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TRACERLAB

A DIVISION OF LABORATORY FOR ELECTRONICS, INC.

1601 TRAPELO ROAD • WALTHAM 54, MASSACHUSETTS

2/14/64
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TWINBROOK 4-8600
CABLE ADDRESS
LFE

January 16, 1964

To: Maywood Chemical Company
Maywood, New Jersey

From: Tracerlab, Inc.
Waltham, Mass.

Subject: Radiological Survey of Three Buildings, report of

1. Radiation levels were measured in buildings 21, 23, and 24 at above site on January 9 and 10th of 1964. Alpha levels were determined using an Eberline PAC-3 G with a 62 cm² surface area probe. Beta-gamma measurements were made with a Tracerlab S U -1 H ionization chamber having a 1 mg/cm² window.

Harold B. Carter

Submitted
Harold B. Carter
Technical Services

HBC/jb
Enc.
AEC Regulations



I. Report of Building Measurements

disintegration
Alpha disintegration rate is given as total alphas with respect to geometry. Therefore, the 5.4 alphas per disintegration of thorium-232 is summed in the units of dpm per 100 cm².

1. Measurements for building 21 have already been submitted. Results will be summarized in discussion.

2. Measurements for building 23

POSITION	ALPHA dpm/100cm ²	Average β, γ	POSITION	ALPHA dpm/100cm ²	Average β
1 wall	3.2-3.6x10 ³	0.2	wall 15	9.0-10.8x10 ²	0.8
2 pill	1.2-1.4x10 ³	0.3	" 16	7.2-9.0x10 ²	0.5
3 wall	3.4-3.6x10 ³	0.3	" 17	3.2-3.6x10 ³	0.4
4 "	9.9-10.8x10 ³	0.4	" 18	9.9-10.8x10 ³	0.6
5 pill	6.3-7.2x10 ³	0.4	floor 19	1.2-1.4x10 ⁴	1.2
6 wall	1.6-1.8x10 ³	0.4	" 20 6300	6.3-7.2x10 ³ F low	1.0
7 "	5.4-7.2x10 ²	0.4	" 21 1000	1.2-1.4x10 ⁴ F	1.8
8 "	2.1-2.3x10 ²	0.6	" 22 1000	1.2-1.4x10 ⁴ F	1.9
9 "	8.1-9.0x10 ²	0.6	" 23 900	9.9-10.8x10 ³ F	2.0
10 "	6.3-7.2x10 ²	0.4	" 24 6300	6.3-7.2x10 ³ F	0.6
11 "	4.6-5.4x10 ²	0.8	" 25 8100	8.1-9.0x10 ³ F	0.7
12 "	2.7-3.6x10 ²	0.6	" 26 11100	1.1-1.2x10 ⁴ F	2.2
13 "	8.1-9.0x10 ²	1.1	" 27 8100	8.1-9.0x10 ³ F	0.8
14 "	2.7-3.6x10 ²	1.0	" 28	4.5-5.4x10 ² F	0.5
			" 29	3.0-3.2x10 ³ F	0.9
			" 30 8100	8.1-9.0x10 ³ F	1.3
			" 31	3.4-3.6x10 ³ F	0.6
			" 32	1.3-1.4x10 ³ F	0.8
			" 33	1.2-1.4x10 ³ F	0.6
			" 34	1.8-1.9x10 ³ F	0.6
			Column 35	90-180	0.3
			Beam 36	8.1-9.0x10 ²	0.4

3. Measurements for building 24

POSITION	ALPHA dpm/100cm ²	Average β, γ	POSITION	ALPHA dpm/100cm ²	Average β
Sill 1 6300	6.3-7.2x10 ³ Top	1.3	floor 15	8.1-9.0x10 ³	1.2
Wall 2	2.7-3.6x10 ² Bottom	1.0	" 16	1.1-1.2x10 ⁴	1.6
Sill 3 6300	6.3-7.2x10 ³ Etc	1.2	" 17	1.1-1.2x10 ⁴	1.0
Wall 4	2.7-3.6x10 ²	1.4	" 18	8.1-9.0x10 ³	2.2
Sill 5 9900	9.9-10.8x10 ³	2.0	" 19	9.9-10.8x10 ³	1.4
Wall 6	6.3-7.2x10 ²	1.6	Sill 20	8.1-9.0x10 ³	0.5
Sill 7 1	1.6-1.8x10 ⁴	1.6	Wall 21	4.5-5.4x10 ²	0.4
Wall 8	4.5-5.4x10 ²	1.2	Sill 22	2.4-2.7x10 ³	0.7
Stud 9	1.9-2.1x10 ³	0.8	Wall 23	90-180	0.8
Sill 10	9.9-10.8x10 ³	1.0	Sill 24	4.5-5.4x10 ³	1.6
Wall 11	9.0-10.8x10 ²	0.8	Wall 25	2.7-3.6x10 ²	
Sill 12	9.9-10.8x10 ³	1.6	Beam 26	9.9-10.8x10 ⁴	1.5
Wall 13	90-180	0.7	floor 27	4.5-5.4x10 ³	1.8
Sill 14	1.2-1.4x10 ⁴	1.2	" 28	6.3-7.2x10 ³	1.5
			" 29	4.5-5.4x10 ³	1.4

Report of Building Measurements (continued)

I	POSITION	dpm/100cm ² TOP BEAM	dpm/100cm ² BENEATH BEAM
See	30	8.1-9.0x10 ³	6.3-7.2x10 ²
"	31	8.1-9.0x10 ³	2.7-3.6x10 ²
"	32	9.9-11x10 ³	2.7-3.6x10 ²
"	33	1.5-1.8x10 ⁴	90-180
"	34	8.1-9.0x10 ³	9.9-11x10 ²
"	35	1.2-1.3x10 ⁴	8.1-9.0x10 ²
"	36	2.4-2.7x10 ³	2.7-3.6x10 ²
"	37	6.3-7.2x10 ³	90-180

II Report of Dry Smears Taken

Seventeen Smears were taken with Whatman 41 filter paper. The area of wipe sample was 100cm². Correction has been made to give disintegration rate of thorium-232.

Building 21		DPM Th ²³² /100cm ²
A	wall	3.3
B	column	53
C	wall	10
D	wall scrapings	2.7 dpm Th ²³² /mg
E	floor	3.3
F	wall	3.3
G	floor	3.3
H	floor	3.3
I	floor	43
Building 24		
J	sill	173
K	floor	171
L	floor	120
Building 23		
M	column	25
N	wall	230
O	wall	3.3
P	beam	3.3
Q	floor before vacuum	3.3

III Discussion of Survey

1. Building 21

- a. Areas having a beta-gamma dose higher than 2.0 mr/hr must be classified and posted as restricted areas and higher than 5.0 mr/hr as radiation areas. Reference floor plans and Federal Register, Title 10 Part 20.

b.

A bottle of thorium was in cabinet at position 142. If the amount is in excess of 0.5 mc or 10 lb. the container must be labeled in manner specified in 10 CFR Part 20.

*not from
smear
in 2/2/50*

III Discussion of Survey (continued)

- 3000 c. Wall surfaces have an average alpha disintegration rate of 3×10^3 alphas/min./100cm². Compartments within the building do show gradients above and below this figure. Considering smear survey, particles of brick were on filter paper, it appears thorium has penetrated brick surfaces. Whether decontamination can be accomplished and to what degree on these surfaces is a moot point. Thorium may have permeated beyond the surface layer that is detectable. Gamma dose rates reinforce this idea. Floors for the most part are dirt. There is evidence monizite is mixed with the dirt. Some areas, high gamma dose, indicate large amounts of monizite is present. Concrete floors more the most part are lower than wall surfaces. Smears reveal very little activity on the concrete surfaces.

2. Building 23

- 800 N a. Wall surfaces average 8×10^2 alphas/min./100cm² with
10,000 max maximum areas of 10^4 alphas/min./100cm². The floor is
totally earthen and averages 10^4 alphas/min./100cm².
1000 Wooden flooring on the second floor appears to have
fixed activity of 10^3 alphas/min./cm². No restricted
areas exist.

3. Building 24

- a. Sheet metal surfaces are noted as walls and sills denote
the wooden 4 x 4's in the horizontal position. Top
surfaces of sills were approximately a factor of 10 higher
than bottom surfaces. Coupled with information from smears
and information concerning decontamination of this building,
it is unlikely penetration of thorium dust is very deep in
the wood. Average dose rate from wooden sills and floor
10,000 is 10^4 alphas/min./100cm². All interior surfaces are quite
uniform with respect to dose rates.

4. A scrape pile between buildings 21 and 24 contains radioactivity.

IV Impression

1. Four areas in building 21 must be posted in accordance with State and Federal Regulations.
2. The total amount of thorium present is not large and is for the most part semi-fixed. The exceptions being concentrations of monizite in the ground of building 21.
3. It is very unlikely regulatory bodies would permit these building to be used at present levels of activity. Either extensive decontamination and/or razing of buildings must be done unless management wishes to have the buildings remain empty. Acceptable levels should be established with regulatory agencies before discussions concerning further disposition of the buildings made.

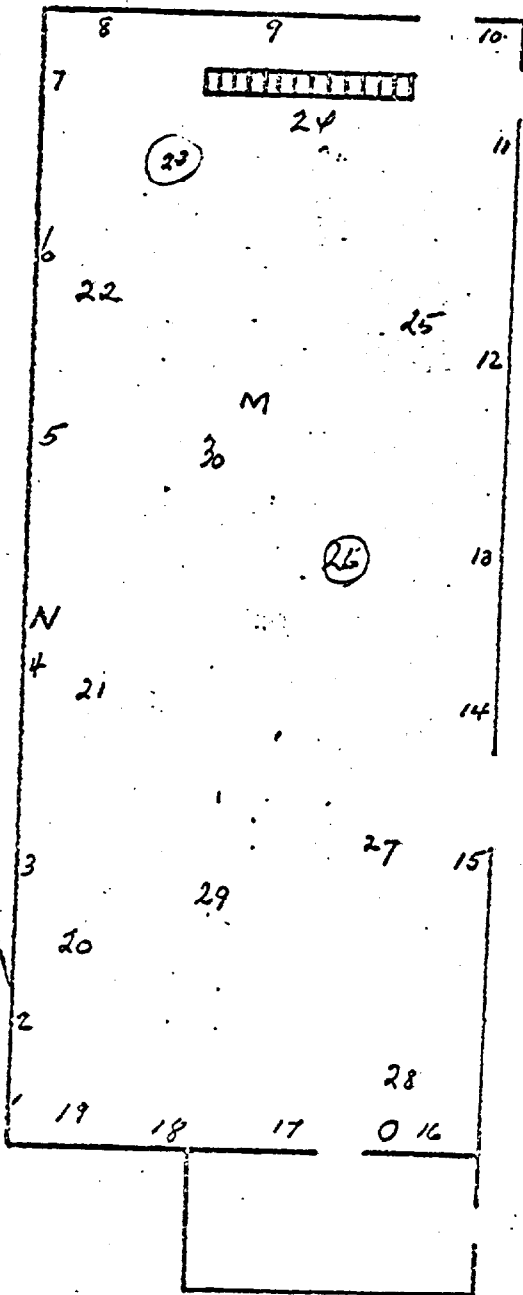
V. Disposal of Contaminated Materials

1. 10 CFR, Part 20 regulates the amounts of radioactive materials that may be released to the ^{environment} without prior A.E.C. approval. The New Jersey State Commission has extracted and set the same standards.
2. Possible methods of disposal are burial on site, burial at local dump sites, disposal at sea and incineration. The amounts of activity and economics involved will dictate the method or methods to be used.

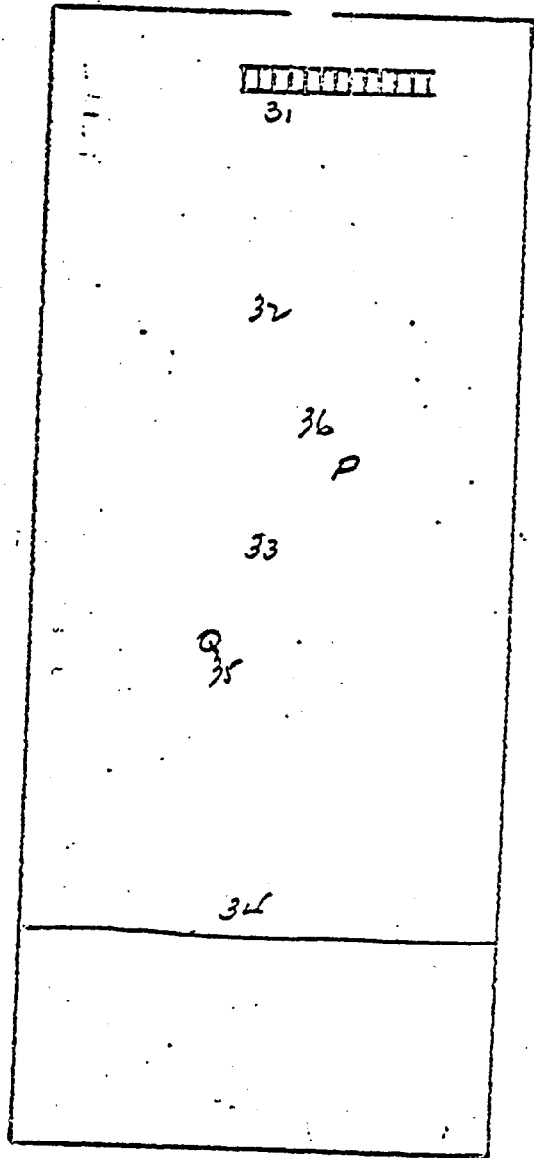
SURVEY BY
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1-10-64

BLDG 23

1st Floor



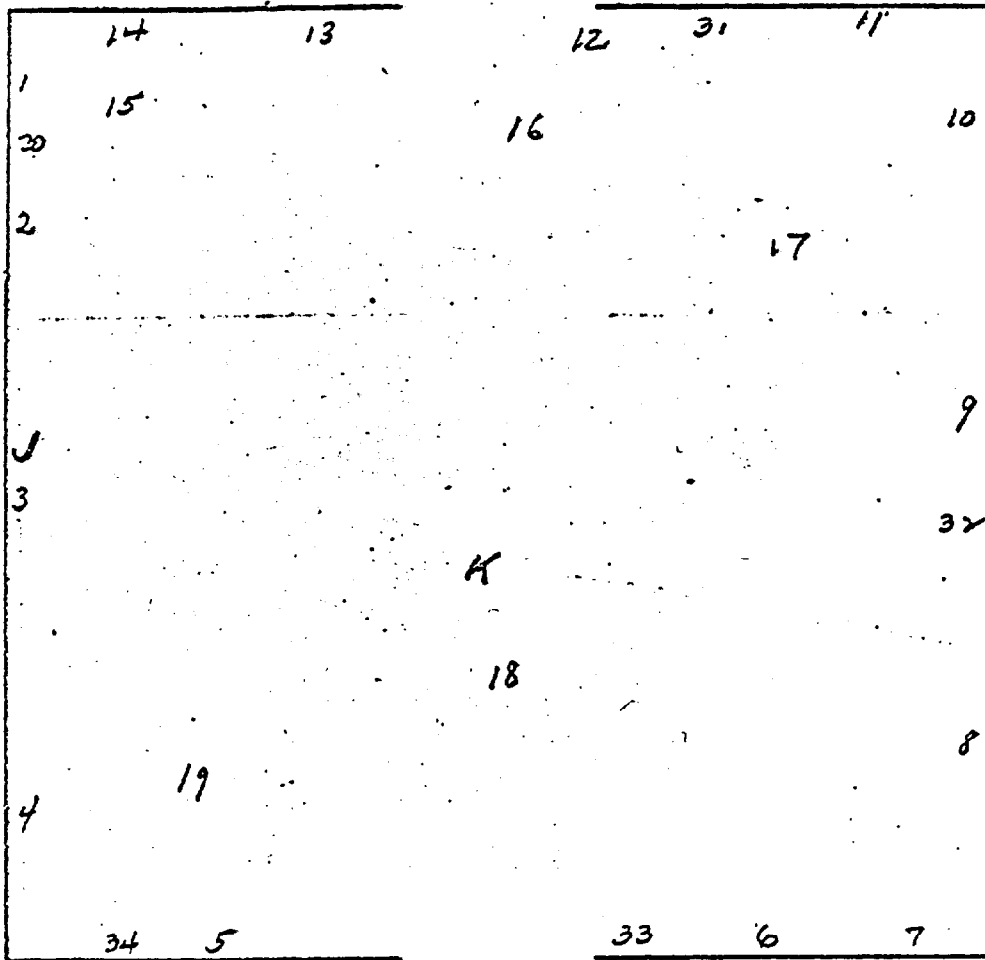
2nd Floor



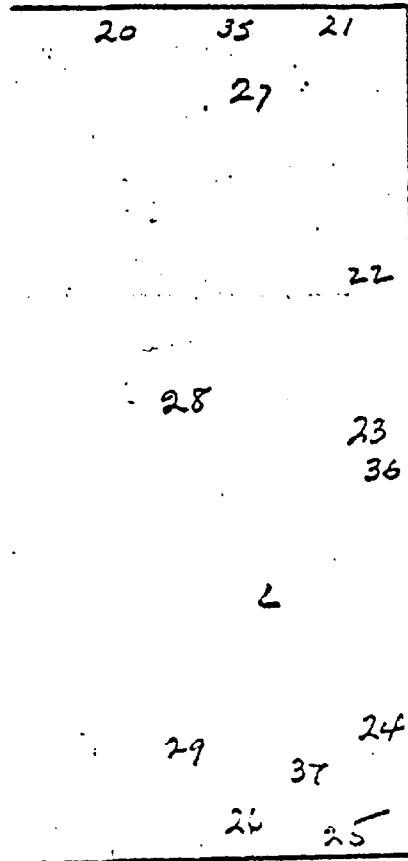
APPROX. SCALE
3" = 50'
11-22-65 J. Alrutz

BLDG 24

SURVEY BY
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1-10-69



LOWER
LEVEL



UPPER
LEVEL

1-10-69

TRACERLAB SMEARS

- BLDG 21 A. WALL
- " B. COLUMN
- " C. WALL
- " D. WALL SCRAPING
- " E. FLOOR
- " F. WALL
- " G. FLOOR
- " H. FLOOR
- " I. FLOOR
- BLDG 24 J. SILL
- " K. FLOOR
- " L. FLOOR
- BLDG 23 M. COLUMN
- " N. WALL
- " O. WALL
- " P. BEAM
- " Q. FLOOR BEFORE VACUATING

19-64 Bldg. Maywood

0.45 x 62 cm² 100
Sheet No. 1

TRON No	LOCATION	INSTRUMENT COUNTS/MIN OR MIN-MAX	ACTUAL DISIN./MIN OR PER 100/cm ²	BY AVERAGE
1	Floor	150-250	$7.2 \times 10^2 - 9.0 \times 10^2$	0
2	Sill	40-50	$1.6 - 1.8 \times 10^2$	0.2
3	Floor	100-150	$4.5 - 5.4 \times 10^2$	0
4	"	400-600	$1.8 - 2.2 \times 10^3$	0.6
5	"	1500-2000	$6.3 - 7.2 \times 10^3$	0.6
6	Floor	300-400	$1.3 - 1.4 \times 10^3$	
7	Floor	800-1000	$2.9 - 3.6 \times 10^3$	0.7
8	"	200-250	$8.1 - 9.0 \times 10^2$	0.5
9	Wall	1750-2000	$6.7 - 7.2 \times 10^3$	
10	Floor	650-700	$2.4 - 2.5 \times 10^3$	1.2
11	Sill	550-600	$2.1 - 2.2 \times 10^3$	0.9
12	Floor	900-1100	$3.6 - 4.0 \times 10^3$	0.12
13	Floor	800-900	$3.1 - 3.2 \times 10^3$	0.15
14	Floor	700-900	$2.9 - 3.2 \times 10^3$	(2.4)
15	Wall	1750-2000	$6.7 - 7.2 \times 10^3$	1.4
16	Floor	400-450	$1.5 - 1.6 \times 10^3$	1.8
17	Wall	250-300	$1.0 - 1.1 \times 10^3$	1.2
18	Floor	350-500	$1.5 - 1.8 \times 10^3$	0.3
19	Wall	0-50	$9.0 \times 10^1 - 1.8 \times 10^2$	0
20	Floor	475-525	$1.8 - 1.9 \times 10^3$	0.5
21	Wall	0-50	$9.0 \times 10^1 - 1.8 \times 10^2$	0.2
22	Wall	25-50	$1.3 - 1.8 \times 10^2$	0.8
23	Floor	0-25	45-90	0.6
24	"	0-20	36-72	0.5
25	Wall	0-20	36-72	0.5

α readings in min-max.
d dpm/100 cm² in av-max.

Position	Location	α counts/min	dis/min / 100 μ g ore	β γ count
26	Pile	0	0	0
27	Floor	125-175	$5.4-6.3 \times 10^2$	0.8
28	Wall	25-50	$1.3-1.8 \times 10^2$	0.8
29	Floor	0-25	45-90	0
30	Floor	150-200	$6.3-7.2 \times 10^2$	1.2
31	Wall	300-350	$1.2-1.3 \times 10^3$	0.7
32	Wall	800-1000	$2.9-3.6 \times 10^3$	0.7
33	Wall	200-250	$8.1-9.0 \times 10^2$	0.6
34	"	2000-2500	$8.1-9.0 \times 10^3$	0.8
35	Pile	0-25	45-90	0.2
36	Wall	175-200	$6.6-7.2 \times 10^2$	0.3
37	"	25-50	$7.3-1.8 \times 10^2$	0.2
38	"	0	— 6	0
39	Floor	25-50	$1.3-1.8 \times 10^2$	0.5
40	"	0-25	45-90	0.7
41	"	25-50	$1.3-1.8 \times 10^2$	1.4
42	"	0-25	45-90	0.7
43	"	0-25	45-90	0
44	"	25-50	45-90	0.5
45	Wall	0	—	0
46	"	0	—	0
47	"	0	—	0.3
48	"	220-260	$8.6-9.4 \times 10^2$	0.3
49	"	450-550	$1.8-2.0 \times 10^3$	0.6
50	"	300-400	$1.3-1.4 \times 10^3$	0.8

Position	Location	α Counts/min	α Decay/min 100 μ g/cm	β a.u.
51	2 floor	250-300	$1.0 - 1.1 \times 10^3$	0.7
52	"	350-450	$1.4 - 1.6 \times 10^3$	0.8
53	"	450-550	$1.8 - 2.0 \times 10^3$	0.6
54	Wall	0-25	45-90	0.5
55	"	50-100	$1.8 - 3.6 \times 10^2$	0.6
56	"	0-25	45-90	0.2
57	"	100-200	$5.4 - 7.2 \times 10^2$	0.7
58	"	25-50	$1.3 - 1.8 \times 10^2$	0.3
59	"	25-50	$1.3 - 1.8 \times 10^2$	0.2
60	"	25-50	$1.3 - 1.8 \times 10^2$	0.2
61	"	250-350	$1.1 - 1.3 \times 10^3$	0.4
62	2 floor	250-300	$1.0 - 1.1 \times 10^3$	0.4
63	Wall	25-75	$1.8 - 2.7 \times 10^2$	0
64	"	25-50	$1.3 - 1.8 \times 10^2$	0.2
65	"	25-50	$1.3 - 1.8 \times 10^2$	0.2
66	"	25-50	$1.3 - 1.8 \times 10^2$	0.2
67	"	100-150	$4.5 - 5.4 \times 10^2$	0.2
68	"	350-450	$1.4 - 1.6 \times 10^3$	0.8
69	"	500-650	$2.1 - 2.3 \times 10^3$	3.2
70	"	50-150	$3.6 - 5.4 \times 10^2$	1.2
71	2 floor	2500-3000	$1.0 - 1.1 \times 10^4$	5.6
72	"	25-50	$1.3 - 1.8 \times 10^2$	0.8
73	"	25-50	$1.3 - 1.8 \times 10^2$	0.5
74	"	25-50	$1.3 - 1.8 \times 10^2$	0.6
75	Wall	0-25	45-90	0.3

		2 Conts/ min		
76	Wall	0	0 —	0.2
77	"	0-25	45-90	0.5
78	"	50-100	$2.7-3.6 \times 10^2$	(3.4)
79	Floor	8,000-10,000	$3.2-3.6 \times 10^4$	(10.0)
80	Wall	100-150	$4.5-5.4 \times 10^2$	0.8
81	"	25-50	$1.3-1.8 \times 10^2$	0.5
82	"	50-100	$2.7-3.6 \times 10^2$	6.3
83	"	100-150	$4.5-5.4 \times 10^2$	0.2
84	"	150-250	$7.2-9.0 \times 10^2$	0.3
85	"	100-200	$5.4-7.2 \times 10^2$	0.4
86	Floor	250-350	$1.1-1.3 \times 10^3$	0.8
87	"	200-300	$9.0-11 \times 10^2$	0.8
88	"	400-500	$1.6-1.8 \times 10^3$	1.0
89	"	2000-3000	$9.0-11 \times 10^3$	(10.0)
90	Wall	3000-4000	$1.1-1.4 \times 10^4$	(6.2)
91	"	1500-2000	$6.3-7.2 \times 10^3$	(3.8)
92	"	2500-3000	$1.0-1.1 \times 10^4$	(5.2)
93	"	2500-3500	$1.1-1.3 \times 10^4$	(3.4)
94	Cement Base	300-400	$1.3-1.4 \times 10^3$	(2.8)
95	Wall	150-200	$6.3-7.2 \times 10^2$	(2.4)
96	"	200-300	$9.0-11 \times 10^2$	(2.2)
97	"	100-200	$5.4-7.2 \times 10^2$	(2.8)
98	Floor	500-550	$1.9-2.0 \times 10^3$	(3.0)
99	"	4500-5500	$1.8-2.0 \times 10^4$	(6.5)
100	Wall	650-750	$2.5-2.7 \times 10^3$	(3.6)

Serial	LOCATION	α COUNTS/ MIN	DIS/MIN/ 100 sq cm	BY Aver	POSITION	LOCATION	α COUNTS/ M.	DIS/MIN/ 100 sq cm	BY AVG.
1									
21	Shelf	250-300	1.0-1.1 x 10 ³	3.0	126	Bench	500-700	2.2-2.5 x 10 ³	0.4
22	Wall	250-350	1.0-1.1 x 10 ³	3.0	127	Floor	250-350	1.1-1.3 x 10 ³	0.8
23	"	100-150	4.5-5.4 x 10 ²	3.2	128	Wall	0-50	90-180	0.8
24	Floor	0-50	90-180	4.0	129	Shelf	25-50	1.3-1.8 x 10 ²	0.3
25	Wall	0-50	90-180	4.8	130	Wall	100-150	5.4-7.2 x 10 ²	0.5
26	"	250-350	1.1-1.3 x 10 ³	4.2	131	Floor	400-500	1.6-1.8 x 10 ³	0.7
27	Floor	250-350	1.1-1.3 x 10 ³	3.8	132	Wall	150-250	7.2-9.0 x 10 ²	0.6
28	"	150-200	6.3-7.2 x 10 ²	4.2	133	Shelf	200-250	8.1-9.0 x 10 ²	0.6
29	Stair	300-450	1.3-1.6 x 10 ³	2.2	134	Wall	100-150	5.4-7.2 x 10 ²	0.8
30	"	400-550	1.7-2.0 x 10 ³	1.6	135	Sill	1000-1500	5.4-7.2 x 10 ³	1.0
31	Wall	0-50	90-180	0	136	Hood	50-100	2.7-3.6 x 10 ²	0.8
32	"	150-200	6.3-7.2 x 10 ²	0	137	"	50-100	2.7-3.6 x 10 ²	0.6
33	"	0-50	90-180	0	138	Wall	50-100	2.7-3.6 x 10 ²	0.5
34	Sill	100-200	5.4-7.2 x 10 ²	0.2	139	Sill	50-150	3.6-7.2 x 10 ²	0.6
35	Wall	50-100	2.7-3.6 x 10 ²	0.2	140	Wall	0-50	90-180	0.4
36	Shelf	50-100	2.7-3.6 x 10 ²	0.3	141	"	0-25	4.5-90	0.5
37	Bench	0-25	45-90	0	142	"	25-50	1.3-1.8 x 10 ²	0.6
38	Shelf	0-50	90-180	0.2	143	Wall	100-175	7.2-6.3 x 10 ²	1.2
39	Cabinet	250-350	1.1-1.3 x 10 ³	0.4	144	"	50-100	2.7-3.6 x 10 ²	1.0
40	Floor	800-1000	3.2-3.6 x 10 ³	0.8	145	"	75-150	3.6-5.4 x 10 ²	1.0
41	"	400-500	1.6-1.8 x 10 ³	0.6	146	Sill	400-500	1.6-1.8 x 10 ³	1.0
42	"	750-900	3.0-3.2 x 10 ³	0.7	147	Wall	50-100	2.7-3.6 x 10 ²	0.8
43	Wall	100-150	4.5-5.4 x 10 ²	0.5	148	Closet	0-50	90-180	3.2
44	Sill	200-250	8.1-9.0 x 10 ²	0.4	149	Wall	50-100	2.7-3.6 x 10 ²	0.3
45	Table	350-450	1.4-1.6 x 10 ³	0.8	150	Floor	600-750	2.4-2.7 x 10 ³	0.4

NO. 100	SECTION	UNITS/ MIN	100 ft ³ cm	Time	SECTION	SECTION	CON. S/ MIN	disin/min/ 100 ft ³ cm	BV AVGR.
1151	Floor	1500-2500	6.3-7.2 x 10 ³	1.0	176	Wall	50-100	2.7-3.6 x 10 ²	0.2
152	"	500-600	2.0-2.2 x 10 ³	0.6	177	"	50-100	2.7-3.6 x 10 ²	0.4
153	"	1500-2000	6.3-7.2 x 10 ³	0.3	178	"	50-100	2.7-3.6 x 10 ²	0.6
154	"	3000-4000	1.3-1.4 x 10 ⁴	0.4	179	Sill	300-400	1.3-1.4 x 10 ³	0.8
155	"	650-1000	3.0-3.6 x 10 ³	0.4	180	Floor	2500-3000	1.0-1.1 x 10 ⁴	1.2
156	"	450-550	1.8-2.0 x 10 ³	0.8	181	"	450-600	1.9-2.2 x 10 ³	0.5
157	"	750-900	3.0-3.4 x 10 ³	1.0	182	"	300-400	1.3-1.4 x 10 ³	0.5
158	"	850-1000	3.3-3.6 x 10 ³	0.8	183	Shelf	2500-3500	1.1-1.3 x 10 ⁴	0.3
159	"	2500-3000	1.0-1.1 x 10 ⁴	0.8	184	Floor	200-300	9.0-11 x 10 ²	0.4
160	"	6000-7500	2.4-2.7 x 10 ⁴	(3.5)					
161	"	800-1000	3.2-3.6 x 10 ³	1.2					
162	"	900-1500	4.3-5.4 x 10 ³	1.0					
163	Sill	400-500	1.6-1.8 x 10 ³	0.5					
164	Wall	50-125	2.7-4.5 x 10 ²	0.2					
65	"	50-150	3.6-5.4 x 10 ²	0.5					
66	Floor	1500-2000	6.3-7.2 x 10 ³	1.8					
67	Wall	100-150	4.5-5.4 x 10 ²	0.3					
68	Shed	500-600	2.0-2.2 x 10 ³	0.5					
69	"	500-650	2.0-2.3 x 10 ³	0.7					
70	Sill	50-100	2.7-3.6 x 10 ²	0.2					
71	Wall	50-100	2.7-3.6 x 10 ²	0.4					
72	Bench	1500-2000	6.3-7.2 x 10 ³	0.8					
73	Floor	700-850	2.8-3.0 x 10 ³	0.7					
74	Wall	50-100	2.7-3.6 x 10 ²	0					
75	Sill	150-200	6.3-7.2 x 10 ²	0.2					

SWA 2 100
5x10³ 25x10³

125 5400 - 2200

151

153

154

159

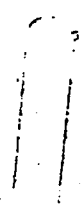
160

166

172

180

183



181

Count #	LOCATION	Counts MIN-MAX	Dis/Min/ 100 sq cm	BY AV.
1	Sill	1500-2000		1.3
2	Wall	50-100		1.0
3	Sill	1500-2000		1.2
4	Wall	50-100		1.4
5	Sill	2500-3000		2.0
6	Wall	150-200		1.6
7	Sill	4000-5000		1.6
8	Wall	100-150		1.2
9	Stud	500-600		0.8
10	Sill	2500-3000		1.0
	Wall	200-300		0.8
	Sill	2500-3000		1.6
	Wall	0-50		0.7
	Sill	3000-4000		1.2
	Floor	2000-2500		1.2
	"	3000-3500		1.6
	"	3000-3500		1.0
	"	2000-2500		2.2
	"	2500-3000		1.4
	Sill	2000-2500		0.5
	Wall	100-150		0.4
	Sill	600-750		0.7
	Wall	0-50		0.8
	Sill	1000-1500		1.6
	Wall	50-100		1.4

Count #

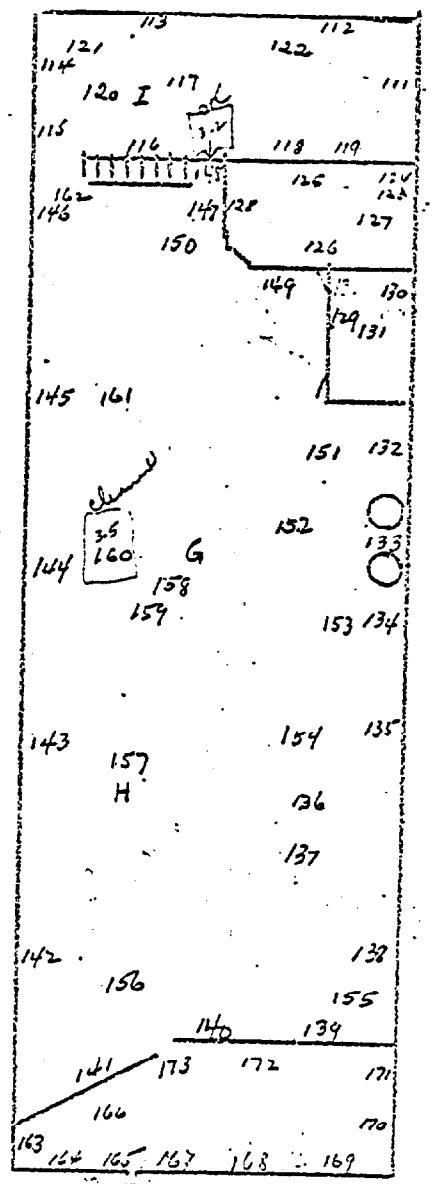
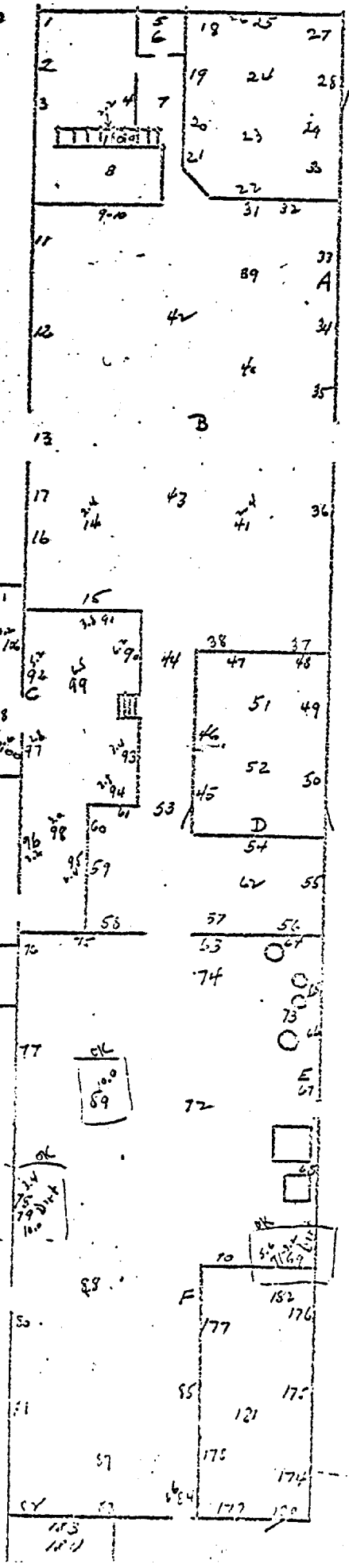
Count #	LOCATION	Counts MIN-MAX	Dis/Min/ 100 sq cm	BY AV.
26	Beam	2500-3000		1.5
27	Floor	1000-1500		1.8
28	"	1500-2000		1.5
29	"	1000-1500		1.4
30	Sill TOP	2000-2500		
	Sill BOT	150-200		
31	"	2000-2500		
	"	50-100		
32	"	2500-3000		
	"	50-100		
33	"	4000-5000		
	"	0-50		
34	"	2000-2500		
	"	250-300		
35	"	3000-3500		
	"	200-250		
36	"	650-750		
	"	50-100		
37	"	1500-2000		
	"	0-50		

LOCATION	\bar{x} COUNTS MIN-MAX	\bar{x} DIS/MIN/ 100 sq cm	BY AV.	Count. #	LOCATION	COUNTS MIN-MAX	\bar{x} DIS/MIN/ 100 sq cm	BY AV.
Wall	800-1000		0.2	26	Floor	3000-3500		2.2
floor	300-400		0.3	27	"	2000-2500		0.8
Wall	900-1000		0.3	28	"	100-150		0.5
"	2500-3000		0.4	29	"	800-900		0.9
floor	1500-2000		0.4	30	"	2000-2500		1.3
Wall	400-500		0.4	31	"	900-1000		0.6
"	100-200		0.4	32	"	350-400		0.8
"	550-650		0.6	33	"	300-400		0.6
"	200-250		0.6	34	"	450-550		1.6
"	150-200		0.4	35	Column	0-50		0.3
"	100-150		0.8	36	Beam	200-250		0.4
"	50-100		0.6					
"	200-250		1.1					
"	50-100		1.0					
"	200-300		0.8					
"	150-250		0.5					
"	800-1000		0.4					
"	2500-3000		0.6					
Floor	3000-4000		1.2					
"	1500-2000		1.0					
"	3000-4000		1.8					
"	3000-4000		1.9					
"	2500-3000		2.0					
"	1500-2000		0.6					
"	2000-2500		0.7					20

1ST FLOOR

2ND FLOOR

SURVEY BY
TRACERLAB
1-9-64



APPROX. SCALE
5" = 50'
11-22-63 SAIRUTG

