

# Radiological Survey Sheet

Job Location Pfizer Groton CT 06340 118C (221) Page 1 of 19

Survey Purpose Room AND WALK-IN FREEZER DELON Date 3/8/04

Performed by P. KEEFE (Print)  (Sign)

<b>Instrument (Model/S/N)</b>	Packard Tri-Carb S/N 431521	Packard Tri-Carb S/N 431520	Ludlum 2241-2 163603	
<b>Det. (Model/SN)</b>	Internal	Internal	Ludlum 43-68 PR 149613	
<b>Type Rad.</b>	β	β	β	
<b>Cal. Due:</b>	10/24/04	10/24/04	6/25/04	
<b>Check Instruments Used</b>		X	X	

No.	Time	Locations	See attached LSC printout for Total Activity (cpm/100 cm <sup>2</sup> )
1.	0700	BACKGROUND	
2.	↓	ENTRANCE DOOR OUTSIDE	
3.		OUTSIDE HANDLE	
4.		INSIDE	
5.		INSIDE HANDLE	
6.		SMALL SOLID DOOR OUTSIDE	
7.		INSIDE	
8.		EXIT SIGN	
9.		SMALL LEFT WALL SAME SIDE AS DOOR	Upper
10.			middle
11.			Lower
12.		SMALL WALL WITH PHONE JACK	UPPER
13.			MIDDLE
14.			LOWER
15.		SMALL WALL WITH EYEWASH STATION	Upper
16.			Lower
17.			middle
18.		0720	SAFETY SHOWER - CHAIRS

# Radiological Survey Continuation Sheet

Page 2 of 19

Date 3/8/04

Room Decon 118C (221)

No.	Time	Locations	See attached LSC printout for Total Activity (cpm/100 cm <sup>2</sup> )
19	0720	Safety shower head	
20		Computer network jacks	
21		Thermostat	
22		Sm. wall w/ A/C control	upper
23			middle
24			lower
25		Thermostat control for mr. slim A/C unit	
26		wall with metal plate	Left side upper
27			middle
28			lower
29			Right side upper
30			middle
31			lower
32		Pipe casing	
33		outside of freezer	vert metal support #1
34			#2
35			#3
36			#4
37			horizontal metal supports upper
38			lower
39		metal conduit (silver)	Left
40			Right
41		SPEARS flow valves	left
42			middle
43			Right
44		P.V.C. Tubes	left
45	0750		Right

# Radiological Survey Continuation Sheet

Page 3 of 19

Date 3/8/04

Room Decan 118C C221

No.	Time	Locations	See attached LSC printout for Total Activity (cpm/100 cm <sup>2</sup> )
46	0750	Copper piping	
47		Apollo yellow Flow Valves # 1	
48			# 2
49			# 3
50			# 4
51			# 5
52			# 6
53			# 7
54		Blue Parker filtration bulb	
55		Electrical STRIP UPS/DP-4 - LEFT	
56		Computer network Hookup	
57		UPS/DP-10,12 - Left	
58			- middle
59			- Right
60			UPS/DP-4 - Right
61		A/C SERVICE SWITCH ECP 2L/30	
62		A/C unit 118C-AC-002 FRONT	
63			LEFT
64			Right
65			Bottom - LEFT
66			- Right
67			REAR
68		Insulated Piping FROM A/C unit	
69		Temp alarm box 118C-WB-001 FRONT	
70			LEFT
71			Right
72	0820		Top

# Radiological Survey Continuation Sheet

Page 4 of 19

Date 3/8/04

Room DRCA 118L (221)

No.	Time	Locations	See attached LSC printout for Total Activity (cpm/100 cm <sup>2</sup> )
73	0820	Temp alarm box 118C-WB-001 - Bottom	
74		CONDUIT FROM ALARM BOX - LEFT	
75		- Right	
76		Plastic molding From Temp. ALARM Box 118C-WB-001	
77		FREEZER Light switch	
78		Door handle	
79		Door - Top	
80		- middle	
81		- Bottom	
82		Hinges	
83		Temp. Gauge - Right side of door	
<del>OUTSIDE FREEZER SWITCH 118C-WB-001 Box 4/1/221</del>			
84		1 <sup>st</sup> QUARTER - TOP	
85		- MIDDLE	
86		- Bottom	
87		2 <sup>nd</sup> QUARTER - TOP	
88		- MIDDLE	
89		- Bottom	
90		3 <sup>rd</sup> QUARTER - TOP	
91		- MIDDLE	
92		- Bottom	
93		4 <sup>th</sup> QUARTER - TOP	
94		- MIDDLE	
95		- Bottom	
96		REAR wall w/ FIRE EXTINGUISHER - TOP	
97	↓	- MIDDLE	
98	0850	- Bottom	

# Radiological Survey Continuation Sheet

Page 5 of 19

Date 3/8/04

Room Decon 118L (ZZ1)

No.	Time	Locations	See attached LSC printout for Total Activity (cpm/100 cm <sup>2</sup> )
99	0850	REAR WALL - FIRE EXTINGUISHER	
100		- BRADLEY EYE WASH STATION	
101		REAR SM WALL - UPPER	
102		- LOWER	
103		- MIDDLE	
104		REAR WALL - ELECTRICAL STRIP - UPS / DP-3 - LEFT	
105		- UPS / DP-3 - Right	
106		- COMPUTER NETWORK HOOKUP	
107		- UPS / DP-9, 11 - LEFT	
108		- MIDDLE	
109		- RIGHT	
110		SPEARS Flow Valves - LEFT	
111		- MIDDLE	
112		- RIGHT	
113		P.V.C. Pipes - LEFT	
114		- RIGHT	
115		BRASS PIPES	
116		Apollo Flow valves #1	
117		#2	
118		#3	
119		#4	
120		#5	
121		#6	
122		#7	
123		HORIZONTAL METAL SUPPORTS - TOP	
124	↓	- Bottom	
125	0920	REAR WALL 1st THIRD - UPPER	

# Radiological Survey Continuation Sheet

Page 6 of 19

Date 3/8/04

Room Decon 118C (221)

No.	Time	Locations	See attached LSC printout for Total Activity (cpm/100 cm <sup>2</sup> )
126	0920	REAR WALL 1 <sup>st</sup> THIRD - MIDDLE	
127		- LOWER	
128		2 <sup>nd</sup> THIRD - UPPER	
129		- MIDDLE	
130		- LOWER	
131		3 <sup>rd</sup> THIRD - UPPER	
132		- MIDDLE	
133		- LOWER	
134		SMALL REAR WALL / RIGHT SIDE - UPPER	
135		- MIDDLE	
136		- LOWER	
137		SM. REAR WALL - WHERE ELECTRICAL STRIP ENDS - UPPER	
138		- MIDDLE	
139		- BOTTOM	
140		LARGE RIGHT WALL ELECTRICAL STRIP UPS/DP-2 - LEFT TWO	
141		- RIGHT TWO	
142		COMPUTER NETWORK HOOKUP	
143		UPS/DP-6, 8 GROUP OF THREE - <del>LEFT</del>	
144		UPS/DP-5, 7 GROUP OF THREE	
145		TANK ANCHOR	
146	SPEARS flow Valves - Left		
147	- MIDDLE		
148	- Right		
149	P.V.C. Pipes - Left		
150	- Right		
151	↓	BRASS PIPES	
152	0950	Apollo flow valves #1	

# Radiological Survey Continuation Sheet

Page 7 of 19

Date 3/8/04

Room Decon 118L CZ1

No.	Time	Locations	See attached LSC printout for Total Activity (cpm/100 cm <sup>2</sup> )
153	0950	Apollo flow valves # 2	
154			# 3
155			# 4
156			# 5
157			# 6
158			# 7
159		HORIZONTAL METAL SUPPORTS	
160		2 <sup>nd</sup> SET SPEARS flow Valves - Right	
161			- middle
162			- Left
163		P.V.C. Pipes - Left	
164			- Right
165		BRASS pipes	
166		Apollo Flow Valves #1	
167			#2
168			#3
169			#4
170			#5
171			#6
172			#7
173		HORIZONTAL METAL SUPPORTS	
174		Large Rt. Wall 1 <sup>st</sup> QUARTER - Top	
175			- middle
176			- Bottom
177		2 <sup>nd</sup> QUARTER - Top	
178			- middle
179	1020		- Bottom

# Radiological Survey Continuation Sheet

Page 8 of 19

Date 3/8/04

Room DECON 118L (ZZ1)

No.	Time	Locations	See attached LSC printout for Total Activity (cpm/100 cm <sup>2</sup> )
180	1020	Large RT. WALL 3 <sup>rd</sup> QUARTER - TOP	
181		- MIDDLE	
182		- BOTTOM	
183		TANK ANCHOR	
184		Sm Right wall BY DOOR - TOP	
185		- MIDDLE	
186		- BOTTOM	
187		FIRE STROBE / HORN	
188		Light switch	
189		FIRE EXTINGUISHER	
190		CENTER ISLAND Right side SECT. 1 BENCHTOP - LEFT	
191			- MID.
192			- RIGHT
193			- LEFT
194		outside draw unit Left - UPPER	
195		- LOWER	
196		TOP LEFT DRAW - OUTSIDE	
197		- INSIDE	
198		TOP Right DRAW - OUTSIDE	
199		- INSIDE	
200		MIDDLE LEFT DRAW - OUTSIDE	
201		- INSIDE	
202		MIDDLE Right DRAW - OUTSIDE	
203		- INSIDE	
204		UPPER MIDDLE DRAW - OUTSIDE	
205	↓	- INSIDE	
206	1050	Lower DRAW - OUTSIDE	



# Radiological Survey Continuation Sheet

Page 9 of 19

Date 3/8/04

Room ORCON 118C (221)

No.	Time	Locations	See attached LSC printout for Total Activity (cpm/100 cm <sup>2</sup> )
207	1050	LOWER DRAW - INSIDE	
208		CENTER ISLAND Post - FRONT	
209		- LEFT	
210		- Right	
211		- REAR	
212		Shelf ABOVE DRAW UNIT # 2	
213		Electrical strip L2L22-5, -7	
214		Computer NETWORK HOOK-UP	
215		Shelf supports - LEFT	
216		- Right	
217		BENCHTOP SWIPE - LEFT	
218		- MIDDLE	
219		- Right	
220		- FRONT EDGE	
221		TOP LEFT DRAW - OUTSIDE	
222		- INSIDE	
223		TOP RIGHT DRAW - OUTSIDE	
224		- INSIDE	
225		LEFT CABINET DOOR - OUTSIDE	
226		- INSIDE	
227		Right CABINET DOOR - OUTSIDE	
228		- INSIDE	
229		INSIDE CABINET - LEFT	
230		- REAR	
230		- Right	
231	↓	- shelf	
232	1120	- Bottom	

# Radiological Survey Continuation Sheet

Page 10 of 19

Date 3/8/04

Room Decon 11810C C221

No.	Time	Locations	See attached LSC printout for Total Activity (cpm/100 cm <sup>2</sup> )
233	1170	Shelf above DRAW UNIT # 3	
234		Electrical strip L2L22-7, -5	
235		Computer NETWORK HOOK-UP	
236		Shelf support - LEFT	
237		- MIDDLE	
238		- RIGHT	
239		BENCHTOP SWIPE - LEFT	
240		- MIDDLE	
241		- RIGHT	
242		- FRONT / RIGHT EDGES	
243		LEFT TOP DRAW - OUTSIDE	
244		- INSIDE	
245		Right TOP DRAW - OUTSIDE	
246		- INSIDE	
247		MIDDLE LEFT DRAW - OUTSIDE	
248		- INSIDE	
249		MIDDLE Right DRAW - OUTSIDE	
250		- INSIDE	
251		UPPER MIDDLE DRAW - OUTSIDE	
252		- INSIDE	
253		LOWER DRAW - OUTSIDE	
254		- INSIDE	
255		Right SIDE DRAW UNIT - UPPER	
256		- LOWER	
257		CENTER UNDER shelf support - UPPER	
258	↓		- LOWER
259	1150	Rightside of island - shelf above DRAW unit #1	

# Radiological Survey Continuation Sheet

Page 11 of 19

Date 3/8/04

Room Decon NSL C221

No.	Time	Locations	See attached LSC printout for Total Activity (cpm/100 cm <sup>2</sup> )
260	1300	Electrical STRIP L2L22-11,-9	
261		Computer NETWORK HOOK-UP	
262		shelf SUPPORTS - LEFT	
263		- MIDDLE	
264		- RIGHT	
245		BENCHTOP SWIPE - LEFT	
246		- MIDDLE	
247		- RIGHT	
248		- LEFT / FRONT EDGES	
249		TOP LEFT DRAW - OUTSIDE	
250		- INSIDE	
251		TOP RIGHT DRAW - OUTSIDE	
252		- INSIDE	
253		MIDDLE LEFT DRAW - OUTSIDE	
254		- INSIDE	
255		MIDDLE RIGHT DRAW - OUTSIDE	
256		- INSIDE	
257		UPPER MIDDLE DRAW - OUTSIDE	
258		- INSIDE	
259		LOWER DRAW - OUTSIDE	
260		- INSIDE	
261		Left side of DRAW UNIT - UPPER	
262		- LOWER	
263		shelf above DRAW UNIT #2	
264		Electrical STRIP L2L22-11,-9	
265	↓	Computer Network Hook-up	
266	1320	shelf SUPPORTS - LEFT	



3/8/04

All Areas were surveyed using  
Ludlum 2241-Z and found to be within limits

Room DRAWN 18C C221



O = wipe location



Surveyed 100% of lower surfaces using 43-68. NO READINGS IN EXCESS OF NORMAL BACKGROUND  
LEVELS WERE IDENTIFIED. (See above)

Protocol# 9 - Room Decon Swipes.lsa

User: Peter Keefe

118C C221 Instrument Room

Assay Definition-

Assay Description:

Assay Type: CPM  
Report Name: Report1  
Output Data Path: C:\Packard\Tricarb\Results\Peter Keefe\Room Decon Swipes  
Raw Results Path: C:\Packard\Tricarb\Results\Peter Keefe\Room Decon Swipes\20040307\_1827.results  
Assay File Name: C:\Packard\TriCarb\Assays\Room Decon Swipes.lsa

Count Conditions-

Nuclide: TRIPLE  
Quench Indicator: tSIE/AEC  
External Std Terminator (sec): 0.5 2s%  
Pre-Count Delay (min): 0.00  
Quench Set: n/a  
Count Time (min): 1.00  
Count Mode: Normal  
Assay Count Cycles: 1 Repeat Sample Count: 1  
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off  
Low CPM Threshold: Off  
2 Sigma % Terminator: Off

Regions	LL	UL
A	0.0	18.6
B	18.6	156.0
C	0.0	2000.0

Count Corrections-

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

Half Life-

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

S#	CPMA	CPMB	CPMC	MESSAGES
1	13	7	28	
2	22	14	47	
3	15	7	27	
4	7	12	26	
5	25	5	38	
6	17	8	36	
7	11	2	20	
8	7	5	17	
9	9	13	33	
10	3	4	11	
11	2	4	13	
12	20	8	34	

Protocol# 9 - Room Decon Swipes.lsa

118C C221 Instrument Room

User: Peter Keefe

13	17	4	26
14	26	4	35
15	9	7	19
16	10	9	25
17	6	8	23
18	17	5	27
19	19	6	32
20	17	4	31
21	17	4	27
22	4	11	18
23	7	8	20
24	12	5	23
25	16	4	24
26	10	6	20
27	7	3	16
28	22	10	41
29	21	9	36
30	14	5	31
31	16	10	30
32	17	5	29
33	5	8	20
34	21	6	33
35	6	10	28
36	20	6	33
37	21	6	33
38	6	8	18
39	10	5	23
40	11	9	29
41	14	11	31
42	12	5	25
43	12	4	17
44	11	15	35
45	16	12	34
46	16	8	30
47	14	6	32
48	6	7	20
49	15	5	27
50	22	5	37
51	17	8	28
52	16	6	26
53	18	6	34
54	14	7	26
55	30	7	39
56	15	5	31
57	11	6	21
58	17	5	30
59	15	5	23
60	21	8	36
61	21	7	31
62	22	7	33
63	25	9	40
64	6	6	21
65	8	8	22
66	26	10	42
67	6	2	12
68	23	4	31
69	17	8	27
70	12	10	25
71	10	5	22
72	18	8	30
73	11	5	29
74	25	10	47
75	23	7	34

Protocol# 9 - Room Decon Swipes.lsa

User: Peter Keefe

118C C221 Instrument Room

76	22	10	45
77	18	5	34
78	19	12	42
79	17	7	32
80	13	10	31
81	5	6	18
82	13	8	25
83	24	5	35
84	6	7	21
85	12	8	28
86	18	4	26
87	17	11	38
88	10	6	20
89	14	3	22
90	13	7	30
91	17	12	39
92	18	6	34
93	9	11	26
94	13	10	26
95	7	8	21
96	8	5	20
97	28	3	42
98	21	6	37
99	12	7	22
100	15	11	42
101	16	7	28
102	17	8	33
103	9	2	14
104	10	2	17
105	13	12	36
106	14	6	26
107	8	3	17
108	16	2	27
109	15	9	30
110	24	10	37
111	18	9	34
112	14	7	34
113	25	10	45
114	21	9	35
115	12	15	33
116	24	5	34
117	13	8	26
118	13	10	35
119	18	5	30
120	12	5	25
121	23	8	34
122	7	8	20
123	15	10	35
124	11	9	27
125	19	7	35
126	1	9	16
127	15	12	34
128	13	7	25
129	20	5	31
130	19	5	28
131	13	7	25
132	18	8	34
133	11	4	25
134	14	6	27
135	9	7	21
136	21	10	39
137	19	7	31
138	10	13	27



Protocol# 9 - Room Decon Swipes.lsa

118C C221 Instrument Room

User: Peter Keefe

139	12	9	27
140	19	9	33
141	16	8	33
142	19	9	36
143	19	9	41
144	13	8	26
145	15	6	28
146	10	6	20
147	17	6	31
148	12	12	31
149	6	2	15
150	21	6	37
151	21	3	34
152	11	2	18
153	23	8	39
154	16	4	28
155	13	7	28
156	22	8	35
157	11	7	29
158	13	3	22
159	14	7	30
160	9	5	24
161	16	8	30
162	25	3	33
163	15	12	31
164	7	6	17
165	6	9	21
166	11	8	24
167	25	9	42
168	17	7	28
169	2	12	22
170	13	5	27
171	22	4	29
172	10	10	29
173	16	15	45
174	10	2	21
175	16	11	34
176	18	7	34
177	20	7	37
178	14	4	23
179	19	7	36
180	22	7	35
181	13	6	27
182	13	10	26
183	13	6	25
184	18	8	32
185	11	7	25
186	7	6	20
187	10	11	25
188	9	9	26
189	3	11	21
190	15	5	29
191	14	3	25
192	13	8	29
193	17	7	29
194	10	8	32
195	10	8	21
196	20	14	40
197	19	7	34
198	6	14	25
199	13	8	28
200	13	5	26
201	16	5	29

Protocol# 9 - Room Decon Swipes.lsa

User: Peter Keefe

118C C221 Instrument Room

202	13	4	22
203	19	10	38
204	19	12	36
205	16	7	27
206	12	4	26
207	15	6	27
208	13	9	30
209	7	6	23
210	18	9	30
211	18	11	33
212	10	8	24
213	3	8	19
214	11	9	29
215	11	4	16
216	10	6	24
217	5	3	13
218	15	8	27
219	15	6	30
220	8	10	23
221	11	5	28
222	10	9	27
223	12	8	26
224	18	12	33
225	11	8	21
226	11	4	21
227	18	6	29
228	7	6	18
229	18	9	32
230	6	6	16
231	4	5	15
232	13	5	27
233	12	9	26
234	10	9	26
235	7	7	23
236	14	5	30
237	15	4	28
238	8	8	22
239	13	7	32
240	14	8	30
241	12	2	27
242	9	11	29
243	14	10	34
244	14	4	31
245	20	6	30
246	13	4	23
247	10	4	21
248	10	11	29
249	15	6	24
250	5	6	23
251	10	12	24
252	6	9	22
253	9	6	24
254	25	6	39
255	15	6	23
256	14	7	29
257	12	14	32
258	7	5	17
259	13	11	27
260	18	7	31
261	18	3	29
262	11	9	23
263	18	13	36
264	11	6	26

Protocol# 9 - Room Decon Swipes.lsa

118C C221 Instrument Room

User: Peter Keefe

265	21	9	37
266	16	10	37
267	19	11	39
268	9	7	26
269	10	11	31
270	10	13	26
271	15	5	25
272	17	7	26
273	16	9	32
274	12	6	23
275	18	8	32
276	12	6	22
277	8	7	26
278	17	5	28
279	16	7	26
280	6	5	15
281	9	6	20
282	9	11	28
283	18	3	25
284	21	9	34
285	8	4	16
286	20	12	36
287	13	9	24
288	8	5	17
289	11	7	23
290	18	7	38
291	20	6	32
292	17	11	30
293	13	14	33
294	17	12	36
295	13	7	25
296	7	3	13
297	11	5	24
298	20	6	32
299	10	8	25
300	18	6	27
301	15	4	30
302	14	7	26
303	8	4	22
304	15	8	30
305	14	7	25