

RECEIVED  
REGION 1

2003 AUG -8 PM 1:31

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P-3

August 6, 2003

Licensing Assistant Section  
Nuclear Materials Safety Branch  
U. S. Nuclear Regulatory Commission, Region 1  
475 Allendale Road  
King of Prussia, PA 19406-1415

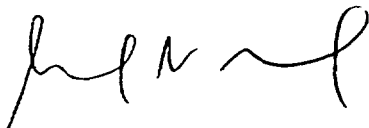
03033944

Subject: Notice of Termination of License No. 37-30247-01

Dear Sir:

In accordance with Nureg (1757) for decommissioning facilities, please find enclosed the survey results and report conducted by Lawrence Martino on July 17, 2003. No contamination was found. As per your letter dated June 16, 2003 please find enclosed the signed NRC form 314 and a copy of radioisotope use at the White Eagle facility from 1996 – 2002. Provident Preclinical Inc. is now occupying the facilities previously occupied by White Eagle Laboratories. Provident Preclinical Inc. does not utilize radioisotopes. Laura DiDonato is acting as the radiation safety officer for the closeout activities, she has been employed at this site since March 2002. Tel. 215-348-3868 x125, E-mail [ldidonato@ppicro.com](mailto:ldidonato@ppicro.com).

Sincerely,



Michael A. Schnell, DVM, MBA  
Vice President

PROVIDENT PRECLINICAL, INC.

133280

NMSS/RGNI MATERIALS-002

## CERTIFICATE OF DISPOSITION OF MATERIALS

Estimated burden per response to comply with this mandatory collection request: 30 minutes. This submittal is used by NRC as part of the basis for its determination that the facility is released for unrestricted use. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to [lsj1@nrc.gov](mailto:lsj1@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NE08-10202, (3150-0028), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE NAME AND ADDRESS

White Eagle Laboratories  
2003 Lower State Rd  
Doylestown, PA 18901

LICENSE NUMBER

37-30247-01

DOCKET NUMBER

03033944

LICENSE EXPIRATION DATE

2011/30

- ☐ This license has expired. ☒ **A. LICENSE STATUS** (Check the appropriate box)  
This license has not yet expired; please terminate it.

**B. DISPOSAL OF RADIOACTIVE MATERIAL**

(Check the appropriate boxes and complete as necessary. If additional space is needed, provide attachments)

The licensee, or any individual executing this certificate on behalf of the licensee, certifies that:

- ☐ 1. No radioactive materials have ever been procured or possessed by the licensee under this license.  
☒ 2. All activities authorized by this license have ceased, and all radioactive materials procured and/or possessed by the licensee under this license number cited above have been disposed of in the following manner:  
☐ a. Transfer of radioactive materials to the licensee listed below:

☒ b. Disposal of radioactive materials:

☒ 1. Directly by the licensee:

Disposed of by White Eagle Laboratories, Inc.,  
the previous tenant of the building.

☐ 2. By licensed disposal site:

☐ 3. By waste contractor:

- ☐ c. All radioactive materials have been removed such that any remaining residual radioactivity is within the limits of 10 CFR Part 20, Subpart E, and is ALARA.

**C. SURVEYS PERFORMED AND REPORTED**

- ☒ 1. A radiation survey was conducted by the licensee. The survey confirms:  
☒ a. the absence of licensed radioactive materials  
☐ b. that any remaining residual radioactivity is within the limits of 10 CFR 20, Subpart E, and is ALARA.  
☒ 2. A copy of the radiation survey results:  
☒ a. is attached; or ☐ b. is not attached (Provide explanation); or ☐ c. was forwarded to NRC on: \_\_\_\_\_ Date \_\_\_\_\_  
☐ 3. A radiation survey is not required as only sealed sources were ever possessed under this license, and  
☐ a. The results of the latest leak test are attached; and/or ☐ b. No leaking sources have ever been identified.

The person to be contacted regarding the information provided on this form:

NAME	TITLE	TELEPHONE (Include Area Code)	E-MAIL ADDRESS
Laura D. Donato	Study Director	215-348-3868	LDDonato@pp.cro

Mail all future correspondence regarding this license to:

**C. CERTIFYING OFFICIAL**

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT

PRINTED NAME AND TITLE	SIGNATURE	DATE
Michael A. Schnell, Vice President/President Pro Tempore		06 Aug 03

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECT. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

28

Wipe Test

12/22/96

1. Blank
2. Bench
3. Sink
4. Steel Pan
5. Oven
6. Refry
7. Sund.

1	1.00	0	0	20	20989	96082	3	22
2	1.00	0	0	39	11913	53440	2	24
3	1.00	0	0	11	13371	58499	5	18
4	1.00	0	0	24	12920	58649	7	15
5	1.00	0	0	15	12050	54208	0	15
6	1.00	0	0	20	8770	36159	3	26
7	1.00	0	0	18	13184	54646	7	18

3H

Wipe  
Test  
RCA 12/22/96

1	1.00	0	0	28	20657	95540	4	23
2	1.00	0	0	43	12386	55453	3	11
3	1.00	0	0	26	13406	58115	2	18
4	1.00	0	0	40	13056	59038	7	18
5	1.00	0	0	18	12166	54524	7	14
6	1.00	0	0	23	8696	36586	7	20
7	1.00	0	0	40	13024	54326	5	15

14C

## 129

4C

118

241-25 *pl*

## Wipe Test

1	1.00	0	0	8	20187	100924	1	19
2	1.00	0	0	20	12892	61497	1	22
3	1.00	0	0	20	13025	61971	1	16
4	1.00	0	0	17	12715	62312	6	16
5	1.00	0	0	16	13233	62769	3	16
6	1.00	0	0	16	10946	51821	5	17
7	1.00	0	0	18	13516	61992	8	19

Ref 4/23/97

14C

B	1	1.00	0	0	33	20373	100049	0	14
	2	1.00	0	0	20	12973	61770	1	20
1	3	1.00	0	0	39	12912	60875	3	15
2	4	1.00	0	0	44	13146	64001	4	17
3	5	1.00	0	0	26	13200	63259	2	14
4	6	1.00	0	0	28	11205	52419	2	13
5	7	1.00	0	0	26	13266	61454	3	19

Wyce Test: 7/25/97 RH

1	2.00	0	0	32	19813	97433	1	11
2	2.00	0	0	45	12079	56669	2	19
3	2.00	0	0	38	13006	59524	3	22
4	2.00	0	0	30	12430	60053	4	15
5	2.00	0	0	25	11621	56386	3	12
6	2.00	0	0	38	8715	38440	0	8
7	2.00	0	0	31	12717	55242	4	11

Frederick R.H. 7/26/57

140

1	2.00	0	0	47	19798	97350	2	8
2	2.00	0	0	80	11969	56574	1	10
3	2.00	0	0	62	12648	59356	4	13
4	2.00	0	0	76	12495	59386	6	21
5	2.00	0	0	61	11761	56055	3	17
6	2.00	0	0	59	9140	39044	1	4
7	2.00	0	0	68	12920	55640	2	14

2/1/97 Test 10/20/97 RTH

1  
2  
3  
4  
5  
6  
7

Blush  
Bench  
Sunk  
Steel Pan  
Over  
Refuge  
Sunk

10/20/97

1	2.00	0	0	20	19733	97208
3	2.00	0	0	43	13009	59606
4	2.00	0	0	35	12537	59973
5	2.00	0	0	25	11724	56176
6	2.00	0	0	42	8877	38372
7	2.00	0	0	31	12804	55636

3/4

1	10
0	12
4	13
0	13
2	14
0	20

1	2.00	0	0	63	19796	97039
3	2.00	0	0	72	13039	59058
4	2.00	0	0	65	12551	59530
5	2.00	0	0	51	11695	55619
6	2.00	0	0	49	8854	38697
7	2.00	0	0	59	12863	55225

14C

3	11
1	15
2	17
6	21
3	12
3	13

30

Wipe Test 10/20/97 RLL

RLL 10/20/97

1 Blank  
2 Bench  
3 Sink  
4 Soap Pan  
5 Oven  
6 Refry  
7 Stove

1	2.00	0	0	20	19733	97208	1	10
3	2.00	0	0	43	13009	59606	0	12
4	2.00	0	0	35	12537	59973	4	13
5	2.00	0	0	25	11724	56176	0	13
6	2.00	0	0	42	8877	38372	2	14
7	2.00	0	0	31	12804	55636	0	20

3/4

1	2.00	0	0	63	19796	97039	3	11
3	2.00	0	0	72	13039	59058	1	15
4	2.00	0	0	65	12551	59530	2	17
5	2.00	0	0	51	11695	55619	6	21
6	2.00	0	0	49	8854	38697	3	12
7	2.00	0	0	59	12863	55225	3	13

14C

## Isotope Receipt - Wipe Test

2/16/97

Thyroidine [2-14C] 250  $\mu$ Ci

- 1 Blank
- 2 Outside Box
- 3 Outside Plastic Container
- 4 Outside glass vial

Wipe test Thyroidine [2-14C] RAD 12/17/97

1	2.00	0	0	70	13802	60879	3	16
2	2.00	0	0	102	13606	61116	2	18
3	2.00	0	0	287	13910	61370	27	43
4	2.00	0	0	90	13279	58788	3	14

4C

1	2.00	0	0	41	14000	61215	4	16
2	2.00	0	0	71	13446	60775	3	15
3	2.00	0	0	190	13757	60814	23	39
4	2.00	0	0	65	13346	59218	8	20

3H

## Isotope Receipt Wipe Test

2/17/97

2' Desoxyadenosine [8-14C] 250  $\mu$ Ci

- 1 Blank
- 2 Outside Box
- 3 Outside Plastic Container
- 4 Outside glass vial

Wipe test 2' desoxyadenosine [8-14C]

RAD 12/17/97  
3H

1	2.00	0	0	47	13823	60513	4	12
2	2.00	0	0	138	13899	59659	10	30
3	2.00	0	0	234	14106	61036	3	16
4	2.00	0	0	57	13813	61293	4	11

1	2.00	0	0	61	13786	60598	5	17
2	2.00	0	0	213	13890	59923	6	26
3	2.00	0	0	274	14117	60666	6	15
4	2.00	0	0	81	13701	61437	2	9

14C

32

Large Receipt - Wipe Test

12/18/97

2'-Deoxyguanosine [8-3H]

2'-Deoxyguanosine (8-3H) wipe test RA 12/18/97

1	1.00	0	0	26	13299	60646	6	18	3H
2	1.00	0	0	157	13709	60175	6	27	
3	1.00	0	0	180	13835	60654	4	20	
4	1.00	0	0	16	13873	60967	3	19	

1	1.00	0	0	54	13678	60487	4	12	19C
2	1.00	0	0	228	14077	61025	10	23	
3	1.00	0	0	264	13966	60901	6	23	
4	1.00	0	0	31	14012	61361	1	7	

1/5/98

Large Receipt - Wipe Test  
2'-Deoxyguanosine [6-3H]

1 Blank

2 Outside Box

3 Outside Plastic Container

4 Outside Glass Hal

1	1.00	0	0	23	7670	102237	1	21	19C
2	1.00	0	0	855	17135	97369	20	53	
3	1.00	0	0	1364	21327	92228	9	19	
4	1.00	0	0	175	14042	63066	6	21	

RA 1/6/98

1	1.00	0	0	11	18839	87710	3	22	3H
2	1.00	0	0	961	21480	91721	26	46	
3	1.00	0	0	1593	21653	91700	13	27	
4	1.00	0	0	193	13906	61796	4	14	



1/26/98 3H Quench Stds  
Count 10 minutes

1.1 x 10<sup>3</sup> ppm 1/7/98  
Count correction 0.569

3H Quench Stds 1/26/98 RB

				E1	E2	E1/E2		Offering	
1	10.00	0	0 349691	12106	91275	103	125	0.133	0.615
2	10.00	0	0 303272	16148	88599	16	31	0.182	0.533
3	10.00	0	0 261913	17946	85062	9	19	0.211	0.460
4	10.00	0	0 226126	19695	79678	3	17	0.25247 <sup>1/2</sup> <sub>1/2</sub>	0.397
5	10.00	0	0 143236	22257	69731	9	21	0.32319 <sup>1/2</sup> <sub>1/2</sub>	0.252
6	10.00	0	0 58394	26127	49832	2	12	0.524	0.103

RB 1/26/98

1/26/98 14C Quench Stds

1 x 10<sup>3</sup> ppm

14C Quench Stds 1/26/98 RB

HC. Queens - 514										E/E2	Offering
1	10.00	0	0 482236	19673	20502	4	9	0.960	.482		
2	10.00	0	0 636439	29610	37348	120	143	0.793	.636		
3	10.00	0	0 738479	27739	49532	762	826	0.560	.738		
4	10.00	0	0 815473	27036	61019	3321	3489	0.443	.815		
5	10.00	0	0 859632	30387	73284	7643	7978	0.415	.860		
6	10.00	0	0 883007	34244	84037	11688	12413	0.407	.883		
7	10.00	0	0 920189	37457	97966	17219	19933	0.382	.920		
8	10.00	0	0 943211	37207	109447	18965	25830	0.340	.943		
9	10.00	0	0 960351	33209	120412	18038	31619	0.276	.960		
10	10.00	0	0 967183	27987	126908	15709	35364	0.221	.967		

RB 1/26/98

1/26/98

Wire Test

1 Blank  
2 Bench  
3 Sink  
4 Steel Pan  
5 Oven  
6 Refry  
7 Sand

1	2.00	0	0	37	13275	60763	3	15
2	2.00	0	0	86	11956	55024	2	12
3	2.00	0	0	38	13001	58632	3	21
4	2.00	0	0	44	12628	58886	3	19
5	2.00	0	0	43	11683	54803	3	21
6	2.00	0	0	30	8201	34888	4	15
7	2.00	0	0	30	12635	53347	1	12
1	2.00	0	0	66	13191	60681	4	19
2	2.00	0	0	77	12057	55216	4	17
3	2.00	0	0	60	13020	58405	5	16
4	2.00	0	0	67	12806	59386	2	11
5	2.00	0	0	56	11636	54423	5	20
6	2.00	0	0	60	8328	35163	2	7
7	2.00	0	0	59	12723	53670	1	8

3H RB 1/26/98

14C RB 1/26/98

RB 1/26/98

I

	A	B	C	E1	E2	Quanta	Std		E1/E2
						100			
1	1.00	39948	38	46264	20836	22033	16	25	39.9
2	1.00	42425	378	63500	28964	39014	158	183	42.4
3	1.00	37650	2066	73035	26931	50065	982	1075	37.7
4	1.00	29111	9269	80968	27141	63892	4155	4419	29.1
5	1.00	23844	18823	86432	30917	76637	8572	9044	23.8
6	1.00	19813	27595	88736	34300	85876	12696	13760	19.8
7	1.00	14875	43036	92454	36911	99822	17424	21176	14.9
8	1.00	11400	54486	94026	36053	112299	18649	27482	11.4
9	1.00	8627	65301	96214	30941	121118	17126	32567	8.6
10	1.00	6862	70400	95224	26127	129315	15114	36648	6.9

II

	A	B	C	E1	E2	<sup>3</sup> H Quanta	Std		E1/E2
						100			
1	1.00	22342	355	34637	11713	94523	145	180	39613
2	1.00	23172	83	30012	14866	89719	35	59	41065
3	1.00	22444	37	26657	16599	85903	9	32	39794
4	1.00	20453	21	22816	18776	82639	2	15	36264
5	1.00	14185	18	14803	21322	71200	1	7	25150
6	1.00	5827	13	5894	24777	52328	1	17	10332

CH 4/1/55

1. to use count A/B
2. correct all for bkgd
3. Take C<sup>14</sup> counts in channel B correct for counting efficiency with B(EB) chart and I data above (Cf B)
4. Using corrected values, compute contributions to channel A with A(EB) chart and data I above (Cf A)
5. Subtract "4" data from channel A to get raw <sup>3</sup>H data
6. Correct raw <sup>3</sup>H data with A(IA) graph and data II (Cf A)

4/3/98

## Isotope Receipt - Wipe Test

A. Vitamin E 3H 1mC  
 B. Ascorbyl Palmitate 3H 1mC

Samples

Wipe Test

4/3/98

		3H	14C						
1 Blank	1	1.00	16	19	0	18478	87022	5	21
2 Outside Box	2	1.00	9	15	0	13387	61162	3	16
3 Outside Pig A	3	1.00	16	20	0	12962	62449	5	21
4 Outside Glass Vial A	4	1.00	10	16	0	12769	60762	4	19
5 Outside Pig B	5	1.00	16	14	0	13050	62053	1	12
6 Outside Glass Vial B	6	1.00	11	26	0	13165	60428	7	25

1/25/98

## Wipe Test

		3H	14C						
1 Blank	1	1.00	9	10	0	12320	61196	1	8
2 Bench	2	1.00	46	19	0	19199	95547	1	15
3 Sink	3	1.00	42	14	0	13049	60239	1	9
4 Steel Pan	4	1.00	45	21	0	19699	96531	3	18
5 Oven	5	1.00	43	15	0	12869	62322	3	24
6 Refry	6	1.00	12	12	0	12973	61697	1	14
7 Scent	7	1.00	16	13	0	21188	96913	5	18

7/24/98

## Wipe Test

		3H	14C						
1 Blank	1	1.00	27	11	0	12552	60026	2	13
2 Bench	2	1.00	10	21	0	12759	61154	2	13
3 Sink	3	1.00	10	14	0	13208	62383	2	17
4 Steel Pan	4	1.00	24	15	0	12581	62451	2	15
5 Oven	5	1.00	7	20	0	12823	61955	3	15
6 Refry	6	1.00	13	12	0	12241	61013	2	12
7 Scent	7	1.00	16	25	0	12711	61258	4	13

7/29/98 Receipt of Sodium Pertechnetate 98834

Received 10.75 mCi in 1.0ml at 1340 Calculated as 10 mCi  
 Scanned outside box 0 m 0-0.5 m/hr Bkgd 0.05 m/hr  
 Scanned bottle mgs 0.05 m/hr  
 EON Corp. Buckeye Particle Survey Meter P51-700 Calculated 7/13/98  
 by Laboratory Technology 1-800-525-8339

Syncor Int'l Corporation  
 881 Marcon Blvd  
 Allentown PA 18103  
 WHITE EAGLE LABORATORIES  
 610/266-1115  
 Dr. HERSHMAN  
 Tc99m Sodium Pertechnetate DTP 28 JUL 98 #970679  
 Lot TCD409-20906 Expires 07/28/98 19:00  
 Qty. Ordered 10.00 mCi  
 Assay 35.479 mCi/ml As Of 15:00  
 Volume 28 ml  
 Qty. Dispensed 10.00 mCi +/- 10%  
 Qty. Admin. mCi As Of By

PL GC SOURCE

CALIBRATION SOURCE

**Syncor**  
 The Service Difference

881 Marcon Blvd.  
 Bldg. J  
 Allentown, PA 18103

## RADIATION RECORD

DATE	PRODUCT(S)	mR/hr SURFACE
7-28-98	✓ Tc99m	.00
	TI201	
	Xe133	
	I123	

7/30/98 Residual Picked up Rlt 7/30/98

7/30/98 Receipt of Sodium Pertechnetate

Syncor Int'l Corporation  
 881 Marcon Blvd  
 Allentown PA 18103  
 WHITE EAGLE LABORATORIES  
 610/266-1115  
 Dr. HERSHMAN  
 Tc99m Sodium Pertechnetate DTP 30 JUL 98 #970748  
 Lot TCD409-21106 Expires 07/30/98 19:00  
 Qty. Ordered 5.00 mCi  
 Assay 50.120 mCi/ml As Of 12:00  
 Volume 10 ml  
 Qty. Dispensed 5.00 mCi +/- 10%  
 Qty. Admin. mCi As Of By

11:20 am 5.2 mCi in 10ml  
 Scanned outside box 0.6 m/hr  
 Scanned inside box 0.6 m/hr  
 Scanned mgs 0.6 m/hr  
 Bkgd 0.6 m/hr  
 EON Corp. Meter 551-700 sec 0.1

Rlt 7/31/98



881 Marcon Blvd.  
Bldg. 3  
Allentown, PA 18103

## RADIATION RECORD

DATE	PRODUCT (S)	mR/hr SURFACE
7-30-98	<input checked="" type="checkbox"/> Tc99m	.06
	<input type="checkbox"/> Tl201	
	<input type="checkbox"/> Xe133	
	<input type="checkbox"/> I123	
	<input type="checkbox"/>	

8/6/98 Residual Richard 48 10/8/98 0.06 mR/hr  
8/5/98 Receipt of Sodium Per technetate

Syncor Int'l Corporation  
881 Marcon Blvd  
Allentown, PA 18103  
610/266-1115  
Dr. HERSHMAN  
Tc99m Sodium Per technetate  
TCD409-21706 05 AUG 98 #970914  
Expires 08/05/98 19:00  
Ordered 5.00 mCi  
say 63.088 mCi/ml As of 10:00  
Time 08  
Dispensed 5.00 mCi +/- 10%  
Admin. mCi As of By

CUSTOMER COPY

10:00am Sm G in 10ml  
Scanned outside box 0.6 mR/hr  
Scanned inside box 0.6 mR/hr  
Scanned peg 0.6 mR/hr  
bkgd 0.6 mR/hr  
EON Corp Meter 557-700

10/8/98

Per Phys Order

MISC. TCD4 DOSE



881 Marcon Blvd.  
Bldg. 3  
Allentown, PA 18103

## RADIATION RECORD

DATE	PRODUCT (S)	mR/hr SURFACE
8-5-98	<input checked="" type="checkbox"/> Tc99m	.05
	<input type="checkbox"/> Tl201	
	<input type="checkbox"/> Xe133	
	<input type="checkbox"/> I123	
	<input type="checkbox"/>	

38

8/12/98 Received Relined up 10/12/98

98834

8/12/98 Receipt of Na Pertechnate  
Received 5 mCi in 5 mL  
Scanned outside box 0.06 mCi/L  
pug 0.06 mCi/L9/16/98 Relined to  
0.06 mCiSincor Int'l Corporation  
881 Marcon Blvd  
Allentown PA 18103  
WHITE EAGLE LABORATORIES610/266-1115  
Dr. HERSHMANTc99m Sod. Pert. (Multi.) 12 AUG 98 #971132  
Lot TCD400-22406 Expires 08/12/98 19:00  
Qty. Ordered 5.00 mCi  
Assay 63.088 mCi/mL As Of 10:00  
Volume 0.08 mL  
Qty. Dispensed 5.00 mCi +/- 10%  
Qty. Admin. mCi As Of By

PL CALIBRATION

CALIBRATION

DATE

8-12-98

RADIATION

PRODUCT

X Tc  
Tl  
Xe  
I

98834

9/16/98

Receipt of Na Pertechnate  
Received 10 mCi Na Pertechnate  
Scanned outside box 0.0  
pug 0.08Sincor Int'l Corporation  
881 Marcon Blvd  
Allentown PA 18103  
WHITE EAGLE LABORATORIES610/266-1115  
Dr. HERSHMANTc99m MAA MF 16 SEP 98 # 972198  
Lot TC9930-25902 Expires 09/16/98 22:30  
Qty. Ordered 1.00 mCi  
Assay 12.588 mCi/mL As Of 10:00  
Volume 0.08 mL  
Qty. Dispensed 1.00 mCi +/- 10%  
Qty. Admin. mCi As Of ByC  
U  
S  
T  
O  
M  
E  
R  
  
C  
O  
P  
YSincor Int'l Corporation  
881 Marcon Blvd  
Allentown PA 18103  
WHITE EAGLE LABORATORIES610/266-1115  
Dr. HERSHMANTc99m Sodium Pertechnate DUP 16 SEP 98 # 972198  
Lot TCD409-25906 Expires 09/16/98 19:00  
Qty. Ordered 10.00 mCi  
Assay 63.094 mCi/mL As Of 10:00  
Volume 0.16 mL  
Qty. Dispensed 10.00 mCi +/- 10%  
Qty. Admin. mCi As Of By

PL Per Phys Order

RESEARCH

Sincor  
The Service DifferenceSincor Int'l Corporation  
Bldg. 3  
Allentown, PA 18103

Per Phys Order

MISC. TC04 DOSE

RADIATION RECORD

DATE

9-16-98

PRODUCT(S)

X Tc99m  
Tl201  
Xe133  
I123mR/hr  
SURFACE

.04

*9/17/98 Receipt of Na Pertechnetate*  
*Received 10mCi in 1mL*

98836

*Scanned outside box 0.06 mR/hr*  
*0.06 mR/hr*

Syncor Int'l Corporation  
 881 Marcon Blvd  
 Allentown PA 18103  
 WHITE EAGLE LABORATORIES

610/266-1115  
 Dr. HERSHMAN

**Syncor**  
 The Service Difference

881 Marcon Blvd.  
 Bldg. 3  
 Allentown, PA 18103

Tc99m Sodium PertechnetateDUP 17 SEP 98 # 972238  
 Lot TCD409-26006 Expires 09/17/98 19:00  
 Qty. Ordered 10.00 mCi  
 Assay 63.094 mCi/ml As Of 10:00  
 Volume 16 ml  
 Qty. Dispensed 10.00 mCi +/- 10%  
 Qty. Admin. mCi As Of By

## RADIATION RECORD

Pl. RESEARCH

MISC. TCD4 DOSE

DATE

PRODUCT(S)

mR/hr  
SURFACE

9-17-98

☒ Tc99m  
☐ Tl201  
☐ Xe133  
☐ I123

05

*9/18/98 Residual picked up*  
*0.06 mR/hr surface*

98836

Syncor Int'l Corporation  
 881 Marcon Blvd  
 Allentown PA 18103  
 WHITE EAGLE LABORATORIES

610/266-1115  
 Dr. HERSHMAN

**Syncor**  
 The Service Difference

881 Marcon Blvd.  
 Bldg. 3  
 Allentown, PA 18103

Tc99m Sodium PertechnetateDUP 28 SEP 98 # 972523  
 Lot TCD409-27106 Expires 09/28/98 19:00  
 Qty. Ordered 10.00 mCi  
 Assay 63.094 mCi/ml As Of 10:00  
 Volume 16 ml  
 Qty. Dispensed 10.00 mCi +/- 10%  
 Qty. Admin. mCi As Of By

## RADIATION RECORD

*10cc total volume*  
 t. Per Phys Order

MISC. TCD4 DOSE

DATE

PRODUCT(S)

mR/hr  
SURFACE

9-28-98

☒ Tc99m  
☐ Tl201  
☐ Xe133  
☐ I123

05

*9/29/98 Receipt of Na Pertechnetate*  
*10mCi in 10mL scanned outside box 0.06 mR/hr*  
*scanned pg 0.06 mR/hr*

*11/2/98 Residual picked up*  
*0.05 mR/hr surface*

CUSTOMER COPY

40 98836 10/2/98  
 Syncor Int'l Corporation  
 881 Marcon Blvd  
 Allentown PA 18103  
 WHITE EAGLE LABORATORIES

610/266-1115  
 Dr. HERSHMAN

c99a Sod. Pert. (Multi.) 02 OCT 98 972724  
 TC1400-27506 Expires 10/02/98 19:00  
 A. Ordered 10.00 mCi In 10 mCi  
 say 63.094 mCi/ml As Of 10:00  
 time .16 ml  
 Dispensed 10.00 mCi +/- 10%  
 Admin. mCi As Of By

CUSTOMER COPY



The Service Difference

801 Marcon Blvd.  
 Bldg. 3  
 Allentown, PA 18103

Scanned outside box 0.06 mR/hr  
 pg

Per Phys Order

RESEARCH

RADIATION RECORD

10/6/98 Residual picked up  
 Scan 0.06 mR/hr Rpt

DATE 10-2-98  
 PRODUCT(S) ☒ Tc99m  
 Tl201  
 Xe133  
 I123  
 mR/hr SURFACE .06

10/23/98  
 ARM LAB

Wipe Counts

- 1 Blank
- 2 Bench
- 3 Sink
- 4 Steel Pan
- 5 Oven
- 6 Refry
- 7 Scent

3/1 14C

1	1.00	17	10	0	12491	56406	0	12
2	1.00	52	17	0	4410	17770	2	8
3	1.00	5	6	0	4249	17719	3	12
4	1.00	9	10	0	13644	58392	3	15
5	1.00	10	17	0	12835	58335	2	12
6	1.00	9	19	0	12997	60115	4	17
7	1.00	9	23	0	12323	59724	2	19

11/23/98

11/22/99  
 ARM LAB

Wipe Counts

- 1 Blank
- 2 Bench
- 3 Sink
- 4 Steel Pan
- 5 Oven
- 6 Refry
- 7 Scent

3/1 14C

1	1.00	15	14	0	12752	58912	1	11
2	1.00	9	12	0	4126	17563	2	11
3	1.00	24	78	0	4273	17124	9	22
4	1.00	12	16	0	13499	58273	3	17
5	1.00	16	13	0	12450	58379	4	15
6	1.00	8	18	0	13190	58598	5	18
7	1.00	15	17	0	12965	59363	0	15

11/22/99



14

4

3H / 14C

4/24/99

- 1 Blank
- 2 Bench
- 3 Sink
- 4 Steel Pan
- 5 Oven
- 6 Kefuz
- 7 Sand

7/15/92

PN

1	1.00	10	13	0	11945	57589	4	11
2	1.00	8	19	0	12394	57206	5	14
3	1.00	19	11	0	11792	57655	4	16
4	1.00	8	9	0	11969	58919	1	13
5	1.00	5	13	0	11911	57454	7	16
6	1.00	6	7	0	3721	16148	2	10
7	1.00	3	7	0	4239	16508	1	13

RA  
7/15/10

1. Blue
2. Bench
3. Sink
4. Steel Pan
5. Oven
6. Refrig
7. Sando

Period 9/17/98 - 12/23/98  
multiplier 1 all

Dose Required in ml  
5000/year

0  
0  
0

119-5  
190  
147  
32  
17  
0  
0  
2  
0  
9  
0  
0  
0  
0  
0  
0  
0

**PERSONAL INFORMATION WAS REMOVED  
BY NRC.**

42

## Quarterly Wipe Counts R# 10/24/99

			3H	NC	
1	1??	1.00	19	17	0
2	1??	1.00	6	13	0
3	1??	1.00	19	11	0
4	1??	1.00	11	11	0
5	1??	1.00	14	18	0
6	1??	1.00	14	18	0
7	1??	1.00	9	11	0

R#  
10/24/99

- 1 Blank
- 2 Bench
- 3 Sink
- 4 Stcellan
- 5 Oven
- 6 Refug
- 7 Scintillation Counter

00-005 Receipt of 1.5  $\mu$ Ci  $^{14}$ C Lidocaine  
Count 10 min wipe test

Blank  
Outer Container  
Inner Container

346  
343  
295

no counts above background

OK R# 10 Jan 00

R# C 14 20 Jan 00

Blank	1??	10.00	0	0	346
Outer	1??	10.00	0	0	343
	1??	10.00	0	0	343
	1??	10.00	0	0	343
Inner	1??	10.00	0	0	295

Repeat Count  
1/20/0000-005 Wipes in Rm 106 following study  $^{14}$ C $^{14}$ C 1/27/00 R#

1??	1.00	0	0	32	DATA LOGGER 1
1??	1.00	0	0	28	DATA LOGGER 2
1??	1.00	0	0	29	DATA LOGGER 3
1??	1.00	0	0	21	ELECTRODES
1??	1.00	0	0	28	COMPUTER CABLES
1??	1.00	0	0	28	LAPTOP
1??	1.00	0	0	21	CLAMPS
1??	1.00	0	0	35	Liquid Washes
1??	1.00	0	0	41	Don Knobs
1??	1.00	0	0	40	Blank

no counts above  
background  
OK R# 2/20/00

1?? 1.00 0 0 34 FLOOR + BLOOD STAINS

See SOP - majority of test article total  $^{14}\text{C}$  (12.5  $\mu\text{Ci}$ ) either on path or eyeball - both collected and returned to Spenser - TMA amount exempt.

Residual  $\ll 0.05 \mu\text{Ci/g}$  tissue - all carcasses incinerated

After study, Room 106. Surged see previous - no counts above background.

Wipe samples on between items 00-005

$^{14}\text{C}$

Rt 1/27/00

1??	1.00	0	0	18	btgd
1??	1.00	0	0	30	Set 1
1??	1.00	0	0	38	Set 2
1??	1.00	0	0	36	Set 3
1??	1.00	0	0	22	Set 4
1??	1.00	0	0	22	Set 5
1??	1.00	0	0	35	Set 6
1??	1.00	0	0	35	Inside bag
1??	1.00	0	0	33	Outside package

Wiped each of 246 bottles from each group and counted. also outside of inner bag and outside of box

All essentially btgd.

Rt 1/27/00

Quarterly Wipe Tests Rt 1/27/00

Quarterly Wipe Tests

$^{14}\text{C}$

Rt 1/27/00

1??	1.00	12	17	0	1
1??	1.00	14	14	0	2
1??	1.00	10	15	0	3
1??	1.00	16	14	0	4
1??	1.00	14	13	0	5
1??	1.00	10	10	0	6
1??	1.00	11	14	0	7

1 Blank

2 Bench

3 Sink

4 Steel Pan

5 Oven

6 Refrig

7 Scintillation Counter

Quarterly Wipe Tests Rt 4/21/00

Quarterly Wipe Tests

4/21/00 Rt

$^{14}\text{C}$

1??	1.00	13	11	0	1
1??	1.00	17	16	0	2
1??	1.00	3	22	0	3
1??	1.00	16	13	0	4
1??	1.00	5	14	0	5
1??	1.00	11	15	0	6

4/21/00

1 Blank

2 Bench

3 Sink

4 Steel Pan

5 Refrig

6 Scintillation Counter

5/31/02 Disposal

All scintillation material combined & aliquoted into 200 µCi vials. Background - disposed down drain in Pharmacy lab with copious water - unused vials down drain.

Disposed 250 µCi 3H Progesterone

250 µCi 3H Progesterone

500 µCi 6-3H 2' Darcy cytidine

down drain with copious H<sub>2</sub>O to get to 0.05 µCi/ml need 2.001 × 10<sup>4</sup> L (2.5) flushed down drain in 107 with hose on ~5 gal/min for 2 hr. drain joins waste from wash room. Plenty of time RBT

Scrubbed drains with Decem. tosh wipes ③ Room Pharmacist ④ 107

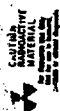
B = Background

② scintillation aliquots

③ Pharm. sink

④ 107 drain

Disposal RBT 31 May 02



NET-381 Lot 3166-294 9,257 Bq (0.25 µCi)  
PROGESTERONE, [1,2,8,7-3H(N)]  
3.6 TBq/mmol (96.8 µCi/mmol)  
0.25 ml of ETHANOL

Dil 10% w 0.6 ml EtOH - 0.4



min	<sup>3</sup> H	<sup>14</sup> C		
1??	1.00	9	15	0 6
1??	1.00	23	12	0 2
1??	1.00	28	10	0 3
1??	1.00	26	21	0 4

Quarterly Wipe Tests

7/21/00 RBT

	3H	14C		
1. Blank	1??	1.00	2	7 0 1 RBT 7/21/00
2. Bench	1??	1.00	10	15 0 2
3. Sink	1??	1.00	31	18 0 3
4. Steel Pan	1??	1.00	20	20 0 4
5. Refrigerator	1??	1.00	15	13 0 5
6. Scintillation Counter	1??	1.00	28	12 0 6


Quarterly Wipe Tests

10/20/00 RBT


	3H	14C		
1. Blank	1??	1.00	24	19 0 1
2. Bench	1??	1.00	12	15 0 2
3. Sink	1??	1.00	6	14 0 3
4. Steel Pan	1??	1.00	27	12 0 4
5. Refrigerator	1??	1.00	30	15 0 5
6. Scintillation Counter	1??	1.00	14	15 0 6

*Dropout*


11/15/99

**CAUTION**  
  
**RADIOACTIVE MATERIAL**  
 NOT FOR DRUG USE  
**MC104 Lot#125-253-056**  
 Thymidine, [2-<sup>14</sup>C]-  
 250μCi in 2.5ml sterile water  
 56mCi/mmol Dec. 15, 1997  
 Moravsek Biochemicals • www.moravsek.com  
 Brea • CA • 92621 • USA • (714) 990 2018


250μC

**CAUTION**  
  
**RADIOACTIVE MATERIAL**  
 NOT FOR DRUG USE  
**NEC-283 Lot 3144-267 1.85MBq (0.05mCi)**  
 SALICYLIC ACID, [7-<sup>14</sup>C]-  
 2.16Bq/mmol (55.5mCi/mmol) 0.2  
 0.5 ml of ETHANOL/WATER(2:8)  
 11/13/99


50μC

**CAUTION**  
  
**RADIOACTIVE MATERIAL**  
 NOT FOR DRUG USE  
**NET-1117 Lot 3188-127 9.25MBq (0.25mCi)**  
 RETINOIC ACID, ALL TRANS-[2-<sup>14</sup>C]-  
 2.9TBq/mmol (79.4mCi/mmol)  
 0.25 ml of ETHANOL


440μC

**CAUTION**  
  
**RADIOACTIVE MATERIAL**  
 NOT FOR DRUG USE  
**NET-396 Lot 2876-221 9.25MBq (0.25mCi)**  
 Hydrocortisone, [1,2,8,7-<sup>3</sup>H(N)]-  
 2.9TBq/mmol (79.4mCi/mmol)  
 0.25 ml of Ethanol


105μC

**CAUTION**  
  
**RADIOACTIVE MATERIAL**  
 NOT FOR DRUG USE  
**NEC-085H Lot 1397-238 9.25MBq (0.25mCi)**  
 Acetic Acid, Sodium Salt, [2-<sup>14</sup>C]-  
 2.06Bq/mmol (55.0mCi/mmol)  
 2.5 ml of Ethanol


180μC

**CAUTION**  
  
**RADIOACTIVE MATERIAL**  
 NOT FOR DRUG USE  
**MT507 Lot#227-036-0035**  
 Deoxyguanosine, [8-<sup>3</sup>H]-  
 250μCi in 0.25ml St. H<sub>2</sub>O  
 3.5Ci/mmol, Dec 17, 1997  
 Moravsek Biochemicals • www.moravsek.com  
 Brea • CA • 92621 • USA • (714) 990 2018


250μC

**CAUTION**  
  
**RADIOACTIVE MATERIAL**  
 NOT FOR DRUG USE  
**NET-262 37.0MBq (1.0mCi)**  
 ASCORBYL PALMITATE, [3-<sup>14</sup>C]-  
 0.04ml in ETHANOL  
 Lot No 3248-132

800μC

**CAUTION**  
  
**RADIOACTIVE MATERIAL**  
 NOT FOR DRUG USE  
**MC133 Lot#119-101-058**  
 2'-Deoxyadenosine, [8-<sup>14</sup>C]-  
 250μCi in 2.5ml Sterile H<sub>2</sub>O  
 56mCi/mmol Dec. 16, 1997  
 Moravsek Biochemicals • www.moravsek.com  
 Brea • CA • 92621 • USA • (714) 990 2018

250μC

**CAUTION**  
  
**RADIOACTIVE MATERIAL**  
 NOT FOR DRUG USE  
**NET-262 37.0MBq (1.0mCi)**  
 VITAMINE E, [3-<sup>14</sup>C]-  
 0.5ml in ETHANOL  
 Lot No 3248-923

800μC

3125μC

down sanitary drain with  
 > 62-5L of water

down 107 floor drain 25 gal/min for 1 hour

scrubbed drain with  
 Decon. Tish wipes  
 B = Backlog  
 3 Phallin 11/15/99 Not applicable  
 4 107 drain

	1??	1.00	3H	MC		
	1??	1.00	2	14	0	6
			14	17	0	4

RH 11/15/99  
 Dropout

C-14 Quench Curve 12/6/00

Counted 100000 dpm C-14 Quench Standards  
Portion 1-10

12/10/00 E1 E2

C-14				E1	1.00 E2	0	0	44114	16569	17302	12	16
200	1.00	0	0	44436								
2	1.00	0	0	61000	26958	33339	90	105				
3	1.00	0	0	70537	25106	43278	629	682				
4	1.00	0	0	78595	24902	55768	3206	3360				
5	1.00	0	0	83358	27724	66447	7187	7507				
6	1.00	0	0	86299	30510	74291	11030	11705				
7	1.00	0	0	89593	35039	89900	16290	18852				
8	1.00	0	0	91686	34943	102026	18425	25132				
9	1.00	0	0	93654	31550	111869	17626	30306				
10	1.00	0	0	94215	26565	117978	15370	34584				
11	1.00	0	0	48	10301	50977	1	13				
12	1.00	0	0	35	11235	56972	2	16				
13	1.00	0	0	39	11388	57604	6	20				
14	1.00	0	0	31	11403	57585	4	22				
15	1.00	0	0	33	11195	56382	2	7				
16	1.00	0	0	26	11870	58068	4	12				
17	1.00	0	0	26	11908	58761	3	15				
18	1.00	0	0	20	11641	57505	2	19				
19	1.00	0	0	26	11765	58087	1	13				
20	1.00	0	0	33	12212	55361	1	15				
21	1.00	0	0	35	11852	58181	2	23				
22	1.00	0	0	28	11959	58730	5	18				
23	1.00	0	0	30	11739	58593	3	16				
24	1.00	0	0	18	11479	57483	1	12				
25	1.00	0	0	34	11308	56739	4	16				
26	1.00	0	0	46	11775	57633	1	6				
27	1.00	0	0	33	11883	58146	2	14				
28	1.00	0	0	24	11896	59672	1	14				
29	1.00	0	0	29	11578	57984	5	14				

Quench Std  
1-10Clean cage w/ps  
11-29

Computed E1/E2

12/12/00

## Quench Curve Computations

E1	E2	E1/E2
16569	17302	0.9576
26958	33339	0.8086
25106	43278	0.5801
24902	55768	0.4465
27724	66447	0.4172
30510	74291	0.4107
35039	89900	0.3898
34943	102026	0.3425
31550	111869	0.2820
26565	117978	0.2252

Plotted E1/E2 as Y values versus Efficiency cpm/dpm as X values

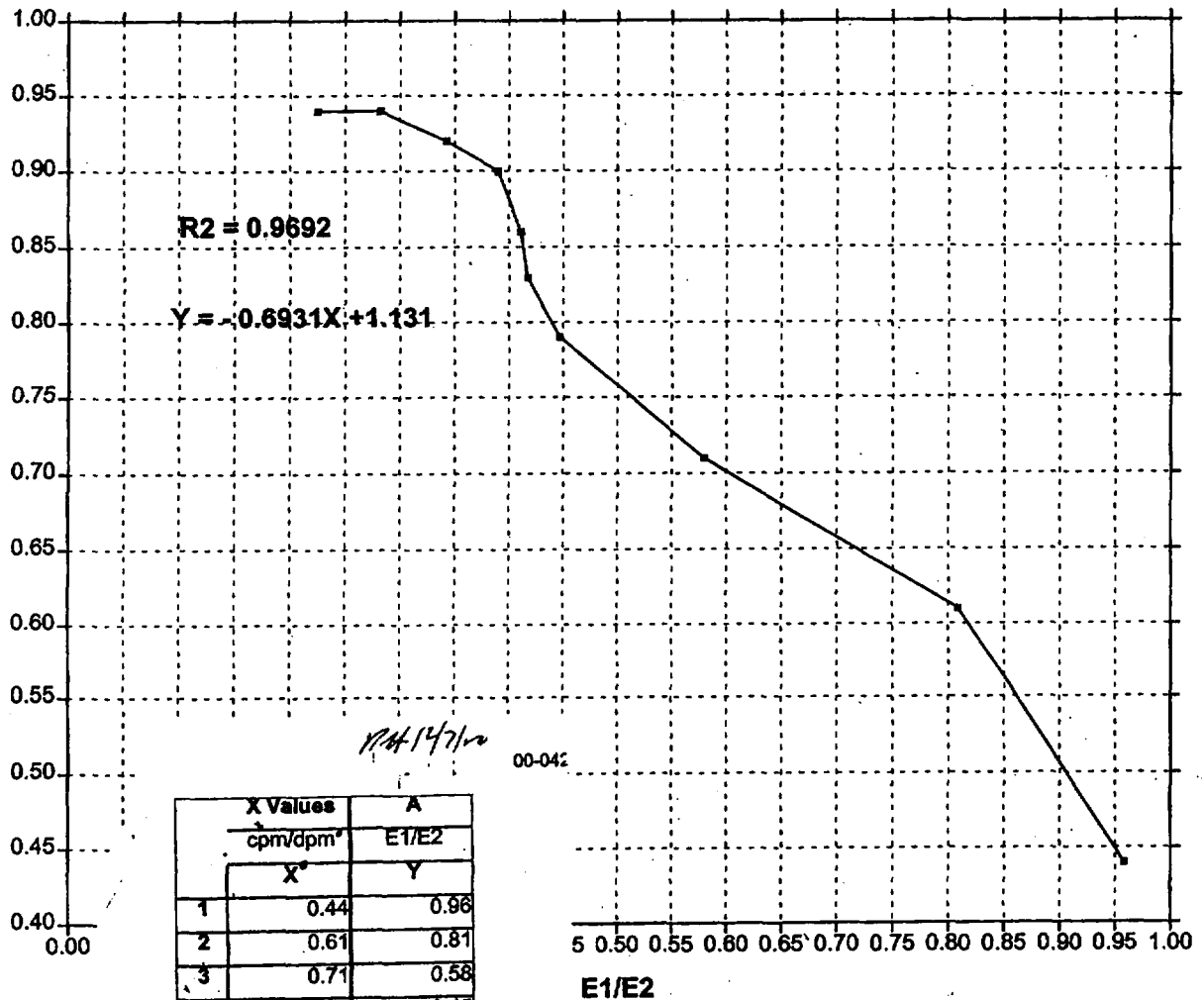
Plotted + linear regression

(see undo)

00-042.pzm:Graph-3 - Thu Dec 07 18:47:31 2000

# C-14 QUENCH CURVE (STUDY 00-042)

12/14/00



X Values		A
cpm/dpm		E1/E2
X	Y	
1	0.44	0.98
2	0.61	0.81
3	0.71	0.58
4	0.79	0.45
5	0.83	0.42
6	0.86	0.41
7	0.90	0.39
8	0.92	0.34
9	0.94	0.28
10	0.94	0.22

Wipe Test on Receipt of Test Article for 00-042

14C - (R) - DDMS

Received 10/6/02 2.131mCi

could dispose of all down stream  
with 4266 of KRO

Wipe Tests 1 Count 1 min 14C

- 1 Outside Main Shipping Box
- 2 Inside Main Box - Sigma Test
- 3 ACN outside Canister
- 4 Group 1/3 outside Canister
- 5 Group 2/4 outside Canister
- 6 Group 1 outside plastic box
- 7 Group 3 "
- 8 Group 2 "
- 9 Group 4 "
- 10 ACN "
- 11 Background
- 12 ACN bottle
- 13 Group 1 bottle
- 14 Group 2 bottle
- 15 Group 3 bottle
- 16 Group 4 bottle

Wipe Tests on Receipt  
of 14C - (R) - DDMS

RAH  
12/6/02

2	1.00	0	0	60	12783	55445	2	19
3	1.00	0	0	32	11908	58903	2	10
3	1.00	0	0	30	11012	53740	2	19
4	1.00	0	0	32	11861	55637	3	19
5	1.00	0	0	28	12509	57376	0	21
6	1.00	0	0	30	11700	57108	3	14
7	1.00	0	0	40	11791	58120	3	15
8	1.00	0	0	33	12052	58918	5	22
9	1.00	0	0	27	12042	58233	2	14
0	1.00	0	0	20	11764	58250	5	11
1	1.00	0	0	36	12088	57487	6	15
2	1.00	0	0	46	12063	58140	4	11
3	1.00	0	0	33	11958	58121	3	13
4	1.00	0	0	37	9705	47224	2	9
5	1.00	0	0	37	11126	54266	4	20
5	1.00	0	0	22	3648	62030	0	18



Ref 10/7/00

Computation of dpm from test article receipt wipes 00-042 12/6/00

E1	E2	E1/E2	Efficiency	cpm	computed dpm
12783	55445	0.231	0.971	60	62
11908	58903	0.202	0.991	32	32
11012	53740	0.205	0.989	30	30
11861	55637	0.213	0.983	32	33
12509	57376	0.218	0.980	28	29
11700	57108	0.205	0.989	30	30
11791	58120	0.203	0.990	40	40
12052	58918	0.205	0.989	33	33
12042	58233	0.207	0.988	27	27
11764	58250	0.202	0.991	20	20
12088	57487	0.210	0.985	36	37
12063	58140	0.207	0.987	46	47
11858	58121	0.206	0.988	33	33
9705	57224	0.170	1.013	37	37
11126	54266	0.205	0.989	37	37
3648	62030	0.059	1.090	22	20

Carrier: ☒ FedEx ☐ UPS ☐ Airborne  
☐ Other: \_\_\_\_\_

Airbill #: 809709475314

Description of Contents : Dosing Solutions: 14C-(R)-DDMS

Total Radioactivity: 2.131 mCi 78.85 mBq

~100 mL of Acetonitrile (shipped in same box as dosing solutions)

Comments: As requested by your RSO, enclosed is a copy of the shipper's notice that should be included with low-level radioactive shipments.

The acetonitrile is separated from the radioactive dosing solutions and the dry ice by a cardboard barrier and bubble wrap.

Encl.: copy of Shipper's Notice

00-042

INTERTECHNIQUE SL30 (WHITE C)

JER 12/11/00

counts on test article  
activity checks and  
oral dosing tube rinses

4C (R) - DPMS

1	1.00	0	0	28988	16702	63228	5700	8877
2	1.00	0	0	29585	17325	66643	5631	8857
3	1.00	0	0	27261	16950	66165	5335	8335
4	1.00	0	0	27096	16795	66214	5407	8363
5	1.00	0	0	118608	34525	94754	23394	36791
6	1.00	0	0	117810	34220	94578	22836	36112
7	1.00	0	0	135753	38090	101153	26445	41344
8	1.00	0	0	137355	37518	99478	26817	42022
9	1.00	0	0	27871	16673	66011	5602	8744
10	1.00	0	0	27735	17077	65104	5442	8362
11	1.00	0	0	27357	16932	66381	5369	8608
12	1.00	0	0	27719	16868	67171	5328	8354
13	1.00	0	0	99383	30717	88841	19134	30180
14	1.00	0	0	111524	33024	91898	21610	34136
15	1.00	0	0	108887	32872	91612	21180	33302
16	1.00	0	0	109197	32918	91981	21295	33456
17	1.00	0	0	54801	22626	73746	10868	16288
18	1.00	0	0	55648	22750	75260	10756	16236
19	1.00	0	0	56949	22902	74878	10966	16787
20	1.00	0	0	56501	23015	74738	11230	16813
21	1.00	0	0	38024	19325	68732	7400	11225
22	1.00	0	0	38304	19593	69746	7546	11295
23	1.00	0	0	39428	19616	69637	7799	11817
24	1.00	0	0	39525	19417	69043	7632	11663
25	1.00	0	0	52				

$$\Sigma 1541361 \text{ cpm} \div \text{cpm} = \frac{1.54 \times 10^6 \text{ dpm}}{2.2 \times 10^4 \text{ dpm/mC}} = 3.007 \text{ mC for disposal}$$

RHT 12/13/00

Wipe tests for retention of Test Article 00-042

Date 12/13/00

1. ~~Wipe Bottle~~ Grp 2 Post

2. Group 1 Bottle

3. Group 2 Bottle

4. Group 3 Bottle

5. Group 4 Bottle

6. Group 4 Post

7. Group 3 Post

1A Group 1 Rinse

BALANCE #7

TOP

Front Panel &amp; glass

Inside

BKgd

1	1.00	0	0	24	11141	55502	6	21
2	1.00	0	0	37	11547	57651	1	13
3	1.00	0	0	61	11439	58295	11	25
4	1.00	0	0	49	11724	57871	7	19
5	1.00	0	0	340	11718	57607	62	114
6	1.00	0	0	29	11783	57489	3	15
7	1.00	0	0	138	11591	59430	25	54
8	1.00	0	0	48	11742	58164	6	20
9	1.00	0	0	575	12119	57962	94	146
10	1.00	0	0	630	12201	57312	117	190
11	1.00	0	0	90	11579	58207	18	35
12	1.00	0	0	29	11691	57928	4	19

RHT  
12/13/00

51

12/14/00

Balance #7 was decontaminated and recounted

1 Front  
2 Top  
3 Right  
4 Left

5 Decontaminated Right side  
Right

00-042 Ream

Rt 12/14/02

1	1.00	0	0	32	11352	57536	1	19
2	1.00	0	0	49	11364	57255	3	20
3	1.00	0	0	73	11323	57501	14	26
4	1.00	0	0	34	11809	57892	3	17
5	1.00	0	0	55	11668	58464	3	21

Counts for ice water bath

12/14/02

ice water pad 12/14/02 M

0 0 43 1.00 0 0 74 26333 94574 8 28

1.00 0 0 43 20706 70984 5 22

ice water for cleanup 12/14/02 M

12/14/02

12/18/02 Case 11771 Left side

00/12/10/02

00	0	0	108	11907	58237	0	19	0	37	85	11757	58764	6	12
00	0	0	66	11672	57883	16	30							
00	0	0	44	12008	57763	6	18							
00	0	0	47	11953	58612	8	34							
00	0	0	59	11986	58738	11	23							
00	0	0	82	11508	58301	13	27							
00	0	0	67	11599	55318	10	23							
00	0	0	43	11762	57707	12	39							
00	0	0	47	11548	57422	1	17							
00	0	0	56	11798	57841	3	10							
00	0	0	76	11948	58035	14	31							
00	0	0	58	11624	57546	15	32							
00	0	0	40	11555	58268	5	20							
00	0	0	59	12071	60277	10	18							
00	0	0	73	11394	56338	11	35							
00	0	0	69	11716	57699	9	26							
00	0	0	43	11408	58210	1	13							
00	0	0	148	12702	57217	21	37							
00	0	0	198	13151	57470	19	31							
00	0	0	53	11250	58020	2	13							
00	0	0	47	11607	58729	4	10							
00	0	0	73	11906	57243	15	33							
00	0	0	36	11659	58592	4	20							

Case Wipe Tests after 12/14/02

Rt 12/14/02

00-042

Rt 12/14/02

x rewash

1.4 E Dm

52

Cage Wipes after 11/18/00 00-042

1	405 sides												
2	405 don												
3	405 screen	1	1.00	0	0	62	11959	56740	11	29			
4	405 pan	2	1.00	0	0	43	11734	58865	1	14			
5	5ANS sides	3	1.00	0	0	33	11887	58513	3	13			
6	5ANS don	4	1.00	0	0	104	12927	56310	9	24			
7	5ANS screen	5	1.00	0	0	53	11785	58868	7	20			
8	5ANS pan	6	1.00	0	0	125	11807	59233	22	37			
9	411 sides	7	1.00	0	0	78	11849	59329	11	40			
10	411 don	8	1.00	0	0	337	13122	55276	59	84			
11	411 screen	9	1.00	0	0	51	11676	55818	8	32			
12	411 pan	10	1.00	0	0	48	11578	57852	9	21			
		11	1.00	0	0	45	11737	58660	9	17			
		12	1.00	0	0	213	13717	55697	39	52			

12/21/00 Wipe Test Freezer #11, Large Chest Freezer  
 1 Freezer #11 Top shelf walls  
 2nd shelf walls 00-042

1.00	0	0	30	11780	55903	2	13
1.00	0	0	33	12670	58185	5	15
1.00	0	0	25	12219	56736	5	20
1.00	0	0	35	12375	57758	1	11
1.00	0	0	34	12249	56366	2	15
1.00	0	0	43	12444	58035	2	20
1.00	0	0	23	12119	56546	5	13
1.00	0	0	31	12573	58349	3	11
1.00	0	0	26	12257	56898	4	13
1.00	0	0	19	12099	57435	1	11
1.00	0	0	25	12369	57269	3	16
1.00	0	0	29	12107	56948	5	27
1.00	0	0	24	12277	56657	0	15
1.00	0	0	28	12245	56297	3	15
1.00	0	0	19	12096	56427	4	15
.00	0	0	27	12263	56648	5	24
.00	0	0	35	12113	57577	11	21
.00	0	0	25	12339	57445	3	22

12/21/00  
 Wipe Test  
 Freezer #11  
 00-042

16

JVM

12/22/10 Wipe Tests

Room 104

00-042

53

- 1 Balance #1
- 2 Balance #2
- 3 Water Bath
- 4 Beaker
- 5 Gray Table Top Shelf
- 6 Gray Table 2nd Shelf
- 7 SS Cart top
- 8 SS Cart 2nd Shelf
- 9 WCL Str Plate
- 10 XBL Str Plate

1	1.00	0	0	42	12206	57606	4	12
2	1.00	0	0	24	12122	56508	2	23
3	1.00	0	0	36	25099	78956	4	16
4	1.00	0	0	69	25472	45279	3	15
5	1.00	0	0	41	12538	56069	2	20
6	1.00	0	0	21	12211	56168	2	14
7	1.00	0	0	25	11590	57080	2	13
8	1.00	0	0	31	11712	57040	3	8
9	1.00	0	0	85	11194	53945	10	26
10	1.00	0	0	373	11632	57608	67	106

12/22/10 RN

Wipe Tests

00-042

12/27/10 PM

Wipe Tests

00-042

0 Sub	1	1.00	0	0	57	12328	57104	3	17
don	2	1.00	0	0	49	12461	57581	7	18
Screen	3	1.00	0	0	44	11372	58180	7	22
pan	4	1.00	0	0	42	12162	58131	2	9
11 Sub	5	1.00	0	0	32	12292	58272	2	10
don	6	1.00	0	0	139	12305	57091	12	30
Screen	7	1.00	0	0	35	12301	58084	2	19
pan	8	1.00	0	0	47	12400	58129	4	20
12 Sub	9	1.00	0	0	43	12271	57955	6	17
don	10	1.00	0	0	95	12578	56792	10	29
Screen	11	1.00	0	0	28	12421	58257	3	21
pan	12	1.00	0	0	44	12466	57486	5	18
13 Sub	13	1.00	0	0	5190	12999	58032	653	838
don	14	1.00	0	0	600	12795	56682	88	138
Screen	15	1.00	0	0	463	11919	57674	104	160
pan	16	1.00	0	0	306	12085	57936	60	92
14 Sub	17	1.00	0	0	398	13163	57500	49	78
don	18	1.00	0	0	195	12345	58065	39	59

Rt

12/27/10

Wipe Tests

00-042

Sub plate  
str plate

don

54

1/24/60 Wipe Tests

00-042

- 1 Seal 13 top
- 2 Seal 13 joint + sides
- 3 WEL Str Plate Top
- 4 WEL Str Plate Front
- 5 XBL Str Plate

1 1439 d271

2 1439 Cooler

3 SAN9 Sealer

4 SAN9 PAN

5 SAN9 Dm

6 SAN9 Sealer

7 411 PAN

8 SAN 11 Dm

9 SAN 12 Dm

10 SAN 12 Dm

11 SAN 12 Dm

12 SAN 12 Dm

13 SAN 12 Dm

14 SAN 12 Dm

15 SAN 12 Dm

12/25/60

Rt W. p Tests

00-042

1	1.00	0	0	390	11580	55457	24	45
2	1.00	0	0	606	11953	57195	56	77
3	1.00	0	0	116	12130	57162	12	28
4	1.00	0	0	133	11930	56536	25	39
5	1.00	0	0	103	11839	56924	9	20
6	1.00	0	0	71	12547	57856	4	14
7	1.00	0	0	61	12404	57809	1	15
8	1.00	0	0	54	13620	59727	2	14
9	1.00	0	0	81	12567	57274	4	22
10	1.00	0	0	71	12906	56729	13	22
11	1.00	0	0	305	12747	58117	33	52
12	1.00	0	0	63	13347	57200	10	22
13	1.00	0	0	33	12531	58082	1	16
14	1.00	0	0	40	12581	57776	3	17
15	1.00	0	0	40	21542	73449	4	19

1/3/61

Wipe Tests

00-042

1 SAN9 Sealer

2 XBL Str plate

3 Balance 13 top

Rt Wipe Tests

00-042

1/3/61

1	1.00	0	0	74	11939	57732	0	11
2	1.00	0	0	43	11490	53929	5	15
3	1.00	0	0	176	12757	59394	23	42

1 Seal 13 Top

2 Seal 13 Front

3 Seal 13 Sides

4 Str Plate Top

5 Str Plate Front

6 Seal 13 Top

7 Seal 13 Front

8 Seal 13 Sides

9 Str Plate Top

10 Str Plate Front

11 13 top

12 13 front

13 13 sides

14 13 top

15 13 front

16 13 sides

17 13 top

15 Str Plate Front

Rt Wipe Tests 1/3/61 00-042

1	1.00	0	0	124	12083	57457	11	24
2	1.00	0	0	147	12198	58577	9	18
3	1.00	0	0	111	12000	58399	13	24
4	1.00	0	0	135	12181	58718	8	29
5	1.00	0	0	203	12295	58882	18	31
6	1.00	0	0	70	12098	58452	6	23
7	1.00	0	0	84	12010	57904	14	33
8	1.00	0	0	63	11596	57367	9	27
9	1.00	0	0	112	12284	57613	14	31
10	1.00	0	0	91	11721	57549	10	22
11	1.00	0	0	49	12019	57571	5	18
12	1.00	0	0	100	12310	59070	18	30
13	1.00	0	0	87	11768	58730	6	29
14	1.00	0	0	59	11996	58781	6	19
15	1.00	0	0	48	11711	56719	2	10
16	1.00	0	0	49	10925	52546	10	22
17	1.00	0	0	90	12595	59070	5	15

1/5/01 Wipe Tests

00-042

55

- 1 Rinse Water
- 2 Floor 100
- 3 Green Zone
- 4 Floor 100
- 5 Green zone
- 6 Green zone
- 7 Rinse HD, white can

Rt Wipe 00-042 1/5/01

1	1.00	0	0	47	28866	75280	5	18
2	1.00	0	0	69	11247	44543	1	16
3	1.00	0	0	116	11964	50824	10	24
4	1.00	0	0	670	33843	44270	7	18
5	1.00	0	0	44	11321	43094	4	22
6	1.00	0	0	84	12630	55245	7	31
7	1.00	0	0	45	12254	57595	1	11
8	1.00	0	0	193	21097	72755	16	37

Drops of "7" down drain with 5X water Rt 1/8/01

Wipe Tests 1/10/01 Rt 00-042

rounds each

- 1 Rinse HD 2nd white can
- 2 Rinse HD square pan
- 3 Mop Bucket
- 4 Rinse HD 3rd white can
- 5 Rinse 2nd square PAN
- 6 Mop Bucket 2nd

Wipe Tests 00-042

1	1.00	0	0	58	24536	77481	8	27
2	1.00	0	0	147	23418	76928	9	25
3	1.00	0	0	140	24651	76364	7	20
4	1.00	0	0	57	20995	70263	9	33
5	1.00	0	0	30	21002	72893	5	18
6	1.00	0	0	126	21219	58055	13	37

Rt 1/10/01

Crew 1/10/01

Wipe Tests 1/11/01 Rt 00-042

Wipe Tests 00-042 Rt 1/11/01

- 1 Watering Can
- 2 Plankton Star
- 3 Metal Grey Star
- 4 Feed Bucket
- 5 Vortox
- 6 Liquid Bsp
- 7 Power strip
- 8 Orange Chantal Cyl

1	1.00	0	0	31	11890	57384	5	15
2	1.00	0	0	44	11739	57341	5	15
3	1.00	0	0	45	12338	57721	10	23
4	1.00	0	0	46	12240	57817	3	17
5	1.00	0	0	42	11952	57493	5	28
6	1.00	0	0	34	11632	57293	6	17
7	1.00	0	0	40	13077	66784	5	20
8	1.00	0	0	34	11729	55984	3	17

Wipe Tests 1/12/01 00-042

- 1 White Trash Can
- 2 Grey Trash Can
- 3 Animal Green bed
- 4 Necropsy floor
- 5 Tag Pen
- 6 left corner hood dog
- 7 right corner hood
- 8 mop bucket

Wipe Tests 00-042 1/12/01

1	1.00	0	0	34	12387	54268	6	11
2	1.00	0	0	40	11943	57416	6	16
3	1.00	0	0	82	12032	57850	4	15
4	1.00	0	0	34	11598	56948	3	15
5	1.00	0	0	91	11809	58274	5	21
6	1.00	0	0	258	12073	57224	48	75
7	1.00	0	0	342	12201	57342	52	95
8	1.00	0	0	79	19650	68249	11	19

56

Wipe Tests

00-042

Ret 1/18/01

1. Kipp

2. Taper

3. Hood right

4. Hood left

5. Green carrier

6. White Can (1)

7. White Can (2)

Wipe Tests

00-042

Ret 1/18/01

1	1.00	0	0	78	13130	64944	14	32
2	1.00	0	0	77	11043	55784	2	9
3	1.00	0	0	37	11761	57583	5	21
4	1.00	0	0	59	11761	57937	5	14
5	1.00	0	0	29	11790	57594	3	15
6	1.00	0	0	31	11036	56825	3	16
7	1.00	0	0	41	11734	57301	7	24

Wipe Test

00-042

Ret 1/25/01

1. Gray Cart

2. Gray bed

3. White Trash Bucket Bucket @ 11/15/01

4. White Trash Bucket lid

5. Green bed carrier

6. Glass Beaker

7. Blue Chair

8. TAN Cart

desert + wipe again

1. green carrier

2. white trash can

3. white trash can lid

4. gray trash can lid

5. Blue chair

6. gray cart

7. glass beaker

8. glass beaker

Wipe Test 00-042

Ret 1/25/01

1	1.00	0	0	31	16601	51123	2	17
2	1.00	0	0	130	11494	56927	4	25
3	1.00	0	0	86	12263	56665	3	21
4	1.00	0	0	143	11732	57404	1	14
5	1.00	0	0	72	11750	57927	5	22
6	1.00	0	0	91	12182	58491	4	21
7	1.00	0	0	95	12199	58263	2	16
8	1.00	0	0	119	11965	56755	8	23
1	1.00	0	0	33	11677	57724	5	20
2	1.00	0	0	91	11778	58771	1	19
3	1.00	0	0	47	11430	57923	1	19
4	1.00	0	0	119	11824	58606	0	14
5	1.00	0	0	73	11623	57419	6	28
6	1.00	0	0	98	11753	57531	5	14
7	1.00	0	0	59	11471	57941	1	19
8	1.00	0	0	63	11572	57864	2	12



00-042 Decant.

Wipe Tests 1/26/01 RCH

57

- 1 white trash can
- 2 gray trash can lid
- 3 gray paint
- 4 mop handle

Wipe Test 00-042 RCH 1/26/01

1	1.00	0	0	27	12282	55842	2	12
2	1.00	0	0	64	11773	58644	5	15
3	1.00	0	0	43	11986	58035	5	22
4	1.00	0	0	29	11548	57364	3	10

00-042 Decant

Wipe Tests 1/30/01 RCH

- 1 Floor Left Front
- 2 Floor Front Center Middle
- 3 Floor Front Right
- 4 Floor Left Center
- 5 Floor Middle Center
- 6 Floor Right Center
- 7 Floor Left Back
- 8 Floor Middle Back
- 9 Floor Right Back
- 10 Green Area
- 11 Scrub Brush
- 12 Floor Under Hoods
- 13 Squeegee
- 14 Mop Bucket
- 15 Floor under hood redecont

Wipe Tests 00-042 RCH 1/30/01

1	1.00	0	0	19	3763	54008	3	2
2	1.00	0	0	34	8376	62591	6	17
3	1.00	0	0	44	11071	56304	6	17
4	1.00	0	0	21	11680	57981	3	26
5	1.00	0	0	27	11611	58787	3	20
6	1.00	0	0	37	11662	58885	3	14
7	1.00	0	0	19	11731	58515	2	15
8	1.00	0	0	45	11589	58139	3	17
9	1.00	0	0	40	11672	58301	6	22
10	1.00	0	0	27	11802	57244	1	13
11	1.00	0	0	30	12304	57987	1	12
12	1.00	0	0	92	12320	56407	6	24
13	1.00	0	0	34	11590	58643	2	18
14	1.00	0	0	24	11450	57210	4	14
15	1.00	0	0	73	11553	55999	7	20

10 May 01 Disposal of final cage washes

All activities collected were sent to Xenobiotics for analysis except for the final washes Interval 144-168 hours. For these samples an aliquot of 10 ml was sent and the residual kept at WEL. Final DPM/g and total computed DPM are given in sheets marked cage Residue 00218. Loading per ml = (Total DPM / Sample wt) so long as this value is below  $1.1 \times 10^6$  DPM/ml (= 0.05  $\mu$ C) material can be and was washed down drain with copious flush. Highest value was for SANS 150 DPM/ml which is negligible compared to  $1.1 \times 10^6$ .

RCH

12 May 01 Disposal of carcasses

See pages marked CD1-4  
dosed Administered doses (CD-1) by  $2.2 \times 10^5$  DPM/g tissue 100% recovered  
give remissions ul/carcass dose by body weight (400 mg given much less

## Quarterly Wipe Tests

1/19/01

- 1 Blank
- 2 Bench
- 3 Sink
- 4 Skel Pan
- 5 Refrig
- 6 Scintillation Counter

	1.00	9	15	0	C14	3H		
2	1.00	25	10	0	16135	85032	2	12
3	1.00	12	11	0	9845	46735	2	8
4	1.00	24	11	0	10175	49610	0	13
5	1.00	11	16	0	10294	50383	7	19
					10520	50640	4	14

Quantity  
Wipes  
1/19/01  
M

00-042 9/20/01 Disposed of Scintillation material  
 & activity  $< 0.01 \text{ mCi} = 10 \mu\text{Ci}$   
 Need  $10 \times 20 = 0.05 \mu\text{Ci} = 200$  need 2000  
 Disposed down sink drain in 305A with copious  
 water running Vials 3x  $\sim 0.5 \text{ L}$  / vial  $\sim 100$  vials  
 $\sim 50 \text{ L}$  water

Rpt 9/20/01

Wiped sink 1  
 drain 2

1	1.00	6	18	0	18218	91989	4	30
2	1.00	12	27	0	15527	80197	1	43

00-042 Scintillation disposed  
 9/20/01 M

00-042

12/3/02

12/4/02

Disposal of contaminated labware

Individual containers soaked with RADCON 24 hours  
 counted wash of  $< 0.05 \mu\text{Ci/ml} = 1.1 \times 10^{-6} \text{ dpm/ml}$  disposal  
 with copious wash water. Reused containers washed down  
 drain with copious water. Non-disposable washed normally  
 disposables bagged for incineration.

Volume	12/4/02	C <sup>14</sup> decontamination	Counted 3 ml
1 IL	1.00 0 0 44	17479 65345	3 20
1 IL	2 1.00 0 0 339	18030 65855	60 87
1 IL	3 1.00 0 0 836	17987 67144	154 193
1 IL	4 1.00 0 0 327	16955 63524	75 101
1 IL	5 1.00 0 0 350	17876 67563	66 89
10L	25 1.00 0 0 36	8171 80511	8 23
5L	26 1.00 0 0 139	18093 65756	16 32
5L	27 1.06 0 0 340	16825 63590	60 76
2L	28 1.00 0 0 41	19013 65723	6 21

corrections for efficiency  
 75-95%

highest activity #3

$\frac{936}{3} \sim 279 \text{ dpm/ml}$

$$\begin{aligned} \frac{279}{1.1 \times 10^{-6}} &= 253 \times 10^{-6} \mu\text{Ci/ml} \\ &= 2.53 \times 10^{-4} \mu\text{Ci/ml} \\ &= 253 \text{ pCi/ml} \end{aligned}$$

12/4/02

July 17, 2003

Ms. Laura DiDonato:

In accordance with Nureg (1757) for decommissioning facilities, I performed the attached survey of your facility, using table B1 from Appendix B as the release criteria. The following rooms and there uses were surveyed; 104, 105, 106, 107, 221, 222, and 305a (used for storing animals), 233 and 305b appeared to be lab styles with facilities for processing information, and finally 234 was an equipment room. The survey results are as follows:

**Dose rating:**

All area readings for the rooms where contact to the objects (i.e., floor, bench's, hood, sinks, etc.) and these readings where all less than background using a Ludlum 18 with a 44-7 and 44-3 probes. Background was 0.02 mR/hr with the 44-7 and 200 cpm with the 44-3.

Meter information Ludlum model 18 serial number 98841 calibrated against a Cs-137 J. L. Shepard source (400 mCi) on 2/5/2003. Ludlum 18 with 44-3 is 13 % efficient for I-125, while the 44-7 is 11% efficient for Cs-137, and 10% eff for Co-57, also 13% eff for P-32.

**Smear Information**

The smears are as labeled on the maps and they were counted for both Gamma and Beta results because of the isotopes list on the license. The efficiencies of the instruments are as follows:

Gamma

Smear Counting system

MCA Series 30 with Well counter and 2X2 Crystal. (2 keV per channel)

I-125 Channels 10-45	41% eff.	MDA = 1.89e-4 $\mu$ Ci	Bkg: 137 cpm
Co-57 Channel 50-90	87% eff	MDA = 1.17e-5 $\mu$ Ci	Bkg: 57 cpm
Ba-133 Channel 95-240	40 % eff	MDA = 3.15e-4 $\mu$ Ci	Bkg: 234 cpm
Cs-137 Channel 240-730	18 % eff	MDA = 4.45e-4 $\mu$ Ci	Bkg: 142 cpm

All spears were less than MDA for all isotopes.

Beta counting:

LKB Wallac 1409

H-3 channels 5-320	60% eff	MDA = $2.81\text{e-}5$ $\mu\text{Ci}$	Bkg: 23 cpm
C-14 channels 320-650	71% eff	MDA = $1.23\text{e-}5$ $\mu\text{Ci}$	Bkg: 10 cpm
P-32 channels 650-1024	60 % eff	MDA = $1.23\text{e-}5$ $\mu\text{Ci}$	Bkg: 8 cpm

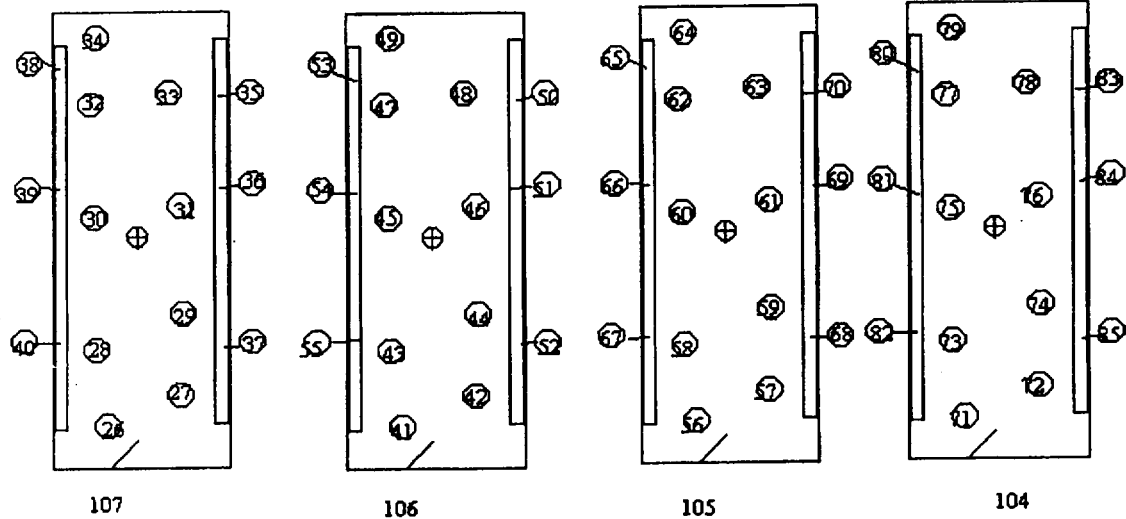
All smears less than 200 dpm/100 cm<sup>2</sup>. Wipes 17 and 28 recounted and confirmed less than 200 dpm/100 cm<sup>2</sup> (see follow up counts).

If there is any thing else I can do for you please do not hesitate to call me.

Sincerely,



Larry Martino BS, MBA, NRRPT



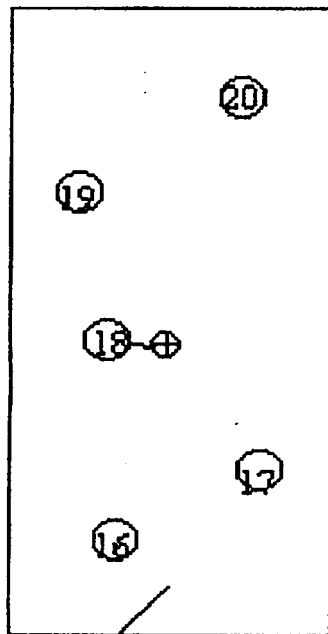
# Legend

○ Smear

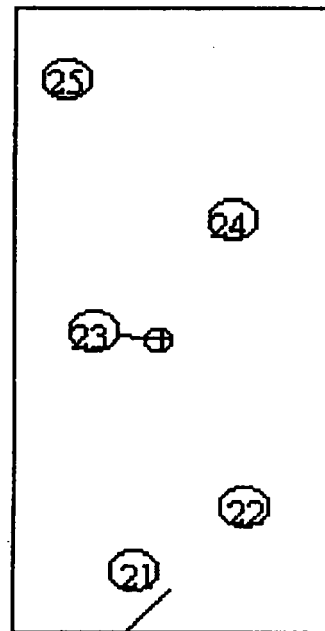
⊕ Drain

══ Troughs attached to Walls

White Eagle Labs



221



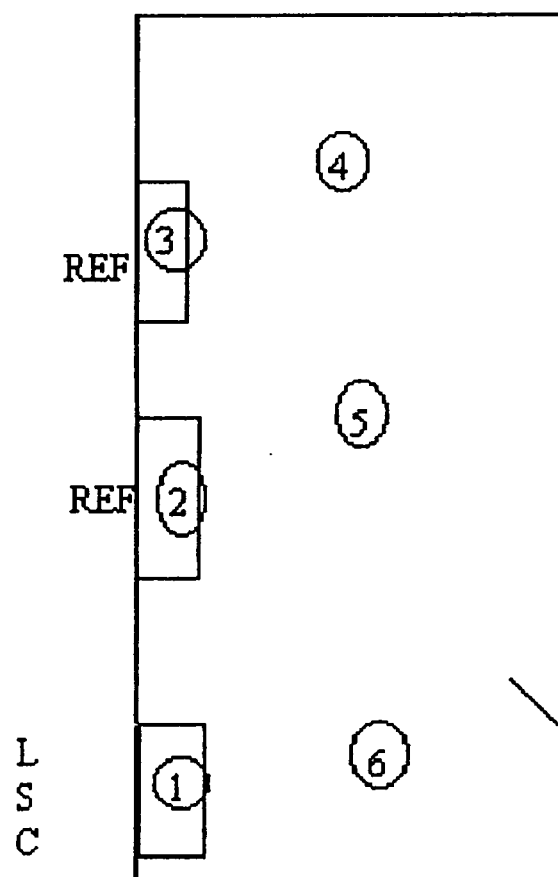
222

White Eagle Labs

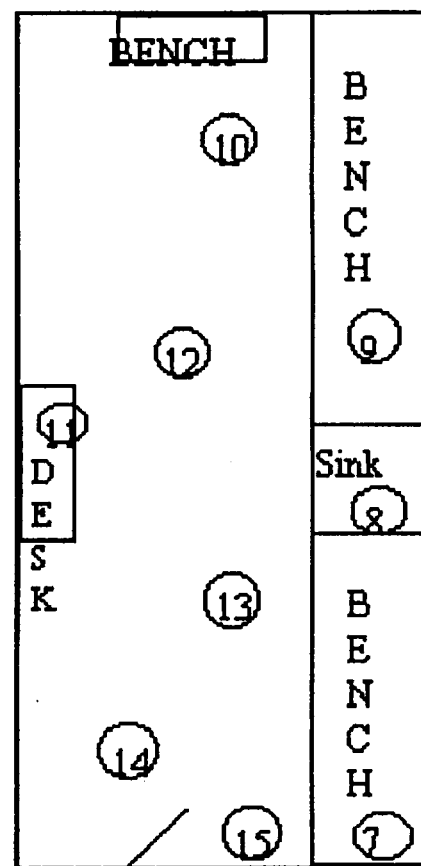
Legend

⊕ Drain

○ Smear



234



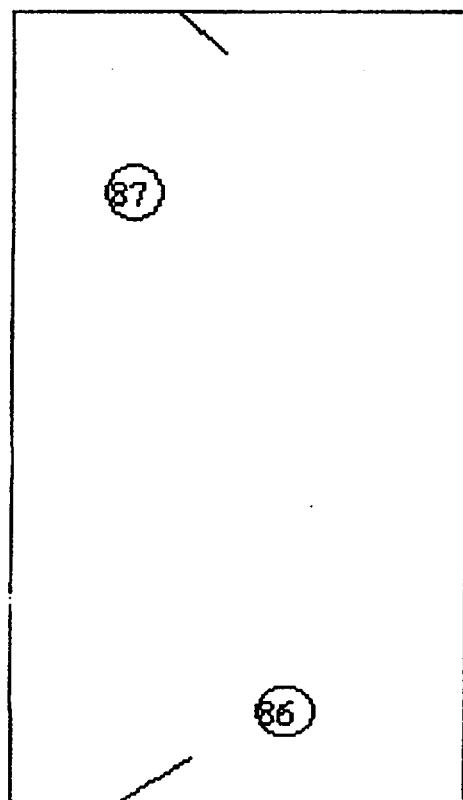
233

Legend

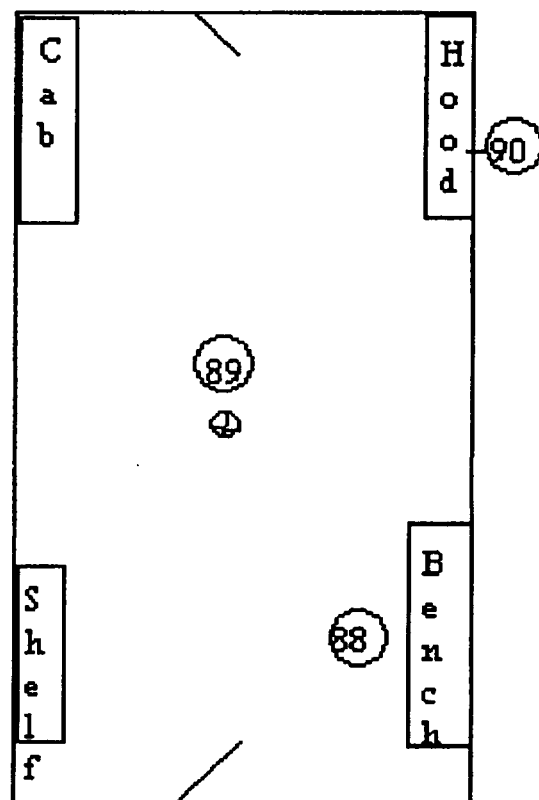
White Eagle labs

○ Smear Location







305a



305b

# White Eagle Labs

## Legends

-  Smear
-  Drain

PROTOCOL : 1 H3 C14 30SEC  
 DATE : 2003/07/17  
 TIME : 12:06  
 ID : P01AS079

Wallac 1400 DSA ver 2.50

Counting mode : CPM  
 Isotope(s) : H3,C14  
 H3 = 5- 350,12.43 y  
 C14 = 5- 660,5730.00 y  
 Protocol name : H3 C14 30SEC  
 Counting time : 30  
 Repeats : 1  
 Cycles : 1  
 Replicates : 1  
 2 sigma % : 0.01  
 Minimum cpm : 0.00 Checking time: 10  
 Output to Printer :  
 POS,CTIME,CPMw1,CPMw2,CPMw3  
 Additions to Printer : Listing  
 Spectrum : Beta  
 Window 1 : 5- 320 /Beta  
 Window 2 : 320- 650 /Beta  
 Window 3 : 650-1024 /Beta

Unknown samples:

Pos	CTime	CPMw1	CPMw2	CPMw3	
1	30	24448.7	70796.1	0.0	- C14 7190
2	30	12461.2	27.3	8.4	- H-3 6090
3	30	23.3	10.6	8.5	- 3K60
4	30	99.6	10.8	2.2	
5	30	56.0	10.8	8.6	
6	30	49.4	19.3	25.8	
7	30	51.6	8.6	17.2	
8	30	49.5	12.9	12.9	
9	30	49.5	10.8	15.1	
10	30	38.2	19.1	12.7	
11	30	58.4	15.2	10.8	
12	30	45.2	8.6	6.5	

Pos	CTime	CPMw1	CPMw2	CPMw3
13	30	66.1	16.5	2.1
14	30	57.8	17.1	17.1
15	30	40.9	12.9	8.6
16	30	43.0	21.5	8.6
17	30	162.7	19.5	8.7
18	30	47.3	10.7	10.7
19	30	21.5	12.9	8.6
20	30	36.0	12.7	12.7
21	30	10.8	17.3	6.5
22	30	31.7	29.6	10.6
23	30	19.3	17.2	15.0
24	30	40.4	25.5	10.6

Pos	CTime	CPMw1	CPMw2	CPMw3
25	30	89.1	12.4	8.3
26	30	33.6	14.7	10.5
27	30	38.4	8.5	10.7
28	30	145.2	10.8	2.2
29	30	84.3	15.1	17.3
30	30	36.5	8.6	12.9

31	30	34.6	8.6	13.8
32	30	51.5	19.3	25.8
33	30	27.8	8.6	2.1
34	30	29.6	8.5	2.1
35	30	27.7	21.3	8.5
36	30	38.7	8.6	10.7

Pos	CTime	CPMw1	CPMw2	CPMw3
37	30	22.5	18.4	10.2
38	30	20.8	14.6	8.3
39	30	31.6	14.7	10.5
40	30	64.5	15.1	17.2
41	30	36.1	17.0	8.5
42	30	30.2	10.8	8.6
43	30	42.9	10.7	12.9
44	30	36.1	6.4	6.4
45	31	33.4	10.4	8.3
46	30	23.6	6.4	12.9
47	30	58.1	17.2	17.2
48	30	32.0	12.8	4.3

Pos	CTime	CPMw1	CPMw2	CPMw3
49	30	24.6	22.1	20.5
50	30	23.4	21.2	19.6
51	30	27.5	8.5	10.6
52	30	35.3	19.2	2.1
53	30	40.5	17.3	8.5
54	30	34.3	12.9	12.9
55	30	21.5	12.9	4.3
56	30	14.8	10.6	8.4
57	30	32.4	28.1	13.0
58	30	36.5	17.2	8.6
59	30	45.1	21.5	10.7
60	30	40.8	23.6	8.6

Pos	CTime	CPMw1	CPMw2	CPMw3
61	30	63.9	18.5	12.4
62	30	45.1	17.2	4.3
63	30	30.3	13.0	2.2
64	30	86.1	21.5	15.1
65	30	71.2	8.6	4.7
66	31	25.0	12.5	6.7
67	30	29.7	23.4	19.6
68	30	23.3	10.6	16.9
69	30	12.7	10.6	6.4
70	30	27.4	19.0	8.4
71	30	25.7	17.2	10.7
72	30	25.7	19.3	12.8

Pos	CTime	CPMw1	CPMw2	CPMw3
73	30	18.5	16.4	24.6
74	30	38.5	27.8	15.0
75	30	25.7	17.1	12.8
76	30	21.4	2.1	19.3
77	30	25.4	12.7	6.3
78	30	31.6	6.3	12.7
79	30	25.9	19.4	2.2
80	30	32.2	6.4	6.4
81	30	23.6	8.6	19.3
82	30	27.5	21.2	6.3
83	30	41.1	10.8	8.6
84	30	15.0	21.5	19.3

Pos	CTime	CPMw1	CPMw2	CPMw3
85	30	20.0	17.7	10.7

Pos	CTime	CPMw1	CPMw2	CPMw3
85	30	30.8	12.3	10.3
86	30	27.7	14.9	2.1
87	31	31.3	22.9	2.1
88	30	27.3	6.3	12.6
89	30	54.1	17.3	10.8
90	30	21.1	19.0	14.8

Total count rate:

H3	47326.4 CPM
C14	112431.4 CPM

PROTOCOL : 1 H3 C14 30SEC  
DATE : 2003/07/18  
TIME : 09:27  
ID : P01AS080

Wallac 1400 DSA ver 2.50

Counting mode : CPM  
Isotope(s) : H3,C14  
H3 = 5- 350,12.43 y  
C14 = 5- 660,5730.00 y  
Protocol name : H3 C14 30SEC  
Counting time : 30  
Repeats : 1  
Cycles : 1  
Replicates : 1  
2 sigma % : 0.01  
Minimum cpm : 0.00 Checking time: 10  
Output to Printer :  
POS,CTIME,CPMw1,CPMw2,CPMw3  
Additions to Printer : Listing  
Spectrum : Beta  
Window 1 : 5- 320 /Beta  
Window 2 : 320- 650 /Beta  
Window 3 : 650-1024 /Beta

Unknown samples:

Pos	CTime	CPMw1	CPMw2	CPMw3		
1	30	10.2	8.2	14.3	Re count	# 17
2	30	26.7	18.5	8.2	Re count	# 28

Total count rate: H3 43.1 CPM  
C14 17.1 CPM