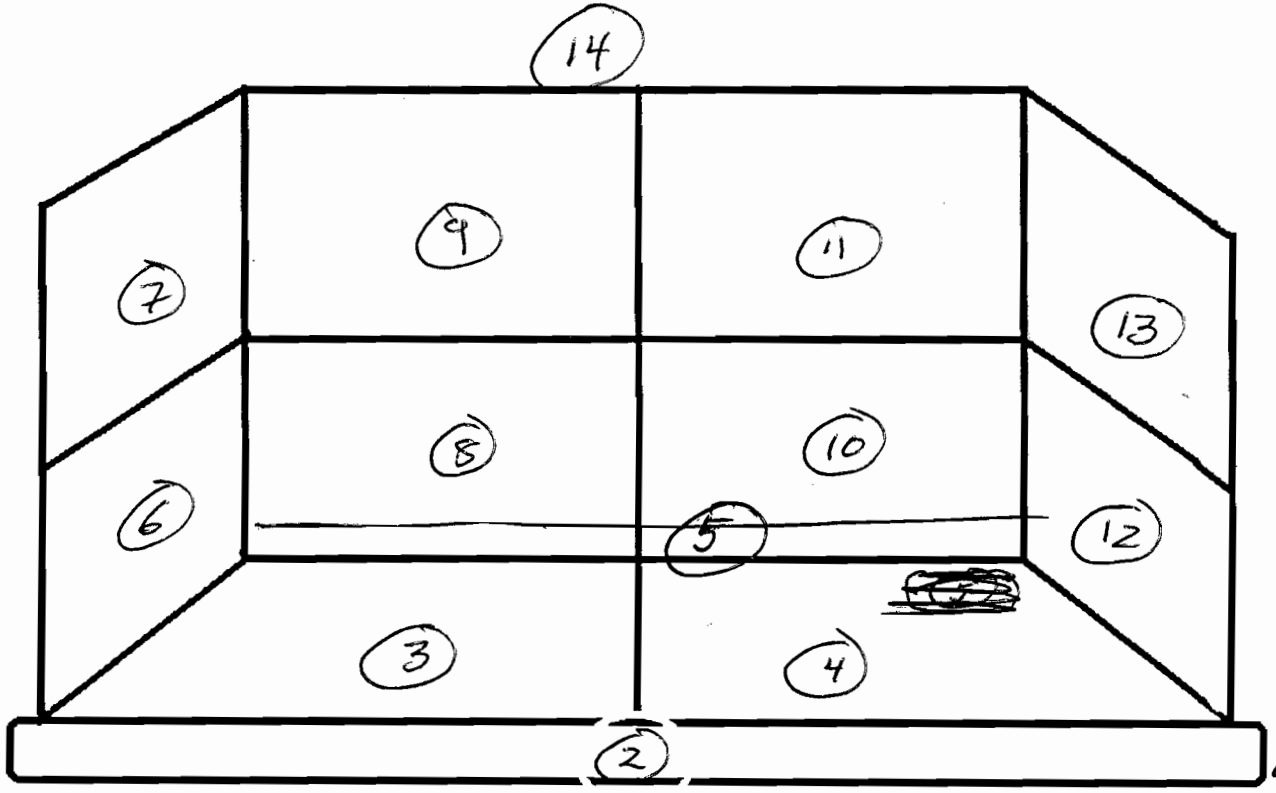
Please let me know if you have any questions.

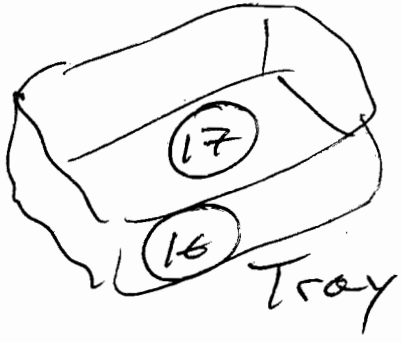
Tim Coffin
Radiation Safety Specialist/Radiation Safety Officer
OW1-227, 6-2682

Decommission C148

Date
4/15/2011
J Coffin

(1) Background





Meter
Ludlum 3, Ser# 146121, Cal: 10/12/10
Probe: 44-9, Ser# PR151749

Background: 20-80 cpms

Readings: Background

Decommission C148 Fume Hood

Protocol #:15 Name:Wipe Test 15-Apr-2011 07:54

Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
T : = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.80	3.80	4.90			565.	B
2	1.00	0.20	1.20	0.00	0.00	1.64	518.	
3	1.00	0.00	4.20	0.00	0.00	5.77	482.	
4	1.00	0.00	6.66	0.00	0.00	9.18	469.	
5	1.00	0.00	2.20	0.00	0.00	3.00	523.	
6	1.00	1.20	3.20	0.00	0.72	4.36	503.	
7	1.00	3.20	0.00	0.10	7.11	0.00	507.	
8	1.00	0.00	3.20	1.10	0.00	4.39	487.	
9	1.00	2.20	1.20	0.10	4.35	1.62	468.	
10	1.00	2.20	0.00	0.00	4.93	0.00	499.	
11	1.00	0.00	0.00	1.10	0.00	0.00	468.	
12	1.00	3.20	3.20	0.00	5.23	4.35	493.	
13	1.00	0.00	3.49	0.00	0.00	4.77	508.	
14	1.00	1.20	0.20	0.00	2.49	0.26	527.	
15	1.00	0.20	2.20	2.10	0.00	2.99	545.	
16	1.00	0.00	3.18	0.10	0.00	4.32	552.	
17	1.00	4.20	0.20	0.00	9.46	0.22	484.	

All Clean !

Coffin, Tim

From: Coffin, Tim
Sent: Wednesday, April 06, 2011 7:11 AM
To: Gu, Chungang (Chuck)
Subject: Decommission Top count in C147 and Turbo Vap in C148 Hood

Good Morning Chuck,

FOR YOUR INFORMATION/ACTION:

As of today, April 06, 2011, the Top Count in Lab C147 and the Turbo Vap in the C148 fume hood have been decommissioned from use with radioactive material.

ACTIONS TAKEN:

1. Removed all radioactive material, samples, etc. from equipment.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. GM Meter Checks were done and all results were at background or less than the AZ Action Level of 3 times background.
4. The radioactive calibration plates were placed in radiation safety storage room B154.
5. All radioactive labels were removed from the equipment.
6. Decommission Forms were placed on the Top Count and Terbo Vap. Copies placed in the Wipe Test Book and in the official Radiation Safety Files.

The units can be moved, relocated, or shipped as needed without concern for radiation.

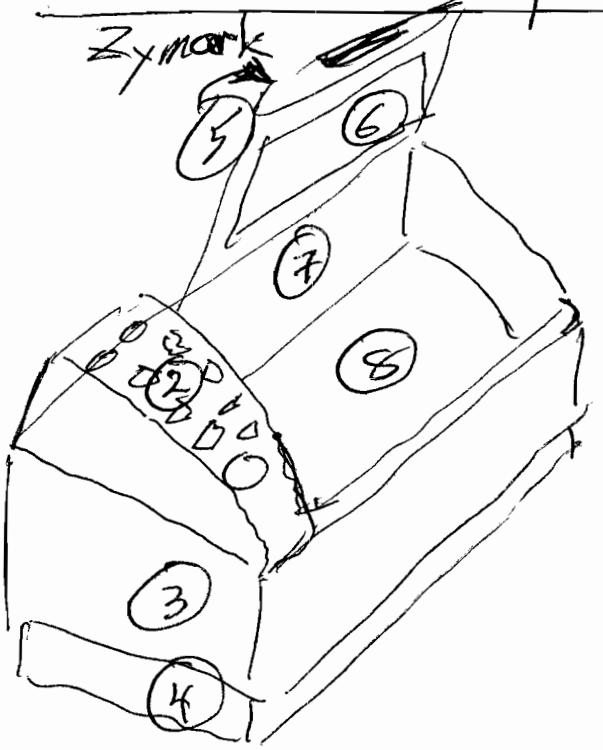
Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227. 6-2682

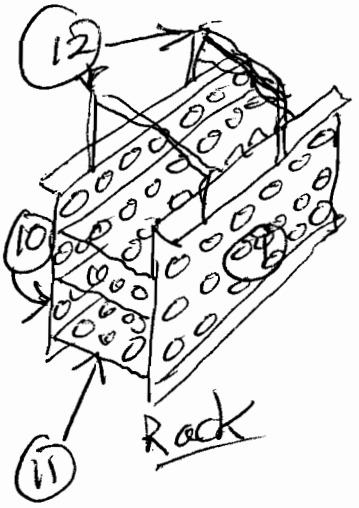
Decommission
C148 Turbo Vap

4/5/2016

Zymark



① Background



Meter Readings

Ludlum 3, Ser#: 146121
Cal: 10/12/10

Probe: 44-9, PR 151749

Background: 20-60 cpms

Readings: 20-95 cpms

Less than 3 times background

Decommission C148
Turbo Vap

Protocol #:15 Name:Wipe Test 05-Apr-2011 13:28

Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	8.72	5.58	4.10			559.	B
2	1.00	3.28	0.00	0.00	6.90	0.00	557.	
3	1.00	3.28	3.42	0.00	4.91	4.59	570.	
4	1.00	3.28	0.42	0.90	6.62	0.53	564.	
5	1.00	0.00	2.42	2.90	0.00	3.32	491.	
6	1.00	36.11	24.59	0.00	64.76	33.12	512.	
7	1.00	3.95	5.75	0.90	5.26	7.82	507.	
8	1.00	1.28	1.42	1.90	2.06	1.94	467.	
9	1.00	0.00	0.00	0.00	0.00	0.00	513.	
10	1.00	2.28	1.42	0.00	4.18	1.91	509.	
11	1.00	2.28	5.42	0.00	1.77	7.41	487.	
12	1.00	0.28	1.42	0.90	0.00	1.93	542.	

All Clean !

Coffin, Tim

From: Coffin, Tim
ent: Thursday, August 14, 2003 1:47 PM
.o: Pognan, Francois; Morelli, James K
Cc: Irwin, David H; Otieno, Monicah
Subject: Decommissioning of Radioactive Lab C150 in Safety Assessment

FOR YOUR INFORMATION:

As of today, 08/14/03, the Safety Assessment Lab C150 has been decommissioned from radioactive material use. The following actions were completed.

1. Decommissioning wipe tests completed with all wipes at background or below the regulatory and AZ action levels.

2. The two contaminated Metler Balances were placed in plastic bags, removed from C150 and placed in the Radioactive Storage Room, B137 to hold for use in the new Radiosynthesis Lab.

3. All radioactive material and waste has been removed.

4. All labels and tape have been removed from the benches, and equipment.

5. All equipment used for radioactive use has been relocated to Lab C147, the newly commissioned radioactive use lab for Safety Assessment.

6. The radioactive door signs have been removed from the entrance doors.

The wipe test book and decommissioning paperwork has been placed in the Radiation Safety Files.

Let me know if you have any questions.

Tim Coffin
Laboratory SHE Specialist
OW1-235, 6-2682

Safety Assessment

C150
Radioactive Use
Decommission

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist ONLY

Laboratory: C150 Lab Supervisor: Francois Pognan

Responsible Investigator for the Lab: James Morelli

RAM Users in This Lab: Monicah Oteino

Use of I125, C14, H3

Date: 08/11/03

Date Completed	Questionnaire
08/11/03	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
Robin	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas. Two contaminated Mettler Balances Removed from Lab to Room B137
08/13/03	Contact Safety to perform final wipe test of the lab and equipment.
08/11/03	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
08/15/03	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
08/14/03	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

Same Owner →

Radiation Decommissioning has been completed:

Timothy J Coffin 8/14/03

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

☒ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

☒ NA ☐ Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	NA
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	NA
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	NA
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	NA
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	NA
Has the decommissioning been completed?	Yes or No	NA
Radiation Hazards:		
Were radioactive materials used in the laboratory?	(Yes) or No	(If "No" go to the next section.)
Date lab was decommissioned? 8/15/03		
What isotopes were used? I125, C14, H3		(Contaminated)
8/13/03 Have all surfaces/areas been decontaminated?	(Yes) or No	2 Mettler Balances removed to
Have all isotopes been transferred or disposed of?	(Yes) or No	Waste Room B137.
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	NA
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?	NA	Yes or No
Have solvents been transferred/disposed of/ reassigned?	NA	Yes or No
Particularly ether and THF?	NA	Yes or No
Have all stills been quenched/transferred/ reassigned?	NA	Yes or No
Have all intermediates/research samples been:		Yes or No
• Entered into the M collection?	Yes or No	
• Assigned to others on the project and labeled as such?		NA
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	NA
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	NA
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	NA
• Used vacuum pump oil?	Yes or No	

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	N/A
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, will result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:	[signature]	8/14/03	Facilities:		/ /
Safety:	[signature]	8/14/03	Dept. Manager:	[signature]	8/14/03.

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

Page #1

Decommission Hood #1
Lab C150

Protocol #:15 Name:DIRECT DPM 11-Aug-2003 06:56
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	13.32	615.	
2	2.00	19.82	588.	
3	2.00	14.24	591.	
4	2.00	8.37	575.	
5	2.00	16.70	587.	
6	2.00	392.24	485.	
7	2.00	111.10	494.	
8	2.00	18.73	560.	
9	2.00	147.33	415.	
10	2.00	43.86	477.	
11	2.00	36.85	487.	
12	2.00	51.47	567.	

Clean & swipe
(See page #)

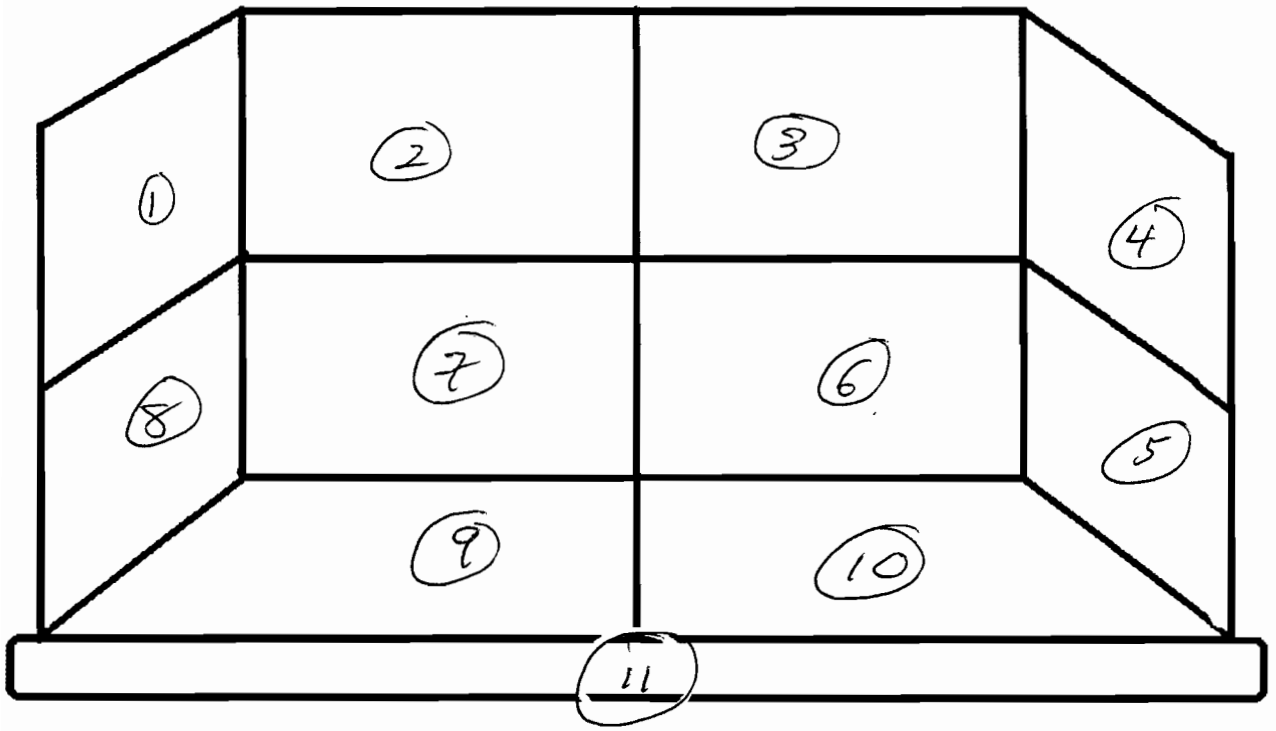
```
Protocol #:15          Name:DIRECT DPM                    12-Aug-2003 06:59
Region A: LL-UL= 0.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL= 2.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
  gion C: LL-UL= 0.0- 0.0  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Time =  2.00      QIP = tSIE/AEC      ES Terminator = Count
Direct DPM
SNC DPM = 124200

  S#    TIME     DPM1 tSIE FLAG
(5 missing vials)
   6    2.00    31.07 478.
   7    2.00    44.29 555.
(1 missing vial)
   9    2.00    22.91 583.
```

OK!

8/103
Tim Coffin

Decommissioning Hood #1

Lab C150



(12) Hood Sash & Handles

Additional Wipes of Hood #6

Protocol #:15 Name:DIRECT DPM 12-Aug-2003 07:07 Lab C150
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG	
1	2.00	17.34	587.	— #6	duplicate
2	2.00	41.01	555.	— #6a	(Back Bottom edge)
3	2.00	39.00	588.	— #7	duplicate
4	2.00	39.17	563.	— #7a	(Back Bottom edge)
5	2.00	23.39	569.	— #9	duplicate
6	2.00	22.39	557.	— #9a	Lab Stand

Decommission Hood #2

Lab C150

Protocol #:15 Name:DIRECT DPM 11-Aug-2003 07:31
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tS1E/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tS1E	FLAG
1	2.00	13.02	573.	
2	2.00	18.08	579.	
3	2.00	13.15	587.	
4	2.00	15.07	573.	
5	2.00	18.90	597.	
6	2.00	12.25	532.	
7	2.00	32.50	521.	
8	2.00	47.00	551.	
9	2.00	36.02	407.	
10	2.00	31.49	395.	
11	2.00	54.44	446.	
12	2.00	46.75	530.	

OK checked again & wrote on

OK!

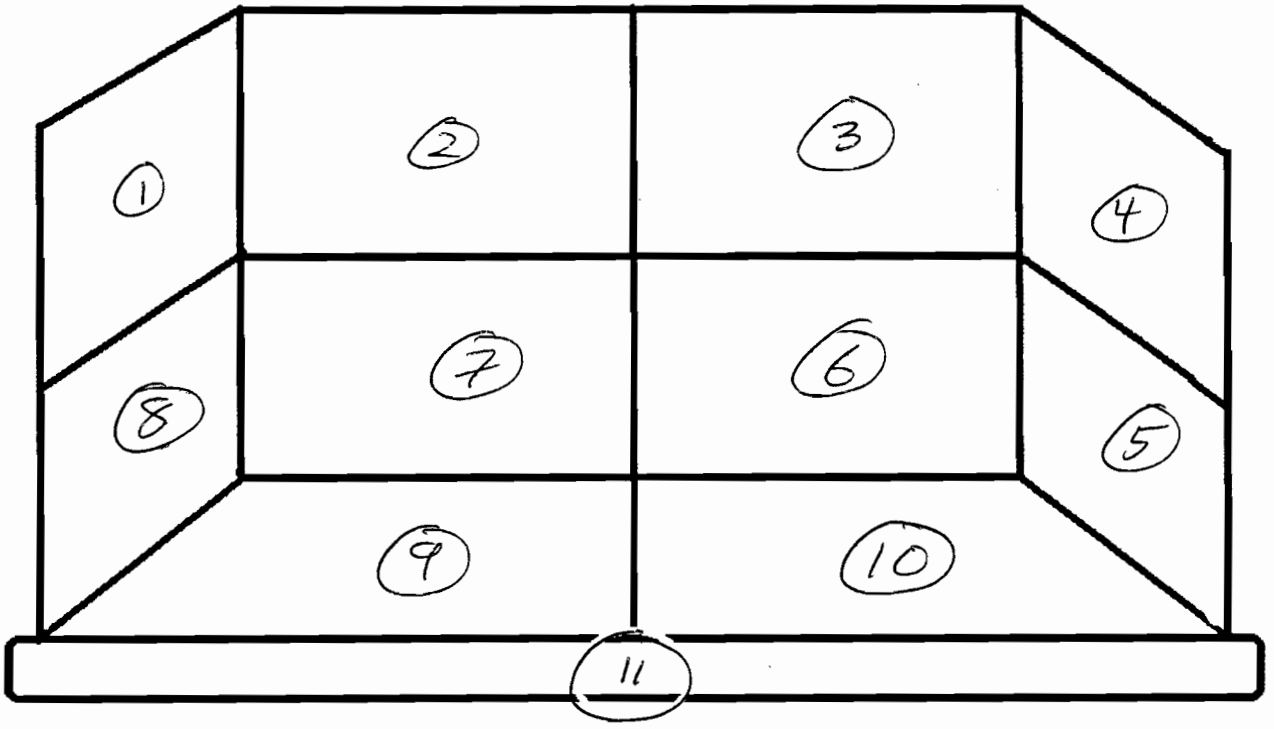
8/11/03

Decommissioning

Lab C150

Hood #2

Tim Coffin



(12) Hood Sash + Handles

Decommission C150

Protocol #: 2 Name:DIRECT DPM 13-Aug-2003 16:08
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	31.02	493.	
2	2.00	19.67	521.	
3	2.00	16.01	533.	
4	2.00	18.25	517.	
5	2.00	26.25	508.	
6	2.00	30.47	516.	
7	2.00	41.35	447.	
8	2.00	19.56	510.	
9	2.00	22.87	496.	
10	2.00	15.88	522.	
11	2.00	15.12	519.	

3 Lab Floors

See attached Room Map

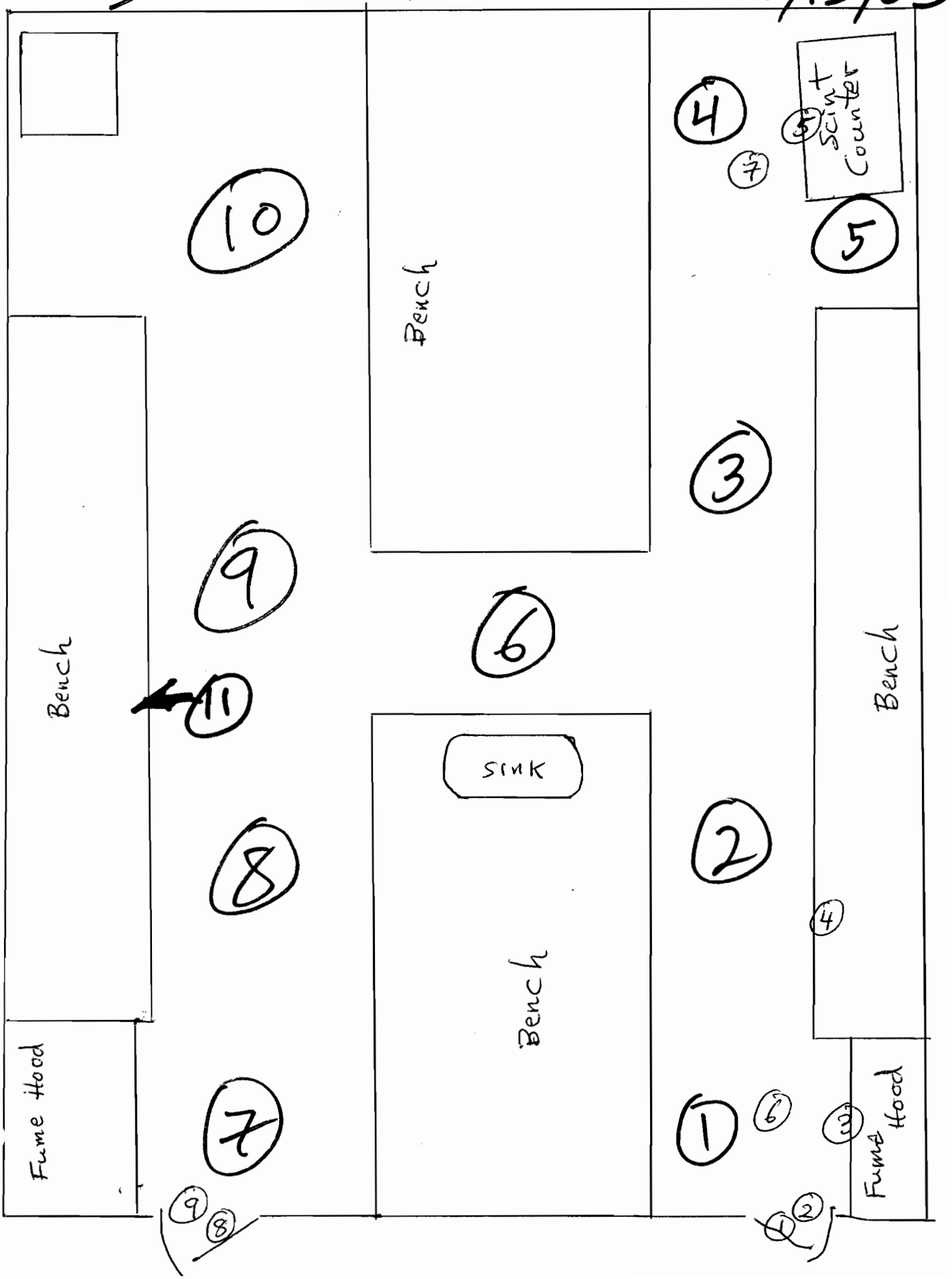
OK!

Floors

Wipe Map

Lab C150

8/13/03



```
Protocol #: 5        Name:DIRECT DPM                  11-Aug-2003 08:06
Region A: LL-UL= 0.0-2000  Lcr=   0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL= 2.0-2000  Lcr=   0  Bkg= 0.00  %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0  Lcr=   0  Bkg= 0.00  %2 Sigma=0.00
Time =  2.00      QIP = tSIE/AEC      ES Terminator = Count
Direct DPM
SNC DPM = 124200
```

S#	TIME	DPM1	tSIE	FLAG
1	2.00	15.90	589.	
2	2.00	12.48	478.	
3	2.00	23.59	480.	
4	2.00	120.96	507.	
5	2.00	36.60	392.	
6	2.00	16.40	506.	
7	2.00	17.03	504.	
8	2.00	12.03	585.	
9	2.00	11.51	518.	
10	2.00	23.48	557.	
11	2.00	21.00	486.	
12	2.00	18.98	474.	
13	2.00	205.00	514.	
14	2.00	587.09	440.	
15	2.00	17.31	545.	
16	2.00	15.09	544.	
17	2.00	35.80	516.	
18	2.00	14.79	549.	
19	2.00	99.28	551.	
20	2.00	29.39	545.	
21	2.00	422.31	558.	

Clean & rewipe (See Page #2)

— Scale labeled "S"

— Scale labeled "W"

Additional Wipes on Samples #19 and #21 (Weigh Scales)

See Page #4 and #5

```
Protocol #:15          Name:DIRECT DPM                    12-Aug-2003 07:25
Region A: LL-UL= 0.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL= 2.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Time =  2.00      QIP = tSIE/AEC      Es Terminator = Count
Direct DPM
SNC DPM = 124200

   S#    TIME     DPM1 tSIE FLAG
(3 missing vials)
    4    2.00   275.58 538.
(8 missing vials)
   13    2.00    25.98 567.
   14    2.00    17.38 550.
```

(Must clean & wipe again in sections)

OK!

For samples #13 and #14 run samples of materials stored on bench (see page #3)

Page 6

Additional Wipes

C150 Lab

```
Protocol #: 2          Name:DIRECT DPM                    12-Aug-2003 07:34
Region A: LL-UL= 0.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL= 2.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0  Lcr=    0  Bkg= 0 00  %2 Sigma=0.00
Time =  2.00      QIP = tSIE/AEC      ES Terminator = Count
Direct DPM
SNC DPM = 124200

  S#    TIME     DPM1 tSIE FLAG
   1    2.00    29.29 569.
(1 missing vial)
   3    2.00    13.58 585. -
   4    2.00    14.59 589. -
   5    2.00    15.70 582. -
   6    2.00    15.04 589. -
```

OK! Cabinet Handles on Area #4

Box Bottoms

" "

" "

" "

OK!

Lab C150 Scale "S"

Sample #19

Protocol #: 5 Name:DIRECT DPM 12-Aug-2003 07:49
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG	
(1)	2.00	791.41	549.		— Cabinet exterior
2	2.00	18.82	588.		— Weigh Pan
3	2.00	18.85	560.		— Digital Display
(4)	2.00	195.54	572.		— Outside of Doors
5	2.00	90.80	572.		— Inside of Doors
(6)	2.00	447.43	594.		— Platform Inside
7	2.00	27.18	595.		— Bottom of Unit

Lab C150 Scale "W"

Page #5

Sample #21

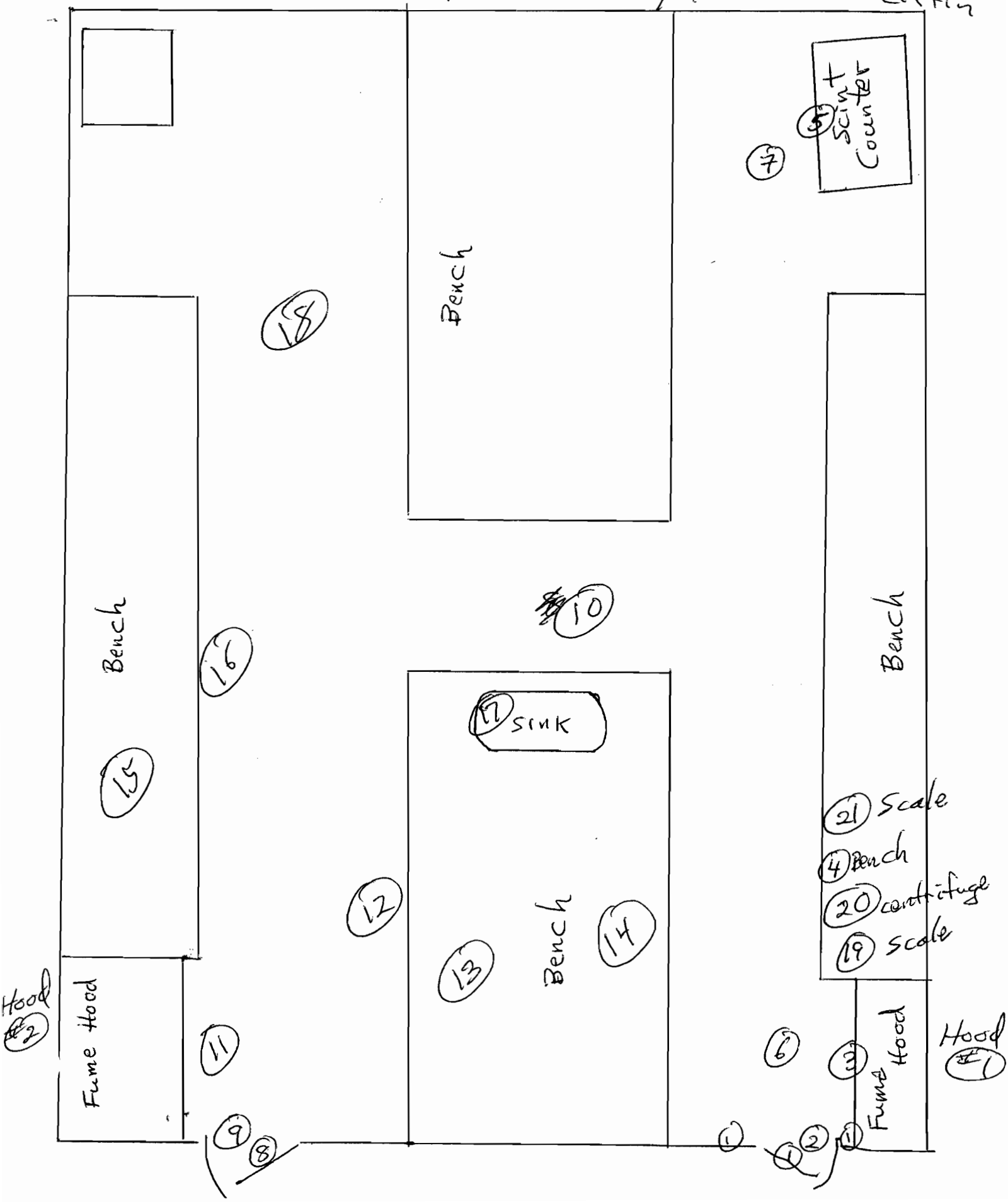
```
Protocol #:15          Name:DIRECT DPM          12-Aug-2003 08:14
Region A: LL-UL= 0.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL= 2.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
  gion C: LL-UL= 0.0- 0.0  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Time =  2.00      QIP = tSIE/AEC      ES Terminator = Count
Direct DPM
SNC DPM = 124200
```

S#	TIME	DPM1	tSIE	FLAG	
(1)	2.00	946.61	564.		— Cabinet Exterior
2	2.00	66.27	644.		— Weigh Pan
(3)	2.00	197.95	541.		— Digital Display
(4)	2.00	407.37	550.		— Outside of Doors
(5)	2.00	373.45	608.		— Inside of Doors
(6)	2.00	3319.76	605.		— Platform Inside
(7)	2.00	165.89	590.		— Bottom of Unit

Decommissioning Wipe Map

Lab C150

8/11/03 Tim Coffin



C150 Decommission · Wipes

```
Protocol #:15          Name:DIRECT DPM                    13-Aug-2003 16:40
Region A: LL-UL= 0.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL= 2.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
  gion C: LL-UL= 0.0- 0.0  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
.ime =  2.00      QIP = tSIE/AEC      ES Terminator = Count
Direct DPM
SNC DPM = 124200

  S#    TIME     DPM1 tSIE FLAG
(3 missing vials)
   4    2.00  393.60 533.
(1 missing vial)
   5    2.00   46.92 563.
```

— Lab Bench

4a

Need to Break Down Into Sections & wipe Again.

Decommission Lab C150 (#18) Balance "S"

```
Protocol #: 5        Name:DIRECT DPM                  13-Aug-2003 16:47
Region A: LL-UL= 0.0-2000  Ctr=    0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL= 2.0-2000  Ctr=    0  Bkg= 0.00  %2 Sigma=0.00
Region C: LL-UL= 0.0  0.0  Ctr=    0  Bkg= 0.00  %2 Sigma=0.00
Time =  2.00      QIP = tSIE/AEC      ES Terminator = Count
Direct DPM
SNC DPM = 124200

  S#   TIME     DPMi tSIE FLAG
   1   2.00    19.95 592.   ___ Exterior Cabinet
(2 missing vials)
   4   2.00    36.97 569.   ___ Outside of Doors
(1 missing vial)
   6   2.00    22.87 583.   ___ Platform inside
```

Balance Removed to Rad storage. Room B137.

J Coffin

OK!

Decommission
Lab C150

(#21) Balance

```
Protocol #:15          Name:DIRECT DPM                  13-Aug-2003 16:57
Region A: LL-UL= 0.0-2000   Lcr=    0   Bkg= 0.00   %2 Sigma=0.00
Region B: LL-UL= 2.0-2000   Lcr=    0   Bkg= 0.00   %2 Sigma=0.00
  gion C: LL-UL= 0.0- 0.0   Lcr=    0   Bkg= 0.00   %2 Sigma=0.00
,ime =  2.00      QIP = tSIE/AEC      ES Terminator = Count
Direct DPM
SNC DPM = 124200

  S#    TIME     DPM1  tSIE FLAG
   1    2.00   118.26  585.
   2    2.00    67.24  589.
   3    2.00    38.01  600.
   4    2.00   344.99  573.
   5    2.00   128.47  575.
   6    2.00  1132.85  599.
   7    2.00    28.14  587.
```

Cabinet Exterior
Outside of Doors
Inside of Doors
Platform area inside

Balance Removed to
Rad Storage Room B137

J Coffin

Need additional
cleaning

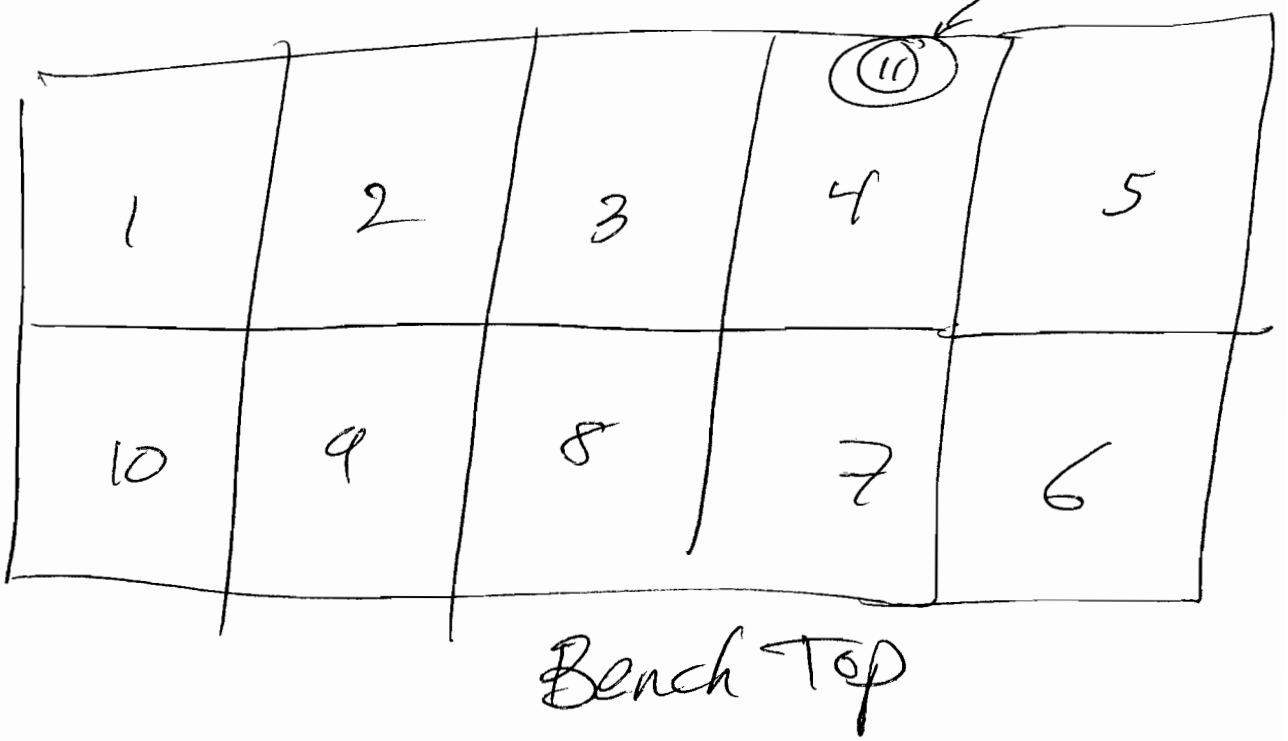
Decommission C150

Protocol #:15 Name:DIRECT DPM 14-Aug-2003 09:22
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

Sample #4
Lab Bench
Final Wipes

S#	TIME	DPM1	tSIE	FLAG
1	2.00	16.91	606.	
2	2.00	17.26	608.	
3	2.00	20.51	609.	
4	2.00	13.98	608.	
5	2.00	14.28	619.	
6	2.00	14.20	610.	
7	2.00	17.51	597.	
8	2.00	19.64	611.	
9	2.00	41.59	600.	
10	2.00	61.24	602.	
11	2.00	15.62	660.	

OK!



AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: [redacted] Lab Supervisor: P.C. DAVIS

Responsible Investigator for the Lab: P.C. DAVIS

RAM Users in This Lab: ILENE BAKA

Date: 12-11-00

Date Completed	Questionnaire
12-11-00	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
12-11-00	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
12-11-00	Contact Safety to perform final wipe test of the lab and equipment.
12-11-00	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
12-11-00	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
12-11-00	After approval by Safety, the radiation signs can be removed and returned to Safety.
N/A	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Gerald K. Watson 12-11-00

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

Section B: Biosafety Laboratory Commissioning Checklist

This laboratory _____ has been accepted as a Laboratory as agreed by:

Responsible Investigator for the Lab: _____

Lab Supervisor: _____

Date: _____

Date Completed	The following steps are required to handle biohazardous materials:
	Ensure each employee has completed initial Biosafety Training.
	Make sure each employee, if exposed to Bloodborne Pathogens, is offered a Hepatitis B shot.
	Make sure each employee has access to the Biosafety Manual.
	Update the permit(s) status (new, revised, retired).
	Obtain Biosafety signs from the Safety Department.
	Obtain Biosafety labels for equipment from current lab supply vendor.

Section C: Radioactive Laboratory Commissioning Checklist

This laboratory C-159 has been accepted as a Laboratory as agreed by:

Responsible Investigator for the Lab: P.C. DAVIS

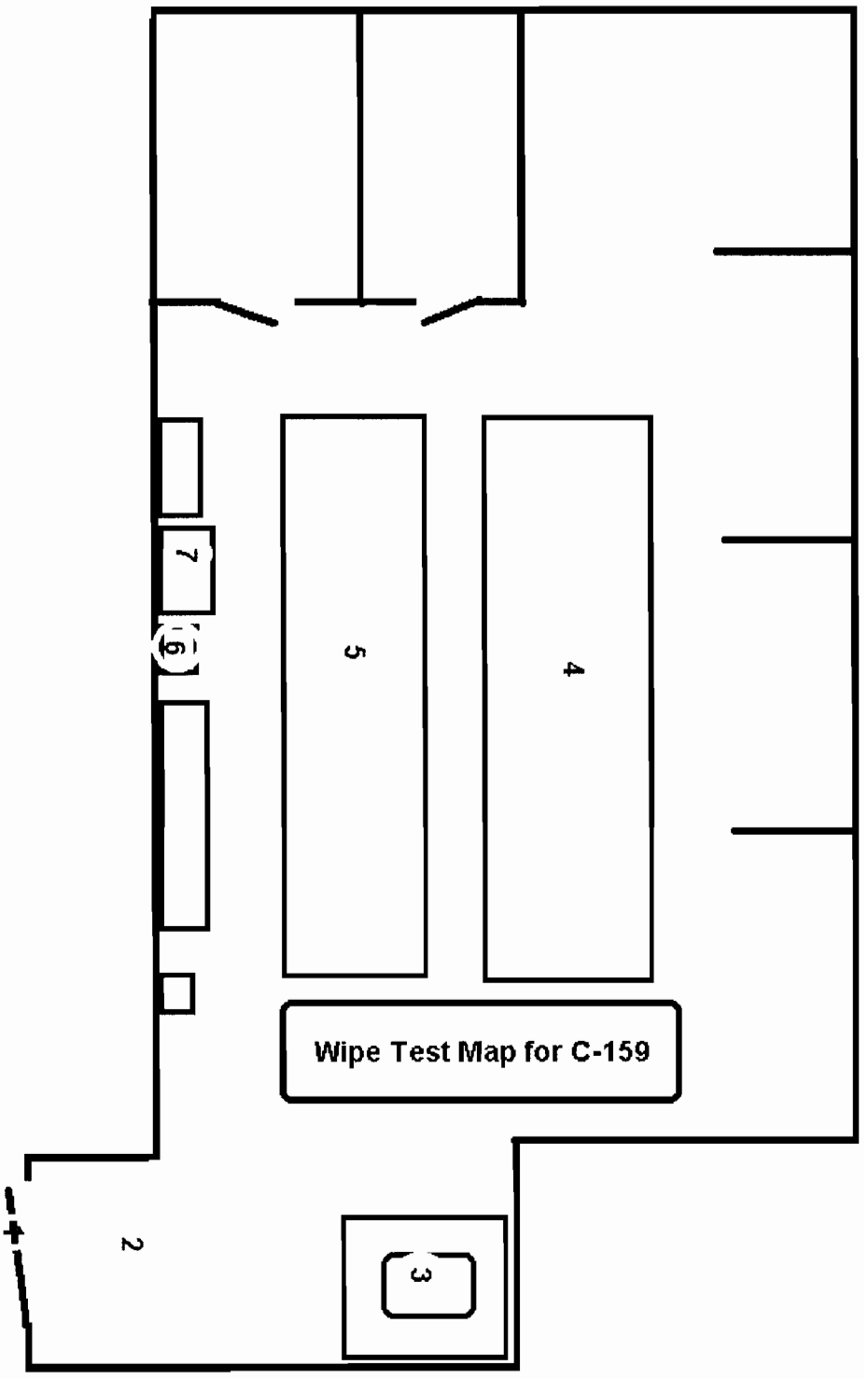
Lab Supervisor: P.C. DAVIS

Date: 12-8-00

Date Completed	The following steps are required to handle radioactive materials (RAM):
12-8-00	Ensure each employee has completed initial Radiation Training.
—	All bench and hood surfaces must be either epoxy coated, stainless steel Formica or some other impervious surface material.
—	Areas where isotopes are stored or used must be labeled "radioactive" with tape, etc.
—	Refrigerators and cabinets used to store RAM must be lockable, and labeled "Radioactive".
—	Safety must perform an initial, thorough wipe test of the lab to document the baseline.
—	Post the proper notices in the laboratory, available from Safety. This includes: 10 CFR, parts 19 and 20; the "Notice to Employees"; a copy of the current Radiation License, and a 3x5 card stating that the NRC 3 full text is available in Safety.

x Gerald K Watts

x _____


7
6
5
4
Wipe Test Map for C-159
2
3

Protocol #: 7 Name:DIRECT DPM 11-Dec-2000 12:08
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
ıe = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

Decommissioning for Lab C-159
gkw

S#	TIME	DPM1	tSIE	FLAG
1	2.00	14.95	285.	- Background
2	2.00	14.86	294.	-
3	2.00	19.16	327.	
4	2.00	19.66	311.	
5	2.00	23.77	305.	
6	2.00	11.61	303.	
7	2.00	21.11	298.	
8	2.00	23.14	299.	

Protocol #: 7 Name:DIRECT DPM 08-Dec-2000 14:47
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

(Temporary) Commissioning wipe test for Lab C-159

S#	TIME	DPM1	tSIE	FLAG
1	2.00	18.41	294.	- Background
2	2.00	11.82	300.	
3	2.00	21.44	338.	
4	2.00	17.43	321.	
5	2.00	21.73	314.	
6	2.00	18.50	315.	
7	2.00	21.03	306.	
8	2.00	24.42	307.	

Coffin, Tim

From: Coffin, Tim
nt: Friday, January 23, 2004 6:56 AM
To: Savidge, Ron D; George, Bill; DiOrio, Carmen M
Cc: Irwin, David H; Petlick, Scott
Subject: Decommissioning of Lab C223 from Temporary Radioactive Material Use

FOR YOUR INFORMATION/ACTION:

As of today, January 23, 2004, Lab C223 has been decommissioned from the use of Radioactive Material (14C) use.

The following actions were completed.

1. Decommissioning wipes completed and all samples below 100 dpm action level.
2. All radioactive material and waste removed from the lab.
3. All radioactive labels and signs removed from benches, equipment, and lab doors.
4. All radioactive waste containers removed from lab.
5. Lab removed from list of radioactive labs.
6. Wipe Test Book removed from lab and wipe tests records placed in official AZ Radioactive Files.
7. Weekly wipe tests will be discontinued.
8. Decommissioning Form completed and filed in Radioactive Office Files.

If you have any questions, please give me a call.

Tim Coffin
Radiation Safety Specialist
OW1-235, 6-2682

C223

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: C223 Lab Supervisor: Ron Savidge

Responsible Investigator for the Lab: Ron Savidge

RAM Users in This Lab: Bill George, Carmen DiOrio

Date: 1/23/04

Date Completed	Questionnaire
1/22/04	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
T Coffin	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
1/22/04	Contact Safety to perform final wipe test of the lab and equipment.
T Coffin	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
1/23/04	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
1/22/04	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Timothy Coffin — Signature of Safety Professional

Date 1/23/04

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
NA	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	NA
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	(Yes) or No	(If "No" go to the next section.)
Date lab was decommissioned? 1/23/04		
What isotopes were used? C14		
Have all surfaces/areas been decontaminated?	(Yes) or No	
Have all isotopes been transferred or disposed of?	(Yes) or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?	Yes or No	
Have solvents been transferred/disposed of/ reassigned?	Yes or No	
Particularly ether and THF?	Yes or No	
Have all stills been quenched/transferred/ reassigned?	Yes or No	
Have all intermediates/research samples been:	Yes or No	
• Entered into the M collection?	Yes or No	NA
• Assigned to others on the project and labeled as such?		
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:	Bill George Ron Savidge	1/23/04	Facilities:		/ /
Safety:	Sam Coffin	1/23/04	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

Decommission Wipes C223

Protocol #: 2 Name:DIRECT DPM 22-Jan-2004 11:53
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 1.4200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	20.23	674.	
2	2.00	17.06	583.	
3	2.00	12.07	656.	
4	2.00	20.44	673.	
5	2.00	16.09	650	
6	2.00	10.47	563.	
7	2.00	9.23	614.	
8	2.00	18.45	506.	
9	2.00	15.44	625.	
10	2.00	12.93	666.	
11	2.00	21.42	650.	
12	2.00	16.03	647.	
13	2.00	16.68	662.	
14	2.00	12.36	652.	
15	2.00	19.30	569.	

Jim Coffin

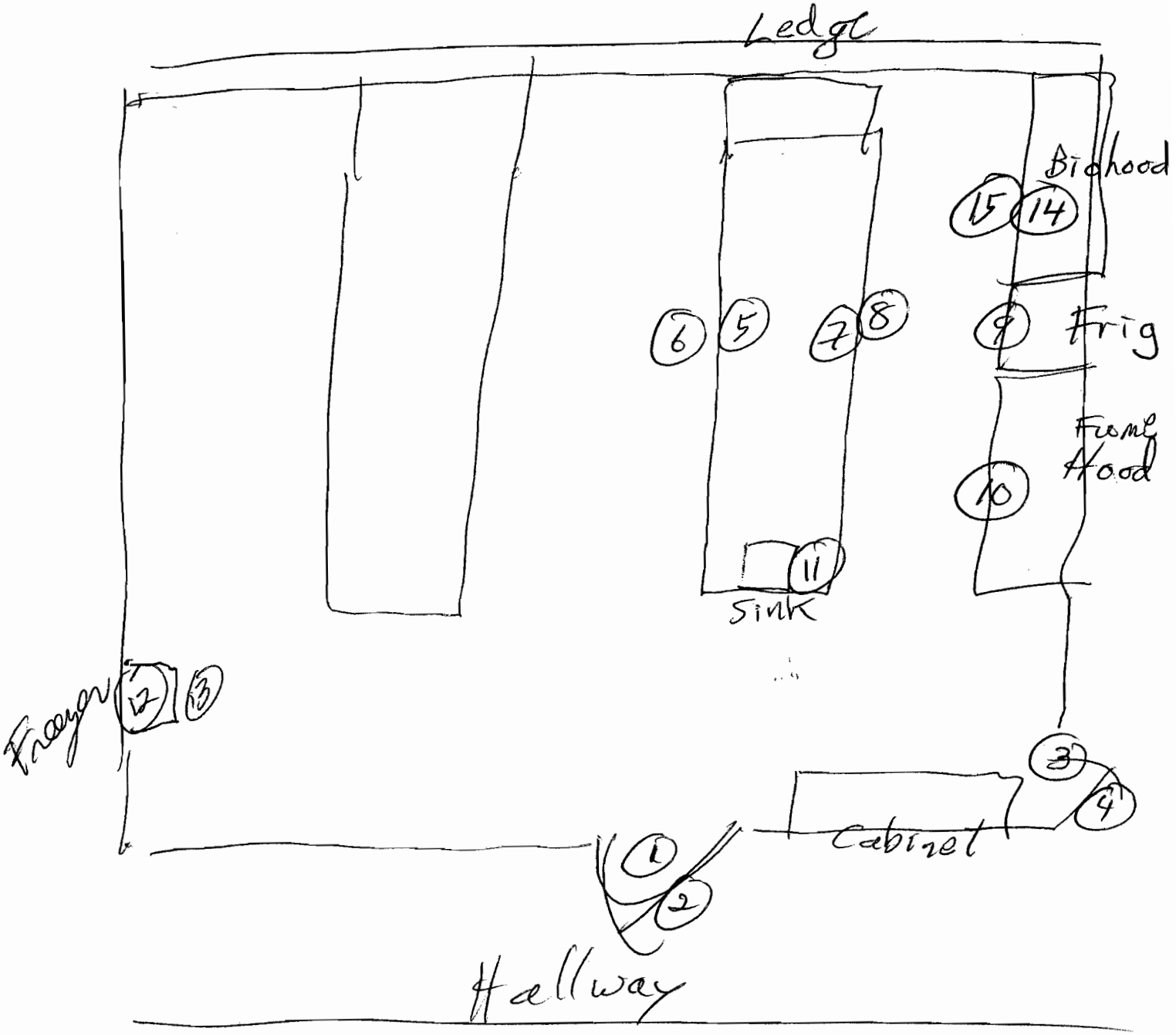
Lab Wipe Test
ABC
= 15.4 dpm

Ludlum 3 Meter Readings
~~44-9 Probe~~
All at Background: 20-60 cpms

10/24/02

De Comission Wipes

C223



Coffin, Tim

From: Coffin, Tim
nt: Wednesday, August 16, 2006 2:19 PM
To: Perry, Dawn (RD); Savidge, Ron D; Petlick, Scott; Bristow, Brian K
Cc: Azumaya, Connie T; Morris, Frank X; Matthews, Cory M; Terczak, Cathleen G
Subject: Decommissioning of Lab [redacted] and C231 from use of Radioactive Material (3H)

FOR YOUR INFORMATION/ACTION:

As of today, August 16, 2006, the labs [redacted] and C231 were decommissioned from the use of Radioactive Material (3H).

ACTIONS TAKEN:

1. Wipe tests of areas were completed will all wipes at background; or below the AstraZeneca action level of 100 dpms.

2. Meter monitoring showed all areas at background or below.

3. All radioactive material and waste was removed from the labs.

4. Copies of the wipe test records were placed in the Lab Wipe Test Book and the official Radiation Safety Files. The Wipe Test Books were removed from the lab and placed in the Radiation Safety Program cabinet.

5. All radioactive tape and labels were removed from the equipment and benches in the labs.

6. Radioactive Program Postings were removed from the labs.

7. Labs were removed from the Radiation Safety Data Base.

8. Decommissioning paperwork was completed and placed in the respective wipe test book and official radiation safety files.

9. This E-mail serves as the notice to the RSO that the labs were decommissioned.

ACTIONS NEEDED BY FACILITY PERSONNEL:

1. Facility personnel modify the hazard door signs to reflect that labs C225 and C231 are no longer designated for use of Radioactive Material.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

C225
Decommission
Rad Use

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: C225 Lab Supervisor: Kathy Terczak

Responsible Investigator for the Lab: Ron Savidge

RAM Users in This Lab: Dawn Perry, Frank Morris

3H Use

Date: 8/14/06

Date Completed	Questionnaire
8/14/06	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
8/14/06	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
8/14/06	Contact Safety to perform final wipe test of the lab and equipment. T Coffin
8/15/06	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas. RSO 3H Samples (Temporary)
8/16/06	Write a letter to ~~Dan Irwin~~ in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
8/16/06	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Timothy Coffin 8/14/06

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

☒ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

☒ NA ☐ Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	NA
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	NA (If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	(Yes) or No	(If "No" go to the next section.)
Date lab was decommissioned?		8/14/06
What isotopes were used?		3H
Have all surfaces/areas been decontaminated?	(Yes) or No	
Have all isotopes been transferred or disposed of?	(Yes) or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	NA
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?	Yes or No	
Have solvents been transferred/disposed of/ reassigned?	Yes or No	
Particularly ether and THF?	Yes or No	
Have all stills been quenched/transferred/ reassigned?	Yes or No	
Have all intermediates/research samples been:	Yes or No	
• Entered into the M collection?	Yes or No	NA
• Assigned to others on the project and labeled as such?		
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, will result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:		/ /	Facilities:		/ /
Safety:	[signature]	8/14/06	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

C225 8/14/06
Decommission
Wipes

Protocol #:15 Name:Wipe Test 14-Aug-2006 10:53
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.40	5.00	3.70			642.	B
2	1.00	2.60	0.00	1.30	6.10	0.00	580.	
3	1.00	5.60	2.00	0.30	11.68	2.62	601.	
4	1.00	0.00	0.00	0.30	0.00	0.00	566.	
5	1.00	0.00	0.00	0.00	0.00	0.00	602.	
6	1.00	0.00	0.00	0.00	0.00	0.00	614.	
7	1.00	0.40	0.00	2.30	0.94	0.00	579.	
8	1.00	7.60	0.00	0.00	18.09	0.00	566.	
9	1.00	0.00	1.00	0.00	0.00	1.36	551.	

3H use only in lab

C225 Decommission Wipes

8/14/06 Koffman

1. Control
2. Door, Light Switch, Floor
3. Mass Spec Exterior (Right)
4. " " " (Center)
5. " " Table (left)
6. Chairs
7. Floor – Right
8. " Left
9. " Rear

Meter Readings: Ludlum 3, Ser# 211688, Cal 12/11/05
Probe 44-9, PR 223872

Background: 20-60 cpms

Readings: Background or below

Decommission

C225
Mass Spec

Protocol #:23 Name:Wipe Test 14-Aug-2006 12:28
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA23.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG	
1	10.00	4.38	4.12	3.80			640.	B	
2	1.00	0.00	2.88	0.00	0.00	3.87	680.		
3	1.00	4.62	1.88	0.20	9.10	2.48	654.		
4	1.00	336.28	55.22	0.00	727.09	70.15	622.		— Chamber
5	1.00	2.62	1.88	0.00	4.79	2.50	627.		
6	1.00	28.62	0.88	0.20	64.96	0.82	606.		— chamber Exhaust hole
7	1.00	0.00	0.00	3.20	0.00	0.00	610.		
8	1.00	0.00	0.88	1.20	0.00	1.19	602.		
9	1.00	9.62	3.88	0.20	18.64	5.10	678.		

8/14/06

Mass Spec Internal

C225 parts & lines

Decommission

(1) Control
(2) Exhaust outlet
(3) Exhaust hose
(4) Chamber
(5) Back Plate
(6) Exit Port
(7) Spray wash hose
" " fitting
(8)
(9) Drawer surface

C231 (In Fume Hood)

(1) Control
(2) Glass Bottle Outside
(3) " " Inside
(4) Plastic Trays Outside
(5) " " Inside

C225 Mass Spec

T Coffin

Protocol #:15 Name:Wipe Test 15-Aug-2006 12:34
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	6.13	4.17	3.20			667.	B
2	1.00	0.00	0.00	0.00	0.00	0.00	616.	
3	1.00	0.00	0.00	5.80	0.00	0.00	632.	
4	1.00	1.87	0.00	0.00	4.21	0.00	630.	
5	1.00	3.87	0.00	0.00	8.25	0.00	703.	
6	1.00	8.87	0.83	0.00	19.78	1.00	609.	

Follow up Wipes

C225 [redacted] 8/15/06

Mass Spec

Follow-up Wipes

1. Background
2. Front Surface
3. Heater Net
4. Back surface
5. Bulb Plate
6. Outlet Hole

Calibration for Ludlum Model 2221 Gas Proportional Floor Meter

Equipment:	Ludlum Model 2221 Scaler/Ratemeter, s/n 147378		
Conditions:	Window set on "Out" ☒		
	Response set to "Fast" ☒		
	Digital Indicator set to "Rate" ☒		
Calibration Date:	Jun 10, 2006		
Probe Calibrated:	Floor probe, s/n PR 178829		
	430	cm^2	
Probe Area:	^{14}C		
Calibration Source:	0.028		
Cal. Source Activity (uCi):	8/10/2004		
Cal. Source Date:	61800		
Cal. Source Activity (dpm) :	Argon with 10% Methane		
Counting Gas:	Prior to calibration, allow the probe to purge for one hour with the gas flow adjusted to 100 cc/min. Operate probe at 50-60 cc/min. Confirm that all chambers of the probe are similarly responsive when a calibration source is put in close proximity to the chamber of interest.		
Instructions:			
	Battery reading	60	
Instrument Settings:	HV reading	1699	
	THR reading	100	
	WIN reading	4046	
Instructions:	Place the calibration source in position. Roll the detector over the calibration source. Set counter in scaler mode, set "TIME" to "x1", obtain a one minute count. Repeat for until data has been obtained for three source positions over the entire probe area.		

Calibration Data:	Background (B)	Cal. Source (S)
1	357	4154
2	389	4084
3	351	4281
Mean	366	4173
Calculated Counting Eff:		% 6.2

4173
-366
3807

61800 ⟌ 3807
.0616
× 100
= 6.2 %

Instructions:	If calculating survey limits by hand, use 1 dpm/cm^2 for removable and 5 dpm/cm^2 for fixed contamination limits. Enter into equation: Survey Limit = [(Contamination Limit)(Probe Area)(Abs. Eff.)] + Background		
Fixed Survey Limit			
Removable Survey Limit			
Calibrated by:			
	Signature	Jim Cathcart	Date 8/16/06

Coffin, Tim

From: Coffin, Tim
t: Tuesday, October 24, 2006 11:14 AM
... Petlick, Scott; Savidge, Ron D; Perry, Dawn (RD); Terczak, Cathleen G; Bristow, Brian K
Cc: Matthews, Cory M
Subject: Decommissioning of [redacted]b C231 from Storage of Radioactive Material (3H) Samples

FOR YOUR INFORMATION/ACTION:

As of today, Tuesday, October 24, 2006, Lab [redacted]231 has been decommissioned from the storage of Radioactive material.

ACTIONS COMPLETED:

1. Decommissioning wipe tests completed and all wipes below the AZ Action Level of 100 dpms.

2. Decommissioning From completed and placed in Lab Wipe Test Book and in official Radiation Safety Decommissioning Files.

3. Lab removed from data bases and monthly wipe test schedule.

4. All radioactive tape and labels have been removed from the lab.

5. Radioactive postings removed and Wipe Test Book placed in official Radiation Safety Storage.

6. All radioactive material transferred to Lab L244. No waste cans to remove.

This E-mail serves as the official notification to the Radiation Safety Officer that the lab is now decommissioned from radioactive material use.

ACTIONS TO BE COMPLETED:

1. Brian Bristow, please remove all Radioactive Hazard Door Signs from all the Lab C231 Entrance Doors.

Please let me know if you have any questions.

Timothy J. Coffin
Radiation Safety Specialist
OW1-227, 6-2682

B231

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation); complete the appropriate sections below. To schedule a decommissioning and/or lab vacation – please contact - Scott Petlick (x61083), Bliss Schlank (x62185), or Marc Terpko (x62671).

Section A: Radioactive Laboratory Decommissioning
Section B: Biosafety Laboratory Decommissioning
Section C: Laboratory Vacating Form (Only completed when moving out of the laboratory or transferring ownership)

☐ ***NA***

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: B231 Lab Supervisor: Ron Savidge, Dawn Perry

Responsible Investigator for the Lab: Ron Savidge

RAM Users in This Lab: Dawn Perry, Cathy Terezak

Date: 10/24/06

Date Completed	Questionnaire
10/23/06	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
10/23/06	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
10/24/06	Contact Safety to perform final wipe test of the lab and equipment.
T Coffin	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas. 3H Temporary Storage
10/24/06	Write a letter to S. Petlick in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
T Coffin	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Timothy Coffin — Signature of Safety Professional

10/24/06 — Date

NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment-using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Note BSC must be decontaminated before moving by contacting Ed Ryan*
	Update the permits status (new, revised, retired, renew) and remove permit posting found by the fire extinguisher.
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Section C: Procedure for Vacating a Laboratory

Section A and/or B must be completed prior to completing Section C. Please provide the following information and call to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Department:

Chemical Hazards:		
Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	☐ Yes ☐ No ☐ NA	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	☐ Yes ☐ No ☐ NA	
Has the decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	☒ Yes ☐ No ☐ NA	(If "No" go to the next section.)
Date lab was decommissioned?		10/24/06
What isotopes were used? 3H		
Have all surfaces/areas been decontaminated?	☒ Yes ☐ No ☐ NA	

Have all isotopes been transferred or disposed of?	☐ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	
Have arrangements been made to return furniture?	☐ Yes ☐ No ☐ NA	
Have all cabinets/closets/drawers been emptied?	☐ Yes ☐ No ☐ NA	
Has Housekeeping (x-4121) been notified to clean?	☐ Yes ☐ No ☐ NA	
Have all building alarm systems (BAS) been disconnected?	☐ Yes ☐ No ☐ NA	
Fume Hood(s)/Bench Areas:		
Is bench free of samples, glassware, etc.?	☐ Yes ☐ No ☐ NA	
Have solvents been transferred/disposed of/ reassigned?	☐ Yes ☐ No ☐ NA	
Ether and THF?	☐ Yes ☐ No ☐ NA	
Have all stills been quenched/transferred/ reassigned?	☐ Yes ☐ No ☐ NA	
Have all intermediates/research samples been:	☐ Yes ☐ No ☐ NA	
• Entered into the M collection?	☐ Yes ☐ No ☐ NA	
• Assigned to others on the project and labeled as such?	☐ Yes ☐ No ☐ NA	
• Disposed of if no notebook number on label?	☐ Yes ☐ No ☐ NA	
• Is the wall cabinet free of research samples?	☐ Yes ☐ No ☐ NA	
• Are the center bench drawers free of research samples?	☐ Yes ☐ No ☐ NA	
Has all the waste been property removed?		
• Waste silica?	☐ Yes ☐ No ☐ NA	
• Broken or glass thermometers?	☐ Yes ☐ No ☐ NA	
• Sharps containers?	☐ Yes ☐ No ☐ NA	
• Spent catalysts?	☐ Yes ☐ No ☐ NA	
• Drying agents?	☐ Yes ☐ No ☐ NA	
• Lecture bottles?	☐ Yes ☐ No ☐ NA	
• Used vacuum pump oil?	☐ Yes ☐ No ☐ NA	
• Metals (i.e. sodium, potassium, lithium, etc.)	☐ Yes ☐ No ☐ NA	
• Containers of used pipets/pipet tips?	☐ Yes ☐ No ☐ NA	
• Oil baths?	☐ Yes ☐ No ☐ NA	
Has all other waste been properly disposed of?	☐ Yes ☐ No ☐ NA	
Pass Inspection?	☐ Yes ☐ No ☐ NA	
Form has been given to R&D Engineering?	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, will result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant: Cathy Terczak	
Safety: Tim Coffin	
Dept. Manager:	
R&D Engineering:	
Technical Services Supervisor:	

Decommission C231
Wipes

Protocol #:15 Name:Wipe Test 24-Oct-2006 08:33
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

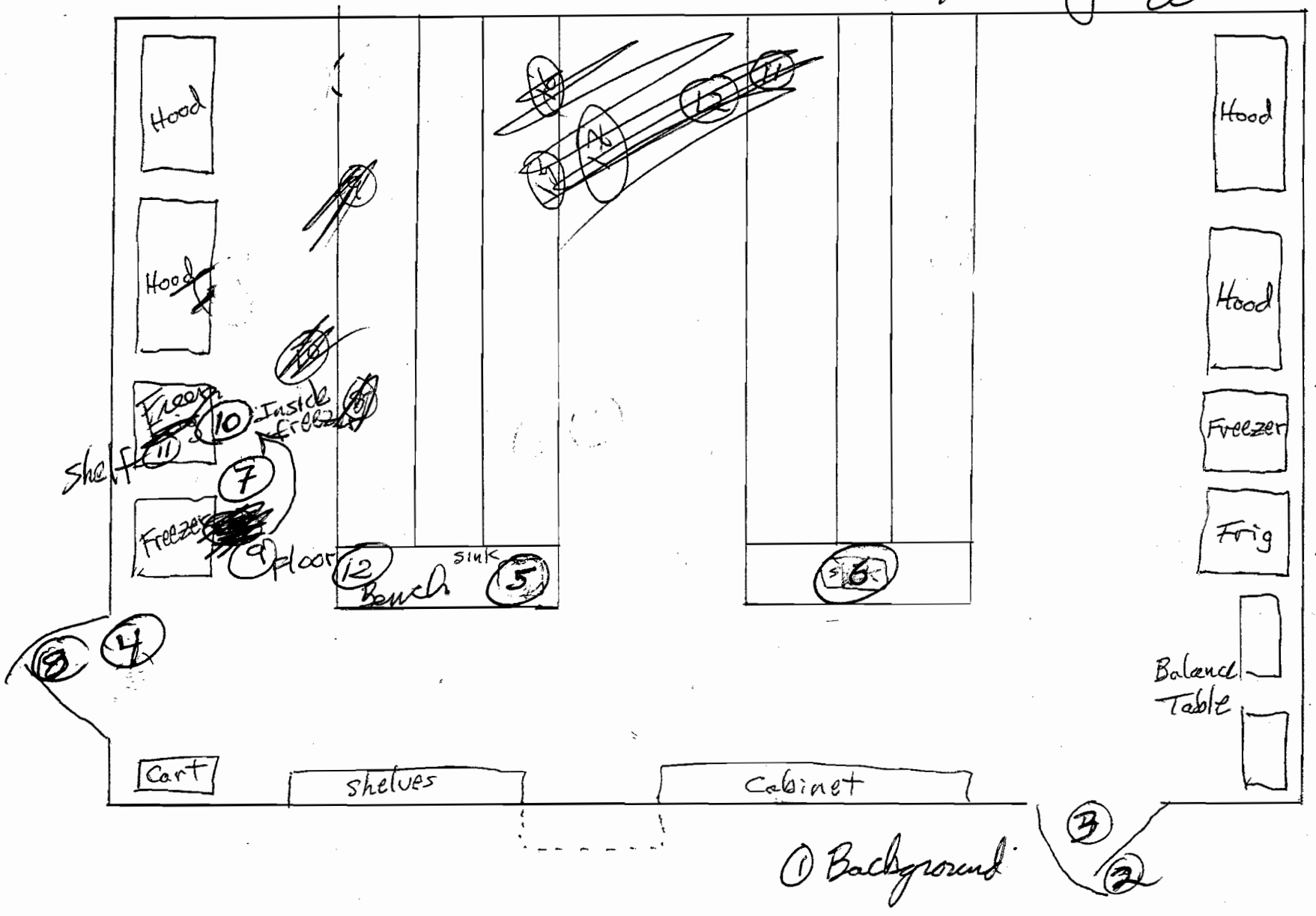
S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	7.99	4.71	3.70			612.	B
2	1.00	0.12	0.00	0.00	0.28	0.00	589.	
3	1.00	2.20	3.10	1.30	3.39	4.17	558.	
4	1.00	0.00	0.29	0.30	0.00	0.39	551.	
5	1.00	0.01	0.29	0.00	0.00	0.39	495.	
6	1.00	4.01	2.29	0.30	8.68	3.06	518.	
7	1.00	3.01	3.29	0.30	5.11	4.41	584.	
8	1.00	0.01	1.29	0.00	0.00	1.74	590.	
9	1.00	2.01	1.29	0.00	4.01	1.72	573.	
10	1.00	11.01	0.29	0.00	25.91	0.24	581.	
11	1.00	1.01	0.00	2.30	2.37	0.00	595.	
12	1.00	4.01	1.29	1.30	8.62	1.69	593.	

Ludlum 3 Meter Readings
all at Background: 20 – 60 cpms

10/24/06 Decommission Wipes

~~Commission~~ wipes

8/29/06



C231 Wipe Map

Coffin, Tim

From: Coffin, Tim
nt: Friday, January 09, 2004 6:12 AM
. Zalikowski, Julie A; Tini, Leonard P; Morris, Frank X; Terczak, Cathleen G; Irwin, David H; Petlick, Scott
Subject: Radioactive Lab Decommissioning [redacted]

FOR YOUR INFORMATION/ACTION:

As of today, January 9, 2004, Lab C-238 has been decommissioned from use of Radioactive Material (processing samples on Mass Spec).

The following actions were completed.

1. All wipe tests were completed on the room and contents to below the AZ action level of 100 dpms.

2. No radioactive material or was was stored in the room so there was none to remove.

3. All radioactive hazard signs were removed from the entrance doors.

4. Radioactive labels were removed from the equipment that was used for the sample processing.

5. The Decommissioning paperwork was completed and placed in the appropriate Radioactive Safety Files.

6. The C-328 Lab was removed from the list of Radioactive Labs and weekly wipe tests will be discontinued.

7. The Wipe Test book was removed and placed in Radiation Safety Lab Files.

If you have any questions, please give me a call.

Tim Coffin
Radiation Safety Specialist
OW1-235, 6-2682

C238
Mass Spec
Use

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: C238 Lab Supervisor: Patty Davis, Julie Zalikowski

Responsible Investigator for the Lab: Patty Davis

RAM Users in This Lab: Frank Morris, Leonard Tini

Date: 1/9/04

Date Completed	Questionnaire
1/8/04	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
1/8/04	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
1/8/04	Contact Safety to perform final wipe test of the lab and equipment.
1/8/04	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
1/9/04	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
1/8/04	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Timothy Kaffen 1/8/04

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

NA Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date: 1/9/04	Name:	Lab #:	Building:
Department: DMPK	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	(Yes) or No	(If "No" go to the next section.)
Date lab was decommissioned? 1/9/04		Kobori
What isotopes were used? C14, H3		
Have all surfaces/areas been decontaminated?	(Yes) or No	
Have all isotopes been transferred or disposed of?	(Yes) or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?		Yes or No
Have solvents been transferred/disposed of/ reassigned?		Yes or No
Particularly ether and THF?		Yes or No
Have all stills been quenched/transferred/ reassigned?		Yes or No
Have all intermediates/research samples been:		Yes or No
• Entered into the M collection?	Yes or No	
• Assigned to others on the project and labeled as such?		
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:	Leonard Fu	/ /	Facilities:		/ /
Safety:	Timothy Koffman	1/9/04	Dept. Manager:	PC Davis	1/9/04

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

C238

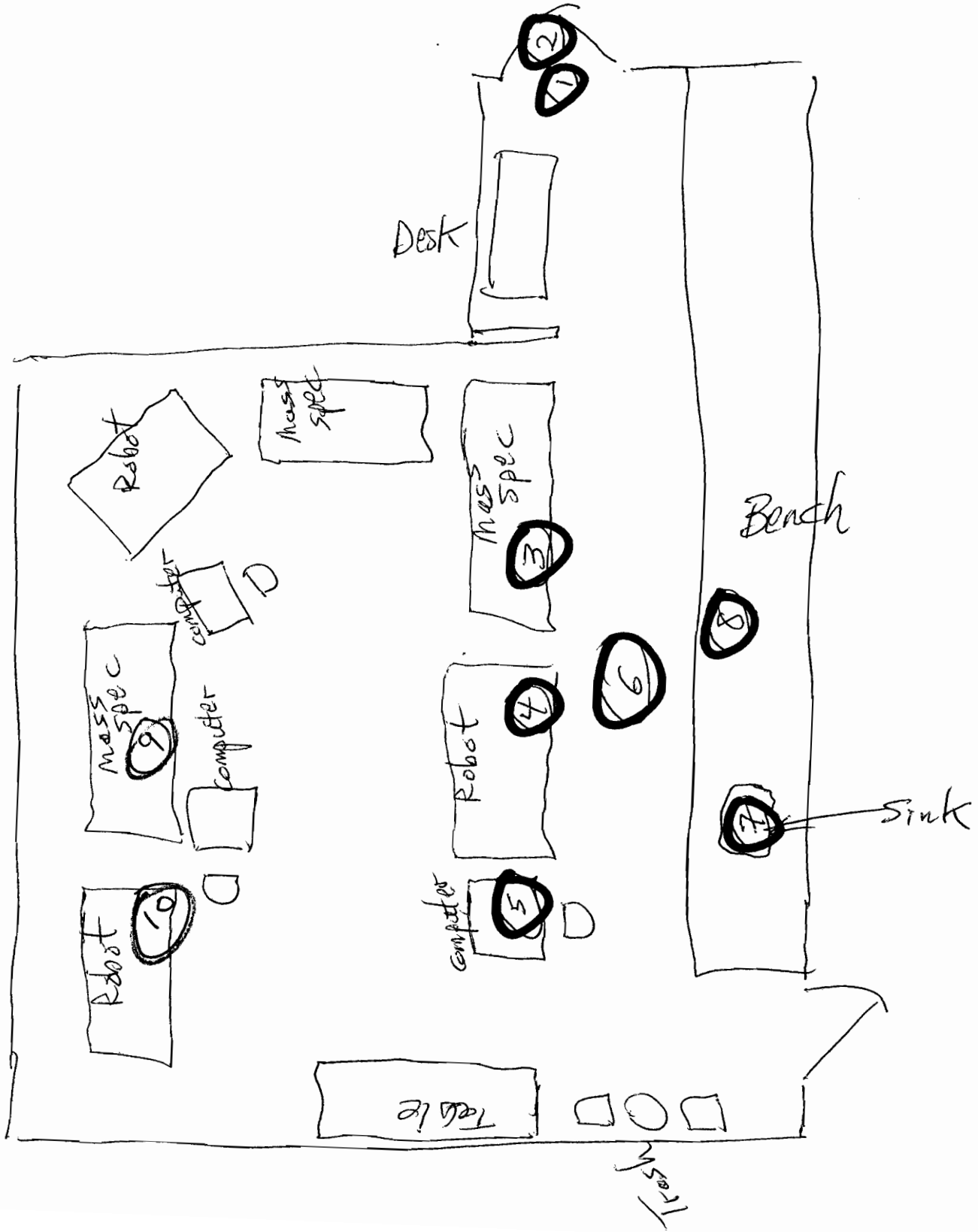
Protocol #:15 Name:DIRECT DPM 08-Jan-2004 13:50
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	13.23	637.	
2	2.00	11.96	646.	
3	2.00	18.02	638.	
4	2.00	18.40	636.	
5	2.00	17.01	695.	
6	2.00	17.40	603.	
7	2.00	13.76	601.	
8	2.00	22.11	603.	
9	2.00	20.97	636.	
10	2.00	17.09	563.	

Decommission
Wipes

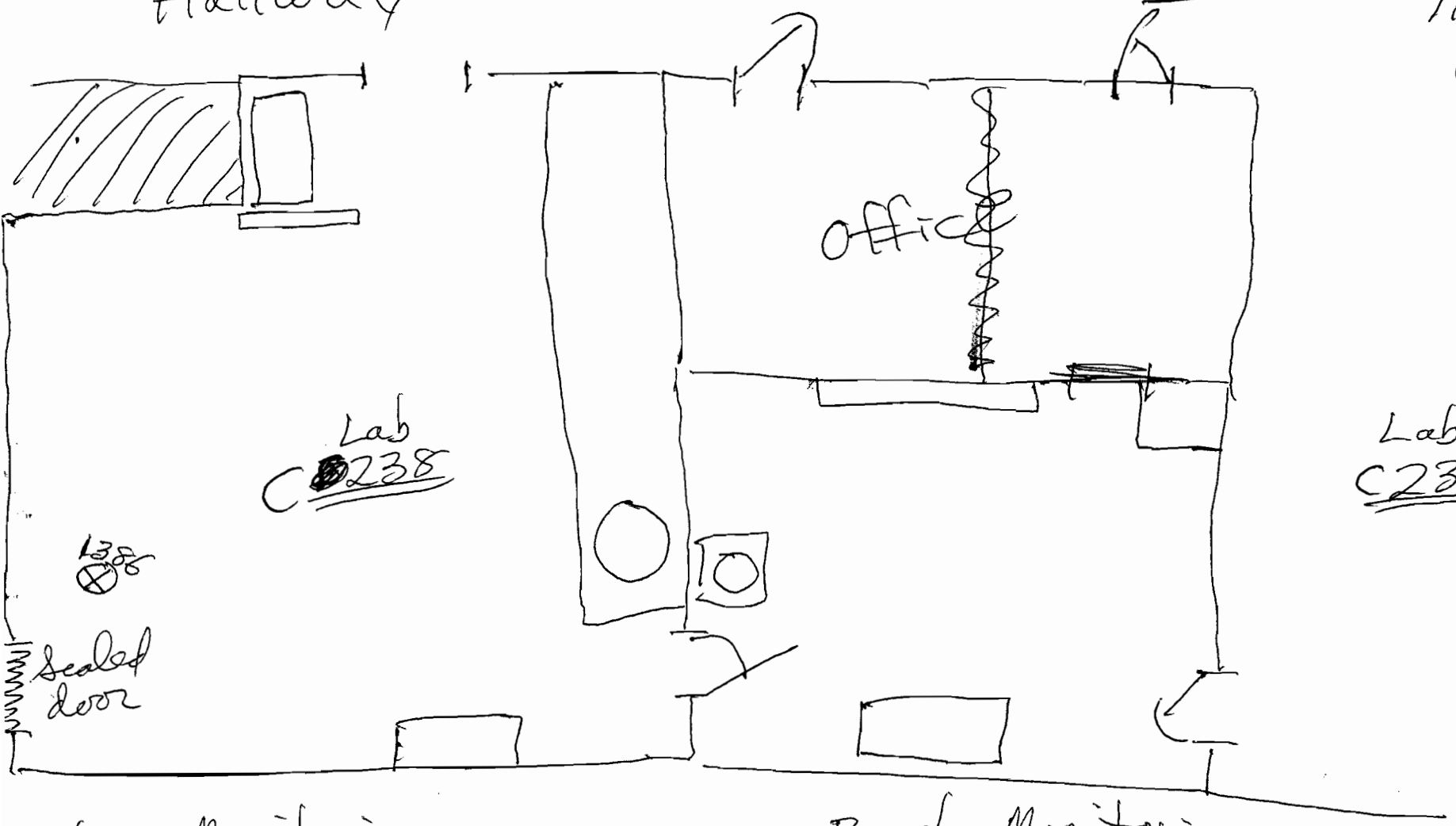
Jim Coffin

Lab C238
Wipe Map



Decommission C238

7/13/05
Tim
Coffin



Floor Monitoring

udlum Model 2221, Se# 206842

Background: 400-600 counts

on reading: 1386

(A) Cleaned to: 863

Bench Monitoring

Ludlum 3, ser 99436 Probe 44-3

Background: 0.3

Readings: 0.4

Ludlum 3, ser 211698 Probe 44-9

Background: 0.03

Readings: 0.03

Calibration for Ludlum Model 2221 Gas Proportional Floor Meter

Equipment:	Ludlum Model 2221 Scaler/Ratemeter, s/n 147378		
Conditions:	Window set on "Out" ☑		
	Response set to "Fast" ☑		
	Digital Indicator set to "Rate" ☑		
Calibration Date:	07/13/05		
Probe Calibrated:	Floor probe, s/n PR 178829		
	430	cm^2	
Probe Area:	^{14}C		
Calibration Source:	0.028		
Cal. Source Activity (uCi):	8/10/2004		
Cal. Source Date:	61800		
Cal. Source Activity (dpm) :	Argon with 10% Methane		
Counting Gas:	Prior to calibration, allow the probe to purge for one hour with the gas flow adjusted to 100 cc/min. Operate probe at 50-60 cc/min. Confirm that all chambers of the probe are similarly responsive when a calibration source is put in close proximity to the chamber of interest.		
Instructions:			
Instrument Settings:	Battery reading	6.1	
	HV reading	1709	
	THR reading	101	
	WIN reading	4050	
Instructions:	Place the calibration source in position. Roll the detector over the calibration source. Set counter in scaler mode, set "TIME" to "x1", obtain a one minute count. Repeat for until data has been obtained for three source positions over the entire probe area.		

Calibration Data:	Background (B)	Cal. Source (S)	
1	407	4766	4655 - 435 = 4220
2	474	4606	$\frac{4220}{61800} \cdot 100 = 6.8\%$
3	425	4593	
Mean	435	4655	
Calculated Counting Eff:	6.8	%	

Instructions:	If calculating survey limits by hand, use 1 dpm/cm^2 for removable and 5 dpm/cm^2 for fixed contamination limits. Enter into equation: Survey Limit = [(Contamination Limit)(Probe Area)(Abs. Eff.)] + Background		
Fixed Survey Limit			
Removable Survey Limit			
Calibrated by:	Matt Cliff		7/13/05
	Signature		Date

COUNTING

1470, 5 detectors, RiaCalc WIZ, program 3.6, serial #4702200

ASSAY 13-Jul-2005 10:34:44

Protocol id	1 I-125
Time limit	180
Count limit	99999999
Isotope	I-125
Protocol date	06-Jan-2005 08:11:33
Run id.	64

POS	RACK	DET	BATCH	TIME	COUNTS	CPM	ERROR %
1	1	1	1	180	54	2.1	133.32
2	1	2	1	180	64	2.5	118.82
3	1	3	1	180	50	2.3	114.89
4	1	4	1	180	54	0.8	349.27
5	1	5	1	180	65	4.8	62.46

END OF ASSAY

END OF COUNTING

Coffin, Tim

From: Tini, Leonard P
Sent: Thursday, June 09, 2005 3:11 PM
To: Coffin, Tim
Cc: Tarlo, Robert M
Subject: hood removal

Tim,
I wanted to make sure that all the paperwork was in line for a hood in CRDL-238. It was a rad lab some years ago and was decommishioned. We are moving the hood to another lab and I felt we should have your blessing. Please let me know as soon as possible because the contractors are waiting for an answer.
Thanks.
Len

AstraZeneca Pharmaceuticals
1800 Concord Pike
Wilmington DE. 19850
(302) 886-5193

AstraZeneca

SAFETY, HEALTH & ENVIRONMENT

RADIATION SAFETY OFFICE

To:	**Decommissioning File**		From:	**Scott Petlick**	
Company:	**AstraZeneca**	Located: **OW1**	Company:	**AstraZeneca**	Located: **OW1-225**
Subject:	**Decommissioning Survey**		Date:	**March 10, 2005**	

From 3/7/2005 to 3/9/2005 terminal surveys were performed in [redacted]. The purpose of this survey was to identify if any area requires decontamination prior to demolition and construction of the room. Action levels for contamination are defined in the AstraZeneca Radiation Safety Manual and materials license.

Meter and swipe test surveys were conducted. The areas surveyed included, but were not limited to floors, bench tops, hoods, doors, cabinets, and lab equipment.

Areas found to be above action levels, were decontaminated and resurveyed. All areas are now below acceptable limits.

Area Survey Instrument: Ludlum Model 3, s/n 146121
Ludlum Model 44-9 probe, s/n PR151749
Calibrated: 12/12/04

Wipe Survey Instrument: Packard Model Tri-Carb 2100TR, s/n 419674
Calibrated: Confirmation with known standards daily.

Floor Meter Survey Instruments: Ludlum Model 2221, s/n 147378
Ludlum Model 43-37, s/n PR 178829
Calibrated: 5/22/04 and with standard prior to use

C239

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: C239 Lab Supervisor: L. Tinn, K. Bui

Responsible Investigator for the Lab: _____

RAM Users in This Lab: Lab was decommissioned in 2000. Equipment marked with radiation tape was found. Additional surveys were conducted to confirm status of room. SP

Date: _____

Date Completed	Questionnaire
JCoffin 03/08/05	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. See attached notes "
03/08/05	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
JCoffin 03/08/05	Contact Safety to perform final wipe test of the lab and equipment.
03/08/05 Unknown	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas. 3H and 14C
NA	Write a letter to S. Petlick in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
NA	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

JCoffin 03/07/05 Monitoring done with Floor Monitor & Ludlum Pancake Probe.

Radiation Decommissioning has been completed:

Signature of Safety Professional 3/10/05 Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

☐ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
3/7/05	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
3/7/05	Remove all biohazard stickers from the equipment before moving.
3/7/05	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Note BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
3/7/05	Update the permits status (new, revised, retired, renew).
3/9/05	After approval by Safety, the biosafety signs can be removed and returned to Safety.
N/A	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

S. [illegible] 3/10/05

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

☑ NA ☐ Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benches, etc.)	Yes or No	
Is there the potential for residual chemicals in the ductwork, drain piping and traps that would be a hazard in the future?	Yes or No	
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	Yes or No	(If "No" go to the next section.)
Date lab was decommissioned? In 2000		Contaminated/Labeled Stirrer plate & Hood Surface found in lab C239 (Fixed Contamination)
What isotopes were used? 3H, 14C		
Have all surfaces/areas been decontaminated?	Yes or No	
Have all isotopes been transferred or disposed of?	Yes or No	
General Housekeeping:		
Has all normal trash been disposed of?	Yes	
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	NA
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?		Yes or No
Have solvents been transferred/disposed of/ reassigned?		Yes or No
Particularly ether and THF?		Yes or No
Have all stills been quenched/transferred/ reassigned?		Yes or No
Have all intermediates/research samples been:		Yes or No
• Entered into the M collection?		
• Assigned to others on the project and labeled as such?	Yes or No	
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, will result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:		3/10/05	Facilities:	Robert M. Fowler	3/10/05
Safety:		3/10/05	Dept. Manager:		3/10/05

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

Decommission C239

Jim Coffin

Reviewed by [illegible] 3/10/05

Lab Bench top
Hood Surface
~~Floor~~ Stirrer/Plate
Floor by Door
Top of Stirrer

—Ledge in office

Meter for Monitoring
Ludlum 3
Ser: 211688
44-9 Probe
PR 223872

Wipes of lab areas.

Clean all the areas above and rewipe.

Note: Dispose of Stirrer in Radioactive Trash. (Cut off cord).

Hood Surface
Background: .02 mR/h
2000cpm
Readings .06 – .58 mR/hr
29 times Background

See Map Attached

Lab Bench Spot
Meter Background .02 mR/h 50cpm
Readings 600cpm .06 – .22 mR/h
11 Times Background

Decommission Lab C239

Reviewed by [signature] 3/10/05

Floor by window

Floor where monitor found higher readings!

Sample #4: Even though below action level of 100 dpms, area was cleaned.

Tina Coffin

Note: All other areas on at background or below.

C239

Lab Decommission

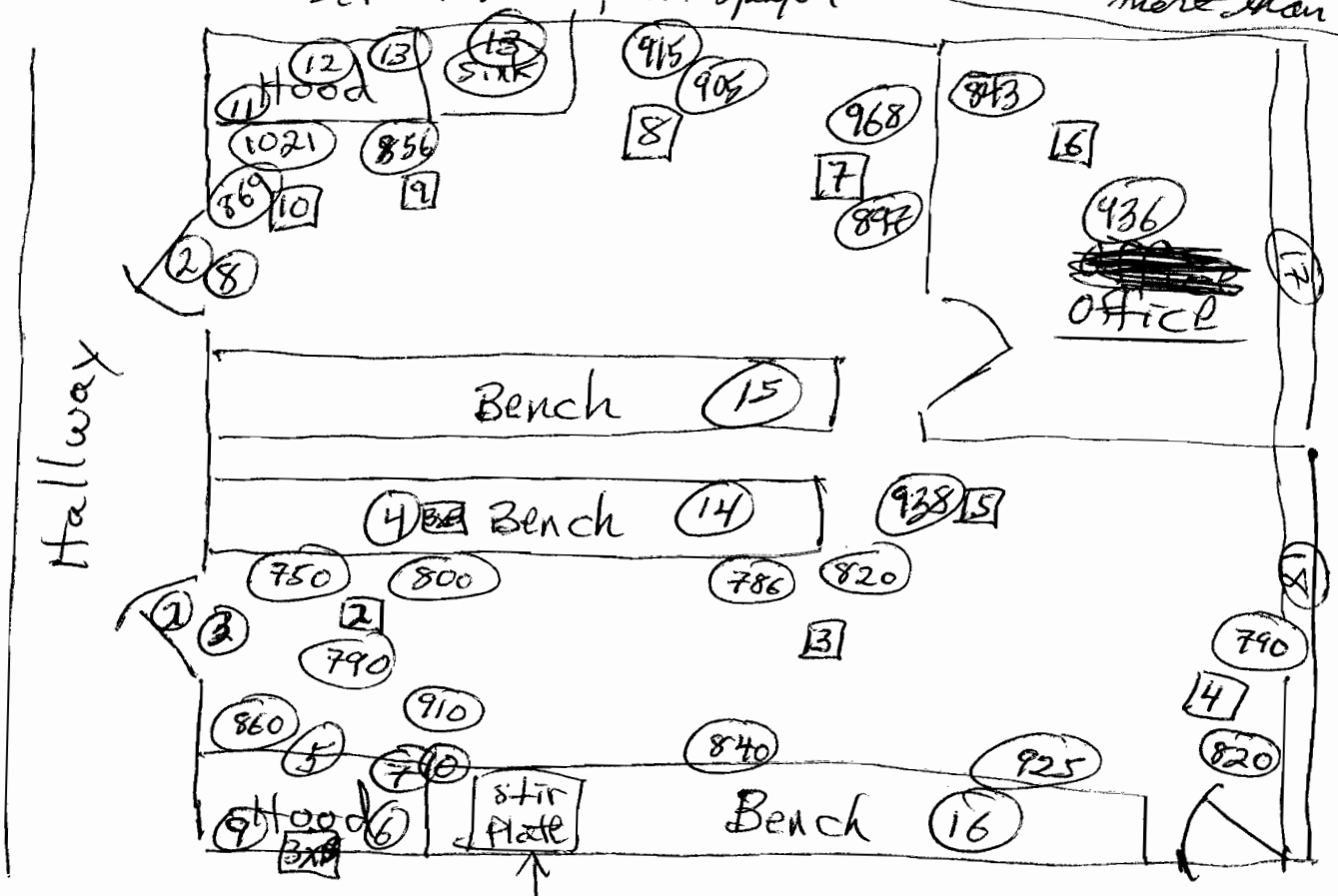
Monitoring & Wipes — Tim Coff

Meter: Ludlum Model 3
Ser: 211688
Probe: 44-9
Ser: PR 223872
Cal: 12/10/04
Floor Monitor: Ludlum Model 2221 Ser# 147378, Cal: 5/22/04

Background: 0.03 mR/hr

Readings: Most at Background <0.3 mR/hr

Note: Hood, Sleeve and one spot on Bench more than 3x Background



1. Background
2. Handle/Light
3. Floor by Door
4. Bench Area 3x3
5. Hood Handle & Sash
6. Hood Surface
7. Stir plate From cord, Hood
8. Floor Background
9. Sink in Hood
10. Top of Stirrer
11. Hood Sash
12. Hood Surface
13. Sink
14. Bench
15. Bench
16. Bench
17. Ledge
18. Ledge

Floor
1. Background
2. By Hood
3. Side of Bench
4. By window
5. End of Bench
6. Office
7. Outside Office
8. By Sink
9. By Hood
10. By Door

Rewipes C239

} chem Hood

- shelf in office
- Lab Bench
- Floor by Door

Surface Contamination is cleaned off.

Reviewed by [signature] 3/10/05

See Map Attached

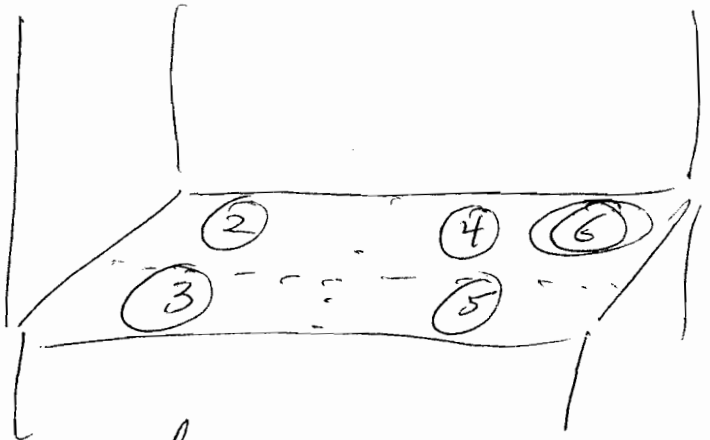
Rewipes

Lab C239

Hood

03/08/05

Jim Coffin



① Background

②

③

④

⑤

⑥

⑦ Shelf in office

⑧ Lab Bench

⑨ Floor By Door

Lab C239

- Lab Bench (right)
- Lab Bench (left)
- Hood (Left)
- Hood (center)
- Hood (right & Back)

Jim Coffin

Reviewed by

3/10/05

Calibration for Ludlum Model 2221 Gas Proportional Floor Meter

Equipment:	Ludlum Model 2221 Scaler/Ratemeter, s/n 147378		
Conditions:	Window set on "Out"	☒	
	Response set to "Fast"	☒	
	Digital Indicator set to "Rate"	☒	
Calibration Date:	5/22/04		
Probe Calibrated:	Floor probe, s/n PR 178829		
	430	cm^2	
Probe Area:	^{14}C		
Calibration Source:	0.028		
Cal. Source Activity (uCi):	8/10/2004		
Cal. Source Date:	61800		
Cal. Source Activity (dpm) :	Argon with 10% Methane		
Counting Gas:	Prior to calibration, allow the probe to purge for one hour with the gas flow adjusted to 100 cc/min. Operate probe at 50-60 cc/min. Confirm that all chambers of the probe are similarly responsive when a calibration source is put in close proximity to the chamber of interest.		
Instructions:			
	Battery reading	5.9	
Instrument Settings:	HV reading	1727	
	THR reading	102	
	WIN reading	4092	
Instructions:	Place the calibration source in position. Roll the detector over the calibration source. Set counter in scaler mode, set "TIME" to "x1", obtain a one minute count. Repeat for until data has been obtained for three source positions over the entire probe area.		

Calibration Data:	Background (B)	Cal. Source (S)
1	437	4891
2	468	4729
3	445	4894
Mean	450	4838
Calculated Counting Eff:		% 7.1

4838
-450
4388

61800) 4388
= .071
x100
= 7.1

Instructions:	If calculating survey limits by hand, use 1 dpm/cm^2 for removable and 5 dpm/cm^2 for fixed contamination limits. Enter into equation: Survey Limit = [(Contamination Limit)(Probe Area)(Abs. Eff.)] + Background	
Fixed Survey Limit	603	
Removable Survey Limit	481	
Calibrated by:		
Signature	Jim Coffin	Date 5/07/05

Reviewed by
3/10/05

RECORDS NOT LOCATED

LAB # [redacted]

INACTIVE DATE: 2000

Lab gone. Made part of Lab C239.

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Coffin, Tim

From: Coffin, Tim
Sent: Sunday, August 15, 2010 9:32 AM
To: Trivedi, Shephali; Elmore, Chad S; Terpko, Marc O; Bristow, Brian K; Schlank, Bliss M; Civitella, Patricia C
Subject: Radioactive Lab Decommission [redacted]C250)

FOR YOUR INFORMATION/ACTION:

As of Friday, August 13, 2010, Lab C250 has been decommissioned as a Radioactive Material use lab.

ACTION TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from lab.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. Performed GM meter checks and all readings were at background or less than the AZ Action Level of 3 times background.
4. All required radioactive program postings, radioactive labels, and signs were removed from equipment, benches, etc.
5. Lab C250 has been removed from the Radioactive Lab Data Bases.
6. Decommission Forms were placed on the equipment and Top Count (still to be removed from lab). Copies placed in lab wipe test book and official radiation safety files.
7. Decommission Check-off Sheet started and radiation section completed. Original copy provided to Marc Terpko and copy placed in radiation files.
8. This E-mail serves as the official notice to the RSO that the lab has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. **Brian Bristow:** Remove the lab from your Radioactive Lab Data Base and please check that all radioactive hazard signs are removed from the lab entry doors.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
Ow1-227, 6-2682

[ ] BIO [X] RAD [ ] CHEM

LAB #: C250

DATE: 8/13/10

LAB SUPERVISOR Shephali Trivedi DEPT: High Throughput Screening (HTS)

Decommissioning Procedure (Version 2010)

Refer to SHEP-104 Commissioning and Decommissioning Laboratories for more information. This Wilmington SH&E SOP can be found on the portal. Click here to access the SOP.

Section A: Radioactive Laboratory Decommissioning Checklist

Responsible Investigator for the Lab: Shephali Trivedi

Completed	Questionnaire
[X] Yes ☐ No	Contact Safety (x62682) to remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. DO NOT REMOVE TAPE!
[X] Yes ☐ No	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas. ~~EXCEPT FUME HOODS.~~ Decommissioning of fume hoods will be done by outside vendor. Done 8/13/10 K Coffin
[X] Yes ☐ No	Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
[X] Yes ☐ No NA	Write a letter to RSO in Safety stating that the lab is no longer radioactive and that it should be removed from the list of radioactive labs. ~~Still have Fume Hood as Rad~~ Done 8/13/10 K Coffin
[X] Yes ☐ No	Contact Safety to perform final wipe test of the lab and equipment.

Once the RI has completed the above actions, the lab can be turned over to Radiation Safety for final decommissioning steps and will assume control of the lab (Sign below). RI has completed decommissioning responsibilities.

Samantha Coffin — Radiation Safety Acceptance of the Lab with Actions — 8/9/10 Date

Samantha Coffin — Radiation Safety Actions Completed — 8/9/10 Date

Section B: Procedure for Vacating a Laboratory

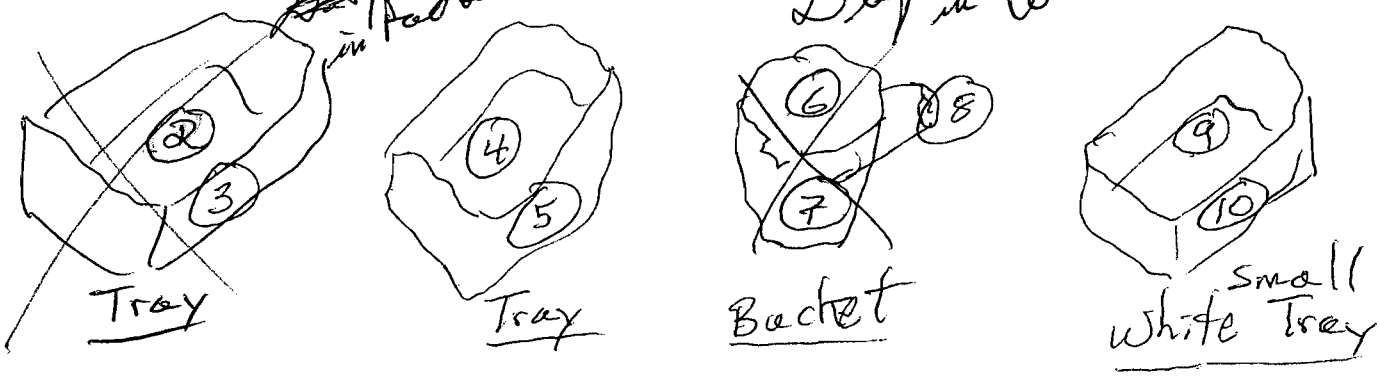
Section A must be completed prior to completing Section B.

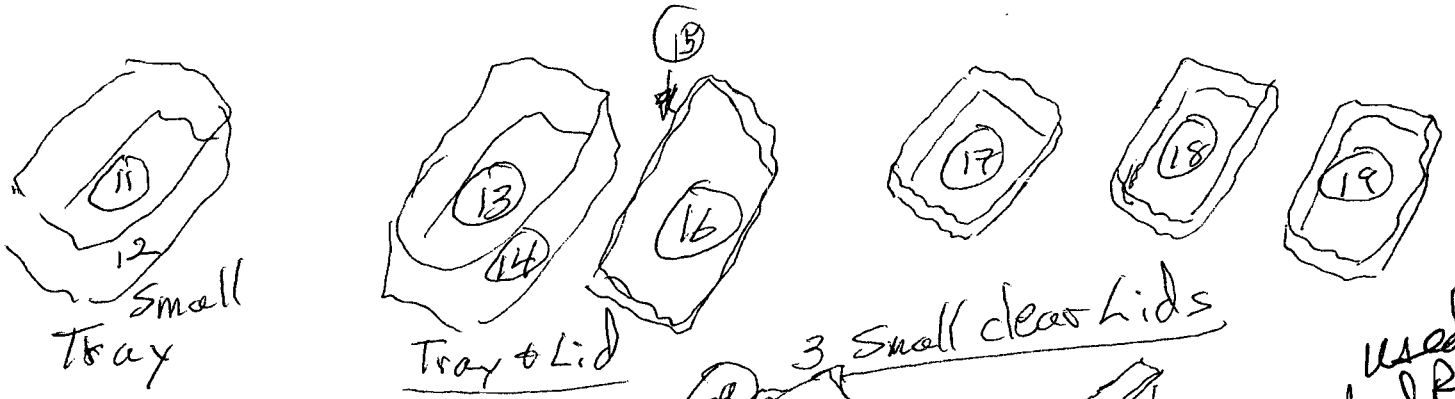
Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benches, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazard/biological material used in laboratory?	☐ Yes ☐ No ☐ NA	
Have all surfaces/areas/equipment been decontaminated using EPA registered disinfectant (bleach, ethanol, etc.).	☐ Yes ☐ No ☐ NA	
Remove/deface all biohazard stickers from the equipment.	☐ Yes ☐ No ☐ NA	
Have all biological/Biohazardous wastes been appropriately disinfected/decontaminated and disposed of.	☐ Yes ☐ No ☐ NA	
Has the Biohazard decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory and were all steps completed in Section A?	☐ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	

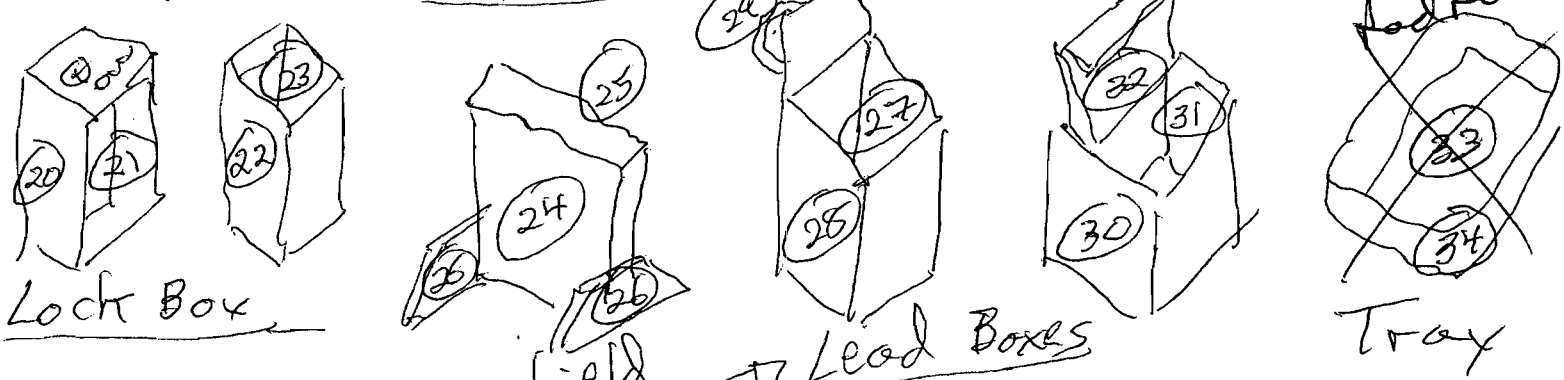
Decommission Misc Lab Trays, Shielding, A346, A356, C250

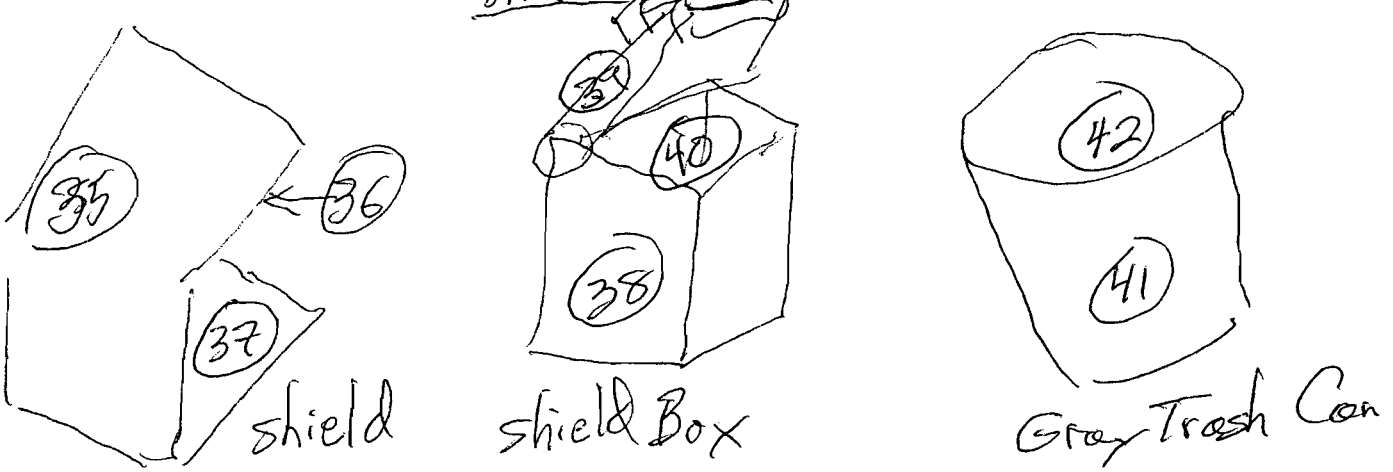
8/26/10 J Coffin

① Background









Decommission Lab Trays
Shielding from A346, A256, C250 J Coffey

Protocol #:15 Name:Wipe Test 26-Aug-2010 13:35
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	7.13	5.07	4.70			588.	B
2	1.00	87.84	13.96	0.00	172.19	17.75	551.	
3	1.00	5.87	1.93	0.00	11.00	2.53	548.	
4	1.00	2.87	1.93	0.00	4.89	2.57	536.	
5	1.00	0.87	0.00	0.00	1.71	0.00	601.	
6	1.00	199838.	65048.9	58.65	379606.	85621.7	533.	
7	1.00	4.87	0.93	1.30	9.69	1.19	528.	
8	1.00	2.68	4.12	0.00	3.30	5.58	512.	
9	1.00	2.87	0.00	0.00	6.01	0.00	531.	
10	1.00	0.00	5.93	0.00	0.00	8.04	532.	
11	1.00	3.87	0.93	0.00	7.73	1.21	511.	
12	1.00	2.87	0.00	2.30	5.82	0.00	563.	
13	1.00	2.87	0.00	0.00	5.88	0.00	552.	
14	1.00	6.87	0.00	1.30	14.14	0.00	547.	
15	1.00	2.87	1.93	0.00	4.86	2.57	542.	
16	1.00	0.87	0.00	0.30	1.79	0.00	552.	
17	1.00	6.87	0.00	0.30	14.48	0.00	523.	
18	1.00	2.87	0.00	0.00	5.79	0.00	568.	
19	1.00	3.87	0.00	0.00	7.99	0.00	543.	
20	1.00	6.87	0.93	0.00	13.84	1.17	531.	
21	1.00	1.87	1.93	0.00	2.77	2.58	554.	
22	1.00	2.75	0.05	0.00	5.62	0.03	548.	
23	1.00	0.00	0.00	0.00	0.00	0.00	559.	
24	1.00	10.87	0.93	0.00	22.36	1.11	524.	
25	1.00	0.87	0.00	0.00	1.78	0.00	557.	
26	1.00	6.87	2.93	3.30	12.64	3.88	536.	
27	1.00	1.92	0.88	1.30	3.55	1.17	520.	
28	1.00	12.11	3.69	3.30	23.32	4.85	526.	
29	1.00	4.87	0.00	0.00	10.01	0.00	548.	
30	1.00	4.87	0.00	4.30	10.36	0.00	515.	
31	1.00	0.00	6.93	0.00	0.00	9.38	539.	
32	1.00	6.79	18.01	0.00	3.97	24.42	515.	
33	1.00	54.87	2.93	3.30	117.73	3.26	493.	
34	1.00	49.13	6.67	0.00	98.02	8.41	539.	
35	1.00	13.87	0.00	2.30	29.33	0.00	520.	
36	1.00	9.87	0.93	0.00	19.83	1.13	544.	
37	1.00	15.73	15.07	0.00	25.25	20.39	492.	
38	1.00	2.91	0.89	0.00	5.63	1.18	519.	
39	1.00	6.23	4.57	0.00	10.78	6.16	496.	
40	1.00	3.87	0.00	0.30	7.95	0.00	549.	
41	1.00	2.87	0.00	0.00	5.94	0.00	542.	
42	1.00	41.87	0.00	0.00	89.26	0.00	512.	

Tray used in Rad Waste Room

Disposed in Rad Dry Trash

Tray used in Rad Waste Room

Meter Readings
Ludlum 3 Sn # 146121
Cal: 11/10/09
Background: 40-80 dpms

Probe: 44-9 (PR151749)
~~Clean Wipes~~
~~Samples #2, #33~~

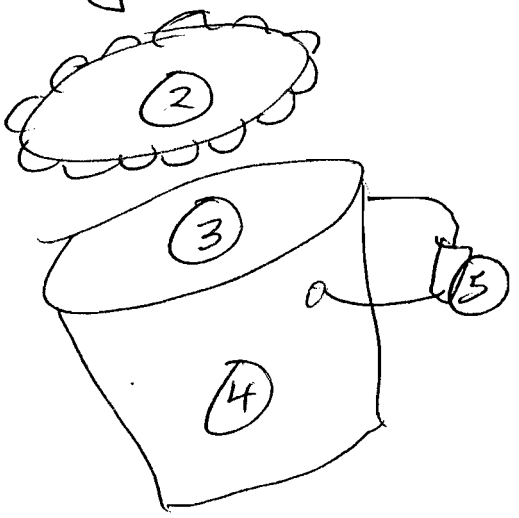
Page (2) Decommission

8/26/10
J Coffin

Metal Waste Cans
A346, A356, C250

(1) Background

#1



#2 6 7 8 9 ~~10~~

#3 10 11 12 13 ~~14~~ ~~15~~ ~~16~~

#4 14 15 16 17 ~~18~~ ~~19~~ ~~20~~

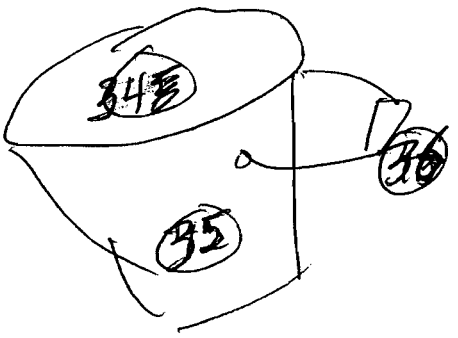
#5 ~~18~~ 19 20 21 ~~22~~

#6 ~~22~~ ~~23~~ ~~24~~ ~~25~~ ~~26~~

#7 ~~26~~ ~~27~~ ~~28~~ ~~29~~ ~~30~~ ~~31~~

#8 ~~30~~ 31 32 33 ~~34~~ ~~35~~

#9



Meter Readings

Ludlum 3, Ser # 146121, Probe 44-9, PR151749
Cal: 11/10/09

Background: 40-80 dpms
Readings: Background

Page ① Decommission Metal Trash Cans J Coffin

Protocol #:15 Name:Wipe Test 26-Aug-2010 08:55
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.75	5.55	4.10			609.	B
2	1.00	8.25	2.45	0.00	15.34	3.21	564.	
3	1.00	10.25	0.00	0.00	21.65	0.00	520.	
4	1.00	2.25	0.00	0.00	4.62	0.00	545.	
5	1.00	3.25	0.00	0.00	6.76	0.00	534.	
6	1.00	6.55	0.00	1.90	13.26	0.00	562.	
7	1.00	6.45	5.25	0.00	10.54	7.05	525.	
8	1.00	5.25	0.00	0.00	10.85	0.00	541.	
9	1.00	6.25	0.45	0.90	12.22	0.53	579.	
10	1.00	40.25	0.45	0.90	84.05	0.09	528.	
11	1.00	17.25	1.45	0.90	36.25	1.75	504.	
12	1.00	4.25	3.45	0.00	7.03	4.64	513.	
13	1.00	3.25	1.45	0.90	5.73	1.92	573.	
14	1.00	1.25	0.00	0.00	2.64	0.00	519.	
15	1.00	1.25	1.45	1.90	1.79	1.96	522.	
16	1.00	0.00	0.00	0.00	0.00	0.00	542.	
17	1.00	6.25	0.45	2.90	12.60	0.53	546.	
18	1.00	5.86	5.84	0.00	8.87	7.83	539.	
19	1.00	6.25	0.00	0.90	12.78	0.00	552.	
20	1.00	14.20	1.50	0.00	28.27	1.84	550.	
21	1.00	13.25	2.45	0.90	25.64	3.15	556.	
22	1.00	2.97	3.73	0.00	4.10	5.03	526.	
23	1.00	8.25	2.45	4.90	15.32	3.21	565.	
24	1.00	3.25	0.00	0.00	6.76	0.00	534.	
25	1.00	0.25	0.00	0.90	0.50	0.00	553.	
26	1.00	2.25	0.00	0.00	4.72	0.00	525.	
27	1.00	0.00	6.45	0.00	0.00	8.75	533.	
28	1.00	5.25	1.45	0.90	10.17	1.90	527.	
29	1.00	4.25	3.45	0.00	6.80	4.62	548.	
30	1.00	6.25	0.45	4.90	13.13	0.54	506.	
31	1.00	1.25	5.45	0.00	0.00	7.36	546.	
32	1.00	5.25	0.00	0.00	11.94	0.00	460.	
33	1.00	5.25	0.00	0.00	10.91	0.00	535.	
34	1.00	542.94	402.76	10.90	945.91	543.57	488.	
35	1.00	2.25	1.45	0.00	4.36	1.98	431.	
36	1.00	0.00	0.00	0.90	0.00	0.00	528.	

Clean & Wipe again
See Page ③

Follow-up Wipes on Waste Can

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100827_0741\20100827_0741.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

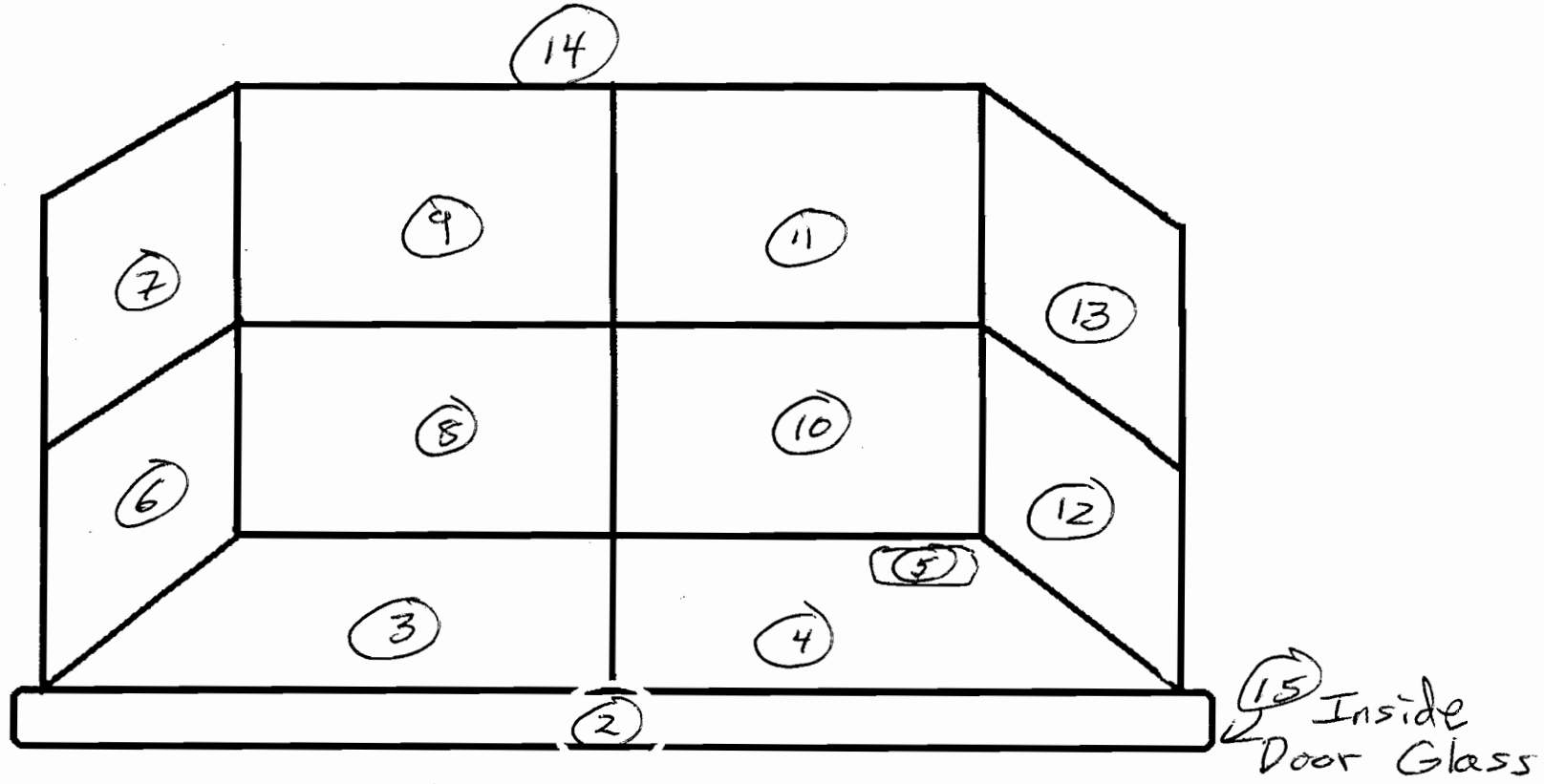
S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	6	0	0	0	823.14	593.87	B
2	1.00	0	1	0	0	2	0.00	587.34	
3	1.00	0	0	0	0	0	0.00	570.64	
4	1.00	3	3	0	5	4	0.00	569.09	
5	1.00	0	0	0	0	0	0.00	586.72	
6	1.00	1	2	0	1	2	1099.40	581.76	
7	1.00	0	0	0	0	1	0.00	579.17	
8	1.00	0	3	0	0	4	1757.43	598.57	

Looks Good!

Decommission C250

Date
8/13/10
Jeffin

(1) Background



Meter
Ludlum 3, Ser# 146121, Cal: 11/10/09
Probe: 44-9, Ser# PR151749

Background: 20-80 cpms
Readings: Background

Protocol# 15 - 3h_14c_dpm.lsa User: Default

C250
Hood Decommission

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100813_1017\20100813_1017.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	7	0	0	0	841.31	579.18	B
2	1.00	0	1	0	0	1	1544.49	561.43	
3	1.00	1	0	0	4	0	0.00	506.76	
4	1.00	0	0	0	1	0	1262.01	553.00	
5	1.00	3	0	0	8	0	0.00	537.34	
6	1.00	2	1	0	5	1	0.00	558.61	
7	1.00	3	1	0	7	1	0.00	574.15	
8	1.00	0	1	0	0	1	0.00	549.75	
9	1.00	2	0	0	6	0	2338.40	568.33	
10	1.00	4	0	0	12	0	0.00	529.18	
11	1.00	2	3	0	4	3	0.00	548.43	
12	1.00	0	1	0	0	1	0.00	529.48	

13	1.00	1	0	0	3	0	0.00	575.49
14	1.00	0	0	0	1	0	0.00	548.44
15	1.00	5	0	0	11	0	45.30	564.48

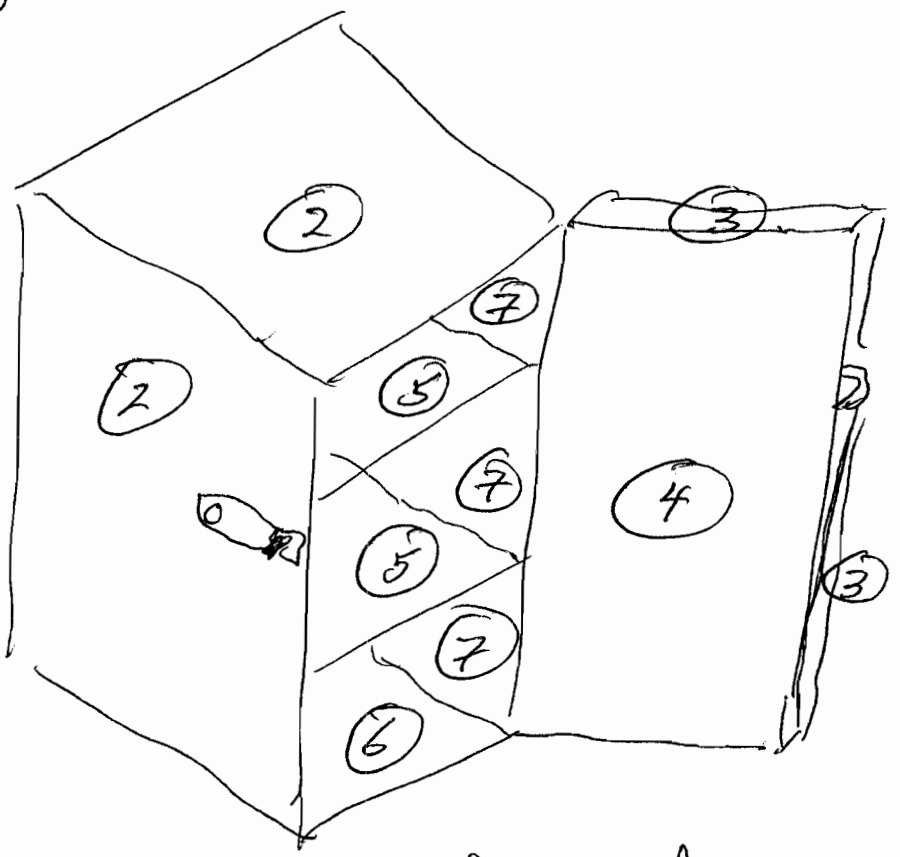
All Clean!

Decommission C250
Small VWR Freezer

Protocol #:15 Name:Wipe Test 09-Aug-2010 05:49
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.76	4.44	4.20			569.	B
2	1.00	3.24	0.56	1.80	6.20	0.71	571.	
3	1.00	0.00	0.00	2.80	0.00	0.00	571.	
4	1.00	11.24	0.00	0.00	23.10	0.00	545.	
5	1.00	6.24	1.56	0.00	11.84	2.02	555.	
6	1.00	3.24	0.00	1.80	6.57	0.00	560.	
7	1.00	4.24	0.00	0.80	8.51	0.00	570.	

① Background



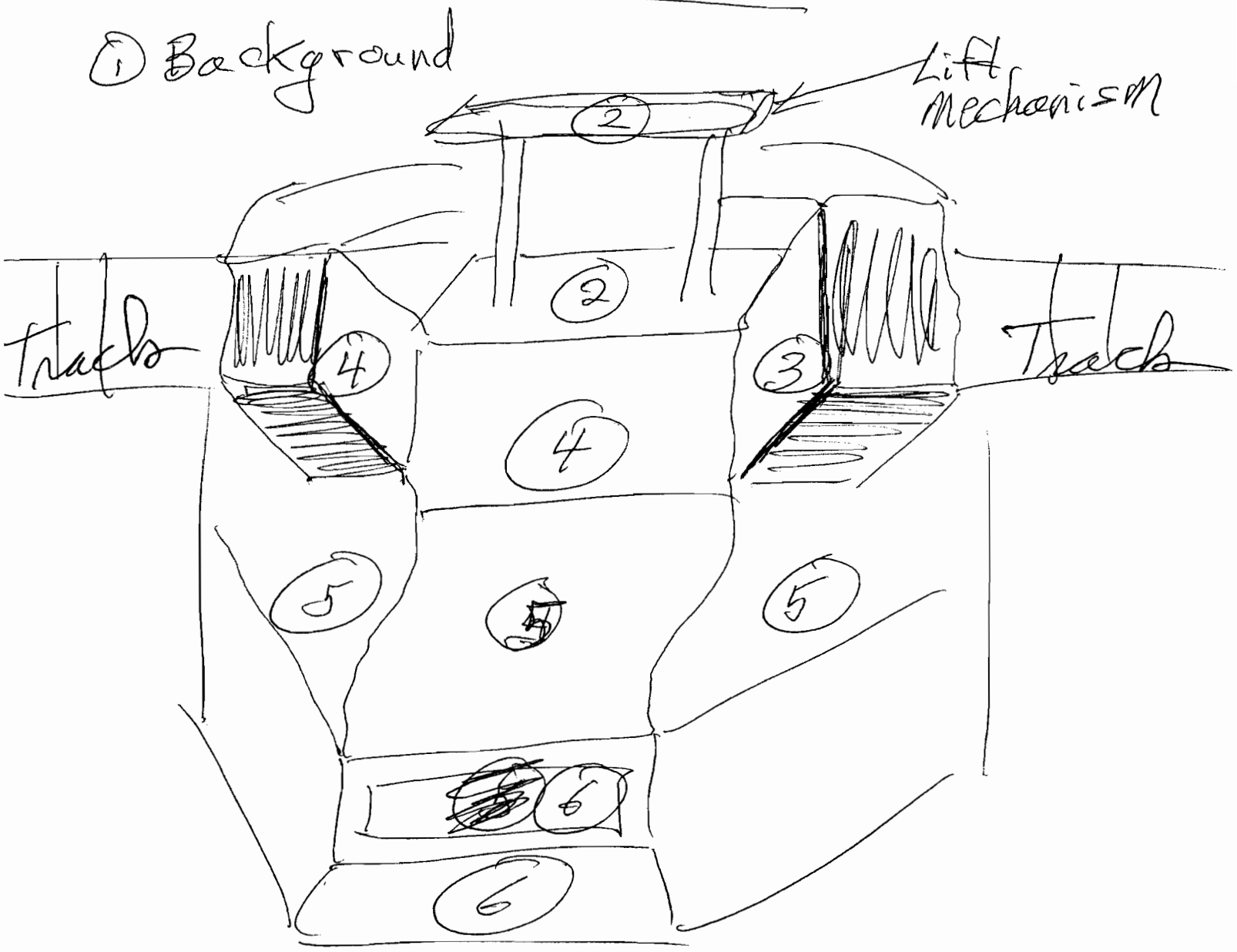
Meter
Ludlum 3
Ser# 146121
Cal: 11/10/09
Probe: 44-9
Ser: PR151749

Background: 40-60 cpms

Readings: Background

C250
Final Clean & wipe
of Robot Parts

8/6/10
JH Coffin



Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100806_1219\20100806_1219.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
   Quench Indicator: tSIE/AEC
   External Std Terminator (sec): 0.5 2s%
   Pre-Count Delay (min): 0.00
Quench Sets:
   Low Energy: 3H-UG
   Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	5	0	0	0	972.52	641.76	B
2	1.00	10	5	0	20	6	0.00	582.94	
3	1.00	7	4	0	15	4	4.95	580.76	
4	1.00	23	1	0	51	0	0.00	604.41	
5	1.00	9	4	0	18	5	284.48	585.44	
6	1.00	5	0	0	11	0	0.00	576.03	
7	1.00	1	0	0	2	0	0.00	580.01	

Protocol# 15 - 3h_14c_dpm.lsa User: Default

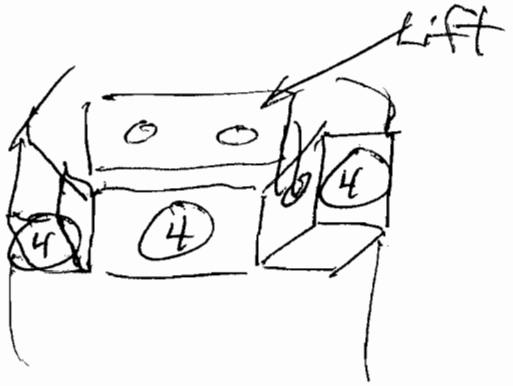
C250
Second Wipes
of Robot Parts

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100806_1038\20100806_1038.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off



Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	6	0	0	0	735.99	587.93	B
2	1.00	0	2	0	0	2	1421.31	585.36	
3	1.00	5	0	0	12	0	184.71	577.98	
4	1.00	129	2	0	290	0	24.12	586.25	
5	1.00	1	0	0	2	0	879.57	581.97	
6	1.00	0	0	0	1	0	0.00	577.87	

– sides (Robot Part)

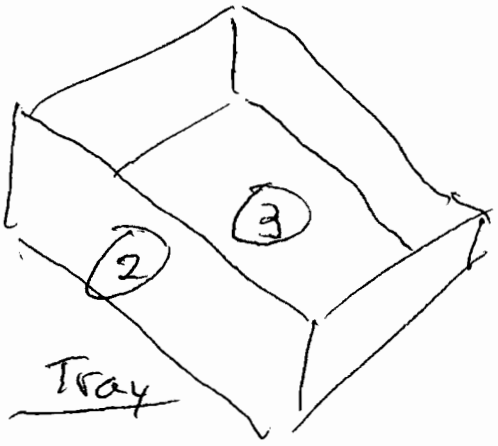
Clean & rewipe

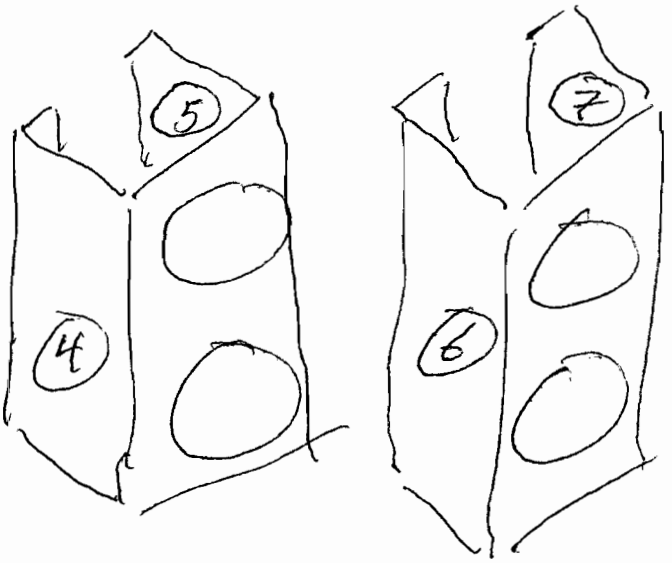
Decommission Wipes of Equipment in C250

8/6/10

J Coffman

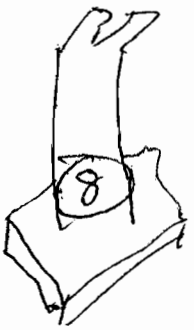
(1) Background





Holders

Group Pipette Holders



Masterflex pump

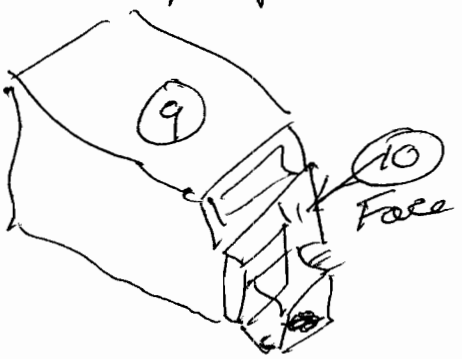
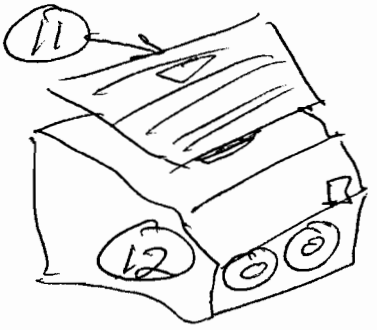
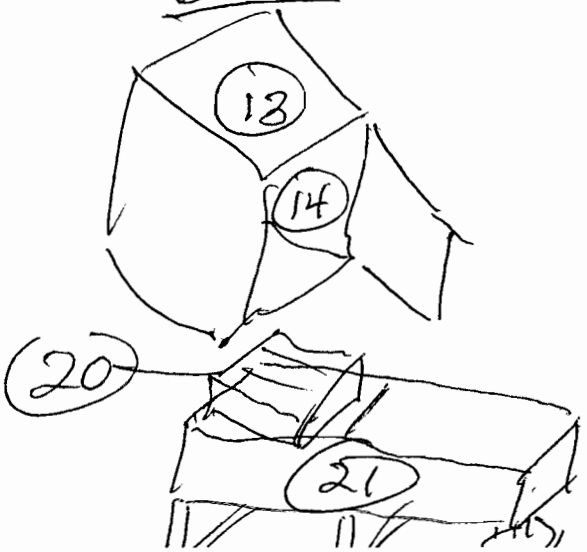


Plate Shaker

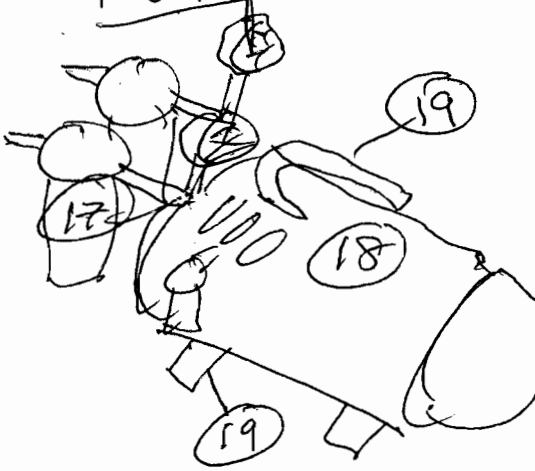


Box



Mixer

Pump



Magnetic Tumble Stirrer

Protocol# 15 - 3h_14c_dpm.lsa User: Default

~~C35~~ C250
Decommission Wipes of Equipment
J Coffman

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100806_0701\20100806_0701.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Meter
Ludlum 3
Ser# 146121
Cal: 11/10/09
Background: 40-60cpm
Readings: Backgr nd

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	7	0	0	0	802.24	584.62	B
2	1.00	2	3	0	4	3	569.64	562.68	
3	1.00	0	2	0	0	3	0.00	459.94	
4	1.00	3	0	0	7	0	*****	544.52	
5	1.00	3	1	0	5	1	1438.53	599.49	
6	1.00	3	0	0	7	0	1613.42	515.96	
7	1.00	11	0	0	25	0	357.27	572.58	
8	1.00	5	0	0	11	0	1323.37	548.80	
9	1.00	3	0	0	8	0	0.00	587.02	
10	1.00	0	0	0	0	0	0.00	513.63	
11	1.00	2	0	0	4	0	0.00	565.07	
12	1.00	15	0	0	35	0	478.21	545.12	

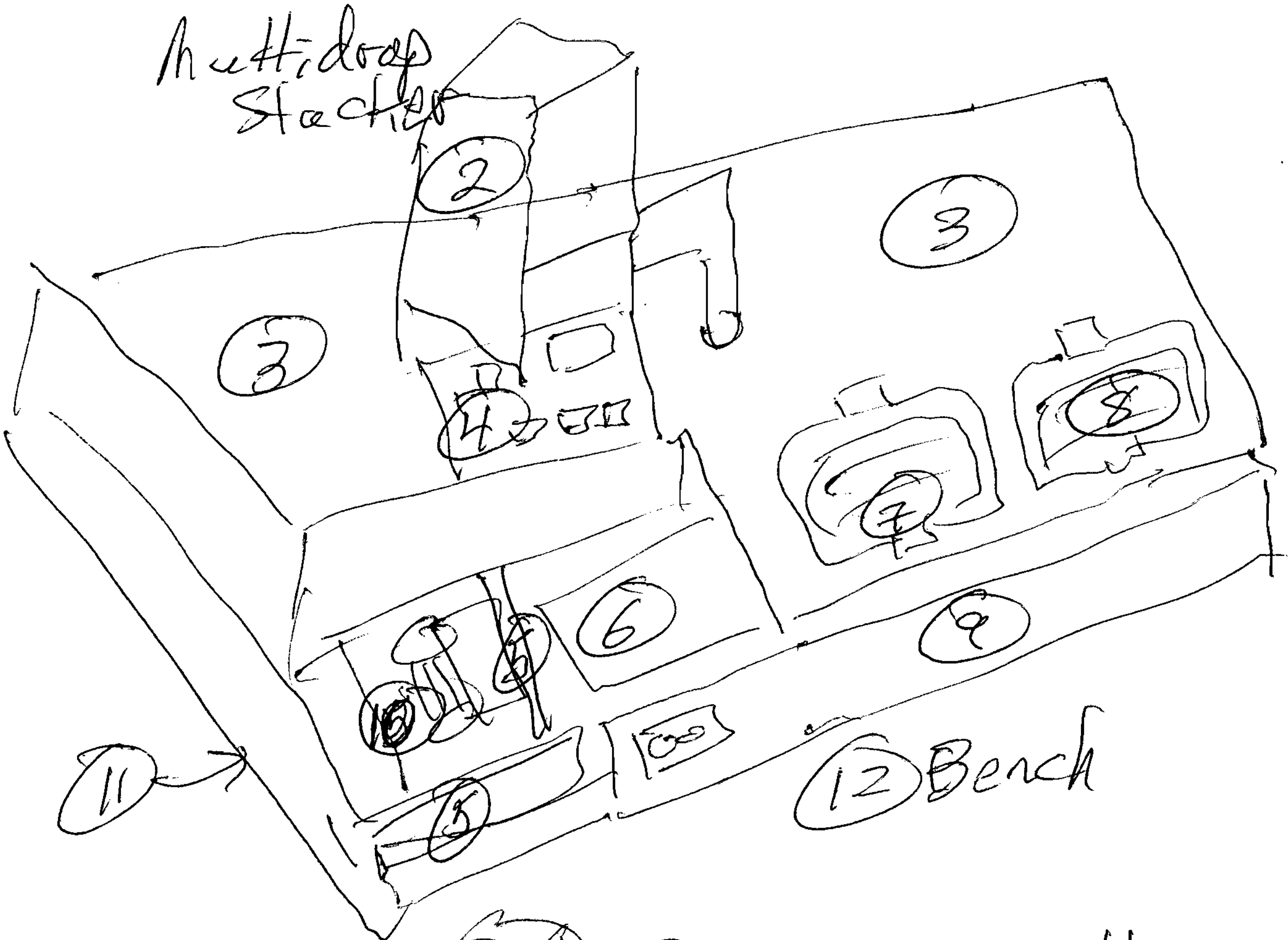
13	1.00	2	1	0	4	1	0.00	552.78
14	1.00	5	4	0	10	4	0.00	480.40
15	1.00	5	0	0	12	0	0.00	565.13
16	1.00	10	1	0	22	0	907.72	537.65
17	1.00	1	0	0	4	0	0.00	567.04
18	1.00	1	0	0	2	0	2747.49	553.56
19	1.00	9	0	0	25	0	0.00	449.50
20	1.00	7	1	0	14	1	648.61	624.02
21	1.00	3	3	0	5	3	0.00	583.58

Page ② C250 8/6/10

Large Equipment Wipes

J Coffin

① Background



C250

Decommission Large Equipment

Protocol #:15 Name:Wipe Test 06-Aug-2010 07:06
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.31	4.39	3.30			556.	B
2	1.00	0.69	1.61	0.70	0.52	2.17	547.	
3	1.00	0.93	0.00	0.00	1.88	0.00	560.	
4	1.00	0.63	0.00	0.00	1.25	0.00	583.	
5	1.00	30.69	1.09	3.22	67.45	1.08	475.	
6	1.00	0.00	0.61	0.00	0.00	0.83	534.	
7	1.00	0.00	0.00	0.00	0.00	0.00	519.	
8	1.00	0.00	2.61	0.70	0.00	3.53	558.	
9	1.00	4.69	0.00	1.70	9.85	0.00	523.	
10	1.00	17.69	0.61	1.70	37.68	0.60	501.	
11	1.00	0.00	0.00	3.70	0.00	0.00	559.	
12	1.00	0.00	0.61	0.00	0.00	0.83	532.	
13	1.00	56.69	0.00	0.70	119.71	0.00	518.	
14	1.00	0.39	5.91	2.70	0.00	8.00	542.	
15	1.00	5.69	0.00	4.70	11.99	0.00	520.	
[illegible]	1.00	0.00	2.61	0.00	0.00	3.53	548.	
[illegible]	1.00	3.69	0.00	0.70	7.75	0.00	523.	
18	1.00	0.00	2.61	0.70	0.00	3.52	564.	
19	1.00	54.69	1.61	0.00	109.66	1.48	561.	
20	1.00	0.00	0.00	0.00	0.00	0.00	540.	
21	1.00	0.00	0.00	3.70	0.00	0.00	541.	
22	1.00	0.00	0.00	1.70	0.00	0.00	559.	
23	1.00	0.00	0.00	1.70	0.00	0.00	564.	
24	1.00	0.00	2.61	1.70	0.00	3.53	558.	

Multi drop stacker

Cy Bi well

clean and rewipe
Areas #13 and #19

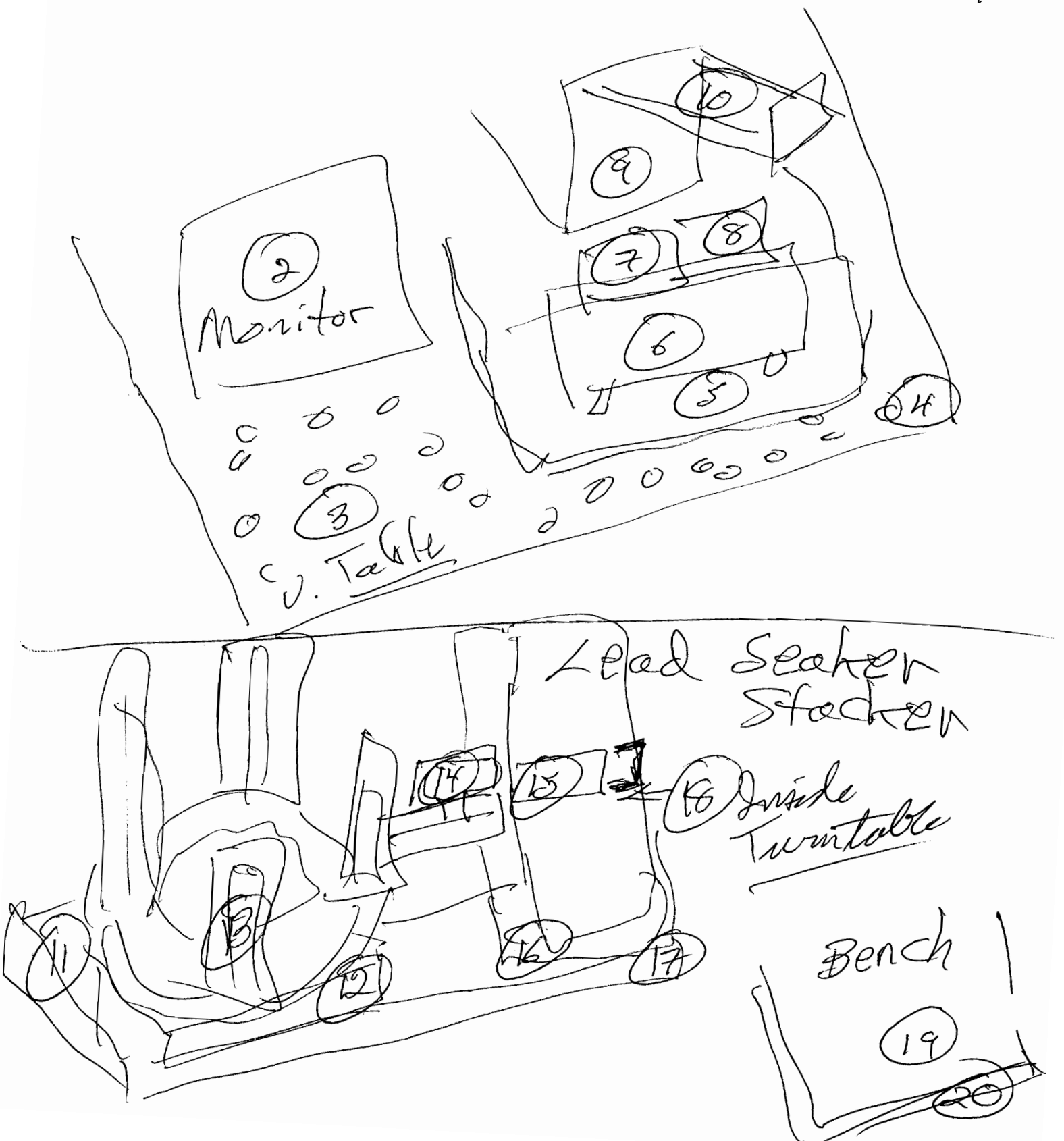
Page 3

C250 Equipment Wipes

8/6/10
J Coffin

1 Background

Beckman Coulter
Multimek 96/384



Protocol# 15 - 3h_14c_dpm.lsa User: Default

C250
Decommission Beckman Coulter
Multimek 96/384

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100806_0754\20100806_0754.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

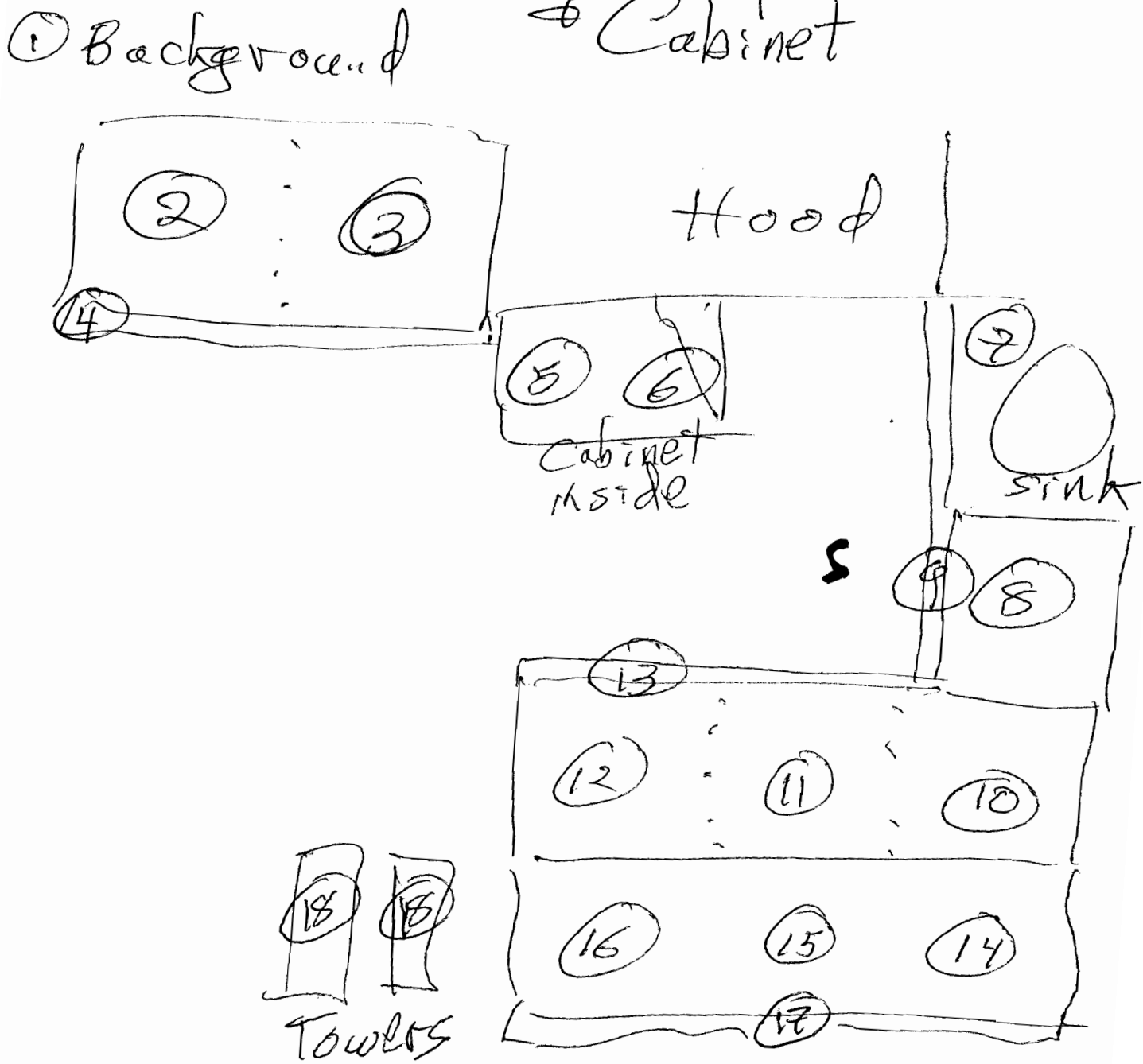
Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	7	0	0	0	770.00	579.92	B
2	1.00	0	2	0	0	3	2301.10	602.84	
3	1.00	4	0	0	10	0	0.00	547.62	
4	1.00	2	1	0	4	1	0.00	575.89	
5	1.00	10	4	0	21	4	0.00	583.72	
6	1.00	1	0	0	3	0	0.00	541.03	
7	1.00	2	8	0	2	10	0.00	542.60	
8	1.00	6	0	0	16	0	0.00	559.43	
9	1.00	8	1	0	18	1	0.00	562.70	
10	1.00	2	0	0	6	0	405.68	552.38	
11	1.00	7	4	0	15	5	0.00	539.34	
12	1.00	4	0	0	11	0	254.45	562.26	

13	1.00	6	2	0	14	2	704.13	531.47
14	1.00	0	2	0	0	3	0.00	534.55
15	1.00	7	5	0	15	6	0.00	544.08
16	1.00	5	1	0	11	1	0.00	534.16
17	1.00	5	0	0	12	0	562.36	549.61
18	1.00	0	2	0	0	3	928.95	555.72
19	1.00	6	2	0	14	2	0.00	557.75
20	1.00	5	3	0	10	4	224.65	560.35

C250
Bench Tops
+ Cabinet



Meter Readings

Ludlum 3, Ser 146121 Cal: 11/10/09
Probe = 44-9, PR 151749

C250

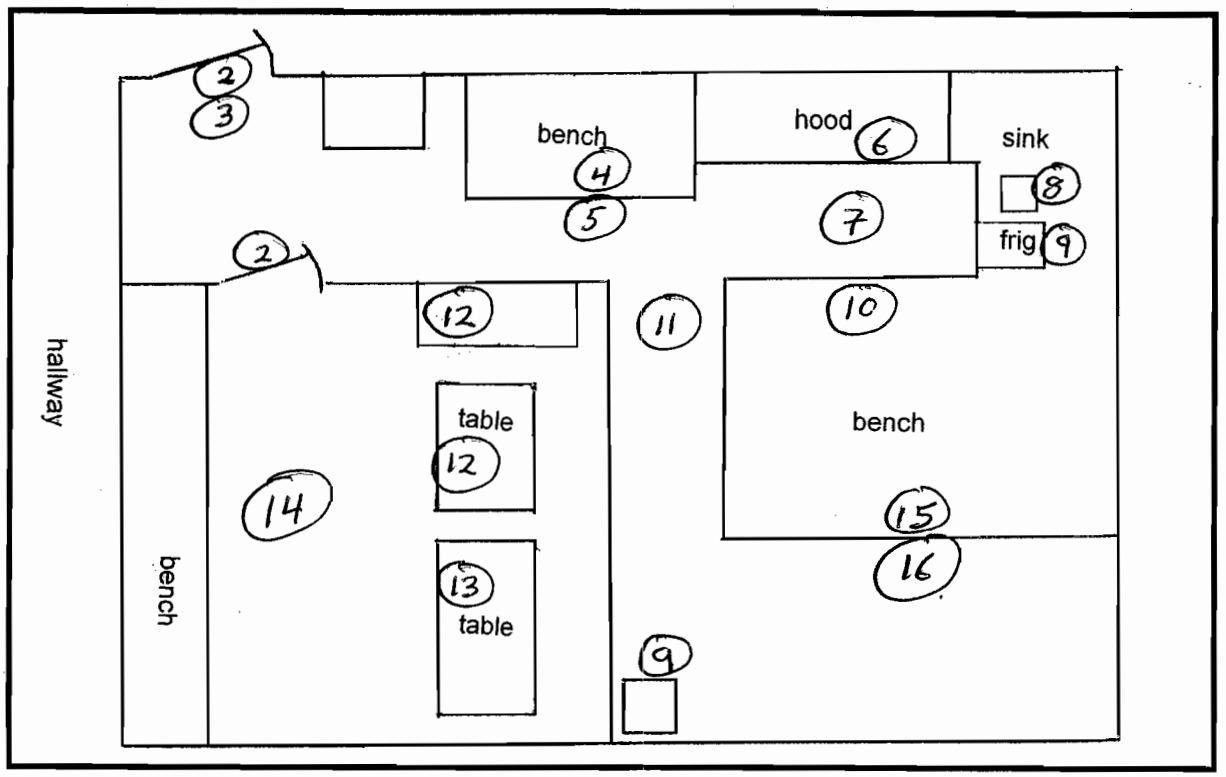
Decommission Benches

Protocol #:15 Name:Wipe Test 06-Aug-2010 08:04
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	3.99	4.71	2.90			549.	B
2	1.00	2.01	3.29	0.00	2.32	4.43	534.	
3	1.00	0.01	2.29	0.10	0.00	3.12	507.	
4	1.00	1.01	1.29	2.10	1.33	1.73	564.	
5	1.00	1.01	1.29	1.10	1.35	1.73	550.	
6	1.00	7.01	0.00	0.10	14.66	0.00	527.	
7	1.00	2.01	3.29	2.10	2.35	4.45	518.	
8	1.00	0.01	0.00	1.10	0.02	0.00	522.	
9	1.00	0.00	0.29	1.10	0.00	0.39	547.	
10	1.00	5.01	0.00	0.10	10.15	0.00	558.	
11	1.00	3.01	1.29	0.00	5.62	1.72	516.	
12	1.00	1.01	0.29	4.10	1.97	0.38	516.	
13	1.00	2.01	0.00	1.10	4.17	0.00	533.	
14	1.00	1.01	1.29	0.00	1.37	1.74	530.	
15	1.00	0.00	0.00	0.10	0.00	0.00	520.	
16	1.00	0.00	1.29	0.10	0.00	1.75	529.	
17	1.00	3.01	0.00	3.10	6.17	0.00	546.	
18	1.00	1.91	1.39	0.10	3.14	1.86	548.	

WIPE TEST MAP

LAB # C250



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle & light switch
3. Floor below door
4. Bench edge & handles
5. Floor below bench
6. Hood sash, foil, and handles
7. Floor below hood
8. Sink
9. Refrigerator/freezer handles
10. Bench edge & handles
11. Floor below bench
12. Table tops, and edges
13. Table top, edge, & handles
14. Floor below tables
15. Bench & Robot
16. Floor below bench

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Start Decommissioning of Lab C250

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100406_1001\20100406_1001.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	5	0	0	0	739.98	603.81	B
2	1.00	1	0	0	4	0	0.00	593.93	
3	1.00	4	4	0	9	4	390.77	587.48	
4	1.00	1	2	0	3	2	1588.32	564.00	
5	1.00	0	0	0	0	0	0.00	590.43	
6	1.00	0	0	0	0	0	0.00	604.85	
7	1.00	3	0	0	8	0	1739.22	582.48	
8	1.00	7	0	0	16	0	79.87	559.17	
9	1.00	0	0	0	0	0	0.00	582.30	
10	1.00	5	5	0	10	5	672.02	615.84	
11	1.00	1	3	0	2	4	75.18	530.51	
12	1.00	0	2	0	0	2	0.00	569.06	

13	1.00	0	5	0	0	6	1189.29	605.74
14	1.00	0	0	0	0	0	0.00	567.29
15	1.00	1	1	0	3	1	434.94	574.06
16	1.00	1	3	0	2	3	612.51	567.10

Ludlum 3 Meter Readings
all at Background: 20-80 cpms

L - Lab Wings

Coffin, Tim

From: Coffin, Tim
Sent: Tuesday, March 08, 2011 11:00 AM
To: Coffin, Tim; Terpko, Marc O; Civitella, Patricia C; Schlank, Bliss M
Cc: Bristow, Brian K; Schluck, Joseph B
Subject: RE: Decommission of [redacted]ood for Radioactive Package Receipt

ERROR:

Just noticed, after sending the E-mail, that the date should have read March 08, 2011.

I made the change and sent you the E-mail again.

Sorry,

Tim

From: Coffin, Tim
Sent: Tuesday, March 08, 2011 10:55 AM
To: Terpko, Marc O; Civitella, Patricia C; Schlank, Bliss M
Cc: Bristow, Brian K; Schluck, Joseph B
Subject: Decommission of L031 Hood for Radioactive Package Receipt

FOR YOUR INFORMATION/ACTION:

As of today, March 08, 2011, Lab [redacted]as been decommissioned as a Radioactive Material use area (Hood for storage and receipt of radioactive packages).

ACTIONS TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from hood.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. GM Meter Checks were done and all results were at background or less than the AZ Action Level of 3 times background.
4. Gm Meter removed from hood and placed in Lab L044 for storage.
5. All required radioactive program postings, radioactive labels, and signs were removed from hood.
6. Lab L031 has been removed from the Radioactive lab Data Bases.
7. Decommission Forms were placed on the fume hood. Copies placed in the Wipe Test Book and in the official Radiation Safety Files.
8. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
9. This E-mail serves as the official notice that the lab has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. **Brian Bristow**: Remove the lab from your Radioactive lab Data Base.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227. 6-2682

Coffin, Tim

From: Coffin, Tim
Sent: Tuesday, March 08, 2011 10:55 AM
To: Terpko, Marc O; Civitella, Patricia C; Schlank, Bliss M
Cc: Bristow, Brian K; Schluck, Joseph B
Subject: Decommission of L031 Hood for Radioactive Package Receipt

FOR YOUR INFORMATION/ACTION:

As of today, March 08, ~~2015~~ 2011, Lab L031 has been decommissioned as a Radioactive Material use area (Hood for storage and receipt of radioactive packages).

ACTIONS TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from hood.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. GM Meter Checks were done and all results were at background or less than the AZ Action Level of 3 times background.
4. Gm Meter removed from hood and placed in Lab L044 for storage.
5. All required radioactive program postings, radioactive labels, and signs were removed from hood.
6. Lab L031 has been removed from the Radioactive lab Data Bases.
7. Decommission Forms were placed on the fume hood. Copies placed in the Wipe Test Book and in the official Radiation Safety Files.
8. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
9. This E-mail serves as the official notice that the lab has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. **Brian Bristow**: Remove the lab from your Radioactive lab Data Base.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227. 6-2682

[ ] BIO	[X] RAD	[ ] CHEM
LAB #:	L031 Hood for Rad Packages	
DATE:	3/8/2011	
LAB SUPERVISOR:	Tim Coffin	DEPT: SH+E

Decommissioning Procedure (Version 2010)

Refer to SHEP-104 Commissioning and Decommissioning Laboratories for more information. This Wilmington SH&E SOP can be found on the portal. Click here to access the SOP.

Section A: Radioactive Laboratory Decommissioning Checklist

Responsible Investigator for the Lab: Tim Coffin

Completed	Questionnaire
☒ Yes ☐ No	Contact Safety (x62682) to remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. DO NOT REMOVE TAPE!
☒ Yes ☐ No	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas. EXCEPT FUME HOODS. Decommissioning of fume hoods will be done by outside vendor.
☒ Yes ☐ No	Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
☒ Yes ☐ No	Write a letter to RSO in Safety stating that the lab is no longer radioactive and that it should be removed from the list of radioactive labs.
☒ Yes ☐ No	Contact Safety to perform final wipe test of the lab and equipment.

Once the RI has completed the above actions, the lab can be turned over to Radiation Safety for final decommissioning steps and will assume control of the lab (Sign below). RI has completed decommissioning responsibilities.

Timothy J Coffin 3/8/2011 Timothy J Coffin 3/8/11

Radiation Safety Acceptance of the Lab with Actions — Date — Radiation Safety Actions Completed — Date

Section B: Procedure for Vacating a Laboratory

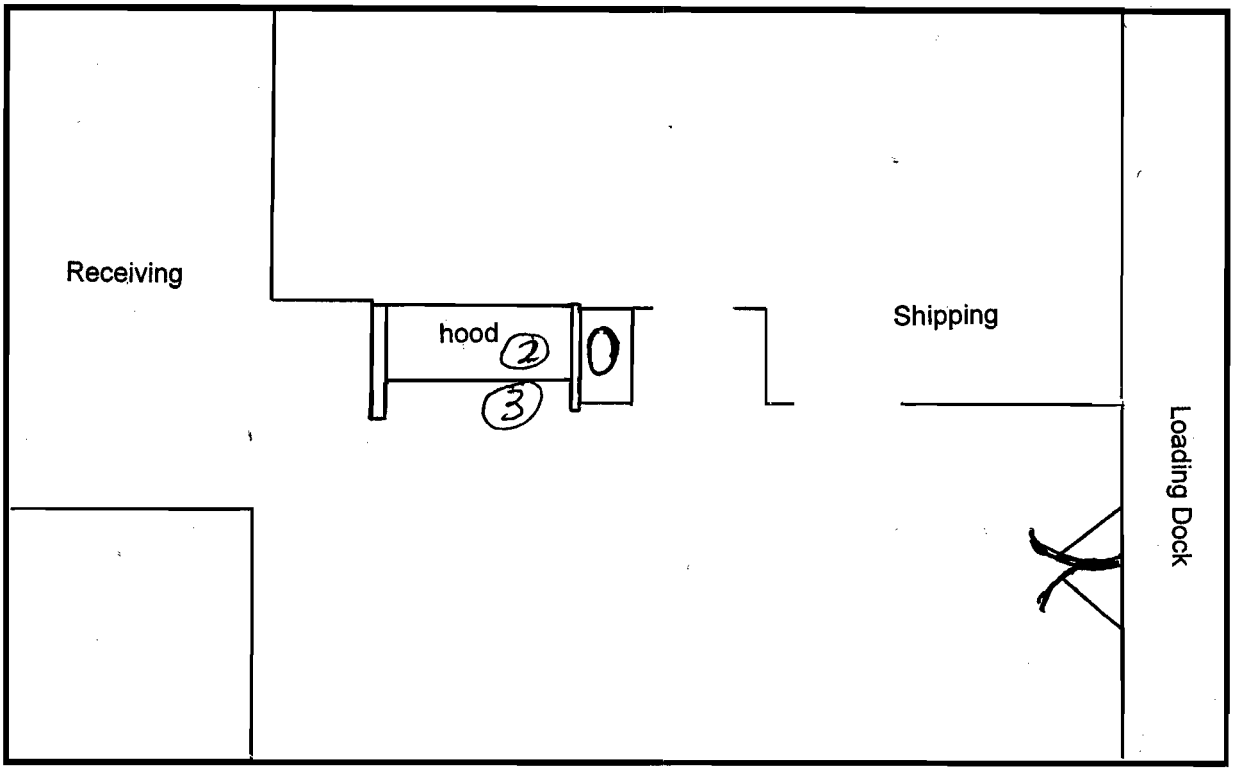
Section A must be completed prior to completing Section B.

Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benches, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazard/biological material used in laboratory?	☐ Yes ☐ No ☐ NA	
Have all surfaces/areas/equipment been decontaminated using EPA registered disinfectant (bleach, ethanol, etc.).	☐ Yes ☐ No ☐ NA	
Remove/deface all biohazard stickers from the equipment.	☐ Yes ☐ No ☐ NA	
Have all biological/Biohazardous wastes been appropriately disinfected/decontaminated and disposed of.	☐ Yes ☐ No ☐ NA	
Has the Biohazard decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory and were all steps completed in Section A?	☐ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	

Decommission Wipes
3/8/2010

WIPE TEST MAP

LAB # **L031 Fume Hood**



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Hood sash, foil, and handles
3. Floor below hood

Coffin, Tim

From: Coffin, Tim
Sent: Friday, August 19, 2011 5:49 AM
To: Goddard, Chris M; Civitella, Patricia C
Cc: Schlank, Bliss M; Terpko, Marc O
Subject: Final Decommissioning of Lab L042B from use of Radioactive Materials

FOR YOUR INFORMATION/ACTION:

As of August 19, 2011, Lab L042B (Supply Storage Lab) has been officially decommissioned as a radioactive use area.

ACTIONS TAKEN:

1. All radioactive material has been removed from the labs.
2. All equipment, materials, and supplies have been removed from the lab on July 14, 2011.
3. The two liquid scintillation counters with their sealed sources were removed from the lab and properly prepared for transfer shipment on August 18, 2011.
4. All radioactive program postings, radioactive labels, and signs were removed from the lab and entrance door.
5. Lab L042B has been removed from the Radioactive lab Data Base.
6. Decommission Forms have been placed in the official Radiation Safety Files.
7. Meter checks were done of cabinets, equipment, and floors with all results at background.
8. Performed decommission wipe tests of lab with all results at background or below the AZ Action Level of 100 dpms.
9. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
10. This E-mail serves as the official notice that the lab has been decommissioned from handling radioactive material.

Please let me know if you have any questions.

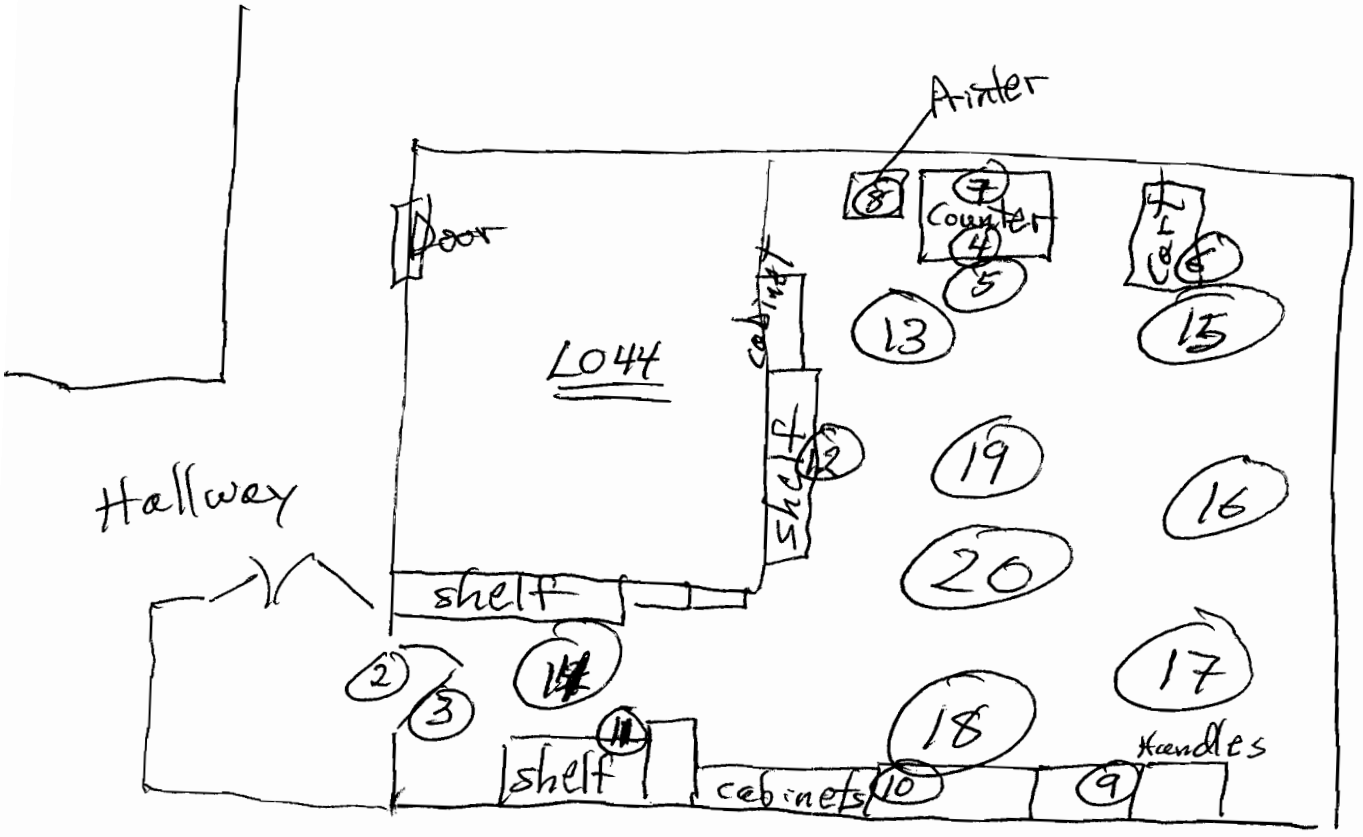
Timothy Coffin
Radiation Safety Specialist
OW1-227, 6-2682

Decommission Wipes
L042B

7/14/2011

J Coffman

① Background



Meter Readings

Ludlum 3, Ser# 142357
Cal: 10/12/10
Probe: 44-9, PR145855

Background: 20-70 cpms

Readings: Background

Decommission wipes 7/14/2011
Lab L042B

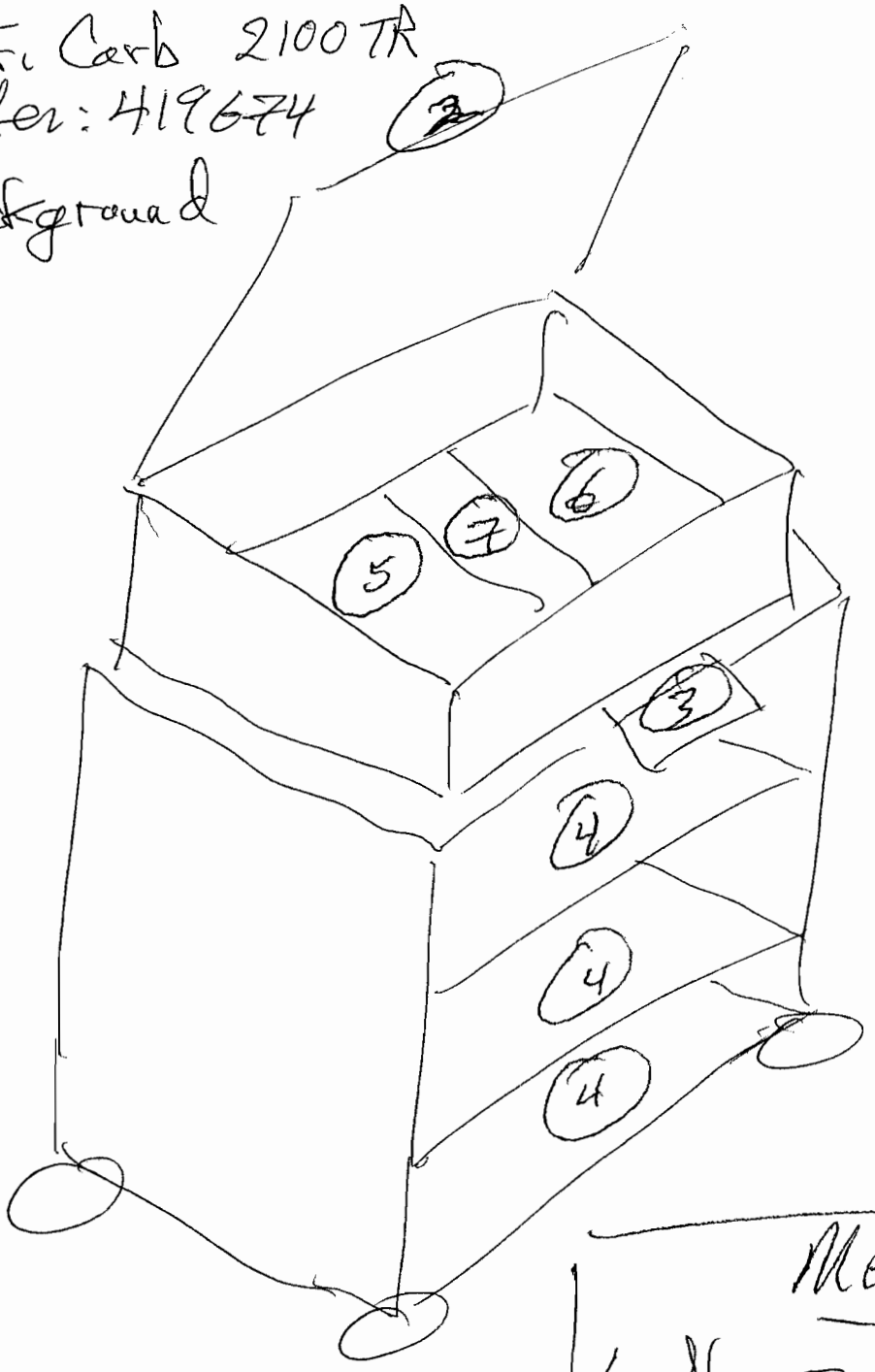
Protocol #:15 Name:Wipe Test 14-Jul-2011 05:53
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.99	5.21	3.70			568.	B
2	1.00	0.00	0.00	0.00	0.00	0.00	543.	
3	1.00	3.01	2.79	2.30	4.96	3.78	525.	
4	1.00	0.00	0.00	1.30	0.00	0.00	545.	
5	1.00	3.01	0.00	4.30	6.68	0.00	519.	
6	1.00	8.01	2.79	0.30	16.07	3.71	521.	
7	1.00	4.01	0.00	0.00	8.58	0.00	555.	
8	1.00	0.00	0.00	0.00	0.00	0.00	533.	
9	1.00	3.01	0.00	1.30	6.54	0.00	540.	
10	1.00	0.00	0.00	2.30	0.00	0.00	536.	
11	1.00	0.01	0.00	0.00	0.01	0.00	526.	
12	1.00	0.00	0.00	1.30	0.00	0.00	537.	
13	1.00	0.00	0.00	0.00	0.00	0.00	535.	
14	1.00	0.00	0.79	3.30	0.00	1.09	516.	
15	1.00	0.00	0.00	4.30	0.00	0.00	403.	
16	1.00	0.01	0.79	0.00	0.00	1.09	481.	
17	1.00	0.00	2.79	0.00	0.00	3.83	505.	
18	1.00	0.01	0.00	0.30	0.01	0.00	527.	
19	1.00	0.00	1.79	0.00	0.00	2.45	519.	
20	1.00	1.01	0.00	2.30	2.23	0.00	521.	

All Clear!

Decommission Scint Counter 7/14/2011
L042B
J Coffman

Tri Carb 2100TR
Ser: 419674



8 Printer
9 Printer Stand

Meter Readings

Ludlum 3, Ser# 142357
Cal: 10/12/10
Probe: 44-9, PR145855
Background: 20-70cpms
Readings: Background

Decommission Scint Counter
L042B

Protocol #:15 Name:Wipe Test 14-Jul-2011 06:44

Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.00	6.30	3.40			537.	B
2	1.00	6.00	0.00	2.60	12.74	0.00	564.	
3	1.00	3.00	0.70	1.60	6.25	0.92	518.	
4	1.00	0.00	0.00	1.60	0.00	0.00	509.	
5	1.00	1.00	0.00	0.00	2.14	0.00	556.	
6	1.00	0.00	0.00	0.00	0.00	0.00	577.	
7	1.00	0.00	0.70	0.60	0.00	0.96	525.	
8	1.00	6.00	0.70	0.00	12.65	0.88	539.	
9	1.00	0.00	0.00	0.00	0.00	0.00	563.	

All Clean for shipping

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission Wipe Tests of Tri Carb 2100 TR in Lab L042B

tf Coffin

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110810_0558\20110810_0558.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	7	0	0	0	538.67	583.85	B
2	1.00	8	0	0	20	0	153.72	547.30	– Top & Handle
3	1.00	17	0	0	42	0	541.04	523.94	– Keyboard
4	1.00	2	1	0	5	1	849.19	556.12	– Printer
5	1.00	22	0	0	54	0	74.72	522.99	– Monitor
6	1.00	0	0	0	1	0	0.00	546.86	– Shelf
7	1.00	1	1	0	3	1	912.28	586.35	R – Inside
8	1.00	3	2	0	6	2	9.55	564.42	L – Inside
9	1.00	1	5	0	0	6	0.00	549.97	C – Inside

All Clean

Coffin, Tim

From: Coffin, Tim
nt: Monday, August 15, 2011 7:26 AM
To: Goddard, Chris M; Civitella, Patricia C
Cc: Schlank, Bliss M; Terpko, Marc O; Bristow, Brian K
Subject: Final Decommissioning of Lab [redacted] from use with Radioactive Materials

FOR YOUR INFORMATION/ACTION:

As of August 15, 2011, Lab [redacted] has been officially decommissioned as a radioactive use area.

ACTIONS TAKEN:

1. All radioactive material has been removed from the labs.
2. All equipment, materials, and supplies have been removed from the lab on July 14, 2011.
3. The liquid scintillation counter with its sealed source was removed from the lab on 8/15/2011 and stored in L042B for shipment. The counter will be properly prepared for transfer shipment on August 18, 2011.
4. All radioactive program postings, radioactive labels, and signs were removed from the lab and entrance door.
5. Lab L044 has been removed from the Radioactive lab Data Base.
6. Decommission Forms have been placed in the official Radiation Safety Files.
7. Meter checks were done of cabinets, equipment, and floors with all results at background.
8. Performed decommission wipe tests of lab with all results at background or below the AZ Action Level of 100 dpms.
9. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
10. This E-mail serves as the official notice that the lab has been decommissioned from handling radioactive materials.

ACTION NEEDED:

1. **Brian Bristow**: Please remove lab L044 from your Radioactive lab Data Base.

Please let me know if you have any questions.

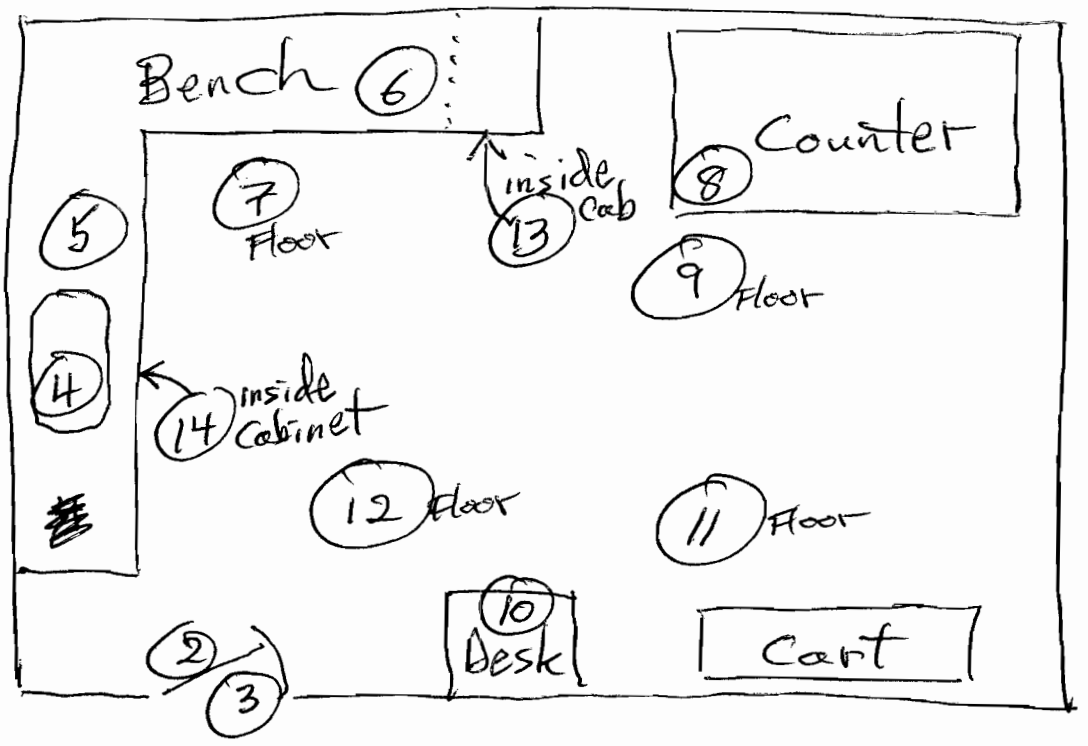
Timothy Coffin
Radiation Safety Specialist
OW1-227, 6-2682

Decommission Wipes L044

[redacted] 1/14/2011

T Coffin

① Background



Meter Readings

Ludlum 3, Ser# 142357

Cal: 10/12/10

Probe: 44-9, PR145855

Background: 20-70 cpms

Readings: Background

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110714_0758\20110714_0758.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
   Quench Indicator: tSIE/AEC
   External Std Terminator (sec): 0.5 2s%
   Pre-Count Delay (min): 0.00
Quench Sets:
   Low Energy: 3H-UG
   Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	7	0	0	0	670.18	553.22	B
2	1.00	26	1	0	61	0	70.23	538.13	
3	1.00	28	3	0	67	1	0.00	520.34	
4	1.00	28	1	0	67	0	174.91	530.11	
5	1.00	20	0	0	48	0	0.00	519.94	
6	1.00	79	1	0	212	0	4.64	449.37	
7	1.00	19	1	0	66	0	0.00	330.41	
8	1.00	41	9	0	94	7	0.00	537.81	
9	1.00	12	12	0	52	13	0.00	250.49	
10	1.00	43	0	0	102	0	0.00	542.41	
11	1.00	22	0	0	60	0	72.14	440.95	
12	1.00	24	1	0	60	0	710.24	495.66	

13	1.00	0	0	0	0	0	0.00	526.45
14	1.00	4	6	0	7	7	193.69	550.49

Clean & rewipe
Sections #6 and #10

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Follow-up Wipes on LO44
Samples # 6 and #10

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110714_0918\20110714_0918.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	5	0	0	0	899.41	578.01	B
#6 2	1.00	0	0	0	0	0	0.00	582.24	— Bench Top (Left)
#6 3	1.00	0	5	0	0	7	1162.96	559.02	— Bench Top (right)
4	1.00	21	8	0	45	7	0.00	588.80	— Desk Pad (left)
#10 5	1.00	6	2	0	14	2	71.25	551.24	— Desk Pad (right)
#10 6	1.00	0	0	0	0	0	0.00	574.36	— Desk Top
7	1.00	2	7	0	4	8	83.05	551.64	— shelf

All Clean

Decommission Scint Counter

L044

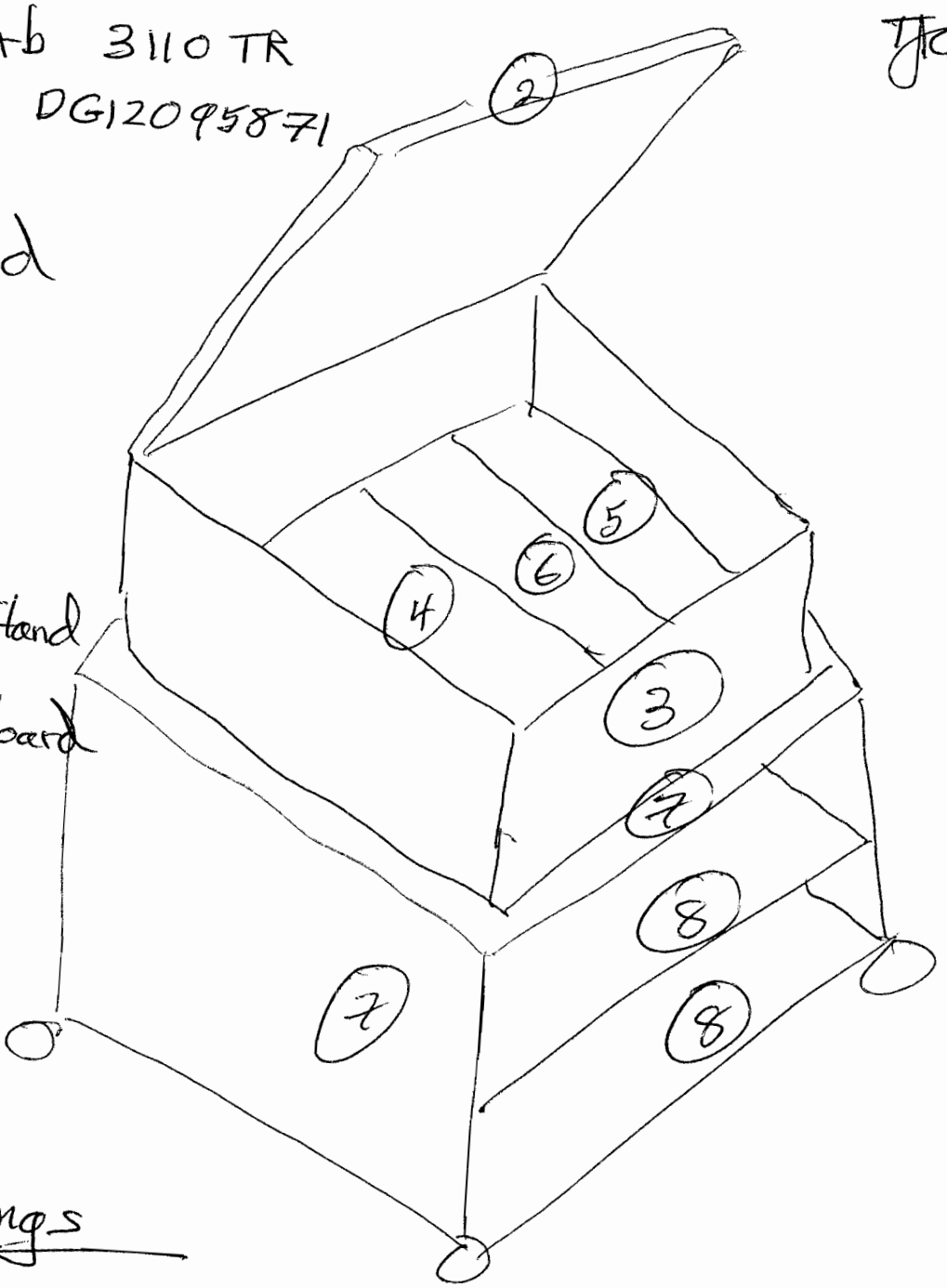
7/14/2011

TJ Coffin

Tri Carb 3110 TR

Ser: DG1209587I

(1) Background



(9) Printer & Stand

(10) Monitor/Keyboard

Meter Readings

Ludlum 3, Ser# 142357

Cal: 10/12/10

Probe: 44-9, PR145855

Background: 20-70 cpms

Readings: Background

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110714_0727\20110714_0727.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	6	0	0	0	808.02	556.87	B
2	1.00	0	0	0	0	0	0.00	557.15	
3	1.00	0	3	0	0	4	2702.84	561.10	
4	1.00	0	1	0	0	1	0.00	550.26	
5	1.00	0	5	0	0	7	1326.19	563.67	
6	1.00	0	0	0	0	0	0.00	550.95	
7	1.00	0	1	0	0	2	0.00	591.09	
8	1.00	3	2	0	7	2	0.00	436.21	
9	1.00	0	1	0	0	2	0.00	598.45	
10	1.00	5	0	0	12	0	0.00	563.14	

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Tri Carb 3110 TR
Wipe Test of Unit
in Lab L044 J. Coffin

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110809_0805\20110809_0805.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

ackground Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	8	0	0	0	743.07	574.39	B
2	1.00	0	0	0	1	0	0.00	557.41	– Top & Handle
3	1.00	2	0	0	6	0	0.00	615.04	– Left Top
4	1.00	1	0	0	3	0	0.00	602.82	– Printer
5	1.00	4	0	0	10	0	2178.38	587.48	– Printer shelf
6	1.00	23	2	0	56	0	0.00	515.12	– shelf
7	1.00	0	0	0	0	0	0.00	588.94	– R inside
8	1.00	4	0	0	9	0	103.36	587.88	– L inside
9	1.00	11	3	0	24	2	0.00	576.05	– C-inside strip

All clean

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: [redacted] Lab Supervisor: Ed Christian

Responsible Investigator for the Lab: Sue Rawa / Ed Christian

RAM Users in This Lab: Sue Rawa, Helen Manley, Ed Kusner, Kathy Pachetto.

Date: 8/2/00

Date Completed	Questionnaire
8/1	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
8/1	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
8/1	Contact Safety to perform final wipe test of the lab and equipment.
(Ed) (Jenny)	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
(Ed)	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
	After approval by Safety, the radiation signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

David K Watson 8·2·00

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

☐ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
8/1 gw	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
8/1 gw	Remove all biohazard stickers from the equipment before moving.
8/1	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
2e gw	Update the permits status (new, revised, retired, renew).
gw	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

J. K Walton R.S.A. 8.2.00

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date: 8/2/00	Name: Helen Manley	Lab #: L103	Building: Research
Department: Bioscience	Cost Center: 711101	Extension: 6-8395	New Location: B252-b

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

There is no fume hood in this lab.

Sink - Biohazardous fluids were treated with bleach before disposal. Only approved items were disposed of in sink.

No spills were known to have occurred.

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	(Yes) or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	(Yes) or No	2 surfaces to go after equip. removal
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or (No)	?
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or (No)	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	(Yes) or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	(Yes) or No	
Has the decommissioning been completed?	(Yes) or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	(Yes) or No	(If "No" go to the next section.)
Date lab was decommissioned?	8/2/00	
What isotopes were used?	3H Thymidine	
Have all surfaces/areas been decontaminated?	(Yes) or No	
Have all isotopes been transferred or disposed of?	(Yes) or No	
General Housekeeping:		
Has all normal trash been disposed of?	YES	
Have arrangements been made to return furniture?	(Yes) or No	
Have all cabinets/closets/drawers been emptied?	(Yes) or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or (No)	lab will be renovated - no need
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	(DO)
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?	(Yes) or No	
Have solvents been transferred/disposed of/ reassigned?	(Yes) or No	
Particularly ether and THF?	Yes or No	n/a
Have all stills been quenched/transferred/ reassigned?	Yes or No	?
Have all intermediates/research samples been:	(Yes) or No	
• Entered into the M collection?	(Yes) or No	
• Assigned to others on the project and labeled as such?	(Yes) or No	
• Disposed of if no notebook number on label?	(Yes) or No	
• Is the wall cabinet free of research samples?	(Yes) or No	
• Are the center bench drawers free of research samples?	(Yes) or No	
Has all the waste been property removed?	(Yes) or No	
• Waste silica?	YES	
• Broken or glass thermometers?	(Yes) or No	
• Sharps containers?	(Yes) or No	
• Spent catalysts?	(Yes) or No	
• Drying agents?	(Yes) or No	
• Lecture bottles?	(Yes) or No	

• Used vacuum pump oil?	(Yes) or No	
• Metals (i.e. sodium, potassium, lithium, etc.)	(Yes) or No	
• Containers of used pipets/pipet tips?	(Yes) or No	
• Oil baths?	(Yes) or No	
Has all other waste been properly disposed of?	(Yes) or No	
Pass Inspection?	(Yes) or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:	Helen Manley	8 2 00	Facilities:		8/4/00
Safety:	Gerald K Watkin	8/2/00	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

DECOMMISSIONING OF LAB L-103

The initial "Final Wipe" was successfully completed on 12 July 2000. After that time the biologically hazardous work cabinets were sealed, the refrigerator was removed, and all small lab equipment, and supplies were boxed for the move to lab A-246 Lab Module "E". During the final day of packing a cell harvester was moved and opened and found to contain tritiated compounds. The compounds were successfully removed and taken to the waste L-136 waste storage room. This necessitated another wipe to confirm all was in order. That wipe took place on August 8, 2000 and successfully showed no radioactive contamination in lab or on remaining items.

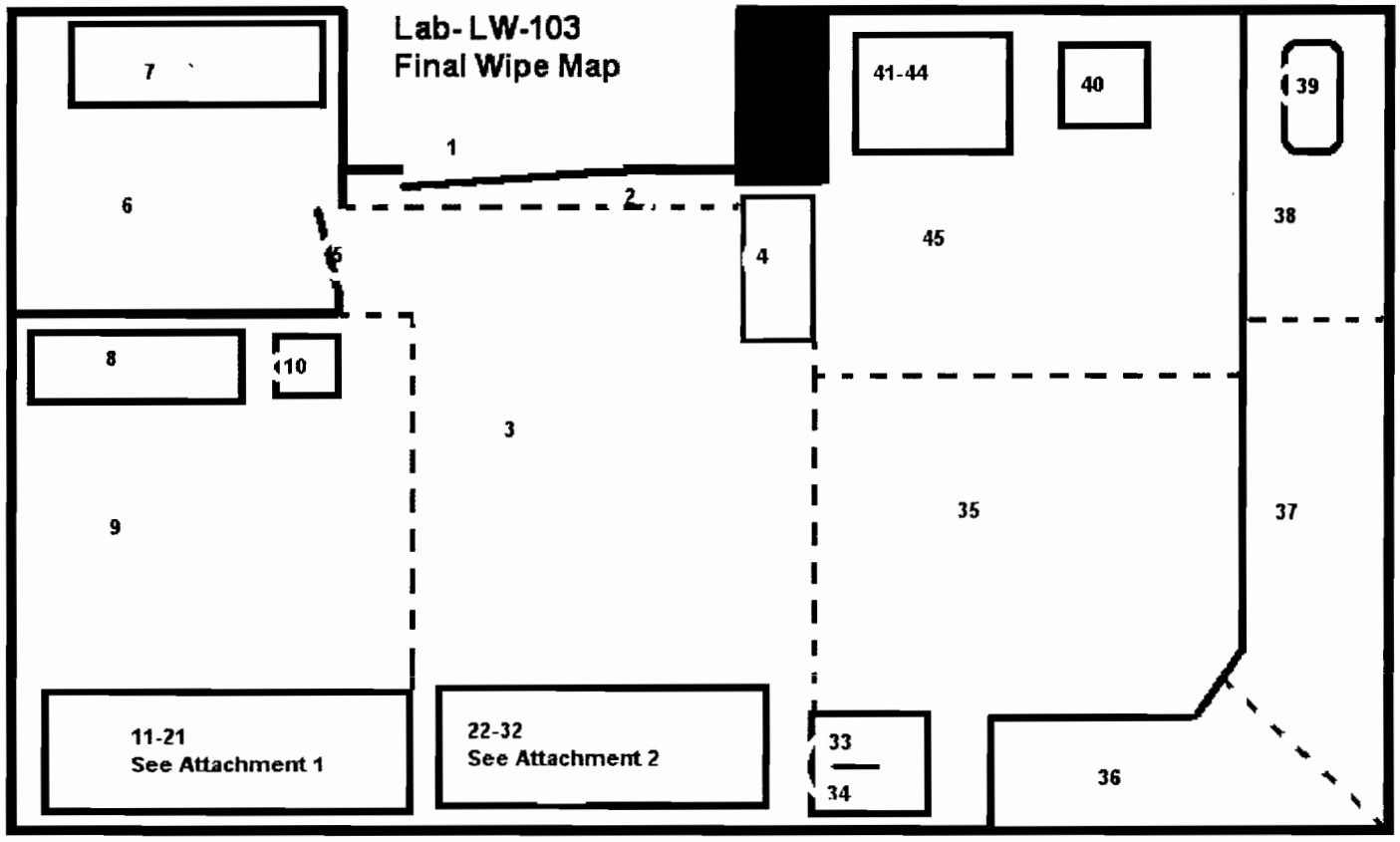
Some wipe stations from the initial wipe had to be eliminated. To remain consistent the original wipe map was used. Wipe stations 12 through 21 were not re-wiped because the unit was sealed and not possibly exposed. Wipe stations 21 through 32 were not re-wiped because the unit was sealed and not possibly exposed. Wipe stations 41 through 44 were not re-wiped because the unit had been removed to storage prior to the cell harvester being opened.

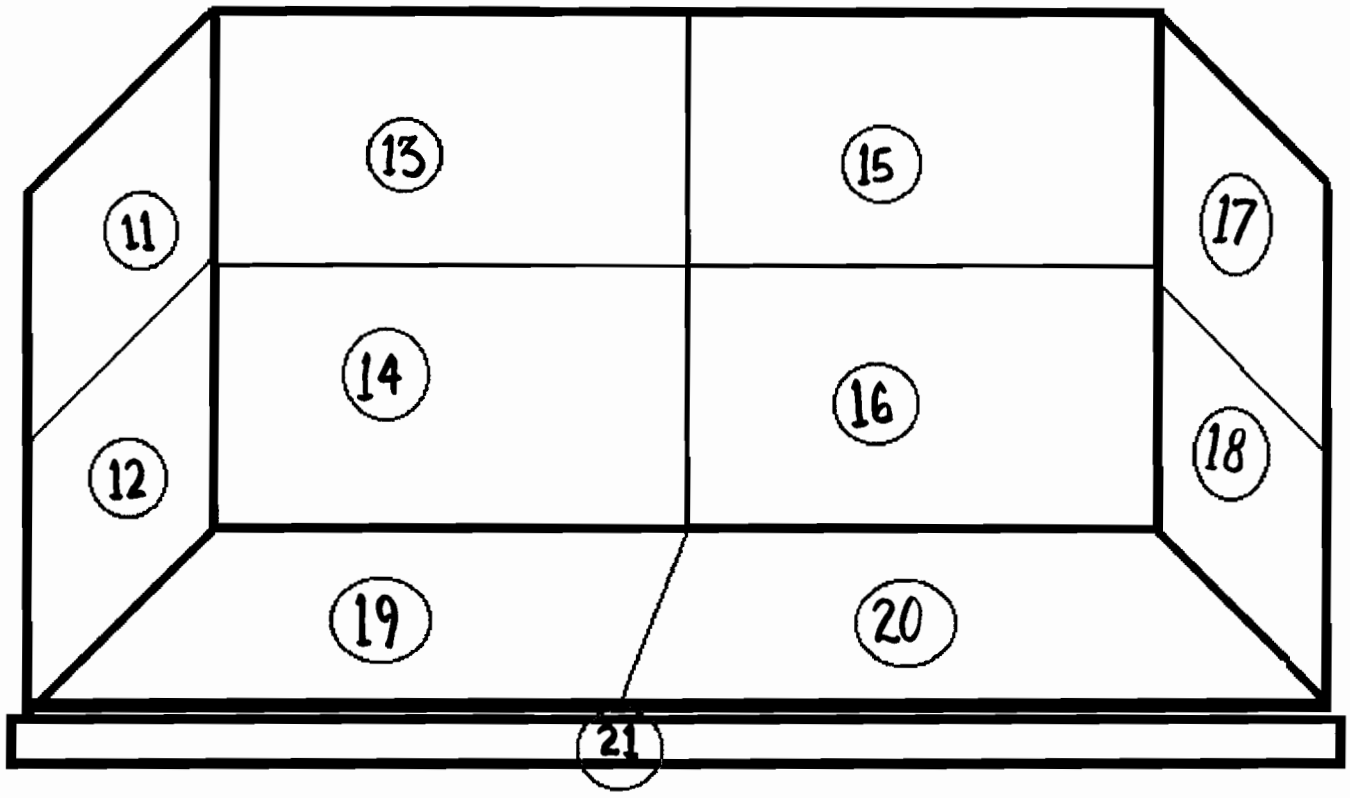
Gerald K. Watson
Radiation Safety Associate
AstraZeneca Fairfax Site

Protocol #: 2 Name:DIRECT DPM 02-Aug-2000 14:37
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

Secondary final Wipe test for Lot 2-103
ABC = 16.14 dpm

S#	TIME	DPM1	tSIE	FLAG
1	2.00	13.64	508.	
2	2.00	21.53	511.	
3	2.00	14.84	433.	
4	2.00	20.11	465.	
5	2.00	17.90	530.	
6	2.00	13.49	520.	
7	2.00	22.78	532.	
8	2.00	18.96	511.	
9	2.00	15.63	528.	
10	2.00	14.40	536.	
11	2.00	20.23	519.	
(10 missing vials)				
22	2.00	20.22	458.	
(10 missing vials)				
33	2.00	21.77	252.	
34	2.00	17.28	501.	
35	2.00	19.73	507.	
36	2.00	21.17	414.	
37	2.00	21.85	507.	
38	2.00	52.68	493.	
39	2.00	17.27	542.	
40	2.00	17.87	528.	
(4 missing vials)				
45	2.00	26.60	434.	


Lab- LW-103
Final Wipe Map
7
1
41-44
40
39
6
2
38
45
4
5
8
10
3
9
35
37
11-21
See Attachment 1
22-32
See Attachment 2
33
34
36


13
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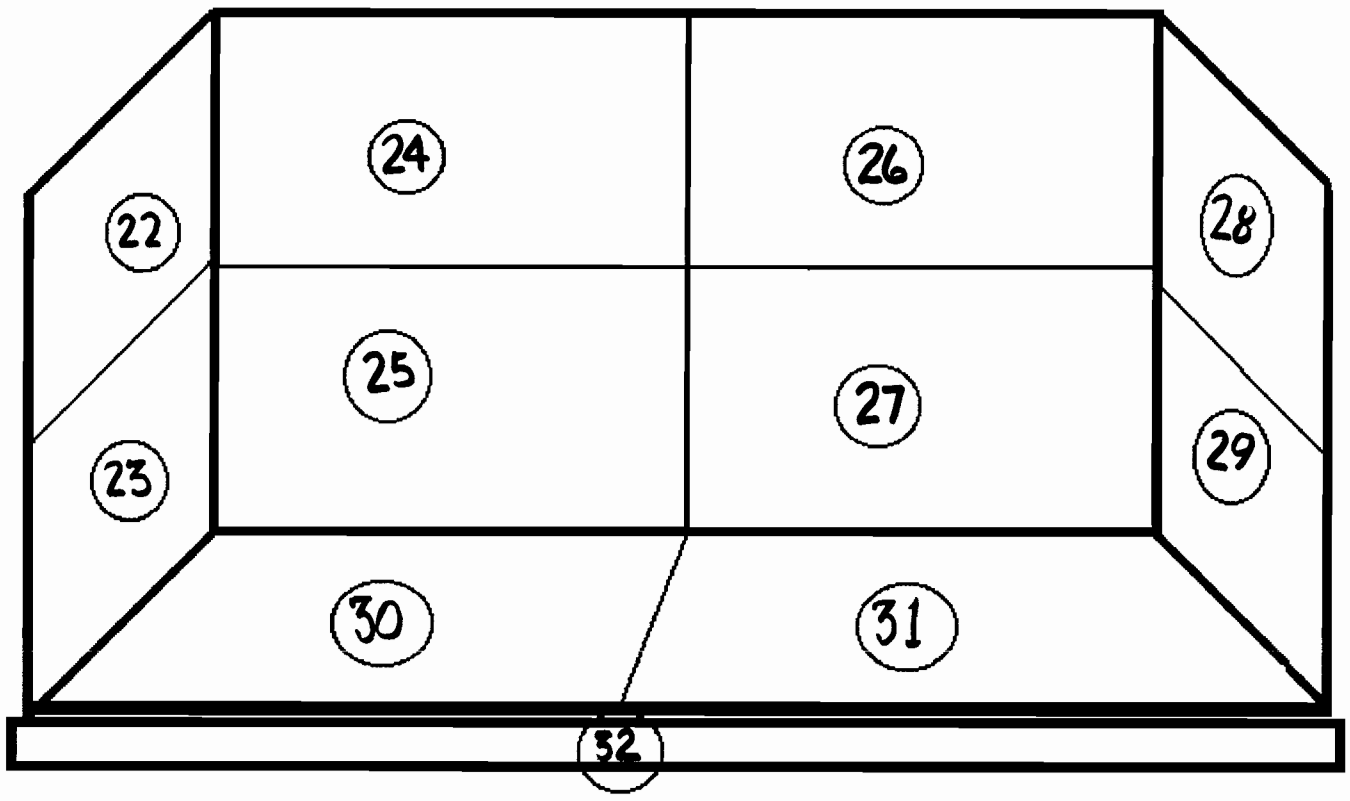
24
26
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25
27
23
29
30
31
32

Protocol #:15 Name:DIRECT DPM 12-Jul-2000 09:10
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	8.81	495.	
2	2.00	16.14	475.	
3	2.00	19.68	514.	
4	2.00	17.22	447.	
5	2.00	11.54	457.	
6	2.00	21.38	463.	
7	2.00	19.87	427.	
8	2.00	17.22	523.	
9	2.00	15.44	453.	
10	2.00	19.00	481.	
11	2.00	12.35	461.	
12	2.00	17.46	491.	
13	2.00	18.13	435.	
14	2.00	16.61	516.	
15	2.00	15.70	497.	
16	2.00	24.82	469.	
17	2.00	13.71	349.	
18	2.00	22.91	289.	
19	2.00	15.50	449.	
20	2.00	22.26	467.	
21	2.00	17.94	413.	
22	2.00	14.71	477.	
23	2.00	15.34	509.	
24	2.00	15.10	511.	
25	2.00	32.35	455.	
26	2.00	18.34	479.	
27	2.00	29.68	477.	
28	2.00	16.01	524.	
29	2.00	21.03	496.	
30	2.00	15.99	520.	
31	2.00	23.63	505.	
32	2.00	17.40	483.	
33	2.00	15.76	467.	
34	2.00	19.19	657.	
35	2.00	18.06	656.	
36	2.00	13.82	552.	
37	2.00	16.72	507.	
38	2.00	15.38	459.	
39	2.00	23.28	452.	
40	2.00	21.88	464.	
41	2.00	18.41	492.	
42	2.00	20.51	495.	
43	2.00	16.31	503.	
44	2.00	19.69	525.	
45	2.00	18.68	497.	

Trivedi Shephali

To: Irwin David DH
Cc: Palermo Sal SF; Civitella Patricia PC
Subject: Decommisioning lab L103
Importance: High

Dave,

I am decommissioning lab L103. I am sending to you and others hard copy of final swipe test of the Lab L103.

There were no radioactive spills during the period I worked in this lab (July 1993-Jan 1998)

Give me a call if you have any questions.

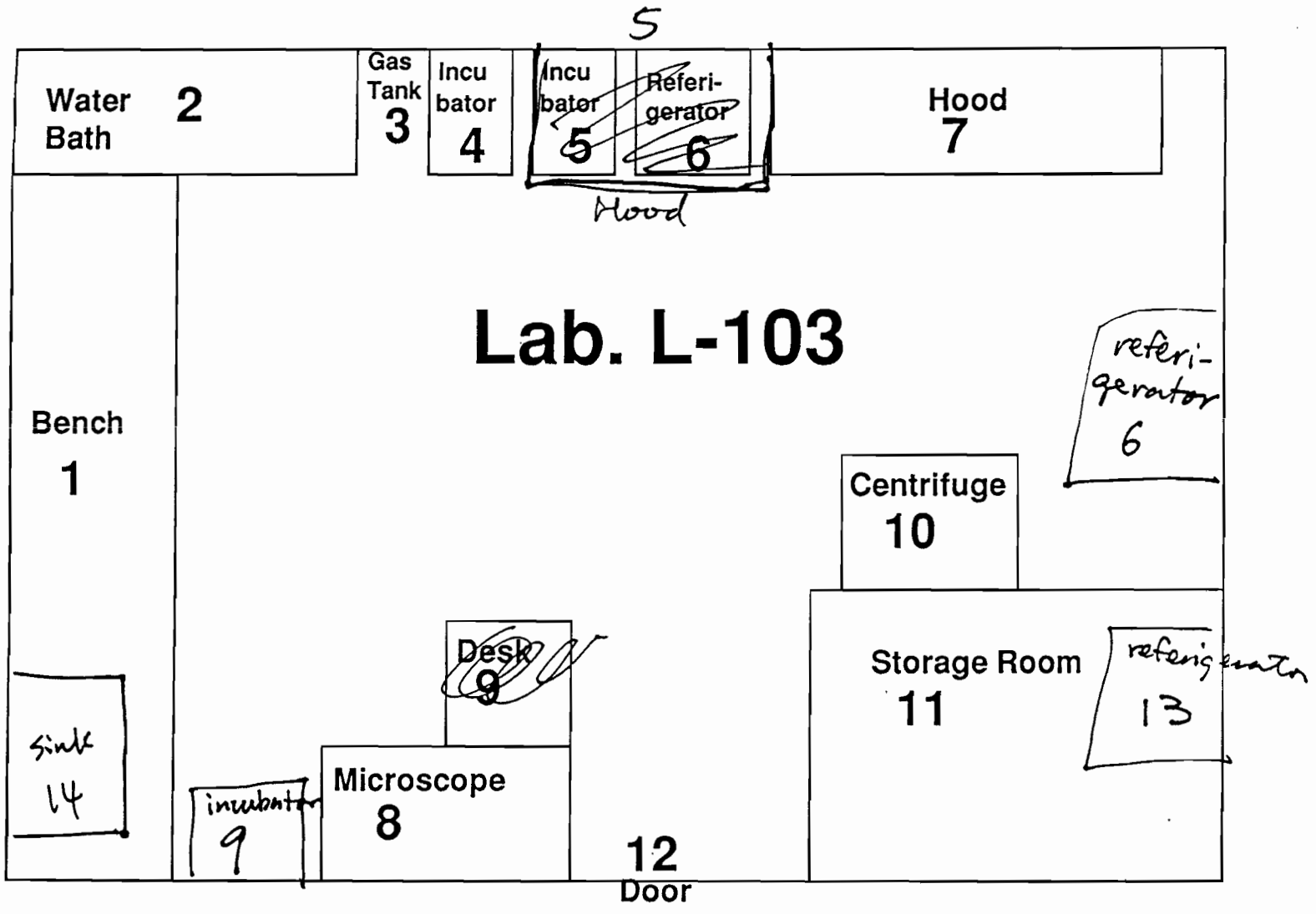
Shephali

L-103

Protocol #:27 Name:cpm wipe 0-2000 06-Jan-98 08:34
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=12.0-70.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Ti[illegible] = 1.00 QIP = SIS

S#	CPMA	SIS	FLAG	
1	63.00	13.890		#1 ← Wipe Area (Please see Lab [illegible])
2	50.00	14.970		
3	58.00	22.940		
4	37.00	15.640		
5	39.00	15.180		
6	39.00	31.390		
7	34.00	31.580		
8	29.00	20.500		
9	43.00	17.970		
10	40.00	32.840		
11	33.00	14.640		
12	33.00	22.400		
13	28.00	21.030		
14	53.00	38.740		#14

Final Wipe test for Rm L-103


5
Water Bath 2
Gas Tank 3
Incu bator 4
Incu bator 5
Referi- gerator 6
Hood 7
Hood
Lab. L-103
Bench 1
referi- gerator 6
Centrifuge 10
Desk 9
Storage Room 11
referigerator 13
sink 14
incubator 9
Microscope 8
12 Door

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: [redacted] Lab Supervisor: _____

Responsible Investigator for the Lab: CLAY SCOTT

RAM Users in This Lab: _____

_____

Date: 8·29·00

Date Completed	Questionnaire
25JUL00	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
25JUL00	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
25JUL00	Contact Safety to perform final wipe test of the lab and equipment.
8-28-00	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
8-28-00	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
8-30-00	After approval by Safety, the radiation signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Donald K Nash 8·30·00

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

☐ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	Yes or No	(If "No" go to the next section.)
Date lab was decommissioned?		
What isotopes were used?		
Have all surfaces/areas been decontaminated?	Yes or No	
Have all isotopes been transferred or disposed of?	Yes or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?	Yes or No	
Have solvents been transferred/disposed of/ reassigned?	Yes or No	
Particularly ether and THF?	Yes or No	
Have all stills been quenched/transferred/ reassigned?	Yes or No	
Have all intermediates/research samples been:	Yes or No	
• Entered into the M collection?	Yes or No	
• Assigned to others on the project and labeled as such?		
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	

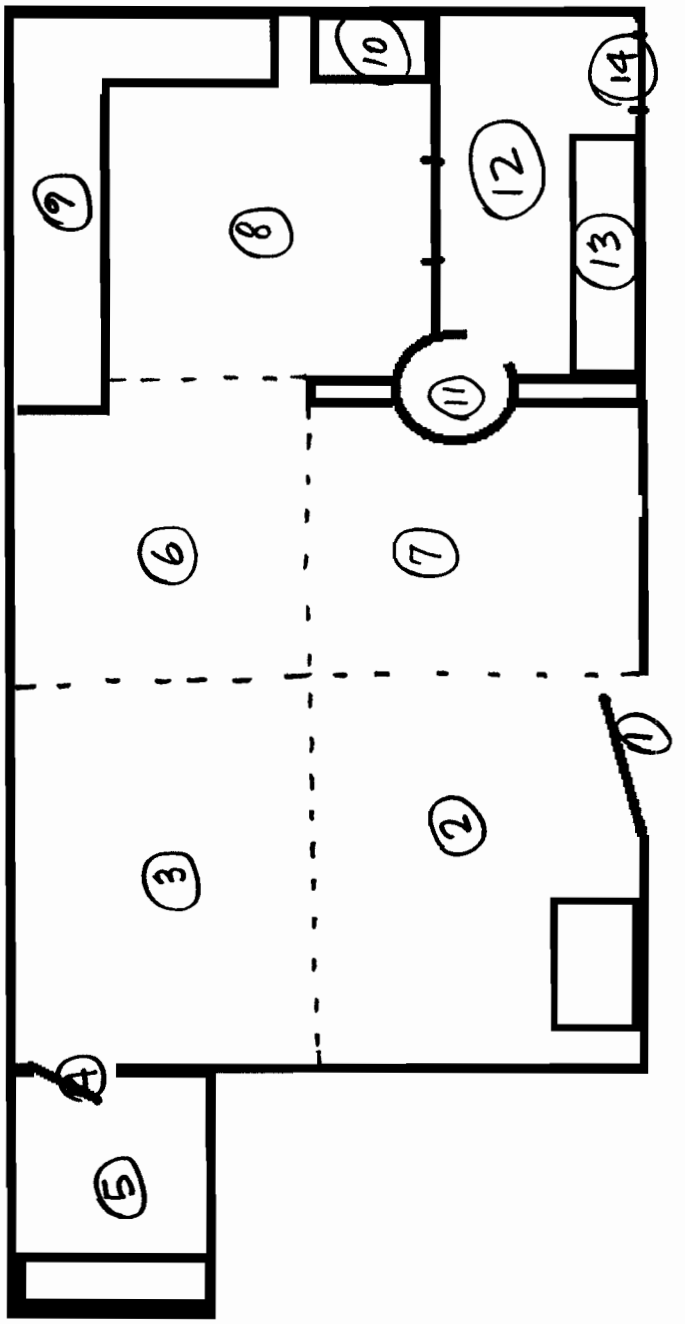
• Used vacuum pump oil?	Yes or No	
• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:	[signature]	8/30/00	Facilities:		/ /
Safety:	[signature]	8/30/00	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.



FINAL WIPE TEST MAP
FOR LAB LW-207

Protocol #:15 Name:DIRECT DPM 25-Jul-2000 14:09
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
egion C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
ime = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

Final Decommissioning Wipe Test
for Lot LW207
A.B.C = 1310dpm
G.K. Watson RSA

S#	TIME	DPM1	tSIE	FLAG
1	2.00	20.48	491.	
2	2.00	21.68	502.	
3	2.00	17.62	516.	
4	2.00	24.24	478.	
5	2.00	22.33	457.	
6	2.00	18.35	349.	
7	2.00	31.13	457.	
8	2.00	17.29	497.	
9	2.00	23.92	471.	
10	2.00	11.47	471.	
11	2.00	16.85	502.	
12	2.00	13.00	467.	
13	2.00	11.79	497.	
14	2.00	19.92	454.	

Radioactive Laboratory Decommissioning

Laboratory: LW-207

A. Responsible Investigator for the Lab: CLAY SCOTT

B. Lab Supervisor: CLAY SCOTT

C. RAM users in this lab: STEVE HUBBS
DEE WILKINS
CINDY SOBOTKA-BRINER

(Read also the section , "Radioisotope Laboratory Decommissioning" on p. 15 of the Radiation Safety Manual.)

1. Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.

2. Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.

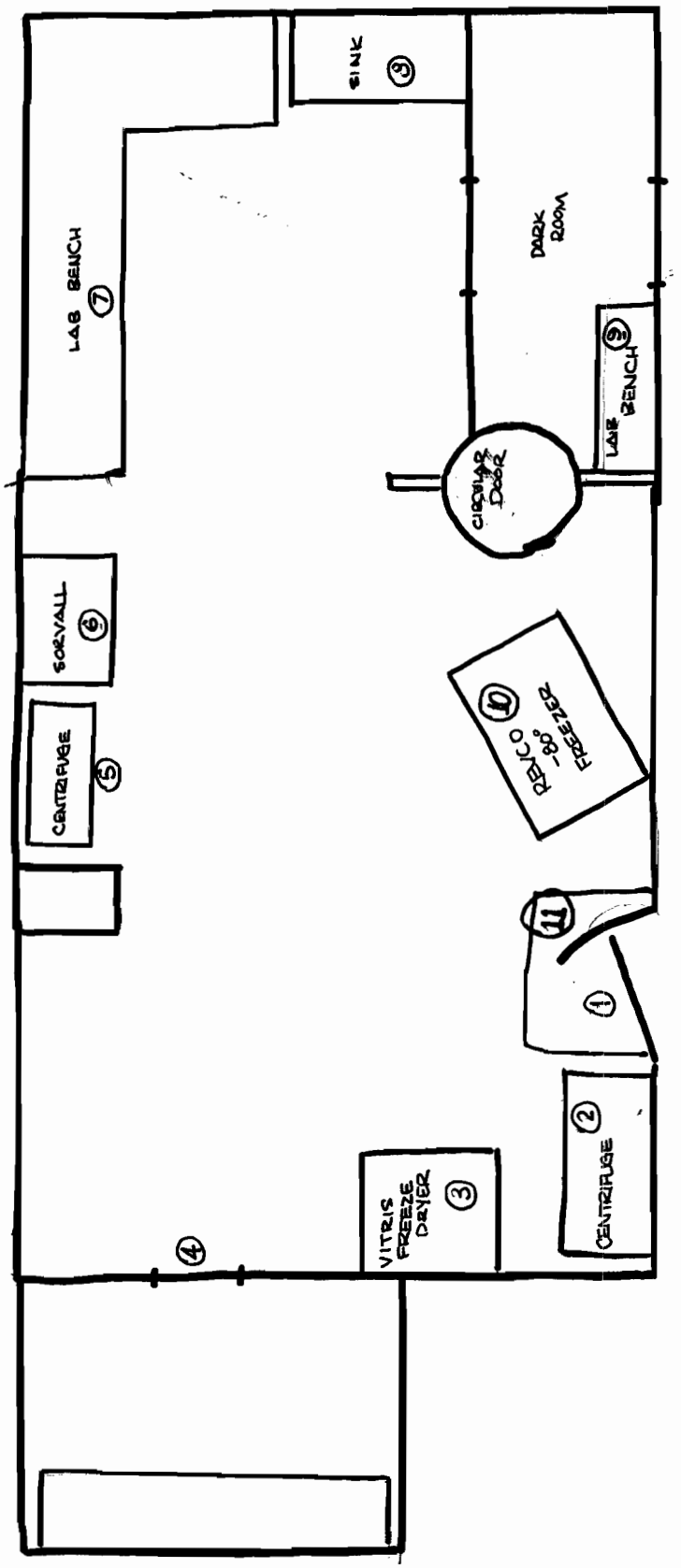
3. Perform a complete final wipe test of all areas in the lab; clean and rewipe any hot areas, until counts are below 100 dpm.

4. Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after clean up. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.

5. Write a letter to the Radiation Safety Officer (D. H. Irwin) stating that the lab is no longer radioactive, and that it should be removed from the list of radioactive labs. Include the documentation (lab history and wipe test) separately. Contact P.Civitella to have the lab removed. from the database. Remove the "radioactive" signs from the door and all areas now non-radioactive after approval by the RSO. Return door signs to P.Civitella.

S. Palermo

WIPE TEST MAP FOR LAB [redacted] &B



Protocol #:15 Name:DIRECT DPM 10-Aug-2000 08:46
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
egion C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200 Wipe test for Lab Lw207

D.B.C =
16.37 dpm
glew

S#	TIME	DPM1	tSIE	FLAG
1	2.00	10.72	508.	
2	2.00	16.99	510.	
3	2.00	17.55	426.	
4	2.00	15.67	459.	
5	2.00	12.79	527.	
6	2.00	17.02	517.	
7	2.00	21.71	527.	
8	2.00	16.63	505.	
9	2.00	17.35	527.	
10	2.00	17.70	529.	
11	2.00	13.59	509.	

Protocol #:15 Name:DIRECT DPM 15-Aug-2000 14:31
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200 Wipe test for Lab LW207

S#	TIME	DPM1	tSIE	FLAG
1	2.00	16.11	512.	
2	2.00	17.33	652.	
3	2.00	20.68	476.	
4	2.00	16.95	436.	
5	2.00	15.73	544.	
6	2.00	18.15	538.	

Protocol #: 2 Name:DIRECT DPM 21-Jan-1999 15:15
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
rect DPM
JNC DPM = 124200 Wipe test for Lot LW207 - gkw

S#	TIME	DPM1	tSIE	FLAG
1	2.00	19.82	439.	
2	2.00	11.67	457.	
3	2.00	15.94	435.	
4	2.00	12.99	444.	
5	2.00	13.44	431.	
6	2.00	15.65	430.	
7	2.00	22.05	438.	
8	2.00	16.44	426.	
9	2.00	19.83	420.	
10	2.00	15.24	437.	
11	2.00	13.57	436.	
12	2.00	21.56	445.	
13	2.00	19.73	441.	

Protocol #:15 Name:DIRECT DPM 21-Jan-1999 15:50
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
ENC DPM = 124200 Wipe test for Lot LW2078 - ghw

S#	TIME	DPM1	tSIE	FLAG
1	2.00	20.68	424.	
2	2.00	20.79	426.	
3	2.00	11.79	434.	
4	2.00	14.61	426.	
5	2.00	11.64	405.	
6	2.00	22.59	413.	
7	2.00	34.12	435.	
8	2.00	15.93	435.	
9	2.00	22.06	437.	

Palermo Sal SF

From: Mallamaci Michael MA
Sent: Thursday, February 26, 1998 4:10 PM
To: Irwin David DH
Cc: Civitella Patricia PC; Palermo Sal SF; Whealy Mary ME; Hagan Kevin KW
Subject: Radioactive material use histories for B237 B235 and [redacted]

Hi,

This is to inform you that since 6/95 through today 2/98, there were no radioactive spills or mishaps in either B237, B235 and L208 during this period.

Mike

Protocol #:11 Name:35S,32Pwipes 26-Feb-98 09:14
Region A: LL-UL= 5.0-1700 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=50.0-1700 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = SIS

S#	TIME	CPMA	CPMB	CPMC	SIS	FLAG
1	1.00	28	12.00	0.00	374.12	
2	1.00	23	8.00	0.00	161.04	
3	1.00	20	4.00	0.00	22.970	
4	1.00	26	8.00	0.00	86.350	
5	1.00	24	7.00	0.00	101.19	
6	1.00	26	10.00	0.00	294.35	
7	1.00	18	6.00	0.00	99.480	
8	1.00	22	6.00	0.00	69.580	
9	1.00	37	11.00	0.00	223.04	
10	1.00	42	15.00	0.00	324.31	
11	1.00	13	7.00	0.00	448.67	
12	1.00	25	9.00	0.00	216.75	
13	1.00	19	9.00	0.00	51.380	
14	1.00	19	6.00	0.00	114.70	
15	1.00	19	6.00	0.00	34.860	
(9 missing vials)						
25	1.00	19	11.00	0.00	275.24	
27	1.00	15	8.00	0.00	117.59	

L208

Decommissioning wipe Tests

① anteroom door
② anteroom bench
③ anteroom sink
④ metal bench
5-7 center tables
8-10 bench by sink
11 sink
12 door
13-15 floor.

The lab was also survey with survey meter

Mary E Wheatley
2-26-98

Bench 5
Bench 1
INCUB 2
Table with Microscope
Refrigerator
Freezer
Floor Shaker
BIOSAFETY CAB 3
INCUB 4
Bench 7
L-208
Bench 6
Sink
-80°C freezer
refrigerator freezer

Coffin, Tim

From: Coffin, Tim
nt: Wednesday, December 01, 2010 9:27 AM
To: Tian, Gaochao; Elmore, Chad S; Terpko, Marc O; Schlank, Bliss M; Civitella, Patricia C; Hall, Thomas; Bristow, Brian K
Subject: Radioactive Lab Decommissioning [redacted]

FOR YOUR INFORMATION/ACTION:

As of today, December 01, 2010, Lab L211 has been decommissioned as a Radioactive Material use lab.

ACTIONS TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from lab.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. GM Meter Checks were done and all results were at background or less than the AZ Action Level of 3 times background.
4. The Top count and Tri Carb Scintillation Counter were decommissioned and ready for relocation to other labs. The Tri Carb was relocated to L042B for secure storage.
5. The calibration/LUMI plates and Unquenched Standards were place in B154 for secure storage of radioactive material.
6. All required radioactive program postings, radioactive labels, and signs were removed from equipment and benches.
7. Lab L211 has been removed from the Radioactive lab Data Bases.
8. Decommission Forms were placed on the fume hoods, freezers, benches, and other equipment in the labs. Copies placed in the Wipe Test Book and in the official Radiation Safety Files.
9. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
10. This E-mail serves as the official notice to the RSO that the lab has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. **Brian Bristow**: Remove the lab from your Radioactive lab Data Base and please remove the radioactive hazard signs from the L211 entrance doors.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227. 6-2682

Decommission Wipes L211

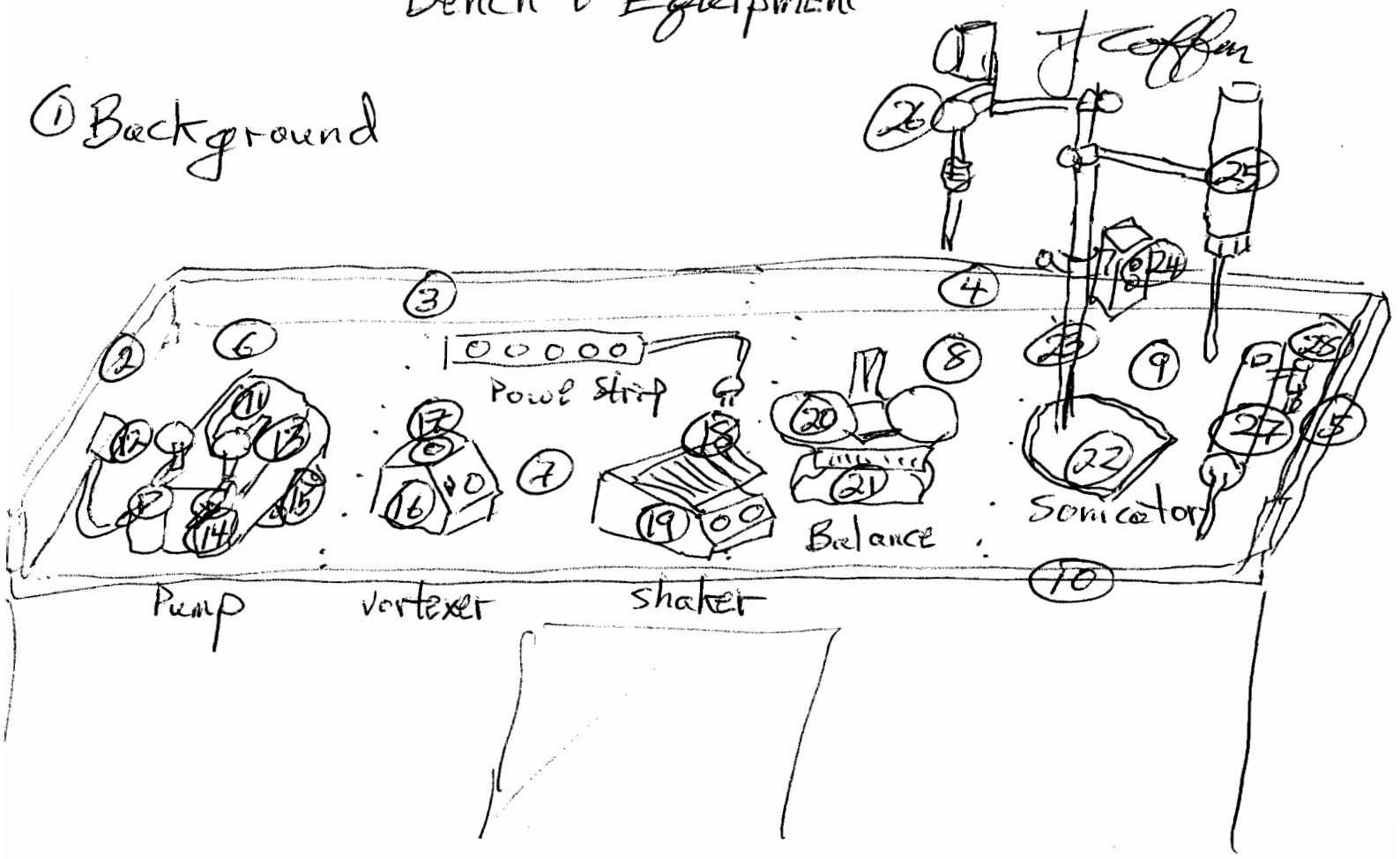
Protocol #:15 Name:Wipe Test 08-Nov-2010 09:38
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
..me = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

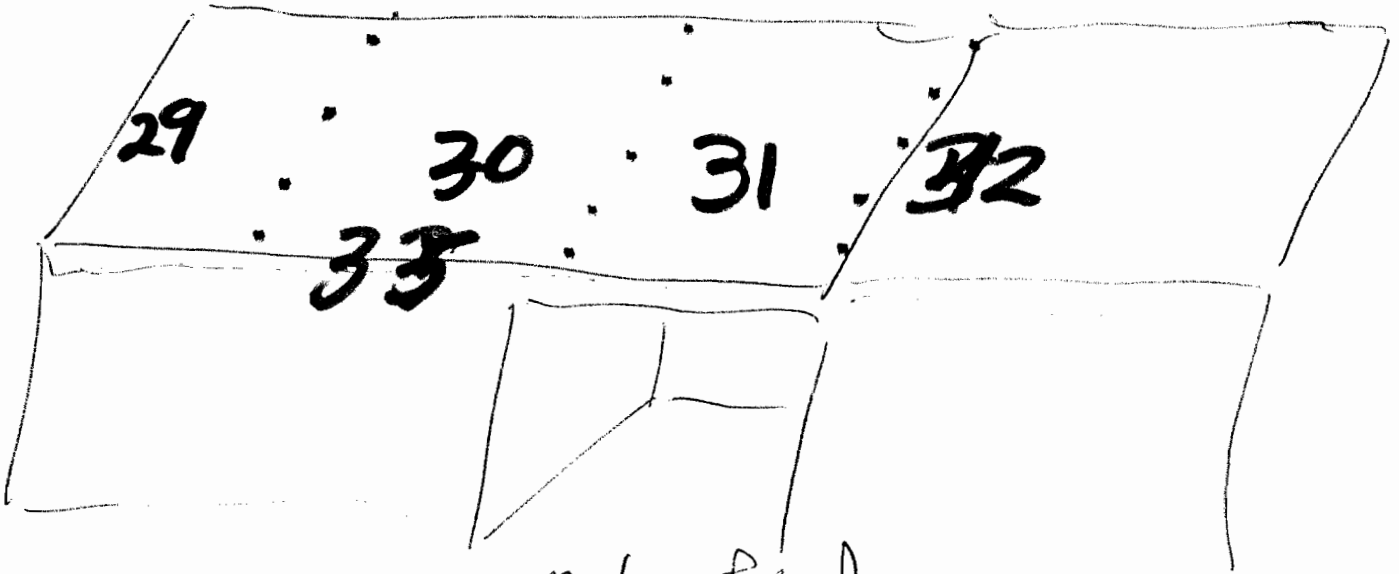
S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	6.19	4.81	4.60			584.	B
2	1.00	0.00	1.19	3.40	0.00	1.61	545.	
3	1.00	4.81	0.00	2.40	10.24	0.00	523.	
4	1.00	9.81	4.19	0.00	18.49	5.57	522.	
5	1.00	0.00	1.19	0.00	0.00	1.62	533.	
6	1.00	5.43	0.00	0.00	11.37	0.00	539.	
7	1.00	8.81	0.19	0.40	18.21	0.15	546.	
8	1.00	6.81	2.19	0.00	12.94	2.88	546.	
9	1.00	0.00	0.19	0.40	0.00	0.26	541.	
10	1.00	0.00	0.00	0.00	0.00	0.00	552.	
11	1.00	0.00	0.19	0.00	0.00	0.26	538.	
12	1.00	9.06	0.00	0.00	19.96	0.00	493.	
13	1.00	3.81	0.19	0.00	7.83	0.21	544.	
14	1.00	11.81	0.00	0.00	24.78	0.00	537.	
15	1.00	0.00	0.00	0.00	0.00	0.00	526.	
16	1.00	5.81	0.00	0.00	12.05	0.00	549.	
17	1.00	0.81	0.00	0.00	1.69	0.00	539.	
18	1.00	0.81	2.19	0.40	0.45	2.95	556.	
19	1.00	4.81	0.00	0.00	10.02	0.00	545.	
20	1.00	1.81	0.00	0.00	3.78	0.00	542.	
21	1.00	4.81	0.00	0.40	10.01	0.00	546.	
22	1.00	1.81	1.19	0.40	3.13	1.59	533.	

Decommission L211 Bench & Equipment

11/23/10

① Background





Meter Readings

Ludlum 3, Ser# 146121
Cal: 10/12/10
Probe: 44-9 PR 1.51749

Background: 40-80 cpms
Readings: Background

Decommission L211
Bench & Equipment

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101123_1511\20101123_1511.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	7	0	0	0	907.54	583.97	B
2	1.00	6	0	0	14	0	0.00	600.03	
3	1.00	31	0	0	80	0	0.00	496.41	
4	1.00	84	4	0	251	0	0.00	394.95	
5	1.00	7	3	0	21	3	0.00	390.75	
6	1.00	26	5	0	65	4	0.00	475.67	
7	1.00	12	0	0	30	0	0.00	523.82	
8	1.00	43	3	0	170	0	0.00	297.77	
9	1.00	12	0	0	31	0	0.00	531.91	
10	1.00	5	0	0	14	0	0.00	566.40	
11	1.00	5	0	0	14	0	131.21	547.53	
12	1.00	9	3	0	20	3	0.00	578.56	

13	1.00	11	0	0	29	0	0.00	502.03
14	1.00	11	1	0	26	0	0.00	557.47
15	1.00	10	0	0	25	0	0.00	568.52
16	1.00	82	3	0	185	0	0.00	582.83
17	1.00	68	0	0	162	0	0.00	536.68
18	1.00	45	0	0	110	0	0.00	516.50
19	1.00	107	17	0	246	9	0.00	543.70
20	1.00	6	0	0	15	0	0.00	555.38
21	1.00	7	0	0	18	0	0.00	544.15
22	1.00	13	0	0	34	0	0.00	485.97
23	1.00	6	6	0	12	7	139.98	581.89
24	1.00	2	3	0	4	3	0.00	538.96
25	1.00	11	1	0	26	0	219.03	567.98
26	1.00	9	0	0	23	0	0.00	504.18
27	1.00	7	3	0	16	3	0.00	569.11
28	1.00	13	0	0	31	0	0.00	562.81
29	1.00	12	0	0	27	0	0.00	621.94
30	1.00	27	0	0	65	0	279.85	554.46
31	1.00	241	13	0	593	0	45.00	503.57
32	1.00	118	8	0	281	0	0.00	525.57
33	1.00	23	1	0	53	0	202.16	564.93

Vortexer disposed
Shaker

Follow-up See Page (4)

Samples: #16, 17, 18, 19 — Despose Equipment in Radioactive waste Drum

Samples #4, 8, 31, 32 — Clean and recycle

Page (4)

Follow-up Wipes of L211 Bench close to door

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101130_1409\20101130_1409.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	6	0	0	0	896.02	645.79	B
2	1.00	2	0	0	5	0	0.00	566.53	
3	1.00	2	0	0	5	0	0.00	575.29	
4	1.00	2	0	0	6	0	0.00	583.67	
5	1.00	3	3	0	6	4	648.92	637.26	
6	1.00	0	0	0	0	0	0.00	583.20	
7	1.00	1	2	0	2	3	0.00	601.55	

All Clean

Page 5

Follow up Wipes of L211 Center Bench

JK Coffin

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101130_1348\20101130_1348.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	6	0	0	0	604.90	610.69	B
2	1.00	17	0	0	39	0	392.84	571.04	
3	1.00	10	6	0	21	6	0.00	565.15	
4	1.00	8	0	0	20	0	0.00	572.47	
5	1.00	7	0	0	17	0	1020.33	585.48	

All Clean

Page ①

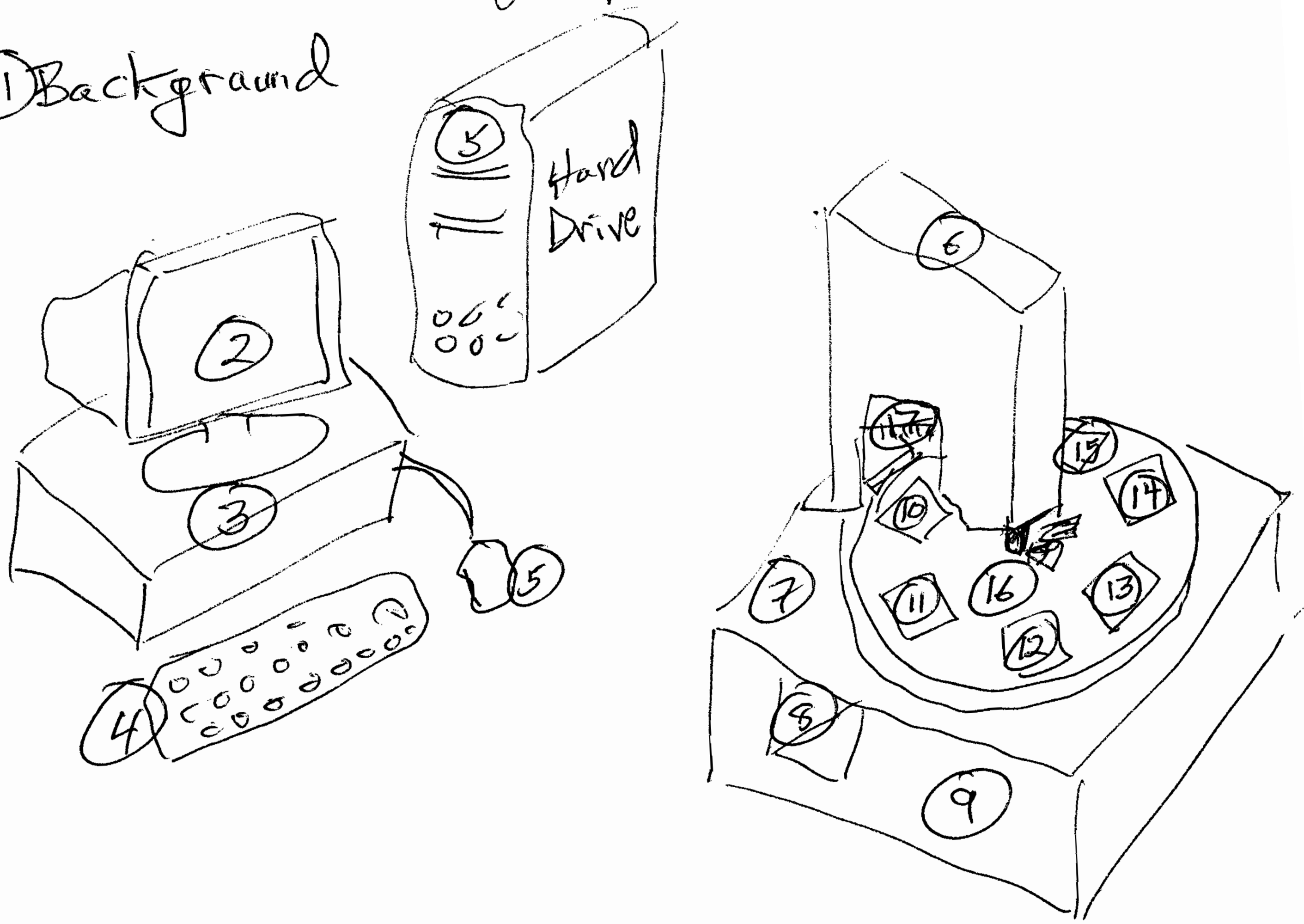
L211

Bench Top Equipment

[signature]

11/23/10

① Background



Meter Readings

Ludlum 3, Ser# 146121

Cal: 10/12/10

Probe: 44-9, PR151749

Background: 40-80cpms

Readings: Background

Page (2)

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission L211
Bench Top Equipment
K Coffin

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101123_1426\20101123_1426.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	7	0	0	0	748.92	589.25	B
2	1.00	0	0	0	1	0	7807.34	567.61	
3	1.00	0	5	0	0	7	1474.96	576.39	
4	1.00	68	13	0	164	8	68.87	499.10	
5	1.00	135	7	0	304	0	0.00	578.65	
6	1.00	4	0	0	11	0	189.81	554.38	
7	1.00	247	3	0	576	0	0.00	550.70	
8	1.00	24	3	0	54	1	150.86	582.66	
9	1.00	23	3	0	50	1	0.00	620.21	
10	1.00	3	2	0	7	2	676.26	647.63	
11	1.00	47	6	0	97	2	0.00	659.65	
12	1.00	28	0	0	61	0	48.74	638.56	

} Keyboard & Mouse (Disposed)

13	1.00	96	1	0	220	0	14.23	572.06
14	1.00	90	7	0	204	0	0.00	572.11
15	1.00	14	0	0	33	0	403.72	570.79
16	1.00	86	1	0	209	0	72.38	519.14
17	1.00	252	14	0	563	0	0.78	587.55

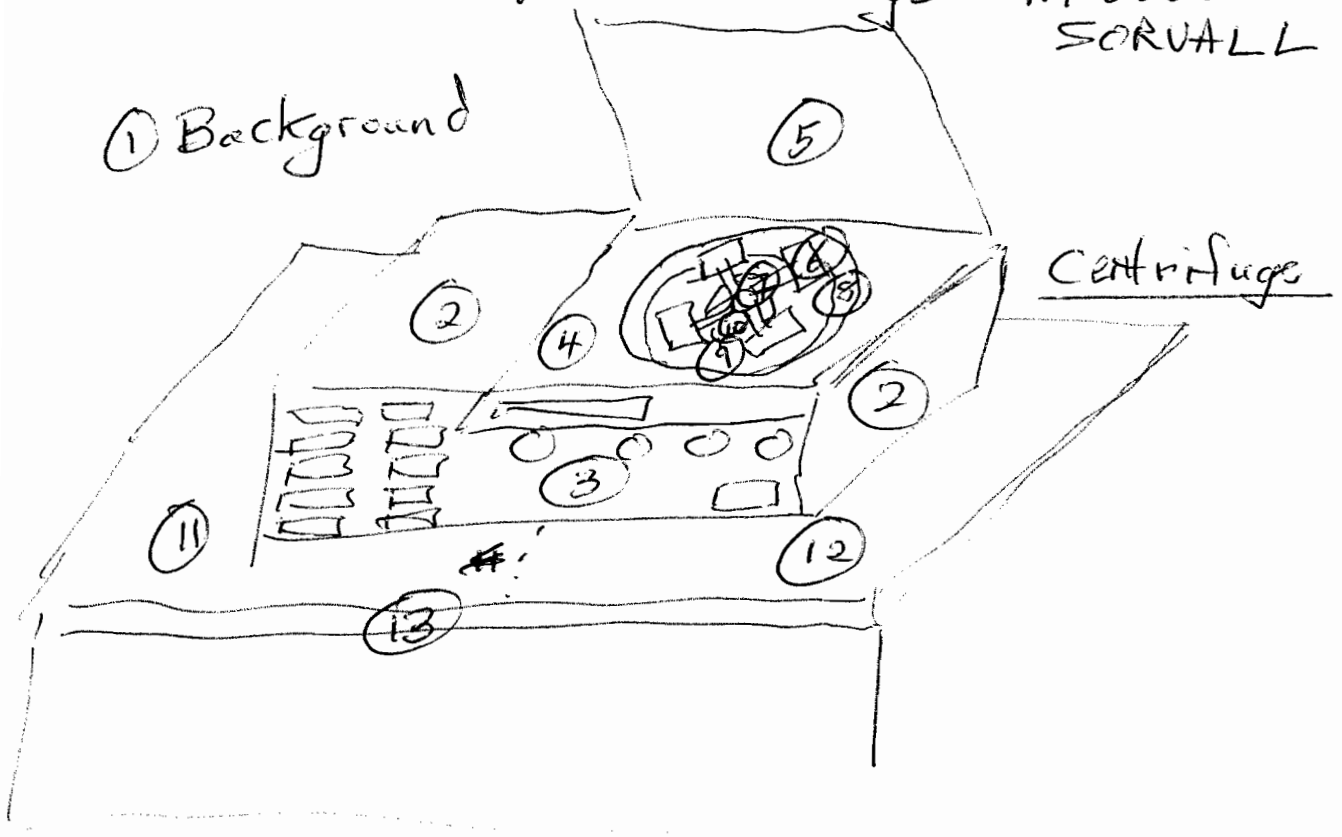
Follow-up See Page (4)

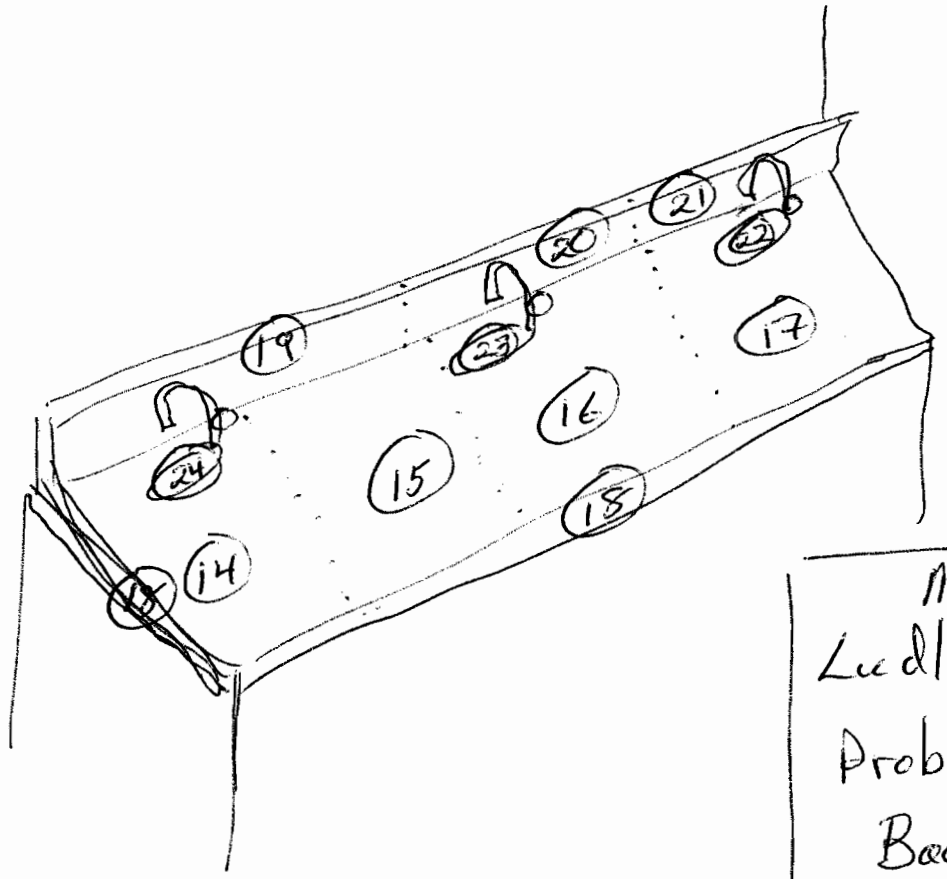
Sample #4, #5 Dispose of Keyboard and Mouse in Radioactive Trash Drum

~~Samples~~ (7, 13, 14, 16, 17) — ~~Clean and wipe~~ Sample Equipment — Disposed in Rad Lab Waste Drum

L211
Decommission Bench Tops & Centrifuge RT6000D SORVALL

J. Coffin
11/23/10





Meter Readings

Ludlum 3, Ser 146121
Cal: 10/12/10
Probe: 44-9, Ser: PR151749
Background: 40-80 cpms
Readings: Background

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101123_1327\20101123_1327.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	5	0	0	0	802.40	606.45	B
2	1.00	2	0	0	5	0	1053.96	560.55	
3	1.00	10	0	0	24	0	298.70	582.27	
4	1.00	7	3	0	15	2	1143.57	551.10	
5	1.00	4	2	0	8	2	0.00	615.46	
6	1.00	38	6	0	90	3	167.70	520.44	
7	1.00	3	1	0	7	1	1459.67	611.90	
8	1.00	12	18	0	22	21	493.52	603.96	
9	1.00	0	4	0	0	5	0.00	574.26	
10	1.00	6	2	0	14	1	902.56	599.73	
11	1.00	1	2	0	3	2	3570.58	552.18	
12	1.00	1	2	0	3	2	688.49	516.77	

13	1.00	1	2	0	3	2	0.00	556.32
14	1.00	0	0	0	1	0	0.00	566.98
15	1.00	1	5	0	2	6	0.00	570.38
16	1.00	7	1	0	17	0	691.58	570.10
17	1.00	8	6	0	17	6	0.00	587.91
18	1.00	2	3	0	5	3	0.00	554.67
19	1.00	8	2	0	19	2	676.63	517.95
20	1.00	28	0	0	68	0	0.00	531.28
21	1.00	20	7	0	45	6	209.96	566.04
22	1.00	39	0	0	107	0	0.00	437.27
23	1.00	1	7	0	1	8	780.32	563.23
24	1.00	4	0	0	9	0	3124.55	557.66

Follow-up - See Page (4)

clean & rewipe area #22

Page 4

Protocol# 15 - 3h_14c_dpm.lsa User: Default

L211
Follow-up Wipes of Cup sink

J Coffin

Assay Definition

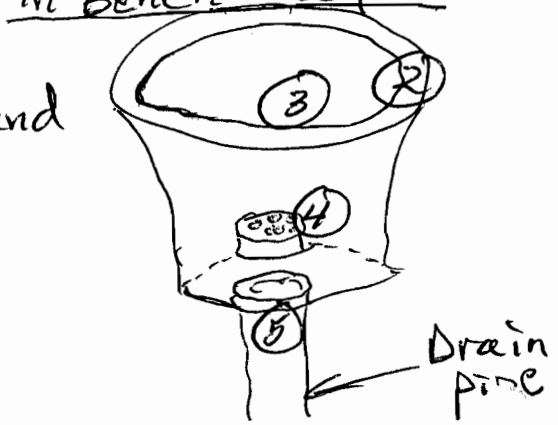
Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101130_0755\20101130_0755.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Cup sink in Bench Top

① Background



Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

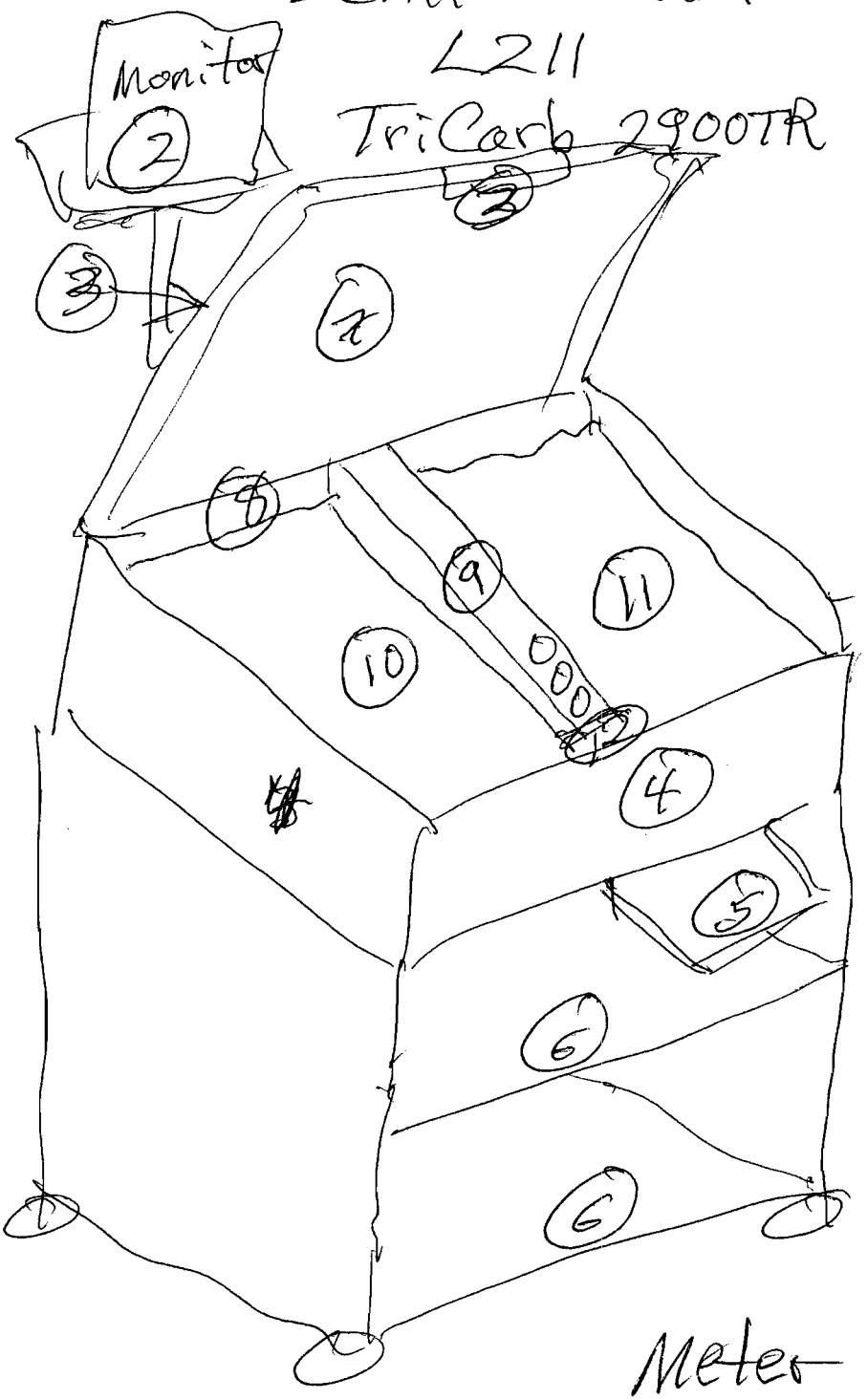
S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	35	23	0	0	0	196.26	567.93	B
2	1.00	2	0	0	9	0	0.00	587.58	— Table Sides
3	1.00	0	0	0	4	0	0.00	585.94	— Sink
4	1.00	257	690	0	357	822	65.65	574.03	— Plug
5	1.00	8	0	0	20	0	160.56	616.67	— Drain

Dispose sink Plug in Rad Trash Drum.

Decommission Scint Counter L211

TriCarb 2900TR

TJ Coffen
4/30/2010



(1) Background

Meter Readings

Ludlum 3 Ser# 146121
Cal: 10/12/10
Probe: 44-9, PR151749

Background: 40-80 cpms

Readings: Background

L211
Tri Carb Scint Counter

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101130_1434\20101130_1434.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	5	0	0	0	829.62	594.59	B
2	1.00	2	0	0	6	0	0.00	564.11	
3	1.00	4	7	0	7	8	799.39	604.18	
4	1.00	2	2	0	3	2	0.00	571.51	
5	1.00	10	2	0	27	1	818.81	433.54	
6	1.00	4	1	0	10	1	0.00	508.69	
7	1.00	3	6	0	5	7	1837.74	574.34	
8	1.00	1	1	0	2	1	0.00	538.45	
9	1.00	3	3	0	7	3	0.00	563.46	
10	1.00	2	0	0	5	0	0.00	545.09	
11	1.00	2	0	0	7	0	0.00	478.84	
12	1.00	8	3	0	19	2	0.00	512.64	

clean for storage in L042B

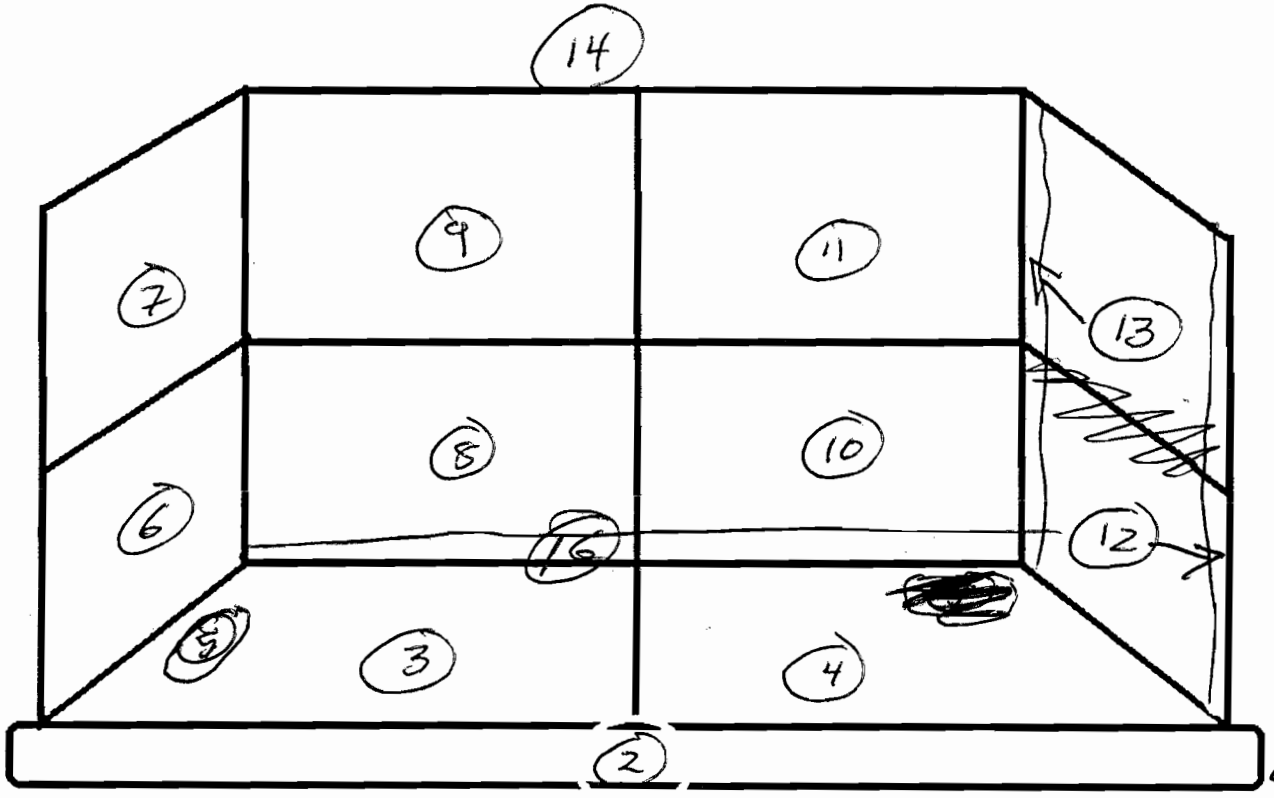
Decommission L211

#1 Left

Date 11/30/10

Jeffin

(1) Background



Meter

Ludlum 3, Ser# 146121, Cal: 10/12/10

Probe: 44-9, Ser# PR151749

Background: 20-80 cpms

Readings: Background

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission Wipes of L211 Left Hood #1

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101130_1509\20101130_1509.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	6	6	0	0	0	614.97	592.25	B
2	1.00	9	0	0	22	0	0.00	526.07	
3	1.00	2	0	0	5	0	1141.55	538.41	
4	1.00	0	0	0	1	0	0.00	525.61	
5	1.00	0	2	0	0	3	0.00	524.13	
6	1.00	0	0	0	1	0	0.00	530.20	
7	1.00	3	3	0	6	4	24.00	574.72	
8	1.00	0	1	0	0	2	1621.28	548.22	
9	1.00	0	0	0	0	1	0.00	540.91	
10	1.00	3	1	0	7	1	1171.17	551.77	
11	1.00	0	0	0	0	0	0.00	515.14	
12	1.00	5	0	0	12	0	2954.33	553.91	

13	1.00	6	0	0	15	0	640.99	544.76
14	1.00	2	0	0	5	0	1648.81	485.59
15	1.00	0	0	0	1	0	127.20	564.54
16	1.00	0	7	0	0	9	211.83	534.18

All clean

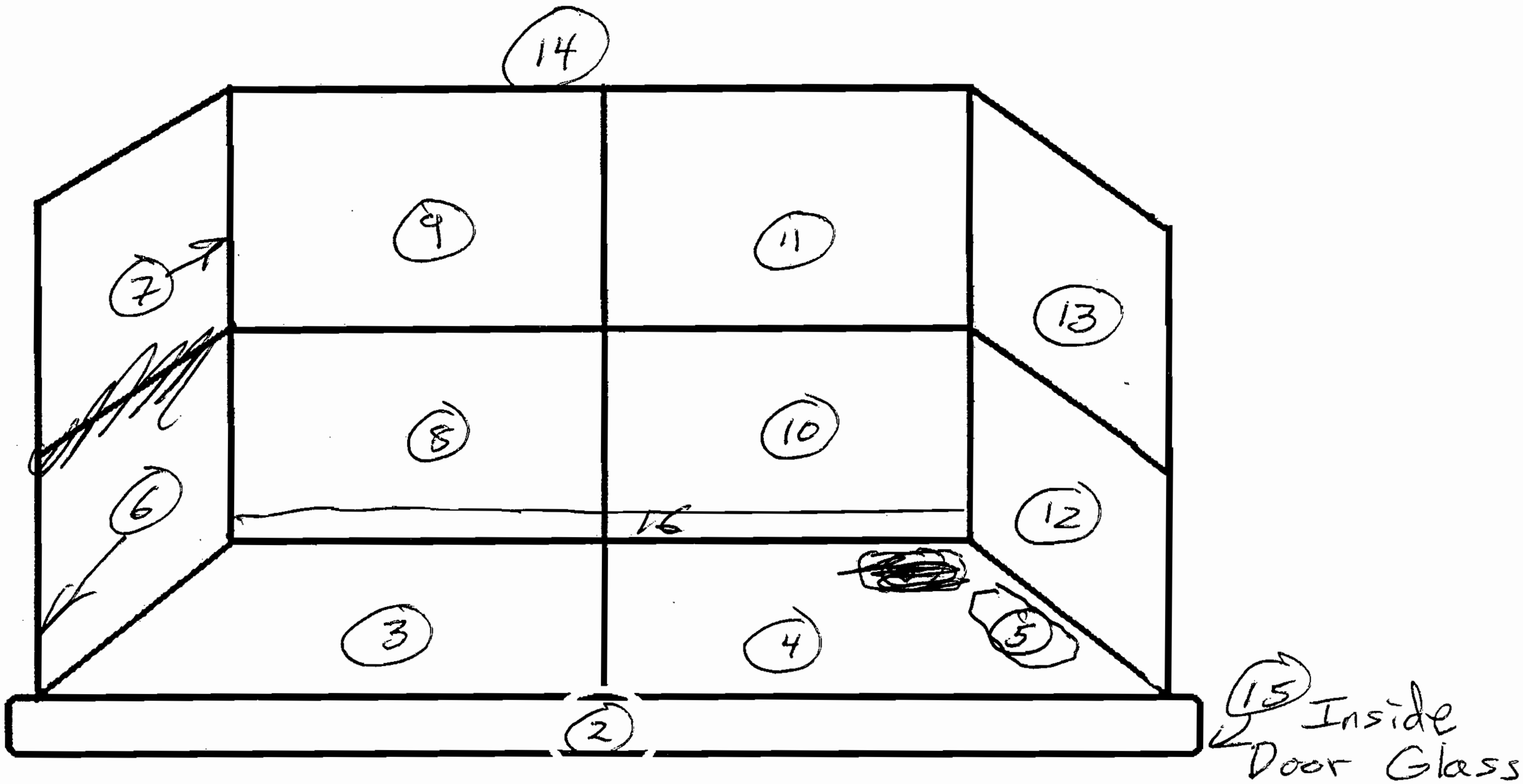
Decommission L211

#2 Center

Date 4/30/10

JCoffin

1 Background



Meter

Ludlum 3, Ser# 146121, Cal: 10/12/10 jc

Probe: 44-9, Ser# PR151749

Background: 20-80 cpms

Readings Background

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission wipes of L211 Center Hood #2

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101130_1552\20101130_1552.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	8	0	0	0	675.04	576.78	B
2	1.00	11	0	0	28	0	1534.78	547.08	
3	1.00	8	3	0	17	2	456.31	576.39	
4	1.00	13	0	0	32	0	783.49	539.42	
5	1.00	1	0	0	2	0	0.00	515.68	
6	1.00	3	3	0	7	3	0.00	554.55	
7	1.00	2	2	0	4	3	0.00	609.94	
8	1.00	3	0	0	8	0	0.00	540.43	
9	1.00	1	0	0	3	0	0.00	563.42	
10	1.00	2	0	0	6	0	0.00	540.57	
11	1.00	0	0	0	0	0	0.00	525.09	
12	1.00	0	0	0	2	0	0.00	573.79	

13	1.00	0	0	0	0	0	0.00	527.95
14	1.00	4	1	0	10	1	752.26	458.93
15	1.00	0	0	0	0	0	0.00	568.43
16	1.00	2	0	0	5	0	1275.83	526.18

All clean!

Decommission L211

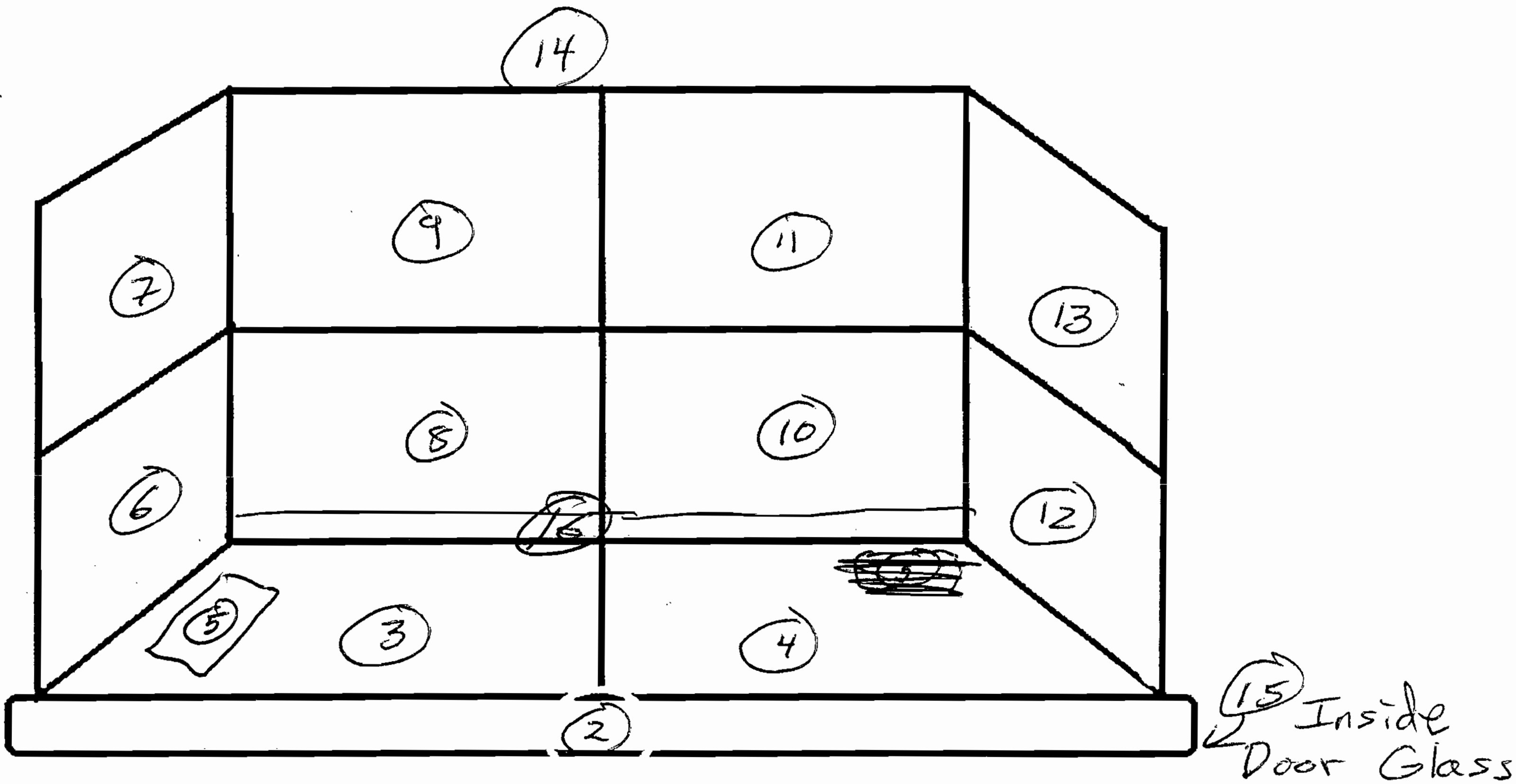
#3

Right

Date

11/30/10

① Background



Meter

Ludlum 3, Ser# 146121, Cal: 10/12/10 jc

Probe: 44-9, Ser# PR151749

Background: 20–80 cpms

Readings: Background

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission Wipes of L211 right hood #3

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101130_1635\20101130_1635.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	11	6	0	0	0	488.49	563.23	B
2	1.00	3	1	0	6	1	466.81	525.28	
3	1.00	0	0	0	0	0	0.00	545.91	
4	1.00	0	0	0	0	0	0.00	477.32	
5	1.00	0	5	0	0	6	0.00	229.82	
6	1.00	8	0	0	20	0	0.00	548.73	
7	1.00	0	0	0	0	0	0.00	527.90	
8	1.00	0	4	0	0	5	0.00	528.62	
9	1.00	0	0	0	0	1	0.00	479.24	
10	1.00	0	2	0	0	2	1794.21	566.44	
11	1.00	0	0	0	0	0	9204.41	476.22	
12	1.00	0	0	0	0	0	0.00	564.96	

13	1.00	0	0	0	0	0	0.00	539.42
14	1.00	0	2	0	0	2	1900.01	494.13
15	1.00	0	2	0	0	3	0.00	549.37
16	1.00	0	2	0	0	3	0.00	518.17

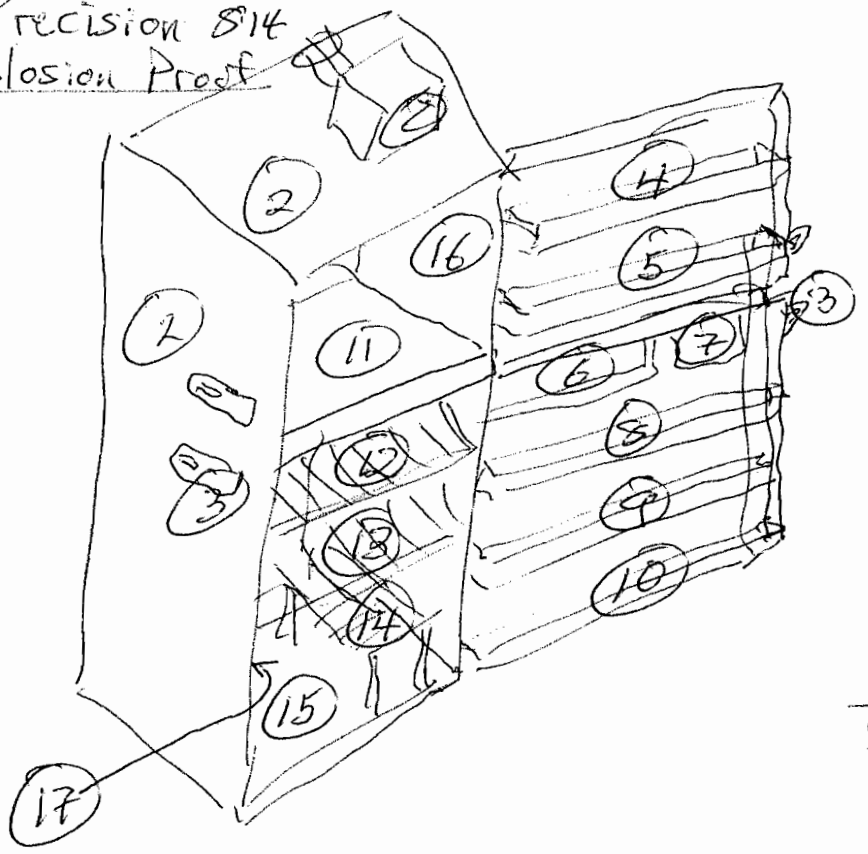
All Clean

L211

11/23/10
TJ Coffin

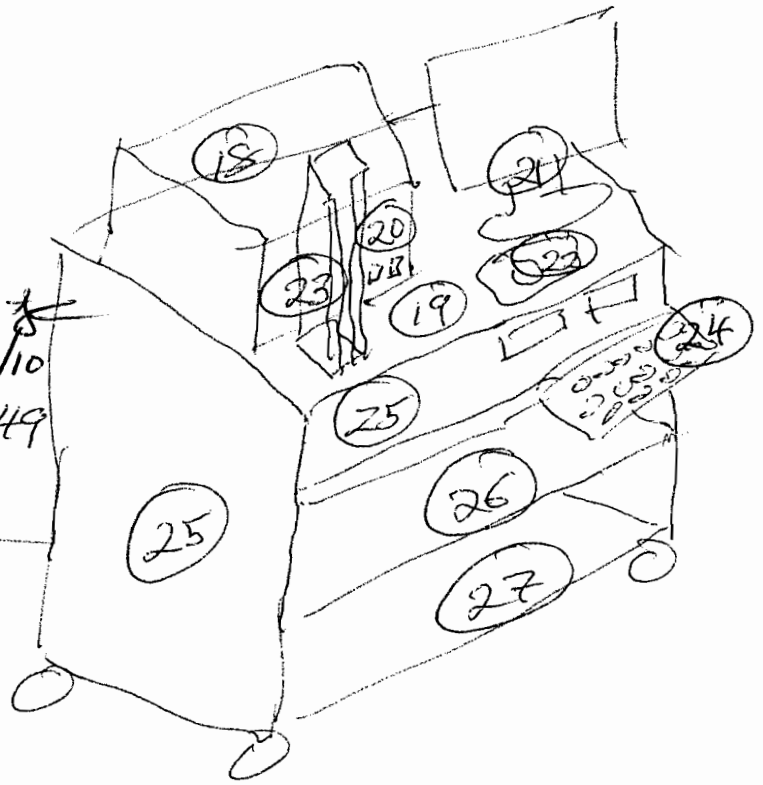
Decommission Freezer/Frig and Top Count

Precision 814
Explosion Proof



① Background

Top Count



Meter Readings

Ludlum 3, Ser 146121
Cal: ~~10/12/10~~ 10/12/10
Probe: 44-9 Ser PR 151749
Background: 40-80 cpms
Readings: Background

Protocol# 15 - 3h_14c_dpm.lsa User: Default

L211
Decommission Freezer/Frig
and Top Count
J Coffin

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101123_0617\20101123_0617.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	6	0	0	0	670.62	583.11	B
2	1.00	3	0	0	7	0	2247.00	589.49	
3	1.00	13	0	0	31	0	0.00	569.17	
4	1.00	12	0	0	28	0	0.00	583.93	
5	1.00	19	0	0	43	0	457.05	586.15	
6	1.00	10	0	0	24	0	0.00	571.45	
7	1.00	8	0	0	18	0	717.26	589.11	
8	1.00	11	0	0	26	0	0.00	566.20	
9	1.00	7	4	0	15	4	0.00	575.84	
10	1.00	2	0	0	5	0	0.00	569.50	
11	1.00	2	0	0	5	0	2758.23	566.55	
12	1.00	10	5	0	22	5	0.00	565.02	

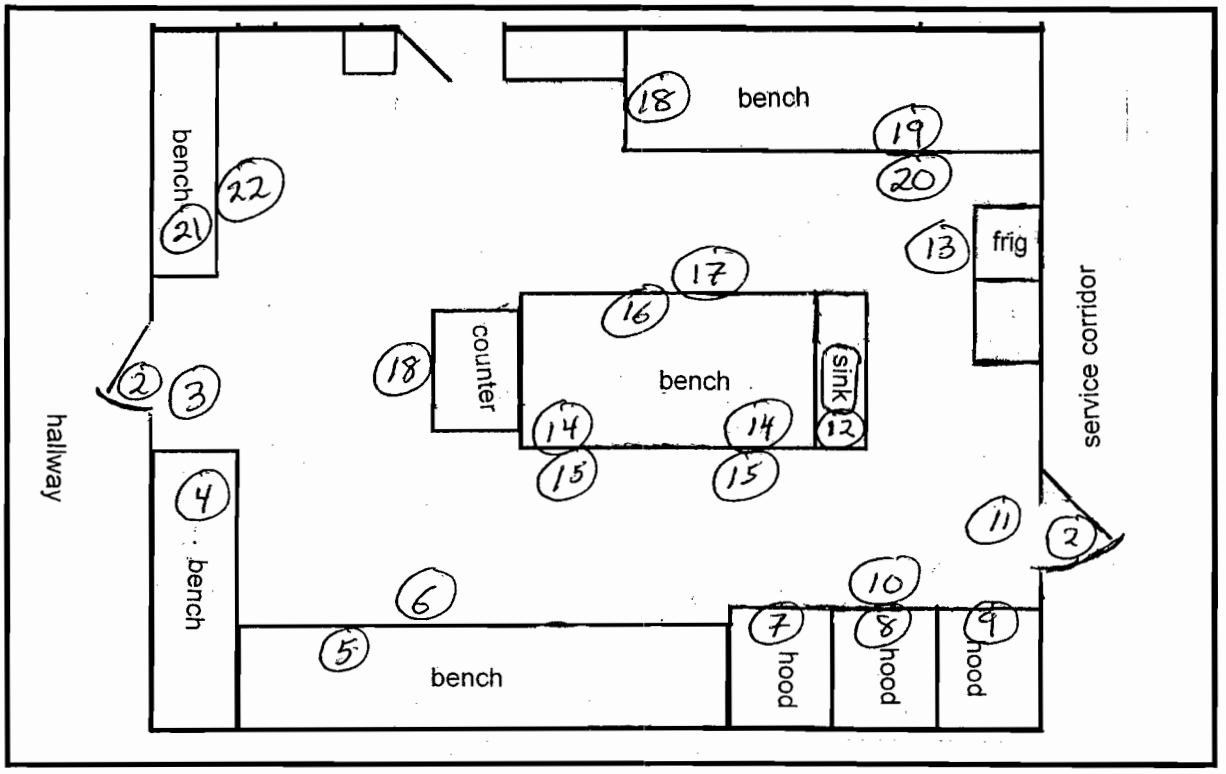
Freezer/Frig

13	1.00	9	1	0	20	0	96.01	581.15	Freezer Frig
14	1.00	14	3	0	32	2	25.37	568.96	
15	1.00	13	0	0	30	0	277.16	579.76	
16	1.00	22	6	0	48	4	38.82	577.19	
17	1.00	2	0	0	5	0	8476.41	577.55	
18	1.00	9	0	0	21	0	279.98	622.00	Top Count
19	1.00	0	0	0	1	0	0.00	571.74	
20	1.00	4	3	0	9	3	0.00	572.95	
21	1.00	0	0	0	0	0	0.00	587.51	
22	1.00	1	5	0	1	6	248.56	574.31	
23	1.00	3	0	0	8	0	352.77	564.71	
24	1.00	1	2	0	2	2	2550.57	554.67	
25	1.00	0	1	0	0	1	0.00	590.53	
26	1.00	3	1	0	7	0	220.80	570.27	
27	1.00	28	2	0	86	0	107.24	387.82	

All Clean

WIPE TEST MAP

LAB # LW211



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle & light switch
3. Floor below door
4. Bench edge & handles
5. Bench edge & handles
6. Floor below bench
7. Hood sash, foil, & handles
8. Hood sash, foil, & handles
9. Hood sash, foil, & handles
10. Floor below hood
11. Floor below door
12. Sink
13. Refrigerator/freezer handles
14. Bench edge & handles
15. Floor below bench
16. Bench edge & handles
17. Floor below bench
18. Scint Counter/Top Count
19. Bench edge & handles
20. Floor below bench
21. Bench
22. Floor below bench

Start Decommissioning Wipes of I211

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100826_0615\20100826_0615.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	6	0	0	0	740.75	592.55	B
2	1.00	0	0	0	0	0	0.00	579.11	
3	1.00	0	1	0	0	1	0.00	560.69	
4	1.00	0	1	0	0	1	0.00	560.52	
5	1.00	4	0	0	9	0	0.00	578.28	
6	1.00	7	0	0	15	0	1809.88	639.82	
7	1.00	8	0	0	18	0	0.00	567.91	
8	1.00	8	0	0	19	0	0.00	578.95	
9	1.00	1	0	0	3	0	0.00	599.72	
10	1.00	0	2	0	0	3	994.19	527.93	
11	1.00	1	0	0	3	0	0.00	570.26	
12	1.00	2	0	0	5	0	2129.87	550.35	

13	1.00	15	3	0	33	2	0.00	573.30
14	1.00	1	0	0	2	0	941.37	538.13
15	1.00	0	2	0	0	2	4854.76	563.80
16	1.00	31	2	0	72	0	0.00	551.35
17	1.00	7	0	0	16	0	1457.42	551.61
18	1.00	5	0	0	11	0	0.00	585.52
19	1.00	2	0	0	5	0	3855.63	586.84
20	1.00	4	0	0	9	0	0.00	566.19
21	1.00	8	3	0	17	3	0.00	564.25
22	1.00	5	7	0	9	8	127.88	536.94

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission Equipment in L211 (centrifuge, shakers, Vortex, etc. JCoffe

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100628_0912\20100628_0912.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Meter Readings all at Background

Ludlum 3 Ser 148121 cal: 11/10/09 Probe: 44-9

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	5	0	0	0	933.00	619.95	B
2	1.00	2	7	0	3	8	0.00	481.85	
3	1.00	0	5	0	0	6	0.00	548.13	
4	1.00	5	2	0	11	2	687.83	532.01	
5	1.00	9	0	0	24	0	0.00	475.78	
6	1.00	3	0	0	8	0	2.01	491.37	
7	1.00	16	3	0	36	2	126.89	528.55	
8	1.00	33	3	0	82	0	0.00	482.60	
9	1.00	25	1	0	57	0	129.64	557.20	
10	1.00	7	0	0	18	0	971.70	535.47	
11	1.00	5	2	0	11	2	99.35	580.80	
12	1.00	2	2	0	5	2	130.05	522.05	

13	1.00	2	0	0	6	0	0.00	576.17
14	1.00	4	0	0	11	0	0.00	580.48
15	1.00	17	2	0	38	1	146.09	556.83
16	1.00	2	0	0	6	0	0.00	603.77
17	1.00	18	2	0	41	0	0.00	561.64
18	1.00	4	4	0	9	5	0.00	537.75

All clean

Decommission
L211 Bench Tops

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100628_0825\20100628_0825.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	6	0	0	0	1081.75	584.30	B
2	1.00	0	0	0	0	0	0.00	546.45	
3	1.00	1	0	0	3	0	0.00	520.39	
4	1.00	14	0	0	32	0	0.00	592.28	
5	1.00	13	7	0	28	8	0.00	569.65	
6	1.00	7	2	0	15	2	801.81	548.74	
7	1.00	2	2	0	3	2	0.00	606.53	
8	1.00	10	1	0	23	1	0.00	583.09	
9	1.00	0	3	0	0	4	0.00	538.51	
10	1.00	0	0	0	0	0	0.00	559.26	
11	1.00	7	3	0	17	2	104.82	484.74	
12	1.00	53	5	0	122	1	0.00	550.22	

- keyboard/mouse

clean & rewipe

Protocol# 15 - 3h_14c_dpm.lsa User: Default

L211
Decommission Shield.

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100519_1018\20100519_1018.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

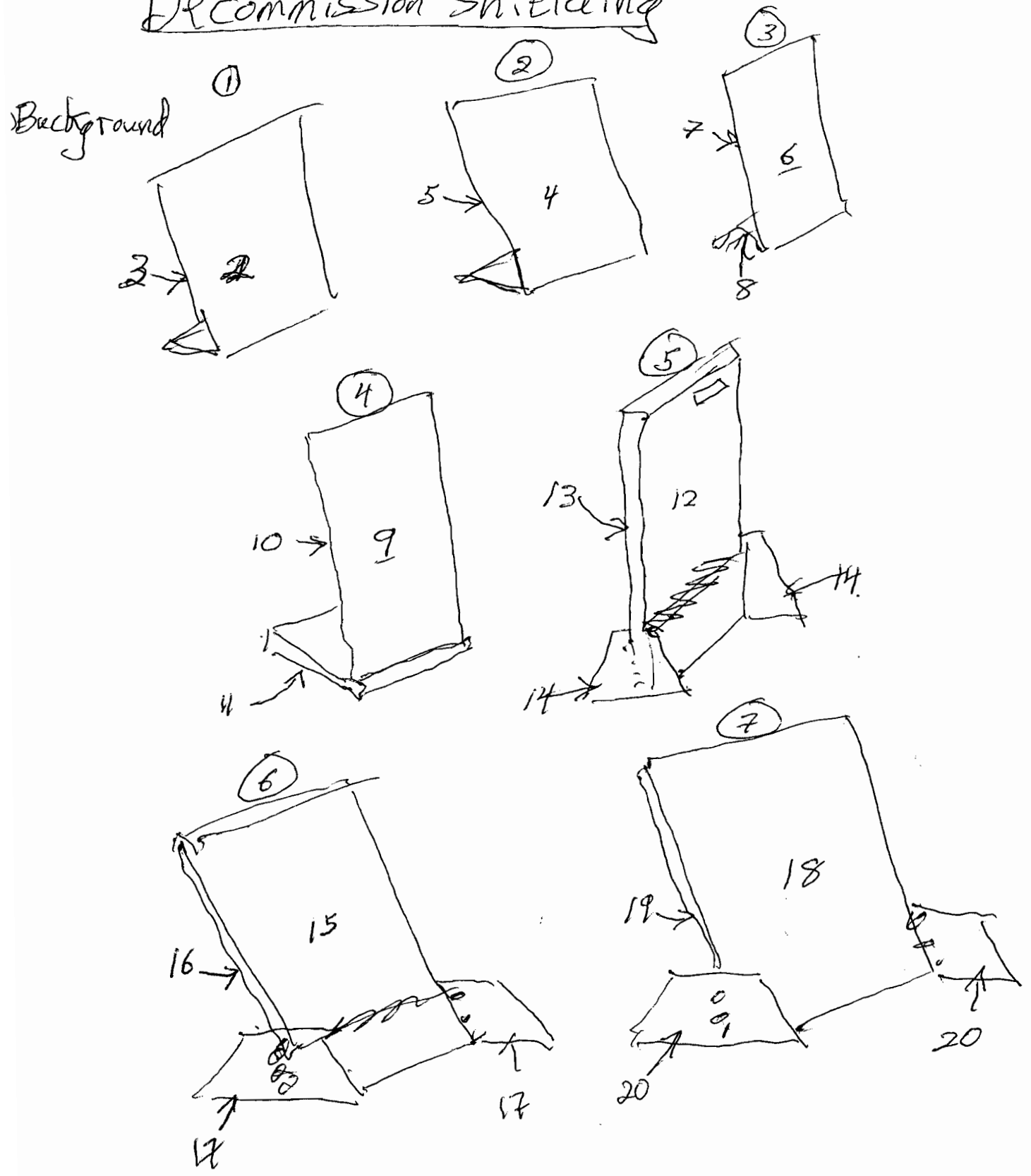
Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	6	0	0	0	843.63	676.84	B
2	1.00	9	13	0	15	15	0.00	610.83	Inside Flat surfa
3	1.00	5	10	0	8	12	314.92	583.44	outside " "
4	1.00	3	1	0	7	1	205.83	596.42	Legs

5/18/2010

L211

Decommission Shielding



L211
Decommission Shields

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100519_0814\20100519_0814.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	7	0	0	0	965.64	584.53	B
2	1.00	1	1	0	1	1	664.17	574.15	
3	1.00	1	0	0	3	0	0.00	566.09	
4	1.00	6	0	0	15	0	0.00	572.51	
5	1.00	3	0	0	7	0	0.00	649.98	
6	1.00	2	0	0	4	0	0.00	567.22	
7	1.00	7	0	0	19	0	0.00	482.79	
8	1.00	0	1	0	0	1	0.00	582.90	
9	1.00	6	0	0	13	0	0.00	543.13	
10	1.00	0	1	0	0	1	565.41	579.37	
11	1.00	1	2	0	2	3	0.00	559.01	
12	1.00	13	3	0	28	2	0.00	567.78	

13	1.00	2	0	0	5	0	0.00	564.85
14	1.00	6	0	0	15	0	544.69	570.12
15	1.00	8	0	0	19	0	0.00	559.31
16	1.00	5	0	0	13	0	0.00	565.61
17	1.00	6	0	0	14	0	0.00	543.97
18	1.00	1	1	0	1	1	0.00	545.91
19	1.00	3	0	0	7	0	0.00	552.57
20	1.00	1	1	0	1	1	0.00	554.31

RECORDS NOT LOCATED

LAB # 1213

INACTIVE DATE: 1997

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: [redacted] Lab Supervisor: CLAY SCOTT

Responsible Investigator for the Lab: CLAY SCOTT

RAM Users in This Lab: D. WILKENS, C. SOBTKA-BRINER, S. HUBBS, L. LAZOR

Date: 11·15·00

Date Completed	Questionnaire
10·19·00	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
10·19·00	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
10·19·00	Contact Safety to perform final wipe test of the lab and equipment.
11·15·00	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
11·15·00	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
10·20·00	After approval by Safety, the radiation signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

Watson, Gerald K

From: Scott, Clay W
Sent: Wednesday, November 15, 2000 9:22 AM
To: Watson, Gerald K
Subject: history of radioisotope use in LW216

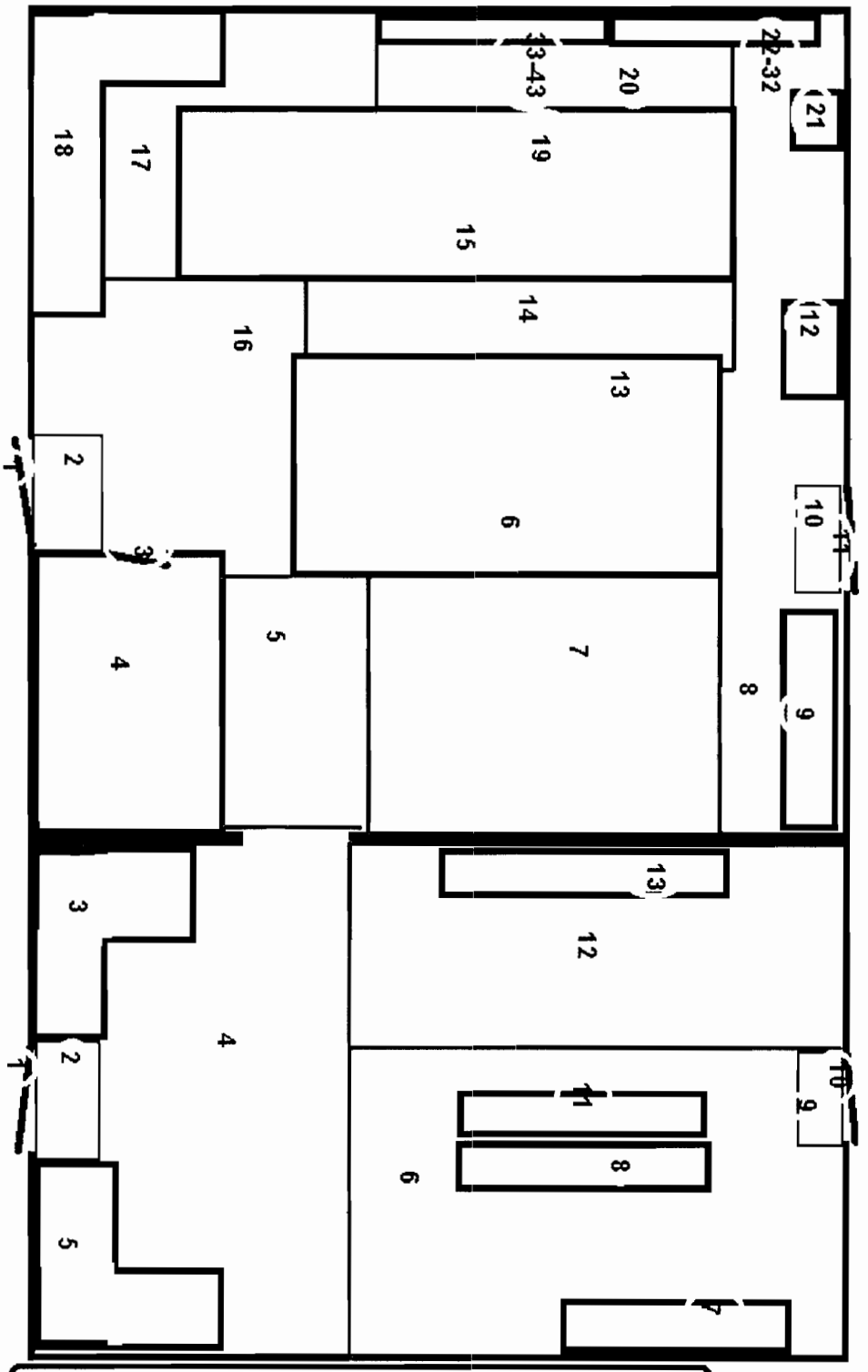
Jerry,

I've been responsible for research performed in LW216 for the past ~8 years. During that time we used the following isotopes:
125I
33P
32P
3H
14C

There has never been an exposure incident or radioisotope spill in this lab. Wipe tests and monitoring with GM counters were constantly performed. A recent wipe test was performed after all radioisotopes were removed from the lab. This test showed the lab to be clean. We are no longer using radioisotopes in this lab and therefore have requested it to be decommissioned with regard to radioisotope use.

Clay W Scott

AstraZeneca Discovery Research
tel: (302)886-3177
fax: (302)886-4803
clay.scott@AstraZeneca.com



Decommissioning Wipe Test for Labs L216 and L215

These labs were temprarily decomm'd for painters to work for 2 days. All rad removal procedures were followed

D. K. Watson R.S.A.

Protocol #: 2 Name:DIRECT DPM 20-Oct-2000 14:49
Region A: LL-UL= 0.0-2000 Ler= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Ler= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Ler= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AFG tS Terminator = Count
Direct DPM
SNC DPM = 124200

Recommissioning Wipe test for Lab LW216

A.B.C=
15.97dpm
S. K Watmore RSA

S#	TIME	DPM1	tSIE	FLAG
1	2.00	24.20	468.	
2	2.00	17.73	450.	
3	2.00	20.17	486.	
4	2.00	25.52	416.	
5	2.00	18.89	439.	
6	2.00	14.77	443.	
7	2.00	16.82	404.	
8	2.00	16.85	505.	
9	2.00	16.98	433.	
10	2.00	17.36	456.	
11	2.00	21.67	424.	
12	2.00	15.53	464.	
13	2.00	16.21	414.	
14	2.00	13.45	494.	
15	2.00	15.42	471.	
16	2.00	23.35	447.	
17	2.00	20.65	340.	
18	2.00	34.06	493.	
19	2.00	17.33	420.	
20	2.00	21.28	435.	
21	2.00	19.24	398.	
22	2.00	21.20	458.	
23	2.00	16.17	480.	
24	2.00	17.96	477.	
25	2.00	32.31	440.	
26	2.00	13.53	456.	
27	2.00	29.96	451.	
28	2.00	21.14	500.	
29	2.00	11.69	470.	
30	2.00	19.40	496.	
31	2.00	25.87	478.	
32	2.00	20.95	452.	
33	2.00	20.67	453.	
34	2.00	24.47	262.	
35	2.00	14.36	331.	
36	2.00	17.38	326.	
37	2.00	11.71	509.	
38	2.00	18.29	521.	
39	2.00	15.29	528.	
40	2.00	16.56	471.	
41	2.00	12.12	509.	
42	2.00	25.63	445.	
43	2.00	17.46	510.	

Protocol #:15 Name:DIRECT DPM 20-Oct-2000 14:12
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	13.72	595.	
2	2.00	15.47	626.	
3	2.00	21.27	597.	
4	2.00	14.16	622.	
5	2.00	13.93	610.	
6	2.00	12.68	649.	
7	2.00	16.32	631.	
8	2.00	29.63	634.	
9	2.00	17.15	634.	
10	2.00	17.41	624.	
11	2.00	20.66	619.	
12	2.00	12.65	630.	
13	2.00	16.99	629.	

Decommissioning Wipe test for lab LW215

A.B.C.
= 15.97 dpm

D.K.Watts R.S.A.

```
Protocol #: 2          Name:DIRECT DPM                    20-Oct-2000 14:04
Region A: LL-UL= 0.0-2000  Ler=    0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL= 2.0-2000  Ler=    0  Bkg= 0.00  %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0  Ler=    0  Bkg= 0.00  %2 Sigma=0.00
Time =  2.00      QIP = tSIE/AEC      ES Terminator = Count
Direct DPM
SNC DPM = 124200

  S#    TIME     DPM1 tSIE FLAG
   1    2.00    16.55 564.
   2    2.00    14.98 477.
   3    2.00    16.38 546.
```

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: LAW-210 Lab Supervisor: CLAY SCOTT

Responsible Investigator for the Lab: CLAY SCOTT

RAM Users in This Lab: D WILKENS, C. SOBTKA-BRINER, S. HUBBS.

Date: 11·15·00

Date Completed	Questionnaire
10·19·00	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
10·19·00	Contact Safety to perform final wipe test of the lab and equipment.
11·15·00	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
11·15·00	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
10·20·00	After approval by Safety, the radiation signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Gerald K Watson 11·15·00

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

Watson, Gerald K

From: Scott, Clay W
Sent: Wednesday, November 15, 2000 9:22 AM
To: Watson, Gerald K
Subject: history of radioisotope use in LW216

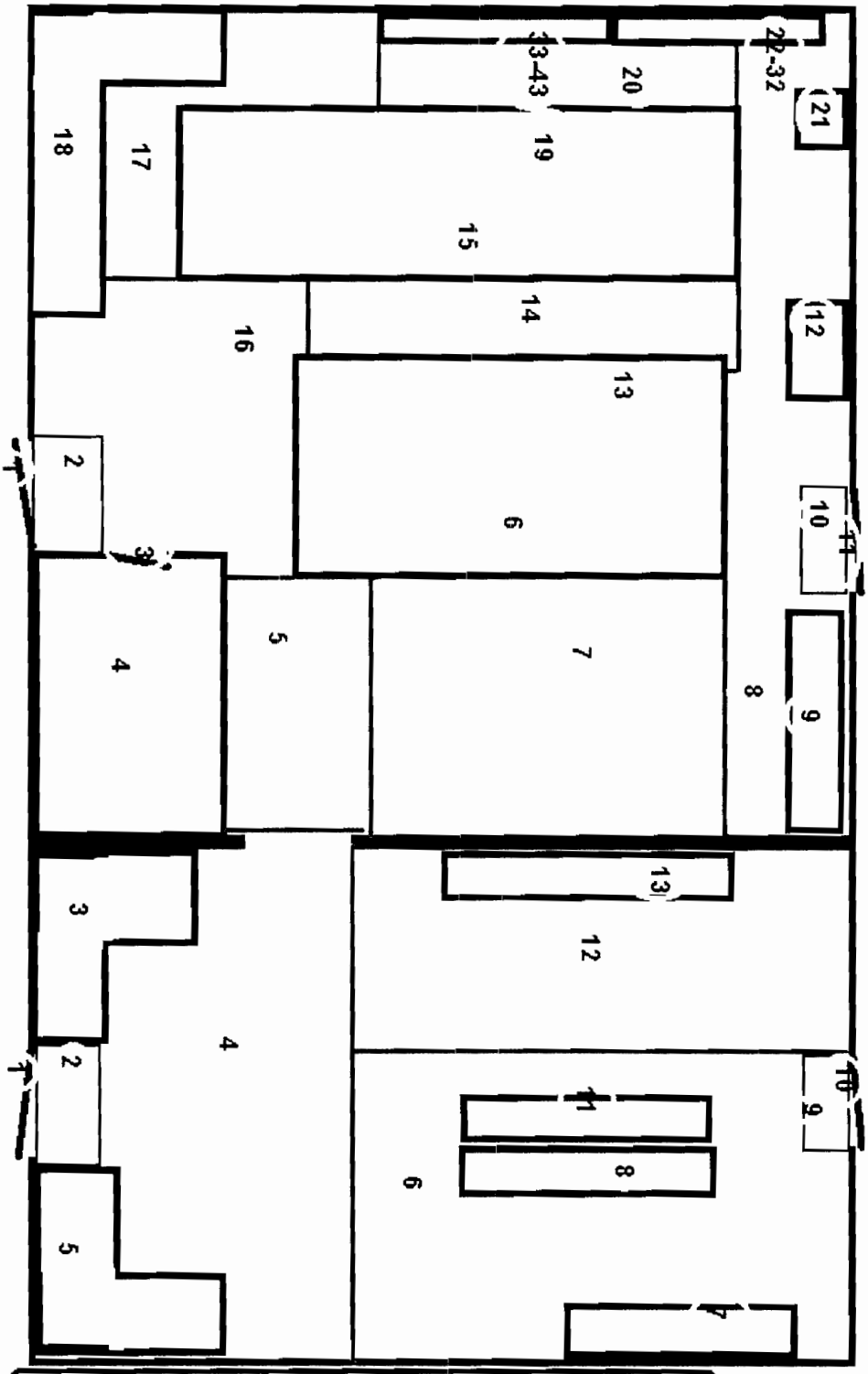
Jerry,

I've been responsible for research performed in LW216 for the past ~8 years. During that time we used the following isotopes:
125I
33P
32P
3H
14C

There has never been an exposure incident or radioisotope spill in this lab. Wipe tests and monitoring with GM counters were constantly performed. A recent wipe test was performed after all radioisotopes were removed from the lab. This test showed the lab to be clean. We are no longer using radioisotopes in this lab and therefore have requested it to be decommissioned with regard to radioisotope use.

Clay W Scott

AstraZeneca Discovery Research
tel: (302)886-3177
fax: (302)886-4803
clay.scott@AstraZeneca.com



Decommissioning Wipe Test for Labs L216 and L215

These labs were temporarily decomm'd for painters to work for 2 days all rad removal procedures were followed

G. K Watson R.SA.

Protocol #: 2 Name:DIRECT DPM 20-Oct-2000 14:49
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

Decommissioning Wipe test
for Lab LW216

A.B.C=
15.97dpm
S. K Watin RSA

S#	TIME	DPM1	tSIE	FLAG
1	2.00	24.20	468.	
2	2.00	17.73	450.	
3	2.00	20.17	486.	
4	2.00	25.52	416.	
5	2.00	18.89	439.	
6	2.00	14.77	443.	
7	2.00	16.82	404.	
8	2.00	16.85	505.	
9	2.00	16.98	433.	
10	2.00	17.36	456.	
11	2.00	21.67	424.	
12	2.00	15.53	464.	
13	2.00	16.21	414.	
14	2.00	13.45	494.	
15	2.00	15.42	471.	
16	2.00	23.35	447.	
17	2.00	20.65	340.	
18	2.00	34.06	493.	
19	2.00	17.33	420.	
20	2.00	21.28	435.	
21	2.00	19.24	398.	
22	2.00	21.20	458.	
23	2.00	16.17	480.	
24	2.00	17.96	477.	
25	2.00	32.31	440.	
26	2.00	13.53	456.	
27	2.00	29.96	451.	
28	2.00	21.14	500.	
29	2.00	11.69	470.	
30	2.00	19.40	496.	
31	2.00	25.87	478.	
32	2.00	20.95	452.	
33	2.00	20.67	453.	
34	2.00	24.47	262.	
35	2.00	14.36	331.	
36	2.00	17.38	326.	
37	2.00	11.71	509.	
38	2.00	18.29	521.	
39	2.00	15.29	528.	
40	2.00	16.56	471.	
41	2.00	12.12	509.	
42	2.00	25.63	445.	
43	2.00	17.46	510.	

Protocol #:15 Name:DIRECT DPM 20-Oct-2000 14:12
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	13.72	595.	
2	2.00	15.47	626.	
3	2.00	21.27	597.	
4	2.00	14.16	622.	
5	2.00	13.93	610.	
6	2.00	12.68	649.	
7	2.00	16.32	631.	
8	2.00	29.63	634.	
9	2.00	17.15	634.	
10	2.00	17.41	624.	
11	2.00	20.66	619.	
12	2.00	12.65	630.	
13	2.00	16.99	629.	

Decommissioning Wipe test for lab sw215

A.B.C.

= 15.97 dpm

D.K Watts R.S.A.

Protocol #: 2 Name:DIRECT DPM 20-Oct-2000 14:04
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
[illegible]jion C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	16.55	564.	
2	2.00	14.98	477.	
3	2.00	16.38	546.	

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: [redacted] Lab Supervisor: CORTLAND YOCKEY

Responsible Investigator for the Lab: ANASTASIA CHRISTIANSON

RAM Users in This Lab: COURTLAND YOCKEY

Date: Jan 24, 01

Date Completed	Questionnaire
1-22-01	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
1-22-01	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
1-23-01	Contact Safety to perform final wipe test of the lab and equipment.
1-31-01	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
1-23-01	
1-31-01	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
2-01-01	After approval by Safety, the radiation signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Signature of Safety Professional 2-01-01 Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

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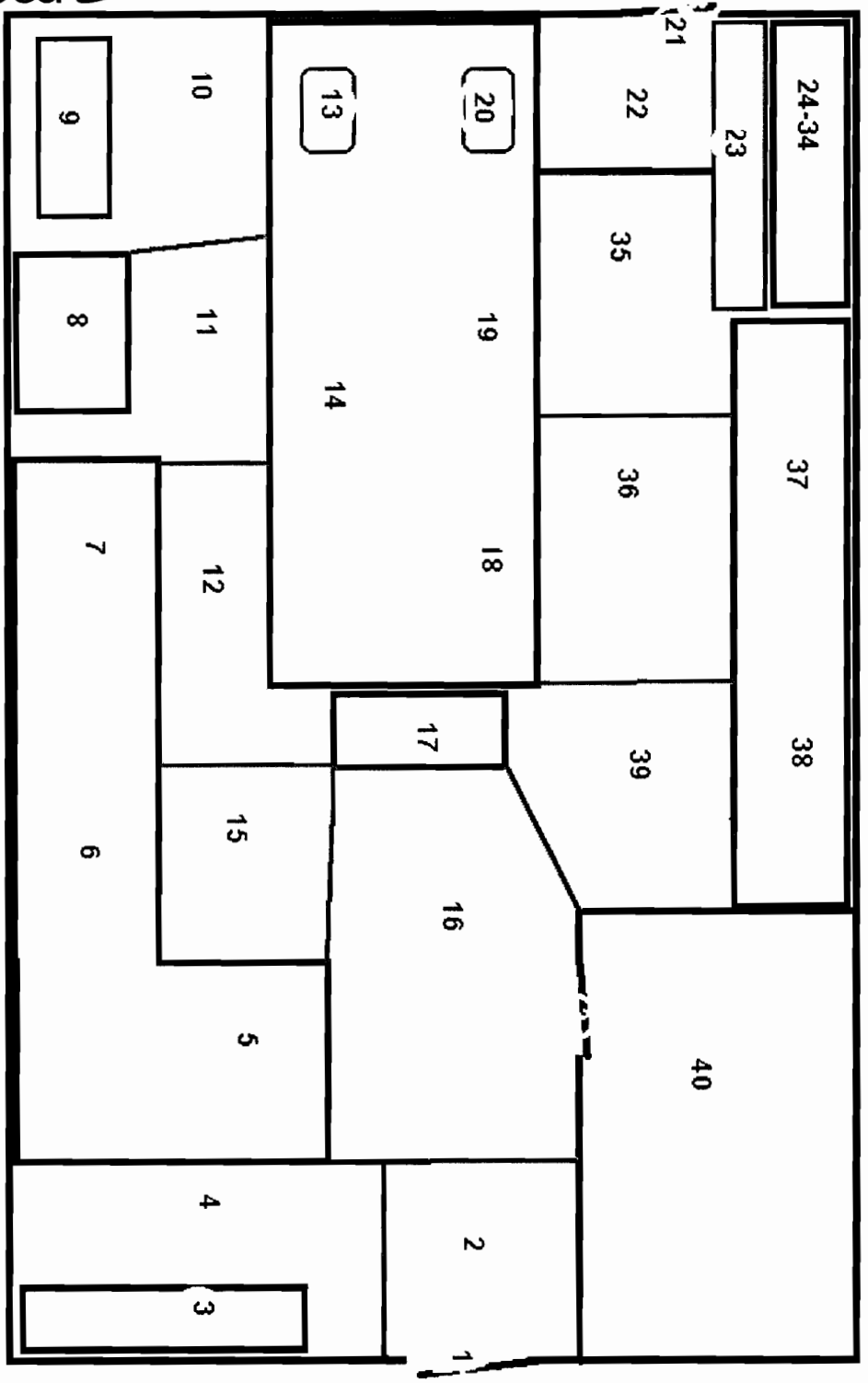
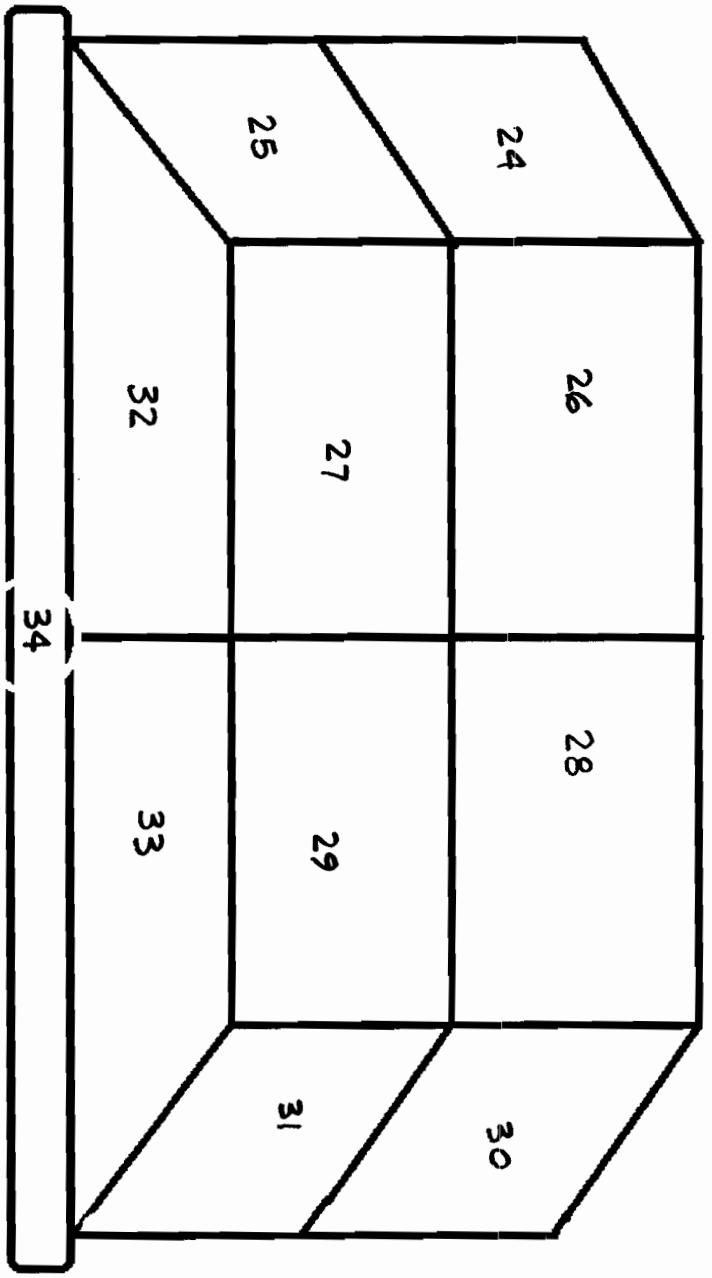


Decommissioning Wipe Map for lab LW-220

AstraZeneca A Business Unit of Zeneca Inc.
1800 Concord Pike PO Box 15437 Wilmington DE 19850-5437

Tel 302 886 3000
www.astrazeneca-us.com

AstraZeneca



AstraZeneca A Business Unit of Zeneca Inc.
1800 Concord Pike PO Box 15437 Wilmington DE 19850-5437

Tel 302 886 3000
www.astrazeneca-us.com

Protocol #:15 Name:DIRECT DPM 24-Jan-2001 07:58
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

S#	TIME	DPM1	tSIE	FLAG
1	2.00	18.38	600.	
2	2.00	31.04	530.	
3	2.00	20.10	506.	
4	2.00	18.13	541.	
5	2.00	16.25	533.	
6	2.00	24.41	604.	
7	2.00	41.81	524.	
8	2.00	17.84	569.	
9	2.00	26.08	557.	
10	2.00	18.75	557.	
11	2.00	13.20	553.	
12	2.00	17.39	563.	
13	2.00	14.52	505.	
14	2.00	13.44	506.	
15	2.00	15.46	548.	
16	2.00	21.01	531.	
17	2.00	20.82	593.	
18	2.00	16.11	484.	
19	2.00	14.84	564.	
20	2.00	15.12	556.	
21	2.00	10.80	554.	
22	2.00	7.91	519.	
23	2.00	19.31	499.	
24	2.00		573.	I
25	2.00	13.94	507.	
26	2.00	15.86	539.	
27	2.00	16.15	544.	
28	2.00	14.57	529.	
29	2.00	17.48	539.	
30	2.00	11.74	566.	
31	2.00	11.83	542.	
32	2.00	20.10	490.	
33	2.00	21.86	402.	
34	2.00	15.21	496.	
35	2.00	13.81	569.	
36	2.00	18.85	591.	
37	2.00	18.62	602.	
38	2.00	14.15	553.	
39	2.00	17.55	611.	
40	2.00	14.25	566.	

```
Protocol #:15        Name:DIRECT DPM                    24-Jan-2001 09:50
Region A: LL-UL= 0.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL= 2.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Time =  2.00      QIP = tSIE/AEC      ES Terminator = Count
Direct DPM
SNC DPM = 124200

  S#    TIME     DPM1 tSIE FLAG
   1    2.00    24.49 516.
(1 missing vial)
   3    2.00    17.28 576.
```

BACKGROUND

RESCINTILLATION OF VIAL #24

```
Protocol #:15        Name:DIRECT DPM                  24-Jan-2001 07:50
Region A: LL-UL= 0.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL= 2.0-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Time =  2.00      QIP = tSIE/AEC      ES Terminator = Count
Direct DPM
SNC DPM = 124200

  S#    TIME     DPM1 tSIE FLAG
   1    2.00    13.32 517.
   2    2.00    17.92 531.
   3    2.00    16.93 504.
```

Watson, Gerald K

From: Christianson, Anastasia AM
Sent: Wednesday, January 31, 2001 12:45 PM
To: Watson, Gerald K
Subject: RE: LW220

We've had a perfect record...no spills or incidents in the lab while under my supervision.

Anastasia

From: Watson, Gerald K
Sent: 31 January 2001 12:43
To: Christianson, Anastasia AM
Subject: RE: LW220

Anastasia,
Thank you for the e-mail. Can you provide me with history of spills and/or incidents in the lab while under your supervision.
Thanks,
JERRY

Radiation Safety
L00/001
Voice(302) 886-8439
Fax(302) 886-2909
email: gerald.watson@astrazeneca.com
http://safety.uscorp.zeneca.com/safety/

From: Christianson, Anastasia AM
Sent: Wednesday, January 31, 2001 11:56 AM
To: Watson, Gerald K
Cc: Yockey, Courtland
Subject: LW220

Hi Gerry,

Thanks for helping us prepare LW220 for decommissioning. Isotopes used in that lab since commissioning under my permits are: Tritium (3H), P-32, and S-35.

Thanks again for all your help and patience.

Anastasia

Coffin, Tim

From: Coffin, Tim
t: Thursday, October 21, 2010 9:12 AM
To: Eisman, Mark S; Elmore, Chad S; Bristow, Brian K
Cc: Terpko, Marc O; Schlank, Bliss M; Civitella, Patricia C; Goddard, Chris M
Subject: Radioactive Lab Decommissioning [redacted]

FOR YOUR INFORMATION/ACTION:

As of today,, Thursday, October 21, 2010, Lab L226 has been decommissioned as a Radioactive Material use Lab.

ACTIONS TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from lab.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. Performed GM meter checks and all readings were at background or less than the AZ Action level of 3 times background.
4. All required radioactive program postings, radioactive labels, and signs were removed from equipment, benches, etc.
5. Lab L226 has been removed from the Radioactive Lab Data Bases.
6. Decommission Forms were placed on the equipment and Mass Specs. Copies placed in the lab wipe test book and in the official radiation safety files.
7. Decommission Check-off Sheet started and radiation section completed. Original copy provided to Marc Terpko and copy placed in radiation files.
8. This E-mail serves as the official notice to the RSO that the lab has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. Brian Bristow: Remove the lab from your Radioactive Lab Data Base and please check that all radioactive hazard signs are removed from the lab entry doors.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227, 6-2682

LAB # L226

DATE 10/21/2010

LAB SUPERVISOR Mark Eisman DEPT DMPK Discovery

Decommissioning Procedure (Version 2010)

Refer to SHEP-104 Commissioning and Decommissioning Laboratories for more information. This Wilmington SH&E SOP can be found on the portal. Click here to access the SOP.

Section A: Radioactive Laboratory Decommissioning Checklist

Responsible Investigator for the Lab: Mark Eisman

Completed	Questionnaire
☒ Yes ☐ No	Contact Safety (x62682) to remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. DO NOT REMOVE TAPE!
☒ Yes ☐ No	Thoroughly clean all areas that contained RAM; this includes work surfaces, fume hoods and storage areas.
☒ Yes ☐ No	Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
☒ Yes ☐ No	Write a letter to RSO in Safety stating that the lab is no longer radioactive and that it should be removed from the list of radioactive labs. .
☒ Yes ☐ No	Contact Safety to perform final wipe test of the lab and equipment.

Once the RI has completed the above actions, the lab can be turned over to Radiation Safety for final decommissioning steps and will assume control of the lab (Sign below). RI has completed decommissioning responsibilities.

Timothy J. Coffin 10/21/2010 Timothy J. Coffin 10/21/2010

Radiation Safety Acceptance of the Lab with Actions / Date — Radiation Safety Actions Completed / Date

Section B: Procedure for Vacating a Laboratory

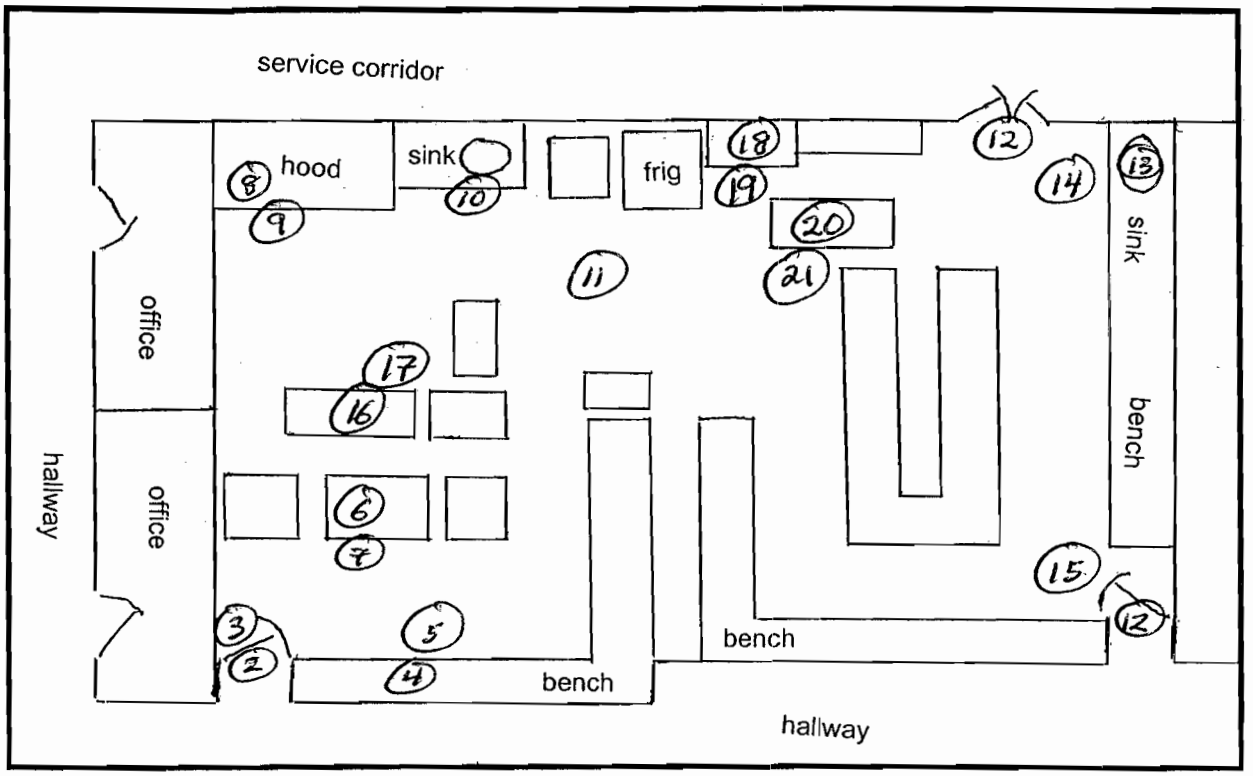
Section A must be completed prior to completing Section B

Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benches, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazard/biological material used in laboratory?	☐ Yes ☐ No ☐ NA	
Have all surfaces/areas/equipment been decontaminated using EPA registered disinfectant (bleach, ethanol, etc.).	☐ Yes ☐ No ☐ NA	
Remove/deface all biohazard stickers from the equipment.	☐ Yes ☐ No ☐ NA	
Have all biological/Biohazardous wastes been appropriately disinfected/decontaminated and disposed of.	☐ Yes ☐ No ☐ NA	
Has the Biohazard decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory and were all steps completed in Section A?	☐ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	
Have all cabinets/closets/drawers been emptied?	☐ Yes ☐ No ☐ NA	

Decommission
10/21/10

WIPE TEST MAP

LAB # L226



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle & light switch
3. Floor below door
4. Bench edge & handles
5. Floor below bench
6. Mass Spec
7. Floor below Mass Spec
8. Hood sash, foil, & handles
9. Floor below hood
10. Sink
11. Floor area
12. Door handles & light switches
13. Sink
14. Floor by door and sink
15. Floor below door
16. Mass Spec
17. Floor below Mass Spec
18. Balance/table
19. Floor below balance
20. Mass Spec
21. Floor below Mass Spec

Lab Decommission Wipes

Protocol #:15 Name:Wipe Test 20-Sep-2010 07:20
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
.me = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

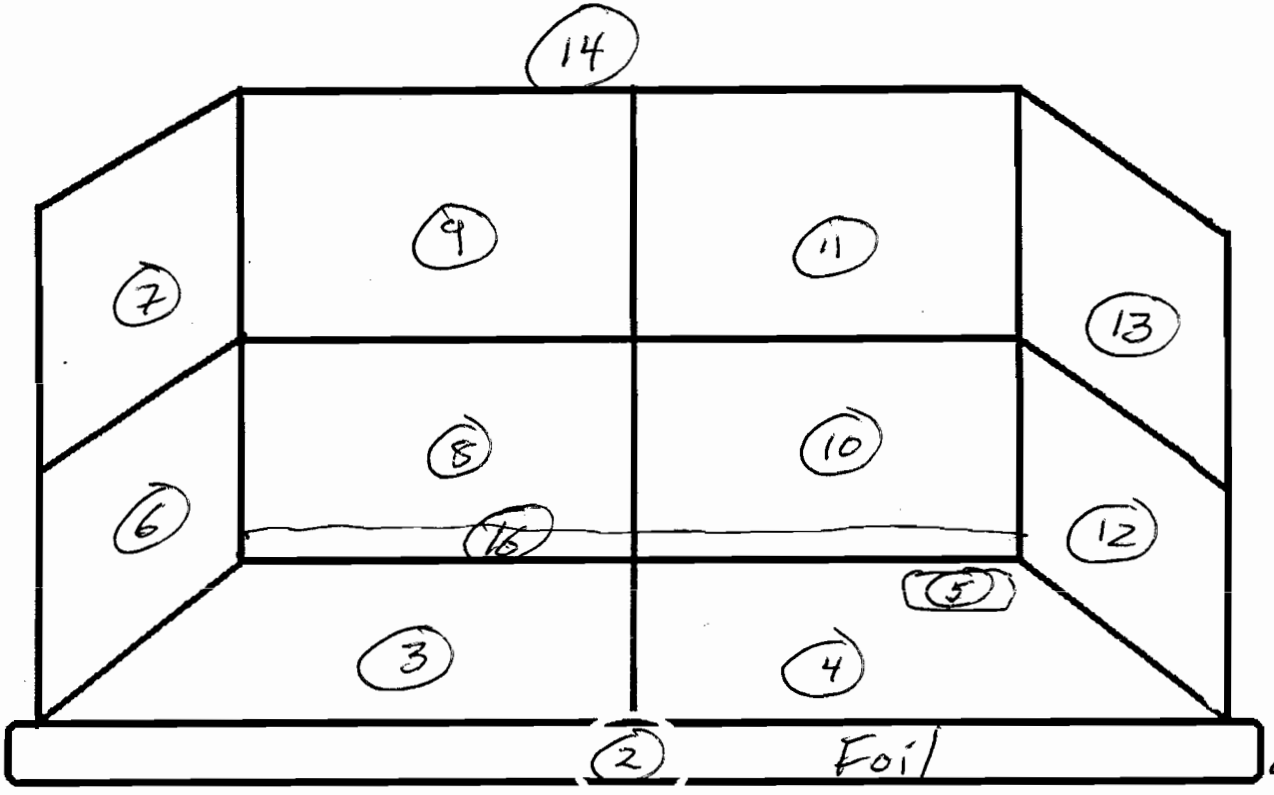
L226

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.62	4.68	3.70			570.	B
2	1.00	0.38	3.32	0.00	0.00	4.48	559.	
3	1.00	0.00	2.32	0.30	0.00	3.15	533.	
4	1.00	2.38	0.32	0.00	4.67	0.40	561.	
5	1.00	1.38	0.00	0.30	2.78	0.00	571.	
6	1.00	1.38	0.00	3.30	2.85	0.00	548.	
7	1.00	0.00	0.00	0.00	0.00	0.00	564.	
8	1.00	0.38	0.00	0.30	0.77	0.00	564.	
9	1.00	0.00	2.32	3.30	0.00	3.14	549.	
10	1.00	2.38	0.32	0.30	4.76	0.40	543.	
11	1.00	3.38	4.32	2.30	4.57	5.80	547.	
12	1.00	0.38	0.00	0.00	0.77	0.00	563.	
13	1.00	2.38	2.32	0.00	3.70	3.12	522.	
14	1.00	0.00	1.32	0.00	0.00	1.78	568.	
15	1.00	0.38	0.00	0.30	0.79	0.00	541.	
16	1.00	1.38	0.00	0.30	2.80	0.00	567.	
17	1.00	0.00	0.32	0.00	0.00	0.43	557.	
18	1.00	0.00	0.00	0.00	0.00	0.00	561.	
19	1.00	3.38	2.32	2.30	5.33	3.07	625.	
20	1.00	0.00	2.32	0.00	0.00	3.13	563.	
21	1.00	0.00	0.00	2.30	0.00	0.00	552.	

Decommis. on L226 Fume Hood

Date 10/18/2010 JCoffin

(1) Background



Meter

Ludlum 3, Ser# 146121, Cal: ~~10/12/09~~ 10/12/10 JC

Probe: 44-9, Ser# PR151749

Background: 20-80 cpms

Readings: Background

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101020_0852\20101020_0852.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	7	0	0	0	606.90	588.19	B
2	1.00	0	2	0	0	3	0.00	555.13	
3	1.00	0	0	0	1	0	0.00	547.71	
4	1.00	3	1	0	6	1	415.67	561.69	
5	1.00	0	0	0	0	0	0.00	520.74	
6	1.00	0	0	0	1	0	0.00	589.39	
7	1.00	1	0	0	3	0	0.00	567.81	
8	1.00	1	0	0	2	0	8714.99	525.41	
9	1.00	1	0	0	3	0	0.00	551.15	
10	1.00	4	4	0	8	5	8.58	473.01	
11	1.00	1	1	0	2	1	0.00	562.09	
12	1.00	0	0	0	0	0	0.00	551.16	

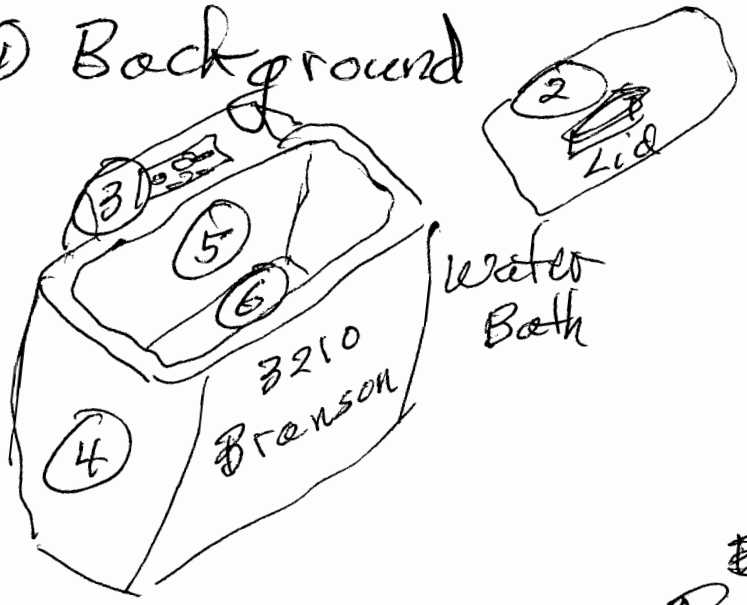
13	1.00	1	3	0	1	4	930.53	539.23
14	1.00	4	1	0	10	1	1902.31	522.43
15	1.00	4	1	0	9	0	0.00	559.86
16	1.00	0	5	0	0	6	595.73	355.40
17	1.00	0	3	0	0	4	0.00	575.58

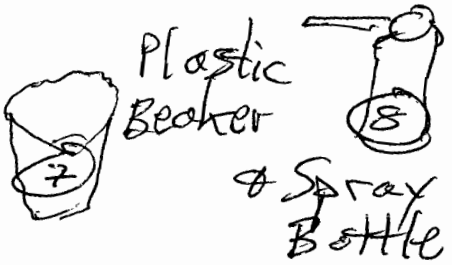
L226

10/18/2010

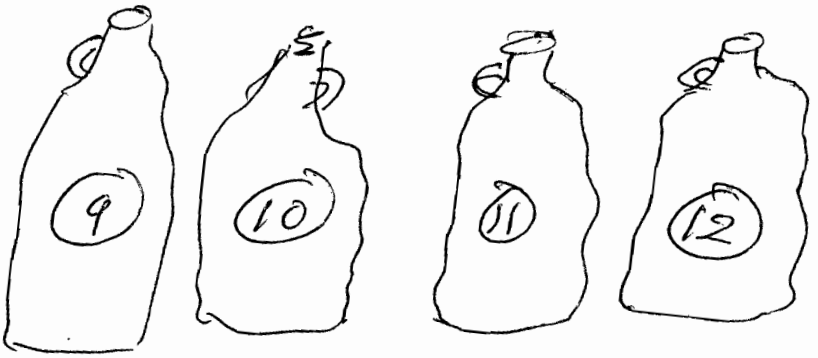
Items in Hood

① Background





Brown Bottles



13

5 Lids

Meter Readings

Ludlum 3

Ser 146121 Cal ~~10/12/10~~ 10/13/10 JC

Probe: 44-9

Ser PR151749

Background Readings: 40-80 cpms

Background

Wipe Test of Items in hood L226

J Coffin

Protocol #:15 Name:Wipe Test 20-Oct-2010 06:46
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

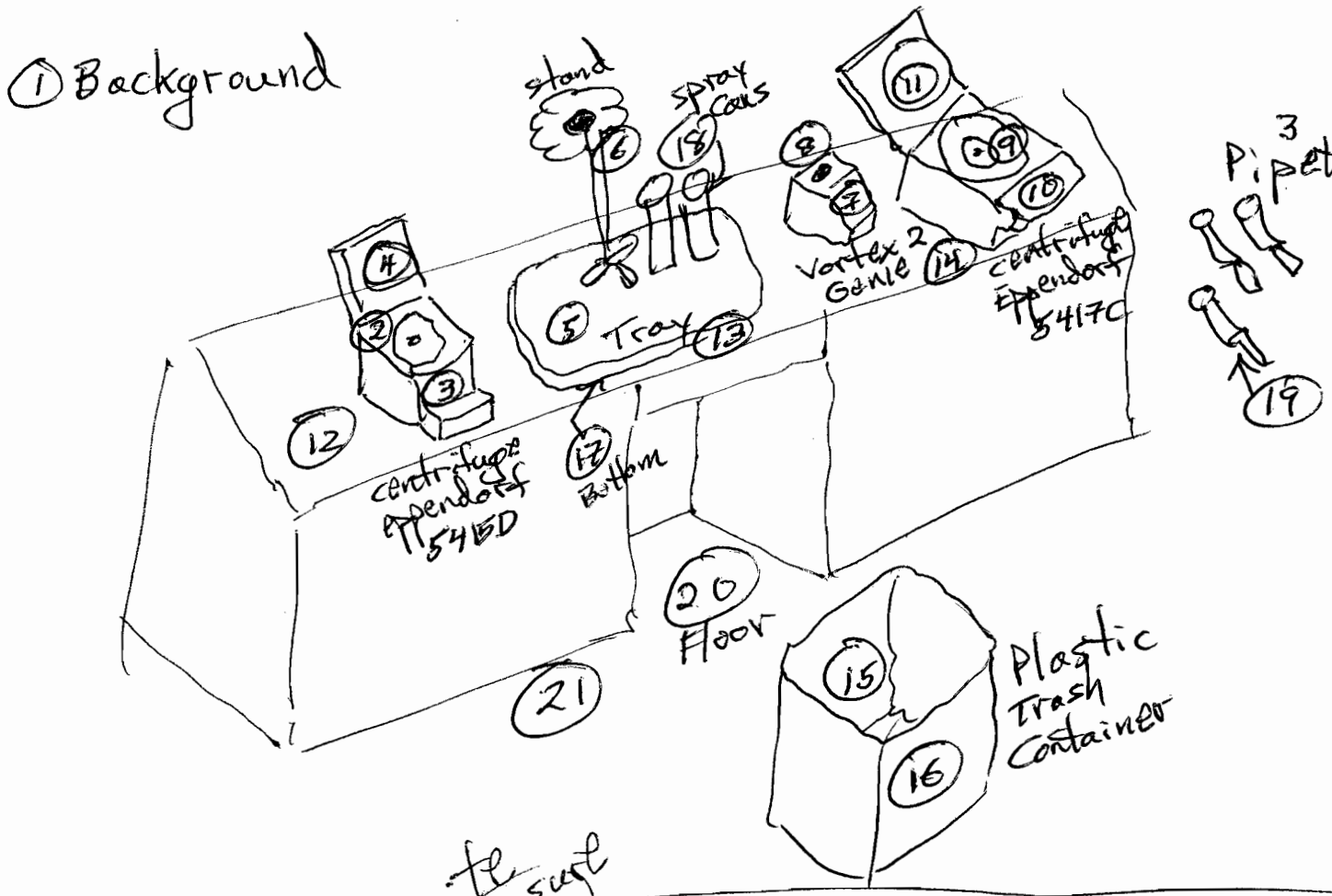
S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.64	4.66	3.60			564.	B
2	1.00	0.00	0.00	0.00	0.00	0.00	553.	
3	1.00	0.00	0.00	0.00	0.00	0.00	561.	
4	1.00	0.31	0.00	0.00	0.64	0.00	550.	
5	1.00	0.36	0.00	0.40	0.76	0.00	539.	
6	1.00	1.36	0.34	0.00	2.67	0.44	536.	
7	1.00	1.36	0.00	0.40	2.76	0.00	573.	
8	1.00	4.36	1.34	0.40	8.26	1.75	552.	
9	1.00	0.36	0.00	2.40	0.76	0.00	540.	
10	1.00	0.00	0.00	0.00	0.00	0.00	538.	
11	1.00	1.36	2.34	0.00	1.49	3.13	572.	
12	1.00	1.36	0.34	4.40	2.63	0.44	552.	
13	1.00	0.00	0.00	0.40	0.00	0.00	561.	

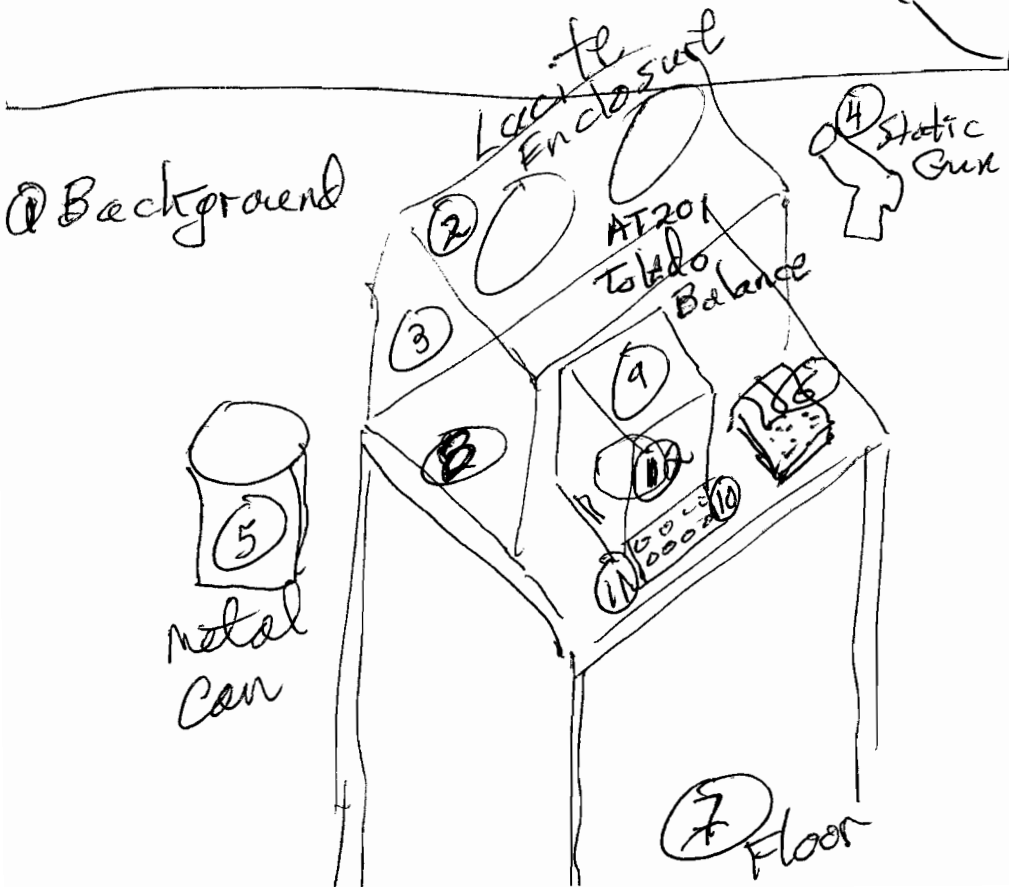
All Clean

Decommission Wipes
L226

10/18/2010
TJ Coffman

Bench Top & Weigh Bench





Meter Readings

Ludlum 3
Ser 146121, Cal: 10/12
Probe: 44-9
Ser PR151749

Background: 40-80 cpms
Readings: Background

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Wipe Test of Lab Bench & Items on Bench L226

TJ Coffin

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101020_0628\20101020_0628.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	6	0	0	0	870.26	581.91	B
2	1.00	2	0	0	3	0	0.00	575.84	
3	1.00	1	0	0	2	0	0.00	521.48	
4	1.00	0	4	0	0	5	0.00	580.17	
5	1.00	1	5	0	0	6	113.72	570.19	
6	1.00	1	0	0	1	0	4629.16	570.38	
7	1.00	5	2	0	10	2	861.56	571.97	
8	1.00	5	5	0	10	5	503.45	569.95	
9	1.00	4	0	0	8	0	418.90	572.13	
10	1.00	12	0	0	26	0	154.73	570.28	
11	1.00	5	0	0	11	0	4652.09	580.57	
12	1.00	4	0	0	10	0	0.00	568.48	

13	1.00	3	2	0	5	2	0.00	571.91
14	1.00	5	2	0	10	2	0.00	571.78
15	1.00	9	0	0	23	0	0.00	538.42
16	1.00	5	1	0	10	1	0.00	567.34
17	1.00	6	1	0	12	1	0.00	567.54
18	1.00	4	0	0	9	0	858.56	601.80
19	1.00	6	0	0	13	0	0.00	584.26
20	1.00	12	0	0	26	0	0.00	565.63
21	1.00	5	1	0	12	0	47.75	506.47

Wipe Test of Balance Area in L226

J Coffin

Protocol #:15 Name:Wipe Test 20-Oct-2010 06:12
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

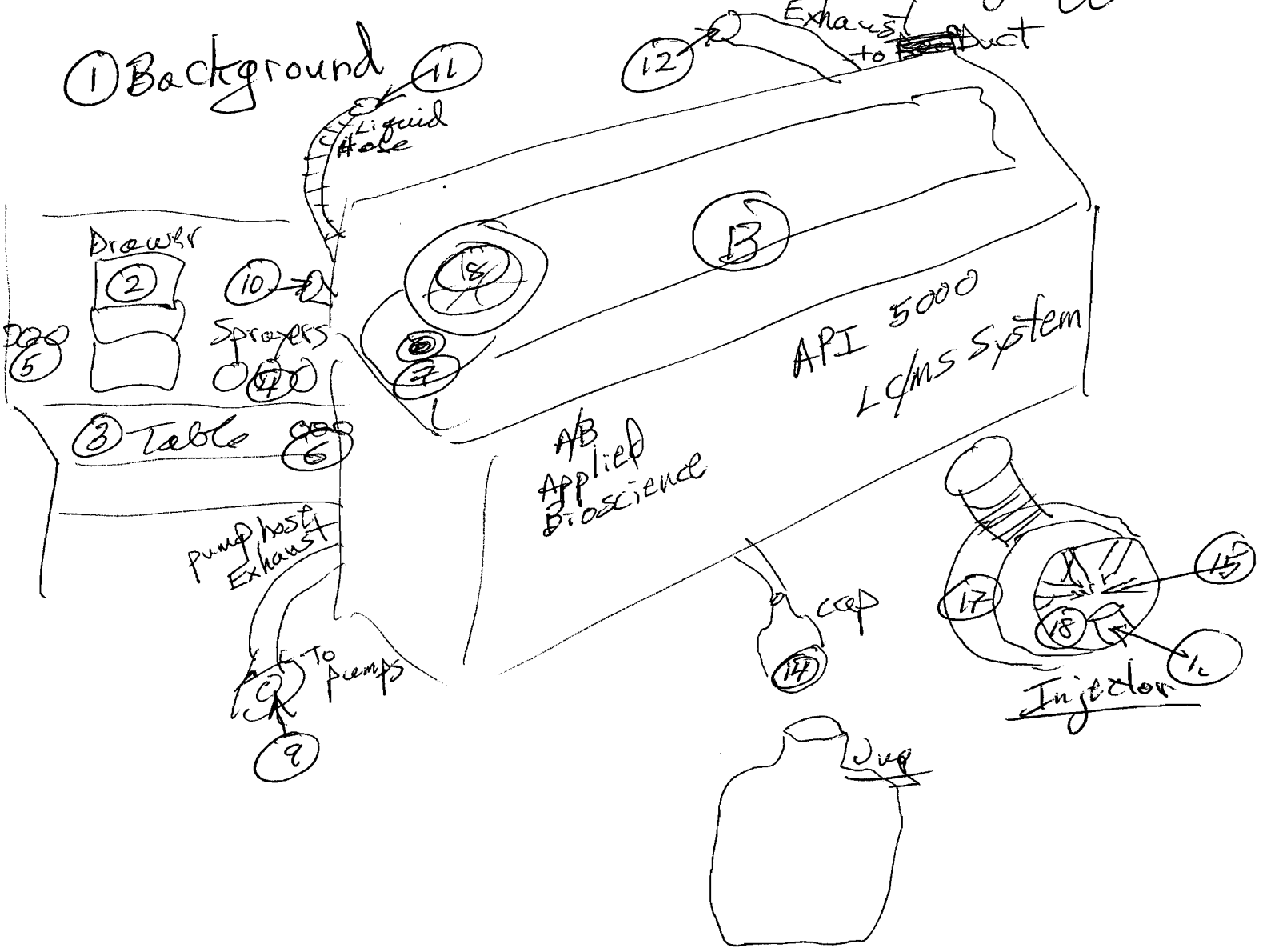
S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.75	5.15	4.50			569.	B
2	1.00	6.43	10.67	5.50	7.95	14.60	457.	
3	1.00	0.00	1.85	0.00	0.00	2.58	396.	
4	1.00	3.25	0.00	2.50	6.61	0.00	566.	
5	1.00	4.25	0.85	3.50	8.27	1.10	555.	
6	1.00	0.25	0.00	0.00	0.52	0.00	546.	
7	1.00	1.25	0.00	2.50	2.62	0.00	534.	
8	1.00	1.25	0.85	0.00	2.14	1.14	535.	
9	1.00	3.25	0.85	0.00	6.25	1.11	548.	
10	1.00	0.00	0.00	0.00	0.00	0.00	559.	
11	1.00	0.25	1.85	0.00	0.00	2.50	553.	
12	1.00	0.00	0.00	3.50	0.00	0.00	553.	

All Clean

L226

10/20/2010

Mass Specs



Protocol# 15 - 3h_14c_dpm.lsa User: Default

L226
Wipes of Mass Spec
A/B API 5000
LC/MS

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101020_1023\20101020_1023.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

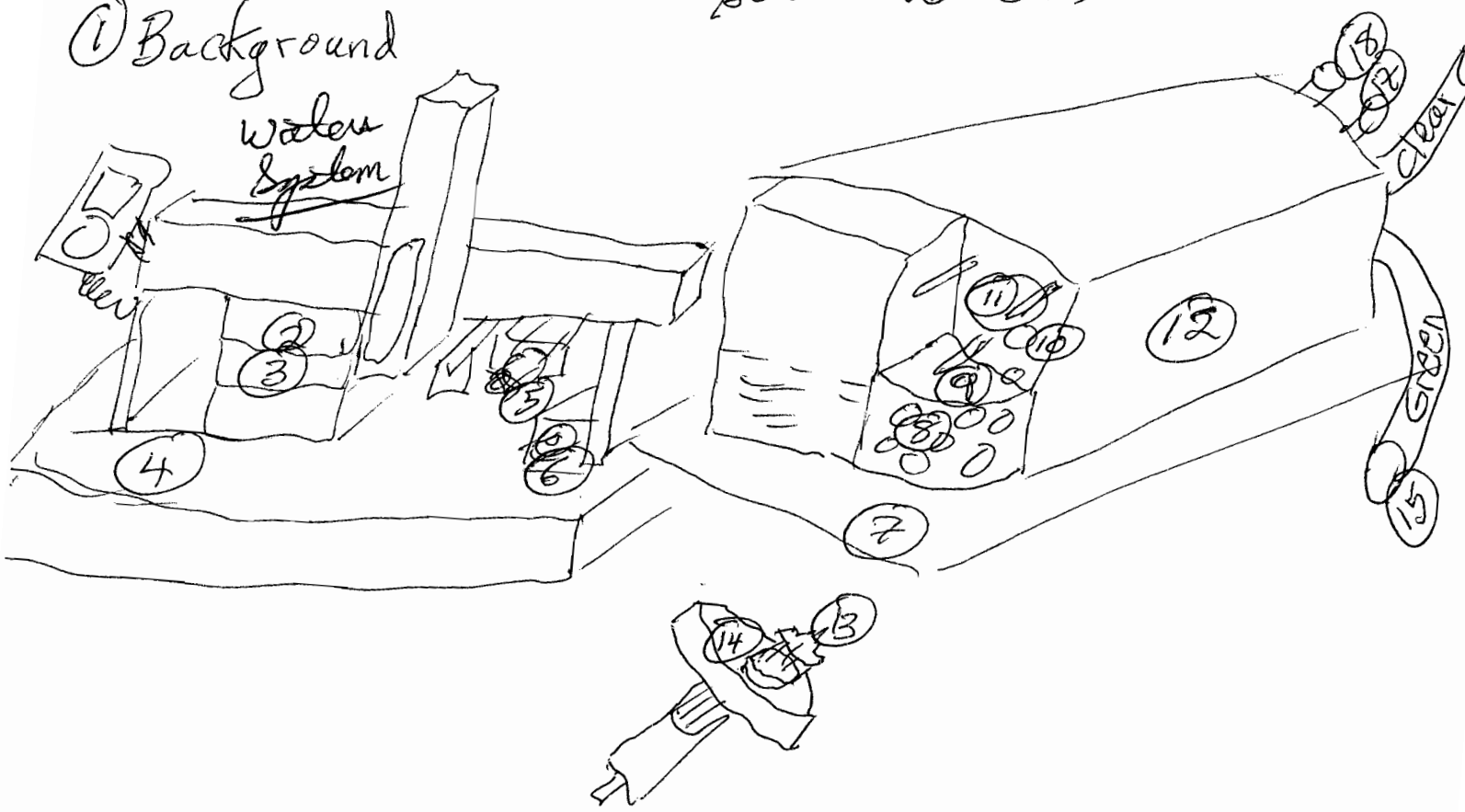
Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	6	0	0	0	894.00	585.93	B
2	1.00	0	0	0	0	0	0.00	579.91	
3	1.00	5	4	0	10	4	718.54	573.77	
4	1.00	4	0	0	9	0	0.00	572.52	
5	1.00	3	0	0	8	0	1033.84	568.37	
6	1.00	3	2	0	7	2	1610.12	564.56	
7	1.00	5	0	0	11	0	0.00	572.47	
8	1.00	1	1	0	2	1	1397.19	564.22	
9	1.00	4	1	0	8	1	0.00	567.56	
10	1.00	5	0	0	11	0	0.00	609.90	
11	1.00	6	0	0	14	0	0.00	559.83	
12	1.00	3	0	0	7	0	0.00	566.70	

13	1.00	8	1	0	17	0	317.93	585.12
14	1.00	7	4	0	14	4	0.00	607.81
15	1.00	13	0	0	30	0	271.53	570.76
16	1.00	3	0	0	8	0	7471.65	557.20
17	1.00	2	0	0	4	0	2210.63	579.95
18	1.00	2	0	0	4	0	0.00	574.03

L226 MassSpec 10/20/10
Quattro Ultima
Ser# VB-335



Meter Readings

Ludlum 3 Ser# 146121
Cal: 10/12/10
Probe: 44-9
Ser#: PR 151749

Background: 40-80 cpms

Readings: Background

Protocol# 15 - 3h_14c_dpm.lsa User: Default

L226 Mass Spec
Quattro Ultima
VB-335
Decommission Wipes

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101020_1311\20101020_1311.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	6	0	0	0	819.94	587.09	B
2	1.00	0	3	0	0	4	3300.18	572.55	
3	1.00	0	2	0	0	3	2548.18	596.03	
4	1.00	0	3	0	0	4	1526.39	574.40	
5	1.00	0	0	0	0	0	0.00	568.28	
6	1.00	0	0	0	0	0	0.00	577.97	
7	1.00	0	0	0	0	0	0.00	593.13	
8	1.00	2	5	0	4	6	313.31	570.97	
9	1.00	0	0	0	0	0	0.00	589.60	
10	1.00	0	0	0	0	0	0.00	577.23	
11	1.00	1	0	0	3	0	0.00	580.65	
12	1.00	0	0	0	0	1	0.00	593.43	

13	1.00	3	4	0	6	5	0.00	588.31
14	1.00	7	0	0	17	0	1051.68	587.37
15	1.00	2	6	0	3	8	389.53	588.79
16	1.00	2	0	0	5	0	745.39	629.91
17	1.00	0	0	0	0	1	0.00	569.45
18	1.00	3	0	0	8	0	2023.78	600.41

L2 ~~26~~
Waste Can

J Coffin

Assay Definition

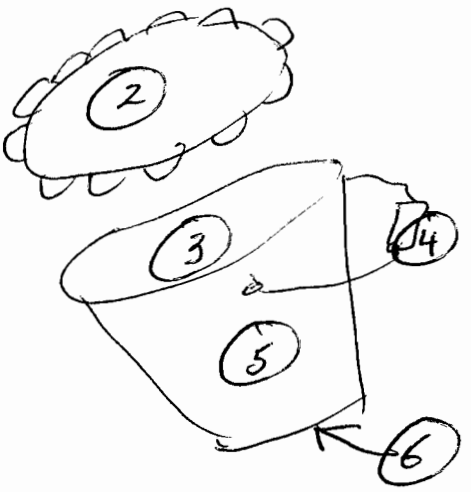
Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101013_0627\20101013_0627.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

① Background

Lid



Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	22	13	0	0	0	420.46	560.42	B
2	1.00	1	10	0	0	12	0.00	533.61	
3	1.00	31	5	0	75	2	0.00	501.56	
4	1.00	0	10	0	0	13	0.00	602.69	
5	1.00	0	0	0	0	0	0.00	531.60	
6	1.00	0	3	0	0	3	0.00	524.92	

Meter Readings Ludlum 3, Ser# 146121 Cal: 10, 10
Background: 20-60cpms Probe: 44-9 PR 151749
Readings: Background All Clean for metal disposal

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: [redacted]-229 Lab Supervisor: NAMIT GHILDYAL

Responsible Investigator for the Lab: NAMIT GHILDYAL

RAM Users in This Lab: GNINDASWAMY PANCHAMOORTHY, NIN GUAN

Date: 11-15-00

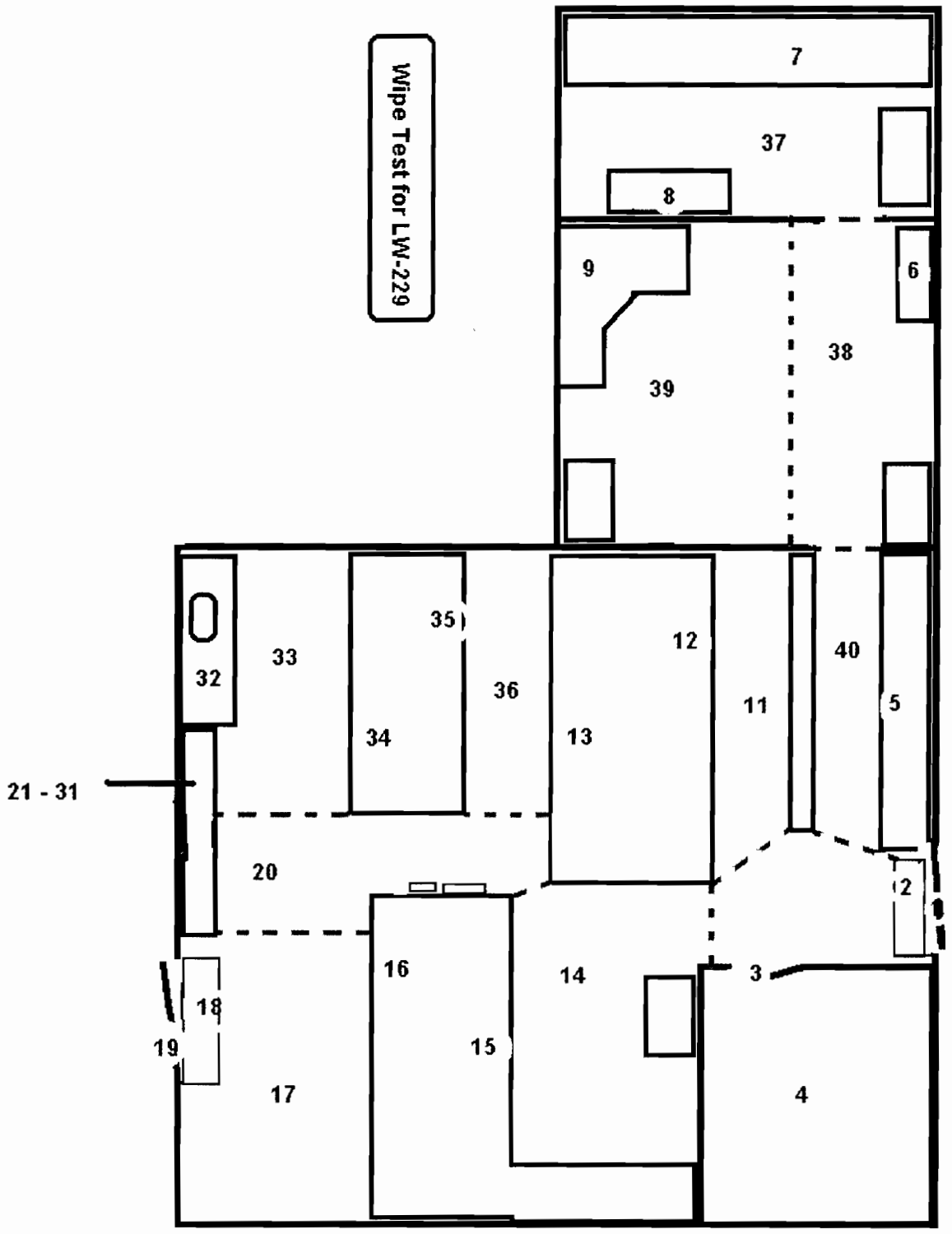
Date Completed	Questionnaire
11-1-00	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
11-2-00	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
11-13-00	Contact Safety to perform final wipe test of the lab and equipment.
	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
	After approval by Safety, the radiation signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

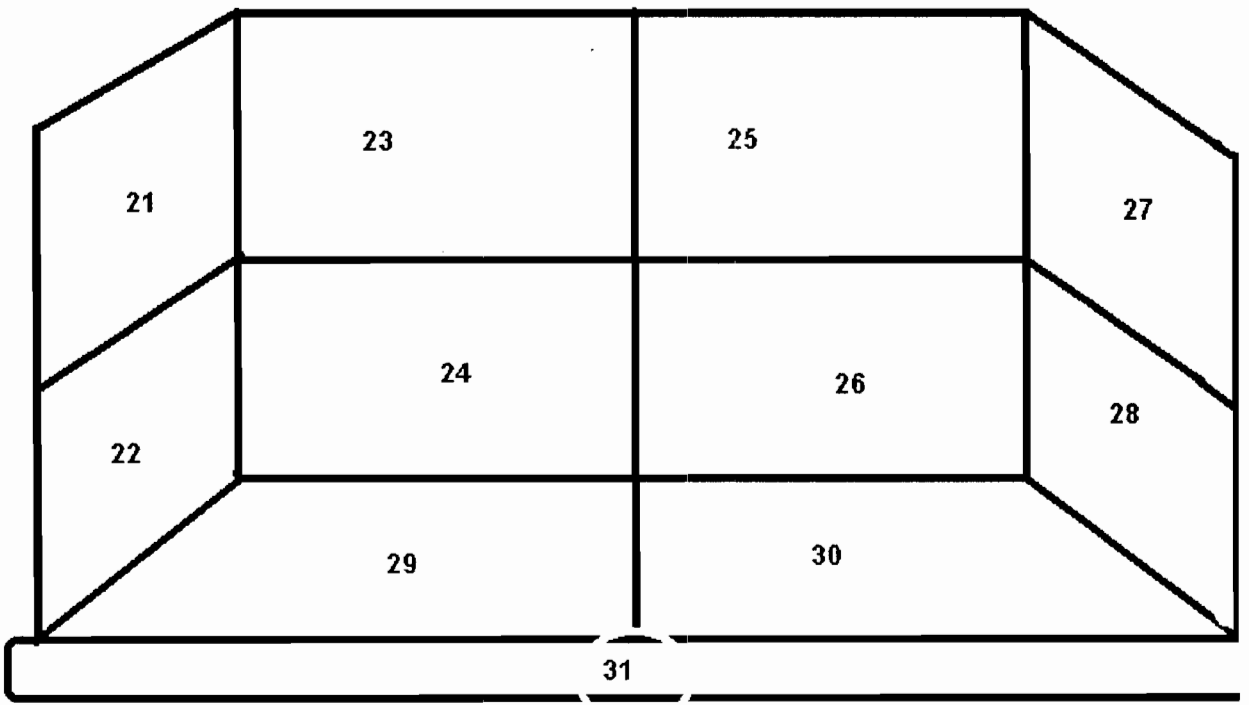
Gerald K Watson.

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.



Wipe test Map for Decommissioning wipe test for Lab LW-229. G.K.W. RSA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Protocol #: 2 Name:DIRECT DPM 14-Nov-2000 15:47
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 2.00 QIP = tSIE/AEC ES Terminator = Count
Direct DPM
SNC DPM = 124200

Final wipe test for Lab LW229 for decommissioning.
D.B.C. = 17.01 dpm
gbw

S#	TIME	DPM1	tSIE	FLAG
1	2.00	19.65	504.	
2	2.00	20.18	509.	
3	2.00	21.52	522.	
4	2.00	15.78	521.	
5	2.00	13.54	532.	
6	2.00	15.83	516.	
7	2.00	18.50	530.	
8	2.00	17.69	533.	
9	2.00	15.45	540.	
10	2.00	16.55	524.	
11	2.00	25.78	527.	
12	2.00	19.11	524.	
13	2.00	24.59	509.	
14	2.00	12.61	528.	
15	2.00	10.11	519.	
16	2.00	19.79	202.	
17	2.00	24.21	536.	
18	2.00	19.42	524.	
19	2.00	19.65	416.	
20	2.00	19.06	432.	
21	2.00	23.58	395.	
22	2.00	21.31	449.	
23	2.00	18.10	475.	
24	2.00	21.68	474.	
25	2.00	39.01	434.	
26	2.00	22.51	451.	
27	2.00	22.25	449.	
28	2.00	17.43	497.	
29	2.00	12.60	462.	
30	2.00	17.65	491.	
31	2.00	30.65	471.	
32	2.00	19.43	448.	
33	2.00	20.02	448.	
34	2.00	16.79	503.	
35	2.00	18.98	505.	
36	2.00	14.32	522.	
37	2.00	13.01	485.	
38	2.00	24.37	453.	
39	2.00	19.50	445.	
40	2.00	24.39	438.	

Coffin, Tim

From: Coffin, Tim
t: Thursday, November 02, 2006 8:16 AM
To: Petlick, Scott; Grimm, Scott W; Zhang, Minli; Li, Yan; Ribadeneira, Maria D
Cc: Schlank, Bliss M; Terpko, Marc O; Ramanathan, Raja; Bristow, Brian K; Otmani, Sara A; Lanoue, Bernard A; Resuello, Christina; Palermo, Sal F; Ellis, Amanda J; Zhou, Diansong; Civitella, Patricia C; Matthews, Cory M
Subject: Decommissioning of [redacted]as Active Radioactive Material Use Lab (Radioactive Hazard Signs Still stay on Door)

FOR YOUR INFORMATION/ACTION:

As of today, November 2, 2006, the [redacted]Lab has been decommissioned from the active use of Radioactive Material for research purposes.

SPECIAL NOTE: Over the last couple months the Radiation Safety Group has been involved with trying to decontaminate the Fume Hood parts and material so that the lab could be decommissioned. Unfortunately, not all of the fume hood internal material was able to be decontaminated or removed for radioactive disposal. So, the lab chemical fume hood will still be marked with radioactive signs and be **"OUT OF SERVICE"** until the contaminated radioactive material can be removed. The RSO (Radiation Safety Officer) will be scheduling a meeting to discuss the future demolition and removal of the remaining contaminated radioactive material in the Fume Hood.

LAB ACCESS: Entry to the lab L233 is permitted. All the benches, equipment (other than Fume Hood), and floor areas are clean of radioactive material and can be used, removed or relocated as needed.

ACTIONS TAKEN:

1. All radioactive research material and waste has been removed and relocated to B154. The contaminated Fume Hood material that could be removed was taken out and process by ESI (Ecology Services, Inc.) for compaction and disposal as radioactive waste.

2. Decommissioning wipe tests were completed of the entire lab (excluding the fume hood) and found to be at or below the AZ Action Level of 100 dpms. Meter readings were all at background or less than three times background.

3. Decommissioning Form was completed and placed in the Official Radiation Safety Decommissioning Files.

4. Lab L233 was removed from the official active radiation lab data base and will be removed from the monthly Wipe Test Schedule.

5. All radioactive tape, labels, and appropriate radiation safety postings have been removed from the walls, equipment, and benches.

6. The required Nuclean Regulatory Commission, NRC Form 3, Notice to Employees, will be left up because the fume hood is still radioactive.

7. The Radioactive Wipe Test Book will be left in the lab, next to the hood, to reflect the wipe tests and notice of decommissioning until the fume hood is removed or decontaminated.

8. The Radioactive Hazard Signs will be left on the Entrance Doors since the fume hood is still radioactive.

BRIAN BRISTOW, please leave the current hazard signs in place for L233 with emergency contact data. Add Scott Petlick for emergency contact related to fume hood issues.

9. The lab L233 will be listed under the responsibility of Scott Petlick for the radiation fume hood issues.

10. This E-mail serves as the official notification to the Radiation Safety Officer that the lab is now decommissioned from the radioactive material use.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227, 6-2682

Decommissioned and removed from Active Use L233

AstraZeneca

By Hood is Contaminated and needs removal

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: L233 Lab Supervisor: Scott Grimm, ~~PI~~

Responsible Investigator for the Lab: Minli Zhang, Yan Li

RAM Users in This Lab: Amanda Ellis, Sara Otmani, Bernard Lanoue

Date: 3H, 14C

Date Completed	Questionnaire
11/2/06	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
Leave Door Hazard signs up Coffin	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas. Fume Hood Still Contaminated
11/2/06	Contact Safety to perform final wipe test of the lab and equipment.
Coffin	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas. RSO 3H, 14C
11/2/06	Write a letter to ~~D.H.F. Irwin~~ in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
Leave Up	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	~~If vacating the lab or changing ownership, proceed to Section C.~~

Radiation Decommissioning has been completed:

Timothy J. Coffin 11/2/06

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

☒ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). *Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

☒ NA ☐ Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

Leave door hazards signs up until Fume Hood issue is completed.

Roffin

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	N/A
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	(Yes) or No	(If "No" go to the next section.)
Date lab was decommissioned?		
What isotopes were used?		3H, 14C
Have all surfaces/areas been decontaminated?	(Yes) or No	Fume Hood Still Contaminated
Have all isotopes been transferred or disposed of?	(Yes) or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?		Yes or No
Have solvents been transferred/disposed of/ reassigned?		Yes or No
Particularly ether and THF?		Yes or No
Have all stills been quenched/transferred/ reassigned?		Yes or No
Have all intermediates/research samples been:		Yes or No
• Entered into the M collection?		
• Assigned to others on the project and labeled as such?	Yes or No	N/A
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

11/2/06

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, will result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:		/ /	Facilities:		/ /
Safety:	Sam Coffin	11/2/06	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

Decommission

Wipes

~~B220~~
L233

[signature]

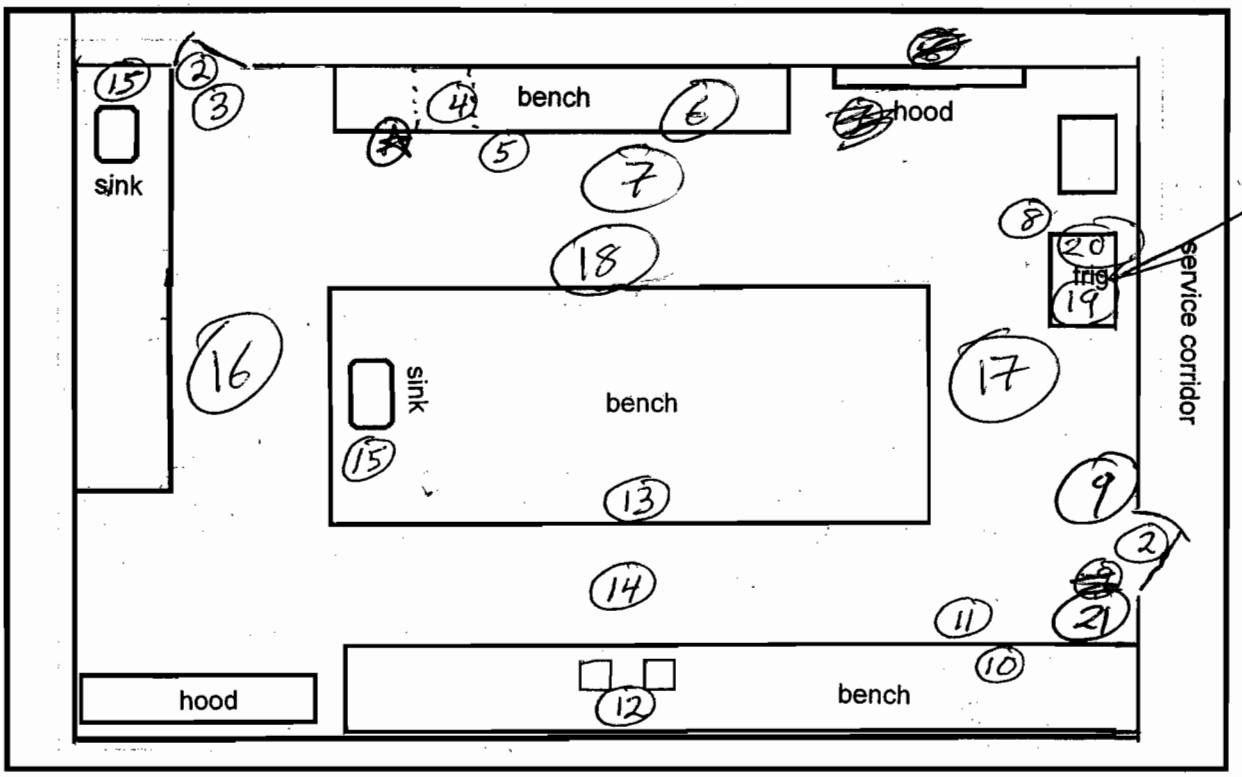
Protocol #:15 Name:Wipe Test 25-Jul-2006 08:40
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
Conventional DPM
Nu ide 1 = 250871 Nuclide 2 = 123068

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.20	5.20	3.30			669.	B
2	1.00	0.80	0.00	0.70	1.66	0.00	623.	
3	1.00	0.00	0.00	0.70	0.00	0.00	584.	
4	1.00	9.80	0.00	0.00	21.63	0.00	563.	
5	1.00	2.80	0.00	1.70	6.08	0.00	577.	
6	1.00	0.80	2.80	2.70	0.14	3.74	591.	
7	1.00	1.80	0.00	4.70	3.95	0.00	569.	
8	1.00	1.80	0.00	0.00	3.71	0.00	631.	
9	1.00	209.80	20.80	0.70	527.20	25.43	448.	
10	1.00	3.80	1.80	0.00	7.96	2.39	498.	
11	1.00	1.80	0.00	1.70	3.91	0.00	576.	
12	1.00	43.80	38.80	1.70	113.91	55.36	309.	
13	1.00	1.80	0.00	0.00	4.13	0.00	531.	
14	1.00	0.00	1.80	2.70	0.00	2.42	572.	
15	1.00	0.00	0.00	0.70	0.00	0.00	538.	
16	1.00	4.80	0.00	5.70	10.20	0.00	597.	
17	1.00	4.80	0.00	0.00	10.11	0.00	606.	
18	1.00	0.00	0.00	0.00	0.00	0.00	545.	
19	1.00	6.80	0.80	1.70	14.74	0.98	551.	
20	1.00	4.80	8.80	2.70	5.34	11.72	589.	
21	1.00	0.80	2.80	0.70	0.14	3.75	558.	

Decommission Wipes

WIPE TEST MAP

LAB # LW233



Lock Box moved to L244

WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle & light switch
3. Floor below door
4. Bench edge & handles
5. Floor below bench
6. ~~Hood sash, foil, & handles~~ Bench
7. Floor ~~below hood~~ Bench
8. Refrigerator/freezer handles
9. ~~Floor below door~~ Trays
10. Bench edge & handles
11 Floor below bench
12. Incubator handles – Bench Top
13. Bench edge & handles
14. Floor below bench
15. Sinks
16. Floor
17. "
18. "
19. Inside freezer
20. " frig
21. Floor by Door

Transferred to L242

Coffin, Tim

From: Coffin, Tim
Sent: Tuesday, November 14, 2006 1:09 PM
To: Petlick, Scott; Bair, Karl D; Long, William H; Jennings, Richard; Stansky, Gregory E; Grimm, Scott W; Zhang, Minli; Li, Yan; Ribadeneira, Maria D; Bristow, Brian K
Cc: Ellis, Amanda J; Zhou, Diansong; Otmani, Sara A; Lanoue, Bernard A; Resuello, Christina; Civitella, Patricia C; Schlank, Bliss M; Matthews, Cory M; Terpko, Marc O; Palermo, Sal F; Ramanathan, Raja
Subject: Final Decommissioning of Lab and Fume Hood in L233 from Radioactive Material Use

FOR YOUR INFORMATION/ACTION:

As of today, November 14, 2006, the Lab L233 and specifically the 8' Fume Hood have been decommissioned from the use of Radioactive Material.

ACTIONS TAKEN:

1. The abatement of the radioactive contaminated Fume Hood material has been completed, and the fume hood shell decontaminated of any existing radioactive material. This includes the duct thimble that leads to the exhaust duct above the hood.

   Note: The flexible exhaust duct above the Lab L233 hood will need to be checked for any radioactive contamination before it is worked on, removed or disposed. There are no markings on the hood that identify the duct location information.

   Lab L233 will be listed on the Radioactive Decommissioning List so that future work or removal of the Exhaust Duct will be checked for potential radioactive contamination.

   THE FUME HOOD IS CURRENTLY OUT OF SERVICE UNTIL REPAIRS OR REPLACEMENT IS COMPLETED.

2. All wipe tests of the lab and fume hood are at background or below the AstraZeneca Action Level of 100 dpms. All meter readings of the lab and fume hood, as far as the exhaust thimble, are at background or below the acceptable limit of less than three times background (120 cpms).

3. All radioactive tape, signs, required postings have been removed from the Fume Hood.

4. The lab Wipe Test Records have been removed and placed in the Official Radiation Safety Files.

5. This E-mail serves as the official notice to the Radiation Safety Officer that the radioactive decommissioning and cleaning of the Fume Hood is complete.

ACTIONS TO BE COMPLETED:

1. Brian Bristow, please remove this lab from your active Radioactive Hazard Labs, and remove Radioactive Hazard Warning Signs from all the Lab L233 Entry Doors.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227, 6-2682

L233

11/13/06

Wipe Test after Hood Material removed from sides of wall. JKoffin

Page (1)

Results see Page (2)

1. Background
2. Work Surface (right)
3. " " (Left)
4. Hood Sash
5. Hood door
6. Hood Glass (Lens from Light)
7. Metal Brace - Top right
8. " " - Bottom right
9. Metal Brace - Top left
10. " " Bottom left
11. Right Wall - Inner
12. Left Wall - Inner
13. Back Wall - Top left
14. " " Bottom left
15. " " Top right
16. " " Bottom right
17. Light Fixture
18. Frame around Thimble Pipe
19. Outside Thimble Left
20. " " right
21. Inside Thimble Left (Before Cleaning)
22. " " right (Before Cleaning)
23. Cup sinks
24. Inside Thimble Left (after 1st Cleaning)
25. " " Right (after 1st Cleaning)

Lab L233
Fume Hood
Inner Wall, Frame & Thimble

T Coffin

Protocol #: 6 Name:Wipe Test 13-Nov-2006 10:09
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA6.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	3.60	4.40	3.50			640.	B
2	1.00	39.44	30.56	0.00	74.51	40.80	587.	
3	1.00	34.40	73.60	1.50	36.86	99.25	568.	
4	1.00	8.40	4.60	1.50	16.98	6.11	590.	
5	1.00	18.40	8.60	0.00	37.57	11.37	605.	
6	1.00	3.47	5.53	0.00	4.81	7.43	588.	
7	1.00	76.40	1.60	0.00	183.52	1.15	565.	
8	1.00	243.40	0.00	0.00	609.74	0.00	533.	
9	1.00	25.40	6.60	0.00	57.75	8.61	557.	
10	1.00	27.40	6.60	0.00	61.76	8.57	570.	
11	1.00	1.81	0.00	0.50	4.38	0.00	566.	
12	1.00	2.40	0.60	2.50	5.23	0.78	602.	
13	1.00	28.40	40.60	1.50	42.64	54.57	578.	
14	1.00	6.12	7.88	1.50	9.74	10.59	576.	
15	1.00	26.40	8.60	1.50	59.91	11.33	542.	
	1.00	3.40	10.60	1.50	1.57	14.32	565.	
17	1.00	5.40	11.60	2.50	5.71	15.63	577.	
18	1.00	14.40	0.00	1.50	34.33	0.00	578.	
19	1.00	33.39	15.61	0.50	69.48	20.68	585.	
20	1.00	0.77	12.23	0.00	0.00	16.71	497.	
21	1.00	838.55	632.45	7.50	1958.87	865.52	420.	
22	1.00	264.89	159.11	3.50	664.01	217.62	408.	
23	1.00	34.23	35.77	2.50	59.25	47.93	583.	
24	1.00	109.62	102.38	1.50	203.11	137.44	554.	
25	1.00	32.54	55.46	0.50	44.23	74.79	556.	

} Metal Brace on right
Static Reading
Run all samples again to confirm!
(See page (3))

} Thimble before Cleaning

} Thimble after 1st Cleaning

2nd Clean & Rewipe (See Page (4))

(1) Background
(2) Thimble inside Left (after 2nd Cleaning)
(3) Thimble inside right (after 2nd Cleaning)
(4) Bottom Bracket
(5) Left side Bottom
(6) right side Bottom
(7) Left side Top
(8) right side Top
(9) Top Bracket

} Right side frame

L233 Rerun Again

Protocol #: 6 Name:Wipe Test 13-Nov-2006 13:23
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA6.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.81	4.19	2.00			604.	B
2	1.00	37.50	59.50	1.00	53.45	80.16	562.	
3	1.00	30.63	73.37	2.00	28.23	99.11	557.	
4	1.00	1.19	8.81	2.00	0.00	11.94	555.	
5	1.00	15.20	15.76	5.05	26.30	21.11	586.	
6	1.00	7.19	0.00	3.00	17.17	0.00	576.	
7	1.00	2.19	4.81	2.00	2.31	6.51	544.	
8	1.00	2.19	0.81	3.00	5.02	1.08	520.	
9	1.00	6.19	6.81	2.00	10.88	9.17	547.	
10	1.00	18.26	8.74	3.00	39.09	11.61	554.	
11	1.00	12.19	4.81	3.00	26.79	6.37	552.	
12	1.00	6.24	1.76	5.00	13.67	2.29	587.	
13	1.00	31.43	44.57	3.00	48.25	60.01	560.	
14	1.00	3.51	5.49	0.00	5.06	7.39	563.	
15	1.00	17.58	13.42	2.00	35.34	18.02	531.	
16	1.00	8.19	14.81	0.00	10.60	19.99	554.	
17	1.00	10.73	19.27	1.00	13.77	25.96	570.	
18	1.00	11.19	0.00	1.00	27.17	0.00	560.	
19	1.00	32.33	19.67	0.00	65.39	26.21	571.	
20	1.00	1.30	10.70	0.00	0.00	14.64	488.	
21	1.00	860.35	875.65	4.00	1846.84	1204.84	414.	
22	1.00	324.64	187.36	1.00	810.10	255.54	415.	
23	1.00	29.71	52.29	0.00	38.83	70.44	569.	
24	1.00	126.50	118.50	3.00	237.93	159.35	539.	
25	1.00	33.15	49.85	3.00	49.52	67.22	551.	

L233
Final Hood Wipes

J Coffin

```
Protocol #:15        Name:Wipe Test                    13-Nov-2006 14:21
Region A: LL-UL= 0.0-18.6  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region B: LL-UL=18.6-156.  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Region C: LL-UL=156.-2000  Lcr=    0  Bkg= 0.00  %2 Sigma=0.00
Time =  1.00      QIP = tSIE/AEC      ES Terminator = Count
A:Half-life = 108624      Ref = 03/10/2004   12:00
B:Half-life = 999999      Ref = 03/10/2004   12:00
Conventional DPM
Nuclide 1 = 276900      Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT
```

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.90	4.30	3.80			601.	B
2	1.00	38.31	62.49	0.00	52.00	83.96	592.	
3	1.00	10.10	22.70	1.20	10.25	30.65	558.	
4	1.00	2.10	4.70	0.00	2.13	6.34	569.	
5	1.00	7.10	0.00	0.00	16.89	0.00	581.	
6	1.00	9.10	1.70	0.20	20.79	2.18	572.	
7	1.00	19.50	0.00	0.00	45.57	0.00	599.	
8	1.00	13.10	0.70	1.20	29.84	0.77	612.	
9	1.00	18.10	1.70	2.20	42.40	2.06	571.	

Final Meter Readings 11/14/06

Ludlum Model 3
Serial #212037
Calibrated: 12/11/05

Probe: 44-9
Ser: PR223552

Background: 20-60 cpm's

Readings:		Cleaned to
	Hood Sash & Sash Door Handle —	60 cpm
(300 cpms) Tape & Glue	Hood Work Surface & Cup Sink —	100 cpm Trap
	Glass light Cover ———	80 cpm
	~~Left frame~~ & Wall ———	60 cpm
	right ~~frame~~ & Wall ———	60 cpm
	Back wall ———	60 cpm
	Overhead light ———	60 cpm
Seams & Caulk (300 cpm's)	Overhead frame ———	60 cpm
	inside Thimble ———	80 cpm

Coffin, Tim

From: Coffin, Tim
Sent: Wednesday, November 08, 2006 2:15 PM
To: Petlick, Scott
Cc: Bair, Karl D
Subject: Abatement work in L233 Fume Hood by CEC (County Environmental Company)

Hi Scott,

Just a quick note to let you know that Lou Morrison and two other employees of CEC arrived today about 9:00 a.m. to the abatement work in the L233 Fume Hood.

They completed the removal about 11:00 a.m., in time for the radioactive contaminated material to be included in the Radioactive Waste Compaction Drum Shipment. The remaining abated material was removed by CEC in the approved bags and containers.

I collected all the PPE used and placed it in the Dry Radioactive Waste Collection Drum for our next radioactive waste shipment.

Now, I will need to wipe tests of the remaining open braces and surfaces for any remaining radioactive contamination before we clear the Hood for demolition. That will leave just the Exhaust Duct to clean and discuss for any further actions.

Let me know if you have any questions.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

Coffin, Tim

From: Bair, Karl D
Sent: Wednesday, November 08, 2006 7:19 AM
To: ContractorsTrailer; Petlick, Scott; Coffin, Tim
Subject: County Env. Co.(CEC)

Three men from CEC will will be here this morning to abate a hood in LW for Scott Petlick & Tim Coffin. Call Scott X61082 or Tim X62682 when the CEC personnel arrive. Send CEC to the LW dock.

Done!
9:00 —
11:00 am
T Coffin

INTERNAL MEMORANDUM

ZENECA PHARMS US
PHARMACEUTICAL R+D - DRUG DISP + METAB
Tel No: (302)886-2271

Date: 31-Jan-1994 05:29pm EST

To: David H. Irwin

From: Scott W. Grimm

CC: Martin Dyroff [UK]
Jim Lynch

Subject: [redacted] Radioactivity

Dave,

We are finished using radiolabelled compounds in LW235. I am sending you a copy of the final wipe test results in the mail. I will also send you the temporary lab signs.

Scott

Wipe Test LW235 Jan 31, 1994

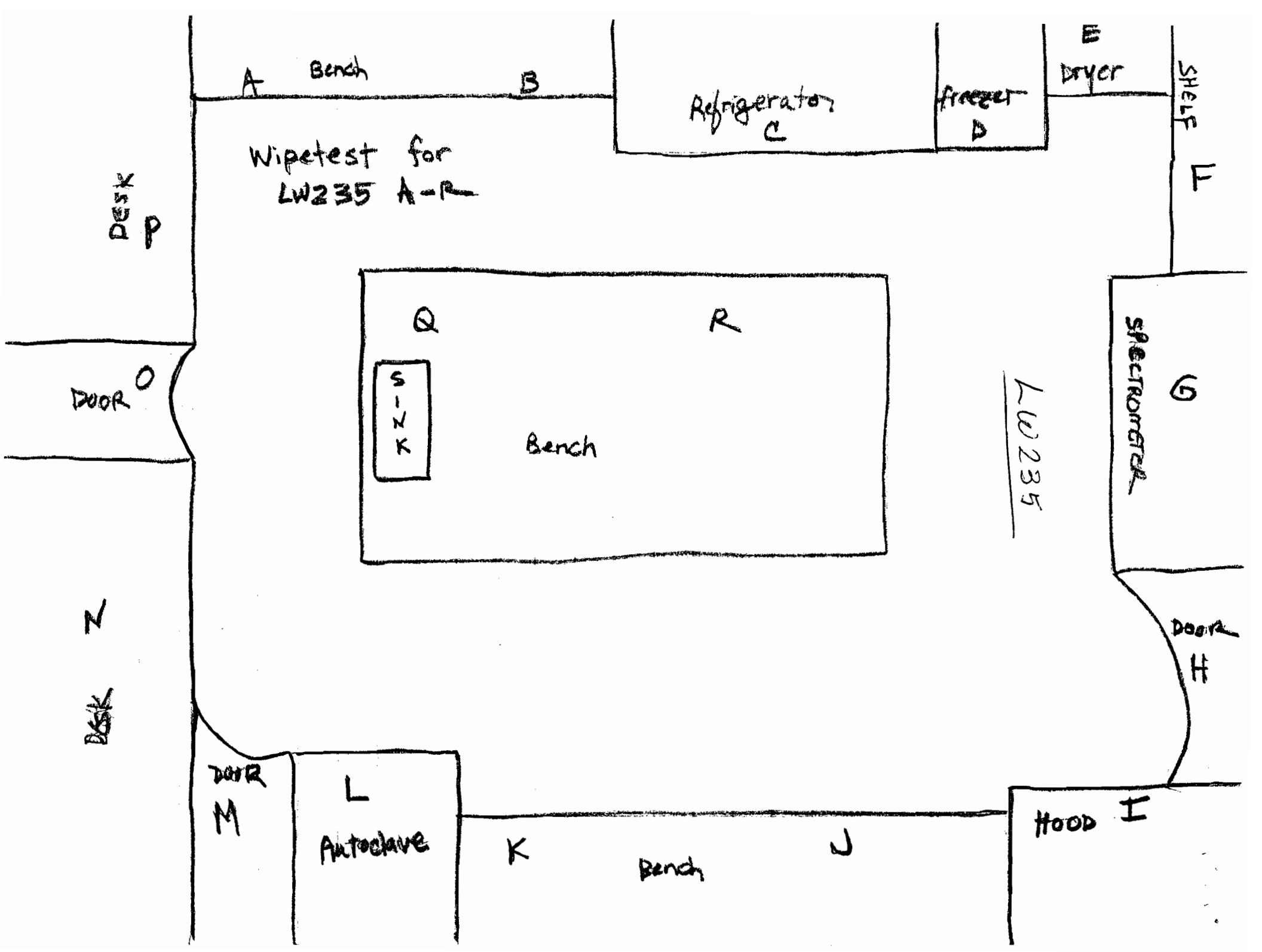
USER: 1 ID:LIQUISCINT-1 PRESET TIME: 1.00 MON 31 JAN 1994 15:06
SAMPLE REPEAT: 1 CYCLE REPEAT: 1 SCR:N RS232:N
H#: 1 AGC:N QCF:N RCM:Y
RCM-TIME: 0.10 INT:999.95
CHANNEL 1-LL: 0 UL: 670 2SIGMA: 1.00 BKG SUB: 20.00 BKG 2SIG: 0.00 LSR:

SINGLE LABEL DPM SET UP ON 10 JUL 1992 14:55

UNKNOWN ID:CARBON14 UNKNOWN REPLICATES: 1
UNKNOWN NORM FACTOR ISO1:0 1.00000
UNKNOWN UNITS ISO1:DPM
UNKNOWN HALF LIFE CORRECTION:N
INDIVIDUAL UNKNOWN NORM FACTORS:N BACKGROUND QUENCH CURVES:N
STANDARD ID:CARBON14 QUENCH LIMITS LOW:58.00 HIGH:391.0
HALF LIFE(DAYS) ISO1:N
STANDARD DPM ISO1: 265900.0

SAM		DPM:	TIME	AVG H#	RCM%	EF
BLK	1	14.00	1.00	62.0	26.88	
		ISO1 %EFF CH1:94.16			ISO1 DPM :14.86758	
BLK	2	9.00	1.00	63.0	19.74	
		ISO1 %EFF CH1:93.93			ISO1 DPM :9.581397	
A	3	0.00	1.00	65.0	14.11	
		ISO1 %EFF CH1:93.47			ISO1 DPM :0.000002	
B	4	11.00	1.00	64.0	9.43	
		ISO1 %EFF CH1:93.70			ISO1 DPM :11.73960	
C	5	9.00	1.00	65.0	9.15	
		ISO1 %EFF CH1:93.47			ISO1 DPM :9.628922	
D	6	4.00	1.00	65.0	17.12	
		ISO1 %EFF CH1:93.47			ISO1 DPM :4.279521	
E	7	1.00	1.00	64.0	17.51	
		ISO1 %EFF CH1:93.70			ISO1 DPM :1.067237	
F	8	4.00	1.00	66.0	27.56	
		ISO1 %EFF CH1:93.24			ISO1 DPM :4.290119	
G	9	0.00	1.00	63.0	25.19	
		ISO1 %EFF CH1:93.93			ISO1 DPM :0.000002	
H	10	-5.06	1.00	65.0	43.72	
		ISO1 %EFF CH1:93.47			ISO1 DPM :-5.34940	
I	11	4.00	1.00	65.0	25.67	
		ISO1 %EFF CH1:93.47			ISO1 DPM :4.279521	
J	12	-4.00	1.00	64.0	17.19	
		ISO1 %EFF CH1:93.24			ISO1 DPM :-4.29012	

	SAM	CPM1	TIME	AVG H#	RCM%	E
K	13	6.00 ISO1 %EFF CH1:93.70	1.00	64.0	9.34 ISO1 DPM :6.403421	
L	14	12.00 ISO1 %EFF CH1:93.24	1.00	66.0	44.45 ISO1 DPM :12.87036	
m	15	16.00 ISO1 %EFF CH1:94.16	1.00	62.0	13.80 ISO1 DPM :16.99153	
N	16	13.00 ISO1 %EFF CH1:93.70	1.00	64.0	18.57 ISO1 DPM :13.87408	
O	17	-5.00 ISO1 %EFF CH1:93.01	1.00	67.0	7.17 ISO1 DPM :-5.37592	1
P	18	9.00 ISO1 %EFF CH1:93.47	1.00	65.0	18.06 ISO1 DPM :9.628922	
Q	19	3.00 ISO1 %EFF CH1:93.47	1.00	65.0	30.91 ISO1 DPM :3.209641	
R	20	-2.00 ISO1 %EFF CH1:93.47	1.00	65.0	26.76 ISO1 DPM :-2.13974	1
dirt	21	8.00 ISO1 %EFF CH1:90.34	1.00	79.0	35.83 ISO1 DPM :8.853645	
dirt	22	19.00 ISO1 %EFF CH1:90.77	1.00	77.0	21.95 ISO1 DPM :20.93259	


A
Bench
B
Refrigerator
C
freezer
D
E
Dryer
SHELF
F
Wipetest for
LW235 A-R
DESK
P
Q
R
SINK
Bench
LW235
SPECTROMETER
G
DOOR
O
DOOR
H
N
DESK
DOOR
M
L
Autoclave
K
Bench
J
HOOD
I

INTERNAL MEMORANDUM

ZENECA PHARMS US
PHARMACEUTICAL R+D - DRUG DISP + METAB
Tel No: (302)886-3028

Date: 12-Aug-1994 02:32pm EDT

To: David H. Irwin
Martin C. Dyroff

From: Debra A. McCombs

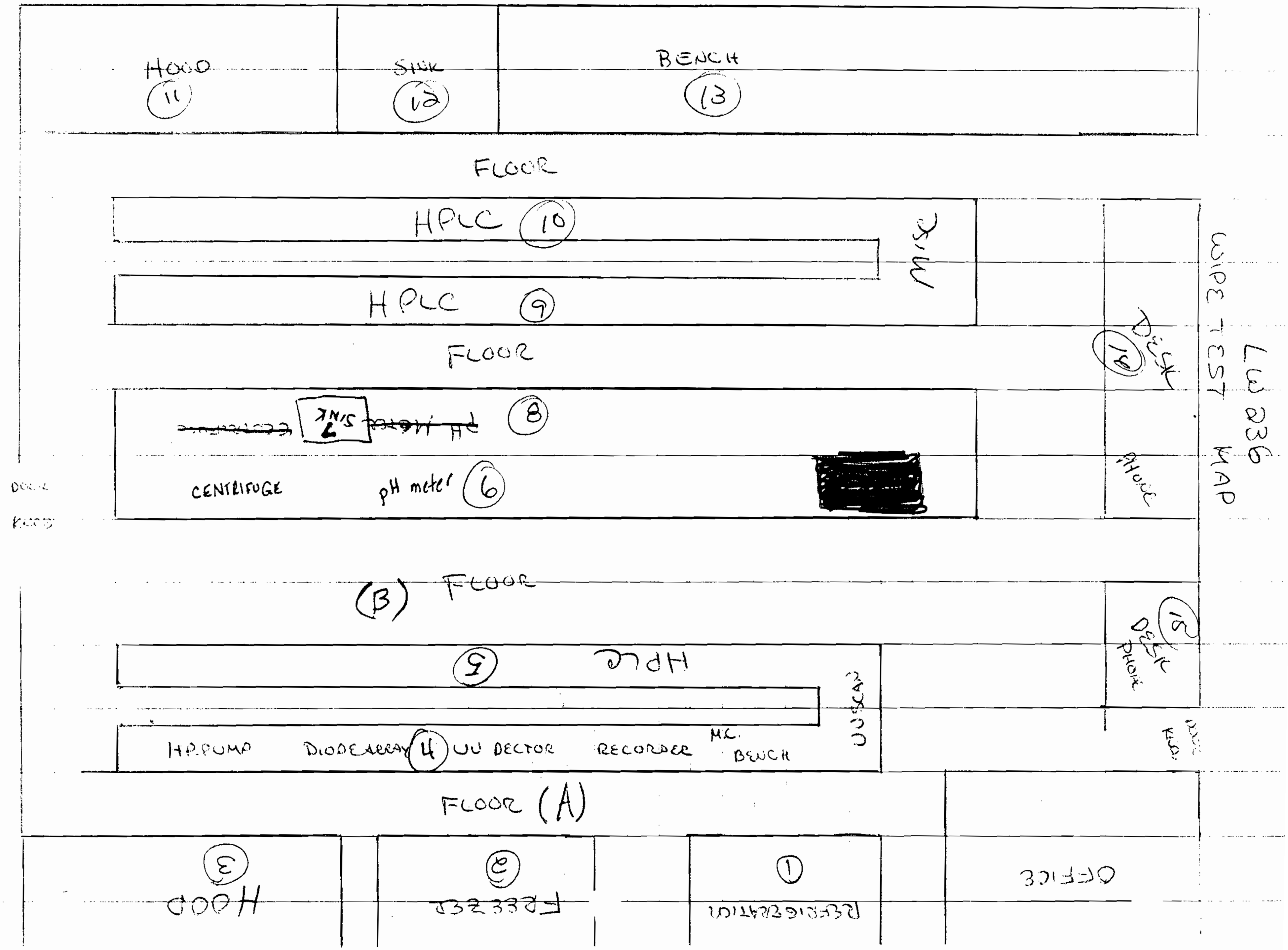
CC: Karin M. Kirkland

Subject: Radioactive work L236

Please note that as of 12AUG94, L236 has been decommissioned for C14 work. Wipe tests and documentation have been performed.

dm

AMPAD EFFICIENCY LINE™ 22-204



Job No. [illegible] 8/12/94 PAGE

USER: 7 ID:LIQUISCINT-3 PRESET TIME: 3.00 FRI 12 AUG 1994 11:0
SAMPLE REPEAT: 1 CYCLE REPEAT: 1 SCR:N RS232:N
H#: 1 ADC:N DCF:N RCM:Y
RCM-TIME: 0.10 INT:999.95
CHANNEL 1-LL: 0 UL: 670 2SIGMA: 1.00 BKG SUB: 20.00 BKG 2SIG: 0.00 LSR:

SINGLE LABEL DPM SET UP ON 10 JUL 1992 14:55

UNKNOWN ID:CARBON14 UNKNOWN REPLICATES: 1
UNKNOWN NORM FACTOR ISO1:Q 1.00000
UNKNOWN UNITS ISO1:DPM
UNKNOWN HALF LIFE CORRECTION:N
INDIVIDUAL UNKNOWN NORM FACTORS:N BACKGROUND QUENCH CURVES:N
STANDARD ID:CARBON14 QUENCH LIMITS LOW:58.00 HIGH:391.0
HALF LIFE(DAYS) ISO1:N
STANDARD DPM ISO1: 265900.0

SAM	CPM1	TIME	AVG H#	RCM%		
1	27.67	3.00	69.0	22.52		
	ISO1 %EFF CH1:92.55			ISO1 DPM :29.89384		1
2	19.33	3.00	63.0	7.50		
	ISO1 %EFF CH1:93.93			ISO1 DPM :20.58225		2
3	27.33	3.00	70.0	10.39		
	ISO1 %EFF CH1:92.32			ISO1 DPM :29.60640		3
4	23.33	3.00	68.0	9.99		
	ISO1 %EFF CH1:92.78			ISO1 DPM :25.14962	8/12/94	4
5	18.00	3.00	63.0	10.57	Trans. Error	
	ISO1 %EFF CH1:93.93			ISO1 DPM :19.16279		5
6	20.33	3.00	63.0	19.46		
	ISO1 %EFF CH1:93.93			ISO1 DPM :21.64685		5
7	21.33	3.00	63.0	7.08		
	ISO1 %EFF CH1:93.93			ISO1 DPM :22.71145		B
8	18.00	3.00	64.0	10.30		
	ISO1 %EFF CH1:93.70			ISO1 DPM :19.21026		6
9	20.67	3.00	62.0	4.16		
	ISO1 %EFF CH1:94.16			ISO1 DPM :21.94738		7
10	16.33	3.00	62.0	6.93		
	ISO1 %EFF CH1:94.16			ISO1 DPM :17.34551		8
11	24.67	3.00	61.0	6.15		
	ISO1 %EFF CH1:94.40			ISO1 DPM :26.13062		9
12	20.00	3.00	66.0	10.69		
	ISO1 %EFF CH1:93.24			ISO1 DPM :21.45059		10

SAM	CPM1	TIME	AVG NM	RCM%	
13	23.33	3.00	64.0	8.21	
	ISO1 %EFF CH1:93.70			ISO1 DPM :24.90218	11
14	18.33	3.00	66.0	4.30	
	ISO1 %EFF CH1:93.24			ISO1 DPM :19.66304	12
15	17.67	3.00	60.0	8.97	
	ISO1 %EFF CH1:94.63			ISO1 DPM :18.66905	13
16	12.67	3.00	61.0	5.43	
	ISO1 %EFF CH1:94.40			ISO1 DPM :13.41843	14
17	11.67	3.00	63.0	6.37	
	ISO1 %EFF CH1:93.93			ISO1 DPM :12.42033	15
18	21.00	3.00	67.0	15.70	
	ISO1 %EFF CH1:93.01			ISO1 DPM :22.57885	LC

As of 8/12/94 all ^{14}C materials have been removed from L236 and appropriate wipe tests performed. There were no spills or unusual occurences during the time ^{14}C was in the lab.

DEBRA McCOMBS

RECORDS NOT LOCATED

LAB # L 237

INACTIVE DATE: 1997

Final/Scoping Surveys done of Lab on March 3, 2011.

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Coffin, Tim

To: Gu, Chungang (Chuck); Terpko, Marc O; Bristow, Brian K
: Luzietti, Rick; Guo, Jian; Civitella, Patricia C; Schlank, Bliss M
Subject: Decommission [redacted] om use of Radioactive Materials

FOR YOUR INFORMATION/ACTION:

As of today, March 17, 2011 [redacted] has been decommissioned as a Radioactive Material use area.

ACTIONS TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from hood and lab.
2. Performed decommission wipe tests on fume, hood, REVCO Freezer, benches, and other equipment. All results were at background or below the AZ Action Level of 100 dpms.
3. GM Meter Checks were done and all results were at background or less than the AZ Action Level of 3 times background.
4. All required radioactive program postings, radioactive labels, and signs were removed from hood.
5. Lab L240 has been removed from the Radioactive lab Data Bases.
6. Decommission Forms were placed on the fume hood, benches, and freezer. Copies placed in the Wipe Test Book and in the official Radiation Safety Files. Wipe Test Book removed from lab and placed in the official files.
7. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
8. This E-mail serves as the official notice that lab L240 has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. **Brian Bristow**: Remove the lab from your Radioactive lab Data Base. Remove radioactive hazard signs from entrance doors.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227. 6-2682

[ ] BIO	[X] RAD	[ ] CHEM
LAB #:	L240	
DATE:	March 17, 2011	
LAB SUPERVISOR:	Chuck Gu	DEPT: DMPK Development (CPD)

Decommissioning Procedure (Version 2010)

Refer to SHEP-104 Commissioning and Decommissioning Laboratories for more information. This Wilmington SH&E SOP can be found on the portal. Click here to access the SOP.

Section A: Radioactive Laboratory Decommissioning Checklist

Responsible Investigator for the Lab: Chuck Gu

Completed	Questionnaire
☒ Yes ☐ No	Contact Safety (x62682) to remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. DO NOT REMOVE TAPE!
☒ Yes ☐ No	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas. EXCEPT FUME HOODS. Decommissioning of fume hoods will be done by outside vendor.
☒ Yes ☐ No	Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
☒ Yes ☐ No	Write a letter to RSO in Safety stating that the lab is no longer radioactive and that it should be removed from the list of radioactive labs.
☒ Yes ☐ No	Contact Safety to perform final wipe test of the lab and equipment.

Once the RI has completed the above actions, the lab can be turned over to Radiation Safety for final decommissioning steps and will assume control of the lab (Sign below). RI has completed decommissioning responsibilities.

Timothy Coffin	3/16/2011	Timothy Coffin	3/17/2011
Radiation Safety Acceptance of the Lab with Actions	Date	Radiation Safety Actions Completed	Date

Section B: Procedure for Vacating a Laboratory

Section A must be completed prior to completing Section B.

Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benches, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazard/biological material used in laboratory?	☐ Yes ☐ No ☐ NA	
Have all surfaces/areas/equipment been decontaminated using EPA registered disinfectant (bleach, ethanol, etc.).	☐ Yes ☐ No ☐ NA	
Remove/deface all biohazard stickers from the equipment.	☐ Yes ☐ No ☐ NA	
Have all biological/Biohazardous wastes been appropriately disinfected/decontaminated and disposed of.	☐ Yes ☐ No ☐ NA	
Has the Biohazard decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory and were all steps completed in Section A?	☐ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	

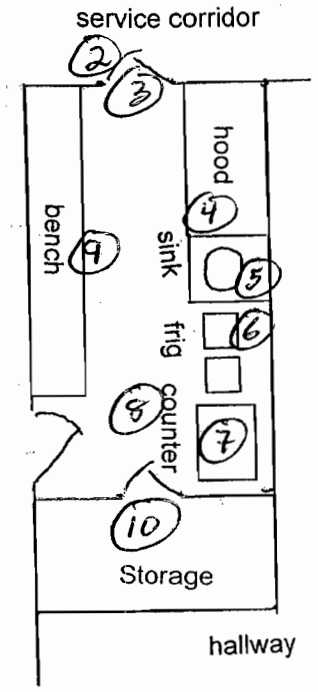
Page 9(1)

Decommission
L240 Lab

3/16/2010

WIPE TEST MAP

LAB # **LW240**



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle & light switch
3. Floor below door & hood
4. Hood sash, foil, & handles
5. Sink
6. Refrigerator/freezer handles
7. Freezer handles
8. Floor below Freezer & counter
9. Floor below bench
10. Storage area floor
11. storage shelf Top
12 " " Middle & Bottom

Page (2)

Decommission Wipes
Lab L240

Protocol #:15 Name:Wipe Test 16-Mar-2011 07:01
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	15.31	4.79	4.70			537.	B
2	1.00	0.00	1.21	0.00	0.00	1.63	613.	
3	1.00	5.69	0.21	0.00	12.44	0.22	507.	
4	1.00	7.58	0.00	0.00	16.62	0.00	515.	
5	1.00	0.00	1.21	0.00	0.00	1.70	394.	
6	1.00	0.00	4.21	0.00	0.00	5.75	513.	
7	1.00	10.69	0.00	0.00	21.90	0.00	584.	
8	1.00	1.69	0.21	0.00	3.88	0.27	450.	
9	1.00	61.14	3.76	0.00	133.97	4.33	500.	
10	1.00	1.69	3.21	0.00	1.80	4.38	493.	
11	1.00	0.00	0.21	2.30	0.00	0.29	481.	
12	1.00	0.00	0.00	0.00	0.00	0.00	462.	

– Lab Floor – in knee Cut out

Clean & recipe area #9
Floor by Knee Cut Out

See Page (3)

Page (3) L240 Lab floor follow-up

Protocol #:15 Name:Wipe Test 16-Mar-2011 08:31
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
e = 1.00 QIP = tSIE/AEC ES Terminator = Count
A.Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	8.62	3.88	5.60			543.	B
2	1.00	0.00	0.00	0.00	0.00	0.00	549.	
3	1.00	0.00	7.12	0.00	0.00	9.66	547.	
4	1.00	3.38	1.12	0.00	6.62	1.48	532.	
5	1.00	0.00	0.00	0.00	0.00	0.00	552.	
6	1.00	0.38	3.12	0.00	0.00	4.23	541.	
7	1.00	0.00	0.00	0.00	0.00	0.00	528.	

All Clean

Coffin, Tim

From: Coffin, Tim
Sent: Tuesday, March 15, 2011 1:46 PM
To: Luzietti, Rick; Schlank, Bliss M
Cc: Gu, Chungang (Chuck); Davis, Patty C
Subject: RE: Lab decommissioning

Hi Rick and Bliss,

As of this afternoon, I understand from Chuck Gu that the L240 Lab, -70 rad freezer, and remaining equipment/materials are all now ready for the radioactive decommissioning. I will plan to work on all these items this week and try to complete the lab before Monday, March 21, 2011.

Tim

From: Luzietti, Rick
Sent: Tuesday, March 15, 2011 10:58 AM
To: Schlank, Bliss M
Cc: Gu, Chungang (Chuck); Davis, Patty C; Coffin, Tim
Subject: Lab decommissioning

Hi Bliss,

I have been working on shutting down L242 and L240. L242 has been completed, L240 has a few items remaining. Would it be possible to either fully decommission these labs next Monday (3/21) or do a partial decommissioning as my last day is Mar 29 and I will be out 3/22-3/24. Tim has cleared 242 I think there are a few items in L240 that are rad related.

Thanks,

Rick Luzietti

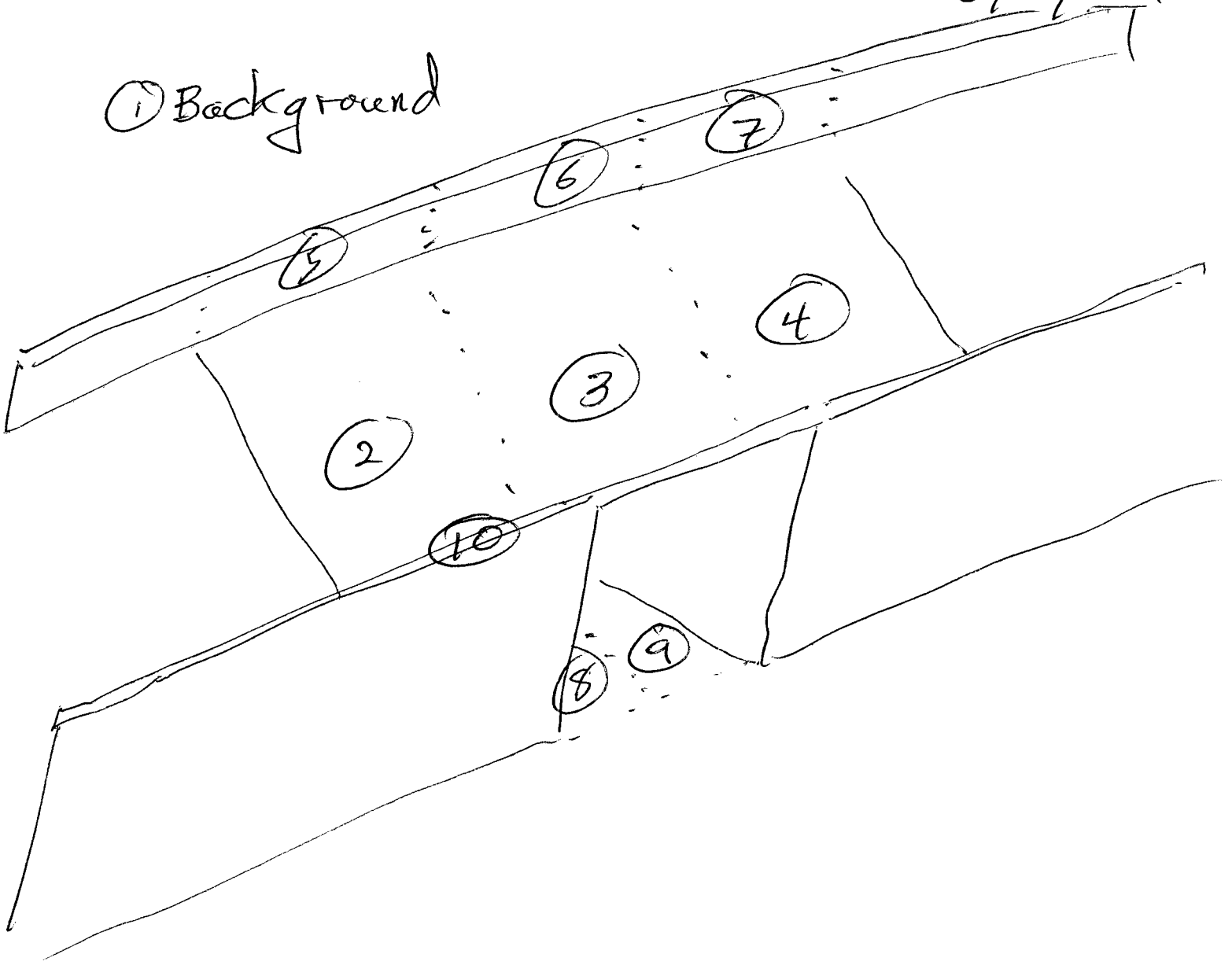
AstraZeneca
Clinical Development, Clinical Pharmacology and DMPK
C233M, 1800 Concord Pike, Wilmington, DE, 19850
Tel (302) 885-6005 Fax (302) 886-5345
rick.luzietti@astrazeneca.com

Decommission

L240 Bench

T Coffin

3/16/2011



Meter Readings

Ludlum 3, Ser# 146121

Cal: 10/12/10

Probe: 44-9, PR 151749

Background: 20-80 cpms

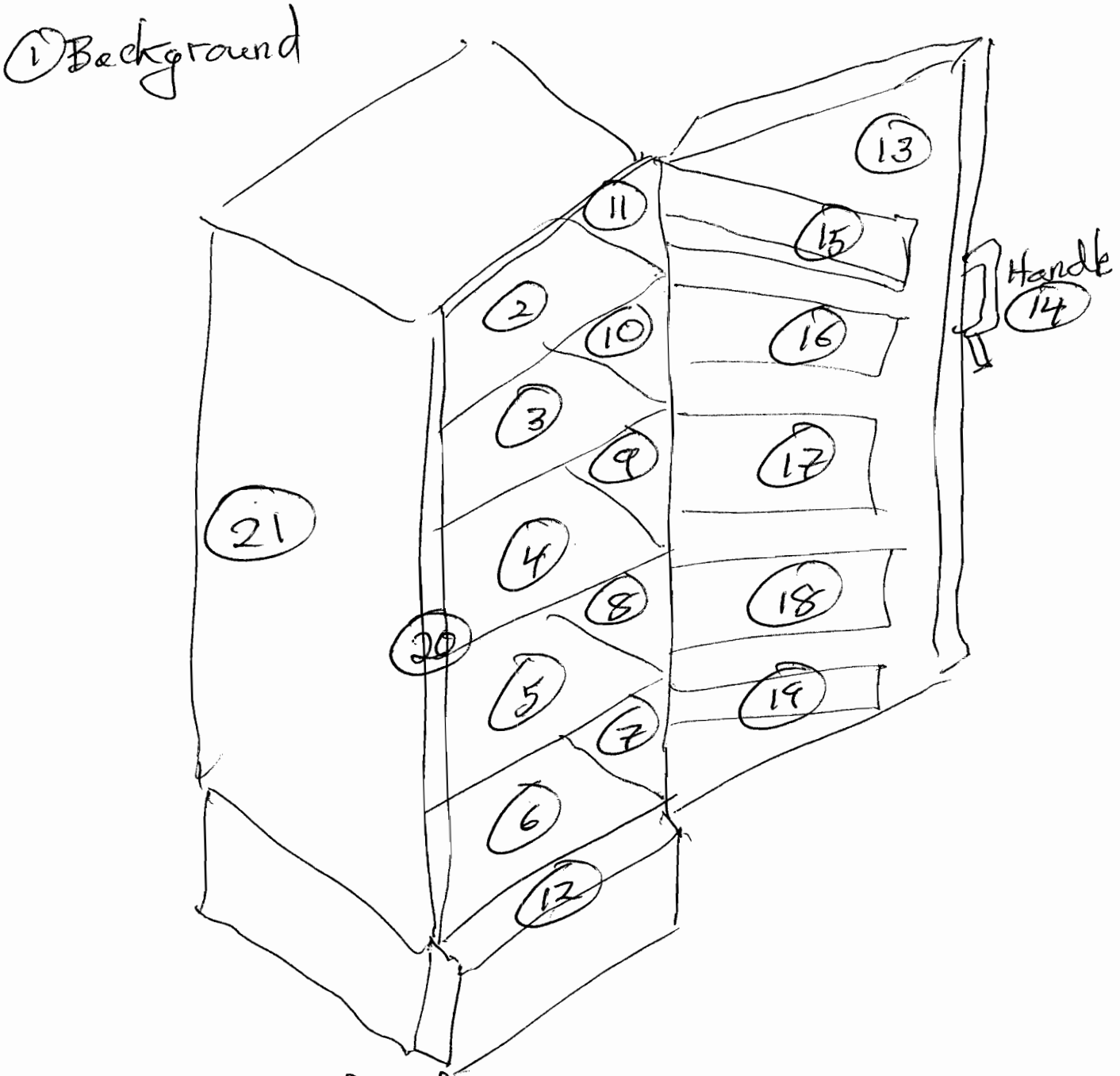
Readings: Background

Decommission
L240 Bench

Protocol #:15 Name:Wipe Test 16-Mar-2011 06:31
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	12.80	5.20	4.00			543.	B
2	1.00	0.00	0.80	0.00	0.00	1.09	544.	
3	1.00	0.00	1.80	4.00	0.00	2.46	517.	
4	1.00	4.20	0.00	1.00	9.05	0.00	530.	
5	1.00	0.00	0.80	0.00	0.00	1.09	510.	
6	1.00	13.58	8.42	2.00	24.33	11.29	531.	
7	1.00	6.20	0.00	0.00	13.37	0.00	530.	
8	1.00	34.20	0.00	0.00	73.01	0.00	540.	
9	1.00	38.20	0.00	0.00	79.87	0.00	561.	
10	1.00	0.20	0.80	0.00	0.00	1.09	494.	

Decommission
L240, -70 REVCO Freezer 3/16/2011



Meter Readings

Ludlum 3, Ser# 146121
Cal: 10/12/10
Probe: 44-9, PR 151749

Background: 20-80 cpms

Readings: Background

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110316_0654\20110316_0654.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	15	9	0	0	0	561.97	559.66	B
2	1.00	0	0	0	0	0	0.00	557.00	
3	1.00	6	0	0	14	0	0.00	548.80	
4	1.00	0	0	0	0	0	0.00	549.91	
5	1.00	14	0	0	35	0	0.00	548.78	
6	1.00	20	1	0	48	0	0.00	530.12	
7	1.00	19	1	0	43	0	0.00	565.57	
8	1.00	4	2	0	9	2	0.00	575.94	
9	1.00	0	0	0	2	0	0.00	551.86	
10	1.00	7	0	0	17	0	1255.07	592.45	
11	1.00	9	1	0	20	1	394.73	576.70	
12	1.00	15	0	0	36	0	0.00	542.90	

13	1.00	0	0	0	0	0	0.00	575.39
14	1.00	6	25	0	5	30	0.00	560.00
15	1.00	0	0	0	0	0	0.00	638.76
16	1.00	7	0	0	18	0	0.00	544.26
17	1.00	12	0	0	29	0	19.80	542.21
18	1.00	12	26	0	20	31	57.73	542.27
19	1.00	0	0	0	0	0	0.00	664.36
20	1.00	21	4	0	52	3	366.81	505.46
21	1.00	1	0	0	4	0	0.00	531.14

Coffin, Tim

From: Coffin, Tim
nt: Wednesday, January 03, 2007 1:36 PM
. Petlick, Scott; Zhang, Minli
Cc: Civitella, Patricia C; Terpko, Marc O; Coffin, Matthew
Subject: Decommission of Oximate 80 Evaporator/Oxidizer in [redacted] from Radioactive Material Use

FOR YOUR INFORMATION/ACTION:

As of today, January 03, 2007, the Packard, Oximate 80 (Ser: # 401006, Model 307) Evaporator/Oxidizer located in the inner room [redacted] of Radioactive Lab L240 has been decommissioned from radioactive material use.

The following actions were taken:

1. Performed wipe tests on equipment and all results were below the AZ Action Level of 100 dpms. Copies of the wipe tests were placed in the L240 Lab Wipe Test Binder.

2. Performed meter readings of the equipment and all results were at background or less than three times background.

3. Removed radioactive tape and signs from equipment and storage trays.

4. All radioactive calibration sources (14C reference sheets, approximately .005 uci) were removed and disposed of in radioactive dry waste.

5. Signed and Posted Decontamination Signs on the equipment (Oximate 80) to indicate that the equipment is free of "Radioactive Contamination". **THERE ARE STILL CHEMICAL ZARDS (flammable/corrosive liquids) to deal with before the unit can be removed and disposed of.**

6. Completed the Decommissioning Form for the equipment and placed copies in the Wipe Test Book and the official Radiation Safety Program Files.

7. This E-mail serves as official notice to the Radiation Safety Officer that the equipment was checked and certified to be free of radioactive contamination.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227, 6-2682

Decontaminate Radioactive Equipment Oximate 80 Packard Ser# 401006 Model 307

L241 Inner Lab of L240

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation); complete the appropriate sections below. To schedule a decommissioning and/or lab vacation – please contact - Scott Petlick (x61083), Bliss Schlank (x62185), or Marc Terpko (x62671).

Section A: Radioactive Laboratory Decommissioning
Section B: Biosafety Laboratory Decommissioning
Section C: Laboratory Vacating Form (Only completed when moving out of the laboratory or transferring ownership)

☐ ***NA***

Oxidizer

Section A: Radioactive ~~Laboratory~~ Decommissioning Checklist

Laboratory: L241 Lab Supervisor: Minli Zhang

Responsible Investigator for the Lab: Ron Savidge (Retired)

RAM Users in This Lab: Joan Morse (Previous User of oxidizer)

Date: 12/27/06 14C & 3H

Date Completed	Questionnaire
12/28/06	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. Calibration Sources (14C Impregnated Paper)
NA	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
12/27/06	Contact Safety to perform final wipe test of the lab and equipment.
Coffin	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas. 14C & 3H
1/3/07	Write a letter to S. Petlick in Safety stating that the ~~lab~~ unit is no longer radioactive and that it should be removed form the list of radioactive labs.
1/3/07	After approval by Safety, the radiation signs can be removed and returned to Safety. Removed tape & posted signs.
NA	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Signature of Safety Professional — Date 1/3/07

□ *NA*

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment-using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
NA	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Note BSC must be decontaminated before moving by contacting Ed Ryan*
	Update the permits status (new, revised, retired, renew) and remove permit posting found by the fire extinguisher.
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Section C: Procedure for Vacating a Laboratory

J Coffin

Section A and/or B must be completed prior to completing Section C. Please provide the following information and call to schedule a walk through before vacating a laboratory:

Date: 1/3/07	Name: Mint Zhang	Lab #: L241	Department: CAD

Chemical Hazards:		
Have all chemicals been reassigned/returned or characterized as waste for disposal?	□ Yes ☒ No □ NA	Carbosorb Permaflour } Toluene
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	□ Yes □ No □ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	□ Yes □ No □ NA	Chemical Hazards still Present!
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	□ Yes □ No □ NA	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	□ Yes □ No □ NA	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	□ Yes □ No □ NA	
Has the decommissioning been completed?	□ Yes □ No □ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	☒ Yes □ No □ NA	(If "No" go to the next section.)
Date lab was decommissioned? 1/03/07	From Rad Use	
What isotopes were used? 14C, 3H		
Have all surfaces/areas been decontaminated?	□ Yes □ No □ NA	

Have all isotopes been transferred or disposed of?	☒ Yes ☐ No ☐ NA	J Coffin 1/3/07
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	
Have arrangements been made to return furniture?	☐ Yes ☐ No ☐ NA	
Have all cabinets/closets/drawers been emptied?	☐ Yes ☐ No ☐ NA	
Has Housekeeping (x-4121) been notified to clean?	☐ Yes ☐ No ☐ NA	
Have all building alarm systems (BAS) been disconnected?	☐ Yes ☐ No ☐ NA	
Fume Hood(s)/Bench Areas:		
Is bench free of samples, glassware, etc.?	☐ Yes ☐ No ☐ NA	
Have solvents been transferred/disposed of/ reassigned?	☐ Yes ☐ No ☐ NA	
Ether and THF?	☐ Yes ☐ No ☐ NA	
Have all stills been quenched/transferred/ reassigned?	☐ Yes ☐ No ☐ NA	
Have all intermediates/research samples been:	☐ Yes ☐ No ☐ NA	
• Entered into the M collection?	☐ Yes ☐ No ☐ NA	
• Assigned to others on the project and labeled as such?	☐ Yes ☐ No ☐ NA	
• Disposed of if no notebook number on label?	☐ Yes ☐ No ☐ NA	
• Is the wall cabinet free of research samples?	☐ Yes ☐ No ☐ NA	
• Are the center bench drawers free of research samples?	☐ Yes ☐ No ☐ NA	
Has all the waste been property removed?		
• Waste silica?	☐ Yes ☐ No ☐ NA	
• Broken or glass thermometers?	☐ Yes ☐ No ☐ NA	
• Sharps containers?	☐ Yes ☐ No ☐ NA	
• Spent catalysts?	☐ Yes ☐ No ☐ NA	
• Drying agents?	☐ Yes ☐ No ☐ NA	
• Lecture bottles?	☐ Yes ☐ No ☐ NA	
• Used vacuum pump oil?	☐ Yes ☐ No ☐ NA	
• Metals (i.e. sodium, potassium, lithium, etc.)	☐ Yes ☐ No ☐ NA	
• Containers of used pipets/pipet tips?	☐ Yes ☐ No ☐ NA	
• Oil baths?	☐ Yes ☐ No ☐ NA	
Has all other waste been properly disposed of?	☐ Yes ☐ No ☐ NA	
Pass Inspection?	☐ Yes ☐ No ☐ NA	
Form has been given to R&D Engineering?	☐ Yes	

Still needs to be done if desired.

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, will result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

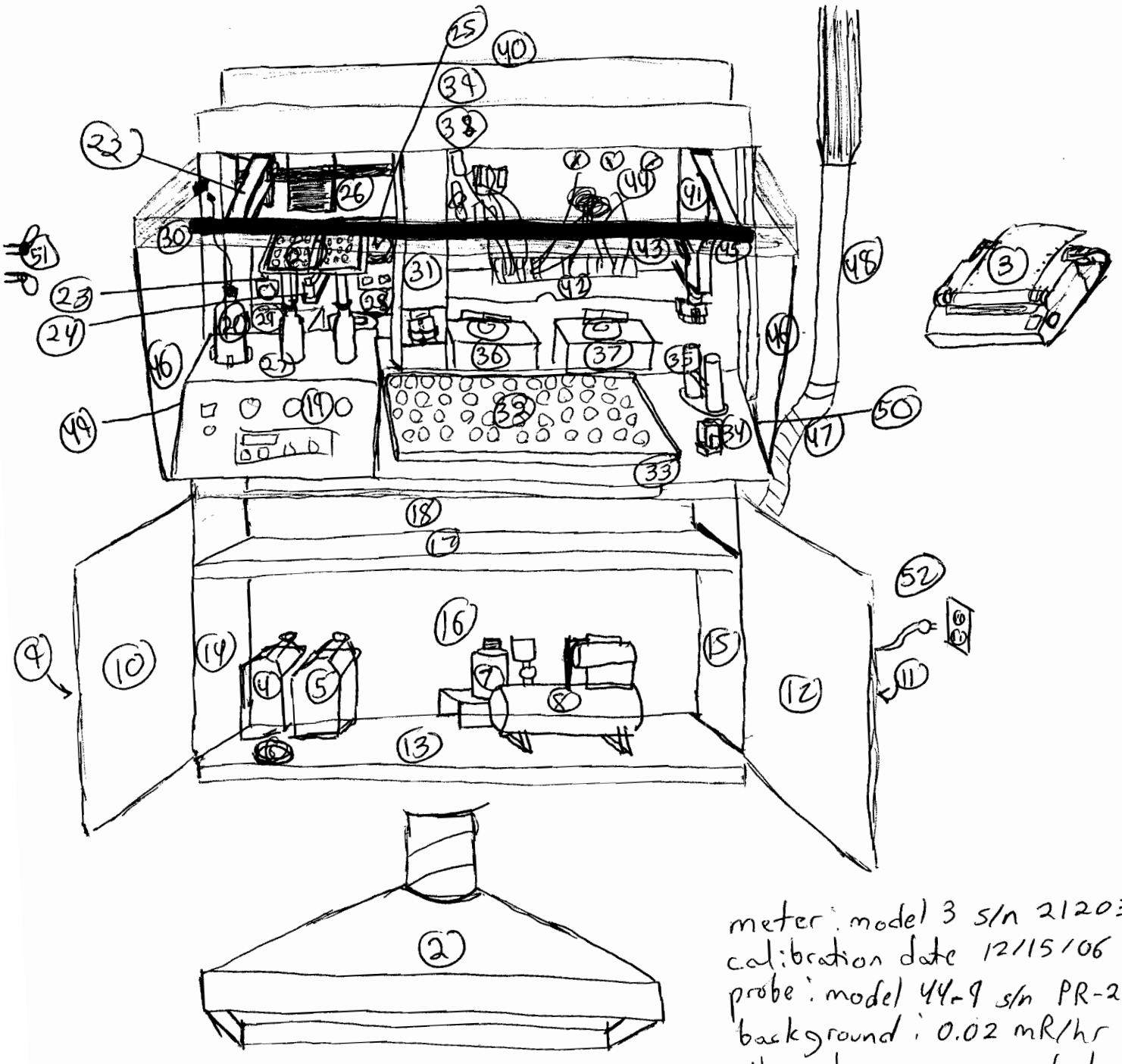
Lab Occupant:	
Safety:	
Dept. Manager:	
R&D Engineering:	
Technical Services Supervisor:	

L241

Oximate 80

'2/27/06

Matt Coffin



meter: model 3 s/n 212037
calibration date 12/15/06
probe: model 44-9 s/n PR-223552
background: 0.02 mR/hr
all readings were below
3 x background

1. Background
2. Hood
3. Printer
4. Jug 1
5. Jug 2
6. Bowl
7. ~~waste~~ jug
8. motor
9. front of left cabinet door
10. inside of left cabinet door
11. outside of right cabinet door
12. inside of right cabinet door
13. cabinet floor
14. left wall of cabinet
15. right wall of cabinet & hose connection
16. back of cabinet
17. shelf
18. ~~top~~ ceiling of cabinet
19. Controls
20. glass jar
21. sample trays and platform
22. arm on the left
23. button and switch
24. back arm
25. meter
26. back pannel
27. below sample trays
28. Monophase scintillation cocktail
29. left rear plate
30. plastic guard
31. center column w/ mechanism
32. sample tray
33. surface of right area
34. small mechanism
35. two cylinder mechanism
36. carbo-sorb
38. bottom half of top front
39. top half of top front
40. top surface below hood
41. right arm
42. small left shelf
43. bottom half of circuits
44. top half of circuits
45. Arm track
46. two side support rods
47. hose on right side
48. ~~tub~~ pipe on right side
49. fan on left side
50. plugs on right side
51. left side switches
52. plug and cord

L 241
Oximate 80
12/27/06
Matt Coffin

L241: Oximate 80

Protocol #:15 Name:Wipe Test 27-Dec-2006 15:04
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.71	4.19	4.30			604.	B
2	1.00	32.56	0.54	1.70	76.57	0.30	595.	
3	1.00	0.00	6.19	1.70	0.00	8.38	579.	
4	1.00	0.00	2.99	0.70	0.00	4.05	579.	
5	1.00	0.00	0.00	0.00	0.00	0.00	569.	
6	1.00	0.00	4.81	0.00	0.00	6.54	552.	
7	1.00	7.10	0.00	0.00	17.02	0.00	579.	
8	1.00	13.29	0.00	0.00	32.39	0.00	563.	
9	1.00	6.29	0.00	1.70	14.58	0.00	615.	
10	1.00	7.29	2.81	2.70	15.22	3.71	614.	
11	1.00	3.29	0.00	0.00	7.74	0.00	598.	
12	1.00	18.90	0.00	0.00	45.63	0.00	572.	
13	1.00	4.29	3.81	0.00	8.18	5.13	547.	
14	1.00	4.25	0.00	0.00	10.13	0.00	584.	
15	1.00	21.29	0.00	0.00	51.71	0.00	566.	
6	1.00	1.29	0.00	0.00	3.13	0.00	564.	
17	1.00	12.29	2.81	0.00	30.25	3.67	502.	
18	1.00	9.29	0.81	1.70	22.90	0.98	532.	
19	1.00	9.29	3.81	0.00	20.11	5.05	569.	
20	1.00	24.29	0.00	0.00	59.05	0.00	566.	
21	1.00	0.00	5.81	0.00	0.00	7.88	573.	
22	1.00	0.00	0.00	0.70	0.00	0.00	558.	
23	1.00	0.00	1.81	0.70	0.00	2.45	604.	
24	1.00	0.29	0.00	0.00	0.70	0.00	563.	
25	1.00	0.00	0.00	0.00	0.00	0.00	551.	
26	1.00	1.29	0.00	0.00	3.10	0.00	575.	
27	1.00	1.29	0.00	0.00	3.11	0.00	569.	
28	1.00	2.29	0.00	0.00	5.50	0.00	576.	
29	1.00	2.29	2.81	0.00	3.78	3.79	566.	
30	1.00	4.29	0.00	3.70	10.22	0.00	585.	
31	1.00	9.29	5.81	0.00	18.38	7.74	594.	
32	1.00	12.29	0.00	0.00	30.86	0.00	536.	
33	1.00	9.29	0.00	0.00	24.54	0.00	495.	
34	1.00	13.29	0.81	0.00	33.67	0.93	515.	
35	1.00	14.29	1.81	0.00	33.18	2.27	577.	
36	1.00	23.84	5.26	0.00	58.71	6.86	503.	
37	1.00	15.22	4.88	0.00	34.52	6.42	550.	
38	1.00	27.27	0.83	0.70	66.81	0.75	551.	
39	1.00	0.00	0.00	0.00	0.00	0.00	608.	
40	1.00	6.20	16.90	0.70	4.35	22.80	582.	
41	1.00	0.00	2.81	1.70	0.00	3.82	553.	
42	1.00	0.00	0.00	0.00	0.00	0.00	549.	
43	1.00	0.00	2.81	0.00	0.00	3.82	548.	
44	1.00	7.29	3.81	1.70	15.35	5.08	563.	
45	1.00	5.95	5.15	0.00	11.52	6.92	540.	

L241 Oximate 80

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
46	1.00	5.29	1.81	0.00	11.79	2.39	559.	
47	1.00	8.29	0.00	0.00	20.52	0.00	549.	
48	1.00	24.72	1.38	0.00	59.18	1.55	566.	
49	1.00	19.29	0.00	0.70	48.24	0.00	540.	
50	1.00	19.29	1.81	0.00	46.20	2.20	556.	
51	1.00	13.13	4.97	0.00	29.29	6.58	549.	
52	1.00	18.29	0.81	0.00	49.77	0.85	464.	

L241
14C Calibration Standard Case

Protocol #:15 Name:Wipe Test 28-Dec-2006 09:46
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG	
1	10.00	3.79	5.11	3.70			582.	B	
2	1.00	3.21	0.00	0.30	7.88	0.00	556.		— Front drawer
3	1.00	3.21	0.00	0.00	7.89	0.00	556.		— rear drawer
4	1.00	0.00	0.00	0.00	0.00	0.00	589.		— standard Container (empty)

Coffin, Tim

From: Petlick, Scott
Sent: Tuesday, December 26, 2006 12:57 PM
To: Coffin, Tim
Subject: DMPK Hood and Equipment Survey

Tim,

During my audits, I was informed that the evaporator that was once used in ~~L235~~ L233 was also used in L244 and L240. I think it may have also been used in L242. Also in the back room of L240 (L241) the Oximate 80 needs to be decommissioned because it was once used with radioactivity.

When you get a chance, a thorough survey should be conducted of the hoods in L240, L242 and L244 and the Oximate 80 needs to be surveyed for disposal or storage. You can have Matt work on the surveys this week or we can do it after the new year.

Thanks,
Scott

Coffin, Tim

From: Coffin, Tim
t: Monday, March 05, 2007 6:57 AM
To: Petlick, Scott
Cc: Zhang, Minli; Grimm, Scott W
Subject: RE: Oxidizer in LW240 → Small internal Room L241

Good Morning Scott,

I did the wipes of the floor under the combustor, the remaining wheeled cabinet/table, and the Canopy Hood and Exhaust Duct.

3/5/07 → Clean and do followup wipes. TCoffin

1. The floor was at background.
2. The Cabinet/support table was at background.
3. The Canopy Hood was at background.
4. The Exhaust Duct pipe at top of canopy hood had readings of **361.61 dpms** (3H window).
5. SPECIAL NOTE: Inside the Cabinet/Table there are still storage containers of some type of chemicals. None are radioactive!

I will take efforts to clean the entrance area to exhaust duct, as far as I can reach, but I don't know what contamination might be down stream in the duct.

Will need to keep this in mind when the duct is decommissioned or removed.

Timothy Coffin
Radiation Safety Specialist

-----Original Message-----
From: Petlick, Scott
Sent: Friday, March 02, 2007 8:43 AM
To: Coffin, Tim
Cc: Zhang, Minli; Grimm, Scott W
Subject: FW: Oxidizer in LW240

Tim,

Please inspect and survey the lab where the oxidizer was located.

Thanks,
Scott

-----Original Message-----
From: Zhang, Minli
Sent: Friday, March 02, 2007 7:38 AM
To: Grimm, Scott W; Petlick, Scott
Subject: Oxidizer in LW240

Dear Scotts,

The oxidizer in the lab has been removed by Paul Rowe from PE Sciece. Please arrange the wipe and advise appropriate action on clean up.

Thanks.

Minli

Jaffin

L240/L241
Combustor Canopy Exhaust Duct

Protocol #:15 Name:Wipe Test 02-Mar-2007 09:40
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 276900 Nuclide 2 = 123095
Save Data Filename = SDATA15.DAT

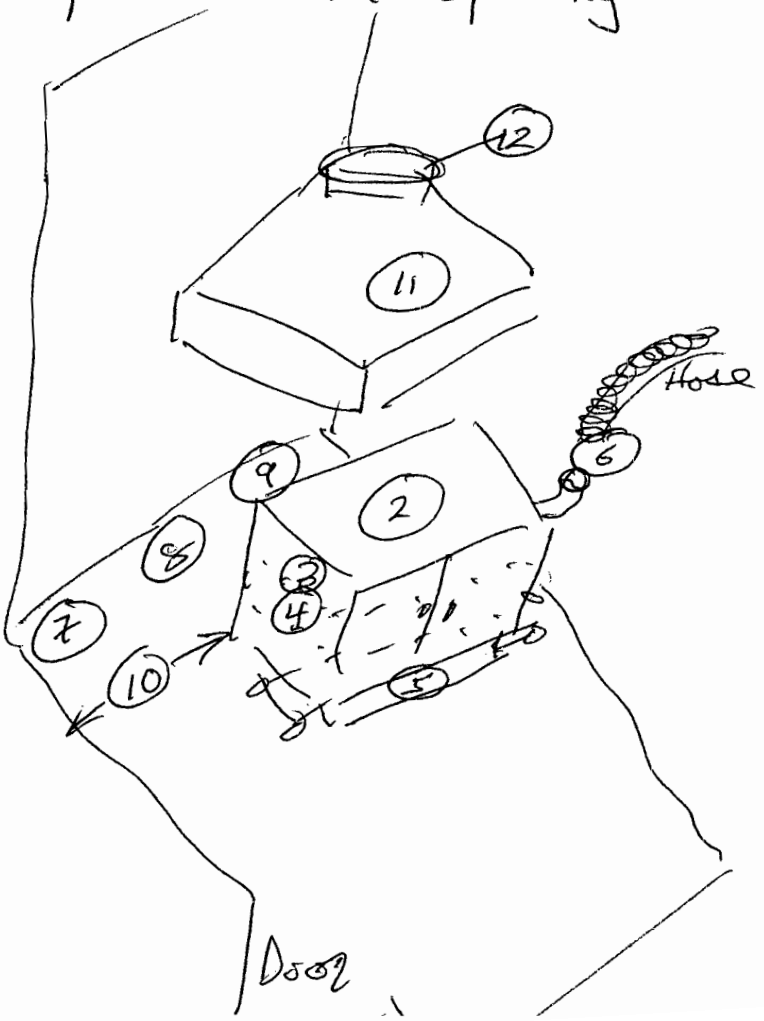
S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.18	5.22	3.30			579.	B
2	1.00	0.00	0.00	0.00	0.00	0.00	473.	
3	1.00	2.82	2.78	4.70	6.02	3.81	435.	
4	1.00	0.00	0.00	0.00	0.00	0.00	509.	
5	1.00	0.00	3.74	2.70	0.00	5.11	519.	
6	1.00	0.00	1.78	0.00	0.00	2.44	506.	
7	1.00	0.00	0.78	0.00	0.00	1.07	482.	
8	1.00	0.00	0.00	0.00	0.00	0.00	535.	
9	1.00	2.42	0.00	4.70	7.02	0.00	438.	
10	1.00	0.82	0.00	0.00	2.04	0.00	552.	
11	1.00	0.82	0.00	0.00	2.10	0.00	526.	
12	1.00	76.82	29.78	5.70	361.61	43.38	224.	

Canopy Exhaust Duct

Floor under combustor was at background or less than three times background.

3/2/07 Wipes of L241 J Coffin
Where combuster was

1. Background
2. Top of movable bench
3. 1st shelf in cabinet
4. 2nd shelf around waste containers
5. Bottom wheel platform, cabinet, handles
6. Duct Hose inside and attachment pipe
7. Floor, left, back
8. " , center, back
9. " , right, back
10. Front floor across
11. Duct Hood Cap
12. Pipe exhaust opening



MEMORANDUM: For record and reference purposes

Date: March 22, 2007

Subject: Lab Wing Radioactive User Area Room # Change

As of today, the previously designated Radioactive Use Area:

Room # [redacted] Radioactive

Has changed to:

Part of
Room # L240 (radioactive) ~~non-radioactive~~

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Coffin, Tim

From: Coffin, Tim
ent: Tuesday, March 08, 2011 10:57 AM
o: Coffin, Tim; Gu, Chungang (Chuck); Terpko, Marc O
Cc: Bristow, Brian K; Guo, Jian; Luzietti, Rick; Schlank, Bliss M
Subject: RE: Decommission lab [redacted] from Radioactive material Use

ERROR,

Just noticed, after sending the E-mail, that the date should have read March 08, 2011.

I made the change and sent you the E-mail again.

Sorry.

Tim

From: Coffin, Tim
Sent: Tuesday, March 08, 2011 10:54 AM
To: Gu, Chungang (Chuck); Terpko, Marc O
Cc: Bristow, Brian K; Guo, Jian; Luzietti, Rick; Schlank, Bliss M
Subject: Decommission lab L242 from Radioactive material Use

FOR YOUR INFORMATION/ACTION:

As of today, March 08, 2011, [redacted] has been decommissioned as a Radioactive Material use lab.

ACTIONS TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from lab.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. GM Meter Checks were done and all results were at background or less than the AZ Action Level of 3 times background.
4. All equipment and freezers were decommissioned.
5. All required radioactive program postings, radioactive labels, and signs were removed from equipment and benches.
6. Lab L242 has been removed from the Radioactive lab Data Bases.
7. Decommission Forms were placed on the fume hoods, freezers, benches, and other equipment in the labs. Copies placed in the Wipe Test Book and in the official Radiation Safety Files.
8. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
9. This E-mail serves as the official notice that the lab has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. **Brian Bristow**: Remove the lab from your Radioactive lab Data Base and please remove the radioactive hazard signs from the L242 entrance doors.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227. 6-2682

Coffin, Tim

From: Coffin, Tim
Sent: Tuesday, March 08, 2011 10:54 AM
To: Gu, Chungang (Chuck); Terpko, Marc O
Cc: Bristow, Brian K; Guo, Jian; Luzietti, Rick; Schlank, Bliss M
Subject: Decommission lab L242 from Radioactive material Use

FOR YOUR INFORMATION/ACTION:

As of today, March 08, ~~2010~~ 2011, Lab L242 has been decommissioned as a Radioactive Material use lab.

ACTIONS TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from lab.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. GM Meter Checks were done and all results were at background or less than the AZ Action Level of 3 times background.
4. All equipment and freezers were decommissioned.
5. All required radioactive program postings, radioactive labels, and signs were removed from equipment and benches.
6. Lab L242 has been removed from the Radioactive lab Data Bases.
7. Decommission Forms were placed on the fume hoods, freezers, benches, and other equipment in the labs. Copies placed in the Wipe Test Book and in the official Radiation Safety Files.
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ACTIONS NEEDED:

1. **Brian Bristow**: Remove the lab from your Radioactive lab Data Base and please remove the radioactive hazard signs from the L242 entrance doors.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227. 6-2682

[ ] BIO	[X] RAD	[ ] CHEM	
LAB #:	L242		
DATE:	3/8/2011		
LAB SUPERVISOR:	Chuck Gu	DEPT:	DMPK Development

Decommissioning Procedure (Version 2010)

Refer to SHEP-104 Commissioning and Decommissioning Laboratories for more information. This Wilmington SH&E SOP can be found on the portal. Click here to access the SOP.

Section A: Radioactive Laboratory Decommissioning Checklist

Responsible Investigator for the Lab: Chuck Gu

Completed	Questionnaire
[X] Yes ☐ No	Contact Safety (x62682) to remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. DO NOT REMOVE TAPE!
[X] Yes ☐ No	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas. EXCEPT FUME HOODS. Decommissioning of fume hoods will be done by outside vendor.
[X] Yes ☐ No	Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
[X] Yes ☐ No	Write a letter to RSO in Safety stating that the lab is no longer radioactive and that it should be removed from the list of radioactive labs.
[X] Yes ☐ No	Contact Safety to perform final wipe test of the lab and equipment.

Once the RI has completed the above actions, the lab can be turned over to Radiation Safety for final decommissioning steps and will assume control of the lab (Sign below). RI has completed decommissioning responsibilities.

Radiation Safety Acceptance of the Lab with Actions	3/8/11 Date	Radiation Safety Actions Completed	3/8/11 Date

Section B: Procedure for Vacating a Laboratory

Section A must be completed prior to completing Section B.

Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benches, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazard/biological material used in laboratory?	☐ Yes ☐ No ☐ NA	
Have all surfaces/areas/equipment been decontaminated using EPA registered disinfectant (bleach, ethanol, etc.).	☐ Yes ☐ No ☐ NA	
Remove/deface all biohazard stickers from the equipment.	☐ Yes ☐ No ☐ NA	
Have all biological/Biohazardous wastes been appropriately disinfected/decontaminated and disposed of.	☐ Yes ☐ No ☐ NA	
Has the Biohazard decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory and were all steps completed in Section A?	☐ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	

Decommission Wipes
L242

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110308_0701\20110308_0701.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	11	6	0	0	0	596.11	566.65	B
2	1.00	0	3	0	0	4	0.00	531.11	
3	1.00	0	4	0	0	5	4687.61	554.65	
4	1.00	1	3	0	0	4	0.00	520.46	
5	1.00	6	10	0	11	11	0.00	508.24	
6	1.00	0	7	0	0	8	496.22	499.78	
7	1.00	47	111	0	73	132	13.50	544.72	Floor below hood
8	1.00	6	4	0	13	4	0.00	554.04	
9	1.00	0	0	0	0	0	0.00	540.55	
10	1.00	0	1	0	0	1	2671.55	527.35	
11	1.00	0	7	0	0	8	0.00	544.07	
12	1.00	0	0	0	0	0	0.00	551.19	

clear & rewipe

13	1.00	0	1	0	0	1	0.00	530.75
14	1.00	15	0	0	36	0	331.26	550.00
15	1.00	0	3	0	0	3	826.71	546.30
16	1.00	0	1	0	0	1	0.00	599.34
17	1.00	0	0	0	1	0	*****	500.62
18	1.00	1	0	0	3	0	1880.26	546.15
19	1.00	0	0	0	0	0	0.00	545.38
20	1.00	2	3	0	5	4	0.00	513.09
21	1.00	4	0	0	10	0	590.66	550.41
22	1.00	6	5	0	13	5	299.53	521.98
23	1.00	0	0	0	0	0	0.00	543.69

Follow-up Wipes of L242 Floor below hood

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110308_0956\20110308_0956.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

ackground Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

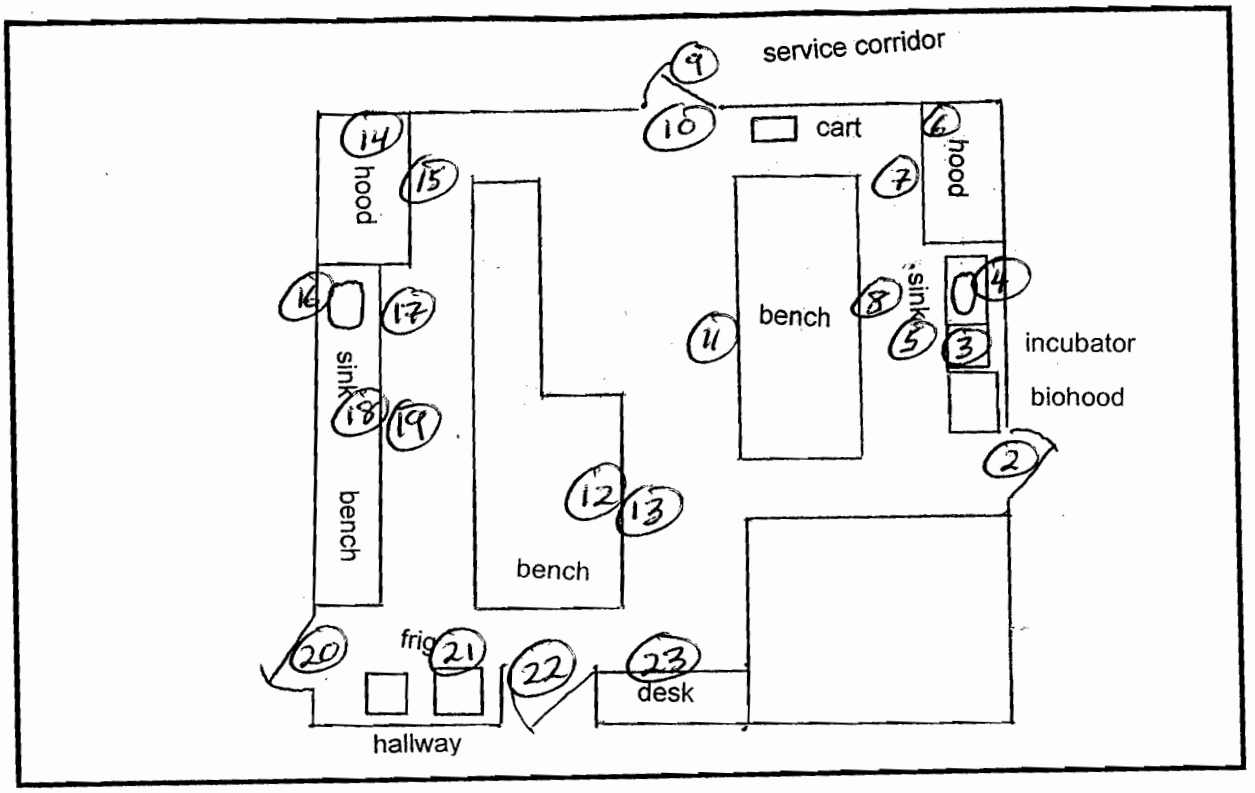
S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	7	6	0	0	0	766.61	611.65	B
2	1.00	1	0	0	4	0	0.00	548.58	
3	1.00	0	1	0	0	1	0.00	571.76	
4	1.00	0	7	0	0	9	0.00	555.24	
5	1.00	0	1	0	0	1	0.00	546.49	
6	1.00	0	0	0	0	0	0.00	522.57	

All Clean

Decommission Wipes 3/8/2011

WIPE TEST MAP

LAB # **LW242**



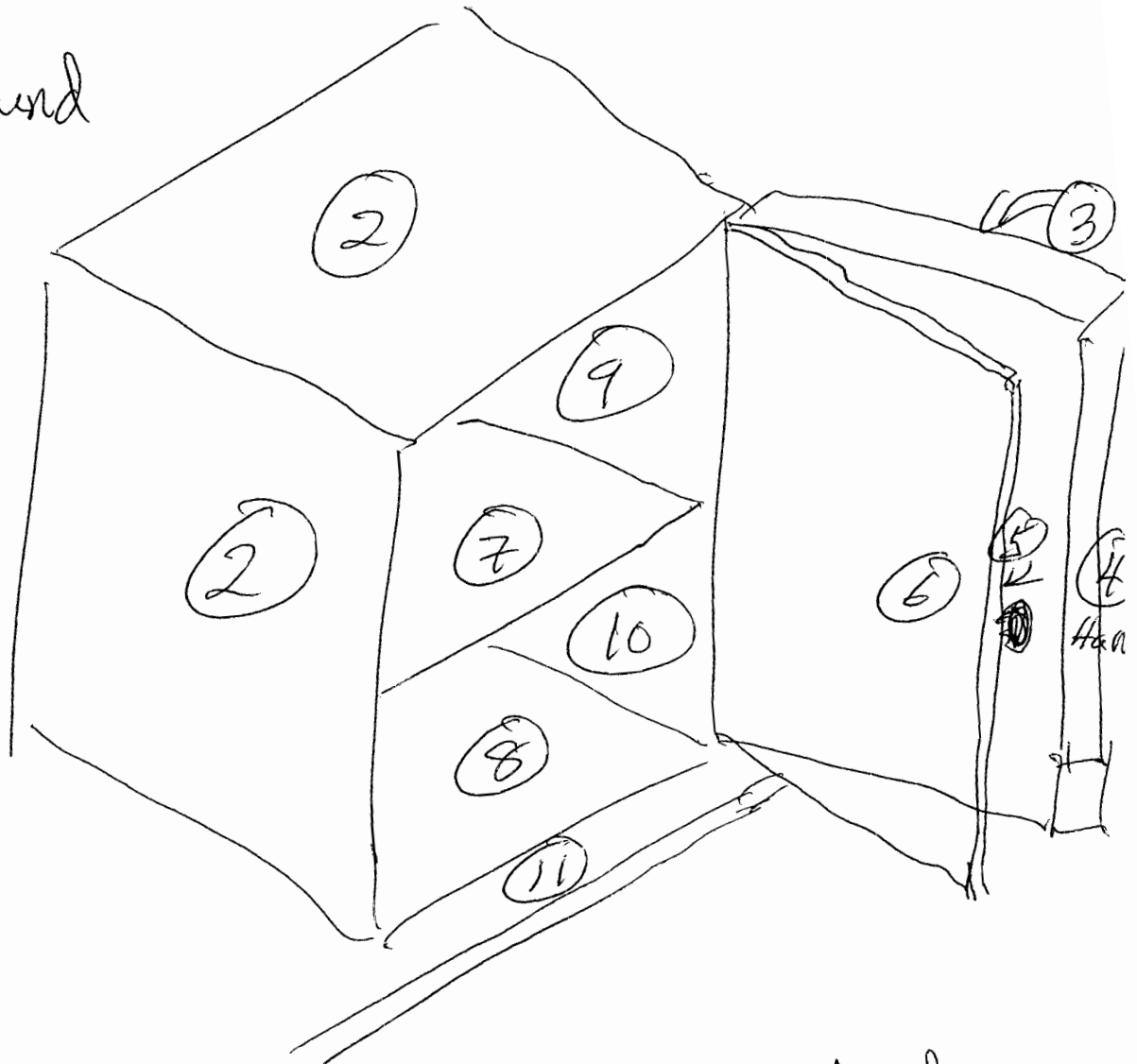
WIPE SAMPLE DESCRIPTIONS

1. Background
2. Floor by door
3. Incubator
4. Sink
5. Floor below incubator
6. Hood sash, foil & handles
7. Floor below hood
8. Floor below bench
9. Door handle, light switch & phone
10. Floor below door
11. Floor below bench
12. LC Equipment & bench
13. Floor below LC
14. Hood sash, foil & handles
15. Floor below hood
16. Sink and bench
17. Floor below bench/sink
18. Bench top & edges
19. Floor below bench
20. Floor below door
21. Refrigerator/freezer handles
22. Floor below door
23. Desk, keyboard, phone

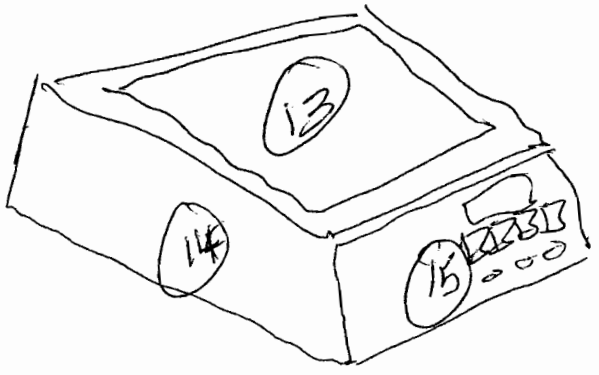
Decommission Incubator
L242

T. Coffin
L242

(1) Background



Innova 2000 Shaker



Meter Readings

Ludlum 3, Ser#
Cal' 10/12/10
Probe: 44-9
PR

Background: 40-80 cpms

Readings: Background

Decommission Wipes of L242 Incubator and Shaker

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110307_1334\20110307_1334.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	7	0	0	0	803.91	574.91	B
2	1.00	2	0	0	5	0	880.26	601.81	
3	1.00	0	0	0	0	0	0.00	575.39	
4	1.00	1	0	0	2	0	1640.31	604.88	
5	1.00	3	1	0	7	1	733.49	554.34	
6	1.00	4	3	0	8	3	477.23	553.69	
7	1.00	1	1	0	1	1	0.00	564.08	
8	1.00	7	11	0	14	13	0.00	482.70	
9	1.00	1	0	0	2	0	0.00	563.68	
10	1.00	2	0	0	5	0	0.00	573.14	
11	1.00	4	0	0	8	0	1525.28	601.73	
12	1.00	1	0	0	3	0	0.00	560.31	

13	1.00	23	37	0	46	43	95.40	486.91
14	1.00	1	1	0	1	1	321.09	579.80
15	1.00	9	0	0	21	0	630.39	562.78

13	1.00	0	4	0	0	5	0.00	510.02
14	1.00	0	7	0	0	9	0.00	396.72
15	1.00	5	2	0	11	2	0.00	569.67

Follow-up Wipes of L242 Hood (Right Cabinet

Protocol #:15 Name:Wipe Test 08-Mar-2011 10:34
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
...e = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

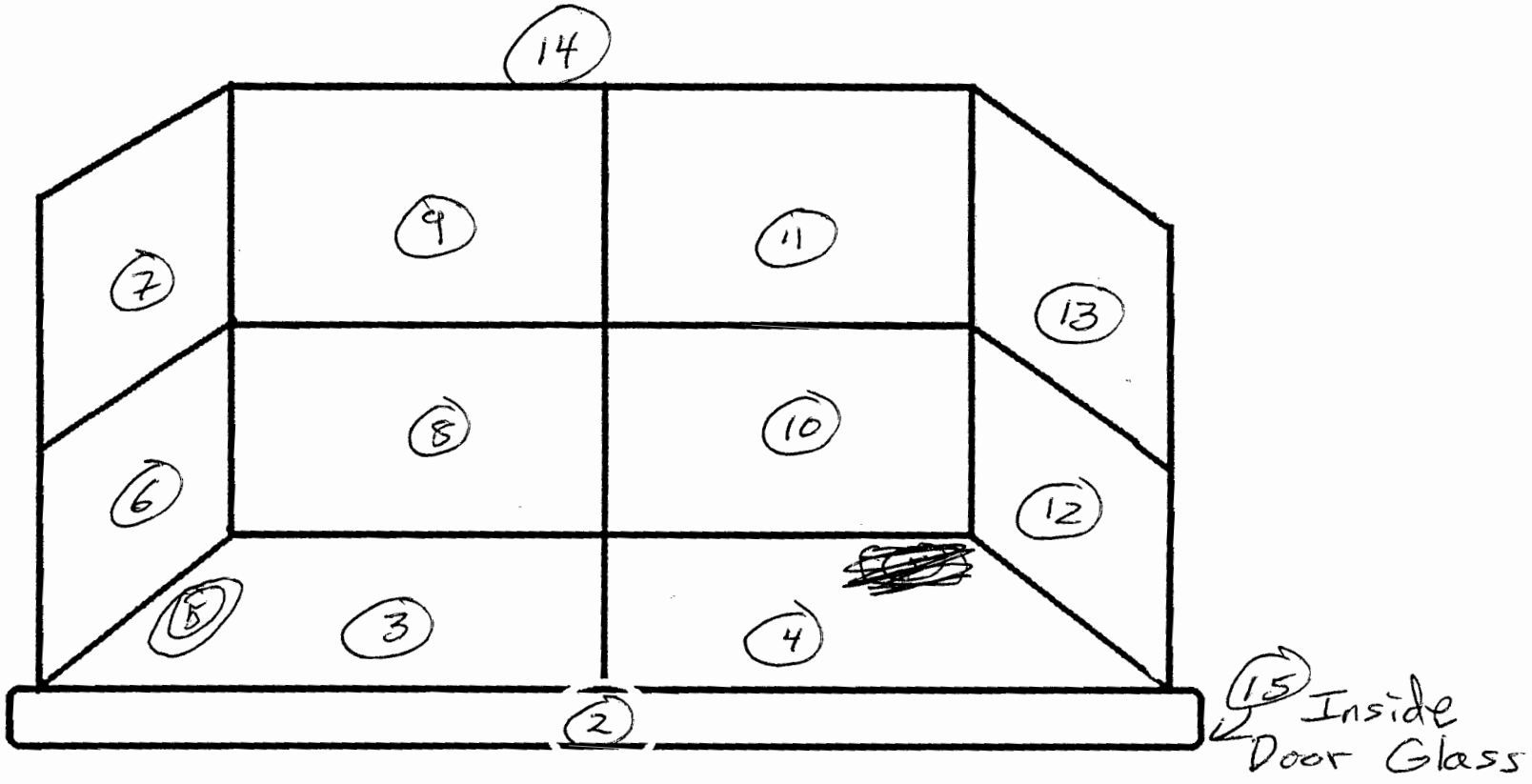
S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	7.00	3.30	4.30			554.	B
2	1.00	0.00	1.70	0.00	0.00	2.31	536.	
3	1.00	2.00	6.70	0.00	0.20	9.34	396.	
4	1.00	1.00	0.70	1.70	2.03	0.96	410.	
5	1.00	0.55	0.00	0.00	1.35	0.00	436.	
6	1.00	0.00	3.70	1.70	0.00	5.12	439.	

All Clean

Decommission L242 Left Hood

Date
3/7/2011
Joffin

(1) Background



Meter
Ludlum 3, Ser# 146121, Cal: 11/10/09
Probe: 44-9, Ser# PR151749

Background: 20-80 cpms

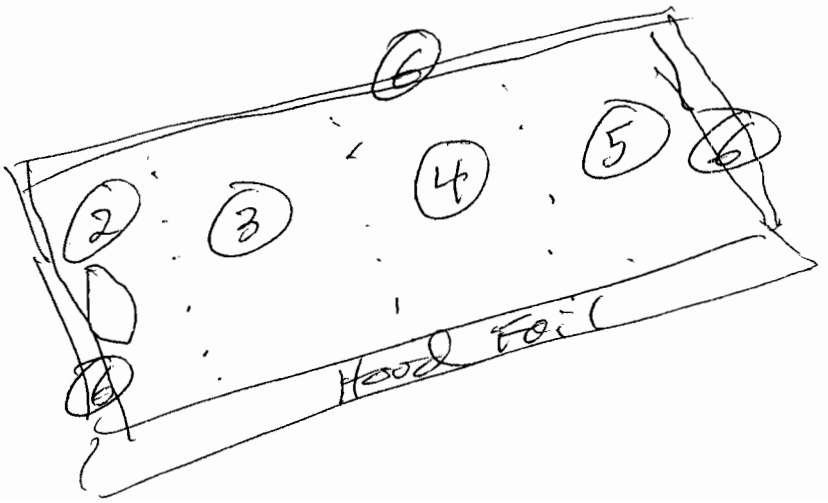
Readings Background

Decommission L242 Left Hood

Protocol #:15 Name:Wipe Test 08-Mar-2011 07:31
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
e = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.75	3.55	3.70			536.	B
2	1.00	1.25	2.45	0.00	1.32	3.36	463.	
3	1.00	41.11	56.59	6.30	72.35	80.54	327.	
4	1.00	76.97	83.73	5.30	135.06	115.62	409.	
5	1.00	0.00	3.45	0.30	0.00	4.73	492.	
6	1.00	0.00	10.45	0.30	0.00	14.52	424.	
7	1.00	0.25	0.45	0.00	0.28	0.62	477.	
8	1.00	19.90	33.80	1.30	24.94	46.47	445.	
9	1.00	0.00	1.45	1.30	0.00	2.02	420.	
10	1.00	6.58	4.12	0.00	14.08	5.67	395.	
11	1.00	10.25	35.45	0.00	0.46	49.16	419.	
12	1.00	21.70	41.00	0.00	23.34	55.92	492.	
13	1.00	0.00	5.45	1.30	0.00	7.48	485.	
14	1.00	22.01	23.69	0.00	38.77	32.70	409.	
15	1.00	0.68	0.00	0.00	1.51	0.00	499.	

Clean & Wipe



① Background

Follow-up Wipes of L242 left Hood

Protocol #:15 Name:Wipe Test 08-Mar-2011 10:56
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.70	6.00	4.30			534.	B
2	1.00	2.30	0.00	2.70	5.16	0.00	494.	
3	1.00	0.30	2.00	0.00	0.00	2.74	487.	
4	1.00	7.30	0.00	0.00	16.57	0.00	483.	
5	1.00	0.30	1.00	0.70	0.05	1.37	493.	
6	1.00	34.89	23.41	1.70	75.62	32.37	379.	

All Clean

Coffin, Tim

From: Coffin, Tim
Sent: Monday, March 07, 2011 1:04 PM
To: Gu, Chungang (Chuck); Guo, Jian; Luzietti, Rick
Subject: L242 Decommission VWR Freezer/Frig, Lab Bench, and Agilent 1100 LC

FOR YOUR INFORMATION/ACTION:

As of today, March 7, 2011, the VWR Freezer/Frig, Agilent 1100 LC, two bench tops, and some miscellaneous equipment located in L242 have been decommissioned from the use of radioactive materials.

ACTIONS TAKEN:

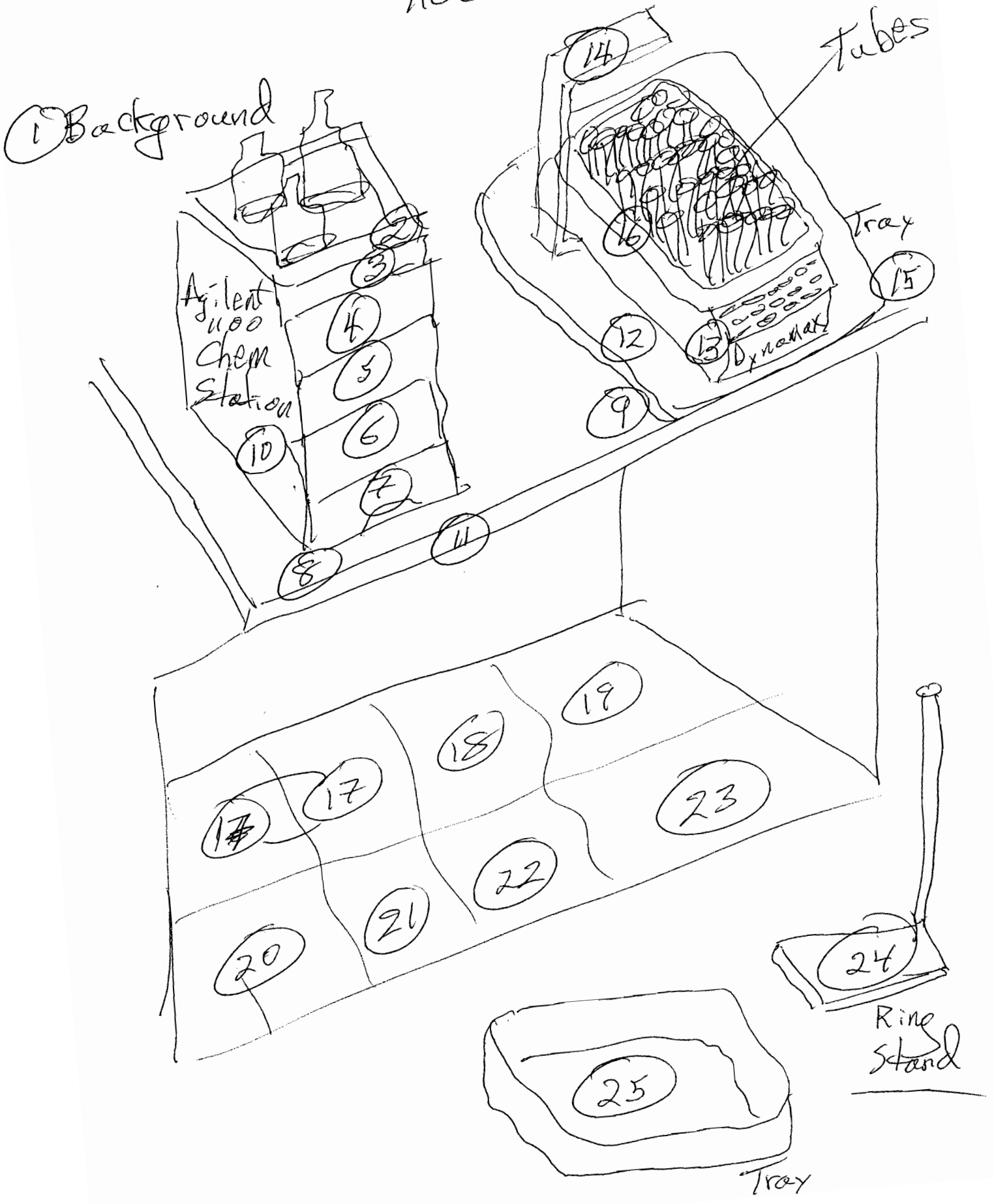
1. All radioactive materials removed from the freezer and other equipment.
2. Decommission wipe tests completed and all results were at background or below the AZ Action Level of 100 dpms.
3. Meter readings were taken of the unit and all readings were at background or below the AZ Action Level of less than three times background.
4. All radioactive labels and stickers were removed from the freezer and equipment.
5. All cleaning items and collected/melted ice was disposed as low level aqueous radioactive waste.
6. A Decommissioning Form was filled out and placed on the Freezer and equipment with copies of the wipe tests.

Please let me know if you have any questions.

Tim Coffin
Radiation Safety Specialist/Radiation Safety Officer
OW1-227, 6-2682

3/7/2016

Decommission L242 Agilent 1100 LC



Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110307_0822\20110307_0822.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	7	0	0	0	873.95	573.21	B
2	1.00	3	3	0	5	4	72.06	575.88	
3	1.00	2	1	0	3	2	0.00	551.61	
4	1.00	2	0	0	4	0	2434.61	572.62	
5	1.00	3	0	0	7	0	1504.06	547.39	
6	1.00	3	0	0	6	0	0.00	539.05	
7	1.00	4	0	0	9	0	0.00	521.41	
8	1.00	3	1	0	6	1	0.00	537.65	
9	1.00	4	0	0	9	0	120.20	590.84	
10	1.00	1	6	0	0	8	0.00	549.48	
11	1.00	0	2	0	0	3	0.00	538.47	
12	1.00	2	0	0	8	0	0.00	394.54	

13	1.00	1	0	0	3	0	0.00	544.59
14	1.00	4	0	0	9	0	0.00	537.32
15	1.00	1	0	0	2	0	0.00	590.44
16	1.00	5	3	0	10	4	0.00	489.69
17	1.00	4	0	0	10	0	0.00	470.19
18	1.00	3	9	0	4	11	332.02	452.97
19	1.00	3	4	0	8	4	0.00	436.79
20	1.00	8	0	0	21	0	0.00	432.63
21	1.00	3	1	0	8	0	510.84	478.18
22	1.00	4	0	0	9	0	0.00	495.89
23	1.00	5	1	0	12	1	0.00	451.17
24	1.00	0	6	0	0	8	30.15	507.69
25	1.00	3	9	0	7	11	0.00	336.71

Coffin, Tim

From: Gu, Chungang (Chuck)
nt: Friday, March 04, 2011 12:34 PM
To: Coffin, Tim
Cc: Alelyunas, Yun W; Luzietti, Rick; Guo, Jian; Bristow, Brian K; Davis, Patty C
Subject: Aglient 1100 LC in LW-242

Hi Tim:

I was very glad to hear from Yun that she wanted her Agilent 100 LC back. I have not used any radioactive samples in the LC sitting in the middle bench of LW242. But still, could you wipe test it the Agilent 1100 LC and the computer, then give an OK for Brian to move to the lab where Yun is currently at. Please keep the old fraction collector in LW-242 though.

Thanks,

Chuck

Chungang (Chuck) Gu, PhD
Principal Scientist I

AstraZeneca Pharmaceuticals LP
R&D: Clinical Pharmacology and Development DMPK (CPD)
CRDL-233G, 1800 Concord Pike, Wilmington, DE 19850
Tel +1 (302) 885 4687 FAX +1 (302) 886 5345
Jngang.gu@astrazeneca.com

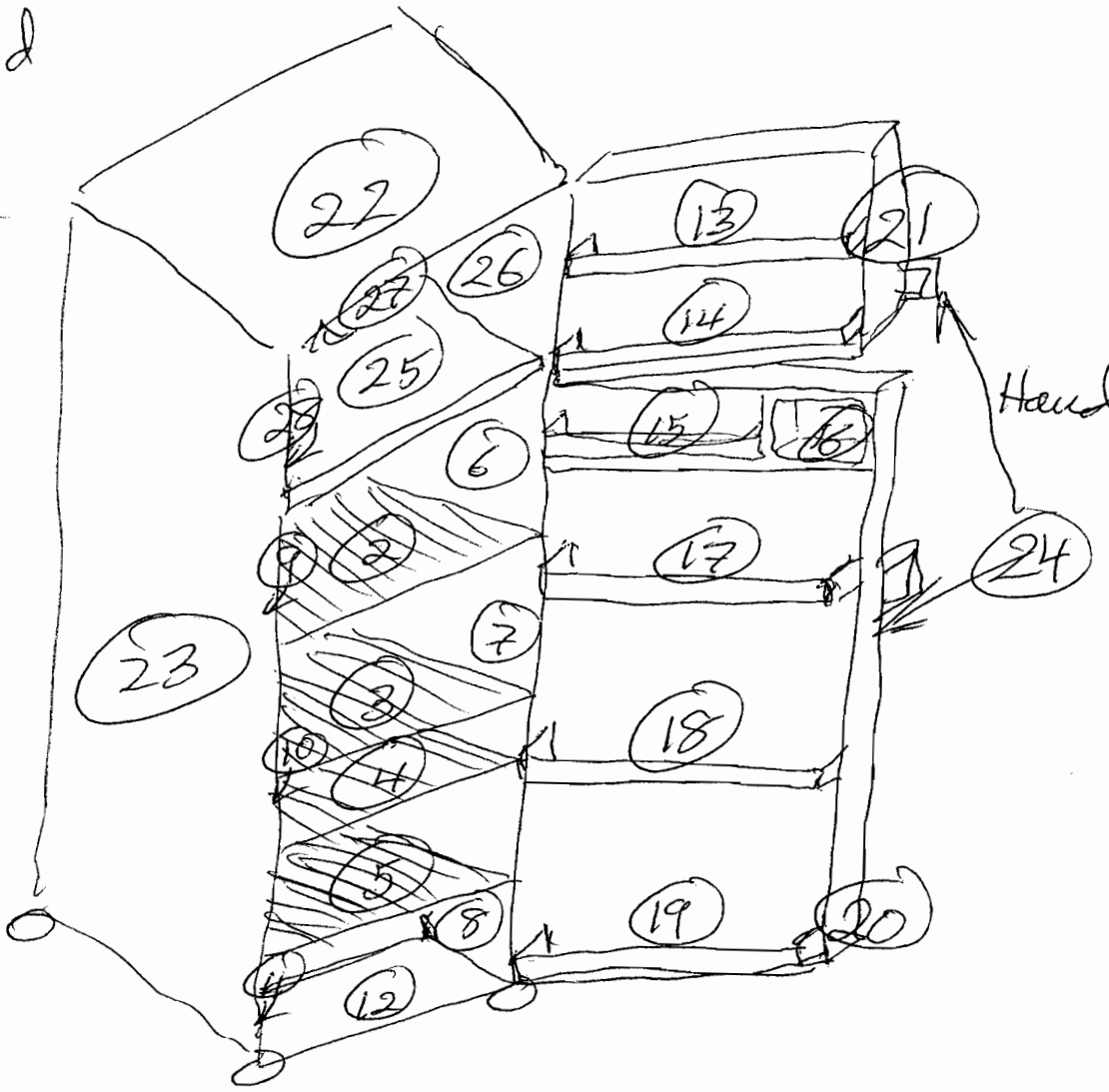
3/7/2011

~~Coffin~~

Decommission L242 VWR Freezer/Frig and Bench Top

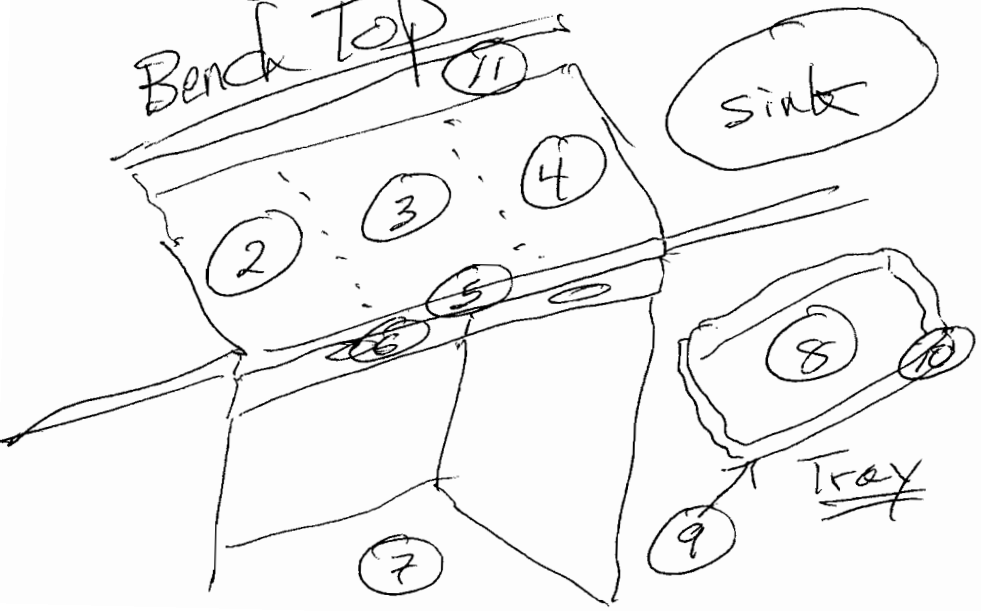
(1) Background

Freezer



(1) Background

Bench Top



Meter Readings

Ludlum 3 Ser # 146121
Cal: 10/12/10
Probe: 44-9
PR 151749

Background: 40-80 cpms

Readings

Background

Decommission L242
VWR Freezer/Frig

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110307_0627\20110307_0627.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	6	0	0	0	929.14	581.13	B
2	1.00	5	22	0	4	26	0.00	579.14	
3	1.00	2	0	0	5	0	813.89	571.64	
4	1.00	3	3	0	6	4	0.00	604.44	
5	1.00	0	1	0	0	2	0.00	594.73	
6	1.00	0	2	0	0	3	3066.59	593.33	
7	1.00	6	18	0	8	22	387.21	637.74	
8	1.00	2	1	0	3	1	2408.18	607.51	
9	1.00	6	3	0	13	2	0.00	581.21	
10	1.00	0	1	0	0	2	0.00	586.09	
11	1.00	5	4	0	10	5	0.00	580.52	
12	1.00	10	11	0	19	13	294.77	558.64	

13	1.00	3	7	0	5	9	0.00	570.35
14	1.00	1	9	0	0	11	0.00	613.63
15	1.00	6	3	0	13	4	0.00	566.45
16	1.00	3	10	0	4	13	1362.20	631.52
17	1.00	2	2	0	4	3	0.00	613.48
18	1.00	5	7	0	9	8	0.00	578.73
19	1.00	8	28	0	8	33	0.00	618.72
20	1.00	4	4	0	8	5	369.26	548.79
21	1.00	0	3	0	0	4	0.00	550.91
22	1.00	5	2	0	11	2	0.00	579.51
23	1.00	4	0	0	10	0	0.00	570.38
24	1.00	4	4	0	8	5	1562.03	571.49
25	1.00	9	0	0	22	0	0.00	563.77
26	1.00	4	0	0	9	0	0.00	573.74
27	1.00	4	3	0	7	3	465.29	553.86
28	1.00	4	0	0	10	0	0.00	600.29

All Clear

Decommission L242 Lab Bench

J Coffman

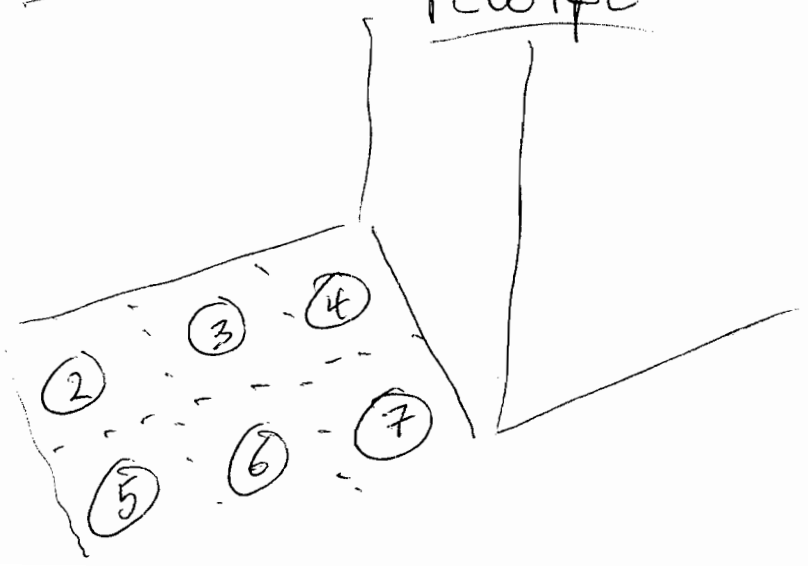
Protocol #:15 Name:Wipe Test 07-Mar-2011 07:03
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
P ion C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
T .e = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.10	7.70	3.50			577.	B
2	1.00	38.49	24.71	0.00	68.57	33.14	528.	
3	1.00	1.90	0.00	0.00	4.00	0.00	554.	
4	1.00	0.90	0.00	0.50	2.00	0.00	504.	
5	1.00	0.00	0.00	0.00	0.00	0.00	565.	
6	1.00	3.90	0.00	0.50	8.39	0.00	532.	
7	1.00	190.44	536.76	0.50	76.94	777.70	299.	
8	1.00	10.90	3.30	5.50	21.24	4.34	545.	
9	1.00	0.00	1.30	1.50	0.00	1.76	571.	
10	1.00	4.90	14.30	0.00	2.21	19.28	570.	
11	1.00	2.90	0.00	0.00	6.20	0.00	538.	

-Floor (Knee Space)

Clean Floor area #2 and rewipe

① Background



L242 Floor Follow-up Wipe under Bench

Protocol #:15 Name:Wipe Test 07-Mar-2011 09:18
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	3.94	5.96	3.80			564.	B
2	1.00	0.00	0.04	0.20	0.00	0.05	538.	
3	1.00	7.06	13.04	0.00	7.46	17.58	555.	
4	1.00	0.00	0.00	0.20	0.00	0.00	549.	
5	1.00	0.06	0.00	4.20	0.14	0.00	524.	
6	1.00	4.01	2.09	0.00	7.27	2.79	550.	
7	1.00	1.06	0.00	0.00	2.27	0.00	538.	

All Clean

Coffin, Tim

From: Guo, Jian
nt: Friday, March 04, 2011 8:59 AM
To: Coffin, Tim
Cc: Gu, Chungang (Chuck)
Subject: RE: Decomission 2nd Radioactive Material Freezer in L242

Hi Tim,

I already removed them out. Only one left is a tube stuck in the ice. You could begin the radioactive decommissioning anytime you want.

Thanks

Jian

From: Coffin, Tim
Sent: Friday, March 04, 2011 8:25 AM
To: Guo, Jian
Cc: Gu, Chungang (Chuck)
Subject: Decomission 2nd Radioactive Material Freezer in L242

Good Morning Jian,

While I was cleaning out the Fume Hood in L242 of the contaminated metal racks, pump, and balance, I also checked the 2nd Freezer for any remaining samples before starting the decommissioning process for the unit.

As you suggested, there are still some samples in the top freezer compartment, and a couple vials on the door of the bottom part. Please let me know when these are removed, and I will begin the radioactive decommissioning of the freezer.

Thanks.

Tim

Coffin, Tim

From: Guo, Jian
Sent: Friday, March 04, 2011 3:29 PM
To: Liang, Li
Cc: Gu, Chungang (Chuck); Coffin, Tim
Subject: FW: Decomission 2nd Radioactive Material Freezer in L242

Hi Li,

Another freezer in Lab 242 was cleaned. Tim will start decommissioning next Monday. Could you please deactivate the alarm? The Probe number is 14.

Thanks

Jian

From: Coffin, Tim
Sent: Friday, March 04, 2011 10:09 AM
To: Guo, Jian
Subject: RE: Decomission 2nd Radioactive Material Freezer in L242

Hi Jian,

Thanks for your quick response.

Will start the decommissioning of the freezer on Monday. Could you please ensure that the Freezer alarm is turned off or disabled.

Thanks.

Tim

From: Guo, Jian
Sent: Friday, March 04, 2011 8:59 AM
To: Coffin, Tim
Cc: Gu, Chungang (Chuck)
Subject: RE: Decomission 2nd Radioactive Material Freezer in L242

Hi Tim,

I already removed them out. Only one left is a tube stuck in the ice. You could begin the radioactive decommissioning anytime you want.

Thanks

Jian

From: Coffin, Tim
Sent: Friday, March 04, 2011 8:25 AM
To: Guo, Jian

Cc: Gu, Chungang (Chuck)
Subject: Decomission 2nd Radioactive Material Freezer in L242

›od Morning Jian,

While I was cleaning out the Fume Hood in L242 of the contaminated metal racks, pump, and balance, I also checked the 2nd Freezer for any remaining samples before starting the decommissioning process for the unit.

As you suggested, there are still some samples in the top freezer compartment, and a couple vials on the door of the bottom part. Please let me know when these are removed, and I will begin the radioactive decommissioning of the freezer.

Thanks.

Tim

Coffin, Tim

From: Coffin, Tim
Sent: Tuesday, March 01, 2011 11:16 AM
To: Gu, Chungang (Chuck); Guo, Jian; Luzietti, Rick
Cc: Bristow, Brian K
Subject: L242 Decommission Fisher Isotemp Freezer from Radioactive use

FOR YOUR INFORMATION/ACTION:

As of today, March 1, 2011, the Fisher Isotemp Freezer located in L242 has been decommissioned from storage of Radioactive materials.

ACTIONS TAKEN:

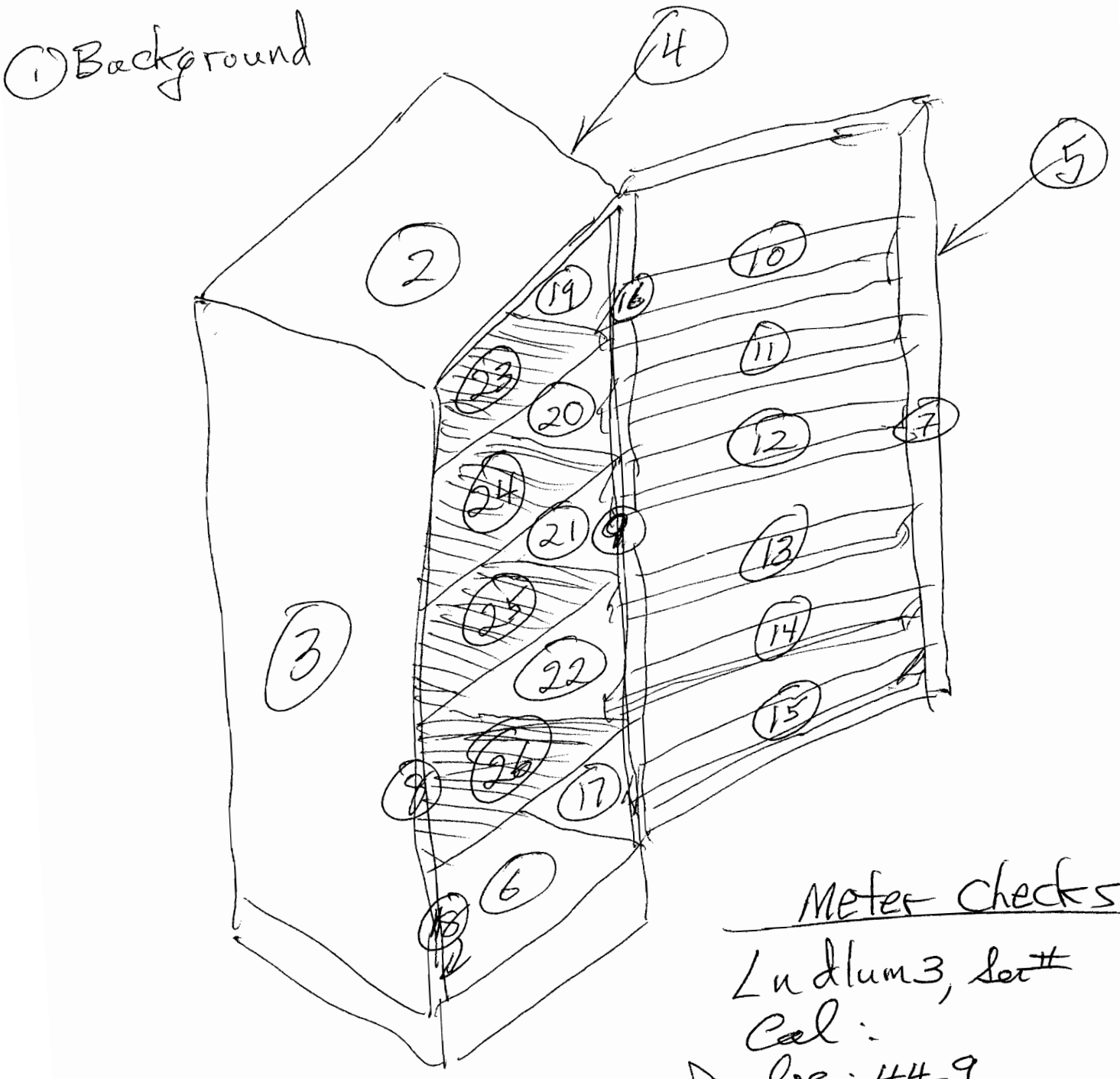
1. All radioactive material removed from the unit and relocated or disposed.
2. Decommission wipe tests completed and all results were at background or below the AZ Action Level of 100 dpms.
3. Meter readings were taken of the unit and all readings were at background or below the AZ Action Level of less than three times background.
4. All radioactive labels and stickers were removed from the freezer.
5. All cleaning items and the collected, melted ice was disposed as low level aqueous radioactive waste.
6. A Decommissioning Form was filled out and placed on the Unit with copies of the wipe tests.

Please let me know if you have any questions.

Tim Coffin
Radiation Safety Specialist/Radiation Safety Officer
OW1-227, 6-2682

Decommissioning
L242
Fisher Isotemp Freezer

2/28/2011
TJ Coffin



Meter Checks

Ludlum 3, Ser#
Cal:
Probe: 44-9
PR-

Background: 80 cpms
Readings: Background cpms

Decommission L242 Isotemp Freezer

Protocol #:15 Name:Wipe Test 01-Mar-2011 05:48
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.28	4.43	4.18			546.	B
2	1.00	0.00	0.00	0.00	0.00	0.00	517.	
3	1.00	0.00	0.00	0.00	0.00	0.00	532.	
4	1.00	1.72	0.00	0.00	3.58	0.00	562.	
5	1.00	3.72	3.57	2.82	5.86	4.80	539.	
6	1.00	0.22	1.06	0.82	0.00	1.45	468.	
7	1.00	0.00	0.00	1.82	0.00	0.00	535.	
8	1.00	0.00	1.84	5.55	0.00	2.50	535.	
9	1.00	0.23	2.05	0.00	0.00	2.79	544.	
10	1.00	1.72	0.57	0.00	3.36	0.75	529.	
11	1.00	0.00	0.00	0.00	0.00	0.00	559.	
12	1.00	0.00	0.00	0.00	0.00	0.00	532.	
13	1.00	0.00	1.94	0.00	0.00	2.64	539.	
14	1.00	1.72	1.57	0.00	2.76	2.11	538.	
15	1.00	1.72	0.00	0.82	3.71	0.00	526.	
16	1.00	5.30	0.00	0.00	11.32	0.00	538.	
17	1.00	0.00	0.00	0.00	0.00	0.00	535.	
18	1.00	0.00	0.00	0.82	0.00	0.00	550.	
19	1.00	0.00	1.57	0.00	0.00	2.13	532.	
20	1.00	0.17	5.11	0.00	0.00	6.99	500.	
21	1.00	0.00	0.00	1.82	0.00	0.00	535.	
22	1.00	0.00	0.00	0.00	0.00	0.00	542.	
23	1.00	0.72	4.57	0.82	0.00	6.27	470.	
24	1.00	0.00	3.57	0.00	0.00	4.91	468.	
25	1.00	0.00	0.57	0.00	0.00	0.78	477.	
26	1.00	0.19	3.09	0.00	0.00	4.25	467.	

Meter Readings

Ludlum 3, Ser # 212037
Cal: 10/12/10
Probe 44-9 PR 223552
Background: 80 cpms
Readings: Background

Coffin, Tim

From: Coffin, Tim
Sent: Tuesday, January 25, 2011 11:18 AM
To: Luzietti, Rick
Cc: Gu, Chungang (Chuck); Grimm, Scott W
Subject: RE: L242/240

FOR YOUR INFORMATION/ACTION:

As of today, January 25, 2011, I have completed radioactive decommissioning wipes on some lab benches and equipment in Labs L240 and L242 as you requested.

ACTIONS TAKEN:

1. I performed wipe tests on all the equipment and benches that you requested. Some items had to be disposed that could not be decontaminated. All remaining items had wipe tests that were at background or below the AZ Action Level of 100 dpms.
2. I also performed meter checks of the benches and equipment and all readings were at background (20 – 80 cpms).
3. All radioactive tape and labels were removed from the benches and equipment that is ready for reuse or relocation.
4. A decommission form was placed on the items and copies of the wipe tests were attached.

All the items designated by the decommission form can be considered clean and decommissioned from radioactive materials.

Please let me know if you have any questions.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

From: Luzietti, Rick
Sent: Monday, January 24, 2011 9:57 AM
To: Coffin, Tim
Cc: Gu, Chungang (Chuck); Grimm, Scott W
Subject: L242/240

Hi Tim,

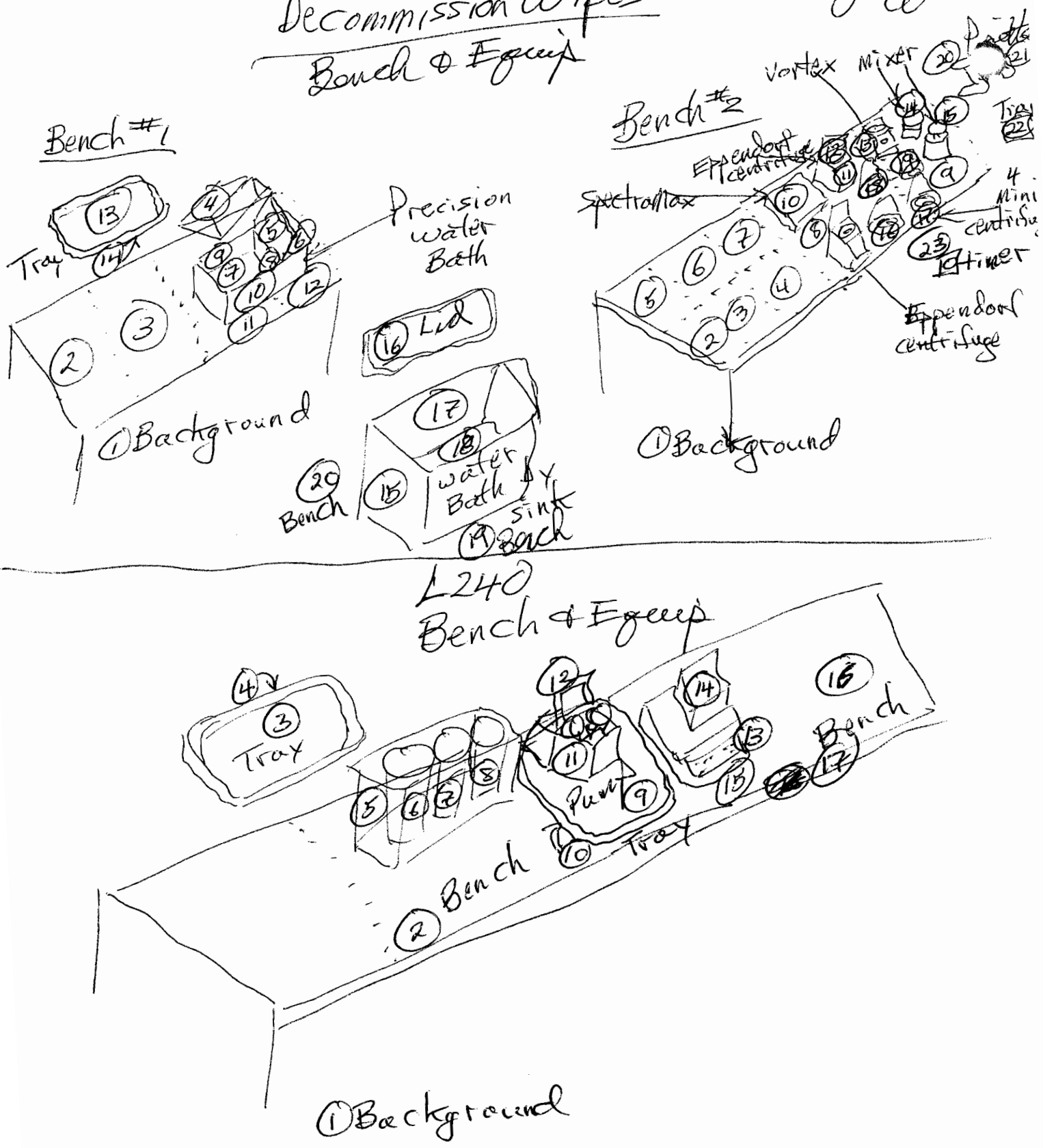
I finished cleaning the remaining rad equipment in L242/240. The exception being the fraction collection system on the middle bench (straight ahead when you walk in to L242). I did wipe tests on the items labeled with rad stickers and everything came up below 100 dpm, with the exception of the vacuum manifold (labeled #3 in L240 with a new rad sticker on the metal grid.) The counts for this were 477. I have another manifold I can use in Waltham so the one in L240 can be discarded. Let me know if you want to further go over these items before you decommission them for rad use.

Thanks,

Rick Luzietti

1/24/2011
TJ Coffman

L242
Decommission Wipes
Bench & Equip



L240
Bench & Equip

Page 242 Decom Bench & Equip L242 J Coffin

Protocol #:15 Name:Wipe Test 24-Jan-2011 14:53
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
1 e = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.99	4.11	4.50			582.	B
2	1.00	3.01	0.00	0.50	6.19	0.00	570.	
3	1.00	0.01	0.00	0.00	0.02	0.00	498.	
4	1.00	0.01	0.89	0.00	0.00	1.21	547.	
5	1.00	7.74	14.16	0.50	8.25	19.13	543.	
6	1.00	0.00	0.00	0.50	0.00	0.00	581.	
7	1.00	0.81	3.09	1.50	0.00	4.18	545.	
8	1.00	9.01	4.89	0.00	16.49	6.54	526.	
9	1.00	9.01	2.89	0.00	18.05	3.83	506.	
10	1.00	0.00	0.00	0.00	0.00	0.00	591.	
11	1.00	0.01	0.00	0.00	0.02	0.00	506.	
12	1.00	15.01	32.89	0.50	14.14	45.55	414.	
13	1.00	0.00	0.00	0.00	0.00	0.00	517.	
14	1.00	6.01	0.89	0.00	12.11	1.13	549.	
15	1.00	0.00	0.00	6.50	0.00	0.00	568.	
16	1.00	7.01	1.89	0.00	13.60	2.47	553.	
17	1.00	2.01	0.00	0.00	4.11	0.00	575.	
8	1.00	5.01	0.00	0.50	10.37	0.00	563.	
19	1.00	0.01	0.00	1.50	0.02	0.00	535.	
20	1.00	0.00	0.89	0.00	0.00	1.20	576.	

Meter Readings
Ludlum 3 Ser# 146121
Cal: 10/12/10
Probe: 44-9, PR151749

Background: 20-80 cpm
Readings: Background

Page 3) Decom Bench & Equip in LZ42

Protocol #:15 Name:Wipe Test 24-Jan-2011 15:43
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.74	5.36	3.20			575.	B
2	1.00	0.00	0.00	2.80	0.00	0.00	534.	
3	1.00	4.88	1.02	0.00	9.46	1.32	573.	
4	1.00	24.26	10.64	0.00	45.33	14.14	539.	
5	1.00	0.00	0.46	0.00	0.00	0.62	524.	
6	1.00	2.26	0.00	2.80	4.79	0.00	540.	
7	1.00	3.26	0.00	2.80	6.93	0.00	537.	
8	1.00	0.07	3.83	0.00	0.00	5.23	512.	
9	1.00	6.26	2.64	0.00	12.70	3.55	469.	
10	1.00	3.26	0.00	2.80	6.71	0.00	570.	
11	1.00	0.00	0.00	0.80	0.00	0.00	566.	
12	1.00	0.26	0.00	0.00	0.55	0.00	536.	
13	1.00	0.00	0.00	0.00	0.00	0.00	530.	
14	1.00	0.00	1.64	0.00	0.00	2.22	558.	
15	1.00	8.26	2.64	2.80	15.24	3.46	593.	
16	1.00	0.26	0.00	1.80	0.54	0.00	550.	
17	1.00	38.26	0.00	0.00	80.44	0.00	547.	
18	1.00	61.48	0.00	0.80	127.82	0.00	559.	– Mini Centrifuge
19	1.00	0.26	1.64	1.80	0.00	2.22	541.	
20	1.00	5.26	0.00	0.00	10.86	0.00	566.	
21	1.00	0.00	0.00	0.00	0.00	0.00	577.	
22	1.00	2.65	0.25	0.00	5.35	0.30	565.	
23	1.00	0.26	0.00	0.80	0.55	0.00	548.	

Clean & rewipe (see Page 4)

Meter Readings
Ludlum 3 Ser# 146121
Cal: 10/12/10
Probe: 44-9, PR151749

Background: 20-80 cpms
Readings: Background

Page 4) Follow-up Wipes of LL4L Mini Centrifuge

Protocol #:15 Name:Wipe Test 25-Jan-2011 06:56
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
1 e = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG	
1	10.00	4.28	3.22	2.80			580.	B	
2	1.00	0.72	0.00	4.20	1.47	0.00	573.		- Top outside
3	1.00	0.72	0.00	0.00	1.47	0.00	573.		- Bottom Outside
4	1.00	0.00	0.78	2.20	0.00	1.05	616.		- Top inside
5	1.00	0.72	0.78	0.00	1.03	1.05	582.		- Bottom inside
6	1.00	0.00	0.78	3.20	0.00	1.06	561.		- Barrell
7	1.00	143.72	0.78	0.20	296.02	0.00	568.		Cells #1-6
8	1.00	0.00	1.78	1.20	0.00	2.42	558.		Cells #7-12

Clean & rewipe cells 1-6

See Page (6)

Page (5) Decom Wipes of Bench ~~0 Equip~~ LL40 TH Coffey

Protocol #:15 Name:Wipe Test 25-Jan-2011 06:13
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.68	4.22	4.10			544.	B
2	1.00	0.00	0.78	0.00	0.00	1.05	551.	
3	1.00	3.32	0.00	0.00	7.06	0.00	537.	
4	1.00	1.32	0.00	0.00	2.79	0.00	546.	
5	1.00	0.00	5.37	0.00	0.00	7.30	532.	
6	1.00	0.00	5.22	0.00	0.00	7.03	603.	
7	1.00	9.32	0.78	0.00	21.11	0.94	463.	
8	1.00	0.00	1.78	0.90	0.00	2.45	467.	
9	1.00	0.32	0.00	0.00	0.70	0.00	517.	
10	1.00	4.32	1.78	0.00	8.36	2.37	514.	
11	1.00	2.30	3.80	0.00	2.75	5.14	518.	
12	1.00	0.00	2.78	0.00	0.00	3.80	494.	
13	1.00	4.32	5.78	1.90	5.81	7.78	547.	
14	1.00	5.32	0.78	0.00	10.84	0.99	539.	
15	1.00	2.32	2.78	0.90	3.28	3.73	556.	
16	1.00	0.32	3.78	0.00	0.00	5.12	542.	
17	1.00	6.32	0.00	0.00	13.58	0.00	527.	

All Clean

Meter Readings

Ludlum 3, Ser 146121
Cal: 10/12/10
Probe: 44-9, 151749

Background: 20-80 ~~CPMs~~

Readings: Background

All Clean

Page 6

L242 Follow up wipes of Mini centrifuge

Protocol #:15 Name:Wipe Test 25-Jan-2011 08:31
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
T = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	6.79	4.81	4.60			584.	B
2	1.00	240.21	0.00	0.00	495.61	0.00	567.	
3	1.00	0.00	0.00	0.00	0.00	0.00	589.	
4	1.00	2.21	0.00	0.00	4.42	0.00	600.	
5	1.00	1.79	0.61	0.00	3.18	0.80	633.	
6	1.00	0.00	0.00	0.00	0.00	0.00	583.	
7	1.00	0.00	0.00	0.00	0.00	0.00	579.	

#1 well of centrifuge

clean & rewipe sample area #2

Target

Final Follow-up Wipe on Mini Centrifuge in L242

Protocol #:15 Name:Wipe Test 25-Jan-2011 10:49
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.21	4.19	3.60			587.	B
2	1.00	16.79	0.00	2.40	33.83	0.00	595.	
3	1.00	0.00	0.00	1.40	0.00	0.00	596.	

bottom of cell

All clean

Coffin, Tim

From: Luzietti, Rick
Sent: Monday, January 24, 2011 9:57 AM
To: Coffin, Tim
Cc: Gu, Chungang (Chuck); Grimm, Scott W
Subject: L242/240

Hi Tim,

I finished cleaning the remaining rad equipment in L242/240. The exception being the fraction collection system on the middle bench (straight ahead when you walk in to L242). I did wipe tests on the items labeled with rad stickers and everything came up below 100 dpm, with the exception of the vacuum manifold (labeled #3 in L240 with a new rad sticker on the metal grid.) The counts for this were 477. I have another manifold I can use in Waltham so the one in L240 can be discarded. Let me know if you want to further go over these items before you decommission them for rad use.

thanks,

Rick Luzietti

AstraZeneca
Clinical Development, Clinical Pharmacology and DMPK
C233M, 1800 Concord Pike, Wilmington, DE, 19850
Tel (302) 885-6005 Fax (302) 886-5345
rick.luzietti@astrazeneca.com

Coffin, Tim

From: Gu, Chungang (Chuck)
Sent: Monday, January 24, 2011 10:31 AM
To: Luzietti, Rick; Coffin, Tim
Cc: Grimm, Scott W
Subject: RE: L242/240

Rick and Tim:

I may move the fraction collector to CRDL-148, once the LTQ-Orbitrap is packed and moved out of CRDL-148 by the middle of February.

Thanks,
Chuck

From: Luzietti, Rick
Sent: Monday, January 24, 2011 9:57 AM
To: Coffin, Tim
Cc: Gu, Chungang (Chuck); Grimm, Scott W
Subject: L242/240

Hi Tim,

I finished cleaning the remaining rad equipment in L242/240. The exception being the fraction collection system on the middle bench (straight ahead when you walk in to L242). I did wipe tests on the items labeled with rad stickers and everything came up below 100 dpm, with the exception of the vacuum manifold (labeled #3 in L240 with a new rad sticker on the metal grid.) The counts for this were 477. I have another manifold I can use in Waltham so the one in L240 can be discarded. Let me know if you want to further go over these items before you decommission them for rad use.

thanks,

Rick Luzietti

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C233M, 1800 Concord Pike, Wilmington, DE, 19850
Tel (302) 885-6005 Fax (302) 886-5345
rick.luzietti@astrazeneca.com

Coffin, Tim

From: Coffin, Tim
Sent: Tuesday, January 18, 2011 1:53 PM
To: Luzietti, Rick
Cc: Gu, Chungang (Chuck); Grimm, Scott W; Burdette, Doug
Subject: RE: L242

Hi Rick,

As of this today, I was able to do the radioactive check wipe tests the 4000 Q Trap mass spec and Waters Acquity
water/solvent manager in Lab L242. All the wipes were a background or below the AZ Action Level of 100 dpms.\

ACTIONS TAKEN: All radioactive labels/signs were removed from the units and a Decommission Form was placed on each piece of equipment with copies of the wipe tests attached.

Copies of the wipe tests were placed in the L242 Lab Wipe Test Record book and made a part of the
Official Radiation Safety Files.

You may now prepare the equipment for shipment to Waltham without regard for any radiation contamination.

Let me know if you have any additional questions.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

From: Luzietti, Rick
Sent: Friday, January 14, 2011 11:28 AM
To: Coffin, Tim
Cc: Gu, Chungang (Chuck); Grimm, Scott W; Burdette, Doug
Subject: RE: L242

Hi Tim,

There is a need for the 4000 Qtrap mass spec in Waltham soon, can we coordinate the decommissioning of this either Tuesday or Wednesday next week so it can be shipped?

Thanks

Rick Luzietti

Tel (302) 885-6005 Fax (302) 886-5345
rick.luzietti@astrazeneca.com

From: Coffin, Tim
Sent: Friday, January 14, 2011 10:42 AM
To: Luzietti, Rick
Cc: Gu, Chungang (Chuck); Grimm, Scott W
Subject: RE: L242

HI Rick,

Thanks for your advance notice of starting to decommission Lab L240 and L242.

I will work along with you to decommission the equipment and benches. I understand that there will be a delay on doing the freezers because of the stored radioactive samples and materials. We will not be able to totally decommission the labs until the freezers are done.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

From: Luzietti, Rick
Sent: Friday, January 14, 2011 9:32 AM
To: Coffin, Tim
Cc: Gu, Chungang (Chuck); Grimm, Scott W
Subject: L242

Hi Tim,

As you requested:

We will be beginning the decommissioning process in L240-242. Over the next week all the rad labeled equipment/benches and hoods will be ready for decommissioning. The fridges and freezers will be delayed until we have space in C147/148 to move the samples and compounds with in these freezers.

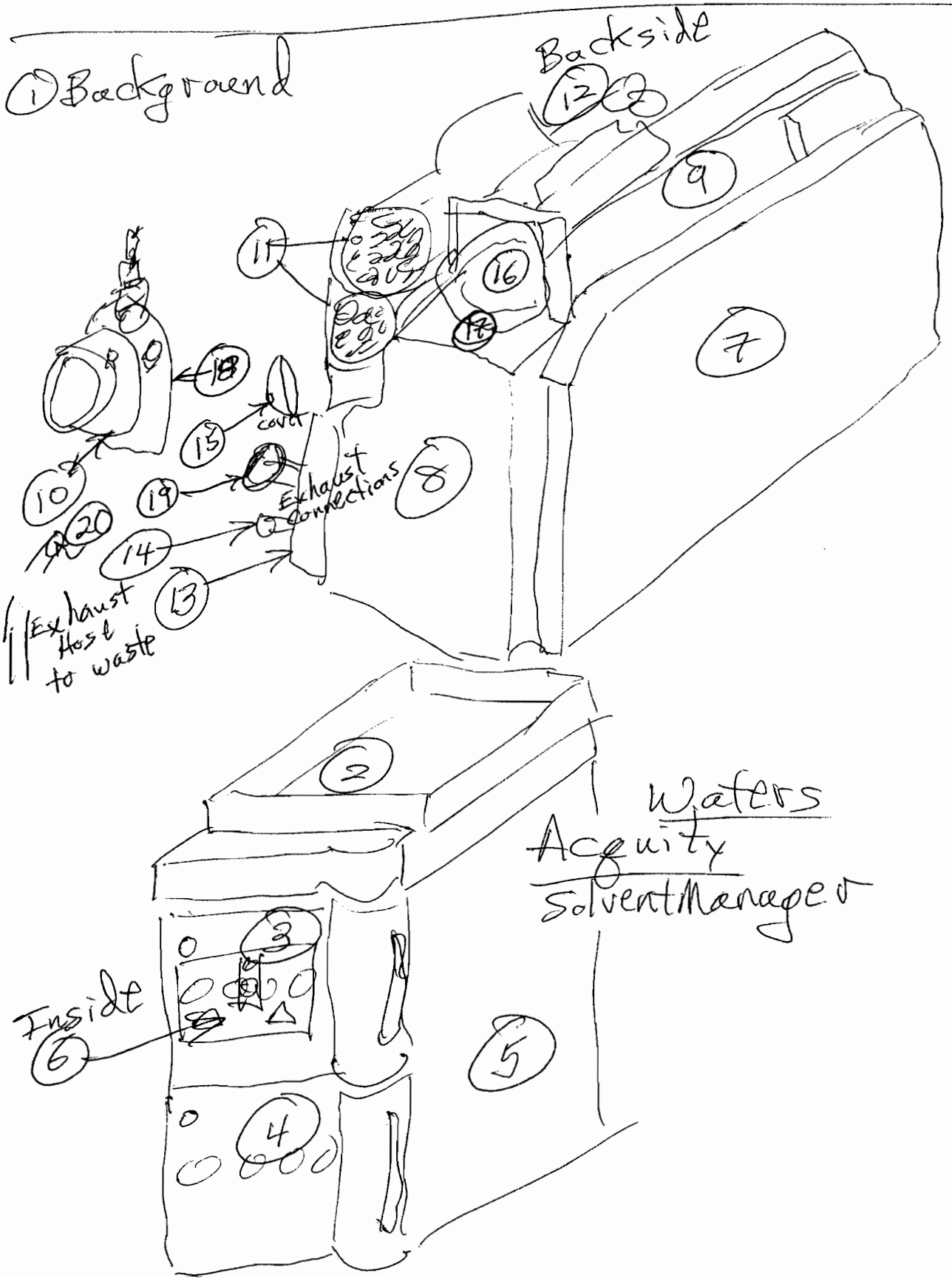
Kind regards,

Rick L.

Decommission L242 Mass Spec 4000 @ Trap

1/18/11

~~A Coffin~~



Page (2)

Decommission L242
Mass Spec and Waters System

TJ Coffin

Protocol #:15 Name:Wipe Test 18-Jan-2011 11:05
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.38	4.42	3.80			599.	B
2	1.00	0.30	3.90	0.20	0.00	5.26	575.	
3	1.00	0.00	0.00	0.00	0.00	0.00	575.	
4	1.00	0.00	2.58	0.00	0.00	3.48	582.	
5	1.00	2.62	0.58	0.00	4.93	0.75	603.	
6	1.00	0.00	2.58	0.00	0.00	3.49	559.	
7	1.00	0.00	0.00	0.20	0.00	0.00	591.	
8	1.00	0.00	0.00	0.20	0.00	0.00	574.	
9	1.00	0.00	3.58	0.00	0.00	4.84	562.	
10	1.00	0.00	1.58	0.00	0.00	2.13	591.	
11	1.00	0.00	1.58	4.20	0.00	2.15	518.	
12	1.00	0.00	0.35	0.00	0.00	0.47	559.	
13	1.00	0.62	0.00	3.20	1.28	0.00	571.	
14	1.00	3.58	4.62	0.00	4.89	6.22	550.	
15	1.00	0.62	0.00	0.00	1.27	0.00	580.	
16	1.00	0.00	1.58	0.00	0.00	2.13	570.	
17	1.00	0.62	2.58	2.20	0.00	3.47	586.	
18	1.00	0.00	0.00	0.00	0.00	0.00	544.	
19	1.00	2.62	0.00	0.20	5.34	0.00	580.	
20	1.00	3.62	4.58	0.00	4.95	6.15	562.	

Waters Acquity solvent Manager

4000 Mass Spec Q Trap

All Clean for Removal from Lab and Shipping

Coffin, Tim

From: Luzietti, Rick
Sent: Friday, January 14, 2011 11:28 AM
To: Coffin, Tim
Cc: Gu, Chungang (Chuck); Grimm, Scott W; Burdette, Doug
Subject: RE: L242

Hi Tim,

There is a need for the 4000 Qtrap mass spec in Waltham soon, can we coordinate the decommissioning of this either Tuesday or Wednesday next week so it can be shipped?

Thanks

Rick Luzietti

Tel (302) 885-6005 Fax (302) 886-5345
rick.luzietti@astrazeneca.com

From: Coffin, Tim
Sent: Friday, January 14, 2011 10:42 AM
To: Luzietti, Rick
Cc: Gu, Chungang (Chuck); Grimm, Scott W
Subject: RE: L242

Rick,

Thanks for your advance notice of starting to decommission Lab L240 and L242.

I will work along with you to decommission the equipment and benches. I understand that there will be a delay on doing the freezers because of the stored radioactive samples and materials. We will not be able to totally decommission the labs until the freezers are done.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

From: Luzietti, Rick
Sent: Friday, January 14, 2011 9:32 AM
To: Coffin, Tim
Cc: Gu, Chungang (Chuck); Grimm, Scott W
Subject: L242

Hi Tim,

As you requested:

We will be beginning the decommissioning process in L240-242. Over the next week all the rad labeled uipment/benches and hoods will be ready for decommissioning. The fridges and freezers will be delayed until we have pace in C147/148 to move the samples and compounds with in these freezers.

Kind regards,

Rick L.

Coffin, Tim

From: Luzietti, Rick
Sent: Friday, January 14, 2011 9:32 AM
To: Coffin, Tim
Cc: Gu, Chungang (Chuck); Grimm, Scott W
Subject: L242

Hi Tim,

As you requested:

We will be beginning the decommissioning process in L240-242. Over the next week all the rad labeled equipment/benches and hoods will be ready for decommissioning. The fridges and freezers will be delayed until we have space in C147/148 to move the samples and compounds with in these freezers.

Kind regards,

Rick L.

Coffin, Tim

From: Coffin, Tim
Sent: Friday, January 14, 2011 10:42 AM
To: Luzietti, Rick
Cc: Gu, Chungang (Chuck); Grimm, Scott W
Subject: RE: L242

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Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

From: Luzietti, Rick
Sent: Friday, January 14, 2011 9:32 AM
To: Coffin, Tim
Cc: Gu, Chungang (Chuck); Grimm, Scott W
Subject: L242

Hi Tim,

As you requested:

We will be beginning the decommissioning process in L240-242. Over the next week all the rad labeled equipment/benches and hoods will be ready for decommissioning. The fridges and freezers will be delayed until we have space in C147/148 to move the samples and compounds with in these freezers.

Kind regards,

Rick L.

Coffin, Tim

From: Coffin, Tim
Sent: Friday, November 05, 2010 10:54 AM
To: Elmore, Chad S; Yu, Jian; Buhrman, Deborah; Gu, Chungang (Chuck); Eisman, Mark S
Cc: Terpko, Marc O; Schlank, Bliss M; Civitella, Patricia C; Goddard, Chris M; Hall, Thomas
Subject: Radioactive Lab Decommissioning [redacted]

FOR YOUR INFORMATION/ACTION:

As of today, November 05, 2010, Lab L244 has been decommissioned as a Radioactive Material use lab.

ACTIONS TAKEN:

1. Removed all radioactive material, samples, and waste/waste containers from lab.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. GM Meter Checks were done and all results were at background or less than the AZ Action Level of 3 times background.
4. The two freezers were defrosted and decommissioned.
5. All required radioactive program postings, radioactive labels, and signs were removed from equipment and benches.
6. Lab L244 has been removed from the Radioactive lab Data Bases.
7. Decommission Forms were placed on the fume hoods, freezers, benches, and other equipment in the labs. Copies placed in the Wipe Test Book and in the official Radiation Safety Files.
8. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
9. This E-mail serves as the official notice to the RSO that the lab has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. **Brian Bristow**: Remove the lab from your Radioactive lab Data Base and please remove the radioactive hazard signs from the L244 entrance doors.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227. 6-2682

B10 RAD E.J. CHEM

LAB #: 1244

DATE: November 5, 2010

LAB SUPERVISOR: Dan Yu DEPT: DMPK

Decommissioning Procedure (Version 2010)

Refer to SHEP-104 Commissioning and Decommissioning Laboratories for more information. This Wilmington SH&E SOP can be found on the portal. Click here to access the SOP.

Section A: Radioactive Laboratory Decommissioning Checklist

Responsible Investigator for the Lab: Chuck Gu, Mark Eisman

Completed	Questionnaire
☒ Yes ☐ No	Contact Safety (x62682) to remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. DO NOT REMOVE TAPE!
☒ Yes ☐ No	Thoroughly clean all areas that contained RAM; this includes work surfaces, fume hoods and storage areas.
☒ Yes ☐ No	Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
☒ Yes ☐ No	Write a letter to RSO in Safety stating that the lab is no longer radioactive and that it should be removed from the list of radioactive labs. .
☒ Yes ☐ No	Contact Safety to perform final wipe test of the lab and equipment.

Once the RI has completed the above actions, the lab can be turned over to Radiation Safety for final decommissioning steps and will assume control of the lab (Sign below). RI has completed decommissioning responsibilities.

Timothy J Coffin	11/5/2010	Timothy J Coffin	11/5/2010
Radiation Safety Acceptance of the Lab with Actions	Date	Radiation Safety Actions Completed	Date

Section B: Procedure for Vacating a Laboratory

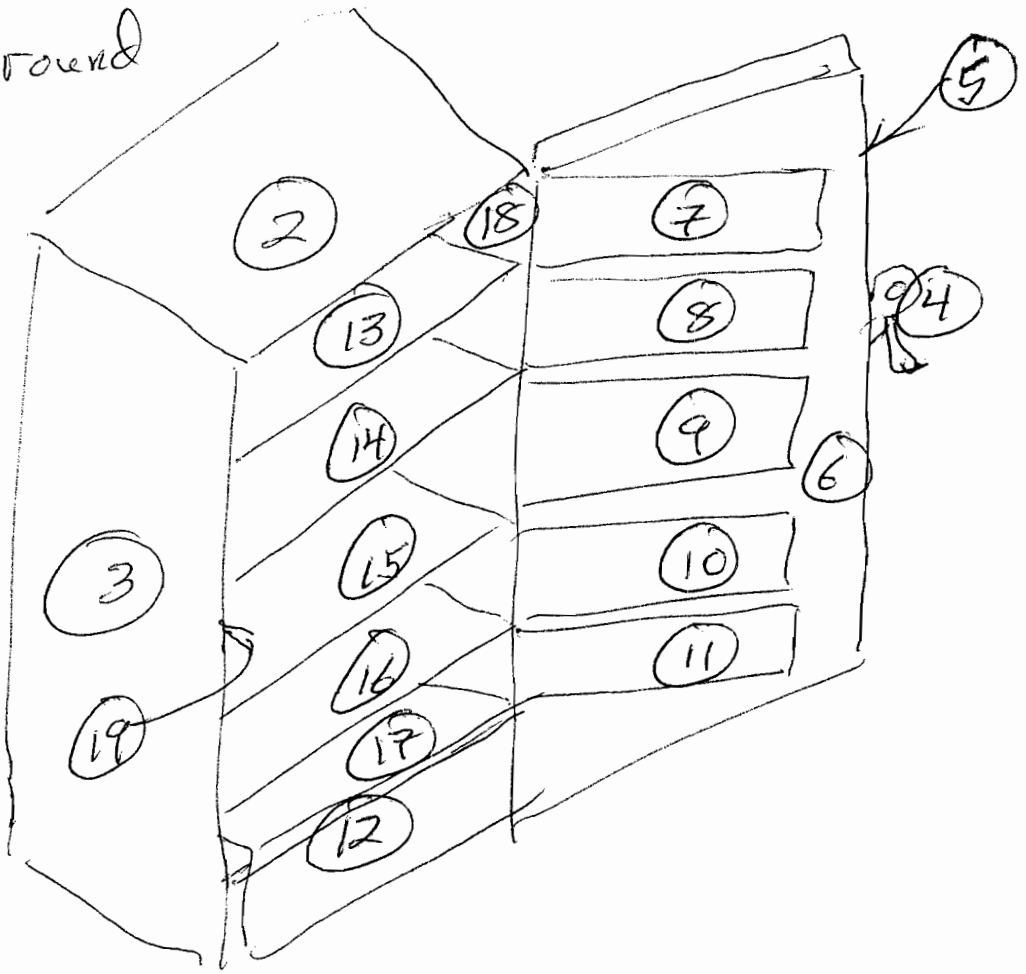
Section A must be completed prior to completing Section B.

Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benches, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazard/biological material used in laboratory?	☐ Yes ☐ No ☐ NA	
Have all surfaces/areas/equipment been decontaminated using EPA registered disinfectant (bleach, ethanol, etc.).	☐ Yes ☐ No ☐ NA	
Remove/deface all biohazard stickers from the equipment.	☐ Yes ☐ No ☐ NA	
Have all biological/Biohazardous wastes been appropriately disinfected/decontaminated and disposed of.	☐ Yes ☐ No ☐ NA	
Has the Biohazard decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory and were all steps completed in Section A?	☐ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	
Have all cabinets/closets/drawers been emptied?	☐ Yes ☐ No ☐ NA	

Decommission
AEVCO Freezer #2
Lab L244

11/5/10
J Coffin

① Background



Meter Readings

Ludlum 3, Ser #
Cal:
Probe 44-9
PR

Background: 40-80 cpms

Readings: Background

L244 Decommission REUCO Freeze #2

Protocol #:15 Name:Wipe Test 05-Nov-2010 08:49

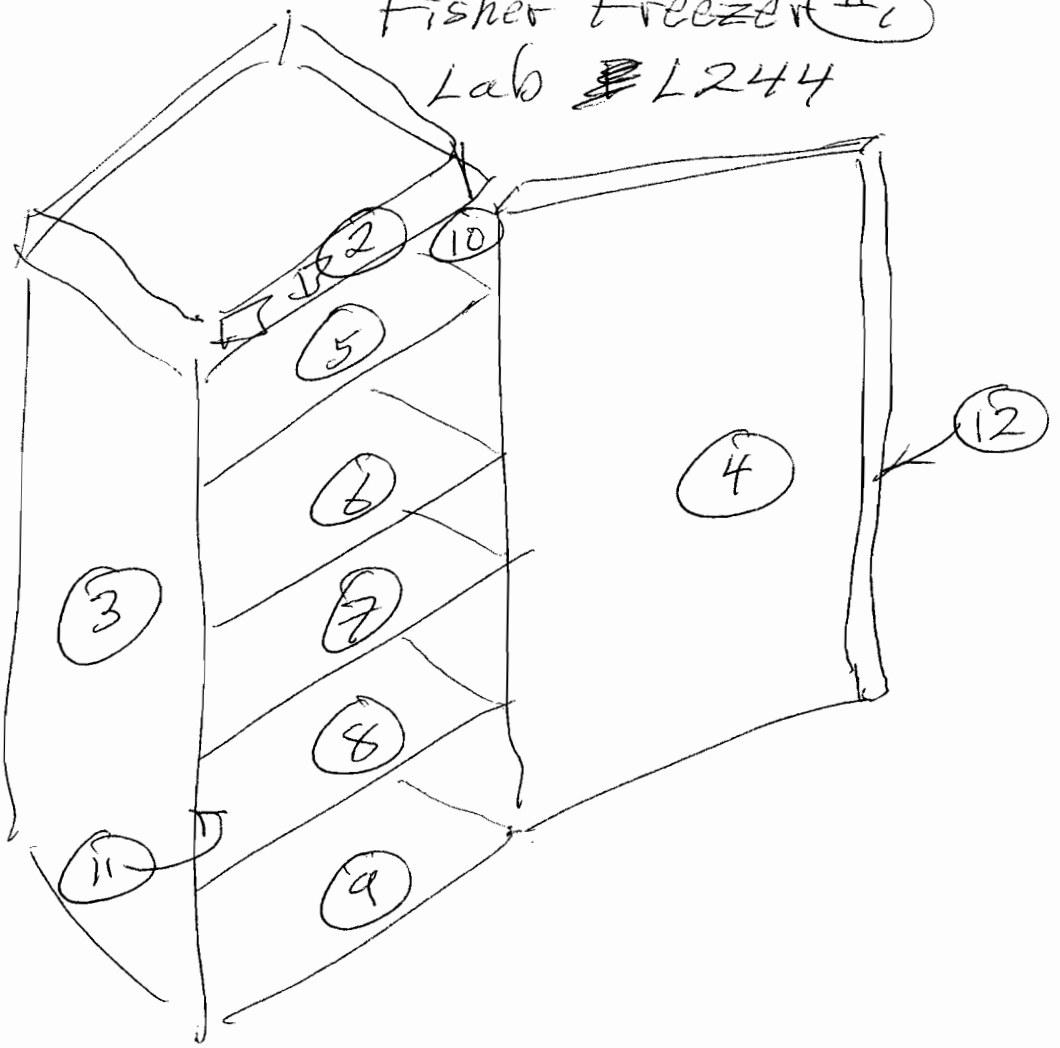
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	6.25	4.01	4.54			568.	B
2	1.00	0.00	1.99	0.00	0.00	2.70	517.	
3	1.00	2.75	0.00	0.00	5.67	0.00	557.	
4	1.00	0.00	0.86	0.00	0.00	1.17	556.	
5	1.00	0.00	0.00	4.46	0.00	0.00	551.	
6	1.00	0.00	1.99	0.00	0.00	2.68	562.	
7	1.00	0.75	2.99	0.00	0.00	4.03	561.	
8	1.00	0.00	0.00	0.00	0.00	0.00	566.	
9	1.00	0.96	7.78	0.46	0.00	10.51	555.	
10	1.00	0.75	0.99	0.46	1.01	1.32	555.	
11	1.00	4.75	1.99	0.00	8.65	2.62	561.	
12	1.00	0.75	2.99	1.46	0.00	4.03	561.	
13	1.00	2.75	1.99	1.46	4.89	2.69	484.	
14	1.00	0.00	0.99	0.00	0.00	1.34	551.	
15	1.00	0.00	1.99	2.46	0.00	2.69	548.	
16	1.00	0.00	0.99	0.46	0.00	1.34	549.	
17	1.00	0.00	0.99	1.46	0.00	1.33	554.	
18	1.00	0.75	1.99	0.00	0.45	2.68	556.	
19	1.00	0.00	0.99	0.46	0.00	1.33	561.	

All Clean

Decommission
Fisher Freezer #1
Lab #L244

4/5/10
J. Coffin



1 Background

Meter Readings
Ludlum 3, Ser #:
Cal:
Probe 44-9,
PR

Background: 40-80cpms
Readings: Background

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission
Fisher Freezer #1
Lab L244

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20101105_0845\20101105_0845.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	8	0	0	0	734.58	591.53	B
2	1.00	2	0	0	6	0	2833.42	562.55	
3	1.00	4	1	0	10	1	546.78	579.08	
4	1.00	3	0	0	7	0	0.00	568.52	
5	1.00	1	0	0	2	0	3439.79	517.49	
6	1.00	4	1	0	10	1	76.21	541.90	
7	1.00	4	0	0	12	0	0.00	582.20	
8	1.00	9	0	0	22	0	1625.54	575.14	
9	1.00	4	0	0	12	0	0.00	490.09	
10	1.00	1	1	0	3	1	522.71	574.17	
11	1.00	9	0	0	19	0	657.46	593.54	
12	1.00	13	17	0	25	19	23.62	563.37	

All Clean

Coffin, Tim

From: Grimm, Scott W
nt: Tuesday, October 26, 2010 10:14 AM
To: Gu, Chungang (Chuck); Burdette, Doug; Coffin, Tim
Cc: Davis, Patty C; Luzietti, Rick; Eisman, Mark S; Ewing, Barbara J
Subject: RE: We out of the shared space in LW244

Thanks guys for all your help in the consolidation and decommission processes!

Scott

From: Gu, Chungang (Chuck)
Sent: Tuesday, October 26, 2010 9:56 AM
To: Grimm, Scott W; Burdette, Doug; Coffin, Tim
Cc: Davis, Patty C; Luzietti, Rick; Eisman, Mark S
Subject: We out of the shared space in LW244

Scott and Doug:

We have completely pulled out the shared space in LW244 for the convenience of DxDMPK to shut down the whole LW244 lab.

Tim:

uld you please decommission the radioactive bench in the shared area? When you are done, could you find the key to lock the door between 2 labs?

Thanks,

Chuck

Chungang (Chuck) Gu, PhD
Principal Scientist I

AstraZeneca Pharmaceuticals LP
R&D: Clinical Pharmacology and Development DMPK (CPD)
CRDL-233G, 1800 Concord Pike, Wilmington, DE 19850
Tel +1 (302) 885 4687 FAX +1 (302) 886 5345
chungang.gu@astrazeneca.com

Need to remove 2 Radioactive freezers befor LW244 can receive final decommission

Coffin, Tim

From: Coffin, Tim
Sent: Wednesday, September 29, 2010 8:11 AM
To: Gu, Chungang (Chuck); Bristow, Brian K
Cc: Elmore, Chad S
Subject: Decontamination/Check Wipes of Equipment in L244 for Disposal/Recycle

Good Morning Chuck and Brian,

FOR YOUR INFORMATION/ACTION:

As of this morning, 9/29/2010, I have completed the check wipes and decontamination wipes of the equipment on the
Lab Bench in L244 pass through area to L242.

All but one piece of equipment (Innova 2000 shaker) was found to be clean of radioactive contamination. Decontamination
Forms with wipe tests was placed on each piece of equipment and all radioactive labels/tape were removed. The Innova 2000 Shaker
was placed in a radioactive waste drum for proper disposal.

The equipment remaining on the lab bench in L244 can now be relocated, reused, or disposed as desired.

Please let me know if you have any questions.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

Page #3

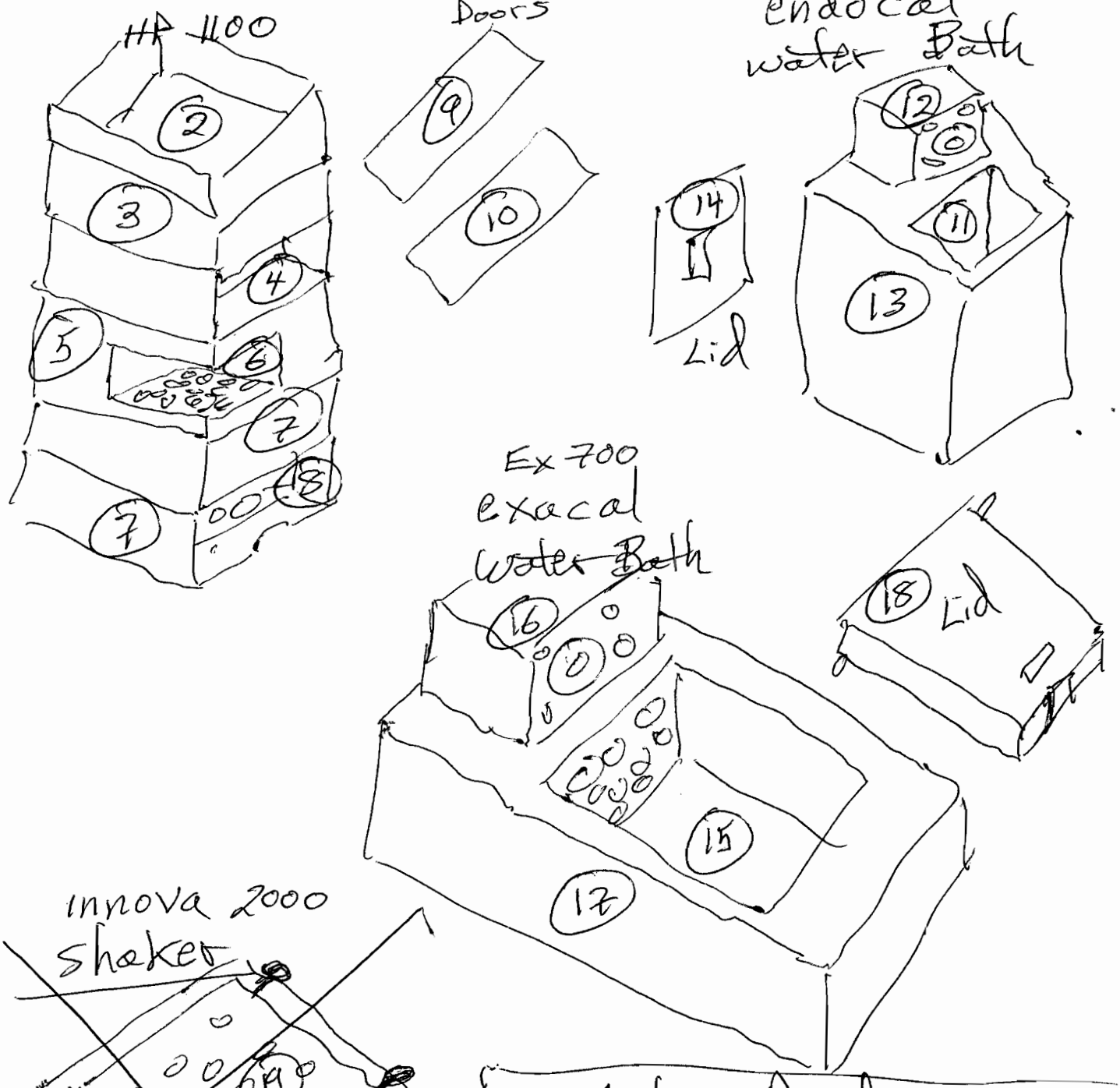
Check Wipes of Equipment in LZ44

#1

9/28/10

T. Coffin

(1) Background



Dispose in RadWaste

Meter Readings

Ludlum 3, Ser #46224 Cal: 4/13/10

Probe: 44-9, PR 223872

Background: 50-80 cpms

Readings: Background except

check Wipes of LZ44 Equipment #1
(See Page 3)

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100928_1308\20100928_1308.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	7	0	0	0	518.27	605.29	B
2	1.00	0	0	0	0	0	0.00	581.94	
3	1.00	0	0	0	0	0	*****	598.08	
4	1.00	0	0	0	0	0	*****	581.04	
5	1.00	0	0	0	0	0	0.00	584.88	
6	1.00	0	3	0	0	3	2303.02	579.47	
7	1.00	0	0	0	1	0	0.00	594.74	
8	1.00	0	0	0	0	0	0.00	553.28	
9	1.00	0	1	0	0	1	6577.96	586.52	
10	1.00	2	0	0	6	0	0.00	580.97	
11	1.00	1	0	0	3	0	9527.15	577.95	
12	1.00	0	0	0	0	0	0.00	581.93	

13	1.00	0	8	0	0	10	14.65	564.57
14	1.00	0	0	0	1	0	0.00	578.20
15	1.00	1	0	0	4	0	6255.62	576.20
16	1.00	0	1	0	0	1	0.00	566.77
17	1.00	0	3	0	0	3	0.00	491.13
18	1.00	5	0	0	12	0	0.00	602.90
19	1.00	5	1	0	11	0	1387.12	580.74
20	1.00	0	0	0	1	0	3640.14	584.81

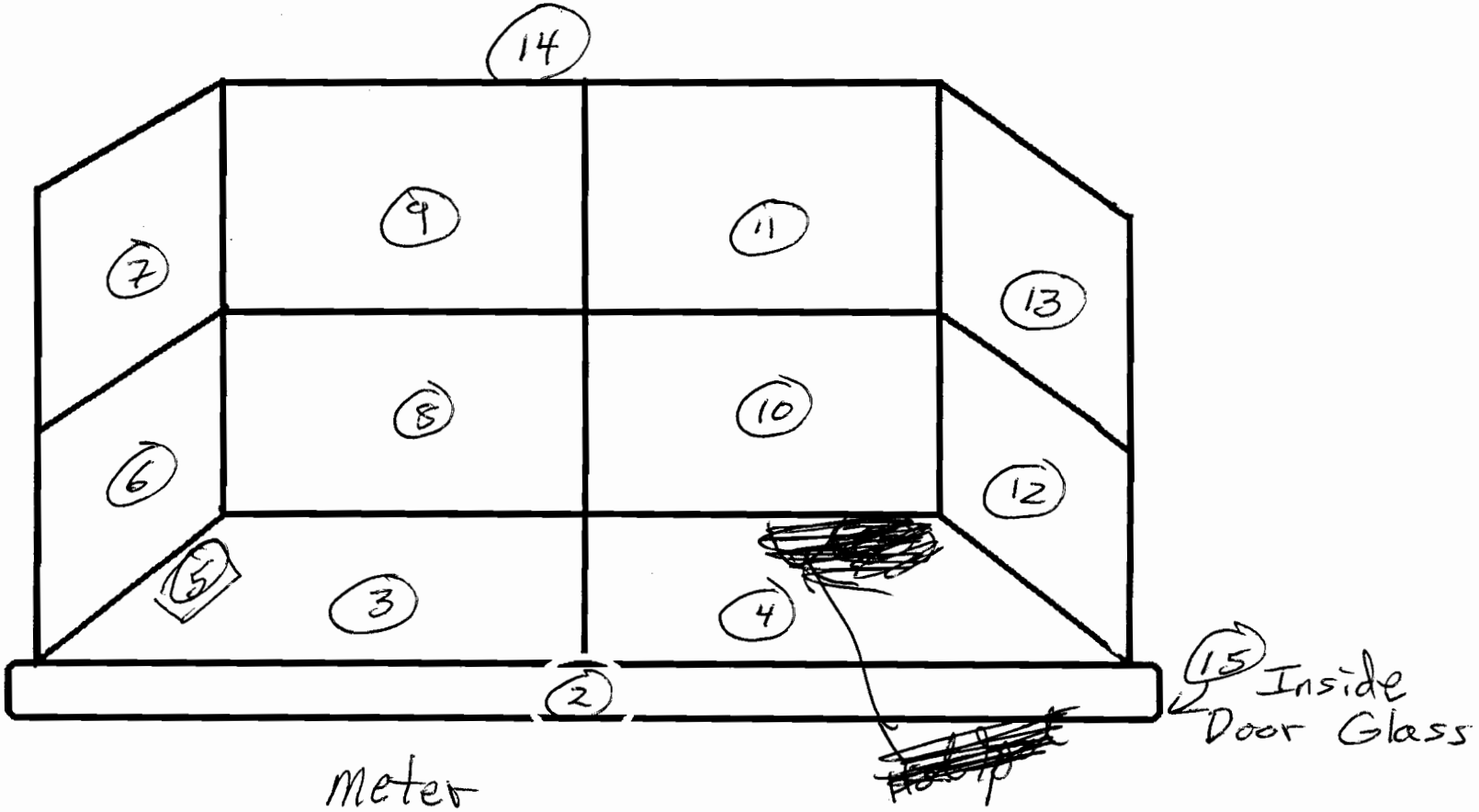
Hood #1

Decommission

8/30/10
Fumehood #1

Date
8/30/10
JCoffin

(1) Background



Meter
Ludlum 3, Ser# 146121, Cal: 11/10/09
Probe: 44-9, Ser# PR151749

Background: 20-80 cpms

Readings: Background

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission Hood #1
Lab L244

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100830_1356\20100830_1356.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	7	0	0	0	802.23	568.05	B
2	1.00	9	2	0	20	1	0.00	552.59	
3	1.00	6	7	0	12	8	0.00	552.73	
4	1.00	10	19	0	17	23	38.19	554.54	
5	1.00	0	11	0	0	14	0.00	306.13	
6	1.00	3	11	0	4	13	0.00	517.08	
7	1.00	0	0	0	0	0	5728.39	532.82	
8	1.00	1	0	0	2	0	0.00	568.73	
9	1.00	4	0	0	11	0	0.00	518.53	
10	1.00	5	0	0	12	0	1900.84	536.62	
11	1.00	0	1	0	0	2	0.00	467.67	
12	1.00	3	3	0	6	3	0.00	536.48	

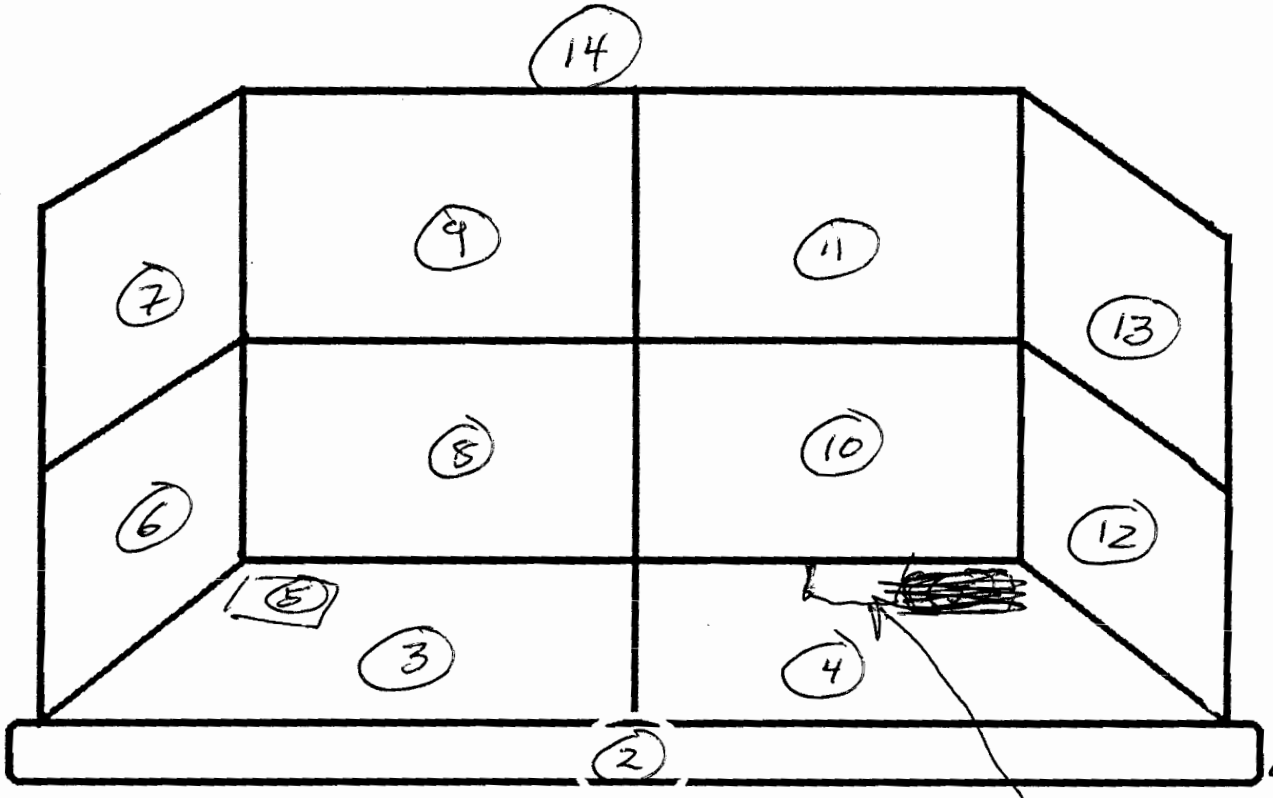
13	1.00	6	3	0	13	3	0.00	553.90
14	1.00	1	4	0	1	5	0.00	325.93
15	1.00	5	1	0	11	0	0.00	543.08

All clean

Decommis: on Fume Hood ~~#~~ 2

Date
8/30/10
JCoffin

(1) Background



15 Inside Door Glass

~~Hot Spot~~

1000 - 2000 Counts cpms

Meter
Ludlum 3, Ser# 146121, Cal: 11/10/09
Probe: 44-9, Ser# PR151749

Background: 20 - 80 cpms

Readings: Background

Cleaned to Background Levels

Decommission Hood #2
L2444

Protocol #:15 Name:Wipe Test 30-Aug-2010 13:38
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.23	4.87	4.50			557.	B
2	1.00	2.77	0.13	0.00	5.67	0.14	537.	
3	1.00	50.36	28.54	0.50	89.30	38.08	528.	
4	1.00	17.77	10.13	0.00	37.78	13.88	393.	
5	1.00	5.20	3.70	0.00	8.76	4.95	533.	
6	1.00	4.77	0.00	0.00	9.86	0.00	542.	
7	1.00	7.77	1.13	0.00	14.95	1.43	575.	
8	1.00	0.00	3.05	0.50	0.00	4.15	521.	
9	1.00	10.77	10.13	2.50	17.61	13.73	481.	
10	1.00	7.77	13.13	2.50	9.15	17.88	480.	
11	1.00	20.71	7.19	4.50	39.75	9.51	518.	
12	1.00	23.53	5.37	0.00	47.15	7.00	510.	
13	1.00	8.58	5.32	0.00	14.29	7.05	579.	
14	1.00	3.77	3.13	0.00	7.08	4.30	411.	
15	1.00	2.77	1.13	0.00	5.11	1.50	537.	

All Clean

Protocol# 15 - 3h_14c_dpm.lsa User: Default

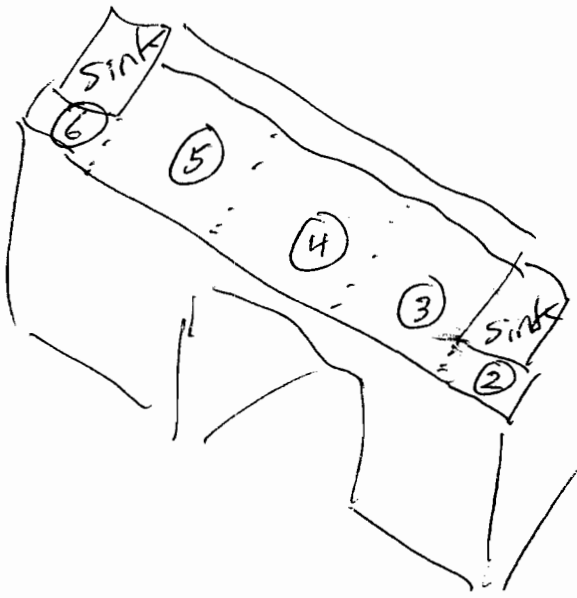
Decommission
L244 Bench Top

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100830_1333\20100830_1333.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off



Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

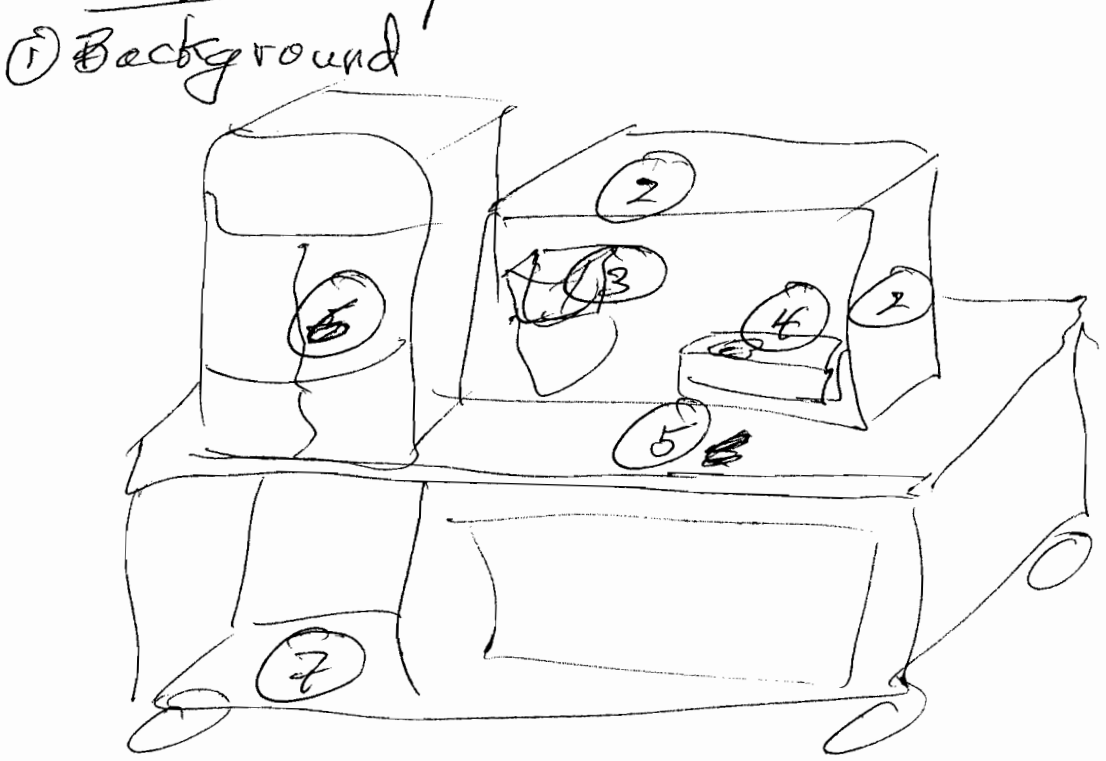
S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	5	0	0	0	947.62	575.44	B
2	1.00	0	2	0	0	3	41.26	566.05	
3	1.00	0	2	0	0	3	0.00	567.99	
4	1.00	0	0	0	0	0	0.00	584.11	
5	1.00	7	1	0	15	1	0.00	558.37	
6	1.00	0	6	0	0	7	1540.50	591.40	

All Clean

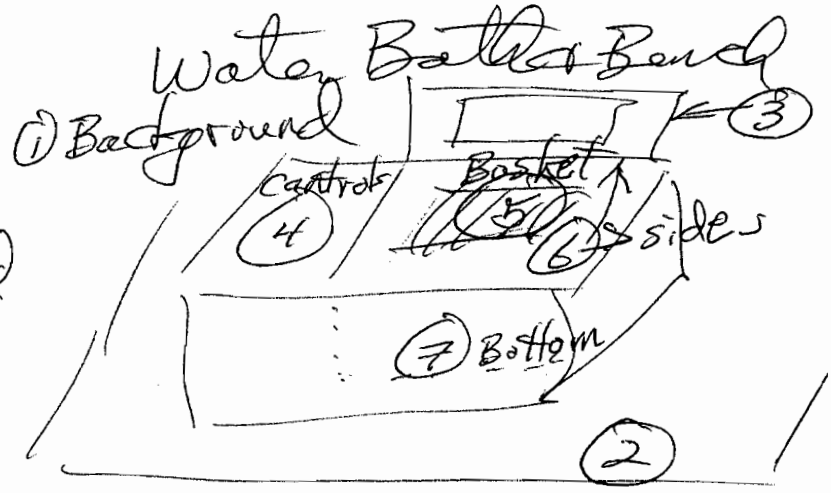
L244 8/30/10

Decommission Wipes JCoffin

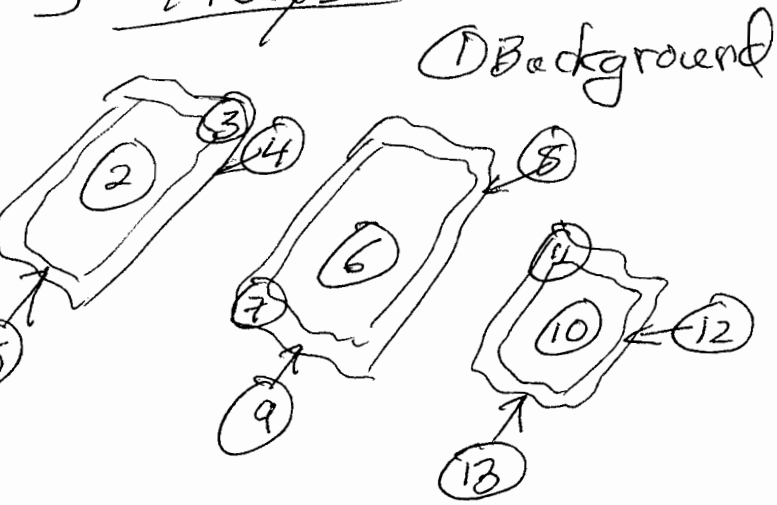
Moss Spec



Water Bath w Bead



3 Trays



Pump + Cabinet

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Decommission L2244
Mass Spec

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100830_0630\20100830_0630.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	7	0	0	0	768.84	572.90	B
2	1.00	0	0	0	0	1	8875.03	603.51	
3	1.00	1	1	0	1	2	0.00	584.75	
4	1.00	0	0	0	0	0	0.00	580.31	
5	1.00	1	3	0	1	4	457.06	547.73	
6	1.00	0	4	0	0	4	1937.74	580.51	
7	1.00	2	7	0	2	9	0.00	488.62	

All Clean.

Decommission L244
Water Bath

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20100830_0655\20100830_0655.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	7	0	0	0	742.48	577.78	B
2	1.00	1	3	0	0	4	0.00	512.66	
3	1.00	3	0	0	7	0	0.00	602.08	
4	1.00	3	0	0	6	0	0.00	551.70	
5	1.00	0	1	0	0	1	*****	450.96	
6	1.00	0	0	0	1	0	0.00	571.94	
7	1.00	3	4	0	5	5	0.00	538.06	

All Clean

Decommission Pump
L244

Protocol #:15 Name:Wipe Test 30-Aug-2010 06:35
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
R on C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	7.15	3.85	4.60			601.	B
2	1.00	0.00	0.00	0.00	0.00	0.00	490.	
3	1.00	0.00	0.15	0.40	0.00	0.20	423.	
4	1.00	0.00	2.15	1.40	0.00	2.89	586.	
5	1.00	0.00	3.15	0.00	0.00	4.27	535.	
6	1.00	0.00	1.15	0.00	0.00	1.57	491.	
7	1.00	0.00	2.15	0.00	0.00	2.94	471.	
8	1.00	0.00	0.00	0.00	0.00	0.00	506.	

Decommission L244 Trays

Protocol #:15 Name:Wipe Test 30-Aug-2010 06:00
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.97	4.63	4.00			580.	B
2	1.00	3.03	0.00	1.00	6.20	0.00	552.	
3	1.00	0.03	5.37	0.00	0.00	7.27	539.	
4	1.00	0.03	2.37	0.00	0.00	3.19	570.	
5	1.00	4.03	0.37	1.00	7.85	0.45	579.	
6	1.00	35.00	27.40	2.00	56.53	36.61	551.	
7	1.00	4.59	17.81	0.00	0.00	23.86	603.	
8	1.00	52.05	41.35	0.00	84.97	55.38	535.	
9	1.00	24.42	11.98	0.00	44.23	15.93	531.	
10	1.00	0.00	3.37	4.00	0.00	4.58	519.	
11	1.00	4.45	2.95	0.00	7.61	3.95	532.	
12	1.00	3.03	0.00	1.00	6.35	0.00	529.	
13	1.00	3.03	5.37	4.00	3.17	7.19	583.	

All Clean

Decommission
L244 Lab Bench (center right)

Protocol #:15 Name:Wipe Test 08-Jul-2010 05:30
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.77	5.23	2.60			548.	B
2	1.00	3.86	14.14	0.00	0.00	20.36	304.	right
3	1.00	2.23	9.77	1.40	0.00	13.25	517.	center
4	1.00	0.23	6.77	3.40	0.00	9.15	544.	left
5	1.00	0.00	0.00	1.40	0.00	0.00	542.	– Edges

(Top)

All clean

Coffin, Tim

From: Coffin, Tim
Sent: Wednesday, October 27, 2010 12:41 PM
To: Gu, Chungang (Chuck)
Cc: Grimm, Scott W; Luzietti, Rick; Eisman, Mark S
Subject: L244 Lab Bench Decommissioned

FOR YOUR INFORMATION/ACTION:

As of today, October 27, 2010, the lab bench in the connecting part of Lab L244 to L242 has been decommissioned from radioactive material use.

ACTIONS TAKEN:

1. Wipe tests were done and found to be below the AZ Action Level of 100 dpms.
2. Meter surveys were done and all results were at background or less than 3 times background.
3. Radioactive stickers and labels were removed from the bench area.

Before the Lab L244 can receive the final radioactive decommissioning, the two FREEZERS in the lab that store Radioactive material must be removed or decommissioned. Currently you are the Responsible Investigator for the L244 and will need to coordinate the removal or scheduled cleaning of the two radioactive material storage freezers.

Please give me a call when the freezer units are empty so I can schedule the decommissioning, or when the units are
ready to move so I can change their location on my radiation safety data bases and plan the final decommissioning of Lab L244.

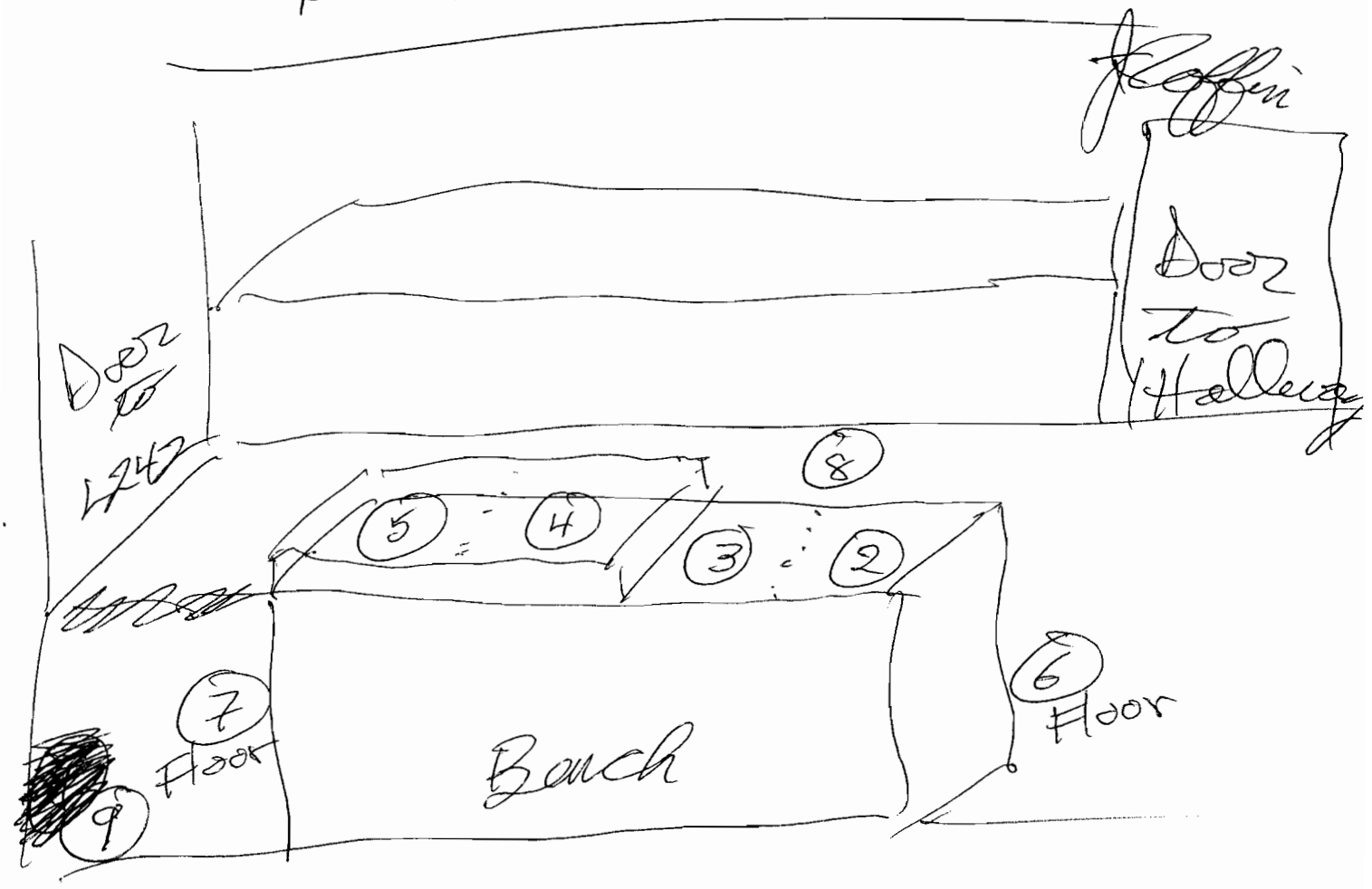
Thanks.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

L244

10/27/10

Decommission Bench



(1) Background

Meter Readings

Ludlum 3, Ser# Cal:

Probe: '44-9, PR

Background: 40-80 cpms

Readings: Background

Decommission
Bench in L244

Protocol #:15 Name:Wipe Test 27-Oct-2010 07:57
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.50	2.70	3.80			554.	B
2	1.00	6.50	0.30	0.20	13.92	0.32	505.	
3	1.00	3.41	7.39	2.20	2.95	9.99	533.	
4	1.00	0.00	1.30	0.00	0.00	1.76	545.	
5	1.00	0.00	3.30	0.00	0.00	4.47	547.	
6	1.00	0.00	6.30	0.20	0.00	9.27	272.	
7	1.00	0.00	4.30	2.20	0.00	6.02	380.	
8	1.00	2.50	3.30	0.00	3.36	4.44	540.	
9	1.00	0.00	8.21	0.20	0.00	13.06	177.	

All Clean

Coffin, Tim

From: Coffin, Tim
nt: Wednesday, June 01, 2011 1:37 PM
To: Terpko, Marc O; Civitella, Patricia C; Schlank, Bliss M; Goddard, Chris M
Subject: Decommission Temporary Radioactive Staging Area, [redacted] L320

FOR YOUR INFORMATION/ACTION:

As of today, June 01, 2011, Lab [redacted] (Temporary Staging Area for LW326 waste) has been officially decommissioned as a temporary radioactive use area.

ACTIONS TAKEN:

1. Ensured that all radioactive materials have been removed from the lab. All plastic floor covering removed and disposed as radioactive dry waste.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. GM Meter Checks were done and all results were at background or less than the AZ Action Level of 3 times background.
4. Removed all radioactive program postings, radioactive labels, and signs were removed from the lab.
5. Lab L320 has been removed from the Radioactive lab Data Bases.
6. Decommission Forms have been placed in the official Radiation Safety Files.
7. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
8. This E-mail serves as the official notice that the lab has been decommissioned from handling radioactive materials.

ACTIONS NEEDED:

1. **Brian Bristow**: Remove the lab from your Radioactive lab Data Base and please remove the radioactive hazard signs from the L320 entrance doors.

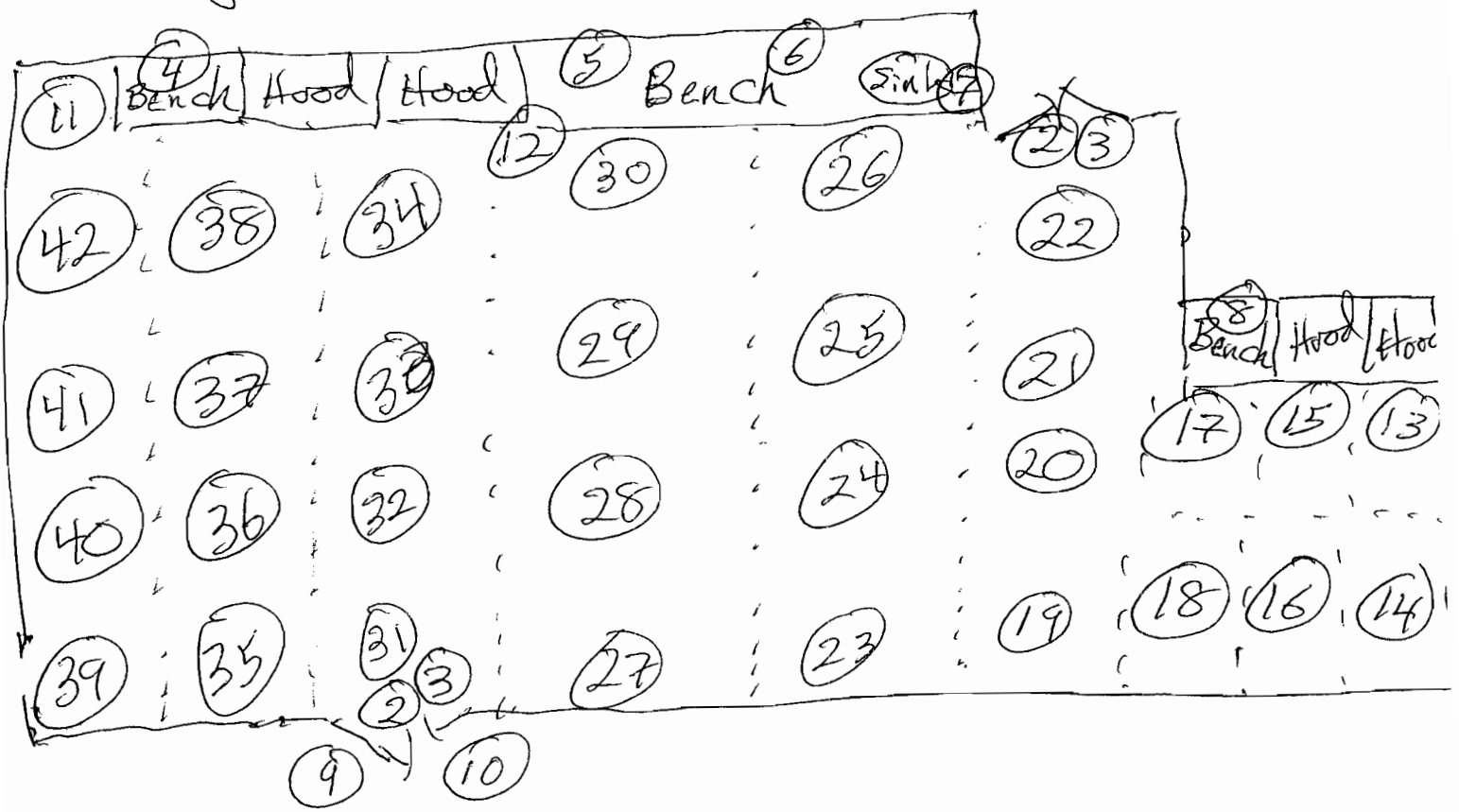
Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer
OW1-227, 6-2682

6/1/2011

L320
Decommission Wipes

(1) Background



Meter Readings

Ludlum 3, ~~Ser~~ # 146121

Cal: 10/12/2010

Probe: 44-9, PR 151749

Background: 40-80 cpms

Readings: Background

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110601_1041\20110601_1041.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	5	0	0	0	1070.31	622.51	B
2	1.00	3	4	0	7	4	0.00	526.62	
3	1.00	0	3	0	0	4	239.34	568.25	
4	1.00	4	6	0	6	7	0.00	551.91	
5	1.00	2	3	0	4	4	0.00	577.98	
6	1.00	2	0	0	6	0	0.00	615.41	
7	1.00	0	2	0	0	2	0.00	578.03	
8	1.00	2	2	0	5	2	0.00	603.33	
9	1.00	1	1	0	3	1	0.00	580.91	
10	1.00	3	2	0	6	2	0.00	570.02	
11	1.00	0	2	0	0	2	1004.04	466.74	
12	1.00	0	1	0	0	1	34.56	599.72	

13	1.00	0	5	0	0	7	0.00	339.41
14	1.00	0	1	0	0	2	756.00	392.09
15	1.00	8	3	0	17	3	0.00	563.70
16	1.00	0	1	0	0	1	0.00	434.46
17	1.00	4	0	0	11	0	0.00	520.44
18	1.00	0	0	0	0	0	0.00	492.71
19	1.00	5	3	0	12	3	0.00	547.46
20	1.00	3	0	0	8	0	315.63	551.50
21	1.00	0	0	0	0	0	0.00	536.77
22	1.00	0	0	0	0	0	0.00	496.23
23	1.00	3	2	0	7	2	0.00	552.40
24	1.00	4	0	0	10	0	0.00	533.13
25	1.00	7	0	0	18	0	0.00	554.71
26	1.00	15	0	0	37	0	0.00	536.22
27	1.00	1	3	0	2	4	1631.13	530.88
28	1.00	0	3	0	0	4	0.00	543.62
29	1.00	7	5	0	14	5	0.00	550.02
30	1.00	4	0	0	10	0	1027.59	555.60
31	1.00	1	1	0	3	1	0.00	526.92
32	1.00	0	3	0	0	3	0.00	551.49
33	1.00	0	0	0	2	0	0.00	550.82
34	1.00	4	7	0	7	8	64.06	586.57
35	1.00	0	2	0	0	2	0.00	545.34
36	1.00	11	0	0	26	0	0.00	558.78
37	1.00	0	2	0	0	2	757.92	560.84
38	1.00	5	0	0	14	0	0.00	524.25
39	1.00	0	0	0	1	0	1661.70	496.22
40	1.00	0	1	0	0	1	0.00	449.58
41	1.00	9	7	0	19	7	0.00	552.85
42	1.00	4	0	0	11	0	0.00	518.48

All Clean:

FOR INFORMATION PURPOSES

LAB #: L324

WAS NEVER A RADIOACTIVE LAB

Office used by Responsible Investigator in charge of the radiosynthesis lab. AZ performed wipe tests and included area in Final Scoping Surveys to check for potential transfer of contamination.

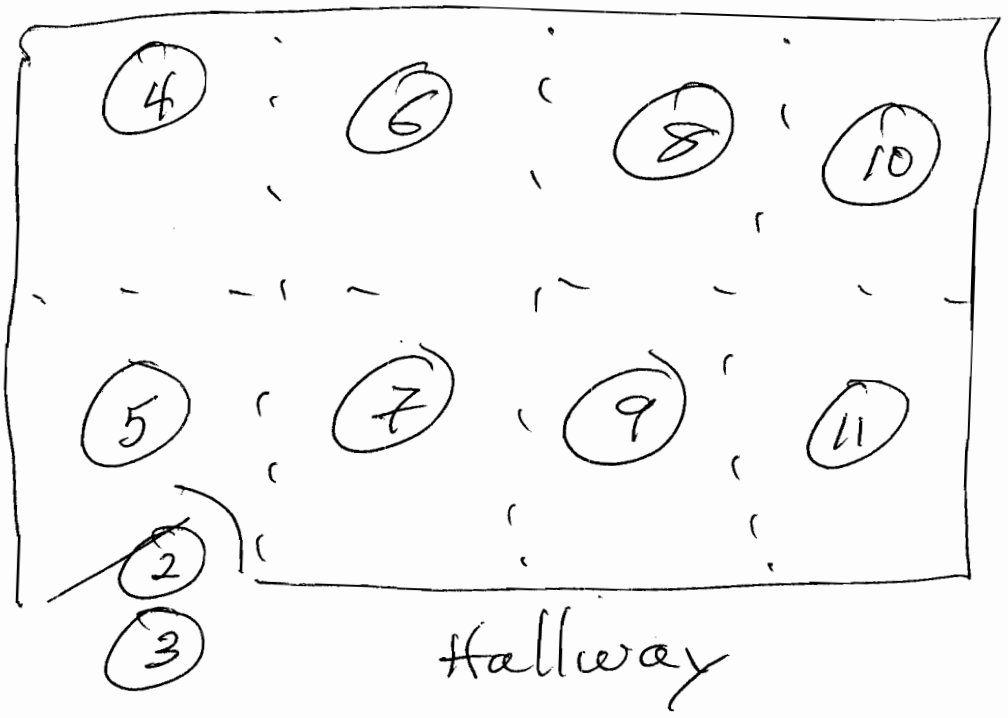
Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Carpet Decommission Wipes of Office L324

6/29/11

J Coffman

(1) Background



~~No Meter readings taken since EST did Final Scoping Surveys on office floor.~~ Did Meter Reading also and results were at Background readings

Carpet Decommission Wipes of Office 1324 TJ Coffman

Protocol #:15 Name:Wipe Test 29-Jun-2011 13:53
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Se = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	3.87	3.73	3.80			560.	B
2	1.00	0.13	2.27	0.20	0.00	3.10	539.	
3	1.00	5.13	0.00	1.20	10.73	0.00	577.	
4	1.00	2.13	2.27	0.00	3.08	3.04	619.	
5	1.00	0.13	2.27	2.20	0.00	3.10	539.	
6	1.00	4.13	5.27	0.00	5.87	7.13	536.	
7	1.00	0.13	0.00	2.20	0.27	0.00	543.	
8	1.00	0.13	3.27	1.20	0.00	4.46	540.	
9	1.00	2.13	0.00	0.00	4.70	0.00	521.	
10	1.00	0.00	2.27	0.00	0.00	3.10	525.	
11	1.00	2.13	0.00	2.20	4.63	0.00	536.	

Meter Readings:

Ludlum 3, Ser# 146121, Cal: 10/12/10
Probe: 44-9, PR 151749

Background: 20-80 cpms

Readings : Background

All Clean

FOR INFORMATION PURPOSES

LAB #: L325

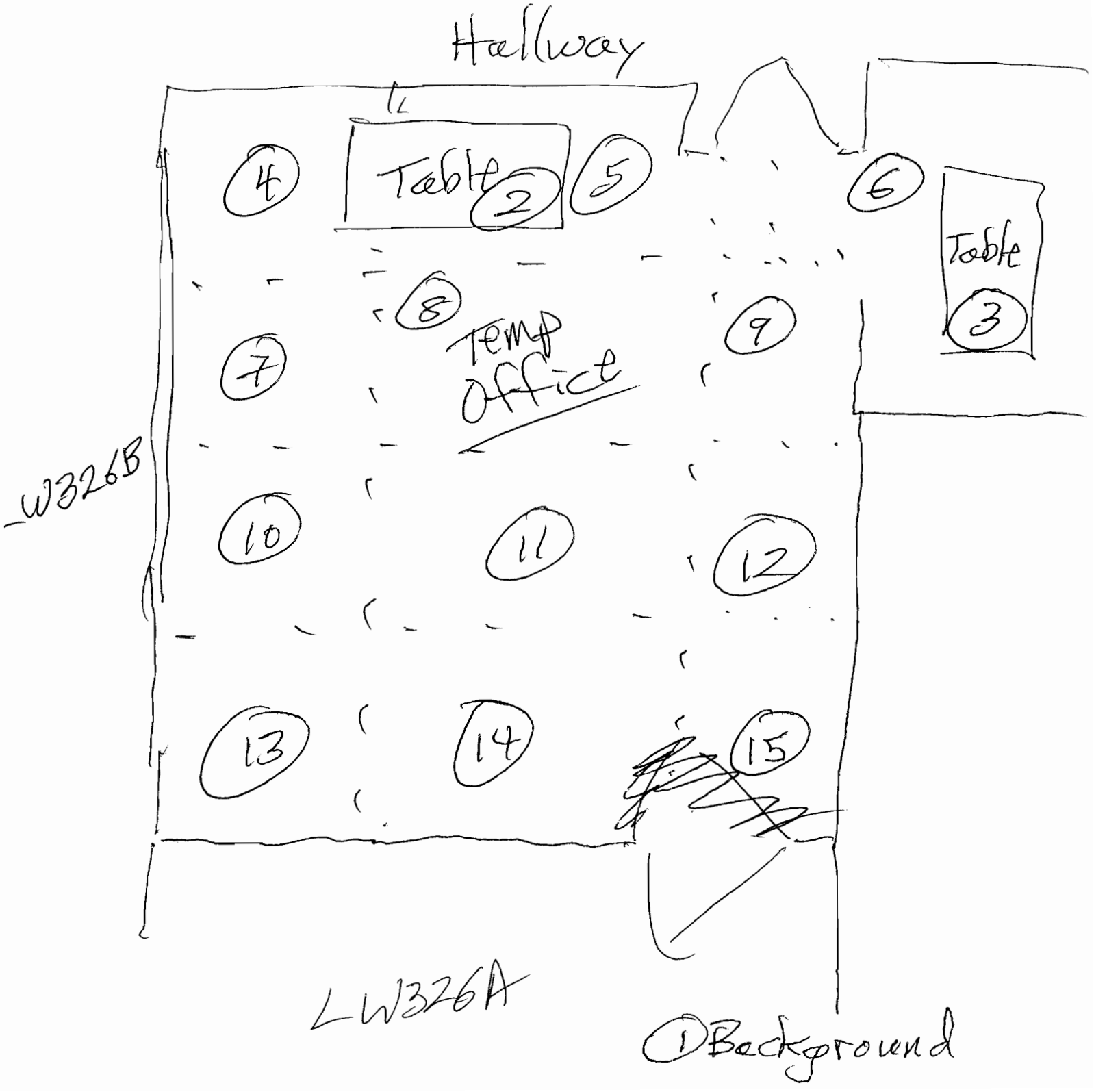
WAS NEVER A RADIOACTIVE LAB

Office used by ESI and DDES Contractors in charge of the radiosynthesis lab decommissioning project. AZ performed wipe tests and included area in Final Scoping Surveys to check for potential transfer of contamination.

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Decommission
LW325
Temp Office

6/29/11
J Coffen



Decommission LW325 Office

TJ Coffey

Protocol #:15 Name:Wipe Test 29-Jun-2011 06:12
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
e = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.87	5.33	4.10			564.	B
2	1.00	6.13	0.00	1.90	12.79	0.00	582.	
3	1.00	0.00	0.67	1.90	0.00	0.91	569.	
4	1.00	3.13	0.00	0.00	6.88	0.00	527.	
5	1.00	2.13	0.00	0.00	4.59	0.00	547.	
6	1.00	4.13	0.67	0.00	8.58	0.86	538.	
7	1.00	1.13	0.00	0.90	2.47	0.00	531.	
8	1.00	0.00	0.00	0.00	0.00	0.00	535.	
9	1.00	3.13	1.67	1.90	5.90	2.24	524.	
10	1.00	0.13	0.00	0.00	0.28	0.00	530.	
11	1.00	5.13	3.67	0.00	9.26	4.96	507.	
12	1.00	0.00	0.00	1.90	0.00	0.00	535.	
13	1.00	0.13	0.00	0.00	0.28	0.00	534.	
14	1.00	0.00	0.00	0.00	0.00	0.00	514.	
15	1.00	0.00	0.00	0.00	0.00	0.00	540.	

Meter Readings:
Ludlum 3 Ser # 146121 Cal: 10/12/10
Probe: 44-9, PR151749
Background: 20-80 cpms
Readings: Background

ALL clean!

Coffin, Tim

From: Coffin, Tim
Sent: Friday, July 01, 2011 6:49 AM
To: Goddard, Chris M; Terpko, Marc O; Schlank, Bliss M; Civitella, Patricia C; Bristow, Brian K
Cc: Gobris, David M
Subject: Final Decommissioning of Radiosynthesis Lab, LW326A and LW326B

FOR YOUR INFORMATION/ACTION:

As of June 30, 2011, Lab LW326A (gowning area) and LW326B (radiosynthesis lab) have been officially decommissioned as radioactive use areas.

ACTIONS TAKEN:

1. All radioactive material has been removed from the labs.
2. All contaminated wall board, equipment, supplies, fume hoods, cabinets, benches, sink, holding tanks, pumps, duct work in ceiling, etc. have been removed from the lab for appropriate radiation disposal by ESI (Ecology Services, Inc.) and DDES (Decontamination, Decommissioning, and Environmental Services, LLC.) between May 2, 2011 and May 10, 2011.
3. All contaminated duct work, filter banks, and fan motor from penthouse roof were removed for appropriate radioactive disposal by ESI and DDES between May 9, 2011 and May 14, 2011.
4. Contaminated epoxy floor surfaces in lab were scabbled and removed for appropriate radioactive disposal by ESI and DDES between June 7, 2011 and June 21, 2011.
5. All radioactive program postings, radioactive labels, and signs were removed from the lab and entrance doors.
6. Labs LW326A and LW326B have been removed from the Radioactive lab Data Bases.
7. Decommission Forms have been placed in the official Radiation Safety Files.
8. Meter checks were done of floors near entrance doors, high use areas, spill areas, and on remaining walls and windows. All results were at background or less than the AZ Action Level of 3 times background. ESI also
   completed Final Scoping Surveys of room floor on June 21, 2011.
9. Performed decommission wipe tests of remaining floor surfaces. All results were at background or below the AZ Action Level of 100 dpms.
10. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
11. This E-mail serves as the official notice that the lab has been decommissioned from handling radioactive material.

ACTION NEEDED:

1. **Brian Bristow**: I have removed the radioactive hazard signs on the doors at LW326A and B. Please remove lab LW326 from your Radioactive lab Data Base.

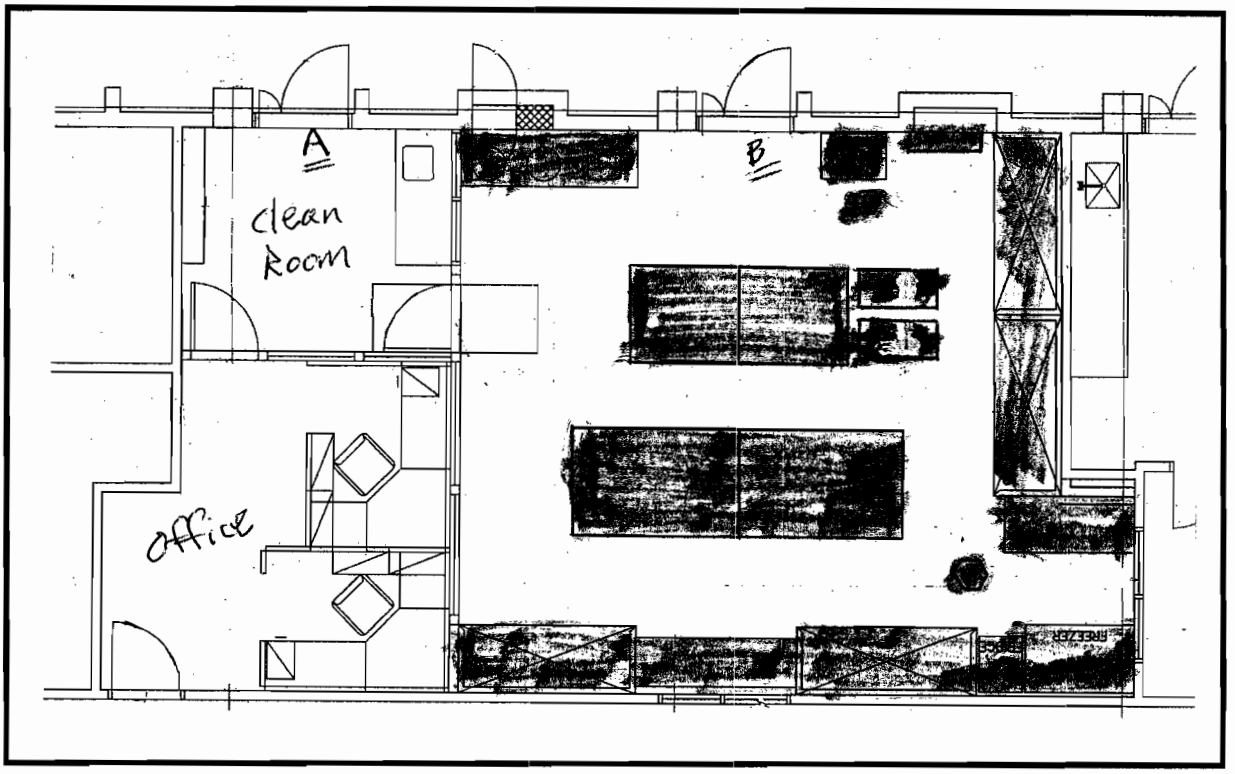
Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227, 6-2682

[redacted] Note: All contaminated equipment, sink, fume hoods, benches, holding tanks, cabinets, tables, etc. were removed from lab for disposal [redacted] by ESI on May 2-10, 2011.

WIPE TEST MAP

LAB # LW326

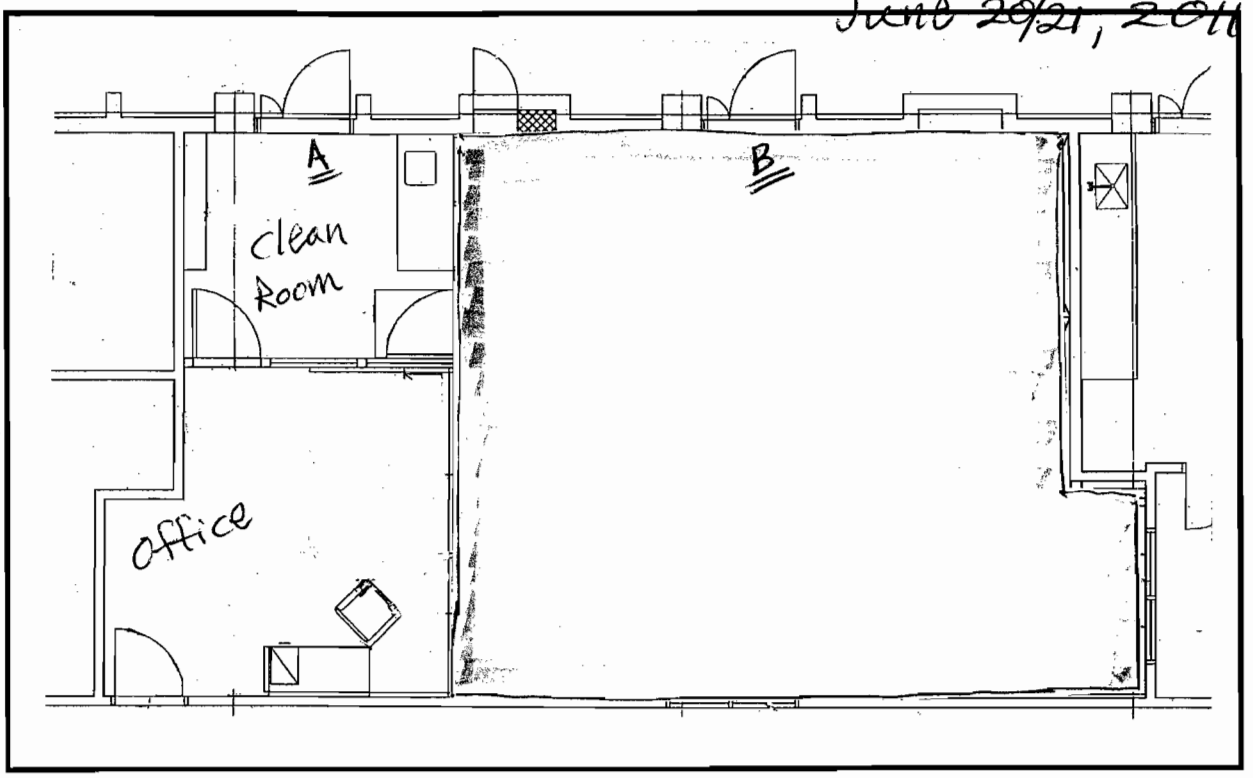


WIPE SAMPLE DESCRIPTIONS

Note: Epoxy floor was decontaminated using Scabbling Technique which chewed up surface covering. Done by DDES and disposed by ESI on June 7-9, 2011. ~~June 20/21, 2011~~.

WIPE TEST MAP

LAB # **LW326**

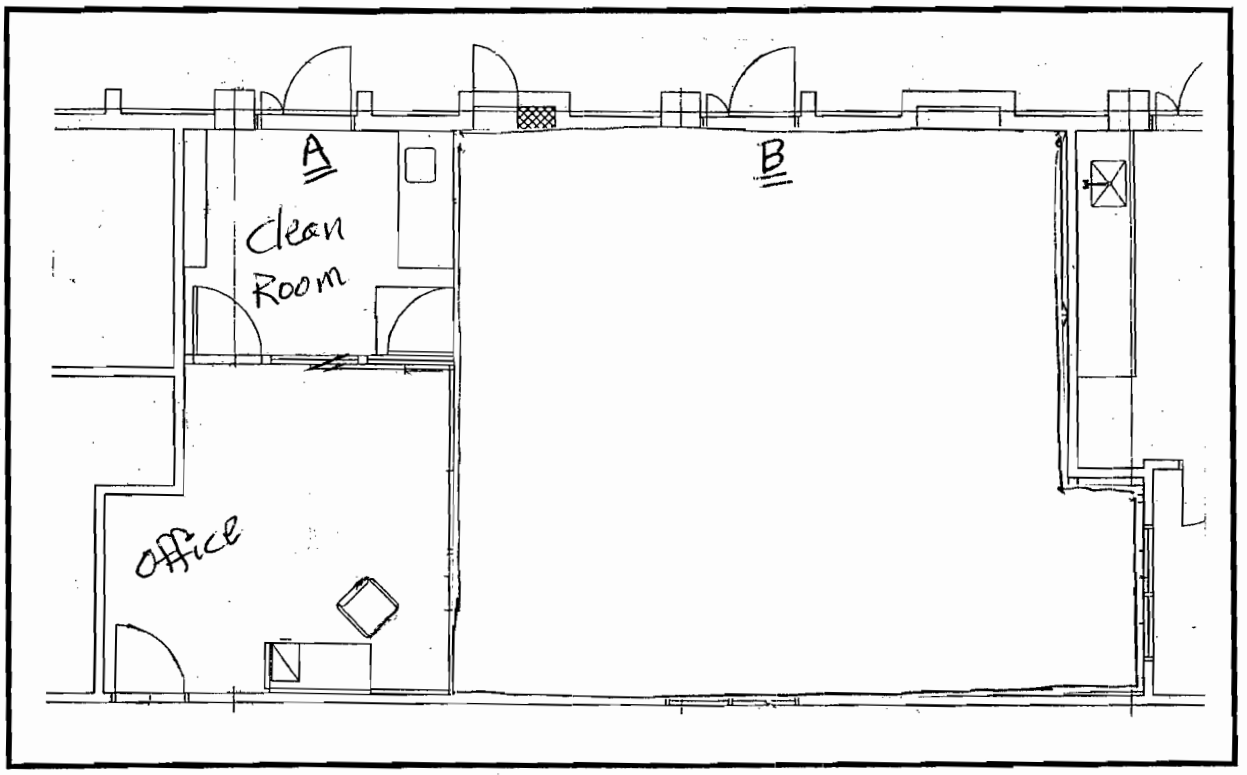


WIPE SAMPLE DESCRIPTIONS

Decommission Wipe Tests of open, scabbled floor in LW326B TJ Coffin

WIPE TEST MAP Completed 6/30/2011

LAB # LW326



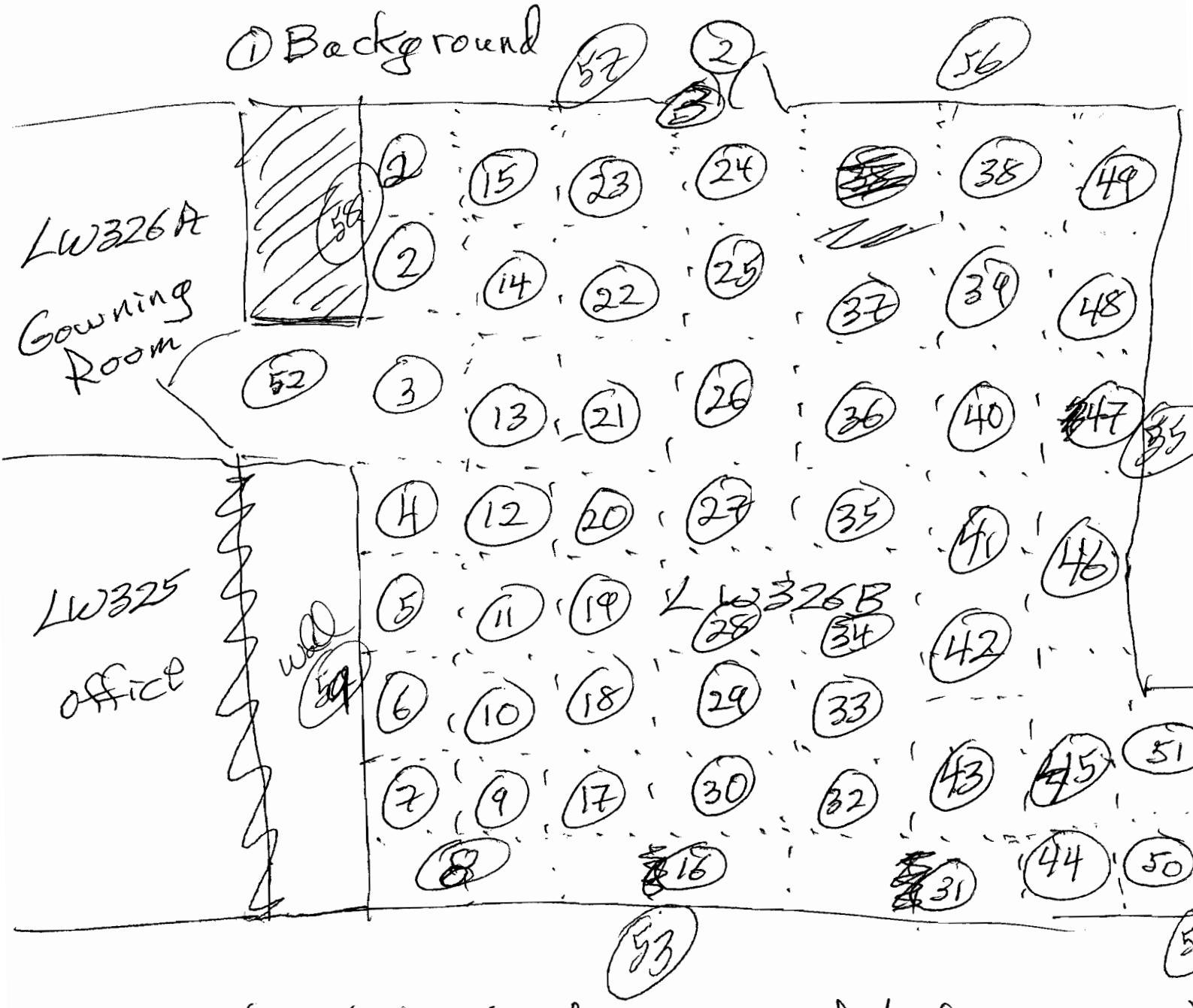
WIPE SAMPLE DESCRIPTIONS

See Attached

eleven pages for LW326B and four pages for LW326A

Decommission LW326B Lab

6/29/11



Meter Checks (at doorways and high use areas)

Ludlum 3, Ser# 146121, Cal: 10/12/10
Probe: 44-9, PR151749

Background: 20-80 cpms

Readings: Background or less than 3x background

Page 8 of 12

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110629_0858\20110629_0858.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	5	5	0	0	0	892.35	582.08	B
2	1.00	50	1	0	117	0	0.00	554.50	
3	1.00	11	0	0	26	0	0.00	557.48	
4	1.00	16	5	0	38	4	330.78	501.46	
5	1.00	5	1	0	12	0	816.64	559.06	
6	1.00	5	0	0	12	0	0.00	559.30	
7	1.00	13	0	0	31	0	0.00	531.37	
8	1.00	12	0	0	29	0	0.00	519.07	
9	1.00	5	0	0	13	0	0.00	515.80	
10	1.00	1	0	0	3	0	0.00	548.94	
11	1.00	18	0	0	45	0	0.00	490.72	
12	1.00	7	0	0	17	0	114.34	556.10	

B under sink (floor)

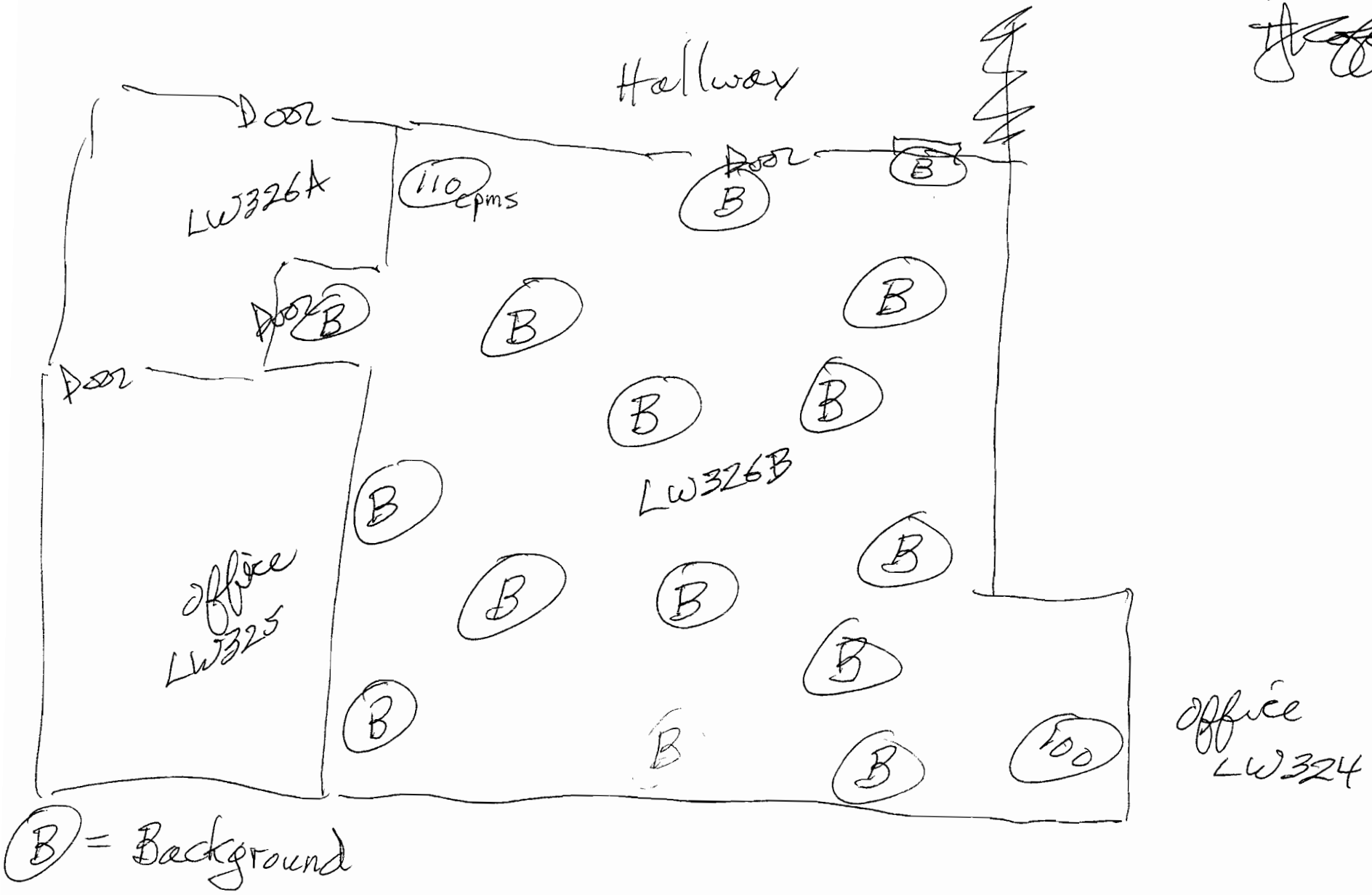
13	1.00	16	4	0	36	3	0.00	526.99	
14	1.00	5	0	0	12	0	822.00	514.34	
15	1.00	5	9	0	9	11	0.00	506.10	
16	1.00	8	0	0	22	0	416.15	446.54	
17	1.00	12	6	0	26	6	275.85	528.89	
18	1.00	19	4	0	48	2	0.00	481.99	
19	1.00	7	2	0	16	2	122.22	521.20	
20	1.00	2	3	0	4	3	0.00	543.16	
21	1.00	7	1	0	17	0	298.95	521.47	
22	1.00	14	0	0	34	0	216.13	526.12	
23	1.00	11	6	0	23	6	0.00	550.38	
24	1.00	16	12	0	34	13	0.00	541.90	
25	1.00	8	5	0	16	6	0.00	522.11	
26	1.00	15	0	0	36	0	0.00	542.98	
27	1.00	18	3	0	44	1	0.00	507.89	
28	1.00	8	2	0	18	2	0.00	531.16	
29	1.00	108	6	0	276	0	30.48	480.28	– Floor
30	1.00	12	7	0	27	7	51.56	493.97	
31	1.00	17	6	0	40	5	0.00	506.81	
32	1.00	15	1	0	37	0	0.00	483.88	
33	1.00	14	4	0	33	3	175.01	496.58	
34	1.00	18	3	0	44	1	0.00	504.21	
35	1.00	16	5	0	37	4	0.00	520.83	
36	1.00	19	1	0	47	0	0.00	495.06	
37	1.00	24	7	0	55	6	191.42	530.81	
38	1.00	15	5	0	34	4	0.00	519.01	
39	1.00	15	0	0	36	0	0.00	538.15	
40	1.00	17	6	0	41	5	0.00	502.88	
41	1.00	21	4	0	51	2	0.00	516.84	
42	1.00	18	1	0	44	0	0.54	509.35	
43	1.00	12	4	0	26	4	8.88	555.47	
44	1.00	25	3	0	60	1	0.00	512.86	
45	1.00	17	0	0	41	0	0.00	520.31	
46	1.00	14	4	0	34	3	0.00	497.46	
47	1.00	10	2	0	23	1	0.00	537.79	
48	1.00	21	6	0	48	5	0.00	532.42	
49	1.00	19	6	0	46	5	0.00	501.07	
50	1.00	22	2	0	52	0	216.54	520.56	
51	1.00	18	2	0	42	1	0.00	527.84	
52	1.00	22	1	0	52	0	0.00	554.00	
53	1.00	26	28	0	49	32	99.08	573.49	
54	1.00	80	25	0	183	22	60.29	526.57	– wall by free area
55	1.00	2	2	0	4	2	669.77	552.55	
56	1.00	9	8	0	19	8	0.00	554.47	
57	1.00	40	14	0	91	13	0.00	524.11	
58	1.00	40	24	0	88	25	0.00	531.71	
59	1.00	90	13	0	199	7	0.00	580.74	– wall by off

★ clean & rewipe areas #29, 2, 54, and 59 to be under 100 dpms

Meter Checks not done since Scoping Surveys being done by ESI.

Meter Checks

6/[illegible]/11

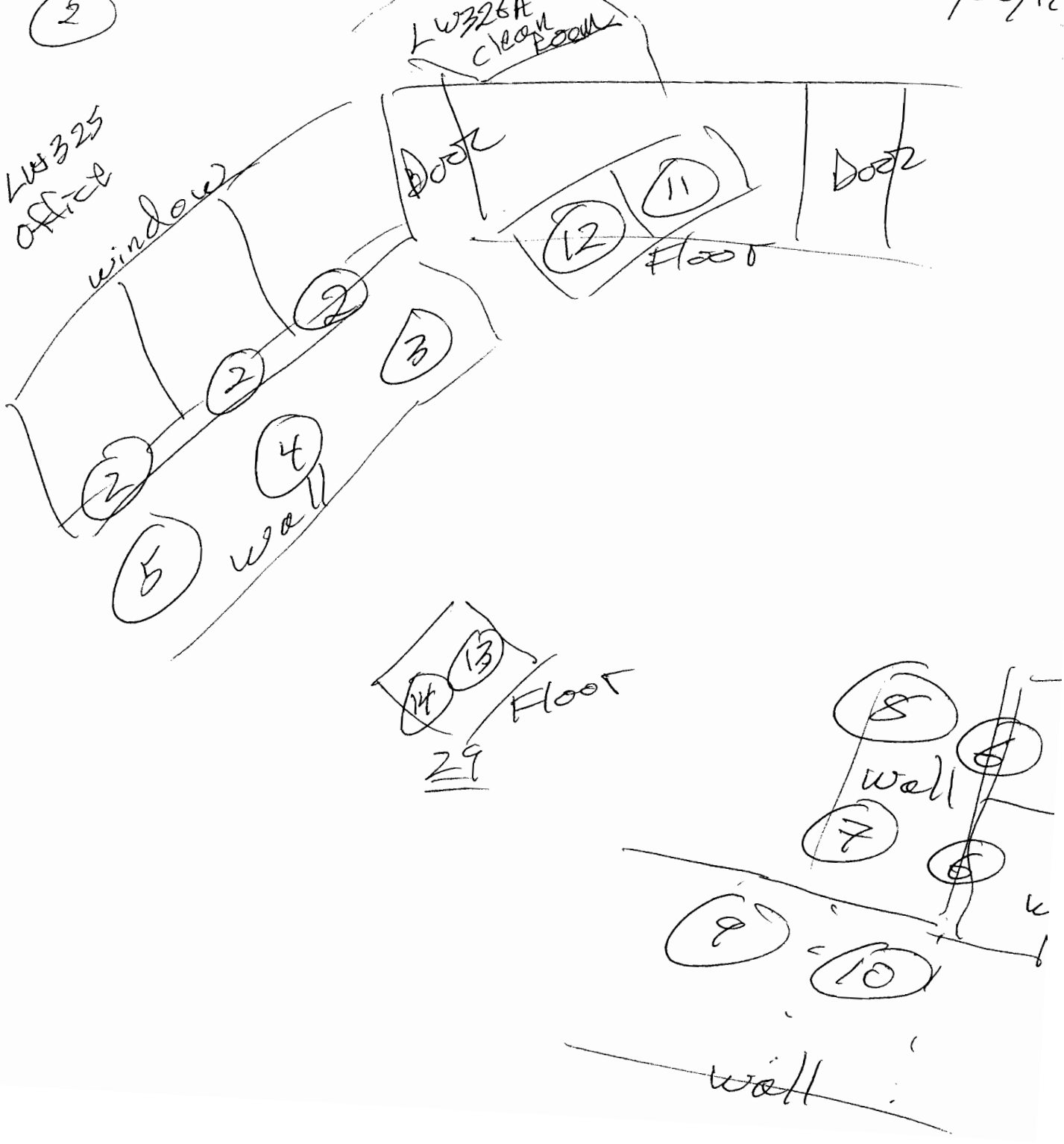


Page (5) LW326B Follow up wipes

(1) Background

6/30/1

(2)



Page 6 Follow-up Wipes of LW326B

Protocol# 15 - 3h_14c_dpm.lsa Hot Spots User: Default

JHoffman

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110630_0820\20110630_0820.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Sets:
Low Energy: 3H-UG
Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	6	0	0	0	1017.85	585.52	B
2	1.00	15	11	0	31	12	0.00	556.21	
3	1.00	4	0	0	10	0	0.00	559.85	
4	1.00	0	4	0	0	5	1219.67	571.89	
5	1.00	7	2	0	15	1	136.98	566.11	
6	1.00	150	25	0	343	15	0.00	550.11	— Window Sill by LW324
7	1.00	4	7	0	6	8	0.00	570.49	
8	1.00	4	4	0	8	4	0.00	559.42	
9	1.00	5	8	0	8	9	0.00	558.89	
10	1.00	6	0	0	15	0	106.31	565.81	
11	1.00	103	6	0	236	0	0.00	561.77	— Floor under sink in corne
12	1.00	30	1	0	70	0	0.00	543.88	

13	1.00	4	2	0	8	2	1443.99	610.98
14	1.00	2	2	0	4	2	559.45	560.45

clean & rewipe #6, and #11

Page (8) Follow-up Action wipes

Protocol# 15 - 3h_14c_dpm.lsa Floor LW326 **User: Default**

TJ Coffin

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110630_0936\20110630_0936.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

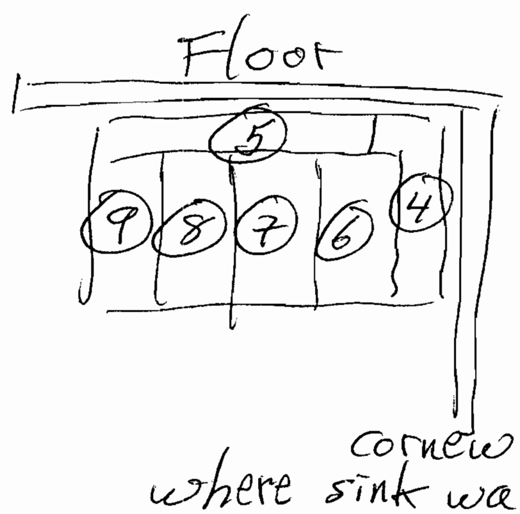
Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

(1) Background

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial



Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	7	0	0	0	790.10	580.84	B
2	1.00	12	2	0	27	2	276.96	560.60	-window sill
3	1.00	1	0	0	3	0	0.00	630.20	-window sill
4	1.00	32	0	0	72	0	7.94	605.44	
5	1.00	150	0	0	346	0	47.71	562.74	Floor
6	1.00	13	2	0	29	1	0.00	547.21	Floor
7	1.00	56	0	0	135	0	0.00	526.60	Floor
8	1.00	43	1	0	103	0	0.00	530.22	Floor
9	1.00	163	8	0	380	0	0.00	550.79	Floor

clean & rewipe samples #5, 7, 8, 9

Tag-(1) Follow-up Wipes of Floor LW326

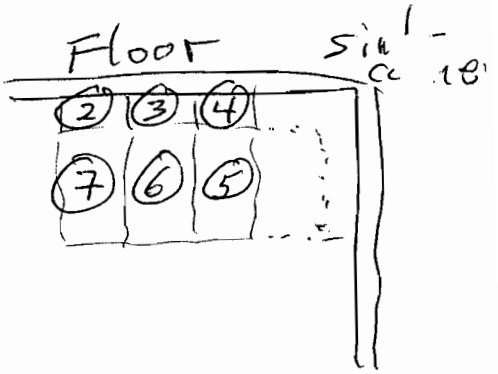
Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110630_1214\20110630_1214.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

(1) Background



Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	6	0	0	0	945.49	579.25	B
2	1.00	112	0	0	252	0	3.30	585.93	
3	1.00	193	9	0	416	0	0.00	625.53	
4	1.00	23	1	0	52	0	263.59	560.90	
5	1.00	21	2	0	46	0	226.71	583.98	
6	1.00	9	0	0	19	0	0.00	592.66	
7	1.00	92	3	0	215	0	0.00	544.99	

clean & rewipe samples (2), (3), and (7)

Page (10) Follow-up Wipes

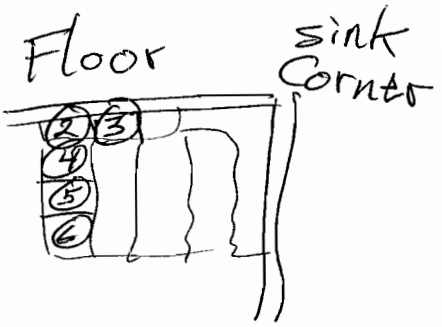
Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110630_1332\20110630_1332.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

① Background



Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	2	7	0	0	0	914.26	579.55	B
2	1.00	51	0	0	117	0	0.00	576.07	
3	1.00	56	3	0	128	0	0.00	573.40	
4	1.00	59	0	0	130	0	0.00	600.71	
5	1.00	69	6	0	157	0	6.85	566.52	
6	1.00	115	0	0	268	0	13.06	555.95	

Try to clean & wipe one more time

F100 Followup wipes in L10326

Protocol# 15 - 3h_14c_dpm.lsa User: Default

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110701_0618\20110701_0618.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

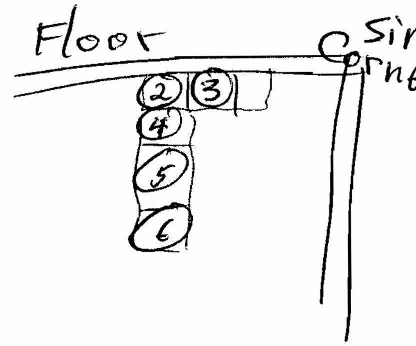
Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

① Background

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial



Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	4	6	0	0	0	1146.21	615.83	B
2	1.00	15	2	0	34	1	0.00	595.48	By wall
3	1.00	53	3	0	120	0	0.00	574.07	By wall
4	1.00	13	0	0	30	0	508.29	582.14	Floor Strip
5	1.00	3	3	0	7	4	54.03	552.99	Floor Strip
6	1.00	2	1	0	5	1	330.60	564.00	Floor Strip
7	1.00	7	0	0	18	0	0.00	551.79	Hallway floor by emerg door.

All OK!

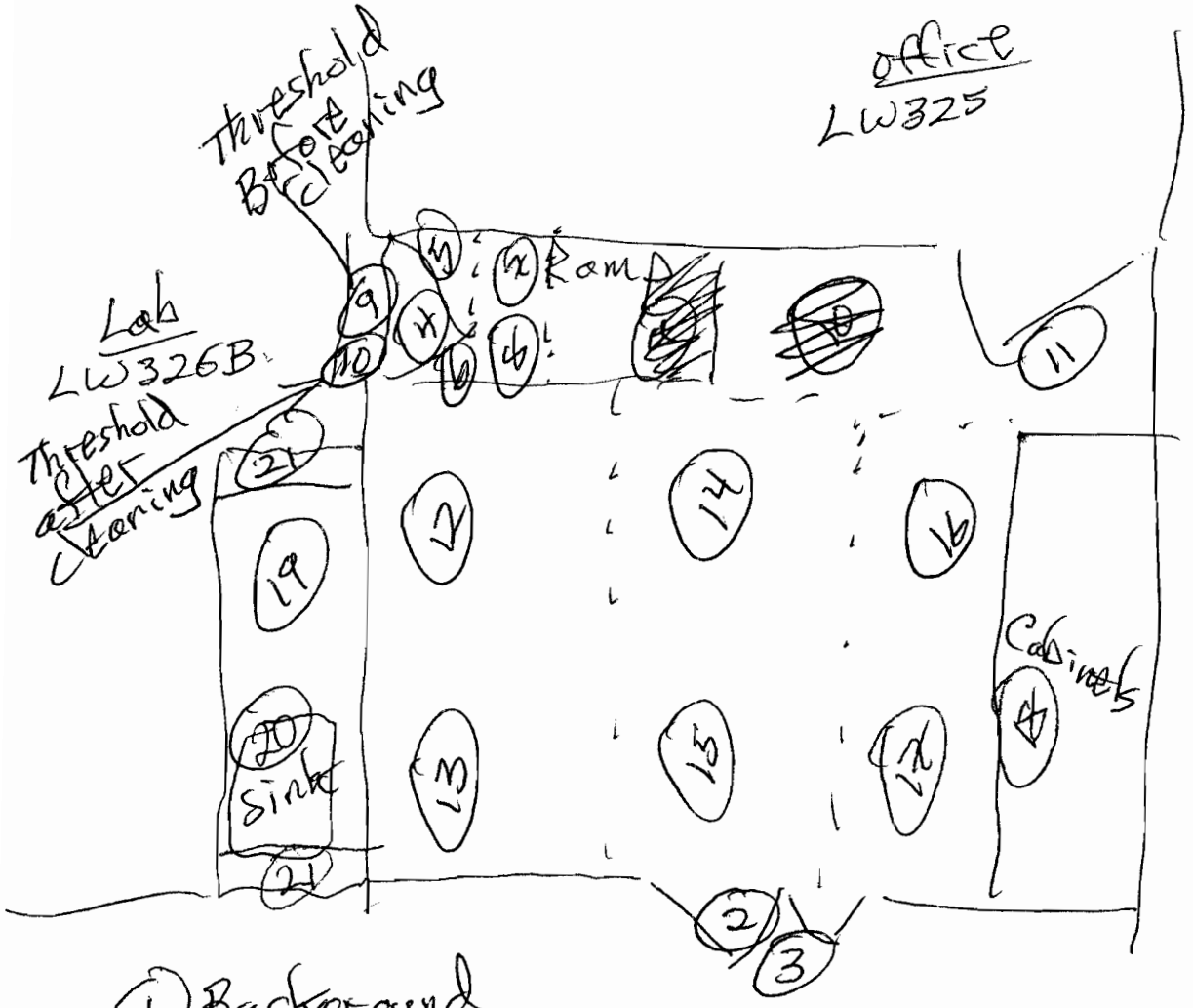
Page (1)

Decommission LW326A

Gowning Area

6/29/11

A. Coffin



(1) Background

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110629_0628\20110629_0628.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	20	29	0	0	0	279.17	581.43	B
2	1.00	0	0	0	0	0	0.00	553.36	
3	1.00	0	0	0	0	0	0.00	530.61	
4	1.00	0	0	0	0	0	0.00	572.21	
5	1.00	0	0	0	3	0	0.00	561.08	
6	1.00	0	0	0	7	0	0.00	518.09	
7	1.00	0	0	0	7	0	0.00	516.36	
8	1.00	0	0	0	0	0	0.00	541.12	
9	1.00	51	0	0	137	0	0.00	489.16	
10	1.00	0	0	0	0	0	0.00	529.90	
11	1.00	3	0	0	14	0	0.00	507.89	
12	1.00	6	0	0	23	0	0.00	483.41	

→ threshold before cleaning
→ threshold after cleaning

13	1.00	110	25	0	389	15	0.00	322.49
14	1.00	0	0	0	0	0	0.00	556.86
15	1.00	0	0	0	8	0	0.00	545.66
16	1.00	6	0	0	24	0	0.00	497.64
17	1.00	7	0	0	23	0	0.00	505.31
18	1.00	3	0	0	16	0	0.00	530.71
19	1.00	0	0	0	0	0	0.00	546.75
20	1.00	4	0	0	14	0	0.00	539.99
21	1.00	13	0	0	38	0	0.00	538.41

Meter Readings:

Ludlum 3, Ser# 146121, Cal: 10/12/10
Probe: 44-9, PR 151749
Background: 20-80 cpms
Readings: Background

Area #9 had already been cleaned and wiped in same set #10.
Only clean area #13 and rewipt

Page (4) Follow-up Wipes on LW326A area #13

Protocol #:15 Name:Wipe Test 29-Jun-2011 09:33

Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.20	5.70	4.50			554.	B
2	1.00	3.80	0.00	0.00	8.32	0.00	531.	
3	1.00	4.80	0.30	0.50	10.05	0.35	559.	
4	1.00	1.71	0.39	0.00	3.44	0.52	549.	
5	1.00	3.80	4.30	0.00	5.68	5.80	548.	
6	1.00	1.80	0.30	2.50	3.75	0.39	533.	
7	1.00	0.00	0.00	0.50	0.00	0.00	519.	

All Clean!

ECOLOGY SERVICES, INC.

9135 Guilford Road
Suite 200
Columbia, MD 21046
(301) 362-6700
1-800-932-7299
FAX (301) 490-0172

February 2, 2011

Chris Goddard
AstraZeneca
1800 Concord Pike
Wilmington, DE 19850

Re: Proposal for Radiosynthesis Laboratory Decommissioning; 11-013-PM

Dear Chris:

Ecology Services, Inc. (ESI) is pleased to provide the following proposal for turn-key decommissioning of the radiosynthesis laboratory [redacted]. This proposal includes all mobilization, man-hours, equipment and materials required to perform a complete decommissioning in support of license termination. This proposal was prepared jointly by DDES, LLC and ESI.

Thank you for providing this opportunity to Ecology Services, Inc. We look forward to providing service to your organization.

Sincerely,

Paul Marshall

Digitally signed by Paul Marshall
DN: cn=Paul Marshall, o=Ecology Services, Inc., ou, email=pmarshall@ecologyservices.com, c=US
Date: 2011.02.02 09:37:13 -05'00'

Paul Marshall
Vice President
Ecology Services, Inc.

TECHNICAL PROPOSAL

AstraZeneca L-326 Radiosynthesis Laboratory Decontamination and Decommissioning Proposal 2011-011

AstraZeneca Pharmaceuticals
1800 Concord Pike
Wilmington, Delaware 19850 USA

Prepared by:

Decontamination Decommissioning and Environmental Services, LLC
484 Lowell Street, Ste B1
Peabody, MA 01960

Ecology Services, Inc.
9135 Guilford Road, Suite 200
Columbia, MD 21046

February 24, 2011

1.0 Introduction

Decontamination Decommissioning and Environmental Services (DDES), LLC and Ecology Services, Inc. (ESI) are pleased to present the following technical proposal to decontaminate and decommission AstraZeneca's Wilmington, Delaware Radiosynthesis L326 Laboratory located at 1800 Concord Pike for unrestricted use. We will use the guidance provided in NUREG 1727, "NMSS Decommissioning Standard Review Plan", NUREG 1757, V.2., "Characterization, Survey and Determination of Radiological Criteria", and NUREG 1575, "Multi-Agency Radiation Survey and Site Investigation Manual" (MARSSIM). DDES-ESI will perform the decontamination and decommissioning under the DDES' Massachusetts radioactive materials license via reciprocity. Waste transportation and disposal will be performed under the ESI Maryland radioactive materials license via reciprocity. Since AstraZeneca is a Group 2 radioactive material licensee, a formal Decontamination & Decommissioning Plan will not need to be submitted to the Nuclear Regulatory Commission, Region I after the Radiosynthesis Laboratory has been released for unrestricted use.

This technical proposal provides detail on our systematic approach to surveying the Radiosynthesis Laboratory for unrestricted release. There is a radiosynthesis lab on the 3rd floor (Laboratory Wing 326) of the Lab Wing building with typical radiosynthesizing operations using H-3 and C-14 isotopes. L326 was remodeled in 2004 to include a radiosynthesis laboratory for H-3 and C-14 but has ceased operations in December of 2011.

A scoping survey of L326 was performed in December of 2010 that demonstrated total contamination readings ranging from 1,000 to 10,000 cpm/100cm^2 on floors and equipment to over 500,000 cpm in the hoods. Removable contamination in the same areas revealed measurements ranging from a few hundred dpm/100cm^2 to several thousand dpm/100cm^2 for both H-3 and C-14. The project team will perform a verification survey of the interior surfaces of the Radiosynthesis Laboratory to identify

any additional areas requiring remediation in excess of the established decommissioning criteria as well as identifying any items that can be removed that meet the sites' free-release criteria. Post remediation, a final status survey will be performed to document the remaining radiological conditions of the laboratory and support the unrestricted release of the Radiosynthesis Laboratory.

The DDES-ESI team has an absolute commitment to the health and safety of our staff. We believe there are appropriate administrative and engineering controls available to safely perform any project task. We are committed to using the best state of the art approaches to accomplish work in a safe and effective manner. Project activities will be performed in accordance with the requirements of DDES-ESI's Radiation Protection Program, DDES' Massachusetts Radioactive Materials License, ESI's Maryland Radioactive Materials License and the Corporate Health and Safety Policies and project specific procedures of both DDES and ESI.

This proposal includes the costs for the removal and packaging of radioactive wastes generated under this scope of work as well as unit costs for disposal of any radioactive or hazardous waste identified during the decommissioning activities.

2.0 Technical Approach

The following sections detail DDES-ESI's approach to accomplishing the decontamination and decommissioning of the Radiosynthesis Laboratory. We will obtain the survey data necessary to prepare a Final Status Survey Report that will demonstrate the designated use areas meet AstraZeneca's release limits and NRC requirements for unconditional release and use without regard to radiological controls. Based on site inventory, scoping surveys, and interviews with staff, the nuclides of concern for this project are H-3 and C-14.

This proposal is based on an administrative residual activity limit of 1,000 dpm/100cm^2 for total contamination and 200 dpm/100cm^2 for removable contamination. This level

of contamination would equate to a TEDE of $6.80e^{-3}$ mrem for a maximum uniformly distributed fixed contamination of 1000 dpm/100cm^2 of C-14. H-3 at these levels would not produce a dose. The NRC regulations require facilities meet a TEDE of 25 mrem for unrestricted use. AstraZeneca has decided to base the established DCGL's for survey at 1.0 mrem. Table 1 and Table 2 present the DCGLs based on 1.0 mrem/year and AstraZeneca's administrative goals.

Table 1: Established $DCGL_w$ for Survey based on 1.0 mrem/year

Nuclide	Total (DPM/100 cm^2)	Removable (DPM/100 cm^2)
H-3	N/A	$4.95e^5$
C-14	$1.47e^5$	$1.47e^4$

Table 2: AstraZeneca's Administrative Goals

Nuclide	Total (DPM/100 cm^2)	Removable (DPM/100 cm^2)
H-3	N/A	200
C-14	1,000	200

We are confident this project can be accomplished without compromising the health and safety of the project employees or affecting the surrounding areas. All project work will be performed in compliance with the Occupational Safety and Health Administration (OSHA) Title 29 Code of Federal Regulation (CFR) 1926 and 1910, as applicable. A Certified Health Physicist (CHP) will review the Final Status Survey Report.

2.1 Proposed Staffing and Timeline

DDES-ESI proposes to perform this project scope using the following personnel:

- Project Manager (1)
- Sr. Health Physics Technician (2)
- Waste Technician (1)

We estimate that decontamination activities, waste packaging and final status surveys will take approximately ten (10) working days to complete. The proposed schedule is based on the field crew working ten hours per day for five (5) days per week. Personnel

will mobilize to the project site using the most efficient and cost effective means available. DDES-ESI will finalize staffing levels, project schedule and travel arrangements upon award.

2.2 Dismantlement and Decontamination Activities

Upon mobilization of the project, the project team will perform a walkthrough of the associated laboratory along with the roof with AstraZeneca personnel to ensure project goals and expectations will be met.

This project require the complete disconnect of all services, i.e. electric, water, vacuum lines, to the fume hoods for the duration of the project. This will be completed by AZ personnel prior to work being performed and will be verified upon start of work. The exhaust fan for the synthesis laboratory will remain on for the duration of the project until which time the roof filters are removed.

The project team will line the floors of the immediate work areas with plastic sheeting to prevent the spread of contamination during the removal of the hoods and ductwork. Once restricted area boundaries and containments have been setup, the project team will apply several coats of a fixative agent to the interior of the hoods and ductwork. These applications will lockdown any removable contamination that may be present and prevent the spread of that contamination during the removal process. Once the lockdown agent has cured, the hoods will be removed one at a time and wrapped in plastic. The exhaust fan will remain on during these removal activities to assure a negative airflow within the laboratory.

Once all hoods have been disassembled and packaged, they will be staged for a live load shipment to an approved waste processing facility. The project team will stage all packaged waste in adjacent rooms as directed by AstraZeneca. The project team will prepare these storage areas by placing plastic sheeting on the floor to prevent cross contamination. The project team will move all packaged waste to a staged sea-land van

container during an agreed upon timeframe in the AstraZeneca Wilmington, DE facility. This will limit the disruption to AstraZeneca employees as this is an occupied building. Any work that may cause excessive noise or disturbance will be discussed with AstraZeneca personnel and scheduled in a manner that will be convenient for all parties involved.

The project team will then remove the associated ventilation system. This system removal will include all of the system components, ductwork runs from the hoods, spiral ductwork plenum, up to the fan and exhaust stack on the roof. Exposed ends of the ductwork will be wrapped and sealed in plastic prior to the removal of each section. Due to the constraints of the roof work area including the overhead frame, the project team will disassemble the duct work in manageable sections and palletize. AstraZeneca will be responsible for removing each manageable duct section and filter boxes via crane. The removed components of the system will be properly labeled and wrapped accordingly. Once the palletized sections have been safely moved to the ground the team will utilize a forklift and place each section into a staged sea-land van container. The removal of the roof duct and filter boxes will be done on a Saturday in order to ensure the safety of site personnel. We will move all staged laboratory related waste to the staged sea-land van container during this time as well.

The project team will cover and cap all open penetrations that were exposed during the removal process. These covers and caps are meant to be a temporary fix to a safety concern. AstraZeneca shall be responsible for making changes that they see fit to maintain the integrity of the facility.

All waste will be wrapped in plastic and wipe tested prior to removal from the staged area. All waste will be transported on carts and/or dollies to the freight elevator, out to a specified loading dock, and from there to where a 40' sea-land van container will be staged. To assure security of all radioactive waste, the sea-land van will be locked when

unattended and will be under constant surveillance by a project team member when unlocked.

Properly trained project team members will package all project-related radioactive waste in compliance with DOT regulations. Training certificates will be available for inspection, upon request.

An assessment will be performed to determine if items can be easily decontaminated to meet the AstraZeneca's internal ALARA considerations. Those items that fall below 1000 dpm/100cm^2 can be free released and turned over to AstraZeneca personnel for disposal/recycle. Items that will likely be included are the external components of the fume hoods that have come in little or no contact with radioactive material. The costs for significant decontamination activities, i.e. large-scale scabbling, are not included in this proposal.

2.3 Characterization and Final Status Surveys

DDES-ESI will implement a comprehensive Final Status Survey with guidance provided by NUREG 1575 and NUREG 1757. Care and diligence will need to be used to assure that any remaining radioactive items/materials are identified and appropriately controlled. DDES will use a structured approach to maximize productivity without compromising the effectiveness of these surveys.

Surveys will be performed to characterize any residual radioactivity in each survey unit in preparation for release for unrestricted use. Characterization surveys will be conducted by performing the appropriate combination of scan surveys, total activity measurements and removable contamination measurements. All survey data shall be documented on survey maps and associated data information sheets. Accessible surfaces, floors, vacuum systems, sink traps, drains, fume hoods, exhaust vents, vacuum lines, vacuum compressors, and walls less than two meters in height will be considered as impacted for purposes of the characterization and final status surveys.

Scan surveys will be performed in all impacted areas. Table 3 shows typical scan survey coverage for each classification.

Table 3: Scan Survey Recommendations

Classification	Percentage of Surface Area Requiring Scan Coverage (MARSSIM)	AstraZeneca Surface Area Scan Coverage
1	100%	100%
2	10 – 100% (Judgmental)	40%
3	Judgmental	10%

If the characterization survey results indicate that contamination is not present in excess of the release criteria, then scan data from the characterization survey may be used as part or all of the final status survey. For areas that are partially contaminated, the characterization survey data may be used as part of the final status survey measurements provided that 1) the data used is only from areas with contamination levels below the release criteria, and 2) decontamination work is controlled such that the survey location could not have become cross-contaminated. This will be verified at the completion of dismantlement operations.

All office areas adjacent to laboratories will be considered Class 3 areas. All connecting hallways will be considered Class 3 areas. Table 4 lists radioactive material use areas that will be considered impacted for Characterization and Final Status Surveys.

Table 4: Radioactive Material Use Areas

Department	Room #	Square Footage	Isotope(s)	Class
Discovery	L326	2000	H-3/C-14	1

2.4 Waste Management

We expect a large volume of low-level dry active radioactive waste (DAW) to be generated under this scope of work. These wastes will be composed of personal

protective equipment, decontamination supplies, and affected building materials such as fume hoods, casework and associated ventilation components. The total volume of DAW is expected to fill one (1) 40' sea-land van container. Small loose materials will be packaged in a cubic yard super-sack, marked, labeled and staged for future disposal. Large components will be wrapped in plastic sheeting and placed into the sea-land van container.

2.5 Instrumentation

Laboratory and portable field instruments will be calibrated at least annually with National Institute of Standards and Technology (NIST) traceable sources and to radiation emission types and energies that will provide detection capabilities similar to the nuclides of concern. Functional checks will be performed at least daily when in use. Table 5 summarizes the proposed instrumentation for this project:

Table 5: Proposed Instrumentation

Detector Model	Detector Type	Detector Area	Meter Model	Window Thickness	Typical Efficiency
Ludlum 43-68	Beta Gas Flow Proportional	100 cm^2	Ludlum 2221	0.8 mg/cm^2	15 % (C-14)
Ludlum 43-37 Floor Monitor	Beta Gas Flow Proportional	582 cm^2	Ludlum 2221	0.8 mg/cm^2	13 % (C-14)
Ludlum NaI	Scintillator	N/A	Ludlum 19	1" x 1"	Energy Dependent
Bicron	LSC	2" x 2"	Tri-Carb	N/A	92% (C-14) 55% (H-3)

AstraZeneca will provide a calibrated Liquid Scintillation Counter (LSC) and supplies such as vials and counting cocktail for this project. Typical regions of interest for the LSC on this project would be set up as:

Channel 1 (H-3): 0.0 - 12.0 keV

Channel 2 (C-14): 12.0 - 156 keV

Channel 3 (Others): 156 – 2000 keV

3.0 Cost Estimate

DDES-ESI has assembled a comprehensive approach for the decommissioning of the L326 Radiosynthesis Laboratory that maximizes productivity without compromising safety. DDES-ESI is familiar with current and past operations at the site and stands ready to implement this scope of work for a firm fixed price of $61,291.00, excluding waste transportation and disposal. A detailed cost estimate has been provided in Attachment A. Any work that AstraZeneca requires to be performed outside this scope will be billed on a time and materials basis based on our current labor rates detailed in Attachment A. Waste disposal and/or transportation cost are detailed in Attachment B.

ECOLOGY SERVICES, INC.

9135 Guilford Road
Suite 200
Columbia, MD 21046
(301) 362-6700
1-800-932-7299
FAX (301) 490-0172

May 24, 2011

Chris Goddard
AstraZeneca
1800 Concord Pike
Wilmington, DE 19850

Re: Proposal for Radiosynthesis Laboratory Floor Scabbling; 11-099-PM

Dear Chris:

Ecology Services, Inc. (ESI) is pleased to provide the following addendum to the technical and price proposal for turn-key decommissioning of the radiosynthesis laboratory [redacted]. This proposal includes all mobilization, man-hours, equipment and materials required to perform floor scabbling to remove contamination to the limits specified. This proposal does not include waste disposal as it will generate a relatively small volume of waste (< 4 drums) that can be easily accommodated under our existing routine waste management contract. This proposal was prepared jointly by DDES, LLC and ESI.

Thank you for providing this opportunity to Ecology Services, Inc. We look forward to providing service to your organization.

Sincerely,

Paul Marshall

Digitally signed by Paul Marshall
DN: cn=Paul Marshall, o=Ecology Services, Inc., ou, email=pmarshall@ecologyservices.com, c=US
Date: 2011.05.24 11:54:29 -04'00'

Paul Marshall
Vice President
Ecology Services, Inc.

TECHNICAL PROPOSAL ADDENDUM

AstraZeneca L-326 Radiosynthesis Laboratory Decontamination and Decommissioning – Floor Scabbling Addendum 2011-011

AstraZeneca Pharmaceuticals
1800 Concord Pike
Wilmington, Delaware 19850 USA

Prepared by:

Decontamination Decommissioning and Environmental Services, LLC
484 Lowell Street, Ste B1
Peabody, MA 01960

Ecology Services, Inc.
9135 Guilford Road, Suite 200
Columbia, MD 21046

May 24, 2011

1.0 Introduction

Decontamination Decommissioning and Environmental Services (DDES), LLC and Ecology Services, Inc. (ESI) are pleased to present the following technical addendum to the proposal to decontaminate and decommission AstraZeneca's Wilmington, Delaware Radiosynthesis L326 Laboratory located at 1800 Concord Pike for unrestricted use. Gas proportional radiation monitoring equipment scans have determined the epoxy coated flooring within L326 has fixed contamination well in excess of the Astra-Zeneca administrative limit. DDES/ESI plans to employ floor scabbling within a negative air pressure HEPA filtered exhaust containment in order to remove the contaminated layers of epoxy coating/concrete until levels are at or below the Astra-Zeneca limit.

2.0 Technical Approach

This proposal is based on an administrative residual activity limit of 1,000 dpm/100cm^2 for total contamination and 200 dpm/100cm^2 for removable contamination. This level of contamination would equate to a TEDE of 6.80e^{-3} mrem for a maximum uniformly distributed fixed contamination of 1000 dpm/100cm^2 of C-14. H-3 at these levels would not produce a dose. The NRC regulations require facilities meet a TEDE of 25 mrem for unrestricted use. AstraZeneca has decided to base the established DCGL's for survey at 1.0 mrem. Table 1 and Table 2 present the DCGLs based on 1.0 mrem/year and AstraZeneca's administrative goals.

Table 1: Established DCGL$_w$ for Survey based on 1.0 mrem/year

Nuclide	Total (DPM/100 cm^2)	Removable (DPM/100 cm^2)
H-3	N/A	4.95e^5
C-14	1.47e^5	1.47e^4

Table 2: AstraZeneca's Administrative Goals

Nuclide	Total (DPM/100 cm^2)	Removable (DPM/100 cm^2)
H-3	N/A	200
C-14	1,000	200

We are confident this project can be accomplished without compromising the health and safety of the project employees or affecting the surrounding areas. All project work will be performed in compliance with the Occupational Safety and Health Administration (OSHA) Title 29 Code of Federal Regulation (CFR) 1926 and 1910, as applicable. A Certified Health Physicist (CHP) will review the Final Status Survey Report.

2.1 Proposed Staffing and Timeline

DDES-ESI proposes to perform this project scope using the following personnel:

- Project Manager (1)
- Sr. Health Physics Technician (2)

- We estimate that decontamination activities and waste packaging and final status surveys will take approximately two (2) working days to complete.

2.2 Decontamination Activities

The project team will set up temporary containment tent surrounding the immediate work area. An air moving machine with HEPA filtered exhaust will be use to maintain negative air pressure within the containment to prevent the spread of contamination during the removal of the top layers of floor coating. An electric powered floor scabbling machine will be used to abrade and remove thin layers of floor surface. A HEPA vacuum will simultaneously collect and bag the scabbled fines. Removal effectiveness will be determined by scanning with a gas proportional radiation detector. If contamination is still present then another scabbling pass will be made and the area resurveyed until the contamination reduction goal is achieved. Once an area has been cleaned the containment will be moved to the next area and the process repeated.

All waste will be collected and double bagged for transport to the Astra Zeneca LLRW waste storage room. Properly trained project team members will package all project-related radioactive waste in compliance with DOT regulations. Training certificates will be available for inspection, upon request.

2.3 Waste Management

We expect a small volume of low-level dry active radioactive waste (DAW) to be generated under this scope of work. These wastes will be composed of personal protective equipment, decontamination supplies, and scabbled floor fines. The total volume of DAW is expected to fill less than 4 55-gallon drums

2.4 Instrumentation

Laboratory and portable field instruments will be calibrated at least annually with National Institute of Standards and Technology (NIST) traceable sources and to radiation emission types and energies that will provide detection capabilities similar to the nuclides of concern. Functional checks will be performed at least daily when in use. Table 1 summarizes the proposed instrumentation for this project:

Table 1: Proposed Instrumentation

Detector Model	Detector Type	Detector Area	Meter Model	Window Thickness	Typical Efficiency
Ludlum 43-68	Beta Gas Flow Proportional	100 cm^2	Ludlum 2221	0.8 mg/cm^2	15 % (C-14)
Ludlum 43-37 Floor Monitor	Beta Gas Flow Proportional	582 cm^2	Ludlum 2221	0.8 mg/cm^2	13 % (C-14)
Ludlum NaI	Scintillator	N/A	Ludlum 19	1" x 1"	Energy Dependent
Bicron	LSC	2" x 2"	Tri-Carb	N/A	92% (C-14) 55% (H-3)

AstraZeneca will provide a calibrated Liquid Scintillation Counter (LSC) and supplies such as vials and counting cocktail for this project.

Coffin, Tim

From: Coffin, Tim
nt: Friday, July 01, 2011 6:55 AM
To: Goddard, Chris M; Terpko, Marc O; Schlank, Bliss M; Civitella, Patricia C; Bristow, Brian K
Cc: Gobris, David M
Subject: Final Decommissioning of Temporary Contractor Radiation Storage lab, LW336

FOR YOUR INFORMATION/ACTION:

As of June 30, 2011, Lab LW336 (Contractor Storage Lab) has been officially decommissioned as a radioactive use area.

ACTIONS TAKEN:

1. All radioactive material has been removed from the labs.
2. All contractor equipment, materials, and supplies have been removed from the lab on June 21, 2011.
3. All radioactive program postings, radioactive labels, and signs were removed from the lab and entrance doors.
4. Lab LW336 has been removed from the Radioactive lab Data Base.
5. Decommission Forms have been placed in the official Radiation Safety Files.
6. Meter checks were done of floors and lab bench with all results at background.
7. Performed decommission wipe tests of lab with all results at background or below the AZ Action Level of 100 dpms.
8. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
9. This E-mail serves as the official notice that the lab has been decommissioned from handling radioactive material.

ACTION NEEDED:

1. **Brian Bristow**: I have removed the radioactive hazard signs on the door of LW336. Please remove lab LW336 from your Radioactive lab Data Base.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227, 6-2682

FOR INFORMATION PURPOSES

LAB #: L336

WAS NEVER A RADIOACTIVE LAB

Storage Room used by ESI and DDES Contractors in charge of the radiosynthesis lab decommissioning project. AZ performed wipe tests and included area in Final Scoping Surveys to check for potential transfer of contamination.

Timothy Coffin
Radiation Safety Specialist/Radiation Safety Officer

Decommission

LW338 Storage Room

6/29/11
T Coffin

Decommission LW336 Storage

J Coffin

Protocol #:15 Name:Wipe Test 29-Jun-2011 06:52
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
e = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	5.40	5.00	4.20			551.	B
2	1.00	0.00	0.00	1.80	0.00	0.00	458.	
3	1.00	0.60	0.00	0.80	1.70	0.00	366.	
4	1.00	2.90	1.70	0.80	6.28	2.34	405.	
5	1.00	0.00	0.00	0.00	0.00	0.00	446.	
6	1.00	0.00	8.00	0.00	0.00	11.16	413.	
7	1.00	0.00	0.00	2.80	0.00	0.00	496.	
8	1.00	3.40	1.20	2.80	7.47	1.62	444.	
9	1.00	3.60	0.00	0.80	8.70	0.00	451.	
10	1.00	3.60	1.00	0.00	8.39	1.34	423.	
11	1.00	0.00	2.00	0.00	0.00	2.75	475.	
12	1.00	1.60	0.00	0.00	3.65	0.00	496.	
13	1.00	2.60	2.00	0.00	4.82	2.72	470.	
14	1.00	3.60	0.00	0.00	8.33	0.00	483.	
15	1.00	0.00	0.00	0.00	0.00	0.00	521.	
16	1.00	0.00	1.00	0.80	0.00	1.38	448.	
17	1.00	0.00	0.00	0.00	0.00	0.00	507.	
18	1.00	1.60	1.00	0.00	3.30	1.36	430.	
19	1.00	0.00	0.00	0.00	0.00	0.00	266.	
20	1.00	1.60	1.00	0.00	3.81	1.40	349.	
21	1.00	5.42	6.18	2.80	9.96	8.62	378.	

Meter Readings:

Ludlum 3, Ser# 146121, Cal: 10/12/10
Probe: 44-9, PR151749
Background: 20-80 cpms
Readings: Background

All Clean!

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: [redacted] Lab Supervisor: MARC STEIN

Responsible Investigator for the Lab: CHARLES LERMAN

RAM Users in This Lab: MARC STEIN

Date: 8-24-00

Date Completed	Questionnaire
8.10.00	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
8.10.00	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
7.31.00	Contact Safety to perform final wipe test of the lab and equipment.
8.24.00	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
8.24.00	Write a letter to D. H. Irwin in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
8.24.00	After approval by Safety, the radiation signs can be removed and returned to Safety.
8.24.00	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

Gerald K Witmer 8.24.00

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

☒ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	(Yes) or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	(Yes) or No	
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or (No)	
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or (No)	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	(Yes) or No	(If "No" go to the next section.)
Date lab was decommissioned?		
What isotopes were used?		
Have all surfaces/areas been decontaminated?	(Yes) or No	
Have all isotopes been transferred or disposed of?	(Yes) or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?	(Yes) or No	
Have solvents been transferred/disposed of/ reassigned?	(Yes) or No	
Particularly ether and THF?	(Yes) or No	
Have all stills been quenched/transferred/ reassigned?	(Yes) or No	
Have all intermediates/research samples been:	Yes or No	
• Entered into the M collection?	Yes or No	
• Assigned to others on the project and labeled as such?		
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	(Yes) or No	
• Are the center bench drawers free of research samples?	(Yes) or No	
Has all the waste been property removed?	(Yes) or No	
• Waste silica?		
• Broken or glass thermometers?	(Yes) or No	
• Sharps containers?	(Yes) or No	
• Spent catalysts?	(Yes) or No	
• Drying agents?	(Yes) or No	
• Lecture bottles?	(Yes) or No	

• Used vacuum pump oil?	Yes or No	
• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:		/ /	Facilities:		/ /
Safety:		/ /	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

Lab L-3013 was used for radioisotopes almost exclusively during the period January through August, 1994. The research project involved photoaffinity labeling of a receptor with ^{125}I-labeled compounds that were synthesized by commercial vendors. There were also some ^{3}H-labeled samples used in the experiments and stored in the lab's freezer. Most of the work was carried out by Zhuyin ("Julie") Li, a post-doctoral researcher who left the company at the end of that time, and Mark Stein, who is still an employee.

During the research, there were no accidents or spills of radioactive materials.

Watson Gerald GK

From: Lerman Charles CL
Sent: Thursday, August 24, 2000 8:34 AM
To: Watson Gerald GK
Subject: RE: Radioactive Lab 3013

Jerry,

The history of our radioisotope work in that lab is extremely simple:

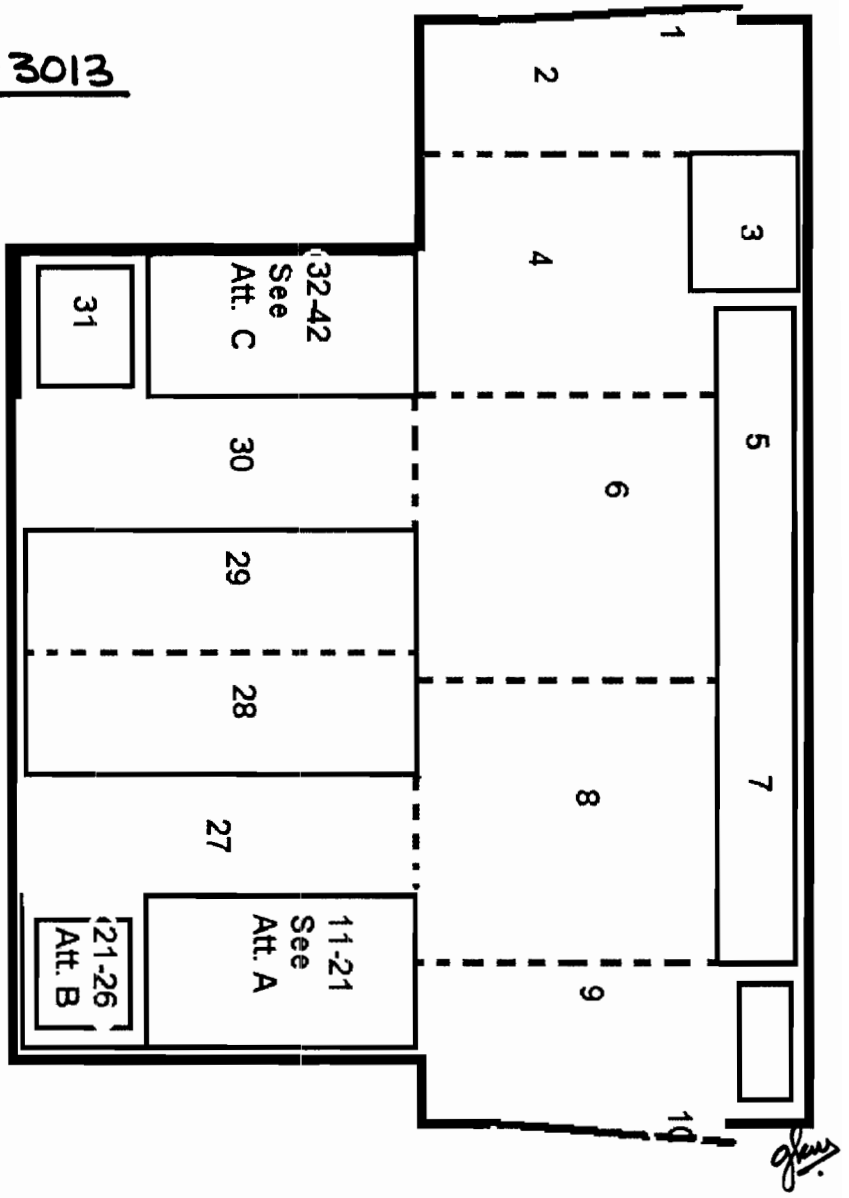
L-3013 RADIOISOTOPE HISTORY.DOC

Charlie

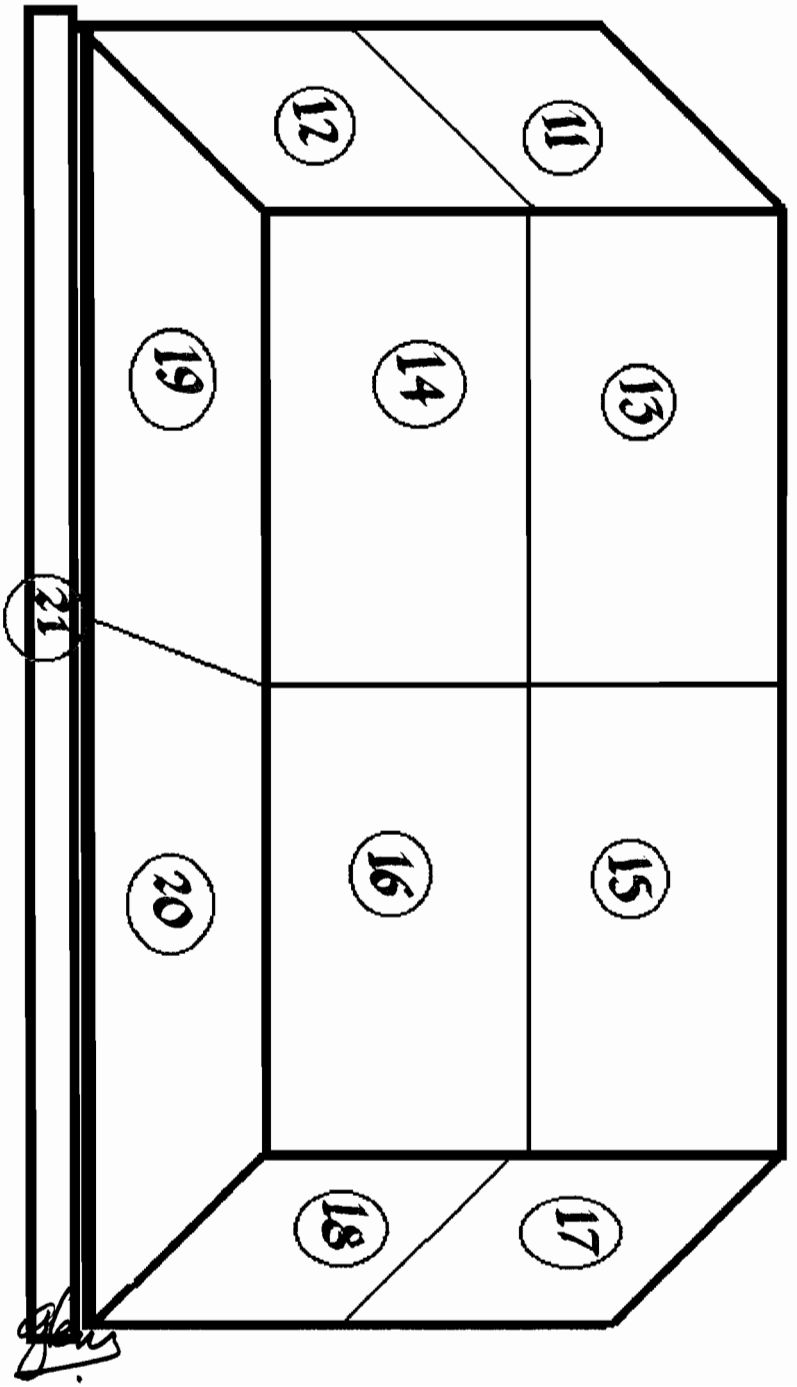
> -----Original Message-----
> From: Watson Gerald GK
> Sent: Tuesday, August 22, 2000 2:42 PM
> To: Lerman Charles CL
> Subject: Radioactive Lab 3013
>
> Charlie,
> The decommissioning wipe test has been completed for Lab
> 3013. There are just a few small items to attend to, but for
> the most part we are well on the way to total
> decommissioning. Since you're the Responsible Investigator
> for the lab I need a written (brief) history of the
> radioactive use, incidents, spills and type of isotopes used
> in the lab. I prefer that it be via e-mail. Once that has
> been accomplished we'll be 95% finished. Thanks Charlie.
> Jerry Watson
> Radiation Safety
> gerald.watson@astrazeneca.com
>

DECOMMISSIONG WIPE

TEST FOR LAB NLW-3013

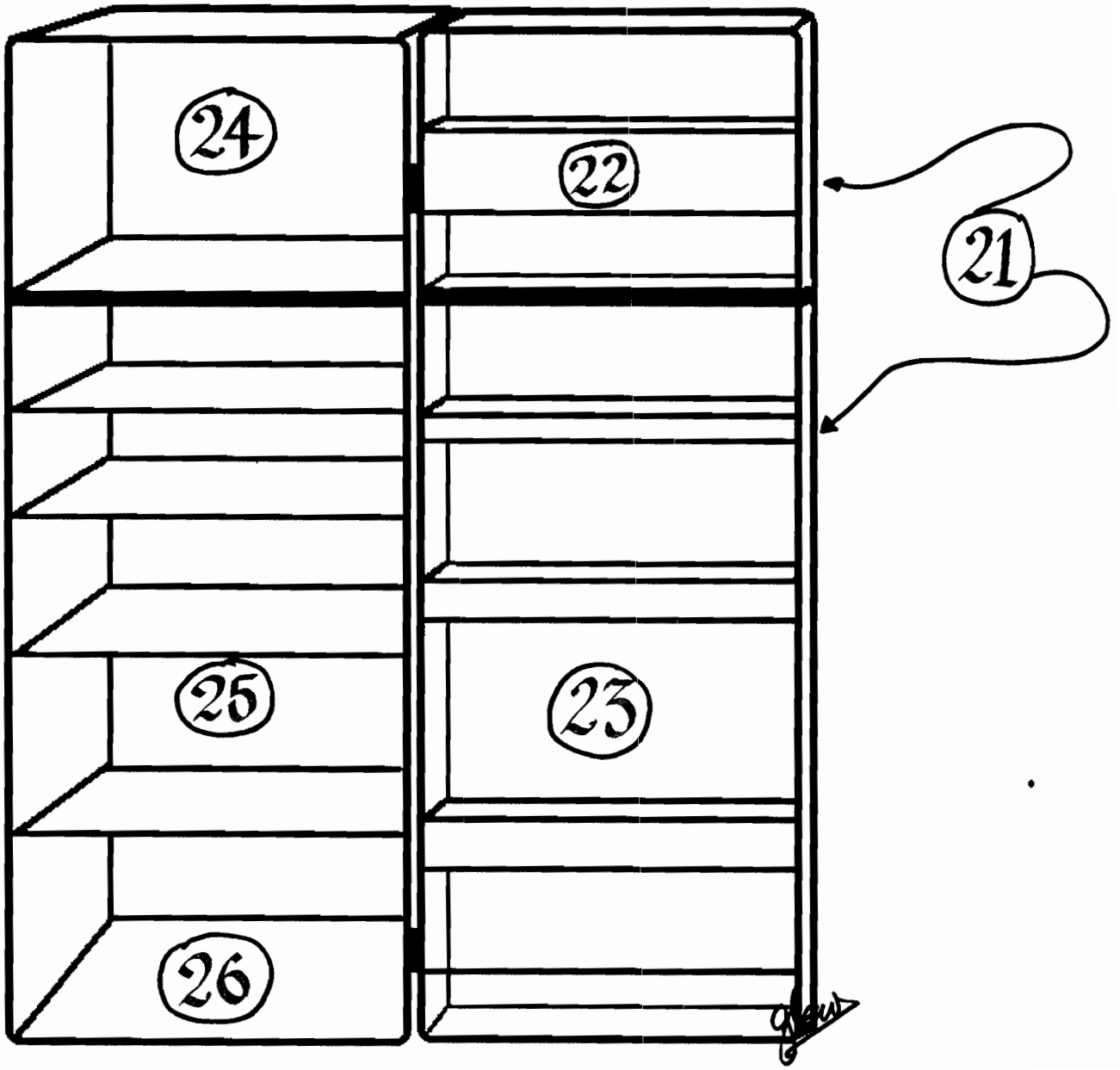


ATTACHMENT "A"
NLW-3013 DECOM WIPE.

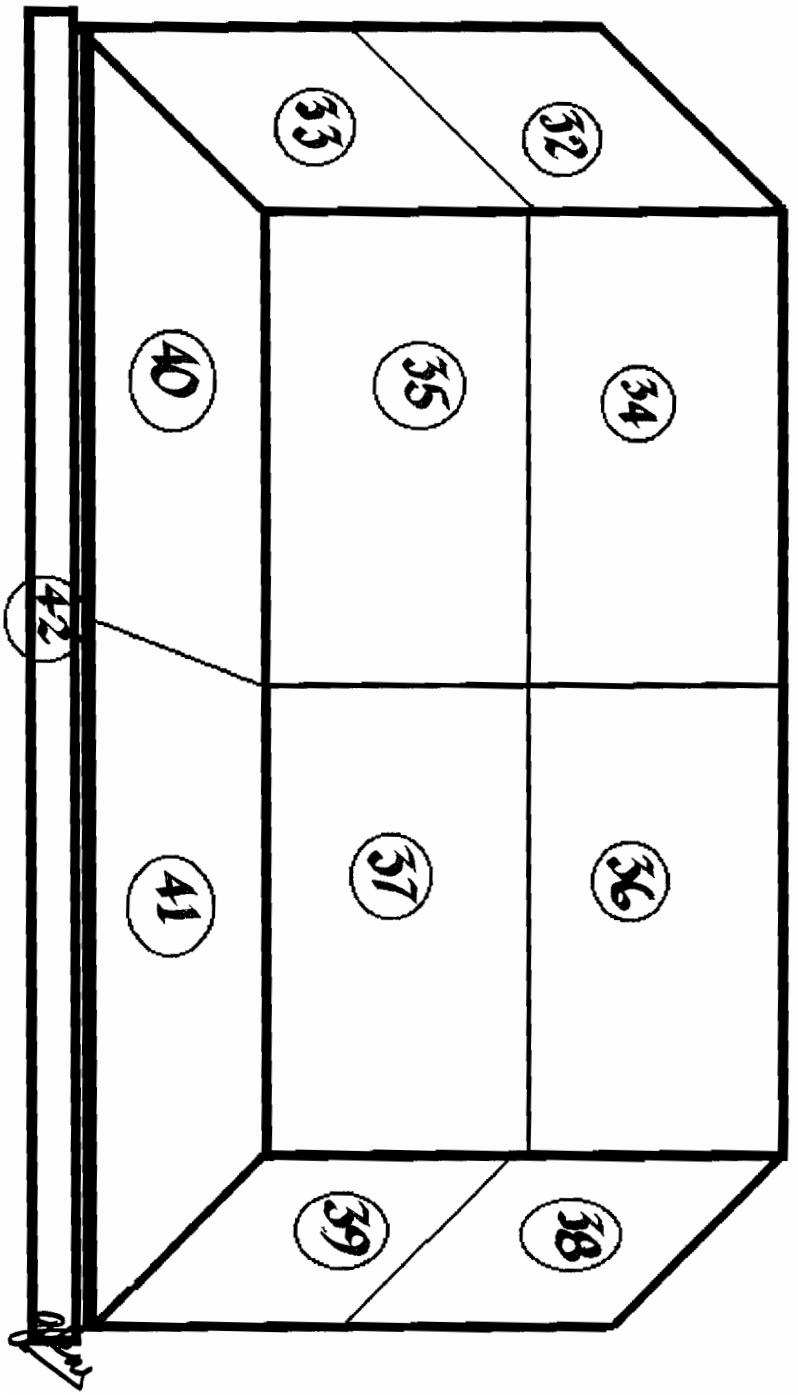


ATTACHMENT "B"

NLW-3013 DECONWIPE



ATTACHMENT "C"
NLW-3013 DECOMWIPE



3013 :

Protocol #:15 Name:DIRECT DPM 21-Aug-2000 14:44
Region A: LL-UL= 0.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL= 2.0-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
gion C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
me = 2.00 QIP = tSIE/AEC ES Terminator = Count
rect DPM
SNC DPM = 124200

Decommissioning Wipe test for Lab NLW 3013.

A.B.C. = 17.93 dpm
gbw

S#	TIME	DPM1	tSIE	FLAG
1	2.00	23.76	383.	
2	2.00	19.00	394.	
3	2.00	22.83	402.	
4	2.00	18.84	393.	
5	2.00	19.77	394.	
6	2.00	20.90	372.	
7	2.00	21.59	547.	
8	2.00	23.59	473.	
9	2.00	20.07	364.	
10	2.00	17.74	445.	
11	2.00	19.42	407.	
12	2.00	19.84	479.	
13	2.00	19.17	454.	
14	2.00	15.58	483.	
15	2.00	22.70	508.	
16	2.00	21.85	481.	
17	2.00	18.03	439.	
18	2.00	18.71	436.	
19	2.00	19.42	306.	
20	2.00	15.88	280.	
21	2.00	24.76	292.	
22	2.00	24.66	280.	
23	2.00	24.47	325.	
24	2.00	22.16	384.	
25	2.00	14.57	458.	
26	2.00	17.85	456.	
27	2.00	16.17	420.	
28	2.00	20.41	424.	
29	2.00	8.03	380.	
30	2.00	26.85	387.	
31	2.00	13.23	351.	
32	2.00	12.75	400.	
33	2.00	15.24	382.	
34	2.00	15.98	383.	
35	2.00	16.94	394.	
36	2.00	13.17	667.	
37	2.00	17.80	431.	
38	2.00	16.56	418.	
39	2.00	18.94	481.	
40	2.00	19.94	406.	
41	2.00	17.62	376.	
42	2.00	22.22	466.	

Coffin, Tim

From: Coffin, Tim
Sent: Friday, May 27, 2011 11:25 AM
To: Goddard, Chris M
Cc: Civitella, Patricia C; Terpko, Marc O; Schlank, Bliss M
Subject: Decommission of [redacted] Lab L3038, Mass Spec Lab, from Analysis of Radioactive Samples

FOR YOUR INFORMATION/ACTION:

As of today, May 27, 2011, [redacted] (Mass Spec Lab) has been officially decommissioned as a temporary radioactive use area to analyze C14 samples, on an as needed basis.

ACTIONS TAKEN:

1. Ensured that all radioactive samples had been removed from the lab.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. GM Meter Checks were done and all results were at background or less than the AZ Action Level of 3 times background.
4. Ensure that any radioactive program postings, radioactive labels, and signs were removed from the lab and entrance doors.
5. Lab L3038 has been removed from the Radioactive lab Data Bases.
6. Decommission Forms have been placed in the official Radiation Safety Files.
7. Decommission Check-off Sheet started and radiation section completed. Original copy provide to Marc Terpko and copy placed in radiation files.
8. This E-mail serves as the official notice that the lab has been decommissioned from handling radioactive samples.

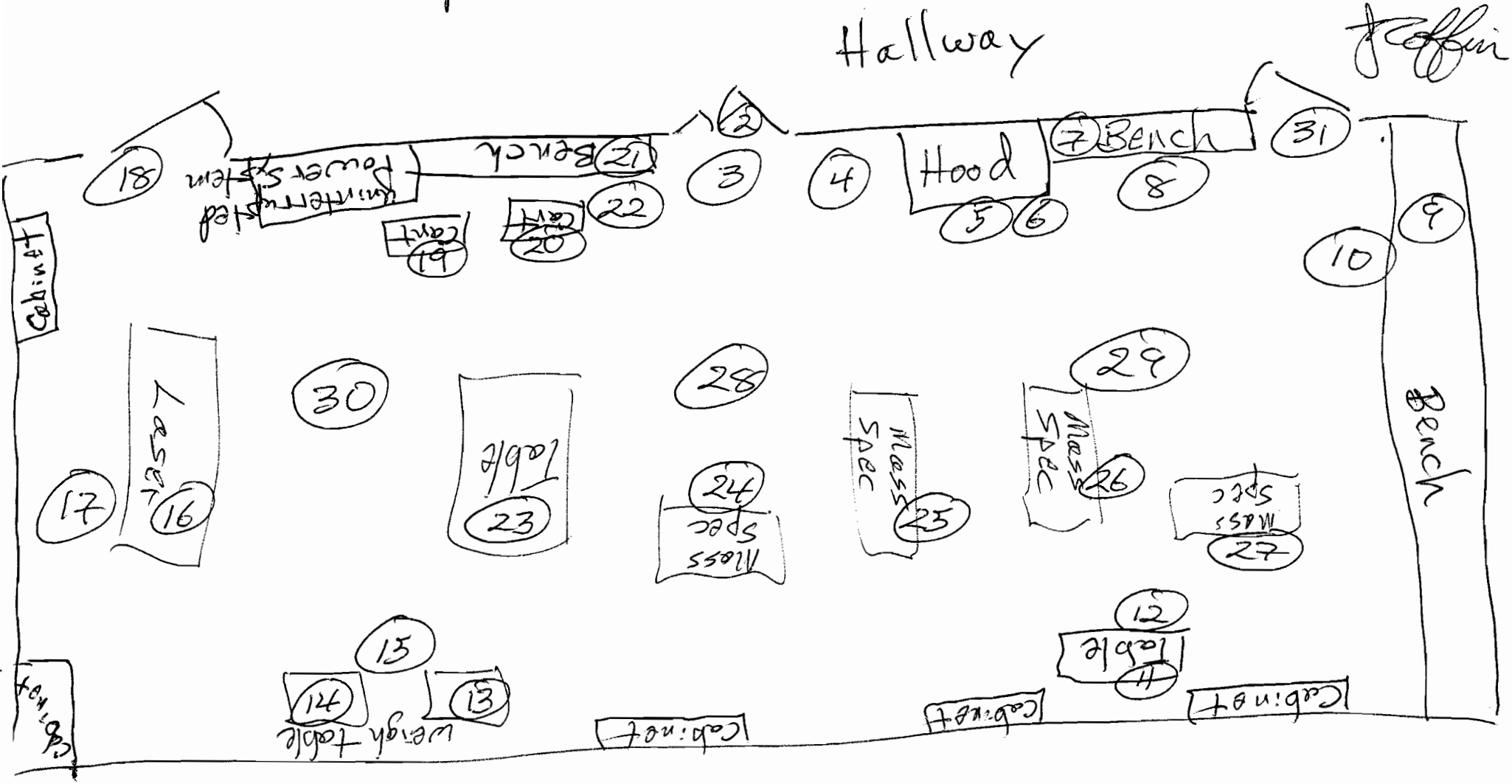
Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227, 6-2682

Lab L3038

Decommission Wipes
5/27/2011
J Coffin

1 Mass Specs



Meter Readings

Ludlum 3, Ser # 146121
Probe: 44-9, Ser PR151749

Background: 20-80 cpms

Readings: Background

Decommission Lab
L3038

Assay Definition

Assay Description:
Basic dual DPM assay
Assay Type: DPM (Dual)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm
Raw Results Path: C:\Packard\Tricarb\Results\Default\3h_14c_dpm\20110527_0901\20110527_0901.results
Assay File Name: C:\Packard\TriCarb\Assays\3h_14c_dpm.lsa

Count Conditions

Nuclide: 3H-14C
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Sets:
  Low Energy: 3H-UG
  Mid Energy: 14C-UG
Count Time (min): 1.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	1st Vial
B	12.0	156.0	1st Vial
C	0.0	0.0	1st Vial

Count Corrections

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	DPM1	DPM2	SIS	tSIE	MESSAGES
1	10.00	3	5	0	0	0	1110.61	597.41	B
2	1.00	0	0	0	0	0	0.00	594.38	
3	1.00	4	0	0	8	0	0.00	572.65	
4	1.00	1	2	0	2	3	0.00	567.64	
5	1.00	4	4	0	7	4	0.00	547.80	
6	1.00	3	5	0	5	6	0.00	565.13	
7	1.00	4	0	0	9	0	0.00	527.36	
8	1.00	1	1	0	1	1	0.00	557.08	
9	1.00	1	0	0	1	0	0.00	573.96	
10	1.00	1	4	0	0	5	145.02	560.72	
11	1.00	7	0	0	15	0	0.00	548.00	
12	1.00	8	9	0	14	10	121.71	574.15	

13	1.00	3	2	0	5	2	0.00	569.06
14	1.00	1	5	0	0	7	0.00	557.26
15	1.00	7	0	0	15	0	0.00	629.18
16	1.00	6	4	0	12	4	0.00	556.74
17	1.00	10	0	0	22	0	0.00	563.47
18	1.00	5	2	0	10	2	0.00	535.79
19	1.00	0	4	0	0	5	0.00	587.81
20	1.00	7	6	0	13	6	0.00	567.45
21	1.00	3	0	0	6	0	0.00	564.41
22	1.00	6	0	0	14	0	0.00	557.50
23	1.00	6	8	0	10	9	0.00	560.65
24	1.00	7	2	0	14	2	0.00	577.27
25	1.00	4	0	0	8	0	1415.61	591.01
26	1.00	5	0	0	11	0	0.00	552.46
27	1.00	6	0	0	14	0	0.00	527.68
28	1.00	4	4	0	7	4	815.61	552.69
29	1.00	3	0	0	6	0	0.00	570.20
30	1.00	7	0	0	16	0	0.00	537.30
31	1.00	18	0	0	44	0	0.00	533.57

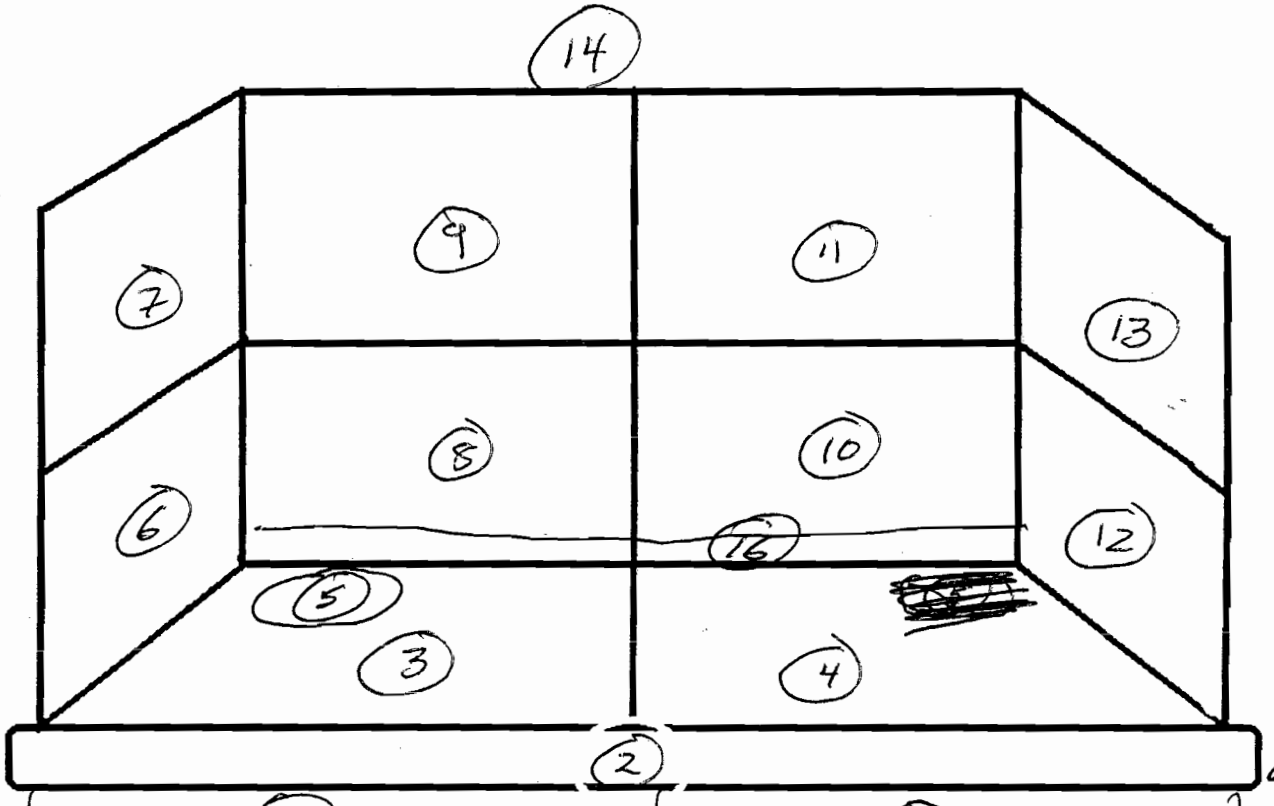
All clean

Decommi: ion L3038

Date:

Jeffin

(1) Background



Meter

Ludlum 3, Ser# 146121, Cal: 10/12/10 Jeffin

Probe: 44-9, Ser# PR151749

Background: 20-80 cpms

Readings: Background

Decommission Time Room
L3038

Protocol #:15 Name:Wipe Test 27-May-2011 08:52
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	4.18	4.32	3.10			581.	B
2	1.00	1.58	0.92	0.00	2.96	1.24	510.	
3	1.00	0.00	0.00	0.00	0.00	0.00	376.	
4	1.00	4.82	0.00	2.90	12.38	0.00	411.	
5	1.00	0.00	0.00	0.00	0.00	0.00	470.	
6	1.00	2.82	0.00	0.00	6.15	0.00	531.	
7	1.00	0.82	1.68	0.00	0.82	2.29	492.	
8	1.00	1.82	2.68	3.90	2.50	3.66	480.	
9	1.00	0.00	0.00	1.90	0.00	0.00	423.	
10	1.00	0.82	0.00	0.00	2.21	0.00	387.	
11	1.00	0.00	0.68	0.00	0.00	0.94	437.	
12	1.00	0.00	0.00	0.90	0.00	0.00	550.	
13	1.00	2.82	0.00	0.00	6.00	0.00	557.	
14	1.00	1.64	0.86	0.00	3.80	1.19	378.	
15	1.00	0.00	0.00	0.00	0.00	0.00	411.	
16	1.00	0.00	1.68	0.90	0.00	2.36	378.	
17	1.00	0.00	0.00	1.90	0.00	0.00	499.	
18	1.00	0.00	2.68	0.00	0.00	3.73	414.	

All Clean

ICI Americas Inc.

TO: D. Irwin, Radiation Safety Officer
C. Caputo, Chairman - Radiation Safety Committee

DATE: May 12, 1988

ROM: F.R. Zuleski FRZ

FILE:

SUBJECT: Regulations to be Observed During Radioactive Analyses in Lab 3038

CC: R.C. Spreen, J.L. Herman, J.P. Reefe, P. Loftus, A.F. Heald

Since a quorum of the Radiation Safety Committee has approved the proposal to designate Lab 3038 as a radioisotope area only when radioactive samples are present for analyses, the following list constitutes the regulations to be in effect during the analyses and immediately thereafter.

1. I will notify all personnel in Lab 3038 by memo of an impending radioactive analysis.

2. Lab 3038 will be appropriately posted with radiation signs before a radioactive sample is brought into the lab. Upon posting of the lab, it is then a radiotracer lab and laboratory personnel must follow the regulations in the Radiation Safety Manual.

3. The originator of a radioactive (carbon-14 only) analytical request must supply the sample in its final state such that the analysis can proceed directly without any further processing. Specifically this means that a sample submitted for LC/MS or EI or CI work must be in a sealed vial suitable for withdrawal by syringe.

4. Mass spectral analyses of radioactive samples will be performed on the Finnigan 4600. The unit must be equipped with an exhaust system that prevents venting of the exhaust into the work area.

5. Upon completion of the analysis, the requestor will remove remaining sample and their HPLC column (if used). The immediate work area will be wipe-tested for possible radioactive contamination by the requestor. If the area is found to be contaminated, then it will be the responsibility of the requestor to decontaminate.

6. When probe work is performed, the originator will decontaminate the probe to a level that is not statistically above background levels.

7. Upon receipt of acceptable wipe-test results, the radiation signs will be taken down and personnel informed. Lab 3038 becomes a non-radioactive lab at this point.

8. Records shall be kept in Lab 3038 showing: originator, isotope, date(s) of analysis and wipe-test results.

9. The mechanical pump oil in the Finnigan 4600 will be examined for possible contamination before any service to the pumps is performed.

10. The occupants of the laboratory will remain as fulltime radioisotope users in regard to film badge and bioassay programs.

Coffin, Tim

From: Coffin, Tim
nt: Thursday, September 16, 2010 8:47 AM
To: Elmore, Chad S
Cc: Terpko, Marc O; Schlank, Bliss M; Civitella, Patricia C; Hall, James E (R&D)
Subject: Radioactive Lab Decommissioning [redacted]

FOR YOUR INFORMATION/ACTION:

As of today, September 16, 2010, Lab LW3042 has been decommissioned as a Radioactive Material use lab.

ACTIONS TAKEN:

1. Removed all radioactive material, samples, and radioactive waste/waste containers from lab.
2. Performed decommission wipe tests. All results were at background or below the AZ Action Level of 100 dpms.
3. All required radioactive program postings, radioactive labels, and signs were removed from the equipment, benches, etc.
4. Lab LW3042 has been removed from the Radioactive Lab Data Bases.
5. Decommission Check-off Sheet started and radiation section completed. Original copy provided to Marc Terpko and copy placed in radiation files.
6. Wipe test book removed from lab and placed in official radiation safety files.
7. This E-mail serves as the official notice to the RSO that the lab has been decommissioned from radioactive material use.

ACTIONS NEEDED:

1. **Brian Bristow**: Remove the lab from your Radioactive Lab Data Base and please check that all radioactive hazard signs are removed from the lab entry doors.

Please let me know if you have any questions.

Timothy Coffin
Radiation Safety Specialist
OW1-227, 6-2682

☐ BIO ☒ RAD ☐ CHEM

LAB # 230442

DATE 9/16/2010

LAB SUPERVISOR Jim Hall DEPT Chemistry

Decommissioning Procedure (Version 2010)

Refer to SHEP-104 Commissioning and Decommissioning Laboratories for more information. This Wilmington SH&E SOP can be found on the portal. Click here to access the SOP.

Section A: Radioactive Laboratory Decommissioning Checklist

Responsible Investigator for the Lab: Chad Elmore

Completed	Questionnaire
☒ Yes ☐ No	Contact Safety (x62682) to remove all radioactive materials (RAM) from the lab, including all forms of RAM waste. DO NOT REMOVE TAPE!
☒ Yes ☐ No	Thoroughly clean all areas that contained RAM; this includes work surfaces, fume hoods and storage areas.
☒ Yes ☐ No	Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas.
☒ Yes ☐ No	Write a letter to RSO in Safety stating that the lab is no longer radioactive and that it should be removed from the list of radioactive labs.
☒ Yes ☐ No	Contact Safety to perform final wipe test of the lab and equipment.

Once the RI has completed the above actions, the lab can be turned over to Radiation Safety for final decommissioning steps and will assume control of the lab (Sign below). RI has completed decommissioning responsibilities.

Timothy Cobbin 9/16/2010 Timothy Cobbin 9/16/2010

Radiation Safety Acceptance of the Lab with Actions / Date — Radiation Safety Actions Completed / Date

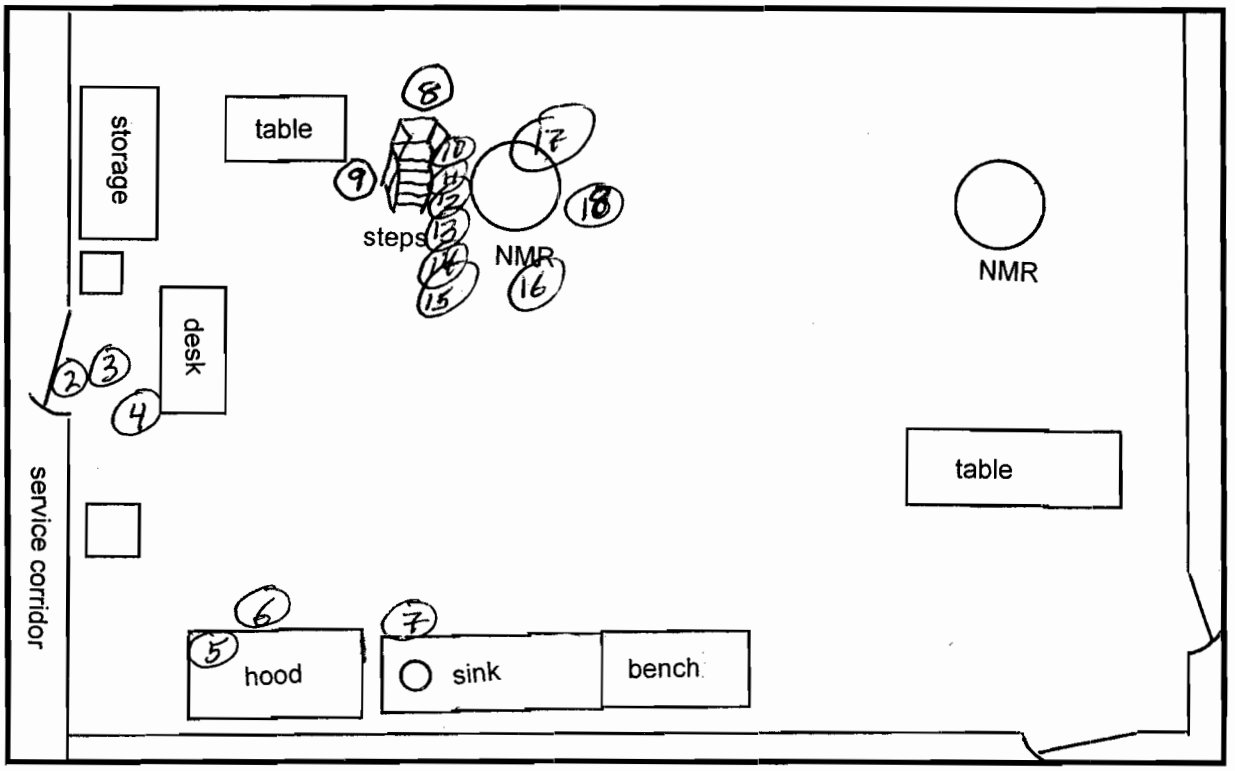
Section B: Procedure for Vacating a Laboratory

Section A must be completed prior to completing Section B.

Have all chemicals been reassigned/returned or characterized as waste for disposal?	☐ Yes ☐ No ☐ NA	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benches, etc.)	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
To the best of your knowledge, Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	☐ Yes ☐ No ☐ NA	
Biosafety Hazards:		
Were biohazard/biological material used in laboratory?	☐ Yes ☐ No ☐ NA	
Have all surfaces/areas/equipment been decontaminated using EPA registered disinfectant (bleach, ethanol, etc.).	☐ Yes ☐ No ☐ NA	
Remove/deface all biohazard stickers from the equipment.	☐ Yes ☐ No ☐ NA	
Have all biological/Biohazardous wastes been appropriately disinfected/decontaminated and disposed of.	☐ Yes ☐ No ☐ NA	
Has the Biohazard decommissioning been completed?	☐ Yes ☐ No ☐ NA	
Radiation Hazards:		
Were radioactive materials used in the laboratory and were all steps completed in Section A?	☐ Yes ☐ No ☐ NA	
General Housekeeping:		
Has all normal trash been disposed of?	☐ Yes ☐ No ☐ NA	
Have all cabinets/closets/drawers been emptied?	☐ Yes ☐ No ☐ NA	

WIPE TEST MAP

LAB # LW3042



WIPE SAMPLE DESCRIPTIONS

1. Background
2. Door handle & light switch
3. Floor below door
4. Desk
5. Hood sash, foil, & handles
6. Floor below hood
7. Sink
8. Portable stair rails
9. Portable stair steps
10. Floor below NMR

Decommission Wipes
L3042

Protocol #:15 Name:Wipe Test 16-Sep-2010 05:53
Region A: LL-UL= 0.0-18.6 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=18.6-156. Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL=156.-2000 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 1.00 QIP = tSIE/AEC ES Terminator = Count
A:Half-life = 108624 Ref = 03/10/2004 12:00
B:Half-life = 999999 Ref = 03/10/2004 12:00
Conventional DPM
Nuclide 1 = 273321 Nuclide 2 = 130095
Save Data Filename = SDATA15.DAT

S#	TIME	CPMA	CPMB	CPMC	DPM1	DPM2	tSIE	FLAG	
1	10.00	4.52	5.18	4.70			589.	B	
2	1.00	0.00	0.00	0.00	0.00	0.00	580.		– Door handle & Light Switch
3	1.00	0.00	0.00	0.00	0.00	0.00	618.		– Floor below door
4	1.00	3.48	0.00	1.30	7.37	0.00	520.		– Desk & Floor
5	1.00	0.00	0.82	1.30	0.00	1.11	552.		– Hood Sash & Door
6	1.00	3.48	1.82	0.00	6.45	2.44	500.		– Mat below hood
7	1.00	0.00	0.00	0.30	0.00	0.00	481.		– Sink
8	1.00	5.48	1.82	0.00	10.14	2.39	561.		– Ladder rail left
9	1.00	0.48	0.00	0.30	0.97	0.00	557.		– Ladder rail right
10	1.00	1.48	6.82	0.00	0.00	9.18	570.		– Top Step
11	1.00	0.00	4.75	1.30	0.00	6.42	554.		– Step below Top
12	1.00	0.48	0.00	0.00	0.97	0.00	559.		– 2nd Step below Top
13	1.00	0.00	1.82	0.00	0.00	2.46	556.		– 3rd Step below Top
14	1.00	0.48	0.00	1.30	0.98	0.00	556.		– Bottom Step
15	1.00	5.48	1.82	0.00	10.13	2.39	563.		– Floor by ladder
16	1.00	0.00	0.00	0.00	0.00	0.00	465.		– Floor by magnet
17	1.00	0.00	0.00	0.30	0.00	0.00	470.		– Robot Feed
18	1.00	0.00	0.00	0.00	0.00	0.00	544.		– Sides of Magn. f

All Clean!

Coffin, Tim

From: Coffin, Tim
t: Thursday, October 06, 2005 1:49 PM
Hall, James E (R&D)
Cc: Elmore, Chad S; Petlick, Scott
Subject: Decommission of Lab [redacted] from Temporary NMR Use for Radioactive Material (14C)

FOR YOUR INFORMATION/ACTION:

As of today, Lab [redacted], is hereby decommissioned from the temporary use for processing Radioactive Material Samples on the NMR. The following actions were taken:

1. Decommissioning Wipe Tests completed with all samples below background or the AZ Action level of 100 dpms.
2. Floor monitoring and meter monitoring was not possible due to the strong magnetic force of the NMR.
3. All radioactive labels, signs, and postings were removed form the lab and entrance doors.
4. Wipe test records removed from the lab and filed in the decommissioning files.
5. Decommissioning Form completed and filed as appropriate in the Decommission Files for LW3043 and with the lab wipe test records.
6. All radioactive material and waste has been removed from the lab and returned to the RI, Chad Elmore, or the Waste Handler, Tim Coffin.
7. Lab has been removed from the Radioactive Lab Data Base and other data bases that reflect it as an active Rad Lab.
8. Dosimetry badges for the individuals that work in the lab were canceled.

Please let me know if you have any questions.

Tim Coffin
Radiation Safety Specialist
OW1-227, 6-2682

LW3043

AstraZeneca

Decommissioning A Laboratory

To decommission a laboratory (i.e., no longer using Radiation);

complete the appropriate sections below.

Section A: Radioactive Laboratory Decommissioning

Section B: Biosafety Laboratory Decommissioning

Section C: Laboratory Vacating Form

(Only completed when moving out of the laboratory or transferring ownership.)

☐ NA

Section A: Radioactive Laboratory Decommissioning Checklist

Laboratory: LW3043 Lab Supervisor: Jim Hall / Chad Elmore

Responsible Investigator for the Lab: Chad Elmore

RAM Users in This Lab: Jim Hall

NMR Use Only for C14 Samples

Date: 10/06/05

Date Completed	Questionnaire
10/06/05	Remove all radioactive materials (RAM) from the lab, including all forms of RAM waste.
10/06/05	Thoroughly clean all areas that contained RAM; this includes work surfaces and storage areas.
10/05/05	Contact Safety to perform final wipe test of the lab and equipment.
[signature]	Construct a history of the radioactive isotope use in that lab. Document any spills or unusual occurrences involving the spread of contamination or contamination remaining after cleanup. If none ever occurred, specify so for clarification. Provide a map of the radioactive areas. RSO C14 Only (One Sample)
10/06/05	Write a letter to ~~D. H. Hall~~ in Safety stating that the lab is no longer radioactive and that it should be removed form the list of radioactive labs.
10/06/05	After approval by Safety, the radiation signs can be removed and returned to Safety.
NA	If vacating the lab or changing ownership, proceed to Section C.

Radiation Decommissioning has been completed:

[signature] 10/6/05

Signature of Safety Professional Date

Once radioactive decommissioning has taken place - please pass to the safety professional responsible for the next section.

☒ NA

Section B: Biosafety Laboratory Decommissioning Checklist

Date Completed	Each Senior Laboratory Person/Laboratory Supervisor Must:
	Decontaminate the entire room and equipment using EPA registered disinfectant (bleach, ethanol, etc.).
	Remove all biohazard stickers from the equipment before moving.
	Fill out proper work orders to move equipment (i.e., Autoclaves or biological safety cabinets (BSC). **Not BSC must be decontaminated before moving by contacting J. Mauriello at (302) 886-5721*
	Update the permits status (new, revised, retired, renew).
	After approval by Safety, the biosafety signs can be removed and returned to Safety.
	If vacating the lab or changing ownership, proceed to Section C.

Biosafety Decommissioning has been completed:

Signature of Safety Professional Date

Once biosafety decommissioning has taken place - please pass to the safety professional responsible for the next section.

☒ NA ☐ Section C: Laboratory Vacating Form

PROCEDURE FOR VACATING A LABORATORY

If you have biological or radioactive hazards in your laboratory, you must complete Section A for Biohazards and Section B for Radiation.

Please provide the following information and call Sandy Merritt, x-2860 to schedule a walk through before vacating a laboratory:

Date:	Name:	Lab #:	Building:
Department:	Cost Center:	Extension:	New Location:

GENERAL INFORMATION:

Provide a brief history of any fume hood and sink usage in order to assess potential hazard in the future and provide any history on spills, if applicable:

QUESTIONNAIRE:

Chemical Hazards	Circle Answer	Comments
Have all chemicals been reassigned/returned or characterized as waste for disposal?	Yes or No	
Have all potentially contaminated surfaces been cleaned (i.e., in hood, lab benchs, etc.)	Yes or No	N/A
Is there the potential for residual chemicals in the duct work, drain piping and traps that would be a hazard in the future?	Yes or No	
Is there the potential for residual chemicals under or behind cabinets/hoods that would be a hazard in the future?	Yes or No	
Biosafety Hazards:		
Were biohazards/biologicals used in laboratory?	Yes or No	(If "No" go to the next section.)
Have all surfaces/areas been decontaminated?	Yes or No	
Has the decommissioning been completed?	Yes or No	
Radiation Hazards:		
Were radioactive materials used in the laboratory?	Yes or No	(If "No" go to the next section.)
Date lab was decommissioned?		10/6/05
What isotopes were used?		C14
Have all surfaces/areas been decontaminated?	Yes or No	
Have all isotopes been transferred or disposed of?	Yes or No	
General Housekeeping:		
Has all normal trash been disposed of?		
Have arrangements been made to return furniture?	Yes or No	
Have all cabinets/closets/drawers been emptied?	Yes or No	
Has Housekeeping (x-4121) been notified to clean?	Yes or No	
Other Issues:		
Contacted Lab Admin to handle the keys/locks?	Yes or No	
Fume Hood(s)/Bench Areas	Yes or No	
Is bench free of samples, glassware,etc.?		Yes or No
Have solvents been transferred/disposed of/ reassigned?		Yes or No
Particularly ether and THF?		Yes or No
Have all stills been quenched/transferred/ reassigned?		Yes or No
Have all intermediates/research samples been:		Yes or No
• Entered into the M collection?		N/A
• Assigned to others on the project and labeled as such?	Yes or No	
• Disposed of if no notebook number on label?	Yes or No	
• Is the wall cabinet free of research samples?	Yes or No	
• Are the center bench drawers free of research samples?	Yes or No	
Has all the waste been property removed?	Yes or No	
• Waste silica?		
• Broken or glass thermometers?	Yes or No	
• Sharps containers?	Yes or No	
• Spent catalysts?	Yes or No	
• Drying agents?	Yes or No	
• Lecture bottles?	Yes or No	
• Used vacuum pump oil?	Yes or No	

• Metals (i.e. sodium, potassium, lithium, etc.)	Yes or No	
• Containers of used pipets/pipet tips?	Yes or No	
• Oil baths?	Yes or No	
Has all other waste been properly disposed of?	Yes or No	
Pass Inspection?	Yes or No	
Form has been given to R&D Facilities	☐ Yes	

This procedure must be followed to ensure proper decommissioning and documentation of hazards, failure to follow this procedure and obtain all signatures, <u>will</u> result in charge backs to departments. The above referenced laboratory has been reviewed and found to be in compliance with this procedure by:

SIGNATURES and DATE:

Lab Occupant:		/ /	Facilities:		/ /
Safety:	Tom Coffin	10/6/05	Dept. Manager:		/ /

Once lab has been successfully decommissioned, this form should be given to R&D Facilities Manager (x65001). If transferring ownership, please proceed to next page.

Decommission
Wipes

LW3043

Koffin

Decommissioning Wipes LW3043

10/05/05

Jim Coffin

1. Background
2. Door/light switch/Railing on steps
3. Floor By Doors
4. Fume Hood
5. NMR ~~Tube~~ Holder
6. Floor Below Tube Hood
7. Sink
8. Bench
9. NMR Input hole top of tanks
10. Floor By Bench to computer
11. Computer keyboard area ~~Telephone~~
12. Floor Below keyboard
13. ~~Frig Handles~~ Telephone
14. Chair
15. Frig Handle
16. ~~Steps~~ to ladder
17. Floor below ladder

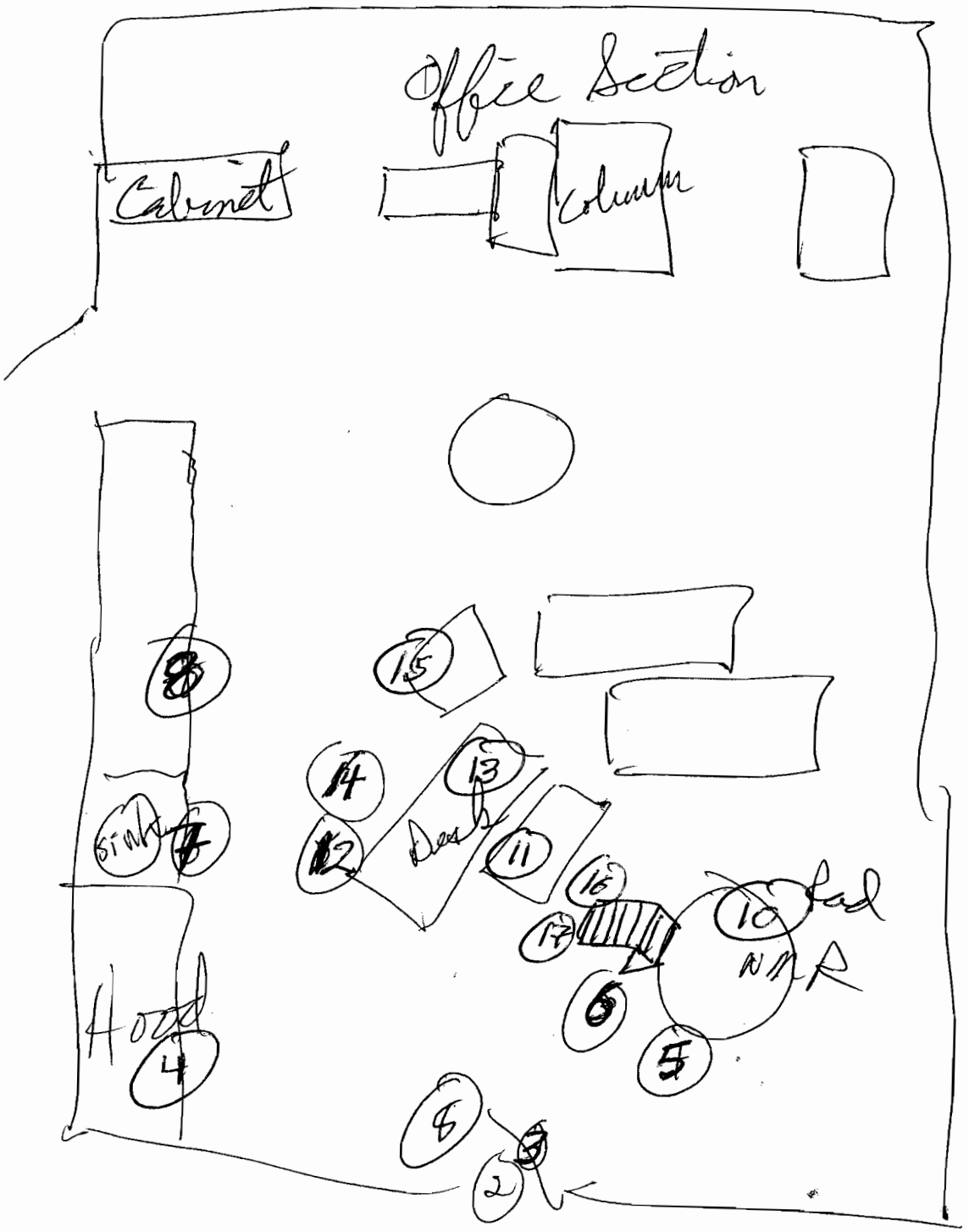
Note = Metal Floor Monitor not used in room because of strong Magnetic Field.

De Commission Wipes

~~9/29/05~~

10/05/05

LW3043



① Background

file:

Expended Lab Plans

Wipe Test

28-Feb-1994

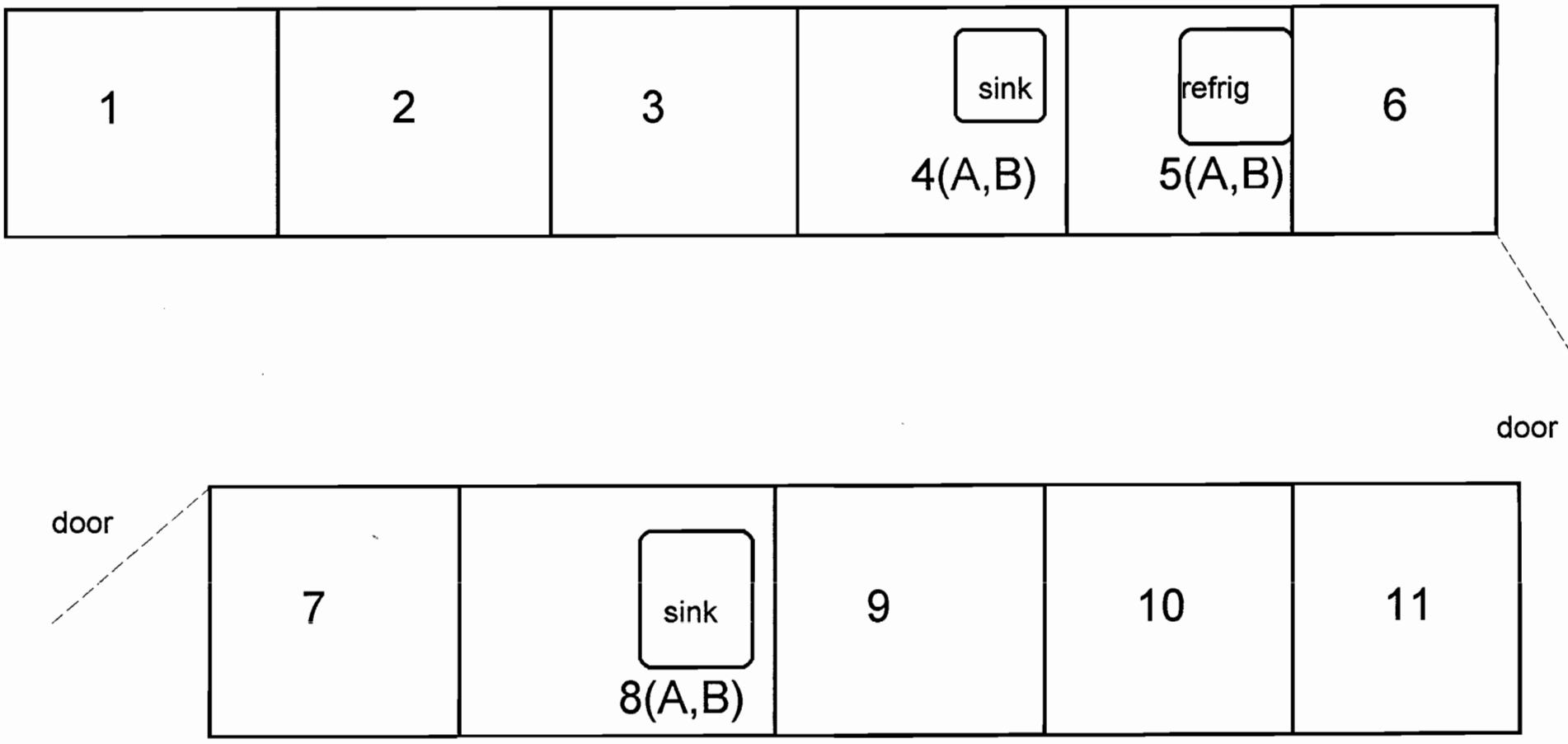
Dave,

Please remove [redacted] from the list of labs certified for the use of radioisotopes. Enclosed is a final wipe test done on 25-Feb-94.

Mark Stein

Decommission Lab
from Radioisotope Use

Radiation Survey Map for NLW 3046



A: inside

B: outside

Protocol #:26 Name:L216 WT 125I,3H 25-Feb-94 1(
Region A: LL-UL= 0.0-12.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region B: LL-UL=12.0-70.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0 Lcr= 0 Bkg= 0.00 %2 Sigma=0.00
Time = 3.00 DIP = SIS

Area on NLW 3046 Survey Map

S#	TIME	CPMA	SIS	FLAG	CPMB	
1	3.00	55.00	13.340		4.67	
2	3.00	25.67	25.430		5.33	
3	3.00	42.00	18.840		5.67	
4	3.00	15.67	29.280		4.67	
5	3.00	12.33	36.940		5.00	
6	3.00	14.00	28.800		4.33	
7	3.00	16.67	33.830		4.00	
8	3.00	19.00	20.720		3.33	
9	3.00	13.33	35.070		7.00	
10	3.00	21.33	21.620		2.00	
11	3.00	16.67	32.090		6.33	
12	3.00	13.00	32.680		5.33	
13	3.00	16.00	25.870		3.67	
14	3.00	13.00	26.360		2.67	
15	3.00	14.67	38.680		5.00	
16	3.00	9.33	39.890		4.67	
17	3.00	10.67	42.560		6.00	
18	3.00	9.00	50.360		5.33	
19	3.00	28.00	21.670		4.33	
20	3.00	12.33	28.640		2.67	
21	3.00	10.67	33.630		5.33	
22	3.00	9.00	46.540		6.00	
23	3.00	12.33	29.660		4.33	
24	3.00	15.67	26.150		4.67	
25	3.00	13.67	42.870		5.67	- 1
26	3.00	9.00	39.020		4.33	- 2
27	3.00	19.33	30.620		5.00	- 3
28	3.00	32.67	59.300		25.33	- 4A
29	3.00	23.33	28.030		6.67	- 4B
30	3.00	10.00	47.440		6.00	- 5A
31	3.00	9.33	36.600		4.33	- 5B
32	3.00	9.33	34.020		2.33	- 6
33	3.00	13.33	44.660		6.33	- 7
34	3.00	14.67	35.750		4.67	- 8A
35	3.00	11.33	32.850		4.33	- 8B
36	3.00	14.33	21.370		2.33	- 9
37	3.00	16.67	30.130		4.33	- 10
38	3.00	7.00	41.620		3.33	- 11