

RSA Laboratories
Radiochemistry Analysis Data Sheet

Customer: June Tamkin		Isotope 1 H-3		Collect Date: 20 min count X 10		Cust ID # :			
Sample Type: Wipes		Isotope 2 C-14		Count Date: 12/6/2013		# of Pages:			
Matrix: Wipes		Isotope 3 HE Beta		Project: Decommissioning					
RSA		RSA ID#:		Location: Institute for Pharmaceutical Discovery					
Report No.	Location	POS	ID #	Cust ID #	Location	CPMA	DPMA		
1			1 BG		Background			BG	
2			2 33276-129	129-R1		8354.08	62410.70		357
3			3 33276-129	129-R2		8347.28	62601.80		358
4			4 33276-129	129-R3		8344.20	62470.30		359
			5 33276-129	129-R4		8315.79	62400.10		360
			6 33276-129	129-R5		8361.36	63327.30		361
			7 33276-129	129-R6		8357.11	63034.40		362
			8 33276-129	129-R7		8382.62	63421.00		363
			9 33276-129	129-R8		8387.62	64062.30		364
			10 33276-129	129-R9		8399.17	63659.20		365
			11 33276-129	129-R10		8386.94	63841.20		366
			12	129-R-avg		8363.62	63118.30		
			13						368
			14 33276-130	130-R1		310.92	1855.48		369
			15 33276-131	130-R2		311.97	1868.25		370
			16 33276-132	130-R3		306.77	1821.08		371
			17 33276-133	130-R4		311.92	1862.23		372
			18 33276-134	130-R5		298.29	1750.35		373
			19 33276-135	130-R6		307.49	1846.12		374
			20 33276-136	130-R7		299.07	1772.15		375
			21 33276-137	130-R8		311.20	1877.85		376
			22 33276-138	130-R9		309.04	1870.54		377
			23 33276-139	130-R10		305.88	1830.71		
			24	130-R-avg		307.25	1835.13		379
			25					H-3	
			26 33276-273	273-R1		5646.66	40129.40		380
			27 33276-273	273-R2		5690.01	40982.70		381
			28 33276-273	273-R3		5696.62	41075.00		382
			29 33276-273	273-R4		5659.95	40369.80		383
			30 33276-273	273-R5		5667.00	40281.90		384
			31 33276-273	273-R6		5668.06	40222.60		385
			32 33276-273	273-R7		5609.50	39491.50		386
			33 33276-273	273-R8		5654.12	39676.60		387
			34 33276-273	273-R9		5650.76	40061.60		388
			35 33276-273	273-R10		5665.68	40706.20		
			36	273-R-avg		5660.84	40295.20		390
			37						391
			38 33276-416	416-R1		4831.92	36518.00		392
			39 33276-416	416-R2		4784.71	35419.90		393
			40 33276-416	416-R3		4811.77	35955.70		394
			41 33276-416	416-R4		4810.95	35777.10		395
			42 33276-416	416-R5		4819.88	36281.80		396
			43 33276-416	416-R6		4847.49	36923.30		397
			44 33276-416	416-R7		4854.26	37293.40		398
			45 33276-416	416-R8		4824.84	36081.90		399
			46 33276-416	416-R9		4854.12	36966.50		400
			47 33276-416	416-R10		4851.30	36463.60		
			48	416-R-avg		4829.12	36361.40		402
			49					C-14	
			50 33276-417	417-R1		4671.71	33301.40		403
			51 33276-417	417-R2		4678.26	32885.40		404
			52 33276-417	417-R3		4668.35	33357.60		405
			53 33276-417	417-R4		4703.71	33939.10		406
			54 33276-417	417-R5		4683.17	33684.60		407
			55 33276-417	417-R6		4670.15	33160.20		408

	56	33276-417	417-R7		4681.97	33322.70	409
	57	33276-417	417-R8		4684.86	33662.60	410
	58	33276-417	417-R9		4669.30	33068.30	411
	59	33276-417	417-R10		4665.48	33686.80	
	60		417-R-avg		4677.70	33458.30	413
	61						414
	62	33276-419	419-R1		9.64	21.09	415
	63	33276-419	419-R2		10.09	26.19	416
	64	33276-419	419-R3		10.03	28.19	417
	65	33276-419	419-R4		8.81	17.74	418
	66	33276-419	419-R5		8.81	15.46	419
	67	33276-419	419-R6		9.48	24.89	420
	68	33276-419	419-R7		9.64	21.67	421
	69	33276-419	419-R8		10.03	27.94	422
	70	33276-419	419-R9		10.47	30.15	423
	71	33276-419	419-R10		9.53	24.66	
	72		419-R-avg		9.65	23.80	425
							BL
	74	33276-85	85-R1		5.27	0.00	426
	75	33276-85	85-R2		5.99	0.00	427
	76	33276-85	85-R3		4.77	0.00	428
		33276-85	85-R4		6.21	0.00	
	78	33276-85	85-R5		5.71	0.00	1
	79	33276-85	85-R6		6.60	0.00	2
	80	33276-85	85-R7		4.94	0.00	3
	81	33276-85	85-R8		5.71	0.00	4
	82	33276-85	85-R9		5.38	0.00	5
	83	33276-85	85-R10		6.71	0.00	
	84		85-R-avg		5.73	0.00	7
	85						8
	86	33276-264	264-R1		9.60	29.85	9
	87	33276-264	264-R2		9.43	26.46	10
	88	33276-264	264-R3		9.04	30.07	11
	89	33276-264	264-R4		8.60	27.07	12
	90	33276-264	264-R5		8.76	29.60	13
	91	33276-264	264-R6		9.15	29.70	14
	92	33276-264	264-R7		7.99	23.68	15
	93	33276-264	264-R8		7.93	27.13	16
		33276-264	264-R9		7.27	18.57	
		33276-264	264-R10		8.60	24.59	
			264-R-avg		8.64	26.64	

Rack #	Samp #	Time	CPM_A	CPM_B	CPM_C	C 2Sig %	DPM_A	DPM_B	EL TIME	tSIE	DPM_C
1	BG	1									
2	33276-129	1	8354.08				62410.7				
3	33276-129	1	8347.28				62601.8				
4	33276-129	1	8344.2				62470.3				
5	33276-129	1	8315.79				62400.1				
6	33276-129	1	8361.36				63327.3				
7	33276-129	1	8357.11				63034.4				
8	33276-129	1	8382.62				63421				
9	33276-129	1	8387.62				64062.3				
10	33276-129	1	8399.17				63659.2				
11	33276-129	1	8386.94				63841.2				
12		1	8363.62				63118.3				
13	0	1									
14	33276-130	1	310.92				1855.48				
15	33276-131	1	311.97				1868.25				
16	33276-132	1	306.77				1821.08				
17	33276-133	1	311.92				1862.23				
18	33276-134	1	298.29				1750.35				
19	33276-135	1	307.49				1846.12				
20	33276-136	1	299.07				1772.15				
21	33276-137	1	311.2				1877.85				
22	33276-138	1	309.04				1870.54				
23	33276-139	1	305.88				1830.71				
24		1	307.25				1835.13				
25	0	1									
26	33276-273	1	5646.66				40129.4				
27	33276-273	1	5690.01				40982.7				
28	33276-273	1	5696.62				41075				
29	33276-273	1	5659.95				40369.8				
30	33276-273	1	5667				40281.9				
31	33276-273	1	5668.06				40222.6				
32	33276-273	1	5609.5				39491.5				
33	33276-273	1	5654.12				39676.6				
34	33276-273	1	5650.76				40061.6				
35	33276-273	1	5665.68				40706.2				
36		1	5660.84				40295.2				
37	0	1									
38	33276-416	1	4831.92				36518				
39	33276-416	1	4784.71				35419.9				
40	33276-416	1	4811.77				35955.7				
41	33276-416	1	4810.95				35777.1				
42	33276-416	1	4819.88				36281.8				
43	33276-416	1	4847.49				36923.3				
44	33276-416	1	4854.26				37293.4				
45	33276-416	1	4824.84				36081.9				
46	33276-416	1	4854.12				36966.5				
47	33276-416	1	4851.3				36463.6				
48		1	4829.12				36361.4				
49	0	1									
50	33276-417	1	4671.71				33301.4				
51	33276-417	1	4678.26				32885.4				
52	33276-417	1	4668.35				33357.6				
53	33276-417	1	4703.71				33939.1				
54	33276-417	1	4683.17				33684.6				
55	33276-417	1	4670.15				33160.2				
56	33276-417	1	4681.97				33322.7				
57	33276-417	1	4684.86				33662.6				
58	33276-417	1	4669.3				33068.3				
59	33276-417	1	4665.48				33686.8				
60		1	4677.7				33458.3				

61	0	1	
62	33276-419	1	9.64 21.09
63	33276-419	1	10.09 26.19
64	33276-419	1	10.03 28.19
65	33276-419	1	8.81 17.74
66	33276-419	1	8.81 15.46
67	33276-419	1	9.48 24.89
68	33276-419	1	9.64 21.67
69	33276-419	1	10.03 27.94
70	33276-419	1	10.47 30.15
71	33276-419	1	9.53 24.66
72		1	9.65 23.8
74	33276-85	1	5.27
75	33276-85	1	5.99
76	33276-85	1	4.77 6.21
78	33276-85	1	5.71
79	33276-85	1	6.6
80	33276-85	1	4.94
81	33276-85	1	5.71
82	33276-85	1	5.38
83	33276-85	1	6.71
84		1	5.73
85	0	1	
86	33276-264	1	9.6 29.85
87	33276-264	1	9.43 26.46
88	33276-264	1	9.04 30.07
89	33276-264	1	8.6 27.07
90	33276-264	1	8.76 29.6
91	33276-264	1	9.15 29.7
92	33276-264	1	7.99 23.68
93	33276-264	1	7.93 27.13
			7.27 18.57
			8.6 24.59
			8.64 26.64

SELECT CONFIDENCE LEVEL: 90% (1) 2 <=====

(enter the number next to the 95% (2)

desired confidence level in box 99% (3)

F3 {left of arrow})

MDA CALCULATION

RSA ID #	SAMPLE COUNT TIME	BKGD COUNT TIME	BKGD CPM	DETECTOR EFICENCY	SAMPLE VOLUME L/g	LLD DPM	MDA pCi	MDA uCi
H-3	1	1	7.5	0.1831	1	84.37	38.00	3.80E-05
C-14	1	1		0.6662	1	#VALUE!	#VALUE!	#VALUE!
HE Beta	1	1	5		1	#DIV/0!	#DIV/0!	#DIV/0!

0.6662

0.1831

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

Page 1 of 3

Report No. **Report 2**

Customer: **June Tamkin**

Customer Samp No. **Various**

Location: **Institute for Pharmaceutical Discovery**

RSA Lab Sample No. **33276**

Project: **Decommissioning**

20 min count X 10

Samp. Description: **Wipes**

Date Counted: **12/6/2013**

Matrix: **Wipes**

H-3 LLD dpm= 84.37

RSA ID#	CUST. ID#	Location	H-3 CPM	H-3 DPM				
BG		BACKGROUND	0.00					
33276-129	129-R1		8354.08	62411				
33276-129	129-R2		8347.28	62601.80				
33276-129	129-R3		8344.20	62470.30				
33276-129	129-R4		8315.79	62400.10				
33276-129	129-R5		8361.36	63327.30				
33276-129	129-R6		8357.11	63034.40				
33276-129	129-R7		8382.62	63421.00				
33276-129	129-R8		8387.62	64062.30				
33276-129	129-R9		8399.17	63659.20				
33276-129	129-R10		8386.94	63841.20				
	129-R-avg		8363.62	63118				
33276-130	130-R1		310.92	1855.48				
33276-131	130-R2		311.97	1868.25				
33276-132	130-R3		306.77	1821.08				
33276-133	130-R4		311.92	1862.23				
33276-134	130-R5		298.29	1750.35				
33276-135	130-R6		307.49	1846.12				
33276-136	130-R7		299.07	1772.15				
33276-137	130-R8		311.20	1877.85				
33276-138	130-R9		309.04	1870.54				
33276-139	130-R10		305.88	1830.71				
	130-R-avg		307.25	1835.13				
33276-273	273-R1		5646.66	40129.40				
33276-273	273-R2		5690.01	40982.70				
33276-273	273-R3		5696.62	41075.00				
33276-273	273-R4		5659.95	40369.80				
33276-273	273-R5		5667.00	40281.90				
33276-273	273-R6		5668.06	40222.60				
33276-273	273-R7		5609.50	39491.50				
33276-273	273-R8		5654.12	39676.60				
33276-273	273-R9		5650.76	40061.60				
33276-273	273-R10		5665.68	40706.20				
	273-R-avg		5660.84	40295.20				



Jay R. Dockendorff
Laboratory Director

RSA Laboratories
A Division of Radiation Safety Associates
Radiochemistry Analysis Data Sheet
Page 2 of 3

RSA ID#	CUST. ID#	LOCATION	H-3 CPM	H-3 DPM				
33276-416	416-R1		4831.92	36518.00				
33276-416	416-R2		4784.71	35419.90				
33276-416	416-R3		4811.77	35955.70				
33276-416	416-R4		4810.95	35777.10				
33276-416	416-R5		4819.88	36281.80				
33276-416	416-R6		4847.49	36923.30				
33276-416	416-R7		4854.26	37293.40				
33276-416	416-R8		4824.84	36081.90				
33276-416	416-R9		4854.12	36966.50				
33276-416	416-R10		4851.30	36463.60				
	416-R-avg		4829.12	36361.40				
33276-417	417-R1		4671.71	33301.40				
33276-417	417-R2		4678.26	32885.40				
33276-417	417-R3		4668.35	33357.60				
33276-417	417-R4		4703.71	33939.10				
33276-417	417-R5		4683.17	33684.60				
33276-417	417-R6		4670.15	33160.20				
33276-417	417-R7		4681.97	33322.70				
33276-417	417-R8		4684.86	33662.60				
33276-417	417-R9		4669.30	33068.30				
33276-417	417-R10		4665.48	33686.80				
	417-R-avg		4677.70	33458.30				
33276-419	419-R1		9.64	21.09				
33276-419	419-R2		10.09	26.19				
33276-419	419-R3		10.03	28.19				
33276-419	419-R4		8.81	17.74				
33276-419	419-R5		8.81	15.46				
33276-419	419-R6		9.48	24.89				
33276-419	419-R7		9.64	21.67				
33276-419	419-R8		10.03	27.94				
33276-419	419-R9		10.47	30.15				
33276-419	419-R10		9.53	24.66				
	419-R-avg		9.65	23.80				
33276-85	85-R1		5.27	0.00				
33276-85	85-R2		5.99	0.00				
33276-85	85-R3		4.77	0.00				
33276-85	85-R4		6.21	0.00				
33276-85	85-R5		5.71	0.00				
33276-85	85-R6		6.60	0.00				
33276-85	85-R7		4.94	0.00				
33276-85	85-R8		5.71	0.00				
33276-85	85-R9		5.38	0.00				
33276-85	85-R10		6.71	0.00				



Jay R. Dockendorff
Laboratory Director

RSA Laboratories
A Division of Radiation Safety Associates
Radiochemistry Analysis Data Sheet
Page 3 of 3

[illegible]

Jay R. Dockendorff
Laboratory Director