Hammond, Michelle

From: Hammond, Michelle
Sent: Monday, July 11, 2011 10:24 AM
To: 'afjdm@uaa.alaska.edu'
Subject: Re: REQUEST FOR ADDITIONAL INFORMATION REGARDING CONTROL No. 574591

License No.: 50-19346-01
Docket No.: 030-17465
Control No.: 574591

Dear Mr. Moore:

This is in reference to your application dated February 28, 2011 requesting to renew Nuclear Regulatory Commission License No. 50-19346-01. In order to continue our review, we need the following additional information:

1. Please submit the actual data report related to the surveys conducted in the rooms associated with the Science Building which you requested to have removed from your license and released for unrestricted use. Also, please confirm what radionuclides were used in those rooms

2. Please submit training and experience for the following authorized users: ***Dr. Burns, Dr. Sveinbjornsson, and Dr. Krebs***. Your license with the NRC is a R&D Limited Scope License, therefore, each authorized user must meet the requirements in NU-REG 1556 Vol.7 (see link below). The authorized users will be listed on your license, and when you wish to add or remove authorized users, you will have to submit an amendment for that action. There is no cost for amendments to your license. Previous authorized users will not need to submit training and experience because they were already noted as authorized users in past documentation, however, please submit the following information for ***Dr. Burns, Dr. Sveinbjornsson, and Dr. Krebs***:
-Name, What training and experience they have with nuclear material, type of radioactivity (alphas, betas, gammas), quantity, how often, and where training and experience occurred.

   Refer to Section 8.7.2 (Pg. 8-16 & 8-17)
   http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v7/sr1556v7.pdf

We will continue our review upon receipt of this information. Please reply to my attention and refer to Mail Control No. 574591. If you reply via email, please attach the requested documentation in PDF format or you may fax your response to (817) 860-8188. If we do not receive a reply from you by August 5, 2011, we will assume that you do not wish to pursue your application.

If you have any technical questions regarding this deficiency letter, please call me at (817) 860-8127.

Best Regards,

Michelle M. Hammond, MSc
Health Physicist
U.S. Nuclear Regulatory Commission, R-IV
Division of Nuclear Materials Safety, Branch A
office) 817-860-8127
fax) 817-860-8188
Michelle.Hammond@nrc.gov

Hammond, Michelle

From: John Moore [afjdm@uaa.alaska.edu]
Sent: Monday, August 01, 2011 3:13 PM
To: Hammond, Michelle
Subject: FW: REQUEST FOR ADDITIONAL INFORMATION REGARDING CONTROL No. 574591
Attachments: Section7revision.pdf

Michelle – Attached is a revision of section 7 that removes the wording indicating that we will approve our own authorized users and also the training/ experience our proposed authorized users have submitted. Let me know if you have any further questions or concerns, your assistance is greatly appreciated.

John Moore RSO

From: John Moore
Sent: Tuesday, July 12, 2011 11:56 AM
To: 'Hammond, Michelle'
Subject: RE: REQUEST FOR ADDITIONAL INFORMATION REGARDING CONTROL No. 574591

Greetings Michelle – Attached you will find a pdf document showing the results of my survey of the SCI building (3150 Alumni Loop). I-125 was never used in this building, Hg-203 use and storage was confined to room 125, Ni-63 sealed sources were confined to room 127, all of the other isotopes (H-3, C-14, P-32, P-33, and S-35) were used in some quantity in all of the licensed rooms at some point. Since it appears that we will not be able to internally approve any new authorized users I have requested that all faculty that think they may work with isotopes submit a updated request that includes the information you have requested, I will forward this to you once I have it compiled. Please let me know if you have any additional questions or concerns.

Thank you for your assistance - John Moore RSO

From: Hammond, Michelle [mailto:Michelle.Hammond@nrc.gov]
Sent: Monday, July 11, 2011 7:24 AM
To: John Moore
Subject: Re: REQUEST FOR ADDITIONAL INFORMATION REGARDING CONTROL No. 574591

License No.: 50-19346-01
Docket No.: 030-17465
Control No.: 574591

Dear Mr. Moore:

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license. Previous authorized users will not need to submit training and experience because they were already noted as authorized users in past documentation, however, please submit the following information for ***Dr. Burns, Dr. Sveinbjornsson, and Dr. Krebs***:
-Name, What training and experience they have with nuclear material, type of radioactivity (alphas, betas, gammas), quantity, how often, and where training and experience occurred.

Refer to Section 8.7.2 (Pg. 8-16 & 8-17)
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If you have any technical questions regarding this deficiency letter, please call me at (817) 860-8127.

Best Regards,

Michelle M. Hammond, MSc
Health Physicist
U.S. Nuclear Regulatory Commission, R-IV
Division of Nuclear Materials Safety, Branch A
office) 817-860-8127
fax) 817-860-8188
Michelle.Hammond@nrc.gov

7. INDIVIDUALS RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE

The Radiation Safety Officer (RSO) is currently John Moore. John Moore M.S. has served as RSO for the University of Alaska Anchorage for the past 5 years, has received 40 hours of training specific to the position of RSO, and has worked with radioisotopes from 1999 until the present.

Authorized Users (AU): Each user authorized to independently use or supervise the use of byproduct material will be a permanent faculty member at the University of Alaska Anchorage, will have a doctoral degree in the physical or biological sciences, and will have training and experience commensurate with the scope of proposed activities. Each authorized user will formally propose the scope of their work in writing for each project to the radiation safety committee and identify their experience and training. Prior training should include the appropriate radiation protection principles, characteristics of ionizing radiation, units of radiation dose and quantities, radiation detection instrumentation, biological hazards of exposure to radiation, and hands-on work with the type and form of radioactive material to be used.

The following individuals have previously been approved as authorized users at the University of Alaska Anchorage: Jennifer Burns Ph.D., Tim Hinterberger Ph.D., John Kennish Ph.D., Jocelyn Krebs Ph.D., Kristine Mann Ph.D., Miki Ii Ph.D., and Loren Buck Ph.D.. Licensed material shall be used by, or under the supervision of these authorized users.

Item 16. Formal Training

Kristine Mann

Type of Training	Where Trained	Duration and When Trained	On the Job	Formal Course
a). Principles and practice of radiation protection	Biology Department McGill University	1 month (1965)	Yes	No
	Tumor Virology Lab The Salk Institute	1 week (1976)	Yes	No
b). Radioactivity measurement standardization and monitoring techniques and instruments	Biology Department McGill University	2 weeks (1965 & 1967)	Yes	No
c). Mathematics and calculations basic to the use and measurement of radioactivity	Biology Department McGill University	3 weeks (1965 & 1967)	Yes	No
d). Biological effects of radiation	Biology Department McGill University	1 week (1965)	Yes	No
	Tumor Virology Lab The Salk Institute	2 days (1974)	Yes	No

Item 17. Experience with Radiation

Kristine Mann

Isotope	Maximum Amount	Where Experience Gained	Duration	Type of Use
^{3}H	10 millicuries	Biology Department McGill University	9 years (1964-1973)	biochemical tracer studies
		Tumor Virology Lab The Salk Institute	5 years (1974-1977, 1979)	"
^{14}C	5 millicuries	Biology Department McGill University	9 years	"
		Tumor Virology Lab The Salk Institute	5 years	"
^{35}S	5 millicuries	Tumor Virology Lab The Salk Institute	5 years	"
^{32}P	25 millicuries	Tumor Virology Lab The Salk Institute	2 years (1977 & 1979)	"

Item 16. Formal Training

John M. Kennish

Type of Training	Where Trained	Duration and When Trained	On the Job	Formal Course
a). Principles and practice of radiation protection	Chemistry Department Rutgers University	5 months (1966)	No	Yes
b). Radioactivity measurement standardization and monitoring techniques and instruments	Chemistry Department Rutgers University	5 months (1966)	No	Yes
	Pharmacology Dept. University of Oregon Health Sciences Center	2 weeks (1977)	Yes	No
c). Mathematics and calculations basic to the use and measurement of radioactivity	Chemistry Department Rutgers University	5 months (1966)	No	Yes
	Chemistry Department Shippinsburg State College	3 months (1970)	No	Yes
	Pharmacology Dept. University of Oregon Health Sciences Center	2 weeks (1977)	Yes	No
d). Biological effects of radiation	Chemistry Department Rutgers University	5 months (1966)	No	Yes
	Chemistry Department Shippinsburg State College	3 months (1970)	No	Yes

Item 17. Experience with Radiation

John M. Kennish

Isotope	Maximum Amount	Where Experience Gained	Duration	Type of Use
^{14}C, ^{32}P, ^{3}H, ^{90}Sr, and ^{131}I	Various	Rutgers University Chemistry Department	5 months (1966)	educational experiments
^{14}C	5-10 millicuries	University of Oregon Health Sciences Center	2 years (1977-1979)	chemical carcinogen metabolism studies
^{3}H	5-10 millicuries	University of Oregon Health Sciences Center	2 years (1977-1979)	"

Formal Training

Timothy J. Hinterberger

Type of training	Where trained	Duration and When trained	On the job	Formal course
a) Principles and practice of radiation safety	University of Illinois, Urbana	1 week (1983)	yes	no
	University of Michigan	1 week (1987)	yes	no
	Purdue University	1 month (1989)	yes	yes (1 day)
b) Radioactivity measurement	Purdue University	1 month (1989)	yes	yes (1 day)
c) Mathematics and calculations	Purdue University	1 month (1989)	yes	yes (1 day)
d) Biological effects	University of Michigan	1 week (1987)	yes	no
	Purdue University	1 month (1989)	yes	yes (1 day)

Experience with Radiation

Timothy J. Hinterberger

Isotope	Maximum amount	Where experience was gained	Duration	Type of use
^{3}H	1 mCi	University of Illinois, Urbana	2 years (1984-85)	biochemical tracer studies
		University of Michigan	2 years (1988-89)	"
^{35}S	1 mCi	University of Illinois, Urbana	3 years (1984-86)	"
		University of Michigan	1 year (1988-89)	molecular biology
		Purdue University	1 year (1991-92)	" "
		University of Alaska, Anchorage	2 years (1992-94)	"
^{32}P	1 mCi	University of Michigan	2 years (1987-88)	"
		Purdue University	3 years (1989-92)	"
		University of Alaska, Anchorage	2 years (1992-94)	"

Jocelyn E. Krebs
Radioactive Material Use
Training and Experience history

Formal training

University of Washington: Radiation Use and Safety, 1 week course (1990)

University of California, Berkeley: Radiation Safety Course, 1 day (1991)

University of Massachusetts Medical School: Radiation Safety training, 1 day (1997)

Experience

Location	*isotope*	*duration*	*type of use*
University of Washington	^{32}P	6 months	molecular biological techniques (nucleic acid labeling, etc)
UC Berkeley	^{32}P, ^{35}S	7 years	"
UMass Medical School	^{32}P	3 years	"

Jennifer M. Burns
Radioactive Material Use
Training and Experience history

Formal training

University of California Santa Cruz: Radiation Safety Course, 2 days (1998)

University of California, Santa Cruz: Radiation Safety Refresher Training, 1 day (1999)

Experience

Location	*isotope*	*duration*	*type of use*
Univ. of California Santa Cruz	^{51}Cr	3 months	Physiological Techniques (blood volume)
UC Santa Cruz	^{3}H	2 years	Physiological Techniques (body water)

UC Santa Cruz Radiation Safety Officer:
Ken Smith
Environmental Health and Safety Office
University of California Santa Cruz
Santa Cruz, CA 95064
Phone: 831-459-3911
Fax: 831-459-3209
Email: Ksmith@cats.ucsc.edu

Name of Proposed AU: Miki Ii

Proposed isotope, form and quantity of licensed material to be used:

^{32}P for labeling nucleic acids, [α-^{32}P] dCTP, [α-^{32}P] dATP, etc., quantity: ?

^{35}S for labeling proteins, ^{35}S-methionine or ^{35}S-Cystein, quantity: ?

Formal Training:

Location	Description	# of hours	Date
Kyushu University, Japan	Formal training for new users	5 hrs	Jul 1997
Kyushu University, Japan	Refresher training	1 hr	Jul 1998
Kyushu University, Japan	Refresher training	1 hr	Jul 1999
Kyushu University, Japan	Refresher training	1 hr	Jul 2000
Kyushu University, Japan	Refresher training	1 hr	Jul 2001
Kansas State Univ.	?	1 hr	May 2002
Rutgers University	Formal training for new users	3 hr	Oct 2003
Rutgers University	Refresher training	1 hr	Feb 2004
Rutgers University	Refresher training	1 hr	Feb 2005
Rutgers University	Refresher training	1 hr	Feb 2006
Rutgers University	Refresher training	1 hr	Feb 2007

Experience:

Location	Isotope	Quantity	Duration	Estimated # of hours	Type of use
Kyushu Univ., Japan	^{32}P, ^{35}S	250uCi	4 years 8 months	1040 hr	Molecular techniques (labeling of DNA, proteins etc.)
Kansas State Univ.	^{32}P	250uCi	1 year	120 hr	Molecular techniques (labeling of DNA, etc.)
Rutgers Univ.	^{32}P	250uCi	3 years	360 hr	Molecular techniques (labeling of DNA, etc.)

Name of Proposed AU: C. Loren Buck

Proposed isotope, form and quantity of licensed material to be used: I^{125} in RIA kits <50uCi

Formal Training:

Location	Description	# of hours	Date
UAF	General RIA course	8	Fall 1992
UAF Barnes Lab	Use of tritiated RIA	20	Fall 1993
UAF-SSL	RIA w/ I^{125}	8	Fall 2006

Experience:

Location	Isotope	Quantity	Duration	Estimated # of hours	Type of use
UAF	tritium	Low levels	1993-1998	hundreds	RIA (Cort & T)
UAF-SSL	I^{125}	~8.5 uCi	Fall 2006	~40	RIA-(E1 &T)

SNC Protocol

Calibration Information
Software Version IC: 2.11
Software Version EC: 1.31
Instrument Model: Tri-Carb 2900TR
Instrument Serial Number: 431274
3H Chi Square: Not Processed
14C Chi Square: Not Processed
3H E^2/B (1-18.6 keV): 331.70 Date Processed: 2/19/10 8:23:33 PM
14C E^2/B (4-156 keV): 636.73 Date Processed: 2/19/10 8:23:33 PM
3H Efficiency (0-18.6 keV): 64.11 Date Processed: 2/19/10 8:23:33 PM
14C Efficiency (0-156 keV): 95.82 Date Processed: 2/19/10 8:23:33 PM
IPA Background Date Processed: 2/19/10 8:23:33 PM
3H Background CPM (0-18.6 keV): 12.67 Date Processed: 2/19/10 8:23:33 PM
14C Background CPM (0-156 keV): 18.50 Date Processed: 2/19/10 8:23:33 PM
3H Calibration DPM: 278201
3H Reference Date: 1/29/03
14C Calibration DPM: 134900

Assay Definition-

Assay Description:
in cocktail

Assay Type: CPM
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\john\testswipe
Raw Results Path: C:\Packard\Tricarb\Results\john\testswipe\20100219_2023.results
Assay File Name: C:\Packard\TriCarb\Assays\testswipe.lsa

Count Conditions-

Nuclide: 3H-14C-32P
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set: n/a
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - IPA
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	11.18
B	12.0	156.0	7.23
C	156.0	1700.0	9.90

Count Corrections-

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

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	MESSAGES
1	2.00	0	4	0	
2	2.00	1	1	0	
3	2.00	3	2	0	
4	2.00	1	0	0	
5	2.00	4	7	0	
6	2.00	2	4	0	
7	2.00	2	3	0	
8	2.00	5	1	1	
9	2.00	1	3	1	
10	2.00	3	3	0	
Missing vial 11.					
Missing vial 12.					
13	2.00	2	8	0	

SC1122 FLOOR & DOOR
124 SINK & COUNTER
128D FLOOR
LEAD LINED SAFE
122 COUNTERTOPS & SINKS
128 COUNTERTOPS, SINK & HOOD
128A COUNTERTOP & SINK
128C COUNTERTOP & SINK

14	2.00	2	0	0
15	2.00	9	3	0
16	2.00	3	6	0
17	2.00	3	1	1
18	2.00	0	3	0
19	2.00	0	0	0
20	2.00	2	0	0
Missing vial 21.				
22	2.00	1	2	0
23	2.00	8	3	0
24	2.00	2	0	0
25	2.00	1	7	0
26	2.00	2	0	1
27	2.00	5	0	0
28	2.00	0	1	0
29	2.00	1	2	0
30	2.00	6	8	0
31	2.00	3	4	0
32	2.00	0	3	1
33	2.00	1	4	0
34	2.00	0	5	0
Missing vial 35.				
Missing vial 36.				
37	2.00	3	0	0
38	2.00	0	2	0
39	2.00	2	0	0
40	2.00	0	1	0
41	2.00	1	2	0
42	2.00	1	5	0
43	2.00	3	10	1
44	2.00	0	0	0
45	2.00	0	6	0
46	2.00	3	7	0
Missing vial 47.				
Missing vial 48.				
49	2.00	5	0	0
50	2.00	5	3	0
51	2.00	1	4	0
52	2.00	0	5	2
53	2.00	3	6	0
54	2.00	7	2	0
55	2.00	0	6	0
56	2.00	4	2	1
57	2.00	6	3	0
58	2.00	2	2	0
Missing vial 59.				
Missing vial 60.				
61	2.00	2	2	0
62	2.00	0	4	0
63	2.00	2	5	4
64	2.00	3	0	1
65	2.00	1	2	0
66	2.00	0	2	0
67	2.00	0	2	0
68	2.00	3	4	0
69	2.00	4	1	0
70	2.00	3	3	1
Missing vial 71.				
Missing vial 72.				
73	2.00	1	5	0
74	2.00	5	8	0
75	2.00	0	5	0
76	2.00	0	3	0

77	2.00	2	3	0
78	2.00	0	2	0
79	2.00	6	7	0
80	2.00	7	4	1
81	2.00	0	2	0
82	2.00	5	2	2
Missing vial 83.				
Missing vial 84.				
85	2.00	1	7	0
86	2.00	0	4	0
87	2.00	0	0	0
88	2.00	5	2	4
89	2.00	0	4	0
90	2.00	2	1	0
91	2.00	1	0	3
92	2.00	2	2	0
Missing vial 93.				
94	2.00	16278	113086	535
95	2.00	112535	8845	0
96	2.00	6	0	3
97	2.00	2	4	0
98	2.00	4	2	1
99	2.00	4	7	0
100	2.00	1	5	0
101	2.00	3	1	1
102	2.00	3	3	0
103	2.00	7	5	0
104	2.00	6	0	0
105	2.00	2	2	0
106	2.00	6	3	0
Missing vial 107.				
Missing vial 108.				
109	2.00	6	0	0
110	2.00	0	2	0
111	2.00	2	6	1
112	2.00	3	1	0
113	2.00	5	1	0
114	2.00	3	5	0
115	2.00	0	3	0
116	2.00	3	3	0
117	2.00	3	4	0
118	2.00	0	7	0
Missing vial 119.				
Missing vial 120.				
121	2.00	4	5	1
122	2.00	1	2	1
123	2.00	1	1	0
124	2.00	3	6	0
125	2.00	2	1	0
126	2.00	0	6	0
127	2.00	2	5	0
128	2.00	1	8	0
129	2.00	3	3	0
130	2.00	4	3	0
Missing vial 131.				
Missing vial 132.				
133	2.00	2	5	0
134	2.00	0	6	0
135	2.00	4	3	0
136	2.00	1	5	0
137	2.00	1	1	0
138	2.00	2	1	1
139	2.00	0	4	0

14C CONTROL

3H CONTROL

BACKGROUND CONTROL

140	2.00	0	6	0
141	2.00	0	0	1
142	2.00	1	3	5
Missing vial 143.				
Missing vial 144.				
145	2.00	2	5	1
146	2.00	2	2	0
147	2.00	2	3	0
148	2.00	1	5	0
149	2.00	2	2	0
150	2.00	4	9	0
151	2.00	1	3	1
152	2.00	0	7	0
153	2.00	1	3	0
154	2.00	2	4	0
Missing vial 155.				
Missing vial 156.				
157	2.00	0	1	0
158	2.00	4	1	0
159	2.00	1	0	0
160	2.00	0	4	0
161	2.00	1	2	0
162	2.00	0	7	0
163	2.00	0	3	0
164	2.00	1	1	1
165	2.00	2	6	0
166	2.00	1	6	1
Missing vial 167.				
Missing vial 168.				
169	2.00	0	7	1
170	2.00	0	8	0
171	2.00	0	3	1
172	2.00	0	3	0
173	2.00	0	0	0
174	2.00	0	3	1
175	2.00	2	4	0
176	2.00	4	2	1
177	2.00	7	4	0
178	2.00	1	6	0
Missing vial 179.				
Missing vial 180.				
181	2.00	1	1	0
182	2.00	0	3	0
183	2.00	1	4	0
184	2.00	0	8	0
185	2.00	2	1	2
186	2.00	3	8	0
187	2.00	3	3	3
188	2.00	0	1	0
189	2.00	1	5	0
190	2.00	3	0	0
Missing vial 191.				
Missing vial 192.				
193	2.00	2	1	2
194	2.00	1	1	0
195	2.00	2	1	0
196	2.00	2	5	0
197	2.00	0	6	0
198	2.00	3	1	1
199	2.00	0	2	0
200	2.00	1	3	0
201	2.00	0	1	1
202	2.00	0	3	1

Missing vial 203.
Missing vial 204.

205	2.00	3	6	0
206	2.00	3	0	1
207	2.00	2	7	0
208	2.00	3	1	0
209	2.00	0	4	0
210	2.00	0	4	2
211	2.00	1	0	1
212	2.00	2	3	0
213	2.00	3	2	0
214	2.00	6	5	0

Missing vial 215.
Missing vial 216.

217	2.00	4	3	0
218	2.00	1	5	0
219	2.00	0	0	0
220	2.00	0	6	0
221	2.00	0	0	0
222	2.00	0	5	3
223	2.00	3	7	0
224	2.00	2	4	0
225	2.00	1	2	2
226	2.00	1	2	0

Missing vial 227.
Missing vial 228.

229	2.00	0	0	0
230	2.00	1	5	0
231	2.00	1	0	0
232	2.00	0	0	0
233	2.00	1	0	0
234	2.00	1	0	3
235	2.00	1	6	2
236	2.00	0	0	0
237	2.00	0	3	1
238	2.00	0	0	0

Missing vial 239.
Missing vial 240.

241	2.00	0	5	0
242	2.00	0	2	0
243	2.00	0	5	1
244	2.00	1	6	0
245	2.00	2	8	0
246	2.00	1	3	1
247	2.00	2	0	0
248	2.00	2	4	2
249	2.00	7	3	0
250	2.00	3	5	1
251	2.00	2	4	0
252	2.00	0	2	0
253	2.00	5	5	2
254	2.00	0	2	2
255	2.00	0	3	0
256	2.00	0	5	0
257	2.00	1	4	0
258	2.00	2	1	0
259	2.00	2	1	1
260	2.00	5	2	0
261	2.00	0	0	0
262	2.00	3	6	0
263	2.00	3	5	0
264	2.00	2	0	0

Calibration Information
Software Version IC: 2.11
Software Version EC: 1.31
Instrument Model: Tri-Carb 2900TR
Instrument Serial Number: 431274
3H Chi Square: Not Processed
14C Chi Square: Not Processed
3H E^2/B (1-18.6 keV): 339.13 Date Processed: 5/19/10 11:00:08 PM
14C E^2/B (4-156 keV): 632.60 Date Processed: 5/19/10 11:00:08 PM
3H Efficiency (0-18.6 keV): 64.03 Date Processed: 5/19/10 11:00:08 PM
14C Efficiency (0-156 keV): 95.62 Date Processed: 5/19/10 11:00:08 PM
IPA Background Date Processed: 5/19/10 11:00:08 PM
3H Background CPM (0-18.6 keV): 12.28 Date Processed: 5/19/10 11:00:08 PM
14C Background CPM (0-156 keV): 18.23 Date Processed: 5/19/10 11:00:08 PM
3H Calibration DPM: 278201
3H Reference Date: 1/29/03
14C Calibration DPM: 134900

Assay Definition-

Assay Description:
in cocktail

Assay Type: CPM
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\john\testswipe
Raw Results Path: C:\Packard\Tricarb\Results\john\testswipe\20100519_2300.results
Assay File Name: C:\Packard\TriCarb\Assays\testswipe.lsa

Count Conditions-

SC1122 SINKS (TRAP)
122C COUNTERTOPS & FLOORS
124 SINK & FLOOR TRAP
128A FLOORS & SINK TRAP
128C FLOORS & SINK TRAP
128 SINK TRAPS
128 FLOORS & DOORS
THESE WERE RUN IN NEXT SET 5/21

Nuclide: 3H-14C-32P
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set: n/a
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - IPA
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	10.55
B	12.0	156.0	7.62
C	156.0	1700.0	8.82

Count Corrections-

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

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	MESSAGES
1	2.00	2	6	0	
2	2.00	0	0	0	
3	2.00	4	2	0	
4	2.00	1	1	0	
5	2.00	1	2	0	
6	2.00	2	3	1	
7	2.00	0	3	0	
8	2.00	5	1	1	
9	2.00	3	6	0	
10	2.00	1	6	0	
Missing vial 11.					
Missing vial 12.					
13	2.00	3	2	0	

14	2.00	4	2	0	
15	2.00	3	4	1	
16	2.00	0	5	0	
17	2.00	0	0	0	
18	2.00	0	3	0	
19	2.00	4	0	1	
20	2.00	2	4	0	
21	2.00	5	8	0	
22	2.00	1	5	0	
Missing vial 23.					
24	2.00	16417	113155	518	← 14C CONTROL
25	2.00	3	0	3	
26	2.00	1	0	0	
27	2.00	1	4	0	
28	2.00	0	10	0	
29	2.00	1	1	0	
30	2.00	5	7	2	
31	2.00	0	5	0	
32	2.00	0	0	2	
33	2.00	0	1	0	
34	2.00	0	7	0	
Missing vial 35.					
36	2.00	110699	8599	0	← 3H CONTROL
37	2.00	2	3	0	
38	2.00	2	3	0	
39	2.00	0	4	0	
40	2.00	3	5	0	
41	2.00	3	6	0	
42	2.00	3	2	0	
43	2.00	1	4	2	
44	2.00	4	9	0	
45	2.00	2	7	0	
46	2.00	1	1	0	
Missing vial 47.					
48	2.00	3	0	7	← BACKGROUND CONTROL
49	2.00	0	0	0	
50	2.00	0	0	0	
51	2.00	0	2	0	
52	2.00	2	2	1	
53	2.00	3	5	0	
54	2.00	4	4	0	
55	2.00	3	4	2	
56	2.00	2	0	2	
57	2.00	2	3	0	
58	2.00	3	5	4	
Missing vial 59.					
Missing vial 60.					
61	2.00	0	4	0	
62	2.00	0	0	3	
63	2.00	2	0	0	
64	2.00	2	2	0	
65	2.00	1	4	0	
66	2.00	0	6	0	
67	2.00	1	6	0	
68	2.00	4	3	0	
69	2.00	2	0	0	
70	2.00	5	6	0	
71	2.00	0	4	0	

Calibration Information
Software Version IC: 2.11
Software Version EC: 1.31
Instrument Model: Tri-Carb 2900TR
Instrument Serial Number: 431274
3H Chi Square: Not Processed
14C Chi Square: Not Processed
3H E^2/B (1-18.6 keV): 314.25 Date Processed: 5/20/10 10:50:42 PM
14C E^2/B (4-156 keV): 651.18 Date Processed: 5/20/10 10:50:42 PM
3H Efficiency (0-18.6 keV): 64.14 Date Processed: 5/20/10 10:50:42 PM
14C Efficiency (0-156 keV): 95.65 Date Processed: 5/20/10 10:50:42 PM
IPA Background Date Processed: 5/20/10 10:50:42 PM
3H Background CPM (0-18.6 keV): 13.30 Date Processed: 5/20/10 10:50:42 PM
14C Background CPM (0-156 keV): 18.78 Date Processed: 5/20/10 10:50:42 PM
3H Calibration DPM: 278201
3H Reference Date: 1/29/03
14C Calibration DPM: 134900

Assay Definition-

Assay Description:
in cocktail

Assay Type: CPM
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\john\testswipe
Raw Results Path: C:\Packard\Tricarb\Results\john\testswipe\20100520_2250.results
Assay File Name: C:\Packard\TriCarb\Assays\testswipe.lsa

Count Conditions-

SCI 128A FLOOR
128C FLOOR

Nuclide: 3H-14C-32P
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set: n/a
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - IPA
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	11.83
B	12.0	156.0	6.88
C	156.0	1700.0	9.62

Count Corrections-

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

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	MESSAGES
1	2.00	3	0	0	
2	2.00	5	1	0	
3	2.00	9	0	2	
4	2.00	2	4	1	
5	2.00	3	3	0	
6	2.00	1	5	1	
7	2.00	4	6	0	
8	2.00	2	1	1	
9	2.00	0	1	1	
Missing vial 10.					
Missing vial 11.					
Missing vial 12.					
13	2.00	2	1	0	

14	2.00	2	0	2
15	2.00	1	9	1
16	2.00	4	3	0
17	2.00	4	4	0
18	2.00	1	3	0
19	2.00	9	3	0
20	2.00	6	0	1
21	2.00	2	6	0
22	2.00	5	2	0

Missing vial 23.
Missing vial 24.

25	2.00	0	3	0
26	2.00	6	9	1
27	2.00	1	6	0
28	2.00	0	4	0
29	2.00	4	1	0
30	2.00	2	6	0
31	2.00	2	8	1
32	2.00	3	7	0
33	2.00	5	4	1
34	2.00	0	0	0

Missing vial 35.
Missing vial 36.

37	2.00	3	0	4
38	2.00	3	2	0
39	2.00	0	4	0
40	2.00	1	7	0
41	2.00	2	3	0
42	2.00	6	3	0
43	2.00	5	2	1
44	2.00	4	4	0
45	2.00	5	8	0
46	2.00	9	0	0

Missing vial 47.
Missing vial 48.

49	2.00	1	1	2
50	2.00	1	2	1
51	2.00	3	4	0
52	2.00	3	0	0
53	2.00	3	0	0
54	2.00	4	1	0
55	2.00	3	1	0
56	2.00	3	1	1
57	2.00	2	6	4
58	2.00	8	0	0

Missing vial 59.
Missing vial 60.

61	2.00	3	7	1
62	2.00	3	5	0
63	2.00	1	6	0
64	2.00	2	2	3
65	2.00	4	1	0
66	2.00	1	6	0
67	2.00	5	3	0
68	2.00	2	0	0
69	2.00	0	3	0
70	2.00	4	0	0

Missing vial 71.
Missing vial 72.

73	2.00	1	0	1
74	2.00	4	2	0
75	2.00	2	5	0
76	2.00	2	5	0

77	2.00	4	5	0
78	2.00	1	4	4
79	2.00	2	5	2
80	2.00	3	7	0
81	2.00	6	6	0
82	2.00	0	2	3

Missing vial 83.
Missing vial 84.

85	2.00	3	1	0
86	2.00	5	0	0
87	2.00	0	4	0
88	2.00	1	0	0
89	2.00	2	5	2
90	2.00	3	1	0
91	2.00	3	3	2
92	2.00	3	5	0
93	2.00	3	1	0
94	2.00	4	0	0

Missing vial 95.
Missing vial 96.

97	2.00	2	5	2
98	2.00	6	6	0
99	2.00	2	2	2
100	2.00	2	6	1
101	2.00	2	7	0
102	2.00	4	3	4
103	2.00	1	4	0
104	2.00	6	4	0
105	2.00	4	1	1
106	2.00	9	1	0

Missing vial 107.
Missing vial 108.

109	2.00	1	5	0
110	2.00	0	2	2
111	2.00	0	2	0
112	2.00	5	2	0
113	2.00	3	1	0
114	2.00	1	5	0
115	2.00	2	0	0
116	2.00	1	9	1
117	2.00	7	0	1
118	2.00	0	10	2

Missing vial 119.
Missing vial 120.

121	2.00	4	4	3
122	2.00	1	7	1
123	2.00	0	5	0
124	2.00	7	3	0
125	2.00	5	0	0
126	2.00	5	2	4
127	2.00	9	1	0
128	2.00	7	2	0
129	2.00	3	5	4
130	2.00	5	2	0

Missing vial 131.
Missing vial 132.

133	2.00	6	6	2
134	2.00	5	4	0
135	2.00	4	3	0
136	2.00	3	0	0
137	2.00	7	0	0
138	2.00	2	4	0
139	2.00	4	6	0

140	2.00	6	3	3
141	2.00	2	5	1
142	2.00	6	2	1

Missing vial 143.
Missing vial 144.

145	2.00	4	6	0
146	2.00	3	3	2
147	2.00	5	0	0
148	2.00	10	2	0
149	2.00	0	6	0
150	2.00	6	4	0
151	2.00	4	4	0
152	2.00	4	4	0
153	2.00	5	3	1
154	2.00	5	6	0
155	2.00	2	5	0

Calibration Information
Software Version IC: 2.11
Software Version EC: 1.31
Instrument Model: Tri-Carb 2900TR
Instrument Serial Number: 431274
3H Chi Square: Not Processed
14C Chi Square: Not Processed
3H E^2/B (1-18.6 keV): 331.18 Date Processed: 5/26/10 4:52:56 PM
14C E^2/B (4-156 keV): 676.29 Date Processed: 5/26/10 4:52:56 PM
3H Efficiency (0-18.6 keV): 64.21 Date Processed: 5/26/10 4:52:56 PM
14C Efficiency (0-156 keV): 95.53 Date Processed: 5/26/10 4:52:56 PM
IPA Background Date Processed: 5/26/10 4:52:56 PM
3H Background CPM (0-18.6 keV): 12.33 Date Processed: 5/26/10 4:52:56 PM
14C Background CPM (0-156 keV): 17.65 Date Processed: 5/26/10 4:52:56 PM
3H Calibration DPM: 278201
3H Reference Date: 1/29/03
14C Calibration DPM: 134900

Assay Definition-

Assay Description:
in cocktail

Assay Type: CPM
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\john\testswipe
Raw Results Path: C:\Packard\Tricarb\Results\john\testswipe\20100526_1652.results
Assay File Name: C:\Packard\TriCarb\Assays\testswipe.lsa

Count Conditions-

Nuclide: 3H-14C-32P
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set: n/a
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

SCI 120 COLDROOM
SINK & SINK TRAP
COUNTERTOP
FLOORS

Background Subtract: On - IPA
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	10.62
B	12.0	156.0	7.02
C	156.0	1700.0	9.73

Count Corrections-

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

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	MESSAGES
1	2.00	0	5	0	
2	2.00	0	4	0	
3	2.00	3	2	0	
4	2.00	5	1	0	
5	2.00	6	7	0	
6	2.00	3	4	0	
7	2.00	2	3	0	
8	2.00	5	2	1	
9	2.00	4	5	1	
10	2.00	3	8	0	
Missing vial 11.					
Missing vial 12.					
13	2.00	7	3	1	

14	2.00	7	8	0
15	2.00	8	8	1
16	2.00	9	2	0
17	2.00	6	4	0
18	2.00	1	0	1
19	2.00	0	0	0
20	2.00	9	2	0
21	2.00	2	1	0
22	2.00	6	4	0

Missing vial 23.
Missing vial 24.

25	2.00	5	3	0
26	2.00	6	4	0
27	2.00	4	3	0
28	2.00	8	4	0
29	2.00	6	4	2
30	2.00	9	3	2
31	2.00	2	6	0

Assay Definition-

Assay Description:
in cocktail

Assay Type: CPM
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\john\testswipe
Raw Results Path: C:\Packard\Tricarb\Results\john\testswipe\20101216_1653.results
Assay File Name: C:\Packard\TriCarb\Assays\testswipe.lsa

Count Conditions-

Nuclide: 3H-14C-32P
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set: n/a
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

SCI 123 & 125
FLOORS
COUNTER TOPS
HOODS

Background Subtract: On - IPA
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	10.75
B	12.0	156.0	6.85
C	156.0	1700.0	9.57

Count Corrections-

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

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	MESSAGES
1	2.00	4	10	0	
2	2.00	3	12	0	
3	2.00	4	2	0	
4	2.00	1	6	0	
5	2.00	0	5	0	
6	2.00	1	0	0	
7	2.00	1	8	3	
8	2.00	0	5	0	
9	2.00	3	6	0	
10	2.00	2	6	0	
11	2.00	16193	112606	557	
12	2.00	106615	8747	0	
13	2.00	7	0	3	

C14 & H3 CONTROLS

Missing vial 14.

15	2.00	0	0	0
16	2.00	0	1	0
17	2.00	2	10	0
18	2.00	0	3	0
19	2.00	1	4	0
20	2.00	0	3	1
21	2.00	5	2	4
22	2.00	0	2	0
23	2.00	0	6	0
24	2.00	3	8	0
25	2.00	3	0	0
26	2.00	0	3	0
27	2.00	0	3	0
28	2.00	3	5	2
29	2.00	0	3	0
30	2.00	0	2	0
31	2.00	0	3	1
32	2.00	0	6	0
33	2.00	0	5	0
34	2.00	0	3	0

Missing vial 35.
Missing vial 36.

37	2.00	2	5	2
38	2.00	0	7	0
39	2.00	2	2	0
40	2.00	4	5	0
41	2.00	4	0	0
42	2.00	1	5	0
43	2.00	0	7	0
44	2.00	0	7	0
45	2.00	2	5	0
46	2.00	3	6	7

Missing vial 47.
Missing vial 48.

49	2.00	1	2	0
50	2.00	3	3	0
51	2.00	1	6	0
52	2.00	2	6	2
53	2.00	0	3	1
54	2.00	1	1	0
55	2.00	0	2	0
56	2.00	0	3	0
57	2.00	0	5	0
58	2.00	0	1	0

Missing vial 59.
Missing vial 60.

61	2.00	0	11	0
62	2.00	0	6	0
63	2.00	0	0	0
64	2.00	1	2	0
65	2.00	1	1	0
66	2.00	0	3	0
67	2.00	5	4	0
68	2.00	4	2	0
69	2.00	0	6	0
70	2.00	3	4	0

Missing vial 71.
Missing vial 72.

73	2.00	2	1	0
74	2.00	1	1	0
75	2.00	0	3	0
76	2.00	0	3	0

77	2.00	2	6	0
78	2.00	1	9	3
79	2.00	1	4	2
80	2.00	0	9	2
81	2.00	0	6	0
82	2.00	6	1	0

Missing vial 83.
Missing vial 84.

85	2.00	0	2	1
86	2.00	0	1	0
87	2.00	4	6	0
88	2.00	1	8	0
89	2.00	0	9	1
90	2.00	0	3	0
91	2.00	2	2	0
92	2.00	0	7	1
93	2.00	0	3	0
94	2.00	1	5	1

Missing vial 95.
Missing vial 96.

97	2.00	0	7	1
98	2.00	3	9	0
99	2.00	1	6	0
100	2.00	0	5	0
101	2.00	2	4	0
102	2.00	1	2	0
103	2.00	0	4	0
104	2.00	1	6	0
105	2.00	0	5	0
106	2.00	0	6	0

Missing vial 107.
Missing vial 108.

109	2.00	0	0	1
110	2.00	2	6	0
111	2.00	1	8	0
112	2.00	4	5	0
113	2.00	0	4	0
114	2.00	2	6	2
115	2.00	0	0	0
116	2.00	2	9	0
117	2.00	1	4	0
118	2.00	5	6	0

Missing vial 119.
Missing vial 120.

121	2.00	1	7	0
122	2.00	2	9	2
123	2.00	1	5	1
124	2.00	3	4	4
125	2.00	3	4	0
126	2.00	3	4	0
127	2.00	0	2	1
128	2.00	4	3	0
129	2.00	5	8	0
130	2.00	1	2	0

Missing vial 131.
Missing vial 132.

133	2.00	0	4	0
134	2.00	2	5	0
135	2.00	2	5	0
136	2.00	0	1	0
137	2.00	0	1	0
138	2.00	3	6	0
139	2.00	4	4	0

140	2.00	5	3	0
141	2.00	5	0	0
142	2.00	2	2	2

Missing vial 143.
Missing vial 144.

145	2.00	1	2	0
146	2.00	0	8	0
147	2.00	2	4	0
148	2.00	1	8	0
149	2.00	2	5	0
150	2.00	3	9	1
151	2.00	1	7	0
152	2.00	7	6	0
153	2.00	3	5	4
154	2.00	3	7	0

Missing vial 155.
Missing vial 156.

157	2.00	6	5	0
158	2.00	7	0	1
159	2.00	2	3	0
160	2.00	3	2	0
161	2.00	2	1	0
162	2.00	2	2	2
163	2.00	2	0	0
164	2.00	0	1	1
165	2.00	3	5	0
166	2.00	4	0	0

Missing vial 167.
Missing vial 168.

169	2.00	5	6	0
170	2.00	3	2	0
171	2.00	1	0	0
172	2.00	1	2	0
173	2.00	4	3	0
174	2.00	1	4	0
175	2.00	0	1	0
176	2.00	12	1	0
177	2.00	1	5	1
178	2.00	2	3	0

Missing vial 179.
Missing vial 180.

181	2.00	2	4	0
182	2.00	4	2	3
183	2.00	2	0	0
184	2.00	4	3	0
185	2.00	0	2	1
186	2.00	4	4	0
187	2.00	2	1	0
188	2.00	3	4	0
189	2.00	4	1	0
190	2.00	5	2	0

Missing vial 191.
Missing vial 192.

193	2.00	6	0	0
194	2.00	7	3	0
195	2.00	4	7	0
196	2.00	4	0	0
197	2.00	3	0	0
198	2.00	3	0	0
199	2.00	2	1	0
200	2.00	3	4	0
201	2.00	4	6	0
202	2.00	3	0	0

Missing vial 203.
Missing vial 204.

205	2.00	6	1	0
206	2.00	8	7	0
207	2.00	4	6	0
208	2.00	3	5	0
209	2.00	5	3	0
210	2.00	8	2	0
211	2.00	4	0	4
212	2.00	9	1	0
213	2.00	0	4	0
214	2.00	7	7	0

Missing vial 215.
Missing vial 216.

217	2.00	1	4	0
218	2.00	5	5	0
219	2.00	3	0	0
220	2.00	3	1	3
221	2.00	2	3	0
222	2.00	7	0	0
223	2.00	9	2	0
224	2.00	5	4	0
225	2.00	2	0	0
226	2.00	5	2	0

Missing vial 227.
Missing vial 228.

229	2.00	2	7	1
230	2.00	0	6	1
231	2.00	3	7	0
232	2.00	4	2	0
233	2.00	4	2	0
234	2.00	1	2	0
235	2.00	0	5	0
236	2.00	9	3	0
237	2.00	2	4	1
238	2.00	8	2	0

Calibration Information
Software Version IC: 2.11
Software Version EC: 1.31
Instrument Model: Tri-Carb 2900TR
Instrument Serial Number: 431274
3H Chi Square: Not Processed
14C Chi Square: Not Processed
3H E^2/B (1-18.6 keV): 330.39 Date Processed: 12/17/10 2:53:47 AM
14C E^2/B (4-156 keV): 644.36 Date Processed: 12/17/10 2:53:47 AM
3H Efficiency (0-18.6 keV): 63.92 Date Processed: 12/17/10 2:53:47 AM
14C Efficiency (0-156 keV): 95.45 Date Processed: 12/17/10 2:53:47 AM
IPA Background Date Processed: 12/17/10 2:53:47 AM
3H Background CPM (0-18.6 keV): 12.52 Date Processed: 12/17/10 2:53:47 AM
14C Background CPM (0-156 keV): 18.07 Date Processed: 12/17/10 2:53:47 AM
3H Calibration DPM: 278201
3H Reference Date: 1/29/03
14C Calibration DPM: 134900

Assay Definition-

Assay Description:
in cocktail

Assay Type: CPM
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\john\testswipe
Raw Results Path: C:\Packard\Tricarb\Results\john\testswipe\20101217_1035.results
Assay File Name: C:\Packard\TriCarb\Assays\testswipe.lsa

Count Conditions-

Nuclide: 3H-14C-32P
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set: n/a
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - IPA
Low CPM Threshold: Off
2 Sigma % Terminator: Off

SCI 127
FLOORS
COUNTERS
& HOODS

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	11.05
B	12.0	156.0	7.02
C	156.0	1700.0	9.18

Count Corrections-

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

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	MESSAGES
1	2.00	16115	113034	576	CONTROLS
2	2.00	106710	8666	1	
3	2.00	1	0	2	
4	2.00	0	4	0	
5	2.00	2	6	0	
6	2.00	1	5	0	
7	2.00	0	2	0	
8	2.00	3	7	0	
9	2.00	2	3	0	
10	2.00	0	6	0	
11	2.00	2	3	0	
12	2.00	1	4	0	
13	2.00	0	7	0	

14	2.00	0	5	0
15	2.00	0	2	0
16	2.00	0	4	2
17	2.00	0	10	0
18	2.00	0	3	0
19	2.00	0	5	0
20	2.00	0	2	0
21	2.00	0	9	0
22	2.00	0	5	0

Missing vial 23.
Missing vial 24.

25	2.00	0	1	0
26	2.00	0	3	0
27	2.00	0	5	0
28	2.00	0	3	0
29	2.00	0	2	0
30	2.00	0	8	0
31	2.00	0	2	0
32	2.00	0	8	0
33	2.00	1	9	0
34	2.00	0	1	0

Missing vial 35.
Missing vial 36.

37	2.00	0	4	0
38	2.00	0	4	0
39	2.00	0	3	0
40	2.00	3	4	0
41	2.00	0	2	0
42	2.00	0	1	0
43	2.00	1	8	0
44	2.00	0	4	0
45	2.00	0	0	0
46	2.00	0	5	0

Missing vial 47.
Missing vial 48.

49	2.00	0	0	0
50	2.00	0	8	0
51	2.00	1	6	0
52	2.00	0	5	0
53	2.00	0	6	0
54	2.00	0	2	0
55	2.00	0	2	0
56	2.00	0	4	0
57	2.00	0	7	0
58	2.00	0	2	0

Missing vial 59.
Missing vial 60.

61	2.00	0	3	0
62	2.00	0	5	0
63	2.00	0	1	0
64	2.00	0	5	0
65	2.00	0	5	0
66	2.00	0	4	0
67	2.00	0	6	0
68	2.00	0	9	0
69	2.00	0	7	3
70	2.00	0	1	1

Missing vial 71.
Missing vial 72.

73	2.00	0	1	1
74	2.00	0	5	0
75	2.00	0	3	0
76	2.00	0	3	0

77	2.00	0	6	0
78	2.00	0	7	0
79	2.00	0	2	0
80	2.00	0	7	0
81	2.00	0	4	0
82	2.00	0	6	0
Missing vial 83.				
Missing vial 84.				
85	2.00	0	7	0
86	2.00	0	9	0
87	2.00	0	0	0
88	2.00	0	2	0
89	2.00	0	2	0
90	2.00	0	9	0
91	2.00	1	7	0
92	2.00	1	10	0
93	2.00	0	6	0
94	2.00	0	3	0
Missing vial 95.				
Missing vial 96.				
97	2.00	0	3	0
98	2.00	0	4	0
99	2.00	0	5	0
100	2.00	0	4	0
101	2.00	0	5	0
102	2.00	0	4	0
103	2.00	0	4	0
104	2.00	0	4	0
105	2.00	0	7	0
106	2.00	0	5	0
Missing vial 107.				
Missing vial 108.				
109	2.00	0	4	0
110	2.00	0	4	0
111	2.00	0	5	0
112	2.00	0	7	0
113	2.00	0	2	0
114	2.00	0	0	0
115	2.00	0	6	0
116	2.00	0	5	0
117	2.00	0	7	0
118	2.00	0	6	2
Missing vial 119.				
Missing vial 120.				
121	2.00	0	1	0
122	2.00	0	7	0
123	2.00	0	1	0
124	2.00	0	2	0
125	2.00	0	9	0
126	2.00	0	3	0
127	2.00	0	3	0
128	2.00	0	3	0
129	2.00	0	7	0
130	2.00	0	2	0
Missing vial 131.				
Missing vial 132.				
133	2.00	0	7	0
134	2.00	0	7	0
135	2.00	0	4	0
136	2.00	0	4	0
137	2.00	0	9	0
138	2.00	0	6	0
139	2.00	0	1	0

140	2.00	0	5	0
141	2.00	0	3	0
142	2.00	0	3	0

Missing vial 143.
Missing vial 144.

145	2.00	0	12	0
146	2.00	0	4	0
147	2.00	1	4	0
148	2.00	0	3	0
149	2.00	0	5	0
150	2.00	0	4	0
151	2.00	0	2	0
152	2.00	0	3	0
153	2.00	4	0	0
154	2.00	0	6	0

Missing vial 155.
Missing vial 156.

157	2.00	0	0	2
158	2.00	0	4	0
159	2.00	0	3	0
160	2.00	1	4	0
161	2.00	1	3	0
162	2.00	0	4	0
163	2.00	0	7	0
164	2.00	1	2	0
165	2.00	0	5	0
166	2.00	1	3	0

Missing vial 167.
Missing vial 168.

169	2.00	0	3	0
170	2.00	0	3	0
171	2.00	0	5	0
172	2.00	0	1	0
173	2.00	4	5	0
174	2.00	0	1	0
175	2.00	0	4	0
176	2.00	0	7	0
177	2.00	0	2	0
178	2.00	0	5	0

Missing vial 179.
Missing vial 180.

181	2.00	1	2	0
182	2.00	0	8	0
183	2.00	0	6	0
184	2.00	1	3	0
185	2.00	0	4	0
186	2.00	0	0	0
187	2.00	0	5	0
188	2.00	0	0	0
189	2.00	0	3	0
190	2.00	0	4	0

Missing vial 191.
Missing vial 192.

193	2.00	0	4	0
194	2.00	0	7	0
195	2.00	2	5	1
196	2.00	4	8	0
197	2.00	0	8	0
198	2.00	0	7	0
199	2.00	1	5	0
200	2.00	0	6	0
201	2.00	0	6	0
202	2.00	0	7	0

Missing vial 203.
Missing vial 204.

205	2.00	0	3	0
206	2.00	1	3	0
207	2.00	1	8	0
208	2.00	0	0	0
209	2.00	1	5	0
210	2.00	0	5	0
211	2.00	0	1	0
212	2.00	0	6	0
213	2.00	0	2	0
214	2.00	5	7	0

Missing vial 215.
Missing vial 216.

217	2.00	0	0	0
218	2.00	0	1	0
219	2.00	0	2	0
220	2.00	0	8	0
221	2.00	0	5	0
222	2.00	1	1	0
223	2.00	2	1	0
224	2.00	1	3	0
225	2.00	2	4	0
226	2.00	0	4	0

Missing vial 227.
Missing vial 228.

229	2.00	2	12	0
230	2.00	0	4	0
231	2.00	0	4	0
232	2.00	0	2	0
233	2.00	4	8	0
234	2.00	0	2	0
235	2.00	1	4	0
236	2.00	1	0	2
237	2.00	2	4	0
238	2.00	0	5	0

Calibration Information
Software Version IC: 2.11
Software Version EC: 1.31
Instrument Model: Tri-Carb 2900TR
Instrument Serial Number: 431274
3H Chi Square: Not Processed
14C Chi Square: Not Processed
3H E^2/B (1-18.6 keV): 338.21 Date Processed: 12/17/10 8:32:29 PM
14C E^2/B (4-156 keV): 671.12 Date Processed: 12/17/10 8:32:29 PM
3H Efficiency (0-18.6 keV): 64.09 Date Processed: 12/17/10 8:32:29 PM
14C Efficiency (0-156 keV): 95.74 Date Processed: 12/17/10 8:32:29 PM
IPA Background Date Processed: 12/17/10 8:32:29 PM
3H Background CPM (0-18.6 keV): 12.27 Date Processed: 12/17/10 8:32:29 PM
14C Background CPM (0-156 keV): 17.35 Date Processed: 12/17/10 8:32:29 PM
3H Calibration DPM: 278201
3H Reference Date: 1/29/03
14C Calibration DPM: 134900

Calibration Information
Software Version IC: 2.11
Software Version EC: 1.31
Instrument Model: Tri-Carb 2900TR
Instrument Serial Number: 431274
3H Chi Square: Not Processed
14C Chi Square: Not Processed
3H E^2/B (1-18.6 keV): 310.07 Date Processed: 1/25/11 5:48:56 PM
14C E^2/B (4-156 keV): 613.90 Date Processed: 1/25/11 5:48:56 PM
3H Efficiency (0-18.6 keV): 63.89 Date Processed: 1/25/11 5:48:56 PM
14C Efficiency (0-156 keV): 95.75 Date Processed: 1/25/11 5:48:56 PM
IPA Background Date Processed: 1/25/11 5:48:56 PM
3H Background CPM (0-18.6 keV): 13.35 Date Processed: 1/25/11 5:48:56 PM
14C Background CPM (0-156 keV): 19.30 Date Processed: 1/25/11 5:48:56 PM
3H Calibration DPM: 278201
3H Reference Date: 1/29/03
14C Calibration DPM: 134900

Assay Definition-

Assay Description:
in cocktail

Assay Type: CPM
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\john\testswipe
Raw Results Path: C:\Packard\Tricarb\Results\john\testswipe\20110125_1748.results
Assay File Name: C:\Packard\TriCarb\Assays\testswipe.lsa

Count Conditions-

Nuclide: 3H-14C-32P
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set: n/a
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - IPA
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	12.0	11.45
B	12.0	156.0	7.82
C	156.0	1700.0	9.45

Count Corrections-

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

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	MESSAGES
1	2.00	7	0	0	
2	2.00	8	0	1	
3	2.00	0	3	0	
4	2.00	1	0	0	
5	2.00	2	3	0	
6	2.00	3	2	0	
7	2.00	5	0	0	
8	2.00	0	0	1	
9	2.00	2	3	0	
10	2.00	2	4	0	
Missing vial 11.					
Missing vial 12.					
13	2.00	1	3	1	

SCI 123, 125, & 127
SINK P-TRAPS

14	2.00	4	2	0
15	2.00	4	1	0
16	2.00	0	0	0
17	2.00	1	3	0
18	2.00	2	1	0
19	2.00	0	0	0
20	2.00	0	1	0
21	2.00	2	3	3
22	2.00	9	1	1
Missing vial 23.				
Missing vial 24.				
25	2.00	0	0	0
26	2.00	3	0	0
27	2.00	6	0	0
28	2.00	4	0	0
29	2.00	3	2	0
30	2.00	0	1	0
31	2.00	2	0	0
32	2.00	5	0	0
33	2.00	3	0	1
34	2.00	3	0	0
Missing vial 35.				
Missing vial 36.				
37	2.00	16298	113065	548
38	2.00	105376	8426	0
39	2.00	9	0	0

SCI 123, 125, & 127 SINK DRAINS

SCI 123, 125, & 127 FLOORS IN FRONT OF SINKS

> C14, H3, & BLANK CONTROLS