

U. S. ATOMIC ENERGY COMMISSION  
IDAHO OPERATIONS OFFICE  
HEALTH AND SAFETY BRANCH  
IDO H & S SAMPLE RECORD SHEET

Serial No. \_\_\_\_\_

ROUTINE \_\_\_\_\_ SPECIAL

Sample from: \_\_\_\_\_

Samples Received: 1

Analyzed by: \_\_\_\_\_

Collected by: BJ Rich

Analysis Completed: \_\_\_\_\_

Date submitted: 8-9-55

Method: End Window \_\_\_\_\_; Prop. counter \_\_\_\_\_; Spectrophotometric \_\_\_\_\_; Fluorometric \_\_\_\_\_; Polarographic \_\_\_\_\_.

Sample No.	Date	Hour	Sample Description	Anal. for	Quant. used, ml.	U +6 or K+ Trans.	Count time, min.	Total Count.	Gross Count, c/m.	Bkgd., c/m.	Net count, c/m.	K <sup>40</sup> corr., c/m.	Foreign activity	
													c/m.	d/m.
1	9-9	1400	Deep Tank -	BT	450		5	315	63	34	29		29	290
			Tank Farm	L	450		5							
2														

Notified: \_\_\_\_\_ Time: \_\_\_\_\_ Resampling Yes \_\_\_\_\_

recommended: No \_\_\_\_\_

Approved: \_\_\_\_\_

Chief, Analysis Section

tdp



U. S. ATOMIC ENERGY COMMISSION  
IDAHO OPERATIONS OFFICE  
HEALTH AND SAFETY BRANCH  
IDO H & S SAMPLE RECORD SHEET

Serial No. \_\_\_\_\_

ROUTINE \_\_\_\_\_ SPECIAL

Sample from: <u>Decontamination Rm.</u>	Samples Received: _____	Analyzed by: <u>KING</u>
Collected by: _____	Analysis Completed: _____	<u>1st SHALF</u>
Date submitted: <u>6/29/55</u>	Method: End Window <input checked="" type="checkbox"/> ; Prop. counter _____; Spectrophotometric _____; Fluorometric _____; Polarographic _____.	

Sample No.	Date	Hour	Sample Description	Anal. for	Quant. used, ml.	U +6 or K+ Trans.	Count time, min.	Total Count.	Gross Count, c/m.	Bkgd., c/m.	Net count, c/m.	K <sup>40</sup> corr., c/m.	Foreign activity	
													c/m.	d/m.
	<u>6/29</u>	<u>1000</u>	<u>DECONTAM Rm CAM FILTER</u>	<u>B</u>			<u>1m</u>	<u>3443</u>	<u>3443 ± 59</u>	<u>36.1 ± 1.3</u>				
	"	<u>1015</u>	" " " "	<u>B</u>			<u>1m</u>	<u>3407</u>	<u>3407 ± 59</u>					
	"	<u>1030</u>	" " " "	<u>B</u>			<u>1m</u>	<u>3530</u>	<u>3530 ± 60</u>					
	"	<u>1040</u>	" " " "	<u>B</u>			<u>1m</u>	<u>3496</u>	<u>3496 ± 59</u>					
	"	<u>1100</u>	" " " "	<u>B</u>			<u>1m</u>	<u>3419</u>	<u>3419 ± 59</u>					
	"	<u>1130</u>	" " " "	<u>B</u>			<u>1m</u>	<u>3428</u>	<u>3428 ± 59</u>					
	"	<u>18:30</u>	" " " "	<u>B</u>			<u>2m</u>	<u>6822</u>	<u>3411 ± 40</u>	<u>38.9 ± 0.8</u>				
	"	<u>23:00</u>	" " " "	<u>B</u>			<u>3m</u>	<u>10168</u>	<u>3389 ± 32</u>	"				
	<u>6/30</u>	<u>0330</u>	" " " "	<u>B</u>			<u>3m</u>	<u>10304</u>	<u>3435 ± 34</u>	<u>41 ± 3.7</u>				
<u>NO APPARENT DECAY IN 15hrs</u>														

Notified: \_\_\_\_\_ Time: \_\_\_\_\_ Resampling Yes \_\_\_\_\_  
 recommended: No \_\_\_\_\_ Approved: \_\_\_\_\_  
 Chief, Analysis Section

CPP SAMPLE RECORD

Type of Sample Air Sample

Collected by \_\_\_\_\_

Date Submitted \_\_\_\_\_

Analyzed by \_\_\_\_\_

Method of Determination \_\_\_\_\_

Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
In Hull	6-19	04:15	Air Sample					120	5min	0.3	24.4		
Out Hull	6-19	04:15	Air Sample					228	5min		45.6		
			To be counted at 08:15										
In Hull	6-19	08:15						71	5min		14.2		
Out Hull	6-19	08:15						96	5min		19.2		
In Hull	6-19	12:45						36	5min		6.9		
Out Hull	6-19	12:45						52	5min		10.1		

CPP SAMPLE RECORD

Type of Sample Air

Analyzed by KING

Collected by KING

Method of Determination \_\_\_\_\_

Date Submitted 4/14/55

VT PIG 1090

Date Reported 4/14/55

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	µ/cc Results
				Rate	Time	Quantity							
1	4/14	1013	604 PD CORR	30LPM	10 M	300 L	B		184	5M	39.8	0	—
2	4/14	1025	604 SERVICE CORR	30LPM	10 M / 15 S	307 L	B		205	5M	39.8	0	—
3	4/14	1039	604 SAMPLE CORR	30LPM	10 M	300 L	B		211	5M	39.8	0	—

CPP SAMPLE RECORD

Type of Sample Air ✓

Analyzed by King

Collected by King

Method of Determination \_\_\_\_\_

Date Submitted 4/8/55

ut. pig  
Date Reported 4/18/55

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	mc/cc Results
				Rate	Time	Quantity							
	4/8	1117	PO Corridor N cell	30lpm	7m	210 l	β		204	4m	37	14	3.0x10 <sup>-1</sup>

CPP SAMPLE RECORD

Type of Sample FILTER. AIR.

Analyzed by HUFF-SAUNDERS

Collected by J. HUFF

Method of Determination \_\_\_\_\_

Date Submitted 3/5/55

BY Counter.

Date Reported 3/5/55

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	1090 Results
				Rate	Time	Quantity							
1	3/5	0915	HUDSON FILTER SAMPLE	2 PM 30	MIN 30	900	BY		72	1min	38	34	340
2	"												
3	"												
4	"												

1.7 x 10<sup>-4</sup>

Type of Sample C FILTRON SAMPLE

Analyzed by Roniles

Collected by RJM

Method of Determination Herz. P.G.

Date Submitted 2/5/55

Date Reported 2/6/55

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	2/4	2240	FILTRON SAMPLE										
			CONT. X-on @	1840			PX		0	-	-	0	
			OFF @	2240					804	1m	64	740	c/m
			c/m @	0255	on	2/5			424	1m	64	360	c/m
			c/m @	1925		2/6			432	1m	64	368	c/m

$$\frac{2240 - 1840}{400} \times 60 = 240 \text{ MINUTES} \times 5 = 1200 \text{ CU. FT AIR}$$

$$C_1 = 740 \text{ c/m}$$

$$C_2 = 360 \text{ c/m}$$

$$nc/cc = \frac{c/m \times 2.15 \times 10^{-6}}{R \times T}$$

$$nc/cc = \frac{360 \times 2.15 \times 10^{-6}}{5 \times 2.83 \times 10^4 \times 240} = 0.25 \times 10^{-10}$$

CPP SAMPLE RECORD

Type of Sample Air  
 Collected by Kevin  
 Date Submitted 2/2/55

Analyzed by \_\_\_\_\_  
 Method of Determination \_\_\_\_\_  
 Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	2/2	1448	PO Corridor Standard	30lpm	6m	180l.	$\beta$	-	361	4m	52	38	
						14.5 $\mu$ s - 0.9 $\mu$ s							
						13.6 $\mu$ s / 722 = 11.190							
						$\frac{38}{11.190} = 342 \mu\text{m}$							
						$\frac{342}{2.22 \times 10^6 \times 1.80 \times 10^5} = 86 \times 10^{-11}$							
						$= 8.6 \times 10^{-10} \mu\text{e/cc}$							
						Air activity had decreased to <u>less than</u> masking level at time of sample.							



CPP SAMPLE RECORD

Type of Sample Air

Analyzed by \_\_\_\_\_

Collected by King

Method of Determination \_\_\_\_\_

Date Submitted 1/13/55

Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	1/13/55	1405	CAM filter removed 1/10/55 during activity release.				β		2455	1m	56.8	2398	
	1/14	1005					β		2343	1m	49	2294	
	1/14	1600					β		2346	1m	49	2297	
	1/16	0815					β		2288	1m	46	2242	

Type of Sample

Product Bottle Survey

Collected by

Huff

Date Submitted

10 Jan 55

Analyzed by

Method of Determination

Date Reported

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	Results
				Rate	Time	Quantity							
1	1/10	1000	Product bottle 111	✓			α		22	1	1	21	OK
2	1/10	1020	" " 115	✓			α		12	1	1	11	OK
3	1/10	1110	" " 148	✓			α		12	1	1	11	OK
4	1/10	1145	" " 158	✓			α		27	1	1	26	OK
5	1/10	1308	" " 156	✓			α		2	1	1	1	OK
6	1/10	1330	" " 136	✓			α		5	1	1	4	OK
7	1/10	1420	" " 138	✓			α		30	1	1	29	OK
8	1/10	1420	" " 138	✓			α		23	1	1	22	OK
9	1/10	1530	" " 129	✓			α		10	1	1	9	OK
10	1/10	1530	" " 104	✓			α		24	1	1	23	OK
11	1/11	1025	" " 109	✓			α		5	1	3	2	OK
12	1/11	103	" " 105	✓			α		3	1	3	0	OK
13	1/11	1100	" " 138	✓			α		10	1	1	9	OK
14	1/11	1115	" " 141	✓			α		15	1	3	12	OK
15	1-11	1220	" " 139	✓			α		11	1	3	8	OK
16	1/11	1330	" " 107	✓			α		38	1	3	35	OK
17	1/11	1500	" " 149	✓			α		75	1	3	72	NG

Type of Sample Product bottle sm 032

Analyzed by \_\_\_\_\_

Collected by \_\_\_\_\_

Method of Determination \_\_\_\_\_

Date Submitted \_\_\_\_\_

Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
18	1-11	1515	Product bottle # 153	✓			d		7	1	3	4	OK
after Dec 17 17	1-12	1515	" " # 149	✓					10	1	3	7	OK
19	1/12	0945	" " # 161	✓					28	1	2	25	OK
20	1/12	0945	" " # 130	✓					13	1	3	10	OK
21	1/14	1020	" " # 103	✓					22	1	3	19	RECON.
	1/14	1045	" " # 121	✓					33	1	2	31	OK.
	1/14	1125	" " # 160	✓					12	1	2	10	OK
	1/14	1315	" " # 102	✓					10	1	2	8	OK.
	1/14	1315	" " # 167	✓					<del>11</del>	1	2	<del>9</del>	OK
	1/17	1020	" " # 106	✓					3	1	2	1	OK.
	1/17	1210	" " # 108	✓					96	1	<del>2</del>	94	RECON.
	1/17	1210	" " # 110	✓					11	1	2	9	OK.
	1/17	1220	RECHECK " # 108	✓					4	1	2	2	OK.
	1/17	1330	" " # 126	✓					5	1	2	3	OK
	1/17	1330	" " # 137	✓					6	1	2	4	OK

CPP SAMPLE RECORD

Type of Sample Smear

Analyzed by Shuff

Collected by KM

Method of Determination Proportional Counter

Date Submitted 1/18/55

Date Reported 18 Jan

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	1/18	0900	Bird Nages # 105			✓	α		2	1	0.3	2	
2			# 141			✓			6	1		6	
3			# 138			✓			7	1		7	
4			# 109			✓			7	1		7	
5			# 158			✓			9	1		9	
6			# 156			✓			2	1		2	
7			# 148			✓			9	1		9	
8			# 115			✓			7	1		7	
9			# 111			✓			4	1		4	
10			# 139			✓			5	1		5	
11			# 149			✓			4	1		4	
12			# 107			✓			4	1		4	
13			# 129			✓			10	1		10	
14			# 153			✓			8	1		8	
15			# 136			✓			5	1		5	
16			# 104			<del>✓</del>			8	1		8	
17			# 101			✓			17	1		17	✓
18			# 155			✓			14	1		14	✓

AED Dupl #21 500 8/17/53

CPP SAMPLE RECORD

Type of Sample Smear

Analyzed by Huff

Collected by King

Method of Determination Prop Counter

Date Submitted 18 JAN 55

Date Reported 18 Jan

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
19	1/18	1000	Bird Cage # 121			✓		6	1m	2	4		
20			# 103			✓		12			10		
21			# 102			✓		8			6		
22			# 108			✓		13			11	-	
23			# 110			✓		8			6		
24			# 106			✓		8			6		
25			# 161			✓		5			3		
26			# 130			✓		3			1		
27			# 167			✓		4			2		
28			# 160	160		✓		3			1		
29			# 126			✓		2			0		
30			# 137			✓		4			2		
31			Empty # 29	149				10			8		
32			# 108			✓		10			8		
33			# 101		✓	Rechecks	✓	10			8		
34			# 155			✓		3			1		
35													

GPP SAMPLE RECORD

Cudson

Type of Sample Air

Analyzed by G. Briscoe

Collected by G. Briscoe

Method of Determination <sup>α prop.</sup> COUNTER

Date Submitted Sept 3, 54

Date Reported Sept 3, 1954

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	9-3-54	1020	Final Prod. room	30 1/2	10m	300l	α	60	5	.6	11.4	5x10 <sup>-12</sup> 4c	
		1100	same		same		α	73	10m	.6	6.7		

CPP SAMPLE RECORD

Type of Sample Air Samples.

Analyzed by King

Collected by King

Method of Determination \_\_\_\_\_

Date Submitted 12/23/54

Date Reported 12/28/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
7	12/28	0930	Rm 216 12/21 to 12/22	5cfm	24:00	7200	β	1851	10m	79	106		
10	12/28	0950	PO Corr 12/21 to 12/22	5cfm	24:00	7200	β	2186	5m	79	360		
11	12/28	1015	Access Corr 12/21 to 12/22	5cfm	24:00	7200	β	3520	3m	79	1094		
13	12/28	1020	605 12/21 to 12/23	5cfm	48:10	14,450	β	2254	4m	79	484		
3	12/28	1025	Rm 216 12/22 to 12/23	5cfm	25:45	7,725	β	4145	5m	79	750		
9	12/28	1030	PO Corr 12/22 to 12/23	5cfm	25:35	7,675	β	6569	2m	79	3206		
8	12/28	1110	Access Corr. 12/22 to 12/23	5cfm	25:25	7625	β	7750	5m	79	1471		
#7			Rm 216 C <sub>av</sub> = 106 cfm (1.1 x 10 <sup>-12</sup> μc/cc)										
#10			PO Corr C <sub>av</sub> = 360 cfm (3.8 x 10 <sup>-12</sup> μc/cc)										
#11			Access Corr C <sub>av</sub> = 1094 (1.2 x 10 <sup>-11</sup> μc/cc)										
#13			605 Bldg C <sub>av</sub> = 484 (2.5 x 10 <sup>-13</sup> μc/cc)										
#3			Rm 216 C <sub>av</sub> = 750 (7.4 x 10 <sup>-12</sup> μc/cc)										
#9			PO Corr C <sub>av</sub> = 3206 (3.1 x 10 <sup>-11</sup> μc/cc)										
#8			Access Corr C <sub>av</sub> = 1471 (1.5 x 10 <sup>-11</sup> μc/cc)										

CPP SAMPLE RECORD

Type of Sample Amg

Analyzed by King & Miller

Collected by King

Method of Determination \_\_\_\_\_

Date Submitted 12/20/54

Hor. pig. 2190 geo.

Date Reported 12/21/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	Results
				Rate	Time	Quantity							
2	12/20	1520	Rm 216 off at 0825	50/m	71:50	21550	β		3806	13m	69	224	
4	12/20	1530	PO Corr. off at 0825	50/m	71:45	21525	β		9096	1m	69	9027	
8	12/20	1535	Access Corr. off at 0830	50/m	71:50	21550	β		9811	1m	69	9742	
9	12/20	1540	605 Bldg off at 0900	50/m	71:50	21550	β		1562 <del>9742</del>	4m	69	322	
2	12/21	0850	C <sub>2</sub> Δt = 17.50 hrs				β		9635	39m	71	176	
4	12/21	0930	C <sub>2</sub> Δt = 18.00 hrs				β		9115	1m	71	9044	
8	12/21	0935	C <sub>2</sub> Δt = 18.00 hrs				β		10240	1m	71	10170	
9	12/21	0940	C <sub>2</sub> Δt = 18.00 hrs				β		4338	14m	71	239	
#2			Rm 216 C <sub>ULP</sub> = 154 %m (5.4 x 10 <sup>-13</sup> μc/cc)										
#4			Rm PO Corr C <sub>ULP</sub> = 9044 %m (3.2 x 10 <sup>-11</sup> μc/cc)										
#8			Acc Corr C <sub>ULP</sub> = 10,170 %m (3.3 x 10 <sup>-11</sup> μc/cc)										
#9			605 Bldg C <sub>ULP</sub> = 398 %m (1.4 x 10 <sup>-12</sup> μc/cc)										



CPP SAMPLE RECORD

Type of Sample Filters

Analyzed by G. Briscoe

Collected by W. C. King

Method of Determination \_\_\_\_\_

Date Submitted 12-3

Date Reported 12-6

Sample No.	Date	Hour	Sample Description	Sampling Data			CF Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	Results
				Rate	Time	Quantity							
2	12-6	0955	#2 taken off P.O. 12-3; 0920	300 CF/hr	24.09 hr	722	CF	BY	16078	5m.	62	3153	3.3 x 10 <sup>-11</sup> uC
4	12-6	1000	#4 taken off 605 12-3; 0935	300 CF/hr	24.25 hr	7275	CF		968	5m	62	932	1.4 x 10 <sup>-11</sup> uC
9	12-6	1015	#4 taken off 216 12-3; 0915	300 CF/hr	24.09 hr	7224			2343	10m	62	172	1.83 x 10 <sup>-12</sup> uC
			#2 P.O. corr 3.3 x 10 <sup>-11</sup> uC Long life $\beta$ activity										
			#4 605 1.4 x 10 <sup>-12</sup> uC Long life $\beta$ activity										
			#9 216 1.83 x 10 <sup>-12</sup> uC long life $\beta$ activity										

CPP SAMPLE RECORD

Type of Sample Filters

Analyzed by G. Briscoe

Collected by G. Briscoe

Method of Determination \_\_\_\_\_

Date Submitted 12-3

GM Scalar

Date Reported 12-6

hrs. cfs

Sample No.	Date of Counting		Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	Results <sup>x 10<sup>-6</sup></sup>
	Date	Hour		Rate	Time	Quantity							
3	12/6	1415	Access Corr filteron 12/6 - 1010	5 cfm	72.66	2,790	B	4500	5 min	51	85.0	33	
5	12/6	1410	605 Rd taken off 12/6 1010	5 cfm	72.6	21,780	B	5,421	5 min	51	1033	39	
6	12/6	1405	P.O. Corr 12/6-1005	5 cfm	72.7	21,810	A	12,495	2 m	51	6,200	320	
1	12/6	1400	216 Taken off 12/6 - 1000	5 cfm	72.7	21,810	B	1,887	5 min	51	326	5.7	
3	12/7	1015						3712	5 min	62	680		
5	12/7	1010						8768	10 min	62	816		
6	12/7	1005						18432	3 min	62	6082		
1	12/7	1000						1139	5 min	62	166		
#3			Access Corr Long life B act.									$3.3 \times 10^{-12}$	uc/cc
#5			605 " " "									$3.9 \times 10^{-12}$	uc/cc
#6			P.O. Corr " " "									$3.2 \times 10^{-11}$	uc/cc
#1			216 " " "									$5.7 \times 10^{-13}$	uc/cc

CPP SAMPLE RECORD

Type of Sample                       
 Collected by King  
 Date Submitted 12/22/54

Analyzed by King  
 Method of Determination                       
Horz. Pig  
 Date Reported 12/22/54

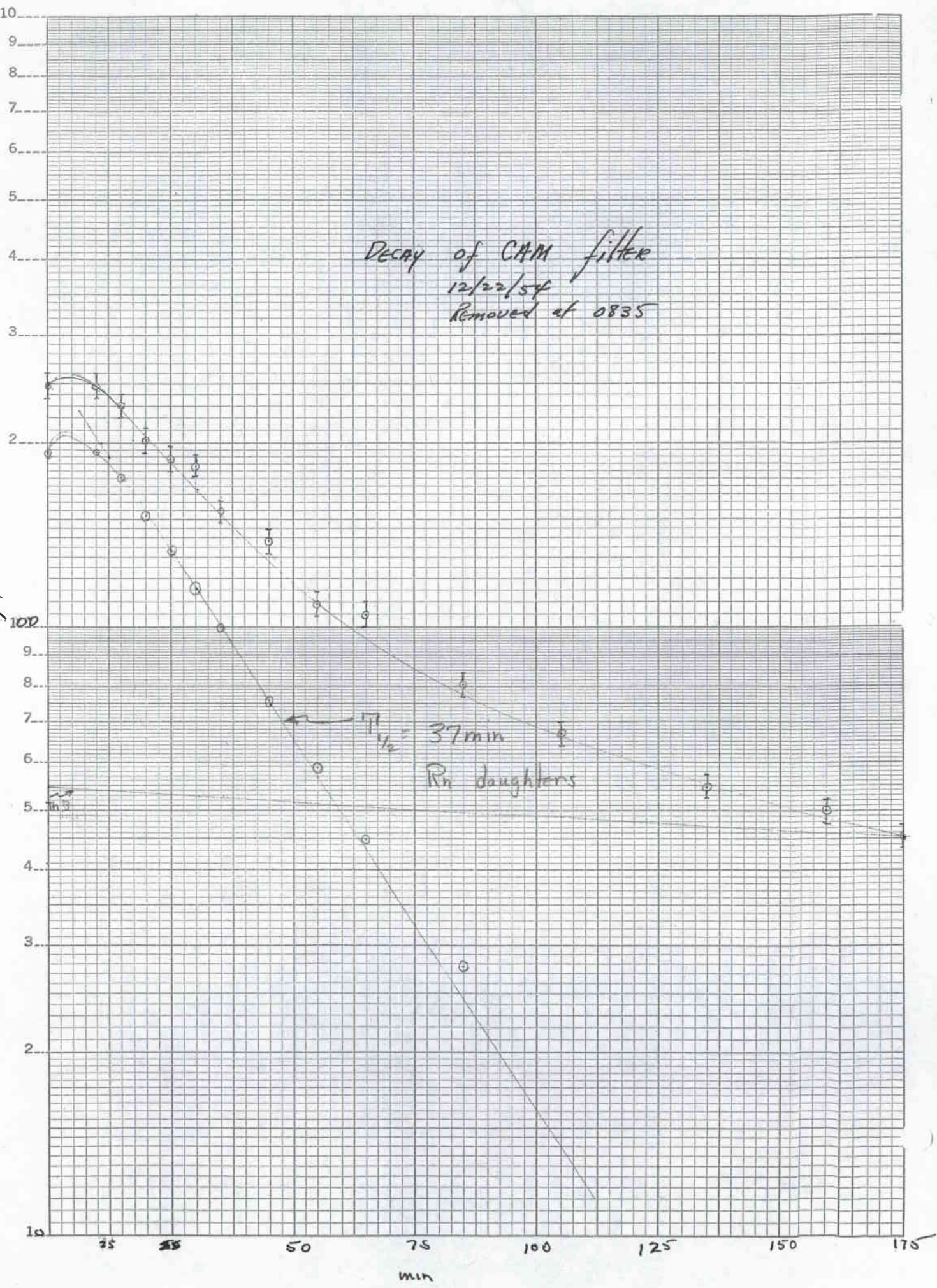
*Decay*

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	$\Delta t$ Quantity	Total Count	Count Time	Bkgd. <del>C/P</del> Counts	Results
				Rate	Time	Quantity						
	12/22	0847	CAM 20 Corr				$\beta$	0	498	2:0.0	249 ± 11	
		0857	"				"	10 m	500	2:2.7	249 ± 11	
		0902	"				"	15 m	500	2:10.2	230 ± 10	
		0907	"				"	20 m	500	2:28.5	202 ± 9	
		0912	"				"	25 m	500	2:38.6	189 ± 9	
		0917	"				"	30 m	500	2:42.5	184 ± 8	
		0922	"				"	35 m	500	3:13.5	155 ± 7	
		0932	"				"	45 m	500	3:36.6	138 ± 6	
		0942	"				"	55 m	500	4:34.2	109 ± 5	
		0952	"				"	65 m	500	4:44.1	105 ± 5	
		1012	"				"	85 m	500	6:12.1	80.6 ± 3.6	
		1032	"				"	105 m	500	7:27.5	67.0 ± 3.0	
		1047	"				"	120 m	500	—	—	
		1102	"				"	135 m	500	10:56.5	54.9 ± 2.4	
		1127	"				"	160 m	500	10:00	50.0 ± 2.2	
		1142	"				"	175 m	500	11:00	45.4 ± 2.0	

359-61 KEUFFEL & ESSER CO.  
Semi-Logarithmic, 2 Cycles X 10 to the inch.  
6th lines accented.  
MADE IN U. S. A.

Decay of CAM filter  
12/22/54  
Removed at 0835

cpm



CPP SAMPLE RECORD

Type of Sample Air  
 Collected by King  
 Date Submitted 12/21/54

Analyzed by King E  
 Method of Determination \_\_\_\_\_  
 Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
3	12/21		PO Corridor off at 2350	5cfm	15:25	4625 <sup>173</sup>	B	← too hot to count →					
5	12/21	1405	216 off at 0835	5cfm	24:10	7250	B	5732	27m	71	141 <del>212</del>		
6	12/21	1435	Access Cor off at 0840	5cfm	24:10	7250	B	6284	1m	71	6213		
1	12/21	1440	605 Bldg off at 0900	5cfm	24:	7200	B	3247	14m	71	161		
12	12/21		PO Cor off at 0835	5cfm	8:40	2600	B	← too hot to count →					
5	12/23	0850	C <sub>2</sub> At = 42.75 hrs				B	4987	30m	73	93		
6	12/23	0925	C <sub>2</sub> At = 42.83 hr.				B	5991	1m	73	5918		
1	12/23	0930	C <sub>2</sub> At = 42.83 hr.				B	1427	11m	73	63		
5			216 Cup = 89 %m			(9.3 x 10 <sup>-13</sup> ppc)							
6			Access Corridor Cup = 5900 %m			(6.2 x 10 <sup>-11</sup> ppc)							
1			605 Bldg Cup = 56 %m			(5.9 x 10 <sup>-13</sup> ppc)							
			PO Corridor (too hot to count)			> 10 <sup>-9</sup> ppc							

CPP SAMPLE RECORD

Type of Sample Air

Analyzed by \_\_\_\_\_

Collected by KING

Method of Determination \_\_\_\_\_

Date Submitted 12/17/54

Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description*	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
11	12/17	1335	Rm 216 off at 0835	5cfm	23:50	7150	β		1345	10	70	64	
12	12/17	1345	PO Corr off at 0840	5cfm	23:50	7150	β		4956	1	70	4886	
7	12/17	1350	Acc Corr off at 0840	5cfm	23:50	7150	β		13650	20	70	612	
10	12/17	1410	605 off at 0850	5cfm	23:55	7175	β		1226	9	70	56	
11	12/20	0930	C <sub>2</sub> on above At = 67.92 hrs				β		875	7	69	56	
12	12/20	0940	C <sub>2</sub> At = 67.92 hrs				β		5470	1	69	5351	
7	12/20	0945	C <sub>2</sub> At = 67.92 hrs				β		3250	5	69	581	
10	12/20	0950	C <sub>2</sub> At = 67.667 hrs				β		1797	10	69	111	
11	C <sub>2</sub> β count = 56 c/m			(Long-life β activity = $6.0 \times 10^{-13}$ μc/cc)									
12	C <sub>2</sub> β count = 5351 c/m			(Long-life β activity = $5.7 \times 10^{-12}$ μc/cc)									
7	C <sub>2</sub> β count = 581 c/m			(Long-life β activity = $6.1 \times 10^{-12}$ μc/cc)									
10	C <sub>2</sub> β count = 111 c/m			(Long-life β activity = $1.0 \times 10^{-12}$ μc/cc)									

CPP SAMPLE RECORD

Type of Sample Air  
 Collected by King  
 Date Submitted 12/16/54

Analyzed by King  
 Method of Determination Horizontal Pq.  
 Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	Results
				Rate	Time	Quantity							
# 5	12/16	1305	Rm 216 off at 0845	5cfm	22:25	6725 <sup>183</sup>	β		1551	8	57	137	
# 3	12/16	1310	PO Corr. off at 0850	5cfm	22:25	6725	β		5622	18	57	255	
# 1	12/16	1335	Access Corr. off at 0850	5cfm	22:20	6700	β		1470	10	57	90	
# 6	12/16	1350	605 Bldg off at 0855	5cfm	22:20	6700	β		1591	8	57	142	
# 5	12/17	0920	C <sub>2</sub> Δt = 20.25 hr.				β		1684	10	70	98	
# 3	12/17	0930	C <sub>2</sub> Δt = 20.333 hr.				β		1489	5	70	228	
# 1	12/17	0935	C <sub>2</sub> Δt = 20.0 hr.				β		1654	12	70	68	
# 6	12/17	0950	C <sub>2</sub> Δt = 20.0 hr.				β		1789	10	70	109	
# 5			Rm 216 C <sub>up</sub> = 84 %m (9.5 × 10 <sup>-13</sup> μc/cc)										
# 3			PO Corr C <sub>up</sub> = 218 %m (2.4 × 10 <sup>-12</sup> μc/cc)										
# 1			Access Corr C <sub>up</sub> = 60 %m (6.8 × 10 <sup>-13</sup> μc/cc)										
# 6			605 Bldg C <sub>up</sub> = 97 %m (1.1 × 10 <sup>-12</sup> μc/cc)										

CPP SAMPLE RECORD

Type of Sample Air  
 Collected by King  
 Date Submitted 12/15/54

Analyzed by King  
 Method of Determination HORIZONTAL PIG  
 Date Reported 12/16/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	Results
				Rate	Time	Quantity							
4	12/15	1600	605 Bldg off at 1035	5cfm	25:15	7575	$\beta$	1680	5m	65	271		
9	12/15	1550	216 Rm off at 1020	5cfm	24:40	7400	$\beta$	766	4m	65	127		
8	12/15	1555	PO Corr off at 1025	5cfm	24:40	7400	$\beta$	1908	3m	65	571		
2	12/15	1555	Acc. Corr off at 1030	5cfm	24:45	7425	$\beta$	2019	5m	65	339		
4	12/16	0955	C <sub>2</sub> count At = 17.92 hr.				$\beta$	1780	7m	57	197		
9	12/16	1020	C <sub>2</sub> count At = 18.50 hr.				$\beta$	1861	13m	57	86		
8	12/16	1025	C <sub>2</sub> count At = 18.50 hr.				$\beta$	1813	3m	57	547		
2	12/16	<del>1555</del> 1030	C <sub>2</sub> count. At = 18.58 hr.				$\beta$	2610	7m	57	316		
4	605 Bldg		C <sub>2</sub> = 163% (1.6 x 10 <sup>-12</sup> mc/cc)										
9	216 Rm		C <sub>2</sub> = 68% (7.0 x 10 <sup>-13</sup> mc/cc)										
8	PO Corr.		C <sub>2</sub> = 536% (5.5 x 10 <sup>-12</sup> mc/cc) * air leaks. Not as much air sampled as indicated.										
2	Access Corr		C <sub>2</sub> = 307% (3.1 x 10 <sup>-12</sup> mc/cc)										



CPP SAMPLE RECORD

Type of Sample Air  
 Collected by King  
 Date Submitted 12/14/54

Analyzed by King - Huff  
 Method of Determination \_\_\_\_\_  
Horizontal pig  
 Date Reported 12/15

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	Results
				Rate	Time	Quantity							
7	12/14	1510	605 Bldg. off at 0920	5cfm	23:20	7000	$\beta$	1771	10m	62	115		
10	12/14	<del>1510</del> 1520	216 off at 0940	5cfm	24:05	72.25	$\beta$	1109	8m	62	77		
11	12/14	1610	PO Corr off at 0945	5cfm	24:05	72.25	$\beta$	2168	2m	62	1022		
12	12/14	1615	Acc Corr off at 0945	5cfm	24:05	72.25	$\beta$	1348	6m	62	163		
7	12/15	1055	C <sub>2</sub> count At = 19.75 hrs.				$\beta$	1433	9m	65	94		
10	12/15	1105	C <sub>2</sub> count At = 19.75 hrs.				$\beta$	1780	15m	65	54		
11	12/15	1120	C <sub>2</sub> count At = 19.167 hr.				$\beta$	2192	2m	65	1031		
12	12/15	1125	C <sub>2</sub> count At = 19.167 hr				$\beta$	8265	41m	65	134		
7	605 Bldg	C <sub>2L</sub> = 85 cfm	(Long-Life $\beta$ activity $9.2 \times 10^{-13}$ $\mu\text{c}/\text{cc}$ )										
10	216 Rm	C <sub>2L</sub> = 45 cfm	(Long-Life $\beta$ activity $4.7 \times 10^{-13}$ $\mu\text{c}/\text{cc}$ )										
11	PO Corr.	C <sub>2L</sub> = 1031 cfm	(Long-Life $\beta$ activity $1.1 \times 10^{-10}$ $\mu\text{c}/\text{cc}$ )										
12	Acc. Corr	C <sub>2L</sub> = 126 cfm	(Long-Life $\beta$ activity $1.3 \times 10^{-12}$ $\mu\text{c}/\text{cc}$ )										

CPP SAMPLE RECORD

Type of Sample Air  
 Collected by King  
 Date Submitted 12/13

Analyzed by Horizontal pig  
 Method of Determination \_\_\_\_\_  
Hor. pig  
 Date Reported 12/13/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	$\mu\text{c/cc}$ Results
				Rate	Time	Quantity							
3	12/13	1450	Rm 216 off at 0935	5c/m	96:30	28950	$\beta$		2047	9m	62	164	
5	12/13	1500	PO. Carr off at 0940	5c/m	96:30	28950	$\beta$		16324	2m	62	8100	
6	12/13	1505	Acc Carr off at 0940	5c/m	96:25	28925	$\beta$		4230	3m	62	1348	
1	12/13	1515	605 off at 1000	5c/m	96:40	29,000	$\beta$		4287	10m	62	367	
3	12/14	0935	$t_2 - t_1 = 18.75$ C <sub>2</sub> count			Rm 216		→	2014	11m	62	121	$4.7 \times 10^{-13}$
5	12/14	0950	$t_2 - t_1 = 18.8$ C <sub>2</sub> count			PO. Carr		→	7936	1m	62	7874	$1.9 \times 10^{-11}$
6	12/14	1000	$t_2 - t_1 = 19.$ C <sub>2</sub> count			Acc Carr		→	2570	2m	62	1223	$3.1 \times 10^{-12}$
1	12/14	1000	$t_2 - t_1 = 18.75$ C <sub>2</sub> count			605 Pig		→	2532	7m	62	300	$7.1 \times 10^{-13}$

CPP SAMPLE RECORD

Type of Sample Air  
 Collected by Long  
 Date Submitted 12/9/54

Analyzed by \_\_\_\_\_

Method of Determination \_\_\_\_\_

Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time Min	Bkgd C/M	Counts Per Min.	µc/cc Results
				Rate	Time	Quantity							
9	12/9	12/13 0930	Rm 216 off at 0905	5cfm	71:55	21575	β		1,960	10	62	134	4.7 x 10 <sup>-13</sup>
4	12/9	12/13	PO corr off at 0910	5cfm	71:55	21575	β		10,960	1	62	10,898	3.9 x 10 <sup>-11</sup>
2	12/9	12/13	Access corr off at 0915	5cfm	71:55	21575	β		2,346	1	62	2,284	8.3 x 10 <sup>-13</sup>
8	12/9	12/13	605 Bldg off at 0920	5cfm	71:45	21525	β		2,981	5	62	534	1.9 x 10 <sup>-12</sup>
<i>Long Life Count</i>													

Type of Sample Air Sample

Analyzed by g. Krause

Collected by \_\_\_\_\_

Method of Determination \_\_\_\_\_

Date Submitted \_\_\_\_\_

Date Reported 12-2-50

*min.*

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
3	12-2	1325	216 - 0910 <sup>Time</sup> term	5 $\frac{\text{cu ft}}{\text{min}}$	1420	7100 $\frac{\text{cu ft}}{\text{min}}$	B -		4220	5 min	51	793	
8	12-2	1335	PD - 0915	5	1425	7125 $\frac{\text{cu ft}}{\text{min}}$	B -		28847	11 min	51	7161	
7	12-2	1340	605 - 0910	5	1420	7100 $\frac{\text{cu ft}}{\text{min}}$	B		5,511	5 min	51	1051	
3	12-3	0910	C <sub>2</sub> on above				B		1802	4 m	51	399	
8	12-3	0915	C <sub>2</sub> on above				B		7173	1 m	51	7122	
7	12-3	0915	C <sub>2</sub> on above.				B		2027	4 m	51	473	
#3	Cu beta	1m 216	12/1 - 12/2 = 251 $\frac{\text{c/m}}{\text{min}}$										( $2.7 \times 10^{-12}$ $\mu\text{c/cc}$ )
#8	Cu beta	PD corr	12/1 - 12/2 = <del>546</del> $\frac{\text{c/m}}{\text{min}}$			7110 $\frac{\text{c/m}}{\text{min}}$							( $7.6 \times 10^{-11}$ $\mu\text{c/cc}$ )
#7	Cu beta	605 Bldg	12/1 - 12/2 = 252 $\frac{\text{c/m}}{\text{min}}$										( $2.7 \times 10^{-12}$ $\mu\text{c/cc}$ )

Type of Sample

Air Samples

Collected by

King

Date Submitted

11/30/54

Analyzed by

King

Method of Determination

Date Reported

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
2	11/30	1410	PO Corr. 11/26-11/30 off at 1430	5c/m	hr-m. 96:25	173 28,925	β		6229	1m	54	6175	
4	11/30	1412	Rm 216 off at 1430	5c/m	96:30	28,950	β		1046	2m	54	469	
9	11/30	1415	605 off at 1440	5c/m	95:55	28,775	β		1625	3m	54	488	
2	11/30	1530	C <sub>2</sub> α on Above.				α		329	6m	22	33	
4		1535	C <sub>2</sub> α on Above				α		487	5m	22	75	
2	12/1	0945	PO Corr				β		6069	1m	55	6014	
4	12/1	0947	Rm 216				β		734	2m	55	312	
9	12/1	1000	605				β		1159	3m	55	312	
2	12/1	1450	C <sub>2</sub> α				α		545	20m	18	27	
4	12/1	1420	C <sub>2</sub> α				α		395	9m	18	44	
9			605. Bldg Long Life β activity			$1.9 \times 10^{-12}$ μc/cc							
2			PO Corridor Long Life β activity			$1.6 \times 10^{-11}$ μc/cc							
4			Rm 216 " " " "			$6.7 \times 10^{-13}$ μc/cc		Long Life α activity				$1.2 \times 10^{-13}$ μc/cc	

Type of Sample Oil  
 Collected by King  
 Date Submitted 11/26/54

Analyzed by King & Smith  
 Method of Determination β & α Filter counter  
 Date Reported 11/29/54

*All samples have decayed at least 3 days. Count can be considered C.U.*

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
7	11/29	1110	PO Corr. Removed 11/24 0850	5c/m	47:20	14200	β	4319	2m	56	2103		
8	11/29	1100	Rm 216 Removed 11/24 0845	5c/m	47:10	14150	β	846	5m	56	113		
1	11/29	1115	605 Bldg Removed 11/26 0945	5c/m	48:45	14625	β	1785	4m	56	390		
3	11/29	1125	Rm 216 Removed 11/26 0900	5c/m	48:15	14475	β	1263	7m	56	12.4		
5	11/29	1130	PO Corr. Removed 11/26 0905	5c/m	48:15	14475	β	3272	2m	56	1580		
8	11/29	1155	C.U. α on above.				α	296	12m	22	0		
3	11/29	1225	C.U. α on above.				α	2898	120m	22	0		
7	11/30	0845	C.U. α on above				α	700	37m	22	0		
5	11/30	0930	C.U. α on above.				α	155	9m	22	0		
1	11/30	0940	C.U. α on above				α	615	35m	22	0		
7			PO Corridor 11/22 to 11/24					Long Life β activity 2.4 x 10 <sup>-11</sup> mc/cc					
8			Rm 216 11/22 to 11/24					Long Life β activity 6.0 x 10 <sup>-13</sup> mc/cc					
1			605 Bldg 11/24 to 11/26					Long Life β activity 2.0 x 10 <sup>-12</sup> mc/cc					
3			Rm 216 11/24 to 11/26					Long Life β activity 6.5 x 10 <sup>-13</sup> mc/cc					
5			PO Corridor 11/24 to 11/26					Long Life β activity 8.3 x 10 <sup>-12</sup> mc/cc					

Type of Sample Air  
 Collected by Kang  
 Date Submitted 11/22

Analyzed by Kang  
 Method of Determination Hor & Prop. Counters  
 Date Reported 11/22/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	11/22	1335	605 Bldg off at 0900	5c/m	69h.35m	20875	$\beta$		4248	2m	49	2075	
3	11/22	1340	PO Corr off at 0930	5c/m	70h.10m	21050	$\beta$		4764	2m	49	2333	
6	11/22	1345	216 off at 0935	5c/m	70h.15m	21075	$\beta$		2582	5m	49	457	
1	11/22	1500	C <sub>1</sub> $\alpha$ on above				$\alpha$		1723	6m	7	280	
3	11/22	1515	C <sub>1</sub> $\alpha$ on above				$\alpha$		1453	15m	7	90	
6	11/22	1525	C <sub>1</sub> $\alpha$ on above.				$\alpha$		507 <del>1525</del>	4m	7	120	
1	11/23	0900	C <sub>2</sub> $\beta$ on above				$\beta$		4694	3m	49	1516	
3	11/23	1035	C <sub>2</sub> $\beta$ on above				$\beta$		881	4m	49	2121	
6	11/23	1045	C <sub>2</sub> $\beta$ on above				$\beta$		1387	5m	49	228	
1	11/23	1250	C <sub>2</sub> $\alpha$ on above				$\alpha$		315	5m	7	56	
3	11/23	1255	C <sub>2</sub> $\alpha$ on above				$\alpha$		464	15m	7	24	
6	11/23	1310	C <sub>2</sub> $\alpha$ on above				$\alpha$		290	6m	7	41	
①			C <sub>LL</sub> $\beta$ = 1302 c/m ( $5.2 \times 10^{-12}$ $\mu$ c/cc) 605 Bldg.										
②			C <sub>LL</sub> $\beta$ = 2048 c/m ( $7.4 \times 10^{-12}$ $\mu$ c/cc) PO corridor										
③			C <sub>LL</sub> $\beta$ = 216 c/m ( $8 \times 10^{-13}$ $\mu$ c/cc) 216										

Type of Sample Air  
 Collected by King  
 Date Submitted 11/18/54

Analyzed by \_\_\_\_\_  
 Method of Determination \_\_\_\_\_  
 Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
3	11/18	1410	216 off at 0840	5cfm	24h.	7200 <sup>#3</sup>	β		2642	15	48	128	
6	11/18	1420	PO Cor off at 0920	5cfm	24h.	7200	β		<del>2742</del>	10	48	226	
1	11/18	1400	605 Bldg off at 0940	5cfm	24h.5m	7225	β		3044	10	48	256	← This is in error
3	11/19	0850	C <sub>2</sub> on above				β		1397	10	48	92	
1	11/19	0900	C <sub>2</sub> on above				β		2856	7	48	360	
6	11/19	0910	C <sub>2</sub> on above				β		8996	35	48	209	
6	11/19	1030	Same as above.				α		333	32	12	0	
3	11/19	1100	Same as above				α		143	7	12	8	
1	11/19	1115	Same as above				α		52	5	12	0	
Results:													
216	#3	C <sub>up</sub> = 77% which gives 8 × 10 <sup>-13</sup> μc/cc											
PO	#6	C <sub>up</sub> = 202% " " 2 × 10 <sup>-12</sup> μc/cc											
605		C <sub>up</sub> ≈ 340%											



Type of Sample Air Samples  
 Collected by King  
 Date Submitted 4/17

Analyzed by King  
 Method of Determination Hor. pip & L. Filter Counter.  
 Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	Results
				Rate	Time	Quantity							
10	11/17	0850	216 off at 0835	5cfm	24hr.	7200 <sup>cuft.</sup>	$\alpha$		713	10	12	59	
		0925					$\beta$		1648	20	48	<del>34</del>	
		1525	C <sub>1</sub>				$\beta$		1839	10	48	136	
		1535	C <sub>1</sub>				$\alpha$		207	10	12	9	
	11/18	0855	C <sub>2</sub>				$\beta$		1552	10	48	107	
	11/18	0925	C <sub>2</sub>				$\alpha$		96	10	12	0	
			C <sub>2</sub> $\beta$ = 94 c/m										
			C <sub>2</sub> $\alpha$ = 0 c/m										
			Long Life $\beta$ concentration			$10 \times 10^{-12}$							

Type of Sample Air  
 Collected by King  
 Date Submitted 11/16/54

Analyzed by King  
 Method of Determination Alpha & Beta Filter  
 Date Reported 11/16/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
9	11/16		216 1035 to 0835	5cfm	22hr.	6600	$\alpha$						
		1000	same				$\beta$	1673	4m	48	370		
		1540	C <sub>1</sub>				$\beta$	719	2m	48	311		
		1550					$\alpha$	492	5m	12	86		
	11/17	0840	C <sub>2</sub>				$\alpha$	673	7m	12	84		
		0910	C <sub>2</sub>				$\beta$	1581	11	48	96		
$C_{LL\alpha} = 82\% = 234\% \text{ d/lm}$ Long Life Alpha concentration = $5.6 \times 10^{-13} \text{ uc/cc}$													
C <sub>imp</sub> = 0													

Type of Sample Air  
 Collected by King  
 Date Submitted 11/15/53

Analyzed by King  
 Method of Determination Filtration & counter.  
 Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	d/m Results
				Rate	Time	Quantity							
8	11/15	1050	216 0930 11/12 to 1030 11/15	5cfm	73hr	21900	$\beta$	<del>153</del>	<del>15</del>	<del>17</del>			
		1300	same				$\beta$	4022	18	12	211	918	
		1610	C <sub>1</sub> same				$\beta$	2833	5	46	521		
		1620	C <sub>1</sub>				$\alpha$	2380	5	46	430	2045	
								505	4	12	114		
	11/16	1530	C <sub>2</sub>				$\beta$	2197	6	48	317	1510	
		1600	C <sub>2</sub>				$\alpha$	156	5	12	<del>114</del>		
				$C_{\beta} = 1365 \frac{d}{m} \beta$ Long-life $\beta$ concentration in air = $10^{-12}$ mc/cc									
				$C_{\alpha} = 0 \frac{d}{m}$									

CPP SAMPLE RECORD

Type of Sample Air

Analyzed by King

Collected by King

Method of Determination α Filter Counter

Date Submitted 11/12/54

Date Reported 11/15

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
7	11/12		0930 to 0930 216	5cfm	24hr								
	11/12	1410	C <sub>1</sub> for C <sub>1</sub>				α	267	9m	11	19	83	
	11/15	1035	C <sub>2</sub>				α	153	15	12	0	0	
No detectable <sup>long-life</sup> alpha activity. <del>detected</del> on sample.													

CPP SAMPLE RECORD

Type of Sample Filtron  
 Collected by King  
 Date Submitted 11/11/54

Analyzed by King  
 Method of Determination Filtron & counter  
 Date Reported 11/15/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	d/m Results
				Rate	Time	Quantity							
6	11/11		216 1200 11/10 to 0930 11/11	5cfm	21.5h			Bkgd. 238	21	11			
	11/12	1400	C <sub>1</sub> for C <sub>22</sub> determ.				α	201	7 m	11	18	78	
	11/15	1020	C <sub>2</sub>				α	89	10 m	12	0	0	
No detectable long life alpha activity													

GPP SAMPLE RECORD

Type of Sample Hudson Pond Air Sample

Analyzed by BFS

Collected by BFS

Method of Determination \_\_\_\_\_

Date Submitted 11/15/54

α Counter  
Date Reported 11/13/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	11/13	1300	Hudson Pond Air Sample @ P-810 PM AREA	1 PM 30	10	300 L	Bf	220	5	19	0		
1	"	"		"	"	"	α	5090 Geom	55	5	0.5	10.5	21 d/m
IMMEDIATE COUNT - 1330 - 11/13/54													
$\frac{21 \text{ d/m}}{3.7 \times 10^{10} \times 60 \times 3 \times 10^5} = 3.2 \times 10^{-11} \text{ microcuries/cc}$													
NOTE: ONLY BACKGROUND COUNT OBTAINED AFTER 20 hrs decay													
$5 \times 10^{-11} \text{ } \mu\text{C/cc} = \text{MPL}$													
NOTHING CONCLUSIVE FOUND													

GPP SAMPLE RECORD

Type of Sample Filtration  
 Collected by King  
 Date Submitted 11/9

Analyzed by King  
 Method of Determination \_\_\_\_\_  
prop. ckr.  
 Date Reported 11/9

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Geo Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	d/m Results
				Rate	Time	Quantity							
4	11/9	1600	0900 11/8 to 0820 11/9 C <sub>1</sub>	50 f/m	23:20	7000 g/3	α	24.4%	955	6m	3.3	156	640
								16.89%					
	11/11	1100	C <sub>2</sub> for C <sub>1</sub> determ.				α	16.89%	274	12m	8.4	15	89
			C <sub>1</sub> = 89    C <sub>2</sub> = 640 ± = 43%										
			$C_{LL} = \frac{89 - .640 \alpha}{1 - \alpha} = \frac{89 - .640 \times 43}{1 - 0.0655 \times 43} = \frac{89 - 4}{.74}$										
			C <sub>LL</sub> = 90%										
			Results:										
			U <sup>233</sup> conc. = 2.1 x 10 <sup>-13</sup> µc/cc										

Type of Sample Filtration Air Sample  
 Collected by Kmg  
 Date Submitted 11/8/53

Analyzed by Kmg  
 Method of Determination Filtration & comp. ~~4670~~  
 Date Reported 11/8/53

geo.  $24.9 \pm 1.5\%$   
 (6.2)

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	d/m Results
				Rate	Time	Quantity							
			<u>Backgrd.</u>					117	44m	2.7			
<u>3</u>	<u>11/8</u>	<u>0905</u>	<u>216 from 0900 11/5</u>	<u>5cfm</u>	<u>72hr.</u>		$\alpha$	2860	3m	2.7	951	<u>3900</u> <del>2056</del>	
			<u>to 0900 11/8</u>										
	<u>11/8</u>	<u>1450</u>	<u>C<sub>1</sub> for C<sub>UL</sub> determination</u>				$\alpha$	873	3m	2.7	288	1180	
	<u>11/9</u>	<u>1610</u>	<u>C<sub>2</sub> for C<sub>UL</sub> determination</u>				$\alpha$	377	9m	3.3	39	160	
			<u>C<sub>1</sub> = 1180 d/m</u>										
			<u>C<sub>2</sub> = 160 d/m</u>										
			<u>Δt = 26.33 hrs.</u>										
			<u>C<sub>UL</sub> = <math>\frac{160 - 1180 e^{-0.0655(26.33)}}{1 - e^{-0.0655(26.33)}}</math></u>										
			<u>C<sub>UL</sub> = 0 d/m</u>										
			<u>Results: No detectable long-life alpha emitters in the air.</u>										



CPP SAMPLE RECORD

Type of Sample Hudson River Sample  
 Collected by King  
 Date Submitted 10/5/54

Analyzed by King  
 Method of Determination \_\_\_\_\_  
End window g.m.  
 Date Reported 10/5/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	mc/cc Results
				Rate	Time	Quantity							
1	10-5	1445	Dissolving NP element in Lab 108	300 lpm	10m	300 l	Bt	211	5m	34.7 ±1.5	7.5± 3.3	1.1±0.5 x10 <sup>-10</sup>	

CPP SAMPLE RECORD

Type of Sample Filtcon Air Sample  
 Collected by King  
 Date Submitted 11/5

Analyzed by King  
 Method of Determination Filtcon counter 30.890  
 Date Reported 11/5

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	d/m Results
				Rate	Time	Quantity							
2	11/5	1345	216 Lab. off at 0825 C <sub>1</sub>	5cfm	24h	C	2	2652	10m	1.5	264	857	
118	0915		C <sub>2</sub> for C <sub>LL</sub> determination				2	977	21	2.7	10	22	
			C <sub>LL</sub> = 12 d/m										
			C <sub>LL</sub> 12 ± 2 d/m										
			Results:										
			12 d/m										
			$2.22 \times 10^6 \times 0.7 \times 1.2 \times 10^{2.143} \times 2.13 \times 10^{10} \frac{cc}{ft^3}$										
			$= 2.4 \times 10^{-12} \frac{\mu c}{cc}$										
			prob. as 11308										
			$\frac{1}{233} \text{ conc.} = 2.4 \pm 0.4 \times 10^{-12} \mu c/cc$										



CPP SAMPLING RECORD

Type of Sample Air  
 Collected by King  
 Date Submitted 10/29/54

Analyzed by King  
 Method of Determination end window g.m 10%  
 Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	10/29	1130	S.W. Starnwell of 601 Bldg	30lpm	15m	450l	$\beta$		853	11	46 ±3	32 + 4	
		count 1540					$\beta$		346	6	46± 3	12 ± 4	
	11/1	1235							241	5	44 ±1	4 ± 3	w.s.

CPP SAMPLE RECORD

Type of Sample Filtion  
 Collected by B F Sample  
 Date Submitted 10/12/54

Analyzed by B Sample  
 Method of Determination \_\_\_\_\_  
By Counter  
 Date Reported 10/17

**FILTRON SAMPLES**

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	CUBIC METER Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	MC/CC Results
				Rate	Time	Quantity							
1	10/12	1700	FILTRON SAMPLE OPER CORRIDOR	CFM 5	MIN 40	CF 200	BP	MS 5.7	122	1min	74	48	
2	"	"	DEEP TANK SAMPLER RM	5	38	196	"	5.4	198	"	"	124	1x10 <sup>-11</sup>
3	"	1830	OPER CORR	5	60	300	"	8.5	158	"	"	84	
4	"	"	DEEP TANK AREA	5	60	300	"	8.5	221	"	"	147	
5	"	2000	OPER CORRIDOR	5	60	300	"	8.5	95	"	"	21	
6	"	"	ACCESS CORRIDOR	5	60	300	"	8.5	173	"	"	99	
AIR ACTIVITY SEEMS TO HAVE SUBSIDED													
# 2 SAMPLE = $\frac{124 \text{ cpm}}{2.2 \times 10^6 \times 5.4 \times 10^6} = 1.04 \times 10^{-11}$ MC/CC.													
IMMEDIATE. WELL BELOW MPL OF $1.6 \times 10^{-9}$ BY EVEN IF													
IF WERE ALL LK ACTIVITY - - NO LATER POINT MADE ON THIS SOURCE.													

CPP SAMPLE RECORD

45 40  
80 min

Type of Sample \_\_\_\_\_

Analyzed by \_\_\_\_\_

Collected by \_\_\_\_\_

Method of Determination \_\_\_\_\_

Date Submitted ? Probably E ship 10/12/54  
RET 10/13/54

Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	uc/cc Results
				Rate	Time	Quantity							
1063		0925	So. end PO Corridor	30lpm	16m	480L	BV	998	1M	36.6	961	$0.9 \times 10^{-8}$	
1064			Access Corridor No. of Drill	1/2 lps	50	25L	BV	264	4m	"	29	$5.2 \times 10^{-8}$	
1065			" " No. of No. of West	1/2 lps	50	25L	BV	154	4m	"	1.9	—	
1064			WG WH Area	30lpm	10m	30L	BV	168	5m	"	0	—	



CPP SAMPLE RECORD

Type of Sample

Air ✓

Analyzed by

Smith

Collected by

Smith

Method of Determination

UK pig counter

Date Submitted

6/30/54

Date Reported

6/30/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	uCi/cc Results
				Rate	Time	Quantity							
1	6/30	1230	D cell Hand pump	1/2 lps	100s	50l	gr		1139	15m	27	49	4.4 x 10 <sup>-4</sup>
2		1230	D cell ent handson	30lpm	10m	300l	gr		580	17m	27	7	1.2 x 10 <sup>-4</sup>



CPP SAMPLE RECORD

Type of Sample Air  
 Collected by King Peterson  
 Date Submitted 5/13/54

Analyzed by King & Peters  
 Method of Determination wt pig ctr - prop ctr.  
 Date Reported 5/13

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	min lapses Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	mc/cc Results
				Rate	Time	Quantity							
1	5/13	1245	Hudson LBI	30 lpm	10m	300 l	BV	immediate	117	4m	25.5	3.7	5.9 x 10 <sup>-11</sup>
							L	immediate	16	4m	0.1	3.9	1.7 x 10 <sup>-11</sup>
2	5/13	1320	Filttron So. PO corr	5cfm	20m	100 ft <sup>3</sup>	BV		1727	25m	49.0 +2.6%	20.1	1.62 x 10 <sup>-11</sup>
2	5/17	0855	✓	5CFM	20m	100 ft <sup>3</sup>	B.V.	67 1/2 hrs	1452	25m	48.4 +2.3%	9.7	.734 x 10 <sup>-11</sup>

CPP SAMPLE RECORD

Type of Sample Filtron

Analyzed by Rich & Huff

Collected by Rich & Huff

Method of Determination 64

Date Submitted 5/10/54

Scalers - Horz. Evert. Pigs

Date Reported 5/10/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Time Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	Results
				Rate	Time	Quantity							
1	5/10	0136	Filtron Air Sample West of Bldg. #602	5cfm	20m	100cf	Br	0207	1415	15m	48.1	46.2	$6.6 \times 10^{-11}$ <sup>1149</sup> <sub>16</sub>
2	5/10	0120	Hudson Air Sample LB-1	30cfm	18m	540cf	Br		464	15m	30.7	0.2	

CPP SAMPLE RECORD

Type of Sample Air Sample  
 Collected by KING  
 Date Submitted 5/6/54

Analyzed by King  
 Method of Determination \_\_\_\_\_  
Hor. Pig  
 Date Reported 5/9/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Time counted. Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	Results
				Rate	Time	Quantity							
1	5/6/54	1205	Precip - LBI	3cfm	50m	150 ft <sup>3</sup>	Bt α	1300 1330	1401	13m	49.9 ±0.9	57.8	
	5/7/54	1215						1415	2779	50m	46.2 ±1.1	9.4 ± 1.6	17%
	5/10/54							0930	3090	56m	47.4 ±0.9	7.8 ± 1.3	17%
				$At = 24 + 24 + 9:45 + 9:30 = 67.25 \text{ hrs}$									
				$C_{adj} = \frac{7.8 - 9.4 e^{-0.0655(67.25)}}{1 - e^{-0.0655(67.25)}} = \frac{7.8 - 9.4 \times 0.0122}{0.988}$									
				$= \frac{7.8 - 0.1}{.988} = 7.8$									
				$C_{adj} = 7.8 \pm 2.6$									
				$\frac{7.8}{.21 \times 2.22 \times 10^6} = \frac{16.7 \times 10^{-6}}{150 \times 10^3 \times 2.83 \times 10^4} = 3.9 \times 10^{-12} \text{ } \mu\text{e/cc}$									

Essentially the same long-life Bt concentration as found on filter sample of 5/10/54

CPP SAMPLE RECORD

Type of Sample AIR

Analyzed by \_\_\_\_\_

Collected by KING

Method of Determination \_\_\_\_\_

Date Submitted 3/2/54

Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	3/2		Outside So. end PM area - 1800 - 1900.	5cfm	60m	300ft <sup>3</sup>	PV						
1	3/3	1130	same C <sub>1</sub>				PV	2562	32	56.1 ±2.09	24.0	±2.8%	
2	3/4	1030	same C <sub>2</sub>				PV	3129	34	56.1 ±2.0	35.9	±2.7	
<p align="center">Conclusion - Air Sampler still picking up long-life activity</p>													

CPP SAMPLE RECORD

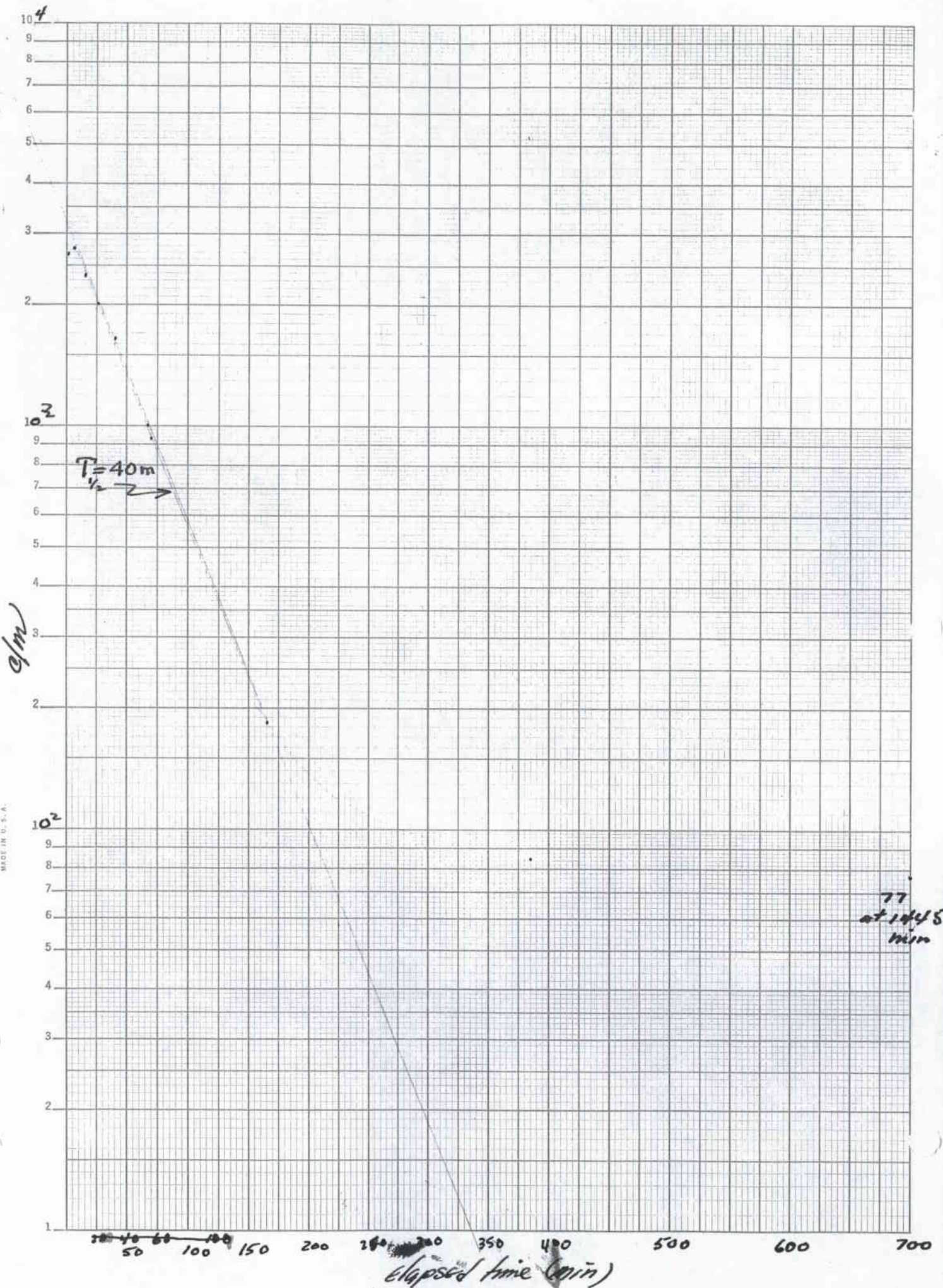
Type of Sample Air  
 Collected by King  
 Date Submitted 2/9/54

Analyzed by King  
 Method of Determination Hor. Pip  
 Date Reported 2/9/54

*Same sample*

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	2/9	0851	1st count 6min after 50ft	30m	150 ft <sup>3</sup>	AV	elapsed time 6m	2825	1m	46.7	2778		
"		0900	2nd count			"	15m	2420	1m		2373		
"		0925	3rd count			"	40m	1681	1m		1634		
"		0955	4th count			"	70m	1960	2m.		933		
"		1105	5th count			"	140m <del>200</del>	1					
"		1130	6th count			"	165m	1195	5m		192		
"		1510	7th count or C <sub>1</sub>			"	385m	1320	10m		85		
"	2/10	0850	8th Count or C <sub>2</sub>			"	1445m	1198	10m	42.8	77		
"			C <sub>4</sub> = 73%										
"			$\frac{73}{21 \times 2.22 \times 10^6}$										
"			$\frac{157 \times 10^{-6}}{150 \times 2.83 \times 10^4}$										
"													
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359-73 KEUFFEL & ESSER CO.  
Semi-Logarithmic, 8 Cycles X 10 to the 1/2 inch.  
MADE IN U. S. A.



CPP SAMPLE RECORD

Type of Sample Air  
 Collected by King  
 Date Submitted 2/16/54

Analyzed by King  
 Method of Determination \_\_\_\_\_  
Horiz Pic  
 Date Reported 2/16/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	2/16	1005	0845-0945 W Ramp	5cfm	60m	300ft <sup>3</sup>	BY	3017	13m	69.9 ±1.0	170.2		
1	2/16	1600	Same C <sub>u</sub> ,				BY	1704	23m	61.9 ±1.0	12.1 ± 2.1		
1	2/18	0950	Same C <sub>u</sub>				pr	11068	144	57.6 ±1.1	19.2 ± 1.3		
			At = <del>#</del> 41.83 hrs.										
			C <sub>u2</sub> > C <sub>u1</sub>										

CPP SAMPLE RECORD

Type of Sample Air Sample

Analyzed by King

Collected by King

Method of Determination \_\_\_\_\_

Date Submitted 2/15/54

Horizontal pig  
Date Reported 2/15

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	Results
				Rate	Time	Quantity							
1	2/15	1035	0815-0915 W. Ramp	5c/m	1hr	300ft <sup>3</sup>	AV	<del>2916</del>	<del>34m</del>	53.1 ±0.8			
2	2/15		<del>0930-1030</del>	"	"	"	"						
1	2/15	1450	Cul, same as above				AV	1913	18m	53.1 ±0.8	53.2 ± 2.5		
2	2/15	1510	Cul,					2347	21m	"	58.6 ± 2.5		
1	2/16	1115	Cul				AV	2888	30m	61.9 ±1.0	34.8 ± 2.1		
2	2/16	1200						4243	38m	"	49.8 ± 2.0		
1			C <sub>ul</sub> = 28.2 ± 3.0	c/m									
2			C <sub>ul</sub> = 46.7 ± 3.8	c/m									



CPP SAMPLE RECORD

Type of Sample Filtration Sample  
 Collected by Bryce Rich  
 Date Submitted 2-13-54

Analyzed by Bryce Rich  
 Method of Determination Horizontal Pig  
 Date Reported 2-13-54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	2-13	0600	Center of Hut B Control Room	5cfm	15m.	75ft. <sup>3</sup>	Br		1346	10m.	40.0	94.6	1.4x10 <sup>6</sup>

CPP SAMPLE RECORD

Type of Sample AIR FILTER

Analyzed by King

Collected by KING

Method of Determination \_\_\_\_\_

Date Submitted 2/12 Between 0820 - 0920

Hor. Fig  
Date Reported 2/12

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	2/12	0925	PM Area. W. Ramp	5cfm	60m	300 ft <sup>3</sup>	βr	2579	10m	44.4 ± 0.8	207.5		
1	2/12	1410	Same Cur					2890	36m	44.4 ± 0.8	35.9 ± 1.7	4.7%	
<del>1</del>	<del>2/15</del>	<del>1400</del>	<del>Same Cur</del>					<del>2916</del>	<del>34m</del>	<del>53.1 ± 0.8</del>			
1	2/15	1413	Same Cur				βr	2010	26m	53.1 ± 0.8	24.3 ± 1.9	7.8%	
			$C_{LL} = \frac{24.3 - 35.9 e^{-0.0655(72)}}{1 - e^{-0.0655 \times 72}}$										
			$= \frac{24.3 - 0.3}{1 - .009} = \frac{24.0}{.991}$										
			$C_{LL} = 24.2 \text{ %/m}$										
			$C_{LL} = 24.2 \pm 3.0 \text{ %/m}$										

CPP SAMPLE RECORD

Type of Sample Filtrex Air Sample

Analyzed by King

Collected by King

Method of Determination

Date Submitted 2/11/54

Horizontal Pig  
Date Reported 2/11/54

Sample No.	Date	Time on hour	Sample Description	Sampling Data			Analyze For	time of count	Total Count	Count Time	Bkgd C/M	Counts Per Min.	Results
				Rate	Time	Quantity							
1	2/11	0820	Outside 601 W. Ramp	5cfm	60m	300ft <sup>3</sup>	Br	0935	2251	2m	45.1 ±1.0	1080	
1	2/11	<del>1135</del>	C <sub>11</sub> same as above.					1610	1004	10m	45.1 ±1.0	55.3 ±3.5	or ±6.3%
1	2/12	1130	C <sub>12</sub> same as above.						1564	20m	44.4 ±0.8	33.8 ± 2.1 or ± 6.2%	
			C <sub>11</sub> = 25.4 ± 3.2 cfm										

CPP SAMPLE RECORD

Type of Sample Air

Analyzed by King

Collected by King

Method of Determination \_\_\_\_\_

Date Submitted 2/10/54

vt pig  
Date Reported 2/10/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	Results
				Rate	Time	Quantity							
1	1340	2/10	W6 WH TANK Basin	30 lpm	10m	300 l	BV	705	6m	40.0 ±1.4	78 cpm		

$$\frac{78 \text{ cpm}}{11.2} = 696 \text{ cpm}$$

$$\frac{696}{2.22 \times 10^6 \times 3 \times 10^5} = 1.05 \times 10^{-11}$$

$$1.1 \times 10^{-9} \text{ } \mu\text{e/cc}$$

CPP SAMPLE RECORD

Type of Sample Air Sample  
 Collected by King  
 Date Submitted 2/8/54

Analyzed by King  
 Method of Determination 14 pig  
64 Sinter  
 Date Reported 2/8/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	µc/cc Results
				Rate	Time	Quantity							
1	2/8	1430	WGWH Control Rm	30 lpm	10m	300 l	Pr		213	4m	37.3	16	$2.1 \times 10^{-10}$

CPP SAMPLE RECORD

Type of Sample Air

Analyzed by King

Collected by King

Method of Determination \_\_\_\_\_

Date Submitted 2/5/54

Prop Counter  
Date Reported 2/5/54

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	µc/cc Results
				Rate	Time	Quantity							
1	2/5/54	<del>0845</del> 0915	LB32 in Hood during evap. of sample.	30lpm	3.25 min	97.5 l	α	Immediate α	1580	4m	0.3 ±0.1	395	5.5 x 10 <sup>-9</sup>
1	2/5/54	1340	Same as above Cell <sub>1</sub>				α	5 hrs.	1503	4m	0.3 ±0.1	375	
1	2/8/54	0900	Same as above Cell <sub>2</sub>				α	72.3 hrs	1458	4m	0.3 ±0.1	364	
<p align="center">Cell due to U<sup>235</sup> = 360%  <span style="border: 1px solid black; padding: 5px; display: inline-block;">Air Conc of U<sup>235</sup> = 4.9 x 10<sup>-9</sup> µc/cc</span></p>													

CPP SAMPLE RECORD

Type of Sample Air Sample

Analyzed by \_\_\_\_\_

Collected by Butler

Method of Determination Filtration & counter

Date Submitted 2/1/54

Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	mc/cc Results
				Rate	Time	Quantity							
1	2/1/54	1210	LB32 24 hr sample	5 cpm	24 hr	7.2 x 10 <sup>3</sup>	3 <sup>a</sup>	1441	2m	3.0	717	4.8 x 10 <sup>-13</sup>	
2	2/1/54	1320	LB32 During evap.	30 cpm	6m	180 l.	α	102	10m	0.7±0.1	9.5	<del>4.97</del> x 10 <sup>-11</sup>	
2	2/3/54	1100	Same as above	4 cpm			α	3	10m	0.4±0.1	—		

CPP SAMPLE RECORD

Type of Sample Air

Analyzed by King

Collected by King

Method of Determination \_\_\_\_\_

Date Submitted 1/29/54

*2.25 lbs of sample taken.*  
36

Prop. Ctr.

Date Reported 1/29

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	1/28 to 1/29		24 hr Filtron sample in LB 32 offset 1210 1st count at 1500	5cfm	24hr		α	58	10m	0.7 ±0.1			
1	2/1	1225	Same		93hr decay		α	6	10m	0.7 ±0.1	—		



CPP SAMPLE RECORD

Type of Sample Air  
 Collected by King  
 Date Submitted 1/13

Analyzed by King  
 Method of Determination \_\_\_\_\_  
vt pig  
 Date Reported 1/13

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	mc/cc Results
				Rate	Time	Quantity							
1	1/13	1430	Coll X General	30lpm	10m	300l	BV		215	4	37	17	$2.3 \times 10^1$



CPP SAMPLE RECORD

Type of Sample Air Sample  
 Collected by King  
 Date Submitted 12-2-53

Analyzed by King  
 Method of Determination \_\_\_\_\_  
Prop Cte.  
 Date Reported 12-2-53

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts Per Min.	μ/c Results
				Rate	Time	Quantity							
1	12-2	1738	Product Rm	30 lpm	20m	600 l.	α	immediate	261	5m.	4	48.2	$7.5 \times 10^{-11}$
1		2200	same					Cell <sub>1</sub>	14	4m.	1	2.5	
#	12/18	0900	same					Cell <sub>2</sub>	8:	10m.	0.7 to 0.3	0.1 to 0.4	W.S.
Conclusion: No $U^{235}$ in sample.													





IDO HP SAMPLE RECORD SHEET

Sample from: Chemical Processing Plant  
Collected by: \_\_\_\_\_  
Date Submitted: \_\_\_\_\_

Analyzed by: AH  
Method of Determination: End window tubes - prop. ctrs  
Date of Analysis: 11-16-53

Sample No.	Date	Hour	Sample Description	Sampling Data		Analyze for	Quant	Time	Count Time	Gross Count	Bkd c/m	Net c/m	Inst.	Corrected Value (u/g)
				Rate	Time									
433	11/10	0230	Water Sample			Na	21.8	2-11-10	mw					6.8 ppm
						α	100ml	11-24	30m	7+1	3c/H	13c/H	229	$3 \times 10^{-9}$
						β	50ml	11-24	20.76	512	25	0	287	$< 2 \times 10^{-7}$
434	11/12	0230	do			Na	22.0	2-11-10						6.9 ppm
J						α	100ml	11-24	30	13	3c/H	23c/H	230	$6 \times 10^{-9}$
						β	50ml	11-24	19.48	512	25	1	287	$< 2 \times 10^{-7}$

CPP SAMPLE RECORD

Type of Sample Air

Analyzed by King

Collected by King

Method of Determination \_\_\_\_\_

Date Submitted 11/5/53

W pig  
Date Reported 11/5/53

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	11/5	1101	WG WH Control Rm	30 lpm	10m	300 l		<del>396</del>	<del>10m</del>	<del>38.7</del>	—		
								432	10m	38.7	4.5	W.S.	

CPP SAMPLE RECORD

Type of Sample Air Sample

Analyzed by King

Collected by King

Method of Determination \_\_\_\_\_

Date Submitted 10/21/53

H. Pig

Date Reported 10/20/53

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	μc/cc Results
				Rate	Time	Quantity							
1-SW	10/20	1015	Kr <sup>85</sup> release	30 lpm	10m	300 l.	βV		383	8m	38.2 10.6	9.7	1.3x10 <sup>-6</sup>



CPP SAMPLE RECORD

Type of Sample Hudson Air  
 Collected by King & Rich  
 Date Submitted 10/20/53

Analyzed by King  
 Method of Determination \_\_\_\_\_  
W pig & Pro Counter  
 Date Reported \_\_\_\_\_

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	mc/cc Results
				Rate	Time	Quantity							
BLANK	10/20	1015	Above 802-810 Funnels	30lpm	10m	300l	β	immediate	260	5m	39.4 ±1.1	12.6 ± 3.4	1.9 ± 0.5 × 10 <sup>-10</sup>
Blank	10/20	1015	" " " "	"	"	"	α	"	84	5m	0.4 ±0.1	16.4 ±1.8	5.1 ± 0.6 × 10 <sup>-11</sup>
Blank			" " " "	"	"	"	α	Ch <sub>1</sub>	3	5m	0.4 ±0.1	<del>16.4</del>	<del>5.1 ± 0.6</del>
								Ch <sub>1</sub>	3	5m	0.4 ±0.1	0.2 ±0.1	7.9 ± 3.0 × 10 <sup>-13</sup>

CPP SAMPLE RECORD

Type of Sample Filtcon Air  
 Collected by King  
 Date Submitted 10/10/53

Analyzed by King  
 Method of Determination Horizontal pig off 2190  
 Date Reported 10/10/53

Sample No.	Date	Hour	Sample Description	Sampling Data			Analyze For	Quantity	Total Count	Count Time	Bkgd C/M	Counts PerMin.	Results
				Rate	Time	Quantity							
1	10/10	1735	C cell Panel PO Corr.	5cfm	15m	75ft <sup>3</sup>	Pv		478	4m	46.5 32.2	73±9	7.4x10 <sup>-11</sup> μCi