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NAVAL NUCLEAR PROPULSION PROGRAM (NNPP) RADIOLOGICAL FINAL REPORT FOR DECOMMISSIONING VOLUME II SECTION A CNC CHARLESTON SC

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RADIOLOGICAL ENGINEERING DIVISION

NAVAL NUCLEAR PROPULSION PROGRAM (NNPP) RADIOLOGICAL FINAL REPORT FOR THE DECOMMISSIONING OF CHARLESTON NAVAL SHIPYARD

(VOLUME II)
SECTION A

Prepared by
Radiological Engineering Division
Charleston Naval Shipyard
Charleston, South Carolina

April 1, 1996

NAVAL NUCLEAR PROPULSION PROGRAM (NNPP)

RADIOLOGICAL FINAL REPORT

FOR THE DECOMMISSIONING OF

CHARLESTON NAVAL SHIPYARD

(VOLUME II)

SECTION A

Prepared by
Radiological Engineering Division
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TABLE OF CONTENTS

SECTION	TITLE	PAGE
A.	**Repair Facility 79/79A**	
1.	Overall Report	1
	Introduction	
	Use	
	Radiological History	
	Items Removed	
	Survey Requirements	
	Areas Remediated	
2.	Building 79, Groups 1 & 2	8
	Central Bay Area and Offices	
	Clean Room	
	Machine Shop Center Offices	
	Machine Shop North Offices	
3.	Building 79, Groups 3 & 6	47
	Old Radioactive Waste Storage Area	
	Source Storage Areas	
	Machine Shop	
4.	Building 79, Groups 4 & 6	86
	Anti-Contamination Clothing Laundry	
5.	Building 79A, Transition Group 2	92
	Mezzanine Stairs	
	RC Mock-up	
	Temporary Services Shop Office	
	Restroom	
	Vault	
6.	Building 79A, Transition Group 3	112
	Control Point	
	Locker Room	
	Mezzanine	
7.	Building 79A, Transition Groups 4 & 6	130
	Control Point Approach and Frisk Area	
	Decontamination Shower	
	Instrument Storage Room	
	Radiological Control Office	
8.	Building 79A, Groups 3 & 4	147
	Low Bay	
	High Bay	
	Refueling Training Cell Pit	
	North Bay East General Area	
	Shredder Room	
9.	Building 79A, Group 5	241
	Decontamination Room	
	Waste Packer Room	
	Contaminated Work Room	

TABLE OF CONTENTS

SECTION	TITLE	PAGE
A.	**Repair Facility 79/79A (cont'd)**	
	10. Building 79A, Adjacent Areas Groups 2 & 3	275
	20' Perimeter	
	Fenced Area	
	High Rad Fort	
	11. Building 79A, Trenches	327
	Interior RLW Trenches	
	RLW Discharge Line Core Sample Trench	
	Anticontamination Laundry Trenches	
	Outside RLW Trenches	

TABLE OF CONTENTS

SECTION	TITLE	PAGE
B.	**Repair Facility Building 222**	
1.	Overall Report	1
	Introduction	
	Use	
	Radiological History	
	Items Removed	
	Survey Requirements	
2.	Third Floor - Groups 1 & 2	8
	Third Floor	
	Third Floor Office Area 1	
	Third Floor Office Area 2	
	Third Floor Office Area 3	
3.	Second Floor - Groups 1 & 2	20
	Room 203/204, Tool Room	
	Room 205	
	Room 206, RadCon Refueling Office	
	Room 207	
	Corridor 212	
	Room 217	
4.	Second Floor - Groups 3 & 6	47
	Room 201, Control Point	
	Room 202, Locker Room	
	Room 211, RadCon Office	
	Room 213, Mechanical Room	
5.	Second Floor - Group 4	75
	Room 201, Frisk Area and Approach	
	Room 215	
	Room 219/220, Decontamination Shower	
6.	First Floor - Group 3	94
	Dry Dock #1 and #2 Access Tunnels	
7.	First Floor - Group 4	124
	Room 101	
	Room 102	
	Room 103	
	Room 104	
	Room 106	
	Room 111, Corridors and Storage	
	Room 112, North End	
	Room 115	
	Room 116	
	Room 118, Staging and Storage	
	HVAC Duct Shaft	
	First to Second Floor Stairwell	

TABLE OF CONTENTS

SECTION	TITLE	PAGE
B.	**Repair Facility Building 222 (cont'd)**	
8.	First Floor - Group 5	206
	Room 105	
	Room 112, South End	
9.	Basement - Group 2	222
	Fire Exit Stairs	
10.	Basement - Group 4	227
	Room 001, Basement General Area	
	Room 002, Effluent Tank Area	
	Room 006, Waste Packer Annex	
	Room 011, Under Stairs Storage	
	High Rad Fort	
	Basement to First Floor Stairs	
11.	Basement - Group 5	280
	Room 004, Decontamination Room	
	Room 005, Waste Packer	
	Elevator Shaft	
12.	Miscellaneous Area - Group 2	296
	20' Perimeter Area	
13.	Miscellaneous Areas - Group 3 & RLW Pipe Trench	308
	Tank House Fenced Area	
	Rool Up Door Area	
	Fenced Area (RLW Piping Trench)	
14.	Miscellaneous Areas - Group 4	335
	Refueling Slab	

TABLE OF CONTENTS

SECTION	TITLE	
C.	**Building 13/13A**	
1.	Overall Report	1
	Introduction	
	Use	
	Radiological History	
	Survey Requirements	
2.	Building 13 Groups 1 and 2	1
	20' Perimeter	
3.	Building 13 Group 3	24
	Non-Destructive Test Area	
	Radiography Room 1	
	Radiography Room 2	
	Radiography Room 5	
	Microscope Room	
	Room 119	
4.	Building 13A Groups 1 and 2	62
	Third Floor	
	Polographic Room	
	Third Floor Annex, General Area	
5.	Building 13A Group 3	68
	Present X-Ray Room	
	Counting Room	
	Water Room	
	First Floor Annex	
6.	Building 13A Radiochemistry Laboratory, Third Floor Annex	89
7.	Building 13A Radiochemistry Laboratory Mezzanine, Third Floor Annex	99
D.	**Buildings 101 and 1426**	
1.	Overall Report	1
	Introduction	
	Use	
	Radiological History	
	Survey Requirements	
2.	Building 101, Center Area	4
3.	Building 101, Covered Storage Area	11
4.	Building 101, East End	27
5.	Building 101, Fenced Area & 20' Perimeter	43
6.	Building 101, North Storage Room	58
7.	Building 101, South Storage Room	66
8.	Building 101, West End	71
9.	Building 1426	76

TABLE OF CONTENTS

SECTION TITLE

E. Portable Facilities
1. Group 3 Areas
   - 1.1 Controlled Storage Enclosure #1
   - 1.2 Controlled Storage Enclosure #2
   - 1.3 Internal Monitoring Trailers
   - 1.4 Change House/Frisk Enclosures
   - 1.5 Dry Dock Platforms
2. Group 5 Areas
   - 2.1 New Fuel Enclosure/Inspection and Assembly Fixture Enclosure (NFE/IAF) and Associated Ventilation Skid

F. Dry Docks
1. Dry Dock 1
2. Dry Dock 2
3. Dry Dock 3
4. Dry Dock 4
5. Dry Dock 5
6. ARDM-3
7. ARDM-3, Interior Spaces
8. Dry Dock Keel Blocks

G. Pier and Berths
1. Pier A
2. Pier C
3. Pier D
4. Pier F
5. Pier G
6. Pier H
7. Pier J
8. Wharf F

H. Radiological Transfer Routes

I. Environmental Report

TABLE OF CONTENTS

SECTION TITLE

J. Buildings with Known Radiological History

1. Group 2 Areas
   - 2.1 Building 11, Southwest End
   - 2.2 Building 80, Southeast End
   - 2.3 Building 1024, Southeast Corner
   - 2.4 Building 1171, East End
   - 2.5 Building 1173, Southeast End
   - 2.6 Building 1174, Storage Area
3. Group 3 Areas
   - 3.1 Building 3, Gage Calibration
   - 3.2 Building 3, Lathe Area
   - 3.3 Building 3, Supermill Area
   - 3.4 Building 9, Foundry
   - 3.5 Building 35
   - 3.6 Building 44, Plating Facility
   - 3.7 Building 58
   - 3.8 Building 59/59A, Shield Block Storage Area
   - 3.9 Building 59, Fenced Area and Connex Boxes
   - 3.10 Building 62
   - 3.11 Building 69
   - 3.12 Building 95
   - 3.13 Building 96
   - 3.14 Building 177, Contaminated Work Room
   - 3.15 Building 177, Electronics Shop and Cage
   - 3.16 Building 177, Vent Fan Work Area
   - 3.17 Building 190
   - 3.18 Building 217
   - 3.19 Building 218
   - 3.20 Building 239
   - 3.21 Building 241
   - 3.22 Building 246, Mixed Waste Storage bay
   - 3.23 Building 590A, Instrument Storage Room
   - 3.24 Building 1267
   - 3.25 Building 1317
   - 3.26 Building 1746
   - 3.27 Building 380-207
   - 3.28 Cofferdam Laydown Area
   - 3.29 Dry Dock 4 Spent Fuel Storage Area
   - 3.30 Dry Dock 5 S5G Refueling Foundations
   - 3.31 Dry Dock 5 Miscellaneous Ram Storage Areas
   - 3.32 S6G Refueling Facility Foundations
   - 3.33 Parking Lot E-5
   - 3.34 Pier F-G RAM Storage Area
   - 3.35 Pier G-H RAM Storage Area

TABLE OF CONTENTS

SECTION TITLE

J. **Buildings with Known Radiological History (cont'd)**
3. Group 3 Areas Cont'd
3.36 Pier J-K RAm Storage Area
3.37 Rail Line RAM Storage Areas
3.38 YFN-1205 Barge
3.39 Dry Dock 5 Quay Wall RAM Storage Area
4. Group 4 Areas
4.1 Building 3, Radiological Work Area
4.2 Building 1760
4.3 Dry Dock 5 S5W Refueling Foundations
4.4 Dockside Training Support Enclosure (DSTE)

1.0 Building 79/79A

(a) Introduction:

Building 79/79A was divided into five individual areas. These areas are Bldg. 79, Bldg. 79A Transition Areas, Bldg. 79A Bay Areas, Bldg. 79A Miscellaneous Areas, and Bldg. 79A Trenches. Buildings 79 and 79A are located in grid D-8 of the Charleston Naval Shipyard map (Figure 10). Bldg. 79 is approximately 550' long by 125' wide. Bldg. 79A has two parts with the first being 40' by 60' two-story office spaces and change area. The second is a radiological facility approximately 115' by 120'. Miscellaneous areas consist of two fenced areas. The first, outside and north of the North Bay, is approximately 125' by 125'. The second, outside and west of the High and Low Bays, is approximately 250' by 150'.

(b) Use:

Portions of Bldg. 79 were used for laundering anticontamination clothing and for storage of radioactive material (RAM), waste, and sources until the completion of Bldg. 79A. Building 79A Radiological Refueling and Repair Facility began initial operations in 1966 to support overhaul and refueling of nuclear powered ships. Work in this facility included reactor plant equipment refurbishment, refueling training, refueling equipment repair, radioactive liquid processing, waste packing, portable radioactive liquid waste (RLW) tank maintenance and decontamination, and decontamination of reactor plant components. From 1966 to 1983 the three bay areas, High, Low, and North, were controlled surface contamination areas (CSCAs). Since 1983 the bay areas were controlled as radiologically controlled areas (RCAs).

(c) Radiological History:

Building 79 Bay Area and Offices
Radioactive material was regularly transferred through the south end of the central bay. Contamination levels were maintained less than 450 μμCi/100cm^2. No history of spills or spread of contamination was recorded.

Machine Shop Offices, *North and Center*
Although no office area has ever been established as a radiological work area or radioactive storage area, occasionally material with loose surface contamination of several thousand μμCi/100 cm^2 has been found. There was no spread of contamination to the surfaces of the building as a result of these occurrences. Contamination levels were maintained less than 450 μμCi/100 cm^2.

Clean Room
Contamination levels were maintained less than 450 μμCi/100cm^2. On several occasions radioactive material was found in this area with loose surface contamination levels of several thousand μμCi/100cm^2. However, no radioactivity was found on the surfaces of this area. A potentially contaminated drain line ran from this area to the Anticontamination Clothing Laundry Area

1.0 Building 79/79A

drains which were removed and disposed of as radioactive material in the mid 1970's.

Shop 99 Office
Contamination levels were maintained less than 450 μμCi/100cm^2. No history of spills or spread of contamination was recorded.

Vault
Contamination levels were maintained less than 450 μμCi/100cm^2. No history of spills or spread of contamination was recorded.

Restroom
Contamination levels were maintained less than 450 μμCi/100cm^2. No history of spills or spread of contamination was recorded.

RC Mock Up
Occasionally mock up training would require the use of radioactive equipment or components. No history of spills or spread of contamination was recorded. Contamination levels were maintained less than 450 μμCi/100cm^2.

Old Waste Storage Area
When this area was used as a radioactive material storage area, the area was controlled as a radiation area. Materials with contamination levels greater than 1 X 10^6 μμCi/100cm^2 inside the packaging were stored here. The radioactive material storage area was disestablished and all material moved to Building 101 when the modifications were made during the construction of Building 79A. While the area was in use as an instrument storage area, sources including the isotopes Th-232, and Tc-99 were stored here. After the instruments were removed from the area in 1973, a release survey was completed. Although the tool storage area was never controlled as a radioactive work area or radioactive material storage area, radioactive material has been found in this area with loose surface contamination of several thousand μμCi/frisk. There was no history of a spread of radioactivity to the surfaces of the building from these occurrences. Occasionally radioactive components requiring special machining would be repaired in the machine shop area. There was no history of a spread of radioactivity to the surfaces of the building from this work. Contamination levels were always maintained less than 450 μμCi/100cm^2.

Building 79 Source Storage Area
This area was used as an instrument and source storage area. The sources used include radium wands, Th-232, Tc-99, Co-60, Cs-137, and Kr-85 for source checking radiac instruments. There is no history of loose radioactivity in this area. Contamination levels were maintained less than 450 μμCi/100cm^2.

Machine Shop
When machining or working contaminated or radioactive components the immediate vicinity was set up as a CSCA. The machined surfaces were not radioactive. Contamination levels were maintained less than 450 μμCi/100 cm^2

during this work. No spread of contamination was ever found in this area.

Locker Room
Anticontamination clothing with fixed contamination levels of tens of thousands of μμCi/frisk, and loose contamination levels of several thousand μμCi/100 cm^2 have been found periodically in the anticontamination clothing storage bins. No spread of contamination to the surfaces of this room were found during these occurrences. No other spills or spread of contamination were recorded. Contamination levels were maintained less than 450 μμCi/100cm^2.

Mezzanine
The area was controlled as a CSCA during filter change out and servicing. The area was also controlled as a high airborne contamination area during filter change out. No airborne contamination above the limits was ever identified. Contamination levels were maintained less than 450 μμCi/100cm^2. No history of spills or spread of contamination was recorded.

Control Point Area
Occasionally packaged radioactive material was transferred into the building through this area. No history of spills or spread of contamination was recorded. Contamination levels were maintained less than 450 μμCi/100cm^2.

Outside High Rad Fort
This area has been controlled as a high radiation area. Spills of radioactive liquid have occurred in this area causing a spread of contamination to the asphalt of several thousand μμCi/100cm^2. These spills were decontaminated to less than 450 μμCi/100cm^2. Contamination levels were maintained less than 450 μμCi/100 cm^2 in this area.

Building 79A Fenced Area
This area was controlled as a radiation area and radioactive material storage area. Localized CSCAs have been established in this area for performing radiological work. There were several instances of a spread of contamination associated with decontaminating portable RLW tanks. Levels of several thousand μμCi/100cm^2 were found outside the enclosure. Several spills of radioactive liquid have caused a spread of contamination to the ground of several thousand μμCi/100 cm^2 in this area. All spill areas were decontaminated. Contamination levels were maintained less than 450 μμCi/100cm^2.

Anticontamination Clothing Laundry Area
This area was controlled as a CSCA until approximately 1966. Contamination levels of hundreds of thousands of μμCi were present on anticontamination clothing prior to laundering. The area was decontaminated, all radioactive material was removed, and the areas disestablished from radiological controls when the laundry facilities were moved. The area was then used as an instrument and source storage area. The sources stored in this location include radium wands, Th-232, Tc-99, Co-60, Cs-137, and Kr-85 instrument test

sources. The area has been uncontrolled since the instruments and sources were removed. There has been no history of contamination in this area since the laundry was dismantled.

Radiological Control Office
This area was controlled as a CSCA until it was converted into office space. The area was surveyed and all loose and fixed radioactivity was removed prior to disestablishment of the CSCA. This area had a history of radioactive liquid spills of up to several thousand μμCi/100cm^2 while used as a sample counting area. All areas were decontaminated to less than 450 μμCi/100cm^2. Contamination levels were maintained less than 450 μμCi/100cm^2.

Instrument Storage Room
This area had a history of radioactive liquid spills of up to several thousand μμCi/100cm^2 while used as a sample counting area. The area was controlled as a CSCA while it was part of the sample counting room. When it was converted into office space, the area was surveyed and all loose and fixed radioactivity was removed. While in use as an instrument storage area, sources including Th-232 and Tc-99 were stored here. In 1990 alpha contamination was found on the surface of one of the alpha survey instruments stored here. It was determined that the source of the contamination was the Th-232 test source on the side of the instrument. The instrument was decontaminated and turned in for repair. There was no spread of contamination to the surfaces of this room from this occurrence. Contamination levels were maintained less than 450 μμCi/100cm^2.

Control Point Approach and Frisk Area
This area is the controlled side of the boundary between the controlled areas of the building and the uncontrolled areas of the building. The controlled side of the area was established as a CSCA until 1983, and as an RCA thereafter. Material with loose surface contamination levels of hundreds of thousands of μμCi/100cm^2 have been identified in this area. There has been spreads of contamination to the surfaces of this area involving levels of several thousand μμCi/100cm^2. All areas were decontaminated to less than 450 μμCi/100cm^2. Contamination levels were maintained less than 450 μμCi/100cm^2.

Decontamination Shower
The area was controlled as a CSCA until 1983, and as an RCA thereafter. Personnel with skin contamination levels up to several mr/hr have been decontaminated in this area. Contamination levels were maintained less than 450 μμCi/100cm^2.

High Bay
This area was controlled as a CSCA until 1983, and as an RCA thereafter. Contamination levels were maintained less than 450 μμCi/100cm^2 in the general area. There have been spills of radioactive liquid and high airborne contamination in this area causing a spread of loose surface contamination involving levels of several hundred thousand μμCi/100cm^2 to the surfaces of the

area. Refueling training performed on high platforms and storage of contaminated refueling equipment resulted in a spread of loose surface contamination involving levels of tens of thousands of μμCi/100cm^2 to surfaces of the south wall. All contamination found was removed. Contamination levels were maintained less than 450 μμCi/100 cm^2 in the general area.

Low Bay
This area was controlled as a CSCA until 1983, and as an RCA thereafter. Spills of radioactive liquid and spread of contamination to levels of several hundred thousand μμCi/100cm^2 have occurred in this area. All contamination found was removed. Contamination levels were maintained less than 450 μμCi/100cm^2 in the general area.

Low Bay & High Bay Cranes
Low and High Bay cranes were used as platforms for the same use as the mezzanine.

Shredder
This area has been controlled as a radiological control area since it was built. Contamination levels were maintained less than 450 μμCi/100cm^2. There has been no history of contamination in this area.

High Rad Fort
This area was controlled as a CSCA until 1983, and as an RCA since then. Occasionally material with loose surface contamination of several thousand μμCi/100cm^2 was found in this area. Contamination levels of several thousand μμCi/100cm^2 have been found on the surfaces of this area. All areas were decontaminated to less than 450 μμCi/100cm^2. Contamination levels were maintained less than 450 μμCi/100cm^2.

North Bay East
This area was controlled as a CSCA until 1983, and as an RCA thereafter. Spills of radioactive liquid and resin have caused a spread of contamination of several hundred thousand μμCi/100cm^2 to the floor of this area. All contamination found was removed. Contamination levels were maintained less than 450 μμCi/100cm^2 in the general area.

North Bay West
This area was controlled as a CSCA until 1983, and as an RCA thereafter. Several large spills and sprays of radioactive liquid occurred in this area and resulted in contamination levels in the tens of thousands of μμCi/100cm^2 to be spread to the walls and floor. All radioactivity found was decontaminated to less than 450 μμCi/100cm^2. Airborne contamination above the control limits have originated from RLW tank openings during maintenance operations in this area. Contamination levels were maintained less than 450 μμCi/100cm^2 in the general area.

1.0 Building 79/79A

Waste Packer
The waste packing room has always been controlled as a CSCA. The room was used to perform work involving high levels of contamination. The area has routinely been controlled as a high airborne area and airborne contamination has occurred in the area. Spills of radioactive liquid and spread of contamination to levels of several hundred thousand μμCi/100cm^2 to the floor has occurred in this area. All loose surface contamination found was decontaminated to less than 450 μμCi/100cm^2. Contamination levels were maintained less than 450 μμCi/100cm^2 in the general area.

Decontamination Room
This area has always been controlled as a CSCA. Work involving high levels of contamination has been performed in this area. Swipes taken during this work have read in the hundreds of mr/hr. The area has routinely been controlled as a high airborne area and airborne contamination above the control limits has occurred in this area. Swipes taken from spills of radioactive liquid on the floor and walls have read in the tens of mr/hr. The walls and ceiling had fixed contamination resulting from spills and airborne activity. During the 1960s, due to the high levels of contamination on items worked in this area, contamination levels were maintained less than 5000 μμCi/100cm^2. Since the 1970s, contamination levels were maintained less than 450 μμCi/100cm^2 in the general area.

Contaminated Work Room
This area has always been controlled as a CSCA. The area has routinely been controlled as a high airborne area. Spread of contamination to levels of several hundred thousand μμCi/100cm^2 on the floor, and high airborne radioactivity have occurred in this area. Occasionally, spills of radioactive liquid from the radioactive piping stored on the roof caused loose surface contamination levels of several thousand μμCi/100cm^2 to spread to the roof. Contamination levels were maintained less than 450 μμCi/100cm^2 in the general area.

Building 79 Radioactive Liquid Waste Trench
Radioactive work done on the piping in the trench was performed in a glovebag. There is no history of a spread of contamination resulting from this work and no history of failure of the piping. Contamination levels were less than 450 μμCi/100cm^2.

Building 79A Inside Radioactive Liquid Waste Trenches
There is no history of failure of the piping.

Building 79A Outside Radioactive Liquid Waste Trench
Radioactive work done on the piping in the trench was performed in a glovebag. There is no history of a spread of contamination resulting from this work and no history of any failure of the piping. Contamination levels were less than 450 μμCi/100cm^2.

1.0 Building 79/79A

Building 79A Radioactive Liquid Waste Discharge Line Trench
Localized CSCAs were established in the trench to remove the piping. There is no history of a spread of contamination resulting from this work and no history of any failure of the piping. The maximum concentration of radioactivity in the liquid discharged through this piping was 3 X 10^{-5} µCi/ml through 1970, and 1 X 10^{-6} µCi/ml from 1970 to 1972 when the last discharge was made. Extensive surveys and solid material sampling was performed in the trench after the removal of the piping during the mid 1970's. These surveys were equivalent to those required by the Radioactive Liquid Piping Trench Survey.

(d) **Items Removed:**

Rooms, doors, concrete floor, floor covering, walls, ventilation systems, radioactive systems, piping, metal partitions, and expanded metal fencing.

(e) **Survey Requirements:**

1. Bldg. 79 - Groups 1 & 2
2. Bldg. 79 - Groups 3 & 6
3. Bldg. 79 - Groups 4 & 6
4. Bldg. 79A Transition Area - Group 2
5. Bldg. 79A Transition Area - Group 3
6. Bldg. 79A Transition Area - Groups 4 & 6
7. Bldg. 79A High and Low Bay - Group 4
8. Bldg. 79A High and Low Bay - Group 5
9. Bldg. 79A North Bay West - Group 5
10. Bldg. 79A North Bay East - Group 4
11. Bldg. 79A North Bay East - Group 5
12. Bldg. 79A Miscellaneous Areas - Group 3
13. Bldg. 79A Trenches - trench survey

(f) **Areas Remediated:**

1. High Bay
2. Outside Fenced area
3. North Bay West
4. North Bay East
5. Waste Packer
6. Contaminated Work Room
7. Low Bay Crane
8. Decontamination Room
9. Radiological Control Office
10. Machine Shop Office
11. Low Bay Mezzanine

2. Bldg. 79, Group 1 and 2 Areas

a. Report:

(1) Description:

The Building 79 Group 1 areas consist of the Central Bay Area and adjoining Office Spaces. The Group 2 areas consist of the Machine Shop Offices, North and Center, and the Clean Room. The construction material present in these areas is concrete.

(2) Discussion:

Group 1 surveys were performed in these areas in accordance with localized survey instructions. Surveys using the IM-253/PD (HV-1 PHA and HV-2 GROSS) were performed in selected locations within these areas. Any significant indications above background were thoroughly investigated by performing additional surveys with the IM-247/PD and if necessary in some cases removing solid material samples from the suspect area.

Group 2 survey areas were divided into 112 10' by 10' grids where possible. Each of these grids were subdivided into two 3' by 3' subsections. These subsections were located in the area of highest potential for contamination. Each grid had its own unique designator.

One subsection per grid received a survey with the IM-247/PD and the other subsection of each grid received a survey with the IM-253/PD (HV-1 PHA). There were seven areas in the Machine Shop Center Office with survey indications greater than twice background, therefore, an IM-253/PD (HV-2 GROSS) survey was also performed. Additionally, solid material samples were taken from these seven grids.

A total of seven solid material samples were taken from the Machine Shop Center Office. Each solid material sample was removed from the grid location indicating the highest potential. The following typical naturally occurring radionuclides were identified during isotopic analysis of solid material samples: lead 212, lead 214, and potassium 40.

The construction material present in the Building 79 Machine Shop North and Center Office and Clean Room area floor was concrete. For the floor of the Machine Shop North Office an IM-247/PD and an IM-253/PD (HV-1 PHA and HV-2 GROSS) background of 40, 250, and 7000 counts per minute were based on radiation levels obtained from Pier X Quaywall. For the floor of the Clean Room an IM-247/PD and an IM-253/PD (HV-1 PHA and HV-2 GROSS) background of 40, 200, and 5500 counts per minute were based on radiation levels obtained from Building 21. For the floor of the Machine Shop Center Office an IM-247/PD and an IM-253/PD (HV-1 PHA and HV-2 GROSS) background of 40, 200, and 5500 counts per minute were based on radiation

2. Bldg. 79, Group 1 and 2 Areas

levels obtained from Building 21.

(3) Summary:

Group 1 Summary

Surveys and investigations performed in accordance with Group 1 Survey requirements did not detect any radionuclides other than those occurring due to natural radioactivity.

Group 2 Summary

Surveys performed in the Group 2 Areas with the IM-247/PD did not detect areas greater than 450μμCi/20cm^2.

Surveys performed with the IM-253/PD (HV-1 PHA) detected seven areas greater than or equal to twice background.

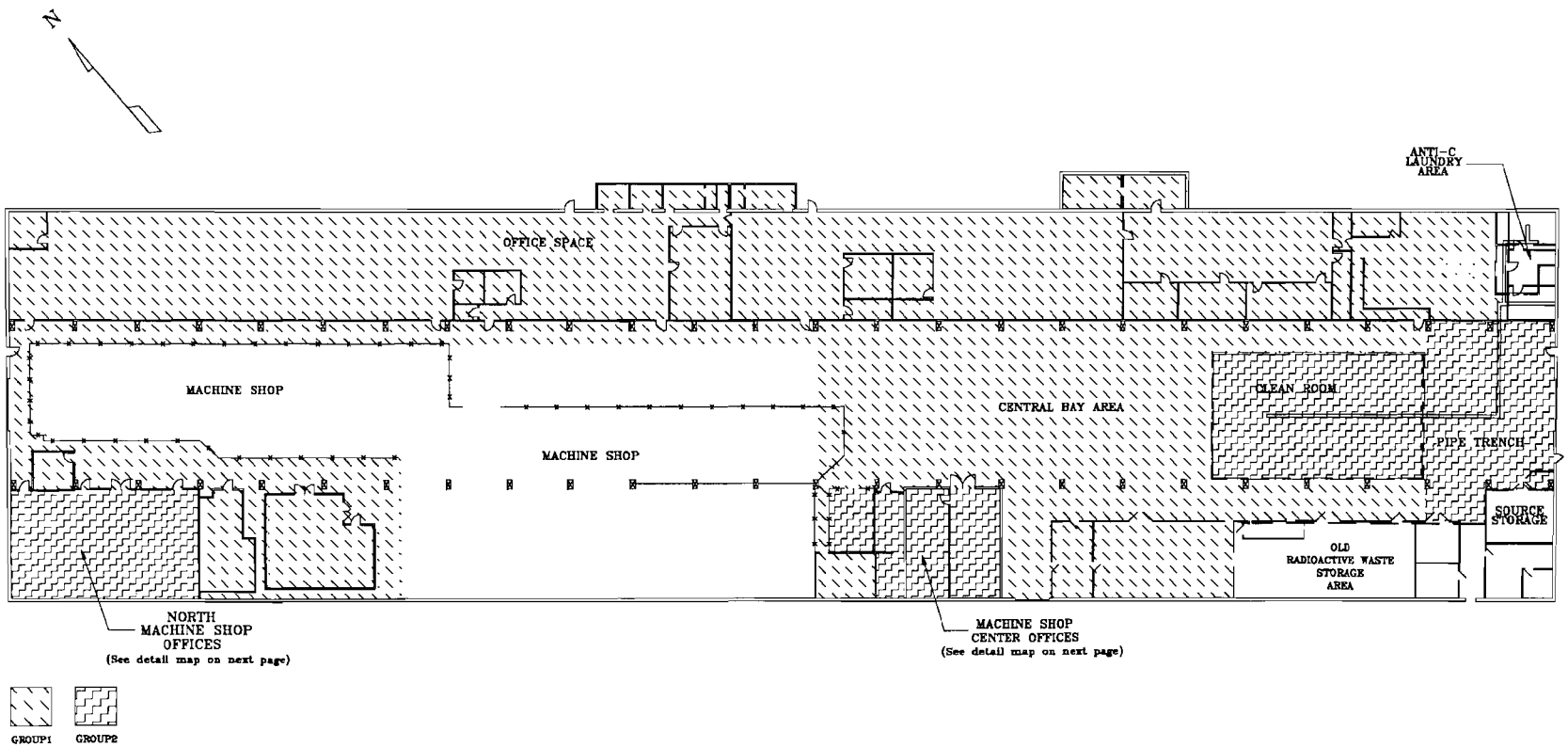
Surveys performed with the IM-253/PD (HV-2 GROSS) did not detect any areas greater than or equal to twice background.

Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from less than minimum detectable activity of 0.34 pCi/g to a high of 1.37 pCi/g.

Analysis performed on solid material samples with the MCA for specific cobalt 60 indicated that all solid material samples were less than 1 pCi/g.

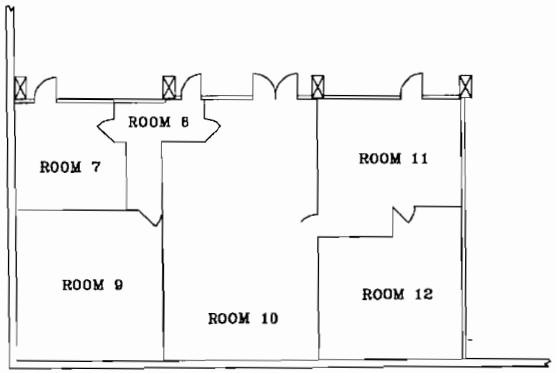
2. Bldg. 79, Group 1 and 2 Areas

b. Site Map

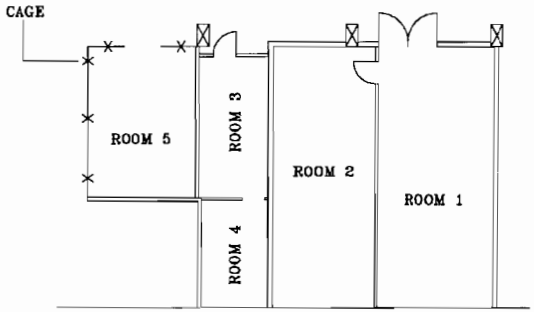


2. Bldg. 79, Group 1 and 2 Areas

b. Site Map



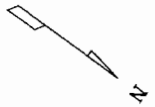
NORTH
MACHINE SHOP
OFFICES DETAIL



MACHINE SHOP
CENTER OFFICES
DETAIL

2. Bldg. 79, Group 1 and 2 Areas

c. Grid Map, Clean Room



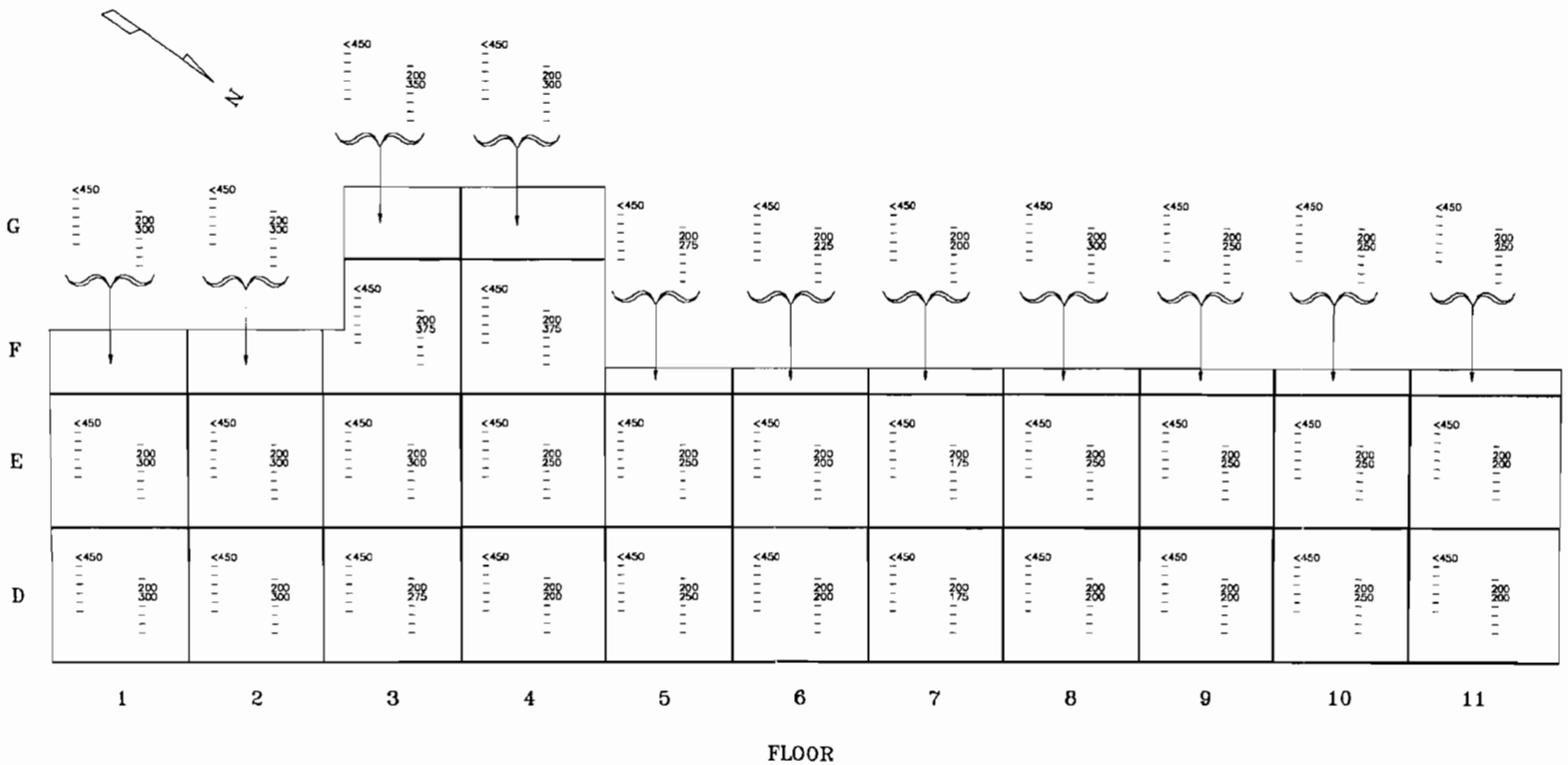
	1	2	3	4	5	6	7	8	9	10	11
C	<450 200 350	<450 200 250	<450 200 275	<450 200 250	<450 200 150	<450 200 200	<450 200 150	<450 200 150	<450 200 150	<450 200 200	<450 200 150
B	<450 200 350	<450 200 175	<450 200 250	<450 200 150	<450 200 100	<450 200 175	<450 200 150	<450 200 250	<450 200 250	<450 200 250	<450 200 300
A	<450 200 350	<450 200 200	<450 200 200	<450 200 200							

FLOOR

Sample Data
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

2. Bldg. 79, Group 1 and 2 Areas

c. Grid Map, Clean Room



Sample Data
<450 -- IM-247/PD Results [μCi/20cm²]
200 -- IM-253/PD (HV-1 PHA) [bkg.]
300 -- IM-253/PD (HV-1 PHA) [cpm]
7000 -- IM-253/PD (HV-2 GROSS) [bkg.]
7300 -- IM-253/PD (HV-2 GROSS) [cpm]
1.82 -- MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 -- MCA Specific Co-60 Results [pCi/g]

2. Bldg. 79, Group 1 and 2 Areas

c. Prior Photograph

Clean Room floor area, viewing northwest.

2. Bldg. 79, Group 1 and 2 Areas

g. After Photograph

Clean Room floor area, viewing northwest.

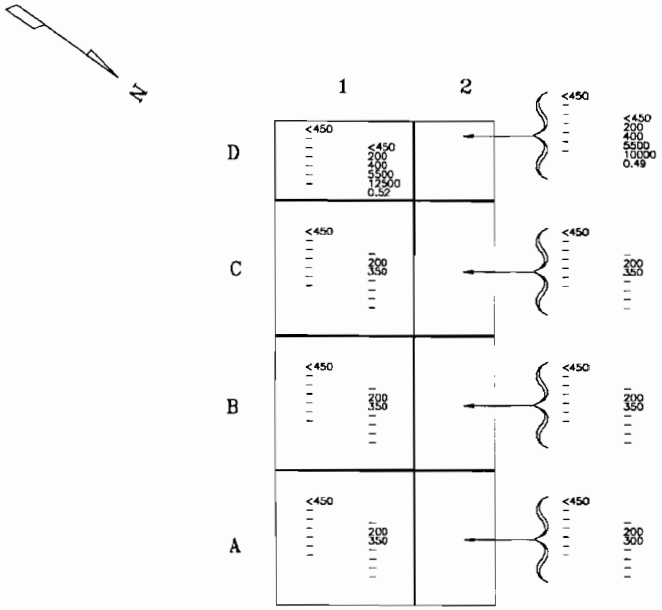
2. Bldg. 79, Group 1 and 2 Areas

g. After Photograph

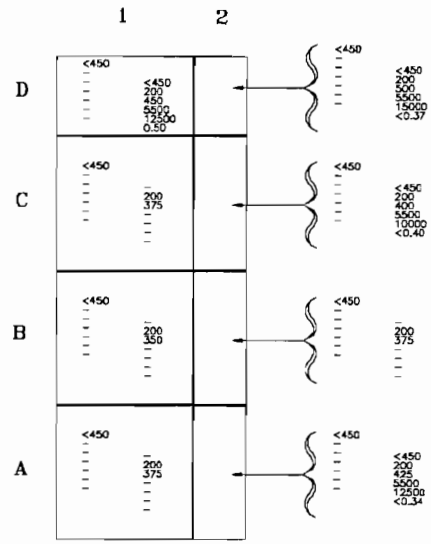
Clean Room floor area, viewing southeast.

2. Bldg. 79, Group 1 and 2 Areas

c. Grid Map, Machine Shop Center Offices



ROOM 1

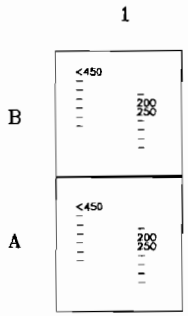


ROOM 2

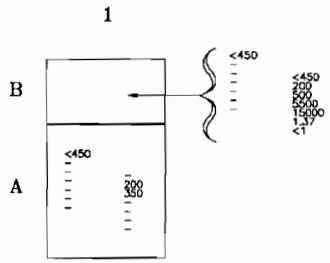
Sample Data
<450 -- IM-247/PD Results [μμCi/20cm²]
200 -- IM-253/PD (HV-1 PHA) [bkg.]
300 -- IM-253/PD (HV-1 PHA) [cpm]
7000 -- IM-253/PD (HV-2 GROSS) [bkg.]
7300 -- IM-253/PD (HV-2 GROSS) [cpm]
1.82 -- MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 -- MCA Specific Co-60 Results [pCi/g]

2. Bldg. 79, Group 1 and 2 Areas

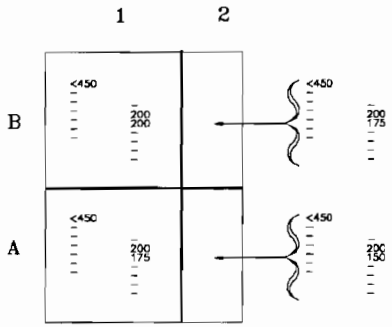
c. Grid Map, Machine Shop Center Offices



ROOM 3



ROOM 4



ROOM 5

Sample Data
<450 – IM-247/PD Results [μCi/20cm^2]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

2. Bldg. 79, Group 1 and 2 Areas

c. Prior Photograph

Machine Shop Center Offices Room 1, viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. Prior Photograph

Machine Shop Center Offices Room 1, viewing northeast.

2. Bldg. 79, Group 1 and 2 Areas

c. Prior Photograph

Machine Shop Center Offices Room 2, viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. Prior Photograph

Machine Shop Center Offices Room 2, viewing northeast.

2. Bldg. 79, Group 1 and 2 Areas

c. Prior Photograph

Machine Shop Center Offices Room 5 viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop Center Offices Room 1, viewing southwest.

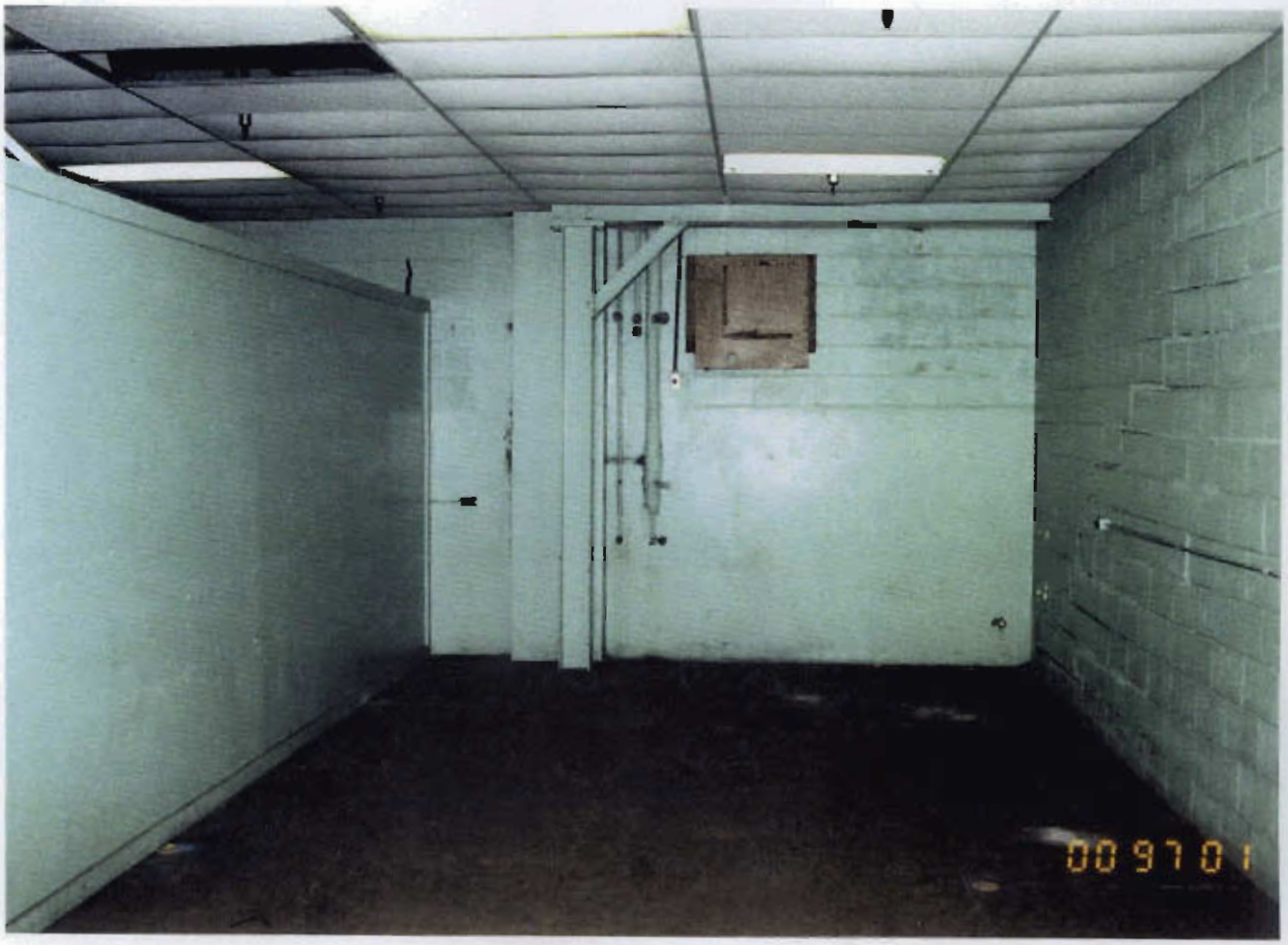
2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop Center Offices Room 1, viewing northeast.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph



Machine Shop Center Offices Room 2, viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop Center Offices Room 2, viewing northeast.

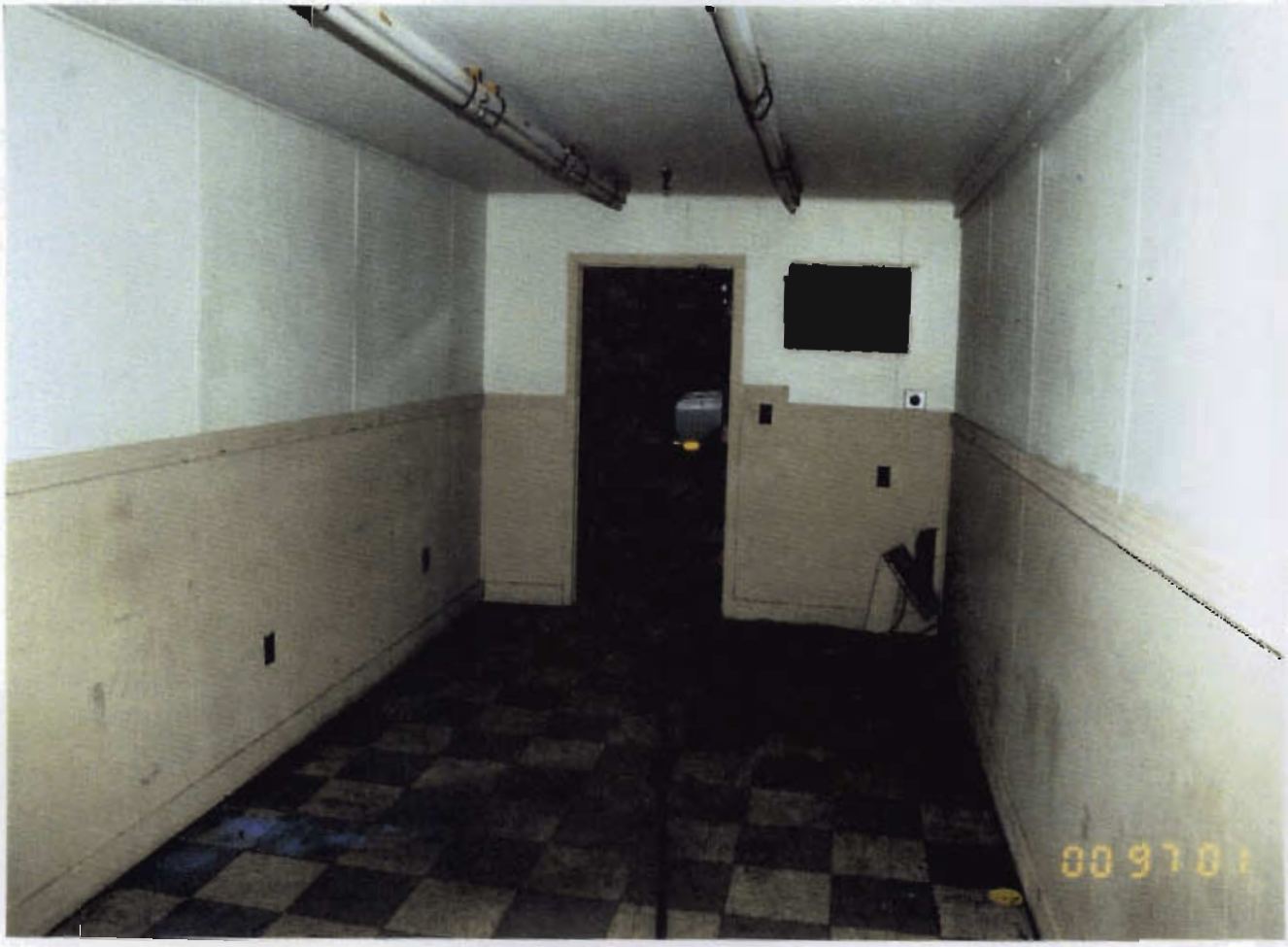
2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop Center Offices Room 3, viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph



Machine Shop Center Offices Room 3, viewing northeast.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop Center Offices Room 4, viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop Center Offices Room 4, viewing northeast.

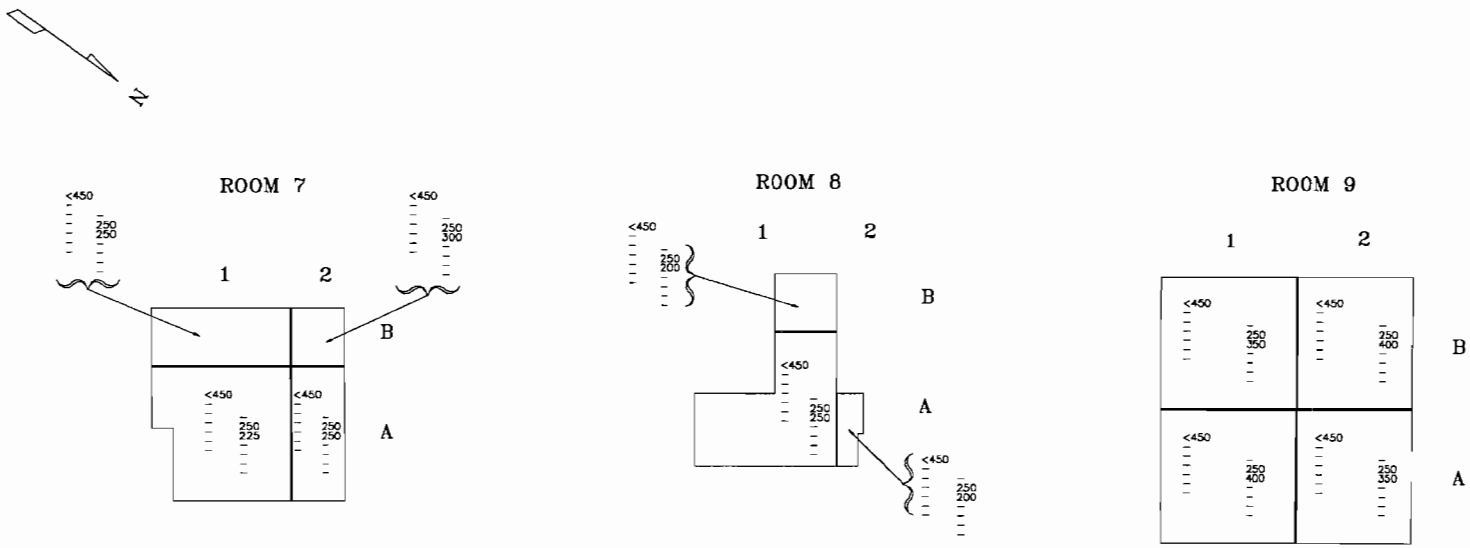
2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop Center Offices Room 5, viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. Grid Map, North Machine Shop Offices

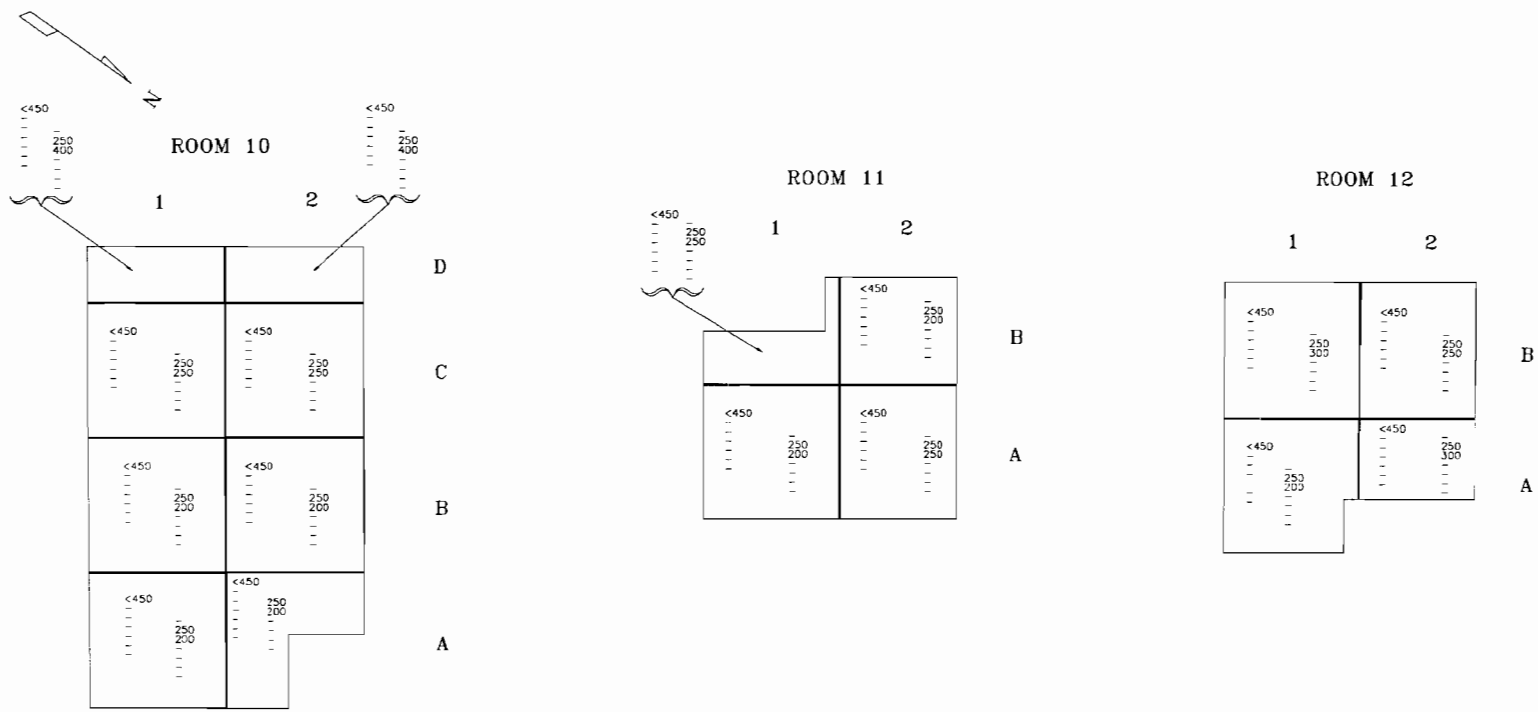


Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [com]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

2. Bldg. 79, Group 1 and 2 Areas

c. Grid Map, North Machine Shop Offices



Sample Data

<450 – IM-247/PD Results [μμCu/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

2. Bldg. 79, Group 1 and 2 Areas

c. Prior Photograph

Machine Shop North Offices Room 10, viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. Prior Photograph

Machine Shop North Offices Room 11, viewing east.

2. Bldg. 79, Group 1 and 2 Areas

c. Prior Photograph

Machine Shop North Offices Room 12, viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop North Offices Room 7, viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop North Offices Room 8, viewing northwest.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop North Offices Room 8, viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop North Offices Room 9, viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop North Offices Room 10, viewing northeast.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop North Offices Room 11, viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop North Offices Room 11, viewing southwest.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop North Offices Room 12, viewing west.

2. Bldg. 79, Group 1 and 2 Areas

c. After Photograph

Machine Shop North Offices Room 12, viewing south.

3. Bldg. 79, Group 3 and 6 Areas

a. Report:

(1) Description:

The Building 79 Group 3 areas consist of the Old Radioactive Waste Storage Area, the Source Storage Area, and the Machine Shop Area. The construction material present in the Old Radioactive Waste Storage Area was asphalt, concrete, wood, tile, sheetrock, and brick. The construction material present in the Source Storage Area was wood, sheet rock, and concrete. The construction material present in the Machine Shop is concrete. The Group 6 areas consist of the Old Radioactive Waste Storage Area and the Source Storage Area.

(2) Discussion:

Group 3 survey areas were divided into 924 grids. The floor grids were approximately 5' by 5' and the wall grids were approximately 5' wide by 6' high. Each grid had its own unique designator.

One hundred percent of all grids were surveyed with the IM-247/PD and IM-253/PD (HV-1 PHA). A minimum of 25% of all grids were surveyed with the IM-253/PD (HV-2 GROSS). Additionally, solid material samples were taken from each grid.

A total of 924 solid material samples were taken from the Old Radioactive Waste Storage Area, Source Storage Area, and Machine Shop Area floors and walls. Each solid material sample was removed from the grid location indicating the area of highest potential. The following typical naturally occurring radionuclides were identified during isotopic analysis of solid material samples: lead 212, lead 214, thallium 208, bismuth 214, and potassium 40.

The construction materials present in the Group 3 Areas are a concrete floor and concrete block or sheetrock walls. For the floors, an IM-247/PD and an IM-253/PD (HV-1 PHA and HV-2 GROSS) background of 40, 200, and 5500 counts per minute were based on radiation levels obtained from Building 21. For the concrete block walls, an IM-247/PD and an IM-253/PD (HV-1 PHA and HV-2 GROSS) background of 40, 350, and 12000 counts per minute were based on background radiation levels obtained from Building 89. For the sheetrock walls, an IM-247/PD and an IM-253/PD (HV-1 PHA and HV-2 GROSS) background of 40, 350, and 12000 counts per minute were based on background radiation levels obtained from Building 27 Supply Trailer.

Group 6 surveys were performed in these areas in accordance with localized survey instructions. A minimum of 25% of the group six floor grids in the Old Radioactive Waste Storage Areas A, B, C, D, and E and the Source Storage Areas A and B were surveyed with the AN/PDR-56.

3. Bldg. 79, Group 3 and 6 Areas

(3) Summary:

Group 3 Summary

Surveys performed in the Group 3 Areas with the IM-247/PD detected one grid area greater than 450μμCi/20cm^2.

Surveys performed with the IM-253/PD (HV-1 PHA) detected 113 areas greater than or equal to twice background.

Surveys performed with the IM-253/PD (HV-2 GROSS) detected 23 areas greater than or equal to twice background.

Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from less than minimum detectable activity of 0.09 pCi/g to a high of 6.10 pCi/g.

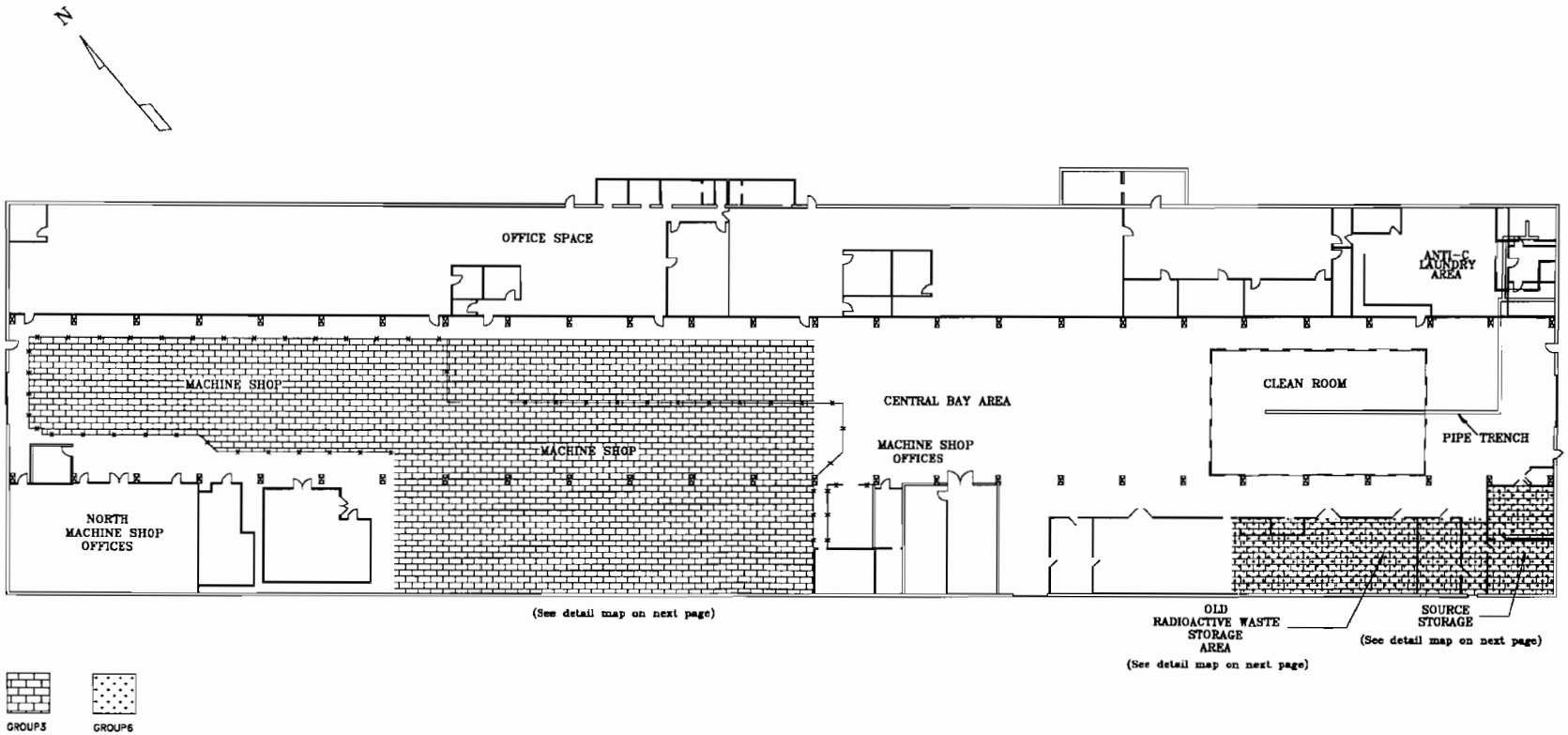
Analysis performed on solid material samples with the MCA for specific cobalt 60 indicated that all solid material samples were less than 1 pCi/g.

Group 6 Summary

Surveys performed with the AN/PDR-56 found no detectable alpha radioactivity.

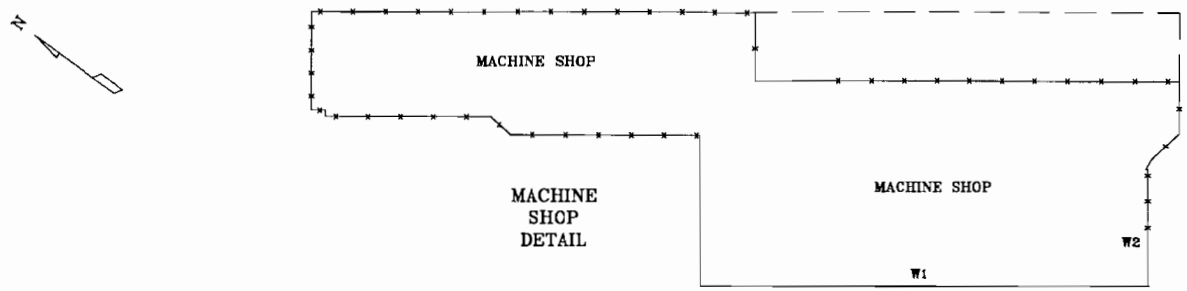
3. Bldg. 79, Group 3 and 6 Areas

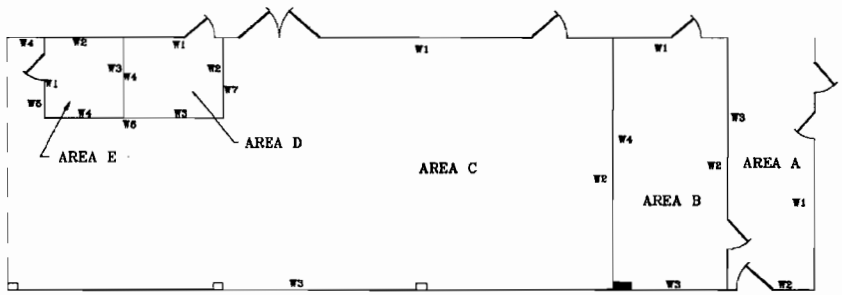
b. Site Map



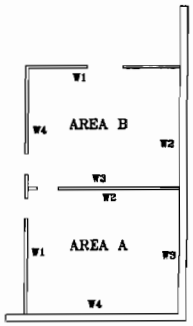
3. Bldg. 79, Group 3 and 6 Areas

b. Site Map





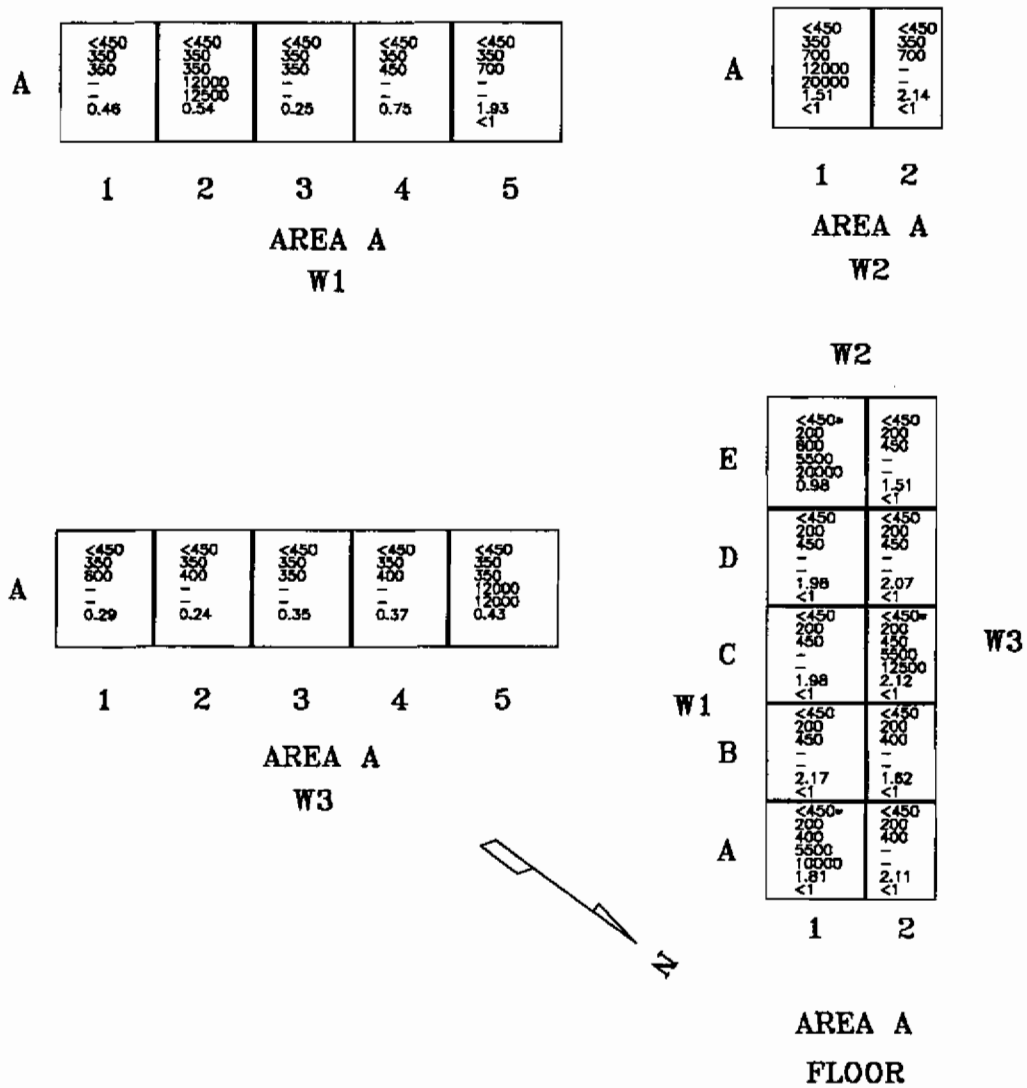
OLD RADIOACTIVE WASTE STORAGE AREA DETAIL



SOURCE STORAGE DETAIL

3. Bldg. 79, Group 3 and 6 Areas

c. Old Radioactive Waste Storage

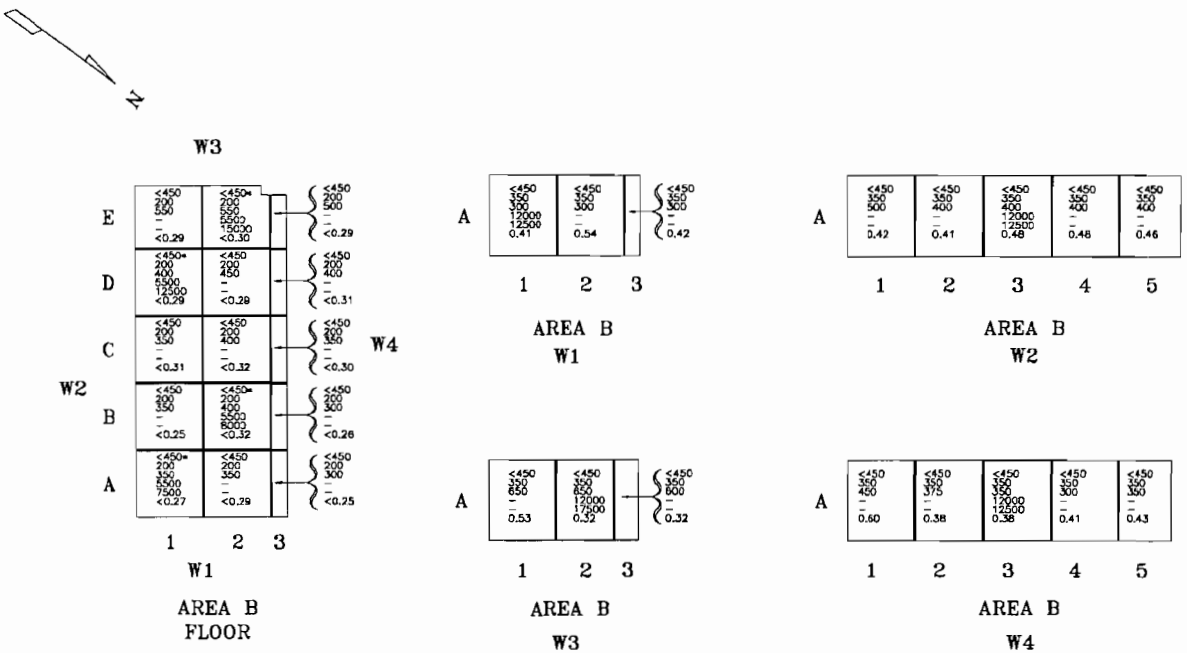


Note:
*Denotes grids which were surveyed with an AN/PDR-56 for Alpha radioactivity and no detectable activity was found.

Sample Data
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. Old Radioactive Waste Storage

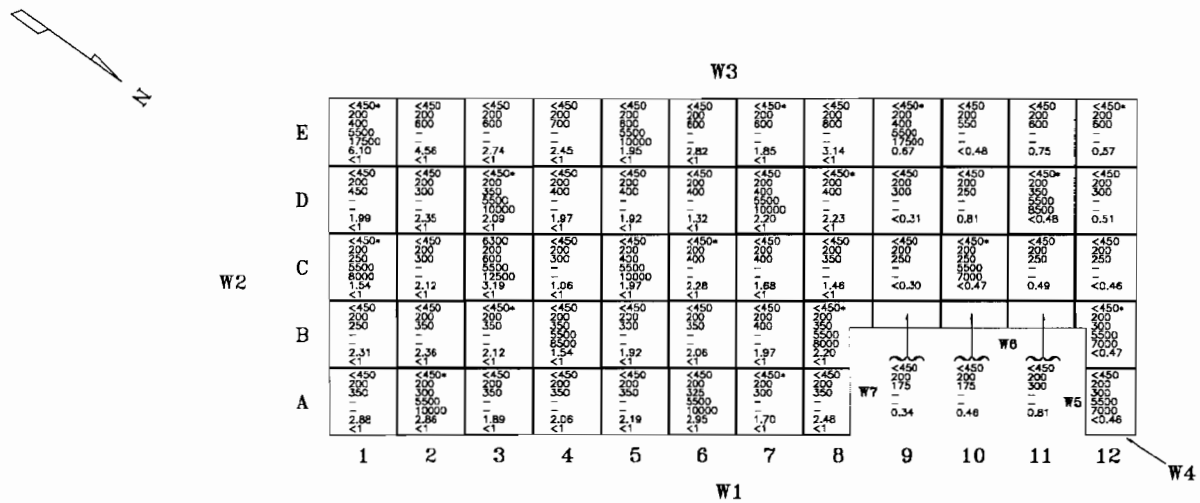


Note:
*Denotes grids which were surveyed with an AN/PDR-56 for Alpha radioactivity and no detectable activity was found.

Sample Data
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. Old Radioactive Waste Storage



AREA C
FLOOR

Notes:

(1) Areas surveyed with an IM-247/PD, indicating detectable activity greater than or equal to 450μμCi/20cm² were sampled and analyzed by spectral analysis. In these cases, analysis of the spectrum indicated only photopeaks of naturally occurring isotopes not associated with the Naval Nuclear Propulsion Program. These natural isotopes include Pb-212, Pb-214, Tl-208 and K-40.

(2) *Denotes grids which were surveyed with an AN/PDR-56 for Alpha radioactivity and no detectable activity was found.

Sample Data

<450 -- IM-247/PD Results [μμCi/20cm²]
200 -- IM-253/PD (HV-1 PHA) [bkg.]
300 -- IM-253/PD (HV-1 PHA) [cpm]
7000 -- IM-253/PD (HV-2 GROSS) [bkg.]
7300 -- IM-253/PD (HV-2 GROSS) [cpm]
1.82 -- MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 -- MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. Old Radioactive Waste Storage

	1	2	3	4	5	6	7	8
A	<450 350 300 12000 9000 <0.24	<450 350 300 – – 0.32	<450 350 350 – – <0.22	<450 350 350 – – 0.55	<450 350 350 – – 0.61	<450 350 400 12000 7500 0.62	<450 350 350 – – 0.36	<450 350 350 – – 0.42

AREA C
W1

	1	2	3	4	5
A	<450 350 300 – – 0.43	<450 350 325 12000 9500 0.35	<450 350 325 – – 0.80	<450 350 375 – – 0.30	<450 350 575 12000 17500 <0.17

AREA C
W2

	1	2	3	4	5	6	7	8	9	10	11	12
A	<450 350 650 12000 17500 2.57 <1	<450 350 650 – – 3.16 <1	<450 350 650 – – 1.31 <1	<450 350 675 – – 1.57 <1	<450 350 625 – – 2.09 <1	<450 350 625 12000 20000 3.11 <1	<450 350 575 – – 1.95 <1	<450 350 625 – – 1.50 <1	<450 350 600 12000 20000 1.00 <1	<450 350 600 – – 1.17 <1	<450 350 650 – – 1.52 <1	<450 350 650 – – 1.49 <1

AREA C
W3

	1
A	<450 350 600 – – 0.40

AREA C
W4

	1	2
A	<450 350 200 12000 16000 0.60	<450 350 200 – – 0.50

AREA C
W5

	1	2	3	4
A	<450 350 200 – – <0.19	<450 350 200 – – 0.94	<450 350 200 12000 14500 0.35	<450 350 225 – – 0.41

AREA C
W6

	1	2
A	<450 350 250 – – 0.84	<450 350 250 12000 8500 0.64

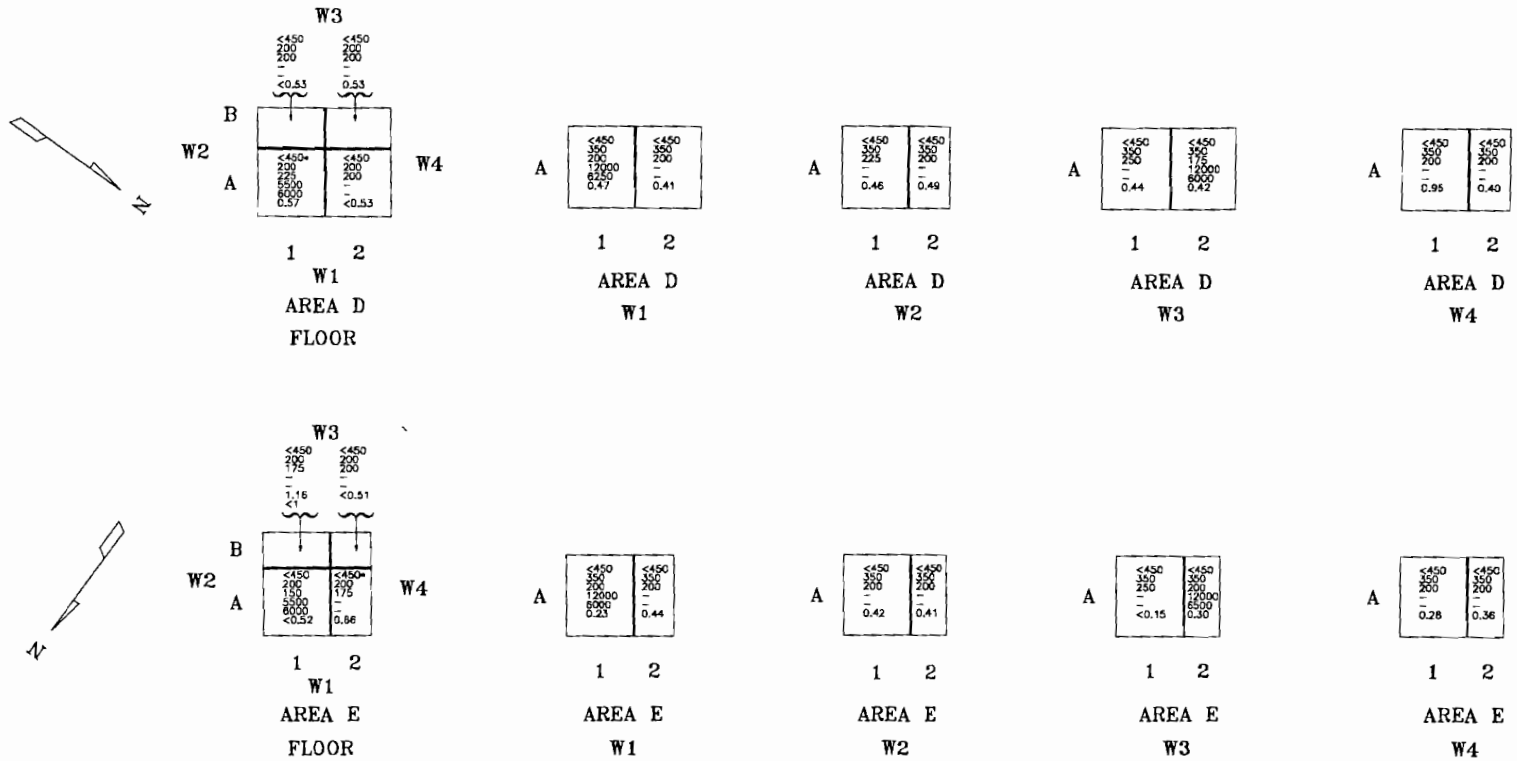
AREA C
W7

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. Old Radioactive Waste Storage



Note:
*Denotes grids which were surveyed with an AN/PDR-56 for Alpha radioactivity and no detectable activity was found.

Sample Data
<450 -- IM-247/PD Results [μCi/20cm²]
200 -- IM-253/PD (HV-1 PHA) [bkg.]
300 -- IM-253/PD (HV-1 PHA) [cpm]
7000 -- IM-253/PD (HV-2 GROSS) [bkg.]
7300 -- IM-253/PD (HV-2 GROSS) [cpm]
1.82 -- MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 -- MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Rad Waste storage area A, viewing northeast.

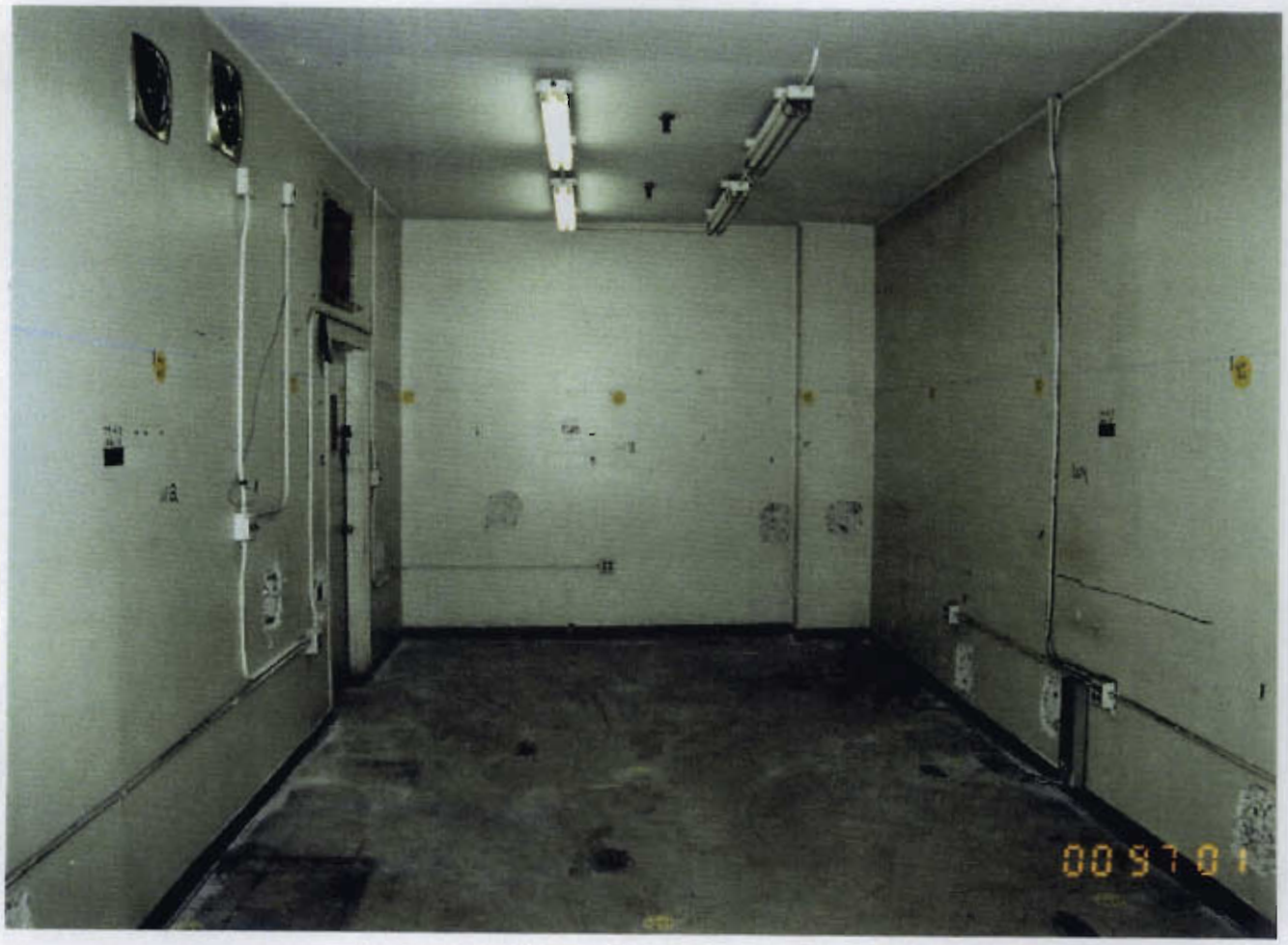
3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Rad Waste storage area A, viewing northeast.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph



Rad Waste storage area B, viewing northeast.

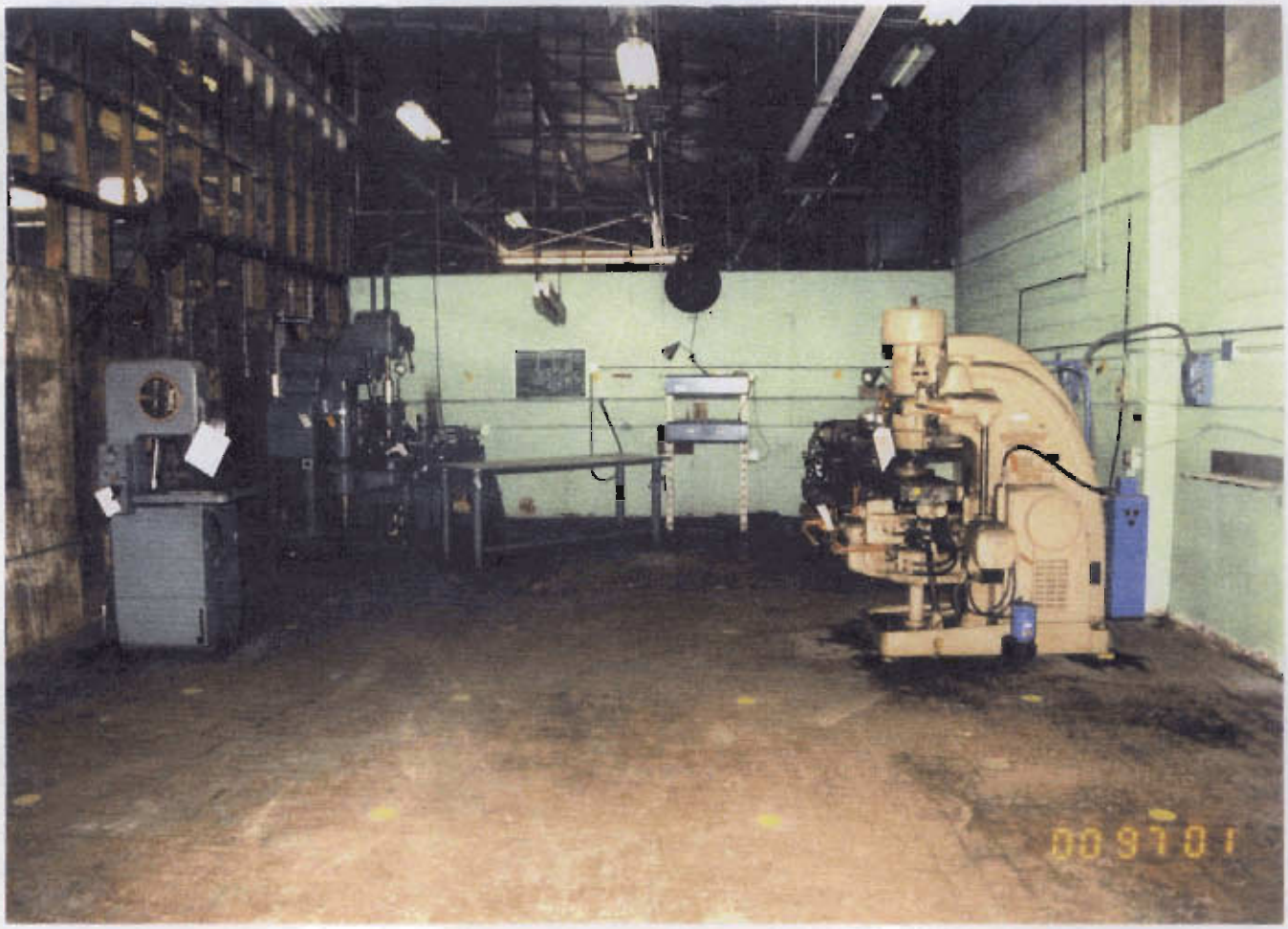
3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Rad Waste storage area B, viewing southwest.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph



Rad Waste storage area C, viewing northwest.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Rad Waste storage area C, viewing west.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Rad Waste storage area C, viewing north.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Rad Waste storage area D, viewing northeast.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Rad Waste storage area D, viewing southwest.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Rad Waste storage area E, viewing northwest.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Rad Waste storage area E, viewing southeast.

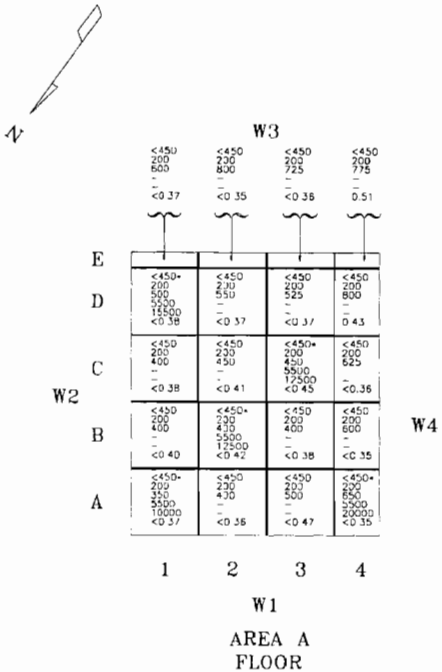
3. Bldg. 79, Group 3 and 6 Areas

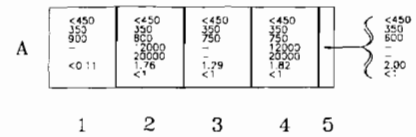
c. After Photograph

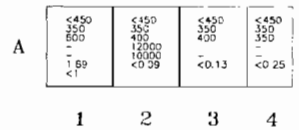
Rad Waste storage area C, viewing west.

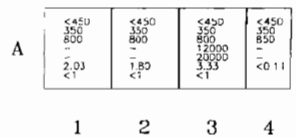
3. Bldg. 79, Group 3 and 6 Areas

c. Source Storage







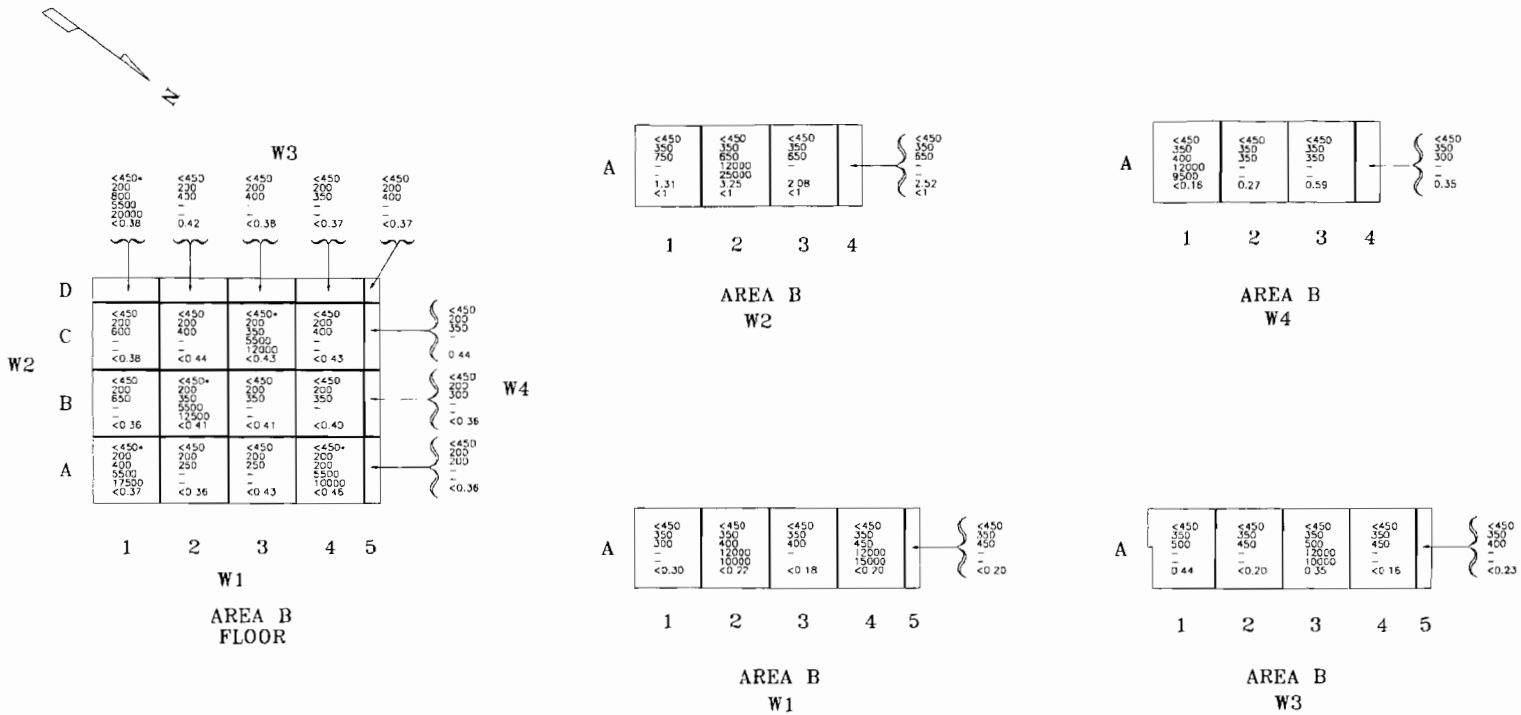


Note:
* Denotes grids which were surveyed with an AN/PDR-56 for Alpha radioactivity and no detectable activity was found.

Sample Data
<450 – IM-247/PD Results [μCi/20cm^2]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. Source Storage



Note:
*Denotes grids which were surveyed with an AN/PDR-56 for Alpha radioactivity and no detectable activity was found.

Sample Data
<450 – IM-247/PD Results [μCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Source storage area A, viewing southwest.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Source storage area A, viewing northwest.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Source storage area B, viewing southwest.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Source storage area B, viewing southeast.

3. Bldg. 79, Group 3 and 6 Areas

c. Machine Shop

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
J	<450 200 250 – – 1.60 <1	<450 200 200 – – 1.18 <1	<450 200 150 5500 4500 1.33 <1	<450 200 125 – – 1.11 <1	<450 200 150 – – 1.04 <1	<450 200 150 – – 1.43 <1	<450 200 150 5500 4000 1.17 <1	<450 200 150 – – 0.55	<450 200 150 – – 1.11 <1	<450 200 150 5500 3000 0.99	<450 200 150 – – 1.36 <1	<450 200 125 – – 1.09 <1	<450 200 125 5500 3500 1.61 <1	<450 200 175 – – 1.52 <1	<450 200 175 – – 1.07 <1	<450 200 150 – – 0.86	<450 200 175 5500 4000 0.87
I	<450 200 750 5500 10000 0.83	<450 200 250 – – 1.23 <1	<450 200 200 – – 0.87	<450 200 150 – – 1.32 <1	<450 200 150 5500 4000 0.96	<450 200 250 – – 0.43	<450 200 150 – – 1.15 <1	<450 200 225 5500 4500 0.78	<450 200 175 – – 1.16 <1	<450 200 125 – – 0.45	<450 200 175 5500 3500 0.90	<450 200 200 – – 0.74	<450 200 200 – – 0.79	<450 200 175 – – 0.60	<450 200 150 5500 4000 0.90	<450 200 200 – – 1.79 <1	<450 200 200 – – 1.18 <1
H	<450 200 500 – – 1.49 <1	<450 200 250 – – 1.25 <1	<450 200 200 5500 5000 0.87	<450 200 200 – – 1.68 <1	<450 200 200 – – 1.25 <1	<450 200 175 – – 1.61 <1	<450 200 175 5500 4250 1.76 <1	<450 200 200 – – 1.15 <1	<450 200 200 – – 1.39 <1	<450 200 200 5500 4250 1.88 <1	<450 200 250 – – 1.38 <1	<450 200 175 – – 0.79	<450 200 200 5500 4500 1.49 <1	<450 200 150 – – 1.17 <1	<450 200 200 – – 0.97	<450 200 150 – – 0.80	<450 200 150 5500 4000 0.89
G	<450 200 550 5500 9250 1.32 <1	<450 200 450 – – 0.87	<450 200 425 – – 1.18	<450 200 400 – – 1.16 <1	<450 200 400 5500 4500 0.79	<450 200 175 – – 1.59 <1	<450 200 150 – – 1.23 <1	<450 200 200 5500 4250 1.16 <1	<450 200 150 – – 1.07 <1	<450 200 150 – – 1.87 <1	<450 200 250 5500 4500 1.10 <1	<450 200 200 – – 1.02 <1	<450 200 175 – – 1.22 <1	<450 200 250 – – 1.01 <1	<450 200 250 5500 3750 1.08 <1	<450 200 175 – – 1.35 <1	<450 200 150 – – 1.91 <1
F	<450 200 350 – – 1.43 <1	<450 200 225 – – 1.40 <1	<450 200 175 5500 5500 1.13 <1	<450 200 175 – – 1.17 <1	<450 200 150 – – 0.97	<450 200 200 – – 1.27 <1	<450 200 150 5500 4500 1.35 <1	<450 200 150 – – 1.23 <1	<450 200 150 – – 0.99	<450 200 150 5500 4500 1.21 <1	<450 200 150 – – 1.62 <1	<450 200 150 – – 1.57 <1	<450 200 150 5500 4500 1.63 <1	<450 200 200 – – 1.69 <1	<450 200 200 – – 1.63 <1	<450 200 200 – – 1.38 <1	<450 200 200 5500 4500 2.00 <1
E	<450 200 500 5500 15000 1.14 <1	<450 200 250 – – 0.94	<450 200 250 – – 1.06	<450 200 200 – – 1.08 <1	<450 200 200 5500 4000 1.11 <1	<450 200 150 – – 0.97	<450 200 150 – – 1.95 <1	<450 200 200 5500 4000 1.35 <1	<450 200 150 – – 2.22 <1	<450 200 150 – – 1.43 <1	<450 200 150 5500 4500 1.16 <1	<450 200 150 – – 1.19 <1	<450 200 150 – – 1.33 <1	<450 200 150 – – 1.52 <1	<450 200 150 5500 4500 1.65 <1	<450 200 150 – – 1.19 <1	<450 200 150 – – 1.35 <1
D	<450 200 450 – – 1.46 <1	<450 200 325 – – 1.43 <1	<450 200 300 5500 5500 1.08 <1	<450 200 250 – – 1.02 <1	<450 200 200 – – 1.70 <1	<450 200 250 – – 1.45 <1	<450 200 250 5500 5000 0.83	<450 200 250 – – 1.35 <1	<450 200 200 – – 0.84	<450 200 225 5500 4000 1.21 <1	<450 200 175 – – 0.77	<450 200 175 – – 1.19 <1	<450 200 200 5500 5000 0.85	<450 200 150 – – 1.43 <1	<450 200 200 – – 1.86 <1	<450 200 150 – – 1.38 <1	<450 200 150 5500 4500 1.46 <1
C	<450 200 450 5500 12500 0.59	<450 200 325 – – 1.32 <1	<450 200 250 – – 1.15 <1	<450 200 200 – – 1.44 <1	<450 200 175 5500 4250 <0.35	<450 200 150 – – <0.38	<450 200 175 – – 1.48 <1	<450 200 200 5500 4750 0.69	<450 200 200 – – 0.83	<450 200 150 – – 0.81	<450 200 150 – – 1.03 <1	<450 200 150 – – 0.97	<450 200 150 – – 1.21 <1	<450 200 150 – – 1.11 <1	<450 200 200 5500 4000 1.07 <1	<450 200 150 – – 1.05 <1	<450 200 150 – – 1.72 <1
B	<450 200 475 – – 1.33 <1	<450 200 350 – – 1.80 <1	<450 200 250 5500 6000 1.63 <1	<450 200 225 – – 1.01 <1	<450 200 225 – – 0.99	<450 200 250 – – 1.23 <1	<450 200 250 5500 5250 1.33 <1	<450 200 250 – – 1.18 <1	<450 200 200 – – 0.75	<450 200 150 5500 4000 1.03 <1	<450 200 150 – – 1.09 <1	<450 200 200 – – 1.54 <1	<450 200 150 5500 4000 1.38 <1	<450 200 150 – – 0.78	<450 200 150 – – 1.34 <1	<450 200 150 – – 1.07 <1	<450 200 150 5500 4500 2.19 <1
A	<450 200 550 5500 20000 1.32 <1	<450 200 450 – – 0.64	<450 200 400 – – 0.80	<450 200 350 – – <0.42	<450 200 250 5500 5000 0.65	<450 200 200 – – 0.77	<450 200 250 – – 1.02 <1	<450 200 225 5500 5500 0.97	<450 200 225 – – 0.73	<450 200 200 – – 0.79	<450 200 200 5500 3750 1.32 <1	<450 200 200 – – 1.86 <1	<450 200 200 – – 1.05 <1	<450 200 200 – – 0.54	<450 200 200 5500 4250 1.32 <1	<450 200 225 – – 1.86 <1	<450 200 225 – – 1.81 <1

W1

W2

FLOOR

N

Sample Data

<450 -- IM-247/PD Results [µCi/20cm²]
200 -- IM-253/PD (HV-1 PHA) [bkg.]
300 -- IM-253/PD (HV-1 PHA) [cpm]
7000 -- IM-253/PD (HV-2 GROSS) [bkg.]
7300 -- IM-253/PD (HV-2 GROSS) [cpm]
1.82 -- MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 -- MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. Machine Shop

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
T	<450 200 200 – – 1.14 <1	<450 200 200 – – 1.17 <1	<450 200 150 5500 5250 0.75	<450 200 250 – – 0.71	<450 200 150 – – 0.63	<450 200 150 – – 0.57	<450 200 150 5500 4250 0.71	<450 200 200 – – 1.04 <1	<450 200 150 – – 0.82	<450 200 150 5500 4500 1.19 <1	<450 200 150 – – 2.05 <1	<450 200 150 – – 1.01 <1	<450 200 150 5500 4500 1.04 <1	<450 200 150 – – 1.57 <1	<450 200 150 – – 1.09 <1	<450 200 150 – – 1.44 <1	<450 200 150 5500 5000 1.43 <1
S	<450 200 750 5500 15000 0.88	<450 200 400 – – 0.82	<450 200 300 – – 0.89	<450 200 175 – – 0.87	<450 200 100 5500 3500 1.14 <1	<450 200 150 – – 0.62	<450 200 175 – – 0.84	<450 200 200 5500 5500 1.09 <1	<450 200 250 – – 1.26 <1	<450 200 200 – – 1.18 <1	<450 200 175 5500 4500 0.80	<450 200 150 – – 1.60 <1	<450 200 150 – – 1.05 <1	<450 200 200 – – 0.59	<450 200 100 5500 4500 0.89	<450 200 150 – – 1.14 <1	<450 200 150 – – 1.01 <1
R	<450 200 250 – – 0.88	<450 200 250 – – 1.01 <1	<450 200 150 5500 4500 1.04 <1	<450 200 150 – – 1.15 <1	<450 200 150 – – 0.83	<450 200 150 – – 0.95	<450 200 150 5500 4500 1.39 <1	<450 200 200 – – 0.99	<450 200 200 – – 1.20 <1	<450 200 250 5500 5500 1.49 <1	<450 200 150 – – 1.42 <1	<450 200 150 – – 1.19 <1	<450 200 150 5500 4500 0.82	<450 200 200 – – 1.02 <1	<450 200 150 – – 1.50 <1	<450 200 150 – – 1.34 <1	<450 200 200 5500 5000 1.78 <1
Q	<450 200 300 5500 7500 1.10 <1	<450 200 250 – – 1.09 <1	<450 200 250 – – 1.47 <1	<450 200 250 – – 1.06 <1	<450 200 200 5500 4500 1.28 <1	<450 200 200 – – 0.71	<450 200 200 – – 1.35 <1	<450 200 200 5500 5000 1.11 <1	<450 200 200 – – 1.15 <1	<450 200 200 – – 1.19 <1	<450 200 175 5500 4000 1.59 <1	<450 200 175 – – 1.18 <1	<450 200 150 – – 1.43 <1	<450 200 200 – – 1.59 <1	<450 200 200 5500 4000 1.08 <1	<450 200 200 – – 1.47 <1	<450 200 200 – – 1.87 <1
P	<450 200 550 – – 1.59 <1	<450 200 275 – – 1.28 <1	<450 200 200 5500 5000 1.15 <1	<450 200 200 – – 0.96	<450 200 175 – – 0.80	<450 200 200 – – 0.67	<450 200 200 5500 5000 0.74	<450 200 225 – – 1.25 <1	<450 200 225 – – 0.52	<450 200 225 5500 5250 0.63	<450 200 200 – – 0.96	<450 200 200 – – <0.42	<450 200 225 5500 4500 1.06 <1	<450 200 200 – – 0.69	<450 200 200 – – 0.86	<450 200 200 – – 1.30 <1	<450 200 150 5500 4000 1.20 <1
O	<450 200 400 5500 10000 0.95	<450 200 200 – – 0.99	<450 200 150 – – 0.79	<450 200 175 – – 1.00 <1	<450 200 150 5500 4500 0.75	<450 200 175 – – 0.84	<450 200 175 – – 1.11 <1	<450 200 225 5500 5000 1.18 <1	<450 200 250 – – 1.49 <1	<450 200 225 – – 1.04 <1	<450 200 250 3500 5000 1.33 <1	<450 200 300 – – 1.28 <1	<450 200 200 – – 0.97	<450 200 175 – – 1.13 <1	<450 200 200 5500 3750 1.04 <1	<450 200 175 – – 1.04 <1	<450 200 150 – – 1.25 <1
N	<450 200 400 – – 1.31 <1	<450 200 200 – – 1.22 <1	<450 200 175 5500 5500 1.17 <1	<450 200 150 – – 1.27 <1	<450 200 150 – – 1.27 <1	<450 200 150 – – 1.53 <1	<450 200 150 5500 4750 1.39 <1	<450 200 150 – – 0.56	<450 200 125 – – 1.91 <1	<450 200 175 5500 4500 0.73	<450 200 225 – – 1.41 <1	<450 200 200 – – 1.91 <1	<450 200 175 5500 4500 0.81	<450 200 200 – – 1.28 <1	<450 200 225 – – 0.99	<450 200 200 – – 0.92	<450 200 200 5500 4250 2.03 <1
M	<450 200 500 5500 10000 0.85	<450 200 250 – – 1.84 <1	<450 200 200 – – 1.42 <1	<450 200 200 – – 1.21 <1	<450 200 175 5500 4500 1.19 <1	<450 200 150 – – 1.43 <1	<450 200 175 – – 1.21 <1	<450 200 200 5500 5000 1.44 <1	<450 200 175 – – 1.35 <1	<450 200 150 – – 1.03 <1	<450 200 200 5500 4000 1.01 <1	<450 200 200 – – 1.17 <1	<450 200 250 – – 0.82	<450 200 200 – – 1.01 <1	<450 200 175 5500 4250 1.18 <1	<450 200 175 – – 0.79	<450 200 175 – – 1.15 <1
L	<450 200 500 – – 1.72	<450 200 250 – – 0.84	<450 200 200 5500 4500 1.12 <1	<450 200 200 – – 1.69 <1	<450 200 200 – – 1.42 <1	<450 200 200 – – 1.00 <1	<450 200 200 5500 5000 1.28 <1	<450 200 200 – – 1.16 <1	<450 200 150 – – 0.99	<450 200 150 5500 4500 0.98	<450 200 200 – – 0.71	<450 200 200 – – 1.53 <1	<450 200 175 5500 4275 0.95	<450 200 200 – – 1.30 <1	<450 200 150 – – 1.43 <1	<450 200 200 – – 1.44 <1	<450 200 150 5500 4500 1.51 <1
K	<450 200 300 5500 9500 1.54 <1	<450 200 250 – – 0.78	<450 200 200 – – 1.28 <1	<450 200 175 – – 1.04 <1	<450 200 150 5500 4250 1.35 <1	<450 200 175 – – 1.34 <1	<450 200 175 – – 1.22 <1	<450 200 150 5500 4500 0.88	<450 200 100 – – 1.32 <1	<450 200 150 – – 1.02 <1	<450 200 150 5500 3500 0.64	<450 200 100 – – 1.75 <1	<450 200 100 – – 0.90	<450 200 100 – – 0.95	<450 200 150 5500 4000 0.90	<450 200 150 – – 1.09 <1	<450 200 100 – – 1.65 <1

W1

N

FLOOR

Sample Data

<450 -- IM-247/PD Results [μC/20cm²]
200 -- IM-253/PD (HV-1 PHA) [bkg.]
300 -- IM-253/PD (HV-1 PHA) [cpm]
7000 -- IM-253/PD (HV-2 GROSS) [bkg.]
7300 -- IM-253/PD (HV-2 GROSS) [cpm]
1.82 -- MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 -- MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. Machine Shop

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
AD										<450 200 200 5500 5000 0.58	<450 200 200 – – 1.05 <1	<450 200 200 – – 0.80	<450 200 200 – – 0.62	<450 200 175 – – 0.55	<450 200 175 – – 0.69	<450 200 200 – – 0.80	<450 200 175 5500 4500 0.71
AC										<450 200 225 – – 1.14 <1	<450 200 200 – – 0.82	<450 200 200 5500 5000 0.63	<450 200 200 – – 0.91	<450 200 200 – – 0.58	<450 200 200 5500 5000 0.94	<450 200 200 – – 0.84	<450 200 175 – – 1.06 <1
AB	<450 200 450 – – 1.19 <1	<450 200 250 – – 1.23 <1	<450 200 200 5000 6000 1.44 <1	<450 200 200 – – 1.27 <1	<450 200 200 – – 1.15 <1	<450 200 200 – – 1.82 <1	<450 200 200 5000 6000 1.34 <1	<450 200 200 – – 1.52 <1	<450 200 200 – – 1.07 <1	<450 200 200 5500 4250 1.32 <1	<450 200 225 – – 1.32 <1	<450 200 175 – – 1.22 <1	<450 200 150 5500 4500 1.31 <1	<450 200 175 – – 1.28 <1	<450 200 200 – – 0.71	<450 200 175 – – 1.35 <1	<450 200 175 5500 4500 1.37 <1
AA	<450 200 550 5500 14000 1.30 <1	<450 200 300 – – 1.84 <1	<450 200 250 – – 1.33 <1	<450 200 200 – – 1.67 <1	<450 200 200 5500 6000 1.59 <1	<450 200 225 – – 1.80 <1	<450 200 250 – – 1.38 <1	<450 200 200 5500 5500 0.80	<450 200 200 – – 1.30 <1	<450 200 200 – – 1.16 <1	<450 200 250 5500 5500 0.94	<450 200 200 – – 0.98	<450 200 200 – – 1.23 <1	<450 200 200 – – 1.72 <1	<450 200 200 5500 5000 0.94	<450 200 200 – – 1.83 <1	<450 200 200 – – 1.18 <1
Z	<450 200 450 – – 1.38 <1	<450 200 300 – – 1.37 <1	<450 200 275 5500 6000 1.29 <1	<450 200 250 – – 0.80	<450 200 275 – – 1.18 <1	<450 200 200 – – 1.07 <1	<450 200 200 5500 5000 0.89	<450 200 200 – – 1.10 <1	<450 200 150 – – 1.34 <1	<450 200 150 5500 4500 0.61	<450 200 150 – – 1.46 <1	<450 200 150 – – 1.16 <1	<450 200 150 5500 4750 0.90	<450 200 150 – – 1.18 <1	<450 200 150 – – 1.01 <1	<450 200 150 – – 1.48 <1	<450 200 150 5500 4750 1.38 <1
Y	<450 200 700 5500 15000 1.43 <1	<450 200 450 – – 1.18 <1	<450 200 200 – – 1.01 <1	<450 200 200 – – 1.50 <1	<450 200 250 5500 6000 0.89	<450 200 250 – – 0.98	<450 200 250 – – 0.84	<450 200 250 5500 5500 0.64	<450 200 200 – – 1.00 <1	<450 200 200 – – 0.98	<450 200 200 5500 4500 1.01 <1	<450 200 200 – – 1.17 <1	<450 200 225 – – 0.57	<450 200 200 – – 0.73	<450 200 200 5500 4500 1.06 <1	<450 200 225 – – 1.18 <1	<450 200 250 – – 0.99
X	<450 200 400 – – 1.03 <1	<450 200 200 – – 1.28 <1	<450 200 200 5000 6500 1.35 <1	<450 200 200 – – 0.97	<450 200 200 – – 0.99	<450 200 200 – – 0.99	<450 200 200 5000 4500 0.87	<450 200 200 – – 1.49 <1	<450 200 150 – – 1.64 <1	<450 200 100 5500 4000 1.02 <1	<450 200 100 – – 1.26 <1	<450 200 150 – – 0.92	<450 200 150 5500 4000 1.17 <1	<450 200 150 – – 1.20 <1	<450 200 150 – – 1.20 <1	<450 200 200 – – 1.03 <1	<450 200 200 5500 4500 1.24 <1
W	<450 200 350 5500 9500 1.68 <1	<450 200 200 – – 1.55 <1	<450 200 150 – – 0.87	<450 200 150 – – 0.85	<450 200 150 5500 4500 1.74 <1	<450 200 175 – – 1.36 <1	<450 200 200 – – 1.70 <1	<450 200 175 5500 5000 1.06 <1	<450 200 200 – – 1.26 <1	<450 200 200 – – 1.22 <1	<450 200 175 5500 4000 1.31 <1	<450 200 200 – – 0.95	<450 200 150 – – 0.73	<450 200 150 – – 1.32 <1	<450 200 150 5500 5000 1.00 <1	<450 200 150 – – 1.08 <1	<450 200 150 – – 1.11 <1
V	<450 200 800 – – 0.88	<450 200 400 – – 1.22 <1	<450 200 200 5500 5000 0.77	<450 200 275 – – 1.04 <1	<450 200 150 – – 1.16 <1	<450 200 150 – – 0.89	<450 200 150 5500 4500 0.87	<450 200 200 – – 0.55	<450 200 150 – – 1.11 <1	<450 200 150 5500 4000 1.04 <1	<450 200 125 – – 0.68	<450 200 150 – – 1.22 <1	<450 200 150 5500 4500 0.57	<450 200 150 – – 1.16 <1	<450 200 150 – – 1.08 <1	<450 200 150 – – 0.85	<450 200 150 5500 4750 1.87 <1
U	<450 200 350 5500 15000 0.99	<450 200 200 – – 1.13 <1	<450 200 200 – – 1.03 <1	<450 200 150 – – 1.33 <1	<450 200 150 5500 4500 1.09 <1	<450 200 150 – – 1.48 <1	<450 200 150 – – 1.58 <1	<450 200 150 5500 4750 0.87	<450 200 200 – – 0.74	<450 200 200 – – 0.79	<450 200 150 5500 4000 1.06 <1	<450 200 150 – – 0.96	<450 200 175 – – 1.23 <1	<450 200 100 – – 0.95	<450 200 100 5500 4000 0.68	<450 200 150 – – 0.82	<450 200 150 – – 0.96

W1

FLOOR

N

Sample Data

<450 -- IM-247/PD Results [μμCi/20cm²]
200 -- IM-253/PD (HV-1 PHA) [bkg.]
300 -- IM-253/PD (HV-1 PHA) [cpm]
7000 -- IM-253/PD (HV-2 GROSS) [bkg.]
7300 -- IM-253/PD (HV-2 GROSS) [cpm]
1.82 -- MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 -- MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. Machine Shop

	10	11	12	13	14	15	16	17
AN	<450 200 200 5500 5000 1.91 <1	<450 200 250 – – 2.08 <1	<450 200 150 – – 1.51 <1	<450 200 150 – – 1.24 <1	<450 200 200 – – 1.85 <1	<450 200 250 – – 1.00 <1	<450 200 175 – – 1.54 <1	<450 200 150 5500 5000 2.03 <1
AM	<450 200 200 – – 0.88	<450 200 150 – – 1.04 <1	<450 200 150 5500 5000 1.14 <1	<450 200 150 – – 1.30 <1	<450 200 150 – – 1.51 <1	<450 200 150 5500 5000 1.38 <1	<450 200 150 – – 1.53 <1	<450 200 150 – – 1.49 <1
AL	<450 200 150 5500 5000 1.75 <1	<450 200 150 – – 1.26 <1	<450 200 200 – – 1.25 <1	<450 200 150 – – 1.72 <1	<450 200 150 – – 1.58 <1	<450 200 175 – – 1.69 <1	<450 200 150 – – 1.19 <1	<450 200 150 5500 5000 1.27 <1
AK	<450 200 225 – – 0.98	<450 200 200 – – 1.37 <1	<450 200 150 5500 5000 1.39 <1	<450 200 150 – – 1.38 <1	<450 200 150 – – 1.24 <1	<450 200 200 5500 5500 1.17 <1	<450 200 150 – – 1.21 <1	<450 200 200 – – 1.53 <1
AJ	<450 200 150 5500 5000 0.95	<450 200 150 – – 0.83	<450 200 150 – – 1.20 <1	<450 200 175 – – 1.21 <1	<450 200 200 – – 1.21 <1	<450 200 150 – – 1.16 <1	<450 200 150 – – 0.89	<450 200 150 5500 5000 1.06 <1
AI	<450 200 125 – – 1.05 <1	<450 200 150 – – 0.79	<450 200 100 5500 4000 1.01 <1	<450 200 100 – – 0.59	<450 200 150 – – 0.70	<450 200 125 5500 4000 1.02 <1	<450 200 150 – – 0.82	<450 200 150 – – 0.77
AH	<450 200 200 5500 4000 0.75	<450 200 150 – – 1.07 <1	<450 200 200 – – 1.01 <1	<450 200 150 – – 0.83	<450 200 150 – – 0.71	<450 200 150 – – 0.96	<450 200 200 – – 1.05 <1	<450 200 150 5500 4000 0.85
AG	<450 200 150 – – 0.77	<450 200 100 – – 1.12 <1	<450 200 150 5500 3750 1.44 <1	<450 200 150 – – 1.12 <1	<450 200 150 – – 0.97	<450 200 150 5500 4500 0.77	<450 200 150 – – 1.08 <1	<450 200 150 – – 0.84
AF	<450 200 150 5500 4000 0.89	<450 200 200 – – 1.19 <1	<450 200 150 – – 1.21 <1	<450 200 150 – – 1.08 <1	<450 200 175 – – 0.99	<450 200 175 – – 1.00 <1	<450 200 150 – – 1.43 <1	<450 200 175 5500 4250 0.94
AE	<450 200 200 – – 1.16 <1	<450 200 200 – – 1.11 <1	<450 200 150 5500 5000 1.09 <1	<450 200 150 – – 1.37 <1	<450 200 150 – – 1.06 <1	<450 200 200 5500 4500 1.15 <1	<450 200 150 – – 1.02 <1	<450 200 200 – – 1.11 <1

FLOOR

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. Machine Shop

	11	12	13	14	15	16	17
AU	<450 200 200 5500 6750 1.32 <1	<450 200 250 – – 1.26 <1	<450 200 250 – – 1.38 <1	<450 200 200 – – 1.30 <1	<450 200 275 – – 1.83 <1	<450 200 200 – – 0.83 <1	<450 200 250 5500 6750 1.50 <1
AT	<450 200 200 – – 0.82	<450 200 250 5500 10000 1.20 <1	<450 200 225 – – 1.78 <1	<450 200 275 5500 10000 1.34 <1	<450 200 325 – – 1.38 <1	<450 200 250 – – 1.71 <1	<450 200 225 – – 1.07 <1
AS	<450 200 225 – – 1.19 <1	<450 200 250 – – 1.28 <1	<450 200 250 5500 7000 1.02 <1	<450 200 225 – – 0.79	<450 200 275 5500 6500 1.28 <1	<450 200 200 – – 1.02 <1	<450 200 200 – – 2.21 <1
AR	<450 200 250 5500 6750 1.68 <1	<450 200 250 – – 1.12 <1	<450 200 250 – – 0.94	<450 200 200 – – 1.08 <1	<450 200 250 – – 1.14 <1	<450 200 225 – – 1.27 <1	<450 200 150 5500 6000 1.55 <1
AQ	<450 200 150 – – 0.75	<450 200 150 5500 5500 0.80	<450 200 150 – – 0.78	<450 200 150 5500 5500 1.33 <1	<450 200 300 – – 1.18 <1	<450 200 200 – – 1.30 <1	<450 200 200 – – 1.63 <1
AP	<450 200 200 – – 1.01 <1	<450 200 150 – – 1.39 <1	<450 200 250 5500 8000 1.54 <1	<450 200 250 – – 1.25 <1	<450 200 275 5500 4500 1.40 <1	<450 200 200 – – 0.97	<450 200 150 – – 1.24 <1
AO	<450 200 250 5500 5000 1.18 <1	<450 200 250 – – 1.96 <1	<450 200 350 – – 3.55 <1	<450 200 250 – – 1.73 <1	<450 200 250 – – 1.50 <1	<450 200 200 – – 1.41 <1	<450 200 200 5500 5000 1.20 <1

FLOOR

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. Machine Shop

	11	12	13	14	15	16	17
AY	<450 200 300 – – 1.41 <1	<450 200 300 – – 1.05 <1	<450 200 300 5500 6500 1.52 <1	<450 200 300 – – 2.12 <1	<450 200 300 5500 6000 1.68 <1	<450 200 250 – – 1.75 <1	<450 200 250 – – 1.73 <1
AX	<450 200 200 5500 7000 1.64 <1	<450 200 250 – – 1.73 <1	<450 200 200 – – 1.42 <1	<450 200 200 – – 1.39 <1	<450 200 250 – – 1.30 <1	<450 200 250 – – 1.45 <1	<450 200 250 5500 8000 1.19 <1
AW	<450 200 250 – – 1.04 <1	<450 200 200 5500 7000 1.15 <1	<450 200 300 – – 1.04 <1	<450 200 150 5500 7500 1.27 <1	<450 200 350 – – 1.42 <1	<450 200 250 – – 2.54 <1	<450 200 250 – – 1.83 <1
AV	<450 200 150 – – 1.21 <1	<450 200 250 – – 1.14 <1	<450 200 200 5500 7500 1.53 <1	<450 200 250 – – 1.53 <1	<450 200 325 5500 7000 1.51 <1	<450 200 250 – – .83 <1	<450 200 250 – – 1.80 <1

FLOOR

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. Machine Shop

	A	B	C	D	E	F	G	H	I	J
1	<450 350 475 12000 15000 2.38 <1	<450 350 500 – – 2.29 <1	<450 350 475 – – 1.62 <1	<450 350 500 – – 1.05 <1	<450 350 600 12000 15000 1.64 <1	<450 350 550 – – 1.72 <1	<450 350 500 – – 2.51 <1	<450 350 450 – – 1.24 <1	<450 350 550 – – 2.11 <1	<450 350 450 12000 15000 1.50 <1

	K	L	M	N	O	P	Q	R	S	T
1	<450 350 450 – – 1.70 <1	<450 350 550 – – 1.54 <1	<450 350 550 – – 1.35 <1	<450 350 900 12000 15000 1.48 <1	<450 350 900 – – 1.53 <1	<450 350 550 – – 1.59 <1	<450 350 475 – – 1.25 <1	<450 350 500 12000 15000 1.12 <1	<450 350 550 – – 1.27 <1	<450 350 650 – – 1.83 <1

	U	V	W	X	Y	Z	AA	AB
1	<450 350 600 – – 1.97 <1	<450 350 600 12000 17500 1.98 <1	<450 350 650 – – 1.46 <1	<450 350 600 – – 1.29 <1	<450 350 600 – – 2.09 <1	<450 350 400 12000 15000 2.50 <1	<450 350 700 – – 1.93 <1	<450 350 600 – – 1.76 <1

WALL 1

	1	2	3
A	<450 350 400 – – 3.59 <1	<450 350 400 12000 10000 3.24 <1	<450 350 450 – – 3.72 <1

W2

Sample Data

<450 -- IM-247/PD Results [μμCi/20cm²]
200 -- IM-253/PD (HV-1 PHA) [bkg.]
300 -- IM-253/PD (HV-1 PHA) [cpm]
7000 -- IM-253/PD (HV-2 GROSS) [bkg.]
7300 -- IM-253/PD (HV-2 GROSS) [cpm]
1.82 -- MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 -- MCA Specific Co-60 Results [pCi/g]

3. Bldg. 79, Group 3 and 6 Areas

c. Prior Photograph

Machine Shop, viewing west.

3. Bldg. 79, Group 3 and 6 Areas

c. Prior Photograph

Machine Shop, viewing south.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Machine Shop, viewing southeast.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Machine Shop, viewing southeast.

3. Bldg. 79, Group 3 and 6 Areas

c. After Photograph

Machine Shop, viewing southeast.

4. Bldg. 79, Group 4 and 6 Areas

a. Report:

(1) Description:

The Group 4 and 6 Areas consist of the Anticontamination Clothing Laundry. The construction materials present in this area are concrete and concrete block. Two walls were 12' high requiring surveys. The false ceiling and other two walls were previously released and removed.

(2) Discussion:

The Group 4 survey area was divided into 160 grids. The floor grids were approximately 3' by 3'. The wall grids were 3' by 3'. Each grid had its own unique designator.

One hundred percent of all 3' by 3' grids were surveyed with the IM-247/PD and the IM-253/PD (HV-1 PHA). A minimum of 25% of all 3' by 3' grids were surveyed with the IM-253/PD (HV-2 GROSS). Additionally, solid material samples were taken from each 3' by 3' grid.

A total of 160 solid material samples were taken from the Anticontamination Clothing Laundry. Each solid material sample was removed from the grid location indicating the area of highest potential. Additionally, solid material samples were taken from selected structural joints and crevices. Results from these samples were incorporated into the report by utilizing the higher of the normal grid sample or the joint/crevice sample result. The following typical naturally occurring radionuclides were identified during isotopic analysis of solid material samples: lead 212, lead 214, thallium 208, and potassium 40.

The construction material present in the Group 4 Area was concrete and concrete block. For the floor, an IM-247/PD and an IM-253/PD (HV-1 PHA and HV-2 GROSS) background of 40, 200, and 5500 counts per minute were based on radiation levels obtained from Building 21. For the walls, an IM-247/PD and an IM-253/PD (HV-1 PHA and HV-2 GROSS) background of 40, 350, and 12000 counts per minute were based on background radiation levels obtained from Building 89.

Group 6 surveys were performed in this area in accordance with localized survey instructions. A minimum of 25% of the floor grids in the Anticontamination Clothing Laundry were surveyed with the AN/PDR-56.

(3) Summary:

Group 4 Summary

Surveys performed in the Group 4 area with the IM-247/PD did not detect areas

4. Bldg. 79, Group 4 and 6 Areas

greater than 450μμCi/20cm^2.

Surveys performed with the IM-253/PD (HV-1 PHA) detected 59 areas greater than or equal to twice background.

Surveys performed with the IM-253/PD (HV-2 GROSS) detected 14 areas greater than or equal to twice background.

Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from a low of 0.34 pCi/g to a high of 7.35 pCi/g.

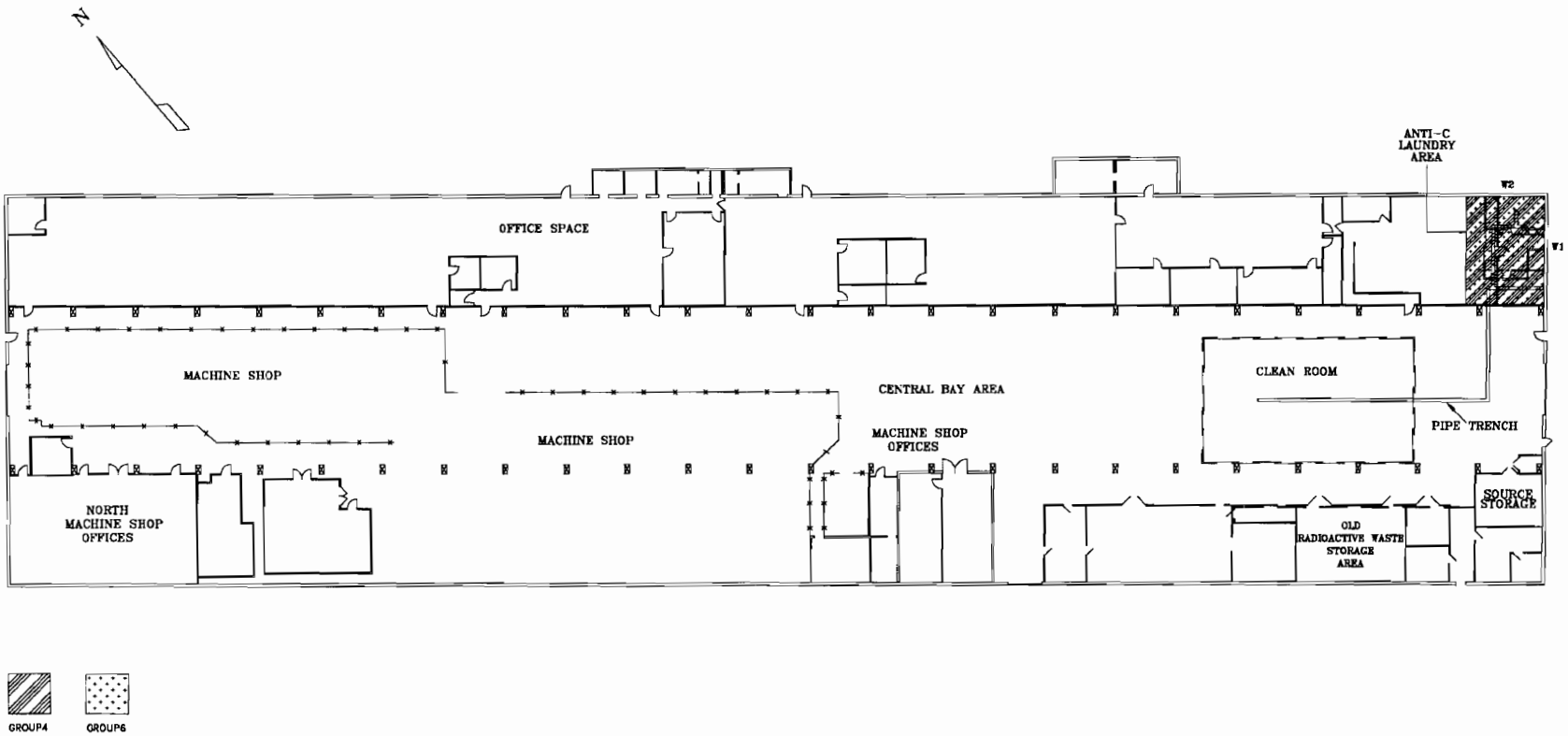
Analysis performed on solid material samples with the MCA for specific cobalt 60 indicated that all solid material samples were less than 1 pCi/g, except for paint samples. Analysis performed on paint samples from grids W1-A2 and W1-B2 indicated less than 3 pCi/g.

Group 6 Summary

Surveys performed with the AN/PDR-56 found no detectable alpha radioactivity.

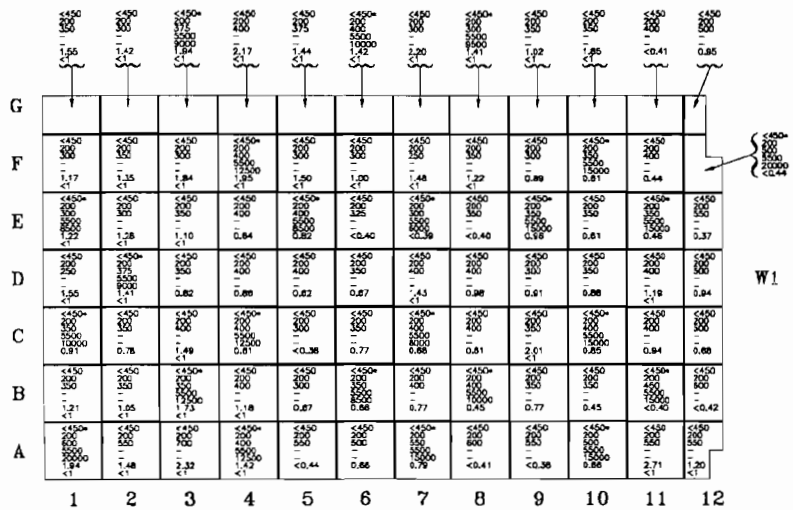
4. Bldg. 79, Group 4 and 6 Areas

b. Site Map



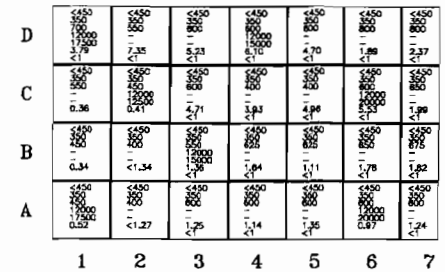
4. Bldg. 79, Group 4 and 6 Areas

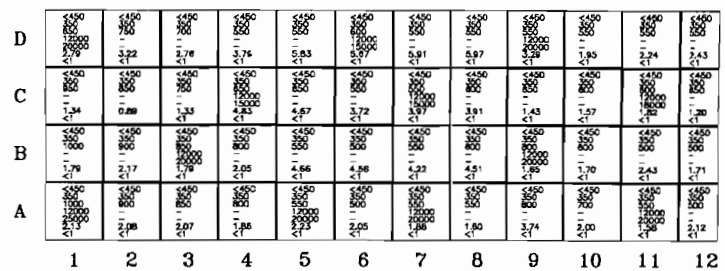
c. Anti-C Laundry Area



W2

FLOOR





Notes:
(1) Samples taken from grids W1-A2 and W1-B2 consist of paint and have a limit of 3 pCi/g.

(2) *Denotes grids which were surveyed with an AN/PDR-56 for Alpha radioactivity and no detectable activity was found.

Sample Data
<450 -- IM-247/PD Results [μμCi/20cm²]
200 -- IM-253/PD (HV-1 PHA) [bkg.]
300 -- IM-253/PD (HV-1 PHA) [cpm]
7000 -- IM-253/PD (HV-2 GROSS) [bkg.]
7300 -- IM-253/PD (HV-2 GROSS) [cpm]
1.82 -- MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 -- MCA Specific Co-60 Results [pCi/g]

4. Bldg. 79, Group 4 and 6 Areas

c. After Photograph

Anti-C Laundry area, viewing northeast.

4. Bldg. 79, Group 4 and 6 Areas

c. After Photograph

Anti-C Laundry area, viewing southeast.

5. Bldg. 79A, Transition Group 2 Areas

a. Report

(1) Description:

The Building 79A Transition Group 2 areas consisted of the Temporary Services Shop office, Vault, Restroom, Mezzanine stairs, and Reactor Compartment (RC) Mock-up. All of the areas are constructed of concrete with the exception of the RC Mock-up which is of metal construction.

(2) Discussion:

Group 2 survey areas were divided into 24 10' by 10' grids. Where physically possible, each grid was subdivided into two, 3' by 3' subsections which were located in areas of highest potential for contamination. One of these subsections was surveyed using the IM-247/PD and the other using the IM-253/PD (HV-1 PHA). Solid material samples were taken from grids resulting in greater than 450 $\mu\mu Ci/20cm^2$ using the IM-247/PD or greater than twice background using the IM-253/PD (HV-1 PHA), or IM-253/PD (HV2-GROSS).

The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the concrete floors were 40, 200, and 5500 counts per minute. These radiation levels were based upon background levels obtained from Building 21. The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the RC Mock-up were 40, 150, and 4000 counts per minute. These radiation levels were based upon background levels from Trailer J-106.

A total of two solid material samples were taken. The following naturally occurring radionuclides were typical isotopes identified during analysis of solid material samples: lead 212, lead 214, thallium 208, and potassium 40.

(3) Summary:

Surveys performed with the IM-247/PD did not detect areas greater than 450 $\mu\mu Ci/20cm^2$.

Surveys performed with the IM-253/PD (HV-1 PHA) detected two areas greater than or equal to twice background.

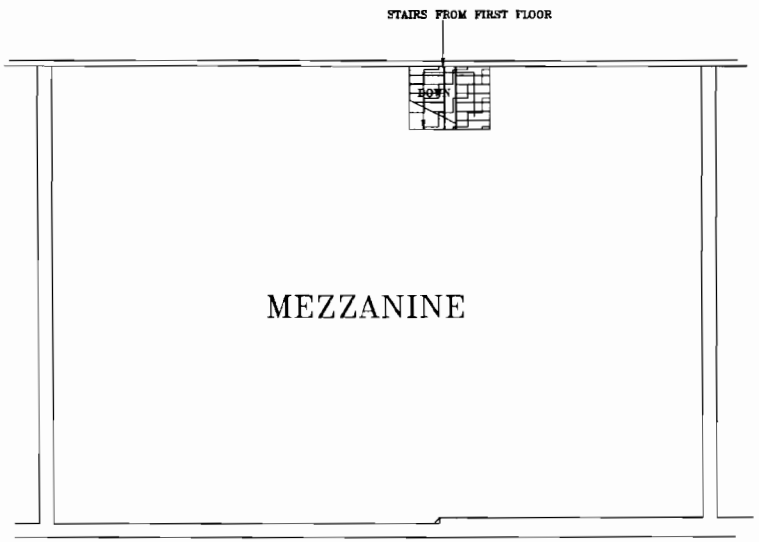
Surveys performed with the IM-253/PD (HV-2 GROSS) detected two areas greater than or equal to twice background.

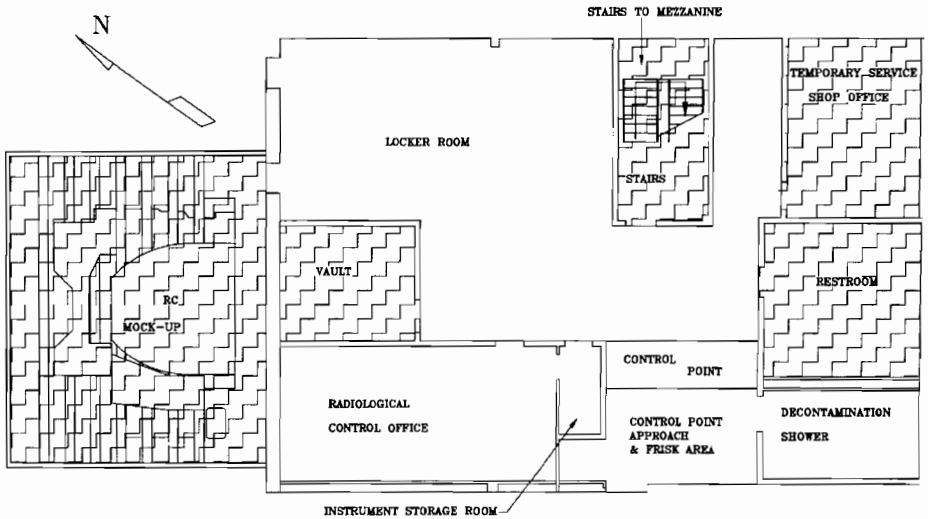
Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from a low of 1.37 pCi/g to a high of 2.09 pCi/g.

Analysis performed on solid material samples with the MCA for specific cobalt 60 indicated that all solid material samples were less than 1 pCi/g.

5. Bldg. 79A, Transition Group 2 Areas

b. Site Map

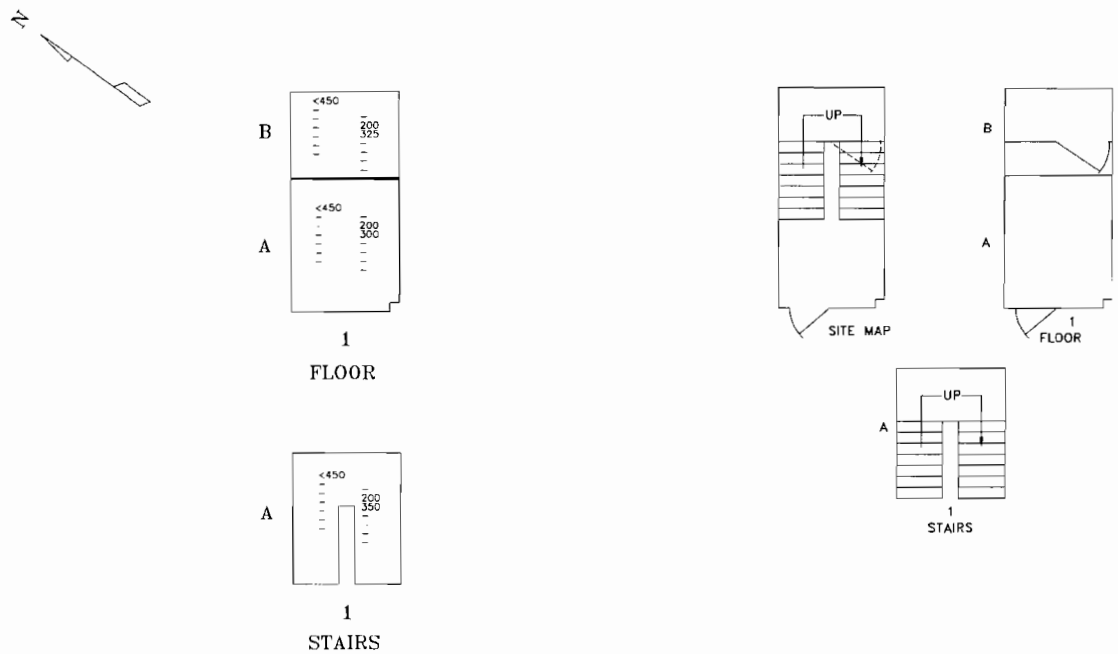




GROUP 2

5. Bldg. 79A, Transition Group 2 Areas

c. Grid Map, Mezzanine Stairs

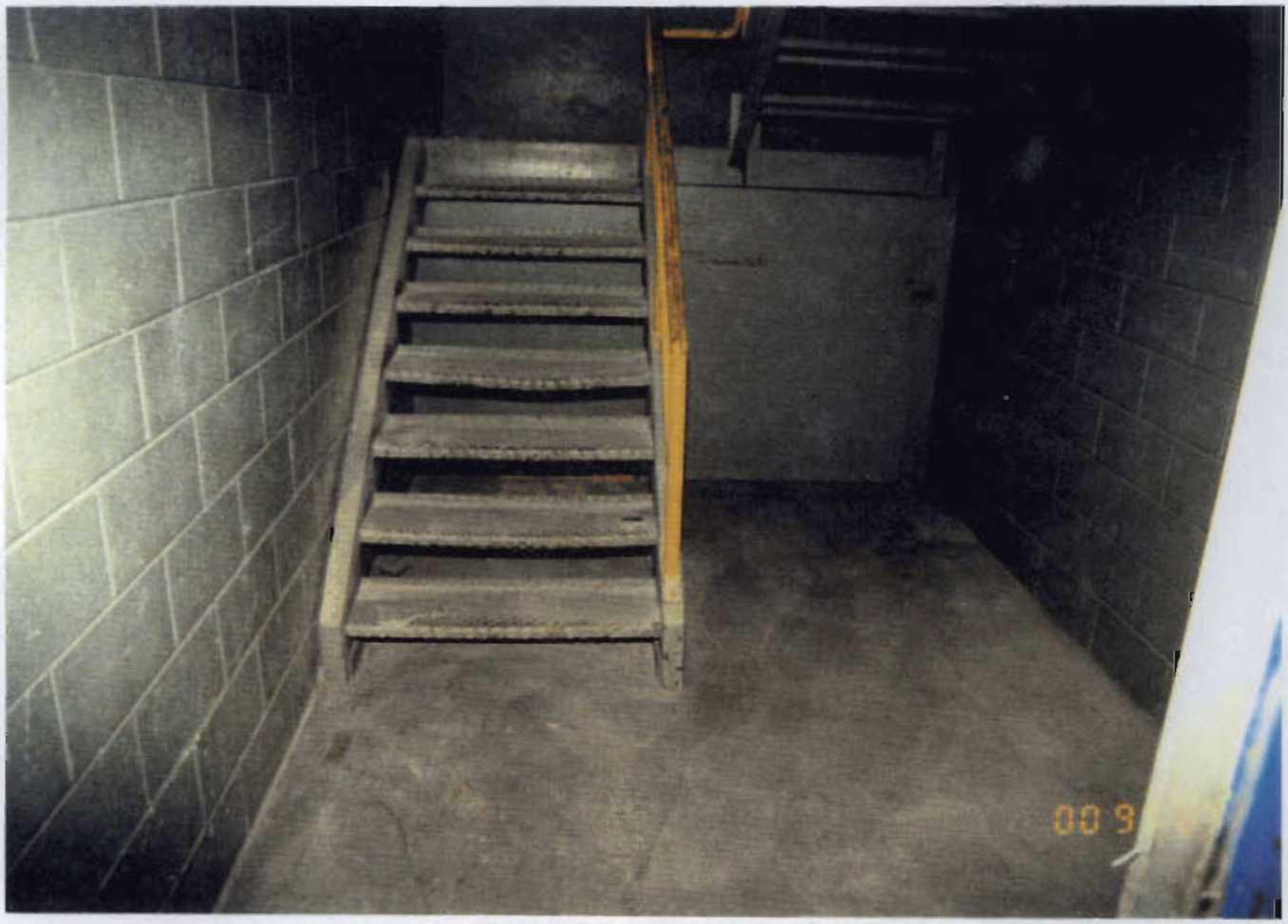


Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

5. Bldg. 79A, Transition Group 2 Areas

c. Prior To Survey Photographs, Mezzanine Stairs



Viewing stairs facing east wall.

5. Bldg. 79A, Transition Group 2 Areas

c. After Survey Photographs, Mezzanine Stairs

Viewing stairs from mezzanine.

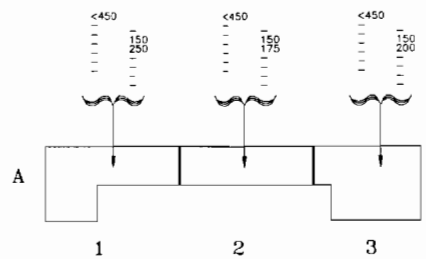
5. Bldg. 79A, Transition Group 2 Areas

c. After Survey Photographs, Mezzanine Stairs

Viewing floor from entrance.

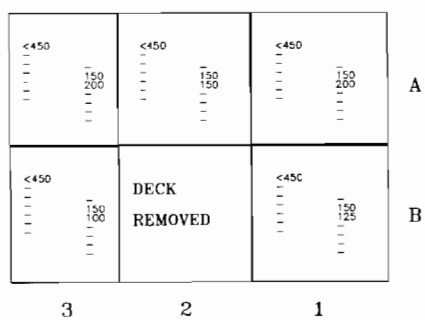
5. Bldg. 79A, Transition Group 2 Areas

c. Grid Map, RC Mock-Up

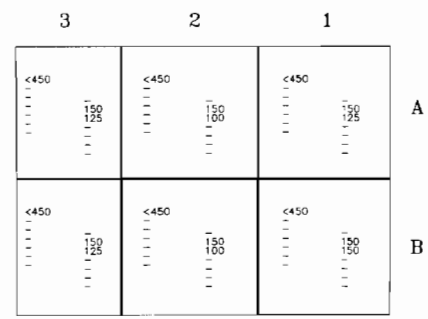


PASSAGEWAY

UPPER LEVEL



LOWER LEVEL



Sample Data
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

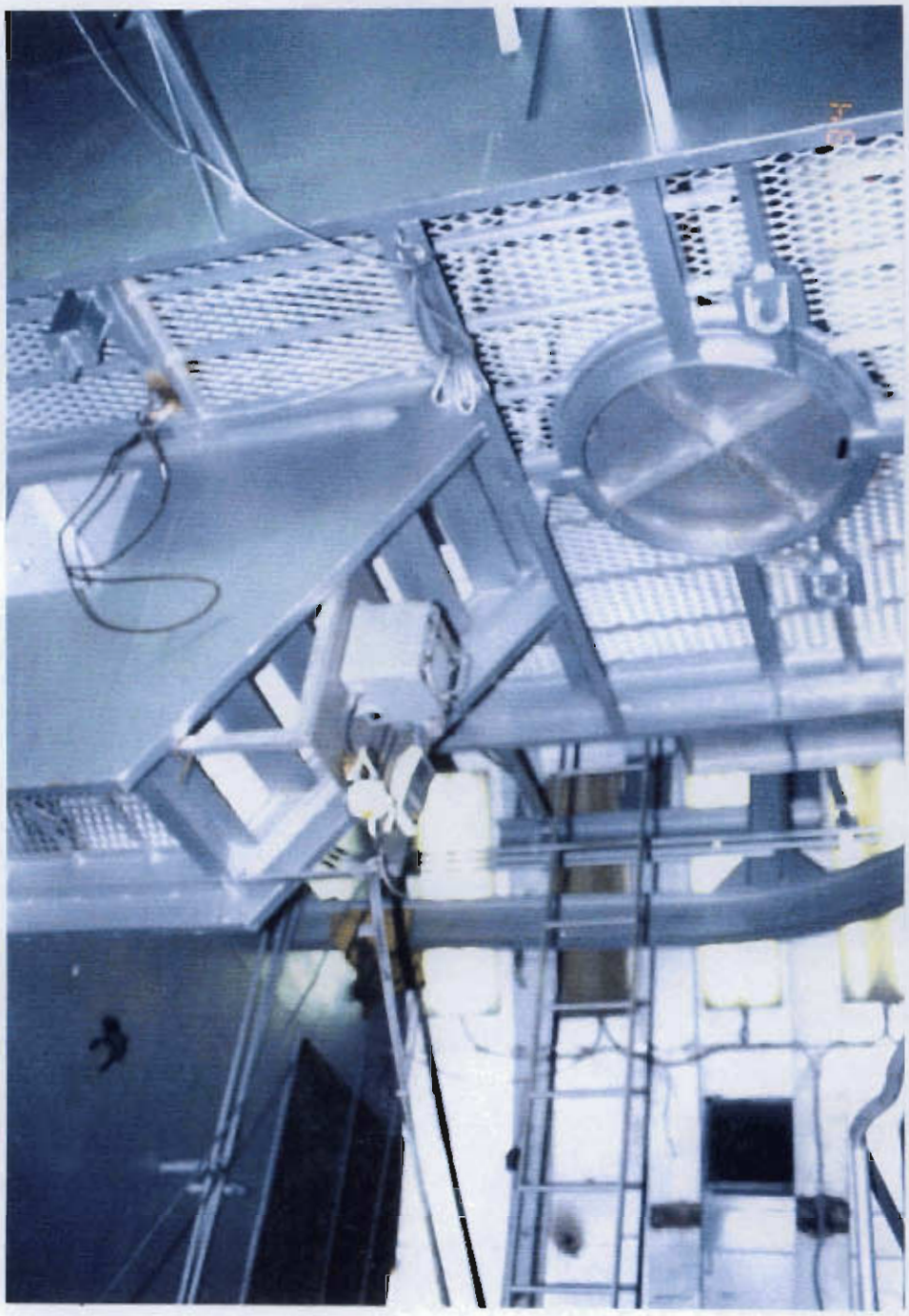
5. Bldg. 79A, Transition Group 2 Areas

c. Prior To Survey Photographs, RC Mock-Up

Lower level looking forward.

5. Bldg. 79A, Transition Group 2 Areas

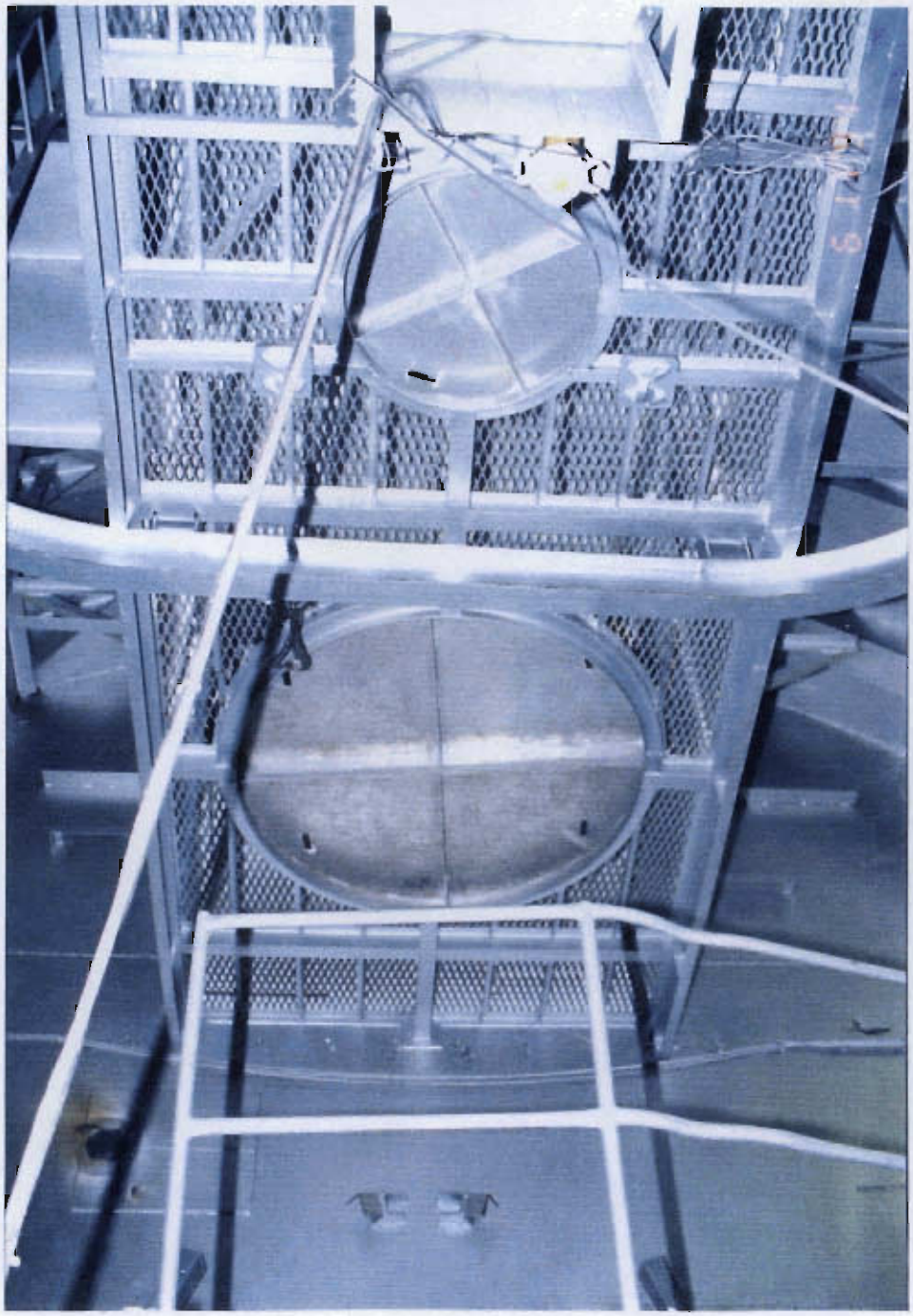
c. Prior To Survey Photographs, RC Mock-Up



Lower level looking aft.

5. Bldg. 79A, Transition Group 2 Areas

c. Prior To Survey Photographs, RC Mock-Up



Viewing upper level deck grating from lower level.

5. Bldg. 79A, Transition Group 2 Areas

c. After Survey Photographs, RC Mock-Up

Lower level facing forward.

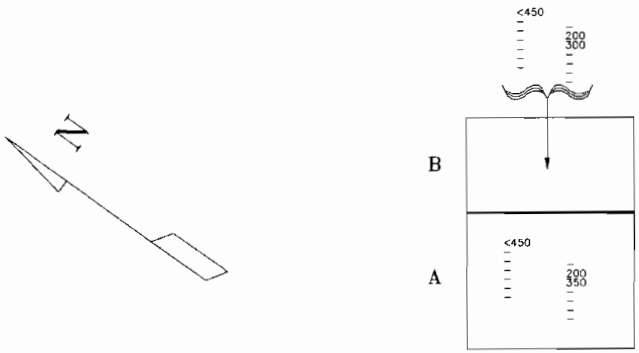
5. Bldg. 79A, Transition Group 2 Areas

c. After Survey Photographs, RC Mock-Up

Passageway leading to mock-up.

5. Bldg. 79A, Transition Group 2 Areas

c. Grid Map, Temporary Services Shop Office



FLOOR

Sample Data

<450 – IM-247/PD Results [μCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

5. Bldg. 79A, Transition Group 2 Areas

c. After Survey Photographs, Temporary Services Shop Office

Viewing floor facing south wall.

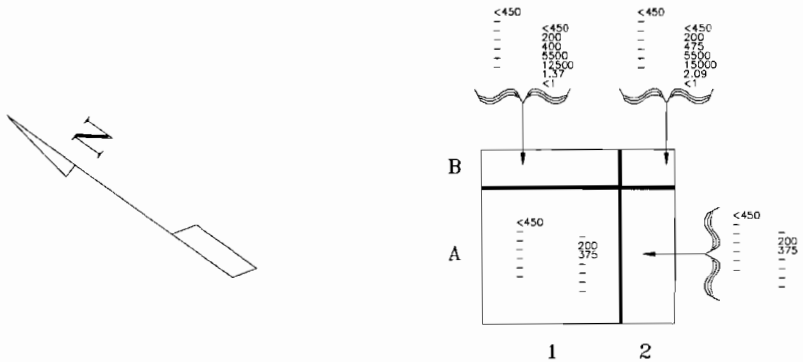
5. Bldg. 79A, Transition Group 2 Areas

c. After Survey Photographs, Temporary Services Shop Office

Viewing toward east wall.

5. Bldg. 79A, Transition Group 2 Areas

c. Grid Map, Restroom



Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.52 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

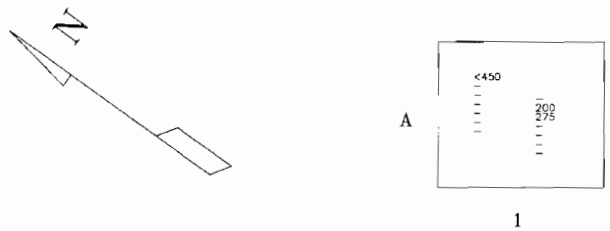
5. Bldg. 79A, Transition Group 2 Areas

c. After Survey Photographs, Restroom

Viewing floor facing south wall.

5. Bldg. 79A, Transition Group 2 Areas

c. Grid Map, Vault



FLOOR

Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

5. Bldg. 79A, Transition Group 2 Areas

c. After Survey Photographs, Vault

Viewing floor from entrance.

5. Bldg. 79A, Transition Group 2 Areas

c. After Survey Photographs, Vault

Viewing floor facing east wall.

6. Bldg. 79A, Transition Group 3 Areas

a. Report

(1) Description:

The Building 79A Transition Group 3 Areas consisted of the Locker Room, Mezzanine, and Control Point. The floors and walls of the Group 3 areas are concrete construction.

(2) Discussion:

The Group 3 areas were divided into 231 5' by 5' floor grids and 5' by 6' wall grids up to 6' in height where physically possible. One hundred percent of all grids were surveyed using the IM-247/PD and the IM-253/PD (HV-1 PHA). A minimum of 25 percent of all grids were surveyed using the IM-253/PD (HV-2 GROSS). Additionally, solid material samples were taken from each wall and floor grid. These samples were removed from the area indicating the highest potential within each grid.

The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the Group 3 floors and walls were 40, 200, 5500, and 40, 325, and 6250 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 21 and 132.

A total of 249 solid material samples were taken. The following naturally occurring radionuclides were typical isotopes identified during analysis of solid material samples: lead 212, lead 214, thallium 208, bismuth 214, and potassium 40.

(3) Summary:

Surveys performed with the IM-247/PD did not detect areas greater than 450 $\mu\mu Ci/20cm^2$.

Surveys performed with the IM-253/PD (HV-1 PHA) detected eight areas greater than or equal to twice background.

Surveys performed with the IM-253/PD (HV-2 GROSS) detected two areas greater than or equal to twice background.

Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from less than minimum detectable activity of 0.24 pCi/g to a high of 6.60 pCi/g.

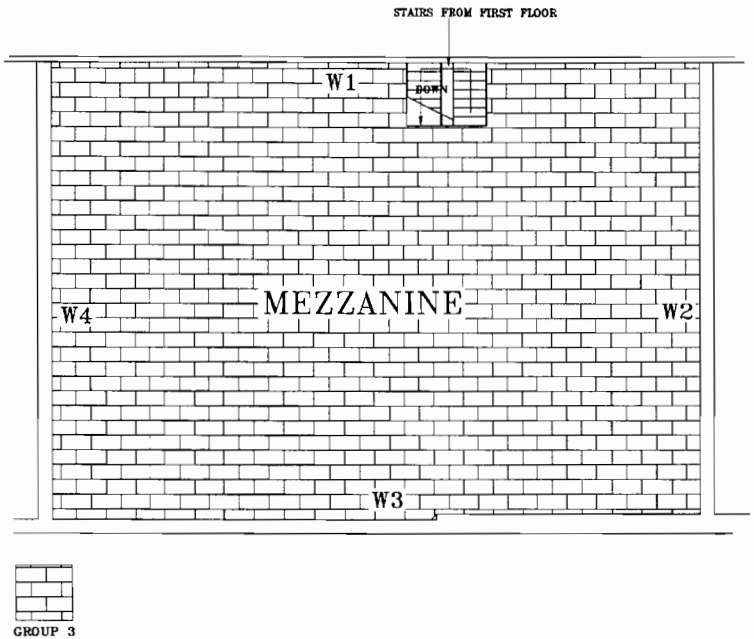
Analysis performed on solid material samples with the MCA for specific cobalt 60 indicated that solid material samples were less than 1 pCi/g. However, four samples with traces of cobalt 60 greater than the minimum detectable activity were identified. These were taken from grid locations in the Mezzanine. The extent of the trace cobalt 60 radioactivity was identified by taking additional

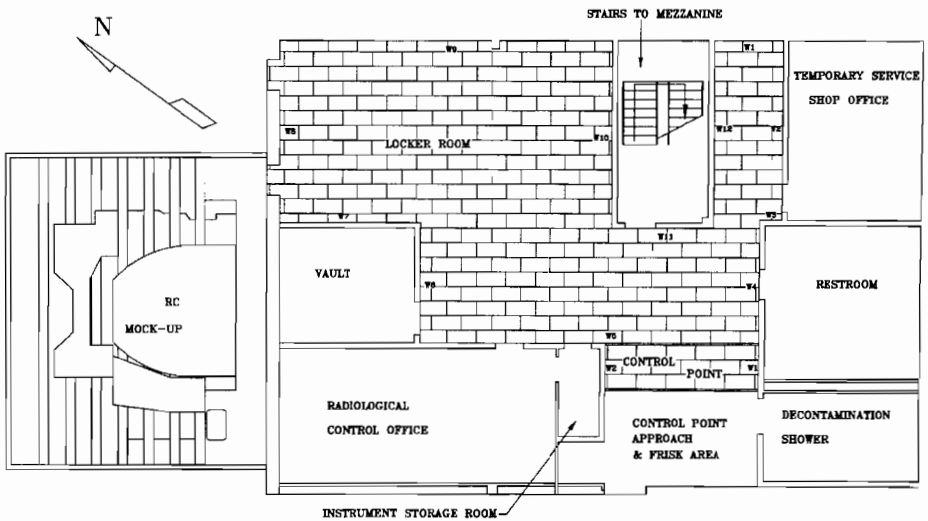
6. Bldg. 79A, Transition Group 3 Areas

solid material samples from the surrounding vicinity. Due to the small effort involved, the shipyard remediated each area where colbalt 60 was identified. Remediation consisted of the removal of concrete to a depth of 1/2" using scabbling equipment. Following remediation, additional solid material samples were taken from the affected areas and all were less than 1Ci/g specific colbalt 60. No traces of colbalt 60 were identified.

6. Bldg. 79A, Transition Group 3 Areas

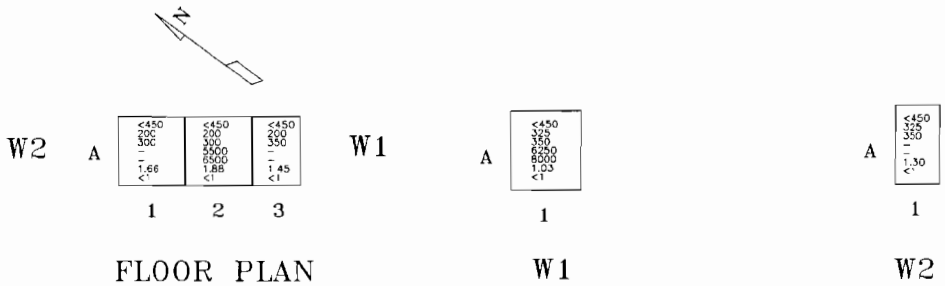
b. Site Map





6. Bldg. 79A, Transition Group 3 Areas

c. Grid Map, Control Point Area



FLOOR PLAN

W1

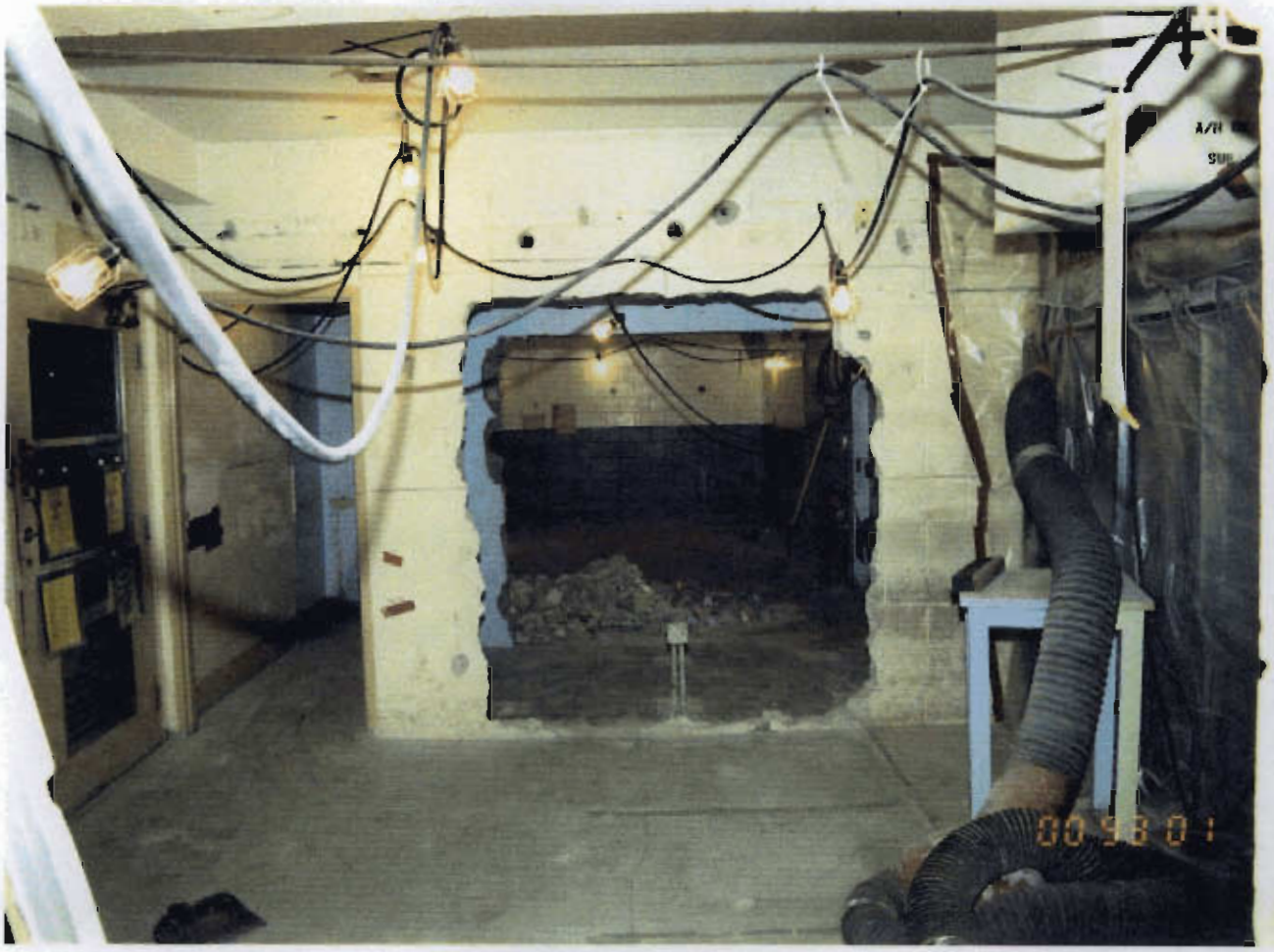
W2

Sample Data

<450 – IM-247/PD Results (μμCi/20cm²)
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

5. Bldg. 79A, Transition Group 3 Areas

c. During Survey Photographs, Control Point Area



Viewing toward instrument storage room.

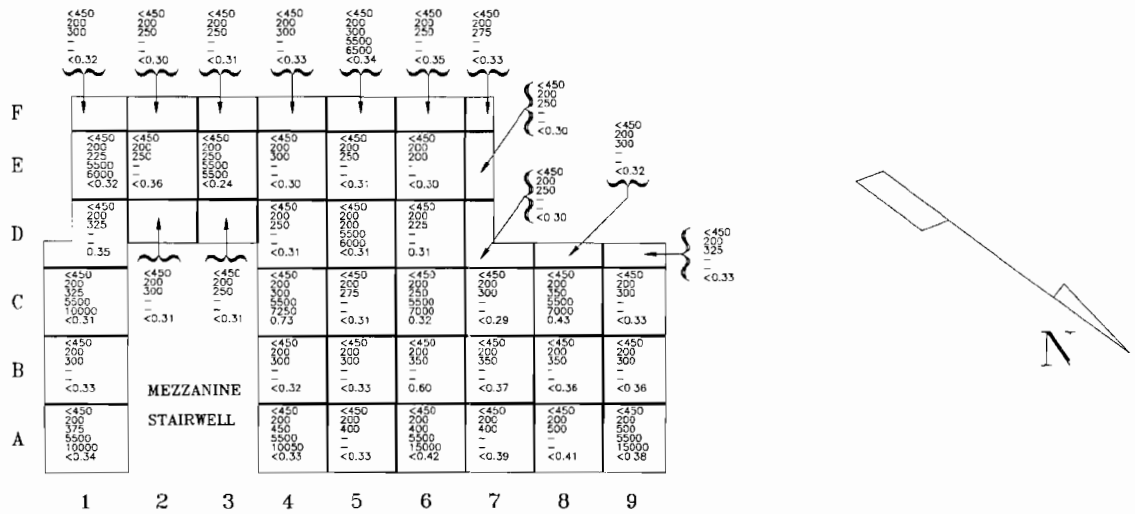
5. Bldg. 79A, Transition Group 3 Areas

c. After Survey Photographs, Control Point Area

Viewing toward control area entrance.

6. Bldg. 79A, Transition Group 3 Areas

c. Grid Map, Locker Room

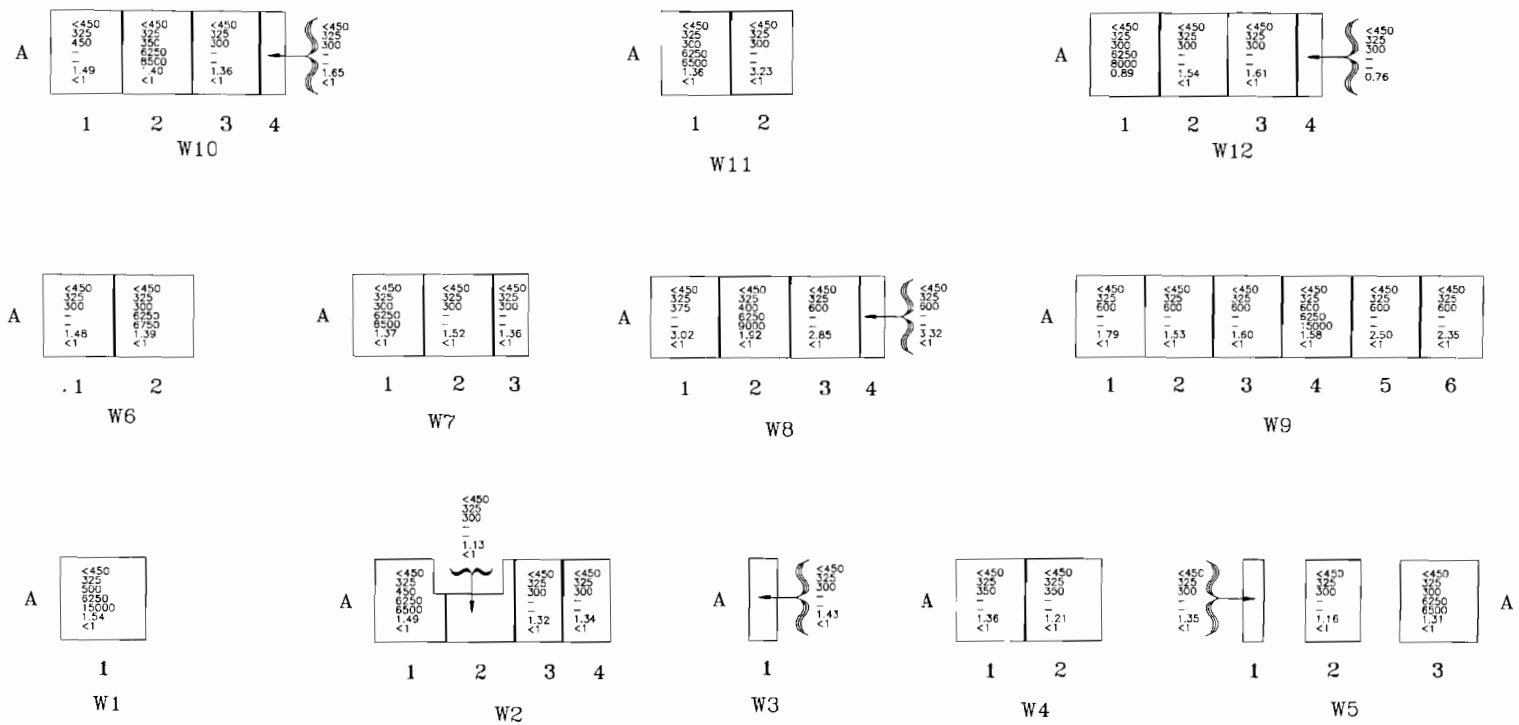


Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

6. Bldg. 79A, Transition Group 3 Areas

c. Grid Map, Locker Room

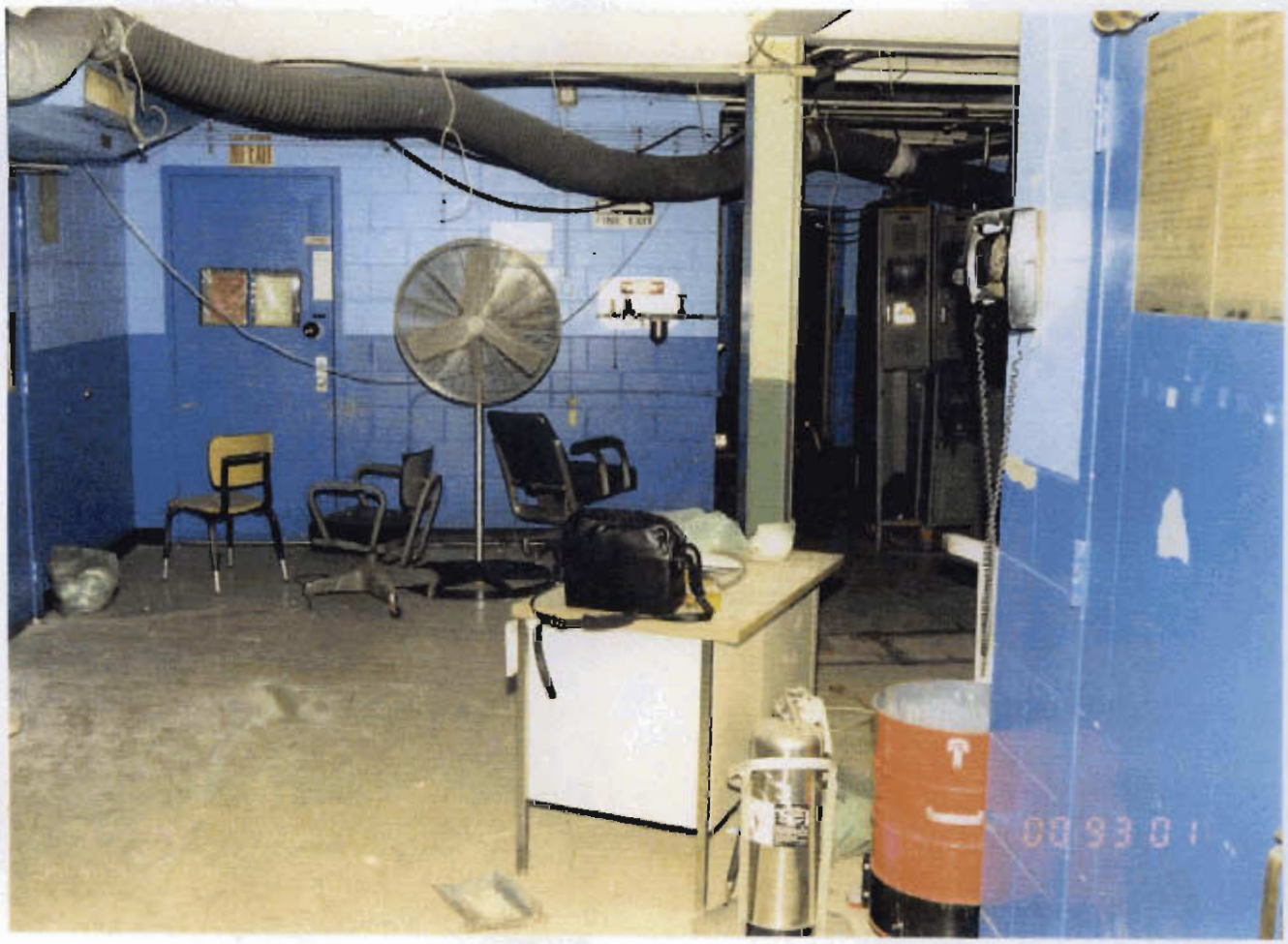


Sample Data

< 450 – IM-247/PO Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

6. Bldg. 79A, Transition Group 3 Areas

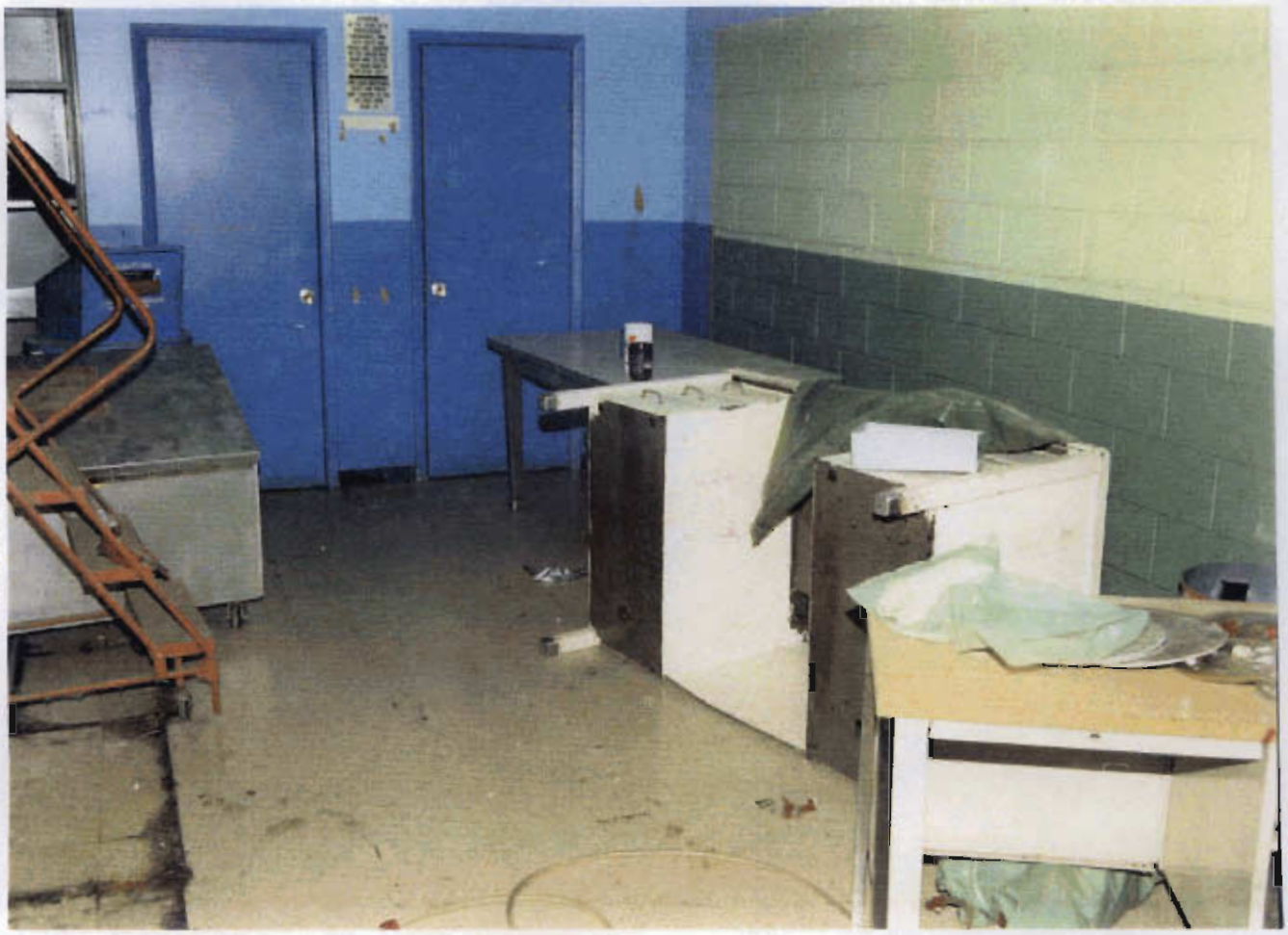
c. Prior To Survey Photographs, Locker Room



Viewing toward vault door.

6. Bldg. 79A, Transition Group 3 Areas

c. Prior To Survey Photographs, Locker Room



Viewing toward corner of wall-9 & wall-10.

6. Bldg. 79A, Transition Group 3 Areas

c. After Survey Photographs, Locker Room

Viewing toward wall-6.

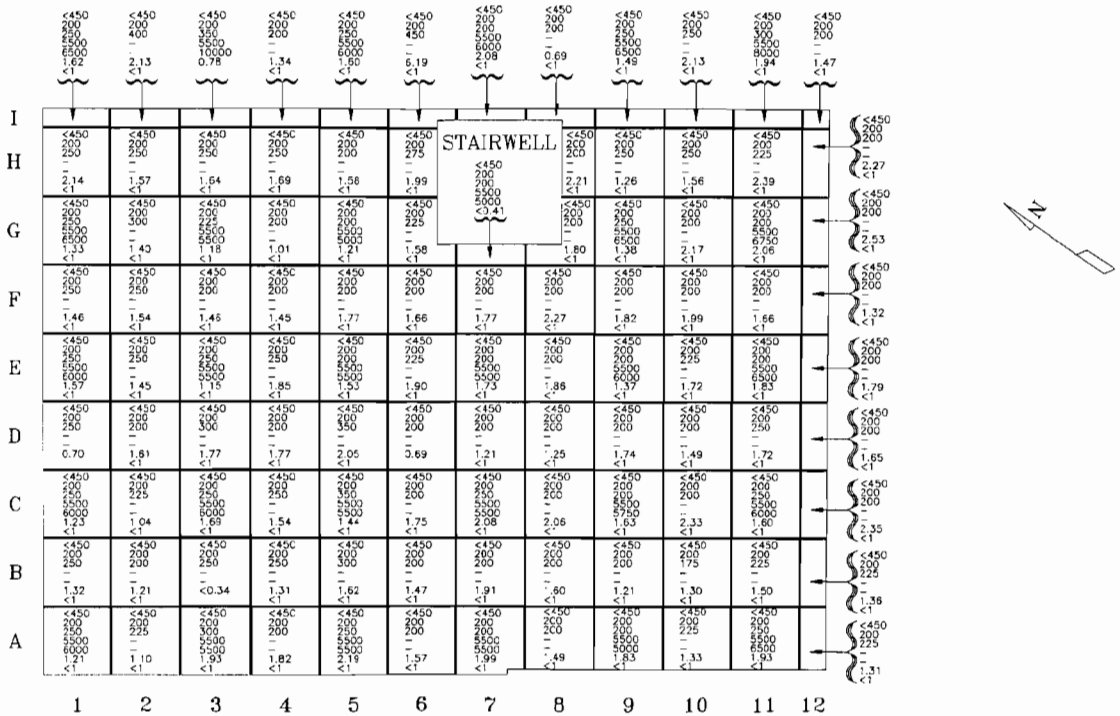
6. Bldg. 79A, Transition Group 3 Areas

c. After Survey Photographs, Locker Room

Viewing toward wall-9.

6. Bldg. 79A, Transition Group 3 Areas

c. Grid Map, Mezzanine



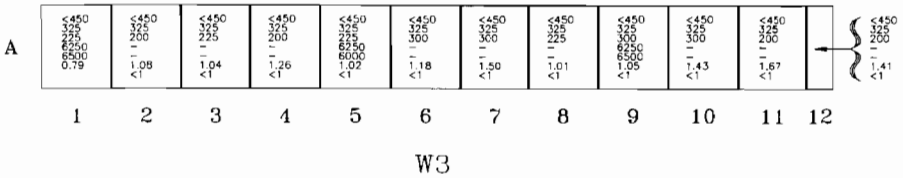
FLOOR PLAN

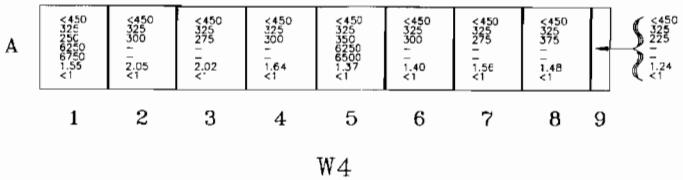
Sample Data

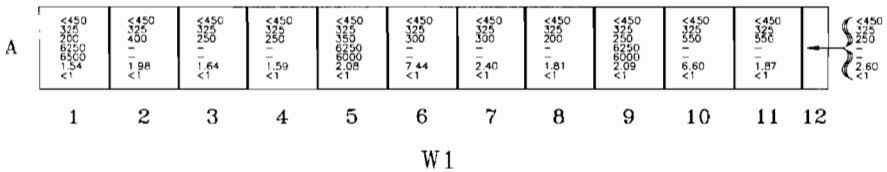
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

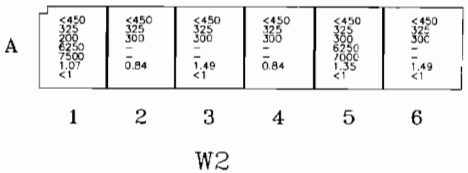
6. Bldg. 79A, Transition Group 3 Areas

c. Grid Map, Mezzanine









Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

6. Bldg. 79A, Transition Group 3 Areas

c. Prior To Survey Photographs, Mezzanine

Viewing toward corner of wall-2 & wall-1.

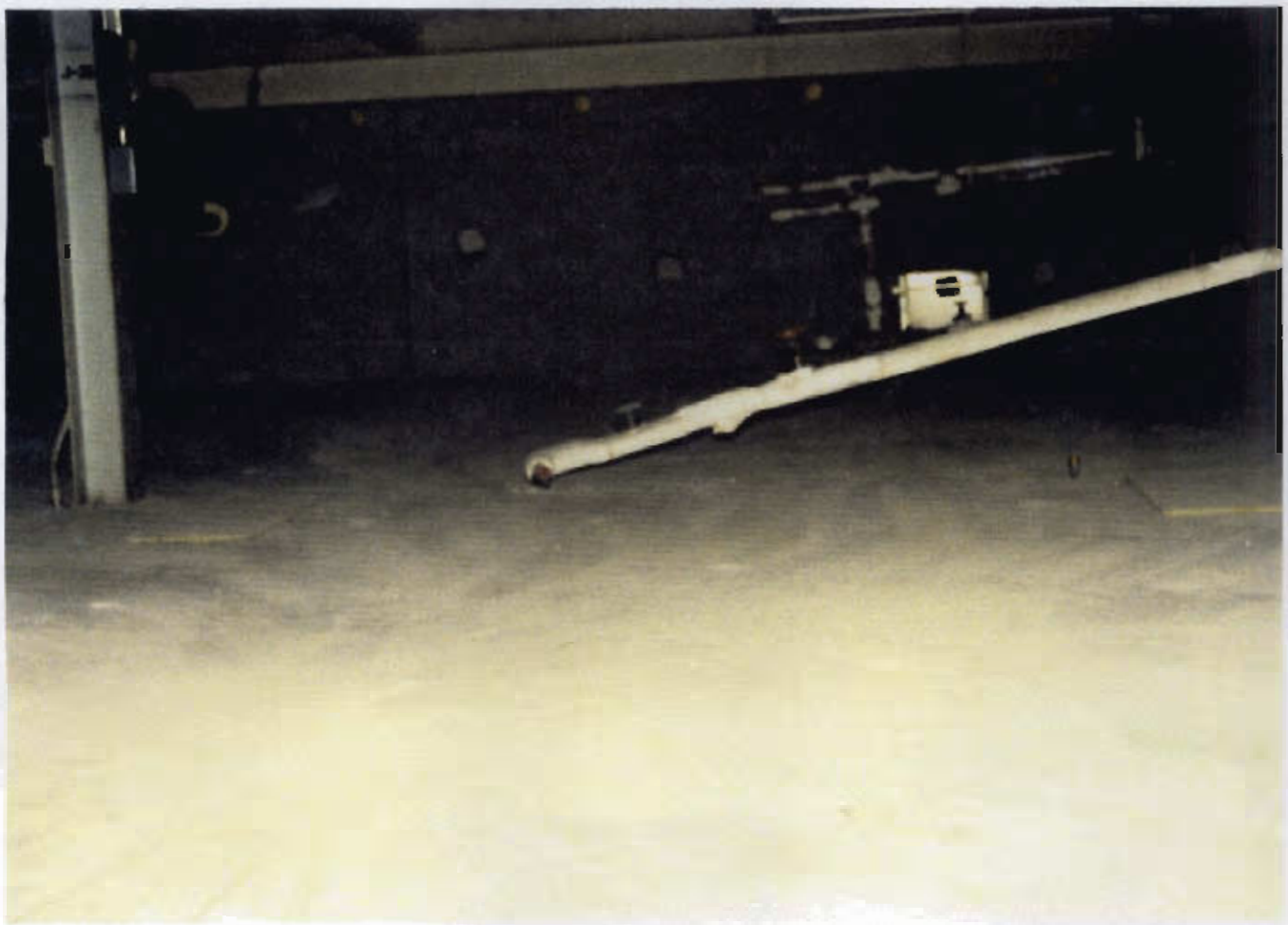
6. Bldg. 79A, Transition Group 3 Areas

c. Prior To Survey Photographs, Mezzanine

Viewing toward wall-4.

6. Bldg. 79A, Transition Group 3 Areas

c. After Survey Photographs, Mezzanine



Viewing floor facing wall-2.

6. Bldg. 79A, Transition Group 3 Areas

c. After Survey Photographs, Mezzanine

Viewing corner of wall-1 and wall-4.

7. Bldg. 79A, Transition Group 4 & 6 Areas

a. Report

(1) Description:

The Building 79A Transition Group 4 areas consisted of Radiological Control Office, Instrument Storage Room, Control Point Approach and Frisk Area, and Decontamination Shower. The Group 6 area was located in the Instrument Storage Room. These areas are concrete construction. A Radioactive Liquid Waste piping trench ("Trench A"), which traverses the group 4 and 6 areas, is covered in a separate report.

(2) Discussion:

The Group 4 areas were divided into 187 3' by 3' floor and wall grids and 9' by 9' wall and ceiling grids. The walls were divided into grids 3' by 3', up to 12' high, then 9' by 9' grids above 12'. Each grid was identified with its unique designation.

One hundred percent of all 3' by 3' grids were surveyed using the IM-247/PD and the IM-253/PD (HV-1 PHA). A minimum of 25 percent of all 3' by 3' grids were surveyed using the IM-253/PD (HV-2 GROSS). A minimum of 25 percent of all 9' by 9' grids were surveyed using the IM-247/PD and IM-253/PD (HV-1 PHA and HV-2 GROSS). A minimum of one solid material sample was taken from each 3' by 3' grid and from a minimum of 25 percent of all 9' by 9' grids. At least one solid material sample was taken from each wall and ceiling. In addition, a minimum of 25 percent of the Group 6 area floor grids in the Instrument Storage Room were surveyed using the AN/PDR-56.

The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the floors and ceiling were 40, 200, and 5500 counts per minute. These radiation levels were based upon background levels obtained from Building 21. The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the walls were 40, 325, and 6250 counts per minute. These radiation levels were based upon background levels obtained from Building 132.

A total of 137 solid material samples were taken. Each solid sample was removed from the grid location indicating the area of highest potential. Additionally, solid material samples were taken from selected structural joints and crevices. Results from these samples were incorporated in to the report by utilizing the higher of the normal grid or the joint/crevice sample result. Paint samples were taken from the Decontamination Shower. The following naturally occurring radionuclides were typical isotopes identified during analysis of solid material samples: lead 212, lead 214, thallium 208, bismuth 214, and potassium 40.

7. Bldg. 79A, Transition Group 4 & 6 Areas

(3) Summary:

Surveys performed with the IM-247/PD did not detect areas greater than 450 μμCi/20cm^2.

Surveys performed with the AN/PDR-56 found no detectable alpha radioactivity.

Surveys performed with the IM-253/PD (HV-1 PHA) detected 18 areas greater than or equal to twice background.

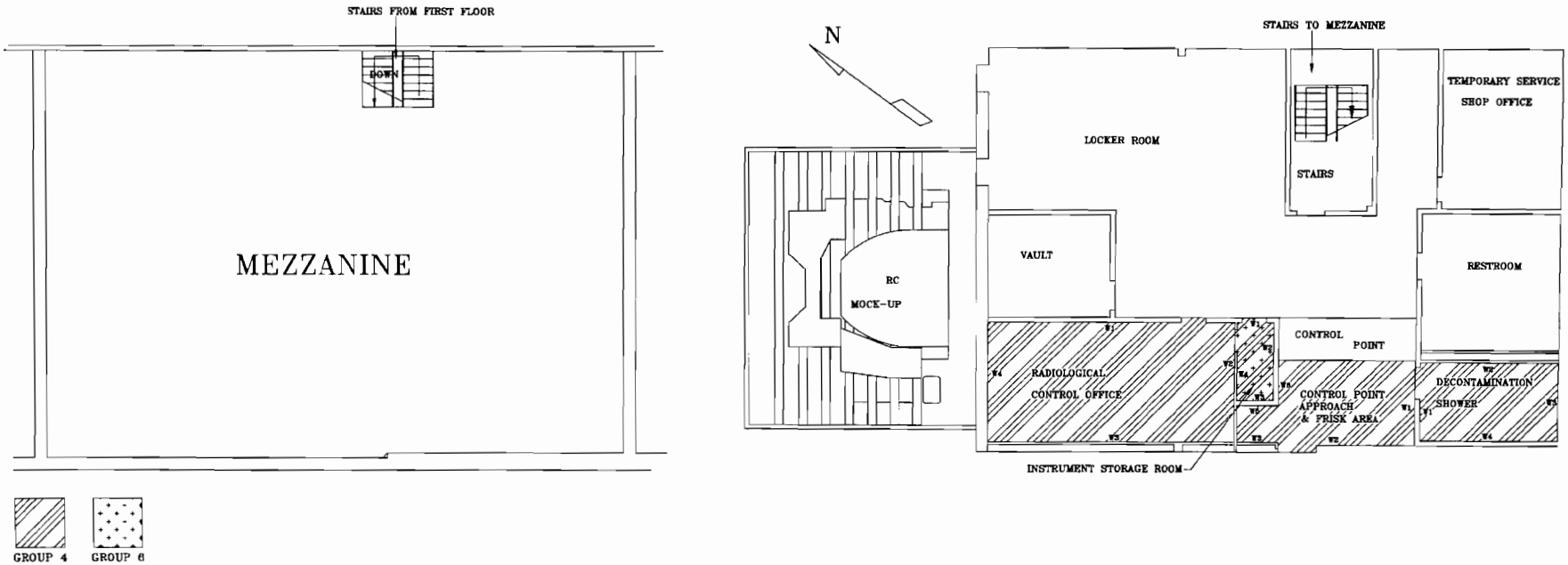
Surveys performed with the IM-253/PD (HV-2 GROSS) detected nine areas greater than or equal to twice background.

Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from less than minimum detectable activity of 0.47 pCi/g to a high of 9.90 pCi/g.

Analysis performed on solid material samples with the MCA for specific cobalt 60 indicated that solid material samples were less than 1 pCi/g for non-paint samples and less than 3 pCi/g for paint samples, however, five solid material samples with traces of cobalt 60 greater than the minimum detectable activity were identified. These were taken from the Radiological Control Office. The extent of the trace cobalt 60 radioactivity was identified by taking additional solid material samples from the surrounding vicinity. Due to the small effort involved, the shipyard remediated each area where cobalt 60 was identified. Due to the small effort involved, the shipyard remediated each area where colbalt 60 was identified. Remediation consisted of the removal of concrete to a depth of 1/2" using scabbling equipment. Following remediation, additional solid material samples were taken from the affected areas and all were less than 1Ci/g specific colbalt 60. No traces of colbalt 60 were identified.

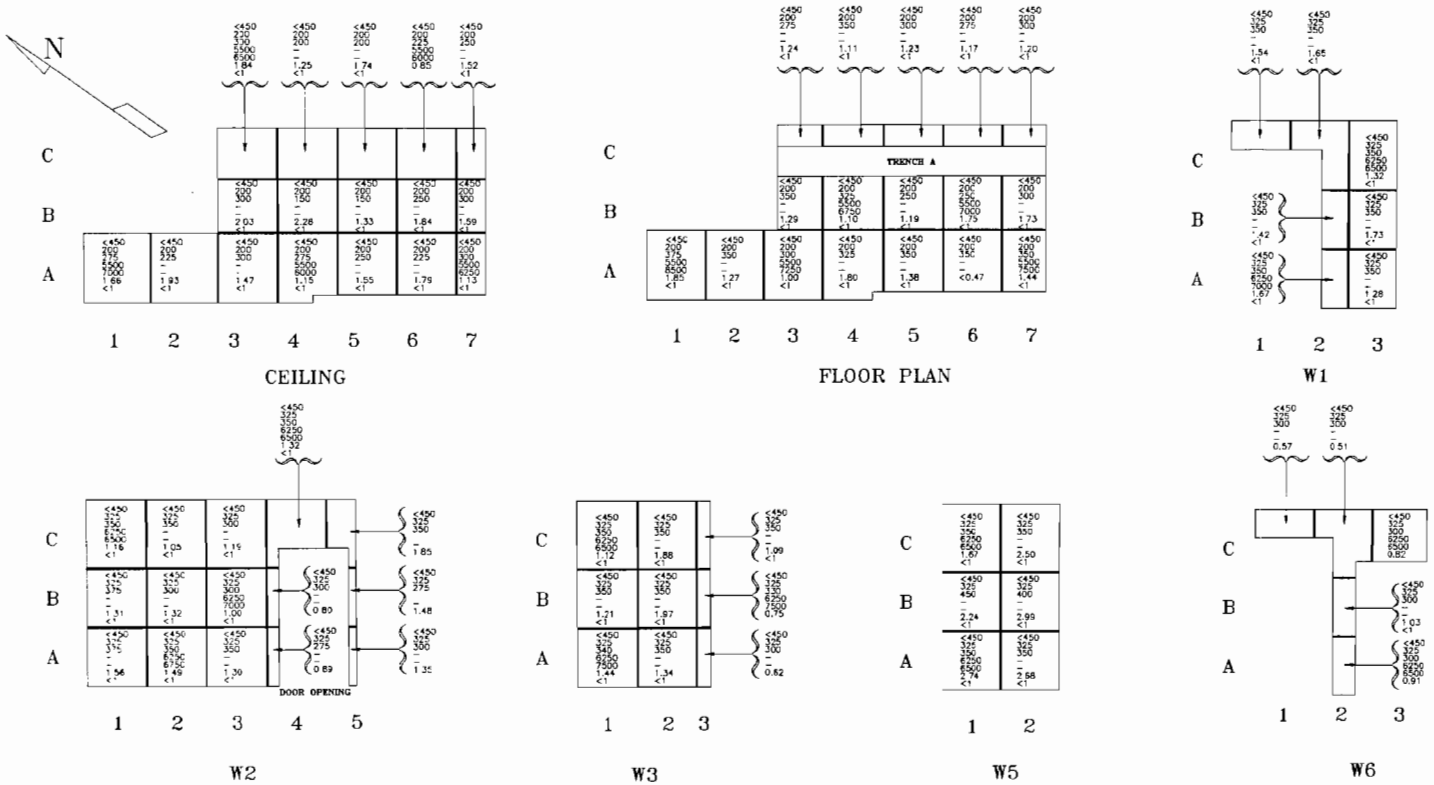
7. Bldg. 79A, Transition Groups 4 & 6 Areas

b. Site Map



7. Bldg. 79A, Transition Groups 4 & 6 Areas

c. Grid Map, Control Point Approach & Frisk Area



Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

5. Bldg. 79A, Transition Group 4 & 6 Areas

c. Prior To Survey Photographs, Control Point Approach & Frisk Area

Looking toward decon shower room.

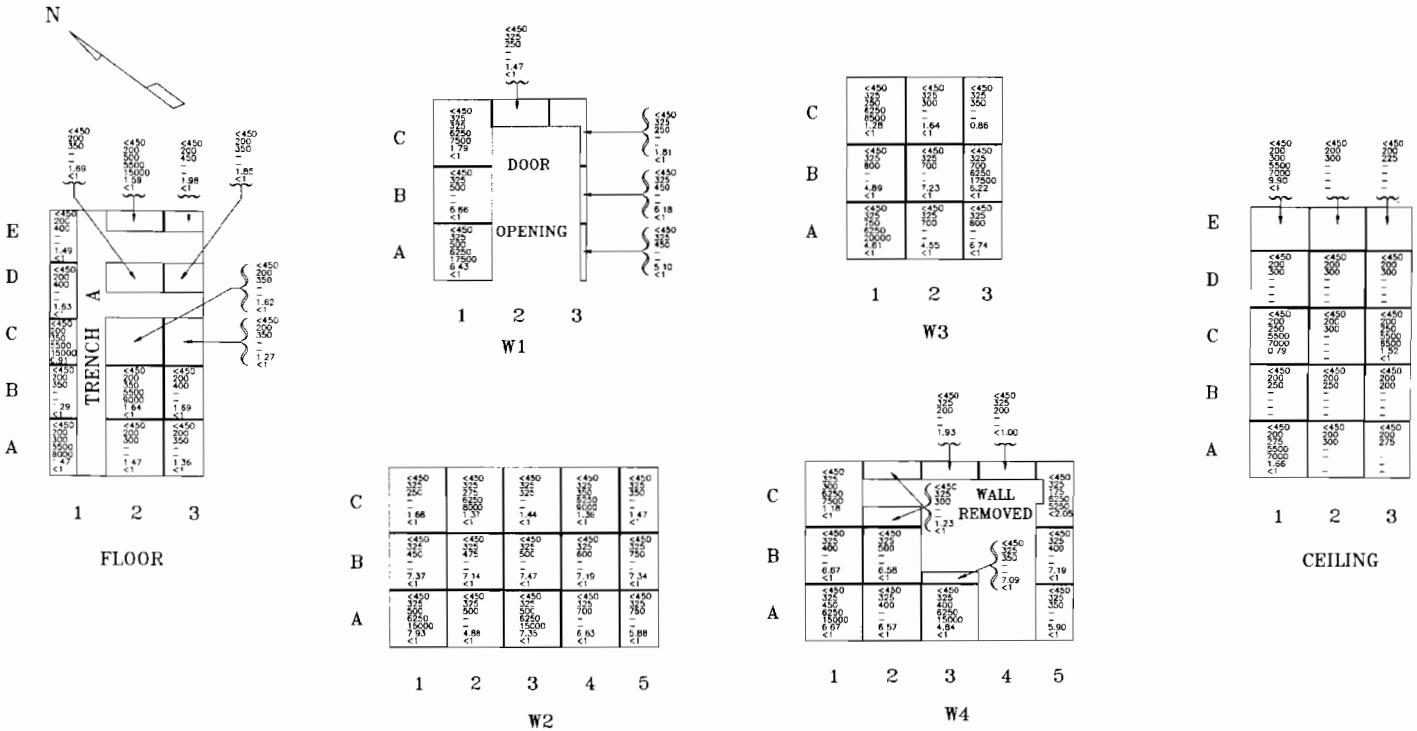
5. Bldg. 79A, Transition Group 4 & 6 Areas

c. After Survey Photographs, Control Point Approach & Frisk Area

Viewing toward wall-2.

7. Bldg. 79A, Transition Groups 4 & 6 Areas

c. Grid Map, Decon Shower



Note:
Solid samples taken from grids W4-C3, W4-C4, and W4-C5 consist of paint and have a limit of 3 pCi/g.

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

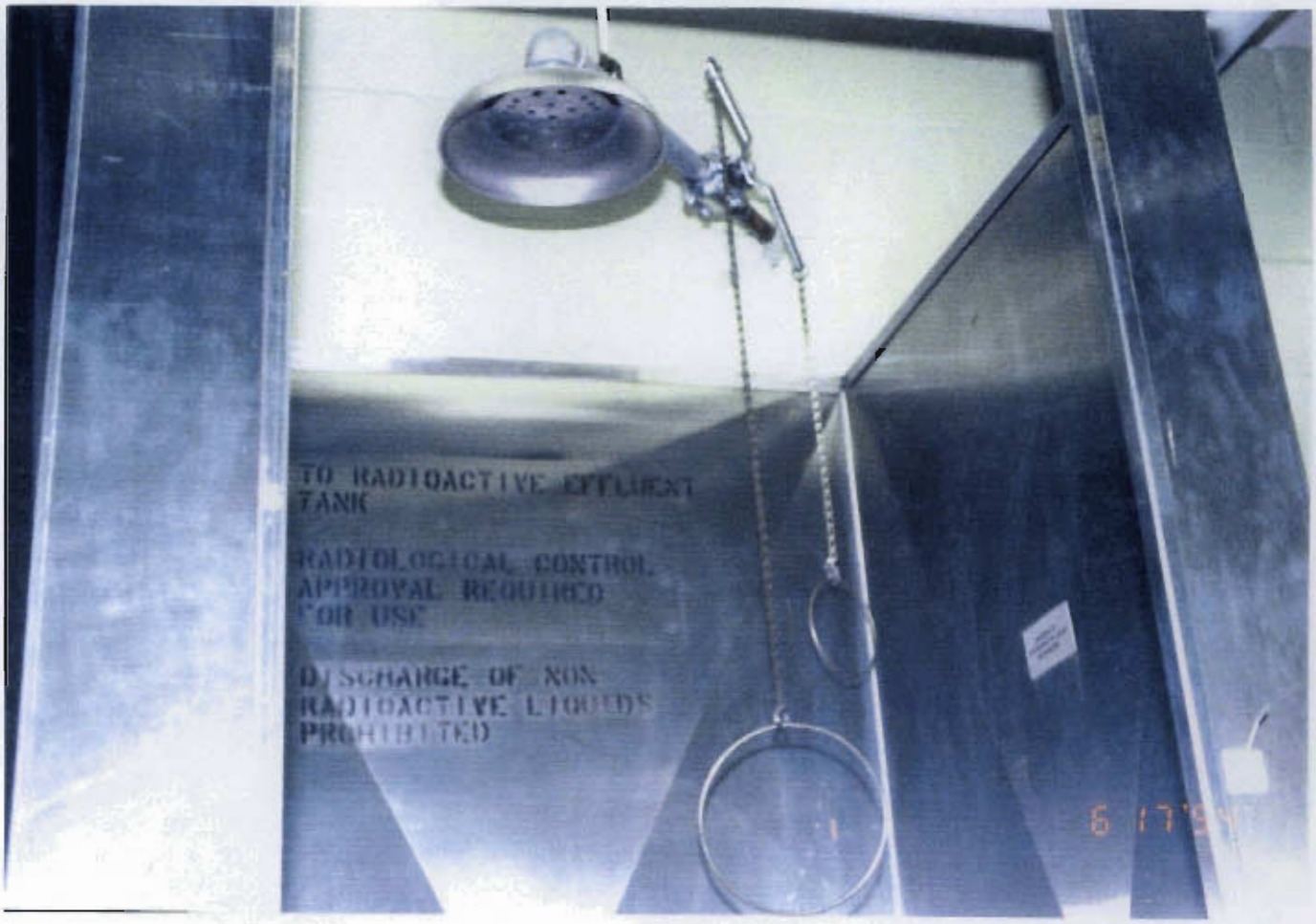
7. Bldg. 79A, Transition Groups 4 & 6 Areas

c. Prior To Survey Photographs, Decon Shower

Looking into room.

7. Bldg. 79A, Transition Groups 4 & 6 Areas

c. Prior To Survey Photographs, Decon Shower



Shower head.

7. Bldg. 79A, Transition Groups 4 & 6 Areas

c. Prior To Survey Photographs, Decon Shower

Sink on wall-4.

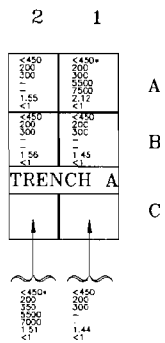
7. Bldg. 79A, Transition Groups 4 & 6 Areas

c. After Survey Photograph, Decon Shower

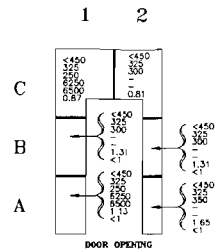
Viewing wall-3.

7. Bldg. 79A, Transition Groups 4 & 6 Areas

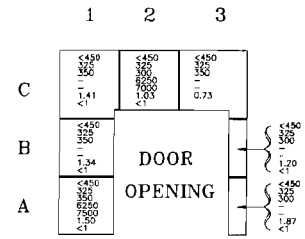
c. Grid Map, Instrument Storage Room



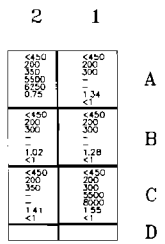
FLOOR



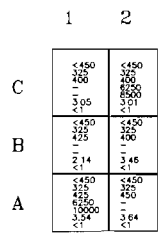
W1



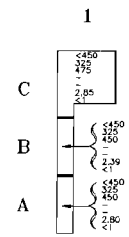
W2



CEILING



W3



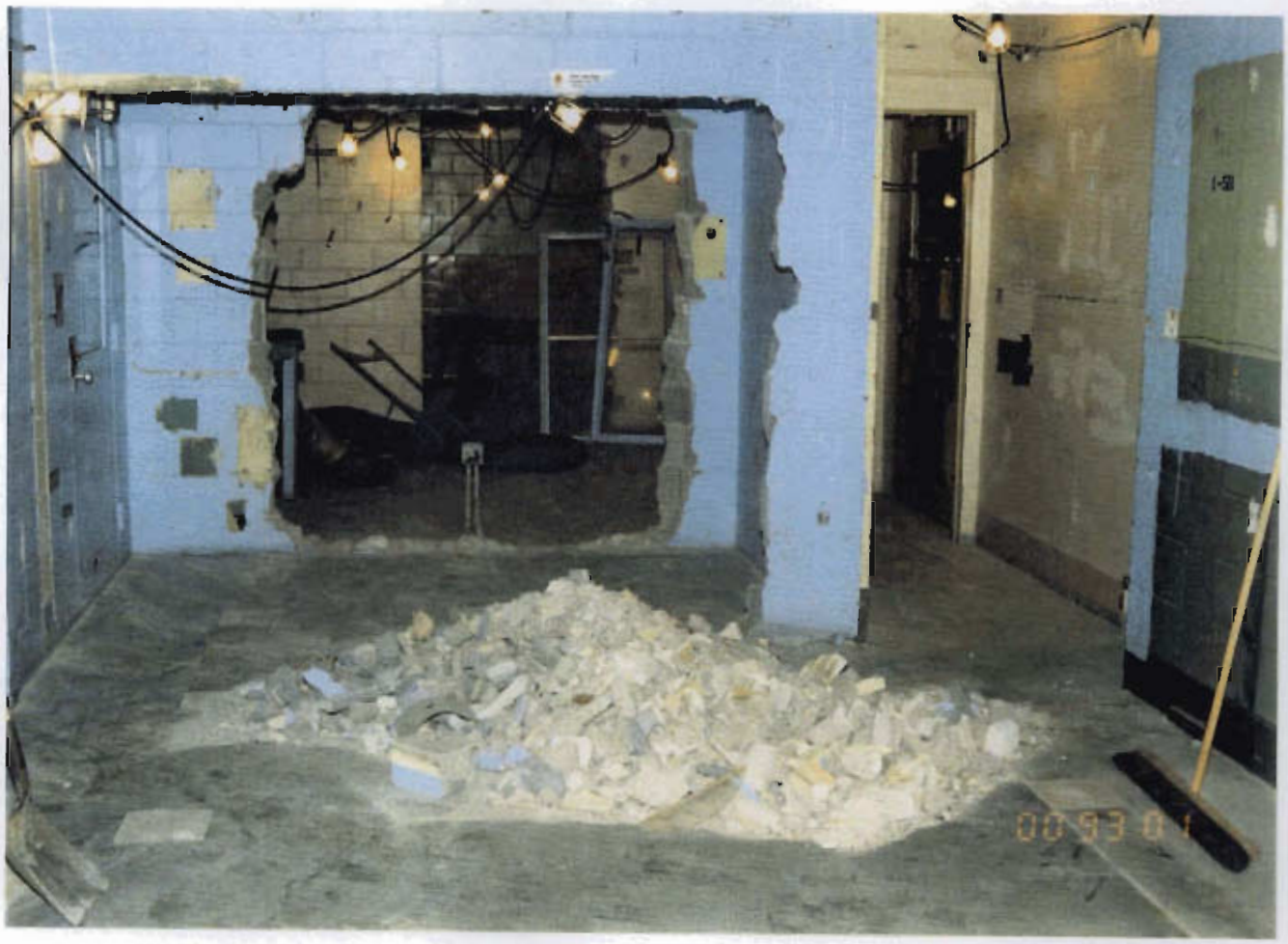
W4

Note:
*Denotes grids which were surveyed with an AN/PDR-56 for Alpha radioactivity and no detectable activity was found.

Sample Data
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [com]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [com]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

7. Bldg. 79A, Transition Groups 4 & 6 Areas

c. During Survey Photograph, Instrument Storage Room



Viewing into room from radiological office.

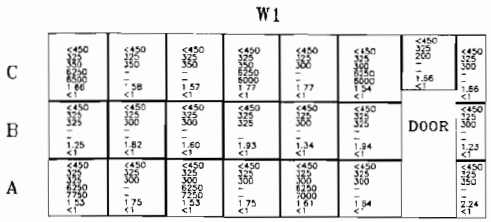
7. Bldg. 79A, Transition Groups 4 & 6 Areas

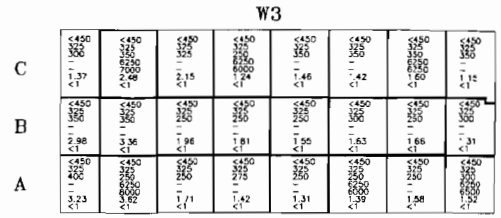
c. After Survey Photograph, Instrument Storage Room

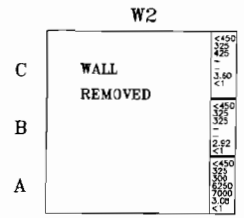
Viewing into room from Radiological Control Office.

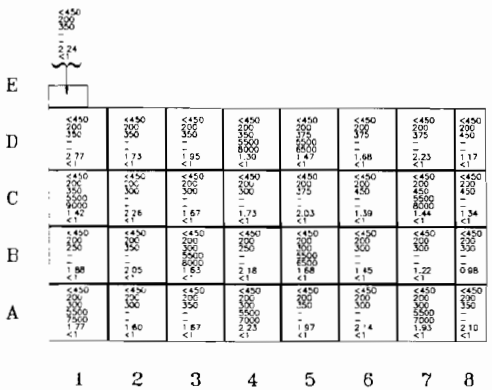
7. Bldg. 79A, Transition Groups 4 & 6 Areas

c. Grid Map, Radiological Control Office

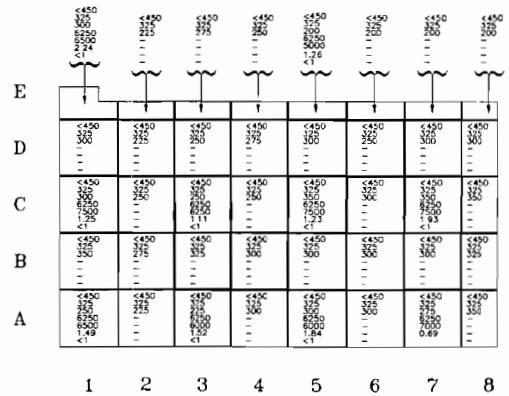




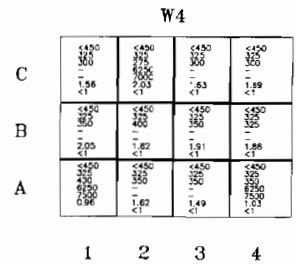




FLOOR PLAN



CEILING



Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

7. Bldg. 79A, Transition Groups 4 & 6 Areas

c. During Survey Photographs, Radiological Control Office

Viewing into room through instrument storage room.

7. Bldg. 79A, Transition Groups 4 & 6 Areas

c. After Survey Photographs, Radiological Control Office

Viewing into room toward wall-4.

12. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

a. Report

(1) Description:

The Building 79A High/Low Bay Group 3 areas consisted of sections of the High/Low Bay cranes. The Low Bay crane platforms, motor gear box, motor, and electrical boxes are painted steel; the High Bay crane cab is unpainted steel. The Building 79A High/Low Bay Group 4 areas consisted of the Refueling Training Cell Pit and the High and Low Bay general area. Each crane traveled on painted steel rails braced by crane rail supports which are placed throughout the length of the bay areas. The floor of the High and Low Bay general area are cement, the walls are concrete block, and the ceiling is unpainted metal. The Refueling Training Cell Pit is painted steel.

(2) Discussion:

The Group 3 High/Low Bay cranes were divided into 116 5' by 5' grids where physically possible. One hundred percent of all grids were surveyed using the IM-247/PD and the IM-253/PD (HV-1 PHA). A minimum of 25 percent of all grids were surveyed using the IM-253/PD (HV-2 GROSS). Additionally, solid material samples were taken from each crane grid with the exception of the high bay crane because the portions requiring paint samples were unpainted metal. The paint samples were removed from the area indicating the highest potential within each grid.

A total of 114 Group 3 solid material paint samples were taken from the low bay crane. The following naturally occurring radionuclides were typical isotopes identified during analysis of solid material samples: lead 212 and thallium 208.

The Group 4 Refueling Training Cell Pit was divided into 10 3' by 3' grids and the High/Low Bay general area were divided into 1943 3' by 3' floor and wall grids and 9' by 9' wall and ceiling grids. The walls were divided into grids 3' by 3', up to 12' high, then 9' by 9' grids above 12' including ceiling grids. Each grid was identified with its unique designation. Low Bay ceilings' 1 and 2 required 3' by 3' grids because building ventilation ducts passed through these areas. Additionally, Wall 2 of the High Bay was not on the floor level but between the roof levels of the High/Low Bay.

One hundred percent of all 3' by 3' grids were surveyed using the IM-247/PD and the IM-253/PD (HV-1 PHA). A minimum of 25 percent of all 3' by 3' grids were surveyed using the IM-253/PD (HV-2 GROSS). A minimum of 25 percent of all 9' by 9' grids were surveyed using the IM-247/PD and IM-253/PD (HV-1 PHA and HV-2 GROSS). A minimum of one solid material sample was taken from each 3' by 3' grid and from a minimum of 25 percent of all 9' by 9' grids. At least one solid material sample was taken from each wall and ceiling grid. Additionally, solid material samples were taken from selected structural joints and crevices. Results from these samples were incorporated into the report by

12. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

utilizing the higher of the normal grid sample or the joint/crevice sample result.

The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the cement were 40, 200, and 5500 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 21. The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the concrete block were 40, 325, and 6250 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 132. The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the metal were 40, 150, and 3500 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 1891 walls. The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the Refueling Training Cell Pit were 40, 200, and 5000 counts per minute respectively. These radiation levels were based upon background levels obtained from Connex Box 730951.

A total of 1809 Group 4 solid material samples were taken. Each solid sample was removed from the grid location indicating the area of highest potential. Solid material samples were not required from unpainted metal surfaces in the High Bay from the floor grids O through Q 3 through 5, Wall 1 grids A through D 2 through 5, and the ceiling. Solid material samples were not required from unpainted metal surfaces in the Low Bay ceiling grids, and Wall 1 grids A through D 12 through 14. Paint samples were taken from the High Bay crane rail supports T through Z, Wall 1 grids A through D 6, Wall 2, Wall 4 grids, B and D 37, Columns A through G, and the Refueling Training Cell Pit. Paint samples were taken from the Low Bay Ceiling 1 grids C 3 through 5, CR (crane rail) 1 and 2, and CS (column support) 1 through 14. The following naturally occurring radionuclides were typical isotopes identified during analysis of solid material samples: lead 212, lead 214, thallium 208, and potassium 40.

(3) Group 3 Summary:

Surveys performed with the IM-247/PD did not detect areas greater than 450 $\mu\mu Ci/20cm^2$.

Surveys performed with the IM-253/PD (HV-1 PHA) did not detect areas greater than or equal to twice background.

Surveys performed with the IM-253/PD (HV-2 GROSS) detected 6 areas greater than or equal to twice background.

Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from a minimum detectable activity of less than 0.41 pCi/g to a high of 3.10 pCi/g.

12. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

Analysis performed on solid material paint samples with the MCA for specific cobalt 60 indicated that all paint samples were less than 3 pCi/g but seven paint samples from the Low Bay crane had traces of cobalt 60. The extent of the areas containing cobalt 60 were identified by taking additional solid material samples from the surrounding vicinity. These areas were remediated by the removal of paint. Post remediation paint samples were not required because all the paint was removed. No traces of cobalt 60 were identified.

(3) Group 4 Summary:

Surveys performed with the IM-247/PD did not detect areas greater than 450 $\mu\mu Ci/20cm^2$.

Surveys performed with the IM-253/PD (HV-1 PHA) did not detect areas greater than or equal to twice background.

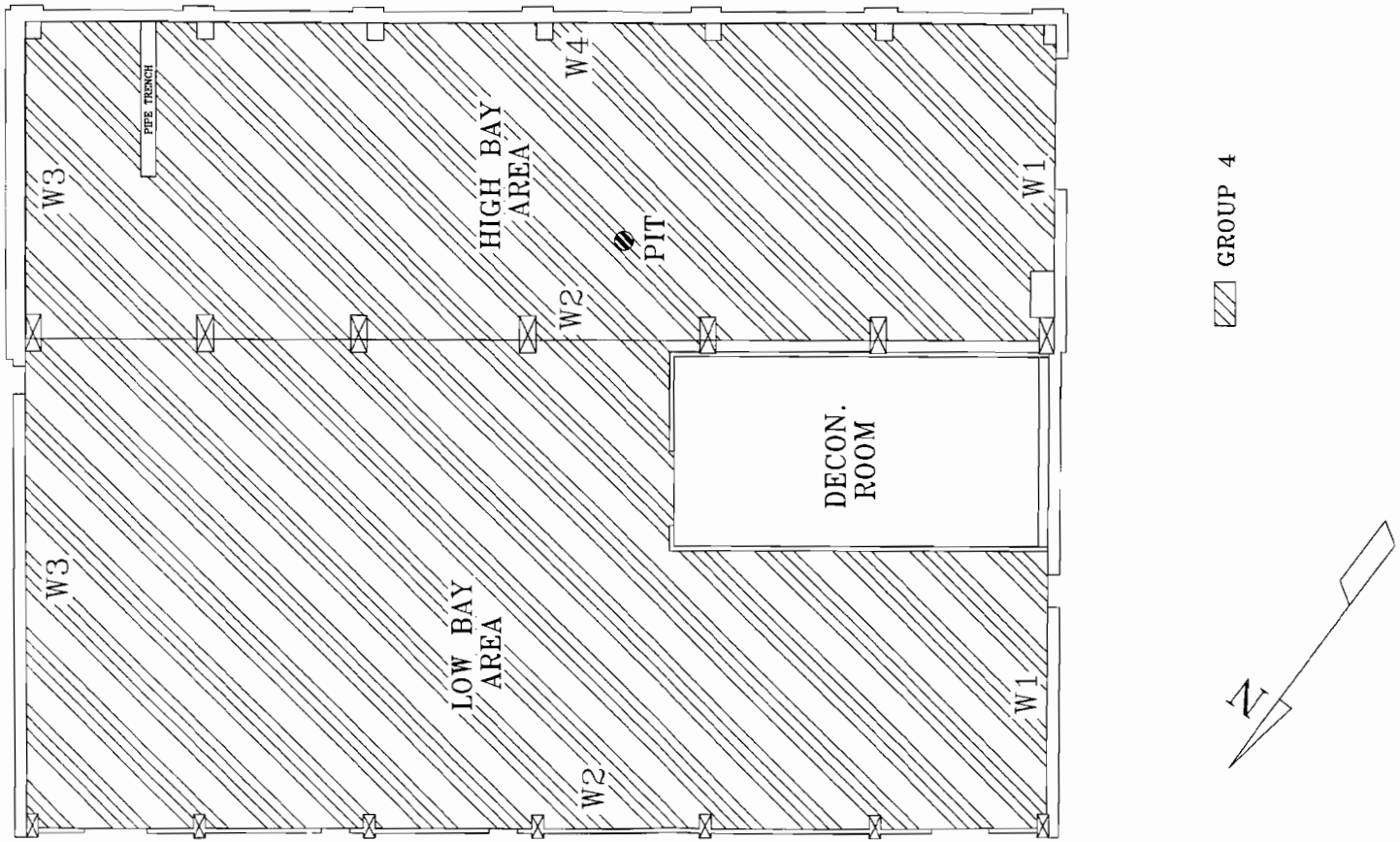
Surveys performed with the IM-253/PD (HV-2 GROSS) detected 6 areas greater than or equal to twice background.

Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from a minimum detectable activity of less than 0.27 pCi/g to a high of 7.65 pCi/g.

Analysis performed on solid material paint samples with the MCA for specific cobalt 60 indicated that all paint samples were less than 3 pCi/g. Analysis performed on solid material samples with the MCA for specific cobalt 60 indicated that all solid material samples were less than 1 pCi/g with the exception of two samples taken in the Low Bay general area. The extent of the areas containing cobalt 60 were identified by taking additional solid material samples from the surrounding vicinity. These areas were remediated by the excavation of material to a minimum depth of 1/2" using scabbling equipment. Following remediation, additional solid material samples taken from the remediated areas were less than 1 pCi/g for specific cobalt 60. No traces of cobalt 60 were identified.

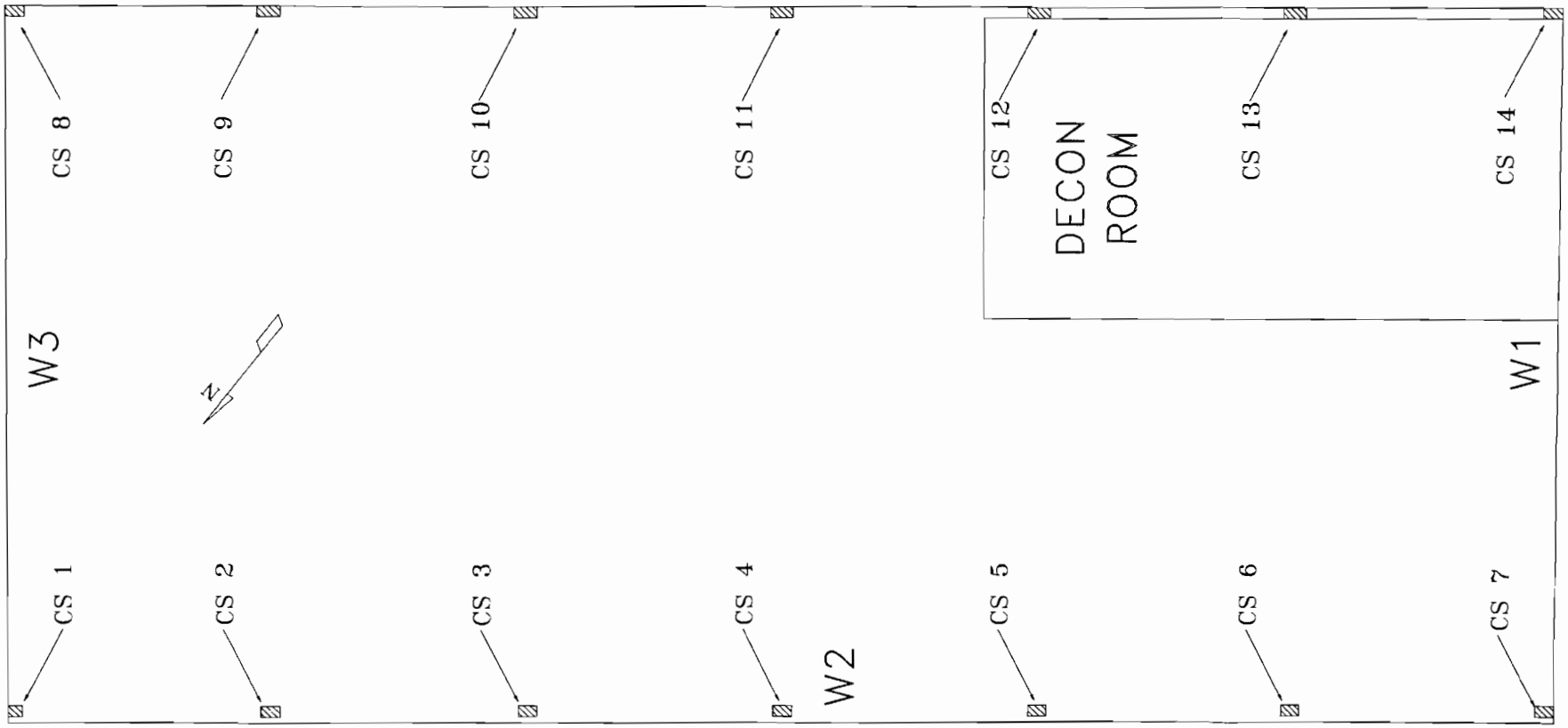
8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

b. Site Map



8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

b. Low Bay Crane Support Layout



8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
L	<450 200 250 – – 1.35 <1	<450 200 250 – – 0.97	<450 200 275 5500 5000 1.17 <1	<450 200 250 – – 1.89 <1	<450 200 250 – – 1.97 <1	<450 200 250 5500 5000 1.67 <1	<450 200 200 – – 1.63 <1	<450 200 200 – – 1.80 <1	<450 200 250 – – 1.72 <1	<450 200 250 5500 5000 1.07 <1							<450 200 200 – – 1.18 <1
K	<450 200 200 – – 1.64 <1	<450 200 250 5500 5000 0.85	<450 200 200 – – 0.85	<450 200 250 – – 0.96	<450 200 200 5500 5000 1.35 <1	<450 200 200 – – 1.16 <1	<450 200 250 – – 0.85	<450 200 200 – – 0.81	<450 200 200 5500 5000 0.84	<450 200 200 – – 0.78							<450 200 200 – – 1.77 <1
J	<450 200 200 – – 1.16 <1	<450 200 200 – – 0.90	<450 200 150 5500 5000 1.24 <1	<450 200 150 – – 1.41 <1	<450 200 200 – – 1.24 <1	<450 200 200 5500 5000 1.39 <1	<450 200 150 – – 1.05 <1	<450 200 150 – – 1.19 <1	<450 200 200 – – 1.07 <1	<450 200 200 5500 5000 1.77 <1							<450 200 150 – – 1.98 <1
I	<450 200 300 – – 1.32 <1	<450 200 250 5500 5000 1.68 <1	<450 200 250 – – 1.47 <1	<450 200 225 – – 1.39 <1	<450 200 225 5500 5000 1.57 <1	<450 200 200 – – 1.37 <1	<450 200 250 – – 1.00 <1	<450 200 225 – – 0.97 <1	<450 200 200 5500 5000 1.26 <1	<450 200 300 – – 1.83 <1		DECON ROOM					<450 200 300 – – 1.42 <1
H	<450 200 200 – – 1.31 <1	<450 200 200 – – <0.41	<450 200 200 5500 5000 1.27 <1	<450 200 150 – – 1.63 <1	<450 200 200 – – 1.35 <1	<450 200 250 5500 5000 1.25 <1	<450 200 200 – – 1.01 <1	<450 200 275 – – 1.42 <1	<450 200 300 – – 1.75 <1	<450 200 250 5500 5000 1.58 <1							<450 200 250 – – 1.65 <1
G	<450 200 250 – – 1.45 <1	<450 200 275 5500 5000 1.16	<450 200 250 – – 0.98	<450 200 250 – – 1.55 <1	<450 200 200 5500 5000 1.73 <1	<450 200 250 – – 1.61 <1	<450 200 275 – – 2.17 <1	<450 200 300 – – 1.48 <1	<450 200 250 5500 5000 1.72 <1	<450 200 250 – – 1.84 <1							<450 200 200 – – 1.41 <1
F	<450 200 200 – – 1.55 <1	<450 200 250 – – 1.30 <1	<450 200 250 5500 4500 1.26 <1	<450 200 250 – – 0.96	<450 200 200 – – 1.74 <1	<450 200 250 5500 4500 1.67 <1	<450 200 275 – – 1.63 <1	<450 200 250 – – 1.07 <1	<450 200 275 – – 1.54 <1	<450 200 250 5500 4500 1.27 <1							<450 200 250 – – 1.36 <1
E	<450 200 300 – – 1.12 <1	<450 200 250 5500 5000 1.25	<450 200 250 – – 1.04	<450 200 250 – – 1.22 <1	<450 200 250 5500 5000 1.48 <1	<450 200 250 – – 1.41 <1	<450 200 200 – – 1.65 <1	<450 200 300 – – 1.37 <1	<450 200 250 5500 5000 1.33 <1	<450 200 250 – – 1.19 <1							<450 200 200 – – 1.83 <1
D	<450 200 250 – – 1.21 <1	<450 200 200 – – 1.14 <1	<450 200 200 5500 5000 1.21 <1	<450 200 200 – – 1.17 <1	<450 200 200 – – 1.15 <1	<450 200 200 5500 5000 1.43 <1	<450 200 300 – – 1.5 <1	<450 200 300 – – 1.39 <1	<450 200 300 5500 5000 1.44 <1	<450 200 300 5500 5000 1.15 <1							<450 200 300 – – 1.21 <1
C	<450 200 250 – – 1.26 <1	<450 200 250 5500 5000 1.65	<450 200 275 – – 1.96 <1	<450 200 275 – – 1.27 <1	<450 200 275 5500 5000 1.43 <1	<450 200 250 – – 1.50 <1	<450 200 300 – – 2.32 <1	<450 200 250 – – 1.36 <1	<450 200 300 5500 5000 2.02 <1	<450 200 250 – – 1.13 <1							<450 200 250 – – 1.19 <1
B	<450 200 225 – – 1.75 <1	<450 200 250 – – 1.81	<450 200 200 5500 5000 2.11 <1	<450 200 250 – – 1.85 <1	<450 200 225 – – 2.06 <1	<450 200 225 5500 5000 1.81 <1	<450 200 225 – – 2.17 <1	<450 200 250 – – 1.93 <1	<450 200 250 – – 1.63 <1	<450 200 250 5500 5000 2.33 <1							<450 200 250 – – 1.85 <1
A	<450 200 300 – – 0.89	<450 200 300 5500 5000 1.19	<450 200 300 – – 1.57 <1	<450 200 300 – – 1.21 <1	<450 200 300 5500 5000 1.26 <1	<450 200 300 – – 2.24 <1	<450 200 300 – – 1.74 <1	<450 200 300 – – 1.41 <1	<450 200 300 5500 5000 1.20 <1	<450 200 300 – – 1.40 <1							<450 200 250 – – 1.69 <1

FLOOR

Sample Data

< 450 – IM-247/PD Results [μCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
X	<450 200 150 - 5500 5000 1.3 <1	<450 200 150 - - 1.05 <1	<450 200 200 - - 0.79	<450 200 200 - 5500 5000 0.79	<450 200 250 - - 1.28 <1	<450 200 200 - - 0.90	<450 200 200 - - 0.82	<450 200 250 - 5000 5000 1.64 <1	<450 200 250 - - 0.78	<450 200 200 - - 1.18 <1	<450 200 200 - - 0.90	<450 200 300 - 5500 5000 1.01 <1	<450 200 250 - - 0.94	<450 200 225 - - <0.47	<450 200 225 - - 0.81	<450 200 225 - 4500 4500 1.21 <1	<450 200 175 - - 1.05 <1
W	<450 200 225 - - 1.29 <1	<450 200 250 - 6000 5750 1.47 <1	<450 200 225 - - 2.35 <1	<450 200 225 - - 1.25 <1	<450 200 200 - 5500 5000 1.54 <1	<450 200 250 - - 0.98	<450 200 250 - - 1.31 <1	<450 200 250 - - 1.09 <1	<450 200 250 - 5500 4750 1.00 <1	<450 200 275 - - 0.47	<450 200 275 - - 1.06 <1	<450 200 300 - - 0.87	<450 200 250 - 6500 4750 0.67	<450 200 250 - - 0.60	<450 200 250 - - 1.20 <1	<450 200 250 - - 0.61	<450 200 250 - 5500 4750 1.04 <1
V	<450 200 200 - 5500 5500 1.67 <1	<450 200 200 - - 0.77	<450 200 175 - - 0.80	<450 200 200 - 5500 5000 1.21 <1	<450 200 175 - - 0.98	<450 200 175 - - 1.11 <1	<450 200 175 - - 1.04 <1	<450 200 200 - - 1.1 <1	<450 200 175 - 5500 4500 0.83	<450 200 175 - - 0.90	<450 200 200 - - 1.23 <1	<450 200 200 - 5500 4500 1.70 <1	<450 200 200 - - 1.63 <1	<450 200 200 - - 1.52 <1	<450 200 200 - - 1.01 <1	<450 200 200 - 5500 4500 1.04 <1	<450 200 200 - - 1.39 <1
U	<450 200 200 - 5500 5000 0.84	<450 200 150 - - 0.91	<450 200 150 - - 0.73	<450 200 200 - 5500 5500 0.72	<450 200 150 - - 0.98	<450 200 150 - - 0.74	<450 200 175 - - 0.80	<450 200 150 - 5000 5000 1.2 <1	<450 200 150 - - 0.88	<450 200 150 - - 0.63	<450 200 150 - - 1.02 <1	<450 200 200 - 5500 5000 1.00 <1	<450 200 150 - - 0.94	<450 200 200 - - 0.81	<450 200 200 - - 1.09 <1	<450 200 200 - 5500 4500 0.99	<450 200 200 - - 1.07 <1
T	<450 200 200 - - 1.80 <1	<450 200 200 - 5500 5000 1.33 <1	<450 200 250 - - 1.05 <1	<450 200 200 - - 1.08 <1	<450 200 200 - 5500 5000 0.74	<450 200 200 - - 0.76	<450 200 225 - - 0.82	<450 200 200 - - 0.77	<450 200 225 - 5500 5000 3.03 <1	<450 200 250 - - 1.58 <1	<450 200 200 - - 1.05 <1	<450 200 200 - - 0.89	<450 200 200 - 5500 5000 1.14 <1	<450 200 200 - - 1.65 <1	<450 200 200 - - 1.18 <1	<450 200 200 - - 1.05 <1	<450 200 200 - 5500 5500 0.97
S	<450 200 200 - 5500 5000 0.88	<450 200 175 - - 0.81	<450 200 175 - - 0.7	<450 200 175 - 5500 5000 1.43 <1	<450 200 175 - - 0.98	<450 200 200 - - 1.01 <1	<450 200 175 - - 0.64	<450 200 200 - 5500 5000 0.97	<450 200 175 - - 0.94	<450 200 175 - - 0.88	<450 200 175 - - 0.96	<450 200 175 - 5500 5000 0.62	<450 200 175 - - 1.19 <1	<450 200 175 - - 0.59	<450 200 200 - - 1.34 <1	<450 200 200 - 5500 5500 0.89	<450 200 200 - - 1.77 <1
R	<450 200 200 - - 1.09 <1	<450 200 200 - 5500 5000 1.96 <1	<450 200 200 - - 0.76	<450 200 200 - - 1.13 <1	<450 200 200 - 5500 5000 1.98 <1	<450 200 200 - - 0.72	<450 200 200 - - 0.55	<450 200 200 - - 0.91	<450 200 200 - 5500 5500 0.33	<450 200 200 - - 1.23 <1	<450 200 250 - - 1.20 <1	<450 200 250 - - 0.65	<450 200 200 - 5500 5000 1.74 <1	<450 200 200 - - 0.82	<450 200 200 - - 1.74 <1	<450 200 250 - 5500 5500 0.88	<450 200 200 - 5500 5000 0.44
Q	<450 200 200 - 5500 5500 1.74 <1	<450 200 175 - - 1.23	<450 200 200 - - 1.23	<450 200 200 - 5500 4250 1.14 <1	<450 200 200 - - 1.28 <1	<450 200 200 - - 1.40 <1	<450 200 200 - - 0.74 <1	<450 200 75 - 5500 4500 1.51 <1	<450 200 225 - - 1.05 <1	<450 200 225 - - 1.53 <1	<450 200 200 - - 1.30 <1	<450 200 175 - 5500 4750 1.30 <1	<450 200 200 - - 1.02 <1	<450 200 225 - - 1.08 <1	<450 200 225 - - 1.13 <1	<450 200 250 - 5500 4250 0.63	<450 200 200 - - 1.51 <1
P	<450 200 200 - - 1.85 <1	<450 200 150 - 5500 5000 1.49 <1	<450 200 150 - - 1.22 <1	<450 200 150 - - 1.05 <1	<450 200 150 - 5500 5000 0.98 <1	<450 200 150 - - 1.29 <1	<450 200 150 - - 1.11 <1	<450 200 250 - - 1.48 <1	<450 200 250 - 5500 5000 0.97 <1	<450 200 250 - - 1.36 <1	<450 200 200 - - 1.47 <1	<450 200 250 - - 1.51 <1	<450 200 250 - 5500 5000 1.26 <1	<450 200 250 - - 1.37 <1	<450 200 250 - - 1.40 <1	<450 200 250 - - 1.48 <1	<450 200 250 - 5500 5000 1.10 <1
O	<450 200 200 - 5500 5000 1.77 <1	<450 200 200 - - 1.50 <1	<450 200 200 - - 1.61 <1	<450 200 225 - 5500 5000 1.35 <1	<450 200 250 - - 2.25 <1	<450 200 250 - - 1.80 <1	<450 200 250 - - 1.61 <1	<450 200 250 - 5500 5000 1.11 <1	<450 200 250 - - 1.64 <1	<450 200 250 - - 1.26 <1	<450 200 250 - - 1.70 <1	<450 200 250 - 5500 5000 1.44 <1	<450 200 300 - - 1.62 <1	<450 200 250 - - 1.79 <1	<450 200 250 - - 1.02 <1	<450 200 250 - 5500 5500 1.71 <1	<450 200 200 - - 1.22 <1
N	<450 200 250 - - 1.57 <1	<450 200 200 - 5500 5000 1.37 <1	<450 200 250 - - 1.73 <1	<450 200 250 - - 1.50 <1	<450 200 250 - 5500 5500 1.75 <1	<450 200 350 - - 1.44 <1	<450 200 350 - - 1.90 <1	<450 200 350 - - 1.09 <1	<450 200 350 - 5500 5000 1.27 <1	<450 200 300 - - 1.12 <1							<450 200 200 - 5500 5000 1.61 <1
M	<450 200 275 - - 1.37 <1	<450 200 200 - 5500 5000 1.16 <1	<450 200 275 - - 1.09 <1	<450 200 275 - - 1.58 <1	<450 200 275 - 5500 5500 1.17 <1	<450 200 225 - - 1.30 <1	<450 200 250 - - 1.57 <1	<450 200 225 - - 1.45 <1	<450 200 225 - 5500 5000 1.28 <1	<450 200 225 - - 1.59 <1	<450 200 300 - - 1.70 <1	<450 200 300 - - 1.61 <1	<450 200 300 - 5500 5500 1.72 <1	<450 200 300 - - 1.04 <1	<450 200 300 - - 1.40 <1	<450 200 300 - - 1.64 <1	<450 200 200 - - 1.52 <1

FLOOR

Sample Data

<450 – IM-247/PD Results [µCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
AI	<450 200 200 5500 6000 1.13 <1	<450 200 200 5500 6000 0.60	<450 200 200 - - 0.61	<450 200 200 - - 0.87	<450 200 200 5500 6000 0.59	<450 200 200 - - 0.75	<450 200 200 - - 0.63	<450 200 200 - - 0.87	<450 200 200 5500 6000 0.59	<450 200 200 - - 0.80	<450 200 200 - - 1.22 <1	<450 200 200 - - 0.74	<450 200 200 5500 6000 1.44 <1	<450 200 200 - - 1.26 <1	<450 200 200 - - 0.97	<450 200 200 - - 1.42 <1	<450 200 200 5500 5500 0.60
AH	<450 200 250 5500 5000 1.08 <1	<450 200 250 - - 0.76	<450 200 250 - - 0.68	<450 200 250 5500 5500 0.94	<450 200 200 - - 0.99	<450 200 250 - - 1.00 <1	<450 200 200 - - 1.12 <1	<450 200 200 5500 5500 0.91	<450 200 200 - - 1.12 <1	<450 200 200 - - 0.78	<450 200 250 - - 0.69	<450 200 200 5500 5250 1.21 <1	<450 200 200 - - 1.25 <1	<450 200 250 - - 1.29 <1	<450 200 200 - - 1.28 <1	<450 200 250 5500 5000 1.06 <1	<450 200 200 - - 0.81
AG	<450 200 250 5500 5000 0.82	<450 200 250 5500 5000 1.21 <1	<450 200 250 - - <0.35	<450 200 250 - - 0.84	<450 200 200 5500 5500 0.90	<450 200 200 - - 1.35 <1	<450 200 200 - - 1.05 <1	<450 200 200 - - 1.10 <1	<450 200 200 5500 5000 0.93	<450 200 200 - - 1.13 <1	<450 200 200 - - 0.77	<450 200 200 - - 0.88	<450 200 200 5500 5000 1.16 <1	<450 200 200 - - 0.99	<450 200 200 - - 1.04 <1	<450 200 200 - - 1.08 <1	<450 200 200 5500 5000 0.93
AF	<450 200 200 5500 5500 1.27 <1	<450 200 200 - - 1.90 <1	<450 200 200 - - 1.32 <1	<450 200 200 5500 5500 1.93 <1	<450 200 225 - - 1.44 <1	<450 200 250 - - 0.97	<450 200 225 - - 1.33 <1	<450 200 225 5500 5500 1.13 <1	<450 200 200 - - 0.73	<450 200 200 - - 1.39 <1	<450 200 250 - - 1.30 <1	<450 200 200 5500 5000 1.29 <1	<450 200 200 - - 0.93	<450 200 200 - - 0.90	<450 200 200 - - 0.92	<450 200 200 5500 5000 0.90	<450 200 200 - - 1.06 <1
AE	<450 200 250 - - 1.07 <1	<450 200 250 5500 5500 1.32 <1	<450 200 225 - - 1.11 <1	<450 200 200 - - 1.94 <1	<450 200 225 5500 5500 0.94	<450 200 250 - - 0.95	<450 200 225 - - 0.93	<450 200 250 - - 0.73	<450 200 225 5500 5000 0.99	<450 200 200 - - 1.36 <1	<450 200 175 - - 0.83	<450 200 200 - - 0.66	<450 200 200 5500 5000 0.76	<450 200 200 - - 0.84	<450 200 200 - - 0.51	<450 200 200 - - 0.65	<450 200 250 5500 5000 0.46
AD	<450 200 225 5500 5000 1.27 <1	<450 200 225 - - 0.83	<450 200 200 - - 0.89	<450 200 250 5500 5000 0.93	<450 200 200 - - 0.92	<450 200 225 - - 1.03 <1	<450 200 200 - - 0.72	<450 200 200 5500 5350 0.93	<450 200 200 - - 0.70	<450 200 225 - - 0.55	<450 200 200 - - 0.63	<450 200 250 5500 5000 0.76	<450 200 225 - - 1.12 <1	<450 200 225 - - 0.87	<450 200 200 - - 0.68	<450 200 250 5500 4500 1.04 <1	<450 200 250 - - 1.09 <1
AC	<450 200 250 - - 0.75	<450 200 250 5500 5000 0.95	<450 200 200 - - 1.05 <1	<450 200 250 - - 1.02 <1	<450 200 200 5500 5000 0.80	<450 200 175 - - 0.83	<450 200 250 - - 1.15 <1	<450 200 250 - - 0.97	<450 200 250 5500 5750 0.87	<450 200 200 - - 0.75	<450 200 200 - - 0.77	<450 200 250 - - 0.68	<450 200 200 5500 5400 0.78	<450 200 225 - - 1.03 <1	<450 200 225 - - 0.80	<450 200 200 - - 0.83	<450 200 225 5500 4500 1.74 <1
AB	<450 200 200 5500 5500 1.66 <1	<450 200 250 - - 0.63	<450 200 200 - - 0.62	<450 200 200 5500 5000 0.89	<450 200 200 - - 0.70	<450 200 200 - - 1.00 <1	<450 200 200 - - 0.83	<450 200 200 5500 4500 0.94	<450 200 250 - - 0.74	<450 200 200 - - 0.96	<450 200 200 - - 1.08 <1	<450 200 200 5500 5000 1.13 <1	<450 200 200 - - 0.90	<450 200 250 - - 0.68	<450 200 250 - - 1.07 <1	<450 200 200 5500 4500 1.13 <1	<450 200 200 - - 0.70
AA	<450 200 300 - - 1.08 <1	<450 200 275 5500 5500 1.14 <1	<450 200 275 - - 0.95	<450 200 225 - - 0.45	<450 200 275 5500 5500 1.08 <1	<450 200 300 - - 0.88	<450 200 275 - - 0.94	<450 200 300 - - 0.60	<450 200 200 5500 5000 0.55	<450 200 250 - - 0.91	<450 200 250 - - 0.89	<450 200 225 - - 0.63	<450 200 200 5500 5000 0.83	<450 200 250 - - 1.14 <1	<450 200 250 - - 1.05 <1	<450 200 250 - - 1.01 <1	<450 200 250 5500 5000 0.53
Z	<450 200 200 5500 5250 0.43	<450 200 250 - - 0.80	<450 200 200 - - 0.60	<450 200 250 5500 5000 1.00 <1	<450 200 250 - - 1.19 <1	<450 200 250 - - 0.77	<450 200 200 - - 0.91	<450 200 200 5500 5000 0.83	<450 200 250 - - 0.87	<450 200 200 - - 0.85	<450 200 250 - - 0.82	<450 200 200 5500 4500 1.00 <1	<450 200 200 - - 0.91	<450 200 200 - - 1.06 <1	<450 200 250 - - 0.71	<450 200 250 5500 4500 1.31 <1	<450 200 200 - - 0.96
Y	<450 200 250 - - 0.76	<450 200 300 5500 5250 0.61	<450 200 250 - - 0.62	<450 200 275 - - 0.76	<450 200 250 5500 5250 1.03 <1	<450 200 250 - - 0.61	<450 200 275 - - 0.97	<450 200 250 - - 1.07 <1	<450 200 200 5500 5000 0.53	<450 200 225 - - 0.56	<450 200 225 - - 0.55	<450 200 250 - - 0.51	<450 200 200 5500 4500 <0.41	<450 200 200 - - 0.47	<450 200 250 - - 0.66	<450 200 250 - - <0.41	<450 200 250 5500 4500 0.42

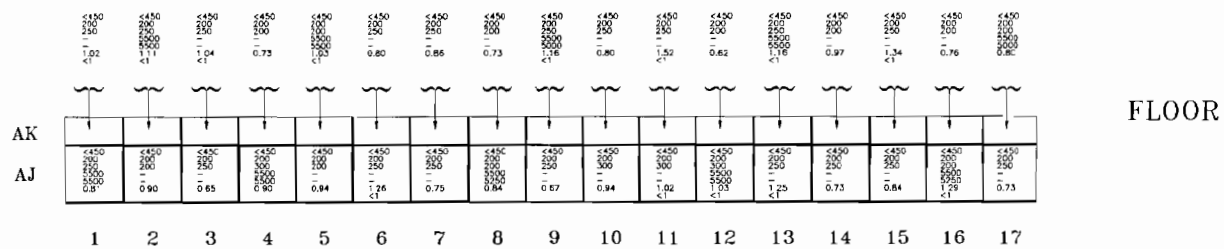
FLOOR

Sample Data

<450 – IM-247/PD Results [μCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay

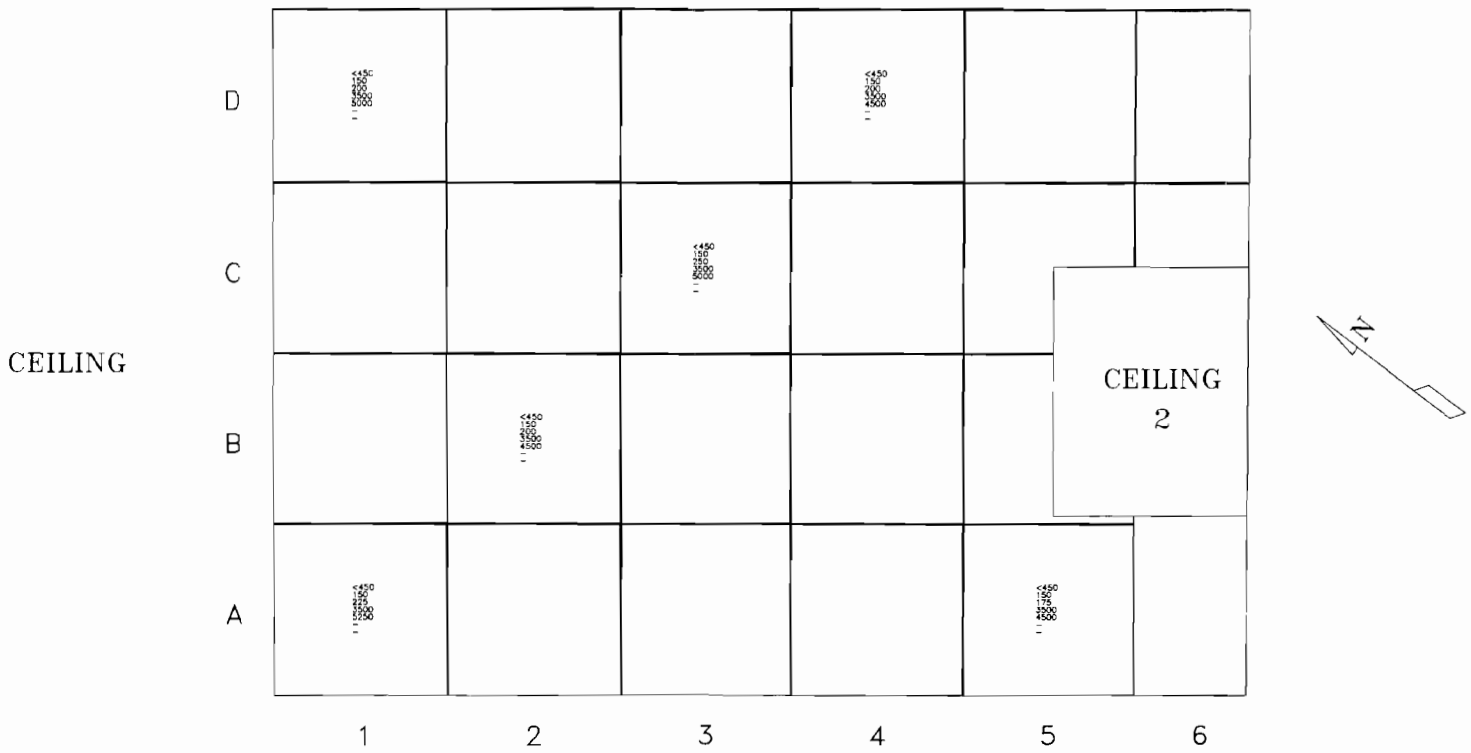


Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay

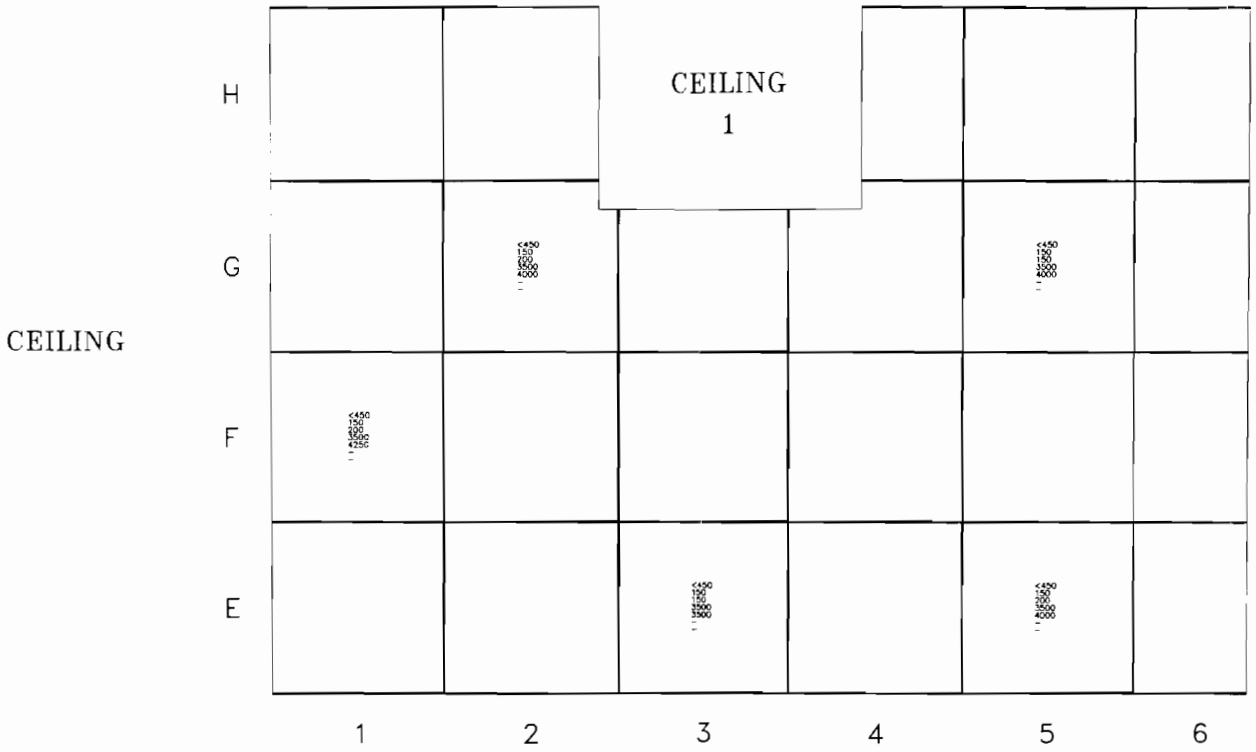


Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay

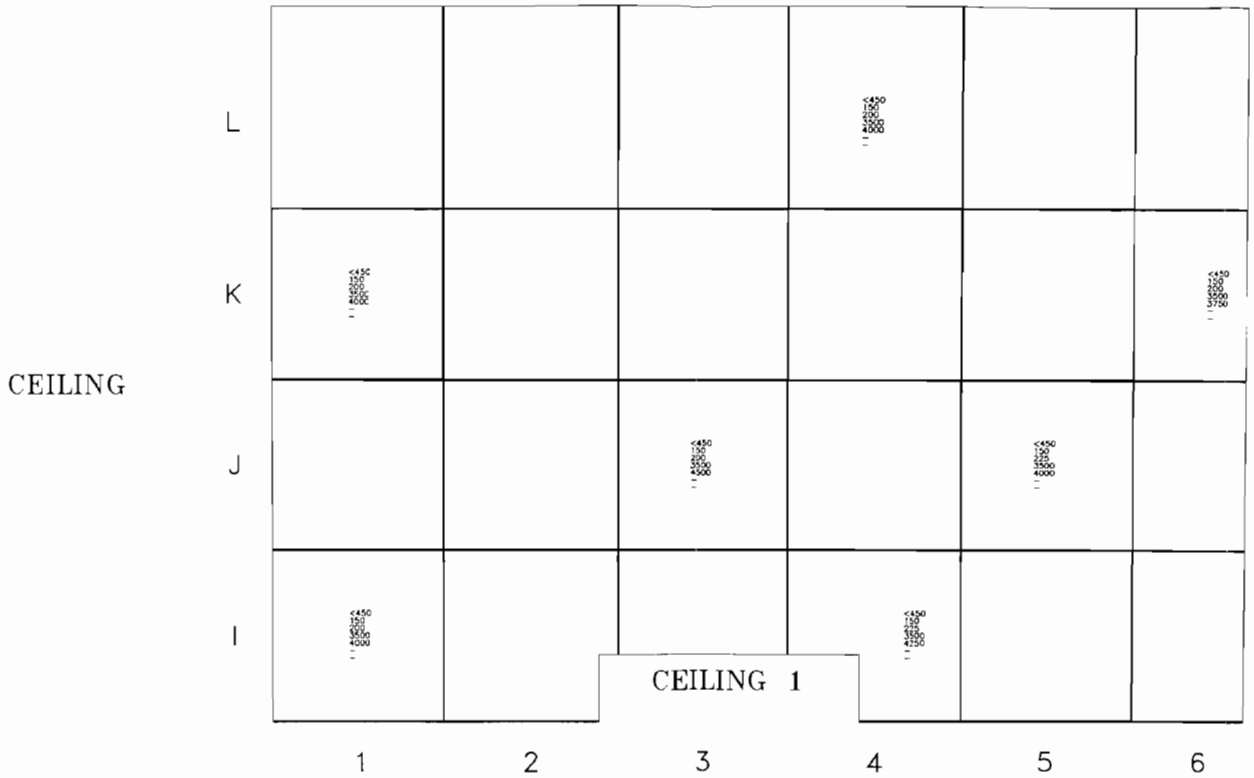


Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay

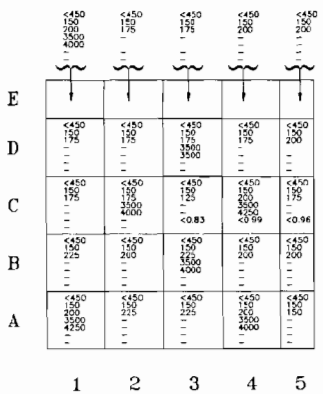


Sample Data

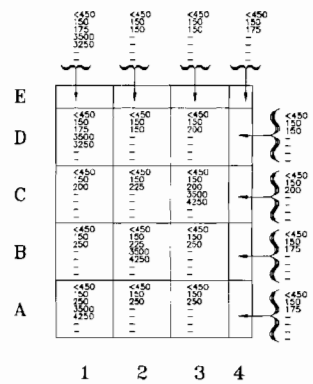
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay



CEILING 1



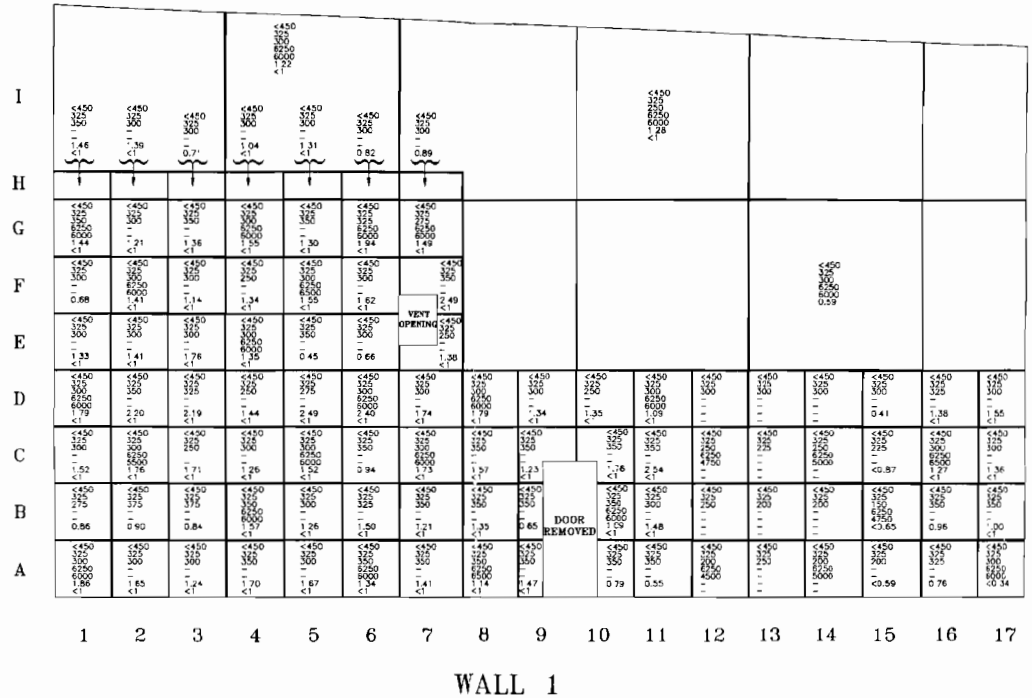
CEILING 2

Note:
All solid samples taken from Ceiling 1 consist of paint and have a limit of 3 pCi/g

Sample Data
<450 – IM-247/PD Results [μCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay

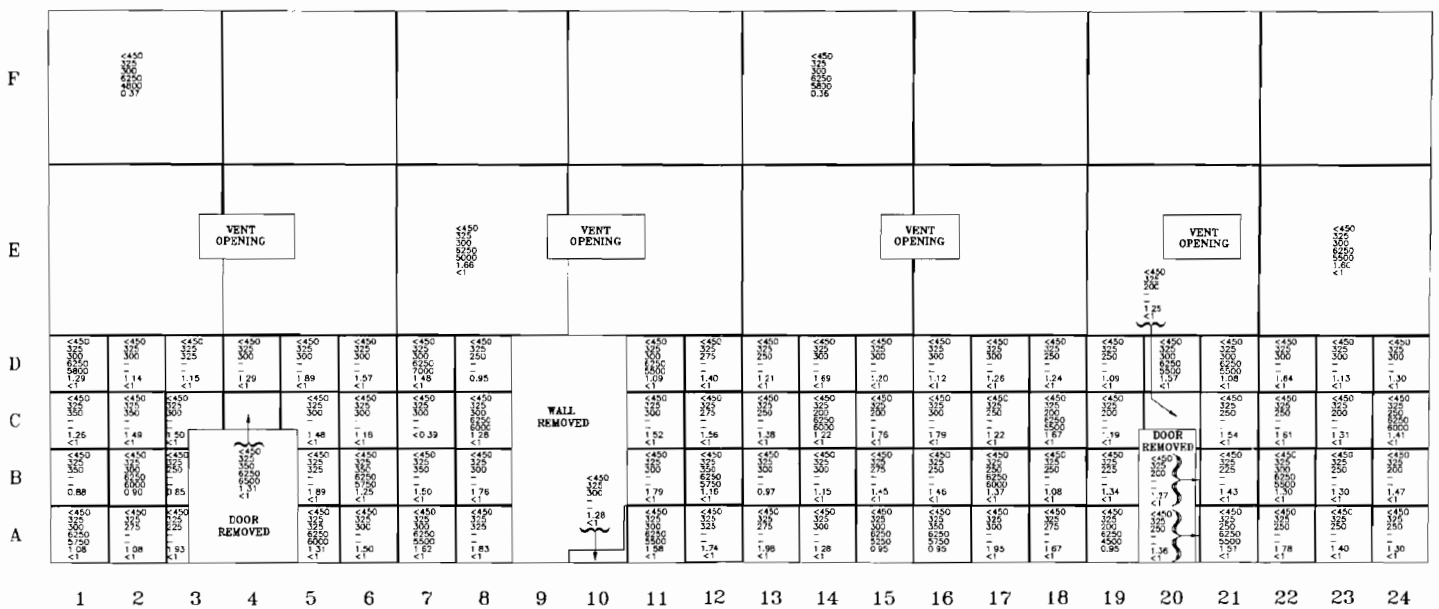


Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay



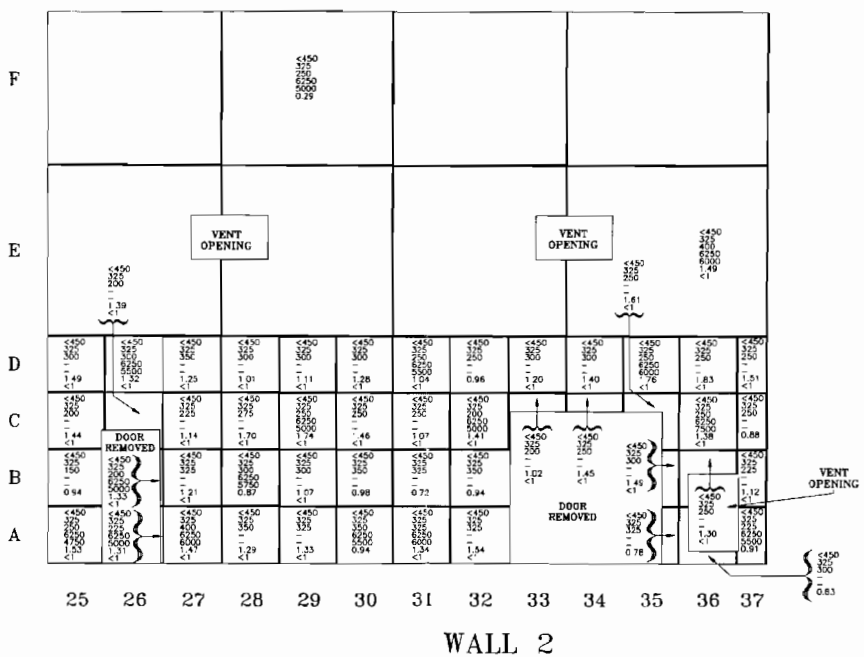
WALL 2

Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.62 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay

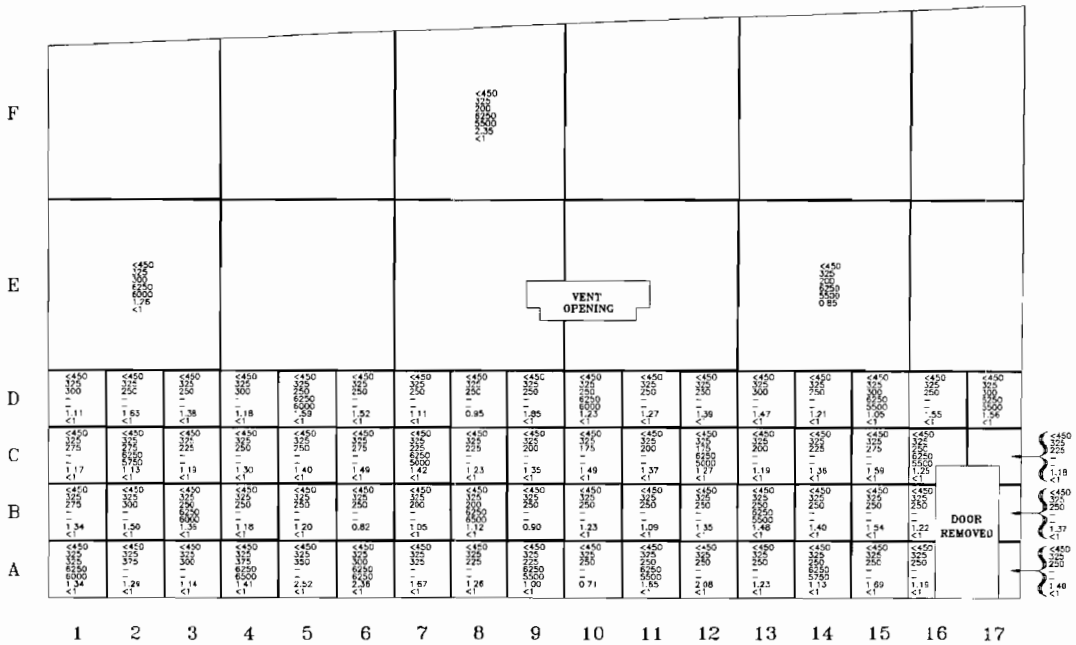


Sample Data

< 45C – IM-247/PD Results [μuCi/20cm²]
20C – IM-253/PD (HV-1 PHA) [bkg.]
30C – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Grass Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay



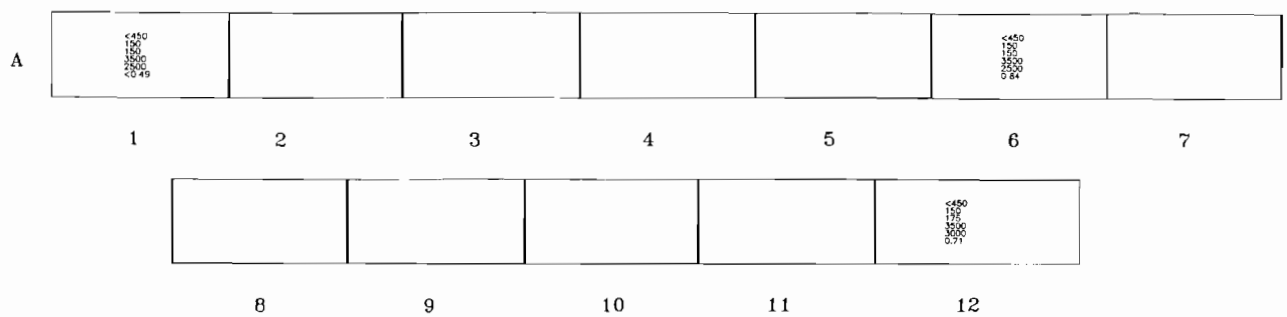
Wall 3

Sample Data

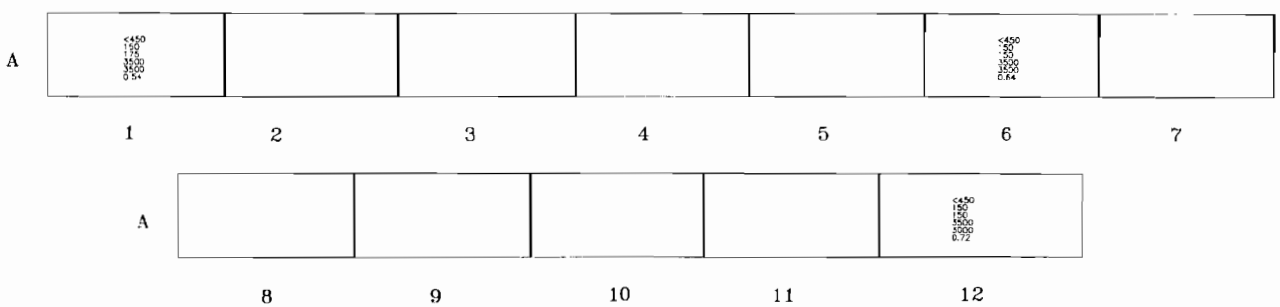
<450 – IM-247/PD Results [μrCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay



CR1



CR2

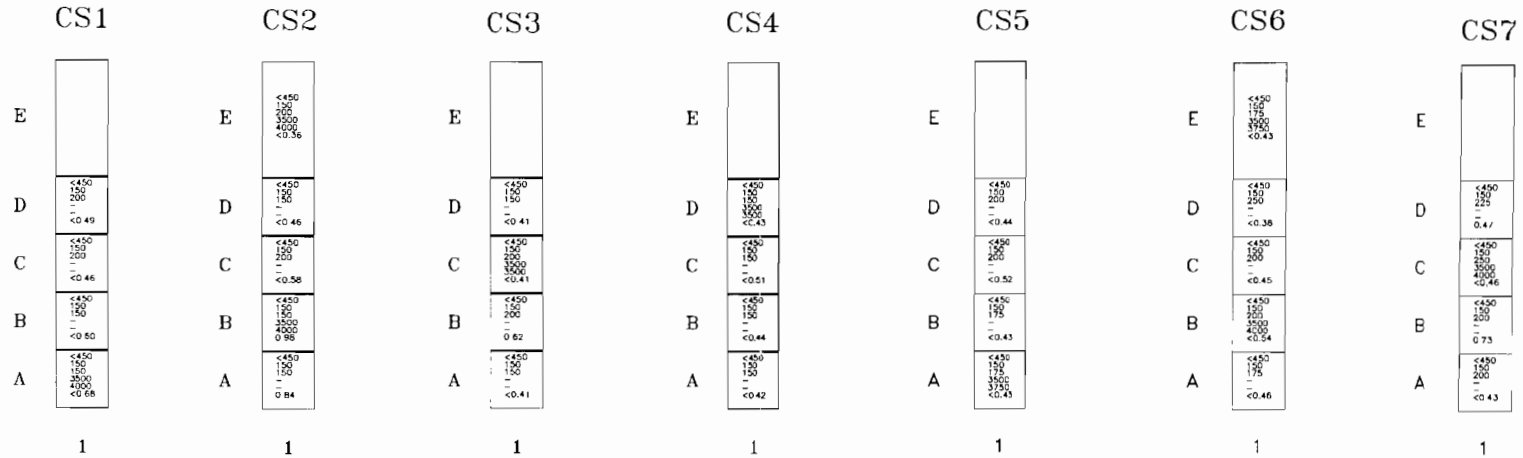
Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g.

Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay

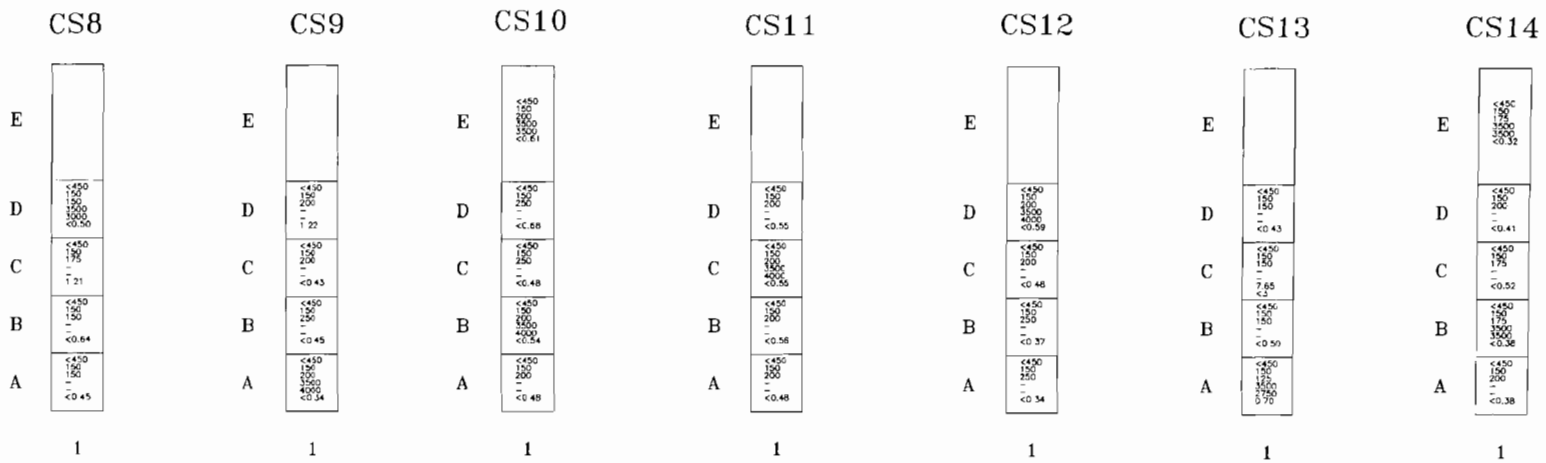


Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g

Sample Data
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Low Bay

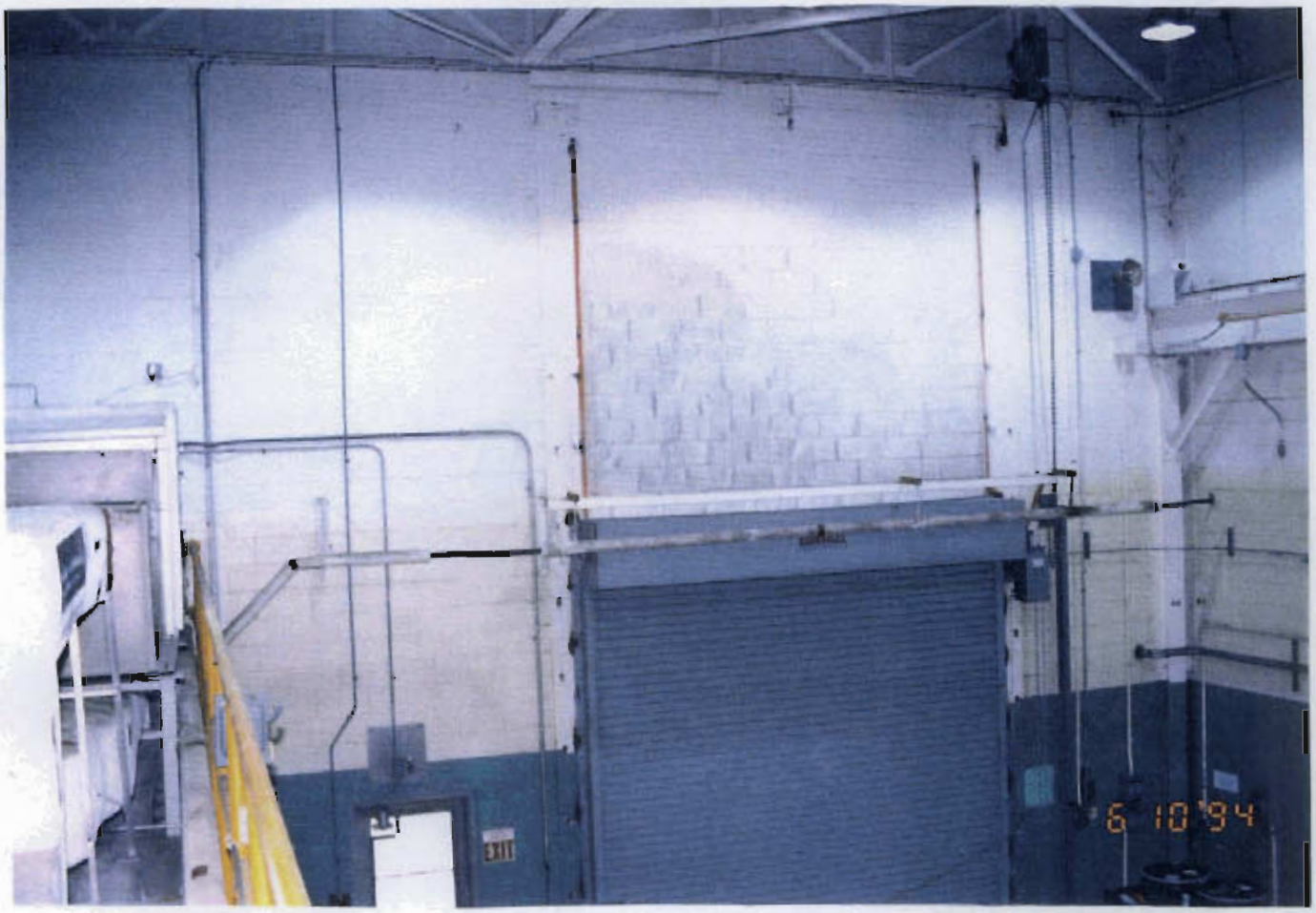


Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g

Sample Data
<450 – IM-247/PD Results (μμCi/20cm²)
200 – IM-253/PD (HV-1 PHA) (bkg.)
300 – IM-253/PD (HV-1 PHA) (cpm)
7000 – IM-253/PD (HV-2 GROSS) (bkg.)
7300 – IM-253/PD (HV-2 GROSS) (cpm)
1.32 – MCA Gross Gamma Eq. Co-60 (pCi/g)
<1 – MCA Specific Co-60 Results (pCi/g)

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Prior to Photographs, Low Bay



Viewing toward wall-1

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Prior to Photographs, Low Bay

Viewing wall-1 wall-2 corner

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Prior to Photographs, Low Bay

Viewing toward wall-2

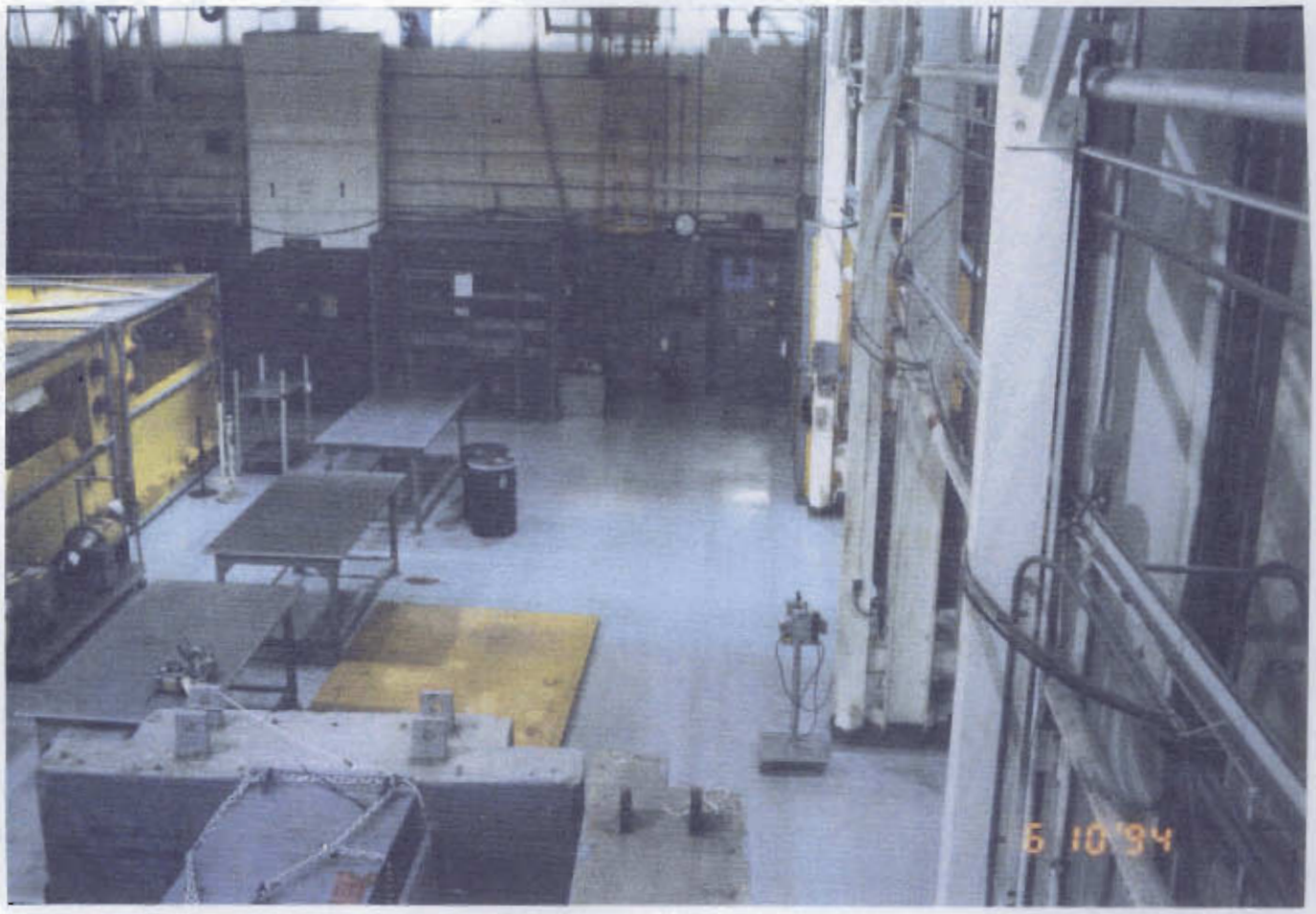
8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Prior to Photographs, Low Bay

Viewing wall-2 wall-3 corner

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Prior to Photographs, Low Bay



Viewing toward wall-3

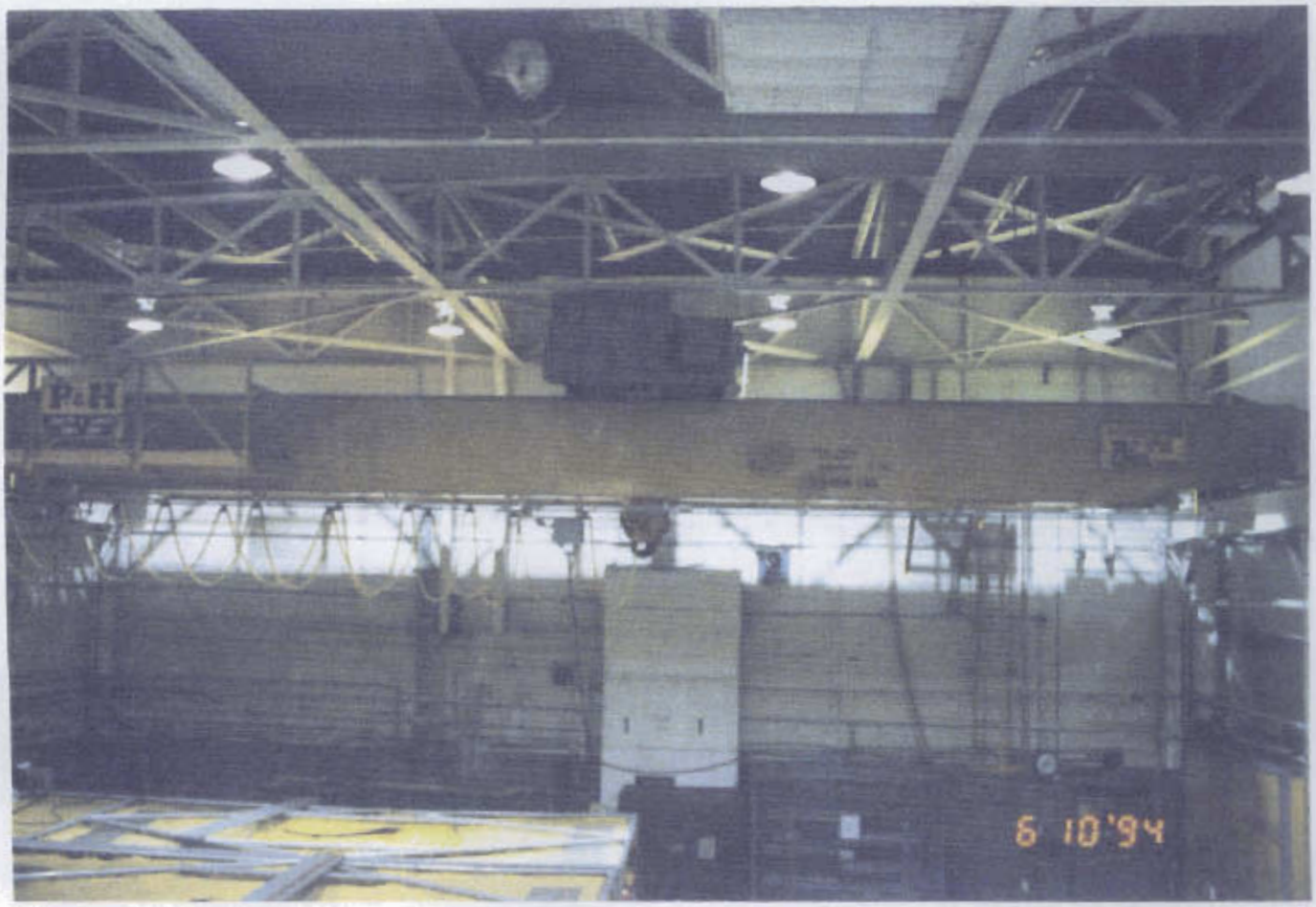
8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Prior to Photographs, Low Bay

Viewing toward wall-3

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Prior to Photographs, Low Bay



Crane, viewing toward wall-3

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Prior to Photographs, Low Bay

Crane, viewing toward wall-2

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Prior to Photographs, Low Bay

Crane, viewing toward wall-1

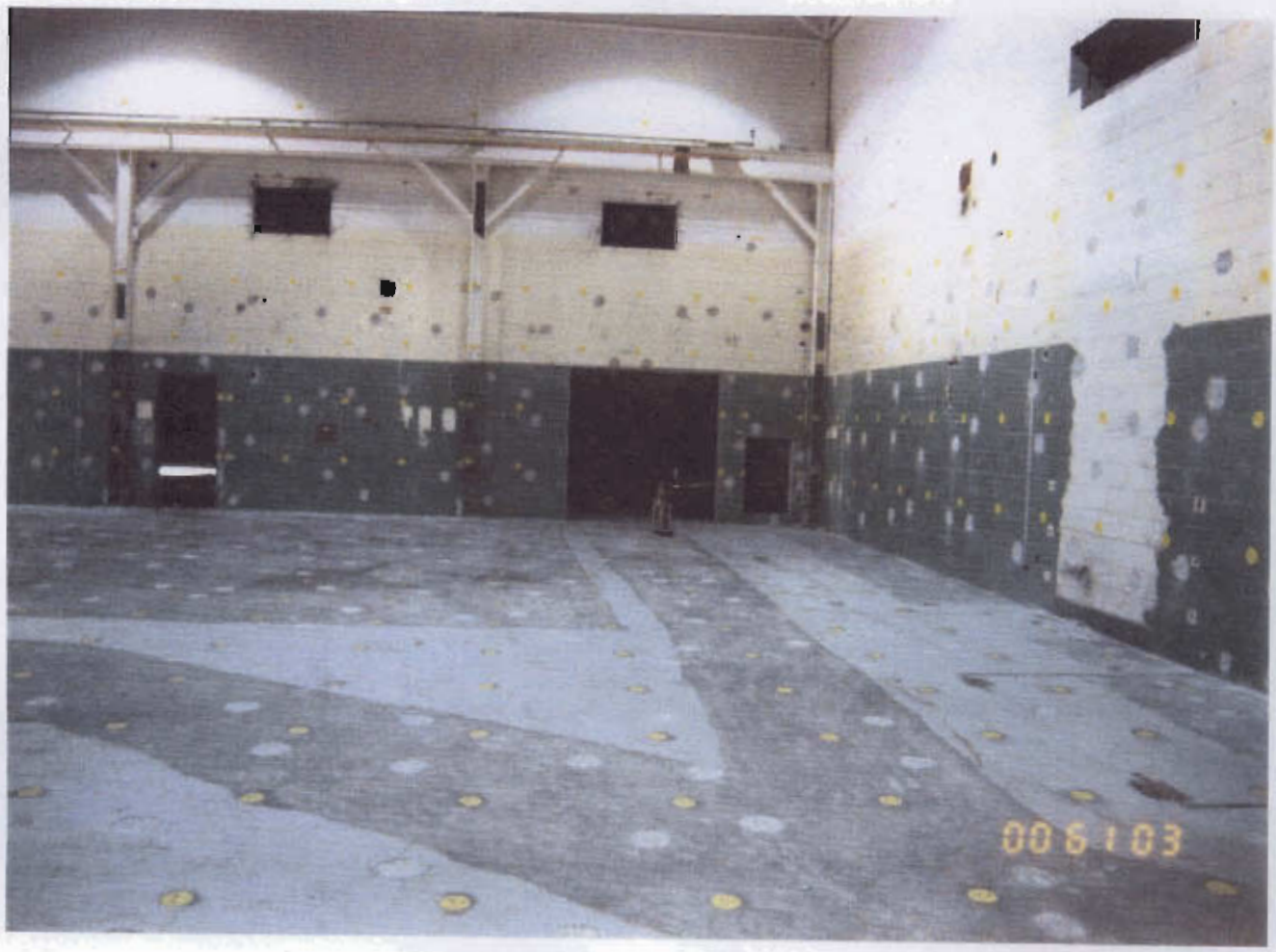
8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. After Photographs, Low Bay

Viewing toward wall-1 wall-2 corner

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. After Photographs, Low Bay



Viewing wall-2 wall-3 corner

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. After Photographs, Low Bay

Viewing toward wall-3

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. After Photographs, Low Bay

Crane, viewing toward wall-1 wall-2 corner

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. After Photographs, Low Bay

Crane, viewing toward wall-2

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. After Photographs, Low Bay

Crane, viewing toward high bay

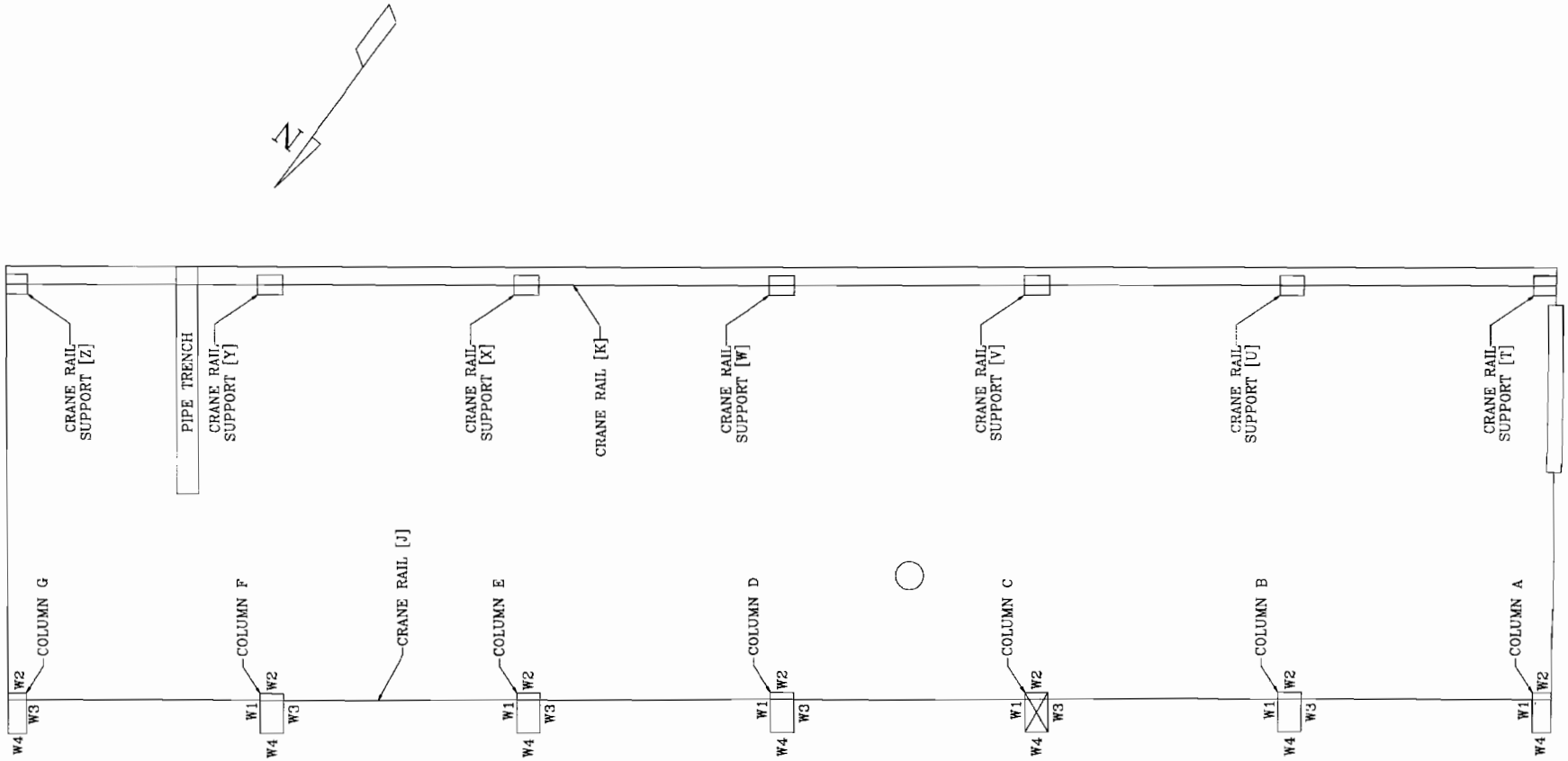
8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. After Photographs, Low Bay

Crane, viewing toward wall-2

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

b. High Bay Crane Rail, Crane Rail Support, and Column Layout



8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay

	1	2	3	4	5	6	7	8	9	10	11
L	<450 200 150 – – 1.19 <1	<450 200 150 – – 1.42 <1	<450 200 200 – – 1.57 <1	<450 200 200 – – 1.03 <1	<450 200 150 – – 0.88 –	<450 200 150 – – 1.32 <1	<450 200 200 – – 1.33 <1	<450 200 150 – – 0.84 –	<450 200 200 – – 1.33 <1	<450 200 175 – – 1.13 <1	<450 200 200 – – 1.29 <1
K	<450 200 150 5500 6000 1.36 <1	<450 200 150 – – 1.35 <1	<450 200 175 5500 5000 1.80 <1	<450 200 200 – – 1.40 <1	<450 200 200 5500 5000 1.70 <1	<450 200 200 – – 1.69 <1	<450 200 200 5500 5500 1.16 <1	<450 200 175 – – 1.32 <1	<450 200 200 5500 5700 1.10 <1	<450 200 200 – – 1.71 <1	<450 200 200 5500 6000 1.12 <1
J	<450 200 200 – – 1.78 <1	<450 200 200 – – 1.54 <1	<450 200 150 – – 1.42 <1	<450 200 200 – – 1.20 <1	<450 200 200 – – 1.05 <1	<450 200 200 – – 1.23 <1	<450 200 175 – – 1.49 <1	<450 200 175 – – 1.36 <1	<450 200 200 – – 1.57 <1	<450 200 200 – – 0.91 –	<450 200 200 – – 1.64 <1
I	<450 200 200 5500 5000 1.45 <1	<450 200 200 – – 1.41 <1	<450 200 250 5500 5500 1.99 <1	<450 200 200 – – 1.67 <1	<450 200 200 5500 5000 1.53 <1	<450 200 150 – – 1.58 <1	<450 200 200 5500 5000 1.45 <1	<450 200 200 – – 1.67 <1	<450 200 200 5500 5000 1.73 <1	<450 200 200 – – 1.56 <1	<450 200 200 5500 5500 1.78 <1
H	<450 200 225 – – 1.82 <1	<450 200 225 – – 1.52 <1	<450 200 200 – – 1.62 <1	<450 200 200 – – 2.14 <1	<450 200 200 – – 1.87 <1	<450 200 200 – – 1.14 <1	<450 200 200 – – 1.32 <1	<450 200 200 – – 1.78 <1	<450 200 200 – – 1.77 <1	<450 200 250 – – 2.08 <1	<450 200 250 – – 1.60 <1
G	<450 200 150 5500 5000 2.01 <1	<450 200 150 – – 1.30 <1	<450 200 150 5500 5500 1.58 <1	<450 200 200 – – 1.21 <1	<450 200 150 5500 5500 1.59 <1	<450 200 200 – – 1.29 <1	<450 200 200 5500 5500 1.18 <1	<450 200 200 – – 1.67 <1	<450 200 200 5500 5500 1.47 <1	<450 200 200 – – 1.39 <1	<450 200 200 5500 5500 1.81 <1
F	<450 200 250 – – 1.77 <1	<450 200 250 – – 1.26 <1	<450 200 250 – – 1.81 <1	<450 200 250 – – 1.36 <1	<450 200 250 – – 1.60 <1	<450 200 250 – – 1.67 <1	<450 200 250 – – 0.92 –	<450 200 250 – – 1.58 <1	<450 200 250 – – 0.99 –	<450 200 250 – – 1.70 <1	<450 200 250 – – 1.63 <1
E	<450 200 200 5500 5500 1.41 <1	<450 200 250 – – 1.24 <1	<450 200 200 5500 5500 1.18 <1	<450 200 250 – – 1.31 <1	<450 200 150 5500 5500 1.21 <1	<450 200 250 – – 0.75 –	<450 200 250 5500 5500 2.42 <1	<450 200 250 – – 1.56 <1	<450 200 250 5500 5500 0.97 –	<450 200 300 – – 1.88 <1	<450 200 250 5500 6000 1.63 <1
D	<450 200 200 – – 1.35 <1	<450 200 200 – – 1.35 <1	<450 200 200 – – 1.14 <1	<450 200 200 – – 1.24 <1	<450 200 200 – – 1.43 <1	<450 200 200 – – 1.90 <1	<450 200 200 – – 1.47 <1	<450 200 200 – – 1.44 <1	<450 200 200 – – 1.18 <1	<450 200 200 – – 1.55 <1	<450 200 200 – – 1.76 <1
C	<450 200 250 5500 5000 1.35 <1	<450 200 300 – – 1.84 <1	<450 200 250 5500 5000 1.49 <1	<450 200 200 – – 1.53 <1	<450 200 250 5500 5000 1.37 <1	<450 200 200 – – 1.32 <1	<450 200 200 5500 5500 1.18 <1	<450 200 200 – – 1.49 <1	<450 200 200 5500 5000 0.84 –	<450 200 200 – – 1.13 <1	<450 200 200 5500 5500 1.95 <1
B	<450 200 225 – – 1.12 <1	<450 200 250 – – 1.41 <1	<450 200 200 – – 1.60 <1	<450 200 250 – – 1.14 <1	<450 200 225 – – 1.46 <1	<450 200 200 – – 1.71 <1	<450 200 200 – – 1.59 <1	<450 200 200 – – 1.10 <1	<450 200 200 – – 1.49 <1	<450 200 200 – – 1.76 <1	<450 200 200 – – 1.43 <1
A	<450 200 175 5500 4500 1.76 <1	<450 200 175 – – 1.59 <1	<450 200 200 5500 5500 1.73 <1	<450 200 175 – – 0.78 –	<450 200 200 – 5500 1.76 <1	<450 200 125 – – 1.35 <1	<450 200 175 5500 4750 1.48 <1	<450 200 150 – – 1.25 <1	<450 200 125 5500 4750 1.46 <1	<450 200 150 – – 1.00 <1	<450 200 150 – 5000 1.41 <1

	1	2	3	4	5	6	7	8	9	10	11
X	<450 200 225 – – 1.14 <1	<450 200 250 – – 1.50 <1	<450 200 200 – – 1.12 <1	<450 200 225 – – 1.35 <1	<450 200 225 – – 1.42 <1	<450 200 225 – – 1.08 <1	<450 200 200 – – 1.42 <1	<450 200 250 – – 1.37 <1	<450 200 200 – – 1.42 <1	<450 200 200 – – 1.45 <1	<450 200 250 – – 1.82 <1
W	<450 200 250 5500 5500 1.44 <1	<450 200 200 – – 1.18 <1	<450 200 200 5500 5500 0.99 –	<450 200 200 – – 1.72 <1	<450 200 200 5500 5500 1.47 <1	<450 200 175 – – 1.21 <1	<450 200 200 5500 5500 1.49 <1	<450 200 200 – – 1.31 <1	<450 200 200 5500 6000 1.09 <1	<450 200 200 – – 1.49 <1	<450 200 225 5500 5500 1.83 <1
V	<450 200 200 – – 0.88 –	<450 200 200 – – 1.74 <1	<450 200 200 – – 1.14 <1	<450 200 200 – – 1.22 <1	<450 200 200 – – 1.29 <1	<450 200 200 – – 1.37 <1	<450 200 175 – – 1.39 <1	<450 200 200 – – 1.22 <1	<450 200 200 – – 1.43 <1	<450 200 225 – – 1.66 <1	<450 200 225 – – 1.85 <1
U	<450 200 200 5500 5000 1.40 <1	<450 200 200 – – 1.58 <1	<450 200 200 5500 5500 1.55 <1	<450 200 200 – – 1.61 <1	<450 200 200 5500 5000 1.40 <1	<450 200 200 – – 1.64 <1	<450 200 200 5500 5500 0.69 –	<450 200 200 – – 1.51 <1	<450 200 200 5500 5500 1.43 <1	<450 200 200 – – 1.83 <1	<450 200 250 5500 5000 1.54 <1
T	<450 200 200 – – 0.92 –	<450 200 150 – – 1.71 <1	<450 200 150 – – 1.52 <1	<450 200 150 – – 1.30 <1	<450 200 150 – – 1.68 <1	<450 200 150 – – 1.12 <1	<450 200 200 – – 1.39 <1	<450 200 200 – – 1.54 <1	<450 200 200 – – 1.33 <1	<450 200 200 – – 1.43 <1	<450 200 250 – – 1.72 <1
S	<450 200 125 5500 5000 1.70 <1	<450 200 200 – – 1.56 <1	<450 200 200 5500 5500 1.44 <1	<450 200 150 – – 1.60 <1	<450 200 200 5500 5000 1.19 <1	<450 200 150 – – 0.70 –	<450 200 150 5500 5000 1.60 <1	<450 200 150 – – 1.15 <1	<450 200 150 5500 5000 1.90 <1	<450 200 200 – – 1.49 <1	<450 200 150 5500 5000 1.86 <1
R	<450 200 250 – – 1.54 <1	<450 200 250 – – 1.73 <1	<450 200 250 – – 1.65 <1	<450 200 250 – – 1.86 <1	<450 200 250 – – 1.16 <1	<450 200 250 – – 1.62 <1	<450 200 250 – – 1.63 <1	<450 200 250 – – 2.85 <1	<450 200 250 – – 1.01 <1	<450 200 300 – – 1.65 <1	<450 200 200 – – 2.42 <1
Q	<450 200 200 5500 5500 1.60 <1	<450 200 225 – – 1.87 <1	<450 200 200 5500 4250 – –	<450 200 175 – – – –	<450 200 150 5500 4000 – –	<450 200 250 – – 1.22 <1	<450 200 250 5500 5000 1.15 <1	<450 200 250 – – 1.52 <1	<450 200 250 5500 4500 1.88 <1	<450 200 300 – – 1.14 <1	<450 200 250 5500 5500 1.87 <1
P	<450 200 200 – – 1.59 <1	<450 200 250 – – 1.66 <1	<450 200 250 – – – –	<450 200 125 – – – –	<450 200 100 – – – –	<450 200 175 – – 1.68 <1	<450 200 150 – – 2.14 <1	<450 200 175 – – 1.28 <1	<450 200 175 – – 1.62 <1	<450 200 175 – – 1.74 <1	<450 200 200 – – 1.76 <1
O	<450 200 200 5500 5000 1.49 <1	<450 200 250 – – 1.32 <1	<450 200 250 5500 5000 – –	<450 200 100 – – – –	<450 200 100 5500 5000 – –	<450 200 175 – – 1.72 <1	<450 200 150 5500 5000 1.93 <1	<450 200 175 – – 1.82 <1	<450 200 150 5500 5000 1.66 <1	<450 200 225 – – 1.68 <1	<450 200 250 5500 5000 1.32 <1
N	<450 200 250 – – 1.50 <1	<450 200 250 – – 1.57 <1	<450 200 250 – – 1.77 <1	<450 200 200 – – 1.54 <1	<450 200 200 – – 1.75 <1	<450 200 275 – – 2.07 <1	<450 200 250 – – 3.30 –	<450 200 250 – – 1.72 <1	<450 200 225 – – 1.50 <1	<450 200 300 – – 1.40 <1	<450 200 250 – – 1.39 <1
M	<450 200 200 5500 4200 1.48 <1	<450 200 250 – – 1.18 <1	<450 200 250 5500 5500 1.30 <1	<450 200 250 – – 1.32 <1	<450 200 200 5500 5000 1.75 <1	<450 200 200 – – 1.36 <1	<450 200 250 5500 5000 0.72 –	<450 200 250 – – 1.34 <1	<450 200 250 5500 5500 1.64 <1	<450 200 250 – – 2.32 <1	<450 200 250 5500 5750 1.62 <1

FLOOR

Sample Data

< 450 – IM-247/PD Results [μCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay

	1	2	3	4	5	6	7	8	9	10	11
AF	<450 200 250 – – 0.72	<450 200 250 – – 1.56 <1	<450 200 225 – – 1.34 <1	<450 200 250 – – 1.32 <1	<450 200 250 – – 1.32 <1	<450 200 250 – – 1.28 <1	<450 200 275 – – 1.53 <1	<450 200 275 – – 1.47 <1	<450 200 250 – – 1.25 <1	<450 200 225 – – 1.45 <1	<450 200 200 – – 1.43 <1
AE	<450 200 200 5500 4750 1.66 <1	<450 200 300 – – 1.67 <1	<450 200 250 5500 5500 2.43 <1	<450 200 300 – – 2.14 <1	<450 200 300 5500 5500 1.61 <1	<450 200 300 – – 1.59 <1	<450 200 250 5500 5500 1.63 <1	<450 200 250 – – 1.99 <1	<450 200 300 5500 6000 4.12 <1	<450 200 150 – – 1.70 <1	<450 200 150 5500 5500 1.02 <1
AD	<450 200 200 – – 1.31 <1	<450 200 250 – – 2.89 <1	<450 200 275 – – 1.48 <1	<450 200 275 – – 2.18 <1	<450 200 200 – – 1.34 <1	<450 200 200 – – 1.10 <1	<450 200 150 – – 1.27 <1	<450 200 150 – – 1.21 <1	<450 200 150 – – 1.70 <1	<450 200 150 – – 1.70 <1	<450 200 150 – – 1.64 <1
AC	<450 200 250 5500 4500 1.37 <1	<450 200 250 – – 1.32 <1	<450 200 250 5500 4500 1.53 <1	<450 200 250 – – 1.57 <1	<450 200 250 5500 4750 1.67 <1	<450 200 275 – – 2.01 <1	<450 200 250 5500 4500 1.93 <1	<450 200 225 – – 1.70 <1	<450 200 250 5500 4500 1.88 <1	<450 200 475 – – 1.51 <1	<450 200 250 5500 4750 1.89 <1
AB	<450 200 250 – – 1.33 <1	<450 200 250 – – 1.09 <1	<450 200 250 – – 1.30 <1	<450 200 275 – – 1.45 <1	<450 200 300 – – 1.50 <1	<450 200 250 – – 1.16 <1	<450 200 150 – – 1.56 <1	<450 200 150 – – 1.52 <1	<450 200 150 – – 1.05 <1	<450 200 300 – – 1.63 <1	<450 200 300 – – 1.19 <1
AA	<450 200 200 5500 6000 1.87 <1	<450 200 350 – – 1.27 <1	<450 200 350 5500 6000 1.42 <1	<450 200 300 – – 1.43 <1	<450 200 300 7000 6000 1.48 <1	<450 200 300 – – 1.38 <1	<450 200 350 5500 5500 1.54 <1	<450 200 350 – – 1.60 <1	<450 200 150 5500 5000 1.48 <1	<450 200 300 – – 1.81 <1	<450 200 300 5500 6000 1.57 <1
Z	<450 200 300 – – 1.10 <1	<450 200 250 – – 1.31 <1	<450 200 250 – – 1.09 <1	<450 200 250 – – 1.19 <1	<450 200 250 – – 1.45 <1	<450 200 250 – – 1.57 <1	<450 200 250 – – 1.37 <1	<450 200 250 – – 1.33 <1	<450 200 200 – – 1.45 <1	<450 200 250 – – 1.30 <1	<450 200 250 – – 1.25 <1
Y	<450 200 225 5500 4500 0.75	<450 200 250 – – 0.75	<450 200 250 5500 5500 1.52 <1	<450 200 275 – – 1.17 <1	<450 200 250 5500 5500 1.29 <1	<450 200 300 – – 1.02 <1	<450 200 250 5500 5500 1.15 <1	<450 200 250 – – 1.36 <1	<450 200 200 5500 5000 1.19 <1	<450 200 250 – – 1.22 <1	<450 200 250 5500 6000 1.32 <1

	1	2	3	4	5	6	7	8	9	10	11
AK	<450 200 300 5500 5500 1.48 <1	<450 200 300 – – 1.10 <1	<450 200 300 5500 5500 1.39 <1	<450 200 300 – – 1.48 <1	<450 200 250 5500 5500 0.73	<450 200 300 – – 1.43 <1	<450 200 300 – – 2.01 <1	<450 200 300 – – 1.34 <1	<450 200 300 – – 0.57	<450 200 300 – – 1.49 <1	<450 200 300 – – 1.37 <1
AJ	<450 200 250 – – 0.95	<450 200 250 – – 1.43	<450 200 250 – – 1.40 <1	<450 200 250 – – 1.23 <1	<450 200 200 – – 0.95	<450 200 200 – – 0.98	<450 200 200 – – 1.49 <1	<450 200 200 – – 1.91 <1	<450 200 200 – – 1.47 <1	<450 200 250 – – 1.63 <1	<450 200 225 – – 1.23 <1
AI	<450 200 250 5500 6000 1.52 <1	<450 200 250 – – 1.47 <1	<450 200 250 5500 6000 1.85 <1	<450 200 250 – – 1.65 <1	<450 200 250 5500 6000 1.33 <1	<450 200 250 – – 1.37 <1	<450 200 250 5500 6000 1.40 <1	<450 200 250 – – 1.00 <1	<450 200 250 5500 6000 1.06 <1	<450 200 250 – – 1.50 <1	<450 200 250 5500 6000 1.70 <1
AH	<450 200 150 – – 1.36 <1	<450 200 300 – – 1.12 <1	<450 200 150 – – 1.21 <1	<450 200 200 – – 1.21 <1	<450 200 200 – – 1.21 <1	<450 200 200 – – 1.20 <1	<450 200 200 – – 1.32 <1	<450 200 200 – – 1.51 <1	<450 200 200 – – 1.38 <1	<450 200 200 – – 1.61 <1	<450 200 200 – – 1.21 <1
AG	<450 200 250 5500 5500 1.57 <1	<450 200 350 – – 1.69 <1	<450 200 350 5500 5500 1.72 <1	<450 200 250 – – 1.77 <1	<450 200 250 5500 5500 1.32 <1	<450 200 300 – – 1.20 <1					
							<450 200 250 5500 4500 1.55 <1	<450 200 250 – – 1.75 <1	<450 200 250 5500 4500 1.24 <1	<450 200 200 – – 1.27 <1	<450 200 225 5500 4500 0.84

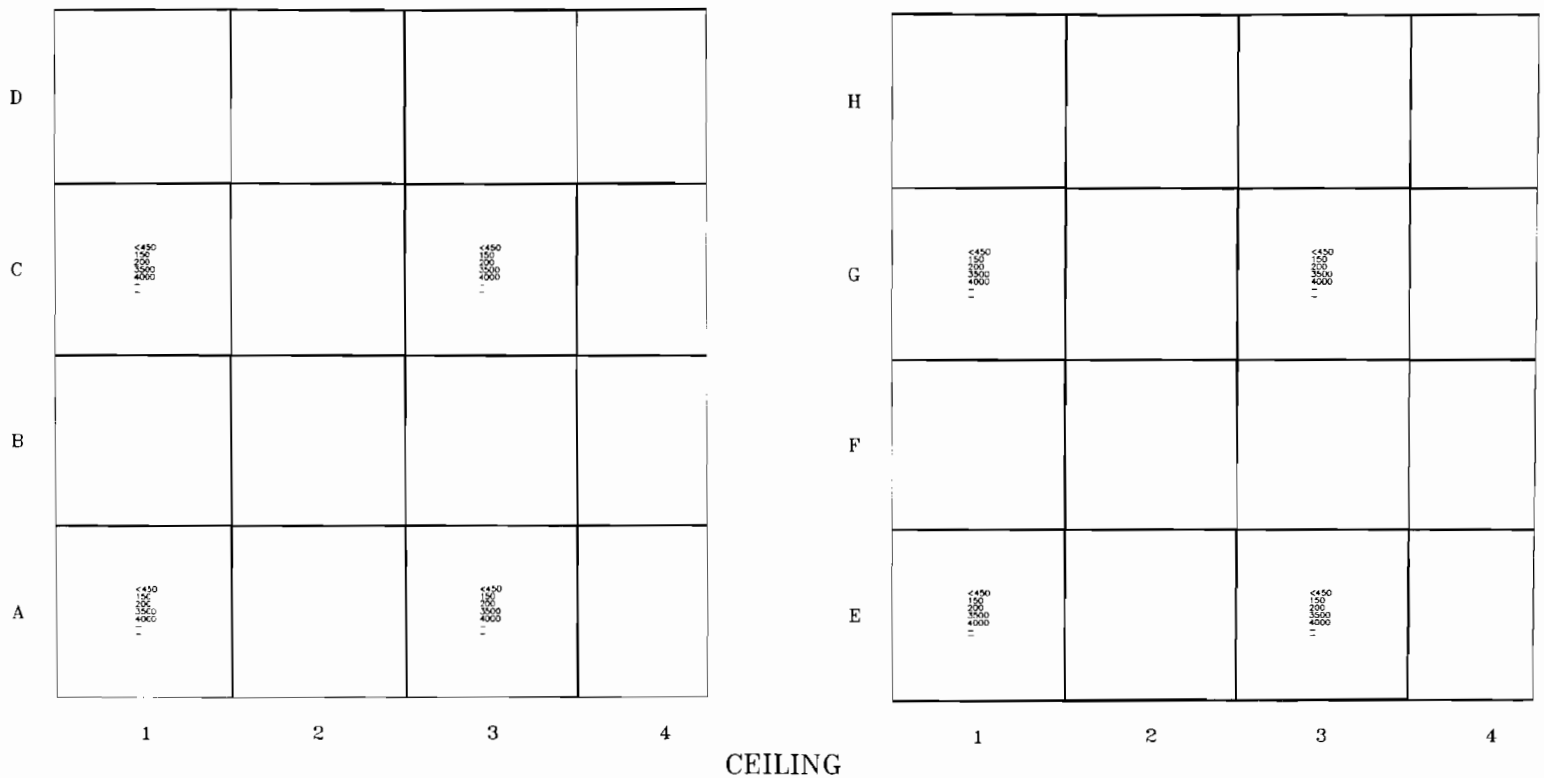
FLOOR

Sample Data

< 450 – IM-247/PD Results [μCi/20cm^2]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay

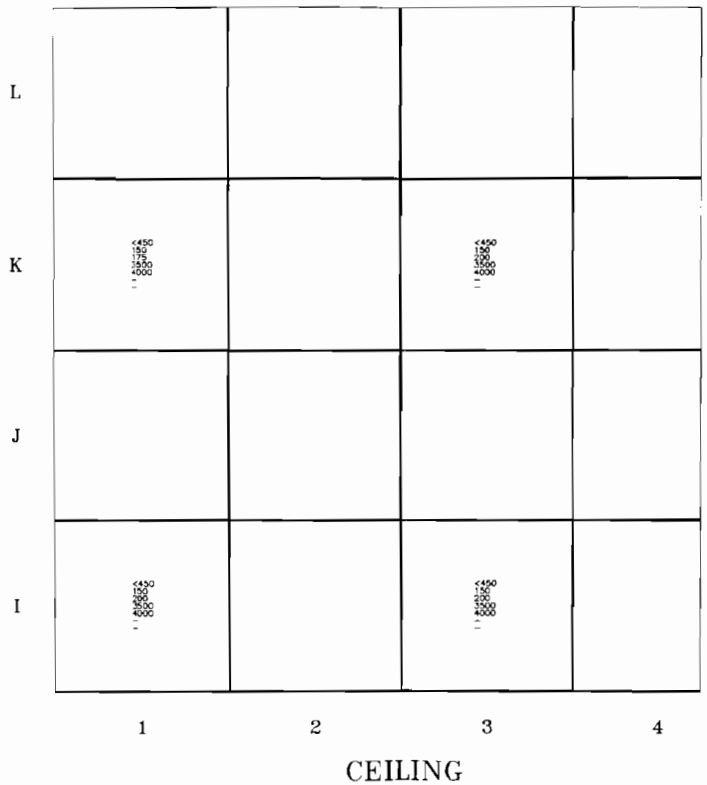


Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay

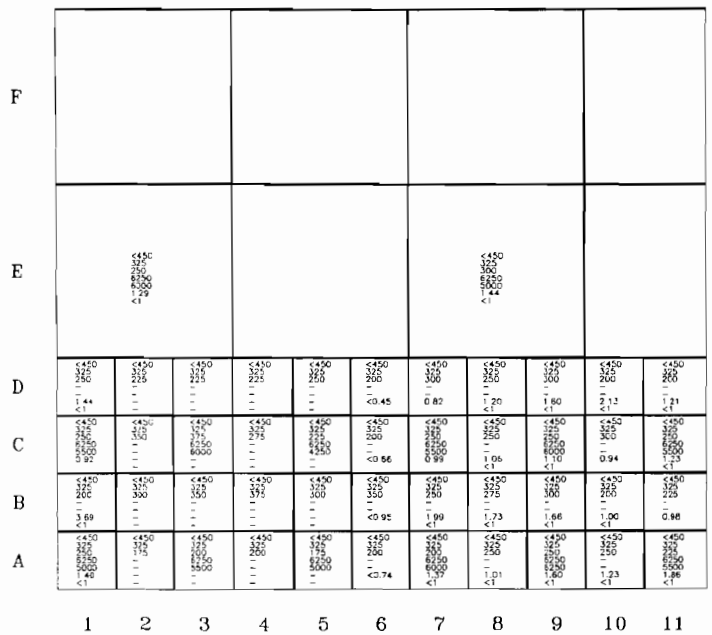


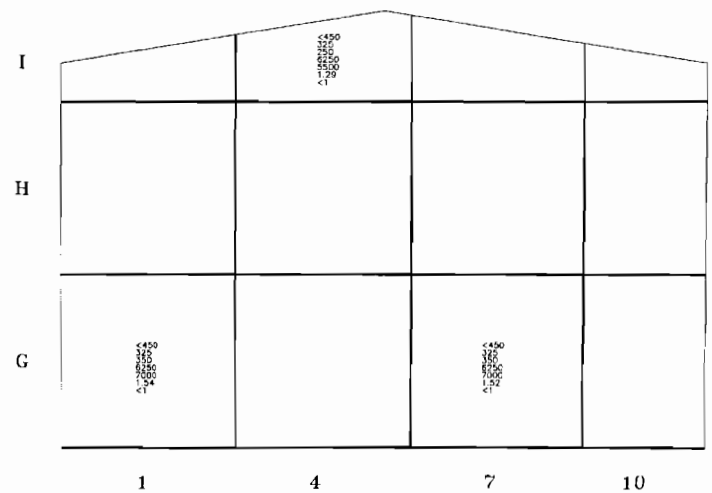
Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay





W1

Note:
Solid samples taken from grids A through D 6 consist of paint and have a limit of 3 pCi/g

Sample Data
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay

	1	2	3	4	5	6	7	8
B								
A	<450 150 200 3500 4250 1.59		<450 150 200 3500 4250 <1.59		<450 150 175 3500 3500 <1.03		<450 150 175 3500 4250 <1.43	

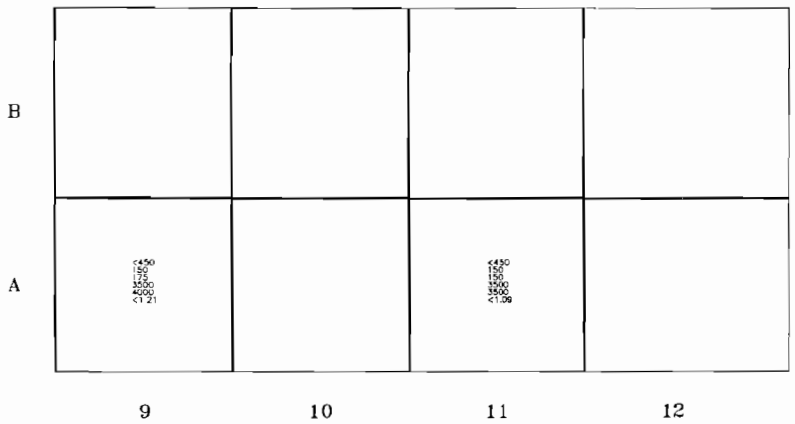
W2

Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g

Sample Data
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq Co-60 [pCi/g]
<1 – MCA Specific Co-60 Resuts [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay



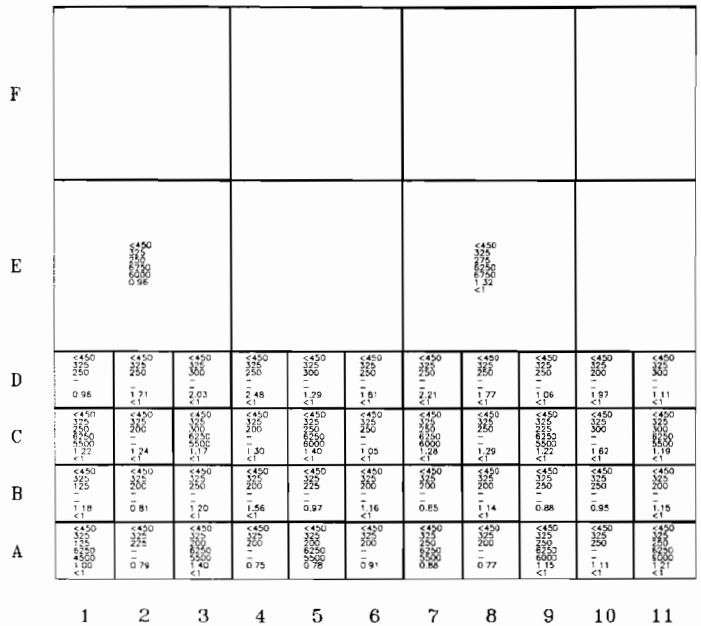
W2

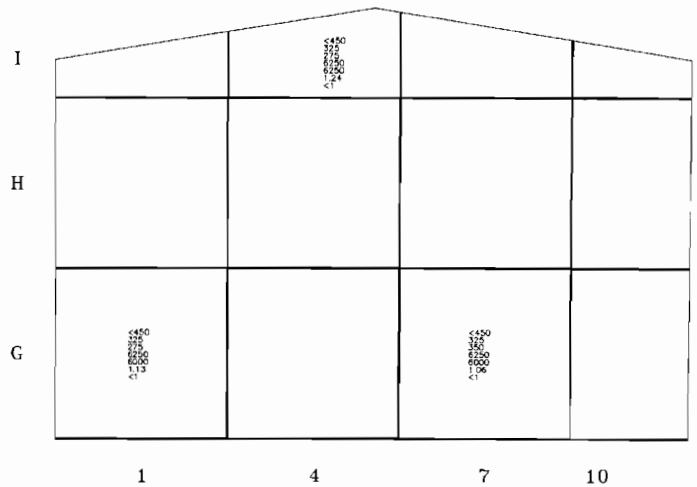
Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g.

Sample Data
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay





W3

Sample Data

<450 – IM-247/PD Results [μμC/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
F																		O	<450 325 175< – 0.91	<450 325 200 – 0.93	<450 325 225 – 1.64 <1	<450 325 175 – 1.43 <1	<450 325 200 – 0.85	<450 325 200 – 1.28 <1
																		N	<450 325 175 6250 5500 1.30 <1	<450 325 150 – 0.86	<450 325 175 – 0.95	<450 325 175 6250 5000 0.78	<450 325 175 – 0.91	<450 325 200 – 1.31 <1
																		M	<450 325 175 – 1.09 <1	<450 325 175 – 0.97	<450 325 200 6250 5000 1.11 <1	<450 325 250 – 1.17 <1	<450 325 325 – 1.72 <1	<450 325 150 6250 4500 1.49 <1
E	<450 325 300 6250 5500 0.59						<450 325 400 6250 6500 1.22 <1						<450 325 300 6250 6500 0.53					L	<450 325 200 6250 6000 0.98	<450 325 175 – 0.95	<450 325 200 – 1.07 <1	<450 325 250 6250 5000 0.91	<450 325 200 – 1.02 <1	<450 325 150 – 0.84
																		K	<450 325 200 – 1.14 <1	<450 325 250 – 0.90	<450 325 200 6250 6750 1.27 <1	<450 325 275 – 1.34 <1	<450 325 250 – 1.34 <1	<450 325 250 6250 5000 1.15 <1
																		J	<450 325 175 6250 5500 0.96	<450 325 250 – 1.09 <1	<450 325 225 – 1.59 <1	<450 325 200 6250 5750 1.09 <1	<450 325 250 – 0.71 <1	<450 325 225 – 1.07 <1
D	<450 325 275 – 0.88	<450 325 350 – 1.52 <1	<450 325 275 – 1.75 <1	<450 325 375 – 1.45 <1	<450 325 275 – 1.54 <1	<450 325 300 – 1.49 <1	<450 325 250 – 0.81	<450 325 275 – 1.24 <1	<450 325 300 – 1.45 <1	<450 325 300 – 1.10 <1	<450 325 300 – 1.23 <1	<450 325 300 6250 6000 1.16 <1	<450 325 250 – 1.23 <1	<450 325 300 6250 6000 1.3 <1	<450 325 200 – 1.17 <1	<450 325 200 6250 6500 0.98	<450 325 200 – 0.91	<450 325 200 6250 6000 0.91	<450 325 200 – 0.57	<450 325 200 6250 6500 0.94	<450 325 200 – 1.14 <1	<450 325 200 6250 6500 0.39	<450 325 200 – 1.08 <1	<450 325 200 – <0.39
C	<450 325 250 6250 6000 1.23<<	<450 325 250 – 0.56	<450 325 250 6250 6000 1.06 <1	<450 325 250 – 0.76	<450 325 250 6250 6000 0.96	<450 325 250 – 1.28 <1	<450 325 250 6250 6000 1.20<<1	<450 325 250 – 1.22 <1	<450 325 250 6250 6000 1.29<<1	<450 325 250 – 1.02 <1	<450 325 250 6250 6000 0.62	<450 325 250 – 1.05 <1	<450 325 250 – 0.79	<450 325 250 – 1.17 <1	<450 325 250 – 1.34 <1	<450 325 250 – 1.14 <1	<450 325 300 – 1.11 <1	<450 325 300 – 1.07 <1	<450 325 200 – 0.81	<450 325 200 – 0.71	<450 325 250 – 1.08 <1	<450 325 275 – 0.99	<450 325 275 6250 5000 0.79	<450 325 225 – 0.74
B	<450 325 250 – 1.19<<1	<450 325 250 – 1.36<<1	<450 325 250 – 1.04<<1	<450 325 250 – 1.34<<1	<450 325 250 – 1.10<<1	<450 325 250 – 1.35<<1	<450 325 200 – 1.50<<1	<450 325 250 – 0.75<<	<450 325 275 – 1.10<<1	<450 325 300 – 1.42<<1	<450 325 300 – 0.76<<	<450 325 250 – 1.11<<1	<450 325 250 – 2.08<<1	<450 325 250 – 1.42<<1	<450 325 250 – 1.40<<1	<450 325 250 – 1.66<<1	<450 325 250 – 1.09<<1	<450 325 250 – 0.95<<	<450 325 200 – 1.13<<1	<450 325 250 – 1.06<<1	<450 325 300 – 0.77<<	<450 325 300 – 1.03<<1	<450 325 300 – 1.43<<1	<450 325 300 – 1.14<<1
A	<450 325 275 6250 5500 1.13<<1	<450 325 275 – 1.33<<1	<450 325 300 6250 6000 1.24<<1	<450 325 275 – 1.03<<1	<450 325 225 6250 5250 1.09<<1	<450 325 250 – 0.74<<	<450 325 200 6250 5250 0.87<<	<450 325 275 – 0.92<<	<450 325 300 6250 6000 0.57<<	<450 325 250 – 0.39<<	<450 325 300 6250 6000 0.94<<	<450 325 300 6250 6000 1.45<<	<450 325 300 – 0.65<<	<450 325 250 6250 6000 0.68<<	<450 325 250 – 0.72<<	<450 325 250 6250 6000 1.23<<1	<450 325 300 – 1.12<<1	<450 325 300 6250 5000 1.13<<1	<450 325 300 – 1.47<<1	<450 325 300 6250 6000 1.33<<1	<450 325 300 – 0.95<<	<450 325 300 6250 6000 1.30<<1	<450 325 300 6250 6000 1.52<<1	<450 325 350 – 1.09<<1

W4

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay

	25	26	27	28	29	30	31	32	33	34	35	36	37
F													
E	<450 325 250 6250 6000 1.13 <1						<450 325 275 6250 6250 0.89						
D	<450 325 250 – – 0.89	<450 325 225 – – 0.86	<450 325 225 – – 1.25 <1	<450 325 250 – – 1.00 <1	<450 325 225 – – 0.77	<450 325 250 – – 0.63	<450 325 225 – – 0.76	<450 325 275 – – 1.39 <1	<450 325 250 – – 2.43 <1	<450 325 250 6250 6250 1.77 <1	<450 325 251 – – 0.53	<450 325 275 6250 6500 0.53	<450 325 275 – – <0.48
C	<450 325 250 6250 6000 1.16 <1	<450 325 200 – – 1.25 <1	<450 325 200 6250 6000 1.19 <1	<450 325 275 – – 0.70	<450 325 200 6250 6000 1.43 <1	<450 325 250 – – 1.25 <1	<450 325 225 6250 7000 1.63 <1	<450 325 225 – – 1.26 <1	<450 325 200 6250 10000 0.90	<450 325 250 – – 0.57	<450 325 250 – – 0.99	<450 325 250 – – 0.94	<450 325 200 – – <0.39
B	<450 325 200 – – 0.95	<450 325 250 – – 1.04 <1	<450 325 300 – – 0.81	<450 325 300 – – 0.70	<450 325 300 – – 0.63	<450 325 300 – – 0.98	<450 325 250 – – 1.27 <1	<450 325 300 – – 1.38 <1	<450 325 300 – – 0.79	<450 325 250 6250 6000 1.27 <1	<450 325 250 – – 1.28 <1	<450 325 200 6250 6500 0.64	<450 325 200 – – 1.18
A	<450 325 250 6250 6000 0.92	<450 325 300 – – 1.38 <1	<450 325 300 6250 6000 1.33 <1	<450 325 300 – – 1.11 <1	<450 325 250 6250 6000 1.57 <1	<450 325 300 – – 1.42 <1	<450 325 250 6250 6000 1.07 <1	<450 325 300 – – 1.59 <1	<450 325 300 6250 6000 1.09 <1	<450 325 250 – – 1.66 <1	<450 325 250 – – 1.56 <1	<450 325 250 – – 1.22 <1	<450 325 250 – – 1.49 <1

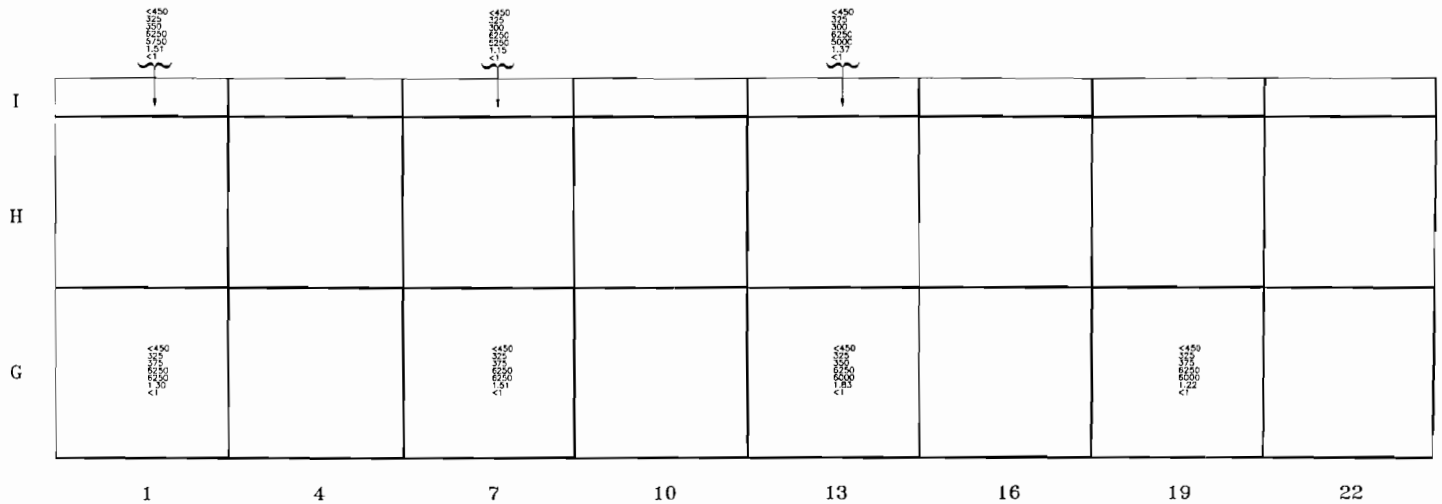
W4

Note:
Solid samples taken from grids W4-B37 and W4-D37 consist of paint and have a limit of 3 pCi/g.

Sample Data
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay



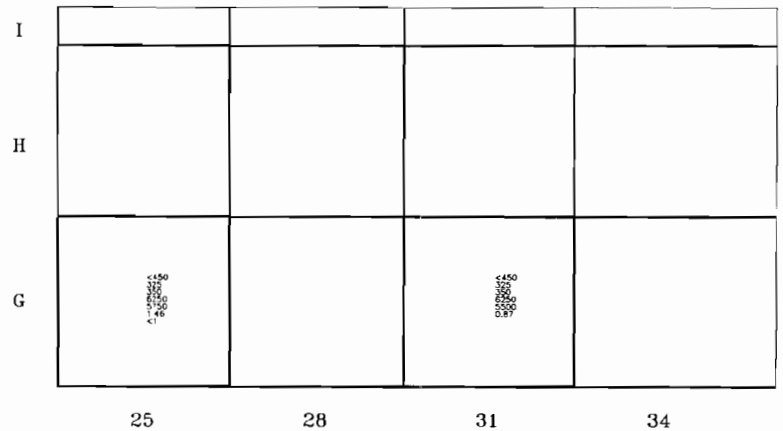
W4

Sample Data

< 450 – IM-247/PD Results [μμC/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [com]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay



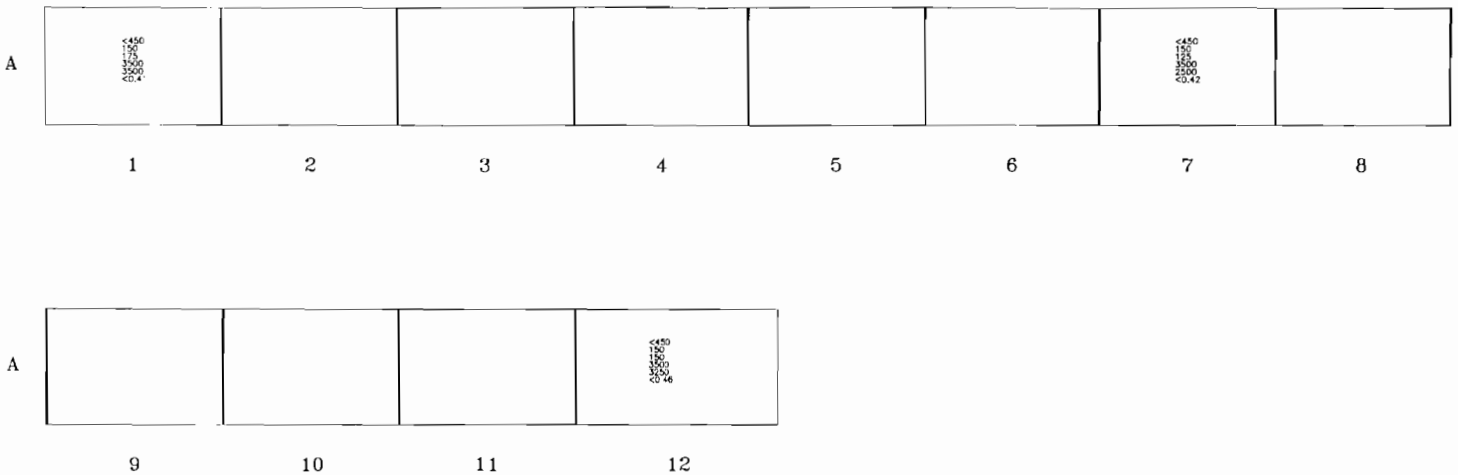
W4

Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay



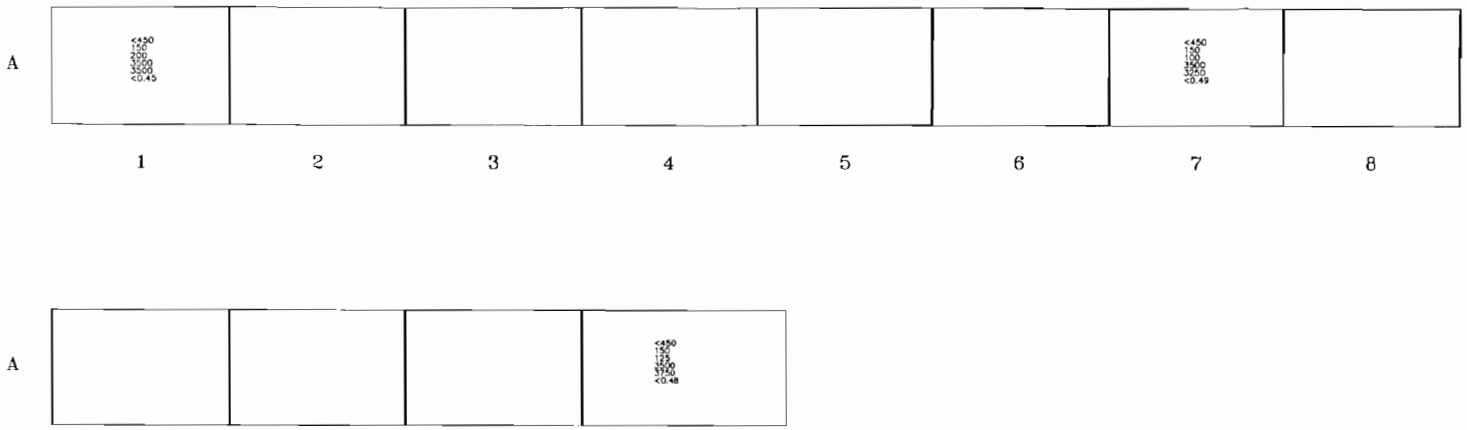
CRANE RAIL [J]

Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g

Sample Data
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay



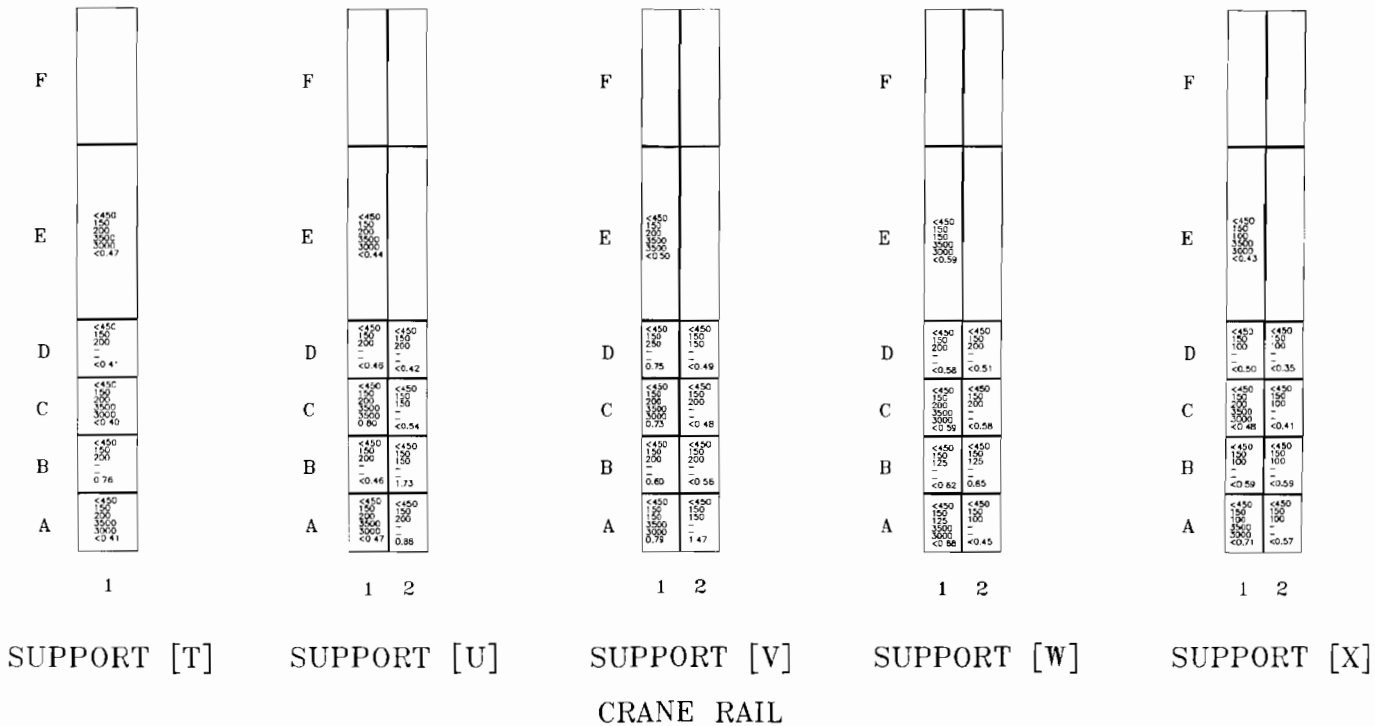
CRANE RAIL [K]

Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g

Sample Data
< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Resuts [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay

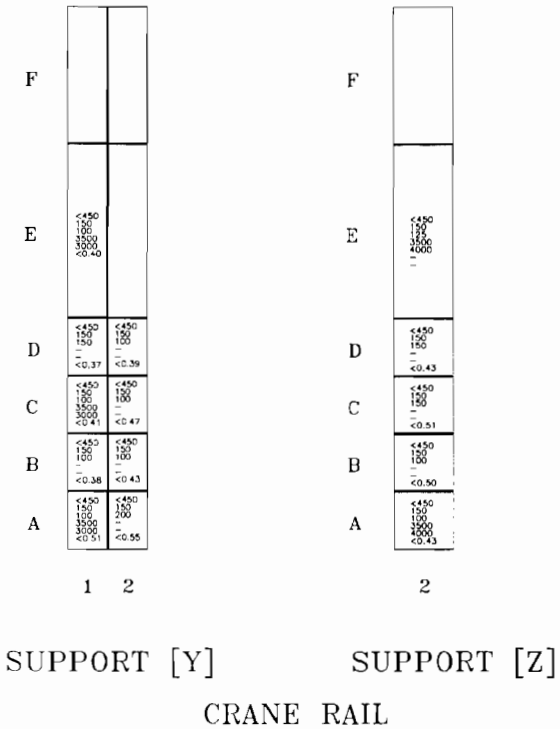


Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g

Sample Data
< 450 – IM-247/PD Results [μμC/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay



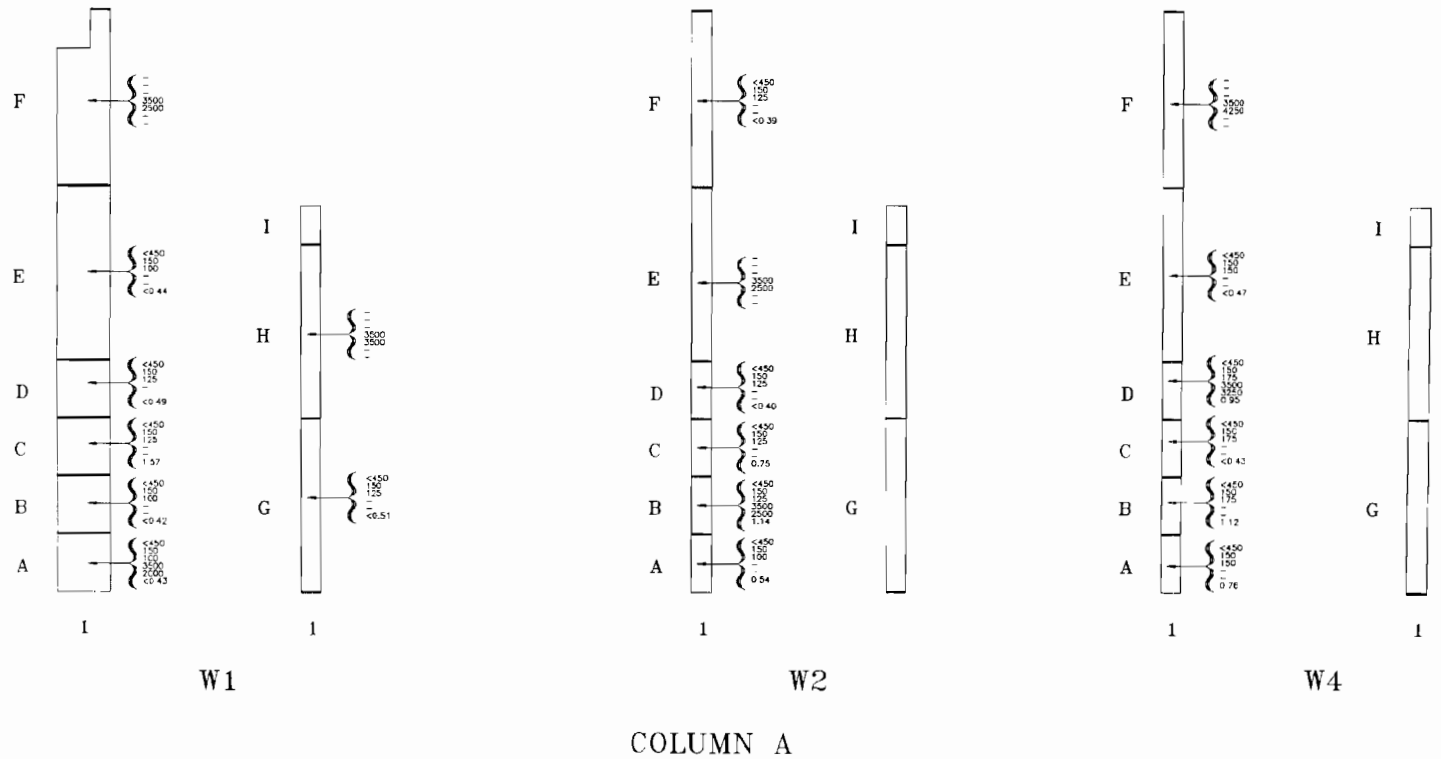
Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay

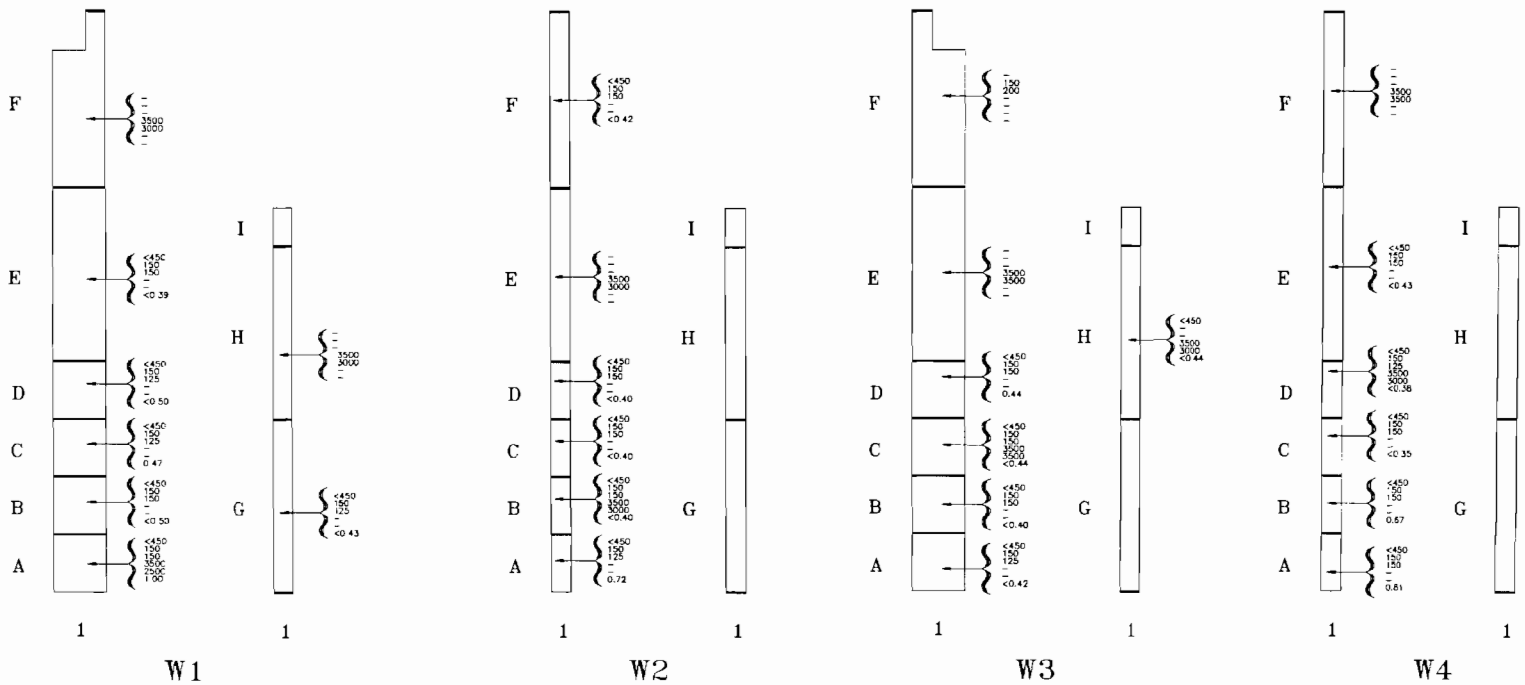


Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g

Sample Data
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay



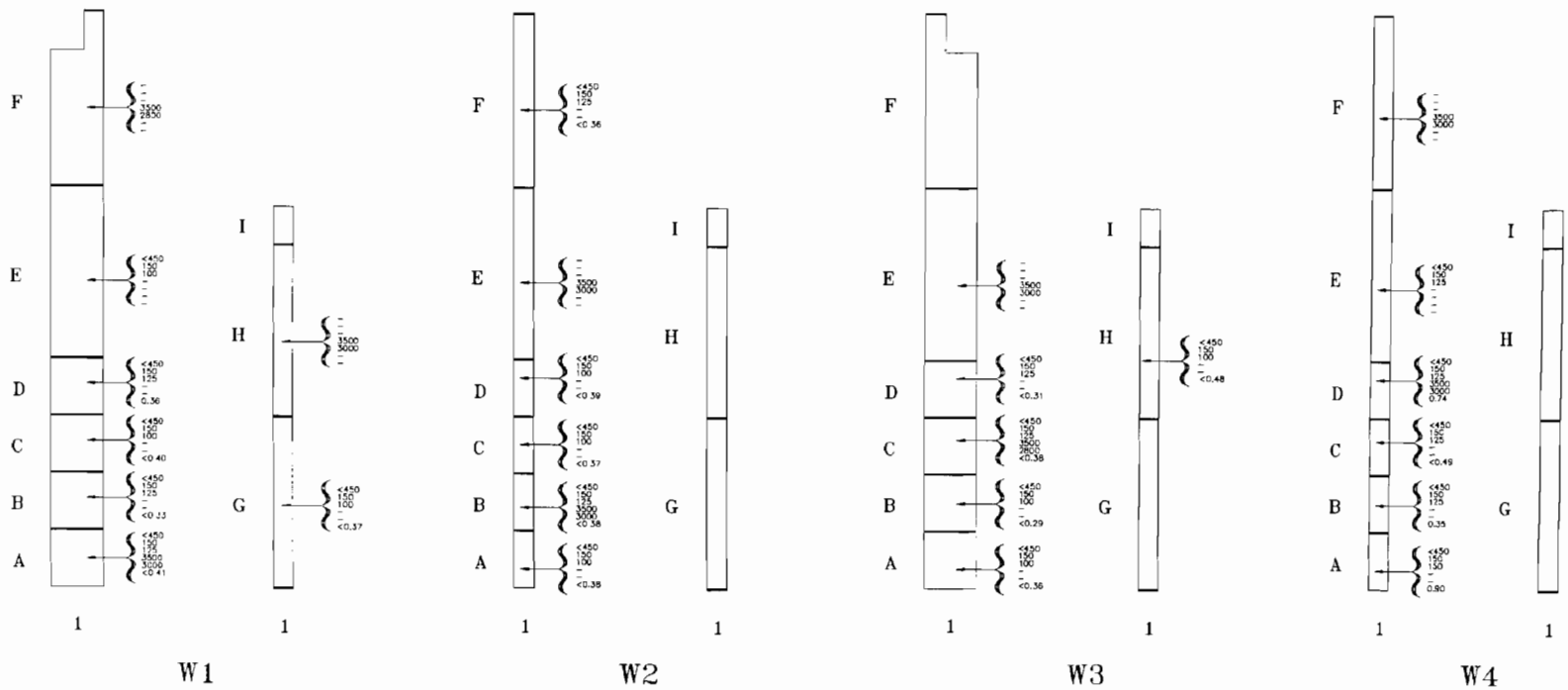
COLUMN B

Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g.

Sample Data
<450 – IM-247/PD Results [μCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay



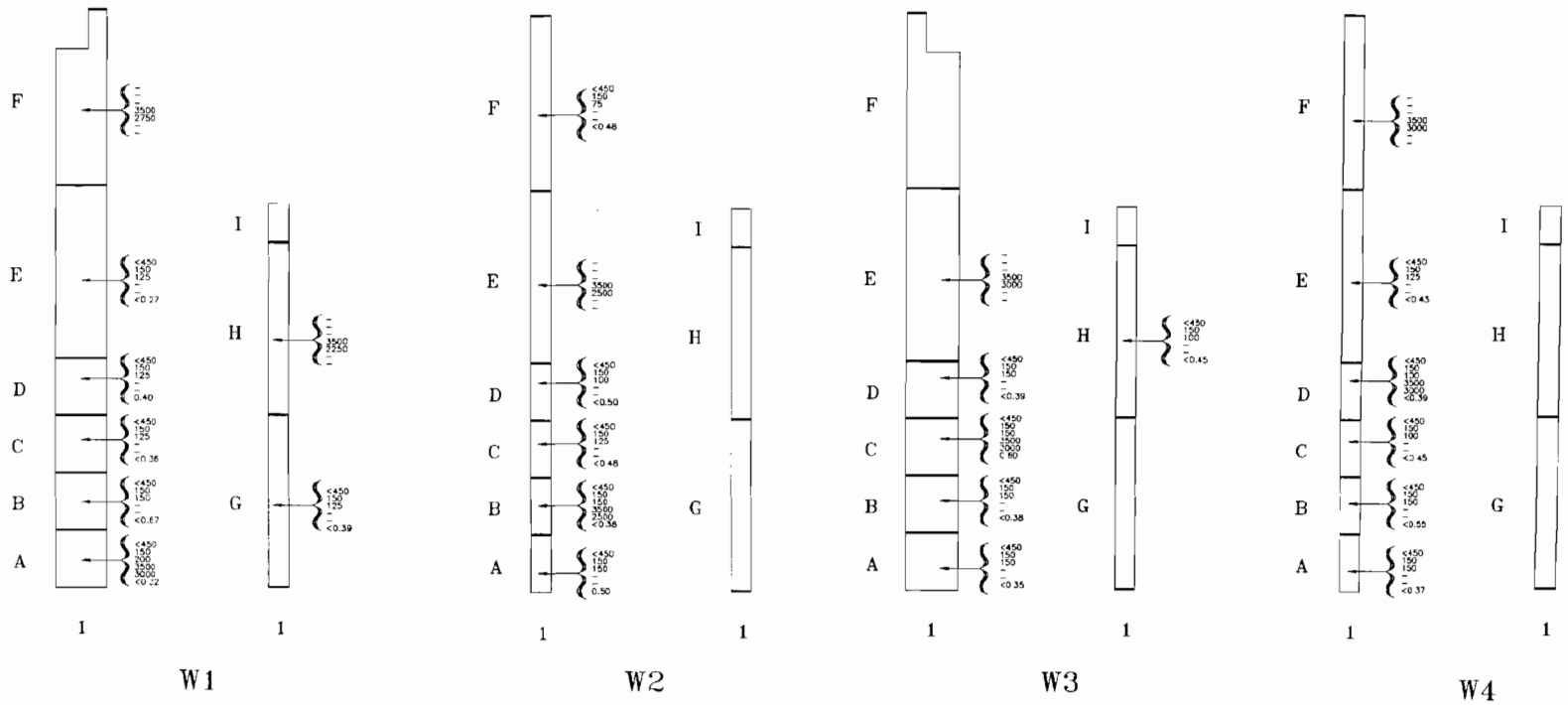
COLUMN C

Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g

Sample Data
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay



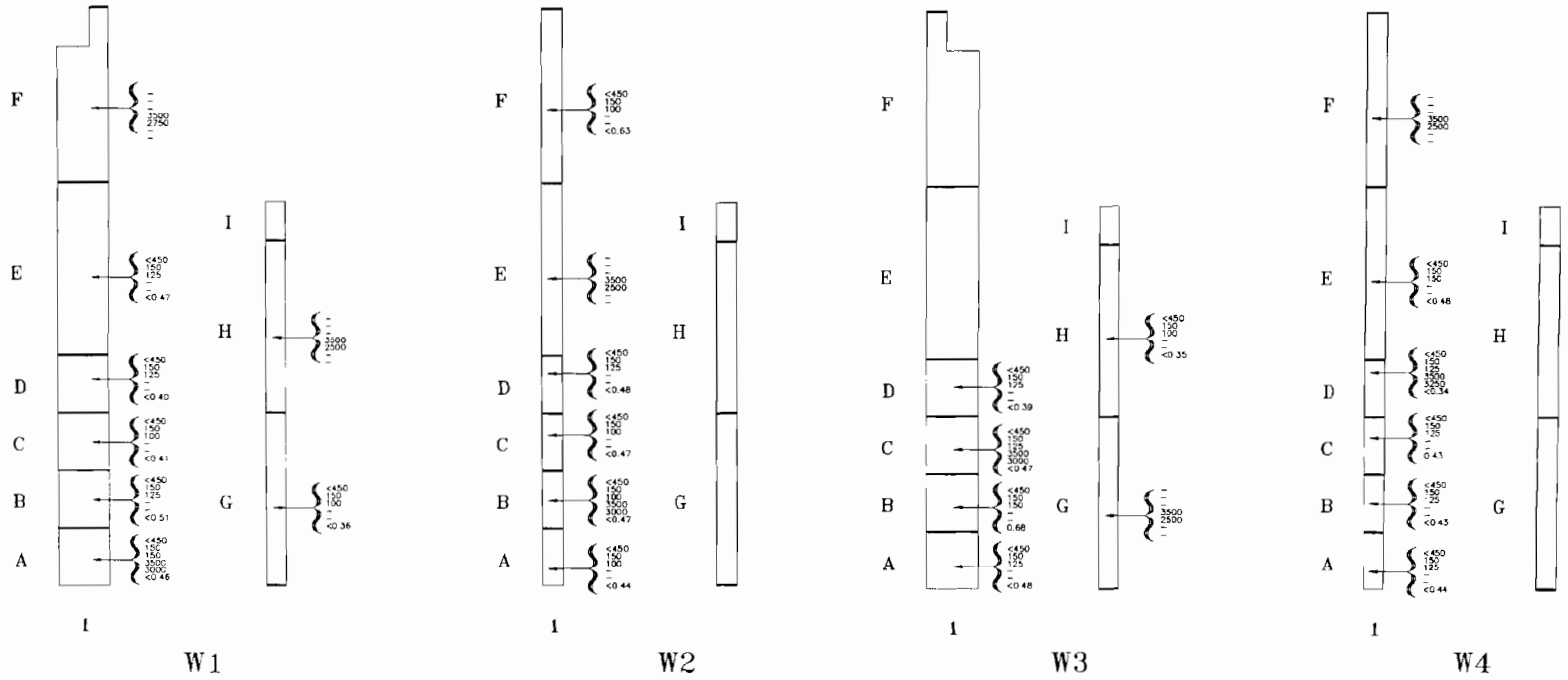
COLUMN D

Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g

Sample Data
< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay



COLUMN E

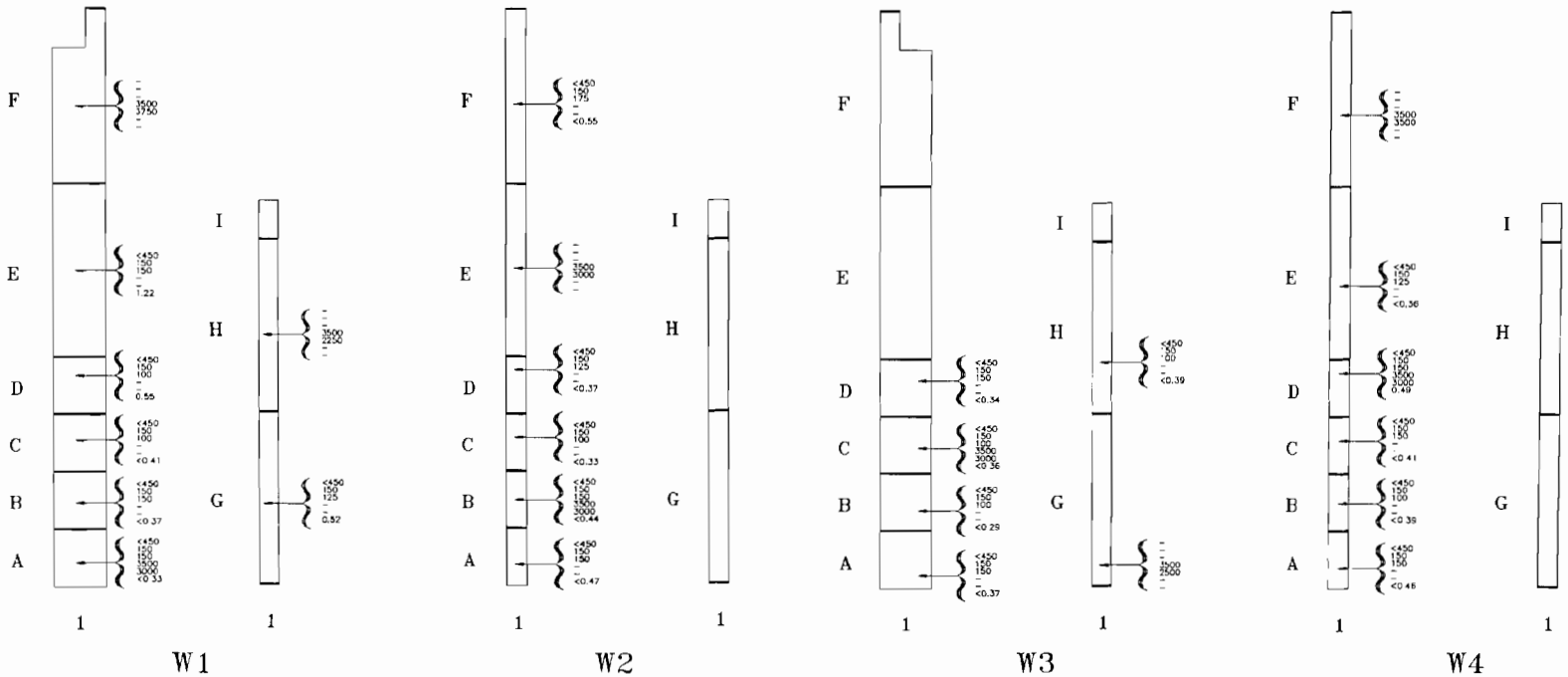
Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay



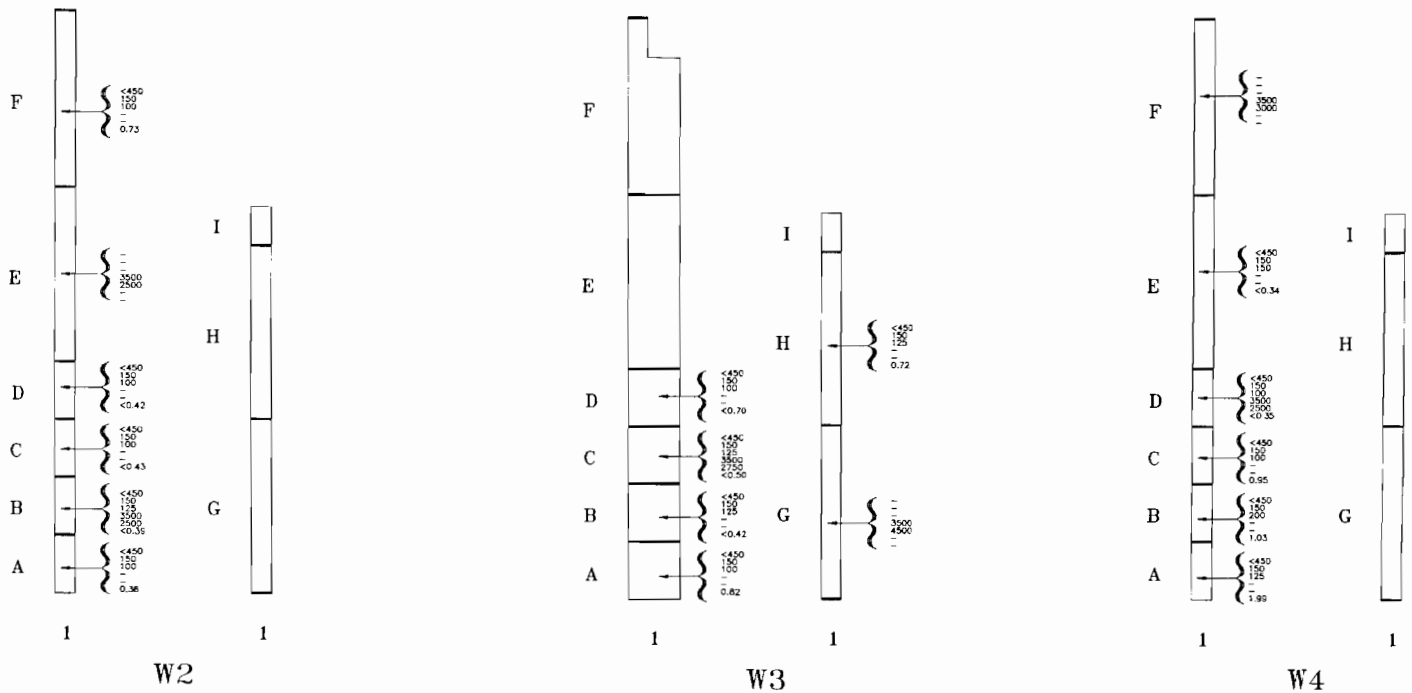
Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g

Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Ec. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, High Bay



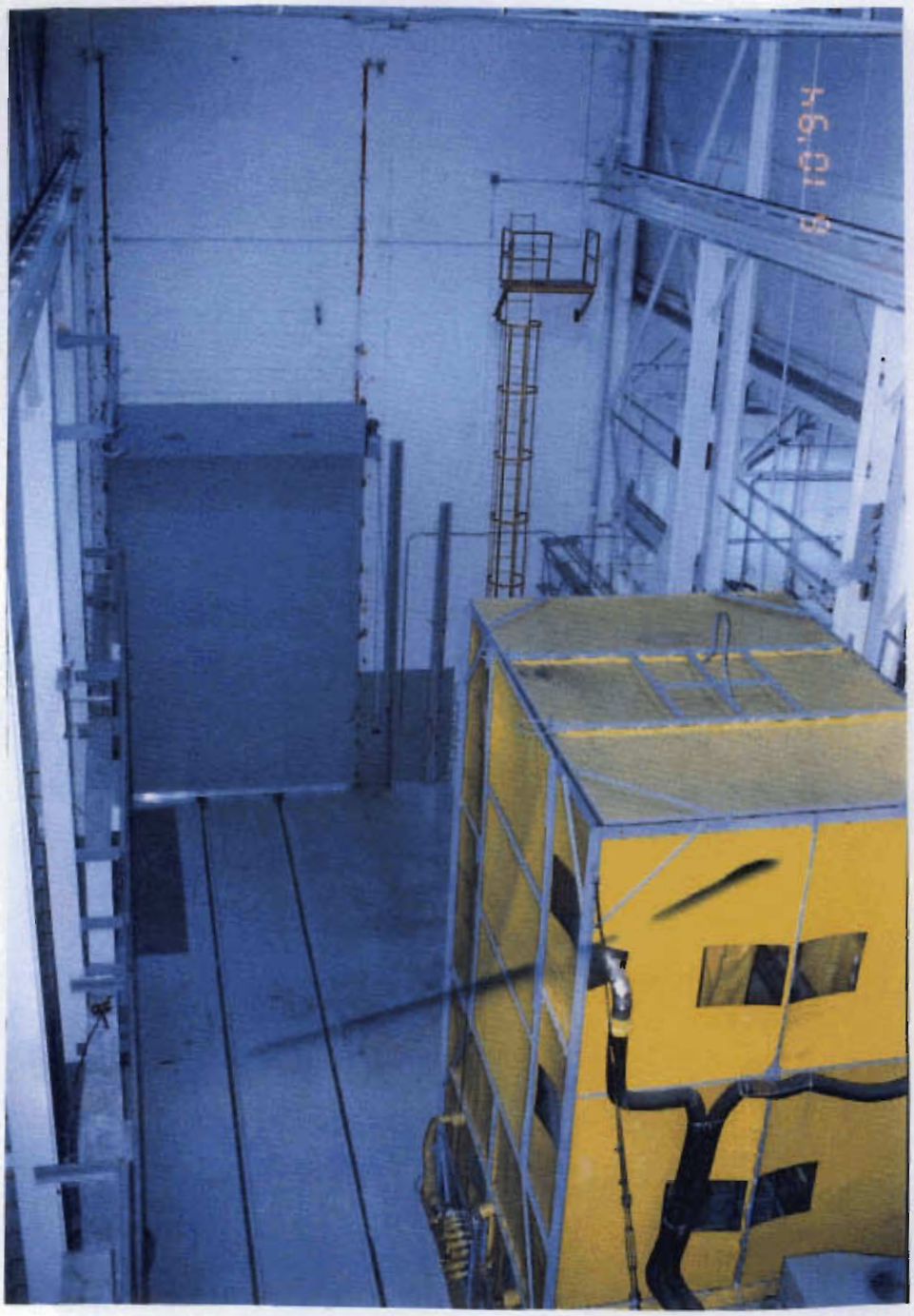
COLUMN G

Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g.

Sample Data
<450 – IM-247/PD Results [μCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Prior to Photographs, High Bay



Viewing wall-1 wall-2 corner

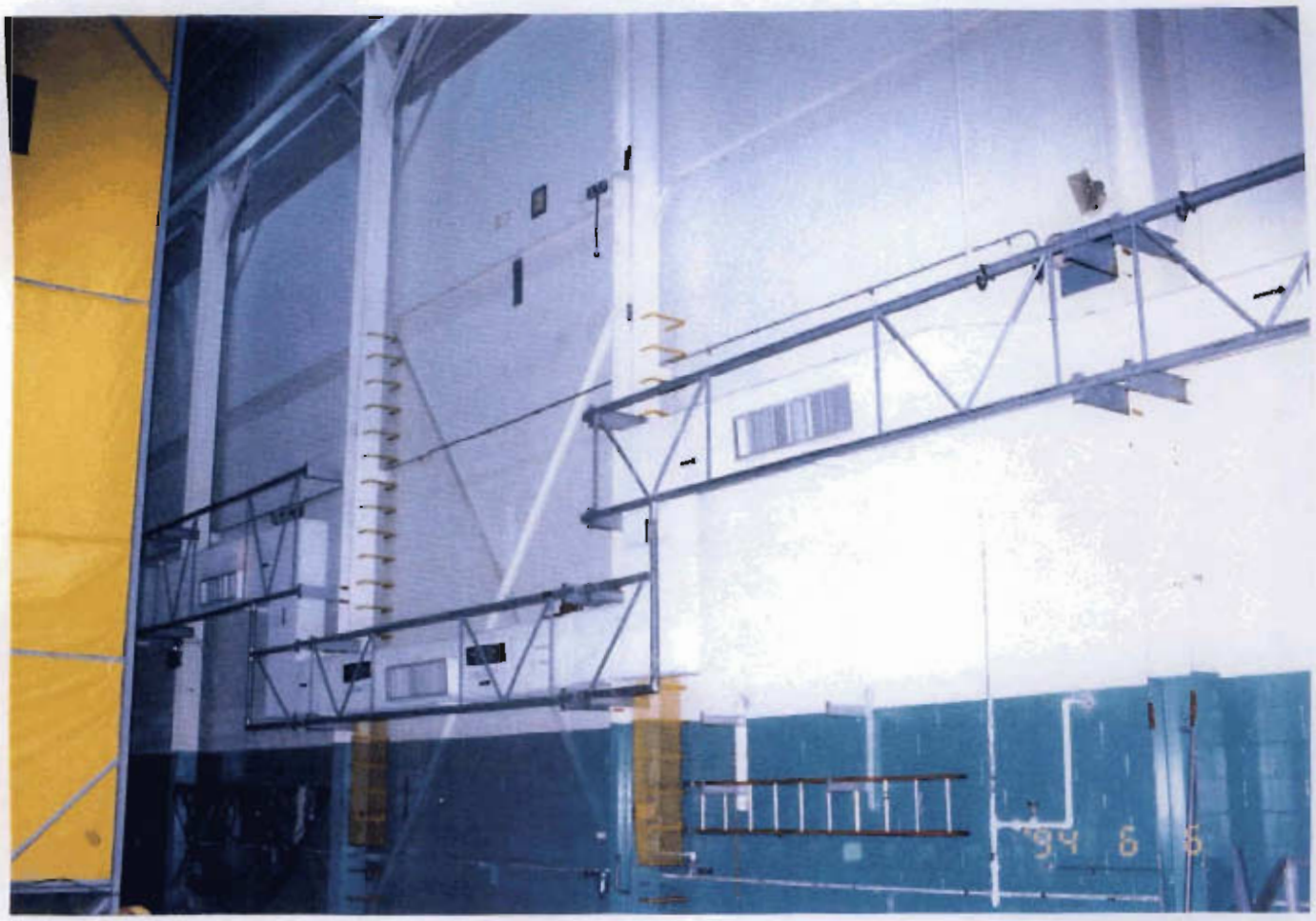
8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Prior to Photographs, High Bay

Viewing wall-3 wall-4 corner

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

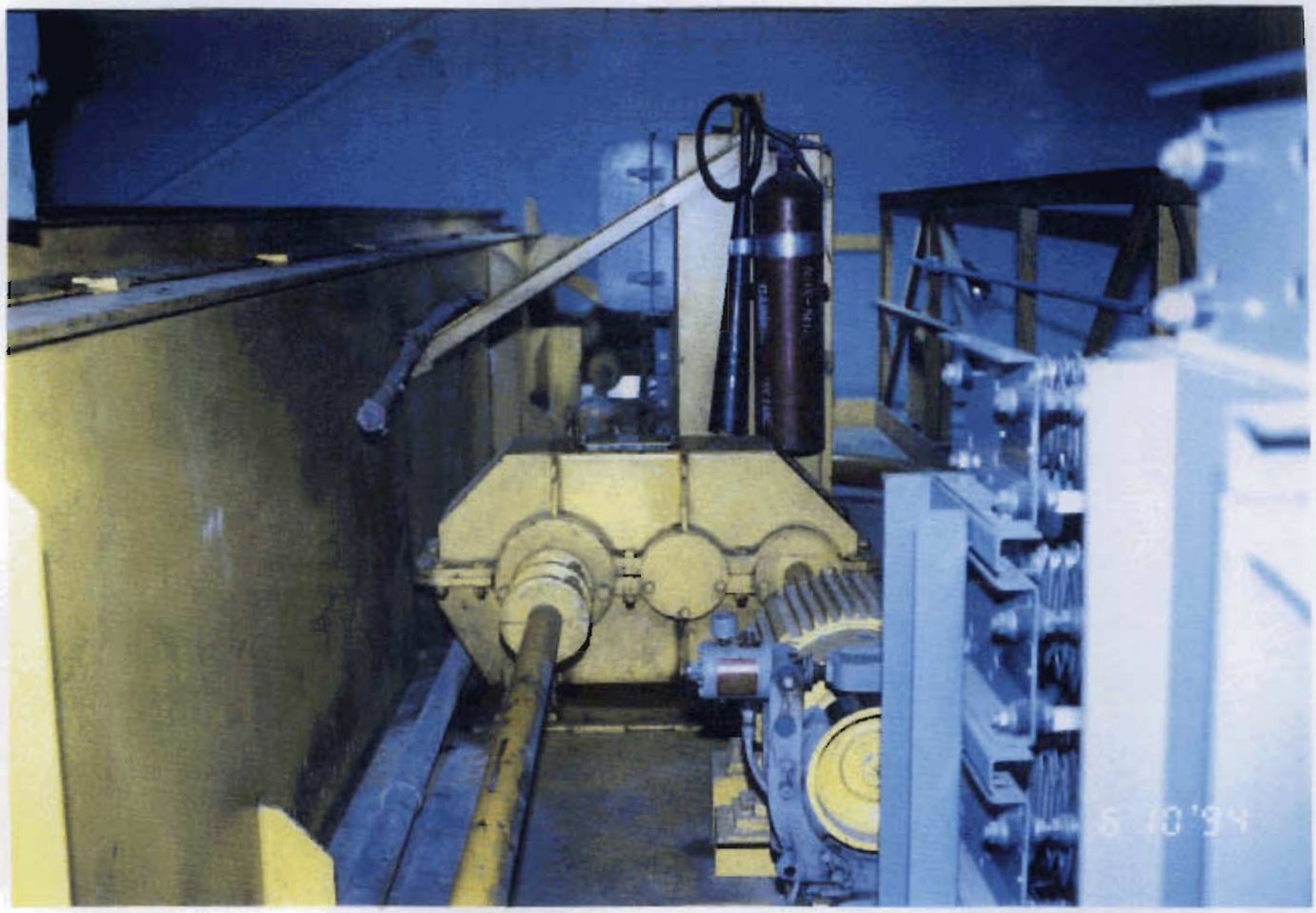
c. Prior to Photographs, High Bay



Viewing wall-4

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

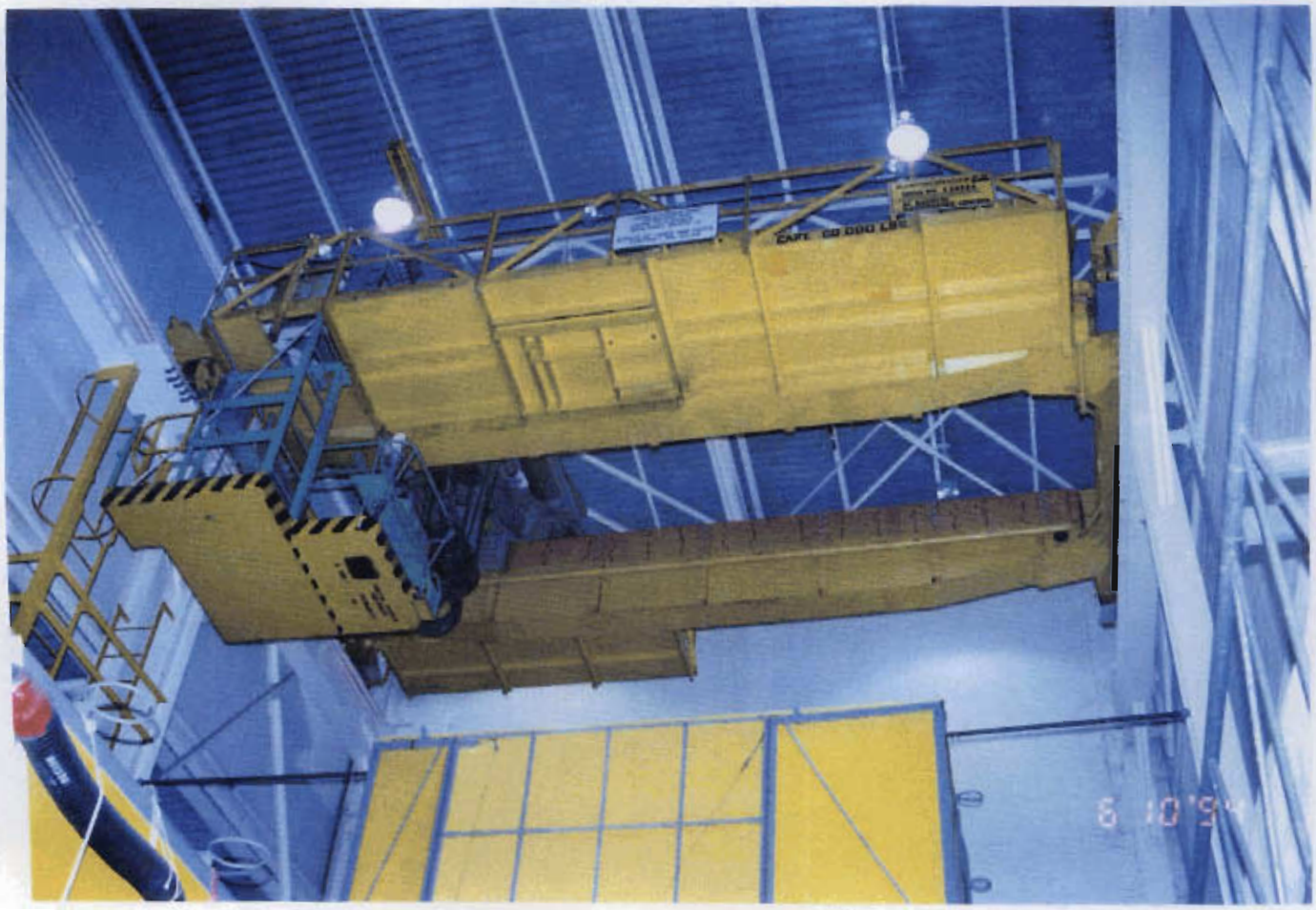
c. Prior to Photographs, High Bay



Crane, viewing toward wall-4

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Prior to Photographs, High Bay



Crane, viewing toward wall-1

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Prior to Photographs, High Bay

Viewing crane hook

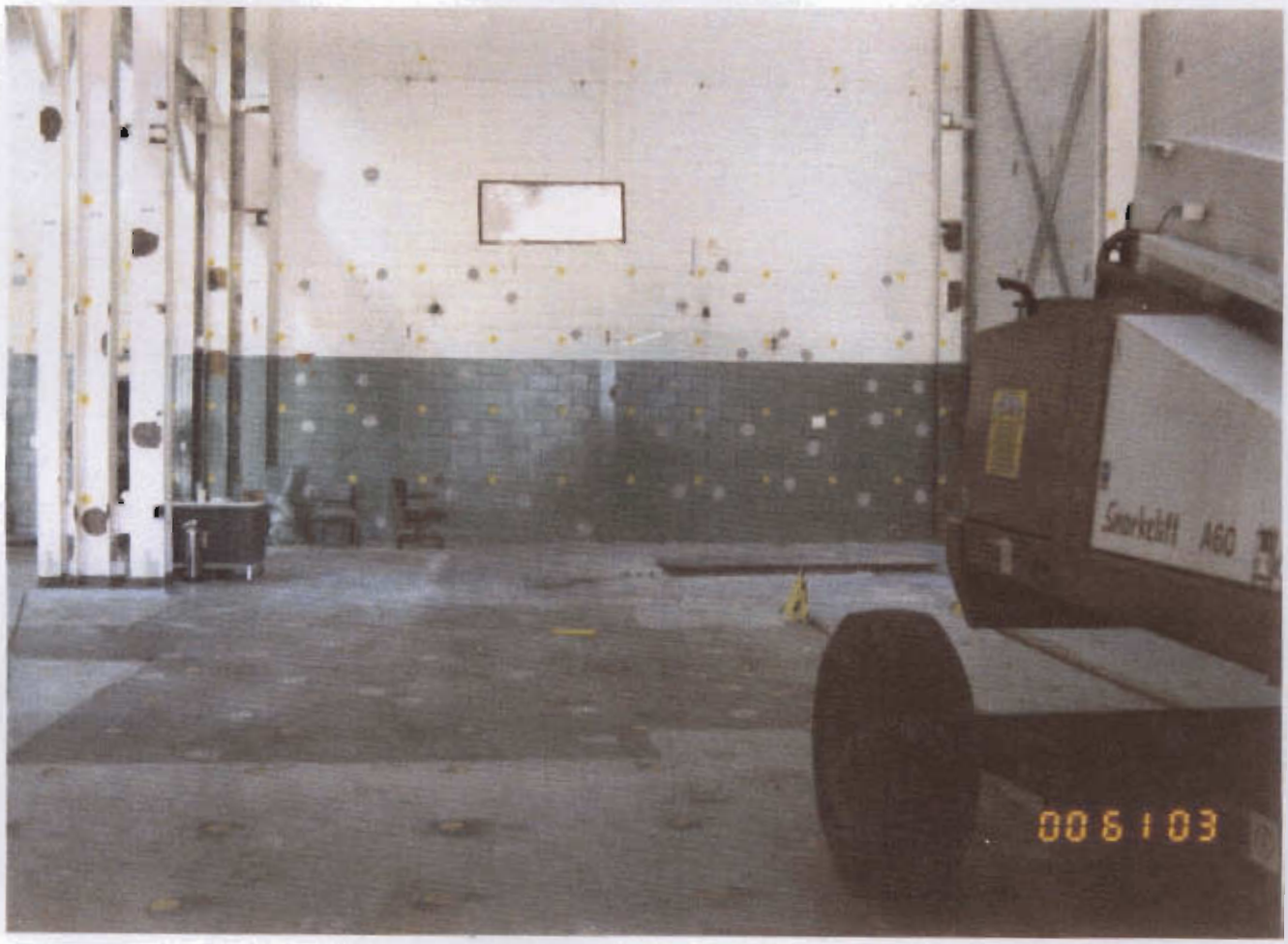
8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. After Photographs, High Bay

Viewing toward wall-1

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. After Photographs, High Bay



Viewing toward wall-3

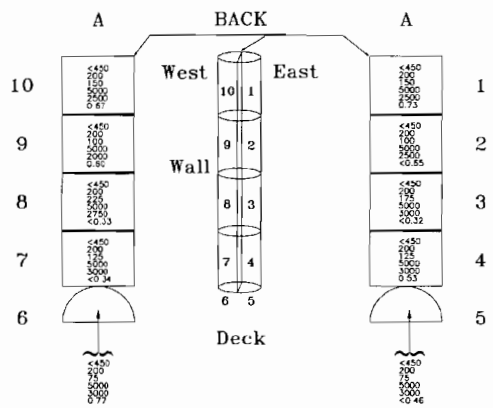
8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. After Photographs, High Bay

Viewing wall-3 wall-4 corner

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. Grid Map, Pit



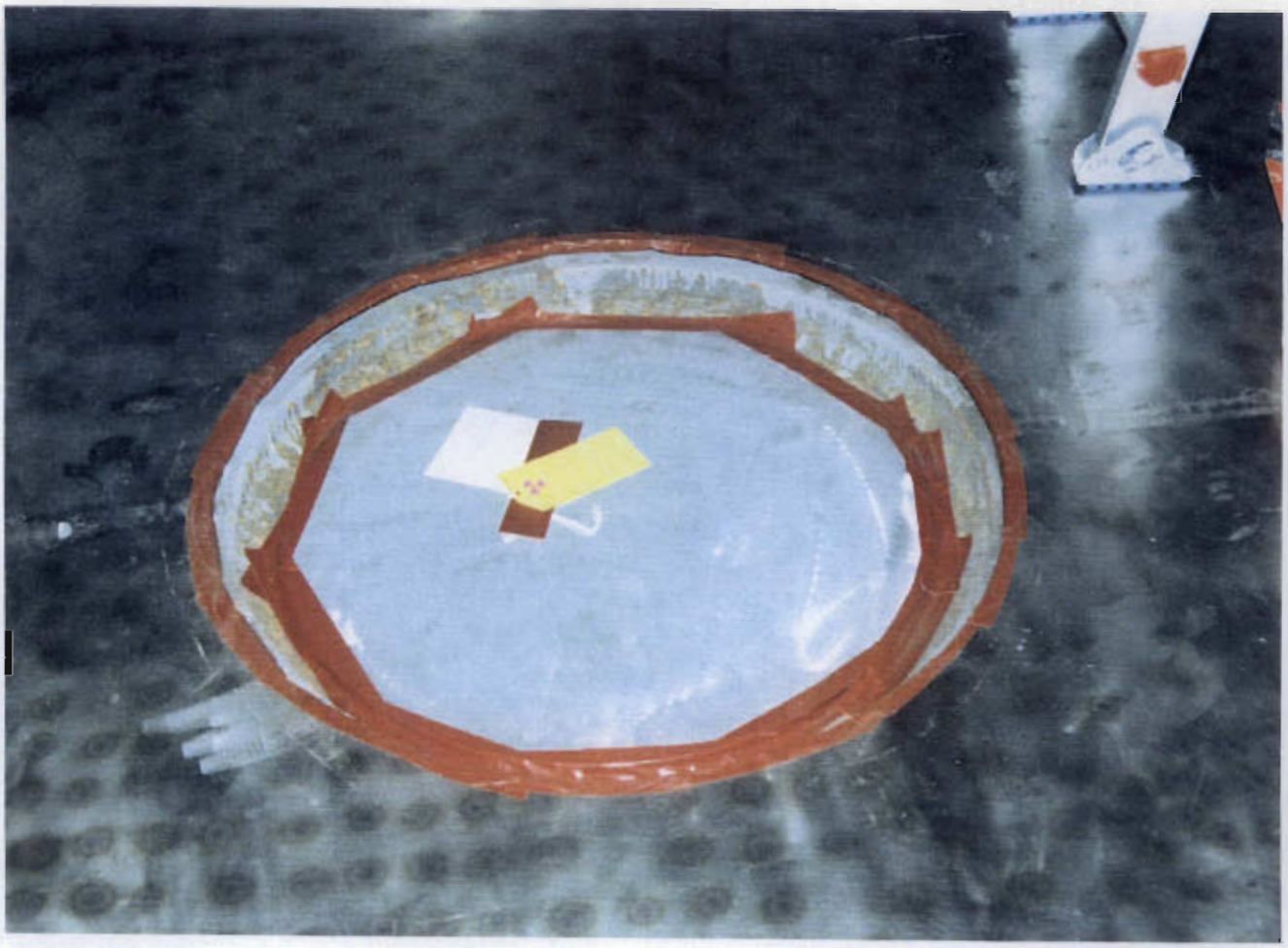
Note:
All solid samples taken consist of paint and have a limit of 3 pCi/g

Sample Data

<450 – IM-247/PD Results [µµCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
700C – IM-253/PD (HV-2 GROSS) [bkg.]
730C – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

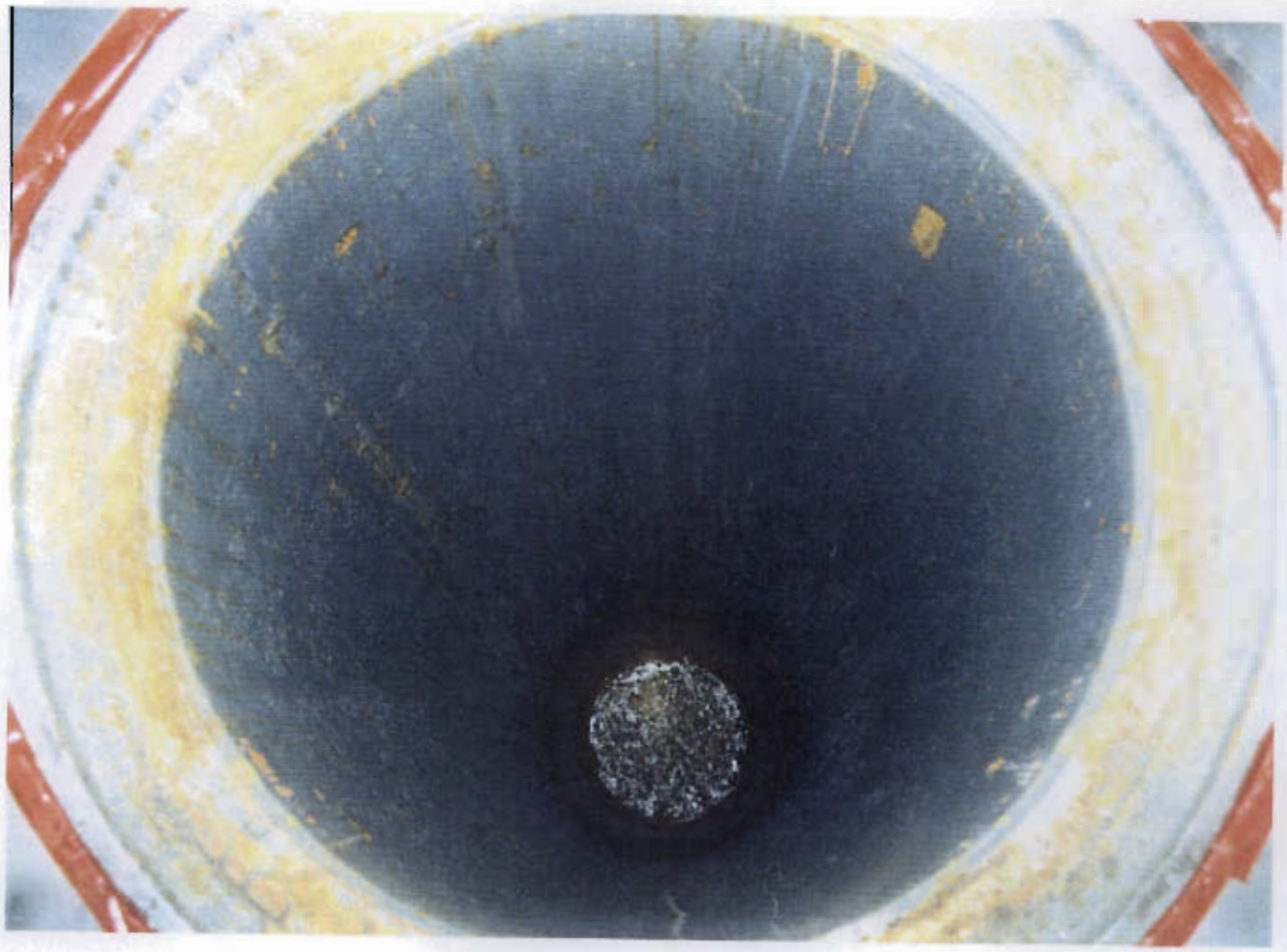
c. Prior to Photographs, Pit



Viewing covering

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

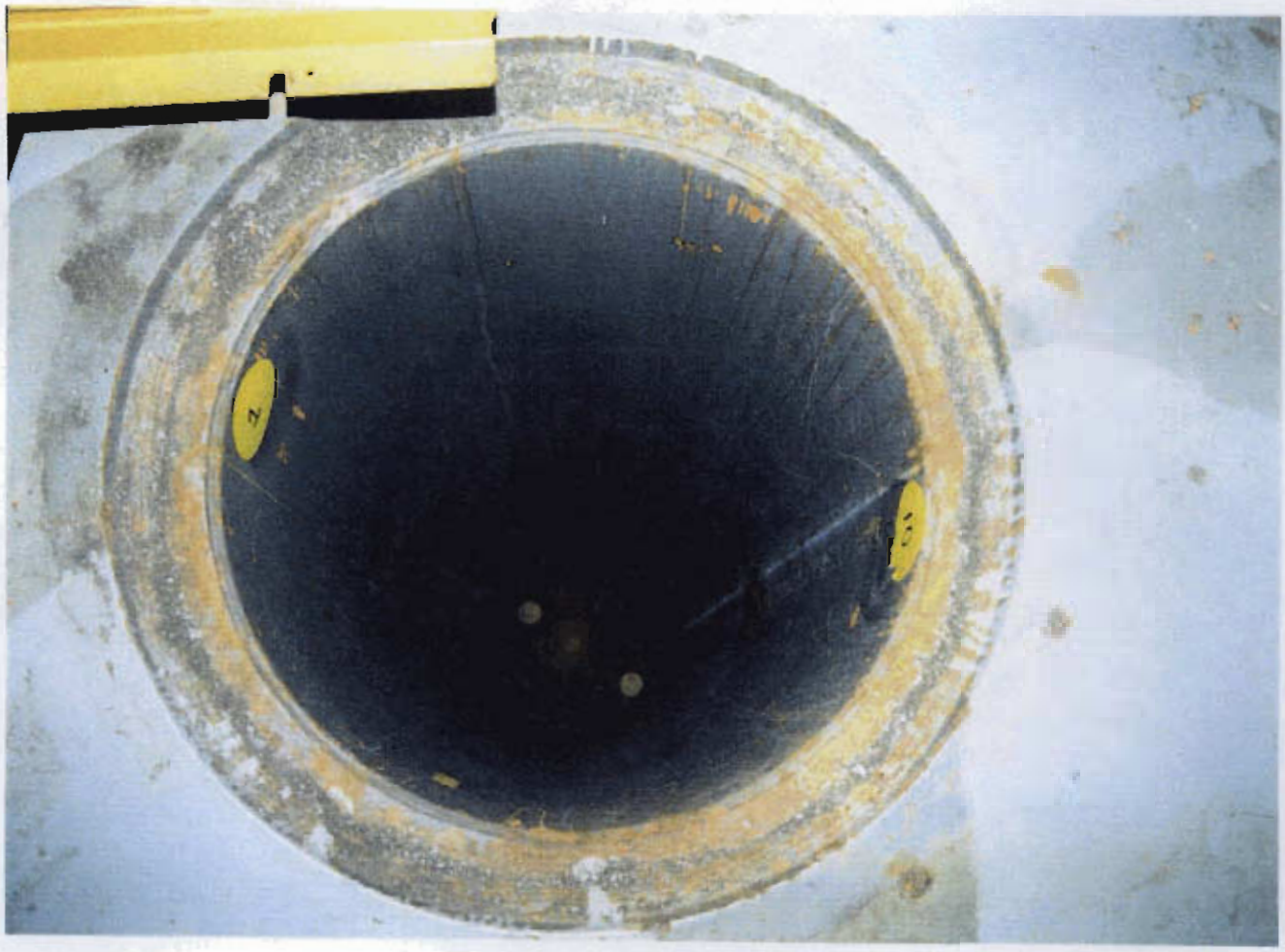
c. Prior to Photographs, Pit



Viewing interior

8. Bldg. 79A, High/Low Bay Group 3 & 4 Areas

c. After Photographs, Pit



Viewing interior

8. Bldg. 79A, North Bay East Group 4 Areas

a. Report

(1) Description:

The North Bay East Group 4 areas consisted of the Shredder room and the General Bay area. The Shredder room is constructed with sheetrock walls and ceiling and a concrete floor. The General Bay area is of concrete construction.

(2) Discussion:

The Group 4 areas were divided into 809 3' by 3' floor and wall grids and 9' by 9' wall and ceiling grids. The walls were divided into grids 3' by 3', up to 12' high, then 9' by 9' grids above 12' including ceiling grids. Each grid was identified with its own unique designator.

One hundred percent of all 3' by 3' grids were surveyed using the IM-247/PD and the IM-253/PD (HV-1 PHA). A minimum of 25 percent of all 3' by 3' grids were surveyed using the IM-253/PD (HV-2 GROSS). A minimum of 25 percent of all 9' by 9' grids were surveyed using the IM-247/PD and IM-253/PD (HV-1 PHA and HV-2 GROSS). A minimum of one solid material sample was taken from within each 3' by 3' grid and from within a minimum of 25 percent of all 9' by 9' grids. At least one solid material sample was taken from each wall and ceiling grid. Additionally, solid material samples were taken form selected structural joints and crevices. Results from these samples were incorporated into the report by utilizing the higher of the normal grid sample or the joint/crevice sample result.

The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the ceilings, concrete floors and sheetrock were 40, 200, and 5500 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 21. The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the concrete walls were 40, 325, and 6250 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 132.

A total of 744 solid material samples were taken. Paint samples were taken from grids W3-A24 and C-B3 in the General Bay area. Solid samples were not taken on the ceiling in the north bay east general area except for grid C-B3. Wall 3 contained an unpainted metal roll-up door which included grids W3-A7 to W3-A10, W3-B7 to W3-B10, and W3-C7 to W3-C10; hence no solid samples were taken. No solid samples were taken from an unpainted metal roll-up door on wall 8 of the shredder room (grids W8-A2, W8-A3, W8-B2, W8-B3, W8-C2, and W8-C3). Also, no solid samples were taken from shredder room grids W6-A2, W6-B1, W6-B2, and W6-C1 as these were unpainted metal surfaces. Each solid sample was removed from the grid location indicating the area of highest potential. The following naturally occurring radionuclides were typical isotopes

8. Bldg. 79A, North Bay East Group 4 Areas

identified during analysis of solid material samples: lead 212, lead 214, thallium 208, and potassium 40.

(3) Summary:

Surveys performed with the IM-247/PD did not detect areas greater than 450 $\mu\mu Ci/20cm^2$.

Surveys performed with the IM-253/PD (HV-1 PHA) detected 8 areas greater than or equal to twice background.

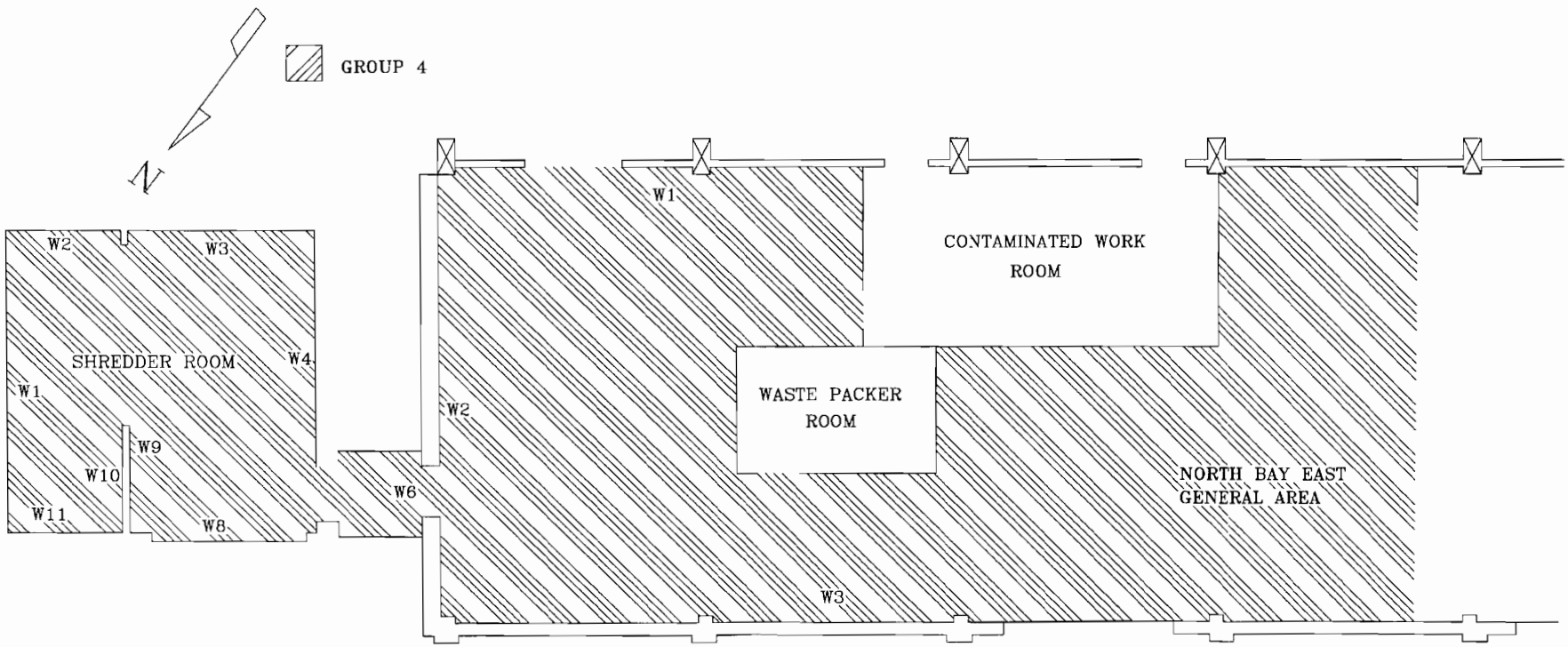
Surveys performed with the IM-253/PD (HV-2 GROSS) detected one area greater than or equal to twice background.

Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from a minimum detectable activity of less than 0.16 pCi/g to a high of 9.86 pCi/g.

Analysis performed on solid material paint samples with the MCA for specific cobalt 60 indicated paint samples were less than 3 pCi/g. Analysis performed on solid material samples with the MCA for specific cobalt 60 indicated that all solid material samples were less than 1 pCi/g and showed no traces of cobalt 60 with the exception of samples taken in the North Bay East General Area. The extent of the areas containing cobalt 60 was identified by taking additional solid material samples from the surrounding vicinity. These areas were remediated by the excavation of concrete to a minimum depth of ½" using scabbling equipment. Following remediation, additional solid material samples taken from the remediated areas were less than 1 pCi/g for specific cobalt 60. No traces of cobalt 60 were identified.

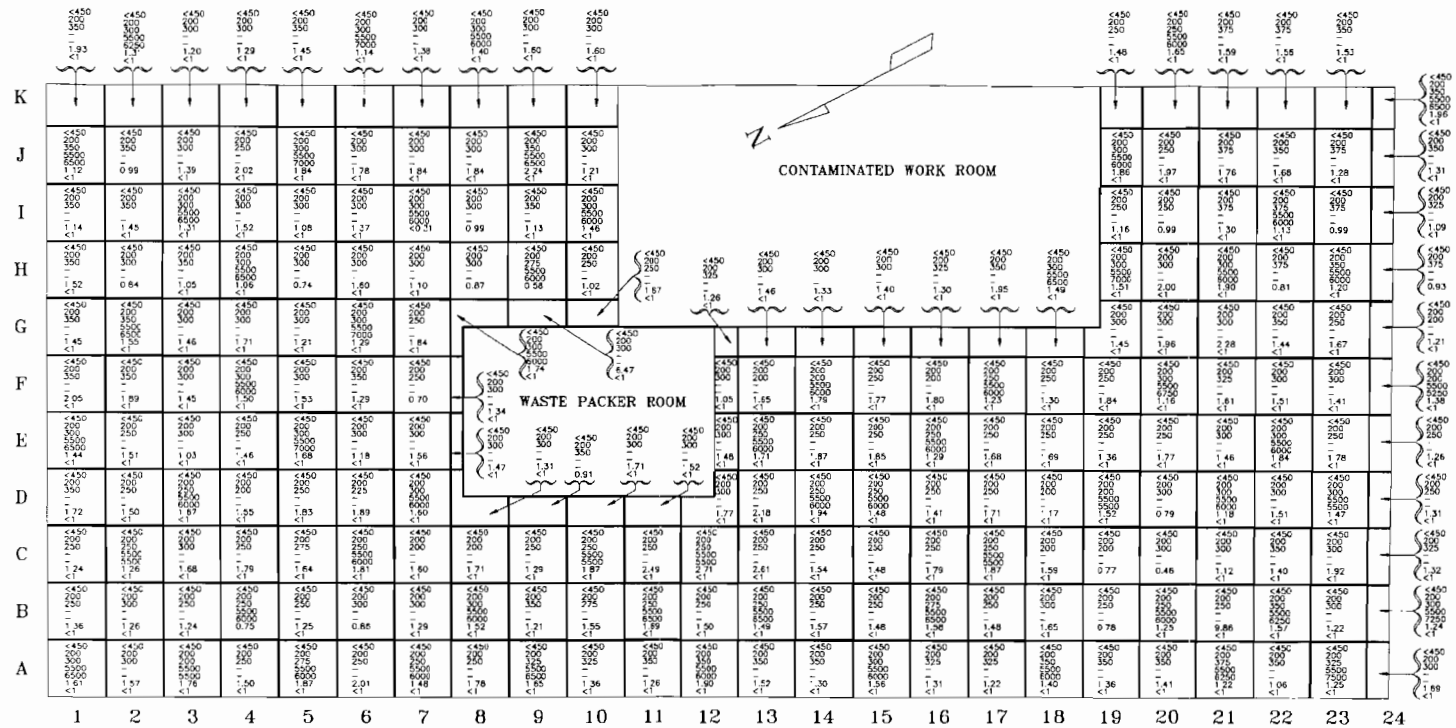
8. Bldg. 79A, North Bay East Group 4 Areas

b. Site Map



8. Bldg. 79A, North Bay East Group 4 Areas

c. Grid Map, North Bay East General Area



FLOOR PLAN

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, North Bay East Group 4 Areas

c. Grid Map, North Bay East General Area

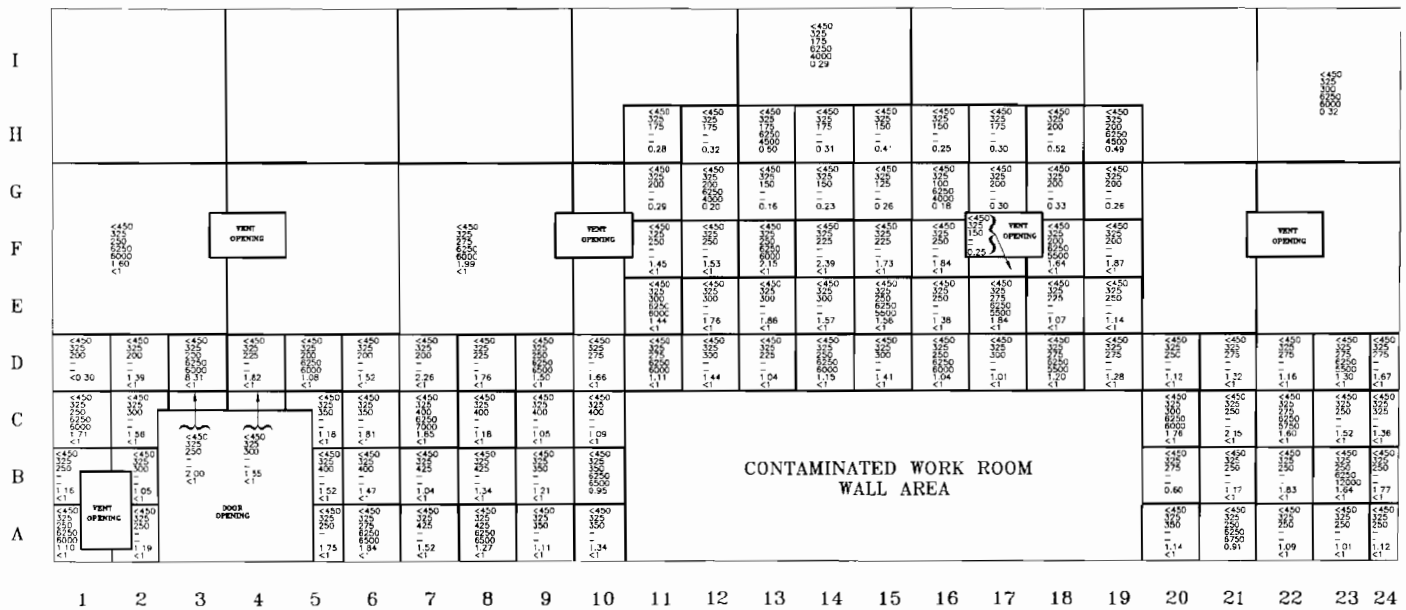
CEILING

Note:
The solid sample taken from grid C-B3 consist of paint and has a kmc of 3 pCi/g.

Sample Data
< 450 – IM-247/PD Results (μμCi/20cm²)
200 – IM-253/PD (HV-1 PHA) (bkg.)
300 – IM-253/PD (HV-1 PHA) (cpm)
7000 – IM-253/PD (HV-2 GROSS) (bkg.)
7300 – IM-253/PD (HV-2 GROSS) (cpm)
1.82 – MCA Gross Gamma Eq. Co-60 (pCi/g)
<1 – MCA Specific Co-60 Results (pCi/g)

8. Bldg. 79A, North Bay East Group 4 Areas

c. Grid Map, North Bay East General Area



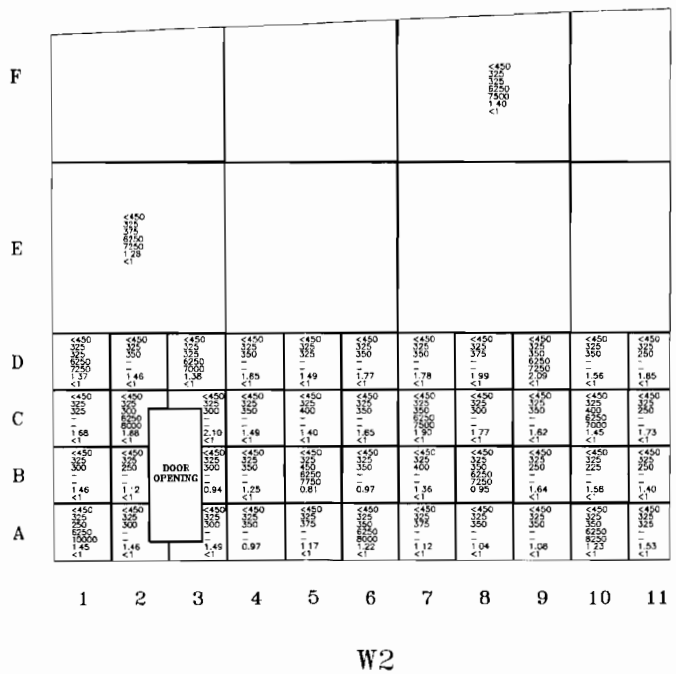
W1

Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, North Bay East Group 4 Areas

c. Grid Map, North Bay East General Area

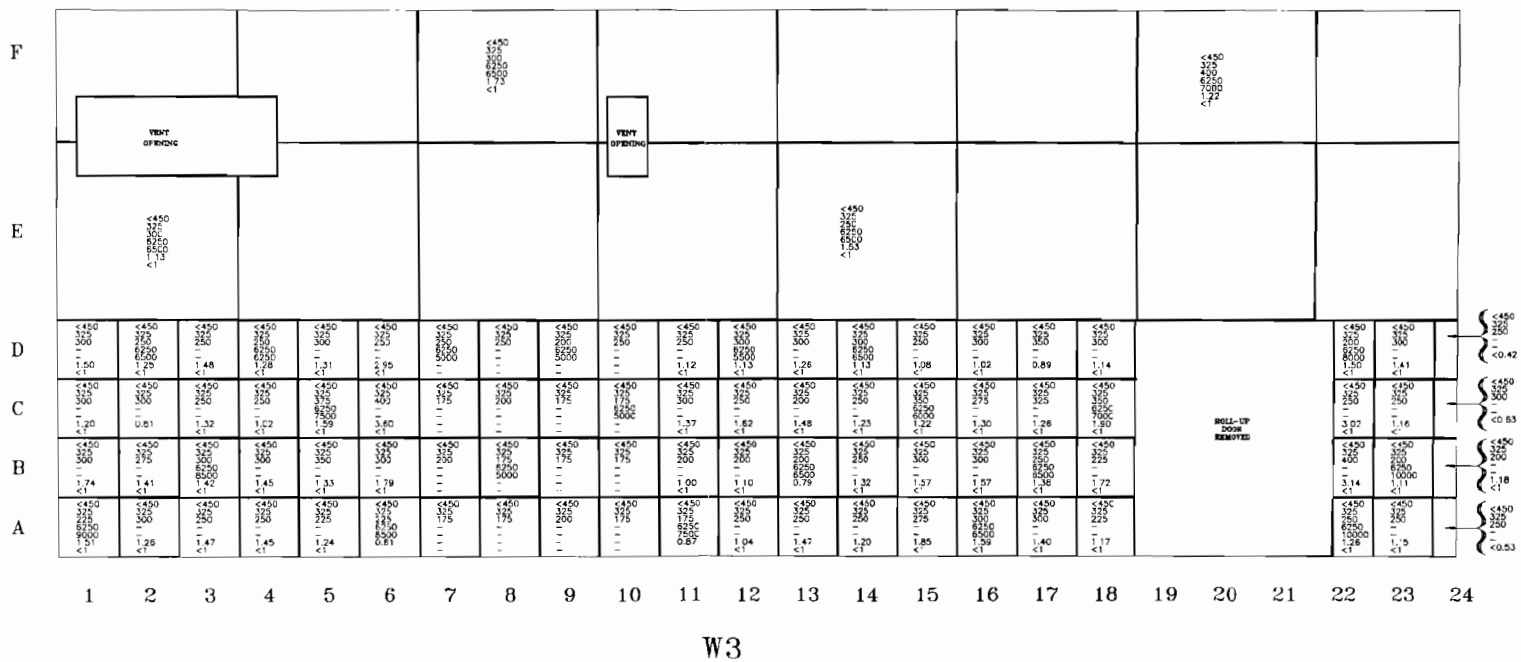


Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, North Bay East Group 4 Areas

c. Grid Map, North Bay East General Area



Note:
The solid sample taken from grid W3-A24 consist of paint and has a limit of 3 pCi/g.

Sample Data
< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS; [bkg.]
7300 – IM-253/PD (HV-2 GROSS; [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, North Bay East Group 4 Areas

c. Prior to Photographs, North Bay East General Area

Viewing high rad fort toward wall-2

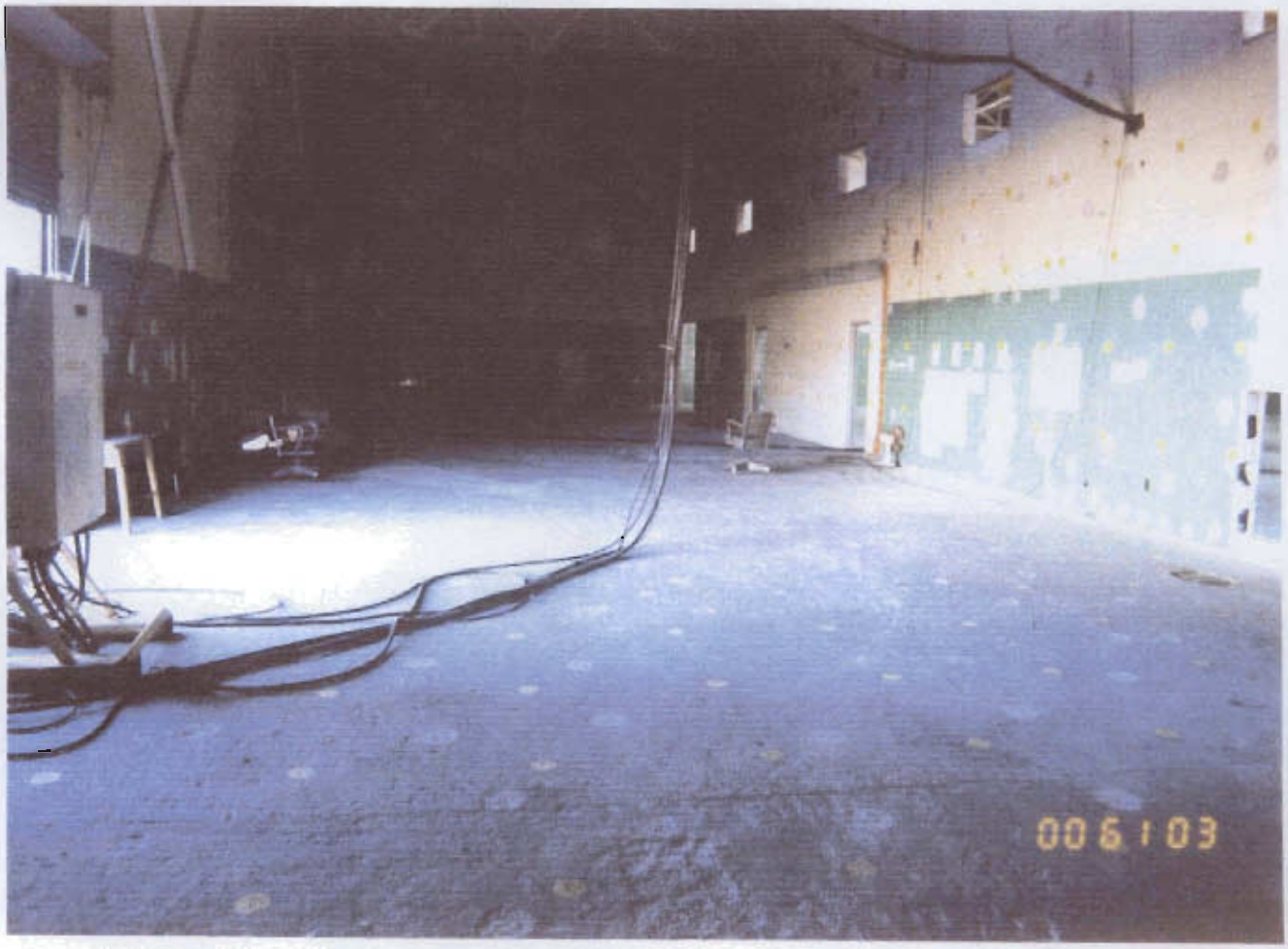
8. Bldg. 79A, North Bay East Group 4 Areas

c. During Photograph, North Bay East General Area

Viewing wall-3

8. Bldg. 79A, North Bay East Group 4 Areas

c. After Photographs, North Bay East General Area



Viewing toward wall-2

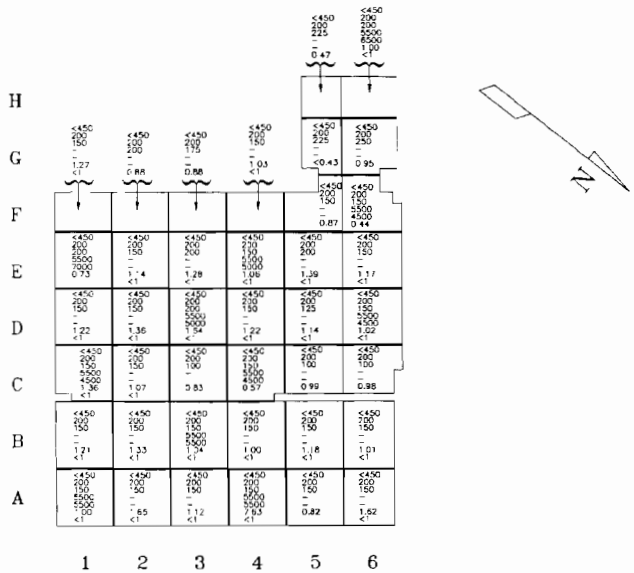
8. Bldg. 79A, North Bay East Group 4 Areas

c. After Photographs, North Bay East General Area

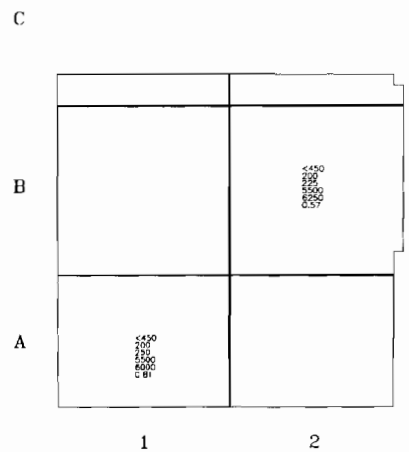
Viewing wall-1

8. Bldg. 79A, North Bay East Group 4 Areas

c. Grid Map, Shredder Room



FLOOR



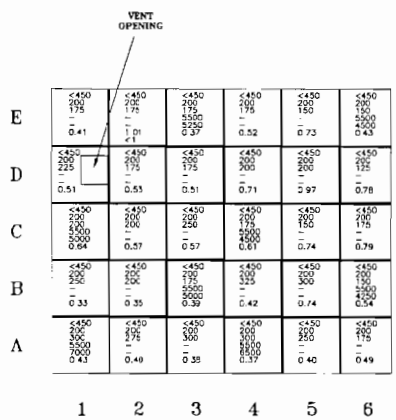
CEILING

Sample Data

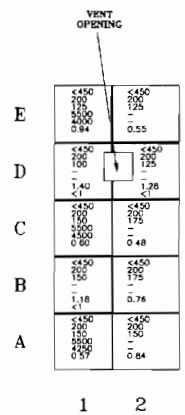
<450 – IM-247/PD Results (μCi/20cm²)
200 – IM-253/PD (HV-1 PHA) (bkg.)
300 – IM-253/PD (HV-1 PHA) (cpm)
7000 – IM-253/PD (HV-2 GROSS) (bkg.)
7300 – IM-253/PD (HV-2 GROSS) (cpm)
1.82 – MCA Gross Gamma Eq. Co-60 (pCi/g)
<1 – MCA Specific Co-60 Results (pCi/g)

8. Bldg. 79A, North Bay East Group 4 Areas

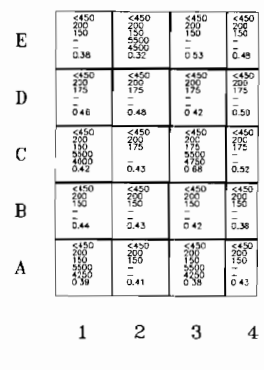
c. Grid Map, Shredder Room



W1



W2



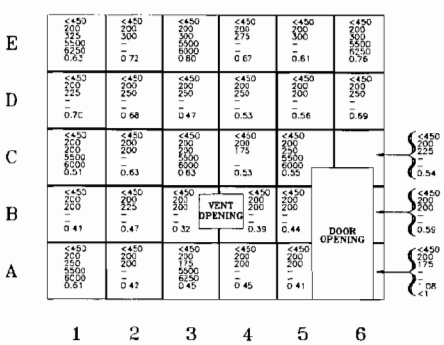
W3

Sample Data

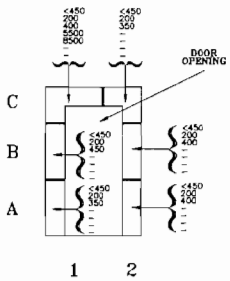
< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [cpm]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, North Bay East Group 4 Areas

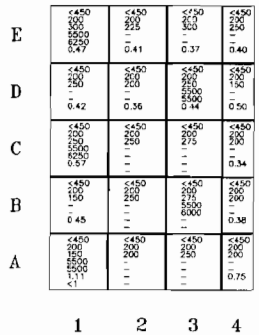
c. Grid Map, Shredder Room



W4



W6



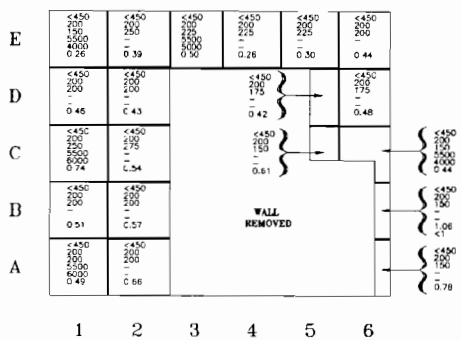
W8

Sample Data

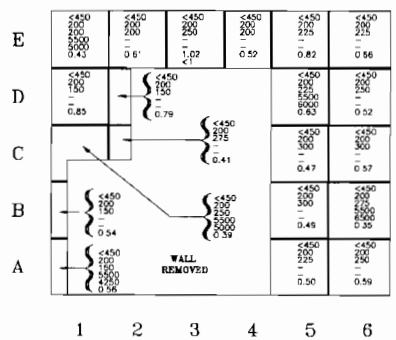
<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, North Bay East Group 4 Areas

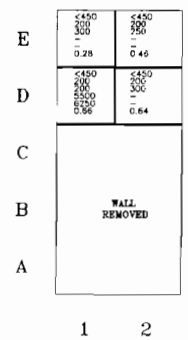
c. Grid Map, Shredder Room



W9



W10



W11

Sample Data

< 450 – IM-247/PD Results [μμC/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pC/g]
<1 – MCA Specific Co-60 Results [pC/g]

8. Bldg. 79A, North Bay East Group 4 Areas

c. Prior to Photographs, Shredder Room

Viewing wall-4 and entrance

8. Bldg. 79A, North Bay East Group 4 Areas

c. Prior to Photographs, Shredder Room

Viewing wall-1

8. Bldg. 79A, North Bay East Group 4 Areas

c. After Photographs, Shredder Room

Viewing wall-8

8. Bldg. 79A, North Bay East Group 4 Areas

c. After Photographs, Shredder Room

Viewing wall-4

8. Bldg. 79A, North Bay East Group 4 Areas

c. After Photographs, Shredder Room

Viewing floor toward wall-4

8. Bldg. 79A, High/Low Bay Group 5 Areas

a. Report

(1) Description:

The Building 79A Group 5 area consisted of the Decontamination Room. The walls and ceiling were removed and disposed of as radioactive material. This area has a cement floor.

(2) Discussion:

The Group 5 area was divided into 98 3' by 3' grids. Each grid was identified with its unique designation.

One hundred percent of all 3' by 3' grids were surveyed using the IM-247/PD and the IM-253/PD (HV-1 PHA). A minimum of 25 percent of all 3' by 3' grids was surveyed using the IM-253/PD (HV-2 GROSS). One solid material sample was taken from each 3' by 3' grid. Additionally, solid material samples were taken from selected structural joints and crevices. Results from these samples were incorporated into the report by utilizing the higher of the normal grid sample or the joint/crevice sample result.

The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the Group 5 floor were 40, 200, and 5500 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 21.

A total of 98 solid material samples were taken. Each solid sample was removed from the grid location indicating the area of highest potential. The following naturally occurring radionuclides were typical isotopes identified during analysis of solid material samples: lead 212, lead 214, and potassium 40.

(3) Summary:

Surveys performed with the IM-247/PD did not detect areas greater than 450 $\mu\mu Ci/20cm^2$.

Surveys performed with the IM-253/PD (HV-1 PHA) did not detect areas greater than or equal to twice background.

Surveys performed with the IM-253/PD (HV-2 GROSS) did not detect areas greater than or equal to twice background.

Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from a low of 0.97 pCi/g to a high of 2.78 pCi/g.

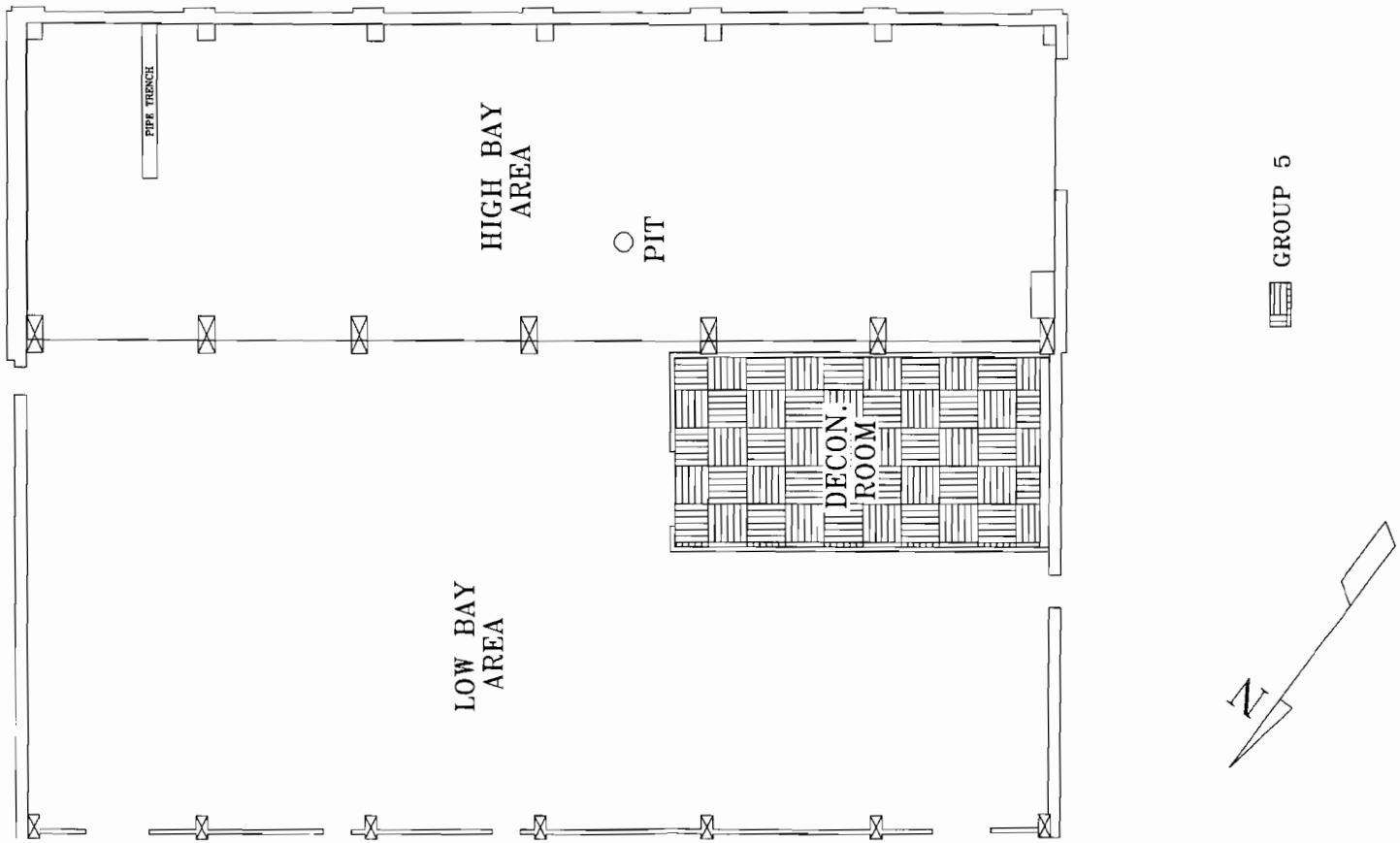
Analysis performed on solid material samples with the MCA for specific cobalt 60 indicated that all solid material samples were less than 1 pCi/g with the

8. Bldg. 79A, High/Low Bay Group 5 Areas

exception of nine samples containing traces of cobalt 60. The extent of the areas containing cobalt 60 was identified by taking additional solid material samples from the surrounding vicinity. Due to the small effort involved, the shipyard remediated these areas by the excavation of concrete to a minimum depth of 1/2" using scabbling equipment. Following remediation, additional solid material samples taken from the remediated areas were less than 1 pCi/g for specific cobalt 60. No traces of cobalt 60 were identified.

8. Bldg. 79A, High/Low Bay Group 5 Areas

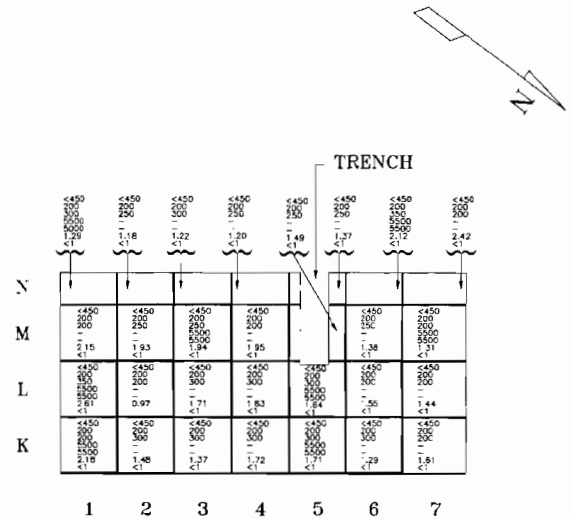
b. Site Map



8. Bldg. 79A, High/Low Bay Group 5 Areas

c. Grid Map, Decon Room

	1	2	3	4	5	6	7
J	<450 200 225 – – 2.05 <1	<450 200 300 – – 2.32 <1	<450 200 300 5500 5500 1.15 <1	<450 200 300 – – 1.64 <1	<450 200 300 – – 1.11 <1	<450 200 300 – – 1.45 <1	<450 200 200 5500 5500 1.28 <1
I	<450 200 200 5500 5500 2.78 <1	<450 200 250 – – 1.12 <1	<450 200 550 – – 1.16 <1	<450 200 250 – – 1.33 <1	<450 200 275 5500 5500 1.88 <1	<450 200 200 – – 1.58 <1	<450 200 200 – – 1.54 <1
H	<450 200 200 5500 5500 2.65 <1	<450 200 200 – – 1.64 <1	<450 200 200 – – 1.38 <1	<450 200 200 – – 1.24 <1	<450 200 225 5500 5700 1.41 <1	<450 200 275 – – 1.43 <1	<450 200 250 – – 1.65 <1
G	<450 200 150 – – 1.82 <1	<450 200 200 – – 1.84 <1	<450 200 200 5500 5000 1.15 <1	<450 200 200 – – 1.21 <1	<450 200 250 – – 1.40 <1	<450 200 200 – – 1.25 <1	<450 200 200 5500 5000 1.07 <1
F	<450 200 200 5500 5000 1.21 <1	<450 200 200 – – 1.12 <1	<450 200 200 – – 1.71 <1	<450 200 200 – – 1.05 <1	<450 200 200 5500 5000 1.45 <1	<450 200 200 – – 1.28 <1	<450 200 200 – – 1.28 <1
E	<450 200 150 5500 5000 1.68 <1	<450 200 200 – – 1.67 <1	<450 200 200 – – 2.12 <1	<450 200 200 – – 1.16 <1	<450 200 200 5500 5000 1.82 <1	<450 200 250 – – 1.81 <1	<450 200 200 – – 1.22 <1
D	<450 200 200 – – 1.85 <1	<450 200 250 – – 1.47 <1	<450 200 200 5500 4750 1.63 <1	<450 200 250 – – 1.76 <1	<450 200 200 – – 2.03 <1	<450 200 200 – – 1.78 <1	<450 200 200 7500 4500 1.92 <1
C	<450 200 150 5500 4500 1.77 <1	<450 200 200 – – 1.64 <1	<450 200 200 – – 1.68 <1	<450 200 200 – – 1.55 <1	<450 200 200 5500 4500 1.52 <1	<450 200 250 – – 1.56 <1	<450 200 200 – – 1.65 <1
B	<450 200 200 – – 2.04 <1	<450 200 250 – – 1.53 <1	<450 200 250 5500 4750 1.72 <1	<450 200 200 – – 1.28 <1	<450 200 250 – – 1.70 <1	<450 200 225 – – 1.65 <1	<450 200 200 7000 5000 1.92 <1
A	<450 200 200 5500 5000 1.32 <1	<450 200 250 – – 1.46 <1	<450 200 250 – – 1.74 <1	<450 200 200 – – 1.61 <1	<450 200 200 5500 5500 1.36 <1	<450 200 250 – – 1.24 <1	<450 200 250 – – 1.76 <1



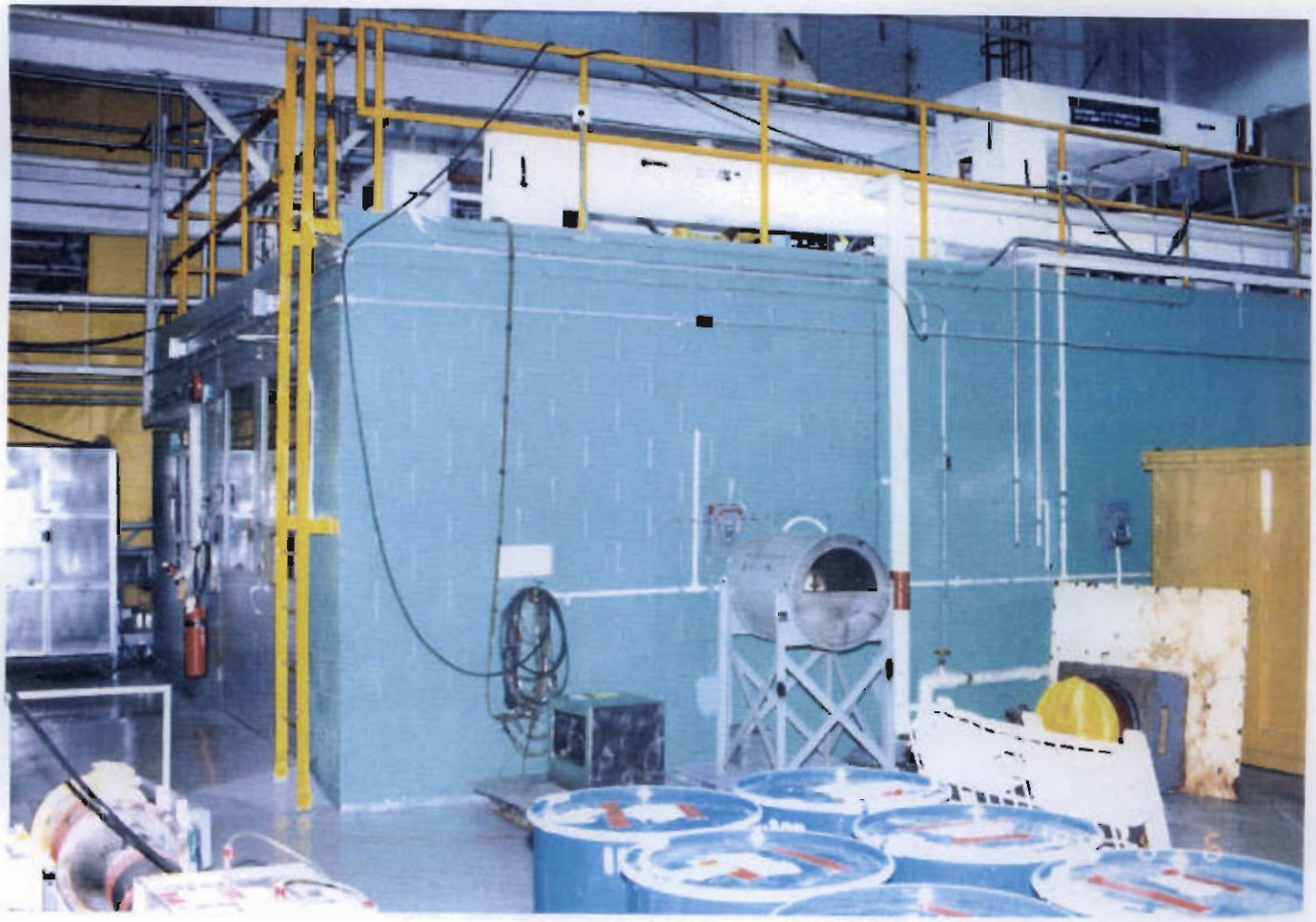
FLOOR

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

8. Bldg. 79A, High/Low Bay Group 5 Areas

c. Prior to Photographs, Decon Room



Exterior viewing south

8. Bldg. 79A, High/Low Bay Group 5 Areas

c. Prior to Photographs, Decon Room

Interior viewing south

8. Bldg. 79A, High/Low Bay Group 5 Areas

c. After Photographs, Decon Room

Viewing south

9. Bldg. 79A, North Bay East Group 5 Areas

a. Report

(1) Description:

The North Bay East Group 5 areas consisted of the Waste Packer Room and the Contaminated Work Room. These areas are of concrete construction.

(2) Discussion:

The Group 5 areas were divided into 78 3' by 3' floor and wall grids and 6' by 6' wall. The walls were divided into grids 3' by 3', up to 12' high, then 6' by 6' grids above 12'. The floor grids were divided into 3' by 3' grids. Wall 1 in the Contaminated Work Room, which is nine feet high, was divided into grids 3' by 3'. The remainder of the walls of the Contaminated Work Room, the walls of the Waste Packer Room, and ceilings in both rooms were previously removed and disposed of as radioactive material. Each grid was identified with a unique designator.

One hundred percent of all 3' by 3' grids were surveyed using the IM-247/PD and the IM-253/PD (HV-1 PHA). A minimum of 25 percent of all 3' by 3' grids were surveyed using the IM-253/PD (HV-2 GROSS). One solid material sample was taken from within each 3' by 3' grid. Additionally, solid material samples were taken form selected structural joints and crevices. Results from these samples were incorporated into the report by utilizing the higher of the normal grid sample or the joint/crevice sample result.

The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the floors and wall were 40, 200, and 5500 and 40, 325, and 6250 counts per minute respectively. These radiation levels were based upon background radiation levels obtained from Building 21 and Building 132 respectively.

A total of 78 solid material samples were taken. Each solid sample was removed from the grid location indicating the area of highest potential. The following naturally occurring radionuclides were typical isotopes identified during analysis of solid material samples: lead 212, lead 214, thallium 208, and potassium 40.

(3) Summary:

Surveys performed with the IM-247/PD did not detect areas greater than 450 $\mu\mu Ci/20cm^2$.

Surveys performed with the IM-253/PD (HV-1 PHA) did not detect areas greater than or equal to twice background.

Surveys performed with the IM-253/PD (HV-2 GROSS) did not detect areas

9. Bldg. 79A, North Bay East Group 5 Areas

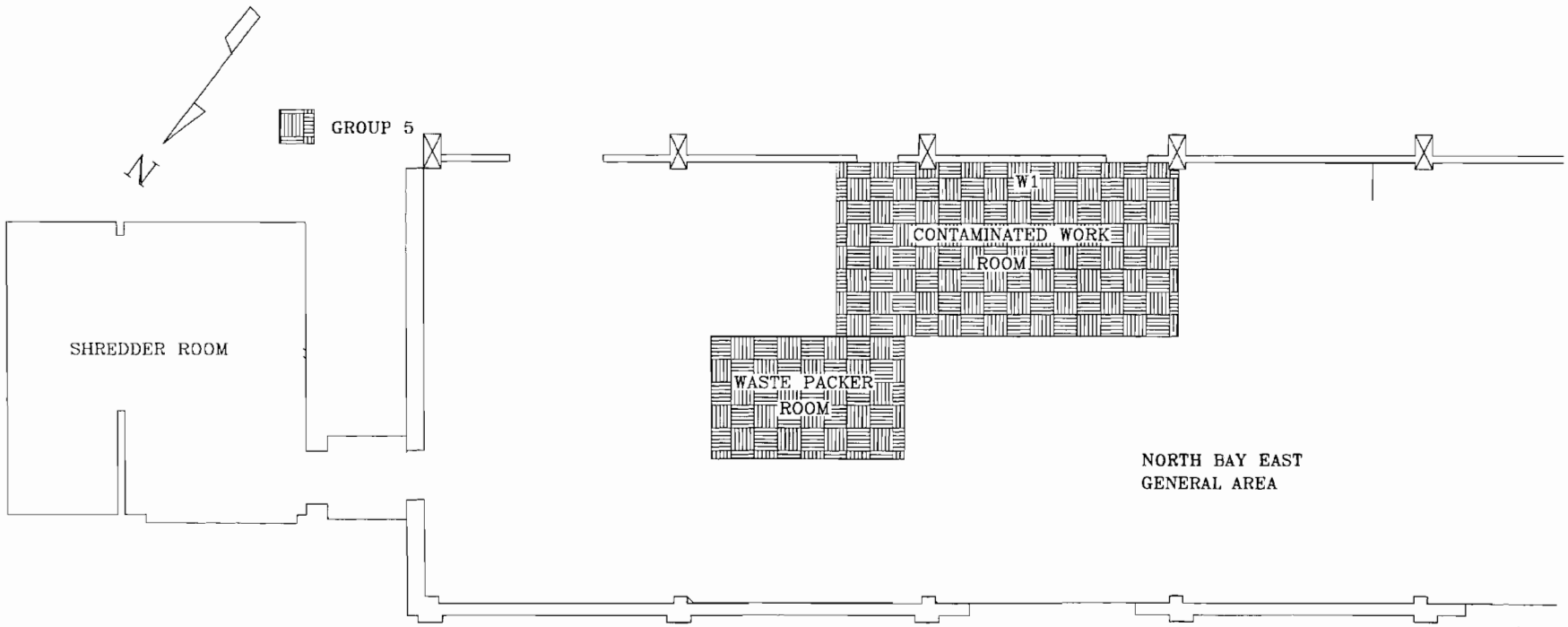
greater than or equal to twice background.

Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from a low of 0.44 pCi/g to a high of 10.76 pCi/g.

Analysis performed on solid material samples with the MCA for specific cobalt 60 indicated that all solid material samples were less than 1 pCi/g and showed no traces of cobalt 60 with the exception of samples taken on the floor of the Contaminated Work Room and Waste Packer Room. The extent of the areas containing cobalt 60 was identified by taking additional solid material samples from the surrounding vicinity. These areas were remediated by the excavation of concrete to a minimum depth of ½" using scabbling equipment. Following remediation, additional solid material samples taken from the remediated areas were less than 1 pCi/g for specific cobalt 60. No traces of cobalt 60 were identified.

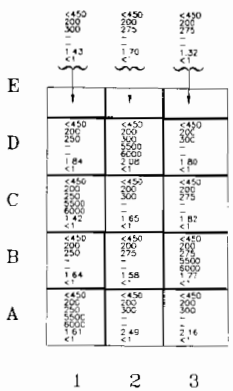
9. Bldg. 79A, North Bay East Group 5 Areas

b. Site Map

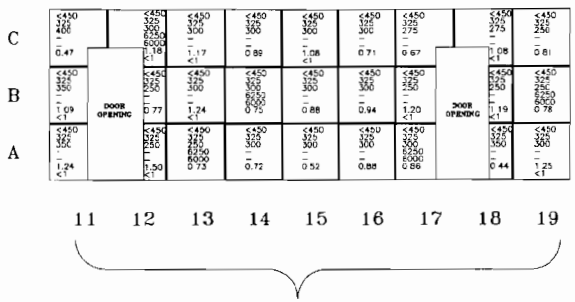


9. Bldg. 79A, North Bay East Group 5 Areas

c. Grid Map, Waste Packer Room & Contaminated Work Room

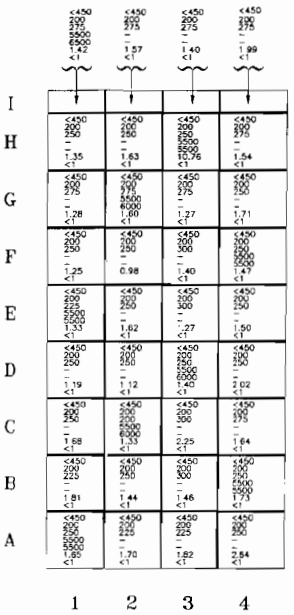


WASTE PACKER ROOM
FLOOR PLAN



CONTAMINATED WORK ROOM
WALL AREA

W1



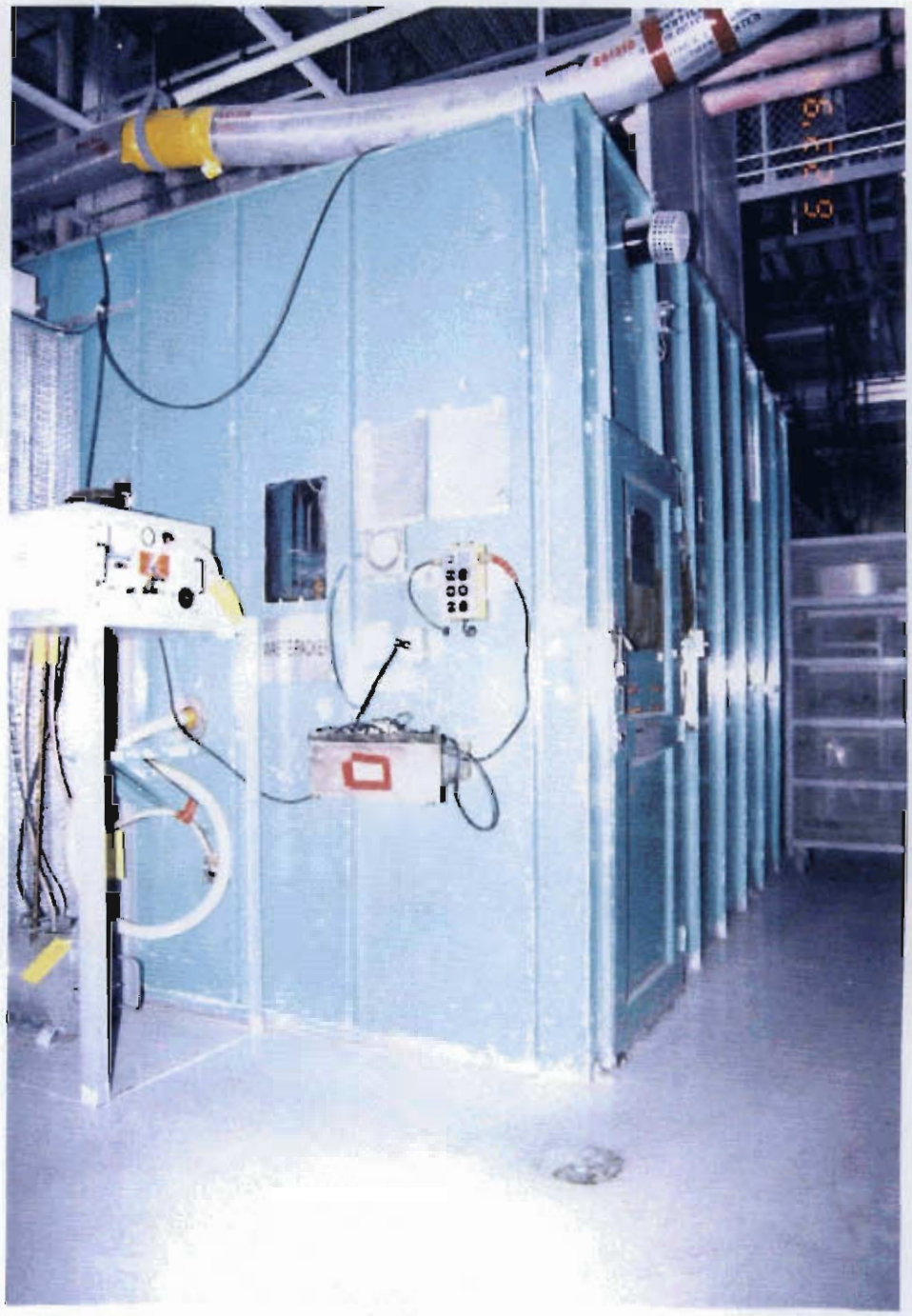
CONTAMINATED WORK ROOM
FLOOR PLAN

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

9. Bldg. 79A, North Bay East Group 5 Areas

c. Prior to Photographs, Waste Packer Room



Viewing entrance

9. Bldg. 79A, North Bay East Group 5 Areas

c. Prior to Photographs, Waste Packer Room

Viewing floor

9. Bldg. 79A, North Bay East Group 5 Areas

c. Prior to Photographs, Waste Packer Room

Viewing south wall

9. Bldg. 79A, North Bay East Group 5 Areas

c. Prior to Photographs, Contaminated Work Room

Viewing corner of wall-1 and south wall

9. Bldg. 79A, North Bay East Group 5 Areas

c. After Photographs, Waste Packer Room

Floor, looking south

9. Bldg. 79A, North Bay East Group 5 Areas

c. After Photographs, Contaminated Work Room

Floor, looking toward W1

9. Bldg. 79A, North Bay West Group 5 Areas

a. Report

(1) Description:

The North Bay West Group 5 area consisted of the general bay area and the sump pit. These areas are of concrete and wallboard construction.

(2) Discussion:

The Group 5 areas were divided into 493 3' by 3' floor and wall grids and 6' by 6' wall and ceiling grids. The floor grids were divided into 3' by 3' grids. The walls were divided into grids 3' by 3', up to 12' high, then 6' by 6' grids above 12' including ceiling grids. Each grid was identified with a unique designation.

One hundred percent of all 3' by 3' grids were surveyed using the IM-247/PD and the IM-253/PD (HV-1 PHA). A minimum of 25 percent of all 3' by 3' grids was surveyed using the IM-253/PD (HV-2 GROSS). One solid material sample was taken from each 3' by 3' grid. Solid material samples were not required from the general bay area Wall 3 grids A14, A15, A16, B14, B15, B16, C14, C15, C16, D14, D15, and D16 because this is an unpainted metal roll up door. Additionally, solid material samples were taken from selected structural joints and crevices. Results from these samples were incorporated into the report by utilizing the higher of the normal grid sample or the joint/crevice sample result.

A minimum of 25 percent of the ceiling 6' by 6' grids and 50 percent of the wall 6' by 6' grids were surveyed using the IM-247/PD and IM-253/PD (HV-1 PHA and HV-2 GROSS). One solid material sample was taken from a minimum of 50 percent of 6' by 6' wall grids, and a minimum of 25 percent of 6' by 6' ceiling grids.

The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the floor and ceiling were 40, 200, and 5500 counts per minute. The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the walls were 40, 325, and 6250 counts per minute. These radiation levels were based upon background radiation levels obtained from Building 21 and Building 132 respectively.

A total of 474 solid material samples were taken. Each solid sample was removed from the grid location indicating the area of highest potential. Paint samples were taken from the ceiling grids A5, B5, B6, C5, D5, and E5. The following naturally occurring radionuclides were typical isotopes identified during analysis of solid material samples: lead 212, lead 214, thallium 208, and potassium 40.

(3) Summary:

Surveys performed with the IM-247/PD did not detect areas greater than 450

9. Bldg. 79A, North Bay West Group 5 Areas

$\mu\mu Ci/20cm^2$.

Surveys performed with the IM-253/PD (HV-1 PHA) detected one area greater than or equal to twice background.

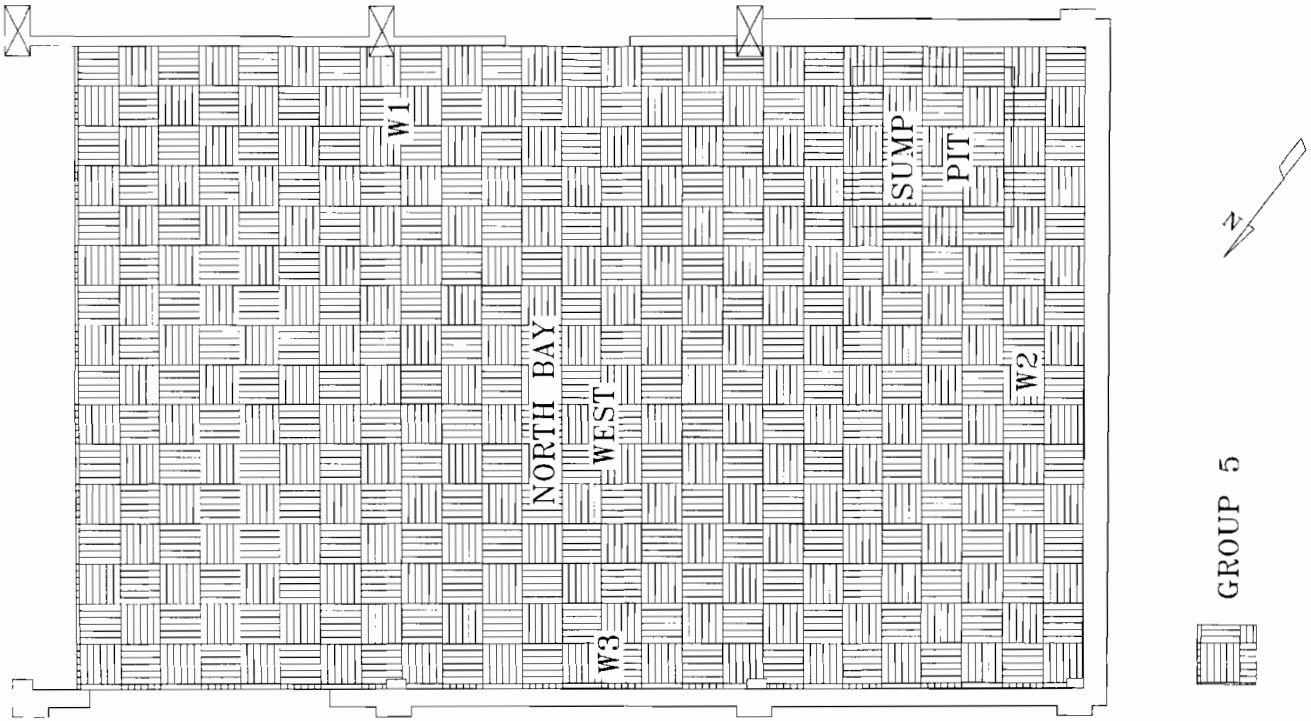
Surveys performed with the IM-253/PD (HV-2 GROSS) detected two areas greater than or equal to twice background.

Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from a low of 0.29 pCi/g to a high of 7.63 pCi/g.

Analysis performed on paint samples with the MCA for specific cobalt 60 indicated that all paint samples were less than 3 pCi/g. Analysis performed on solid material samples with the MCA for specific cobalt 60 identified four solid material samples containing cobalt 60. These samples were taken from the floor, Wall 1, and the floor/Wall 1 joint in the general bay area. The extent of the areas containing cobalt 60 was identified by taking additional solid material samples from the surrounding vicinity. These areas were remediated by the excavation of concrete to a minimum depth of ½" using scabbling equipment and by removal of a portion of Wall 1. Following remediation, additional solid material samples taken from the remediated areas were less than 1 pCi/g for specific cobalt 60. No traces of cobalt 60 were identified.

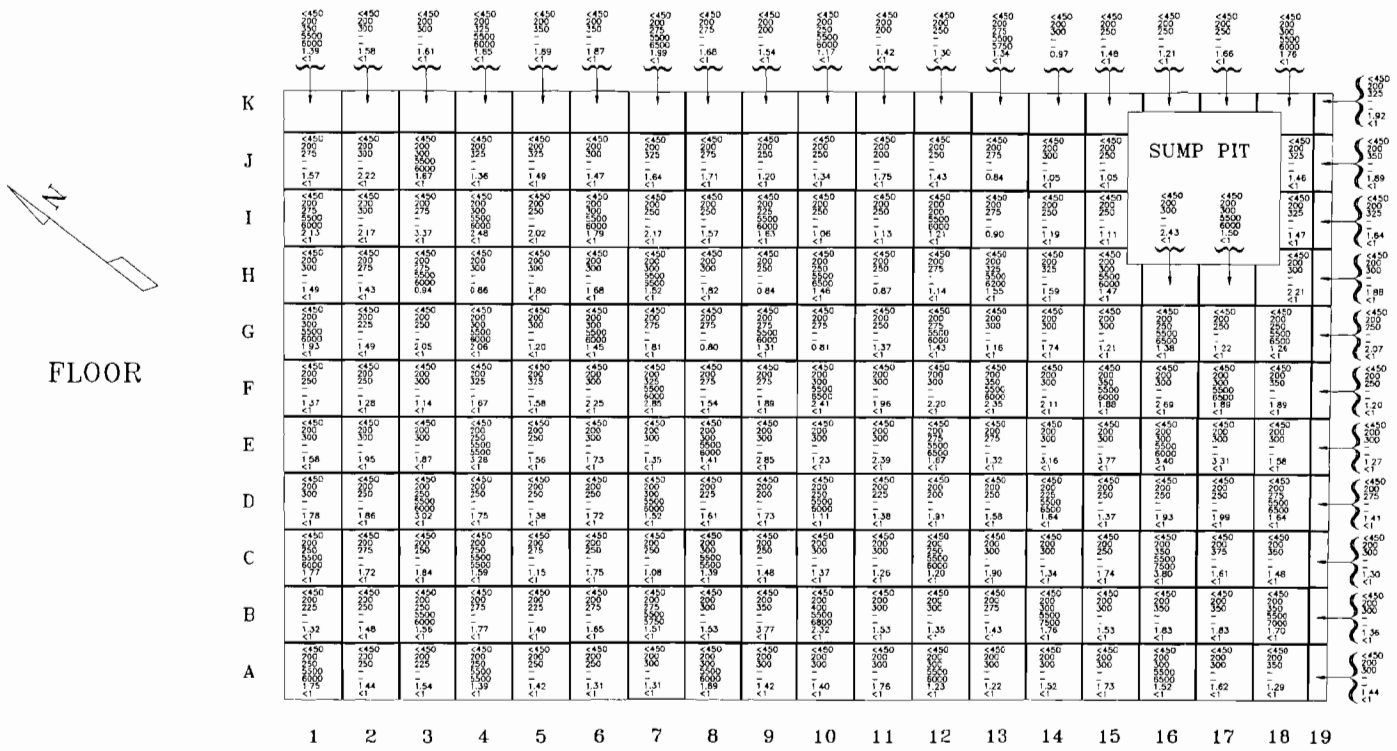
9. Bldg. 79A, North Bay West Group 5 Areas

b. Site Map



9. Bldg. 79A, North Bay West Group 5 Areas

c. Grid Map, North Bay West General Area



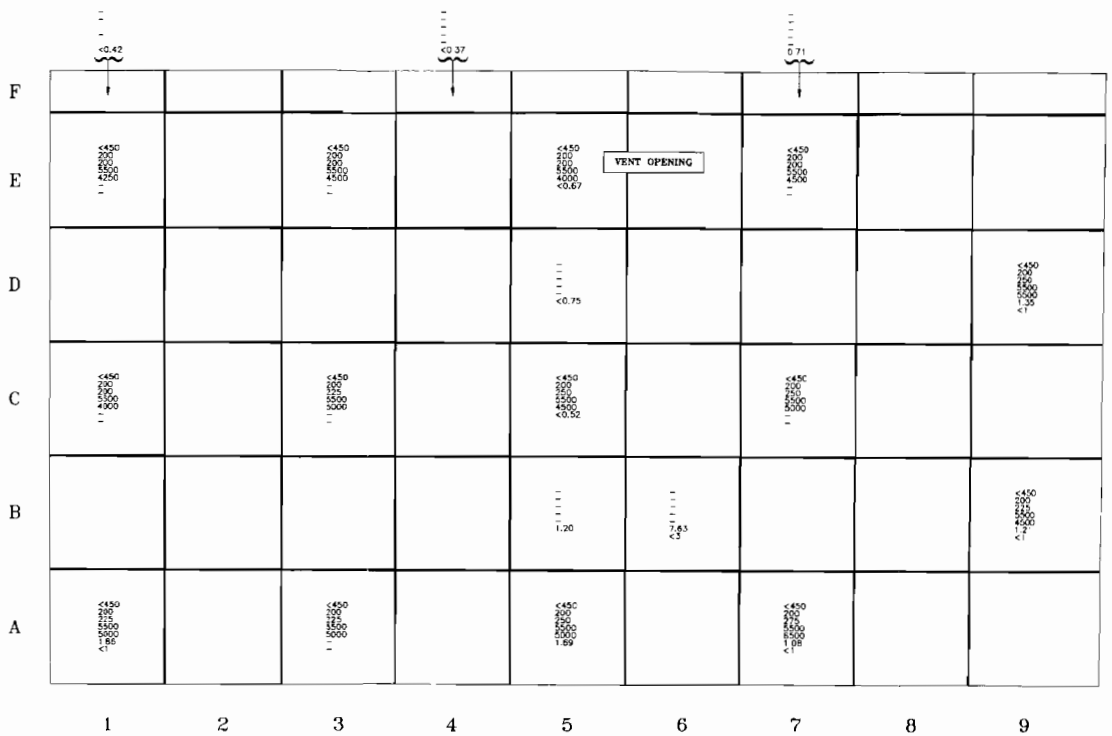
Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

9. Bldg. 79A, North Bay West Group 5 Areas

c. Grid Map, North Bay West General Area

CEILING

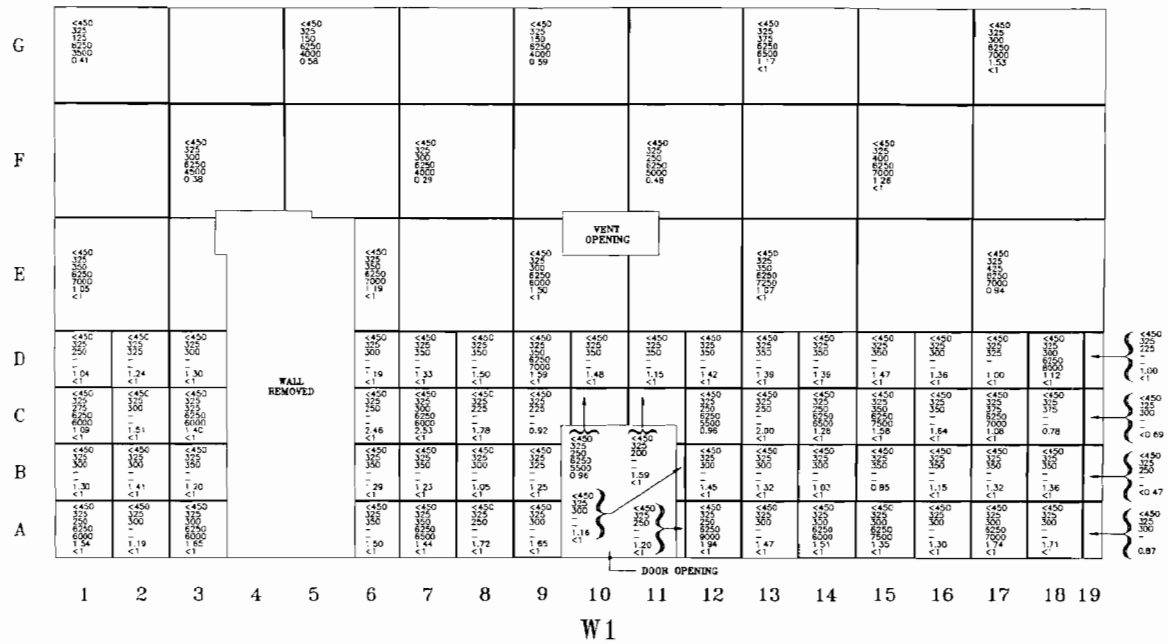


Note:
The solid material samples taken from grids A5, B5, B6, C5, D5, and E5 consist of paint and have a limit of 3 pCi/g.

Sample Data
<450 – IM-247/PD Results (μμCi/20cm²)
200 – IM-253/PD (HV-1 PHA) (bkg.)
300 – IM-253/PD (HV-1 PHA) (cpm)
7000 – IM-253/PD (HV-2 GROSS) (bkg.)
7300 – IM-253/PD (HV-2 GROSS) (cpm)
1.82 – MCA Gross Gamma Eq. Co-60 (pCi/g)
<1 – MCA Specific Co-60 Results (pCi/g)

9. Bldg. 79A, North Bay West Group 5 Areas

c. Grid Map, North Bay West General Area



Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.62 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

9. Bldg. 79A, North Bay West Group 5 Areas

c. Grid Map, North Bay West General Area

	1	2	3	4	5	6	7	8	9	10	11
G	<450 325 375 6250 7000 1.29 <1				<450 325 300 6250 6000 1.89 <1				<450 325 300 6250 6000 1.74 <1		
F			<450 325 325 6250 7250 1.30 <1				<450 325 325 6250 7000 1.32 <1				<450 325 325 6250 7000 1.28 <1
E	<450 325 300 6250 7500 1.58 <1				<450 325 300 6250 7500 1.76 <1				<450 325 300 6250 7000 1.57 <1		
D	<450 325 350 – 1.07 <1	<450 325 350 – 1.54 <1	<450 325 400 – 1.14 <1	<450 325 450 – 1.77 <1	<450 325 350 – 1.41 <1	<450 325 300 – 1.21 <1	<450 325 350 – 1.22 <1	<450 325 350 – 1.41 <1	<450 325 350 – 1.32 <1	<450 325 350 – 1.43 <1	<450 325 350 – 1.50 <1
C	<450 325 350 6250 7500 1.31 <1	<450 325 350 – 1.22 <1	<450 325 350 6250 15000 1.31 <1	<450 325 250 – 1.52 <1	<450 325 250 6250 6250 7500 1.10 <1	<450 325 250 – 1.15 <1	<450 325 250 6250 7750 1.28 <1	<450 325 250 – 1.58 <1	<450 325 275 6250 6000 1.00 <1	<450 325 250 – 1.41 <1	<450 325 250 6250 6500 1.17 <1
B	<450 325 350 – 1.05 <1	<450 325 400 – 1.56 <1	<450 325 425 – 1.21 <1	<450 325 375 – 1.20 <1	<450 325 375 – 1.28 <1	<450 325 325 – 1.35 <1	<450 325 350 – 1.45 <1	<450 325 375 – 0.91 <1	<450 325 425 – 1.35 <1	<450 325 400 – 1.27 <1	<450 325 375 – 1.46 <1
A	<450 325 400 6250 7250 1.49 <1	<450 325 375 – 1.59 <1	<450 325 375 6250 7250 1.35 <1	<450 325 375 – 1.60 <1	<450 325 400 6250 7000 1.99 <1	<450 325 350 – 1.54 <1	<450 325 400 6250 7000 1.50 <1	<450 325 400 – 1.31 <1	<450 325 375 6250 7000 1.78 <1	<450 325 400 – 1.51 <1	<450 325 425 6250 7000 1.15 <1

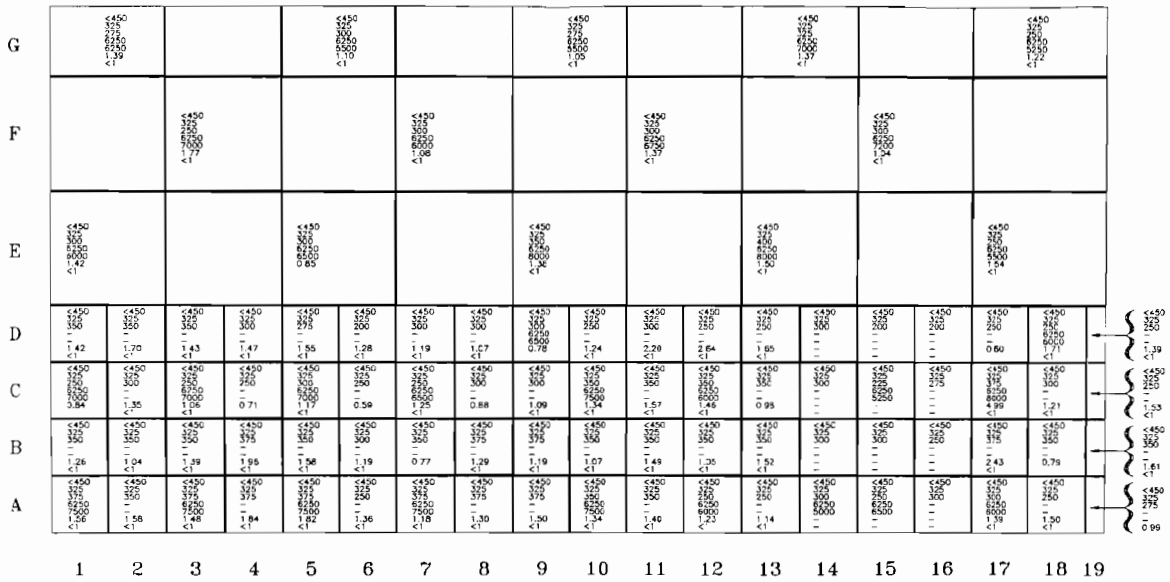
W2

Sample Data

< 450 – IM-247/PD Results [$\mu\mu Ci/20cm^2$]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

9. Bldg. 79A, North Bay West Group 5 Areas

c. Grid Map, North Bay West General Area



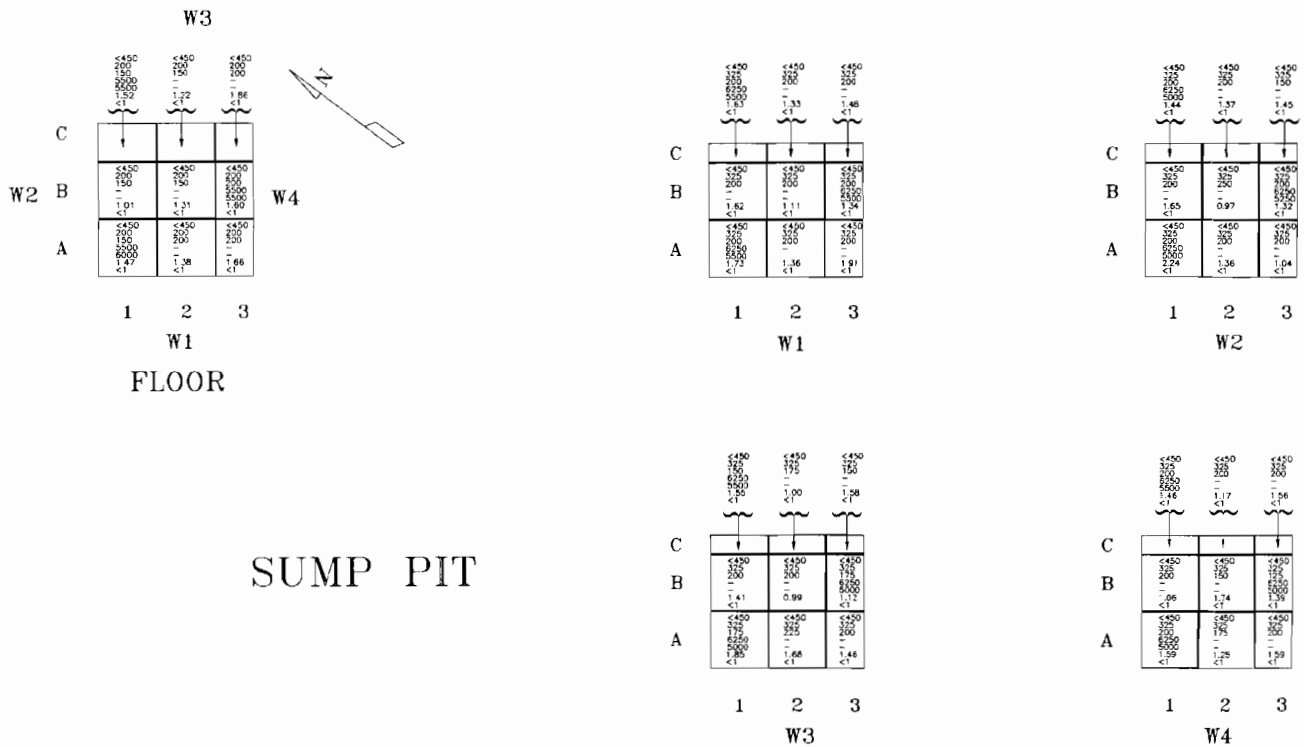
W3

Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

9. Bldg. 79A, North Bay West Group 5 Areas

c. Grid Map, North Bay West General Area



Sample Data

< 450 – IM-247/PD Results [µµCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

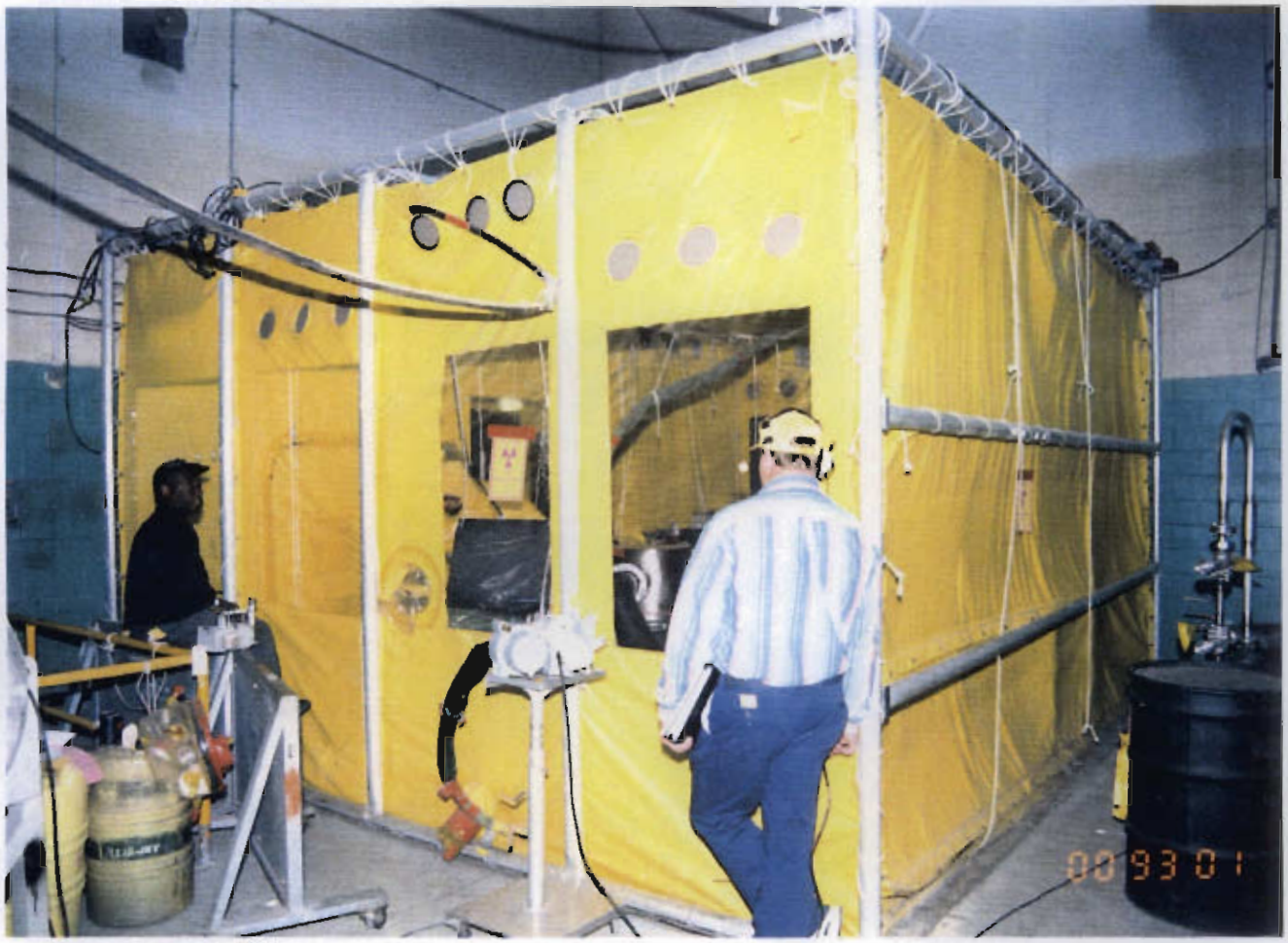
9. Bldg. 79A, North Bay West Group 5 Areas

c. Prior to Photographs

Viewing wall-1

9. Bldg. 79A, North Bay West Group 5 Areas

f. Prior Photograph



Viewing tent between wall-2 and wall-3

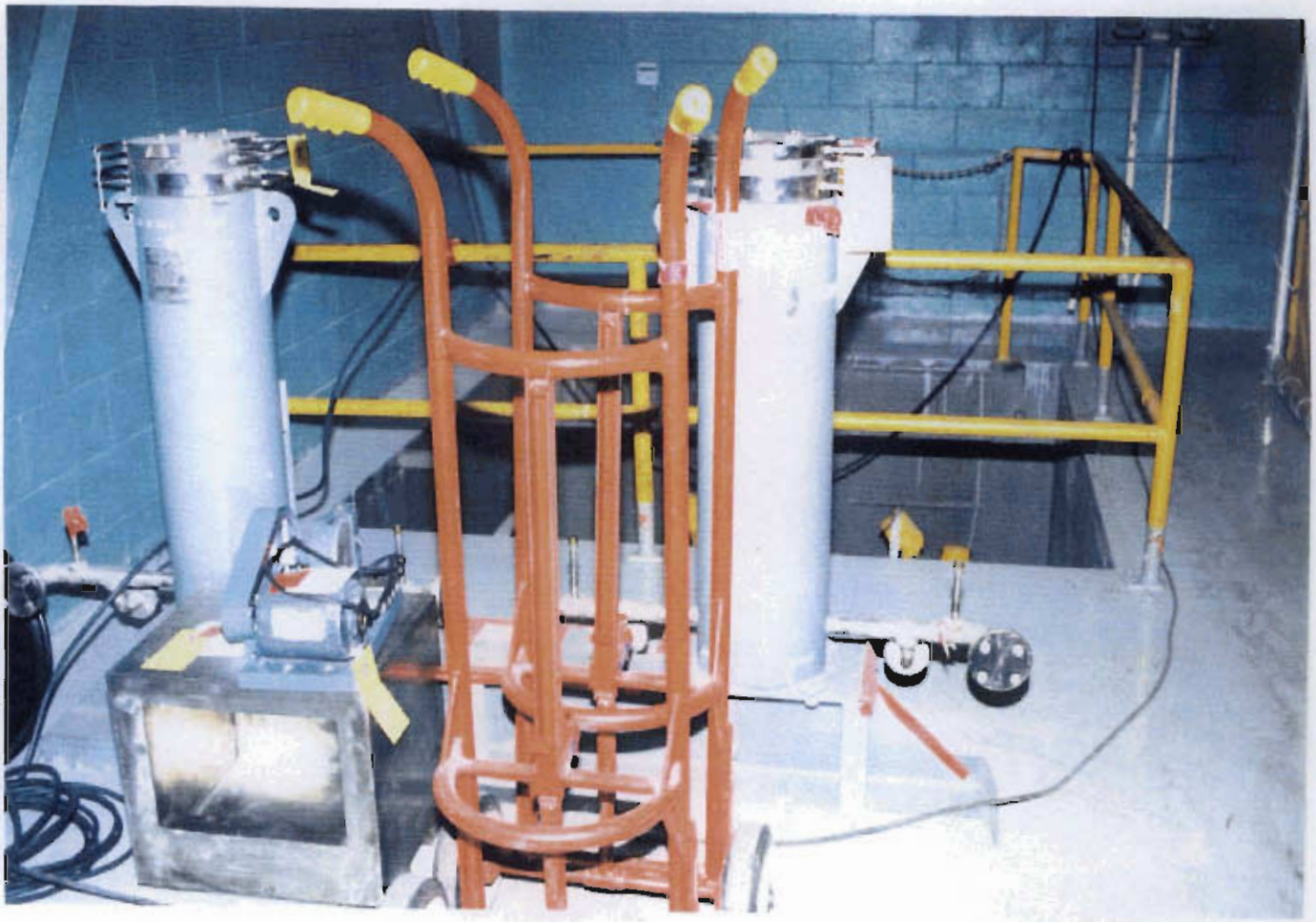
9. Bldg. 79A, North Bay West Group 5 Areas

c. Prior to Photographs

Viewing roll-up door on wall-3

9. Bldg. 79A, North Bay West Group 5 Areas

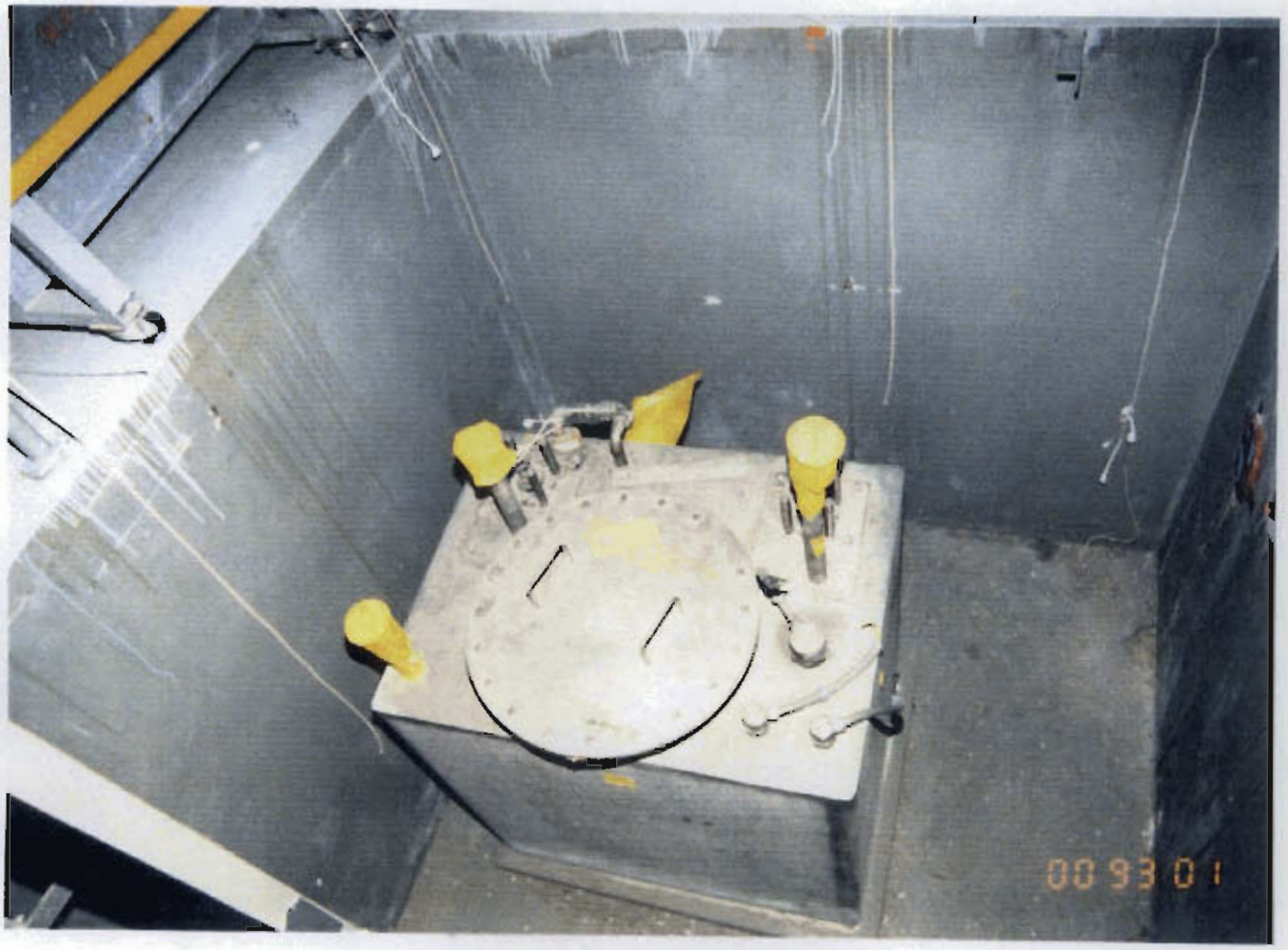
c. Prior to Photographs



Viewing sump pit and corner of wall-1 and wall-2

9. Bldg. 79A, North Bay West Group 5 Areas

c. Prior to Photographs



Sump pit

9. Bldg. 79A, North Bay West Group 5 Areas

c. After Photographs

Viewing toward wall-1

9. Bldg. 79A, North Bay West Group 5 Areas

c. After Photographs

Viewing toward wall-2

9. Bldg. 79A, North Bay West Group 5 Areas

c. After Photographs

Sump pit

10. Bldg. 79A, Adjacent Areas Groups 2 & 3

a. Report

(1) Description:

The Building 79A Group 2 areas consisted of a 20' Perimeter Area which surrounds portions of Building 79 and 79A. Ground covering is cement and asphalt. A radioactive liquid piping trench, which traverses the west and south side of Bldg 79/79A, is covered in a separate report.

(2) Discussion:

Group 2 surveys of the Perimeter areas were divided into 92 10' by 10' grids. Where physically possible, each grid was subdivided into two, 3' by 3' subsections which were located in areas of highest potential for contamination. One of these subsections was surveyed using the IM-247/PD and the other using the IM-253/PD (HV-1 PHA). Solid material samples were not required except from each grid that resulted in greater than 450 μμCi/20cm^2 with an IM-247/PD or greater than twice background with an IM-253/PD.

The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the cement were 40, 350, and 12500 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 672. The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the asphalt were 100, 400, and 12000 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 1648 road.

A total of 30 solid material samples were taken. Each solid sample was removed from the grid location indicating the area of highest potential. The following naturally occurring radionuclides were typical isotopes identified during analysis of solid material samples: lead 212, lead 214, and potassium 40.

(3) Summary:

Surveys performed with the IM-247/PD did not detect areas greater than 450 μμCi/20cm^2.

Surveys performed with the IM-253/PD (HV-1 PHA) detected 30 areas greater than or equal to twice background.

Surveys performed with the IM-253/PD (HV-2 GROSS) detected 30 areas greater than or equal to twice background.

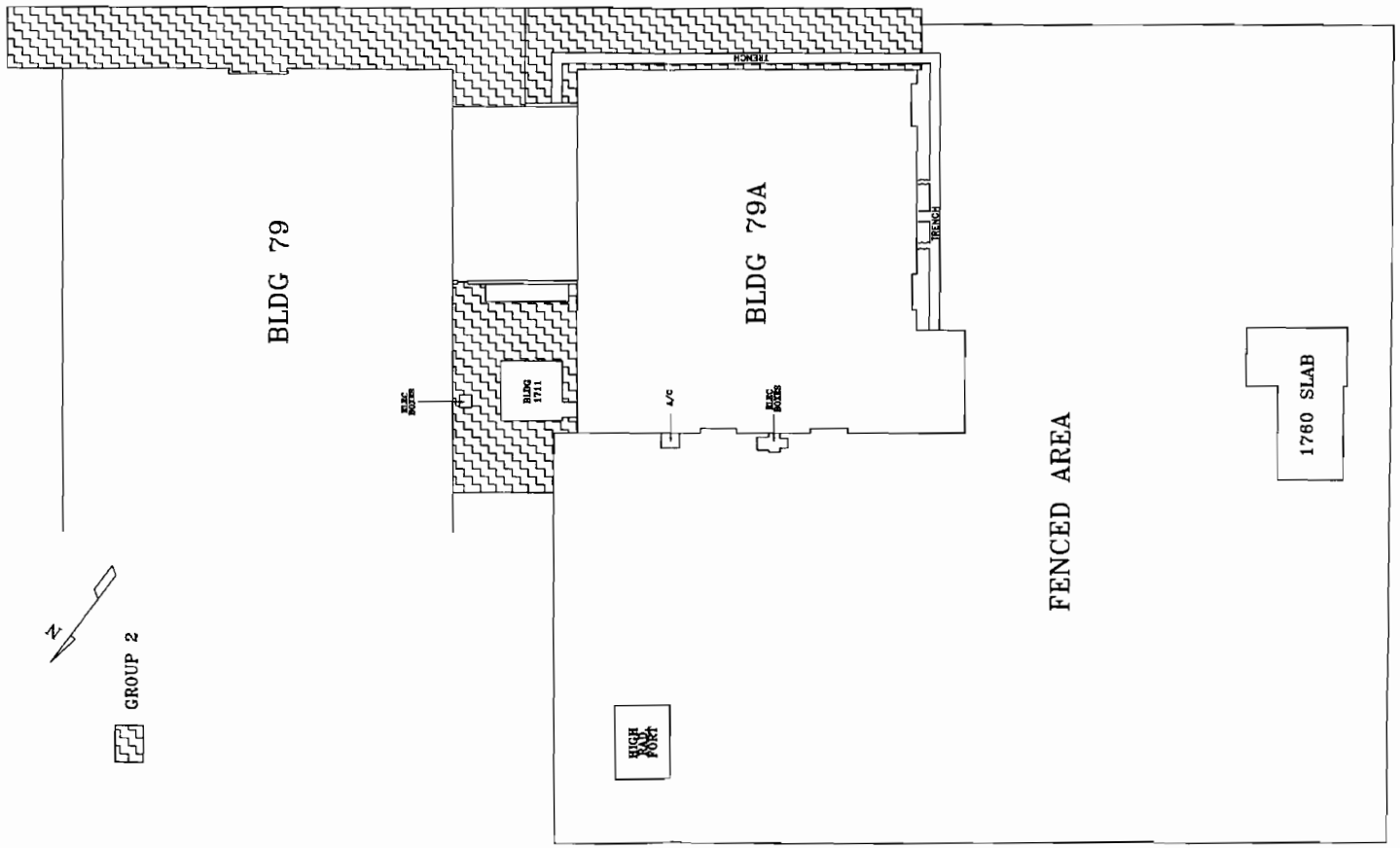
Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from a low of 4.13 pCi/g to a high of 6.45 pCi/g.

10. Bldg. 79A, Adjacent Areas Groups 2 & 3

Analysis performed on the solid material sample with the MCA for specific cobalt 60 indicated that all solid material samples were less than 1 pCi/g.

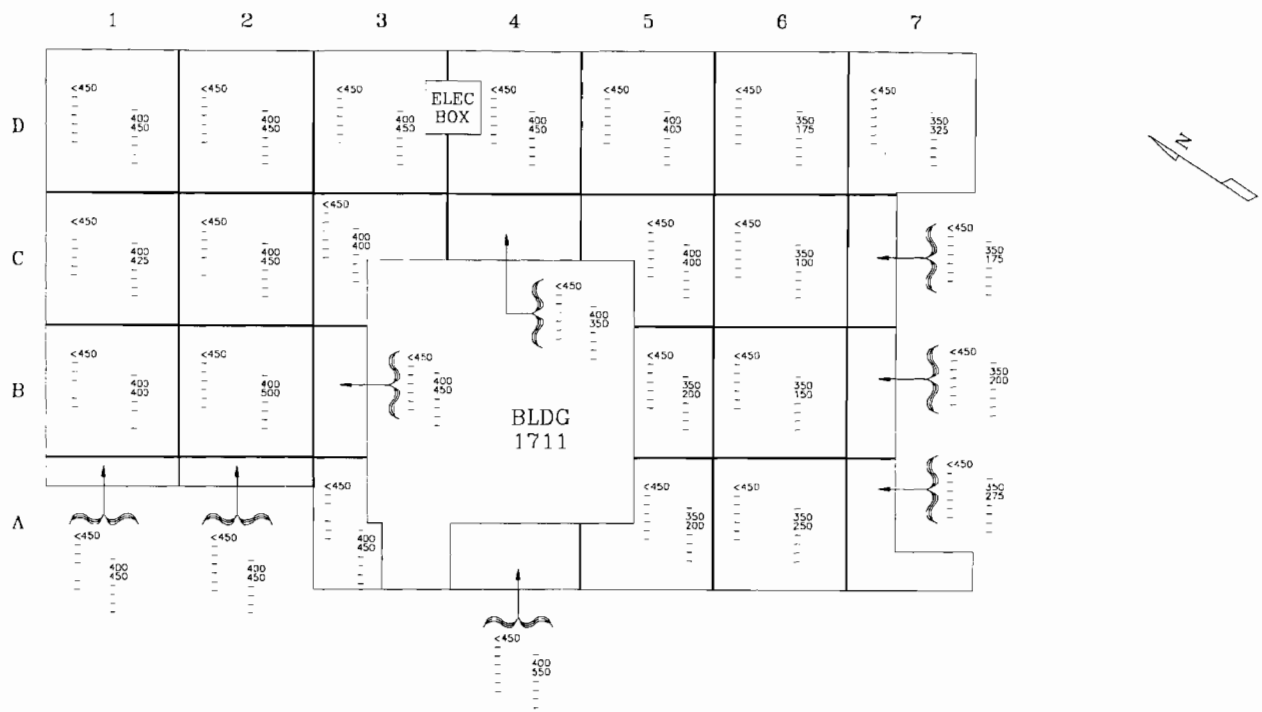
10. Bldg. 79A, Adjacent Areas Group 2 & 3

b. Site Map



10. Bldg. 79A, Adjacent Areas Group 2 & 3

c. Grid Map, 20' Perimeter

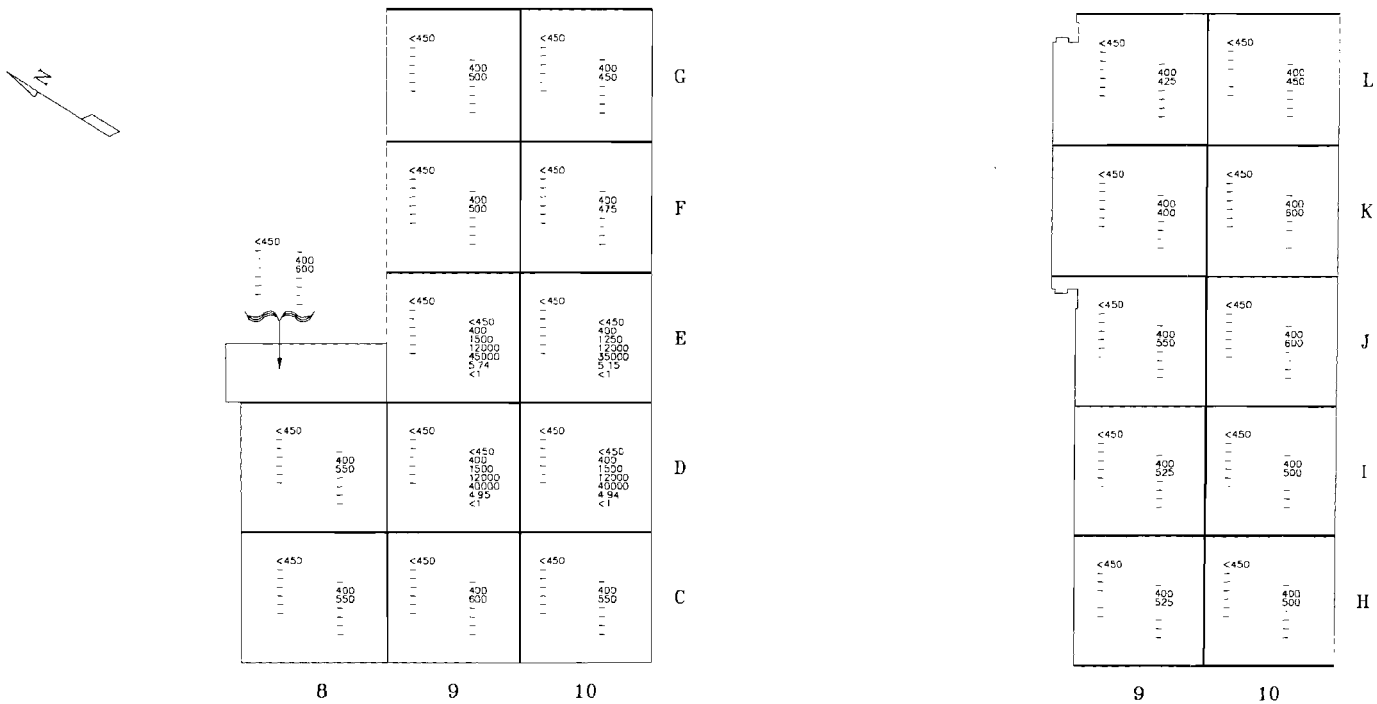


Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Adjacent Areas Group 2 & 3

c. Grid Map, 20' Perimeter



Sample Data
<450 – IM-247/PD Results (μμCi/20cm²)
200 – IM-253/PD (HV-1 PHA) (bkg.)
300 – IM-253/PD (HV-1 PHA) (cpm)
7000 – IM-253/PD (HV-2 GROSS) (bkg.)
7300 – IM-253/PD (HV-2 GROSS) (cpm)
1.82 – MCA Gross Gamma Eq. Co-60 (pCi/g)
<1 – MCA Specific Co-60 Results (pCi/g)

10. Bldg. 79A, Adjacent Areas Group 2 & 3

c. Grid Map, 20' Perimeter

	9	10
Q	<450 - - - - - - - 400 600 - - -	<450 - - - - - - - 400 600 - - -
P	<450 - - - - - - - <450 400 1500 12000 45000 5.11 <1	<450 - - - - - - - <450 400 1500 12000 35000 5.93 <1
O	<450 - - - - - - - <450 400 1750 12000 45000 5.95 <1	<450 - - - - - - - <450 400 1500 12000 35000 5.95 <1
N	<450 - - - - - - - <450 400 920 12000 35000 4.67 <1	<450 - - - - - - - - 400 600 - - - -
M	<450 - - - - - - - - 400 550 - - - -	<450 - - - - - - - - 400 500 - - - -

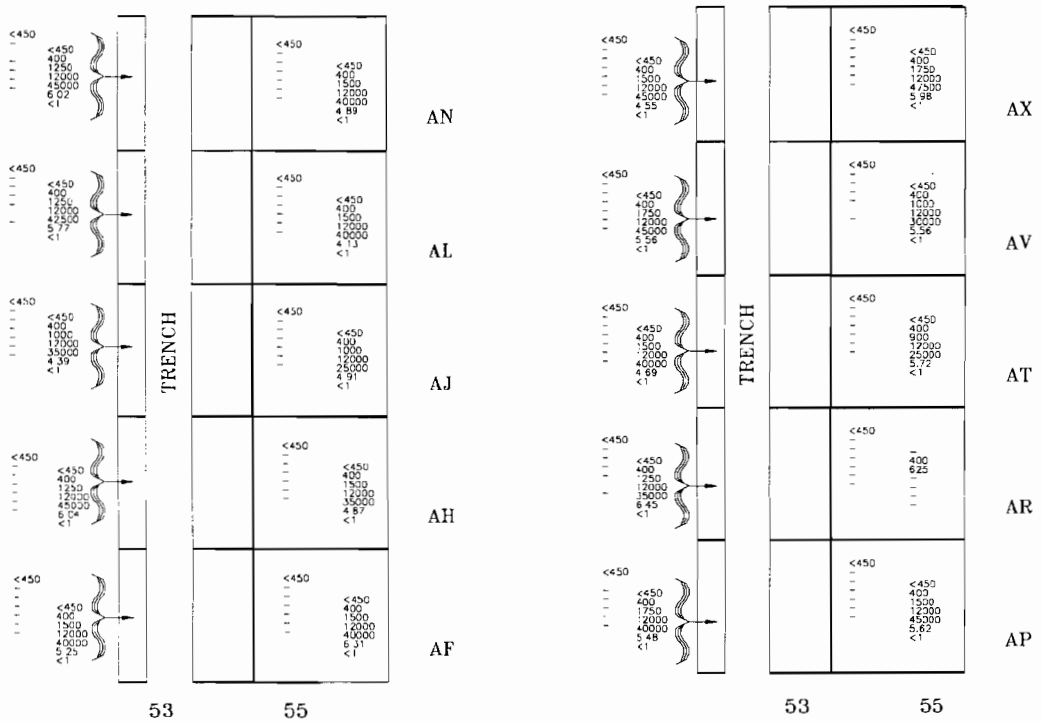
	9	10
S	<450 - - - - - - - - 400 450 - - - -	<450 - - - - - - - - 400 500 - - - -
R	<450 - - - - - - - - 400 550 - - - -	<450 - - - - - - - - 400 600 - - - -

Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Adjacent Areas Group 2 & 3

c. Grid Map, 20' Perimeter

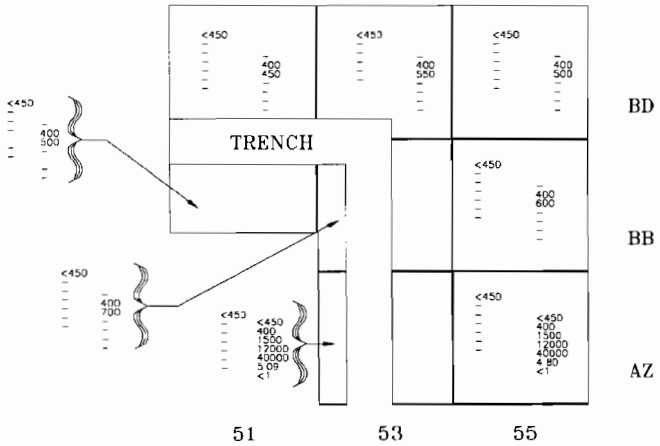


Sample Data

<450 – IM-247/PD Results [μCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Adjacent Areas Group 2 & 3

c. Grid Map, 20' Perimeter



Sample Data

<450 – IM-247/PD Results [μCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Adjacent Areas Groups 2 & 3

c. Prior to Photographs, 20' Perimeter

South side of Bldg 79, viewing south

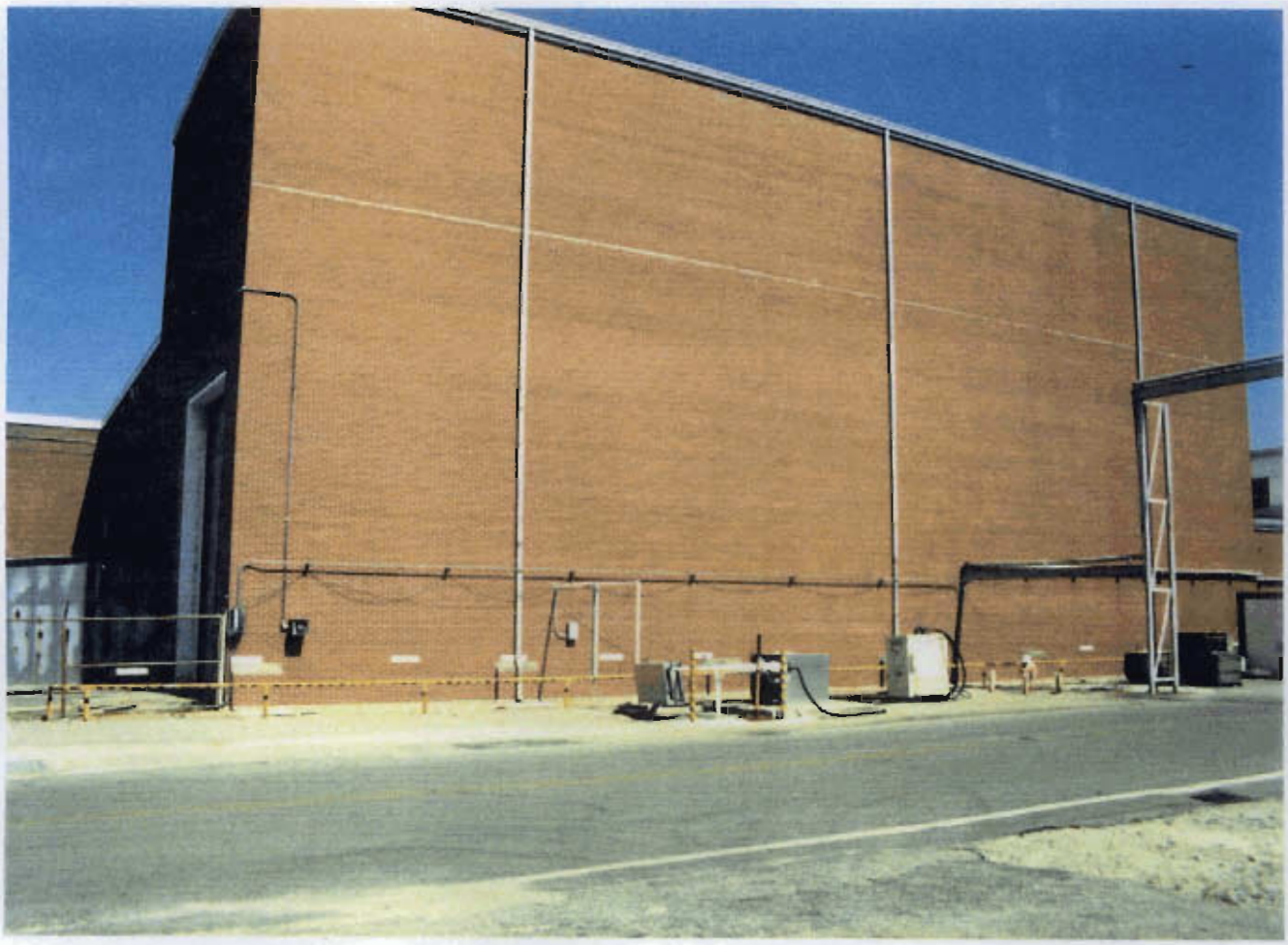
10. Bldg. 79A, Adjacent Areas Groups 2 & 3

c. Prior to Photographs, 20' Perimeter

Viewing toward Bldg 1711

10. Bldg. 79A, Adjacent Areas Groups 2 & 3

c. Prior to Photographs, 20' Perimeter



South side of Bldg 79A

10. Bldg. 79A, Adjacent Areas Groups 2 & 3

c. After Photographs, 20' Perimeter

Beside Bldg 1711, viewing north

10. Bldg. 79A, Adjacent Areas Groups 2 & 3

c. After Photographs, 20' Perimeter

Bldg 79A South Side

10. Bldg. 79A, Adjacent Areas Groups 2 & 3

c. After Photographs, 20' Perimeter

Bldg 79A South Side Facing East

10. Bldg. 79A, Fenced Areas Group 3

a. Report

(1) Description:

The Building 79A Group 3 Fenced Areas consisted of the High Rad Fort and the Fenced Area. The ground covering is cement, dirt, gravel, and asphalt. The walls of the High Rad Fort and roll up doors of Building 79A are metal construction. The walls of Building 79A are brick. Storm drains in the Fenced Area have metal grates.

(2) Discussion:

The Group 3 areas were divided into 2384 5' by 5' floor grids and 5' by 6' wall grids up to 6' in height where physically possible. One hundred percent of all grids were surveyed using the IM-247/PD and the IM-253/PD (HV-1 PHA). A minimum of 25 percent of all grids were surveyed using the IM-253/PD (HV-2 GROSS). Additionally, solid material samples were taken from each wall and floor grid with the exception of the walls of the High Rad Fort and four roll up doors because these are unpainted metal. These samples were removed from the area indicating the highest potential within each grid.

The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the cement were 40, 350, and 12500 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 672. The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the asphalt were 100, 400, and 12000 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 1648 road. The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the brick were 60, 600, and 15000 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 233. The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the dirt and gravel were 60, 200, 6000 and 40, 500, 12500 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 1628 railroad tracks. The IM-247/PD and the IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds used for the metal were 40, 400, and 9000 counts per minute respectively. These radiation levels were based upon background levels obtained from Building 1628 railroad tracks.

A total of 2333 solid material samples were taken. The four roll up doors of Building 79A labelled Walls 3, 7, 14, and 18 were unpainted metal so samples were not required. The roll up door from wall 20 and portions of walls 2, 3, and 4 from the High Rad Fort were removed and disposed of as radioactive material. The remaining portions of the walls from inside and outside of the High Rad Fort were unpainted metal, therefore, solid samples were not required. Solid material sediment samples were taken from each storm drain and evaluated, but the results were not recorded on the data maps. The

10. Bldg. 79A, Fenced Areas Group 3

following naturally occurring radionuclides were typical isotopes identified during analysis of solid material samples: lead 212, lead 214, bismuth 214, thallium 208, and potassium 40.

(3) Summary:

Surveys performed with the IM-247/PD did not detect areas greater than 450 $\mu\mu Ci/20cm^2$. However, surveys performed in grid AL12 detected 450 $\mu\mu Ci/20cm^2$. Analysis of the solid sample taken in AL12 indicated the activity was due to naturally occurring radionuclides.

Surveys performed with the IM-253/PD (HV-1 PHA) detected 159 areas greater than or equal to twice background.

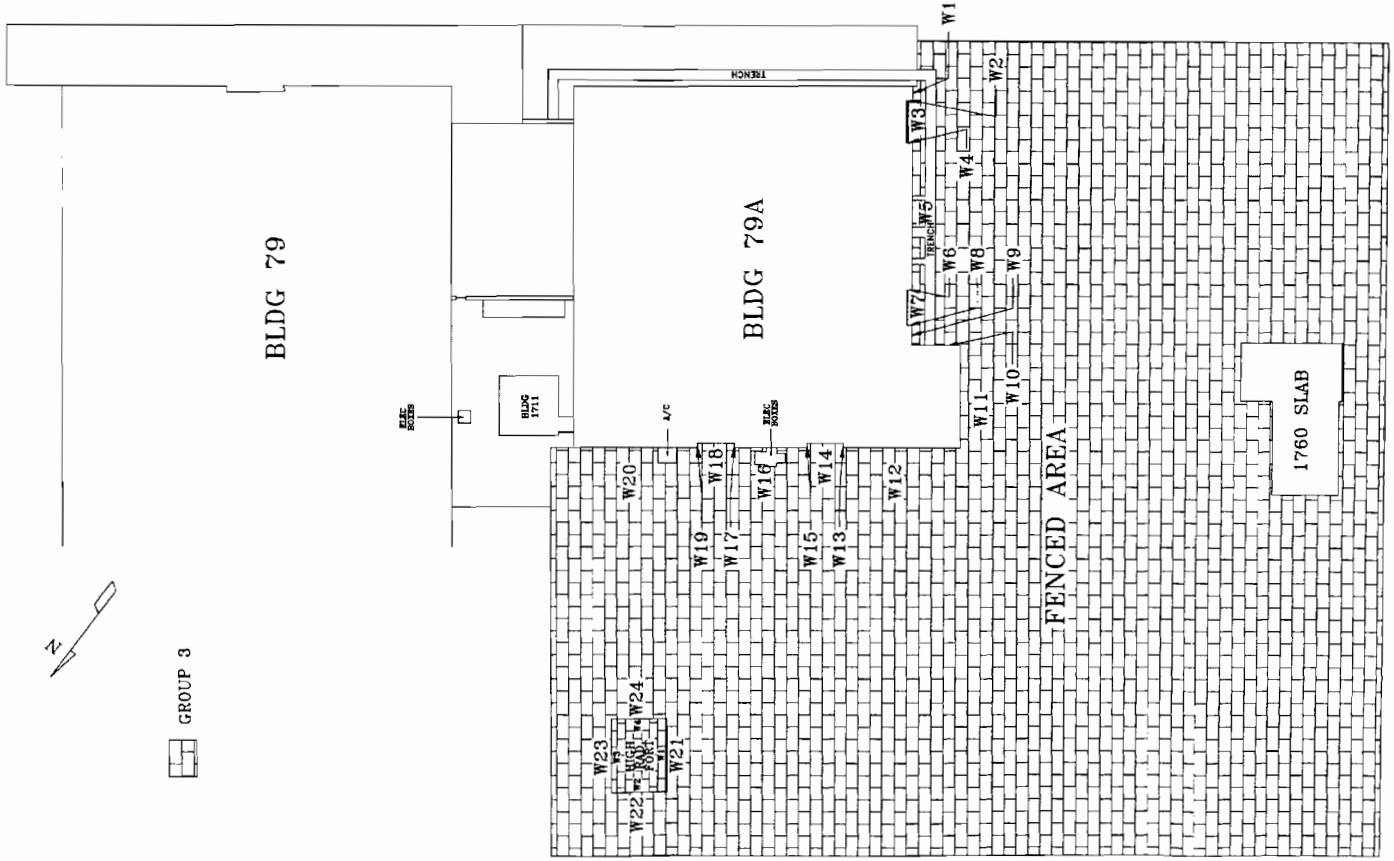
Surveys performed with the IM-253/PD (HV-2 GROSS) detected 53 areas greater than or equal to twice background.

Analysis performed on storm drain sediment and solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from less than a minimum detectable activity of 0.14 pCi/g to a high of 27.47 pCi/g.

Analysis performed on storm drain sediment and solid material samples with the MCA for specific cobalt 60 identified 17 samples containing cobalt 60. The extent of the areas containing cobalt 60 was identified by taking additional solid material samples from the surrounding vicinity. These areas were remediated by the excavation of asphalt and concrete to a minimum depth of 1/2" using scabbling equipment and by the removal of storm drain piping. Following remediation, additional solid material samples taken from the remediated areas were less than 1 pCi/g for specific cobalt 60. No traces of cobalt 60 were identified.

10. Bldg. 79A, Fenced Areas Group 3

b. Group 3 Site Map



10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area

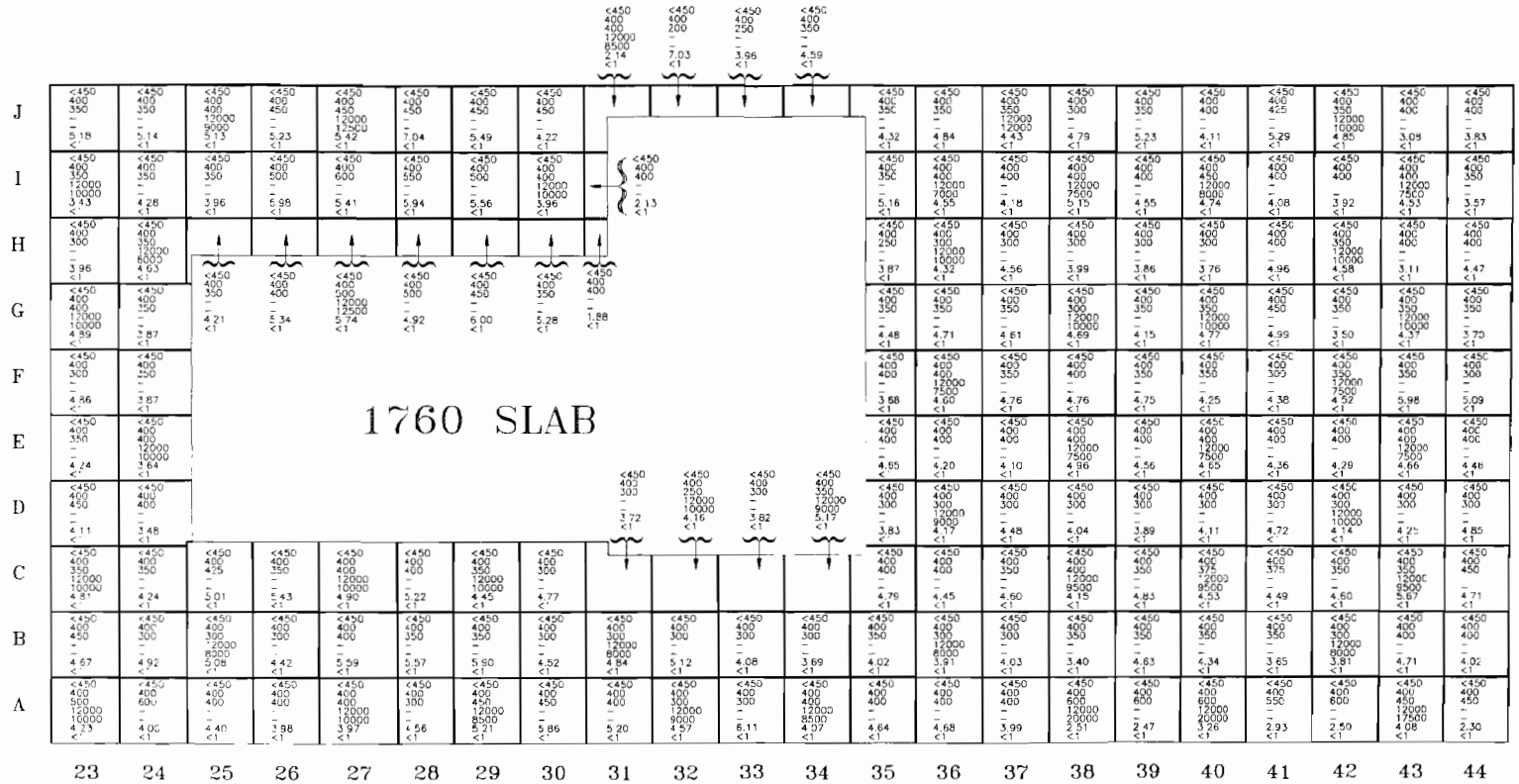
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
J	<450 400 400 – – 4.02 <1	<450 400 400 – – 5.09 <1	<450 400 375 12000 10000 5.64 <1	<450 400 350 – – 4.27 <1	<450 400 350 – – 4.38 <1	<450 400 350 – – 4.85 <1	<450 400 300 – – 4.73 <1	<450 400 425 – – 4.69 <1	<450 400 400 12000 8000 4.57 <1	<450 400 400 – – 5.18 <1	<450 400 425 – – 5.54 <1	<450 400 550 – – 4.19 <1	<450 400 425 – – 3.63 <1	<450 400 425 19000 10000 4.30 <1	<450 400 425 – – 3.78 <1	<450 400 350 – – 4.12 <1	<450 400 350 – – 3.47 <1	<450 400 375 – – 3.85 <1	<450 400 350 – – 4.12 <1	<450 400 350 12000 8000 3.99 <1	<450 400 350 – – 4.07 <1	<450 400 350 – – 4.65 <1
I	<450 400 400 12000 12500 5.65 <1	<450 400 450 – – 4.69 <1	<450 400 300 – – 4.96 <1	<450 400 400 – – 4.07 <1	<450 400 400 12000 10000 3.99 <1	<450 400 400 – – 4.51 <1	<450 400 400 12000 10000 4.76 <1	<450 400 300 – – 4.90 <1	<450 400 300 – – 4.59 <1	<450 400 325 12000 9000 4.26 <1	<450 400 325 – – 4.35 <1	<450 400 325 12000 10000 3.58 <1	<450 400 400 – – 4.68 <1	<450 400 350 – – 4.19 <1	<450 400 325 – – 4.99 <1	<450 400 350 12000 9000 3.30 <1	<450 400 400 – – 5.05 <1	<450 400 350 12000 8500 4.72 <1	<450 400 350 – – 5.38 <1	<450 400 300 – – 3.49 <1	<450 400 300 12000 10000 5.15 <1	<450 400 400 – – 4.50 <1
H	<450 400 350 – – 4.95 <1	<450 400 350 – – 5.58 <1	<450 400 300 12000 10000 4.72 <1	<450 400 250 – – 4.51 <1	<450 400 250 – – 4.08 <1	<450 400 225 – – 4.90 <1	<450 400 250 – – 4.67 <1	<450 400 325 – – 4.44 <1	<450 400 300 12000 10000 4.43 <1	<450 400 350 – – 5.20 <1	<450 400 300 – – 3.65 <1	<450 400 400 – – 6.00 <1	<450 400 300 – – 4.28 <1	<450 400 350 12000 10000 4.24 <1	<450 400 300 – – 4.50 <1	<450 400 350 – – 3.82 <1	<450 400 350 – – 4.23 <1	<450 400 350 – – 4.62 <1	<450 400 300 – – 4.60 <1	<450 400 350 12000 8000 4.44 <1	<450 400 300 – – 4.14 <1	<450 400 400 – – 3.38 <1
G	<450 400 1000 12000 30000 3.99 <1	<450 400 350 – – 4.02 <1	<450 400 300 – – 5.22 <1	<450 400 300 – – 4.25 <1	<450 400 250 12000 8500 3.44 <1	<450 400 350 – – 4.35 <1	<450 400 300 12000 8500 5.21 <1	<450 400 250 – – 5.07 <1	<450 400 250 – – 4.59 <1	<450 400 300 12000 9500 5.50 <1	<450 400 350 – – 5.13 <1	<450 400 200 12000 10000 4.72 <1	<450 400 250 – – 5.07 <1	<450 400 250 – – 4.56 <1	<450 400 250 – – 2.59 <1	<450 400 250 12000 8000 4.68 <1	<450 400 300 – – 4.46 <1	<450 400 300 12000 8000 5.55 <1	<450 400 300 – – 5.00 <1	<450 400 350 – – 4.47 <1	<450 400 300 12000 6000 4.91 <1	<450 400 250 – – 3.50 <1
F	<450 400 1000 – – 20.97 <1	<450 400 350 – – 4.12 <1	<450 400 400 12000 8500 4.49 <1	<450 400 350 – – 4.20 <1	<450 400 400 – – 4.01 <1	<450 400 350 – – 4.92 <1	<450 400 400 – – 6.17 <1	<450 400 400 – – 4.20 <1	<450 400 400 12000 10000 3.97 <1	<450 400 400 – – 5.04 <1	<450 400 350 – – 4.76 <1	<450 400 350 – – 4.58 <1	<450 400 300 – – 4.86 <1	<450 400 350 12000 10000 4.37 <1	<450 400 300 – – 4.37 <1	<450 400 300 – – 4.08 <1	<450 400 350 – – 5.48 <1	<450 400 350 – – 2.22 <1	<450 400 350 – – 4.35 <1	<450 400 350 12000 10000 4.83 <1	<450 400 350 – – 6.09 <1	<450 400 400 – – 4.26 <1
E	<450 400 400 12000 17500 4.01 <1	<450 400 350 – – 5.17 <1	<450 400 350 – – 4.50 <1	<450 400 325 – – 4.88 <1	<450 400 350 12000 8500 5.12 <1	<450 400 350 – – 4.28 <1	<450 400 400 12000 8000 4.06 <1	<450 400 400 – – 4.17 <1	<450 400 400 – – 4.07 <1	<450 400 400 12000 8000 4.04 <1	<450 400 350 – – 4.50 <1	<450 400 350 12000 9000 5.57 <1	<450 400 400 – – 3.99 <1	<450 400 300 – – 5.08 <1	<450 400 350 – – 4.37 <1	<450 400 300 12000 8000 4.77 <1	<450 400 300 – – 4.92 <1	<450 400 300 12000 8000 4.40 <1	<450 400 300 – – 4.54 <1	<450 400 300 – – 4.90 <1	<450 400 300 12000 8000 3.65 <1	<450 400 400 – – 4.74 <1
D	<450 400 400 – – 4.60 <1	<450 400 450 – – 4.78 <1	<450 400 450 12000 12500 3.87 <1	<450 400 400 – – 4.90 <1	<450 400 350 – – 4.25 <1	<450 400 400 – – 4.67 <1	<450 400 300 – – 5.17 <1	<450 400 400 – – 4.75 <1	<450 400 400 12000 8500 4.35 <1	<450 400 350 – – 4.13 <1	<450 400 350 – – 4.49 <1	<450 400 400 – – 4.73 <1	<450 400 350 – – 4.17 <1	<450 400 250 12000 10000 5.04 <1	<450 400 250 – – 4.43 <1	<450 400 300 – – 4.32 <1	<450 400 300 – – 4.46 <1	<450 400 250 – – 4.98 <1	<450 400 250 – – 3.43 <1	<450 400 500 12000 10000 3.56 <1	<450 400 400 – – 3.64 <1	<450 400 400 – – 4.72 <1
C	<450 400 500 12000 15000 3.70 <1	<450 400 350 – – 3.95 <1	<450 400 375 – – 4.57 <1	<450 400 400 – – 5.09 <1	<450 400 400 12000 7500 4.20 <1	<450 400 350 – – 4.65 <1	<450 400 400 12000 7500 5.12 <1	<450 400 400 – – 7.28 <1	<450 400 400 – – 4.38 <1	<450 400 350 12000 12500 4.58 <1	<450 400 350 – – 4.19 <1	<450 400 350 12000 10000 4.40 <1	<450 400 350 – – 4.45 <1	<450 400 325 – – 4.49 <1	<450 400 300 – – 4.35 <1	<450 400 300 12000 10000 4.46 <1	<450 400 300 – – 4.10 <1	<450 400 300 12000 10000 4.33 <1	<450 400 250 – – 4.88 <1	<450 400 400 – – 4.03 <1	<450 400 350 12000 10000 4.61 <1	<450 400 350 – – 3.94 <1
B	<450 400 350 – – 4.86 <1	<450 400 300 – – 4.57 <1	<450 400 300 12000 7750 3.18 <1	<450 400 350 – – 4.11 <1	<450 400 350 – – 4.44 <1	<450 400 300 – – 4.28 <1	<450 400 350 – – 5.16 <1	<450 400 350 – – 4.58 <1	<450 400 350 12000 7750 5.11 <1	<450 400 350 – – 4.57 <1	<450 400 350 – – 4.71 <1	<450 400 300 – – 4.10 <1	<450 400 450 – – 4.13 <1	<450 400 350 12000 7500 4.47 <1	<450 400 325 – – 4.52 <1	<450 400 275 – – 4.57 <1	<450 400 300 – – 4.82 <1	<450 400 375 – – 5.30 <1	<450 400 350 – – 4.14 <1	<450 400 375 12000 7500 4.46 <1	<450 400 300 – – 5.88 <1	<450 400 300 – – 6.89 <1
A	<450 400 1500 12000 37500 23.86 <1	<450 400 1250 – – 24.18 <1	<450 400 1500 – – 21.27 <1	<450 400 1250 – – 25.73 <1	<450 400 1500 12000 42500 24.18 <1	<450 400 1500 – – 27.47 <1	<450 400 2500 12000 40000 25.73 <1	<450 400 2000 – – 22.64 <1	<450 400 1250 – – 25.54 <1	<450 400 1500 12000 40000 25.43 <1	<450 400 1500 – – 26.58 <1	<450 400 850 12000 37500 5.07 <1	<450 400 825 – – 4.42 <1	<450 400 750 – – 4.14 <1	<450 400 800 – – 8.00 <1	<450 400 900 12000 40000 4.53 <1	<450 400 850 – – 19.07 <1	<450 400 950 12000 35000 14.74 <1	<450 400 950 – – 6.75 <1	<450 400 800 – – 8.55 <1	<450 400 750 12000 22500 6.16 <1	<450 400 350 – – 4.80 <1

Sample Data

<450 – IM-247/PD Results [$\mu\mu$Cv/20cm^2]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq Co-60 [pCi/g]
<1 – MCA Specifc Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area



Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area

	45	46	47	48	49	50	51	52	53	54
J	<450 400 400 – – 4.29 <1	<450 400 500 12000 10000 3.73 <1	<450 400 400 – – 3.93 <1	<450 400 500 – – 4.08 <1	<450 500 550 – – 7.51 <1	<450 500 500 – – 7.60 <1	<450 500 600 – – 8.60 <1	<450 500 550 12000 25000 9.63 <1	<450 400 500 – – 2.77 <1	<450 400 1750 – – 5.32 <1
I	<450 400 400 – – 4.20 <1	<450 400 400 – – 3.86 <1	<450 400 300 – – 5.76 <1	<450 400 400 12000 15000 4.66 <1	<450 500 600 – – 7.48 <1	<450 500 600 12500 15000 7.89 <1	<450 500 550 – – 8.21 <1	<450 500 1000 – – 8.41 <1	<450 500 2000 12000 50000 5.73 <1	<450 500 2000 – – 6.11 <1
H	<450 400 400 – – 5.54 <1	<450 400 450 12000 15000 4.41 <1	<450 400 300 – – 4.61 <1	<450 400 300 – – 4.25 <1	<450 500 600 – – 3.46 <1	<450 500 650 – – 8.68 <1	<450 500 500 – – 8.90 <1	<450 500 500 12500 15000 8.70 <1	<450 400 500 – – 8.43 <1	<450 400 450 – – 6.62 <1
G	<450 400 400 – – 3.26 <1	<450 400 400 – – 5.69 <1	<450 400 300 – – 3.84 <1	<450 400 300 12500 15000 3.93 <1	<450 500 550 – – 2.97 <1	<450 500 550 12500 20000 7.30 <1	<450 500 600 – – 8.68 <1	<450 400 1500 – – 7.24 <1	<450 400 1200 12000 50000 5.35 <1	<450 400 1000 – – 6.54 <1
F	<450 400 400 – – 4.62 <1	<450 400 450 17000 12500 4.61 <1	<450 400 350 – – 4.73 <1	<450 500 450 – – 4.25 <1	<450 500 700 – – 4.30 <1	<450 500 600 – – 8.36 <1	<450 500 700 – – 8.25 <1	<450 500 650 12000 15000 8.39 <1	<450 500 1250 – – 5.60 <1	<450 400 1500 – – 6.16 <1
E	<450 400 400 – – 5.03 <1	<450 400 450 – – 4.47 <1	<450 400 475 – – 5.46 <1	<450 400 425 12000 9000 4.45 <1	<450 400 400 – – 4.61 <1	<450 500 600 12000 15000 8.75 <1	<450 500 600 – – 8.39 <1	<450 500 600 – – 6.39 <1	<450 500 600 12000 45000 1.06 <1	<450 400 600 – – 6.52 <1
D	<450 400 400 – – 5.19 <1	<450 400 400 12000 12500 4.06 <1	<450 400 475 – – 4.21 <1	<450 400 400 – – 3.85 <1	<450 400 300 – – 5.42 <1	<450 500 600 – – 2.41 <1	<450 500 600 – – 9.04 <1	<450 500 550 12500 15000 10.55 <1	<450 500 600 – – 4.19 <1	<450 400 1750 – – 5.17 <1
C	<450 400 400 – – 4.13 <1	<450 400 450 – – 5.22 <1	<450 400 450 – – 4.98 <1	<450 400 400 12000 9000 4.58 <1	<450 400 300 – – 5.07 <1	<450 500 550 12500 15000 3.40 <1	<450 500 600 – – 6.94 <1	<450 500 600 – – 8.09 <1	<450 500 600 12500 25000 10.19 <1	<450 400 1500 – – 5.36 <1
B	<450 400 400 – – 4.67 <1	<450 400 400 12000 8000 5.28 <1	<450 400 350 – – 5.00 <1	<450 400 350 – – 4.75 <1	<450 400 350 – – 4.95 <1	<450 500 500 – – 6.44 <1	<450 500 650 – – 8.52 <1	<450 500 550 12500 15000 9.30 <1	<450 500 650 – – 6.38 <1	<450 500 1500 – – 6.09 <1
A	<450 400 350 – – 3.82 <1	<450 200 700 – – 3.04 <1	<450 200 600 – – 4.96 <1	<450 200 400 12000 15000 2.70 <1	<450 200 350 – – 2.07 <1	<450 500 600 12500 17500 4.78 <1	<450 500 550 – – 2.43 <1	<450 500 400 – – 3.06 <1	<450 400 350 12000 15000 5.41 <1	<450 400 1500 – – 6.63 <1

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
T	<450 400 350 – – 4.49 <1	<450 400 400 – – 3.77 <1	<450 400 350 12000 12500 4.01 <1	<450 400 400 – – 3.79 <1	<450 400 375 – – 3.89 <1	<450 400 400 – – 4.46 <1	<450 400 400 – – 4.47 <1	<450 400 350 – – 4.36 <1	<450 400 375 12000 7500 3.86 <1	<450 400 275 – – 3.94 <1	<450 400 350 – – 2.12 <1	<450 400 1500 – – 2.67 <1	<450 400 450 – – 3.65 <1	<450 400 400 430 12000 8500 2.76 <1	<450 400 400 – – 4.68 <1	<450 400 400 – – 4.62 <1	<450 400 225 – – 5.67 <1	<450 400 400 – – 4.51 <1	<450 400 400 – – 5.64 <1	<450 400 350 12000 10000 4.56 <1	<450 400 300 – – 4.56 <1	<450 400 300 – – 6.79 <1
S	<450 400 700 12000 25000 4.11 <1	<450 400 350 – – 3.89 <1	<450 400 350 – – 4.54 <1	<450 400 300 – – 3.84 <1	<450 400 300 12000 7000 3.38 <1	<450 400 350 – – 4.62 <1	<450 400 300 12000 7500 5.58 <1	<450 400 400 – – 4.25 <1	<450 400 300 – – 4.37 <1	<450 400 375 12000 8000 4.72 <1	<450 400 275 – – 4.04 <1	<450 400 900 12000 30000 2.38 <1	<450 400 600 – – 3.12 <1	<450 400 400 – – 4.52 <1	<450 400 450 – – 3.47 <1	<450 400 400 12000 9000 4.19 <1	<450 400 400 – – 4.73 <1	<450 400 350 12000 10000 5.83 <1	<450 400 350 – – 4.79 <1	<450 400 300 – – 4.76 <1	<450 400 350 12000 10000 4.12 <1	<450 400 300 – – 3.59 <1
R	<450 400 350 – – 3.90 <1	<450 400 350 – – 4.51 <1	<450 400 300 12000 8500 4.67 <1	<450 400 300 – – 4.65 <1	<450 400 350 – – 3.29 <1	<450 400 350 – – 3.75 <1	<450 400 350 – – 4.51 <1	<450 400 350 – – 3.06 <1	<450 400 350 12000 8500 3.79 <1	<450 400 350 – – 5.50 <1	<450 400 600 – – 4.93 <1	<450 400 1250 – – 4.03 <1	<450 400 450 – – 4.53 <1	<450 400 400 12000 7000 4.88 <1	<450 400 400 – – 4.53 <1	<450 400 400 – – 4.74 <1	<450 400 550 – – 5.44 <1	<450 400 600 – – 4.67 <1	<450 400 425 – – 4.66 <1	<450 400 400 12000 7000 4.16 <1	<450 400 400 – – 4.30 <1	<450 400 300 – – 5.27 <1
Q	<450 400 450 12000 10000 4.82 <1	<450 400 450 – – 6.70 <1	<450 400 400 – – 3.46 <1	<450 400 350 – – 3.89 <1	<450 400 400 12000 8500 3.77 <1	<450 400 350 – – 3.94 <1	<450 400 450 12000 8500 4.26 <1	<450 400 400 – – 4.33 <1	<450 400 400 – – 4.17 <1	<450 400 400 12000 8500 3.60 <1	<450 400 550 – – 4.99 <1	<450 400 1250 12000 35000 6.67 <1	<450 400 400 – – 4.09 <1	<450 400 400 – – 4.46 <1	<450 400 400 – – 4.41 <1	<450 400 450 12000 7000 4.55 <1	<450 400 400 – – 4.53 <1	<450 400 450 12000 7000 5.15 <1	<450 400 450 – – 5.03 <1	<450 400 450 – – 4.79 <1	<450 400 450 12000 7000 4.09 <1	<450 400 450 – – 3.88 <1
P	<450 400 350 – – 4.04 <1	<450 400 400 – – 3.82 <1	<450 400 400 12000 10000 3.92 <1	<450 400 400 – – 4.75 <1	<450 400 450 – – 4.04 <1	<450 400 300 – – 4.99 <1	<450 400 300 – – 4.76 <1	<450 400 300 – – 6.33 <1	<450 400 300 12000 8500 3.89 <1	<450 400 350 – – 4.59 <1	<450 400 400 – – 4.50 <1	<450 400 1500 – – 6.28 <1	<450 400 350 – – 5.62 <1	<450 400 450 12000 12500 4.44 <1	<450 400 400 – – 3.79 <1	<450 400 450 – – 4.44 <1	<450 400 400 – – 4.58 <1	<450 400 450 – – 4.27 <1	<450 400 450 – – 4.27 <1	<450 400 350 12000 9000 4.81 <1	<450 400 350 – – 4.72 <1	<450 400 350 – – 3.97 <1
O	<450 400 450 12000 12500 3.27 <1	<450 400 450 – – 4.28 <1	<450 400 500 – – 3.85 <1	<450 400 450 – – 4.09 <1	<450 400 450 12000 10000 4.86 <1	<450 400 350 – – 4.01 <1	<450 400 400 12000 12500 4.37 <1	<450 400 350 – – 3.41 <1	<450 400 350 – – 4.00 <1	<450 400 450 12000 12500 4.11 <1	<450 400 450 – – 3.13 <1	<450 400 1250 12000 35000 5.14 <1	<450 400 400 – – 4.45 <1	<450 400 400 – – 4.02 <1	<450 400 350 – – 4.44 <1	<450 400 400 12000 9000 5.41 <1	<450 400 450 – – 4.86 <1	<450 400 350 12000 9500 4.86 <1	<450 400 350 – – 4.51 <1	<450 400 350 – – 4.42 <1	<450 400 350 12000 9000 4.90 <1	<450 400 350 – – 3.96 <1
N	<450 400 500 – – 4.49 <1	<450 400 350 – – 4.37 <1	<450 400 300 12000 9000 5.34 <1	<450 400 300 – – 5.24 <1	<450 400 350 – – 7.04 <1	<450 400 300 – – 5.68 <1	<450 400 400 – – 4.48 <1	<450 400 350 – – 4.94 <1	<450 400 350 12000 9000 4.64 <1	<450 400 350 – – 4.41 <1	<450 400 400 – – 4.06 <1	<450 400 1250 – – <0.35	<450 400 450 – – 4.97 <1	<450 400 450 15000 12000 5.46 <1	<450 400 450 – – 4.02 <1	<450 400 450 – – 7.73 <1	<450 400 400 – – 5.75 <1	<450 400 400 – – 4.95 <1	<450 400 350 – – 5.00 <1	<450 400 300 12000 10000 3.66 <1	<450 400 450 – – 5.15 <1	<450 400 450 – – 5.53 <1
M	<450 400 550 12000 15000 3.83 <1	<450 400 400 – – 4.36 <1	<450 400 350 – – 4.70 <1	<450 400 300 – – 3.72 <1	<450 400 400 12000 8500 3.99 <1	<450 400 400 – – 3.90 <1	<450 400 375 12000 10000 3.72 <1	<450 400 350 – – 3.78 <1	<450 400 375 – – 5.31 <1	<450 400 300 12000 9000 3.94 <1	<450 400 300 – – 4.74 <1	<450 400 1250 12000 30000 6.12 <1	<450 400 600 – – 5.11 <1	<450 400 600 – – 5.41 <1	<450 400 550 – – 5.42 <1	<450 400 550 12000 10000 5.56 <1	<450 400 500 – – 6.26 <1	<450 400 450 12000 10000 4.62 <1	<450 400 425 – – 4.87 <1	<450 400 350 – – 5.30 <1	<450 400 400 12000 10000 4.60 <1	<450 400 400 – – 5.55 <1
L	<450 400 550 – – 4.06 <1	<450 400 250 – – 4.42 <1	<450 400 250 12000 9000 4.70 <1	<450 400 450 – – 5.48 <1	<450 400 450 – – 5.23 <1	<450 400 450 – – 6.63 <1	<450 400 400 – – 5.91 <1	<450 400 375 – – 6.75 <1	<450 400 350 12000 9000 4.32 <1	<450 400 400 – – 4.42 <1	<450 400 300 – – 4.72 <1	<450 400 850 – – 6.76 <1	<450 400 900 – – 7.07 <1	<450 400 900 12000 30000 4.95 <1	<450 400 700 – – 5.23 <1	<450 400 700 – – 5.68 <1	<450 400 1000 – – 5.88 <1	<450 400 900 – – 4.25 <1	<450 400 850 – – 5.37 <1	<450 400 800 12000 22250 3.25 <1	<450 400 850 – – 5.50 <1	<450 400 1500 – – 6.17 <1
K	<450 400 550 12000 15000 4.62 <1	<450 400 350 – – 5.35 <1	<450 400 400 – – 4.75 <1	<450 400 400 – – 4.89 <1	<450 400 400 12000 8500 5.06 <1	<450 400 300 – – 5.40 <1	<450 400 400 12000 12000 5.40 <1	<450 400 400 – – 4.64 <1	<450 400 400 – – 4.42 <1	<450 400 400 12000 9000 4.48 <1	<450 400 450 – – 5.24 <1	<450 400 450 12000 9500 6.07 <1	<450 400 500 – – 3.55 <1	<450 400 400 – – 4.54 <1	<450 400 400 – – 4.82 <1	<450 400 400 – – 5.39 <1	<450 400 400 – – 3.97 <1	<450 400 400 12000 10000 4.62 <1	<450 400 500 – – 4.82 <1	<450 400 400 – – 5.33 <1	<450 400 400 12000 10000 4.33 <1	<450 400 450 – – 2.35 <1

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area

	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
T	<450 400 350 – – 4.11 <1	<450 400 350 – – 5.15 <1	<450 400 300 12000 16000 4.73 <1	<450 400 400 – – 5.23 <1	<450 400 400 – – 9.74 <1	<450 450 450 – – 4.94 <1	<450 400 350 – – 5.06 <1	<450 400 400 – – 4.99 <1	<450 400 400 12000 12500 5.21 <1	<450 400 400 – – 5.27 <1	<450 400 400 – – 5.26 <1	<450 400 400 – – 5.57 <1	<450 400 400 – – 4.62 <1	<450 400 400 12000 15000 4.82 <1	<450 400 350 – – 4.26 <1	<450 400 350 – – 5.09 <1	<450 400 400 – – 4.56 <1	<450 400 350 – – 5.43 <1	<450 400 400 – – 4.63 <1	<450 400 400 12000 15000 4.92 <1	<450 400 400 – – 4.25 <1	<450 400 700 – – 4.35 <1
S	<450 400 275 12000 7500 4.57 <1	<450 400 250 – – 4.22 <1	<450 400 250 – – 4.76 <1	<450 400 375 – – 4.76 <1	<450 400 400 12000 10000 5.53 <1	<450 400 300 – – 4.57 <1	<450 400 300 12000 10000 6.69 <1	<450 400 250 – – 5.77 <1	<450 400 250 – – 5.50 <1	<450 400 350 12000 12500 4.18 <1	<450 400 350 – – 4.45 <1	<450 400 350 12000 8000 5.46 <1	<450 400 350 – – 5.04 <1	<450 400 400 – – 4.00 <1	<450 400 350 – – 4.60 <1	<450 400 350 12000 10000 4.42 <1	<450 400 350 – – 5.33 <1	<450 400 350 12000 10000 4.18 <1	<450 400 350 – – 4.37 <1	<450 400 400 – – 5.08 <1	<450 400 400 12000 15000 4.85 <1	<450 400 400 – – 4.62 <1
R	<450 400 300 – – 4.63 <1	<450 400 300 – – 4.92 <1	<450 400 300 12000 7000 5.91 <1	<450 400 300 – – 4.46 <1	<450 400 250 – – 5.43 <1	<450 400 300 – – 4.65 <1	<450 400 250 – – 5.39 <1	<450 400 250 – – 5.27 <1	<450 400 500 12000 15000 5.67 <1	<450 400 475 – – 4.86 <1	<450 400 425 – – 5.05 <1	<450 400 425 – – 4.36 <1	<450 400 450 – – 4.52 <1	<450 400 400 12000 10000 3.78 <1	<450 400 400 – – 4.44 <1	<450 400 400 – – 4.53 <1	<450 400 375 – – 4.94 <1	<450 400 400 – – 4.45 <1	<450 400 350 – – 4.05 <1	<450 400 350 12000 15000 4.75 <1	<450 400 400 – – 4.02 <1	<450 400 400 – – 3.83 <1
Q	<450 400 350 12000 9000 4.72 <1	<450 400 400 – – 4.02 <1	<450 400 350 – – 3.98 <1	<450 400 350 – – 4.92 <1	<450 400 400 12000 9500 5.58 <1	<450 400 350 – – 4.94 <1	<450 400 350 12000 9000 5.27 <1	<450 400 350 – – 5.64 <1	<450 400 350 – – 5.53 <1	<450 400 300 12000 9000 5.59 <1	<450 400 350 – – 5.06 <1	<450 400 375 12000 8000 4.07 <1	<450 400 350 – – 5.03 <1	<450 400 400 – – 4.45 <1	<450 400 400 – – 4.75 <1	<450 400 400 12000 10000 4.70 <1	<450 400 300 – – 4.81 <1	<450 400 350 12000 10000 5.03 <1	<450 400 400 – – 5.35 <1	<450 400 375 – – 4.64 <1	<450 400 400 12000 15000 4.71 <1	<450 400 425 – – 4.18 <1
P	<450 400 300 – – 4.44 <1	<450 400 400 – – 3.91 <1	<450 400 400 12000 10000 0.32 <1	<450 400 400 – – 1.00 <1	<450 400 400 – – 4.66 <1	<450 400 400 – – 5.75 <1	<450 400 400 – – 4.85 <1	<450 400 400 – – 4.34 <1	<450 400 400 12000 10000 3.80 <1	<450 400 400 – – 4.86 <1	<450 400 400 – – 4.06 <1	<450 400 400 – – 3.86 <1	<450 400 450 – – 4.10 <1	<450 400 400 12000 8500 4.75 <1	<450 400 400 – – 4.43 <1	<450 400 400 – – 5.23 <1	<450 400 400 – – 4.79 <1	<450 400 400 – – 4.52 <1	<450 400 425 – – 4.97 <1	<450 400 400 12000 9000 4.44 <1	<450 400 400 – – 5.17 <1	<450 400 400 – – 4.78 <1
O	<450 400 300 12000 8000 4.76 <1	<450 400 400 – – 4.65 <1	<450 400 350 – – 3.60 <1	<450 400 350 – – 2.44 <1	<450 400 375 12000 10000 6.34 <1	<450 400 350 – – 4.95 <1	<450 400 350 12000 12500 4.42 <1	<450 400 375 – – 4.17 <1	<450 400 350 – – 4.63 <1	<450 400 350 12000 12500 4.16 <1	<450 400 400 – – 4.88 <1	<450 400 400 12000 12500 3.39 <1	<450 400 350 – – 3.66 <1	<450 400 400 – – 5.12 <1	<450 400 400 – – 4.17 <1	<450 400 400 12000 9000 5.72 <1	<450 400 400 – – 4.71 <1	<450 400 425 12000 9000 4.59 <1	<450 400 400 – – 4.57 <1	<450 400 425 – – 5.09 <1	<450 400 450 12000 10000 4.10 <1	<450 400 400 – – 4.04 <1
N	<450 400 450 – – 4.36 <1	<450 400 500 – – 4.77 <1	<450 400 400 12000 12000 5.49 <1	<450 400 400 – – 3.60 <1	<450 400 350 – – 4.85 <1	<450 400 400 – – 4.77 <1	<450 400 400 – – 4.15 <1	<450 400 400 – – 5.05 <1	<450 400 350 12000 10000 4.35 <1	<450 400 350 – – 5.18 <1	<450 400 350 – – 4.90 <1	<450 400 400 – – 4.83 <1	<450 400 350 – – 4.36 <1	<450 400 400 12000 12500 4.82 <1	<450 400 400 – – 4.21 <1	<450 400 400 – – 7.40 <1	<450 400 400 – – 4.53 <1	<450 400 400 – – 4.28 <1	<450 400 400 – – 4.67 <1	<450 400 350 12000 20000 4.09 <1	<450 400 400 – – 3.99 <1	<450 400 400 – – 3.97 <1
M	<450 400 500 12000 15000 6.31 <1	<450 400 500 – – 5.02 <1	<450 400 550 – – 5.12 <1	<450 400 450 – – 4.98 <1	<450 400 450 12000 12500 5.66 <1	<450 400 450 – – 3.80 <1	<450 400 500 12000 15000 4.52 <1	<450 400 550 – – 5.44 <1	<450 400 400 – – 4.63 <1	<450 400 400 12000 15000 4.14 <1	<450 400 400 – – 4.35 <1	<450 400 700 12000 12500 2.37 <1	<450 400 800 – – 3.18 <1	<450 400 1500 – – 4.39 <1	<450 400 2000 – – 6.41 <1	<450 400 400 12000 15000 6.94 <1	<450 400 650 – – 6.95 <1	<450 400 650 12000 15000 8.14 <1	<450 400 500 – – 6.64 <1	<450 400 375 – – 5.04 <1	<450 400 350 12000 15000 4.34 <1	<450 400 300 – – 3.86 <1
L	<450 400 950 – – 5.13 <1	<450 400 1000 – – 5.40 <1	<450 400 900 12000 25000 5.17 <1	<450 400 1250 – – 4.68 <1	<450 400 1000 – – 5.02 <1	<450 400 225 – – 6.52 <1	<450 400 800 – – 2.84 <1	<450 400 1000 – – 3.72 <1	<450 400 1000 12000 35000 8.21 <1	<450 400 1000 – – 7.79 <1	<450 400 1000 – – 7.17 <1	<450 400 1250 – – 26.88 <1	<450 400 1500 – – 12.68 <1	<450 400 1500 12000 30000 5.96 <1	<450 400 1000 – – 6.64 <1	<450 400 1000 – – 7.72 <1	<450 400 950 – – 5.55 <1	<450 400 950 – – 7.29 <1	<450 400 930 – – 6.66 <1	<450 400 950 12000 30000 6.55 <1	<450 400 1000 – – 6.17 <1	<450 400 1000 – – 7.02 <1
K	<450 400 650 12000 25000 4.42 <1	<450 400 700 – – 2.01 <1	<450 400 500 – – 5.37 <1	<450 400 600 – – 5.30 <1	<450 400 550 12000 22500 5.50 <1	<450 400 400 – – 5.14 <1	<450 400 425 12000 20000 2.82 <1	<450 400 225 – – 4.69 <1	<450 400 800 – – 5.73 <1	<450 400 400 12000 9500 4.21 <1	<450 400 250 – – 4.92 <1	<450 400 1250 12000 15000 7.15 <1	<450 400 400 – – 4.37 <1	<450 400 1250 – – 4.83 <1	<450 400 1250 – – 6.55 <1	<450 400 1500 12000 30000 5.68 <1	<450 400 1500 – – 7.80 <1	<450 400 500 12000 15000 4.03 <1	<450 400 400 – – 4.58 <1	<450 400 500 – – 4.83 <1	<450 400 900 12000 30000 6.39 <1	<450 400 1500 – – 3.84 <1

Sample Data

<450 – IM-247/PD Results [μμC/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area

	45	46	47	48	49	50	51	52	53	54
T	<450 400 500 – – 4.29 <1	<450 400 500 12000 15000 5.62 <1	<450 400 500 – – 5.81 <1	<450 400 500 – – 4.48 <1	<450 400 400 – – 3.22 <1	<450 400 400 – – 1.40 <1	<450 400 500 – – 6.32 <1	<450 400 550 12000 22500 4.96 <1	<450 400 600 – – 5.16 <1	<450 400 700 – – 4.88 <1
S	<450 400 350 – – 4.23 <1	<450 400 425 – – 4.63 <1	<450 400 400 – – 5.17 <1	<450 400 600 12000 12500 4.59 <1	<450 400 300 – – 1.81 <1	<450 400 350 12000 6000 1.31 <1	<450 400 500 – – 4.76 <1	<450 400 600 – – 5.10 <1	<450 400 550 12000 15000 5.65 <1	<450 400 450 – – 6.63 <1
R	<450 400 400 – – 4.61 <1	<450 400 400 12000 9500 5.03 <1	<450 400 400 – – 6.05 <1	<450 400 400 – – 5.55 <1	<450 400 400 – – 2.09 <1	<450 400 400 – – 1.96 <1	<450 400 500 – – 4.43 <1	<450 400 500 12000 15000 5.30 <1	<450 400 500 – – 5.68 <1	<450 400 500 – – 6.20 <1
Q	<450 400 400 – – 4.12 <1	<450 400 425 – – 4.81 <1	<450 400 425 – – 4.93 <1	<450 400 500 12000 13500 4.33 <1	<450 400 250 – – 1.02 <1	<450 400 300 12000 8500 1.92 <1	<450 400 450 – – 5.13 <1	<450 400 750 – – 5.00 <1	<450 400 750 12000 20000 6.21 <1	<450 400 700 – – 7.20 <1
P	<450 400 350 – – 4.29 <1	<450 400 350 12000 15000 3.91 <1	<450 400 350 – – 4.29 <1	<450 400 600 – – 1.34 <1	<450 500 450 – – 3.72 <1	<450 500 500 – – 6.22 <1	<450 400 400 – – 3.18 <1	<450 400 1250 6000 25000 2.82 <1	<450 400 1100 – – 5.93 <1	<450 400 1750 – – 5.62 <1
O	<450 400 350 – – 4.57 <1	<450 400 350 – – 4.47 <1	<450 400 350 – – 4.50 <1	<450 500 400 12000 15000 3.14 <1	<450 500 500 – – 7.03 <1	<450 500 550 15500 12500 6.26 <1	<450 400 800 – – 7.34 <1	<450 400 800 – – 6.87 <1	<450 400 890 12500 30000 3.14 <1	<450 400 2000 – – 5.97 <1
N	<450 400 450 – – 7.54 <1	<450 400 300 12000 15000 4.02 <1	<450 400 350 – – 3.51 <1	<450 500 550 – – 7.03 <1	<450 500 400 – – 6.69 <1	<450 500 550 – – 6.46 <1	<450 500 550 – – 6.05 <1	<450 500 500 12500 25000 3.04 <1	<450 500 600 – – 2.03 <1	<450 400 2000 – – 3.20 <1
M	<450 400 350 – – 4.97 <1	<450 400 350 – – 4.21 <1	<450 400 500 – – 4.25 <1	<450 400 500 12000 15000 6.35 <1	<450 500 600 – – 6.66 <1	<450 500 550 12500 15000 4.90 <1	<450 500 550 – – 6.81 <1	<450 500 350 – – 2.19 <1	<450 400 600 12500 20000 3.70 <1	<450 400 800 – – 3.42 <1
L	<450 400 550 – – 6.91 <1	<450 400 600 12000 16000 6.26 <1	<450 400 600 – – 7.95 <1	<450 400 700 – – 6.97 <1	<450 500 650 – – 7.47 <1	<450 500 600 – – 7.28 <1	<450 500 600 – – 8.51 <1	<450 500 550 12500 15000 2.08 <1	<450 500 500 – – 2.70 <1	<450 600 800 – – 5.39 <1
K	<450 400 1000 – – 6.60 <1	<450 400 600 – – 5.58 <1	<450 400 600 – – 4.31 <1	<450 400 400 12000 15000 4.15 <1	<450 500 550 – – 8.60 <1	<450 500 550 12500 15000 7.91 <1	<450 500 600 – – 7.33 <1	<450 500 550 – – 3.02 <1	<450 500 850 12500 25000 2.50 <1	<450 500 750 – – 3.65 <1

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
AD	<450 400 650 – – 3.74 <1	<450 400 350 – – 4.20 <1	<450 400 350 12000 9000 5.83 <1	<450 400 350 – – 6.33 <1	<450 400 350 – – 3.79 <1	<450 400 325 – – 4.65 <1	<450 400 400 – – 4.04 <1	<450 400 350 – – 4.09 <1	<450 400 200 12000 8500 4.56 <1	<450 400 250 – – 4.36 <1	<450 400 250 – – 4.17 <1	<450 400 1000 – – 6.68 <1	<450 400 225 – – 4.65 <1	<450 400 175 12000 7500 3.53 <1	<450 400 400 – – 3.89 <1	<450 400 350 – – 4.56 <1	<450 400 400 – – 4.79 <1	<450 400 350 – – 5.38 <1	<450 400 350 – – 4.27 <1	<450 400 400 12000 8000 4.69 <1	<450 400 350 – – 4.46 <1	<450 400 300 – – 3.79 <1
AC	<450 400 400 12000 8500 5.08 <1	<450 400 450 – – 3.62 <1	<450 400 450 – – 6.63 <1	<450 400 450 – – 3.79 <1	<450 400 450 12000 8000 3.50 <1	<450 400 450 – – 3.73 <1	<450 400 400 12000 8000 <0.30	<450 400 400 – – 3.56 <1	<450 400 450 – – 4.20 <1	<450 400 550 12000 8500 3.63 <1	<450 400 900 – – 4.90 <1	<450 400 1500 12000 35000 6.09 <1	<450 400 400 – – 3.55 <1	<450 400 400 – – 3.58 <1	<450 400 400 – – 3.34 <1	<450 400 350 12000 7500 3.69 <1	<450 400 450 – – 3.97 <1	<450 400 350 12000 10000 4.06 <1	<450 400 350 – – 3.52 <1	<450 400 400 – – 5.37 <1	<450 400 400 12000 10000 4.85 <1	<450 400 400 – – 3.83 <1
AB	<450 400 450 – – 4.72 <1	<450 400 400 – – 6.83 <1	<450 400 325 12000 7500 4.98 <1	<450 400 375 – – 3.94 <1	<450 400 400 – – 3.74 <1	<450 400 475 – – 4.14 <1	<450 400 400 – – 4.5· <1	<450 400 450 – – 4.14 <1	<450 400 350 12000 7500 4.89 <1	<450 400 375 – – 4.10 <1	<450 400 850 – – 6.02 <1	<450 400 1500 – – 3.07 <1	<450 400 400 – – 4.52 <1	<450 400 400 12000 10000 4.36 <1	<450 400 350 – – 3.98 <1	<450 400 350 – – 4.76 <1	<450 400 400 – – 4.20 <1	<450 400 400 – – 5.10 <1	<450 400 400 – – 5.06 <1	<450 400 400 12000 10000 3.69 <1	<450 400 400 – – 3.51 <1	<450 400 400 – – 4.01 <1
AA	<450 400 250 12000 9500 2.64 <1	<450 400 300 – – 3.91 <1	<450 400 500 – – 3.93 <1	<450 400 500 – – 4.05 <1	<450 400 500 12000 8000 4.11 <1	<450 400 450 – – 3.96 <1	<450 400 500 12000 8500 4.22 <1	<450 400 350 – – 3.61 <1	<450 400 350 – – 3.70 <1	<450 400 375 12000 9000 2.95 <1	<450 400 1500 – – 4.93 <1	<450 400 2000 12000 45000 7.68 <1	<450 400 400 – – 4.36 <1	<450 400 350 – – 4.50 <1	<450 400 400 – – 3.82 <1	<450 400 350 12000 8000 4.36 <1	<450 400 300 – – 3.28 <1	<450 400 400 12000 7500 5.00 <1	<450 400 300 – – 3.99 <1	<450 400 400 – – 6.51 <1	<450 400 350 12000 8500 4.42 <1	<450 400 350 – – 5.82 <1
Z	<450 400 655 – – 4.31 <1	<450 400 350 – – 4.17 <1	<450 400 350 12000 8500 4.47 <1	<450 400 450 – – 4.49 <1	<450 400 450 – – 4.24 <1	<450 400 450 – – 4.27 <1	<450 400 450 – – 4.31 <1	<450 400 500 – – 4.42 <1	<450 400 500 12000 9500 3.67 <1	<450 400 450 – – 5.67 <1	<450 400 900 – – 5.28 <1	<450 400 150c – – 6.68 <1	<450 400 450 – – 4.09 <1	<450 400 550 12000 15000 4.00 <1	<450 400 550 – – 4.40 <1	<450 400 500 – – 3.36 <1	<450 400 550 – – 5.06 <1	<450 400 400 – – 4.19 <1	<450 400 400 – – 3.90 <1	<450 400 400 12000 10000 4.28 <1	<450 400 400 – – 3.80 <1	<450 400 400 – – 4.00 <1
Y	<450 400 900 12000 30000 8.25 <1	<450 400 950 – – 8.10 <1	<450 400 950 – – 8.64 <1	<450 400 950 – – 7.10 <1	<450 400 950 12000 30000 6.81 <1	<450 400 950 – – 6.15 <1	<450 400 1250 12000 30000 7.57 <1	<450 400 1250 – – 7.34 <1	<450 400 850 – – 4.95 <1	<450 400 825 12000 25000 5.22 <1	<450 400 750 – – 5.09 <1	<450 400 900 12000 20000 3.81 <1	<450 400 425 – – 3.40 <1	<450 400 500 – – 3.72 <1	<450 400 500 – – 3.76 <1	<450 400 450 12000 8500 4.38 <1	<450 400 450 – – 4.41 <1	<450 400 450 17000 8750 4.52 <1	<450 400 400 – – 4.57 <1	<450 400 400 – – 4.32 <1	<450 400 450 12000 8500 4.06 <1	<450 400 450 – – 3.90 <1
X	<450 400 450 – – 4.25 <1	<450 400 300 – – 4.31 <1	<450 400 300 12000 7500 4.55 <1	<450 400 300 – – 4.60 <1	<450 400 300 – – 4.61 <1	<450 400 350 – – 5.06 <1	<450 400 350 – – 3.57 <1	<450 400 400 – – 4.49 <1	<450 400 350 2000 7500 3.40 <1	<450 400 450 – – 4.44 <1	<450 400 650 – – 5.35 <1	<450 400 1500 – – 3.84 <1	<450 400 400 – – 3.23 <1	<450 400 425 12000 17500 3.99 <1	<450 400 425 – – 3.86 <1	<450 400 425 – – 4.23 <1	<450 400 425 – – 4.02 <1	<450 400 400 – – 3.90 <1	<450 400 400 – – 4.53 <1	<450 400 425 12000 8350 4.24 <1	<450 400 400 – – 4.14 <1	<450 400 400 – – 3.25 <1
W	<450 400 300 12000 10000 5.13 <1	<450 400 350 – – 4.11 <1	<450 400 325 – – 4.48 <1	<450 400 350 – – 4.53 <1	<450 400 400 12000 10000 3.69 <1	<450 400 300 – – 4.00 <1	<450 400 325 12000 10000 4.26 <1	<450 400 350 – – 4.42 <1	<450 400 400 – – 4.85 <1	<450 400 350 12000 10000 4.00 <1	<450 400 1000 – – 2.82 <1	<450 400 2000 12000 30000 2.15 <1	<450 400 550 – – 3.53 <1	<450 400 600 – – 4.63 <1	<450 400 500 – – 4.03 <1	<450 400 500 12000 10000 3.97 <1	<450 400 550 – – 4.59 <1	<450 400 550 12000 10000 4.73 <1	<450 400 550 – – 4.66 <1	<450 400 400 – – 4.62 <1	<450 400 400 12000 9500 4.32 <1	<450 400 400 – – 4.09 <1
V	<450 400 300 – – 4.03 <1	<450 400 325 – – 4.73 <1	<450 400 325 12000 10000 4.27 <1	<450 400 300 – – 4.62 <1	<450 400 300 – – 3.84 <1	<450 400 300 – – 4.24 <1	<450 400 300 – – 4.00 <1	<450 400 325 – – 4.90 <1	<450 400 325 2000 10000 3.22 <1	<450 400 350 – – 4.55 <1	<450 400 400 – – 3.17 <1	<450 400 1500 – – 2.52 <1	<450 400 400 – – 2.28 <1	<450 400 300 12000 8500 3.56 <1	<450 400 400 – – 5.62 <1	<450 400 400 – – 4.55 <1	<450 400 400 – – 5.02 <1	<450 400 400 – – 5.97 <1	<450 400 350 – – 5.23 <1	<450 400 350 12000 8500 4.40 <1	<450 400 350 – – 4.67 <1	<450 400 350 – – 4.55 <1
U	<450 400 300 12000 10000 4.59 <1	<450 400 300 – – 4.25 <1	<450 400 300 – – 5.53 <1	<450 400 300 – – 3.74 <1	<450 400 300 12000 10000 4.09 <1	<450 400 300 – – 3.66 <1	<450 400 336 12000 10000 4.36 <1	<450 400 300 – – 4.08 <1	<450 400 300 – – 4.13 <1	<450 400 300 12000 10000 3.84 <1	<450 400 500 – – 3.10 <1	<450 400 1500 12000 35000 7.02 <1	<450 400 400 – – 2.58 <1	<450 400 400 – – 3.48 <1	<450 400 400 – – 3.89 <1	<450 400 400 12000 9000 4.02 <1	<450 400 400 – – 4.29 <1	<450 400 325 12000 10000 4.56 <1	<450 400 325 – – 5.73 <1	<450 400 300 – – 4.92 <1	<450 400 275 12000 9500 3.99 <1	<450 400 300 – – 4.47 <1

Sample Data

<450 – IM-247/PD Results [$\mu\mu$C/20cm^2]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

C. Grid Map, Fenced Area

	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
AD	<450 400 400 – – 4.35 <1	<450 400 375 – – 4.63 <1	<450 400 400 – – 5.20 <1	<450 400 475 12000 9000 3.64 <1	<450 400 500 – – 4.67 <1								<450 400 450 – – 3.39 <1	<450 400 450 12000 15000 4.14 <1	<450 400 450 – – 4.39 <1	<450 400 550 – – 3.95 <1	<450 400 450 – – 3.87 <1	<450 400 450 – – 3.82 <1	<450 400 400 – – 4.68 <1	<450 400 400 12000 9500 4.36 <1	<450 400 450 – – 7.65 <1	<450 400 450 – – 4.49 <1
AC	<450 400 425 – – 4.33 <1	<450 400 425 12000 8000 3.92 <1	<450 400 450 – – 4.31 <1	<450 400 425 – – 4.50 <1	<450 400 475 12000 8275 4.02 <1								<450 350 450 – – 1.47 <1	<450 400 450 – – 5.42 <1	<450 400 450 – – 4.31 <1	<450 400 400 12000 11000 5.96 <1	<450 400 350 – – 4.31 <1	<450 400 400 12000 15000 5.20 <1	<450 400 400 – – 3.14 <1	<450 400 400 – – 3.71 <1	<450 400 400 12000 9000 4.31 <1	<450 400 400 – – 3.50 <1
AB	<450 400 400 – – 4.60 <1	<450 400 400 – – 4.34 <1	<450 400 400 12000 9000 4.54 <1	<450 400 400 – – 5.11 <1	<450 400 400 – – 4.61 <1	<450 400 400 – – 3.92 <1	<450 400 400 – – 3.94 <1	<450 400 400 – – 3.61 <1	<450 400 450 12000 15000 4.00 <1	<450 400 400 – – 4.39 <1	<450 400 400 – – 4.26 <1	<450 400 500 – – 4.09 <1	<450 400 400 – – 4.09 <1	<450 400 450 12000 15000 5.23 <1	<450 400 425 – – 4.45 <1	<450 400 400 – – 4.18 <1	<450 400 475 – – 4.15 <1	<450 400 500 – – 4.71 <1	<450 400 425 – – 4.64 <1	<450 400 425 12000 15000 3.93 <1	<450 400 400 – – 4.24 <1	<450 400 400 – – 4.07 <1
AA	<450 400 400 12000 8000 4.56 <1	<450 400 400 – – 4.37 <1	<450 400 425 – – 4.28 <1	<450 400 400 – – 3.53 <1	<450 400 400 12000 9000 3.93 <1	<450 400 400 – – 4.23 <1	<450 400 400 12000 9000 3.32 <1	<450 400 450 – – 4.01 <1	<450 400 500 – – 3.68 <1	<450 400 550 12000 9000 4.48 <1	<450 400 500 – – 4.26 <1	<450 400 550 12000 15000 4.14 <1	<450 400 425 – – 4.85 <1	<450 400 500 – – 4.30 <1	<450 400 500 – – 4.42 <1	<450 400 550 12000 15000 4.87 <1	<450 400 450 – – 4.06 <1	<450 400 450 12000 15000 4.90 <1	<450 400 500 – – 5.10 <1	<450 400 450 – – 4.42 <1	<450 400 525 12000 15000 4.45 <1	<450 400 500 – – 4.02 <1
Z	<450 400 400 – – 4.17 <1	<450 400 425 – – 4.54 <1	<450 400 350 12000 8000 4.45 <1	<450 400 300 – – 3.08 <1	<450 400 275 – – 4.40 <1	<450 400 400 – – 4.40 <1	<450 400 425 – – 3.38 <1	<450 400 400 – – 3.92 <1	<450 400 300 12000 10000 4.11 <1	<450 400 350 – – 4.66 <1	<450 400 300 – – 4.61 <1	<450 400 550 – – 3.92 <1	<450 400 350 – – 4.78 <1	<450 400 350 12000 10000 5.27 <1	<450 400 350 – – 5.39 <1	<450 400 350 – – 4.72 <1	<450 400 400 – – 3.99 <1	<450 400 350 – – 4.49 <1	<450 400 300 – – 4.24 <1	<450 400 350 12000 10000 5.05 <1	<450 400 300 – – 4.82 <1	<450 400 350 – – 4.65 <1
Y	<450 400 475 12000 8000 3.74 <1	<450 400 425 – – 4.15 <1	<450 400 300 – – 4.62 <1	<450 400 275 – – 3.44 <1	<450 400 250 12000 7500 4.10 <1	<450 400 350 – – 4.30 <1	<450 400 350 12000 10000 3.77 <1	<450 400 300 – – 4.35 <1	<450 400 350 – – 4.47 <1	<450 400 350 12000 9000 4.18 <1	<450 400 300 – – 4.55 <1	<450 400 600 12000 15000 4.15 <1	<450 400 350 – – 4.67 <1	<450 400 450 – – 4.07 <1	<450 400 450 – – 3.82 <1	<450 400 400 12000 10000 4.05 <1	<450 400 450 – – 4.35 <1	<450 400 500 12000 9000 4.58 <1	<450 400 400 – – 7.48 <1	<450 400 400 – – 4.47 <1	<450 400 350 12000 10000 4.13 <1	<450 400 450 – – 4.73 <1
X	<450 400 350 – – 3.88 <1	<450 400 400 – – 4.18 <1	<450 400 350 12000 8000 4.74 <1	<450 400 300 – – 3.98 <1	<450 400 300 – – 4.14 <1	<450 400 400 – – 4.22 <1	<450 400 450 – – 4.27 <1	<450 400 400 – – 4.33 <1	<450 400 400 12000 8750 3.94 <1	<450 400 400 – – 4.56 <1	<450 400 400 – – 3.12 <1	<450 400 500 – – 4.55 <1	<450 400 400 – – 3.77 <1	<450 400 400 12000 10000 4.13 <1	<450 400 450 – – 4.74 <1	<450 400 400 – – 4.93 <1	<450 400 350 – – 4.94 <1	<450 400 400 – – 4.82 <1	<450 400 350 – – 4.92 <1	<450 400 450 12000 10000 4.74 <1	<450 400 400 – – 4.98 <1	<450 400 400 – – 4.50 <1
W	<450 400 400 12000 9000 5.31 <1	<450 400 400 – – 4.65 <1	<450 400 400 – – 4.39 <1	<450 400 350 – – 4.64 <1	<450 400 350 12000 10000 3.62 <1	<450 400 400 – – 3.68 <1	<450 400 375 12000 17500 3.64 <1	<450 400 350 – – 4.07 <1	<450 400 400 – – 4.36 <1	<450 400 425 12000 12500 4.41 <1	<450 400 400 – – 5.67 <1	<450 400 400 12000 10000 5.38 <1	<450 400 450 – – 4.86 <1	<450 400 350 – – 5.03 <1	<450 400 400 – – 4.45 <1	<450 400 400 12000 10000 4.51 <1	<450 400 400 – – 4.20 <1	<450 400 400 12000 10000 4.10 <1	<450 400 400 – – 4.70 <1	<450 400 400 – – 4.98 <1	<450 400 400 12000 10000 4.10 <1	<450 400 400 – – 3.86 <1
V	<450 400 350 – – 4.36 <1	<450 400 400 – – 4.24 <1	<450 400 350 12000 9000 4.40 <1	<450 400 400 – – 5.61 <1	<450 400 325 – – 4.60 <1	<450 400 325 – – 4.82 <1	<450 400 400 – – 4.88 <1	<450 400 375 – – 4.70 <1	<450 400 400 12000 10000 4.76 <1	<450 400 400 – – 3.99 <1	<450 400 425 – – 4.31 <1	<450 400 450 – – 4.82 <1	<450 400 350 – – 2.14 <1	<450 400 350 12000 8000 2.97 <1	<450 400 400 – – 3.95 <1	<450 400 400 – – 4.97 <1	<450 400 400 – – 5.30 <1	<450 400 400 – – 4.66 <1	<450 400 400 – – 4.75 <1	<450 400 350 12000 8000 4.91 <1	<450 400 400 – – 5.16 <1	<450 400 425 – – 4.42 <1
U	<450 400 275 12000 10000 4.28 <1	<450 400 300 – – 3.26 <1	<450 400 250 – – 3.20 <1	<450 400 300 – – 3.74 <1	<450 400 275 12000 8000 4.11 <1	<450 400 300 – – 4.08 <1	<450 400 300 12000 8000 4.31 <1	<450 400 300 – – 3.84 <1	<450 400 350 – – 4.25 <1	<450 400 350 12000 8500 5.51 <1	<450 400 350 – – 5.89 <1	<450 400 350 12000 10000 2.96 <1	<450 400 400 – – 7.48 <1	<450 400 450 – – 4.96 <1	<450 400 400 – – 3.89 <1	<450 400 450 12000 8500 3.74 <1	<450 400 450 – – 4.54 <1	<450 400 400 12000 8500 3.55 <1	<450 400 400 – – 4.21 <1	<450 400 450 – – 5.98 <1	<450 400 400 12000 8500 4.97 <1	<450 400 400 – – 3.97 <1

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area

	45	46	47	48	49	50	51	52	53	54
	<450 400 500 – – 3.35 <1	<450 400 500 12000 12500 3.63 <1	<450 400 500 – – 4.32 <1	<450 400 400 – – 4.37 <1	<450 400 450 – – 3.98 <1	<450 400 350 – – 7.55 <1	<450 400 450 – – 4.50 <1	<450 400 850 12000 30000 4.75 <1		
AD									<450 400 1500 – – 5.32 <1	<450 400 1500 – – 5.38 <1
AC	<450 400 500 – – 3.71 <1	<450 400 500 – – 4.00 <1	<450 400 450 – – 7.74 <1	<450 400 500 12000 15000 6.15 <1	<450 400 450 – – 1.97 <1	<450 400 400 12000 8500 1.89 <1	<450 400 450 – – 4.38 <1	<450 400 1250 – – 6.13 <1	<450 400 1250 12000 25000 7.05 <1	<450 400 1250 – – 5.17 <1
AB	<450 400 400 – – 3.69 <1	<450 400 350 12000 12500 4.15 <1	<450 400 450 – – 7.03 <1	<450 400 400 450 – – 5.90 <1	<450 400 350 – – 2.33 <1	<450 400 350 – – 1.70 <1	<450 400 450 – – 4.01 <1	<450 400 1250 12000 35000 4.52 <1	<450 400 850 – – 5.01 <1	<450 400 850 – – 5.98 <1
AA	<450 400 400 – – 4.92 <1	<450 400 400 – – 4.28 <1	<450 400 450 – – 7.51 <1	<450 400 500 12000 15000 5.97 <1	<450 400 600 – – 2.57 <1	<450 400 600 12000 20000 1.95 <1	<450 400 450 – – 1.57 <1	<450 400 350 – – 5.62 <1	<450 400 600 12000 35000 4.40 <1	<450 400 600 – – 6.25 <1
Z	<450 400 350 – – 6.21 <1	<450 400 450 12000 15000 3.81 <1	<450 400 550 – – 7.15 <1	<450 400 550 – – 1.91 <1	<450 400 300 – – 6.44 <1	<450 400 350 – – 2.30 <1	<450 400 450 – – 4.58 <1	<450 400 350 12000 15000 3.80 <1	<450 400 600 – – 4.66 <1	<450 400 500 – – 4.55 <1
Y	<450 400 400 – – 5.07 <1	<450 400 450 – – 4.48 <1	<450 400 500 – – 6.21 <1	<450 400 600 12000 15000 6.70 <1	<450 400 400 – – 2.27 <1	<450 400 400 12000 9000 2.27 <1	<450 400 450 – – 5.11 <1	<450 400 400 – – 6.57 <1	<450 400 1250 12000 15000 5.14 <1	<450 400 1250 – – 5.41 <1
X	<450 400 425 – – 4.05 <1	<450 400 450 12000 5500 4.59 <1	<450 400 500 – – 7.23 <1	<450 400 450 – – 6.45 <1	<450 400 450 – – 2.01 <1	<450 400 400 – – 1.84 <1	<450 400 500 – – 3.98 <1	<450 400 850 12000 35000 4.10 <1	<450 400 1250 – – 5.05 <1	<450 400 600 – – 5.67 <1
W	<450 400 400 – – 3.97 <1	<450 400 400 – – 3.88 <1	<450 400 400 – – 5.85 <1	<450 400 400 12000 15000 2.97 <1	<450 400 400 – – 2.82 <1	<450 400 400 12000 15000 2.65 <1	<450 400 450 – – 4.37 <1	<450 400 800 – – 3.62 <1	<450 400 500 12000 15000 5.58 <1	<450 400 850 – – 6.49 <1
V	<450 400 350 – – 4.53 <1	<450 400 400 12000 12000 5.33 <1	<450 400 450 – – 7.05 <1	<450 400 500 – – 6.58 <1	<450 400 550 – – 1.96 <1	<450 400 300 – – 1.63 <1	<450 400 450 – – 5.38 <1	<450 400 1250 12000 30000 4.67 <1	<450 400 1500 – – 1.16 <1	<450 400 1250 – – 5.85 <1
U	<450 400 350 – – 4.67 <1	<450 400 400 – – 4.84 <1	<450 400 500 – – 7.19 <1	<450 400 550 12000 15000 6.46 <1	<450 400 350 – – 1.73 <1	<450 400 300 12000 12000 1.69 <1	<450 400 475 – – 4.82 <1	<450 400 850 – – 4.33 <1	<450 400 750 12000 20000 5.10 <1	<450 400 1200 – – 5.50 <1

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
AN	<450 400 600 – – 4.79 <1	<450 400 450 – – 4.43 <1	<450 400 375 12000 10000 4.82 <1	<450 400 350 – – 4.03 <1	<450 400 375 – – 3.94 <1	<450 400 375 – – 4.65 <1	<450 400 350 – – 4.17 <1	<450 400 350 – – 4.20 <1	<450 400 350 12000 10000 5.20 <1	<450 400 350 – – 5.10 <1	<450 400 350 – – 4.29 <1	<450 400 300 – – 4.98 <1	<450 400 250 – – 4.33 <1	<450 400 300 12000 9500 10.47 <1	<450 400 350 – – 4.25 <1	<450 400 350 – – 4.02 <1	<450 400 350 – – 4.27 <1	<450 350 550 – – 2.74 <1	<450 350 600 – – 3.20 <1	<450 400 450 12000 8500 8.06 <1	<450 400 300 – – 4.48 <1	<450 400 500 – – 4.40 <1
AM	<450 400 550 12000 15000 3.75 <1	<450 400 450 – – 7.31 <1	<450 400 350 – – 8.33 <1	<450 400 375 – – 4.13 <1	<450 400 350 12000 9000 4.33 <1	<450 400 400 – – 3.57 <1	<450 400 400 12000 9000 4.72 <1	<450 400 250 – – 4.53 <1	<450 400 325 – – 4.67 <1	<450 400 350 12000 9000 4.38 <1	<450 400 850 – – 6.29 <1	<450 400 1250 12000 30000 5.69 <1	<450 400 350 – – 4.19 <1	<450 400 400 – – 4.55 <1	<450 400 325 – – 7.68 <1	<450 400 300 12000 6000 5.94 <1	<450 400 325 – – 3.85 <1	<450 350 500 12500 12500 3.08 <1	<450 350 550 – – 2.65 <1	<450 400 400 – – 4.25 <1	<450 400 300 12000 8500 4.20 <1	<450 400 400 – – 4.19 <1
AL	<450 400 500 – – 4.42 <1	<450 400 400 – – 5.61 <1	<450 400 450 12000 10000 4.96 <1	<450 400 350 – – 3.92 <1	<450 400 350 – – 5.45 <1	<450 400 300 – – 4.19 <1	<450 400 300 – – 4.55 <1	<450 400 350 – – 3.98 <1	<450 400 350 12000 8500 4.89 <1	<450 400 400 – – 4.46 <1	<450 400 300 – – 4.68 <1	450 400 2000 – – 7.50 <1	<450 400 450 – – 5.50 <1	<450 400 450 12000 9500 4.69 <1	<450 400 300 – – 4.41 <1	<450 400 300 – – 3.99 <1	<450 400 350 – – 2.48 <1	<450 350 500 – – 2.45 <1	<450 350 600 – – 2.46 <1	<450 400 400 12000 9500 4.56 <1	<450 400 450 – – 5.59 <1	<450 350 450 – – 2.34 <1
AK	<450 400 400 12000 15000 5.56 <1	<450 400 450 – – 6.04 <1	<450 400 450 – – 5.39 <1	<450 400 400 – – 4.41 <1	<450 400 400 12000 12500 3.94 <1	<450 400 375 – – 4.49 <1	<450 400 350 12000 12500 3.97 <1	<450 400 350 – – 4.09 <1	<450 400 400 – – 4.50 <1	<450 400 350 12000 19000 8.89 <1	<450 400 600 – – 4.57 <1	<450 400 2000 12000 35000 2.63 <1	<450 400 350 – – 5.06 <1	<450 400 400 – – 4.68 <1	<450 400 400 – – 4.23 <1	<450 400 350 12500 7500 1.12 <1	<450 400 300 – – 2.83 <1	<450 400 300 12500 12500 3.86 <1	<450 400 350 – – 4.72 <1	<450 400 350 – – 4.58 <1	<450 400 400 12000 9000 5.95 <1	<450 350 450 – – 2.54 <1
AJ	<450 400 900 – – 6.73 <1	<450 400 400 – – 4.13 <1	<450 400 400 12000 12500 5.30 <1	<450 400 300 – – 5.75 <1	<450 400 300 – – 3.92 <1	<450 400 375 – – 4.51 <1	<450 400 400 – – 4.47 <1	<450 400 400 – – 3.90 <1	<450 400 400 12000 15000 8.43 <1	<450 400 500 – – 4.29 <1	<450 400 650 – – 4.97 <1	<450 400 1000 – – 6.22 <1	<450 400 350 – – 4.28 <1	<450 400 400 12000 8500 1.84 <1	<450 400 350 – – 3.00 <1	<450 400 400 – – 2.93 <1	<450 400 400 – – 3.53 <1	<450 400 400 – – 5.13 <1	<450 400 400 – – 4.44 <1	<450 400 400 12000 12500 4.26 <1	<450 400 400 – – 5.44 <1	<450 400 400 – – 5.14 <1
AI	<450 400 650 12000 15000 3.49 <1	<450 400 400 – – 6.30 <1	<450 400 400 – – 7.20 <1	<450 400 350 – – 5.34 <1	<450 400 350 12000 8000 3.22 <1	<450 400 375 – – 6.28 <1	<450 400 400 12000 10000 4.21 <1	<450 400 400 – – 3.91 <1	<450 400 450 – – 3.79 <1	<450 400 500 12000 12500 4.49 <1	<450 400 850 – – 4.06 <1	<450 400 1500 12000 30000 6.74 <1	<450 400 400 – – 4.01 <1	<450 400 425 – – 4.08 <1	<450 400 375 – – 4.48 <1	<450 400 350 17000 12500 4.67 <1	<450 400 350 – – 2.76 <1	<450 400 350 12000 12500 3.06 <1	<450 400 350 – – 3.12 <1	<450 400 450 – – 3.18 <1	<450 400 400 12000 12500 1.17 <1	<450 400 450 – – 5.53 <1
AH	<450 400 550 – – 5.94 <1	<450 400 400 – – 5.34 <1	<450 400 400 12000 12500 7.50 <1	<450 400 325 – – 5.88 <1	<450 400 300 – – 4.19 <1	<450 400 300 – – 4.52 <1	<450 400 300 – – 5.48 <1	<450 400 300 – – 4.12 <1	<450 400 300 12000 8000 3.67 <1	<450 400 375 – – 4.18 <1	<450 400 750 – – 5.08 <1	<450 400 1500 – – 7.25 <1	<450 400 400 – – 4.27 <1	<450 400 350 12000 8000 5.19 <1	<450 400 350 – – 4.27 <1	<450 400 350 – – 3.85 <1	<450 350 350 – – 4.76 <1	<450 350 350 – – 4.74 <1	<450 350 350 – – 1.50 <1	<450 350 400 12500 8500 3.14 <1	<450 350 400 – – 3.38 <1	<450 350 400 – – 4.09 <1
AG	<450 400 550 12000 15000 3.09 <1	<450 400 450 – – 3.97 <1	<450 400 450 – – 5.65 <1	<450 400 450 – – 4.93 <1	<450 400 450 12000 8000 4.29 <1	<450 400 450 – – 4.29 <1	<450 400 400 12000 15000 3.71 <1	<450 400 400 – – 4.24 <1	<450 400 350 – – 3.87 <1	<450 400 375 12000 15000 3.60 <1	<450 400 950 – – 5.12 <1	<450 400 1000 12000 35000 7.29 <1	<450 400 400 – – 3.96 <1	<450 400 350 – – 4.61 <1	<450 400 425 – – 4.17 <1	<450 400 400 12000 9000 4.96 <1	<450 400 400 – – 4.33 <1	<450 400 400 12000 8500 4.03 <1	<450 400 450 – – 4.27 <1	<450 400 475 – – 4.48 <1	<450 400 450 12000 5250 4.58 <1	<450 400 450 – – 4.71 <1
AF	<450 400 300 – – 4.21 <1	<450 400 300 – – 4.24 <1	<450 400 300 12000 9500 6.70 <1	<450 400 350 – – 5.00 <1	<450 400 400 – – 4.00 <1	<450 400 300 – – 4.48 <1	<450 400 300 – – 3.30 <1	<450 400 275 – – 4.81 <1	<450 400 350 12000 8000 4.45 <1	<450 400 300 – – 4.42 <1	<450 400 650 – – 4.65 <1	<450 400 1250 – – 7.40 <1	<450 400 350 – – 4.56 <1	<450 400 350 12000 7500 4.49 <1	<450 400 300 – – 5.02 <1	<450 400 350 – – 3.62 <1	<450 400 400 – – 4.08 <1	<450 350 350 – – 4.50 <1	<450 350 400 – – 4.08 <1	<450 350 350 12000 9000 2.22 <1	<450 350 350 – – 1.53 <1	<450 350 400 – – 3.11 <1
AE	<450 400 400 12000 12500 4.53 <1	<450 400 400 – – 5.69 <1	<450 400 400 – – 7.04 <1	<450 400 300 – – 4.64 <1	<450 400 350 12000 8000 4.59 <1	<450 400 350 – – 4.12 <1	<450 400 400 12000 10000 5.56 <1	<450 400 200 – – 4.69 <1	<450 400 225 – – 4.76 <1	<450 400 500 12000 16000 4.68 <1	<450 400 500 – – 5.80 <1	<450 400 1250 12000 32500 5.36 <1	<450 400 350 – – 4.31 <1	<450 400 350 – – 4.35 <1	<450 400 375 – – 4.72 <1	<450 400 400 12000 8500 4.13 <1	<450 400 600 – – 5.14 <1	<450 400 400 12000 8500 4.20 <1	<450 400 400 – – 4.64 <1	<450 400 400 – – 4.38 <1	<450 400 400 12000 9000 4.18 <1	<450 400 400 – – 5.51 <1

Notes:

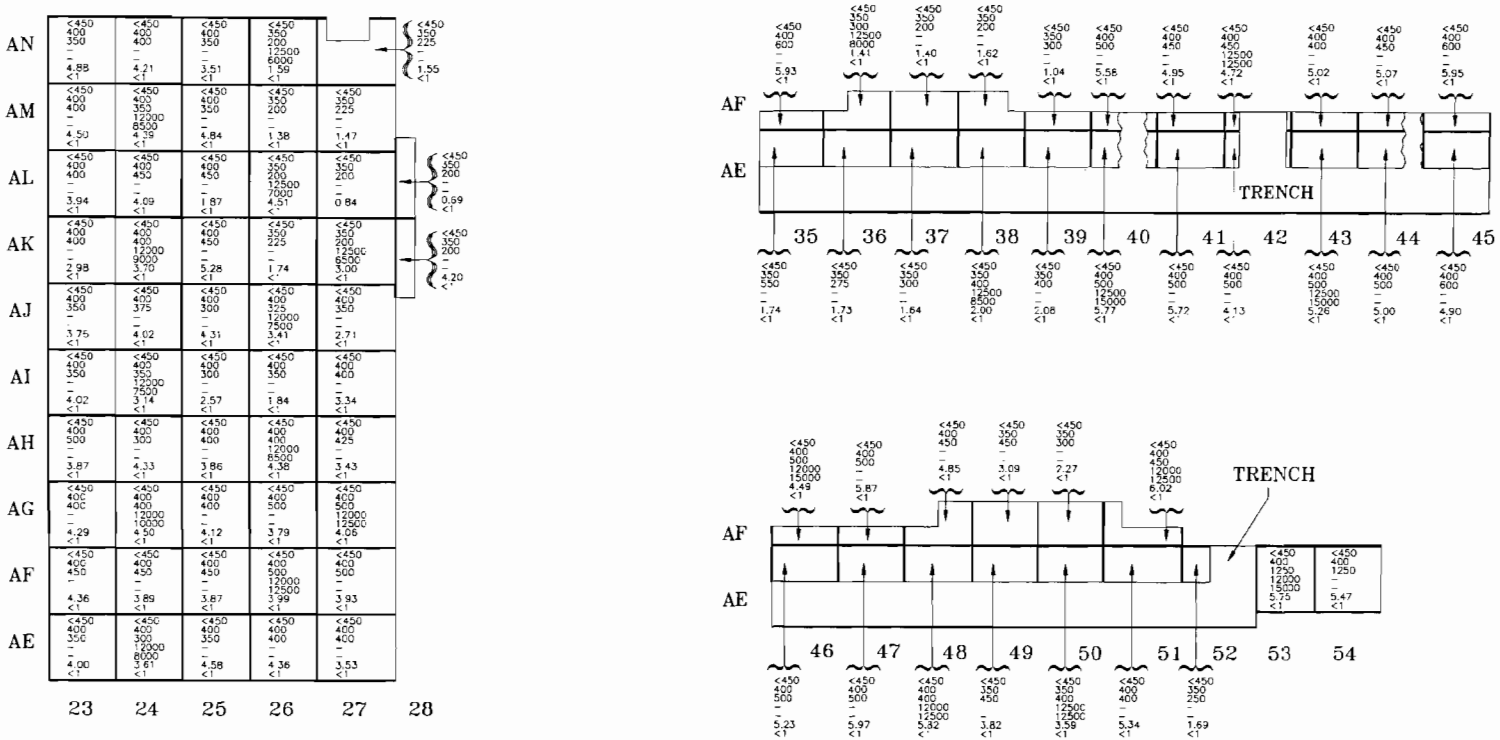
(1) Areas surveyed with an IM-247/PD, indicating detectable activity greater than or equal to 450μμCi/20cm² were sampled and analyzed by spectral analysis. In those cases, analysis of the spectrum indicated only photopeaks of naturally occurring isotopes not associated with the Naval Nuclear Propulsion Program. These natural isotopes include K-40, Ra-226, Pb-212, Bi-214, Be-7, Tl-208 and Ac-228.

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area



Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
					<450 400 450 – – 4.58 <1	<450 400 425 – – 7.15 <1																
AX	<450 400 450 – – 6.06 <1	<450 400 400 – – 5.70 <1	<450 400 350 12000 15000 7.92 <1	<450 400 425 – – 4.17 <1						<450 400 650 – – 6.87 <1	<450 400 450 12000 12000 4.57 <1	<450 400 275 – – 4.45 <1	<450 400 425 – – 4.36 <1	<450 400 425 12000 12500 3.68 <1	<450 350 350 – – 1.10 <1	<450 400 400 – – 4.77 <1	<450 400 400 – – 4.21 <1	<450 400 400 – – 4.62 <1	<450 400 400 – – 4.82 <1	<450 400 400 12000 12500 6.51 <1	<450 400 400 – – 5.37 <1	<450 400 400 – – 4.48 <1
AW	<450 400 450 12000 17500 3.28 <1	<450 400 450 – – 9.85 <1	<450 400 500 – – 5.35 <1	<450 400 450 12000 12500 9.52 <1						<450 400 600 – – 6.98 <1	<450 400 450 – – 5.62 <1	<450 400 400 12000 10000 0.81	<450 400 450 – – 3.91 <1	<450 400 325 – – 5.91 <1	<450 400 450 – – 3.71 <1	<450 350 300 12000 15000 3.72 <1	<450 400 350 – – 3.52 <1	<450 400 400 12000 15000 5.27 <1	<450 400 400 – – 4.25 <1	<450 400 400 – – 5.78 <1	<450 400 350 – – 4.62 <1	<450 400 350 12000 15000 – 5.13 <1
					<450 400 450 – – 3.80 <1	<450 400 650 – – 6.97 <1	<450 400 700 – – 7.31 <1	<450 400 700 – – 6.45 <1	<450 400 650 12000 15000 6.93 <1													
AV	<450 400 450 – – 4.93 <1	<450 400 400 – – 4.94 <1	<450 400 500 12000 15000 4.97 <1	<450 400 450 – – 4.68 <1						<450 400 600 – – 7.67 <1	<450 400 450 – – 6.90 <1	<450 350 275 – – 1.51 <1	<450 400 450 – – 4.43 <1	<450 400 500 12000 15000 6.20 <1	<450 400 450 – – 4.32 <1	<450 400 300 – – 5.01 <1	<450 400 450 – – 5.36 <1	<450 400 350 – – 4.41 <1	<450 400 400 – – 4.82 <1	<450 400 450 12000 15000 4.28 <1	<450 400 400 – – 5.28 <1	<450 400 400 – – 5.25 <1
AU	<450 400 400 12000 15000 5.91 <1	<450 400 400 – – 5.17 <1	<450 400 450 – – 4.92 <1	<450 400 425 – – 4.93 <1	<450 400 350 12000 8000 4.09 <1	<450 400 475 – – 6.61 <1	<450 400 475 12000 10000 6.85 <1	<450 400 550 – – 6.81 <1	<450 400 500 – – 7.72 <1	<450 400 500 12000 15000 7.50 <1	<450 350 200 – – 6.42 <1	<450 350 250 12500 6500 1.46 <1	<450 400 400 – – 3.40 <1	<450 400 430 – – 4.57 <1	<450 400 350 – – 4.35 <1	<450 400 400 12000 12500 4.44 <1	<450 400 300 – – 5.46 <1	<450 400 300 12300 15300 5.15 <1	<450 400 250 – – 3.95 <1	<450 400 300 – – 4.63 <1	<450 400 300 12000 12500 5.13 <1	<450 400 300 – – 4.00 <1
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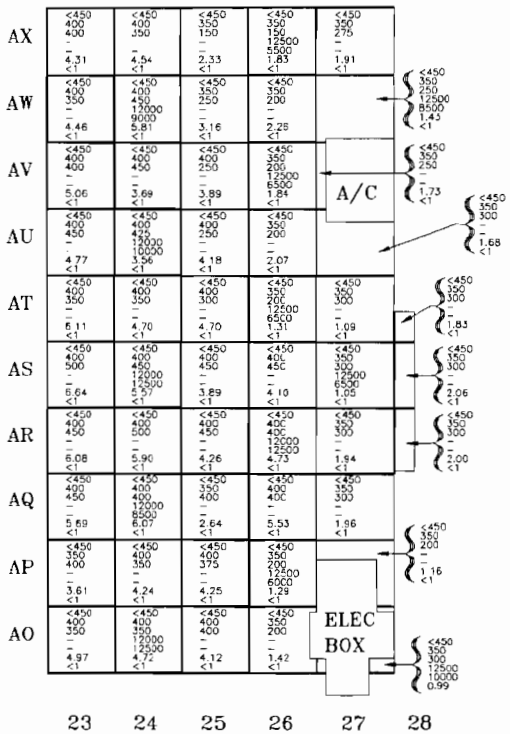
AS	<450 400 500 15500 15000 5.61 <1	<450 400 400 – – 5.53 <1	<450 400 425 – – 5.54 <1	<450 400 400 – – 4.13 <1	<450 400 350 12000 8000 4.58 <1	<450 400 425 – – 3.89 <1	<450 400 375 12000 8000 4.45 <1	<450 400 300 – – 4.70 <1	<450 400 350 – – 4.65 <1	<450 400 400 12000 12500 4.61 <1	<450 400 600 – – 5.20 <1	<450 400 1250 12000 30000 5.46 <1	<450 400 450 – – 4.27 <1	<450 400 400 – – 4.77 <1	<450 400 400 – – 5.18 <1	<450 400 350 12000 8000 4.27 <1	<450 400 300 – – 4.46 <1	<450 400 350 12000 8500 3.79 <1	<450 400 350 – – 4.67 <1	<450 400 350 – – 4.55 <1	<450 400 300 12000 8000 4.29 <1	<450 400 350 – – 4.18 <1
AR	<450 400 1500 – – 5.14 <1	<450 400 400 – – 6.27 <1	<450 400 450 12000 12500 4.21 <1	<450 400 350 – – 3.72 <1	<450 400 350 – – 4.31 <1	<450 400 350 – – 5.81 <1	<450 400 350 – – 4.60 <1	<450 400 325 – – 4.11 <1	<450 400 400 12000 9000 4.21 <1	<450 400 350 – – 4.55 <1	<450 400 600 – – 5.43 <1	<450 400 1000 – – 6.74 <1	<450 400 350 – – 3.54 <1	<450 400 350 12000 8500 4.34 <1	<450 400 350 – – 5.03 <1	<450 400 400 – – 3.97 <1	<450 400 300 – – 4.91 <1	<450 400 300 – – 4.57 <1	<450 400 300 – – 4.20 <1	<450 400 350 12000 8500 4.30 <1	<450 400 350 – – 3.92 <1	<450 400 350 – – 4.89 <1
AQ	<450 400 900 12000 30000 3.93 <1	<450 400 400 – – 4.85 <1	<450 400 450 – – 5.17 <1	<450 400 400 – – 3.99 <1	<450 400 375 12000 9000 4.11 <1	<450 400 350 – – 3.75 <1	<450 400 425 12000 8500 3.73 <1	<450 400 425 – – 3.96 <1	<450 400 400 – – 4.20 <1	<450 400 400 12000 10000 3.68 <1	<450 400 700 – – 5.94 <1	<450 400 1000 12000 35000 6.65 <1	<450 400 350 – – 4.09 <1	<450 400 350 – – 6.14 <1	<450 400 350 – – 4.12 <1	<450 400 400 12000 8500 4.42 <1	<450 400 300 – – 6.03 <1	<450 400 350 12000 8000 3.97 <1	<450 400 300 – – 3.89 <1	<450 400 400 – – 1.25 <1	<450 400 400 12000 10000 4.16 <1	<450 400 350 – – 4.32 <1
AP	<450 400 600 – – 4.34 <1	<450 400 400 – – 5.80 <1	<450 400 450 12000 10000 4.82 <1	<450 400 300 – – 4.61 <1	<450 400 300 – – 4.35 <1	<450 400 300 – – 4.28 <1	<450 400 300 – – 4.51 <1	<450 400 300 – – 4.00 <1	<450 400 400 12000 10000 4.03 <1	<450 400 350 – – 4.21 <1	<450 400 675 – – 6.54 <1	<450 400 300 – – 5.78 <1	<450 400 300 – – 3.68 <1	<450 400 350 12000 12000 3.98 <1	<450 400 300 – – 4.72 <1	<450 400 300 – – 4.18 <1	<450 400 300 – – 4.56 <1	<450 400 350 – – 5.15 <1	<450 400 350 – – 4.35 <1	<450 400 400 12000 10000 4.78 <1	<450 400 350 – – 4.53 <1	<450 400 350 – – 3.34 <1
AO	<450 400 600 12000 20000 9.26 <1	<450 400 400 – – 4.56 <1	<450 400 300 – – 4.74 <1	<450 400 300 – – 5.71 <1	<450 400 300 12000 10000 3.66 <1	<450 400 300 – – 4.54 <1	<450 400 300 12000 7500 4.65 <1	<450 400 350 – – 4.50 <1	<450 400 350 – – 4.64 <1	<450 400 350 12000 8000 3.70 <1	<450 400 700 – – 4.74 <1	<450 400 1500 12000 35000 5.84 <1	<450 400 400 – – 4.86 <1	<450 400 350 – – 5.24 <1	<450 400 350 – – 6.79 <1	<450 400 375 12000 8500 3.67 <1	<450 400 350 – – 4.33 <1	<450 400 400 12000 10000 4.05 <1	<450 400 400 – – 3.60 <1	<450 400 350 – – 3.86 <1	<450 400 400 12000 10000 4.31 <1	<450 400 350 – – 5.16 <1

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD [HV-1 PHA] [bkg.]
300 – IM-253/PD [HV-1 PHA] [cpm]
7000 – IM-253/PD [HV-2 GROSS] [bkg.]
7300 – IM-253/PD [HV-2 GROSS] [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area



Sample Data

<450 – IM-247/PD Results [μCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
BC	<450 400 600 12000 17500 4.74 <1	<450 400 600 – – 6.01 <1	<450 400 575 – – 5.46 <1	<450 400 450 – – 5.06 <1	<450 400 700 12000 15000 4.30 <1	<450 400 400 – – 3.74 <1	<450 400 400 – – 3.76 <1	<450 400 400 – – 5.14 <1	<450 400 350 – – 3.61 <1	<450 400 400 12000 8000 4.33 <1	<450 400 400 – – 4.73 <1	<450 400 450 12000 12500 4.90 <1	<450 400 400 – – 4.45 <1	<450 400 400 – – 4.55 <1	<450 400 400 – – 4.06 <1	<450 400 400 12000 10000 5.15 <1	<450 400 400 – – 4.05 <1	<450 400 400 – – 4.33 <1	<450 400 455 – – 4.11 <1	<450 400 400 – – 5.08 <1	<450 400 400 12000 8000 3.81 <1	<450 400 400 – – 4.41 <1
BB	<450 400 575 – – 3.95 <1	<450 400 600 – – 5.82 <1	<450 400 650 12000 15000 8.16 <1	<450 400 500 – – 3.92 <1	<450 400 475 – – 3.61 <1	<450 400 450 – – 4.08 <1	<450 400 450 – – 3.77 <1	<450 400 450 – – 4.71 <1	<450 400 450 12000 15000 4.66 <1	<450 400 450 – – 4.15 <1	<450 400 500 – – 4.03 <1	<450 400 500 – – 3.89 <1	<450 400 450 – – 5.22 <1	<450 400 450 12000 10000 4.81 <1	<450 400 450 – – 5.67 <1	<450 400 400 – – 5.79 <1	<450 400 400 – – 4.40 <1	<450 400 450 – – 6.15 <1	<450 400 400 – – 4.78 <1	<450 400 400 12000 10000 5.23 <1	<450 400 450 – – 2.87 <1	<450 400 500 – – 4.74 <1
BA	<450 400 500 12000 15000 5.83 <1	<450 400 400 – – 5.75 <1	<450 400 400 – – 6.22 <1	<450 400 550 – – 6.50 <1	<450 400 450 12000 10000 3.48 <1	<450 400 450 – – 6.29 <1	<450 400 450 12000 12000 3.62 <1	<450 400 450 – – 4.54 <1	<450 400 500 – – 5.72 <1	<450 400 300 12000 10000 5.60 <1	<450 400 300 – – 3.74 <1	<450 400 300 12000 10000 3.83 <1	<450 400 350 – – 4.98 <1	<450 400 400 – – 4.96 <1	<450 400 350 – – 4.50 <1	<450 400 350 12000 8000 4.63 <1	<450 350 350 – – 1.46 <1	<450 400 400 12000 10000 4.46 <1	<450 400 500 – – 5.17 <1	<450 400 400 – – 5.66 <1	<450 400 450 12000 10000 4.56 <1	<450 400 400 – – 5.38 <1
AZ	<450 400 500 – – 4.40 <1	<450 400 400 – – 7.38 <1	<450 400 400 12000 10000 5.03 <1	<450 400 450 – – 4.74 <1						<450 400 250 – – 4.66 <1	<450 400 300 12000 10000 5.23 <1	<450 400 350 – – 5.03 <1	<450 400 300 – – 4.96 <1	<450 400 350 12000 8000 5.18 <1	<450 400 300 – – 5.32 <1	<450 400 400 – – 4.22 <1	<450 400 350 – – 2.34 <1	<450 400 450 – – 2.17 <1	<450 400 400 – – 3.76 <1	<450 400 450 12000 9000 5.10 <1	<450 400 450 – – 4.62 <1	<450 350 350 – – 1.84 <1
AY	<450 400 500 12000 15000 4.88 <1	<450 400 400 – – 4.93 <1	<450 400 400 – – 6.14 <1	<450 400 425 12000 12500 5.84 <1	<450 400 450 – – 4.78 <1	<450 400 450 – – 4.99 <1	<450 400 450 – – 3.28 <1	<450 400 450 – – 4.97 <1	<450 400 500 – – 4.25 <1	<450 400 300 12000 10000 5.95 <1	<450 400 250 – – 6.27 <1	<450 400 450 12000 8500 4.03 <1	<450 400 450 – – 4.21 <1	<450 400 450 – – 4.36 <1	<450 400 450 – – 3.51 <1	<450 400 450 12000 10000 5.39 <1	<450 400 450 – – 4.93 <1	<450 400 450 12000 12500 5.27 <1	<450 400 350 – – 4.67 <1	<450 400 400 – – 4.55 <1	<450 400 450 12000 15000 4.61 <1	<450 400 400 – – 5.13 <1

<450
400
450
–
–
5.09
<1

Sample Data

< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area

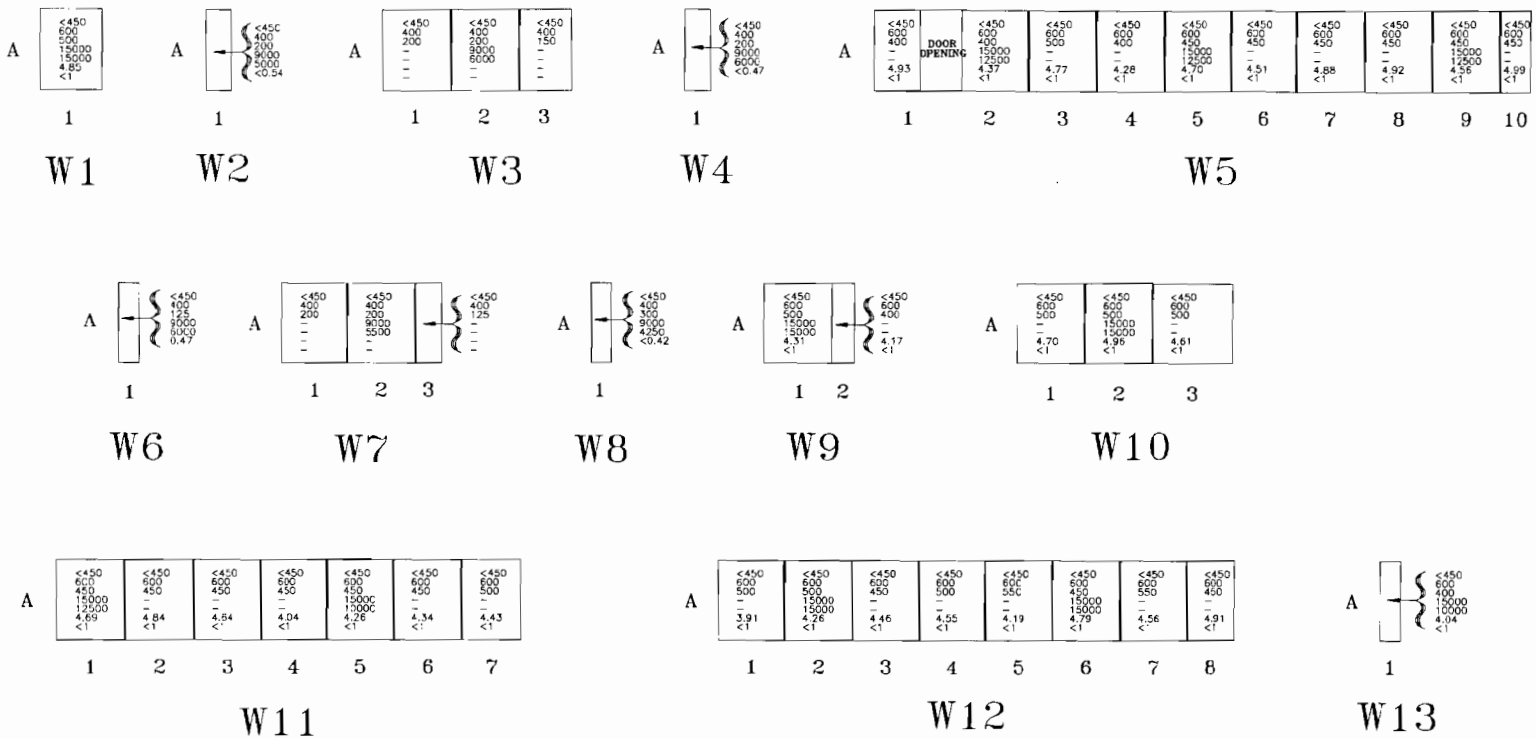
	23	24	25	26	27
BC	<450 400 450 – – 3.46 <1	<450 400 400 12000 12500 4.19 <1	<450 400 400 – – 4.55 <1	<450 400 450 – – 4.31 <1	<450 400 400 12000 12500 10.89 <1
BB	<450 400 350 – – 5.20 <1	<450 400 400 12000 12500 4.33 <1	<450 400 350 – – 5.47 <1	<450 400 350 – – 4.42 <1	<450 400 450 – – 5.20 <1
BA	<450 400 400 – – 4.58 <1	<450 400 400 – – 4.81 <1	<450 400 400 – – 1.98 <1	<450 350 250 12500 8000 2.26 <1	<450 400 450 – – 4.73 <1
AZ	<450 350 400 – – 2.28 <1	<450 400 400 – – 3.36 <1	<450 400 425 – – 2.10 <1	<450 350 250 12500 8000 2.26 <1	<450 350 300 – – 1.65 <1
AY	<450 400 450 – – 5.55 <1	<450 400 300 12000 9500 2.15 <1	<450 400 400 – – 2.12 <1	<450 350 250 – – 1.66 <1	<450 350 300 – – 1.52 <1

Sample Data

<450 – IM-247/PD Results [$\mu\mu$Ci/20cm^2]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, Fenced Area

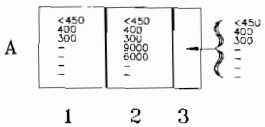


Sample Data

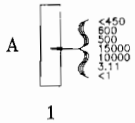
< 450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

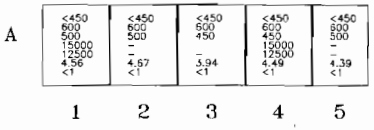
c. Grid Map, Fenced Area



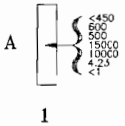
W14



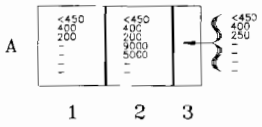
W15



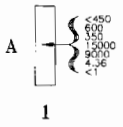
W16



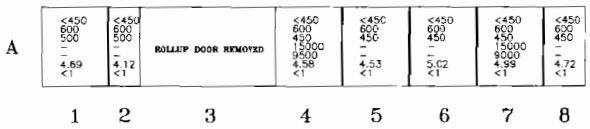
W17



W18



W19



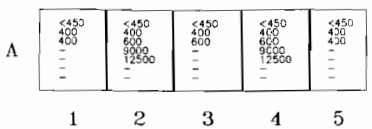
W20

Sample Data

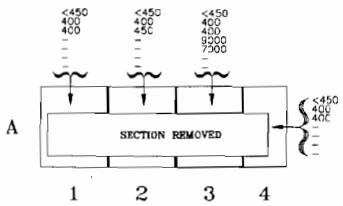
<450 – IM-247/PD Results [µµCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

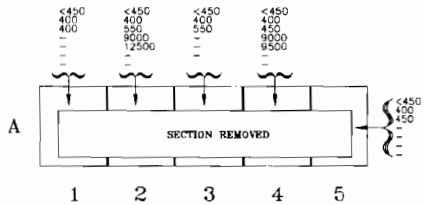
c. Grid Map, Fenced Area



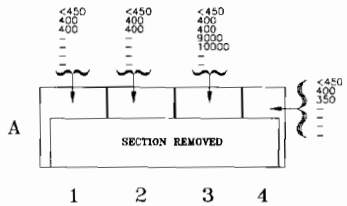
W21



W22



W23



W24

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Prior to Photographs, Fenced Area

Viewing toward Bldg 79A

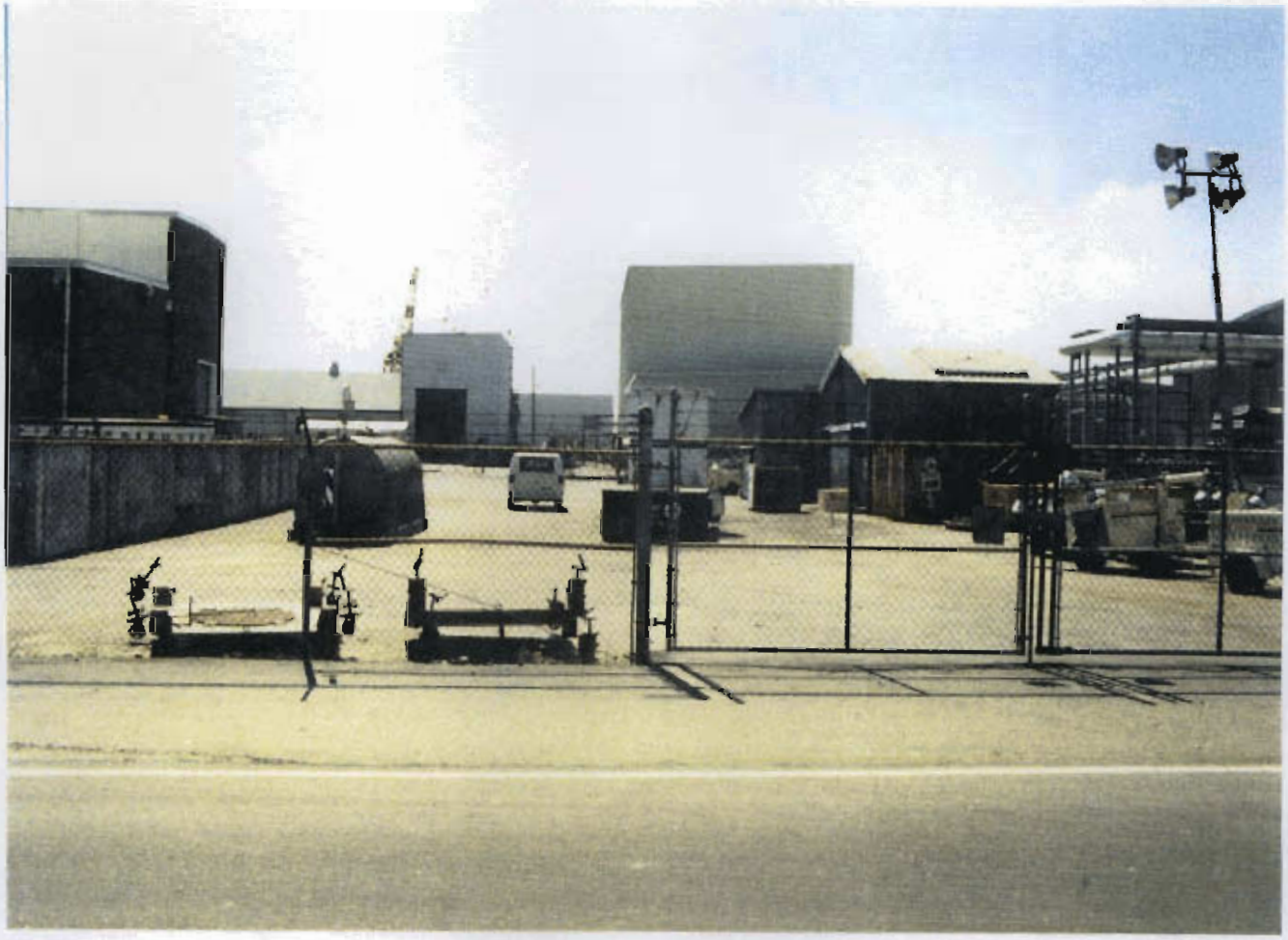
10. Bldg. 79A, Fenced Areas Group 3

c. Prior to Photographs, Fenced Area

Viewing toward Bldg 79A

10. Bldg. 79A, Fenced Areas Group 3

c. Prior to Photographs, Fenced Area



Viewing southeast

10. Bldg. 79A, Fenced Areas Group 3

c. Prior to Photographs, Fenced Area

Viewing north

10. Bldg. 79A, Fenced Areas Group 3

c. Prior to Photographs, Fenced Area

Viewing east toward Bldg 79A

10. Bldg. 79A, Fenced Areas Group 3

c. After Photographs, Fenced Area

East of 1760 Slab viewing south

10. Bldg. 79A, Fenced Areas Group 3

c. After Photographs, Fenced Area

Viewing north

10. Bldg. 79A, Fenced Areas Group 3

c. After Photographs, Fenced Area

1760 Slab, viewing west

10. Bldg. 79A, Fenced Areas Group 3

c. After Photographs, Fenced Area

Viewing toward Bldg 1711

10. Bldg. 79A, Fenced Areas Group 3

c. After Photographs, Fenced Area

Viewing toward Bldg 79A

10. Bldg. 79A, Fenced Areas Group 3

c. After Photographs, Fenced Area

Viewing west from High Rad Fort

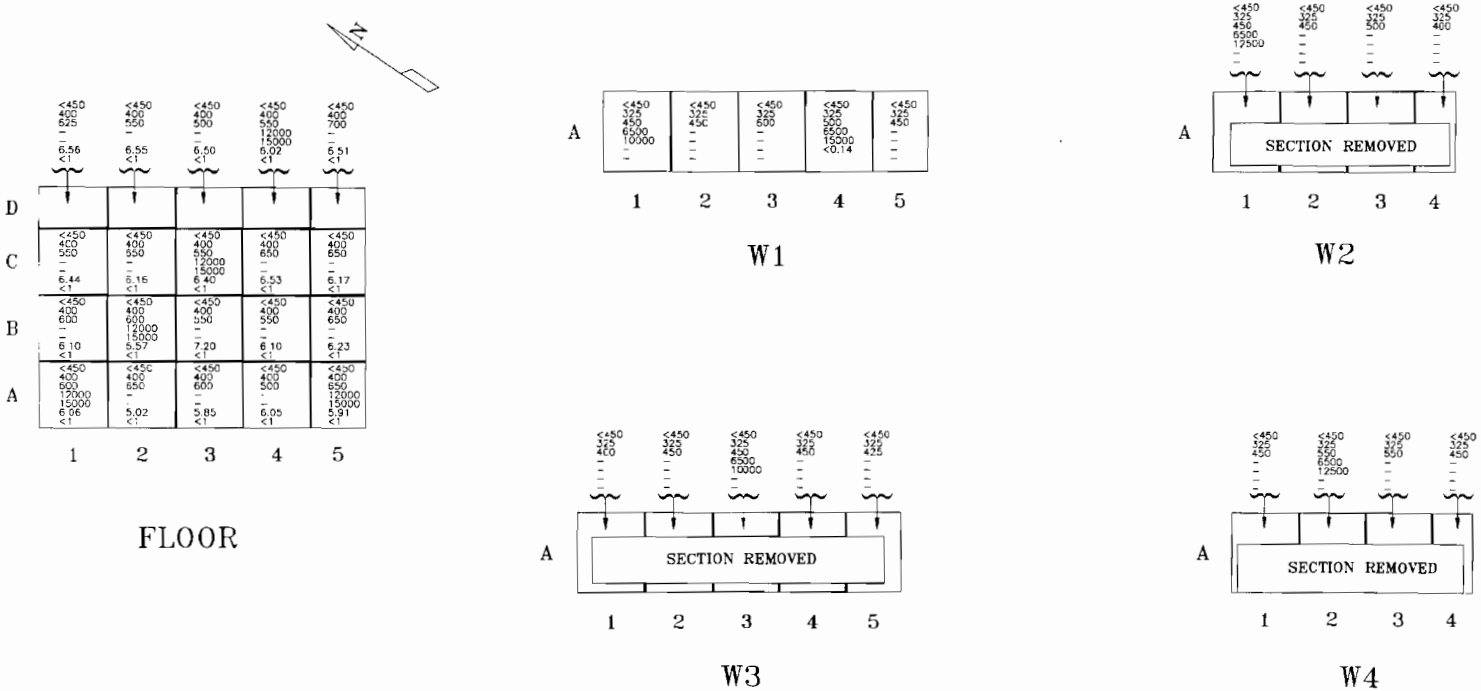
10. Bldg. 79A, Fenced Areas Group 3

c. After Photographs, Fenced Area

High Rad Fort viewing Wall-21

10. Bldg. 79A, Fenced Areas Group 3

c. Grid Map, High Rad Fort



Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

10. Bldg. 79A, Fenced Areas Group 3

c. Prior to Photographs, High Rad Fort

Viewing east

10. Bldg. 79A, Fenced Areas Group 3

c. Prior to Photographs, High Rad Fort

Viewing north

10. Bldg. 79A, Fenced Areas Group 3

c. After Photographs, High Rad Fort

Viewing toward Wall-3 Wall-4 corner

10. Bldg. 79A, Fenced Areas Group 3

c. After Photographs, High Rad Fort

Viewing toward Wall-2 Wall-3 corner

11. Bldg. 79/79A, Trenches

a. Report

(1) Description:

The Building 79/79A Trenches consist of the Building 79 Anticontamination Laundry Trenches, the Building 79A Interior "A", "B", and "C" Trenches, and the Building 79A Outside Radioactive Liquid Waste Trenches. These trenches were constructed of cement. The radioactive liquid waste piping within these trenches was removed and disposed of as radioactive material. Additionally, a radioactive liquid waste discharge line ran from Building 79 to Pier H. This line was a pipe buried in the ground without a concrete trench. This piping was removed as radioactive material in the mid 1970s.

(2) Discussion:

The cement trenches were divided into approximately 222 5' long grids. These grids included the wall surfaces. One hundred percent of all grids were surveyed using the IM-247/PD and the IM-253/PD (HV-1 PHA). A minimum of 25 percent of all grids were surveyed using the IM-253/PD (HV-2 GROSS). Solid material samples were taken from each grid. Solid material core samples were taken from 25 percent of the grids.

Since the area which previously contained the radioactive liquid waste piping between Building 79 and Pier H did not contain a cement trench, no IM-247/PD or IM-253/PD surveys were performed. Solid material core samples were taken along the path of the piping run.

The IM-247/PD and IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds of 40, 200, and 6500 counts per minute used for the cement Anticontamination Laundry trench were based upon background levels obtained from Building 664 deck. The IM-247/PD and IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds of 40, 200, and 5500 counts per minute used for the cement A, B, and C trenches were based upon background levels obtained from Building 21. The IM-247/PD and IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds of 40, 200, and 6500 counts per minute used for the cement outside trench were based upon background levels obtained from Building 664. The IM-247/PD and IM-253/PD (HV-1 PHA and HV-2 GROSS) backgrounds of 40, 200, and 8500 counts per minute used for the dirt of the outside trench were based upon background levels obtained from Building 681 field.

A total of 222 solid material samples were taken. The following naturally occurring radionuclides were typical isotopes identified during analysis of solid material samples: lead 212, lead 214, thallium 208, and bismuth 214.

(3) Summary:

Surveys performed with the IM-247/PD did not detect areas greater than 450

11. Bldg. 79/79A, Trenches

$\mu\mu Ci/20cm^2$.

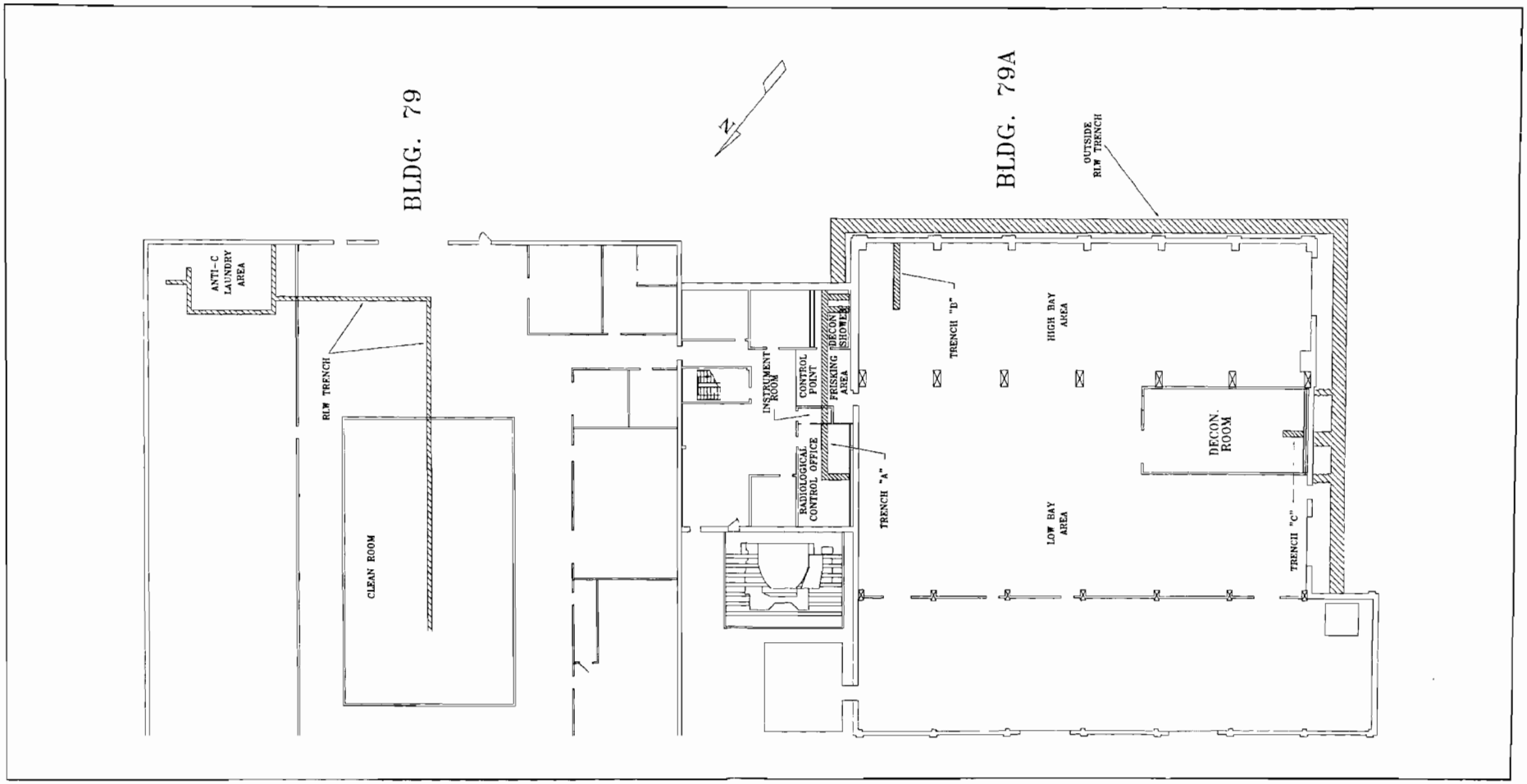
Surveys performed with the IM-253/PD (HV-1 PHA) detected three areas greater than or equal to twice background.

Surveys performed with the IM-253/PD (HV-2 GROSS) detected one area greater than or equal to twice background.

Analysis performed on solid material samples with the multi-channel analyzer (MCA) detected gross gamma equivalent cobalt 60 levels ranging from a minimum detectable activity of less than 0.33 pCi/g to a high of 4.14 pCi/g. Analysis performed on solid material core samples with the MCA for specific cobalt 60 indicated core samples were less than 1 pCi/g. Analysis performed on solid material samples with the MCA for specific cobalt 60 indicated solid material samples were less than 1 pCi/g. No traces of cobalt 60 were identified.

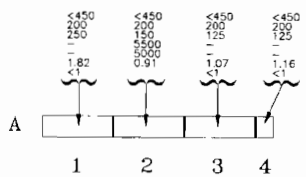
11. Bldg. 79/79A, Trenches

b. Site Map

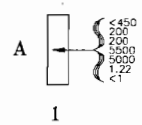


11. Bldg. 79/79A, Trenches

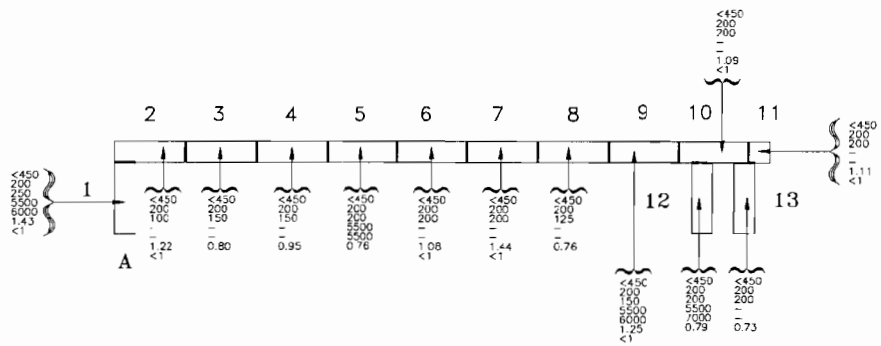
c. Grid Map, "A", "B", & "C" Trenches



TRENCH "B"



TRENCH "C"



TRENCH "A"

Note: Core sample gross and specific cobalt 60 results in pCi/g's are shown for soil from the Building 79A inside RLW trench as follows RT1-A-A1 1.34, <1, RT1-A-A5 0.49,<1; RT1-A-A9 1.96,<1, RT1-A-A13 2.92,<1, RT1-B-A1 2.80, <1, RT1-C-A1 3.40, <1

11. Bldg. 79/79A, Trenches

c. Prior To Photographs, "A", "B", & "C" Trenches

Viewing Trench A in Decon Shower Room

11. Bldg. 79/79A, Trenches

c. During Photographs, "A", "B", & "C" Trenches

Viewing Trench A toward Radiological Control Office

11. Bldg. 79/79A, Trenches

c. During Photographs, "A", "B", & "C" Trenches

Viewing Trench A from frisk area to decon shower

11. Bldg. 79/79A, Trenches

c. During Photographs, "A", "B", & "C" Trenches

Viewing Trench A in frisking area

11. Bldg. 79/79A, Trenches

c. Prior to Photographs, "A", "B", & "C" Trenches

Trench B located in high bay area

11. Bldg. 79/79A, Trenches

c. After Photographs, "A", "B", & "C" Trenches

Trench A viewing toward decon shower room

11. Bldg. 79/79A, Trenches

c. After Photographs, "A", "B", & "C" Trenches

Trench A inside decon shower room

11. Bldg. 79/79A, Trenches

c. After Photographs, "A", "B", & "C" Trenches

Trench A inside decon shower room

11. Bldg. 79/79A, Trenches

c. After Photographs, "A", "B", & "C" Trenches

Trench B located in high bay

11. Bldg. 79/79A, Trenches

c. After Photographs, "A", "B", & "C" Trenches

Trench B located in high bay

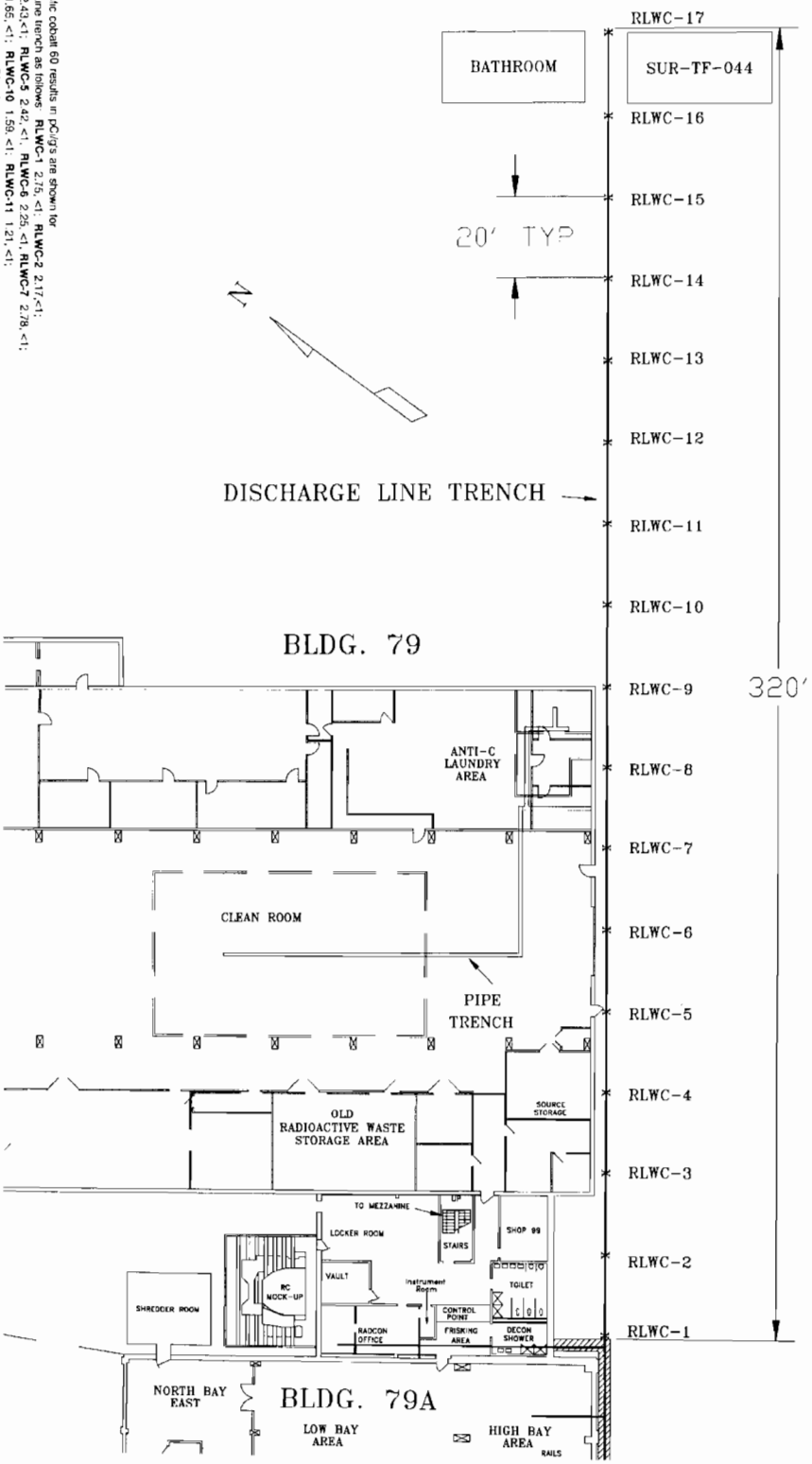
11. Bldg. 79/79A, Trenches

c. After Photographs, "A", "B", & "C" Trenches

Trench C located in decon room in low bay

11. Bldg. 79/79A, Trenches

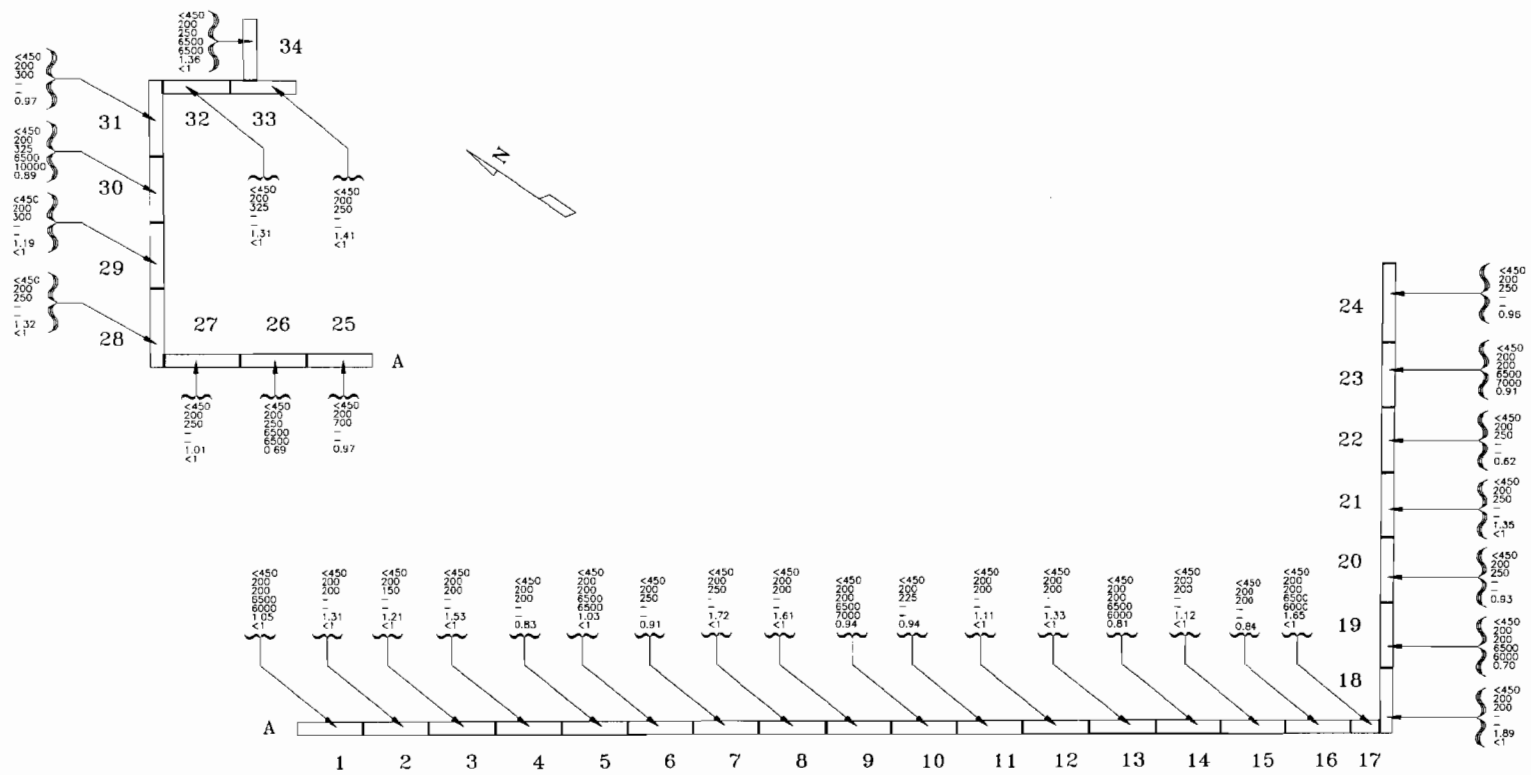
b. RLW Discharge Line Core Sample Map



Note:
Core sample gross and specific cobalt 60 results in pCi/g's are shown for soil from the R-W Discharge Line trench as follows: **RLWC-1** 2.75, <1; **RLWC-2** 2.17,<1; **RLWC-3** 2.23,<1; **RLWC-4** 2.43,<1; **RLWC-5** 2.42, <1; **RLWC-6** 2.25, <1; **RLWC-7** 2.78, <1; **RLWC-8** 2.11, <1; **RLWC-9** 1.65, <1; **RLWC-10** 1.59, <1; **RLWC-11** 1.21, <1; **RLWC-12** 2.89, <1; **RLWC-13** 4.11, <1; **RLWC-14** 1.85, <1; **RLWC-15** 3.45, <1; **RLWC-16** 0.99, <1; **RLWC-17** 2.53, <1.

11. Bldg. 79/79A, Trenches

c. Grid Map, Anticontamination Laundry Trenches



Core sample gross and specific cobalt 60 results in pCi/g's are shown for soil from the Building 79 RLW trench as follows **RLWT-A1** 2.59, <1, **RLWT-A5** 3.56,<1; **RLWT-A9** 3.01,<1, **RLWT-A13** 2.84,<1; **RLWT-A17** 1.05, <1, **RLWT-A21** 2.27, <1, **RLWT-A25** 1.54, <1, **RLWT-A29** 6.72,<1; **RLWT-A33** 2.36,<1

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

11. Bldg. 79/79A, Trenches

c. After Photographs, Anticontamination Laundry Trenches

North corner of laundry area looking south

11. Bldg. 79/79A, Trenches

c. After Photographs, Anticontamination Laundry Trenches

South end of Bldg 79 looking northwest

11. Bldg. 79/79A, Trenches

c. After Photographs, Anticontamination Laundry Trenches

Southeast end of Bldg 79 looking northeast

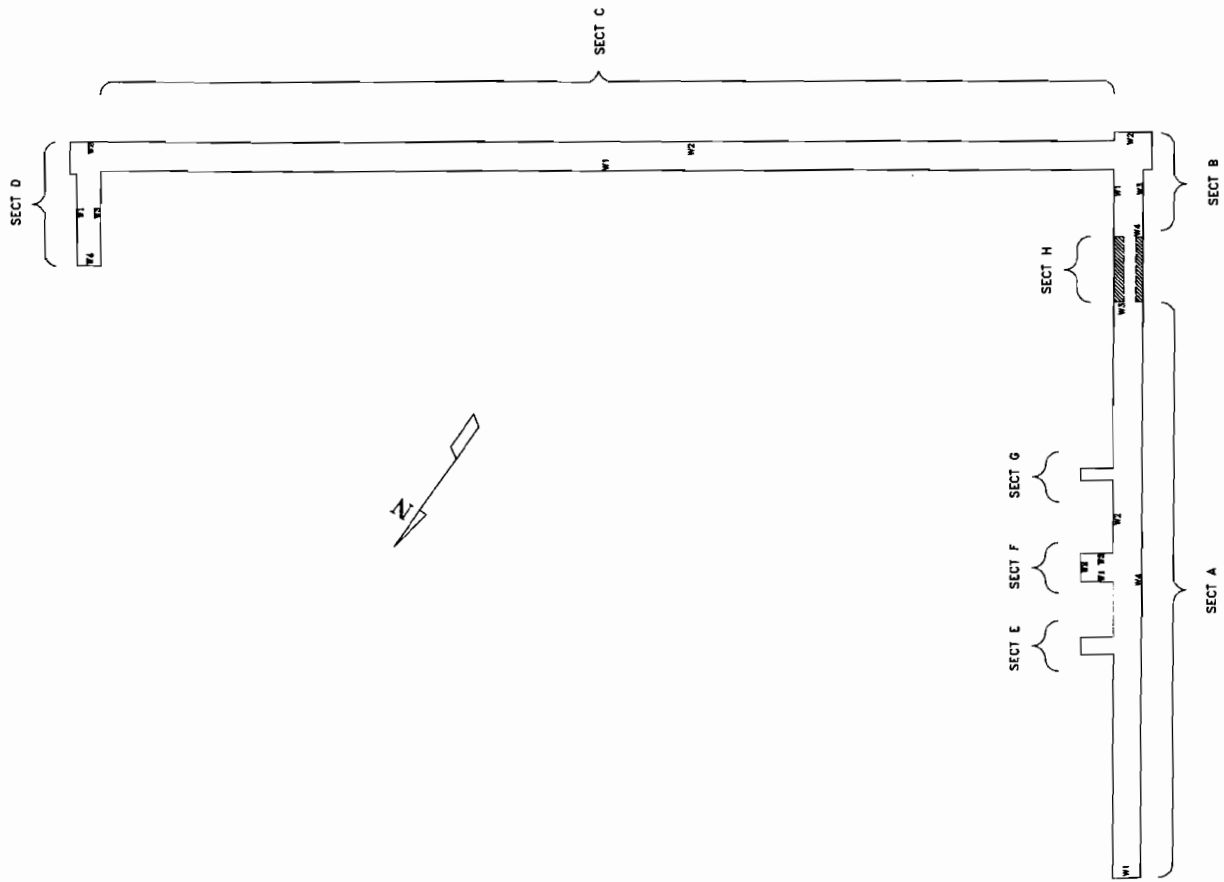
11. Bldg. 79/79A, Trenches

c. After Photographs, Anticontamination Laundry Trenches

Laundry area at wall 2 looking southwest

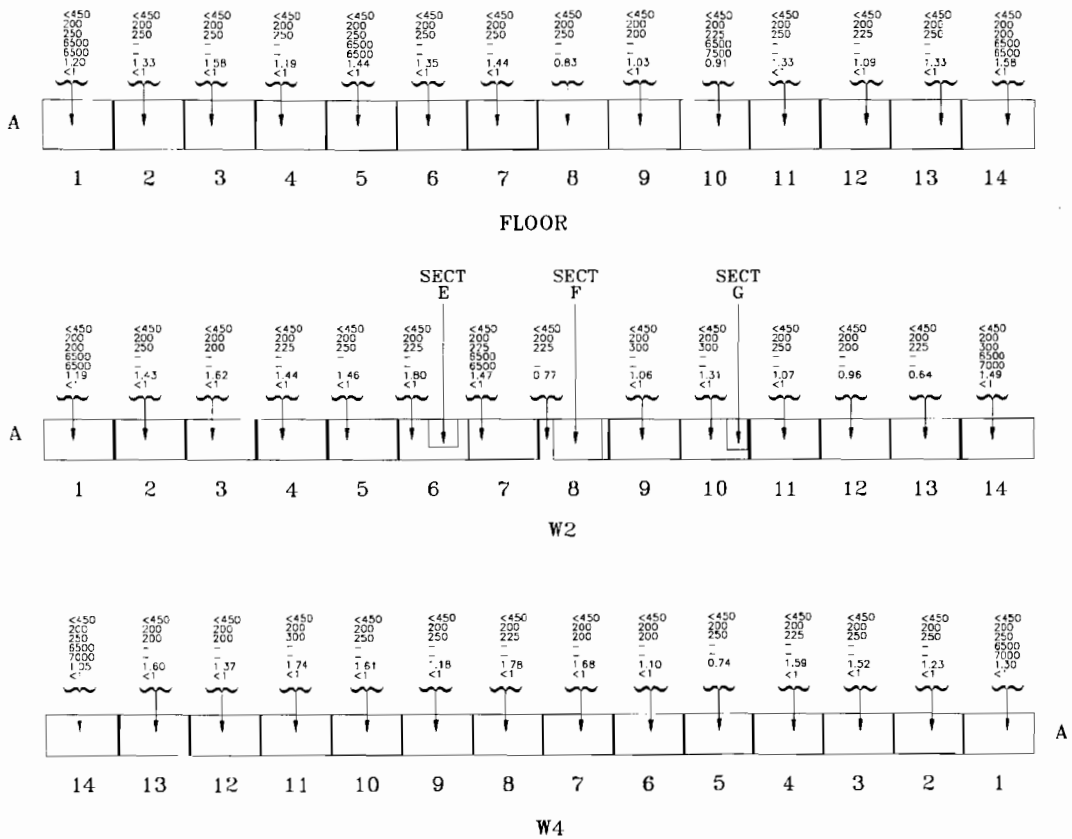
11. Bldg. 79/79A, Trenches

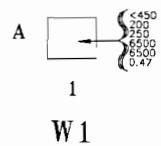
b. Site Map, Outside RLW Trenches

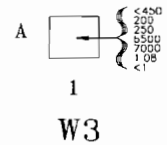


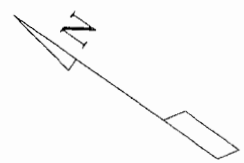
11. Bldg. 79/79A, Trenches

c. Grid Map, Outside RLW Trenches









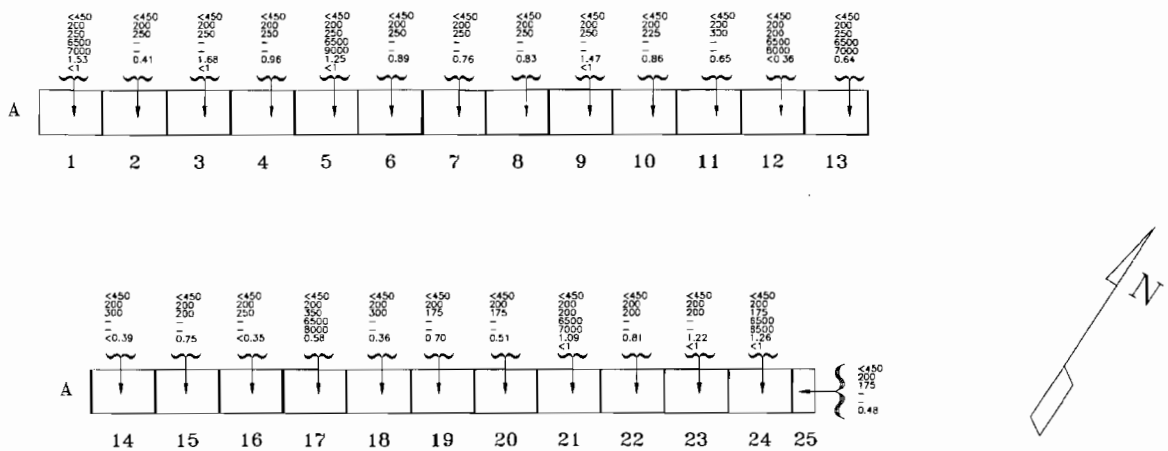
SECT A

Core sample gross and specific cobalt 60 results in pCi/g's are shown for soil from the Building 79A outside RLW trench as follows: OTA-F-A1 2.88, <1; OTA-F-A3 3.02,<1 OTA-F-A4 3.47,<1, OTA-F-A5 2.61,<1; OTA-F-A9 3.33, <1; OTA-F-A13 2.98, <1.

Sample Data
<450 – IM-247/PD Results [µCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

11. Bldg. 79/79A, Trenches

c. Grid Map, Outside RLW Trenches



FLOOR

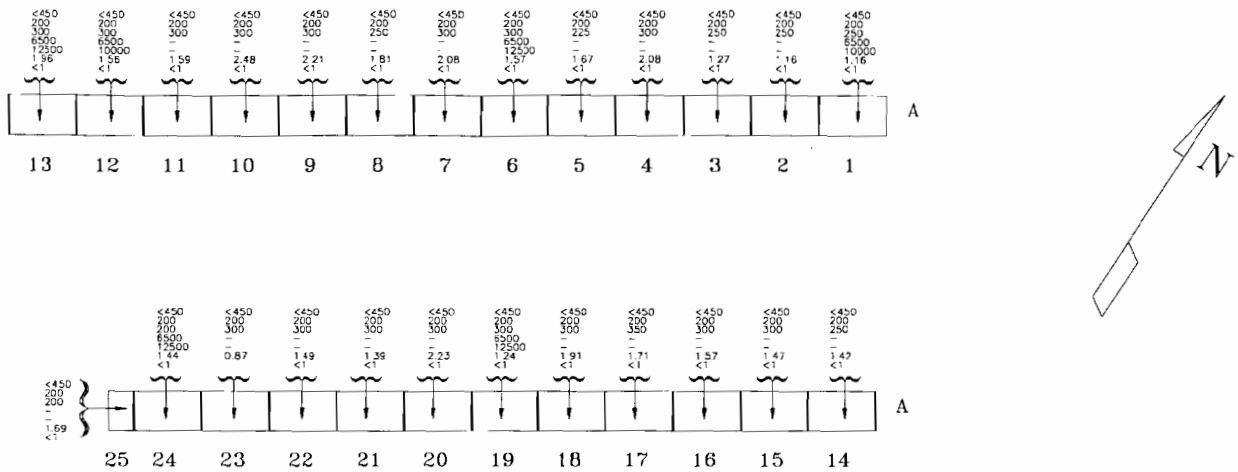
SECT C

Core sample gross and specific cobalt 60 results in pCi/g's are shown for soil from the Building 79A outside RLW trench as follows. **OTC-F-A1** 1.80, <1, **OTC-F-A8** 1.65,<1; **OTC-F-A12** 2.67,<1; **OTC-F-A16** 2.71,<1, **OTC-F-A20** 2.61, <1, **OTC-F-A24** 2.09,<1.

Sample Data
<450 -- IM-247/PD Results [μCi/20cm²]
200 -- IM-253/PD (HV-1 PHA) [bkg.]
300 -- IM-253/PD (HV-1 PHA) [cpm]
7000 -- IM-253/PD (HV-2 GROSS) [bkg.]
7300 -- IM-253/PD (HV-2 GROSS) [cpm]
1.82 -- MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 -- MCA Specific Co-60 Results [pCi/g]

11. Bldg. 79/79A, Trenches

c. Grid Map, Outside RLW Trenches



W2

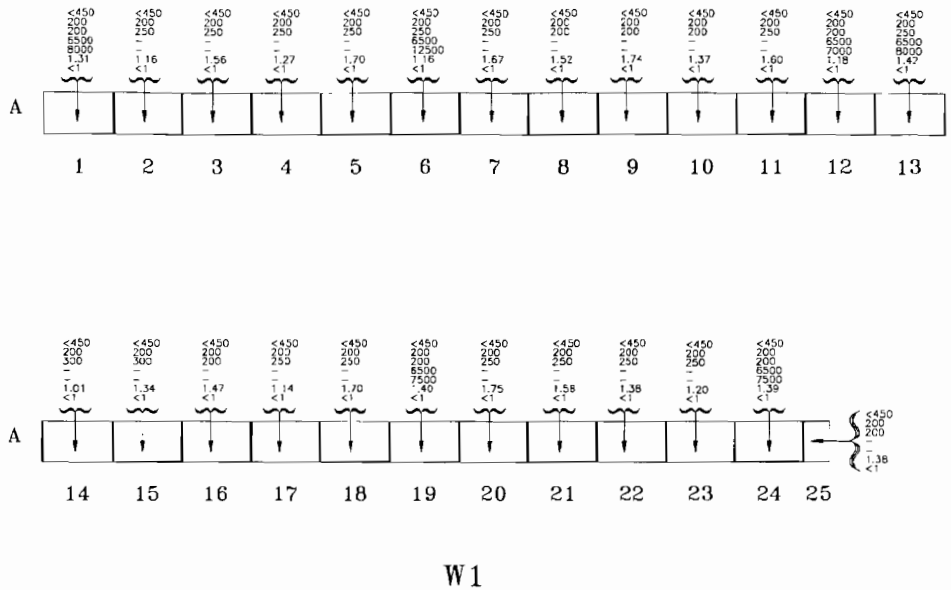
SECT C

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

11. Bldg. 79/79A, Trenches

c. Grid Map, Outside RLW Trenches



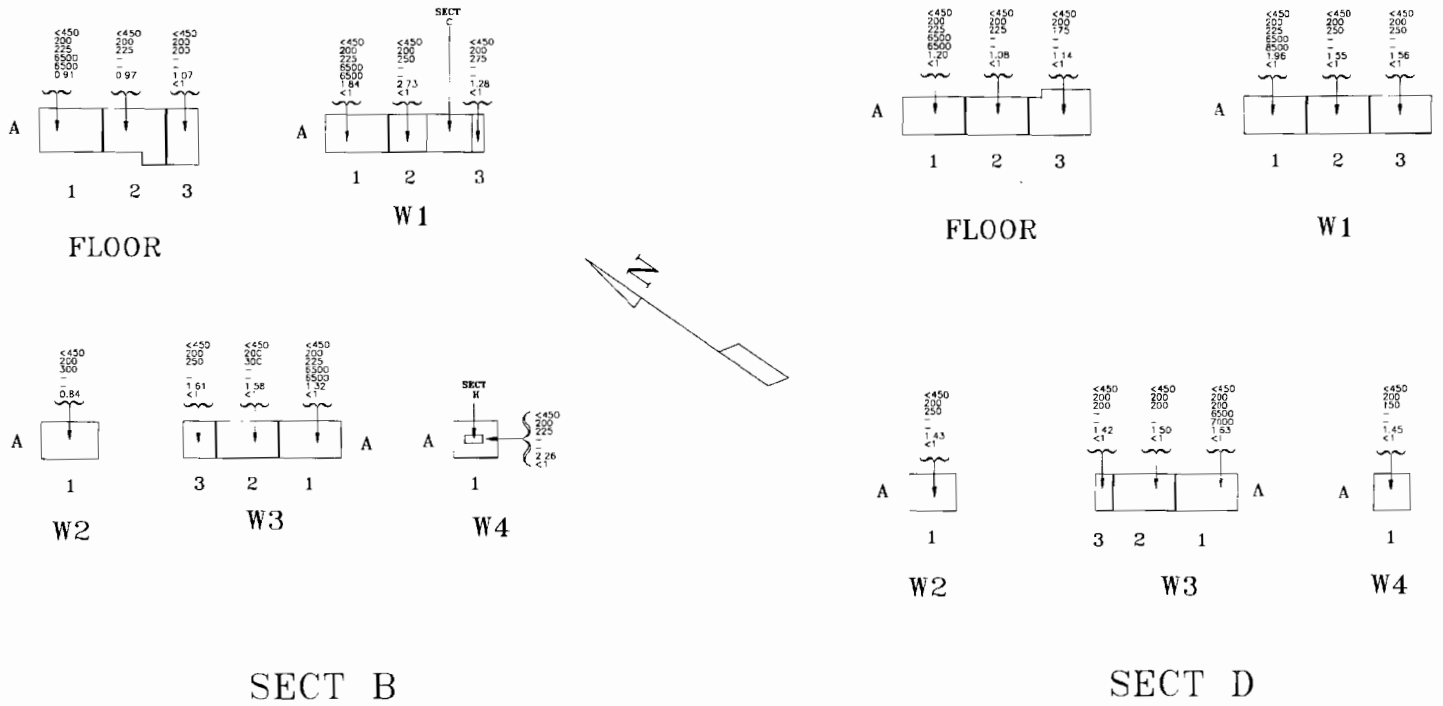
SECT C

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

11. Bldg. 79/79A, Trenches

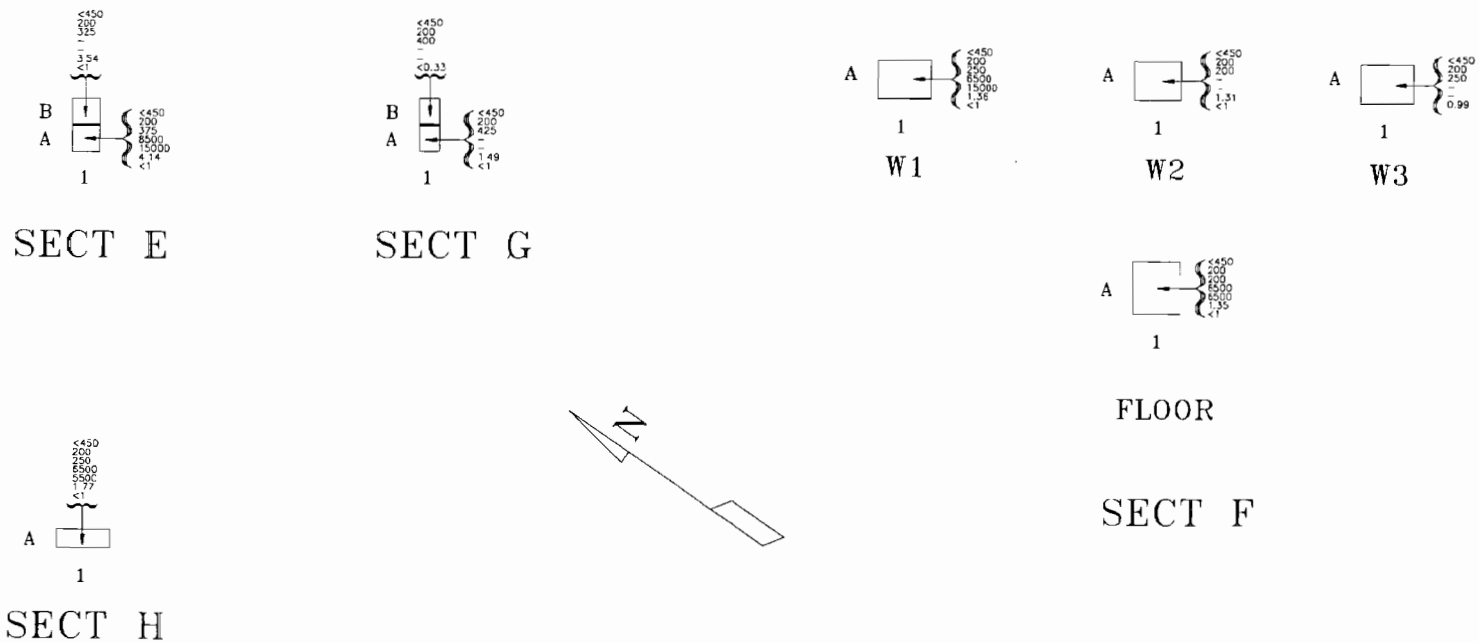
c. Grid Map, Outside RLW Trenches



Core sample gross and specific cobalt 60 results in pCi/g's are shown for soil from the Building 79A outside RLW trench as follows: **OTB-F-A2** 4.42, <1, **OTD-F-A3** 3.35,<1

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
330 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]



Core sample gross and specific cobalt 60 results in pCi/g's are shown for soil from the Building 79A outside RLW trench as follows: **OTH-F-A1** 4.47, <1.

Sample Data

<450 – IM-247/PD Results [μμCi/20cm²]
200 – IM-253/PD (HV-1 PHA) [bkg.]
300 – IM-253/PD (HV-1 PHA) [cpm]
7000 – IM-253/PD (HV-2 GROSS) [bkg.]
7300 – IM-253/PD (HV-2 GROSS) [cpm]
1.82 – MCA Gross Gamma Eq. Co-60 [pCi/g]
<1 – MCA Specific Co-60 Results [pCi/g]

11. Bldg. 79/79A, Trenches

c. Prior to Photographs, Outside RLW Trenches

Section A viewing east

11. Bldg. 79/79A, Trenches

c. Prior to Photographs, Outside RLW Trenches

Section A viewing north

11. Bldg. 79/79A, Trenches

c. Prior to Photographs, Outside RLW Trenches

Section A viewing north

11. Bldg. 79/79A, Trenches

c. Prior to Photographs, Outside RLW Trenches

Section C viewing east

11. Bldg. 79/79A, Trenches

c. After Photographs, Outside RLW Trenches

Viewing Sections A, E, F & G

11. Bldg. 79/79A, Trenches

c. After Photographs, Outside RLW Trenches

Viewing Sections A, E, F,& G

11. Bldg. 79/79A, Trenches

c. After Photographs, Outside RLW Trenches

Section C Viewing East