Rocky Flats Environmental Technology Site

PRE-DEMOLITION SURVEY REPORT (PDSR)

BUILDING 881 CLOSURE PROJECT
(First Floor and First Floor Mezzanine)

VOLUME 3

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Reviewed by: _____ Date: 6/17/04
Don Risoli, Quality Assurance

Reviewed by: _____ Date: 6/17/04
D.P. Snyder, RISS ESH&Q Manager

Approved by: _____ Date: 6/17/04
Mike Swartz, K-H 881 D&D Project Manager

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ABBREVIATIONS/ACRONYMS

ACM	Asbestos Containing Material
Be	Beryllium
CDPHE	Colorado Department of Public Health and the Environment
$DCGL_{EMC}$	Derived Concentration Guideline Level – elevated measurement comparison
$DCGL_W$	Derived Concentration Guideline Level – Wilcoxon Rank Sum Test
D&D	Decontamination and Decommissioning
DDCP	Decontamination and Decommissioning Characterization Protocol
DOE	U.S. Department of Energy
DPP	Decommissioning Program Plan
DQA	Data quality assessment
DQOs	Data quality objectives
EPA	U.S. Environmental Protection Agency
FDPM	Facility Disposition Program Manual
HVAC	Heating, ventilation, air conditioning
HSAR	Historical Site Assessment Report
HEUN	Highly Enriched Uranyl Nitrate
IHSS	Individual Hazardous Substance Site
IVT	Independent Verification Team
IWCP	Integrated Work Control Package
K-H	Kaiser-Hill
LBP	Lead-based paint
LLW	Low-level waste
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
NORM	Naturally occurring radioactive material
NRA	Non-Rad-Added Verification
OSHA	Occupational Safety and Health Administration
PARCC	Precision, accuracy, representativeness, comparability and completeness
PCBs	Polychlorinated Biphenyls
PDS	Pre-Demolition Survey
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RFCA	Rocky Flats Cleanup Agreement
RFETS	Rocky Flats Environmental Technology Site
RFFO	Rocky Flats Field Office
RLC	Reconnaissance Level Characterization
RLCR	Reconnaissance Level Characterization Report
RSA	Removable Surface Activity
RSP	Radiological Safety Practices
SVOCs	Semi-volatile organic compounds
TCLP	Toxicity Characteristic Leaching Procedure
TSA	Total Surface Activity
VOCs	Volatile Organic Compounds

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EXECUTIVE SUMMARY

A Pre-Demolition Survey (PDS) was performed to enable compliant disposition and waste management of Building 881. Because this Type 2 Facility will be demolished, the characterization was performed in accordance with the Pre-Demolition Survey Plan (MAN-127-PDSP). Building surfaces characterized as part of this PDS included the Building 881 1st Floor and 1st Floor mezzanine interior floors, walls and ceilings (Volume 3). The Building 881 2nd Floor, 2nd Floor mezzanine and the 881/883 Tunnel (Volume 1); and the 881 Basement (Volume 2) interior floors, walls and ceilings will be reported in stand-alone PDSRs. The Building 881 exterior was characterized in accordance with Pre-Demolition Survey Plan (MAN-127-PDSP) requirements as part of the Building 881 Cluster RLCR, completed November 6, 2001. Environmental media beneath and surrounding Building 881 was not within the scope of this PDS and will be addressed in accordance with the Soil Disturbance Permit process and in compliance with RFCA.

The PDS encompassed both radiological and chemical characterization to enable compliant disposition and waste management pursuant to the D&D Characterization Protocol (MAN-077-DDCP). The characterization built upon physical, chemical and radiological hazards identified in the facility-specific Historical Site Assessment Report and Reconnaissance Level Characterization Report for the Building 881 Cluster.

Final "as left" PDS results indicate that radiological, beryllium, RCRA/CERCLA constituents and PCBs do not exist in excess of the PDSP unrestricted release limits. PCB ballasts, and other hazardous waste items (e.g., mercury thermostats, fluorescent light bulbs, mercury vapor light bulbs, mercury-containing gauges, circuit boards, leaded glass, and lead-acid batteries) have been removed and disposed of in compliance with Environmental Protection Agency (EPA) and Colorado Department of Public Health and Environment (CDPHE) regulations. PCBs in paint meet the unrestricted release criteria of the RSOP for Facility Disposition (risk assessment 761.62c). All remaining Building 881 building materials are inert.

Asbestos abatement was conducted in Building 881 prior to the PDS. Friable and non-friable asbestos containing building materials were removed per CDPHE, Regulation No. 8, Part B, *Emission Standards for Asbestos*. Cinderblock walls containing non-friable asbestos block filler remain in portions of the building. Prior to the use of explosives, the ACM block walls will be mechanically back filled into the 881 basement and pit areas in accordance with the RFCA Contact Record (refer to RFETS Contact Record prepared by Steve Nesta on August 21, 2003). Small quantities of mastic remain in portions of the building and will be used as fill in the 881 basement.

Based upon this PDSR, Building 881 1st Floor and 1st Floor Mezzanine can be decommissioned. Demolition concrete rubble will be used for backfill on-site per the RFCA Recycling Concrete RSOP. Appropriate approvals have been obtained for leaving portions of the facility in-place underground. To ensure the facility remains free of contamination and PDS data remain valid, Level 1 Isolation Controls have been established and the area posted accordingly.

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1 INTRODUCTION

A Pre-Demolition Survey (PDS) was performed to enable compliant disposition and waste management of Building 881. Because this Type 2 Facility will be demolished, the characterization was performed in accordance with the Pre-Demolition Survey Plan (MAN-127-PDSP). Building surfaces characterized as part of this PDS included Building 881 1st Floor and 1st Floor Mezzanine interior floors, pits, walls and ceilings (Volume 3). The Building 881 2nd Floor, 2nd Floor Mezzanine and the 881/883 Tunnel (Volume 1); and the 881 Basement (Volume 2) interior floors, walls and ceilings will be reported in a stand-alone PDSR. The Building 881 exterior was characterized in accordance with Pre-Demolition Survey Plan (MAN-127-PDSP) requirements as part of the Building 881 Cluster RLCR, completed November 6, 2001. Additional confirmatory surveys of Building 881 exterior and interior were performed and all results were less than the applicable PDS transuranic and uranium DCGL values. Environmental media beneath and surrounding Building 881 was not within the scope of this PDS and will be addressed in accordance with the Soil Disturbance Permit process and in compliance with RFCA.

As part of the Rocky Flats Environmental Technology Site (RFETS) Closure Project, numerous facilities will be removed, among these is Building 881. The location of this facility is shown in Attachment A, *Facility Location Map*. This facility no longer supports the RFETS mission and will be removed to reduce Site infrastructure, risks and/or operating costs.

Before this Type 2 Facility can be demolished, the Data Quality Objectives (DQOs) for a Pre-Demolition Survey (PDS) must be satisfied; this document presents the PDS results for Building 881 1st Floor and 1st Floor Mezzanine. The PDS was conducted pursuant to the Decontamination and Decommissioning Characterization Protocol (MAN-077-DDCP) and the Pre-Demolition Survey Plan for D&D Facilities (MAN-127-PDSP). The PDS built upon physical, chemical and radiological hazards identified in the facility-specific Historical Site Assessment Report and Reconnaissance Level Characterization Report for the Building 881 Cluster, dated November 6, 2001, Revision 0.

1.1 Purpose

The purpose of this report is to communicate and document the results of the Building 881 1st Floor and 1st Floor Mezzanine PDS effort. A PDS is performed prior to building demolition to define the pre-demolition radiological and chemical conditions of the facility. The pre-demolition conditions are compared with the release limits for radiological and non-radiological contaminants. PDS results will enable project personnel to make final disposition decisions, develop related worker health and safety controls, and estimate waste volumes by waste types.

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1.2 Scope

This report presents the pre-demolition radiological and chemical conditions of the Building 881 1st Floor and 1st Floor Mezzanine. The PDS radiological survey data for Room 199A and the ventilation chase between Room 199A and Room 17 (SU 881E10) and stairwell 147A (SU 881K03) are also included in this PDS reported.

The Building 881 2nd Floor, 2nd Floor Mezzanine and the 881/883 Tunnel (Volume 1), and the 881 Basement (Volume 2) interior floors, walls and ceilings are reported in stand-alone PDSRs. Additionally, the stairwells leading from the 2nd floor to the lower levels (i.e., survey units 881C12, 881J10, 881J12); the 159, 100B, and 149 elevators (i.e., survey units 881D05 and 881H03); and the South Loading Dock (i.e., survey units 881R01 and 881R02); were also included in the Building 881 2nd floor, 2nd floor mezzanine and 881/883 Tunnel PDS report (Volume 1). The PC-2 pipe chase (i.e., survey unit 881F03) was included in the Building 881 Basement PDS report (Volume 2). Environmental media beneath and surrounding the facilities are not within the scope of this PDSR and will be addressed in accordance with the Soil Disturbance Permit process and in compliance with RFCA.

1.3 Data Quality Objectives

The Data Quality Objectives (DQOs) used in designing this PDS were the same DQOs identified in the Pre-Demolition Survey Plan for D&D Facilities (MAN-127-PDSP). Refer to section 2.0 of MAN-127-PDSP for these DQOs.

2 HISTORICAL SITE ASSESSMENT

A Facility-specific Historical Site Assessment (HSA) and Reconnaissance Level Characterization (RLC) was conducted to understand the facility history and related hazards. The HSA consisted of facility walk-downs, interviews and document review, including review of the Historical Release Report, and were used to design the RLC. The Building 881 RLC was performed in the fall of 2001, as part of the Building 881 Cluster RLCR (refer to *Reconnaissance Level Characterization Report for the Building 881 Cluster,* dated November 6, 2001, Revision 0). Based on the RLC results, beryllium and radiological contamination was identified, and Building 881 was classified as a Type 2 Facility. Therefore, a PDS characterization was required before demolition of the facility. The HSA, RLCR and in-process characterization results were used to identify PDS data gaps and needs, and to develop radiological and chemical PDS characterization packages. HSA and RLC documentation are located in the RISS Characterization Project files.

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3 RADIOLOGICAL CHARACTERIZATION AND HAZARDS

3.1 In-Process Stripout and Decontamination

Radiological contamination was identified during the RLC, as well as during the in-process stripout and decontamination phase in numerous areas of the facility. Thus, extensive stripout and decontamination was required prior to the PDS. All potentially contaminated equipment, system piping, and block walls were removed from the building prior to PDS. After stripout and decontamination was completed, the areas were cleaned up, isolated and re-surveyed prior to turnover to the PDS Team.

3.2 Transuranic Versus and Uranium Activity Areas

Based on RLC data, and historical and process knowledge, transuranic and uranium activity were both a concern inside Building 881. Therefore, in-process media sampling was performed to determine transuranic and uranium areas of concern. Biased and random paint and concrete samples were collected throughout the building and were isotopically analyzed for transuranic and uranium contamination. Based on the isotopic results, Building 881 was divided into transuranic and uranium areas of concern. Any areas where the media samples were greater than the transuranic PDS unrestricted release criteria were designated transuranic areas and surveyed to the transuranic PDS unrestricted release criteria. All other areas were designated uranium areas and surveyed to the uranium PDS unrestricted release criteria.

The 881 first floor areas that were initially designated as transuranic areas were decontaminated and re-sampled. All re-sample results were less than the transuranic PDS unrestricted release criteria, therefore these areas were re-designated to uranium areas and surveyed to the uranium PDS unrestricted release criteria. Survey Units 881E03, 881E04, 881K01, 881K02, 881, K03, 881K04, 881, 881M05 and 881M06 were re-designated from transuranic to uranium areas via this method. Refer to Attachment B-1, *Media Sample Results Table and Sample Location Map*, for the "as left" media sample results and the sample locations.

3.3 Stainless Steel Floor Areas

Building 881 contains about 40,000 square feet of floor space that is covered over with 14 gage 304L stainless steel plating. The stainless steel plating was welded to concrete-embedded stainless steel channeling in approximately 3 x 8 feet rectangles. Random and biased locations underneath the stainless steel floor areas were surveyed during the RLCR. However, additional stainless steel floor areas were discovered during in-process stripout. Therefore, additional random and biased locations were chosen in the newly discovered stainless steel floor areas as well as in RLCR identified areas, to ensure an adequate sample population was collected. Electra probe sized holes (approximately 4 x 8 inches) were made in the stainless steel flooring and surveys of the bare concrete were performed. Additionally, at any survey location that indicated total surface activity above 100 dpm/100cm^2, a concrete media sample was collected and isotopically analyzed for transuranic and uranium contamination.

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All 1st floor stainless steel floor areas were designated uranium areas and surveyed to the uranium PDS unrestricted release criteria. Since contamination above the uranium unrestricted release criteria was identified underneath the stainless steel flooring in portions of Rooms 114A, 114 and 199, stainless steel flooring was removed in these areas prior to the PDS. All final PDS stainless steel flooring surveys and sample results were less than the applicable PDS unrestricted release criteria. Refer to Attachment B-2, *Stainless Steel Flooring Survey/Sample Results Table and Survey/Sample Location Maps*, for the "as left" stainless steel flooring survey and sample results and locations. Based on discussions and agreements with DOE and CDPHE, the stainless steel flooring can remain in-place and be buried with the balance of the sanitary concrete demolition debris.

3.4 Building 881 Confirmatory Surveys (Exterior & Interior)

The Building 881 exterior was characterized in accordance with the Pre-Demolition Survey Plan (MAN-127-PDSP) requirements as part of the Building 881 Cluster RLCR completed November 6, 2001. All of the exterior surveys performed during the Building 881 Cluster RLCR were less than the applicable PDS uranium DCGL values. Additional confirmatory surveys of Building 881 exterior were performed during the 881 interior PDS survey, and all results were also less than the applicable PDS transuranic and uranium DCGL values. Additionally, interior 1st floor and 1st floor mezzanine confirmatory surveys (large area swipes and 100cm^2 area swipes) have been performed of all accessible areas. Refer to Attachment B-3, *881 Confirmatory Surveys, Radiological Data and Survey Maps* for the building exterior and interior confirmatory radiological survey data, survey locations, and radiological maps.

3.5 PDS Planning and Preparation

Building 881 was characterized for radiological hazards per the PDSP. Radiological characterization was performed to define the nature and extent of radioactive materials that may be present on the facility surfaces. Measurements were performed to evaluate the contaminants of concern. Based upon a review of the RLC, historical and process knowledge, building walk-downs, in-process survey and sample results, and MARSSIM guidance, a Radiological Characterization Plan was developed during the planning phase that describes the minimum survey requirements (refer to the RISS Characterization Project files for the 881 Radiological Characterization Plan).

Building 881 radiological survey unit packages were developed in accordance with Radiological Safety Practices (RSP) 16.01, *Radiological Survey/Sampling Package Design, Preparation, Control, Implementation and Closure*. Refer to Attachment B-4, *881 Survey Unit Maps* for the locations of these survey units. Total surface activity (TSA), removable surface activity (RSA), and scan measurements were collected in accordance with RSP 16.02 *Radiological Surveys of Surfaces and Structures*. Radiological survey data were verified, validated and evaluated in accordance with RSP 16.04, *Radiological Survey/Sample Data Analysis*. Quality control measures were implemented relative to the survey process in accordance with RSP 16.05, *Radiological Survey/Sample Quality Control*. Individual radiological survey unit packages are maintained in the RISS Characterization Project files.

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3.6 PDS Survey Results

The table below summarizes the PDS radiological survey data by Survey Unit:

All final "as left" PDS radiological survey results were less than the applicable PDSP unrestricted release limits. Radiological survey unit data, statistical analysis results, survey locations and radiological scan maps are presented in Attachment B-5 *Radiological Survey Unit Data Summary and Survey Maps*. To ensure the facility remains free of further contamination and PDS data remain valid, Level 1-Isolation Controls have been established and the areas posted accordingly.

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Building 881 1st Floor and 1st Floor Mezzanine
Media Sample Results Table

Map Location	Room	Location Description	Uranium Result (dpm/100cm2)	Transuranic Result (dpm/100cm2)
10	113A	Wall, up 6'	135.0	1.6
11	113A	Wall, up 6'	59.2	0.3
12	113C	Wall, up 3'	56.4	31.9
13	113C	Floor	195.4	0.5
14	112A	Wall, up 4'	37.8	5.5
15	112A	Wall, up 6'	35.8	10.0
16	113	Wall, up 3'	26.4	0.0
17	112	Wall, up 2'	49.4	0.8
18	112	Floor	2,199.9	65.9
19	112	Column, up 9'	29.9	2.5
20	112	Column, up 9'	22.1	1.8
21	112	Floor	677.8	9.0
22	113	Wall, up 3'	18.1	1.5
23	113	Wall, up 4'	19.0	1.0
24	113	Floor	43.8	3.0
40	154A-K	Ceiling	1,012.8	0.0
41	154A-K	Ceiling	106.7	0.0
42	154A-K	Ceiling	106.7	0.0
43	154A-K	Ceiling	379.7	0.0
44	154A-K	Wall, up 5'	379.7	0.0
45	154A-K	Wall, up 4'	379.7	0.0
46	154A-K	Wall, up 7'	379.7	0.0
47	154A-K	Wall, up 7'	2,002.2	0.0
48	154A-K	Wall, up 1'	2,002.2	0.0
49	154A-K	Wall, up 3'	1,878.6	0.0
50	154A-K	Wall, up 3'	1,878.6	0.0
51	154A-K	Wall, up 1'	135.3	0.0
52	154A-K	Wall, up 4'	2,002.2	0.0
53	154A-K	Wall, up 3'	135.3	0.0
54	154A-K	Wall, up 3'	1,878.6	0.0
55	154A-K	Floor	1,911.6	0.0
56	154A-K	Floor	2,318.3	0.0
57	154A-K	Floor	2,318.3	0.0
58	154A-K	Floor	3,249.4	0.0
59	154A-K	Floor	211.8	0.0
60	179C stairwell	Wall, up 1'	89.8	0.0
61	179C stairwell	Wall, up 1'	1,032.5	0.0
62	179C stairwell	Wall, up 6'	89.8	0.0
63	179C stairwell	Wall, up 5'	66.7	0.0
64	ST1E	Floor	967.5	8.8
65	ST1E	Floor	1,146.1	2.6
66	ST1E	Floor	4,001.3	0.0
67	ST1E	Floor	3,871.2	0.0
68	ST1E	Wall, up 1'	4,001.3	0.0
69	ST1E	Ceiling	4,001.3	0.0
70	ST1E	Wall, up 3'	2,992.9	0.0
71	ST1E	Floor	4,081.3	45.6
72	ST1E	Wall, up 7'	291.7	0.0

Building 881 1st Floor and 1st Floor Mezzanine
Media Sample Results Table

Map Location	Room	Location Description	Uranium Result (dpm/100cm2)	Transuranic Result (dpm/100cm2)
74	ST1E	Ceiling	81.3	0.0
75	ST1E	Wall, up 1'	70.5	0.0
76	ST1E	Wall, up 3'	2,028.7	0.0
77	ST1E	Floor	2,110.2	0.0
78	ST1E	Wall, up 4'	126.3	0.0
79	143B	Wall, up 1'	2,161.8	0.0
80	143C	Wall	2,161.8	0.0
81	143A	Floor	2,161.8	0.0
82	143A	Floor	2,161.8	0.0
83	143A	Wall	2,161.8	0.0
84	143A	Wall	2,635.6	0.0
85	143A	Wall	2,635.6	0.0
86	143A	Floor	2,737.0	0.0
87	143	Wall, up 7'	1,556.6	0.0
88	115	Wall	28.8	0.0
89	115A	Wall	1,556.6	0.0
90	115A	Ceiling	2,635.6	0.0
91	115A	Floor	10.6	0.0
92	115	Floor	2,737.0	0.0
93	115	Floor	782.3	0.0
94	115	Wall	2,737.0	0.0
95	115	Wall	2,845.6	0.0
96	115	Floor	100.1	0.0
97	115	Wall	2,845.6	0.0
98	115E	Floor	2,845.6	0.0
99	115E	Wall	741.0	0.0
100	115D	Wall	741.0	0.0
101	115D	Floor	4,110.5	0.0
102	115C	Wall	4,110.5	0.0
103	115C	Floor	4,110.5	0.0
104	115B	Floor	741.0	0.0
105	115	Wall	3,187.8	0.0
106	114	Wall	3,187.8	0.0
107	114	Floor	0.0	0.0
108	114	Floor	0.0	0.0
109	114B	Wall	1,299.1	0.0
110	114E	Wall	4,952.9	0.0
111	114	Floor	2,250.0	0.0
112	114C	Wall	3,381.7	0.0
113	114D	Wall	3,381.7	0.0
114	114D	Wall	2,250.0	0.0
115	114D	Floor	2,250.0	0.0
116	114	Floor	2,250.0	0.0
117	114	Floor	112.4	0.0
118	114	Wall	3,187.8	0.0
119	114F	Wall	112.4	0.0
120	114	Wall	112.4	0.0
121	114	Wall	112.4	0.0

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Building 881 1st Floor and 1st Floor Mezzanine
Media Sample Results Table

Map Location	Room	Location Description	Uranium Result (dpm/100cm2)	Transuranic Result (dpm/100cm2)
122	114	Wall	922.5	0.0
123	114	Wall	1,583.8	0.0
124	114D	Wall	922.5	0.0
125	114D	Wall	1,583.8	0.0
126	114D	Ceiling	922.5	0.0
127	114	Ceiling	1,583.8	0.0
128	115	Ceiling	1,583.8	0.0
129	144	Floor	3,138.6	0.0
130	144	Floor	3,138.6	0.0
131	144	Floor	3,138.6	0.0
132	144	Floor	3,138.6	0.0
133	144	Floor	1,956.9	0.0
134	144	Floor	1,956.9	0.0
136	144	Wall, up 12'	211.7	0.0
137	144	Wall, up 1'	211.7	0.0
138	144	Wall, up 5'	1,956.9	0.0
139	144	Wall, up 5'	156.9	0.0
140	144	Wall, up 1'	4,154.4	0.0
141	144	Column, up 4'	2,513.1	0.0
142	144	Column, up 3'	580.1	0.0
143	144	Column, up 4'	580.1	0.0
144	144	Ceiling	580.1	0.0
145	144	Ceiling	2,548.0	0.0
146	144	Ceiling	580.1	0.0
147	144	Ceiling	2,548.0	0.0
148	144	Ceiling	2,548.0	0.0
149	ST1E	Wall, up 5'	649.0	9.9
169	169	Wall, up 4'	3,242.0	0.0
170	160	Wall, up 1'	3,242.0	0.0
171	160	Wall, up 1'	336.0	0.0
172	160	Wall, up 8'	2,604.9	0.0
173	160	Wall, up 6'	2,604.9	0.0
174	171	Wall, up 1'	3,680.6	0.0
175	171	Wall, up 4'	3,680.6	0.0
176	171A	Wall, up 4'	2,601.6	0.0
177	170A	Wall, up 4'	2,601.6	0.0
178	170	Wall, up 3'	212.0	0.0
179	170	Ceiling	212.0	0.0
180	171	Ceiling	212.0	0.0
181	160	Ceiling	2,368.3	0.0
182	160	Ceiling	2,368.3	0.0
183	169	Ceiling	2,368.3	0.0
194	121	Floor	1,922.4	35.2
195	122D	Wall	186.6	15.9
196	122	Wall	143.5	5.0
198	122D	Floor	550.2	7.5
199	122D	Floor	226.7	14.9
205	111B	Floor	120.1	0.0

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Building 881 1st Floor and 1st Floor Mezzanine
Media Sample Results Table

Map Location	Room	Location Description	Uranium Result (dpm/100cm2)	Transuranic Result (dpm/100cm2)
487	110X	Wall, up 4'	2,201.4	0.0
488	110B	Column, up 1'	2,201.4	0.0
490	116	Wall, up 1.5'	140.4	0.0
491	116	Wall, up 3'	140.4	0.0
492	116	Wall, up 4'	2,845.0	0.0
493	116	Wall, up 1.5'	1,627.0	0.0
494	116	Column, up 10'	1,627.0	0.0
495	116	Wall, up 5'	1,627.0	0.0
496	116	Wall, up 3'	140.4	0.0
497	116	Wall, up 1'	1,627.0	0.0
498	107	Column, up 4'	1,972.0	0.0
499	107	Wall, up 4'	1,972.0	0.0
500	107	Wall, up 4'	1,972.0	0.0
501	101	Wall, up 5'	1,627.0	0.0
502	101	Wall, up 1'	2,283.3	0.0
503	101	Wall, up 2'	2,283.3	0.0
504	101	Wall, up 2'	2,283.3	0.0
505	110F	Wall, up 3'	2,283.3	0.0
506	110F	Update map	2,283.3	0.0
507	107	Update map	1,810.3	0.0
508	110B	Wall, up 4'	1,810.3	0.0
509	110C	Wall, up 5'	140.4	0.0
510	110C	Update map	1,810.3	0.0
511	108	Column, up 10'	1,810.3	0.0
512	108	Column, up 4'	1,810.3	0.0
513	108	Wall	1,972.0	0.0
514	108	Wall	1,810.3	0.0
515	108	Wall	2,173.9	0.0
516	110K	Wall	2,173.9	0.0
517	108	Ceiling	1,810.3	0.0
518	108A	Wall, up 5'	2,173.9	0.0
519	110E	Wall, up 10'	2,173.9	0.0
520	110E	Wall, up 6'	1,618.2	0.0
521	110H	Wall, up 4'	1,618.2	0.0
522	116	Wall, up 1'	1,810.3	0.0
523	116	Wall, up 3'	1,618.2	0.0
524	122	Wall, up 4'	832.8	0.0
526	113	Wall, up 1'	140.4	0.0
527	139	Wall, up 4'	140.4	0.0
528	125D	Wall, up 3'	140.4	0.0
529	137E	Wall, up 6'	1,939.4	0.0
535	144A	Wall	1,667.2	21.4
540	144	Floor	3,016.4	5.1
653	ST1E	Floor	4,819.0	30.3
654	ST1E	Floor	1,263.2	0.0
655	ST1E	Floor	2,630.3	0.0
684	137	Floor	3,369.3	0.0
685	137	Floor	3,369.3	0.0

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Building 881 1st Floor and 1st Floor Mezzanine
Media Sample Results Table

Map Location	Room	Location Description	Uranium Result (dpm/100cm2)	Transuranic Result (dpm/100cm2)
686	137	Floor	3,369.3	0.0
687	137	Floor	3,369.3	0.0
688	137E	Floor	2,630.7	0.0
689	137A	Floor	2,630.7	0.0
690	137D	Floor	2,630.7	0.0
691	131	Floor	2,630.7	0.0
692	131D	Floor	3,775.6	0.0
693	127	Floor	2,630.7	0.0
694	125E	Floor	3,775.6	0.0
695	125	Floor	3,775.6	0.0
696	113C	Floor	3,775.6	0.0
697	112A	Floor	3,501.2	0.0
698	112	Floor	3,501.2	0.0
699	113	Floor	3,501.2	0.0
700	113	Floor	3,501.2	0.0
701	113	Floor	2,522.9	0.0
702	113B	Floor	3,501.2	0.0
703	113A	Floor	1,332.3	0.0
704	104	Floor	1,725.7	0.0
705	101	Floor	1,725.7	0.0
706	101	Floor	1,725.7	0.0
707	101	Floor	1,895.7	0.0
708	102	Floor	1,895.7	0.0
709	116	Floor	1881.5	0.0
710	107	Floor	1881.5	0.0
711	107	Floor	2,756.8	0.0
712	110	Floor	1881.5	0.0
713	110B	Floor	2,756.8	0.0
714	110B	Floor	2,756.8	0.0
715	110B	Floor	1,895.7	0.0
716	110B	Floor	2,756.8	0.0
717	110B	Floor	1,501.2	0.0
718	116	Floor	1,501.2	0.0
723	116	Floor	2,626.9	0.0
724	116	Floor	67.1	0.0
739	168	Floor	2,080.5	0.0
740	168	Floor	5954.6 (1)	0.0
741	168	Floor	5954.6 (1)	0.0
742	169	Floor	839.9	0.0
743	160	Floor	3,774.0	0.0
744	160	Floor	3,774.0	0.0
745	169	Floor	3,774.0	0.0
746	171A	Floor	3,774.0	0.0
747	169	Floor	1,675.2	0.0
748	161	Floor	1,675.2	0.0
749	161	Floor	3;261.6	0.0
750	161	Floor	3,261.6	0.0
751	161	Floor	2,490.2	0.0

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Building 881 1st Floor and 1st Floor Mezzanine
Media Sample Results Table

Map Location	Room	Location Description	Uranium Result (dpm/100cm2)	Transuranic Result (dpm/100cm2)
752	161	Floor	2,490.2	0.0
753	116	Floor	3,352.1	0.0
754	144	Floor	3,352.1	0.0
763	139	Floor	292.1	0.0
764	143B	Floor	2,249.5	0.0
765	143D	Floor	2,249.5	0.0
766	143F	Floor	2,249.5	0.0
768	114	Floor	205.3	0.0
769	114	Floor	143.5	0.0
828	114A	Floor	7.9	0.0
830	114A	Floor	7.0	0.0
831	114A	Floor	11.3	0.0
909	114A	Floor	1,673.6	0.0
910	162	Wall	1,292.9	0.0
911	163	Wall	6.6	0.0
915	121	Ceiling	120.4	0.0
916	122	Ceiling	-	0.0
917	122A	Ceiling	49.6	0.0
918	162	Floor	2,416.6	0.0
919	162	Floor	9.2	0.0
920	163	Floor	63.9	0.0
921	122	Floor	55.4	0.0
922	122	Floor	27.2	0.0
923	122	Floor	105.6	0.0
924	122	Column up 1'	80.8	0.0
925	122	Floor	0.0	0.0
926	121	Column up 1'	13.2	0.0
927	121	Floor	0.0	0.0
928	121	Floor	24.9	0.0
929	121	Floor	1,029.3	0.0
930	121	Column up 1'	1,337.4	0.0
931	121	Column up 1'	847.5	0.0
935	144A	Floor	4,823.8	0.0
Footnotes:				

(1) - The results of samples 740 and 741 were from a composite Canberra gamma spectroscopy count. These samples were collected at elevated locations found during a scan of the Room 168 floor. Once these samples were collected, these elevated locations were essentially decontaminated by the sampling process. The follow-up PDS surveys and scans of these areas showed that the area meets unrestricted release criteria, therefore no follow up actions are required.

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4 CHEMICAL CHARACTERIZATION AND HAZARDS

Building 881 was characterized for chemical hazards per the PDSP. Chemical characterization was performed to determine the nature and extent of chemical contamination that may be present on, or in Building 881. Based upon a review of historical and process knowledge, visual inspections, and PDSP DQOs, additional sampling needs were determined. A Chemical Characterization Plan was developed during the planning phase that describes sampling requirements and the justification for the sample locations and estimated number of samples. The contaminants of concern were asbestos, beryllium, metals, RCRA/CERCLA constituents and polychlorinated biphenyls (PCBs). Refer to Attachment C, *Chemical Summary Data and Sample Maps*, for details on sample results and sample locations. Level 1 Isolation Control postings are displayed on affected structures to ensure no hazardous materials are introduced.

4.1 Asbestos

A survey of building materials suspected of containing asbestos was conducted before and during in-process stripout and decontamination. A CDPHE-certified asbestos inspector conducted the inspections and sampling in accordance with the *Asbestos Characterization Protocol, PRO-563-ACPR, Revision 1*. Building materials suspected of containing asbestos were identified for sampling at the discretion of the inspector. Prior to the PDS, friable and non-friable asbestos abatement and satisfactory clearance sampling was conducted per CDPHE, Regulation No. 8, Part B, *Emission Standards for Asbestos*. Cinderblock walls containing non-friable asbestos block filler remain in portions of the building as fill in the 881 basement and pit areas in accordance with the RFCA Contact Record (refer to RFETS Contact Record prepared by Steve Nesta on August 21, 2003). Also, small quantities of mastic remain in portions of the building and will be used as fill in the 881 basement. On this basis, no additional asbestos sampling was required or performed as part of the PDS.

4.2 Beryllium (Be)

During the in-process stripout and decontamination phase of the 881 project, all areas containing loose beryllium contamination were decontaminated to below the unrestricted release limit of 0.2 $\mu g/100cm^2$. The use of fixatives was not necessary to decontaminate the areas below the unrestricted release limit. Since Building 881 was on the list of Known Beryllium Areas, both random and biased PDS sampling was required. Once the areas were de-posted from beryllium controls and the areas were isolated from the adjacent work areas, random and biased beryllium PDS swipes were collected. In addition to the random and biased PDS swipes, 152 in-process de-posting beryllium swipes are also included in the below PDS Beryllium Results Summary Table, as biased swipe data.

Building 881 was sub-divided into five (5) Beryllium Areas per the PDSP. The five (5) areas are: 1) second floor mezzanine and 881/883 tunnel, 2) second floor, 3) first floor mezzanine, 4) first floor, and 5) basement. Random and biased beryllium smear samples were collected in Building 881 in accordance with the PDSP and the *Beryllium Characterization Procedure,* PRO-536-BCPR, Revision 0, September 9, 1999. The table below summarizes the "as left" PDS beryllium swipe data for the 1st floor and 1st floor

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mezzanine. All beryllium PDS swipe results were less than the action levels of 0.2 $\mu g/100cm^2$ and 0.1 $\mu g/100cm^2$.

Detailed PDS beryllium laboratory swipe data and location maps are contained in Attachment C-1, *PDS Beryllium Data Summary and Sample Maps*. Detailed in-process biased beryllium laboratory swipe data are contained in Attachment C-2, *In-process Biased Beryllium Data.*

881 PDS Beryllium Summary Table

Beryllium Area	Random Swipes Required	Random Swipes Collected	Biased Swipes Collected	Swipes Results
1st Floor & 1st Mezzanine	61	93	88	All swipe results below PDS action levels
In-process – 1st Floor & 1st Mezzanine	0	0	152	All swipe results below PDS action levels
Totals	**61**	**93**	**240**	All swipe results below PDS action levels

4.3 RCRA/CERCLA Constituents [including metals and volatile organic compounds (VOCs)]

Based on the *Reconnaissance Level Characterization Report for the Building 881 Cluster*, dated November 6, 2001, and personnel interviews, facility walk-downs, in-process sample data, and a review of historical WEMS/WSRIC processes, Building 881 did not contain evidence of RCRA/CERCLA contamination. However, during the Building 881 RLC, RCRA/CERCLA sampling was performed for metals, VOCs and SVOCs. Based on this sampling, various EPA waste codes were assigned to certain areas of the floors in Rooms 143A and 113. However, EPA code F003 should not have been applied to either room, as the concrete is not ignitable. The referenced visible staining in both rooms was removed through routine decontamination procedures. Additionally, EPA codes F001, F002, and F005 are not applicable to the stained area in Room 143A as the levels detected were below the RFCA Attachment 5 Groundwater Tier II Action Levels, except for methylene chloride. However, since the laboratory blank had levels of methylene chloride above those detected in the samples, these results are considered invalid due to laboratory contamination. All results were less than the regulatory limits confirming Building 881 is not contaminated by RCRA/CERCLA constituents.

All of the ancillary equipment associated with permitted RCRA Storage Unit 887.2 was removed from Building 881 and appropriately managed and disposed of as LLM waste. All other temporary storage areas that may have been managed RCRA regulated waste were evaluated and no additional closure activities were required. Closure of RCRA Storage Unit 887.2 cannot be completed until Building 887 meets clean closure criteria or is removed and disposed of per RCRA regulations, which will be addressed in the PDSR for Building 887. Therefore, no additional RCRA/CERCLA sampling was required or performed as part of the PDS.

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The building may have contained some RCRA regulated items, such as mercury thermostats, fluorescent light bulbs, mercury vapor light bulbs, mercury containing gauges, circuit boards, and lead-acid batteries. However, these items have been removed and managed in accordance with the Colorado Hazardous Waste Act.

4.4 Polychlorinated Biphenyls (PCBs)

Based on the HSAR for the Building 881, personnel interviews, facility walk-downs and a review of historical WSRIC processes, Building 881 did house machinery containing PCB oil. As part of the removal of equipment from the pits, oil was drained from several machines and containerized. Because one of the oil containers tested positive for PCBs, RLC concrete core sample were collected and analyzed to check oil-stained areas beneath the equipment. All results were below 1.0 ppm confirming the lack of PCB contamination in Building 881. Therefore, no additional PCB sampling was required or performed as part of the PDS.

Demolition concrete rubble will be used for backfill on-site per the RFCA Recycling Concrete RSOP. This concrete rubble material meets the unrestricted release criteria of the RSOP for Facility Disposition (specific to 40CFR 761.62c). All remaining Building 881 building materials are inert.

5 PHYSICAL HAZARDS

Physical hazards associated with Building 881 consists of those common to standard industrial environments, and include hazards associated with energized systems, utilities, and trips and falls. There are several below-grade levels in the building and a below-grade tunnel leading to Building 883. The facility has been relatively well maintained and is in good physical condition, therefore, does not present hazards associated with building deterioration. Physical hazards are controlled by the Site Occupational Safety and Industrial Hygiene Program, which is based on OSHA regulations, DOE orders, and standard industry practices.

6 DATA QUALITY ASSESSMENT

Data used in making management decisions for decommissioning of Building 881, and consequent waste management, is of adequate quality to support the decisions documented in this report. The data presented in this report (Attachments B and C) were verified and validated relative to DOE quality requirements, applicable EPA guidance, and original project DQOs.

In summary, the Verification and Validation (V&V) process corroborates that the following elements of the characterization process are adequate:

- the *number* of samples and surveys;
- the *types* of samples and surveys;
- the sampling/survey process as implemented "in the field"; and
- the laboratory analytical process, relative to accuracy and precision considerations.

Details of the DQA are provided in Attachment D.

7 DECOMMISSIONING WASTE TYPES AND VOLUME ESTIMATES

The decommissioning of Building 881 will not generate any wastes. All remaining Building 881 building materials are inert. PCB ballasts and other hazardous waste items have been removed and managed pursuant to Site PCB and waste management procedures. Demolition concrete rubble will be used for backfill on-site per the RFCA Recycling Concrete RSOP and approval obtained from EPA in 2001 letter *RE: Approval of the Risk-Based Approach for Polychlorinated Biphenyls (PCB) – Based Painted Concrete*.

There will be approximately 9,000 cubic yards of concrete recycle material, and 2,000 cubic yards of various metal, and 6 cubic yard of stainless flooring material that will buried in place during the demolition of Building 881. The amount of metal is considered de minimis with respect to the 100,000 cubic yards of fill that will be required to bring the Building 881 Project Area to final grade, and has been addressed in the Facility Disposition RSOP Notification for the Building 881 demolition.

Cinderblock walls containing non-friable asbestos block filler remain in portions of the building as fill in the 881 basement and pits areas in accordance with the RFCA Contact Record (refer to RFETS Contact Record prepared by Steve Nesta on August 21, 2003). Also, small quantities of mastic remain in portions of the building and will be used as fill in the 881 basement. Locations and approximate quantities of non-friable asbestos block filler and mastic are as follows:

Block Filler

South Wall of Room 114	2,000 sf
Upper Walls of Elevator Room 159D	400 sf
Interior Wall Separating Rooms 283/283A	200 sf
Perimeter Walls of 250/250A/259/259A	800 sf

Mastic:

Wall Adhesive Pucks in Room 104 (assumed-ACM)	600 sf

8 FACILITY CLASSIFICATION AND CONCLUSIONS

Based on the analysis of radiological, chemical and physical hazards, Building 881 1st Floor and 1st Floor Mezzanine is classified as a RFCA Type 2 Facility pursuant to the RFETS Decommissioning Program Plan (DPP; K-H, 1999) and is ready for demolition. The PDS for the Building 881 1st Floor and 1st Floor Mezzanine was performed in accordance with the DDCP and PDSP, all PDSP DQOs were met, and all data satisfied the PDSP DQA criteria. Environmental media beneath and surrounding the facilities will be addressed at a future date in accordance with the Soil Disturbance Permit process and in compliance with RFCA.

Final "as left" PDS results indicated that radiological, beryllium, RCRA/CERCLA constituents and PCBs do not exist in excess of the PDSP unrestricted release limits. PCB ballasts, and other hazardous waste items (e.g., mercury thermostats, fluorescent light bulbs, mercury vapor light bulbs, mercury-containing gauges, circuit boards, leaded glass, and lead-acid batteries) have been removed and disposed of in compliance with Environmental Protection Agency (EPA) and Colorado Department of Public Health and Environment (CDPHE) regulations. All remaining Building 881 building materials are inert.

Asbestos abatement was conducted in Building 881 prior to the PDS. Friable and non-friable asbestos containing building materials were removed per CDPHE, Regulation No. 8, Part B, *Emission Standards for Asbestos*. Cinderblock walls containing non-friable asbestos block filler remain in portions of the building and will be used as fill in the 881 basement and pit areas in accordance with the RFCA Contract Record (refer to RFETS Contact Record prepared by Steve Nesta on August 21, 2003). In addition, small quantities of mastic remain in portions of the building and will be used as fill in the 881 basement.

Based upon this PDSR, Building 881 1st Floor and 1st Floor Mezzanine can be demolished. To ensure that the facility remains free of further contamination and that PDS data remain valid, Level 1-Isolation Controls have been established, and the area posted accordingly.

REFERENCES

DOE/RFFO, CDPHE, EPA, 1996. *Rocky Flats Cleanup Agreement (RFCA)*, July 19, 1996.

DOE Order 5400.5, *Radiation Protection of the Public and the Environment*

DOE Order 414.1A, *Quality Assurance*

EPA, 1994. *The Data Quality Objective Process,* EPA QA/G-4.

K-H, 1999. *Decommissioning Program Plan*, June 21, 1999.

MAN-131-QAPM, *Kaiser-Hill Team Quality Assurance Program*, Rev. 1, November 1, 2001.

MAN-076-FDPM, *Facility Disposition Program Manual*, Rev. 3, January 1, 2002.

MAN-077-DDCP, *Decontamination and Decommissioning Characterization Protocol*, Rev. 4, July 15, 2002.

MAN-127-PDSP, *Pre-Demolition Survey Plan for D&D Facilities*, Rev. 1, July 15, 2002.

MARSSIM - *Multi-Agency Radiation Survey and Site Investigation Manual* (NUREG-1575, EPA 402-R-97-016).

PRO-475-RSP-16.01, *Radiological Survey/Sampling Package Design, Preparation, Control, Implementation, and Closure,* Rev. 1, May 22, 2001.

PRO-476-RSP-16.02, *Pre-Demolition (Final Status) Radiological Surveys of Surfaces and Structures*, Rev. 1, May 22, 2001.

PRO-477-RSP-16.03, *Radiological Samples of Building Media*, Rev. 1, May 22, 2001.

PRO-478-RSP-16.04, *Radiological Survey/Sample Data Analysis for Final Status Survey*, Rev. 1, May 22, 2001.

PRO-479-RSP-16.05, *Radiological Survey/Sample Quality Control for Final Status Survey*, Rev. 1, May 22, 2001.

PRO-563-ACPR, *Asbestos Characterization Procedure,* Revision 0, August 24, 1999.

PRO-536-BCPR, *Beryllium Characterization Procedure*, Revision 0, August 24, 1999.

RFETS, Environmental Waste Compliance Guidance #25, Management of Polychlorinated Biphenyls (PCBs) in Paint and Other Bulk Product Waste During Facility Disposition.

RFETS, Environmental Waste Compliance Guidance #27, Lead-Based Paint (LBP) and Lead-Based Paint Debris Disposal.

RFETS, RFCA RSOP for Recycling Concrete, September 28, 1999

Reconnaissance Level Characterization Report for the Building 881 Cluster, Dated November 6, 2001, Revision 0.

Building 881 Historical Site Assessment Report, incorporated as part of the Building 881 Cluster RLCR, dated July 2001.

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ATTACHMENT A

Facility Location Map

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Rocky Flats Environmental Technology Site

Building 881

Map Features

- Buildings Remaining
- D&D Facility
- Paved Roads
- Dirt Roads
- Lakes
- Streams
- Railroad Removed
- Railroad Remaining
- Fence Removed
- Fence Remaining

N

1:2,294

1 inch equals 190 feet

State Plane Coordinate Projection
Colorado Central Zone (3476)
Datum NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

GIS Dept. (303) 966-7707

Prepared By: CH2MHILL

Prepared For: KAISER-HILL

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ATTACHMENT B-1

MEDIA SAMPLE RESULTS TABLE AND SAMPLE LOCATION MAP

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Building 881 1st Floor and 1st Floor Mezzanine
Media Sample Results Table

Map Location	Room	Location Description	Uranium Result (dpm/100cm2)	Transuranic Result (dpm/100cm2)
10	113A	Wall, up 6'	135.0	1.6
11	113A	Wall, up 6'	59.2	0.3
12	113C	Wall, up 3'	56.4	31.9
13	113C	Floor	195.4	0.5
14	112A	Wall, up 4'	37.8	5.5
15	112A	Wall, up 6'	35.8	10.0
16	113	Wall, up 3'	26.4	0.0
17	112	Wall, up 2'	49.4	0.8
18	112	Floor	2,199.9	65.9
19	112	Column, up 9'	29.9	2.5
20	112	Column, up 9'	22.1	1.8
21	112	Floor	677.8	9.0
22	113	Wall, up 3'	18.1	1.5
23	113	Wall, up 4'	19.0	1.0
24	113	Floor	43.8	3.0
40	154A-K	Ceiling	1,012.8	0.0
41	154A-K	Ceiling	106.7	0.0
42	154A-K	Ceiling	106.7	0.0
43	154A-K	Ceiling	379.7	0.0
44	154A-K	Wall, up 5'	379.7	0.0
45	154A-K	Wall, up 4'	379.7	0.0
46	154A-K	Wall, up 7'	379.7	0.0
47	154A-K	Wall, up 7'	2,002.2	0.0
48	154A-K	Wall, up 1'	2,002.2	0.0
49	154A-K	Wall, up 3'	1,878.6	0.0
50	154A-K	Wall, up 3'	1,878.6	0.0
51	154A-K	Wall, up 1'	135.3	0.0
52	154A-K	Wall, up 4'	2,002.2	0.0
53	154A-K	Wall, up 3'	135.3	0.0
54	154A-K	Wall, up 3'	1,878.6	0.0
55	154A-K	Floor	1,911.6	0.0
56	154A-K	Floor	2,318.3	0.0
57	154A-K	Floor	2,318.3	0.0
58	154A-K	Floor	3,249.4	0.0
59	154A-K	Floor	211.8	0.0
60	179C stairwell	Wall, up 1'	89.8	0.0
61	179C stairwell	Wall, up 1'	1,032.5	0.0
62	179C stairwell	Wall, up 6'	89.8	0.0
63	179C stairwell	Wall, up 5'	66.7	0.0
64	ST1E	Floor	967.5	8.8
65	ST1E	Floor	1,146.1	2.6
66	ST1E	Floor	4,001.3	0.0
67	ST1E	Floor	3,871.2	0.0
68	ST1E	Wall, up 1'	4,001.3	0.0
69	ST1E	Ceiling	4,001.3	0.0
70	ST1E	Wall, up 3'	2,992.9	0.0
71	ST1E	Floor	4,081.3	45.6
72	ST1E	Wall, up 7'	291.7	0.0

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Building 881 1st Floor and 1st Floor Mezzanine
Media Sample Results Table

Map Location	Room	Location Description	Uranium Result (dpm/100cm2)	Transuranic Result (dpm/100cm2)
74	ST1E	Ceiling	81.3	0.0
75	ST1E	Wall, up 1'	70.5	0.0
76	ST1E	Wall, up 3'	2,028.7	0.0
77	ST1E	Floor	2,110.2	0.0
78	ST1E	Wall, up 4'	126.3	0.0
79	143B	Wall, up 1'	2,161.8	0.0
80	143C	Wall	2,161.8	0.0
81	143A	Floor	2,161.8	0.0
82	143A	Floor	2,161.8	0.0
83	143A	Wall	2,161.8	0.0
84	143A	Wall	2,635.6	0.0
85	143A	Wall	2,635.6	0.0
86	143A	Floor	2,737.0	0.0
87	143	Wall, up 7'	1,556.6	0.0
88	115	Wall	28.8	0.0
89	115A	Wall	1,556.6	0.0
90	115A	Ceiling	2,635.6	0.0
91	115A	Floor	10.6	0.0
92	115	Floor	2,737.0	0.0
93	115	Floor	782.3	0.0
94	115	Wall	2,737.0	0.0
95	115	Wall	2,845.6	0.0
96	115	Floor	100.1	0.0
97	115	Wall	2,845.6	0.0
98	115E	Floor	2,845.6	0.0
99	115E	Wall	741.0	0.0
100	115D	Wall	741.0	0.0
101	115D	Floor	4,110.5	0.0
102	115C	Wall	4,110.5	0.0
103	115C	Floor	4,110.5	0.0
104	115B	Floor	741.0	0.0
105	115	Wall	3,187.8	0.0
106	114	Wall	3,187.8	0.0
107	114	Floor	0.0	0.0
108	114	Floor	0.0	0.0
109	114B	Wall	1,299.1	0.0
110	114E	Wall	4,952.9	0.0
111	114	Floor	2,250.0	0.0
112	114C	Wall	3,381.7	0.0
113	114D	Wall	3,381.7	0.0
114	114D	Wall	2,250.0	0.0
115	114D	Floor	2,250.0	0.0
116	114	Floor	2,250.0	0.0
117	114	Floor	112.4	0.0
118	114	Wall	3,187.8	0.0
119	114F	Wall	112.4	0.0
120	114	Wall	112.4	0.0
121	114	Wall	112.4	0.0

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Building 881 1st Floor and 1st Floor Mezzanine
Media Sample Results Table

Map Location	Room	Location Description	Uranium Result (dpm/100cm2)	Transuranic Result (dpm/100cm2)
122	114	Wall	922.5	0.0
123	114	Wall	1,583.8	0.0
124	114D	Wall	922.5	0.0
125	114D	Wall	1,583.8	0.0
126	114D	Ceiling	922.5	0.0
127	114	Ceiling	1,583.8	0.0
128	115	Ceiling	1,583.8	0.0
129	144	Floor	3,138.6	0.0
130	144	Floor	3,138.6	0.0
131	144	Floor	3,138.6	0.0
132	144	Floor	3,138.6	0.0
133	144	Floor	1,956.9	0.0
134	144	Floor	1,956.9	0.0
136	144	Wall, up 12'	211.7	0.0
137	144	Wall, up 1'	211.7	0.0
138	144	Wall, up 5'	1,956.9	0.0
139	144	Wall, up 5'	156.9	0.0
140	144	Wall, up 1'	4,154.4	0.0
141	144	Column, up 4'	2,513.1	0.0
142	144	Column, up 3'	580.1	0.0
143	144	Column, up 4'	580.1	0.0
144	144	Ceiling	580.1	0.0
145	144	Ceiling	2,548.0	0.0
146	144	Ceiling	580.1	0.0
147	144	Ceiling	2,548.0	0.0
148	144	Ceiling	2,548.0	0.0
149	ST1E	Wall, up 5'	649.0	9.9
169	169	Wall, up 4'	3,242.0	0.0
170	160	Wall, up 1'	3,242.0	0.0
171	160	Wall, up 1'	336.0	0.0
172	160	Wall, up 8'	2,604.9	0.0
173	160	Wall, up 6'	2,604.9	0.0
174	171	Wall, up 1'	3,680.6	0.0
175	171	Wall, up 4'	3,680.6	0.0
176	171A	Wall, up 4'	2,601.6	0.0
177	170A	Wall, up 4'	2,601.6	0.0
178	170	Wall, up 3'	212.0	0.0
179	170	Ceiling	212.0	0.0
180	171	Ceiling	212.0	0.0
181	160	Ceiling	2,368.3	0.0
182	160	Ceiling	2,368.3	0.0
183	169	Ceiling	2,368.3	0.0
194	121	Floor	1,922.4	35.2
195	122D	Wall	186.6	15.9
196	122	Wall	143.5	5.0
198	122D	Floor	550.2	7.5
199	122D	Floor	226.7	14.9
205	111B	Floor	120.1	0.0

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Building 881 1st Floor and 1st Floor Mezzanine
Media Sample Results Table

Map Location	Room	Location Description	Uranium Result (dpm/100cm2)	Transuranic Result (dpm/100cm2)
487	110X	Wall, up 4'	2,201.4	0.0
488	110B	Column, up 1'	2,201.4	0.0
490	116	Wall, up 1.5'	140.4	0.0
491	116	Wall, up 3'	140.4	0.0
492	116	Wall, up 4'	2,845.0	0.0
493	116	Wall, up 1.5'	1,627.0	0.0
494	116	Column, up 10'	1,627.0	0.0
495	116	Wall, up 5'	1,627.0	0.0
496	116	Wall, up 3'	140.4	0.0
497	116	Wall, up 1'	1,627.0	0.0
498	107	Column, up 4'	1,972.0	0.0
499	107	Wall, up 4'	1,972.0	0.0
500	107	Wall, up 4'	1,972.0	0.0
501	101	Wall, up 5'	1,627.0	0.0
502	101	Wall, up 1'	2,283.3	0.0
503	101	Wall, up 2'	2,283.3	0.0
504	101	Wall, up 2'	2,283.3	0.0
505	110F	Wall, up 3'	2,283.3	0.0
506	110F	Update map	2,283.3	0.0
507	107	Update map	1,810.3	0.0
508	110B	Wall, up 4'	1,810.3	0.0
509	110C	Wall, up 5'	140.4	0.0
510	110C	Update map	1,810.3	0.0
511	108	Column, up 10'	1,810.3	0.0
512	108	Column, up 4'	1,810.3	0.0
513	108	Wall	1,972.0	0.0
514	108	Wall	1,810.3	0.0
515	108	Wall	2,173.9	0.0
516	110K	Wall	2,173.9	0.0
517	108	Ceiling	1,810.3	0.0
518	108A	Wall, up 5'	2,173.9	0.0
519	110E	Wall, up 10'	2,173.9	0.0
520	110E	Wall, up 6'	1,618.2	0.0
521	110H	Wall, up 4'	1,618.2	0.0
522	116	Wall, up 1'	1,810.3	0.0
523	116	Wall, up 3'	1,618.2	0.0
524	122	Wall, up 4'	832.8	0.0
526	113	Wall, up 1'	140.4	0.0
527	139	Wall, up 4'	140.4	0.0
528	125D	Wall, up 3'	140.4	0.0
529	137E	Wall, up 6'	1,939.4	0.0
535	144A	Wall	1,667.2	21.4
540	144	Floor	3,016.4	5.1
653	ST1E	Floor	4,819.0	30.3
654	ST1E	Floor	1,263.2	0.0
655	ST1E	Floor	2,630.3	0.0
684	137	Floor	3,369.3	0.0
685	137	Floor	3,369.3	0.0

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Building 881 1st Floor and 1st Floor Mezzanine
Media Sample Results Table

Map Location	Room	Location Description	Uranium Result (dpm/100cm2)	Transuranic Result (dpm/100cm2)
686	137	Floor	3,369.3	0.0
687	137	Floor	3,369.3	0.0
688	137E	Floor	2,630.7	0.0
689	137A	Floor	2,630.7	0.0
690	137D	Floor	2,630.7	0.0
691	131	Floor	2,630.7	0.0
692	131D	Floor	3,775.6	0.0
693	127	Floor	2,630.7	0.0
694	125E	Floor	3,775.6	0.0
695	125	Floor	3,775.6	0.0
696	113C	Floor	3,775.6	0.0
697	112A	Floor	3,501.2	0.0
698	112	Floor	3,501.2	0.0
699	113	Floor	3,501.2	0.0
700	113	Floor	3,501.2	0.0
701	113	Floor	2,522.9	0.0
702	113B	Floor	3,501.2	0.0
703	113A	Floor	1,332.3	0.0
704	104	Floor	1,725.7	0.0
705	101	Floor	1,725.7	0.0
706	101	Floor	1,725.7	0.0
707	101	Floor	1,895.7	0.0
708	102	Floor	1,895.7	0.0
709	116	Floor	1881.5	0.0
710	107	Floor	1881.5	0.0
711	107	Floor	2,756.8	0.0
712	110	Floor	1881.5	0.0
713	110B	Floor	2,756.8	0.0
714	110B	Floor	2,756.8	0.0
715	110B	Floor	1,895.7	0.0
716	110B	Floor	2,756.8	0.0
717	110B	Floor	1,501.2	0.0
718	116	Floor	1,501.2	0.0
723	116	Floor	2,626.9	0.0
724	116	Floor	67.1	0.0
739	168	Floor	2,080.5	0.0
740	168	Floor	5,954.6	0.0
741	168	Floor	5,954.6	0.0
742	169	Floor	839.9	0.0
743	160	Floor	3,774.0	0.0
744	160	Floor	3,774.0	0.0
745	169	Floor	3,774.0	0.0
746	171A	Floor	3,774.0	0.0
747	169	Floor	1,675.2	0.0
748	161	Floor	1,675.2	0.0
749	161	Floor	3,261.6	0.0
750	161	Floor	3,261.6	0.0
751	161	Floor	2,490.2	0.0

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Building 881 1st Floor and 1st Floor Mezzanine
Media Sample Results Table

Map Location	Room	Location Description	Uranium Result (dpm/100cm2)	Transuranic Result (dpm/100cm2)
752	161	Floor	2,490.2	0.0
753	116	Floor	3,352.1	0.0
754	144	Floor	3,352.1	0.0
763	139	Floor	292.1	0.0
764	143B	Floor	2,249.5	0.0
765	143D	Floor	2,249.5	0.0
766	143F	Floor	2,249.5	0.0
768	114	Floor	205.3	0.0
769	114	Floor	143.5	0.0
828	114A	Floor	7.9	0.0
830	114A	Floor	7.0	0.0
831	114A	Floor	11.3	0.0
909	114A	Floor	1,673.6	0.0
910	162	Wall	1,292.9	0.0
911	163	Wall	6.6	0.0
915	121	Ceiling	120.4	0.0
916	122	Ceiling	-	0.0
917	122A	Ceiling	49.6	0.0
918	162	Floor	2,416.6	0.0
919	162	Floor	9.2	0.0
920	163	Floor	63.9	0.0
921	122	Floor	55.4	0.0
922	122	Floor	27.2	0.0
923	122	Floor	105.6	0.0
924	122	Column up 1'	80.8	0.0
925	122	Floor	0.0	0.0
926	121	Column up 1'	13.2	0.0
927	121	Floor	0.0	0.0
928	121	Floor	24.9	0.0
929	121	Floor	1,029.3	0.0
930	121	Column up 1'	1,337.4	0.0
931	121	Column up 1'	847.5	0.0
935	144A	Floor	4,823.8	0.0

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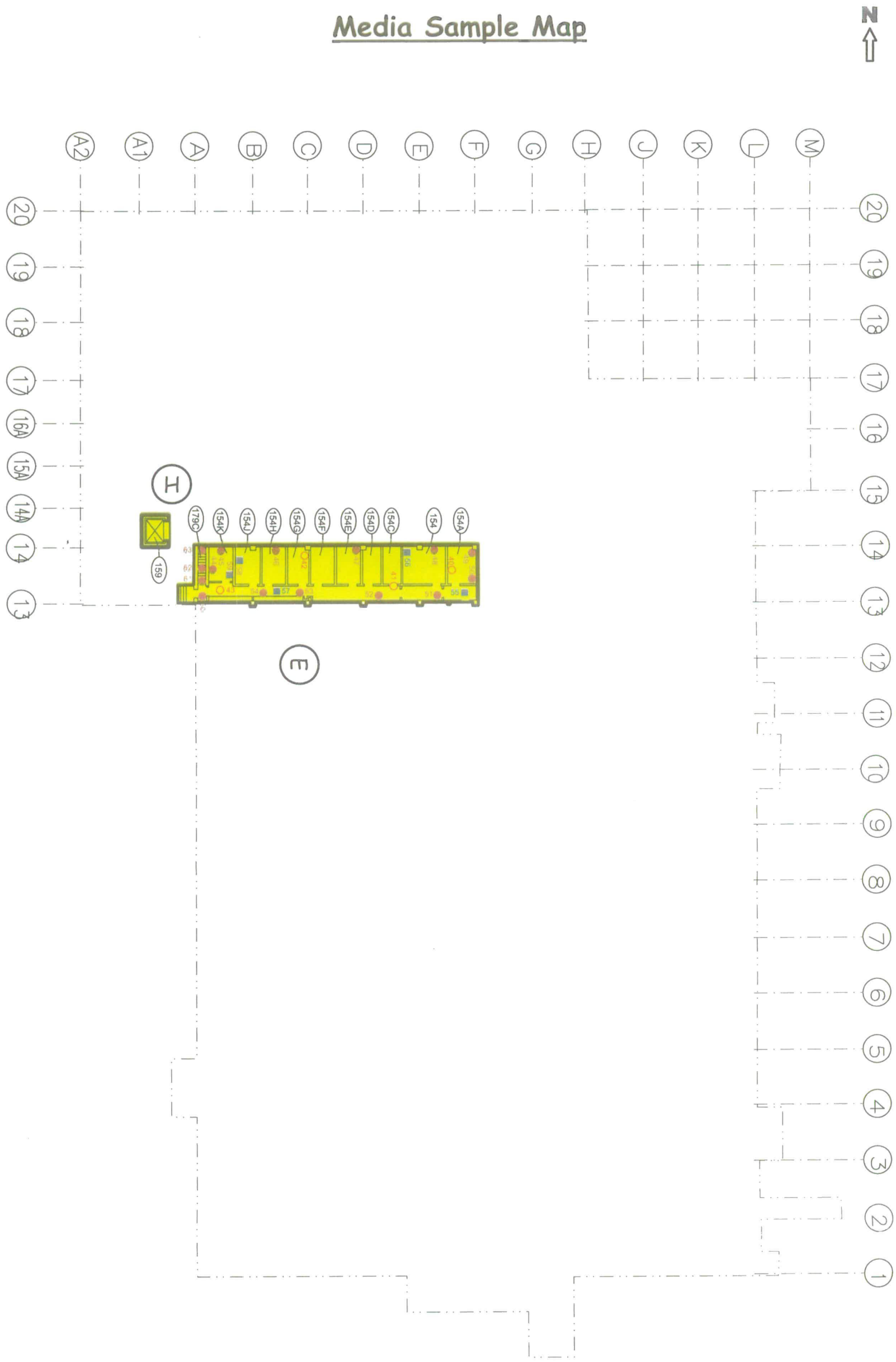
Media Sample Map



Building 881 First Floor Mezzanine

Uranium Survey Units

Transuranic Survey Units

Wall

Floor

Ceiling

Map ID: 1FLR-Mezz_MedSam_E_17x11

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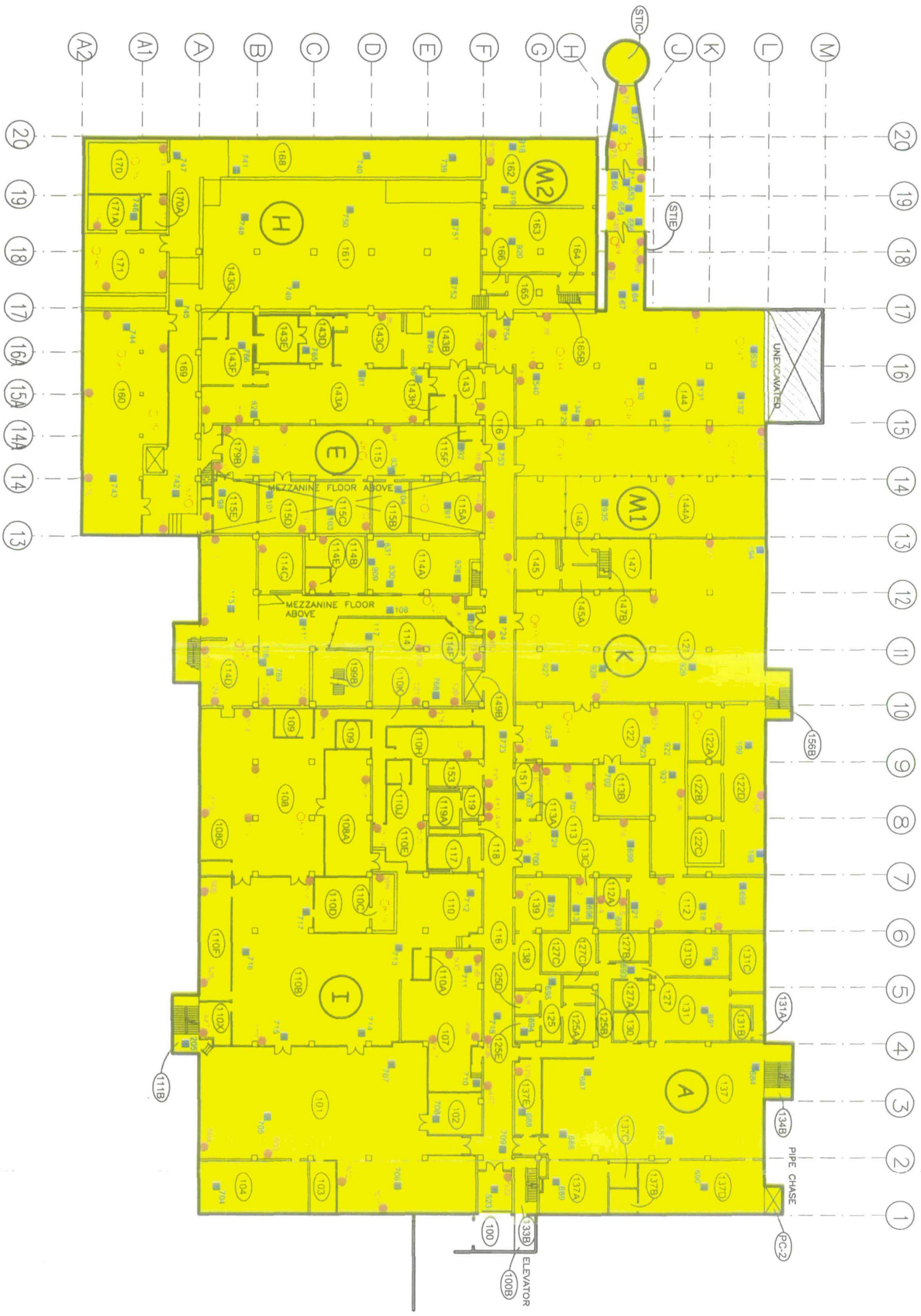
Media Sample Map

N



Building 881 First Floor

Uranium Survey Units

Transuranic Survey Units

Soil

Floor

Ceiling

Map ID: 1FLR_MedSam_I_17x11

ATTACHMENT B-2

STAINLESS STEEL FLOORING SURVEY/SAMPLE RESULTS TABLE AND SURVEY/SAMPLE LOCATION MAPS

B881 1st Floor Underneath Stainless Steel Flooring
Survey and Sample Results

UNDERNEATH STAINLESS STEEL FLOOR SURVEY RESULTS				UNDERNEATH SS FLOOR CONCRETE SAMPLE RESULTS	
Sample #	Location	Removable	Total	Uranium	Transuranics
		Alpha dpm/100cm^2	Alpha dpm/100cm^2	dpm/100cm^2	dpm/100cm^2
27	ROOM 114	2.3	0.0	N/A	N/A
29	ROOM 114D	5.2	60.0	N/A	N/A
30	ROOM 114F	0.0	0.0	N/A	N/A
31	ROOM 114C	8.1	0.0	N/A	N/A
34	ROOM 114D	0.0	0.0	N/A	N/A
89	ROOM 110H	8.8	36.5	N/A	N/A
91	ROOM 114	1.5	36.9	N/A	N/A
92	ROOM 114B	1.5	55.3	N/A	N/A
93	ROOM 109	2.7	72.5	N/A	N/A
94	ROOM 108A	5.8	9.5	N/A	N/A
95	ROOM 108	2.7	47.4	N/A	N/A
96	ROOM 108	-0.3	9.5	N/A	N/A
97	ROOM 108C	5.8	0.0	N/A	N/A
106	ROOM 114B	5.8	53.6	N/A	N/A
107	ROOM 114B	11.8	39.3	N/A	N/A
115	ROOM 114A	-0.3	22.2	N/A	N/A
120	Room 199 Walls	2.7	26.0	N/A	N/A
121	Room 199 Walls	-0.3	36.5	N/A	N/A
122	Room 199 Walls	-0.3	28.8	N/A	N/A
123	Room 199 Walls	9.1	41.1	N/A	N/A
124	Room 199 Walls	0.0	50.2	N/A	N/A
125	Room 199 Walls	0.0	38.4	N/A	N/A
126	Room 199 Walls	3.0	50.2	N/A	N/A
127	Room 199 Walls	3.0	10.5	N/A	N/A
128	Room 199 Walls	0.0	26.0	N/A	N/A
129	Room 199 Walls	0.0	18.3	N/A	N/A
130	Room 199 Walls	0.0	33.8	N/A	N/A
131	Room 199 Walls	0.0	39.7	N/A	N/A
132	Room 199 Walls	6.1	56.2	N/A	N/A
133	Room 199 Walls	0.0	18.3	N/A	N/A
134	Room 199 Walls	3.0	30.6	N/A	N/A
135	Room 199 Walls	3.0	25.6	N/A	N/A

Notes:

1. "As Left" final conditions are reported in these table and the map. All SS floors that were removed in-process are not reported or shown.
2. Locations 1-47 were surveyed during the RLC.
3. Locations 48-107 were surveyed during in-process stripout.
4. Total Surface Activity alpha survey result locations above 100 dpm/100cm2 was isotopiclly sampled to determine isotopic mix.
5. Concrete samples were collected during in-process stripout.

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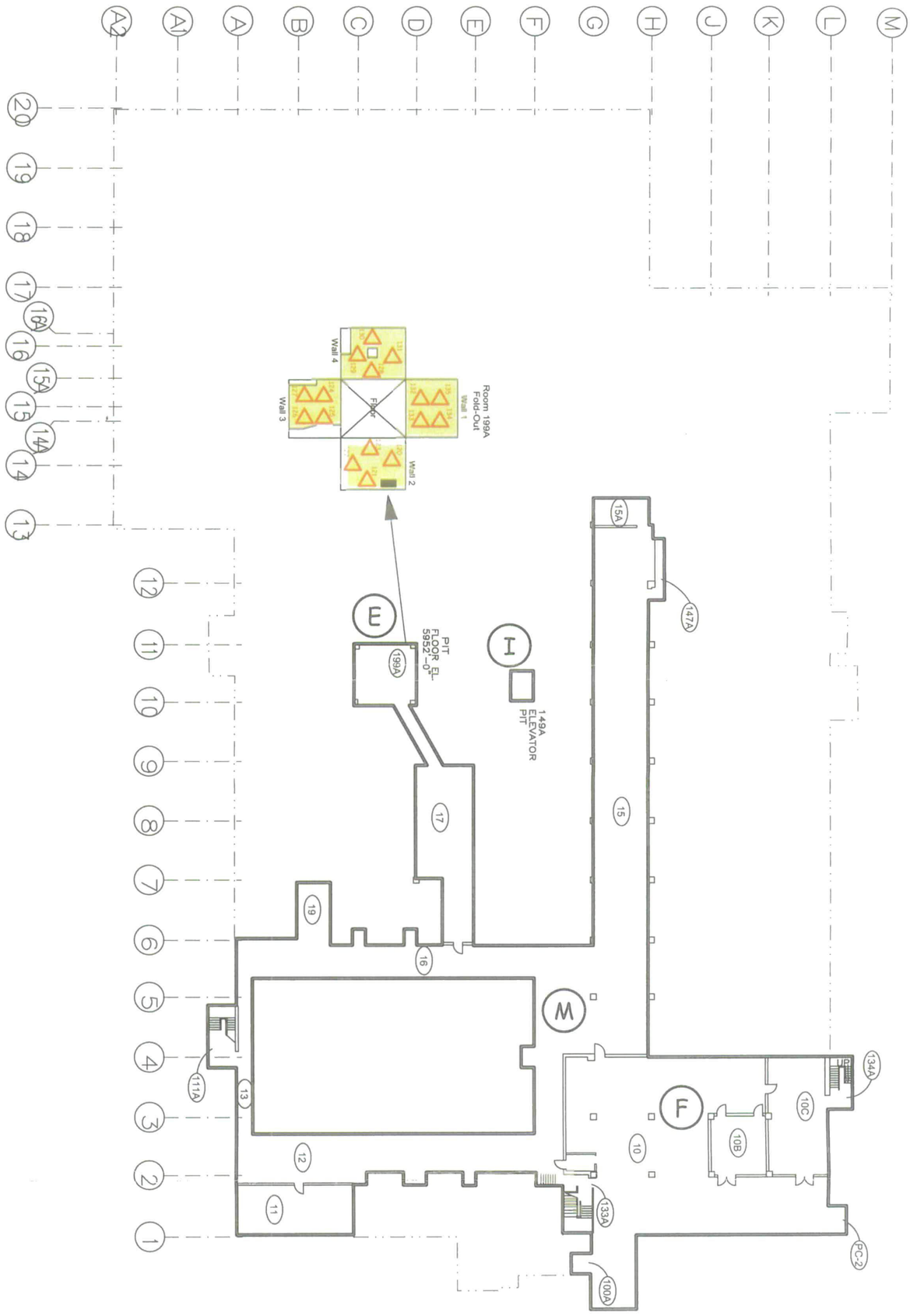
STAINLESS STEEL SURVEY & SAMPLE MAP

N



Building 881 Basement

□ = RLC, Under SS Floor, TSA/RSA Only
■ = RLC, Under SS Floor, TSA/RSA / Media Sample
△ = In-Process, Under SS Floor, TSA/RSA Survey Only
▲ = In-Process, Under SS Floor, TSA/RSA / Media Sample

= Stainless Steel Floor

SS = Stainless Steel

Map ID Base-SSTL_M_17x11

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STAINLESS STEEL SURVEY & SAMPLE MAP

N

Building 881 First Floor

□ = RLC, Under SS Floor, TSA/RSA Only
■ = RLC, Under SS Floor, TSA/RSA / Media Sample
△ = In-Process, Under SS Floor, TSA/RSA Survey Only
▲ = In-Process, Under SS Floor, TSA/RSA / Media Sample

= Stainless Steel Floor

SS = Stainless Steel

Map ID: 1FLR_SSTL_I

ATTACHMENT B-3

881 EXTERIOR CONFIRMATORY SURVEY, RADIOLOGICAL DATA AND SURVEY MAPS

38

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.	Ludlum	Mfg.	NE Electra	Mfg.	NE Electra
Model	2929	Model	DP-6	Model	DP-6
Serial #	147742	Serial #	N/A	Serial #	1290
Cal Due	9/25/04	Cal Due	N/A	Cal Due	12/1/04
Bkg	0.4 cpmα	Bkg	N/A cpmα	Bkg	2.0 cpmα
Efficiency	35.10 %	Efficiency	N/A %	Efficiency	22.20 %
MDA	18 dpmα	MDA	###### dpmα	MDA	42 dpmα
Mfg.	Ludlum	Mfg.	NE Electra	Mfg.	NE Electra
Model	2929	Model	DP-6	Model	DP-6
Serial #	147742	Serial #	N/A	Serial #	1290
Cal Due	9/25/04	Cal Due	N/A	Cal Due	12/1/04
Bkg	107.7 cpmβ	Bkg	N/A cpmβ	Bkg	842.0 cpmβ
Efficiency	39.10 %	Efficiency	N/A %	Efficiency	30.70 %
MDA	205 dpmβ	MDA	###### dpmβ	MDA	448 dpmβ

Survey Tracking # N/A

Survey Type: Contamination

Building: 881

Location: External Walls and Roof of B881

Purpose: Pre-Demolition Verification Survey

RWP #: N/A

Date: 6/4/04 [redacted] 1030

RCT: [redacted] / [redacted] / 712193

Print name Emp. #

RCT: NA / NA / NA

Print name Signature Emp. #

COPY

PRN/REN # : N/A

Comments: Nuclides of concern are Uranium and Plutonium. Survey performed to verify contamination levels prior to demolition of 881. Performed swipes of exterior wallsand roof of B881.

SURVEY RESULTS

		ALPHA			BETA		
	LOCATION	Swipe	Direct	Wipe	Swipe	Direct	Wipe
#		dpm/100cm2	dpm/100cm2	dpm/wipe	dpm/100cm2	dpm/100cm2	dpm/wipe
1	881 Exterior Walls	<18	N/A	<42	N/A	N/A	N/A
2	881 Exterior Walls	<18	N/A	N/A	N/A	N/A	N/A
3	881 Exterior Walls	<18	N/A	N/A	N/A	N/A	N/A
4	881 Exterior Walls	<18	N/A	<42	N/A	N/A	N/A
5	881 Exterior Walls	<18	N/A	N/A	N/A	N/A	N/A
6	881 Exterior Walls	<18	N/A	N/A	N/A	N/A	N/A
7	881 Exterior Walls	<18	N/A	N/A	N/A	N/A	N/A
8	881 Roof	<18	N/A	N/A	N/A	N/A	N/A
9	881 Roof	<18	N/A	<42	N/A	N/A	N/A
10	881 Roof	<18	N/A	N/A	N/A	N/A	N/A
11	881 Roof	<18	N/A	N/A	N/A	N/A	N/A
12	881 Roof	<18	N/A	N/A	N/A	N/A	N/A
13	881 Roof	<18	N/A	N/A	N/A	N/A	N/A
14	881 Roof	<18	N/A	N/A	N/A	N/A	N/A
15	881 Roof	<18	N/A	N/A	N/A	N/A	N/A
16	881 Roof	<18	N/A	N/A	N/A	N/A	N/A
17	881 Roof	<18	N/A	<42	N/A	N/A	N/A
18	881 Roof	<18	N/A	N/A	N/A	N/A	N/A
19	881 Exterior Walls	<18	N/A	N/A	N/A	N/A	N/A
20	881 Exterior Walls	<18	N/A	N/A	N/A	N/A	N/A

Date Reviewed: 6/7/04 **RS Supervision:** [redacted] 1902791

Print Name Signature Emp. #

COPY

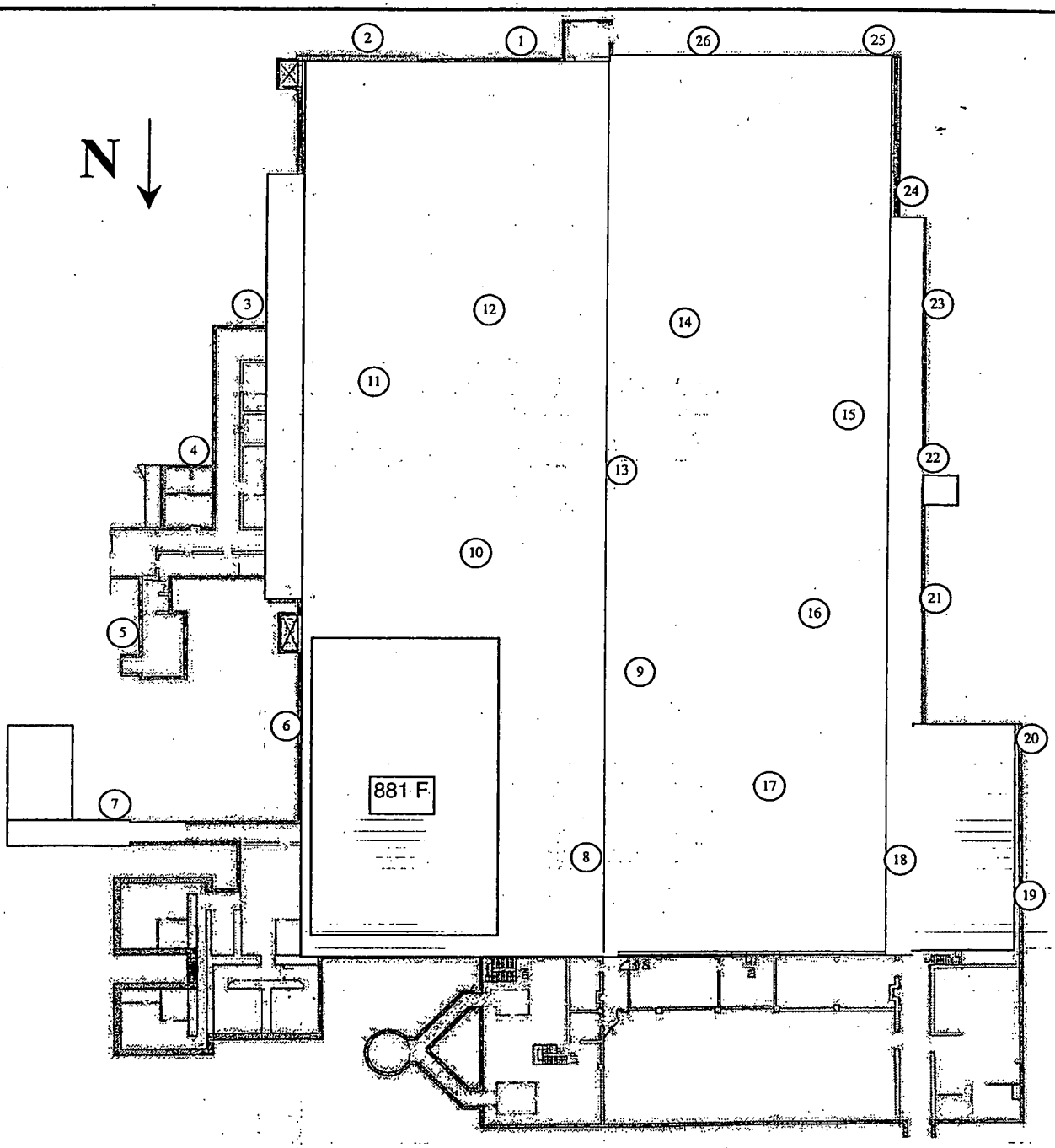
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

SURVEY RESULTS

	LOCATION	ALPHA Swipe	ALPHA Direct	ALPHA Wipe	BETA Swipe	BETA Direct	BETA Wipe
#		dpm/100cm2	dpm/100cm2	dpm/wipe	dpm/100cm2	dpm/100cm2	dpm/wipe
21	881 Exterior Walls	<18	N/A	<42	N/A	N/A	N/A
22	881 Exterior Walls	<18	N/A	N/A	N/A	N/A	N/A
23	881 Exterior Walls	<18	N/A	N/A	N/A	N/A	N/A
24	881 Exterior Walls	<18	N/A	N/A	N/A	N/A	N/A
25	881 Exterior Walls	<18	N/A	N/A	N/A	N/A	N/A
26	881 Exterior Walls	<18	N/A	<42	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

COPY

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE



41

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.	Ludlum	Mfg.	Eberline	Mfg.	NE Electra
Model	2929	Model	SAC-4	Model	DP-6
Serial #	N/A	Serial #	830	Serial #	2340
Cal Due	N/A	Cal Due	10/30/04	Cal Due	10/2/04
Bkg	N/A cpmα	Bkg	0.2 cpmα	Bkg	4.0 cpmα
Efficiency	N/A %	Efficiency	33.00 %	Efficiency	22.60 %
MDA	20 dpmα	MDA	20 dpmα	MDA	52 dpmα
Mfg.	Ludlum	Mfg.	Eberline	Mfg.	NE Electra
Model	2929	Model	BC-4	Model	DP-6
Serial #	N/A	Serial #	N/A	Serial #	2340
Cal Due	N/A	Cal Due	N/A	Cal Due	10/2/04
Bkg	N/A cpmβ	Bkg	N/A cpmβ	Bkg	741.0 cpmβ
Efficiency	N/A %	Efficiency	25.00 %	Efficiency	32.90 %
MDA	205 dpmβ	MDA	200 dpmβ	MDA	382 dpmβ

Survey Tracking # N/A

Survey Type: Contamination

Building: 881

Location: MU H and E Mezz

Purpose: Pre-demolition verification

RWP #: N/A

Date: 6/10/04 [redacted] 0830

RCT: [redacted] / [redacted] / 712193

Print name / Signature / Emp. #

RCT: N/A / N/A / N/A

Print name / Signature / Emp. #

PRN/REN # : N/A

Comments: Nuclides of concern are Uranium and Plutonium. Survey preformed to verify contamination levels prior to demolition of MU-H and Rm 154 MU E.

SURVEY RESULTS

	LOCATION	ALPHA Swipe	ALPHA Direct	ALPHA Wipe	BETA Swipe	BETA Direct	BETA Wipe
#		dpm/100cm2	dpm/100cm2	dpm/wipe	dpm/100cm2	dpm/100cm2	dpm/wipe
1	MU H Floor	<20	N/A	<52	N/A	N/A	N/A
2	MU H Floor	<20	N/A	N/A	N/A	N/A	N/A
3	MU H Floor	<20	N/A	<52	N/A	N/A	N/A
4	MU H Floor	<20	N/A	N/A	N/A	N/A	N/A
5	MU H Floor	<20	N/A	<52	N/A	N/A	N/A
6	MU H Floor	<20	N/A	N/A	N/A	N/A	N/A
7	MU H Floor	<20	N/A	<52	N/A	N/A	N/A
8	MU H Floor	<20	N/A	N/A	N/A	N/A	N/A
9	MU H Floor	<20	N/A	<52	N/A	N/A	N/A
10	MU H Floor	<20	N/A	N/A	N/A	N/A	N/A
11	MU H Floor	<20	N/A	<52	N/A	N/A	N/A
12	MU H Floor	<20	N/A	N/A	N/A	N/A	N/A
13	MU H Floor	<20	N/A	<52	N/A	N/A	N/A
14	MU H Floor	<20	N/A	N/A	N/A	N/A	N/A
15	MU H Floor	<20	N/A	<52	N/A	N/A	N/A
16	MU H Floor	<20	N/A	N/A	N/A	N/A	N/A
17	MU H Floor	<20	N/A	N/A	N/A	N/A	N/A
20	MU H Floor	<20	N/A	<52	N/A	N/A	N/A
19	Rm 154 MU E Floor	<20	N/A	N/A	N/A	N/A	N/A
20	Rm 154 MU E Floor	<20	N/A	N/A	N/A	N/A	N/A

Date Reviewed: 6/10/04 **RS Supervision:** [redacted] 1902791

Emp. #

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

SURVEY RESULTS

	LOCATION	ALPHA			BETA		
		Swipe	Direct	Wipe	Swipe	Direct	Wipe
#		dpm/100cm2	dpm/100cm2	dpm/wipe	dpm/100cm2	dpm/100cm2	dpm/wipe
21	Rm 154 MU E Floor	<20	N/A	N/A	N/A	N/A	N/A
22	Rm 154 MU E Floor	<20	N/A	<52	N/A	N/A	N/A
23	Rm 154 MU E Floor	<20	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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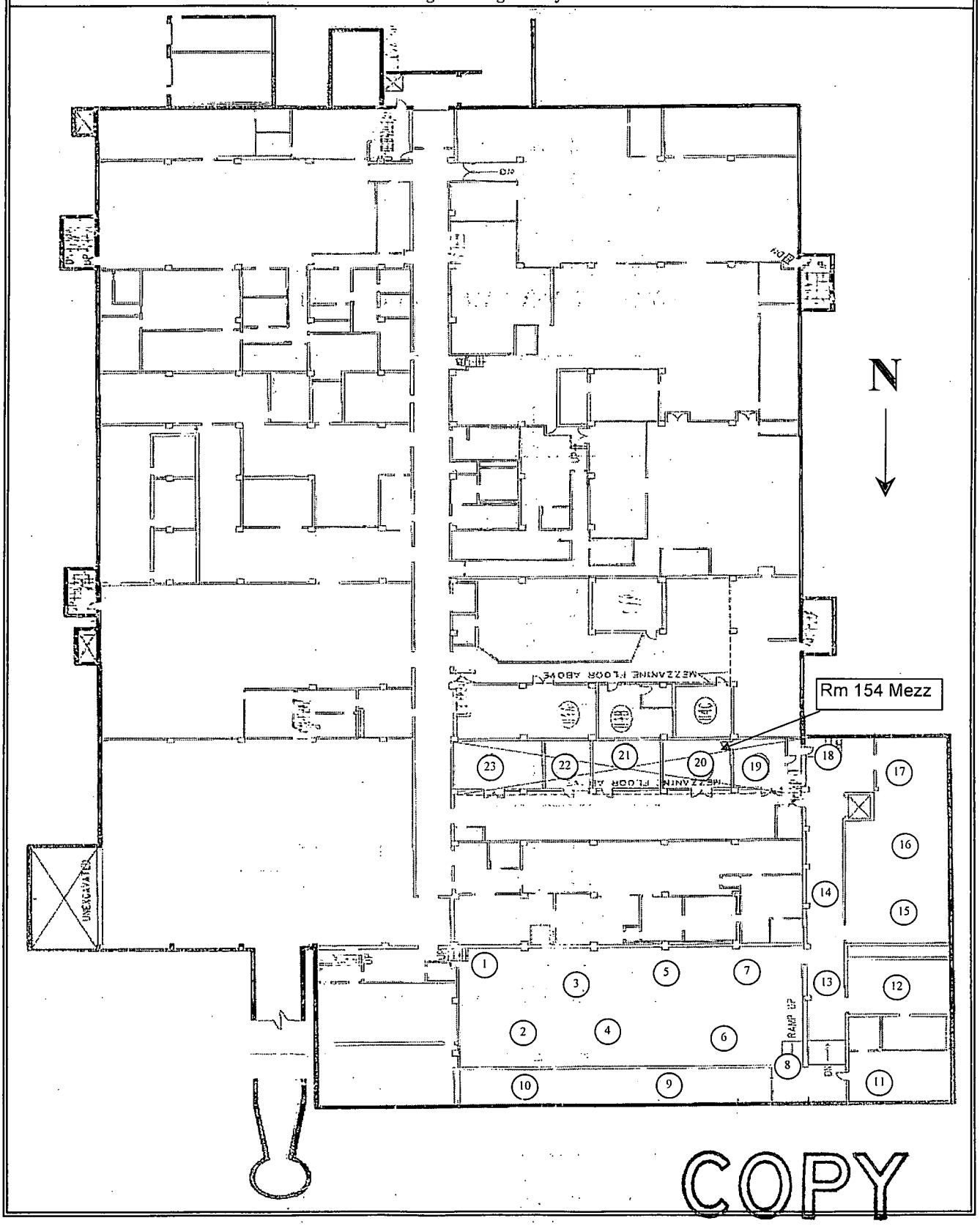
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

Drawing Showing Survey Points



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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.	Ludlum	Mfg.	Eberline	Mfg.	NE Electra
Model	2929	Model	SAC-4	Model	DP-6
Serial #	N/A	Serial #	830	Serial #	1518
Cal Due	N/A	Cal Due	10/30/04	Cal Due	12/2/04
Bkg	N/A cpmα	Bkg	0.0 cpmα	Bkg	5.0 cpmα
Efficiency	N/A %	Efficiency	33.00 %	Efficiency	21.70 %
MDA	18 dpmα	MDA	20 dpmα	MDA	60 dpmα
Mfg.	Ludlum	Mfg.	Eberline	Mfg.	NE Electra
Model	2929	Model	BC-4	Model	DP-6
Serial #	N/A	Serial #	N/A	Serial #	1518
Cal Due	N/A	Cal Due	N/A	Cal Due	12/2/04
Bkg	N/A cpmβ	Bkg	N/A cpmβ	Bkg	726.0 cpmβ
Efficiency	N/A %	Efficiency	25.00 %	Efficiency	28.20 %
MDA	205 dpmβ	MDA	200 dpmβ	MDA	454 dpmβ

Survey Tracking # N/A

Survey Type: Contamination

Building: 881

Location: 1st Floor

Purpose: Pre Demolition Verification

RWP #: N/A

Date: 6/17/04 [redacted] 1400

RCT: [redacted] / [redacted] / 712193
Print name / Signature / Emp. #

RCT: N/A / N/A / N/A
Print name / Signature / Emp. #

PRN/REN # : N/A

Comments: Nuclides of concern are Uranium and Plutonium. Survey performed to verify contamination levels prior to demolition of 881 first floor and south dock. Performed swipes on floors and walls.

SURVEY RESULTS

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#	LOCATION	ALPHA Swipe dpm/100cm2	ALPHA Direct dpm/100cm2	ALPHA Wipe dpm/wipe	BETA Swipe dpm/100cm2	BETA Direct dpm/100cm2	BETA Wipe dpm/wipe
1	Floor	<18	N/A	<60	N/A	N/A	N/A
2	Wall	<18	N/A	N/A	N/A	N/A	N/A
3	Floor	<18	N/A	<60	N/A	N/A	N/A
4	Floor	<18	N/A	N/A	N/A	N/A	N/A
5	Floor	<18	N/A	<60	N/A	N/A	N/A
6	Floor	<18	N/A	N/A	N/A	N/A	N/A
7	Floor	<18	N/A	<60	N/A	N/A	N/A
8	Floor	<18	N/A	N/A	N/A	N/A	N/A
9	Floor	<18	N/A	<60	N/A	N/A	N/A
10	Floor	<18	N/A	N/A	N/A	N/A	N/A
11	Floor	<18	N/A	<60	N/A	N/A	N/A
12	Wall	<18	N/A	N/A	N/A	N/A	N/A
13	Floor	<18	N/A	<60	N/A	N/A	N/A
14	Floor	<18	N/A	N/A	N/A	N/A	N/A
15	Floor	<18	N/A	<60	N/A	N/A	N/A
16	Floor	<18	N/A	N/A	N/A	N/A	N/A
17	Wall	<18	N/A	N/A	N/A	N/A	N/A
18	Floor	<18	N/A	<60	N/A	N/A	N/A
19	Floor	<18	N/A	N/A	N/A	N/A	N/A
20	Floor	<18	N/A	N/A	N/A	N/A	N/A

Date Reviewed: 6/23/04 **RS Supervision:** [redacted] / 1902791
Print Name / Signature / Emp. #

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

COPY

SURVEY RESULTS

		ALPHA			BETA		
	LOCATION	Swipe	Direct	Wipe	Swipe	Direct	Wipe
#		dpm/100cm2	dpm/100cm2	dpm/wipe	dpm/100cm2	dpm/100cm2	dpm/wipe
21	Floor	<18	N/A	N/A	N/A	N/A	N/A
22	Floor	<18	N/A	<60	N/A	N/A	N/A
23	Floor	<18	N/A	N/A	N/A	N/A	N/A
24	Floor	<18	N/A	<60	N/A	N/A	N/A
25	Floor	<18	N/A	N/A	N/A	N/A	N/A
26	Floor	<18	N/A	<60	N/A	N/A	N/A
27	Floor	<18	N/A	N/A	N/A	N/A	N/A
28	Floor	<18	N/A	N/A	N/A	N/A	N/A
29	Wall	<18	N/A	<60	N/A	N/A	N/A
30	Floor	<18	N/A	N/A	N/A	N/A	N/A
31	Floor	<18	N/A	N/A	N/A	N/A	N/A
32	Floor	<18	N/A	N/A	N/A	N/A	N/A
33	Floor	<18	N/A	N/A	N/A	N/A	N/A
34	Wall	<18	N/A	<60	N/A	N/A	N/A
35	Floor	<18	N/A	N/A	N/A	N/A	N/A
36	N/A	N/A	N/A	N/A	N/A	N/A	N/A
37	N/A	N/A	N/A	N/A	N/A	N/A	N/A
38	N/A	N/A	N/A	N/A	N/A	N/A	N/A
39	N/A	N/A	N/A	N/A	N/A	N/A	N/A
40	N/A	N/A	N/A	N/A	N/A	N/A	N/A
41	N/A	N/A	N/A	N/A	N/A	N/A	N/A
42	N/A	N/A	N/A	N/A	N/A	N/A	N/A
43	N/A	N/A	N/A	N/A	N/A	N/A	N/A
44	N/A	N/A	N/A	N/A	N/A	N/A	N/A
45	N/A	N/A	N/A	N/A	N/A	N/A	N/A
46	N/A	N/A	N/A	N/A	N/A	N/A	N/A
47	N/A	N/A	N/A	N/A	N/A	N/A	N/A
48	N/A	N/A	N/A	N/A	N/A	N/A	N/A
49	N/A	N/A	N/A	N/A	N/A	N/A	N/A
50	N/A	N/A	N/A	N/A	N/A	N/A	N/A
51	N/A	N/A	N/A	N/A	N/A	N/A	N/A
52	N/A	N/A	N/A	N/A	N/A	N/A	N/A
53	N/A	N/A	N/A	N/A	N/A	N/A	N/A
54	N/A	N/A	N/A	N/A	N/A	N/A	N/A
55	N/A	N/A	N/A	N/A	N/A	N/A	N/A
56	N/A	N/A	N/A	N/A	N/A	N/A	N/A
57	N/A	N/A	N/A	N/A	N/A	N/A	N/A
58	N/A	N/A	N/A	N/A	N/A	N/A	N/A
59	N/A	N/A	N/A	N/A	N/A	N/A	N/A
60	N/A	N/A	N/A	N/A	N/A	N/A	N/A
61	N/A	N/A	N/A	N/A	N/A	N/A	N/A
62	N/A	N/A	N/A	N/A	N/A	N/A	N/A
63	N/A	N/A	N/A	N/A	N/A	N/A	N/A
64	N/A	N/A	N/A	N/A	N/A	N/A	N/A
65	N/A	N/A	N/A	N/A	N/A	N/A	N/A
66	N/A	N/A	N/A	N/A	N/A	N/A	N/A
67	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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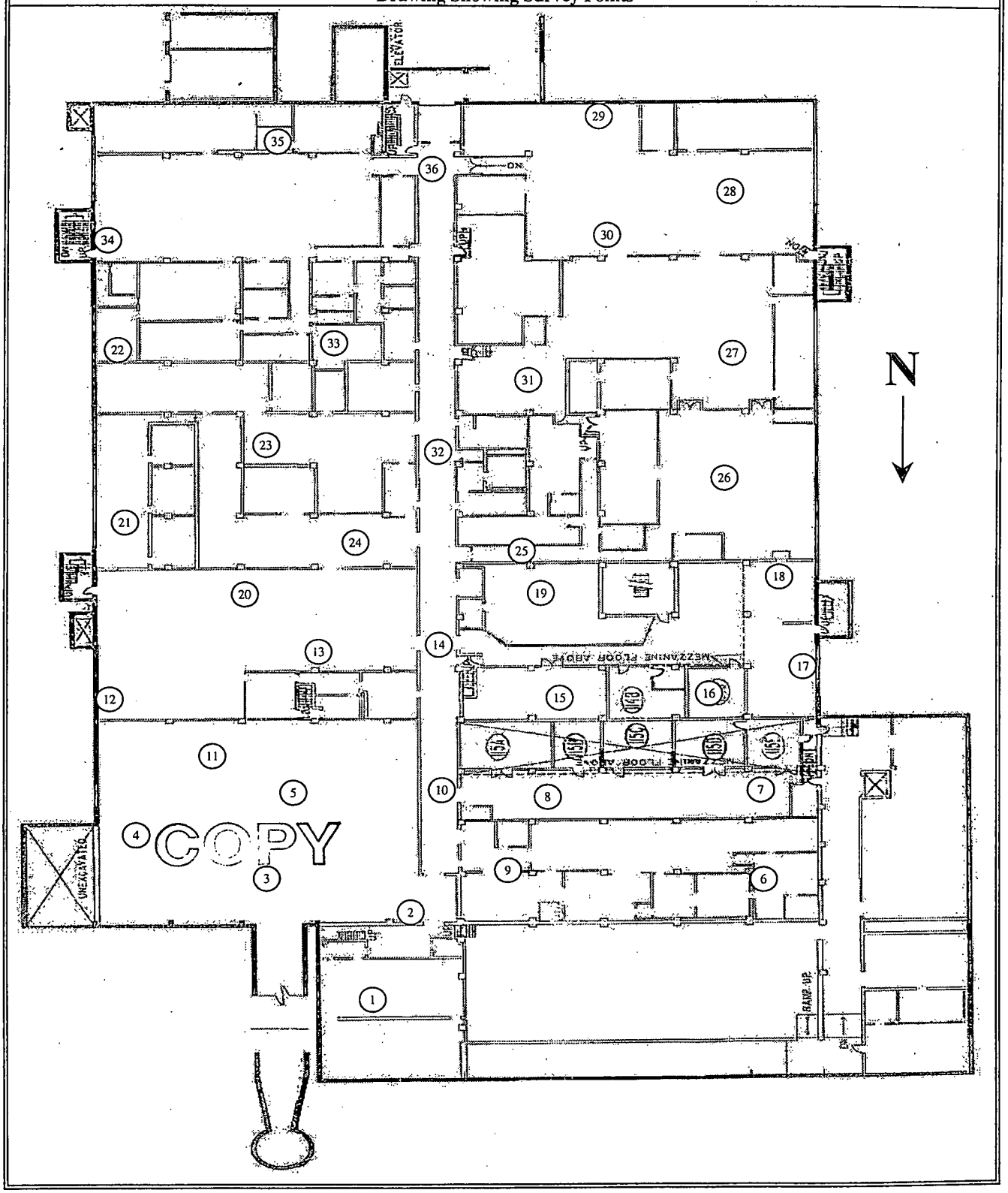
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

Drawing Showing Survey Points



ATTACHMENT B-4

881 RADIOLOGICAL SURVEY UNIT MAPS

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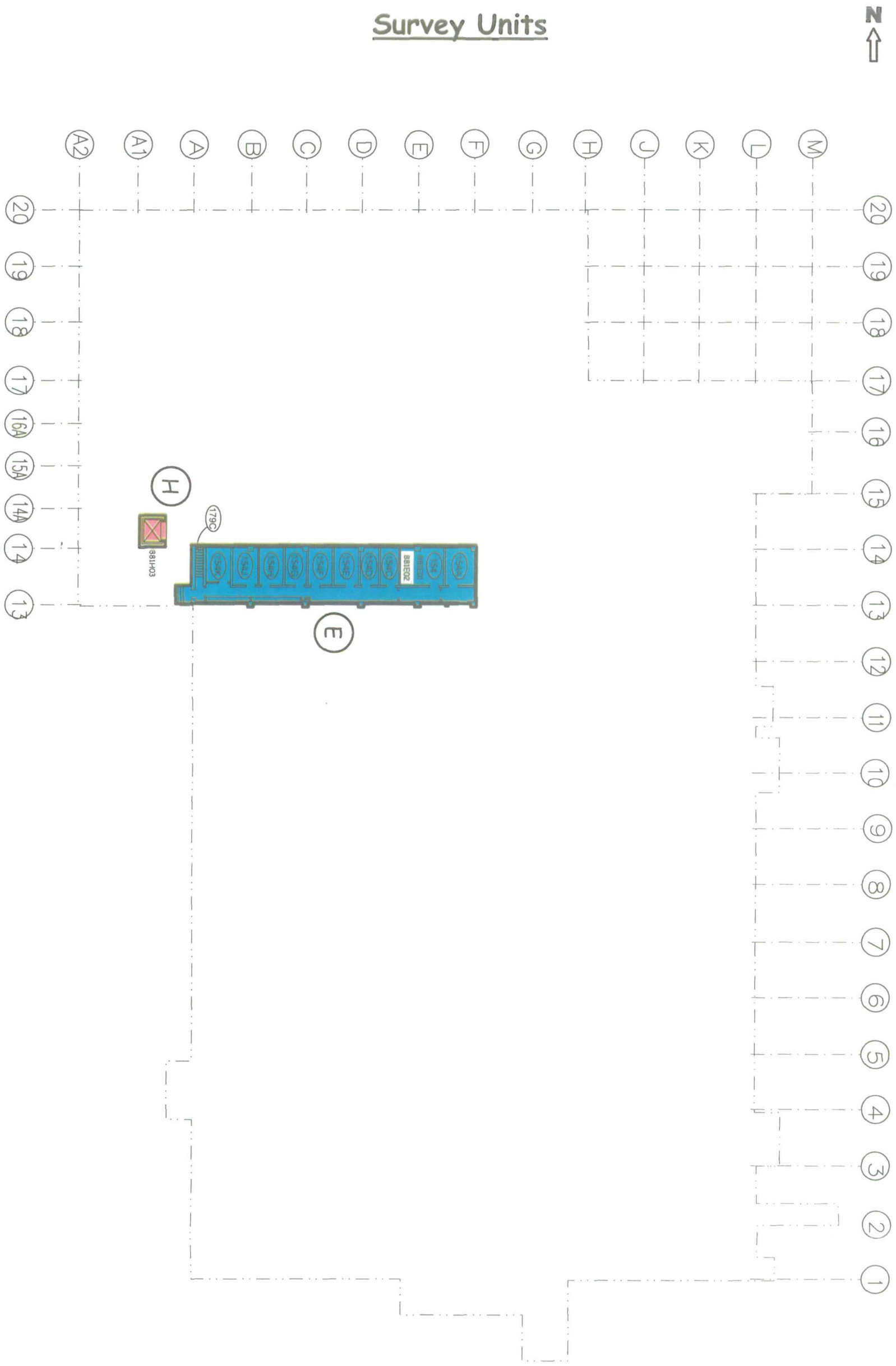
Survey Units



Building 881 First Floor Mezzanine Management Units

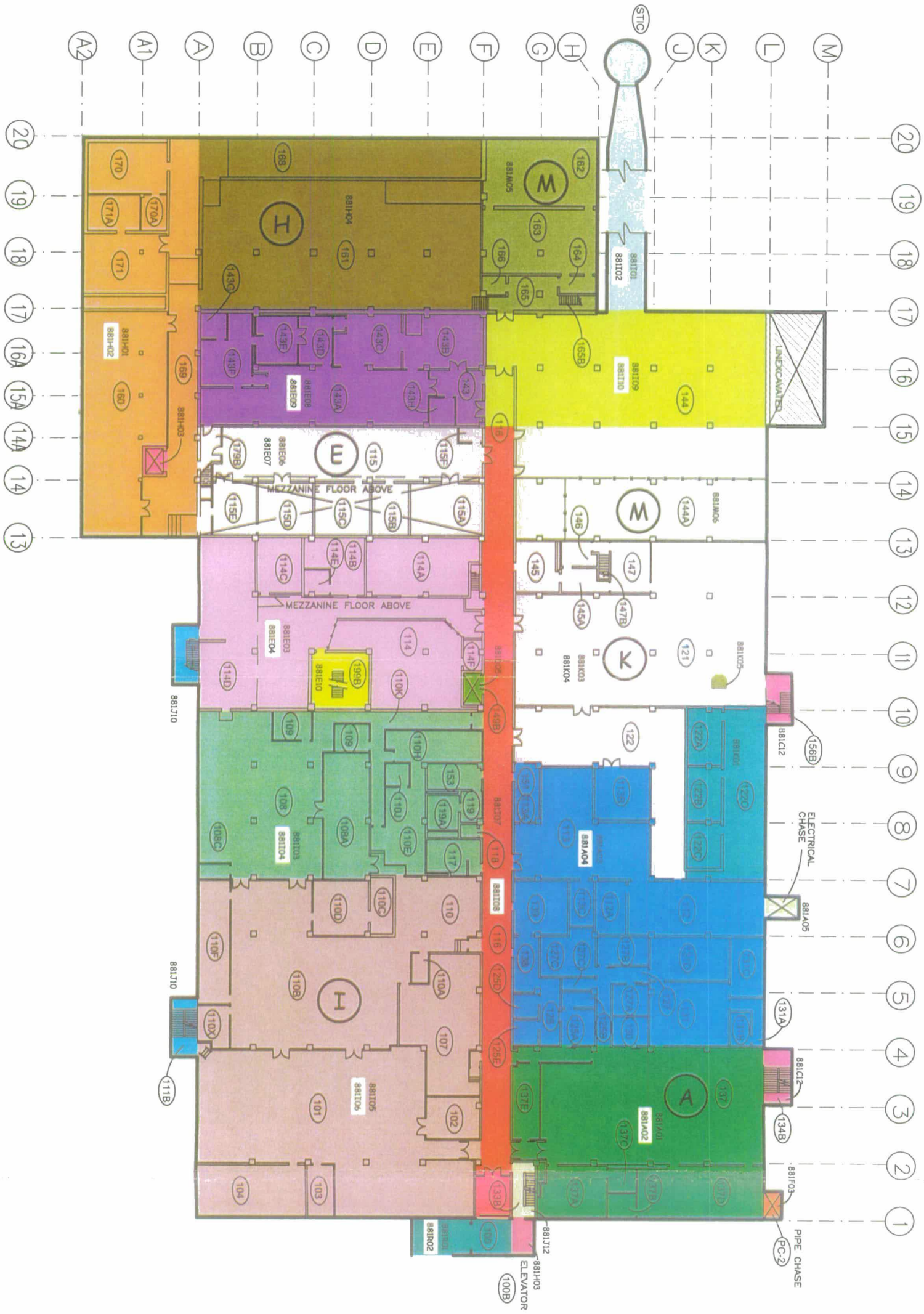
Legend:

- Color area indicate the survey unit boundaries
- xxxxxx — Six digit characters designate survey unit ID.
- xxxxxx — Six digit characters with white backgound designate survey unit ID, walls, ceilings, & columns.

ID: 1FLR-Mezz_Sur_Units_E_17x11

50

Survey Units



Building 881 First Floor Management Units

Legend:

Color area indicate the survey unit boundaries

xxxxxx Six digit characters designate survey unit ID.

xxxxxx Six digit characters with white backgound designate survey unit ID, walls, ceilings, & columns.

Note:

The following survey units were included in the 881 2nd Floor PDSR:
881C12
881D05
881H03
881J10
881J12
881R01
881R02

The following survey unit was included in the 881 Basement PDSR:
881F03

ID: 1FLR-Sur_Unit_I_17x11

ATTACHMENT B-5

RADIOLOGICAL SURVEY UNIT DATA SUMMARY AND SURVEY MAPS

Survey Area: A	Survey Unit: 881A01	Building: 881

Description: Building 881, Management Unit A, Room 137 Floor

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 73 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 5

Nbr Random Measurements Performed: 85 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 5

Alpha

Maximum:	105.6 dpm/100cm²
Minimum:	-15.1 dpm/100cm²
Mean:	23.9 dpm/100cm²
Standard Deviation:	22.7
QC Maximum:	85.0 dpm/100cm²
QC Minimum:	19.6 dpm/100cm²
QC Mean:	48.6 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 73 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 85 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	8.2 dpm/100cm²
Minimum:	-0.9 dpm/100cm²
Mean:	0.8 dpm/100cm²
Standard Deviation:	2.2
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: A	Survey Unit: 881A01	Building: 881

Description: Building 881, Management Unit A, Room 137 Floor

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	903346	06/14/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
2	903346	06/14/04	SAC-4	961	NA	09/30/04	0.330	NA	16.0	NA	R
3	700835	06/14/04	Electra	1417	DP-6	12/03/04	0.207	NA	93.0	NA	T/S
4	903346	06/14/04	Electra	662	DP-6	12/10/04	0.217	NA	93.0	NA	T/S
5	711447	06/14/04	Electra	667	DP-6	10/22/04	0.222	NA	93.0	NA	T/S
6	702575	06/15/04	Electra	1241	DP-8	10/06/04	0.193	NA	93.0	NA	S
7	702567	06/15/04	Electra	660	DP-8	10/08/04	0.156	NA	93.0	NA	S
8	700835	06/15/04	Electra	673	DP-8	06/30/04	0.180	NA	93.0	NA	S
9	712193	06/15/04	Electra	2394	DP-6	08/19/04	0.214	NA	93.0	NA	Q/S

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: A	Survey Unit: 881A01	Building: 881

Description: Building 881, Management Unit A, Room 137 Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A01PRP-N001	1	2.7	N/A	
881A01PRP-N002	2	-0.9	N/A	
881A01PRP-N003	1	-0.3	N/A	
881A01PRP-N004	2	-0.9	N/A	
881A01PRP-N005	1	-0.3	N/A	
881A01PRP-N006	2	8.2	N/A	
881A01PRP-N007	1	2.7	N/A	
881A01PRP-N008	2	5.2	N/A	
881A01PRP-N009	1	-0.3	N/A	
881A01PRP-N010	2	-0.9	N/A	
881A01PRP-N011	1	-0.3	N/A	
881A01PRP-N012	2	-0.9	N/A	
881A01PRP-N013	1	-0.3	N/A	
881A01PRP-N014	2	2.1	N/A	
881A01PRP-N015	1	-0.3	N/A	
881A01PRP-N016	2	-0.9	N/A	
881A01PRP-N017	1	-0.3	N/A	
881A01PRP-N018	2	-0.9	N/A	
881A01PRP-N019	1	-0.3	N/A	
881A01PRP-N020	2	2.1	N/A	
881A01PRP-N021	1	-0.3	N/A	
881A01PRP-N022	2	8.2	N/A	
881A01PRP-N023	1	-0.3	N/A	
881A01PRP-N024	2	-0.9	N/A	
881A01PRP-N025	1	-0.3	N/A	
881A01PRP-N026	2	-0.9	N/A	
881A01PRP-N027	1	-0.3	N/A	
881A01PRP-N028	2	5.2	N/A	
881A01PRP-N029	1	-0.3	N/A	

54

Survey Area: A	Survey Unit: 881A01	Building: 881

Description: Building 881, Management Unit A, Room 137 Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A01PRP-N030	2	-0.9	N/A	
881A01PRP-N031	1	-0.3	N/A	
881A01PRP-N032	2	-0.9	N/A	
881A01PRP-N033	1	-0.3	N/A	
881A01PRP-N034	2	-0.9	N/A	
881A01PRP-N035	1	-0.3	N/A	
881A01PRP-N036	2	-0.9	N/A	
881A01PRP-N037	1	-0.3	N/A	
881A01PRP-N038	2	-0.9	N/A	
881A01PRP-N039	1	-0.3	N/A	
881A01PRP-N040	2	-0.9	N/A	
881A01PRP-N041	1	-0.3	N/A	
881A01PRP-N042	2	-0.9	N/A	
881A01PRP-N043	1	2.7	N/A	
881A01PRP-N044	2	-0.9	N/A	
881A01PRP-N045	1	2.7	N/A	
881A01PRP-N046	2	2.1	N/A	
881A01PRP-N047	1	2.7	N/A	
881A01PRP-N048	2	-0.9	N/A	
881A01PRP-N049	1	-0.3	N/A	
881A01PRP-N050	2	5.2	N/A	
881A01PRP-N051	1	-0.3	N/A	
881A01PRP-N052	2	2.1	N/A	
881A01PRP-N053	1	2.7	N/A	
881A01PRP-N054	2	5.2	N/A	
881A01PRP-N055	1	-0.3	N/A	
881A01PRP-N056	2	2.1	N/A	
881A01PRP-N057	1	-0.3	N/A	
881A01PRP-N058	2	2.1	N/A	

Survey Area: A	Survey Unit: 881A01	Building: 881

Description: Building 881, Management Unit A, Room 137 Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A01PRP-N059	1	-0.3	N/A	
881A01PRP-N060	2	-0.9	N/A	
881A01PRP-N061	1	-0.3	N/A	
881A01PRP-N062	2	2.1	N/A	
881A01PRP-N063	1	-0.3	N/A	
881A01PRP-N064	2	-0.9	N/A	
881A01PRP-N065	1	2.7	N/A	
881A01PRP-N066	2	-0.9	N/A	
881A01PRP-N067	1	5.8	N/A	
881A01PRP-N068	2	-0.9	N/A	
881A01PRP-N069	1	-0.3	N/A	
881A01PRP-N070	2	-0.9	N/A	
881A01PRP-N071	1	-0.3	N/A	
881A01PRP-N072	2	-0.9	N/A	
881A01PRP-N073	1	-0.3	N/A	
881A01PRP-N074	2	2.1	N/A	
881A01PRP-N075	1	5.8	N/A	
881A01PRP-N076	2	2.1	N/A	
881A01PRP-N077	1	-0.3	N/A	
881A01PRP-N078	2	5.2	N/A	
881A01PRP-N079	1	-0.3	N/A	
881A01PRP-N080	2	-0.9	N/A	
881A01PRP-N081	1	2.7	N/A	
881A01PRP-N082	2	-0.9	N/A	
881A01PRP-N083	1	-0.3	N/A	
881A01PRP-N084	2	-0.9	N/A	
881A01PRP-N085	1	2.7	N/A	

Comments:

Survey Area: A	Survey Unit: 881A01	Building: 881

Description: Building 881, Management Unit A, Room 137 Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A01PRP-N001	3	23.5	N/A	
881A01PRP-N002	4	7.5	N/A	
881A01PRP-N003	5	15.7	N/A	
881A01PRP-N004	3	47.7	N/A	
881A01PRP-N005	4	21.3	N/A	
881A01PRP-N006	5	6.7	N/A	
881A01PRP-N007	3	23.5	N/A	
881A01PRP-N008	4	25.9	N/A	
881A01PRP-N009	5	38.3	N/A	
881A01QRP-N009	9	29.0	N/A	
881A01PRP-N010	3	-5.5	N/A	
881A01PRP-N011	4	12.1	N/A	
881A01PRP-N012	5	51.8	N/A	
881A01PRP-N013	3	18.7	N/A	
881A01PRP-N014	4	30.5	N/A	
881A01PRP-N015	5	-2.3	N/A	
881A01PRP-N016	3	28.3	N/A	
881A01PRP-N017	4	67.4	N/A	
881A01PRP-N018	5	20.2	N/A	
881A01PRP-N019	3	105.6	N/A	
881A01PRP-N020	4	53.5	N/A	
881A01PRP-N021	5	33.8	N/A	
881A01PRP-N022	3	4.2	N/A	
881A01PRP-N023	4	12.1	N/A	
881A01PRP-N024	5	24.7	N/A	
881A01PRP-N025	3	91.1	N/A	
881A01QRP-N025	9	85.0	N/A	

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Survey Area: A	Survey Unit: 881A01	Building: 881

Description: Building 881, Management Unit A, Room 137 Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A01PRP-N026	4	-1.8	N/A	
881A01PRP-N027	5	56.3	N/A	
881A01PRP-N028	3	4.2	N/A	
881A01PRP-N029	4	-1.8	N/A	
881A01PRP-N030	5	15.7	N/A	
881A01PRP-N031	3	33.2	N/A	
881A01PRP-N032	4	95.0	N/A	
881A01PRP-N033	5	47.3	N/A	
881A01PRP-N034	3	52.5	N/A	
881A01PRP-N035	4	25.9	N/A	
881A01PRP-N036	5	6.7	N/A	
881A01PRP-N037	3	9.0	N/A	
881A01PRP-N038	4	39.7	N/A	
881A01PRP-N039	5	-2.3	N/A	
881A01PRP-N040	3	9.0	N/A	
881A01PRP-N041	4	12.1	N/A	
881A01PRP-N042	5	-2.3	N/A	
881A01PRP-N043	3	28.3	N/A	
881A01PRP-N044	4	21.3	N/A	
881A01PRP-N045	5	42.8	N/A	
881A01QRP-N045	9	19.6	N/A	
881A01PRP-N046	3	28.3	N/A	
881A01PRP-N047	4	30.5	N/A	
881A01PRP-N048	5	6.7	N/A	
881A01PRP-N049	3	28.3	N/A	
881A01PRP-N050	4	12.1	N/A	
881A01PRP-N051	5	15.7	N/A	

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Survey Area: A	Survey Unit: 881A01	Building: 881

Description: Building 881, Management Unit A, Room 137 Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A01PRP-N052	3	33.2	N/A	
881A01PRP-N053	4	35.1	N/A	
881A01PRP-N054	5	51.8	N/A	
881A01PRP-N055	3	42.8	N/A	
881A01PRP-N056	4	7.5	N/A	
881A01PRP-N057	5	11.2	N/A	
881A01PRP-N058	3	33.2	N/A	
881A01PRP-N059	4	35.1	N/A	
881A01QRP-N059	9	47.7	N/A	
881A01PRP-N060	5	6.7	N/A	
881A01PRP-N061	3	23.5	N/A	
881A01PRP-N062	4	39.7	N/A	
881A01PRP-N063	5	29.3	N/A	
881A01PRP-N064	3	23.5	N/A	
881A01PRP-N065	4	25.9	N/A	
881A01PRP-N066	5	-2.3	N/A	
881A01PRP-N067	3	13.8	N/A	
881A01PRP-N068	4	21.3	N/A	
881A01PRP-N069	5	2.2	N/A	
881A01PRP-N070	3	9.0	N/A	
881A01PRP-N071	4	16.7	N/A	
881A01PRP-N072	5	20.2	N/A	
881A01PRP-N073	3	28.3	N/A	
881A01PRP-N074	4	25.9	N/A	
881A01PRP-N075	5	78.8	N/A	
881A01QRP-N075	9	61.7	N/A	
881A01PRP-N076	3	-15.1	N/A	

Survey Area: A	Survey Unit: 881A01	Building: 881

Description: Building 881, Management Unit A, Room 137 Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A01PRP-N077	4	2.8	N/A	
881A01PRP-N078	5	20.2	N/A	
881A01PRP-N079	3	-0.6	N/A	
881A01PRP-N080	4	16.7	N/A	
881A01PRP-N081	5	24.7	N/A	
881A01PRP-N082	3	9.0	N/A	
881A01PRP-N083	4	-6.4	N/A	
881A01PRP-N084	5	-6.8	N/A	
881A01PRP-N085	3	9.0	N/A	

Comments:

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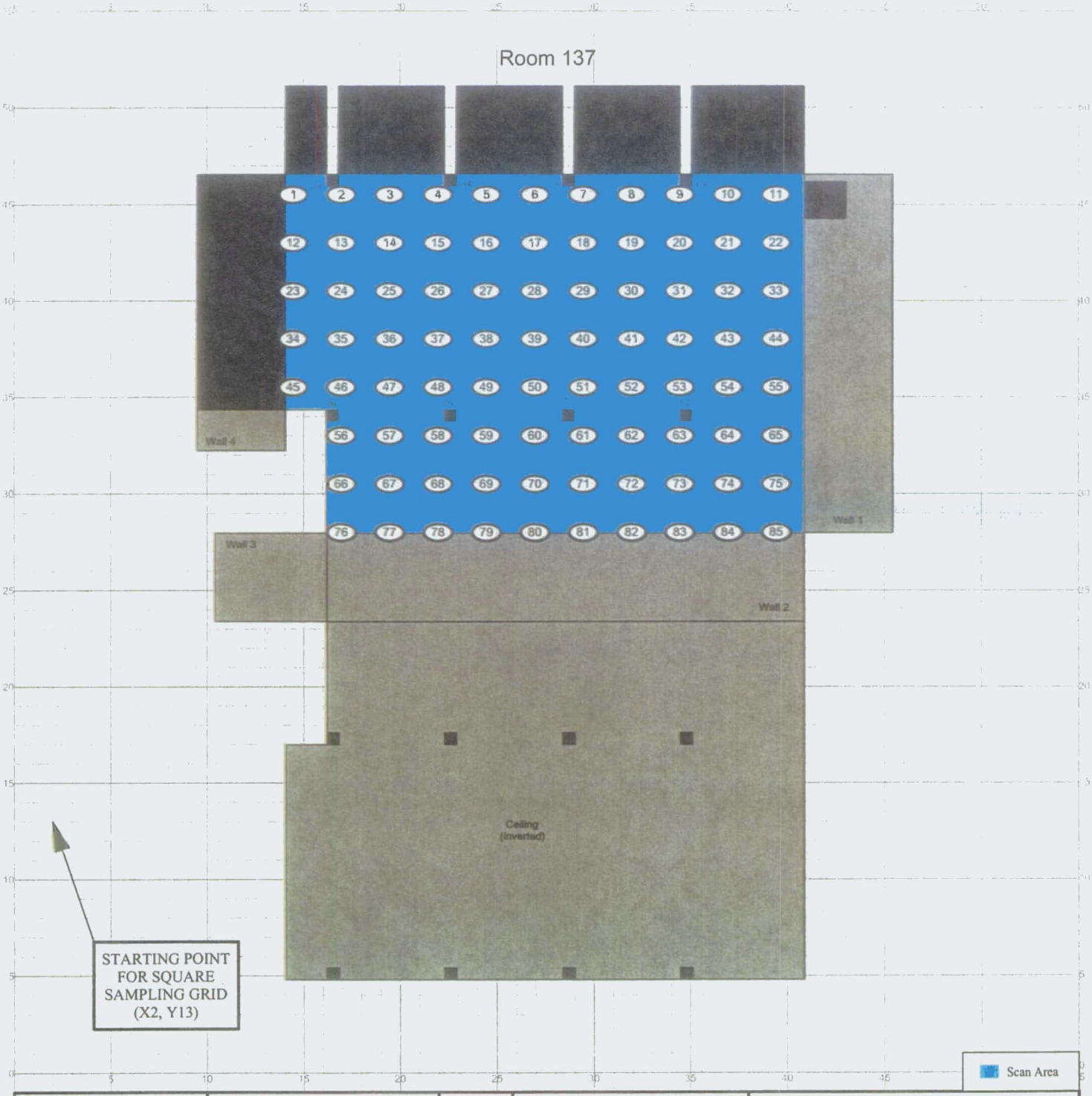
PRE-DEMOLITION SURVEY FOR B881

Survey Area: A Survey Unit: 881A01 Classification: 1
Building: 881
Survey Unit Description: Building 881, Management Unit A, Rooms 137, Floor
Total Area: 485 sq. m. Total Floor Area: 485 sq. m.
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
3-9

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL COMPANY

MAP ID: 03-0568/881A01-SC June 4, 2004

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Survey Area: A	Survey Unit: 881A02	Building: 881

Description: Building 881, Management Unit A, Room 137 Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 16 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 2

Alpha

Maximum:	75.4 dpm/100cm²
Minimum:	-5.7 dpm/100cm²
Mean:	26.1 dpm/100cm²
Standard Deviation:	21.2
QC Maximum:	100.5 dpm/100cm²
QC Minimum:	39.8 dpm/100cm²
QC Mean:	70.1 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 16 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	5.2 dpm/100cm²
Minimum:	-0.9 dpm/100cm²
Mean:	1.0 dpm/100cm²
Standard Deviation:	2.2
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: A	Survey Unit: 881A02	Building: 881

Description: Building 881, Management Unit A, Room 137 Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	712193	06/14/04	Electra	667	DP-6	10/22/04	0.222	NA	93.0	NA	T/S
2	712193	06/14/04	SAC-4	961	NA	09/30/04	0.330	NA	16.0	NA	R
3	702567	06/14/04	Electra	673	DP-8	06/30/04	0.180	NA	93.0	NA	S
4	711447	06/14/04	Electra	660	DP-8	10/08/04	0.156	NA	93.0	NA	S
5	711447	06/14/04	Electra	2394	DP-6	08/19/04	0.214	NA	93.0	NA	Q

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

63

Survey Area: A	Survey Unit: 881A02	Building: 881

Description: Building 881, Management Unit A, Room 137 Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A02PRP-N001	2	-0.9	N/A	
881A02PRP-N002	2	2.1	N/A	
881A02PRP-N003	2	2.1	N/A	
881A02PRP-N004	2	-0.9	N/A	
881A02PRP-N005	2	2.1	N/A	
881A02PRP-N006	2	-0.9	N/A	
881A02PRP-N007	2	-0.9	N/A	
881A02PRP-N008	2	5.2	N/A	
881A02PRP-N009	2	2.1	N/A	
881A02PRP-N010	2	-0.9	N/A	
881A02PRP-N011	2	5.2	N/A	
881A02PRP-N012	2	-0.9	N/A	
881A02PRP-N013	2	-0.9	N/A	
881A02PRP-N014	2	2.1	N/A	
881A02PRP-N015	2	2.1	N/A	
881A02PRP-N016	2	-0.9	N/A	

Comments:

64

Survey Area: A	Survey Unit: 881A02	Building: 881

Description: Building 881, Management Unit A, Room 137 Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

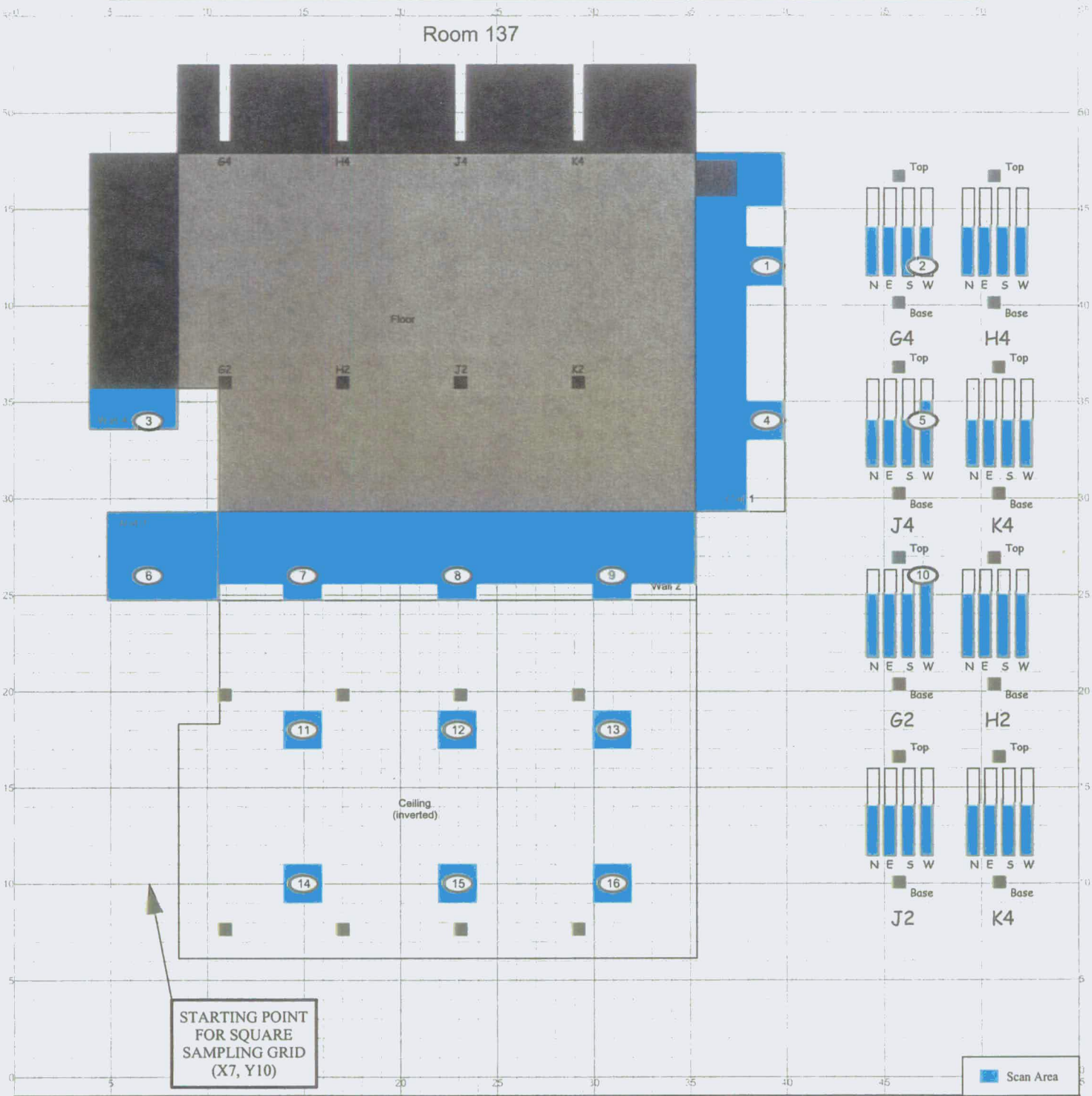
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A02PRP-N001	1	43.9	N/A	
881A02PRP-N002	1	16.8	N/A	
881A02PRP-N003	1	21.4	N/A	
881A02PRP-N004	1	75.4	N/A	
881A02QRP-N004	5	100.5	N/A	
881A02PRP-N005	1	12.3	N/A	
881A02PRP-N006	1	-1.2	N/A	
881A02PRP-N007	1	16.8	N/A	
881A02PRP-N008	1	-5.7	N/A	
881A02PRP-N009	1	25.9	N/A	
881A02PRP-N010	1	21.4	N/A	
881A02PRP-N011	1	39.4	N/A	
881A02PRP-N012	1	25.9	N/A	
881A02PRP-N013	1	39.4	N/A	
881A02PRP-N014	1	57.4	N/A	
881A02QRP-N014	5	39.8	N/A	
881A02PRP-N015	1	25.9	N/A	
881A02PRP-N016	1	3.3	N/A	

Comments:

65

PRE-DEMOLITION SURVEY FOR B881

Survey Area: A **Survey Unit: 881A02** **Classification: 2**
Building: 881
Survey Unit Description: Building 881, Management Unit A, Room 137, Walls & Ceiling
Total Area: 915 sq. m. **Total Floor Area: 485 sq. m.**
Grid Spacing for Survey Points: 8 m. X 8 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 3, 4

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 **Prepared for:**

CH2MHILL Communications Group

KAISER HILL

MAP ID: 03-0568/881A02-SC **June 4, 2004**

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Survey Area: A	Survey Unit: 881A03	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Floors

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 99 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 6

Nbr Random Measurements Performed: 107 | Nbr Biased Measurements Performed: 3 | Nbr QC Performed: 6

Alpha

Maximum:	456.7 dpm/100cm²
Minimum:	-18.2 dpm/100cm²
Mean:	38.4 dpm/100cm²
Standard Deviation:	65.4
QC Maximum:	625.4 dpm/100cm²
QC Minimum:	-5.4 dpm/100cm²
QC Mean:	153.5 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 99 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 107 | Nbr Biased Measurements Performed: 3

Alpha

Maximum:	11.8 dpm/100cm²
Minimum:	-0.9 dpm/100cm²
Mean:	0.7 dpm/100cm²
Standard Deviation:	2.1
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: A	Survey Unit: 881A03	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Floors

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	711447	06/13/04	Electra	660	DP-8	10/08/04	0.156	NA	93.0	NA	S
2	702575	06/13/04	Electra	673	DP-8	06/30/04	0.180	NA	93.0	NA	S
3	702567	06/13/04	Electra	680	DP-8	12/08/04	0.167	NA	93.0	NA	S
4	903346	06/14/04	Electra	662	DP-6	12/10/04	0.217	NA	93.0	NA	T
5	702575	06/14/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	T
6	702567	06/14/04	Electra	1417	DP-6	12/03/04	0.207	NA	93.0	NA	T
7	711447	06/14/04	Electra	667	DP-6	10/22/04	0.222	NA	93.0	NA	T
8	903346	06/14/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
9	903346	06/14/04	SAC-4	961	NA	09/30/04	0.330	NA	16.0	NA	R
10	712193	06/14/04	Electra	2394	DP-6	08/19/04	0.214	NA	93.0	NA	T/Q/S

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

68

Survey Area: A	Survey Unit: 881A03	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A03PRP-N001	8	2.7	N/A	
881A03PRP-N002	9	-0.9	N/A	
881A03PRP-N003	8	2.7	N/A	
881A03PRP-N004	9	-0.9	N/A	
881A03PRP-N005	8	-0.3	N/A	
881A03PRP-N006	9	-0.9	N/A	
881A03PRP-N007	8	-0.3	N/A	
881A03PRP-N008	9	2.1	N/A	
881A03PRP-N009	8	-0.3	N/A	
881A03PRP-N010	9	-0.9	N/A	
881A03PRP-N011	8	-0.3	N/A	
881A03PRP-N012	9	-0.9	N/A	
881A03PRP-N013	8	-0.3	N/A	
881A03PRP-N014	9	-0.9	N/A	
881A03PRP-N015	8	2.7	N/A	
881A03PRP-N016	9	-0.9	N/A	
881A03PRP-N017	8	-0.3	N/A	
881A03PRP-N018	9	-0.9	N/A	
881A03PRP-N019	8	-0.3	N/A	
881A03PRP-N020	9	2.1	N/A	
881A03PRP-N021	8	-0.3	N/A	
881A03PRP-N022	9	-0.9	N/A	
881A03PRP-N023	8	2.7	N/A	
881A03PRP-N024	9	2.1	N/A	
881A03PRP-N025	8	2.7	N/A	
881A03PRP-N026	9	-0.9	N/A	
881A03PRP-N027	8	-0.3	N/A	
881A03PRP-N028	9	-0.9	N/A	
881A03PRP-N029	8	-0.3	N/A	

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Survey Area: A	Survey Unit: 881A03	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A03PRP-N030	9	-0.9	N/A	
881A03PRP-N031	8	2.7	N/A	
881A03PRP-N032	9	2.1	N/A	
881A03PRP-N033	8	2.7	N/A	
881A03PRP-N034	9	5.2	N/A	
881A03PRP-N035	8	11.8	N/A	
881A03PRP-N036	9	5.2	N/A	
881A03PRP-N037	8	2.7	N/A	
881A03PRP-N038	9	2.1	N/A	
881A03PRP-N039	8	5.8	N/A	
881A03PRP-N040	9	2.1	N/A	
881A03PRP-N041	8	-0.3	N/A	
881A03PRP-N042	9	-0.9	N/A	
881A03PRP-N043	8	2.7	N/A	
881A03PRP-N044	9	-0.9	N/A	
881A03PRP-N045	8	2.7	N/A	
881A03PRP-N046	9	2.1	N/A	
881A03PRP-N047	8	2.7	N/A	
881A03PRP-N048	9	2.1	N/A	
881A03PRP-N049	8	-0.3	N/A	
881A03PRP-N050	9	-0.9	N/A	
881A03PRP-N051	8	-0.3	N/A	
881A03PRP-N052	9	-0.9	N/A	
881A03PRP-N053	8	-0.3	N/A	
881A03PRP-N054	9	-0.9	N/A	
881A03PRP-N055	8	-0.3	N/A	
881A03PRP-N056	9	-0.9	N/A	
881A03PRP-N057	8	-0.3	N/A	
881A03PRP-N058	9	-0.9	N/A	

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Survey Area: A	Survey Unit: 881A03	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A03PRP-N059	8	2.7	N/A	
881A03PRP-N060	9	-0.9	N/A	
881A03PRP-N061	8	2.7	N/A	
881A03PRP-N062	9	5.2	N/A	
881A03PRP-N063	8	-0.3	N/A	
881A03PRP-N064	9	-0.9	N/A	
881A03PRP-N065	8	-0.3	N/A	
881A03PRP-N066	9	-0.9	N/A	
881A03PRP-N067	8	2.7	N/A	
881A03PRP-N068	9	-0.9	N/A	
881A03PRP-N069	8	2.7	N/A	
881A03PRP-N070	9	2.1	N/A	
881A03PRP-N071	8	-0.3	N/A	
881A03PRP-N072	9	-0.9	N/A	
881A03PRP-N073	8	2.7	N/A	
881A03PRP-N074	9	-0.9	N/A	
881A03PRP-N075	8	-0.3	N/A	
881A03PRP-N076	9	-0.9	N/A	
881A03PRP-N077	8	-0.3	N/A	
881A03PRP-N078	9	-0.9	N/A	
881A03PRP-N079	8	2.7	N/A	
881A03PRP-N080	9	2.1	N/A	
881A03PRP-N081	8	2.7	N/A	
881A03PRP-N082	9	-0.9	N/A	
881A03PRP-N083	8	-0.3	N/A	
881A03PRP-N084	9	-0.9	N/A	
881A03PRP-N085	8	-0.3	N/A	
881A03PRP-N086	9	-0.9	N/A	
881A03PRP-N087	8	-0.3	N/A	

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Survey Area: A	Survey Unit: 881A03	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A03PRP-N088	9	2.1	N/A	
881A03PRP-N089	8	-0.3	N/A	
881A03PRP-N090	9	-0.9	N/A	
881A03PRP-N091	8	-0.3	N/A	
881A03PRP-N092	9	-0.9	N/A	
881A03PRP-N093	8	-0.3	N/A	
881A03PRP-N094	9	2.1	N/A	
881A03PRP-N095	8	-0.3	N/A	
881A03PRP-N096	9	-0.9	N/A	
881A03PRP-N097	8	-0.3	N/A	
881A03PRP-N098	9	-0.9	N/A	
881A03PRP-N099	8	-0.3	N/A	
881A03PRP-N100	9	2.1	N/A	
881A03PRP-N101	8	-0.3	N/A	
881A03PRP-N102	9	2.1	N/A	
881A03PRP-N103	8	-0.3	N/A	
881A03PRP-N104	9	-0.9	N/A	
881A03PRP-N105	8	2.7	N/A	
881A03PRP-N106	9	-0.9	N/A	
881A03PRP-N107	8	-0.3	N/A	

Biased Removable Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A03PBP-N108	9	2.1	N/A	
881A03PBP-N109	9	-0.9	N/A	
881A03PBP-N110	9	5.2	N/A	

Comments:

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Survey Area: A	Survey Unit: 881A03	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A03PRP-N001	4	28.1	N/A	
881A03PRP-N002	4	0.4	N/A	
881A03PRP-N003	4	28.1	N/A	
881A03PRP-N004	4	14.3	N/A	
881A03PRP-N005	4	41.9	N/A	
881A03PRP-N006	4	28.1	N/A	
881A03PRP-N007	4	14.3	N/A	
881A03PRP-N008	4	37.3	N/A	
881A03PRP-N009	4	18.9	N/A	
881A03PRP-N010	4	41.9	N/A	
881A03PRP-N011	4	83.4	N/A	
881A03PRP-N012	4	41.9	N/A	
881A03PRP-N013	4	23.5	N/A	
881A03PRP-N014	4	9.7	N/A	
881A03PRP-N015	4	32.7	N/A	
881A03PRP-N016	4	171.0	N/A	
881A03QRP-N016	10	111.4	N/A	
881A03PRP-N017	4	14.3	N/A	
881A03PRP-N018	4	18.9	N/A	
881A03PRP-N019	5	32.4	N/A	
881A03PRP-N020	5	9.5	N/A	
881A03PRP-N021	5	0.3	N/A	
881A03PRP-N022	5	27.8	N/A	
881A03PRP-N023	5	14.1	N/A	
881A03PRP-N024	5	32.4	N/A	
881A03PRP-N025	5	4.9	N/A	
881A03PRP-N026	5	18.7	N/A	

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Survey Area: A	Survey Unit: 881A03	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A03PRP-N027	5	32.4	N/A	
881A03PRP-N028	5	18.7	N/A	
881A03PRP-N029	5	23.3	N/A	
881A03PRP-N030	5	27.8	N/A	
881A03PRP-N031	5	4.9	N/A	
881A03PRP-N032	5	46.2	N/A	
881A03PRP-N033	5	137.9	N/A	
881A03PRP-N034	5	46.2	N/A	
881A03PRP-N035	5	9.5	N/A	
881A03PRP-N036	5	165.5	N/A	
881A03QRP-N036	10	106.7	N/A	
881A03PRP-N037	5	18.7	N/A	
881A03PRP-N038	5	14.1	N/A	
881A03PRP-N039	5	27.8	N/A	
881A03PRP-N040	5	9.5	N/A	
881A03PRP-N041	5	0.3	N/A	
881A03PRP-N042	6	25.9	N/A	
881A03PRP-N043	6	1.8	N/A	
881A03PRP-N044	6	50.1	N/A	
881A03PRP-N045	6	88.7	N/A	
881A03QRP-N045	10	13.3	N/A	
881A03PRP-N046	6	25.9	N/A	
881A03PRP-N047	6	6.6	N/A	
881A03PRP-N048	6	45.3	N/A	
881A03PRP-N049	6	1.8	N/A	
881A03PRP-N050	6	11.4	N/A	
881A03PRP-N051	6	11.4	N/A	

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Survey Area: A	Survey Unit: 881A03	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A03PRP-N052	6	45.3	N/A	
881A03PRP-N053	6	69.4	N/A	
881A03PRP-N054	6	40.4	N/A	
881A03PRP-N055	6	16.3	N/A	
881A03PRP-N056	6	30.8	N/A	
881A03PRP-N057	6	25.9	N/A	
881A03PRP-N058	6	25.9	N/A	
881A03PRP-N059	6	45.3	N/A	
881A03PRP-N060	6	1.8	N/A	
881A03PRP-N061	6	21.1	N/A	
881A03PRP-N062	6	50.1	N/A	
881A03PRP-N063	6	35.6	N/A	
881A03PRP-N064	4	23.5	N/A	
881A03PRP-N065	4	28.1	N/A	
881A03PRP-N066	4	456.7	N/A	
881A03PRP-N067	4	18.9	N/A	
881A03PRP-N068	4	346.1	N/A	
881A03PRP-N069	4	32.7	N/A	
881A03PRP-N070	4	14.3	N/A	
881A03PRP-N071	4	5.1	N/A	
881A03PRP-N072	4	14.3	N/A	
881A03PRP-N073	4	14.3	N/A	
881A03PRP-N074	4	46.5	N/A	
881A03PRP-N075	4	14.3	N/A	
881A03PRP-N076	4	9.7	N/A	
881A03PRP-N077	4	18.9	N/A	
881A03PRP-N078	4	18.9	N/A	

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Survey Area: A	Survey Unit: 881A03	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A03PRP-N079	4	28.1	N/A	
881A03PRP-N080	4	18.9	N/A	
881A03PRP-N081	4	14.3	N/A	
881A03PRP-N082	4	41.9	N/A	
881A03QRP-N082	10	-5.4	N/A	
881A03PRP-N083	4	-4.2	N/A	
881A03PRP-N084	4	5.1	N/A	
881A03PRP-N085	4	341.5	N/A	
881A03QRP-N085	10	625.4	N/A	
881A03PRP-N086	7	17.8	N/A	
881A03PRP-N087	7	40.4	N/A	
881A03PRP-N088	7	8.8	N/A	
881A03PRP-N089	7	22.3	N/A	
881A03PRP-N090	7	40.4	N/A	
881A03PRP-N091	7	26.9	N/A	
881A03PRP-N092	7	17.8	N/A	
881A03PRP-N093	7	49.4	N/A	
881A03PRP-N094	7	13.3	N/A	
881A03PRP-N095	7	62.9	N/A	
881A03QRP-N095	10	69.3	N/A	
881A03PRP-N096	7	-0.2	N/A	
881A03PRP-N097	7	4.3	N/A	
881A03PRP-N098	7	-18.2	N/A	
881A03PRP-N099	7	13.3	N/A	
881A03PRP-N100	7	35.9	N/A	
881A03PRP-N101	7	13.3	N/A	
881A03PRP-N102	7	4.3	N/A	

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Survey Area: A	Survey Unit: 881A03	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A03PRP-N103	7	26.9	N/A	
881A03PRP-N104	7	13.3	N/A	
881A03PRP-N105	7	4.3	N/A	
881A03PRP-N106	7	13.3	N/A	
881A03PRP-N107	7	17.8	N/A	

Biased Total Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A03PBP-N108	10	115.3	N/A	
881A03PBP-N109	10	59.2	N/A	
881A03PBP-N110	10	63.9	N/A	

Comments:

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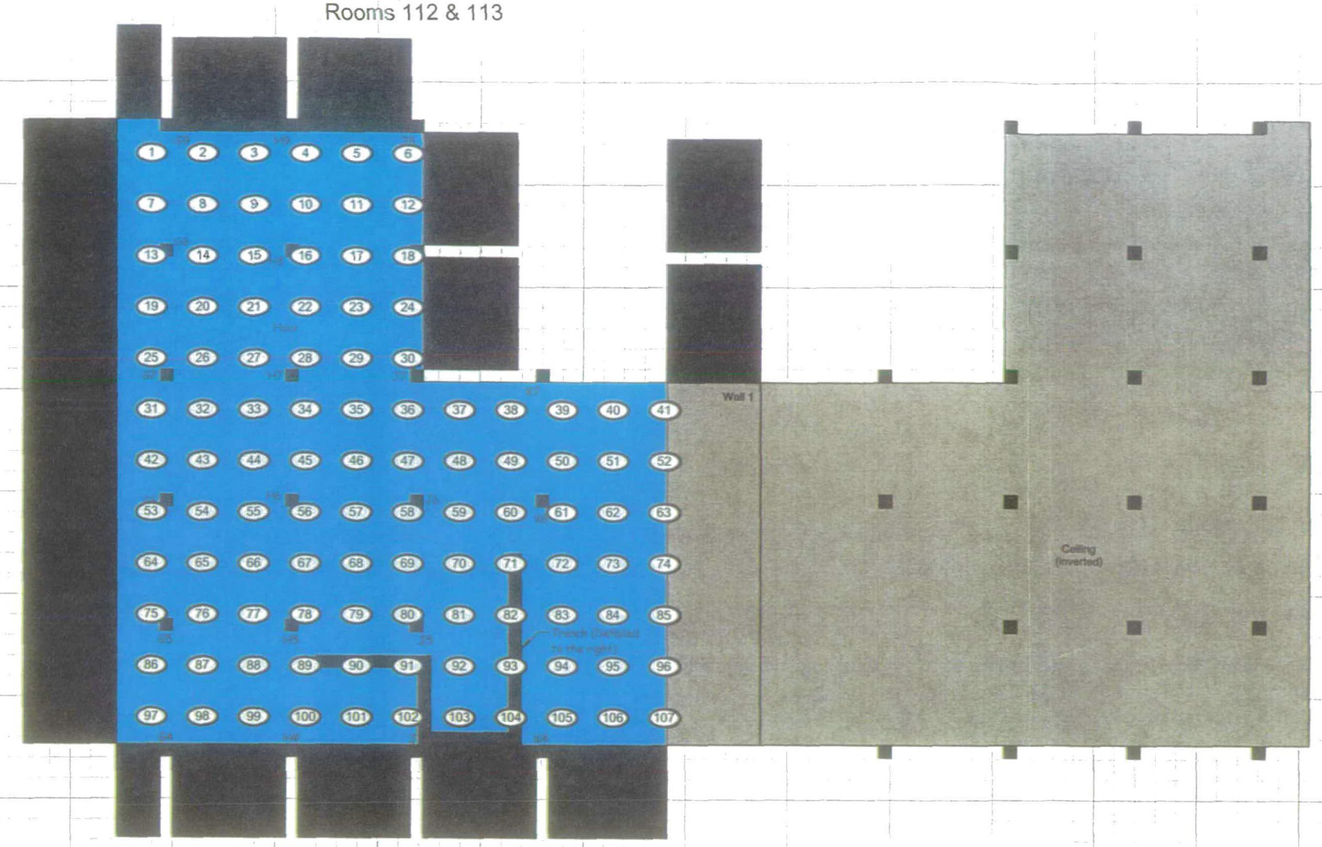
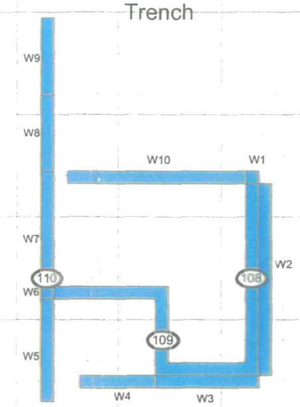
PRE-DEMOLITION SURVEY FOR B881

Survey Area: A Survey Unit: 881A03 Classification: 2
Building: 881
Survey Unit Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139, 151 & Floor
Total Area: 658 sq. m. Total Floor Area: 658 sq. m.
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.

Rooms 112 & 113



Trench



STARTING POINT FOR SQUARE SAMPLING GRID (X9, Y9)

Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

Neither the United States Government nor Kaiser Hill Co., nor CH2MHill, nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

N

0 FEET 30
0 METERS 10
1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 2, 3, 10

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL

MAP ID: 03-0568/881A03-SC June 4, 2004

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Survey Area: A	Survey Unit: 881A04	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15
Nbr Random Measurements Performed: 16
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0
Nbr QC Required: 2
Nbr QC Performed: 2

Alpha

Maximum:	59.6 dpm/100cm²
Minimum:	-14.3 dpm/100cm²
Mean:	26.9 dpm/100cm²
Standard Deviation:	22.0
QC Maximum:	20.3 dpm/100cm²
QC Minimum:	15.7 dpm/100cm²
QC Mean:	18.0 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15
Nbr Random Measurements Performed: 16
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0

Alpha

Maximum:	5.8 dpm/100cm²
Minimum:	-0.3 dpm/100cm²
Mean:	0.5 dpm/100cm²
Standard Deviation:	1.7
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0
Nbr Random Collected: 0
Nbr Biased Required: 0
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: A	Survey Unit: 881A04	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	903346	06/14/04	Electra	673	DP-8	06/30/04	0.180	NA	93.0	NA	S
2	702575	06/14/04	Electra	680	DP-8	12/08/04	0.167	NA	93.0	NA	S
3	702567	06/14/04	Electra	660	DP-8	10/08/04	0.156	NA	93.0	NA	S
4	903346	06/14/04	Electra	1417	DP-6	12/03/04	0.207	NA	93.0	NA	T
5	702575	06/14/04	Electra	2394	DP-6	08/19/04	0.214	NA	93.0	NA	T
6	702575	06/14/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
7	702567	06/14/04	Electra	667	DP-6	10/22/04	0.222	NA	93.0	NA	Q/S

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: A	Survey Unit: 881A04	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A04PRP-N001	6	-0.3	N/A	
881A04PRP-N002	6	-0.3	N/A	
881A04PRP-N003	6	-0.3	N/A	
881A04PRP-N004	6	-0.3	N/A	
881A04PRP-N005	6	-0.3	N/A	
881A04PRP-N006	6	-0.3	N/A	
881A04PRP-N007	6	2.7	N/A	
881A04PRP-N008	6	-0.3	N/A	
881A04PRP-N009	6	-0.3	N/A	
881A04PRP-N010	6	-0.3	N/A	
881A04PRP-N011	6	-0.3	N/A	
881A04PRP-N012	6	2.7	N/A	
881A04PRP-N013	6	5.8	N/A	
881A04PRP-N014	6	-0.3	N/A	
881A04PRP-N015	6	-0.3	N/A	
881A04PRP-N016	6	-0.3	N/A	

Comments:

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Survey Area: A	Survey Unit: 881A04	Building: 881

Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139 & 151 Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A04PRP-N001	4	-14.3	N/A	
881A04PRP-N002	4	43.6	N/A	
881A04QRP-N002	7	20.3	N/A	
881A04PRP-N003	4	14.6	N/A	
881A04PRP-N004	4	48.5	N/A	
881A04PRP-N005	4	5.0	N/A	
881A04PRP-N006	4	38.8	N/A	
881A04PRP-N007	5	59.6	N/A	
881A04PRP-N008	5	3.6	N/A	
881A04PRP-N009	5	26.9	N/A	
881A04PRP-N010	4	0.1	N/A	
881A04PRP-N011	5	59.6	N/A	
881A04QRP-N011	7	15.7	N/A	
881A04PRP-N012	5	8.2	N/A	
881A04PRP-N013	5	31.6	N/A	
881A04PRP-N014	5	40.9	N/A	
881A04PRP-N015	5	26.9	N/A	
881A04PRP-N016	5	36.3	N/A	

Comments:

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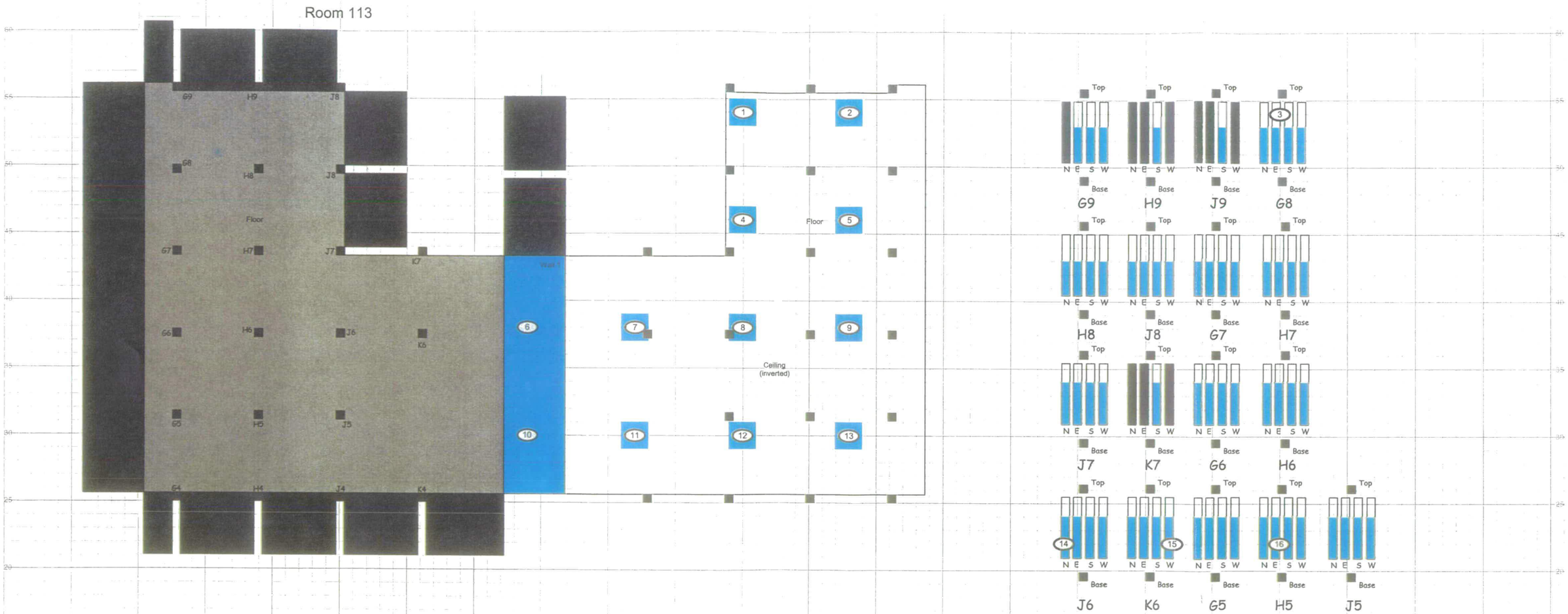
PRE-DEMOLITION SURVEY FOR B881

Survey Area: A Survey Unit: 881A04 Classification: 2
Building: 881
Survey Unit Description: Building 881, Management Unit A, Rooms 112, 113, 125, 127, 130, 138, 139, 151, Walls & Ceiling
Total Area: 907 sq. m. Total Floor Area: 658 sq. m.
Grid Spacing for Survey Points: 8 m. X 8 m.



STARTING POINT FOR SQUARE SAMPLING GRID (X7, Y14)

Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 2, 3, 7

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL

MAP ID: 03-0568/881A04-SC June 4, 2004

83

Survey Area: H	Survey Unit: 881H01	Building: 881

Description: Building 881, Management unit H, rooms 160, 169, 170, 171 Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H01PRP-N001	3	8.7	N/A	
881H01PRP-N002	4	104.6	N/A	
881H01PRP-N003	3	27.2	N/A	
881H01PRP-N004	8	76.9	N/A	
881H01PRP-N005	8	154.5	N/A	
881H01PRP-N006	8	127.1	N/A	
881H01PRP-N007	8	218.5	N/A	
881H01PRP-N008	4	76.1	N/A	
881H01PRP-N009	3	82.5	N/A	
881H01PRP-N010	4	85.6	N/A	
881H01PRP-N011	3	27.2	N/A	
881H01PRP-N012	8	373.7	N/A	
881H01QRP-N012	9	381.5	N/A	
881H01PRP-N013	8	181.9	N/A	
881H01PRP-N014	8	181.9	N/A	
881H01PRP-N015	8	150.0	N/A	
881H01PRP-N016	4	24.0	N/A	
881H01PRP-N017	3	54.8	N/A	
881H01PRP-N018	4	76.1	N/A	
881H01PRP-N019	3	13.4	N/A	
881H01PRP-N020	8	305.2	N/A	
881H01QRP-N020	9	258.3	N/A	
881H01PRP-N021	8	58.6	N/A	
881H01PRP-N022	8	95.2	N/A	
881H01PRP-N023	8	118.0	N/A	
881H01PRP-N024	4	47.7	N/A	
881H01PRP-N025	3	27.2	N/A	

84

Survey Area: H	Survey Unit: 881H01	Building: 881

Description: Building 881, Management unit H, rooms 160, 169, 170, 171 Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H01PRP-N026	4	19.3	N/A	
881H01PRP-N027	3	124.0	N/A	
881H01PRP-N028	8	204.8	N/A	
881H01PRP-N029	8	72.3	N/A	
881H01PRP-N030	8	127.1	N/A	
881H01PRP-N031	8	113.4	N/A	
881H01PRP-N032	4	57.2	N/A	
881H01PRP-N033	3	82.5	N/A	
881H01PRP-N034	4	57.2	N/A	
881H01PRP-N035	3	41.0	N/A	
881H01PRP-N036	4	123.5	N/A	
881H01PRP-N037	3	114.7	N/A	
881H01PRP-N038	4	38.2	N/A	
881H01PRP-N039	3	68.7	N/A	
881H01PRP-N040	4	170.9	N/A	
881H01PRP-N041	3	170.0	N/A	
881H01PRP-N042	4	38.2	N/A	
881H01PRP-N043	3	-0.5	N/A	
881H01PRP-N044	4	199.4	N/A	
881H01QRP-N044	9	206.2	N/A	
881H01PRP-N045	3	142.4	N/A	
881H01PRP-N046	8	44.9	N/A	
881H01PRP-N047	4	85.6	N/A	
881H01PRP-N048	3	478.8	N/A	
881H01PRP-N049	4	161.5	N/A	
881H01PRP-N050	8	58.6	N/A	
881H01PRP-N051	3	50.2	N/A	

85

Survey Area: H	Survey Unit: 881H01	Building: 881

Description: Building 881, Management unit H, rooms 160, 169, 170, 171 Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H01PRP-N052	4	180.4	N/A	
881H01PRP-N053	3	276.0	N/A	
881H01PRP-N054	4	104.6	N/A	
881H01PRP-N055	3	193.1	N/A	
881H01PRP-N056	4	246.8	N/A	
881H01QRP-N056	9	215.6	N/A	
881H01PRP-N057	8	40.4	N/A	
881H01PRP-N058	8	44.9	N/A	
881H01PRP-N059	8	49.5	N/A	
881H01PRP-N060	8	22.1	N/A	
881H01PRP-N061	8	31.2	N/A	
881H01PRP-N062	8	35.8	N/A	
881H01PRP-N063	8	44.9	N/A	
881H01PRP-N064	8	22.1	N/A	
881H01PRP-N065	8	54.1	N/A	
881H01PRP-N066	8	26.7	N/A	
881H01PRP-N067	8	17.5	N/A	
881H01PRP-N068	8	44.9	N/A	
881H01PRP-N069	8	136.3	N/A	
881H01PRP-N070	8	31.2	N/A	
881H01PRP-N071	8	40.4	N/A	
881H01PRP-N072	8	17.5	N/A	
881H01PRP-N073	8	35.8	N/A	
881H01PRP-N074	8	31.2	N/A	
881H01PRP-N075	8	31.2	N/A	
881H01PRP-N076	8	17.5	N/A	
881H01PRP-N077	8	35.8	N/A	

86

Survey Area: H	Survey Unit: 881H01	Building: 881

Description: Building 881, Management unit H, rooms 160, 169, 170, 171 Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H01PRP-N078	8	35.8	N/A	

Comments: Scans performed at 4"/second at shaded areas indicated on map. All detected alpha count rates verified to be less than 5,000 dpm/100cm2.

87

Survey Area: A	Survey Unit: 881A05	Building: 881

Description: Room 112 Electrical Chase, all surfaces

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 16 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 2

Alpha

Maximum:	73.4 dpm/100cm²
Minimum:	-27.1 dpm/100cm²
Mean:	20.7 dpm/100cm²
Standard Deviation:	26.6
QC Maximum:	27.1 dpm/100cm²
QC Minimum:	18.0 dpm/100cm²
QC Mean:	22.5 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 16 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	5.2 dpm/100cm²
Minimum:	-0.9 dpm/100cm²
Mean:	0.6 dpm/100cm²
Standard Deviation:	2.2
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: A	Survey Unit: 881A05	Building: 881

Description: Room 112 Electrical Chase, all surfaces

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	702567	06/13/04	Electra	673	DP-8	06/30/04	0.180	NA	93.0	NA	S
2	702567	06/13/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
3	702567	06/13/04	Electra	2136	DP-6	08/02/04	0.229	NA	93.0	NA	T/S
4	712193	06/13/04	Electra	1434	DP-6	11/25/04	0.222	NA	93.0	NA	Q

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

89

Survey Area: A	Survey Unit: 881A05	Building: 881

Description: Room 112 Electrical Chase, all surfaces

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A05PRP-N001	2	-0.9	N/A	
881A05PRP-N002	2	-0.9	N/A	
881A05PRP-N003	2	2.1	N/A	
881A05PRP-N004	2	-0.9	N/A	
881A05PRP-N005	2	-0.9	N/A	
881A05PRP-N006	2	-0.9	N/A	
881A05PRP-N007	2	-0.9	N/A	
881A05PRP-N008	2	-0.9	N/A	
881A05PRP-N009	2	5.2	N/A	
881A05PRP-N010	2	2.1	N/A	
881A05PRP-N011	2	-0.9	N/A	
881A05PRP-N012	2	2.1	N/A	
881A05PRP-N013	2	2.1	N/A	
881A05PRP-N014	2	-0.9	N/A	
881A05PRP-N015	2	-0.9	N/A	
881A05PRP-N016	2	5.2	N/A	

Comments:

90

Survey Area: A	Survey Unit: 881A05	Building: 881

Description: Room 112 Electrical Chase, all surfaces

Random/QC Total Surface Activity Data Sheet

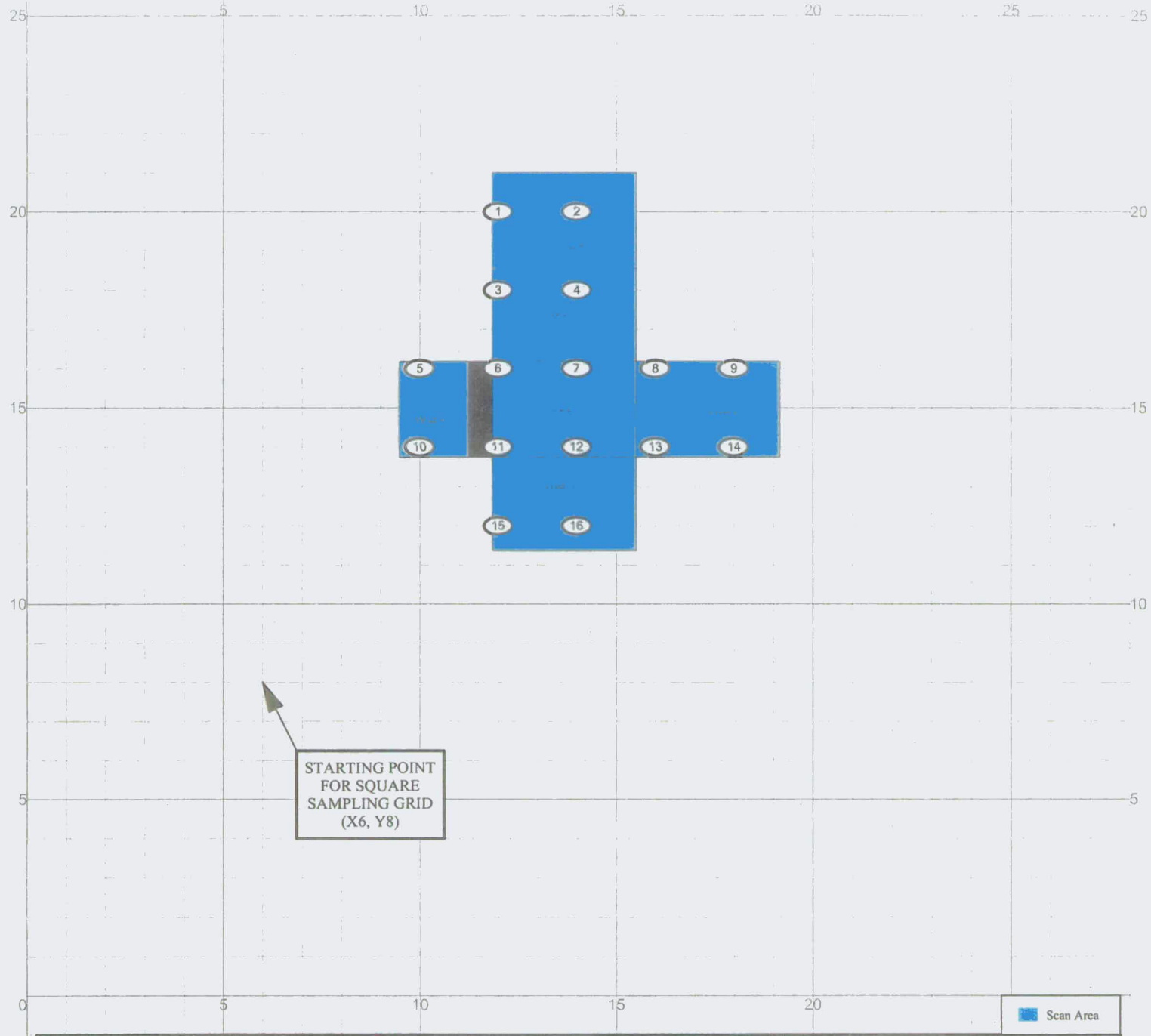
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881A05PRP-N001	3	-22.7	N/A	
881A05PRP-N002	3	-27.1	N/A	
881A05PRP-N003	3	25.3	N/A	
881A05PRP-N004	3	29.7	N/A	
881A05QRP-N004	4	27.1	N/A	
881A05PRP-N005	3	38.4	N/A	
881A05PRP-N006	3	16.6	N/A	
881A05PRP-N007	3	3.5	N/A	
881A05PRP-N008	3	73.4	N/A	
881A05PRP-N009	3	21.0	N/A	
881A05PRP-N010	3	51.5	N/A	
881A05QRP-N010	4	18.0	N/A	
881A05PRP-N011	3	34.1	N/A	
881A05PRP-N012	3	47.2	N/A	
881A05PRP-N013	3	16.6	N/A	
881A05PRP-N014	3	7.9	N/A	
881A05PRP-N015	3	25.3	N/A	
881A05PRP-N016	3	-9.6	N/A	

Comments:

91

PRE-DEMOLITION SURVEY FOR B881

Survey Area: A Survey Unit: 881A05 Classification: 1
Building: 881
Survey Unit Description: Building 881 Management Unit A, Room 112, Electrical Chase, All surfaces
Total Area: 50 sq. m. Total Floor Area: 9 sq. m.
Grid Spacing for Survey Points: 2 m. X 2 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 15
0 METERS 5

1 inch = 12 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 3

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group

KAISER HILL

MAP ID: 03-0568/881A05-SC June 4, 2004

92

Survey Area: E	Survey Unit: 881E01	Building: 881

Description: B881 MU-E Room 154 Floor

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 25 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 31 | Nbr Biased Measurements Performed: 3 | Nbr QC Performed: 2

Alpha

Maximum:	1,427.6	dpm/100cm²
Minimum:	28.1	dpm/100cm²
Mean:	222.6	dpm/100cm²
Standard Deviation:	310.5	
QC Maximum:	1,669.2	dpm/100cm²
QC Minimum:	1,350.8	dpm/100cm²
QC Mean:	1,510.0	dpm/100cm²
Uranium DCGL$_W$:	5,000.0	dpm/100cm²
Uranium DCGL$_{EMC}$:	15,000.0	dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 25 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 31 | Nbr Biased Measurements Performed: 3

Alpha

Maximum:	17.3	dpm/100cm²
Minimum:	-0.9	dpm/100cm²
Mean:	4.7	dpm/100cm²
Standard Deviation:	5.1	
Uranium DCGL$_W$:	1,000.0	

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: E	Survey Unit: 881E01	Building: 881

Description: B881 MU-E Room 154 Floor

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	711447	03/01/04	Electra	661	DP-6	07/07/04	0.167	NA	93.0	NA	S
2	712193	03/01/04	Electra	3109	DP-6	06/08/04	0.216	NA	93.0	NA	I/S
3	711447	03/02/04	Electra	662	DP-6	03/15/04	0.217	NA	93.0	NA	T/I/Q
4	712193	03/02/04	Electra	3109	DP-6	06/08/04	0.216	NA	93.0	NA	T
6	711447	03/02/04	SAC-4	960	NA	07/08/04	0.330	NA	16.0	NA	R
7	712193	03/03/04	Electra	3105	DP-6	07/14/04	0.201	NA	93.0	NA	T

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

94

Survey Area: E	Survey Unit: 881E01	Building: 881

Description: B881 MU-E Room 154 Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E01PRP-N001	6	11.2	N/A	
881E01PRP-N002	6	5.2	N/A	
881E01PRP-N003	6	8.2	N/A	
881E01PRP-N004	6	5.2	N/A	
881E01PRP-N005	6	2.1	N/A	
881E01PRP-N006	6	11.2	N/A	
881E01PRP-N007	6	2.1	N/A	
881E01PRP-N008	6	2.1	N/A	
881E01PRP-N009	6	-0.9	N/A	
881E01PRP-N010	6	2.1	N/A	
881E01PRP-N011	6	2.1	N/A	
881E01PRP-N012	6	2.1	N/A	
881E01PRP-N013	6	11.2	N/A	
881E01PRP-N014	6	2.1	N/A	
881E01PRP-N015	6	2.1	N/A	
881E01PRP-N016	6	5.2	N/A	
881E01PRP-N017	6	8.2	N/A	
881E01PRP-N018	6	-0.9	N/A	
881E01PRP-N019	6	5.2	N/A	
881E01PRP-N020	6	2.1	N/A	
881E01PRP-N021	6	-0.9	N/A	
881E01PRP-N022	6	5.2	N/A	
881E01PRP-N023	6	2.1	N/A	
881E01PRP-N024	6	2.1	N/A	
881E01PRP-N025	6	2.1	N/A	
881E01PRP-N026	6	-0.9	N/A	
881E01PRP-N027	6	8.2	N/A	
881E01PRP-N028	6	-0.9	N/A	
881E01PRP-N029	6	14.2	N/A	

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Survey Area: E	Survey Unit: 881E01	Building: 881

Description: B881 MU-E Room 154 Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E01PRP-N030	6	2.1	N/A	
881E01PRP-N031	6	-0.9	N/A	

Biased Removable Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E01PBP-N032	6	5.2	N/A	
881E01PBP-N033	6	17.3	N/A	
881E01PBP-N034	6	17.3	N/A	

Comments:

96

Survey Area: E	Survey Unit: 881E01	Building: 881

Description: B881 MU-E Room 154 Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E01PRP-N001	3	989.8	N/A	
881E01QRP-N001	7	1,350.8	N/A	
881E01PRP-N002	3	160.3	N/A	
881E01PRP-N003	3	52.9	N/A	
881E01PRP-N004	3	37.3	N/A	
881E01PRP-N005	3	108.2	N/A	
881E01PRP-N006	3	40.5	N/A	
881E01PRP-N007	3	129.4	N/A	
881E01PRP-N008	3	28.1	N/A	
881E01PRP-N009	3	37.3	N/A	
881E01PRP-N010	3	77.4	N/A	
881E01PRP-N011	3	773.2	N/A	
881E01PRP-N012	3	71.4	N/A	
881E01PRP-N013	3	681.1	N/A	
881E01PRP-N014	3	182.0	N/A	
881E01PRP-N015	3	71.4	N/A	
881E01PRP-N016	4	222.7	N/A	
881E01PRP-N017	3	34.5	N/A	
881E01PRP-N018	4	480.6	N/A	
881E01PRP-N019	3	68.1	N/A	
881E01PRP-N020	4	77.8	N/A	
881E01PRP-N021	3	341.4	N/A	
881E01PRP-N022	4	71.8	N/A	
881E01PRP-N023	3	71.4	N/A	
881E01PRP-N024	4	65.3	N/A	
881E01PRP-N025	3	298.6	N/A	
881E01PRP-N026	4	74.6	N/A	

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Survey Area: E	Survey Unit: 881E01	Building: 881

Description: B881 MU-E Room 154 Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E01PRP-N027	3	1,427.6	N/A	
881E01QRP-N027	7	1,669.2	N/A	
881E01PRP-N028	4	176.4	N/A	
881E01PRP-N029	3	246.5	N/A	
881E01PRP-N030	4	62.5	N/A	
881E01PRP-N031	4	65.3	N/A	

Biased Total Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E01IBP-N032	2	43.5	N/A	
881E01IBP-N033	3	77.0	N/A	
881E01IBP-N034	3	221.2	N/A	

Comments: Scans performed at 4"/second at shaded areas indicated on map. All detected alpha count rates verified to be less than 5,000 dpm/100cm2. Locations 32, 33, and 34 were identified during the scan survey. The initial Alpha net activity for these locations were 5,321.0, 4,654.3 and 6200.6 dpm/100cm2 respectively. These locations were deconned and resurveyed. Re-survey results are reported. No further investigation is required.

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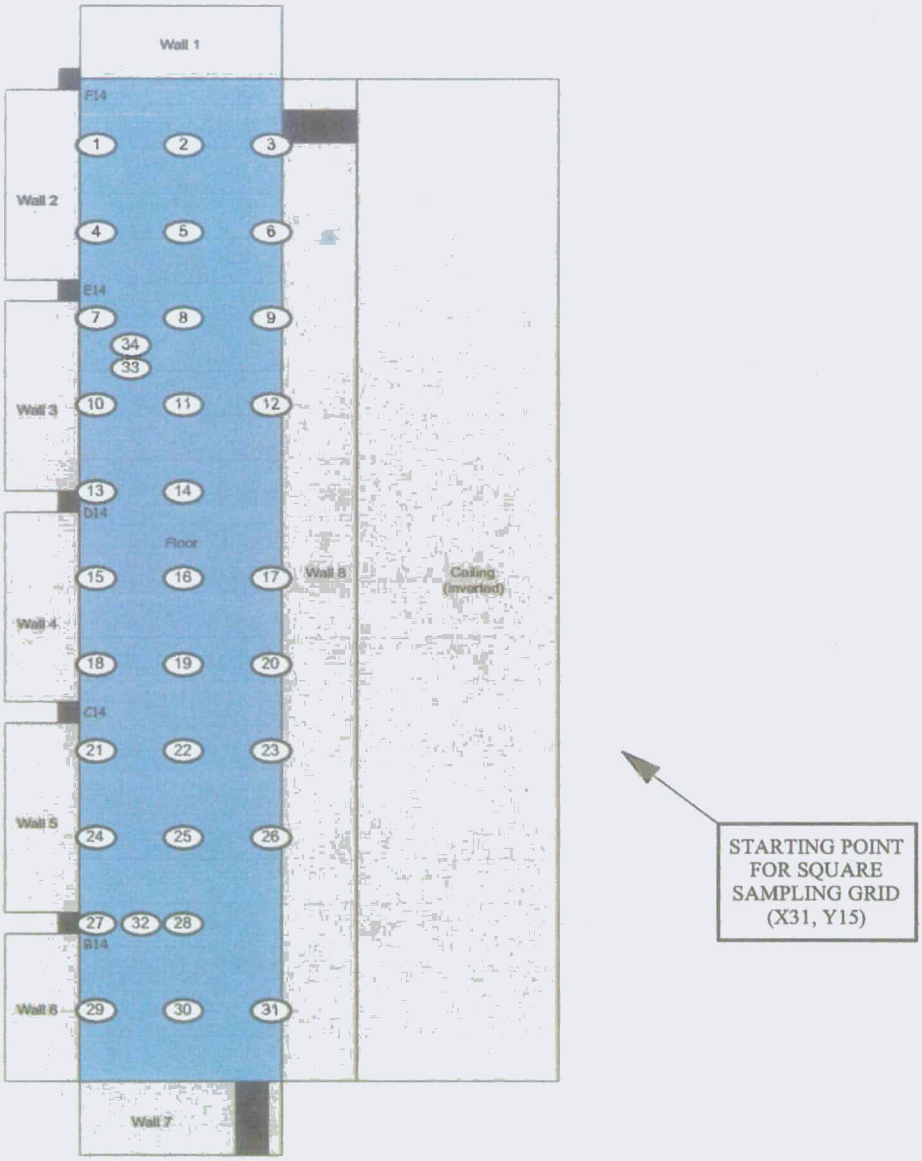
PRE-DEMOLITION SURVEY FOR B881

Survey Area: E **Survey Unit: 881E01** **Classification: 1**
Building: 881
Survey Unit Description: Buliding 881, Management Unit E, Room 154, Floor
Total Area: 168 sq. m. **Total Floor Area: 168 sq. m.**
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.

Room 154



Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 2

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 **Prepared for:**

CH2MHILL Communications Group

KAISER-HILL

MAP ID: 03-0568/881E01-SC **Mar. 11, 2004**

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Survey Area: E	Survey Unit: 881E02	Building: 881

Description: Building 881, Management Unit E, Room 154 Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 20 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 2

Alpha

Maximum:	41.8 dpm/100cm²
Minimum:	-12.9 dpm/100cm²
Mean:	11.9 dpm/100cm²
Standard Deviation:	13.4
QC Maximum:	44.7 dpm/100cm²
QC Minimum:	36.9 dpm/100cm²
QC Mean:	40.8 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 20 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	5.2 dpm/100cm²
Minimum:	-0.9 dpm/100cm²
Mean:	2.4 dpm/100cm²
Standard Deviation:	2.4
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: E	Survey Unit: 881E02	Building: 881

Description: Building 881, Management Unit E, Room 154 Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	712193	03/01/04	Electra	661	DP-8	07/07/04	0.167	NA	93.0	NA	S
2	712193	03/01/04	Electra	3109	DP-6	06/08/04	0.216	NA	93.0	NA	S
3	712193	03/02/04	Electra	3105	DP-6	07/14/04	0.201	NA	93.0	NA	T/S
4	712193	03/02/04	SAC-4	960	NA	07/08/04	0.330	NA	16.0	NA	R
6	711447	03/03/04	Electra	662	DP-6	03/15/04	0.217	NA	93.0	NA	T/Q/S

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

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Survey Area: E	Survey Unit: 881E02	Building: 881

Description: Building 881, Management Unit E, Room 154 Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E02PRP-N001	4	2.1	N/A	
881E02PRP-N002	4	-0.9	N/A	
881E02PRP-N003	4	2.1	N/A	
881E02PRP-N004	4	2.1	N/A	
881E02PRP-N005	4	5.2	N/A	
881E02PRP-N006	4	2.1	N/A	
881E02PRP-N007	4	5.2	N/A	
881E02PRP-N008	4	5.2	N/A	
881E02PRP-N009	4	-0.9	N/A	
881E02PRP-N010	4	2.1	N/A	
881E02PRP-N011	4	2.1	N/A	
881E02PRP-N012	4	5.2	N/A	
881E02PRP-N013	4	5.2	N/A	
881E02PRP-N014	4	2.1	N/A	
881E02PRP-N015	4	-0.9	N/A	
881E02PRP-N016	4	2.1	N/A	
881E02PRP-N017	4	-0.9	N/A	
881E02PRP-N018	4	-0.9	N/A	
881E02PRP-N019	4	5.2	N/A	
881E02PRP-N020	4	5.2	N/A	

Comments:

102

Survey Area: E	Survey Unit: 881E02	Building: 881

Description: Building 881, Management Unit E, Room 154 Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E02PRP-N001	3	36.8	N/A	
881E02PRP-N002	3	2.0	N/A	
881E02PRP-N003	3	26.9	N/A	
881E02QRP-N003	6	44.7	N/A	
881E02PRP-N004	3	7.0	N/A	
881E02PRP-N005	3	7.0	N/A	
881E02PRP-N006	3	16.9	N/A	
881E02PRP-N007	3	-8.0	N/A	
881E02PRP-N008	3	16.9	N/A	
881E02PRP-N009	3	-3.0	N/A	
881E02PRP-N010	3	16.9	N/A	
881E02PRP-N011	3	16.9	N/A	
881E02PRP-N012	3	2.0	N/A	
881E02PRP-N013	3	16.9	N/A	
881E02PRP-N014	3	16.9	N/A	
881E02PRP-N015	3	11.9	N/A	
881E02PRP-N016	3	7.0	N/A	
881E02PRP-N017	3	7.0	N/A	
881E02PRP-N018	3	41.8	N/A	
881E02QRP-N018	6	36.9	N/A	
881E02PRP-N019	3	11.9	N/A	
881E02PRP-N020	3	-12.9	N/A	

Comments: Scans performed at 4"/second at shaded areas indicated on map. All detected alpha count rates verified to be less than 5,000 dpm/100cm2.

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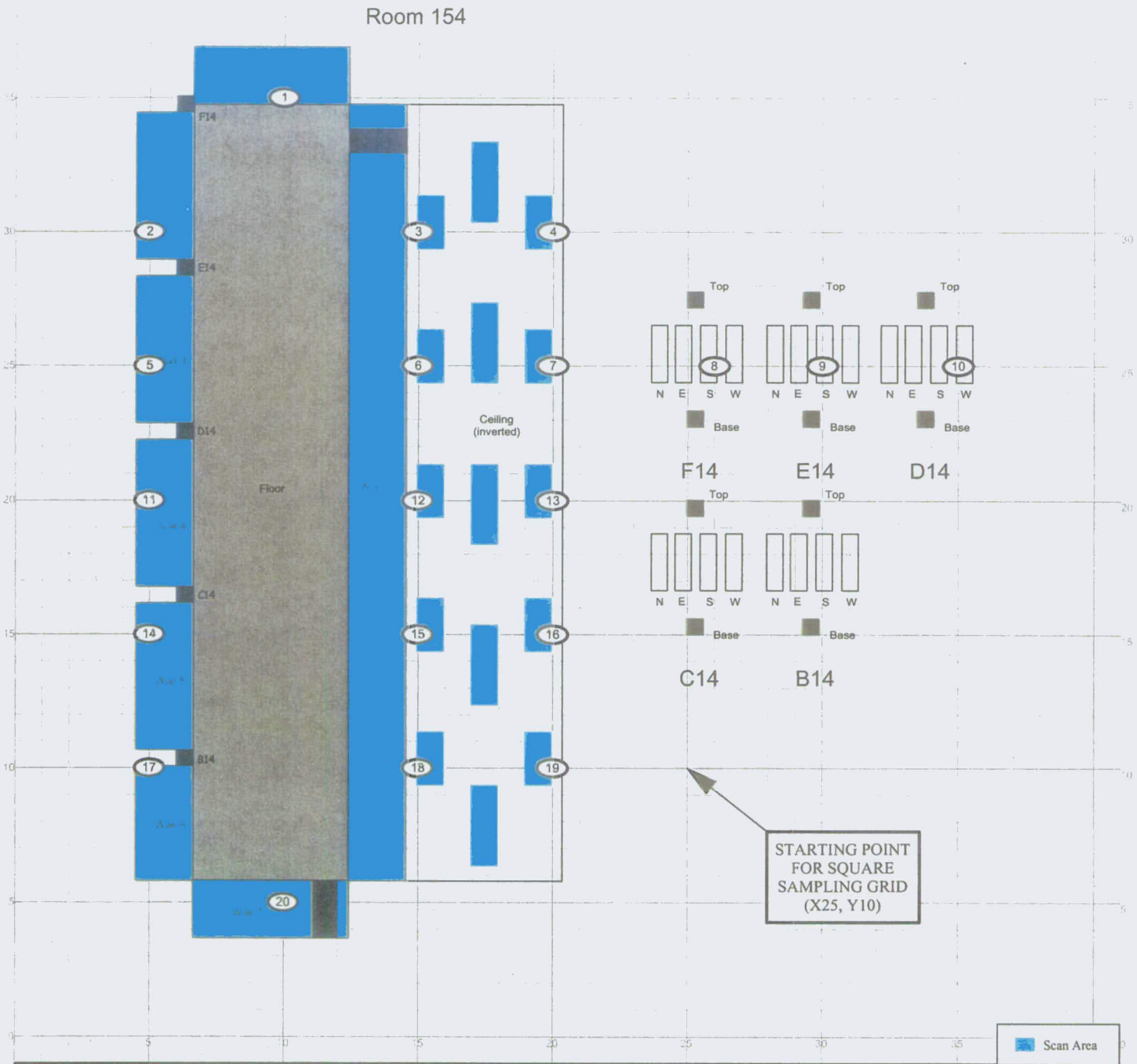
PRE-DEMOLITION SURVEY FOR B881

Survey Area: E Survey Unit: 881E02 Classification: 2
Building: 881
Survey Unit Description: Buliding 881, Management Unit E, Room 154, Walls & Ceiling
Total Area: 333 sq. m. Total Floor Area: 168 sq. m.
Grid Spacing for Survey Points: 5 m. X 5 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 2

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL COMPANY

MAP ID: 03-0568/881E02-SC Mar. 11, 2004

104

Survey Area: E	Survey Unit: 881E03	Building: 881

Description: Building 881; Management Unit E, Rooms 114A - 114F, Floors

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 84 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 5

Nbr Random Measurements Performed: 86 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 5

Alpha

Maximum:	830.0 dpm/100cm²
Minimum:	-25.4 dpm/100cm²
Mean:	168.3 dpm/100cm²
Standard Deviation:	165.8
QC Maximum:	297.2 dpm/100cm²
QC Minimum:	72.5 dpm/100cm²
QC Mean:	157.8 dpm/100cm²
Uranium DCGLw:	5,000.0 dpm/100cm²
Uranium DCGLEMC:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 84 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 86 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	33.0 dpm/100cm²
Minimum:	-0.3 dpm/100cm²
Mean:	3.8 dpm/100cm²
Standard Deviation:	5.7
Uranium DCGLw:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: E	Survey Unit: 881E03	Building: 881

Description: Building 881, Management Unit E, Rooms 114A - 114F, Floors

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	712193	06/11/04	Electra	1241	DP-8	10/06/04	0.193	NA	93.0	NA	S
2	702567	06/11/04	Electra	680	DP-8	12/08/04	0.167	NA	93.0	NA	S
3	702575	06/11/04	Electra	632	DP-8	07/07/04	0.163	NA	93.0	NA	S
4	903346	06/11/04	Electra	1241	DP-8	10/06/04	0.193	NA	93.0	NA	S
5	711447	06/11/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	S
6	702567	06/12/04	Electra	662	DP-6	12/10/04	0.217	NA	93.0	NA	T/S
7	711451	06/12/04	Electra	2394	DP-6	08/19/04	0.214	NA	93.0	NA	T/S
8	702575	06/12/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	Q/S
9	712193	06/12/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	10.0	R
10	711447	06/12/04	Electra	667	DP-6	10/22/04	0.222	NA	93.0	NA	S

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

106

Survey Area: E	Survey Unit: 881E03	Building: 881

Description: Building 881, Management Unit E, Rooms 114A - 114F, Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E03PRP-N001	9	2.7	N/A	
881E03PRP-N002	9	2.7	N/A	
881E03PRP-N003	9	-0.3	N/A	
881E03PRP-N004	9	2.7	N/A	
881E03PRP-N005	9	-0.3	N/A	
881E03PRP-N006	9	2.7	N/A	
881E03PRP-N007	9	-0.3	N/A	
881E03PRP-N008	9	-0.3	N/A	
881E03PRP-N009	9	-0.3	N/A	
881E03PRP-N010	9	5.8	N/A	
881E03PRP-N011	9	14.9	N/A	
881E03PRP-N012	9	2.7	N/A	
881E03PRP-N013	9	-0.3	N/A	
881E03PRP-N014	9	-0.3	N/A	
881E03PRP-N015	9	-0.3	N/A	
881E03PRP-N016	9	-0.3	N/A	
881E03PRP-N017	9	2.7	N/A	
881E03PRP-N018	9	2.7	N/A	
881E03PRP-N019	9	5.8	N/A	
881E03PRP-N020	9	-0.3	N/A	
881E03PRP-N021	9	5.8	N/A	
881E03PRP-N022	9	5.8	N/A	
881E03PRP-N023	9	5.8	N/A	
881E03PRP-N024	9	33.0	N/A	
881E03PRP-N025	9	14.9	N/A	
881E03PRP-N026	9	20.9	N/A	
881E03PRP-N027	9	5.8	N/A	
881E03PRP-N028	9	-0.3	N/A	
881E03PRP-N029	9	2.7	N/A	

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Survey Area: E	Survey Unit: 881E03	Building: 881

Description: Building 881, Management Unit E, Rooms 114A - 114F, Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E03PRP-N030	9	5.8	N/A	
881E03PRP-N031	9	11.8	N/A	
881E03PRP-N032	9	5.8	N/A	
881E03PRP-N033	9	2.7	N/A	
881E03PRP-N034	9	11.8	N/A	
881E03PRP-N035	9	-0.3	N/A	
881E03PRP-N036	9	-0.3	N/A	
881E03PRP-N037	9	-0.3	N/A	
881E03PRP-N038	9	2.7	N/A	
881E03PRP-N039	9	5.8	N/A	
881E03PRP-N040	9	2.7	N/A	
881E03PRP-N041	9	2.7	N/A	
881E03PRP-N042	9	5.8	N/A	
881E03PRP-N043	9	8.8	N/A	
881E03PRP-N044	9	11.8	N/A	
881E03PRP-N045	9	5.8	N/A	
881E03PRP-N046	9	2.7	N/A	
881E03PRP-N047	9	2.7	N/A	
881E03PRP-N048	9	2.7	N/A	
881E03PRP-N049	9	2.7	N/A	
881E03PRP-N050	9	-0.3	N/A	
881E03PRP-N051	9	-0.3	N/A	
881E03PRP-N052	9	2.7	N/A	
881E03PRP-N053	9	-0.3	N/A	
881E03PRP-N054	9	-0.3	N/A	
881E03PRP-N055	9	-0.3	N/A	
881E03PRP-N056	9	2.7	N/A	
881E03PRP-N057	9	2.7	N/A	
881E03PRP-N058	9	2.7	N/A	

108

Survey Area: E	Survey Unit: 881E03	Building: 881

Description: Building 881, Management Unit E; Rooms 114A - 114F, Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E03PRP-N001	9	2.7	N/A	
881E03PRP-N002	9	2.7	N/A	
881E03PRP-N003	9	-0.3	N/A	
881E03PRP-N004	9	2.7	N/A	
881E03PRP-N005	9	-0.3	N/A	
881E03PRP-N006	9	2.7	N/A	
881E03PRP-N007	9	-0.3	N/A	
881E03PRP-N008	9	-0.3	N/A	
881E03PRP-N009	9	-0.3	N/A	
881E03PRP-N010	9	5.8	N/A	
881E03PRP-N011	9	14.9	N/A	
881E03PRP-N012	9	2.7	N/A	
881E03PRP-N013	9	-0.3	N/A	
881E03PRP-N014	9	-0.3	N/A	
881E03PRP-N015	9	-0.3	N/A	
881E03PRP-N016	9	-0.3	N/A	
881E03PRP-N017	9	2.7	N/A	
881E03PRP-N018	9	2.7	N/A	
881E03PRP-N019	9	5.8	N/A	
881E03PRP-N020	9	-0.3	N/A	
881E03PRP-N021	9	5.8	N/A	
881E03PRP-N022	9	5.8	N/A	
881E03PRP-N023	9	5.8	N/A	
881E03PRP-N024	9	33.0	N/A	
881E03PRP-N025	9	14.9	N/A	
881E03PRP-N026	9	20.9	N/A	
881E03PRP-N027	9	5.8	N/A	
881E03PRP-N028	9	-0.3	N/A	
881E03PRP-N029	9	2.7	N/A	

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Survey Area: E	Survey Unit: 881E03	Building: 881

Description: Building 881, Management Unit E, Rooms 114A - 114F, Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E03PRP-N030	9	5.8	N/A	
881E03PRP-N031	9	11.8	N/A	
881E03PRP-N032	9	5.8	N/A	
881E03PRP-N033	9	2.7	N/A	
881E03PRP-N034	9	11.8	N/A	
881E03PRP-N035	9	-0.3	N/A	
881E03PRP-N036	9	-0.3	N/A	
881E03PRP-N037	9	-0.3	N/A	
881E03PRP-N038	9	2.7	N/A	
881E03PRP-N039	9	5.8	N/A	
881E03PRP-N040	9	2.7	N/A	
881E03PRP-N041	9	2.7	N/A	
881E03PRP-N042	9	5.8	N/A	
881E03PRP-N043	9	8.8	N/A	
881E03PRP-N044	9	11.8	N/A	
881E03PRP-N045	9	5.8	N/A	
881E03PRP-N046	9	2.7	N/A	
881E03PRP-N047	9	2.7	N/A	
881E03PRP-N048	9	2.7	N/A	
881E03PRP-N049	9	2.7	N/A	
881E03PRP-N050	9	-0.3	N/A	
881E03PRP-N051	9	-0.3	N/A	
881E03PRP-N052	9	2.7	N/A	
881E03PRP-N053	9	-0.3	N/A	
881E03PRP-N054	9	-0.3	N/A	
881E03PRP-N055	9	-0.3	N/A	
881E03PRP-N056	9	2.7	N/A	
881E03PRP-N057	9	2.7	N/A	
881E03PRP-N058	9	2.7	N/A	

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Survey Area: E	Survey Unit: 881E03	Building: 881

Description: Building 881, Management Unit E, Rooms 114A - 114F, Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E03PRP-N059	9	2.7	N/A	
881E03PRP-N060	9	-0.3	N/A	
881E03PRP-N061	9	-0.3	N/A	
881E03PRP-N062	9	-0.3	N/A	
881E03PRP-N063	9	-0.3	N/A	
881E03PRP-N064	9	2.7	N/A	
881E03PRP-N065	9	5.8	N/A	
881E03PRP-N066	9	5.8	N/A	
881E03PRP-N067	9	2.7	N/A	
881E03PRP-N068	9	-0.3	N/A	
881E03PRP-N069	9	-0.3	N/A	
881E03PRP-N070	9	-0.3	N/A	
881E03PRP-N071	9	-0.3	N/A	
881E03PRP-N072	9	2.7	N/A	
881E03PRP-N073	9	2.7	N/A	
881E03PRP-N074	9	5.8	N/A	
881E03PRP-N075	9	2.7	N/A	
881E03PRP-N076	9	2.7	N/A	
881E03PRP-N077	9	2.7	N/A	
881E03PRP-N078	9	2.7	N/A	
881E03PRP-N079	9	2.7	N/A	
881E03PRP-N080	9	2.7	N/A	
881E03PRP-N081	9	8.8	N/A	
881E03PRP-N082	9	27.0	N/A	
881E03PRP-N083	9	-0.3	N/A	
881E03PRP-N084	9	-0.3	N/A	
881E03PRP-N085	9	2.7	N/A	
881E03PRP-N086	9	5.8	N/A	

Comments:

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Survey Area: E	Survey Unit: 881E03	Building: 881

Description: Building 881, Management Unit E, Rooms 114A - 114F, Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E03PRP-N001	6	66.8	N/A	
881E03PRP-N002	7	124.4	N/A	
881E03QRP-N002	8	297.2	N/A	
881E03PRP-N003	6	264.9	N/A	
881E03PRP-N004	7	161.7	N/A	
881E03PRP-N005	6	154.3	N/A	
881E03PRP-N006	7	830.0	N/A	
881E03PRP-N007	6	347.9	N/A	
881E03PRP-N008	7	133.7	N/A	
881E03PRP-N009	6	76.0	N/A	
881E03PRP-N010	7	624.4	N/A	
881E03PRP-N011	6	39.1	N/A	
881E03PRP-N012	7	87.0	N/A	
881E03PRP-N013	6	255.7	N/A	
881E03PRP-N014	7	119.7	N/A	
881E03PRP-N015	6	89.8	N/A	
881E03PRP-N016	7	231.8	N/A	
881E03PRP-N017	6	297.2	N/A	
881E03PRP-N018	7	577.6	N/A	
881E03PRP-N019	6	186.6	N/A	
881E03PRP-N020	7	96.3	N/A	
881E03PRP-N021	6	-25.4	N/A	
881E03PRP-N022	7	-6.5	N/A	
881E03PRP-N023	6	29.9	N/A	
881E03PRP-N024	7	58.9	N/A	
881E03PRP-N025	6	11.5	N/A	
881E03PRP-N026	7	227.2	N/A	

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Survey Area: E	Survey Unit: 881E03	Building: 881

Description: Building 881, Management Unit E, Rooms 114A - 114F, Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E03PRP-N027	6	108.3	N/A	
881E03PRP-N028	7	91.6	N/A	
881E03PRP-N029	6	269.6	N/A	
881E03PRP-N030	7	577.6	N/A	
881E03PRP-N031	6	264.9	N/A	
881E03PRP-N032	7	91.6	N/A	
881E03PRP-N033	6	168.2	N/A	
881E03PRP-N034	7	58.9	N/A	
881E03PRP-N035	6	89.8	N/A	
881E03PRP-N036	7	49.6	N/A	
881E03QRP-N036	8	100.0	N/A	
881E03PRP-N037	6	205.0	N/A	
881E03PRP-N038	7	77.6	N/A	
881E03PRP-N039	6	43.7	N/A	
881E03PRP-N040	7	87.0	N/A	
881E03QRP-N040	8	168.8	N/A	
881E03PRP-N041	6	172.8	N/A	
881E03PRP-N042	7	49.6	N/A	
881E03PRP-N043	6	135.9	N/A	
881E03PRP-N044	7	105.7	N/A	
881E03PRP-N045	6	34.5	N/A	
881E03PRP-N046	7	7.5	N/A	
881E03PRP-N047	6	29.9	N/A	
881E03PRP-N048	7	2.9	N/A	
881E03PRP-N049	6	6.9	N/A	
881E03PRP-N050	7	157.1	N/A	
881E03PRP-N051	6	43.7	N/A	

113

Survey Area: E	Survey Unit: 881E03	Building: 881

Description: Building 881, Management Unit E, Rooms 114A - 114F, Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E03PRP-N052	7	372.0	N/A	
881E03PRP-N053	6	80.6	N/A	
881E03PRP-N054	7	189.8	N/A	
881E03PRP-N055	6	145.1	N/A	
881E03PRP-N056	7	115.0	N/A	
881E03PRP-N057	6	39.1	N/A	
881E03PRP-N058	7	44.9	N/A	
881E03PRP-N059	6	53.0	N/A	
881E03PRP-N060	7	194.4	N/A	
881E03PRP-N061	6	324.9	N/A	
881E03PRP-N062	7	77.6	N/A	
881E03PRP-N063	6	430.8	N/A	
881E03PRP-N064	7	68.3	N/A	
881E03PRP-N065	6	241.9	N/A	
881E03PRP-N066	7	101.0	N/A	
881E03QRP-N066	8	150.5	N/A	
881E03PRP-N067	6	29.9	N/A	
881E03PRP-N068	7	72.9	N/A	
881E03PRP-N069	6	66.8	N/A	
881E03PRP-N070	7	77.6	N/A	
881E03PRP-N071	6	246.5	N/A	
881E03PRP-N072	7	77.6	N/A	
881E03PRP-N073	6	394.0	N/A	
881E03PRP-N074	7	157.1	N/A	
881E03PRP-N075	6	384.8	N/A	
881E03PRP-N076	7	199.1	N/A	
881E03PRP-N077	6	43.7	N/A	

114

Survey Area: E	Survey Unit: 881E03	Building: 881

Description: Building 881, Management Unit E, Rooms 114A - 114F, Floors

Random/QC Total Surface Activity Data Sheet

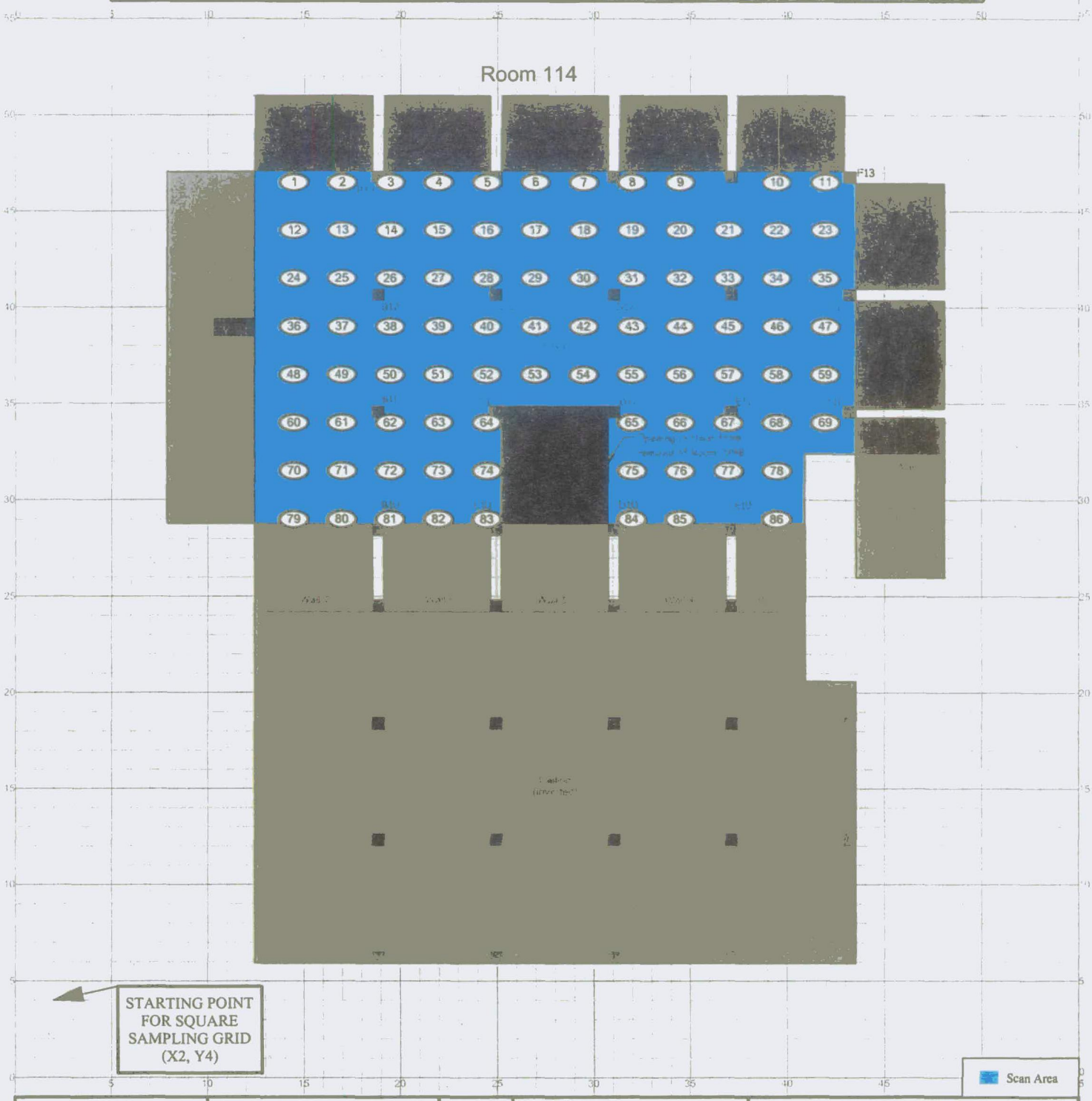
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E03PRP-N078	7	115.0	N/A	
881E03QRP-N078	8	72.5	N/A	
881E03PRP-N079	6	288.0	N/A	
881E03PRP-N080	7	105.7	N/A	
881E03PRP-N081	6	39.1	N/A	
881E03PRP-N082	7	764.5	N/A	
881E03PRP-N083	6	403.2	N/A	
881E03PRP-N084	7	138.4	N/A	
881E03PRP-N085	6	218.9	N/A	
881E03PRP-N086	7	180.4	N/A	

Comments:

115

PRE-DEMOLITION SURVEY FOR B881

Survey Area: E **Survey Unit: 881E03** **Classification: 1**
Building: 881
Survey Unit Description: Biulding 881, Management Unit E, Room 114A - 114F, Floor
Total Area: 559 sq. m. **Total Floor Area: 559 sq. m.**
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1-8, 10

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 **Prepared for:**

CH2MHILL Communications Group

MAP ID: 03-0568/881E03-SC **June 09, 2004**

116

Survey Area: E	Survey Unit: 881E04	Building: 881

Description: Building 881, Management Unit E, rooms 114A - 114F, Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 20 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 2

Alpha

Maximum:	32.7 dpm/100cm²
Minimum:	-23.5 dpm/100cm²
Mean:	3.9 dpm/100cm²
Standard Deviation:	15.4
QC Maximum:	33.8 dpm/100cm²
QC Minimum:	11.2 dpm/100cm²
QC Mean:	22.5 dpm/100cm²
Uranium DCGLw:	5,000.0 dpm/100cm²
Uranium DCGLEMC:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 20 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	2.1 dpm/100cm²
Minimum:	-1.5 dpm/100cm²
Mean:	-0.2 dpm/100cm²
Standard Deviation:	1.5
Uranium DCGLw:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

117

Survey Area: E	Survey Unit: 881E04	Building: 881

Description: Building 881, Management Unit E, rooms 114A - 114F, Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	702575	06/12/04	Electra	1241	DP-8	10/06/04	0.193	NA	93.0	NA	S
2	702567	06/12/04	Electra	680	DP-8	12/08/04	0.167	NA	93.0	NA	S
3	712193	06/12/04	Electra	632	DP-8	07/07/04	0.163	NA	93.0	NA	S
4	711451	06/12/04	Electra	2394	DP-6	08/19/04	0.214	NA	93.0	NA	T/S
5	702575	06/12/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	T/S
6	712193	06/12/04	Electra	667	DP-6	10/22/04	0.222	NA	93.0	NA	Q/S
7	711451	06/13/04	SAC-4	961	NA	09/30/04	0.330	NA	16.0	10.0	R
8	711451	06/13/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	10.0	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

118

Survey Area: E	Survey Unit: 881E04	Building: 881

Description: Building 881, Management Unit E, rooms 114A - 114F, Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E04PRP-N001	8	2.1	N/A	
881E04PRP-N002	8	2.1	N/A	
881E04PRP-N003	7	1.5	N/A	
881E04PRP-N004	8	-0.9	N/A	
881E04PRP-N005	7	1.5	N/A	
881E04PRP-N006	8	-0.9	N/A	
881E04PRP-N007	7	-1.5	N/A	
881E04PRP-N008	7	-1.5	N/A	
881E04PRP-N009	8	-0.9	N/A	
881E04PRP-N010	7	-1.5	N/A	
881E04PRP-N011	7	-1.5	N/A	
881E04PRP-N012	8	-0.9	N/A	
881E04PRP-N013	7	-1.5	N/A	
881E04PRP-N014	8	2.1	N/A	
881E04PRP-N015	7	1.5	N/A	
881E04PRP-N016	8	-0.9	N/A	
881E04PRP-N017	8	-0.9	N/A	
881E04PRP-N018	7	1.5	N/A	
881E04PRP-N019	8	-0.9	N/A	
881E04PRP-N020	7	-1.5	N/A	

Comments:

119

Survey Area: E	Survey Unit: 881E04	Building: 881

Description: Building 881, Management Unit E, rooms 114A - 114F, Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

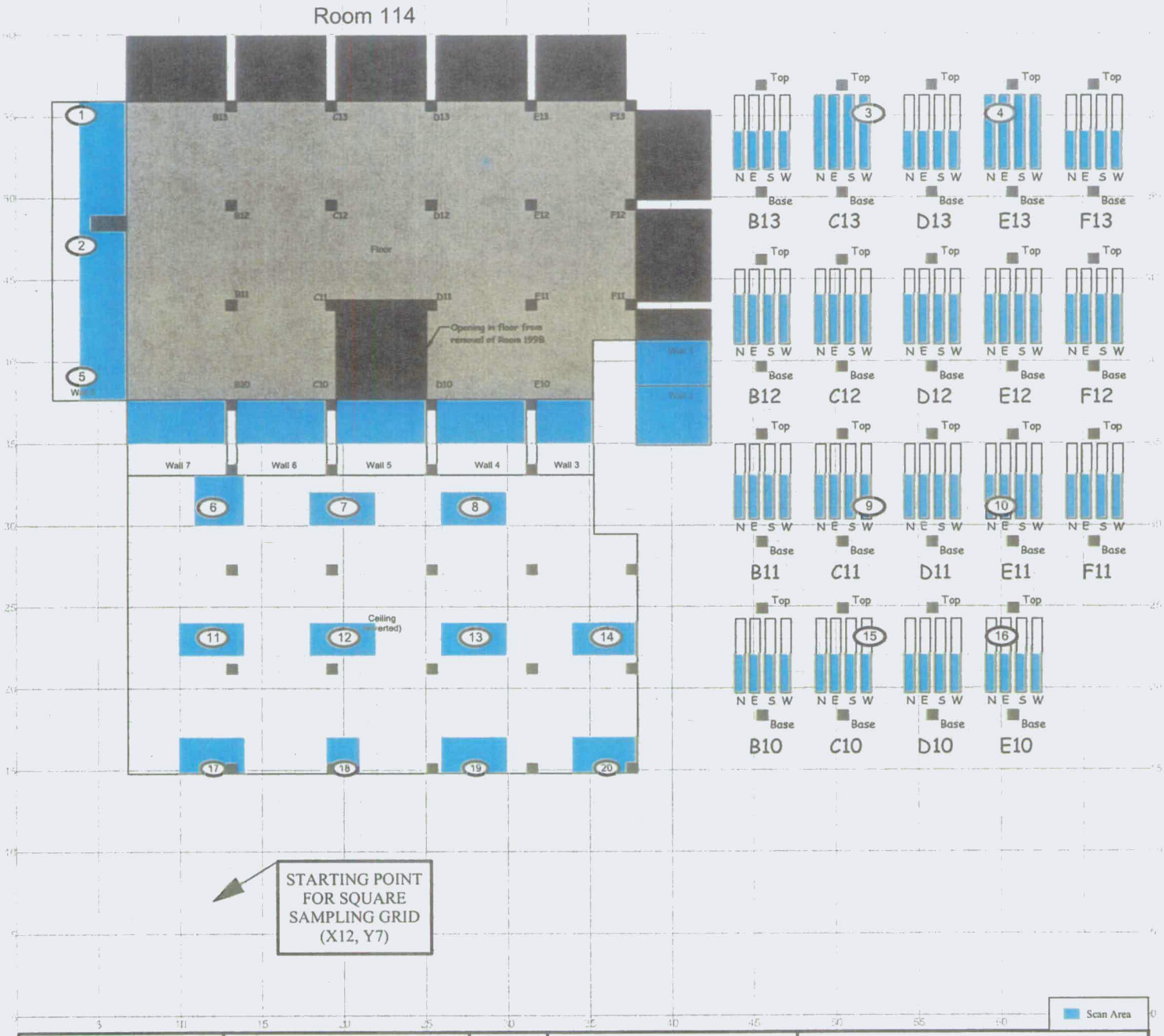
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E04PRP-N001	4	4.7	N/A	
881E04QRP-N001	6	11.2	N/A	
881E04PRP-N002	5	-9.8	N/A	
881E04PRP-N003	4	18.7	N/A	
881E04PRP-N004	5	26.9	N/A	
881E04PRP-N005	4	0.0	N/A	
881E04PRP-N006	5	-5.2	N/A	
881E04PRP-N007	4	-9.3	N/A	
881E04PRP-N008	5	-5.2	N/A	
881E04PRP-N009	4	18.7	N/A	
881E04PRP-N010	5	-0.6	N/A	
881E04PRP-N011	4	-4.7	N/A	
881E04PRP-N012	5	4.0	N/A	
881E04PRP-N013	4	-9.3	N/A	
881E04PRP-N014	5	-23.5	N/A	
881E04PRP-N015	4	-4.7	N/A	
881E04PRP-N016	5	22.3	N/A	
881E04QRP-N016	6	33.8	N/A	
881E04PRP-N017	4	32.7	N/A	
881E04PRP-N018	5	17.8	N/A	
881E04PRP-N019	4	-14.0	N/A	
881E04PRP-N020	5	17.8	N/A	

Comments:

120

PRE-DEMOLITION SURVEY FOR B881

Survey Area: E Survey Unit: 881E04 Classification: 2
Building: 881
Survey Unit Description: Building 881, Management Unit E, Room 114A - 114F, Walls & Ceiling
Total Area: 1,022 sq. m. Total Floor Area: 559 sq. m.
Grid Spacing for Survey Points: 8 m. X 8 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 40
0 METERS 10

1 inch = 30 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1-6

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL

MAP ID: 03-0568/881E04-SC June 09, 2004

121

Survey Area: E	Survey Unit: 881E06	Building: 881

Description: Building881, Management Unit E, Rooms 115A-F Floor

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 55 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 3

Nbr Random Measurements Performed: 59 | Nbr Biased Measurements Performed: 1 | Nbr QC Performed: 3

Alpha

Maximum:	118.6 dpm/100cm²
Minimum:	-16.9 dpm/100cm²
Mean:	30.8 dpm/100cm²
Standard Deviation:	27.3
QC Maximum:	36.7 dpm/100cm²
QC Minimum:	23.0 dpm/100cm²
QC Mean:	32.1 dpm/100cm²
Uranium DCGLw:	5,000.0 dpm/100cm²
Uranium DCGLEMC:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 55 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 59 | Nbr Biased Measurements Performed: 1

Alpha

Maximum:	11.8 dpm/100cm²
Minimum:	-0.3 dpm/100cm²
Mean:	2.6 dpm/100cm²
Standard Deviation:	3.9
Uranium DCGLw:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

122

Survey Area: E	Survey Unit: 881E06	Building: 881

Description: Building881, Management Unit E, Rooms 115A-F Floor

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	712193	06/08/04	Electra	675	DP-8	12/01/04	0.176	NA	93.0	NA	S
2	711447	06/08/04	Electra	632	DP-8	07/07/04	0.163	NA	93.0	NA	S
3	702575	06/08/04	Electra	681	DP-8	06/29/04	0.151	NA	93.0	NA	S
4	702567	06/09/04	Electra	2394	DP-6	08/19/04	0.214	NA	93.0	NA	T
5	712193	06/09/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	Q
6	903346	06/09/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

123

Survey Area: E	Survey Unit: 881E06	Building: 881

Description: Building881, Management Unit E, Rooms 115A-F Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E06PRP-N001	6	11.8	N/A	
881E06PRP-N002	6	8.8	N/A	
881E06PRP-N003	6	2.7	N/A	
881E06PRP-N004	6	5.8	N/A	
881E06PRP-N005	6	-0.3	N/A	
881E06PRP-N006	6	-0.3	N/A	
881E06PRP-N007	6	8.8	N/A	
881E06PRP-N008	6	-0.3	N/A	
881E06PRP-N009	6	2.7	N/A	
881E06PRP-N010	6	2.7	N/A	
881E06PRP-N011	6	-0.3	N/A	
881E06PRP-N012	6	-0.3	N/A	
881E06PRP-N013	6	5.8	N/A	
881E06PRP-N014	6	-0.3	N/A	
881E06PRP-N015	6	-0.3	N/A	
881E06PRP-N016	6	-0.3	N/A	
881E06PRP-N017	6	-0.3	N/A	
881E06PRP-N018	6	-0.3	N/A	
881E06PRP-N019	6	2.7	N/A	
881E06PRP-N020	6	-0.3	N/A	
881E06PRP-N021	6	2.7	N/A	
881E06PRP-N022	6	2.7	N/A	
881E06PRP-N023	6	5.8	N/A	
881E06PRP-N024	6	-0.3	N/A	
881E06PRP-N025	6	-0.3	N/A	
881E06PRP-N026	6	8.8	N/A	
881E06PRP-N027	6	2.7	N/A	
881E06PRP-N028	6	11.8	N/A	
881E06PRP-N029	6	-0.3	N/A	

124

Survey Area: E	Survey Unit: 881E06	Building: 881

Description: Building881, Management Unit E, Rooms 115A-F Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E06PRP-N030	6	2.7	N/A	
881E06PRP-N031	6	-0.3	N/A	
881E06PRP-N032	6	-0.3	N/A	
881E06PRP-N033	6	-0.3	N/A	
881E06PRP-N034	6	2.7	N/A	
881E06PRP-N035	6	11.8	N/A	
881E06PRP-N036	6	-0.3	N/A	
881E06PRP-N037	6	8.8	N/A	
881E06PRP-N038	6	5.8	N/A	
881E06PRP-N039	6	-0.3	N/A	
881E06PRP-N040	6	-0.3	N/A	
881E06PRP-N041	6	-0.3	N/A	
881E06PRP-N042	6	-0.3	N/A	
881E06PRP-N043	6	2.7	N/A	
881E06PRP-N044	6	8.8	N/A	
881E06PRP-N045	6	-0.3	N/A	
881E06PRP-N046	6	-0.3	N/A	
881E06PRP-N047	6	-0.3	N/A	
881E06PRP-N048	6	-0.3	N/A	
881E06PRP-N049	6	5.8	N/A	
881E06PRP-N050	6	-0.3	N/A	
881E06PRP-N051	6	2.7	N/A	
881E06PRP-N052	6	-0.3	N/A	
881E06PRP-N053	6	-0.3	N/A	
881E06PRP-N054	6	11.8	N/A	
881E06PRP-N055	6	2.7	N/A	
881E06PRP-N056	6	-0.3	N/A	
881E06PRP-N057	6	-0.3	N/A	
881E06PRP-N058	6	8.8	N/A	

125

Survey Area: E	Survey Unit: 881E06	Building: 881

Description: Building881, Management Unit E, Rooms 115A-F Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E06PRP-N059	6	5.8	N/A	

Biased Removable Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E06PBP-N060	6	-0.3	N/A	

Comments:

126

Survey Area: E	Survey Unit: 881E06	Building: 881

Description: Building881, Management Unit E, Rooms 115A-F Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E06PRP-N001	4	76.6	N/A	
881E06PRP-N002	4	39.2	N/A	
881E06PRP-N003	4	-12.2	N/A	
881E06PRP-N004	4	11.1	N/A	
881E06PRP-N005	4	11.1	N/A	
881E06PRP-N006	4	11.1	N/A	
881E06PRP-N007	4	11.1	N/A	
881E06PRP-N008	4	29.8	N/A	
881E06PRP-N009	4	25.2	N/A	
881E06PRP-N010	4	20.5	N/A	
881E06PRP-N011	4	57.9	N/A	
881E06PRP-N012	4	29.8	N/A	
881E06PRP-N013	4	118.6	N/A	
881E06PRP-N014	4	6.5	N/A	
881E06PRP-N015	4	15.8	N/A	
881E06PRP-N016	4	39.2	N/A	
881E06PRP-N017	4	15.8	N/A	
881E06PRP-N018	4	20.5	N/A	
881E06QRP-N018	5	36.7	N/A	
881E06PRP-N019	4	11.1	N/A	
881E06PRP-N020	4	34.5	N/A	
881E06PRP-N021	4	20.5	N/A	
881E06PRP-N022	4	20.5	N/A	
881E06PRP-N023	4	29.8	N/A	
881E06PRP-N024	4	39.2	N/A	
881E06PRP-N025	4	71.9	N/A	
881E06PRP-N026	4	20.5	N/A	

127

Survey Area: E	Survey Unit: 881E06	Building: 881

Description: Building881, Management Unit E, Rooms 115A-F Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E06PRP-N027	4	29.8	N/A	
881E06PRP-N028	4	57.9	N/A	
881E06PRP-N029	4	48.5	N/A	
881E06PRP-N030	4	34.5	N/A	
881E06PRP-N031	4	-12.2	N/A	
881E06PRP-N032	4	67.2	N/A	
881E06PRP-N033	4	34.5	N/A	
881E06PRP-N034	4	29.8	N/A	
881E06PRP-N035	4	20.5	N/A	
881E06PRP-N036	4	104.6	N/A	
881E06PRP-N037	4	1.8	N/A	
881E06PRP-N038	4	-16.9	N/A	
881E06PRP-N039	4	1.8	N/A	
881E06PRP-N040	4	85.9	N/A	
881E06PRP-N041	4	62.5	N/A	
881E06PRP-N042	4	39.2	N/A	
881E06PRP-N043	4	48.5	N/A	
881E06PRP-N044	4	6.5	N/A	
881E06PRP-N045	4	11.1	N/A	
881E06PRP-N046	4	6.5	N/A	
881E06PRP-N047	4	6.5	N/A	
881E06PRP-N048	4	43.9	N/A	
881E06PRP-N049	4	53.2	N/A	
881E06QRP-N049	5	36.7	N/A	
881E06PRP-N050	4	20.5	N/A	
881E06PRP-N051	4	-2.9	N/A	
881E06PRP-N052	4	76.6	N/A	

128

Survey Area: E	Survey Unit: 881E06	Building: 881

Description: Building881, Management Unit E, Rooms 115A-F Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E06PRP-N053	4	39.2	N/A	
881E06QRP-N053	5	23.0	N/A	
881E06PRP-N054	4	15.8	N/A	
881E06PRP-N055	4	25.2	N/A	
881E06PRP-N056	4	57.9	N/A	
881E06PRP-N057	4	15.8	N/A	
881E06PRP-N058	4	29.8	N/A	
881E06PRP-N059	4	15.8	N/A	

Biased Total Surface Activity Data Sheet

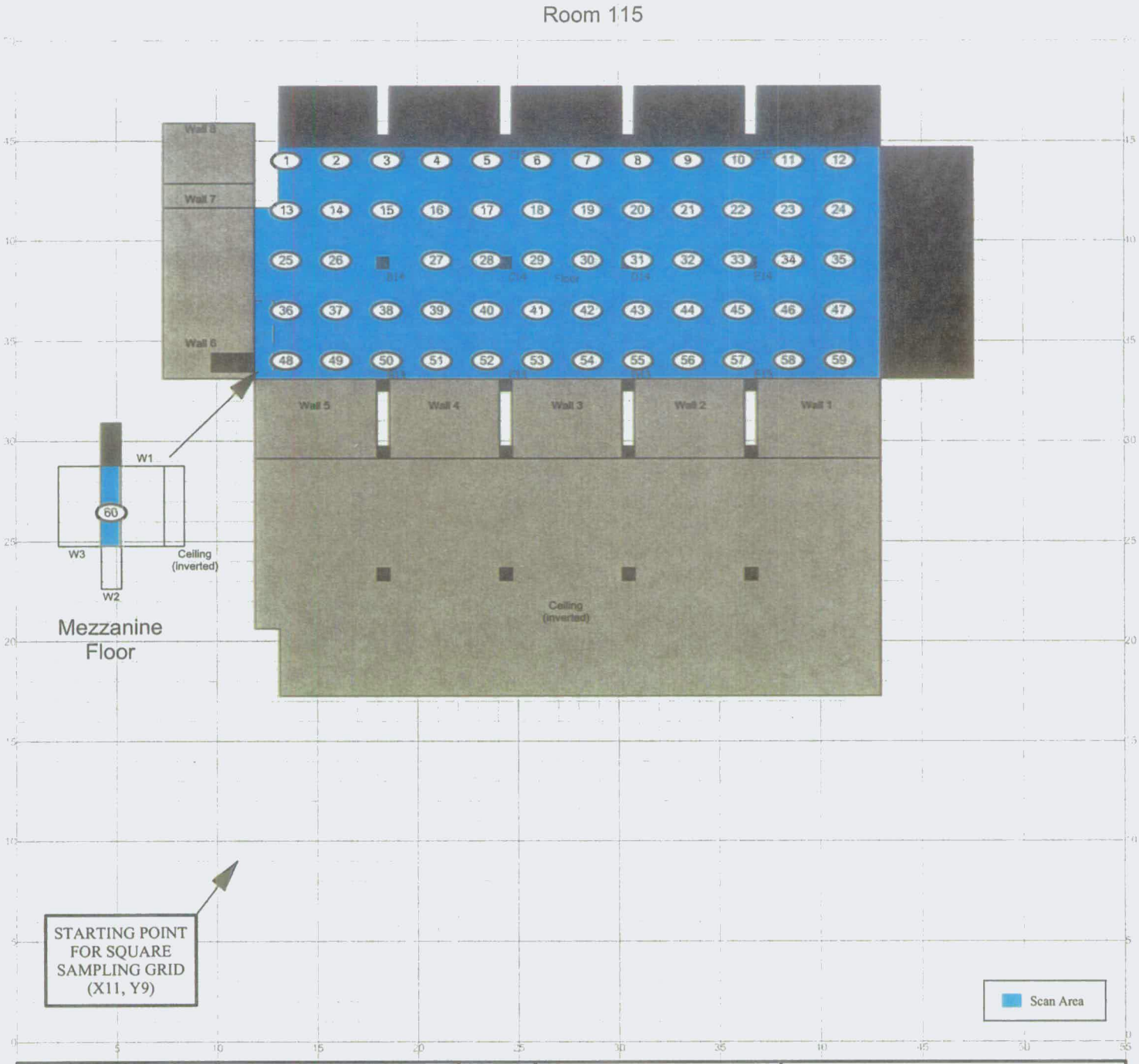
Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E06PBP-N060	4	14.0	N/A	

Comments:

129

PRE-DEMOLITION SURVEY FOR B881

Survey Area: E Survey Unit: 881E06 Classification: 1
Building: 881
Survey Unit Description: Building 881, Management Unit E, Rooms 115A - 115F, Floor
Total Area: 365 sq. m. Total Floor Area: 365 sq. m.
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 2, 3

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group

KAISER-HILL COMPANY

MAP ID: 03-0568/881E06-SC June 04, 2004

130

Survey Area: E	Survey Unit: 881E07	Building: 881

Description: Building 881, Management Unit E, Rooms 115A-F, Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 16 | Nbr Biased Measurements Performed: 2 | Nbr QC Performed: 2

Alpha

Maximum:	36.2 dpm/100cm²
Minimum:	-24.5 dpm/100cm²
Mean:	9.6 dpm/100cm²
Standard Deviation:	18.2
QC Maximum:	38.9 dpm/100cm²
QC Minimum:	29.8 dpm/100cm²
QC Mean:	34.4 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 16 | Nbr Biased Measurements Performed: 2

Alpha

Maximum:	1.8 dpm/100cm²
Minimum:	-1.2 dpm/100cm²
Mean:	-0.4 dpm/100cm²
Standard Deviation:	1.4
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

131

Survey Area: E	Survey Unit: 881E07	Building: 881

Description: Building 881, Management Unit E, Rooms 115A-F, Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	903346	06/08/04	Electra	2394	DP-6	08/19/04	0.214	NA	93.0	NA	T/S
2	903346	06/08/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
3	702575	06/08/04	Electra	681	DP-8	06/29/04	0.151	NA	93.0	NA	S
4	712193	06/08/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	Q/S

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

132

Survey Area: E	Survey Unit: 881E07	Building: 881

Description: Building 881, Management Unit E, Rooms 115A-F, Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E07PRP-N001	2	-1.2	N/A	
881E07PRP-N002	2	-1.2	N/A	
881E07PRP-N003	2	-1.2	N/A	
881E07PRP-N004	2	1.8	N/A	
881E07PRP-N005	2	-1.2	N/A	
881E07PRP-N006	2	-1.2	N/A	
881E07PRP-N007	2	1.8	N/A	
881E07PRP-N008	2	-1.2	N/A	
881E07PRP-N009	2	-1.2	N/A	
881E07PRP-N010	2	-1.2	N/A	
881E07PRP-N011	2	-1.2	N/A	
881E07PRP-N012	2	1.8	N/A	
881E07PRP-N013	2	-1.2	N/A	
881E07PRP-N014	2	-1.2	N/A	
881E07PRP-N015	2	-1.2	N/A	
881E07PRP-N016	2	1.8	N/A	

Survey Area: E	Survey Unit: 881E07	Building: 881

Description: Building 881, Management Unit E, Rooms 115A-F, Walls and Ceiling

Biased Removable Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E07PBP-N017	2	1.8	N/A	
881E07PBP-N018	2	-1.2	N/A	

Comments:

134

Survey Area: E	Survey Unit: 881E07	Building: 881

Description: Building 881, Management Unit E, Rooms 115A-F, Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E07PRP-N001	1	-5.8	N/A	
881E07PRP-N002	1	26.9	N/A	
881E07PRP-N003	1	3.5	N/A	
881E07PRP-N004	1	12.9	N/A	
881E07QRP-N004	4	29.8	N/A	
881E07PRP-N005	1	31.6	N/A	
881E07PRP-N006	1	22.2	N/A	
881E07PRP-N007	1	22.2	N/A	
881E07PRP-N008	1	22.2	N/A	
881E07PRP-N009	1	31.6	N/A	
881E07PRP-N010	1	36.2	N/A	
881E07PRP-N011	1	-10.5	N/A	
881E07PRP-N012	1	-5.8	N/A	
881E07PRP-N013	1	-1.1	N/A	
881E07PRP-N014	1	-10.5	N/A	
881E07PRP-N015	1	-24.5	N/A	
881E07PRP-N016	1	26.9	N/A	
881E07QRP-N016	4	38.9	N/A	

135

Survey Area: E	Survey Unit: 881E07	Building: 881

Description: Building 881, Management Unit E, Rooms 115A-F, Walls and Ceiling

Biased Total Surface Activity Data Sheet

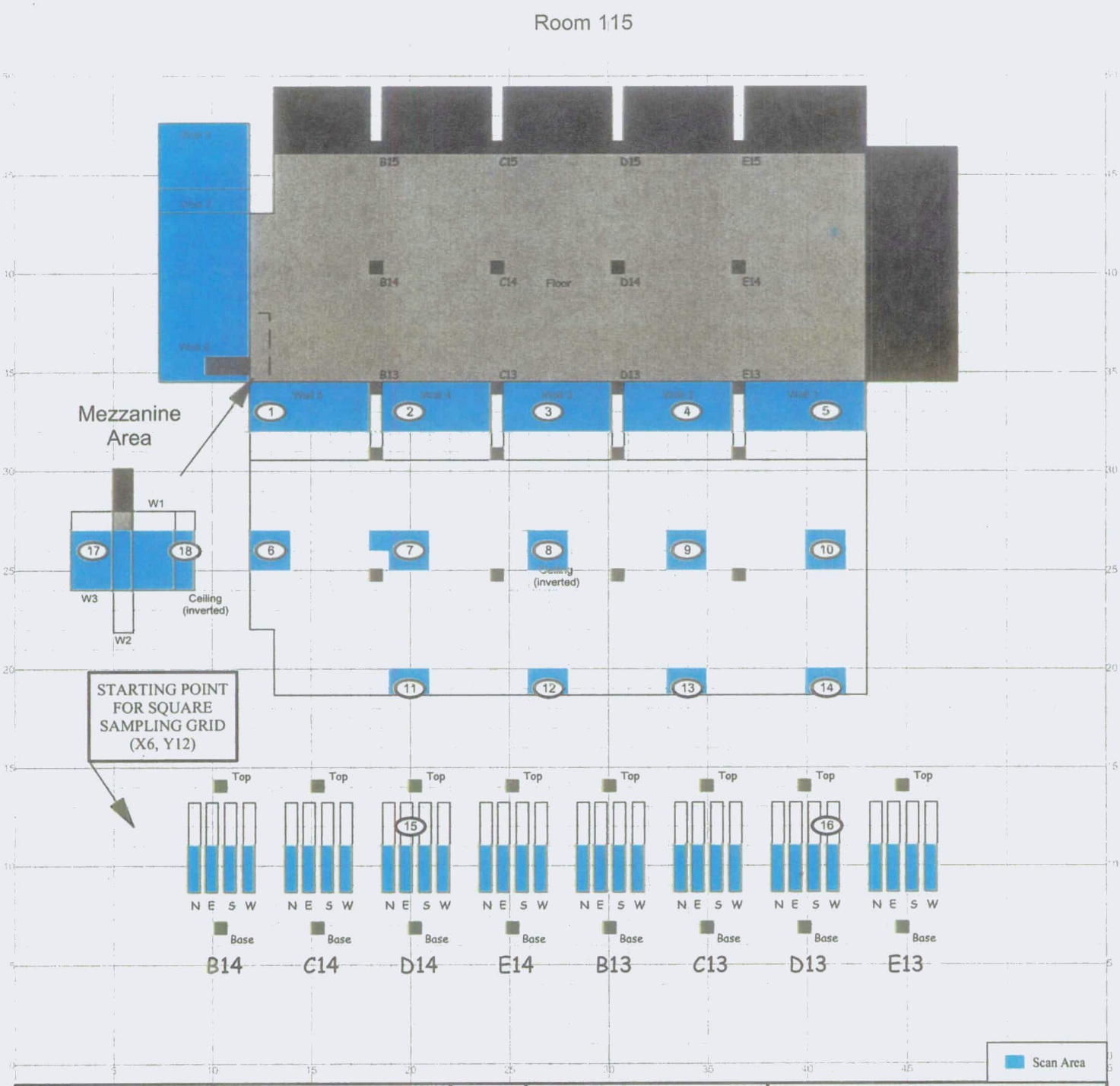
Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E07PBP-N017	1	-0.0	N/A	
881E07PBP-N018	1	-4.7	N/A	

Comments:

136

PRE-DEMOLITION SURVEY FOR B881

Survey Area: E Survey Unit: 881E07 Classification: 2
Building: 881
Survey Unit Description: Building 881, Management Unit E, Rooms 115A - 115F, Walls & Ceiling
Total Area: 720 sq. m. Total Floor Area: 365 sq. m.
Grid Spacing for Survey Points: 7 m. X 7 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 3, 4

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group

KAISER-HILL COMPANY

MAP ID: 03-0568/881E07-SC June 04, 2004

137

Survey Area: E	Survey Unit: 881E08	Building: 881

Description: Building 881, Management Unit E, Rooms 143 A-H, Floors

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 56
Nbr Random Measurements Performed: 58
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0
Nbr QC Required: 3
Nbr QC Performed: 3

Alpha

Maximum:	94.1 dpm/100cm²
Minimum:	-20.8 dpm/100cm²
Mean:	30.3 dpm/100cm²
Standard Deviation:	26.6
QC Maximum:	70.3 dpm/100cm²
QC Minimum:	38.2 dpm/100cm²
QC Mean:	56.5 dpm/100cm²
Uranium DCGLw:	5,000.0 dpm/100cm²
Uranium DCGLEMC:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 56
Nbr Random Measurements Performed: 58
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0

Alpha

Maximum:	8.8 dpm/100cm²
Minimum:	-1.2 dpm/100cm²
Mean:	1.3 dpm/100cm²
Standard Deviation:	2.7
Uranium DCGLw:	1,000.0

Media Sample Results

Nbr Random Required: 0
Nbr Random Collected: 0
Nbr Biased Required: 0
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

138

Survey Area: E	Survey Unit: 881E08	Building: 881

Description: Building 881, Management Unit E, Rooms 143 A-H, Floors

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	903346	06/08/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
2	903346	06/08/04	SAC-4	961	NA	09/30/04	0.330	NA	16.0	NA	R
3	903346	06/08/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	T
4	903346	06/08/04	Electra	290	DP-6	09/16/04	0.199	NA	93.0	NA	T
5	702575	06/08/04	Electra	681	DP-8	06/29/04	0.151	NA	93.0	NA	S
6	702575	06/08/04	Electra	632	DP-8	07/07/04	0.163	NA	93.0	NA	S
7	712193	06/08/04	Electra	675	DP-8	12/01/04	0.176	NA	93.0	NA	S
8	712193	06/09/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	Q

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

139

Survey Area: E	Survey Unit: 881E08	Building: 881

Description: Building 881, Management Unit E, Rooms 143 A-H, Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E08PRP-N001	1	-1.2	N/A	
881E08PRP-N002	2	-0.3	N/A	
881E08PRP-N003	1	-1.2	N/A	
881E08PRP-N004	2	-0.3	N/A	
881E08PRP-N005	1	-1.2	N/A	
881E08PRP-N006	2	2.7	N/A	
881E08PRP-N007	1	-1.2	N/A	
881E08PRP-N008	2	2.7	N/A	
881E08PRP-N009	1	-1.2	N/A	
881E08PRP-N010	2	-0.3	N/A	
881E08PRP-N011	1	1.8	N/A	
881E08PRP-N012	2	8.8	N/A	
881E08PRP-N013	1	4.9	N/A	
881E08PRP-N014	2	-0.3	N/A	
881E08PRP-N015	1	1.8	N/A	
881E08PRP-N016	2	-0.3	N/A	
881E08PRP-N017	1	-1.2	N/A	
881E08PRP-N018	2	2.7	N/A	
881E08PRP-N019	1	-1.2	N/A	
881E08PRP-N020	2	-0.3	N/A	
881E08PRP-N021	1	1.8	N/A	
881E08PRP-N022	2	5.8	N/A	
881E08PRP-N023	1	1.8	N/A	
881E08PRP-N024	2	-0.3	N/A	
881E08PRP-N025	1	4.9	N/A	
881E08PRP-N026	2	2.7	N/A	
881E08PRP-N027	1	-1.2	N/A	
881E08PRP-N028	2	-0.3	N/A	
881E08PRP-N029	1	7.9	N/A	

140

Survey Area: E	Survey Unit: 881E08	Building: 881

Description: Building 881, Management Unit E, Rooms 143 A-H, Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E08PRP-N030	2	-0.3	N/A	
881E08PRP-N031	1	1.8	N/A	
881E08PRP-N032	2	5.8	N/A	
881E08PRP-N033	1	4.9	N/A	
881E08PRP-N034	2	5.8	N/A	
881E08PRP-N035	1	-1.2	N/A	
881E08PRP-N036	2	-0.3	N/A	
881E08PRP-N037	1	-1.2	N/A	
881E08PRP-N038	2	-0.3	N/A	
881E08PRP-N039	1	-1.2	N/A	
881E08PRP-N040	2	-0.3	N/A	
881E08PRP-N041	1	1.8	N/A	
881E08PRP-N042	2	-0.3	N/A	
881E08PRP-N043	1	1.8	N/A	
881E08PRP-N044	2	-0.3	N/A	
881E08PRP-N045	1	-1.2	N/A	
881E08PRP-N046	2	-0.3	N/A	
881E08PRP-N047	1	1.8	N/A	
881E08PRP-N048	2	5.8	N/A	
881E08PRP-N049	1	-1.2	N/A	
881E08PRP-N050	2	2.7	N/A	
881E08PRP-N051	1	1.8	N/A	
881E08PRP-N052	2	5.8	N/A	
881E08PRP-N053	1	-1.2	N/A	
881E08PRP-N054	2	2.7	N/A	
881E08PRP-N055	1	-1.2	N/A	
881E08PRP-N056	2	-0.3	N/A	
881E08PRP-N057	1	4.9	N/A	
881E08PRP-N058	2	-0.3	N/A	

141

Survey Area: E	Survey Unit: 881E08	Building: 881

Description: Building 881, Management Unit E, Rooms 143 A-H, Floors

Comments:

142

Survey Area: E	Survey Unit: 881E08	Building: 881

Description: Building 881, Management Unit E, Rooms 143 A-H, Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E08PRP-N001	3	29.6	N/A	
881E08PRP-N002	3	29.6	N/A	
881E08PRP-N003	3	52.6	N/A	
881E08PRP-N004	3	-2.5	N/A	
881E08PRP-N005	3	52.6	N/A	
881E08PRP-N006	3	-2.5	N/A	
881E08PRP-N007	3	-7.1	N/A	
881E08PRP-N008	3	29.6	N/A	
881E08PRP-N009	3	-2.5	N/A	
881E08PRP-N010	3	48.0	N/A	
881E08QRP-N010	8	38.2	N/A	
881E08PRP-N011	3	11.3	N/A	
881E08PRP-N012	3	66.3	N/A	
881E08PRP-N013	4	84.1	N/A	
881E08PRP-N014	4	3.7	N/A	
881E08PRP-N015	4	64.0	N/A	
881E08PRP-N016	4	58.9	N/A	
881E08PRP-N017	4	23.8	N/A	
881E08PRP-N018	4	38.8	N/A	
881E08PRP-N019	4	23.8	N/A	
881E08PRP-N020	4	53.9	N/A	
881E08PRP-N021	4	38.8	N/A	
881E08PRP-N022	4	94.1	N/A	
881E08PRP-N023	4	48.9	N/A	
881E08PRP-N024	4	-6.4	N/A	
881E08PRP-N025	3	25.0	N/A	
881E08PRP-N026	3	48.0	N/A	

143

Survey Area: E	Survey Unit: 881E08	Building: 881

Description: Building 881, Management Unit E, Rooms 143 A-H, Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E08PRP-N027	3	43.4	N/A	
881E08PRP-N028	3	25.0	N/A	
881E08PRP-N029	3	80.1	N/A	
881E08PRP-N030	3	20.5	N/A	
881E08PRP-N031	3	43.4	N/A	
881E08PRP-N032	3	84.7	N/A	
881E08QRP-N032	8	70.3	N/A	
881E08PRP-N033	3	15.9	N/A	
881E08PRP-N034	3	66.3	N/A	
881E08PRP-N035	3	61.7	N/A	
881E08PRP-N036	3	15.9	N/A	
881E08PRP-N037	3	2.1	N/A	
881E08PRP-N038	3	25.0	N/A	
881E08PRP-N039	3	2.1	N/A	
881E08PRP-N040	3	2.1	N/A	
881E08PRP-N041	3	-20.8	N/A	
881E08PRP-N042	3	34.2	N/A	
881E08PRP-N043	3	-2.5	N/A	
881E08PRP-N044	3	38.8	N/A	
881E08PRP-N045	3	57.2	N/A	
881E08PRP-N046	3	20.5	N/A	
881E08PRP-N047	4	38.8	N/A	
881E08PRP-N048	4	23.8	N/A	
881E08PRP-N049	4	18.7	N/A	
881E08PRP-N050	4	23.8	N/A	
881E08PRP-N051	4	8.7	N/A	
881E08PRP-N052	4	-1.4	N/A	

144

Survey Area: E	Survey Unit: 881E08	Building: 881

Description: Building 881, Management Unit E, Rooms 143 A-H, Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E08PRP-N053	4	8.7	N/A	
881E08PRP-N054	4	38.8	N/A	
881E08QRP-N054	8	61.1	N/A	
881E08PRP-N055	4	23.8	N/A	
881E08PRP-N056	4	-11.4	N/A	
881E08PRP-N057	4	18.7	N/A	
881E08PRP-N058	4	48.9	N/A	

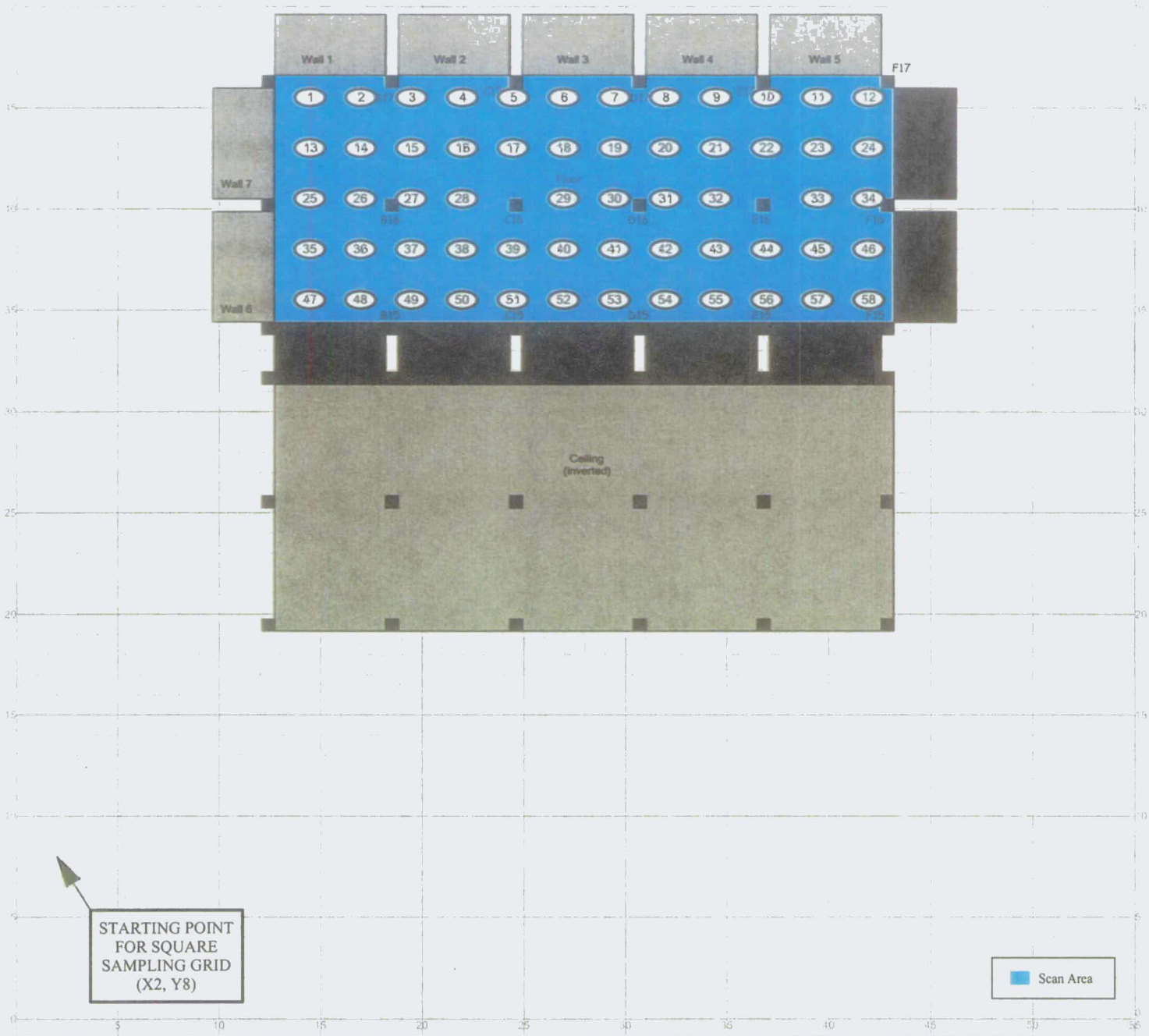
Comments:

145

PRE-DEMOLITION SURVEY FOR B881

Survey Area: E Survey Unit: 881E08 Classification: 1
Building: 881
Survey Unit Description: Builfing 881, Management Unit E, Rooms 143A- 143H, Floors
Total Area: 372 sq. m. Total Floor Area: 372 sq. m.
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.

Room 143



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
5, 6, 7

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL

MAP ID: 03-0568/881E08-SC June 04, 2004

146

Survey Area: E	Survey Unit: 881E09	Building: 881

Description: Building 881, Management Unit E, Room 143A-H, Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 20 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 2

Alpha

Maximum:	86.4 dpm/100cm²
Minimum:	-38.0 dpm/100cm²
Mean:	12.5 dpm/100cm²
Standard Deviation:	35.5
QC Maximum:	36.7 dpm/100cm²
QC Minimum:	-0.0 dpm/100cm²
QC Mean:	18.3 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 20 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	4.9 dpm/100cm²
Minimum:	-1.2 dpm/100cm²
Mean:	0.0 dpm/100cm²
Standard Deviation:	1.7
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

147

Survey Area: E	Survey Unit: 881E09	Building: 881

Description: Building 881, Management Unit E, Room 143A-H, Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E09PRP-N001	1	-1.2	N/A	
881E09PRP-N002	2	-0.3	N/A	
881E09PRP-N003	1	-1.2	N/A	
881E09PRP-N004	2	-0.3	N/A	
881E09PRP-N005	1	1.8	N/A	
881E09PRP-N006	2	-0.3	N/A	
881E09PRP-N007	1	-1.2	N/A	
881E09PRP-N008	2	-0.3	N/A	
881E09PRP-N009	1	-1.2	N/A	
881E09PRP-N010	2	-0.3	N/A	
881E09PRP-N011	1	4.9	N/A	
881E09PRP-N012	2	-0.3	N/A	
881E09PRP-N013	1	-1.2	N/A	
881E09PRP-N014	2	-0.3	N/A	
881E09PRP-N015	1	-1.2	N/A	
881E09PRP-N016	2	2.7	N/A	
881E09PRP-N017	1	-1.2	N/A	
881E09PRP-N018	2	2.7	N/A	
881E09PRP-N019	1	-1.2	N/A	
881E09PRP-N020	2	-0.3	N/A	

Comments:

Survey Area: E	Survey Unit: 881E09	Building: 881

Description: Building 881, Management Unit E, Room 143A-H, Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	903346	06/08/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
2	903346	06/08/04	SAC-4	961	NA	09/30/04	0.330	NA	16.0	NA	R
3	712193	06/08/04	Electra	675	DP-8	12/01/04	0.176	NA	93.0	NA	S
4	702575	06/08/04	Electra	632	DP-8	07/07/04	0.163	NA	93.0	NA	S
5	711447	06/08/04	Electra	681	DP-8	06/29/04	0.157	NA	93.0	NA	S
6	702567	06/08/04	Electra	1518	DP-6	12/02/04	0.217	NA	93.0	NA	T/S
7	712193	06/08/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	Q/S

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

148

Survey Area: E	Survey Unit: 881E09	Building: 881

Description: Building 881, Management Unit E, Room 143A-H, Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E09PRP-N001	6	-1.1	N/A	
881E09PRP-N002	6	21.9	N/A	
881E09QRP-N002	7	-0.0	N/A	
881E09PRP-N003	6	12.7	N/A	
881E09PRP-N004	6	12.7	N/A	
881E09PRP-N005	6	-5.7	N/A	
881E09PRP-N006	6	-10.3	N/A	
881E09PRP-N007	6	-14.9	N/A	
881E09PRP-N008	6	-1.1	N/A	
881E09PRP-N009	6	8.1	N/A	
881E09PRP-N010	6	-38.0	N/A	
881E09PRP-N011	6	3.5	N/A	
881E09PRP-N012	6	-19.5	N/A	
881E09PRP-N013	6	-19.5	N/A	
881E09PRP-N014	6	-10.3	N/A	
881E09PRP-N015	6	-5.7	N/A	
881E09PRP-N016	6	77.2	N/A	
881E09QRP-N016	7	36.7	N/A	
881E09PRP-N017	6	86.4	N/A	
881E09PRP-N018	6	12.7	N/A	
881E09PRP-N019	6	72.6	N/A	
881E09PRP-N020	6	68.0	N/A	

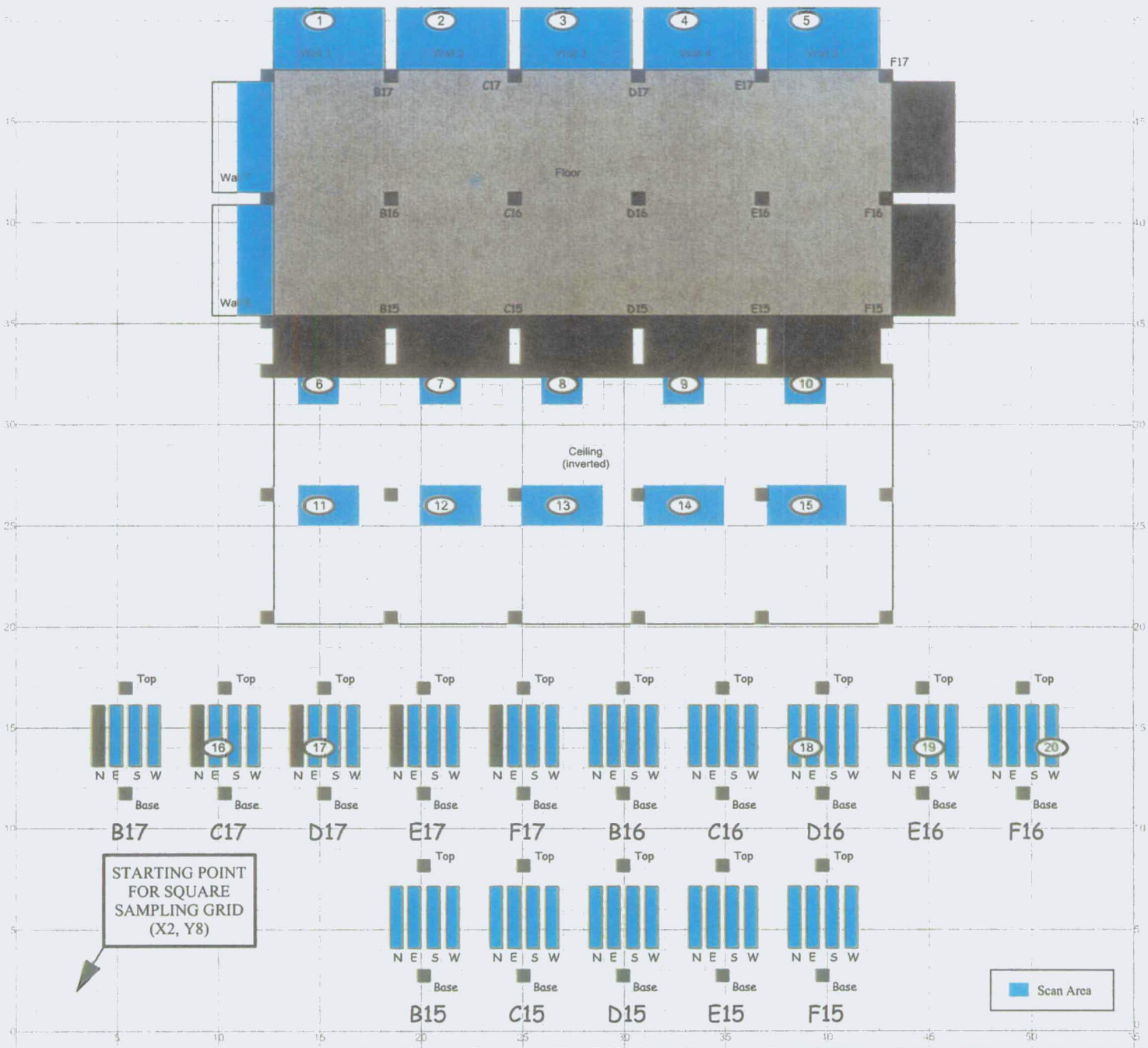
Comments:

150

PRE-DEMOLITION SURVEY FOR B881

Survey Area: E Survey Unit: 881E09 Classification: 2
Building: 881
Survey Unit Description: Building 881, Management Unit E, Rooms 143A- 143H, Walls & Ceiling
Total Area: 611 sq. m. Total Floor Area: 372 sq. m.
Grid Spacing for Survey Points: 6 m. X 6 m.

Room 143



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
3-7

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group

KAISER-HILL

MAP ID: 03-0568/881E09-SC June 04, 2004

151

Survey Area: E	Survey Unit: 881E10	Building: 881

Description: Building 881, Management Unit E, Room 199 and Vent, All Surfaces

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 20 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 2

Alpha

Maximum:	234.1	dpm/100cm²
Minimum:	-14.2	dpm/100cm²
Mean:	100.2	dpm/100cm²
Standard Deviation:	61.3	
QC Maximum:	140.1	dpm/100cm²
QC Minimum:	86.9	dpm/100cm²
QC Mean:	113.5	dpm/100cm²
Uranium DCGL$_W$:	5,000.0	dpm/100cm²
Uranium DCGL$_{EMC}$:	15,000.0	dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 20 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	5.8	dpm/100cm²
Minimum:	-0.6	dpm/100cm²
Mean:	2.3	dpm/100cm²
Standard Deviation:	2.2	
Uranium DCGL$_W$:	1,000.0	

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

152

Survey Area: E	Survey Unit: 881E10	Building: 881

Description: Building 881, Management Unit E, Room 199 and Vent, All Surfaces

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	711447	06/11/04	Electra	632	DP-8	07/07/04	0.163	NA	93.0	NA	S
2	903346	06/11/04	Electra	675	DP-8	12/01/04	0.176	NA	93.0	NA	S
3	712193	06/11/04	Electra	1241	DP-8	10/06/04	0.193	NA	93.0	NA	S
4	702567	06/12/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	T/S
5	702567	06/12/04	Electra	667	DP-6	10/22/04	0.222	NA	93.0	NA	T/S
6	903346	06/12/04	Electra	1681	DP-6	10/07/04	0.212	NA	93.0	NA	S
7	702567	06/12/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
8	702567	06/12/04	SAC-4	961	NA	09/30/04	0.330	NA	16.0	NA	R
9	712193	06/12/04	Electra	1417	DP-6	12/03/04	0.207	NA	93.0	NA	Q

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

153

Survey Area: E	Survey Unit: 881E10	Building: 881

Description: Building 881, Management Unit E, Room 199 and Vent, All Surfaces

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E10PRP-N001	7	2.4	N/A	
881E10PRP-N002	8	2.7	N/A	
881E10PRP-N003	7	2.4	N/A	
881E10PRP-N004	8	-0.3	N/A	
881E10PRP-N005	7	-0.6	N/A	
881E10PRP-N006	8	-0.3	N/A	
881E10PRP-N007	7	-0.6	N/A	
881E10PRP-N008	8	-0.3	N/A	
881E10PRP-N009	7	5.5	N/A	
881E10PRP-N010	8	2.7	N/A	
881E10PRP-N011	7	2.4	N/A	
881E10PRP-N012	8	2.7	N/A	
881E10PRP-N013	7	5.5	N/A	
881E10PRP-N014	8	2.7	N/A	
881E10PRP-N015	7	2.4	N/A	
881E10PRP-N016	8	5.8	N/A	
881E10PRP-N017	7	2.4	N/A	
881E10PRP-N018	8	5.8	N/A	
881E10PRP-N019	7	2.4	N/A	
881E10PRP-N020	8	-0.3	N/A	

Comments:

154

Survey Area: E	Survey Unit: 881E10	Building: 881

Description: Building 881, Management Unit E, Room 199 and Vent, All Surfaces

Random/QC Total Surface Activity Data Sheet

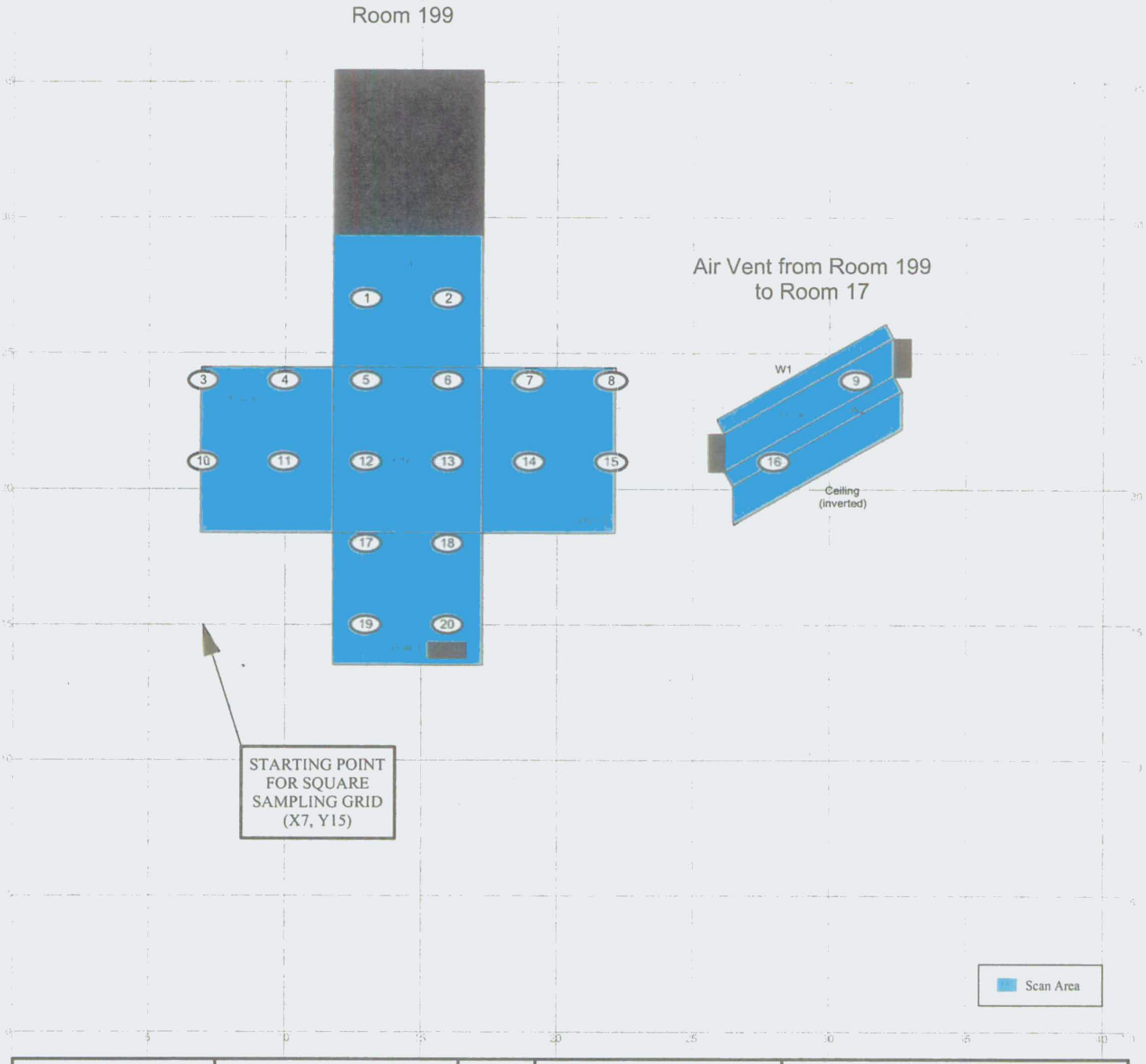
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881E10PRP-N001	4	124.0	N/A	
881E10PRP-N002	5	75.9	N/A	
881E10PRP-N003	4	82.7	N/A	
881E10PRP-N004	5	44.4	N/A	
881E10PRP-N005	4	128.6	N/A	
881E10PRP-N006	5	89.4	N/A	
881E10PRP-N007	4	18.5	N/A	
881E10PRP-N008	5	53.4	N/A	
881E10PRP-N009	4	110.3	N/A	
881E10PRP-N010	5	44.4	N/A	
881E10PRP-N011	4	137.8	N/A	
881E10QRP-N011	9	140.1	N/A	
881E10PRP-N012	5	143.5	N/A	
881E10QRP-N012	9	86.9	N/A	
881E10PRP-N013	4	128.6	N/A	
881E10PRP-N014	5	143.5	N/A	
881E10PRP-N015	4	101.1	N/A	
881E10PRP-N016	5	-14.2	N/A	
881E10PRP-N017	4	234.1	N/A	
881E10PRP-N018	5	179.5	N/A	
881E10PRP-N019	4	160.7	N/A	
881E10PRP-N020	5	17.4	N/A	

Comments:

155

PRE-DEMOLITION SURVEY FOR B881

Survey Area: E Survey Unit: 881E10 Classification: 1
Building: 881
Survey Unit Description: Building 881 Management Unit E, Room 199 & Vent, All Surfaces
Total Area: 174 sq. m. Total Floor Area: 42 sq. m.
Grid Spacing for Survey Points: 3 m. X 3 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1-6

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL COMPANY

MAP ID: 03-0568/881E10-SC June 04, 2004

156

Survey Area: H	Survey Unit: 881H01	Building: 881

Description: Building 881, Management unit H, rooms 160, 169, 170, 171 Floor

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 77
Nbr Random Measurements Performed: 78
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0
Nbr QC Required: 4
Nbr QC Performed: 4

Alpha

Maximum:	478.8 dpm/100cm²
Minimum:	-0.5 dpm/100cm²
Mean:	94.7 dpm/100cm²
Standard Deviation:	86.9
QC Maximum:	381.5 dpm/100cm²
QC Minimum:	206.2 dpm/100cm²
QC Mean:	265.4 dpm/100cm²
Uranium DCGLw:	5,000.0 dpm/100cm²
Uranium DCGLEMC:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 77
Nbr Random Measurements Performed: 78
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0

Alpha

Maximum:	8.2 dpm/100cm²
Minimum:	-0.9 dpm/100cm²
Mean:	1.1 dpm/100cm²
Standard Deviation:	2.5
Uranium DCGLw:	1,000.0

Media Sample Results

Nbr Random Required: 0
Nbr Random Collected: 0
Nbr Biased Required: 0
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

157

Survey Area: H	Survey Unit: 881H01	Building: 881

Description: Building 881, Management unit H, rooms 160, 169, 170, 171 Floor

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	712193	03/04/04	Electra	663	DP-8	06/04/04	0.147	NA	93.0	NA	T/S
2	711447	03/04/04	Electra	667	DP-8	06/10/04	0.168	NA	93.0	NA	T/S
3	711799	03/05/04	Electra	662	DP-6	03/15/04	0.217	NA	93.0	NA	T
4	711447	03/05/04	Electra	2404	DP-6	04/16/04	0.211	NA	93.0	NA	T
5	711799	03/11/04	Electra	1261	DP-6	08/24/04	0.210	NA	93.0	NA	T/S
6	712193	03/11/04	Electra	2404	DP-6	04/16/04	0.211	NA	93.0	NA	T/S
8	712193	04/01/04	Electra	667	DP-6	09/19/04	0.219	NA	93.0	NA	T
9	711447	04/01/04	Electra	3109	DP-6	06/08/04	0.211	NA	93.0	NA	T/Q
10	712193	04/01/04	SAC-4	1170	NA	08/24/04	0.330	NA	16.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

158

Survey Area: H	Survey Unit: 881H01	Building: 881

Description: Building 881, Management unit H, rooms 160, 169, 170, 171 Floor

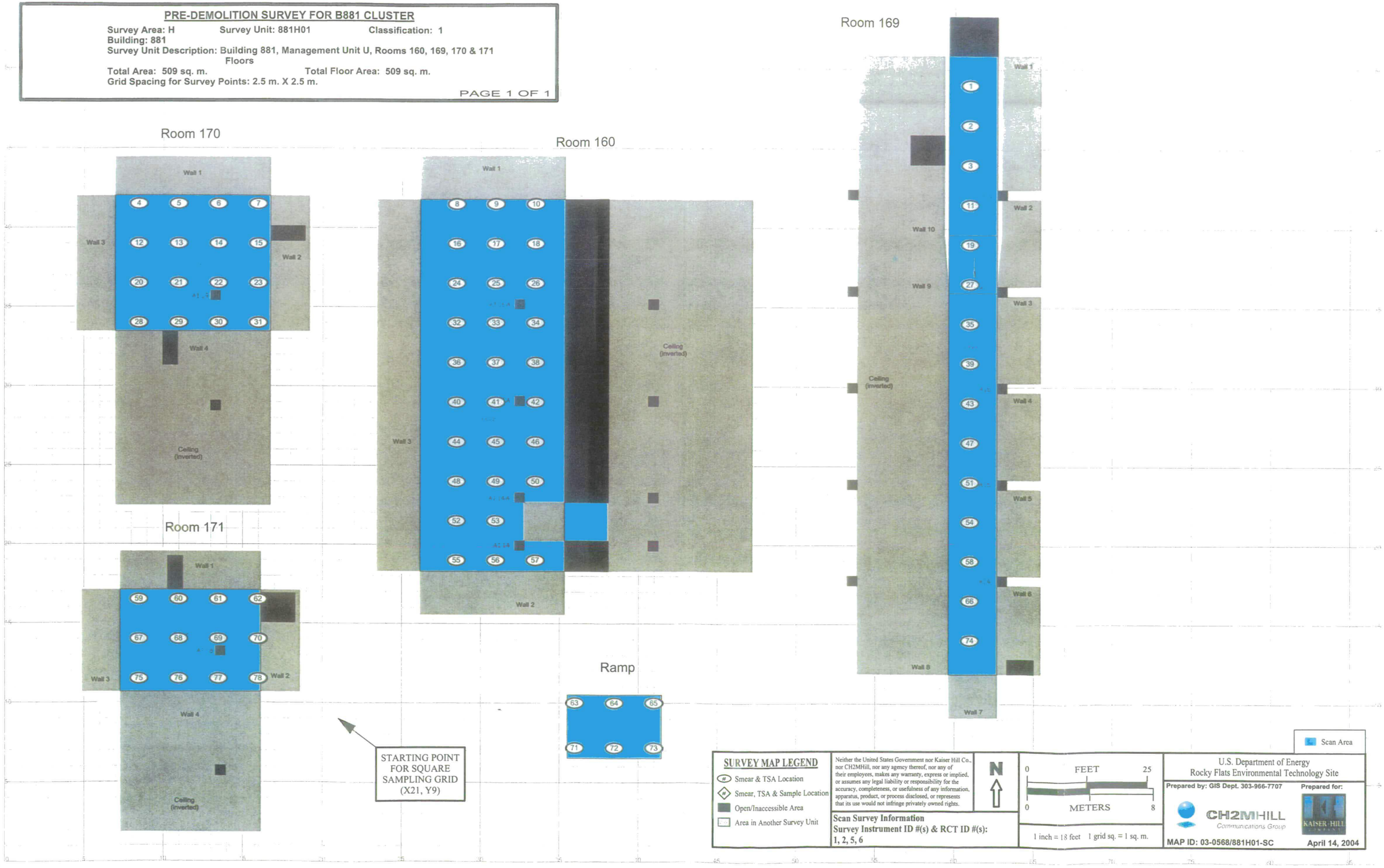
Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H01PRP-N001	10	5.2	N/A	
881H01PRP-N002	10	-0.9	N/A	
881H01PRP-N003	10	-0.9	N/A	
881H01PRP-N004	10	-0.9	N/A	
881H01PRP-N005	10	2.1	N/A	
881H01PRP-N006	10	-0.9	N/A	
881H01PRP-N007	10	2.1	N/A	
881H01PRP-N008	10	-0.9	N/A	
881H01PRP-N009	10	-0.9	N/A	
881H01PRP-N010	10	5.2	N/A	
881H01PRP-N011	10	2.1	N/A	
881H01PRP-N012	10	2.1	N/A	
881H01PRP-N013	10	-0.9	N/A	
881H01PRP-N014	10	-0.9	N/A	
881H01PRP-N015	10	-0.9	N/A	
881H01PRP-N016	10	-0.9	N/A	
881H01PRP-N017	10	2.1	N/A	
881H01PRP-N018	10	2.1	N/A	
881H01PRP-N019	10	-0.9	N/A	
881H01PRP-N020	10	-0.9	N/A	
881H01PRP-N021	10	8.2	N/A	
881H01PRP-N022	10	-0.9	N/A	
881H01PRP-N023	10	2.1	N/A	
881H01PRP-N024	10	5.2	N/A	
881H01PRP-N025	10	-0.9	N/A	
881H01PRP-N026	10	2.1	N/A	
881H01PRP-N027	10	-0.9	N/A	
881H01PRP-N028	10	-0.9	N/A	
881H01PRP-N029	10	-0.9	N/A	

159

PRE-DEMOLITION SURVEY FOR B881 CLUSTER

Survey Area: H Survey Unit: 881H01 Classification: 1
Building: 881
Survey Unit Description: Building 881, Management Unit U, Rooms 160, 169, 170 & 171 Floors
Total Area: 509 sq. m. Total Floor Area: 509 sq. m.
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.



160

Survey Area: H	Survey Unit: 881H02	Building: 881

Description: Building 881, Management Unit H, Rooms 160, 169, 170, 171 Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 25 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 2

Alpha

Maximum:	92.3 dpm/100cm²
Minimum:	-7.2 dpm/100cm²
Mean:	25.8 dpm/100cm²
Standard Deviation:	24.3
QC Maximum:	73.1 dpm/100cm²
QC Minimum:	36.5 dpm/100cm²
QC Mean:	54.8 dpm/100cm²
Uranium DCGLW:	5,000.0 dpm/100cm²
Uranium DCGLEMC:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 25 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	7.3 dpm/100cm²
Minimum:	-1.8 dpm/100cm²
Mean:	1.1 dpm/100cm²
Standard Deviation:	2.7
Uranium DCGLW:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

161

Survey Area: H	Survey Unit: 881H02	Building: 881

Description: Building 881, Management Unit H, Rooms 160, 169, 170, 171 Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	712193	03/12/04	Electra	668	DP-8	06/22/04	0.157	NA	93.0	NA	T/S
2	711799	03/12/04	Electra	1672	DP-6	08/20/04	0.218	NA	93.0	NA	T/S
3	712193	03/12/04	Electra	1261	DP-6	08/24/04	0.210	NA	93.0	NA	T/S
4	711447	04/01/04	Electra	3109	DP-6	06/08/04	0.211	NA	93.0	NA	T/S
5	712193	04/01/04	Electra	667	DP-6	09/19/04	0.219	NA	93.0	NA	T/Q/S
6	711447	04/01/04	SAC-4	823	NA	08/19/04	0.330	NA	16.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

162

Survey Area: H	Survey Unit: 881H02	Building: 881

Description: Building 881, Management Unit H, Rooms 160, 169, 170, 171 Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H02PRP-N001	6	1.2	N/A	
881H02PRP-N002	6	-1.8	N/A	
881H02PRP-N003	6	-1.8	N/A	
881H02PRP-N004	6	-1.8	N/A	
881H02PRP-N005	6	1.2	N/A	
881H02PRP-N006	6	4.2	N/A	
881H02PRP-N007	6	1.2	N/A	
881H02PRP-N008	6	1.2	N/A	
881H02PRP-N009	6	-1.8	N/A	
881H02PRP-N010	6	4.2	N/A	
881H02PRP-N011	6	1.2	N/A	
881H02PRP-N012	6	4.2	N/A	
881H02PRP-N013	6	-1.8	N/A	
881H02PRP-N014	6	-1.8	N/A	
881H02PRP-N015	6	4.2	N/A	
881H02PRP-N016	6	1.2	N/A	
881H02PRP-N017	6	7.3	N/A	
881H02PRP-N018	6	1.2	N/A	
881H02PRP-N019	6	4.2	N/A	
881H02PRP-N020	6	1.2	N/A	
881H02PRP-N021	6	-1.8	N/A	
881H02PRP-N022	6	-1.8	N/A	
881H02PRP-N023	6	4.2	N/A	
881H02PRP-N024	6	1.2	N/A	
881H02PRP-N025	6	-1.8	N/A	

Comments:

163

Survey Area: H	Survey Unit: 881H02	Building: 881

Description: Building 881, Management Unit H, Rooms 160, 169, 170, 171 Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H02PRP-N001	4	30.7	N/A	
881H02PRP-N002	4	16.5	N/A	
881H02PRP-N003	4	26.0	N/A	
881H02PRP-N004	4	11.8	N/A	
881H02PRP-N005	4	49.7	N/A	
881H02PRP-N006	4	16.5	N/A	
881H02PRP-N007	4	7.0	N/A	
881H02PRP-N008	4	54.4	N/A	
881H02QRP-N008	5	36.5	N/A	
881H02PRP-N009	4	-2.5	N/A	
881H02PRP-N010	4	35.4	N/A	
881H02PRP-N011	4	16.5	N/A	
881H02PRP-N012	4	35.4	N/A	
881H02PRP-N013	4	16.5	N/A	
881H02PRP-N014	4	30.7	N/A	
881H02PRP-N015	4	-7.2	N/A	
881H02PRP-N016	4	21.2	N/A	
881H02PRP-N017	4	-7.2	N/A	
881H02PRP-N018	4	11.8	N/A	
881H02PRP-N019	4	92.3	N/A	
881H02QRP-N019	5	73.1	N/A	
881H02PRP-N020	4	49.7	N/A	
881H02PRP-N021	4	-7.2	N/A	
881H02PRP-N022	4	68.6	N/A	
881H02PRP-N023	4	44.9	N/A	
881H02PRP-N024	4	11.8	N/A	
881H02PRP-N025	4	21.2	N/A	

164

Survey Area: H	Survey Unit: 881H02	Building: 881

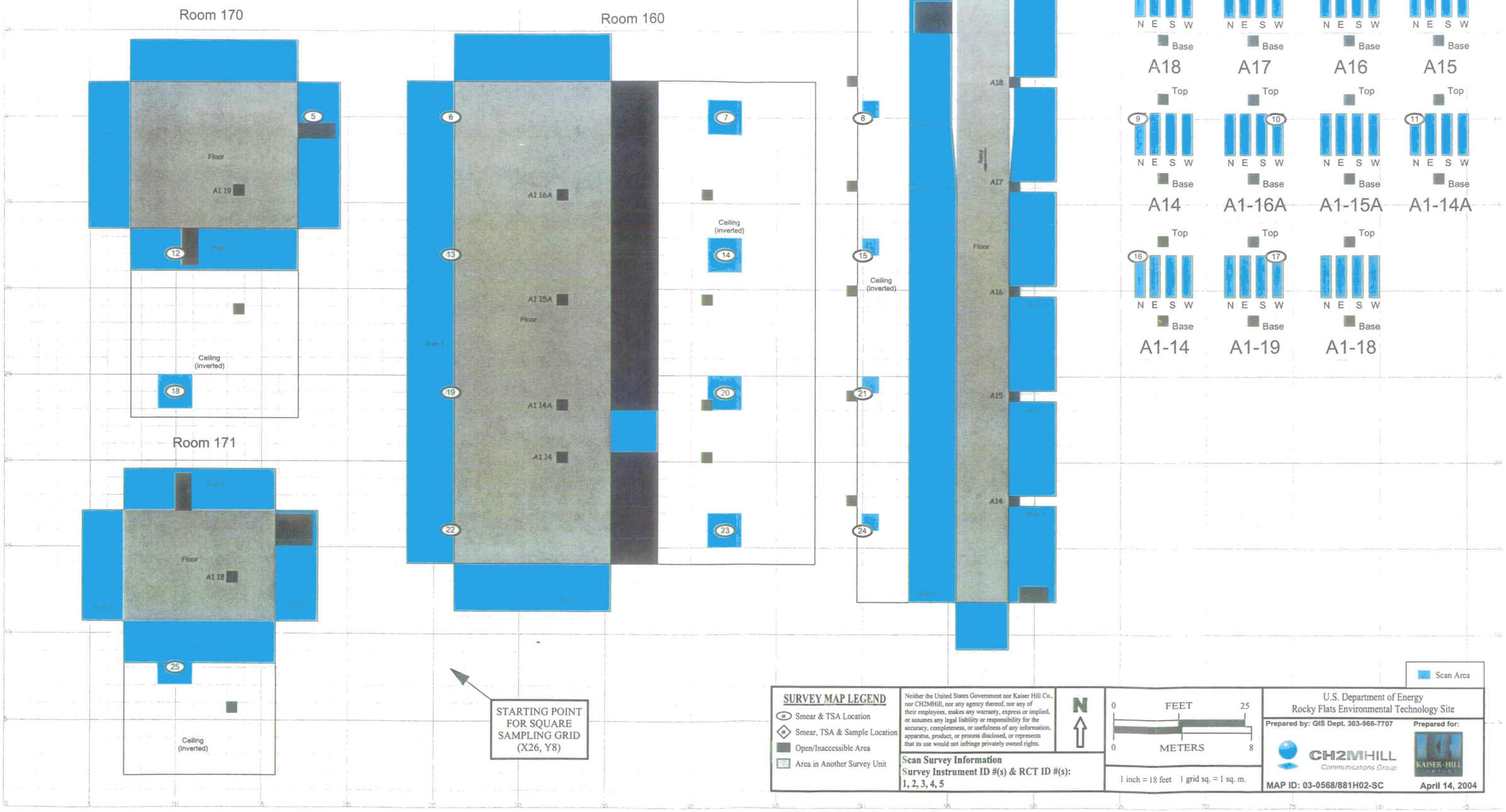
Description: Building 881, Management Unit H, Rooms 160, 169, 170, 171 Walls and Ceiling

Comments: Scans performed at 4"/second at shaded areas indicated on map. All detected alpha count rates verified to be less than 5,000 dpm/100cm2.

165

PRE-DEMOLITION SURVEY FOR B881

Survey Area: H Survey Unit: 881H02 Classification: 2
Building: 881
Survey Unit Description: Building 881, Management Unit H, Rooms 160, 169, 170 & 171, Walls & Ceilings
Total Area: 1,001 sq. m. Total Floor Area: 509 sq. m.
Grid Spacing for Survey Points: 8 m. X 8 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 2, 3, 4, 5

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL

MAP ID: 03-0568/881H02-SC April 14, 2004

166

Survey Area: H	Survey Unit: 881H04	Building: 881

Description: Building 881 MU-H Rooms 161, 168 Floor, Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 82 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 5

Nbr Random Measurements Performed: 95 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 5

Alpha

Maximum:	708.0 dpm/100cm²
Minimum:	-22.0 dpm/100cm²
Mean:	53.3 dpm/100cm²
Standard Deviation:	92.7
QC Maximum:	27.7 dpm/100cm²
QC Minimum:	4.7 dpm/100cm²
QC Mean:	17.6 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 82 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 95 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	34.5 dpm/100cm²
Minimum:	-1.8 dpm/100cm²
Mean:	3.7 dpm/100cm²
Standard Deviation:	6.2
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

167

Survey Area: H	Survey Unit: 881H04	Building: 881

Description: Building 881 MU-H Rooms 161, 168 Floor, Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	711799	03/05/04	Electra	663	DP-8	06/04/04	0.147	NA	93.0	NA	S
2	711447	03/05/04	Electra	667	DP-8	06/10/04	0.168	NA	93.0	NA	S
3	711799	03/05/04	Electra	662	DP-6	03/15/04	0.217	NA	93.0	NA	T
4	711447	03/09/04	Electra	663	DP-8	06/04/04	0.147	NA	93.0	NA	S
5	711799	03/09/04	Electra	668	DP-8	06/22/04	0.157	NA	93.0	NA	S
6	711447	03/10/04	Electra	1261	DP-6	08/24/04	0.210	NA	93.0	NA	T/S
7	711447	03/10/04	Electra	663	DP-8	06/04/04	0.147	NA	93.0	NA	S
8	712193	03/10/04	Electra	668	DP-8	06/22/04	0.157	NA	93.0	NA	S
9	711799	03/10/04	Electra	1672	DP-6	08/20/04	0.218	NA	93.0	NA	T
10	711799	03/11/04	SAC-4	961	NA	03/30/04	0.330	NA	16.0	NA	R
11	711799	03/11/04	SAC-4	1171	NA	08/09/04	0.330	NA	16.0	NA	R
13	712193	03/21/04	Electra	3105	DP-6	09/17/04	0.203	NA	93.0	NA	T
14	711447	03/21/04	Electra	666	DP-8	06/16/04	0.172	NA	93.0	NA	S
15	712454	03/21/04	Electra	681	DP-8	06/29/04	0.152	NA	93.0	NA	S
16	711799	04/04/04	Electra	2352	DP-6	05/11/04	0.225	NA	93.0	NA	S
17	512590	04/04/04	Electra	1665	DP-6	08/11/04	0.213	NA	93.0	NA	S
18	711447	04/04/04	Electra	3109	DP-6	06/08/04	0.211	NA	93.0	NA	S
19	712193	04/04/04	Electra	1513	AP-6	09/17/04	0.181	NA	93.0	NA	S
20	903346	06/06/04	Electra	1681	DP-6	10/07/04	0.212	NA	93.0	NA	T/S
21	903346	06/06/04	Electra	669	DP-8	09/23/04	0.143	NA	93.0	NA	S
22	711447	06/06/04	Electra	675	DP-8	12/01/04	0.176	NA	93.0	NA	S
23	903346	06/06/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
24	712193	06/06/04	Electra	1518	DP-6	12/02/04	0.217	NA	93.0	NA	Q/S

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

168

Survey Area: H	Survey Unit: 881H04	Building: 881

Description: Building 881 MU-H Rooms 161, 168 Floor, Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H04PRP-N001	10	-1.8	N/A	
881H04PRP-N002	11	13.3	N/A	
881H04PRP-N003	10	1.2	N/A	
881H04PRP-N004	11	7.3	N/A	
881H04PRP-N005	10	-1.8	N/A	
881H04PRP-N006	23	5.8	N/A	
881H04PRP-N007	23	2.7	N/A	
881H04PRP-N008	11	-1.8	N/A	
881H04PRP-N009	11	1.2	N/A	
881H04PRP-N010	10	-1.8	N/A	
881H04PRP-N011	11	7.3	N/A	
881H04PRP-N012	10	4.2	N/A	
881H04PRP-N013	11	-1.8	N/A	
881H04PRP-N014	23	5.8	N/A	
881H04PRP-N015	11	-1.8	N/A	
881H04PRP-N016	10	-1.8	N/A	
881H04PRP-N017	11	-1.8	N/A	
881H04PRP-N018	10	4.2	N/A	
881H04PRP-N019	11	-1.8	N/A	
881H04PRP-N020	23	-0.3	N/A	
881H04PRP-N021	23	5.8	N/A	
881H04PRP-N022	10	7.3	N/A	
881H04PRP-N023	11	16.4	N/A	
881H04PRP-N024	10	-1.8	N/A	
881H04PRP-N025	11	10.3	N/A	
881H04PRP-N026	10	-1.8	N/A	
881H04PRP-N027	11	4.2	N/A	
881H04PRP-N028	10	4.2	N/A	
881H04PRP-N029	23	8.8	N/A	

169

Survey Area: H	Survey Unit: 881H04	Building: 881

Description: Building 881 MU-H Rooms 161, 168 Floor, Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H04PRP-N030	10	-1.8	N/A	
881H04PRP-N031	11	4.2	N/A	
881H04PRP-N032	10	-1.8	N/A	
881H04PRP-N033	11	4.2	N/A	
881H04PRP-N034	10	-1.8	N/A	
881H04PRP-N035	23	8.8	N/A	
881H04PRP-N036	23	2.7	N/A	
881H04PRP-N037	10	1.2	N/A	
881H04PRP-N038	11	-1.8	N/A	
881H04PRP-N039	10	-1.8	N/A	
881H04PRP-N040	11	-1.8	N/A	
881H04PRP-N041	10	1.2	N/A	
881H04PRP-N042	11	-1.8	N/A	
881H04PRP-N043	23	8.8	N/A	
881H04PRP-N044	10	28.5	N/A	
881H04PRP-N045	11	34.5	N/A	
881H04PRP-N046	10	-1.8	N/A	
881H04PRP-N047	11	4.2	N/A	
881H04PRP-N048	10	7.3	N/A	
881H04PRP-N049	23	2.7	N/A	
881H04PRP-N050	10	-1.8	N/A	
881H04PRP-N051	11	13.3	N/A	
881H04PRP-N052	10	-1.8	N/A	
881H04PRP-N053	11	7.3	N/A	
881H04PRP-N054	11	4.2	N/A	
881H04PRP-N055	10	1.2	N/A	
881H04PRP-N056	11	4.2	N/A	
881H04PRP-N057	10	10.3	N/A	
881H04PRP-N058	23	5.8	N/A	

170

Survey Area: H	Survey Unit: 881H04	Building: 881

Description: Building 881 MU-H Rooms 161, 168 Floor, Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H04PRP-N059	10	1.2	N/A	
881H04PRP-N060	11	1.2	N/A	
881H04PRP-N061	10	4.2	N/A	
881H04PRP-N062	11	7.3	N/A	
881H04PRP-N063	10	4.2	N/A	
881H04PRP-N064	11	-1.8	N/A	
881H04PRP-N065	11	4.2	N/A	
881H04PRP-N066	10	1.2	N/A	
881H04PRP-N067	23	-0.3	N/A	
881H04PRP-N068	11	1.2	N/A	
881H04PRP-N069	10	1.2	N/A	
881H04PRP-N070	11	4.2	N/A	
881H04PRP-N071	10	7.3	N/A	
881H04PRP-N072	11	4.2	N/A	
881H04PRP-N073	11	13.3	N/A	
881H04PRP-N074	11	4.2	N/A	
881H04PRP-N075	11	10.3	N/A	
881H04PRP-N076	23	8.8	N/A	
881H04PRP-N077	10	10.3	N/A	
881H04PRP-N078	11	16.4	N/A	
881H04PRP-N079	10	4.2	N/A	
881H04PRP-N080	11	10.3	N/A	
881H04PRP-N081	10	4.2	N/A	
881H04PRP-N082	11	1.2	N/A	
881H04PRP-N083	10	-1.8	N/A	
881H04PRP-N084	11	-1.8	N/A	
881H04PRP-N085	10	-1.8	N/A	
881H04PRP-N086	23	2.7	N/A	
881H04PRP-N087	10	4.2	N/A	

171

Survey Area: H	Survey Unit: 881H04	Building: 881

Description: Building 881 MU-H Rooms 161, 168 Floor, Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H04PRP-N088	11	-1.8	N/A	
881H04PRP-N089	10	1.2	N/A	
881H04PRP-N090	10	1.2	N/A	
881H04PRP-N091	10	-1.8	N/A	
881H04PRP-N092	11	-1.8	N/A	
881H04PRP-N093	23	-0.3	N/A	
881H04PRP-N094	23	2.7	N/A	
881H04PRP-N095	10	4.2	N/A	

Comments:

172

Survey Area: H	Survey Unit: 881H04	Building: 881

Description: Building 881 MU-H Rooms 161, 168 Floor, Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H04PRP-N001	6	45.4	N/A	
881H04PRP-N002	9	14.7	N/A	
881H04PRP-N003	9	-8.2	N/A	
881H04PRP-N004	9	1.0	N/A	
881H04PRP-N005	9	-22.0	N/A	
881H04PRP-N006	20	16.3	N/A	
881H04PRP-N007	20	68.2	N/A	
881H04PRP-N008	9	14.7	N/A	
881H04PRP-N009	9	28.5	N/A	
881H04PRP-N010	9	19.3	N/A	
881H04PRP-N011	9	5.6	N/A	
881H04PRP-N012	9	28.5	N/A	
881H04QRP-N012	24	4.7	N/A	
881H04PRP-N013	9	19.3	N/A	
881H04PRP-N014	13	38.5	N/A	
881H04PRP-N015	9	10.2	N/A	
881H04PRP-N016	9	19.3	N/A	
881H04PRP-N017	9	14.7	N/A	
881H04PRP-N018	9	14.7	N/A	
881H04PRP-N019	9	-8.2	N/A	
881H04PRP-N020	20	35.2	N/A	
881H04PRP-N021	20	6.9	N/A	
881H04PRP-N022	3	56.5	N/A	
881H04PRP-N023	3	153.2	N/A	
881H04PRP-N024	4	102.6	N/A	
881H04PRP-N025	3	97.9	N/A	
881H04PRP-N026	4	177.4	N/A	

173

Survey Area: H	Survey Unit: 881H04	Building: 881

Description: Building 881 MU-H Rooms 161, 168 Floor, Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H04PRP-N027	3	61.1	N/A	
881H04PRP-N028	4	708.0	N/A	
881H04PRP-N029	13	18.8	N/A	
881H04PRP-N030	6	12.1	N/A	
881H04QRP-N030	24	27.7	N/A	
881H04PRP-N031	9	19.3	N/A	
881H04PRP-N032	9	37.7	N/A	
881H04PRP-N033	9	51.4	N/A	
881H04PRP-N034	9	-8.2	N/A	
881H04PRP-N035	20	49.3	N/A	
881H04PRP-N036	20	25.7	N/A	
881H04PRP-N037	6	59.7	N/A	
881H04PRP-N038	6	64.5	N/A	
881H04PRP-N039	6	88.3	N/A	
881H04PRP-N040	6	78.7	N/A	
881H04PRP-N041	6	83.5	N/A	
881H04PRP-N042	6	69.2	N/A	
881H04PRP-N043	13	53.3	N/A	
881H04PRP-N044	6	569.2	N/A	
881H04PRP-N045	9	60.6	N/A	
881H04PRP-N046	9	33.1	N/A	
881H04PRP-N047	9	60.6	N/A	
881H04PRP-N048	9	69.8	N/A	
881H04PRP-N049	20	21.0	N/A	
881H04PRP-N050	6	54.9	N/A	
881H04QRP-N050	24	4.7	N/A	
881H04PRP-N051	6	26.4	N/A	

174

Survey Area: H	Survey Unit: 881H04	Building: 881

Description: Building 881 MU-H Rooms 161, 168 Floor, Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H04PRP-N052	9	37.7	N/A	
881H04PRP-N053	9	5.6	N/A	
881H04PRP-N054	6	16.8	N/A	
881H04PRP-N055	6	16.8	N/A	
881H04PRP-N056	6	107.3	N/A	
881H04PRP-N057	9	56.0	N/A	
881H04PRP-N058	20	6.9	N/A	
881H04PRP-N059	6	64.5	N/A	
881H04PRP-N060	6	50.2	N/A	
881H04PRP-N061	9	19.3	N/A	
881H04PRP-N062	9	23.9	N/A	
881H04PRP-N063	6	69.2	N/A	
881H04PRP-N064	6	50.2	N/A	
881H04PRP-N065	6	31.1	N/A	
881H04PRP-N066	9	10.2	N/A	
881H04PRP-N067	20	44.6	N/A	
881H04PRP-N068	6	64.5	N/A	
881H04PRP-N069	6	54.9	N/A	
881H04PRP-N070	6	40.7	N/A	
881H04QRP-N070	24	23.1	N/A	
881H04PRP-N071	6	35.9	N/A	
881H04PRP-N072	6	54.9	N/A	
881H04PRP-N073	6	40.7	N/A	
881H04PRP-N074	6	54.9	N/A	
881H04PRP-N075	9	19.3	N/A	
881H04PRP-N076	20	72.9	N/A	
881H04PRP-N077	6	83.5	N/A	

175

Survey Area: H	Survey Unit: 881H04	Building: 881

Description: Building 881 MU-H Rooms 161, 168 Floor, Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

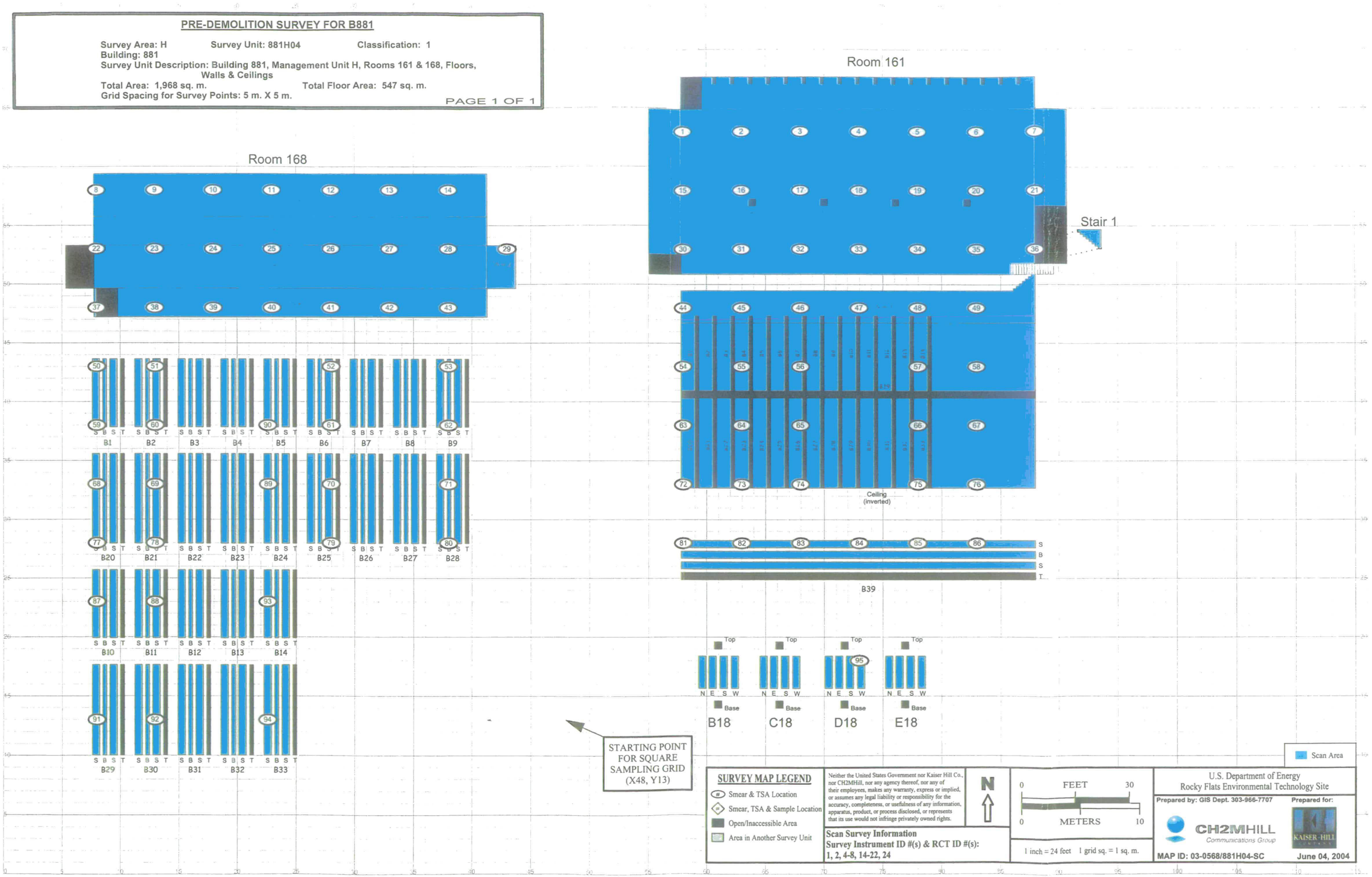
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881H04PRP-N078	6	74.0	N/A	
881H04PRP-N079	6	40.7	N/A	
881H04PRP-N080	6	26.4	N/A	
881H04PRP-N081	9	42.3	N/A	
881H04PRP-N082	9	1.0	N/A	
881H04PRP-N083	6	59.7	N/A	
881H04PRP-N084	6	26.4	N/A	
881H04PRP-N085	9	10.2	N/A	
881H04PRP-N086	20	6.9	N/A	
881H04PRP-N087	9	46.9	N/A	
881H04PRP-N088	9	46.9	N/A	
881H04PRP-N089	6	74.0	N/A	
881H04QRP-N089	24	27.7	N/A	
881H04PRP-N090	9	10.2	N/A	
881H04PRP-N091	9	46.9	N/A	
881H04PRP-N092	9	19.3	N/A	
881H04PRP-N093	20	39.9	N/A	
881H04PRP-N094	20	44.6	N/A	
881H04PRP-N095	9	1.0	N/A	

Comments:

176

PRE-DEMOLITION SURVEY FOR B881

Survey Area: H Survey Unit: 881H04 Classification: 1
Building: 881
Survey Unit Description: Building 881, Management Unit H, Rooms 161 & 168, Floors, Walls & Ceilings
Total Area: 1,968 sq. m. Total Floor Area: 547 sq. m.
Grid Spacing for Survey Points: 5 m. X 5 m.



177

Survey Area: I	Survey Unit: 881I01	Building: 881

Description: B881 ST1 Exhaust Tunnel Floor

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 20 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 2

Alpha

Maximum:	86.2 dpm/100cm²
Minimum:	10.3 dpm/100cm²
Mean:	31.5 dpm/100cm²
Standard Deviation:	17.9
QC Maximum:	106.0 dpm/100cm²
QC Minimum:	41.5 dpm/100cm²
QC Mean:	73.7 dpm/100cm²
Uranium DCGLw:	5,000.0 dpm/100cm²
Uranium DCGLEMC:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 20 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	11.7 dpm/100cm²
Minimum:	-1.8 dpm/100cm²
Mean:	2.3 dpm/100cm²
Standard Deviation:	3.6
Uranium DCGLw:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

178

Survey Area: I	Survey Unit: 881I01	Building: 881

Description: B881 ST1 Exhaust Tunnel Floor

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	712193	02/24/04	Electra	661	DP-6	07/07/04	0.167	NA	93.0	NA	T/S
2	711447	02/24/04	Electra	2404	DP-6	04/16/04	0.211	NA	93.0	NA	T/S
3	711799	02/24/04	Electra	666	DP-6	06/16/04	0.162	NA	93.0	NA	T/S
4	712193	02/24/04	Electra	3105	DP-6	07/14/04	0.201	NA	93.0	NA	T/Q
5	712193	02/24/04	Electra	662	DP-6	03/15/04	0.217	NA	93.0	NA	T
6	711799	02/24/04	SAC-4	961	NA	03/30/04	0.333	NA	16.0	NA	R
7	711799	02/24/04	SAC-4	1171	NA	08/19/04	0.333	NA	16.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

179

Survey Area: I	Survey Unit: 881I01	Building: 881

Description: B881 ST1 Exhaust Tunnel Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I01PRP-N001	6	4.2	N/A	
881I01PRP-N002	7	-0.3	N/A	
881I01PRP-N003	6	1.2	N/A	
881I01PRP-N004	7	8.7	N/A	
881I01PRP-N005	6	1.2	N/A	
881I01PRP-N006	7	-0.3	N/A	
881I01PRP-N007	6	1.2	N/A	
881I01PRP-N008	7	-0.3	N/A	
881I01PRP-N009	6	-1.8	N/A	
881I01PRP-N010	7	2.7	N/A	
881I01PRP-N011	6	4.2	N/A	
881I01PRP-N012	7	2.7	N/A	
881I01PRP-N013	6	4.2	N/A	
881I01PRP-N014	7	5.7	N/A	
881I01PRP-N015	6	4.2	N/A	
881I01PRP-N016	7	-0.3	N/A	
881I01PRP-N017	6	-1.8	N/A	
881I01PRP-N018	7	-0.3	N/A	
881I01PRP-N019	6	-1.8	N/A	
881I01PRP-N020	7	11.7	N/A	

Comments:

180

Survey Area: I	Survey Unit: 881I01	Building: 881

Description: B881 ST1 Exhaust Tunnel Floor

Random/QC Total Surface Activity Data Sheet

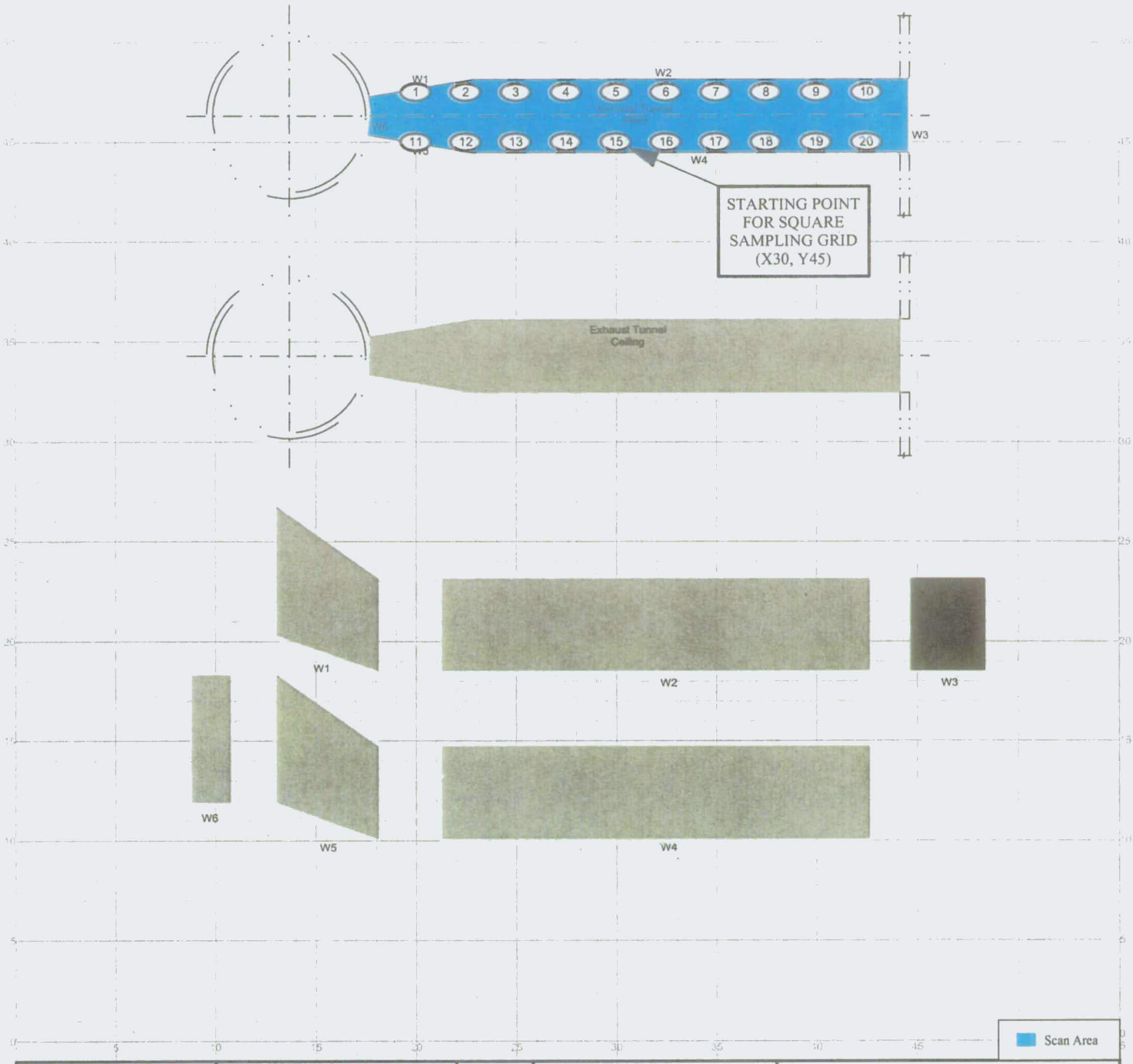
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I01PRP-N001	2	19.8	N/A	
881I01PRP-N002	2	29.3	N/A	
881I01PRP-N003	2	53.0	N/A	
881I01PRP-N004	2	19.8	N/A	
881I01PRP-N005	2	19.8	N/A	
881I01PRP-N006	2	29.3	N/A	
881I01PRP-N007	2	15.1	N/A	
881I01PRP-N008	2	86.2	N/A	
881I01QRP-N008	5	106.0	N/A	
881I01PRP-N009	2	29.3	N/A	
881I01PRP-N010	2	10.3	N/A	
881I01PRP-N011	2	57.7	N/A	
881I01QRP-N011	5	41.5	N/A	
881I01PRP-N012	2	38.8	N/A	
881I01PRP-N013	4	42.1	N/A	
881I01PRP-N014	4	22.2	N/A	
881I01PRP-N015	4	27.2	N/A	
881I01PRP-N016	4	32.1	N/A	
881I01PRP-N017	4	12.2	N/A	
881I01PRP-N018	4	37.1	N/A	
881I01PRP-N019	4	22.2	N/A	
881I01PRP-N020	4	27.2	N/A	

Comments:

186

PRE-DEMOLITION SURVEY FOR B881

Survey Area: I Survey Unit: 881I01 Classification: 1
Building: 881
Survey Unit Description: Building 881 Stack 1 Exhaust Tunnel, Floor
Total Area: 95 sq. m. Total Floor Area: 95 sq. m.
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 2, 3

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL

MAP ID: 03-0568/881I01-SC Mar. 08, 2004

182

Survey Area: I	Survey Unit: 881I02	Building: 881

Description: B881 MU-I ST1 Exhaust Tunnel Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 17 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 2

Alpha

Maximum:	37.1 dpm/100cm²
Minimum:	-8.9 dpm/100cm²
Mean:	10.9 dpm/100cm²
Standard Deviation:	12.6
QC Maximum:	77.1 dpm/100cm²
QC Minimum:	42.3 dpm/100cm²
QC Mean:	59.7 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	11.7 dpm/100cm²
Minimum:	-1.8 dpm/100cm²
Mean:	2.8 dpm/100cm²
Standard Deviation:	3.8
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

183

Survey Area: I	Survey Unit: 881I02	Building: 881

Description: B881 MU-I ST1 Exhaust Tunnel Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	711799	02/24/04	Electra	662	DP-6	03/15/04	0.217	NA	93.0	NA	T/S
2	512590	02/24/04	Electra	3552	DP-6	04/16/04	0.217	NA	93.0	NA	T
3	512590	02/24/04	Electra	3105	DP-6	07/14/04	0.201	NA	93.0	NA	T/Q
4	711799	02/14/04	Electra	661	DP-6	07/07/04	0.167	NA	93.0	NA	T/S
5	711799	02/24/04	SAC-4	1171	NA	08/19/04	0.333	NA	16.0	NA	R
6	711799	02/24/04	SAC-4	961	NA	03/30/04	0.333	NA	16.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

184

Survey Area: I	Survey Unit: 881I02	Building: 881

Description: B881 MU-I ST1 Exhaust Tunnel Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I02PRP-N001	5	5.7	N/A	
881I02PRP-N002	6	4.2	N/A	
881I02PRP-N003	5	-0.3	N/A	
881I02PRP-N004	6	1.2	N/A	
881I02PRP-N005	5	2.7	N/A	
881I02PRP-N006	6	-1.8	N/A	
881I02PRP-N007	6	1.2	N/A	
881I02PRP-N008	5	5.7	N/A	
881I02PRP-N009	6	1.2	N/A	
881I02PRP-N010	5	-0.3	N/A	
881I02PRP-N011	6	-1.8	N/A	
881I02PRP-N012	5	11.7	N/A	
881I02PRP-N013	6	1.2	N/A	
881I02PRP-N014	5	5.7	N/A	
881I02PRP-N015	6	-1.8	N/A	
881I02PRP-N016	5	5.7	N/A	
881I02PRP-N017	6	7.2	N/A	

Comments:

185

Survey Area: I	Survey Unit: 881I02	Building: 881

Description: B881 MU-I ST1 Exhaust Tunnel Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

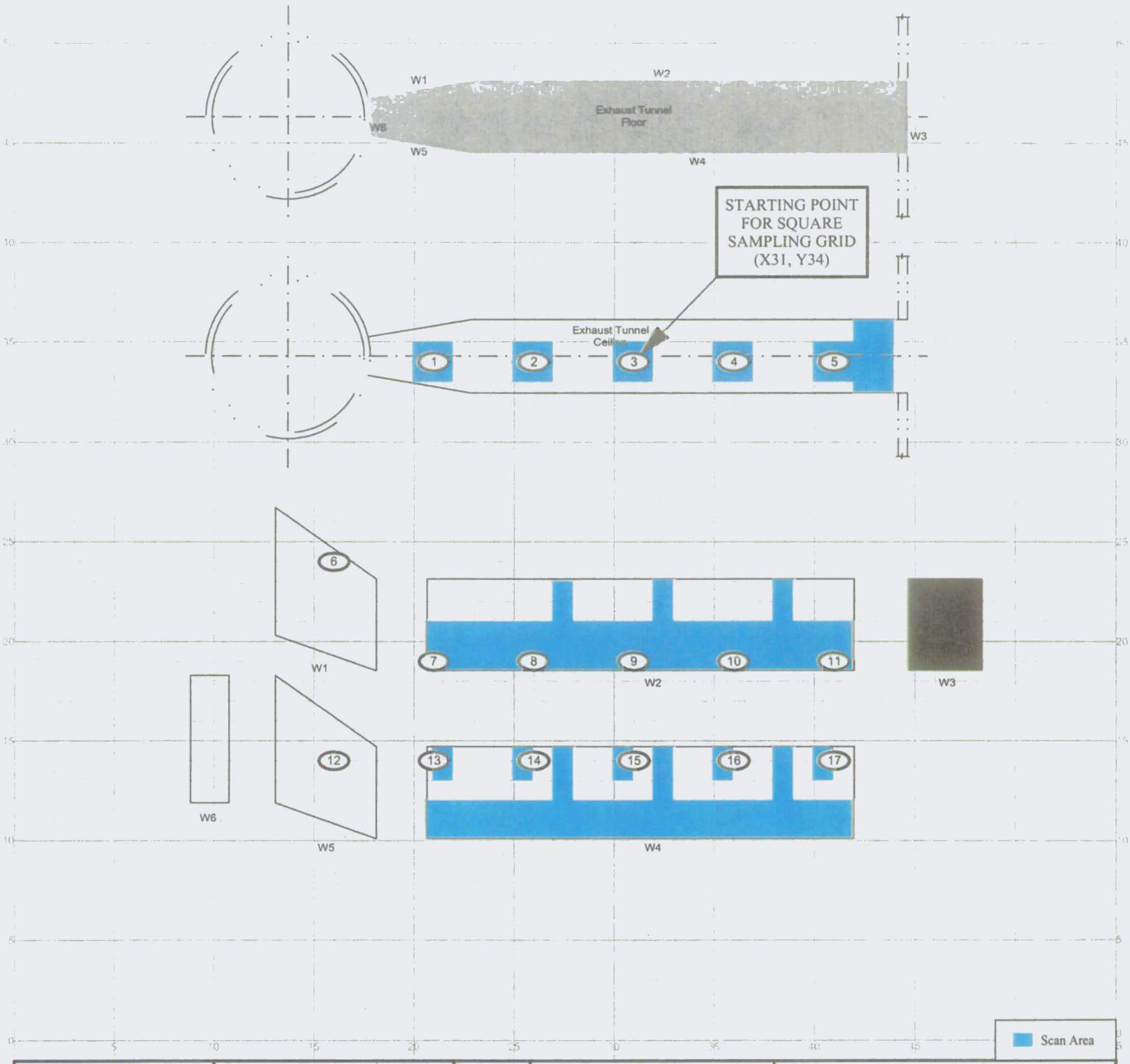
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I02PRP-N001	2	0.3	N/A	
881I02PRP-N002	2	4.9	N/A	
881I02PRP-N003	2	9.5	N/A	
881I02PRP-N004	2	-8.9	N/A	
881I02PRP-N005	2	37.1	N/A	
881I02PRP-N006	2	0.3	N/A	
881I02PRP-N007	1	14.1	N/A	
881I02QRP-N007	3	42.3	N/A	
881I02PRP-N008	1	14.1	N/A	
881I02QRP-N008	3	77.1	N/A	
881I02PRP-N009	1	14.1	N/A	
881I02PRP-N010	1	0.3	N/A	
881I02PRP-N011	1	4.9	N/A	
881I02PRP-N012	2	4.9	N/A	
881I02PRP-N013	2	18.7	N/A	
881I02PRP-N014	2	4.9	N/A	
881I02PRP-N015	2	37.1	N/A	
881I02PRP-N016	2	23.3	N/A	
881I02PRP-N017	2	4.9	N/A	

Comments:

186

PRE-DEMOLITION SURVEY FOR B881

Survey Area: I Survey Unit: 881I02 Classification: 2
Building: 881
Survey Unit Description: Building 881 Stack 1 Exhaust Tunnel, Walls & Ceiling
Total Area: 335 sq. m. Total Floor Area: 95 sq. m.
Grid Spacing for Survey Points: 5 m. X 5 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 4

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL

MAP ID: 03-0568/881I02-SC Mar. 08, 2004

187

Survey Area: I	Survey Unit: 881I03	Building: 881

Description: Building 881, Management Unit I, Rooms 108. 109, 110, 117, 118, 119 & 153 Floors

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 81
Nbr Random Measurements Performed: 91
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0
Nbr QC Required: 5
Nbr QC Performed: 5

Alpha

Maximum:	1,508.9 dpm/100cm²
Minimum:	-1.1 dpm/100cm²
Mean:	159.5 dpm/100cm²
Standard Deviation:	212.5
QC Maximum:	1,697.5 dpm/100cm²
QC Minimum:	506.5 dpm/100cm²
QC Mean:	836.2 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 81
Nbr Random Measurements Performed: 91
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0

Alpha

Maximum:	14.9 dpm/100cm²
Minimum:	-0.3 dpm/100cm²
Mean:	1.1 dpm/100cm²
Standard Deviation:	2.6
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0
Nbr Random Collected: 0
Nbr Biased Required: 0
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

188

Survey Area: I	Survey Unit: 881I03	Building: 881

Description: Building 881, Management Unit I, Rooms 108. 109, 110, 117, 118, 119 & 153 Floors

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm²)		Survey Type
							Alpha	Beta	Alpha	Beta	
1	903346	06/02/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	S
2	711447	06/02/04	Electra	681	DP-8	06/29/04	0.151	NA	93.0	NA	S
3	702575	06/02/04	Electra	2404	DP-8	10/08/04	0.162	NA	93.0	NA	S
4	903346	06/03/04	Electra	1518	DP-6	12/02/04	0.217	NA	93.0	NA	T
5	702575	06/03/04	Electra	2404	DP-8	10/08/04	0.162	NA	93.0	NA	S
6	711447	06/03/04	Electra	681	DP-8	06/29/04	0.151	NA	93.0	NA	S
7	702575	06/03/04	Electra	1518	DP-6	12/02/04	0.217	NA	93.0	NA	S
8	711447	06/03/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	T
9	903346	06/03/04	Electra	1681	DP-6	10/07/04	0.212	NA	93.0	NA	T
10	711447	06/04/04	Electra	681	DP-8	06/29/04	0.151	NA	93.0	NA	S
11	711447	06/04/04	Electra	1366	DP-6	10/14/04	0.203	NA	93.0	NA	S
12	903346	06/04/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	10.0	R
13	712193	06/04/04	Electra	290	DP-6	09/16/04	0.199	NA	93.0	NA	Q

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

189

Survey Area: I	Survey Unit: 881I03	Building: 881

Description: Building 881, Management Unit I, Rooms 108. 109, 110, 117, 118, 119 & 153 Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I03PRP-N001	12	8.8	N/A	
881I03PRP-N002	12	5.8	N/A	
881I03PRP-N003	12	2.7	N/A	
881I03PRP-N004	12	14.9	N/A	
881I03PRP-N005	12	-0.3	N/A	
881I03PRP-N006	12	-0.3	N/A	
881I03PRP-N007	12	-0.3	N/A	
881I03PRP-N008	12	2.7	N/A	
881I03PRP-N009	12	-0.3	N/A	
881I03PRP-N010	12	-0.3	N/A	
881I03PRP-N011	12	2.7	N/A	
881I03PRP-N012	12	-0.3	N/A	
881I03PRP-N013	12	-0.3	N/A	
881I03PRP-N014	12	-0.3	N/A	
881I03PRP-N015	12	-0.3	N/A	
881I03PRP-N016	12	-0.3	N/A	
881I03PRP-N017	12	2.7	N/A	
881I03PRP-N018	12	-0.3	N/A	
881I03PRP-N019	12	-0.3	N/A	
881I03PRP-N020	12	-0.3	N/A	
881I03PRP-N021	12	-0.3	N/A	
881I03PRP-N022	12	2.7	N/A	
881I03PRP-N023	12	2.7	N/A	
881I03PRP-N024	12	-0.3	N/A	
881I03PRP-N025	12	-0.3	N/A	
881I03PRP-N026	12	-0.3	N/A	
881I03PRP-N027	12	-0.3	N/A	
881I03PRP-N028	12	5.8	N/A	
881I03PRP-N029	12	-0.3	N/A	

190

Survey Area: I	Survey Unit: 881I03	Building: 881

Description: Building 881, Management Unit I, Rooms 108. 109, 110, 117, 118, 119 & 153 Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I03PRP-N030	12	-0.3	N/A	
881I03PRP-N031	12	-0.3	N/A	
881I03PRP-N032	12	2.7	N/A	
881I03PRP-N033	12	-0.3	N/A	
881I03PRP-N034	12	-0.3	N/A	
881I03PRP-N035	12	-0.3	N/A	
881I03PRP-N036	12	-0.3	N/A	
881I03PRP-N037	12	-0.3	N/A	
881I03PRP-N038	12	-0.3	N/A	
881I03PRP-N039	12	-0.3	N/A	
881I03PRP-N040	12	2.7	N/A	
881I03PRP-N041	12	-0.3	N/A	
881I03PRP-N042	12	-0.3	N/A	
881I03PRP-N043	12	-0.3	N/A	
881I03PRP-N044	12	2.7	N/A	
881I03PRP-N045	12	-0.3	N/A	
881I03PRP-N046	12	5.8	N/A	
881I03PRP-N047	12	-0.3	N/A	
881I03PRP-N048	12	-0.3	N/A	
881I03PRP-N049	12	-0.3	N/A	
881I03PRP-N050	12	2.7	N/A	
881I03PRP-N051	12	-0.3	N/A	
881I03PRP-N052	12	5.8	N/A	
881I03PRP-N053	12	-0.3	N/A	
881I03PRP-N054	12	-0.3	N/A	
881I03PRP-N055	12	2.7	N/A	
881I03PRP-N056	12	-0.3	N/A	
881I03PRP-N057	12	-0.3	N/A	
881I03PRP-N058	12	8.8	N/A	

191

Survey Area: I	Survey Unit: 881I03	Building: 881

Description: Building 881, Management Unit I, Rooms 108. 109, 110, 117, 118, 119 & 153 Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I03PRP-N059	12	-0.3	N/A	
881I03PRP-N060	12	2.7	N/A	
881I03PRP-N061	12	2.7	N/A	
881I03PRP-N062	12	-0.3	N/A	
881I03PRP-N063	12	-0.3	N/A	
881I03PRP-N064	12	-0.3	N/A	
881I03PRP-N065	12	-0.3	N/A	
881I03PRP-N066	12	-0.3	N/A	
881I03PRP-N067	12	2.7	N/A	
881I03PRP-N068	12	-0.3	N/A	
881I03PRP-N069	12	5.8	N/A	
881I03PRP-N070	12	-0.3	N/A	
881I03PRP-N071	12	-0.3	N/A	
881I03PRP-N072	12	-0.3	N/A	
881I03PRP-N073	12	-0.3	N/A	
881I03PRP-N074	12	-0.3	N/A	
881I03PRP-N075	12	5.8	N/A	
881I03PRP-N076	12	2.7	N/A	
881I03PRP-N077	12	-0.3	N/A	
881I03PRP-N078	12	-0.3	N/A	
881I03PRP-N079	12	-0.3	N/A	
881I03PRP-N080	12	-0.3	N/A	
881I03PRP-N081	12	2.7	N/A	
881I03PRP-N082	12	2.7	N/A	
881I03PRP-N083	12	-0.3	N/A	
881I03PRP-N084	12	2.7	N/A	
881I03PRP-N085	12	2.7	N/A	
881I03PRP-N086	12	-0.3	N/A	
881I03PRP-N087	12	-0.3	N/A	

192

Survey Area: I	Survey Unit: 881I03	Building: 881

Description: Building 881, Management Unit I, Rooms 108. 109, 110, 117, 118, 119 & 153 Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I03PRP-N088	12	-0.3	N/A	
881I03PRP-N089	12	2.7	N/A	
881I03PRP-N090	12	-0.3	N/A	
881I03PRP-N091	12	-0.3	N/A	

Comments:

193

Survey Area: I	Survey Unit: 881I03	Building: 881

Description: Building 881, Management Unit I, Rooms 108. 109, 110, 117, 118, 119 & 153 Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I03PRP-N001	9	60.8	N/A	
881I03PRP-N002	9	56.1	N/A	
881I03PRP-N003	9	136.3	N/A	
881I03PRP-N004	9	490.0	N/A	
881I03QRP-N004	13	506.5	N/A	
881I03PRP-N005	9	202.3	N/A	
881I03PRP-N006	9	1,508.9	N/A	
881I03QRP-N006	13	1,697.5	N/A	
881I03PRP-N007	9	419.3	N/A	
881I03PRP-N008	9	202.3	N/A	
881I03PRP-N009	9	183.4	N/A	
881I03PRP-N010	9	84.4	N/A	
881I03PRP-N011	9	89.1	N/A	
881I03PRP-N012	9	74.9	N/A	
881I03PRP-N013	9	-0.5	N/A	
881I03PRP-N014	9	23.1	N/A	
881I03PRP-N015	9	546.6	N/A	
881I03QRP-N015	13	632.1	N/A	
881I03PRP-N016	9	263.6	N/A	
881I03PRP-N017	9	235.3	N/A	
881I03PRP-N018	9	202.3	N/A	
881I03PRP-N019	9	244.8	N/A	
881I03PRP-N020	9	735.3	N/A	
881I03PRP-N021	9	141.0	N/A	
881I03PRP-N022	9	315.5	N/A	
881I03PRP-N023	9	122.1	N/A	
881I03PRP-N024	9	131.5	N/A	

194

Survey Area: I	Survey Unit: 881I03	Building: 881

Description: Building 881, Management Unit I, Rooms 108. 109, 110, 117, 118, 119 & 153 Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I03PRP-N025	9	79.7	N/A	
881I03PRP-N026	9	41.9	N/A	
881I03PRP-N027	9	141.0	N/A	
881I03PRP-N028	9	310.8	N/A	
881I03PRP-N029	9	183.4	N/A	
881I03PRP-N030	9	89.1	N/A	
881I03PRP-N031	9	122.1	N/A	
881I03PRP-N032	9	617.4	N/A	
881I03QRP-N032	13	607.0	N/A	
881I03PRP-N033	9	126.8	N/A	
881I03PRP-N034	9	41.9	N/A	
881I03PRP-N035	9	70.2	N/A	
881I03PRP-N036	9	122.1	N/A	
881I03PRP-N037	9	32.5	N/A	
881I03PRP-N038	9	93.8	N/A	
881I03PRP-N039	9	13.6	N/A	
881I03PRP-N040	9	141.0	N/A	
881I03PRP-N041	9	56.1	N/A	
881I03PRP-N042	9	183.4	N/A	
881I03PRP-N043	9	32.5	N/A	
881I03PRP-N044	9	150.4	N/A	
881I03PRP-N045	9	174.0	N/A	
881I03PRP-N046	9	197.6	N/A	
881I03PRP-N047	9	27.8	N/A	
881I03PRP-N048	9	18.3	N/A	
881I03PRP-N049	9	23.1	N/A	
881I03PRP-N050	9	37.2	N/A	

195

Survey Area: I	Survey Unit: 881I03	Building: 881

Description: Building 881, Management Unit I, Rooms 108. 109, 110, 117, 118, 119 & 153 Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I03PRP-N051	9	56.1	N/A	
881I03PRP-N052	9	65.5	N/A	
881I03PRP-N053	9	51.4	N/A	
881I03PRP-N054	9	37.2	N/A	
881I03PRP-N055	9	216.4	N/A	
881I03PRP-N056	9	282.5	N/A	
881I03PRP-N057	9	84.4	N/A	
881I03PRP-N058	8	343.0	N/A	
881I03PRP-N059	8	118.2	N/A	
881I03PRP-N060	8	136.6	N/A	
881I03PRP-N061	8	17.3	N/A	
881I03PRP-N062	8	21.9	N/A	
881I03PRP-N063	8	58.6	N/A	
881I03PRP-N064	8	8.1	N/A	
881I03PRP-N065	8	12.7	N/A	
881I03PRP-N066	8	44.8	N/A	
881I03PRP-N067	8	58.6	N/A	
881I03PRP-N068	8	81.5	N/A	
881I03PRP-N069	8	223.7	N/A	
881I03PRP-N070	8	54.0	N/A	
881I03PRP-N071	8	691.6	N/A	
881I03QRP-N071	13	737.7	N/A	
881I03PRP-N072	8	320.0	N/A	
881I03PRP-N073	8	329.2	N/A	
881I03PRP-N074	8	35.6	N/A	
881I03PRP-N075	8	12.7	N/A	
881I03PRP-N076	8	21.9	N/A	

196

Survey Area: I	Survey Unit: 881I03	Building: 881

Description: Building 881, Management Unit I, Rooms 108. 109, 110, 117, 118, 119 & 153 Floors

Random/QC Total Surface Activity Data Sheet

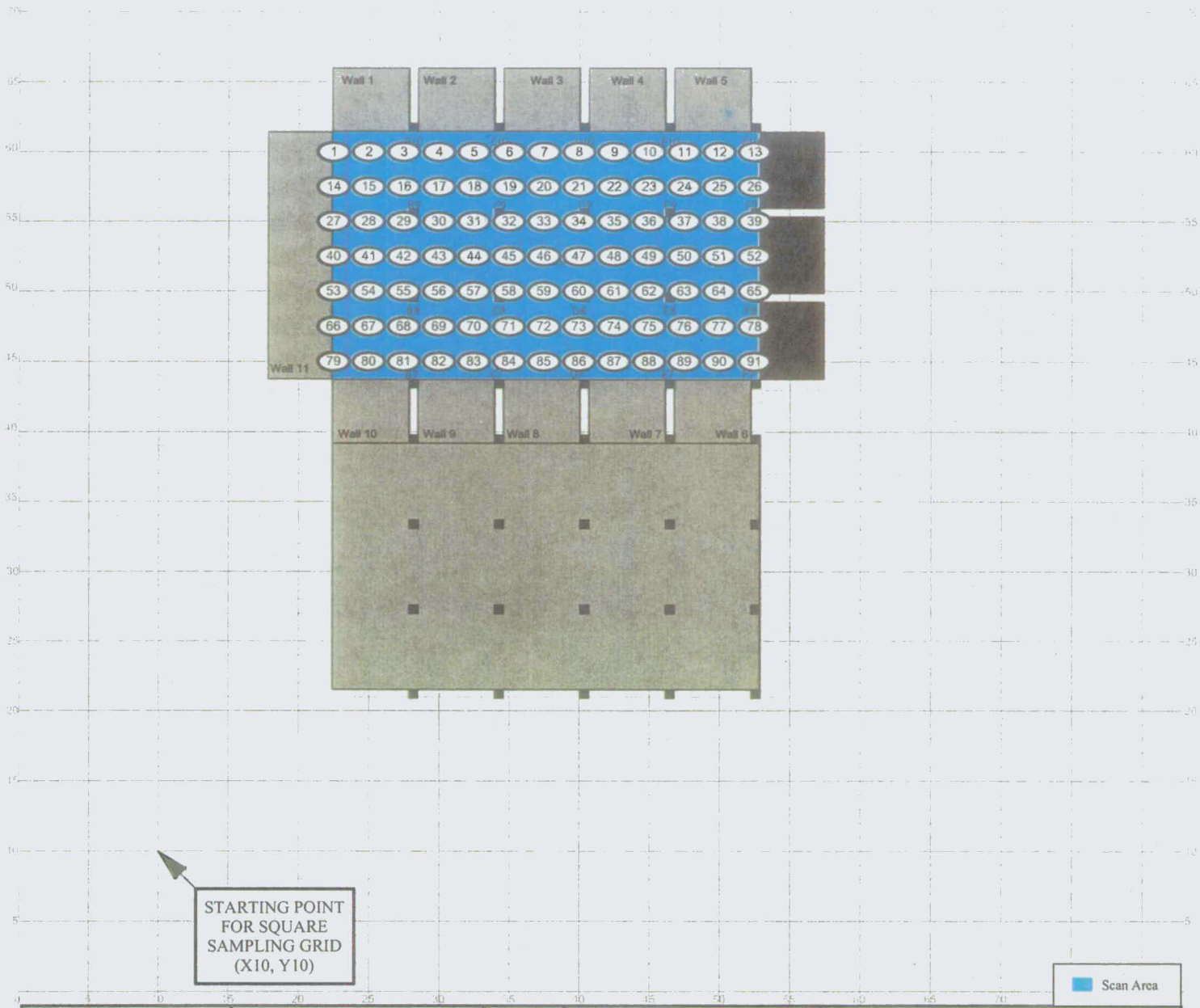
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I03PRP-N077	8	54.0	N/A	
881I03PRP-N078	8	17.3	N/A	
881I03PRP-N079	8	3.5	N/A	
881I03PRP-N080	8	104.5	N/A	
881I03PRP-N081	8	26.5	N/A	
881I03PRP-N082	8	549.4	N/A	
881I03PRP-N083	8	21.9	N/A	
881I03PRP-N084	8	205.4	N/A	
881I03PRP-N085	8	324.6	N/A	
881I03PRP-N086	8	145.7	N/A	
881I03PRP-N087	8	3.5	N/A	
881I03PRP-N088	8	17.3	N/A	
881I03PRP-N089	8	-1.1	N/A	
881I03PRP-N090	8	31.1	N/A	
881I03PRP-N091	8	31.1	N/A	

Comments:

197

PRE-DEMOLITION SURVEY FOR B881

Survey Area: I Survey Unit: 881I03 Classification: 1
Building: 881
Survey Unit Description: Buliding 881, Management Unit I, Romms 108, 109, 110, 117 118, 119 & 153, Floor
Total Area: 539 sq. m. Total Floor Area: 539 sq. m.
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.



Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 45
0 METERS 15

1 inch = 36 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1-3, 5-7, 10, 11

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group

KAISER-HILL

MAP ID: 03-0568/881I03-SC June 04, 2004

198

Survey Area: I	Survey Unit: 881I04	Building: 881

Description: Building 881, Management Unit I, Rooms 108, 109, 110, 117, 118, 119 & 153, Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15
Nbr Random Measurements Performed: 18
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0
Nbr QC Required: 2
Nbr QC Performed: 2

Alpha

Maximum:	50.6 dpm/100cm²
Minimum:	-24.8 dpm/100cm²
Mean:	5.5 dpm/100cm²
Standard Deviation:	22.3
QC Maximum:	70.3 dpm/100cm²
QC Minimum:	5.0 dpm/100cm²
QC Mean:	37.6 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15
Nbr Random Measurements Performed: 18
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0

Alpha

Maximum:	11.8 dpm/100cm²
Minimum:	-0.3 dpm/100cm²
Mean:	3.4 dpm/100cm²
Standard Deviation:	3.5
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0
Nbr Random Collected: 0
Nbr Biased Required: 0
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

199

Survey Area: I	Survey Unit: 881I04	Building: 881

Description: Building 881, Management Unit I, Rooms 108, 109, 110, 117, 118, 119 & 153, Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	903346	06/03/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
2	903346	06/03/04	Electra	1681	DP-6	10/07/04	0.212	NA	93.0	NA	T
3	702575	06/03/04	Electra	1518	DP-6	12/02/04	0.217	NA	93.0	NA	S
4	712193	06/03/04	Electra	2404	DP-8	10/08/04	0.162	NA	93.0	NA	S
5	712193	06/09/04	Electra	290	DP-6	09/16/04	0.199	NA	93.0	NA	Q

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

200

Survey Area: I	Survey Unit: 881I04	Building: 881

Description: Building 881, Management Unit I, Rooms 108, 109, 110, 117, 118, 119 & 153, Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I04PRP-N001	1	-0.3	N/A	
881I04PRP-N002	1	5.8	N/A	
881I04PRP-N003	1	5.8	N/A	
881I04PRP-N004	1	5.8	N/A	
881I04PRP-N005	1	8.8	N/A	
881I04PRP-N006	1	2.7	N/A	
881I04PRP-N007	1	-0.3	N/A	
881I04PRP-N008	1	5.8	N/A	
881I04PRP-N009	1	2.7	N/A	
881I04PRP-N010	1	-0.3	N/A	
881I04PRP-N011	1	-0.3	N/A	
881I04PRP-N012	1	-0.3	N/A	
881I04PRP-N013	1	2.7	N/A	
881I04PRP-N014	1	-0.3	N/A	
881I04PRP-N015	1	2.7	N/A	
881I04PRP-N016	1	5.8	N/A	
881I04PRP-N017	1	2.7	N/A	
881I04PRP-N018	1	11.8	N/A	

Comments:

201

Survey Area: I	Survey Unit: 881I04	Building: 881

Description: Building 881, Management Unit I, Rooms 108, 109, 110, 117, 118, 119 & 153, Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

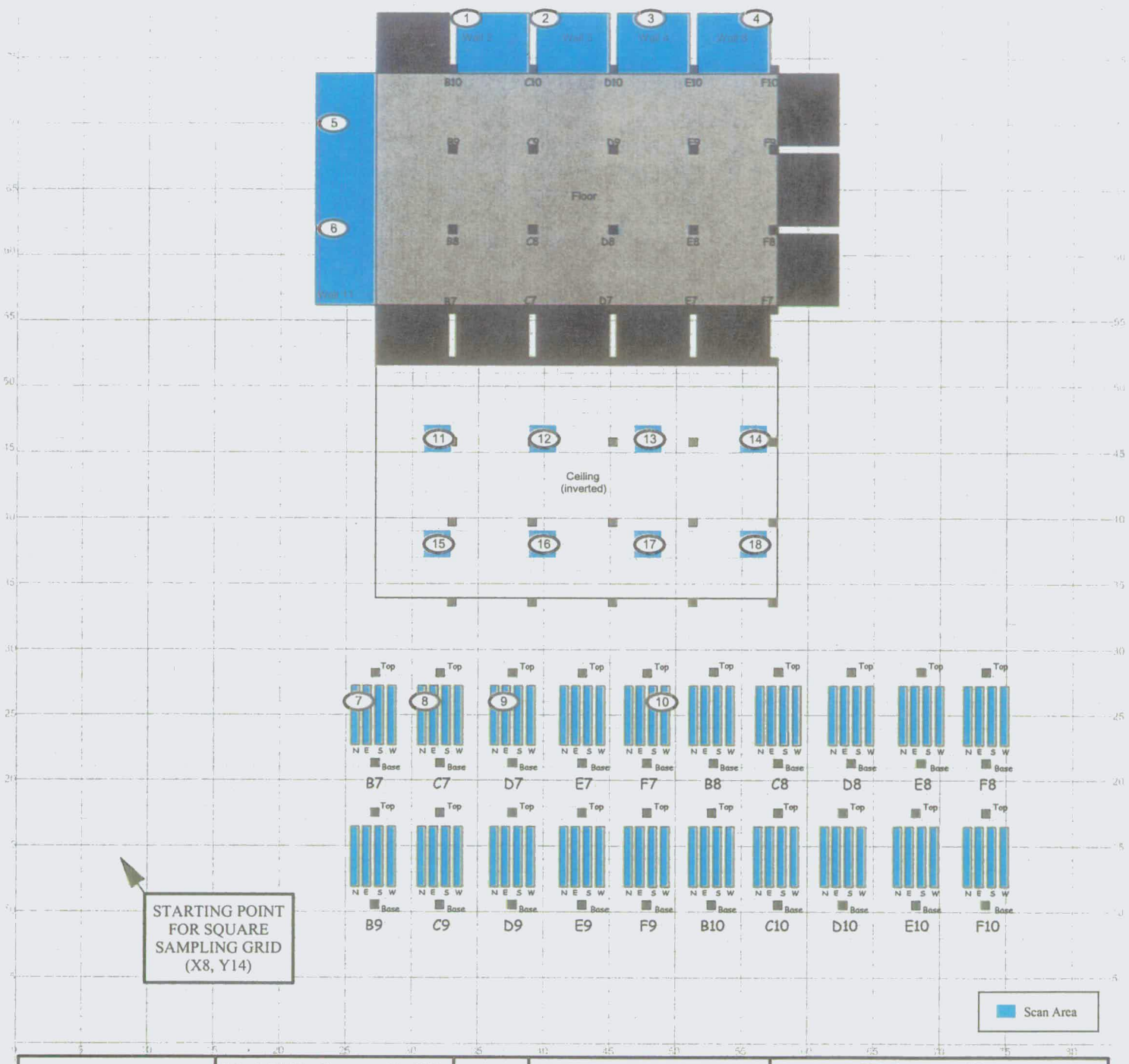
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I04PRP-N001	2	-24.8	N/A	
881I04PRP-N002	2	8.2	N/A	
881I04QRP-N002	5	5.0	N/A	
881I04PRP-N003	2	3.5	N/A	
881I04PRP-N004	2	8.2	N/A	
881I04PRP-N005	2	-20.1	N/A	
881I04PRP-N006	2	27.0	N/A	
881I04PRP-N007	2	17.6	N/A	
881I04PRP-N008	2	-20.1	N/A	
881I04PRP-N009	2	-10.7	N/A	
881I04PRP-N010	2	17.6	N/A	
881I04PRP-N011	2	-24.8	N/A	
881I04PRP-N012	2	-10.7	N/A	
881I04PRP-N013	2	36.5	N/A	
881I04PRP-N014	2	3.5	N/A	
881I04PRP-N015	2	-1.3	N/A	
881I04PRP-N016	2	3.5	N/A	
881I04PRP-N017	2	50.6	N/A	
881I04QRP-N017	5	70.3	N/A	
881I04PRP-N018	2	36.5	N/A	

Comments:

202

PRE-DEMOLITION SURVEY FOR B881

Survey Area: I Survey Unit: 881I04 Classification: 2
Building: 881
Survey Unit Description: Buliding 881, Management Unit I, Romms 108, 109, 110, 117, 118, 119, & 153 Walls & Ceiling
Total Area: 871 sq. m. Total Floor Area: 539 sq. m.
Grid Spacing for Survey Points: 8 m. X 8 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 45
0 METERS 15

1 inch = 36 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
3, 4

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group

KAISER-HILL COMPANY

MAP ID: 03-0568/881I04-SC June 04, 2004

203

Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 167 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 10

Nbr Random Measurements Performed: 186 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 10

Alpha

Maximum:	130.6 dpm/100cm²
Minimum:	-15.2 dpm/100cm²
Mean:	25.0 dpm/100cm²
Standard Deviation:	24.0
QC Maximum:	89.5 dpm/100cm²
QC Minimum:	-2.3 dpm/100cm²
QC Mean:	36.3 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 167 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 186 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	11.8 dpm/100cm²
Minimum:	-0.3 dpm/100cm²
Mean:	0.9 dpm/100cm²
Standard Deviation:	2.0
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

204

Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm²)		Survey Type
							Alpha	Beta	Alpha	Beta	
1	702567	06/01/04	Electra	290	DP-6	09/16/04	0.199	NA	93.0	NA	T/S
2	903346	06/02/04	Electra	290	DP-6	09/16/04	0.199	NA	93.0	NA	T
3	702567	06/02/04	Electra	2394	DP-6	08/19/04	0.214	NA	93.0	NA	T
4	903346	06/02/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
5	702575	06/02/04	Electra	2404	DP-8	10/08/04	0.162	NA	93.0	NA	S
6	711447	06/02/04	Electra	681	DP-8	06/29/04	0.151	NA	93.0	NA	S
7	903346	06/03/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
8	711447	06/01/04	Electra	681	DP-8	06/29/04	0.151	NA	93.0	NA	S
9	702575	06/01/04	Electra	1241	DP-8	10/06/04	0.193	NA	93.0	NA	S
10	702567	06/01/04	Electra	2404	DP-8	10/08/04	0.162	NA	93.0	NA	S
11	712193	06/02/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	Q

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

265

Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N001	7	-0.3	N/A	
881I05PRP-N002	7	-0.3	N/A	
881I05PRP-N003	7	-0.3	N/A	
881I05PRP-N004	7	-0.3	N/A	
881I05PRP-N005	7	-0.3	N/A	
881I05PRP-N006	7	-0.3	N/A	
881I05PRP-N007	7	-0.3	N/A	
881I05PRP-N008	7	-0.3	N/A	
881I05PRP-N009	7	-0.3	N/A	
881I05PRP-N010	7	-0.3	N/A	
881I05PRP-N011	7	2.7	N/A	
881I05PRP-N012	7	-0.3	N/A	
881I05PRP-N013	7	2.7	N/A	
881I05PRP-N014	7	2.7	N/A	
881I05PRP-N015	7	-0.3	N/A	
881I05PRP-N016	7	-0.3	N/A	
881I05PRP-N017	7	2.7	N/A	
881I05PRP-N018	7	-0.3	N/A	
881I05PRP-N019	7	-0.3	N/A	
881I05PRP-N020	7	-0.3	N/A	
881I05PRP-N021	7	-0.3	N/A	
881I05PRP-N022	7	2.7	N/A	
881I05PRP-N023	7	2.7	N/A	
881I05PRP-N024	7	-0.3	N/A	
881I05PRP-N025	7	-0.3	N/A	
881I05PRP-N026	7	-0.3	N/A	
881I05PRP-N027	7	2.7	N/A	
881I05PRP-N028	7	2.7	N/A	
881I05PRP-N029	7	-0.3	N/A	

206

Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N030	7	-0.3	N/A	
881I05PRP-N031	7	-0.3	N/A	
881I05PRP-N032	7	-0.3	N/A	
881I05PRP-N033	7	-0.3	N/A	
881I05PRP-N034	7	-0.3	N/A	
881I05PRP-N035	7	-0.3	N/A	
881I05PRP-N036	7	-0.3	N/A	
881I05PRP-N037	7	-0.3	N/A	
881I05PRP-N038	7	2.7	N/A	
881I05PRP-N039	7	-0.3	N/A	
881I05PRP-N040	7	-0.3	N/A	
881I05PRP-N041	7	-0.3	N/A	
881I05PRP-N042	7	-0.3	N/A	
881I05PRP-N043	7	-0.3	N/A	
881I05PRP-N044	7	2.7	N/A	
881I05PRP-N045	7	2.7	N/A	
881I05PRP-N046	7	-0.3	N/A	
881I05PRP-N047	7	2.7	N/A	
881I05PRP-N048	7	-0.3	N/A	
881I05PRP-N049	7	-0.3	N/A	
881I05PRP-N050	7	5.8	N/A	
881I05PRP-N051	7	-0.3	N/A	
881I05PRP-N052	7	2.7	N/A	
881I05PRP-N053	7	-0.3	N/A	
881I05PRP-N054	7	-0.3	N/A	
881I05PRP-N055	7	2.7	N/A	
881I05PRP-N056	7	-0.3	N/A	
881I05PRP-N057	7	2.7	N/A	
881I05PRP-N058	7	2.7	N/A	

207

Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N059	7	-0.3	N/A	
881I05PRP-N060	7	-0.3	N/A	
881I05PRP-N061	7	-0.3	N/A	
881I05PRP-N062	7	-0.3	N/A	
881I05PRP-N063	7	-0.3	N/A	
881I05PRP-N064	7	2.7	N/A	
881I05PRP-N065	7	-0.3	N/A	
881I05PRP-N066	7	-0.3	N/A	
881I05PRP-N067	7	-0.3	N/A	
881I05PRP-N068	7	-0.3	N/A	
881I05PRP-N069	7	11.8	N/A	
881I05PRP-N070	7	2.7	N/A	
881I05PRP-N071	7	-0.3	N/A	
881I05PRP-N072	7	2.7	N/A	
881I05PRP-N073	7	-0.3	N/A	
881I05PRP-N074	7	-0.3	N/A	
881I05PRP-N075	7	-0.3	N/A	
881I05PRP-N076	7	-0.3	N/A	
881I05PRP-N077	7	-0.3	N/A	
881I05PRP-N078	7	-0.3	N/A	
881I05PRP-N079	7	-0.3	N/A	
881I05PRP-N080	7	2.7	N/A	
881I05PRP-N081	7	-0.3	N/A	
881I05PRP-N082	7	-0.3	N/A	
881I05PRP-N083	7	2.7	N/A	
881I05PRP-N084	7	5.8	N/A	
881I05PRP-N085	7	-0.3	N/A	
881I05PRP-N086	7	-0.3	N/A	
881I05PRP-N087	7	-0.3	N/A	

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Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N088	7	2.7	N/A	
881I05PRP-N089	7	-0.3	N/A	
881I05PRP-N090	7	-0.3	N/A	
881I05PRP-N091	7	-0.3	N/A	
881I05PRP-N092	7	2.7	N/A	
881I05PRP-N093	7	2.7	N/A	
881I05PRP-N094	7	-0.3	N/A	
881I05PRP-N095	7	5.8	N/A	
881I05PRP-N096	7	2.7	N/A	
881I05PRP-N097	7	-0.3	N/A	
881I05PRP-N098	7	-0.3	N/A	
881I05PRP-N099	7	-0.3	N/A	
881I05PRP-N100	7	2.7	N/A	
881I05PRP-N101	4	9.1	N/A	
881I05PRP-N102	4	0.0	N/A	
881I05PRP-N103	4	0.0	N/A	
881I05PRP-N104	4	6.1	N/A	
881I05PRP-N105	4	3.0	N/A	
881I05PRP-N106	4	0.0	N/A	
881I05PRP-N107	4	3.0	N/A	
881I05PRP-N108	4	0.0	N/A	
881I05PRP-N109	4	0.0	N/A	
881I05PRP-N110	4	0.0	N/A	
881I05PRP-N111	4	0.0	N/A	
881I05PRP-N112	4	0.0	N/A	
881I05PRP-N113	4	0.0	N/A	
881I05PRP-N114	4	0.0	N/A	
881I05PRP-N115	4	0.0	N/A	
881I05PRP-N116	4	3.0	N/A	

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Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N117	4	0.0	N/A	
881I05PRP-N118	4	0.0	N/A	
881I05PRP-N119	4	0.0	N/A	
881I05PRP-N120	4	0.0	N/A	
881I05PRP-N121	4	0.0	N/A	
881I05PRP-N122	4	0.0	N/A	
881I05PRP-N123	4	3.0	N/A	
881I05PRP-N124	4	3.0	N/A	
881I05PRP-N125	4	0.0	N/A	
881I05PRP-N126	4	0.0	N/A	
881I05PRP-N127	4	0.0	N/A	
881I05PRP-N128	4	3.0	N/A	
881I05PRP-N129	4	0.0	N/A	
881I05PRP-N130	4	0.0	N/A	
881I05PRP-N131	4	0.0	N/A	
881I05PRP-N132	4	3.0	N/A	
881I05PRP-N133	4	0.0	N/A	
881I05PRP-N134	4	0.0	N/A	
881I05PRP-N135	4	0.0	N/A	
881I05PRP-N136	4	0.0	N/A	
881I05PRP-N137	4	3.0	N/A	
881I05PRP-N138	4	0.0	N/A	
881I05PRP-N139	4	0.0	N/A	
881I05PRP-N140	4	0.0	N/A	
881I05PRP-N141	4	0.0	N/A	
881I05PRP-N142	4	0.0	N/A	
881I05PRP-N143	4	0.0	N/A	
881I05PRP-N144	4	0.0	N/A	
881I05PRP-N145	4	3.0	N/A	

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Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N146	4	3.0	N/A	
881I05PRP-N147	4	0.0	N/A	
881I05PRP-N148	4	0.0	N/A	
881I05PRP-N149	4	0.0	N/A	
881I05PRP-N150	4	0.0	N/A	
881I05PRP-N151	4	0.0	N/A	
881I05PRP-N152	4	0.0	N/A	
881I05PRP-N153	4	0.0	N/A	
881I05PRP-N154	4	0.0	N/A	
881I05PRP-N155	4	3.0	N/A	
881I05PRP-N156	4	0.0	N/A	
881I05PRP-N157	4	0.0	N/A	
881I05PRP-N158	4	0.0	N/A	
881I05PRP-N159	4	3.0	N/A	
881I05PRP-N160	4	6.1	N/A	
881I05PRP-N161	4	3.0	N/A	
881I05PRP-N162	4	6.1	N/A	
881I05PRP-N163	4	0.0	N/A	
881I05PRP-N164	4	3.0	N/A	
881I05PRP-N165	4	0.0	N/A	
881I05PRP-N166	4	3.0	N/A	
881I05PRP-N167	4	0.0	N/A	
881I05PRP-N168	4	0.0	N/A	
881I05PRP-N169	4	0.0	N/A	
881I05PRP-N170	4	3.0	N/A	
881I05PRP-N171	4	0.0	N/A	
881I05PRP-N172	4	0.0	N/A	
881I05PRP-N173	4	0.0	N/A	
881I05PRP-N174	4	3.0	N/A	

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Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N175	4	0.0	N/A	
881I05PRP-N176	4	0.0	N/A	
881I05PRP-N177	4	0.0	N/A	
881I05PRP-N178	4	0.0	N/A	
881I05PRP-N179	4	6.1	N/A	
881I05PRP-N180	4	9.1	N/A	
881I05PRP-N181	4	0.0	N/A	
881I05PRP-N182	4	0.0	N/A	
881I05PRP-N183	4	0.0	N/A	
881I05PRP-N184	4	0.0	N/A	
881I05PRP-N185	4	3.0	N/A	
881I05PRP-N186	4	0.0	N/A	

Comments:

212

Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N001	1	30.1	N/A	
881I05PRP-N002	1	20.0	N/A	
881I05PRP-N003	1	4.9	N/A	
881I05PRP-N004	1	55.2	N/A	
881I05PRP-N005	1	30.1	N/A	
881I05PRP-N006	1	20.0	N/A	
881I05PRP-N007	1	30.1	N/A	
881I05PRP-N008	1	20.0	N/A	
881I05PRP-N009	1	4.9	N/A	
881I05PRP-N010	1	45.1	N/A	
881I05PRP-N011	1	45.1	N/A	
881I05PRP-N012	1	35.1	N/A	
881I05PRP-N013	1	115.5	N/A	
881I05PRP-N014	1	130.6	N/A	
881I05PRP-N015	1	60.2	N/A	
881I05PRP-N016	1	60.2	N/A	
881I05PRP-N017	1	-5.1	N/A	
881I05PRP-N018	1	50.2	N/A	
881I05PRP-N019	1	4.9	N/A	
881I05PRP-N020	1	10.0	N/A	
881I05PRP-N021	1	15.0	N/A	
881I05PRP-N022	1	10.0	N/A	
881I05PRP-N023	1	35.1	N/A	
881I05PRP-N024	1	-0.1	N/A	
881I05PRP-N025	1	40.1	N/A	
881I05PRP-N026	1	35.1	N/A	
881I05PRP-N027	1	70.3	N/A	

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Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N028	1	20.0	N/A	
881I05PRP-N029	3	26.5	N/A	
881I05PRP-N030	3	17.2	N/A	
881I05PRP-N031	3	7.8	N/A	
881I05PRP-N032	3	3.2	N/A	
881I05PRP-N033	3	26.5	N/A	
881I05PRP-N034	3	21.9	N/A	
881I05PRP-N035	3	12.5	N/A	
881I05PRP-N036	3	35.9	N/A	
881I05PRP-N037	3	106.0	N/A	
881I05QRP-N037	11	89.5	N/A	
881I05PRP-N038	3	35.9	N/A	
881I05PRP-N039	3	17.2	N/A	
881I05PRP-N040	3	12.5	N/A	
881I05PRP-N041	3	54.6	N/A	
881I05PRP-N042	3	45.2	N/A	
881I05PRP-N043	3	49.9	N/A	
881I05PRP-N044	3	7.8	N/A	
881I05PRP-N045	3	3.2	N/A	
881I05PRP-N046	3	12.5	N/A	
881I05PRP-N047	2	30.1	N/A	
881I05PRP-N048	2	25.0	N/A	
881I05PRP-N049	2	15.0	N/A	
881I05PRP-N050	2	80.3	N/A	
881I05QRP-N050	11	80.3	N/A	
881I05PRP-N051	2	20.0	N/A	
881I05PRP-N052	2	25.0	N/A	

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Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N053	2	50.2	N/A	
881I05PRP-N054	2	20.0	N/A	
881I05PRP-N055	2	40.1	N/A	
881I05PRP-N056	2	15.0	N/A	
881I05PRP-N057	2	-0.1	N/A	
881I05PRP-N058	2	4.9	N/A	
881I05PRP-N059	2	45.1	N/A	
881I05PRP-N060	2	30.1	N/A	
881I05PRP-N061	2	4.9	N/A	
881I05PRP-N062	2	60.2	N/A	
881I05PRP-N063	2	20.0	N/A	
881I05PRP-N064	2	80.3	N/A	
881I05QRP-N064	11	34.4	N/A	
881I05PRP-N065	2	60.2	N/A	
881I05PRP-N066	2	40.1	N/A	
881I05PRP-N067	2	45.1	N/A	
881I05PRP-N068	2	40.1	N/A	
881I05PRP-N069	2	35.1	N/A	
881I05PRP-N070	2	20.0	N/A	
881I05PRP-N071	2	10.0	N/A	
881I05PRP-N072	2	20.0	N/A	
881I05PRP-N073	2	35.1	N/A	
881I05PRP-N074	2	60.2	N/A	
881I05PRP-N075	3	40.5	N/A	
881I05PRP-N076	3	40.5	N/A	
881I05PRP-N077	3	87.3	N/A	
881I05PRP-N078	3	96.6	N/A	

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Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05QRP-N078	11	71.1	N/A	
881I05PRP-N079	3	40.5	N/A	
881I05PRP-N080	3	26.5	N/A	
881I05PRP-N081	3	26.5	N/A	
881I05PRP-N082	3	31.2	N/A	
881I05PRP-N083	3	59.2	N/A	
881I05PRP-N084	3	35.9	N/A	
881I05PRP-N085	3	35.9	N/A	
881I05PRP-N086	1	15.0	N/A	
881I05PRP-N087	1	25.0	N/A	
881I05PRP-N088	1	15.0	N/A	
881I05PRP-N089	1	20.0	N/A	
881I05PRP-N090	1	15.0	N/A	
881I05PRP-N091	1	30.1	N/A	
881I05PRP-N092	1	4.9	N/A	
881I05QRP-N092	11	-2.3	N/A	
881I05PRP-N093	1	15.0	N/A	
881I05PRP-N094	1	15.0	N/A	
881I05PRP-N095	1	30.1	N/A	
881I05PRP-N096	1	20.0	N/A	
881I05PRP-N097	1	25.0	N/A	
881I05PRP-N098	1	25.0	N/A	
881I05PRP-N099	1	35.1	N/A	
881I05PRP-N100	1	10.0	N/A	
881I05PRP-N101	1	30.1	N/A	
881I05PRP-N102	1	-5.1	N/A	
881I05PRP-N103	1	25.0	N/A	

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Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N104	1	20.0	N/A	
881I05PRP-N105	1	4.9	N/A	
881I05PRP-N106	1	-5.1	N/A	
881I05PRP-N107	1	10.0	N/A	
881I05PRP-N108	1	-0.1	N/A	
881I05PRP-N109	1	30.1	N/A	
881I05QRP-N109	11	43.6	N/A	
881I05PRP-N110	1	-0.1	N/A	
881I05PRP-N111	1	10.0	N/A	
881I05PRP-N112	1	25.0	N/A	
881I05PRP-N113	1	-5.1	N/A	
881I05PRP-N114	1	20.0	N/A	
881I05PRP-N115	1	4.9	N/A	
881I05PRP-N116	1	10.0	N/A	
881I05PRP-N117	1	15.0	N/A	
881I05PRP-N118	1	30.1	N/A	
881I05QRP-N118	11	20.7	N/A	
881I05PRP-N119	1	15.0	N/A	
881I05PRP-N120	1	10.0	N/A	
881I05PRP-N121	1	-5.1	N/A	
881I05PRP-N122	1	25.0	N/A	
881I05PRP-N123	1	4.9	N/A	
881I05PRP-N124	1	10.0	N/A	
881I05PRP-N125	1	-10.1	N/A	
881I05PRP-N126	1	10.0	N/A	
881I05PRP-N127	1	70.3	N/A	
881I05PRP-N128	1	15.0	N/A	

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Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N129	1	40.1	N/A	
881I05PRP-N130	1	20.0	N/A	
881I05PRP-N131	1	15.0	N/A	
881I05PRP-N132	1	25.0	N/A	
881I05PRP-N133	1	25.0	N/A	
881I05PRP-N134	1	-0.1	N/A	
881I05PRP-N135	1	25.0	N/A	
881I05PRP-N136	1	15.0	N/A	
881I05PRP-N137	1	4.9	N/A	
881I05PRP-N138	1	10.0	N/A	
881I05PRP-N139	1	20.0	N/A	
881I05PRP-N140	1	-5.1	N/A	
881I05PRP-N141	1	45.1	N/A	
881I05PRP-N142	1	30.1	N/A	
881I05PRP-N143	1	25.0	N/A	
881I05PRP-N144	1	25.0	N/A	
881I05PRP-N145	1	30.1	N/A	
881I05QRP-N145	11	11.5	N/A	
881I05PRP-N146	1	4.9	N/A	
881I05PRP-N147	1	15.0	N/A	
881I05PRP-N148	1	45.1	N/A	
881I05PRP-N149	1	10.0	N/A	
881I05PRP-N150	1	35.1	N/A	
881I05PRP-N151	1	4.9	N/A	
881I05PRP-N152	1	-15.2	N/A	
881I05PRP-N153	1	-5.1	N/A	
881I05PRP-N154	1	15.0	N/A	

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Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N155	1	-5.1	N/A	
881I05PRP-N156	1	-5.1	N/A	
881I05PRP-N157	1	10.0	N/A	
881I05PRP-N158	1	10.0	N/A	
881I05PRP-N159	1	15.0	N/A	
881I05PRP-N160	1	25.0	N/A	
881I05PRP-N161	1	-0.1	N/A	
881I05PRP-N162	1	-10.1	N/A	
881I05PRP-N163	1	35.1	N/A	
881I05PRP-N164	1	10.0	N/A	
881I05QRP-N164	11	6.9	N/A	
881I05PRP-N165	1	10.0	N/A	
881I05PRP-N166	1	4.9	N/A	
881I05PRP-N167	1	40.1	N/A	
881I05PRP-N168	1	20.0	N/A	
881I05PRP-N169	1	20.0	N/A	
881I05PRP-N170	1	-0.1	N/A	
881I05PRP-N171	1	-5.1	N/A	
881I05PRP-N172	3	17.2	N/A	
881I05PRP-N173	3	3.2	N/A	
881I05PRP-N174	3	40.5	N/A	
881I05PRP-N175	3	54.6	N/A	
881I05PRP-N176	3	17.2	N/A	
881I05PRP-N177	3	7.8	N/A	
881I05PRP-N178	3	21.9	N/A	
881I05QRP-N178	11	6.9	N/A	
881I05PRP-N179	3	12.5	N/A	

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Survey Area: I	Survey Unit: 881I05	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I05PRP-N180	3	124.7	N/A	
881I05PRP-N181	3	12.5	N/A	
881I05PRP-N182	3	31.2	N/A	
881I05PRP-N183	3	31.2	N/A	
881I05PRP-N184	3	17.2	N/A	
881I05PRP-N185	3	-1.5	N/A	
881I05PRP-N186	3	26.5	N/A	

Comments:

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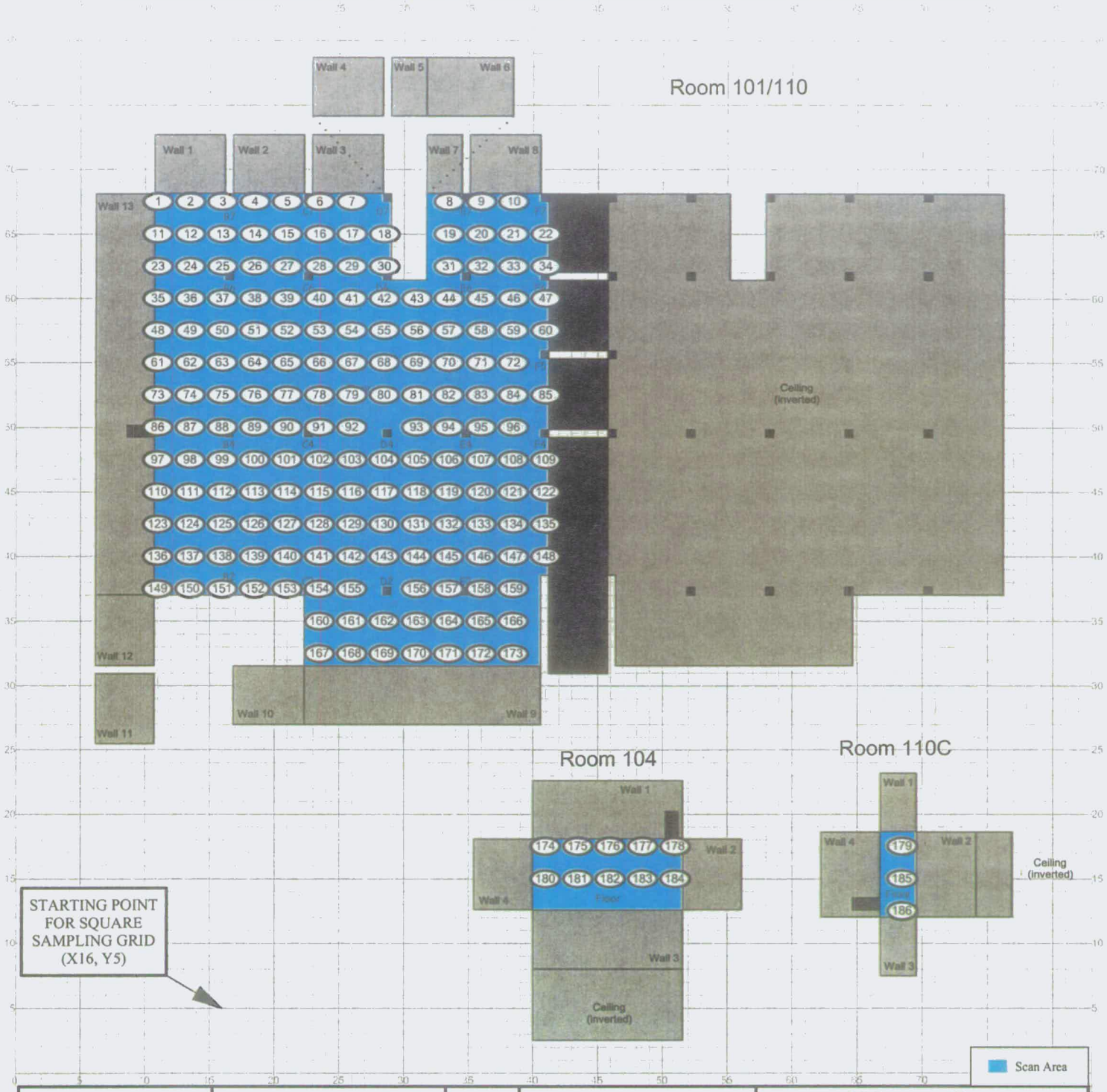
PRE-DEMOLITION SURVEY FOR B881

Survey Area: I Survey Unit: 881I05 Classification: 1
Building: 881
Survey Unit Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C, Floor
Total Area: 1,113 sq. m. Total Floor Area: 1,113 sq. m.
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 45
0 METERS 15

1 inch = 36 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 5, 6, 8-10

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL COMPANY

MAP ID: 03-0568/881I05-SC June 04, 2004

221

Survey Area: I	Survey Unit: 881I06	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 17 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 23 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 2

Alpha

Maximum:	63.1 dpm/100cm²
Minimum:	-15.7 dpm/100cm²
Mean:	19.9 dpm/100cm²
Standard Deviation:	20.8
QC Maximum:	32.1 dpm/100cm²
QC Minimum:	23.0 dpm/100cm²
QC Mean:	27.6 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 17 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 23 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	5.8 dpm/100cm²
Minimum:	-0.3 dpm/100cm²
Mean:	1.0 dpm/100cm²
Standard Deviation:	2.0
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

222

Survey Area: I	Survey Unit: 881I06	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm²)		Survey Type
							Alpha	Beta	Alpha	Beta	
1	702567	06/01/04	Electra	290	DP-6	09/16/04	0.199	NA	93.0	NA	S
2	903346	06/01/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
3	711447	06/01/04	Electra	1366	DP-6	10/14/04	0.203	NA	93.0	NA	T
4	702575	06/01/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	S
5	712193	06/02/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	Q

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

223

Survey Area: I	Survey Unit: 881I06	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I06PRP-N001	2	5.8	N/A	
881I06PRP-N002	2	2.7	N/A	
881I06PRP-N003	2	-0.3	N/A	
881I06PRP-N004	2	-0.3	N/A	
881I06PRP-N005	2	2.7	N/A	
881I06PRP-N006	2	-0.3	N/A	
881I06PRP-N007	2	-0.3	N/A	
881I06PRP-N008	2	-0.3	N/A	
881I06PRP-N009	2	2.7	N/A	
881I06PRP-N010	2	-0.3	N/A	
881I06PRP-N011	2	2.7	N/A	
881I06PRP-N012	2	-0.3	N/A	
881I06PRP-N013	2	-0.3	N/A	
881I06PRP-N014	2	-0.3	N/A	
881I06PRP-N015	2	2.7	N/A	
881I06PRP-N016	2	2.7	N/A	
881I06PRP-N017	2	-0.3	N/A	
881I06PRP-N018	2	-0.3	N/A	
881I06PRP-N019	2	-0.3	N/A	
881I06PRP-N020	2	-0.3	N/A	
881I06PRP-N021	2	-0.3	N/A	
881I06PRP-N022	2	5.8	N/A	
881I06PRP-N023	2	-0.3	N/A	

Comments:

224

Survey Area: I	Survey Unit: 881I06	Building: 881

Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

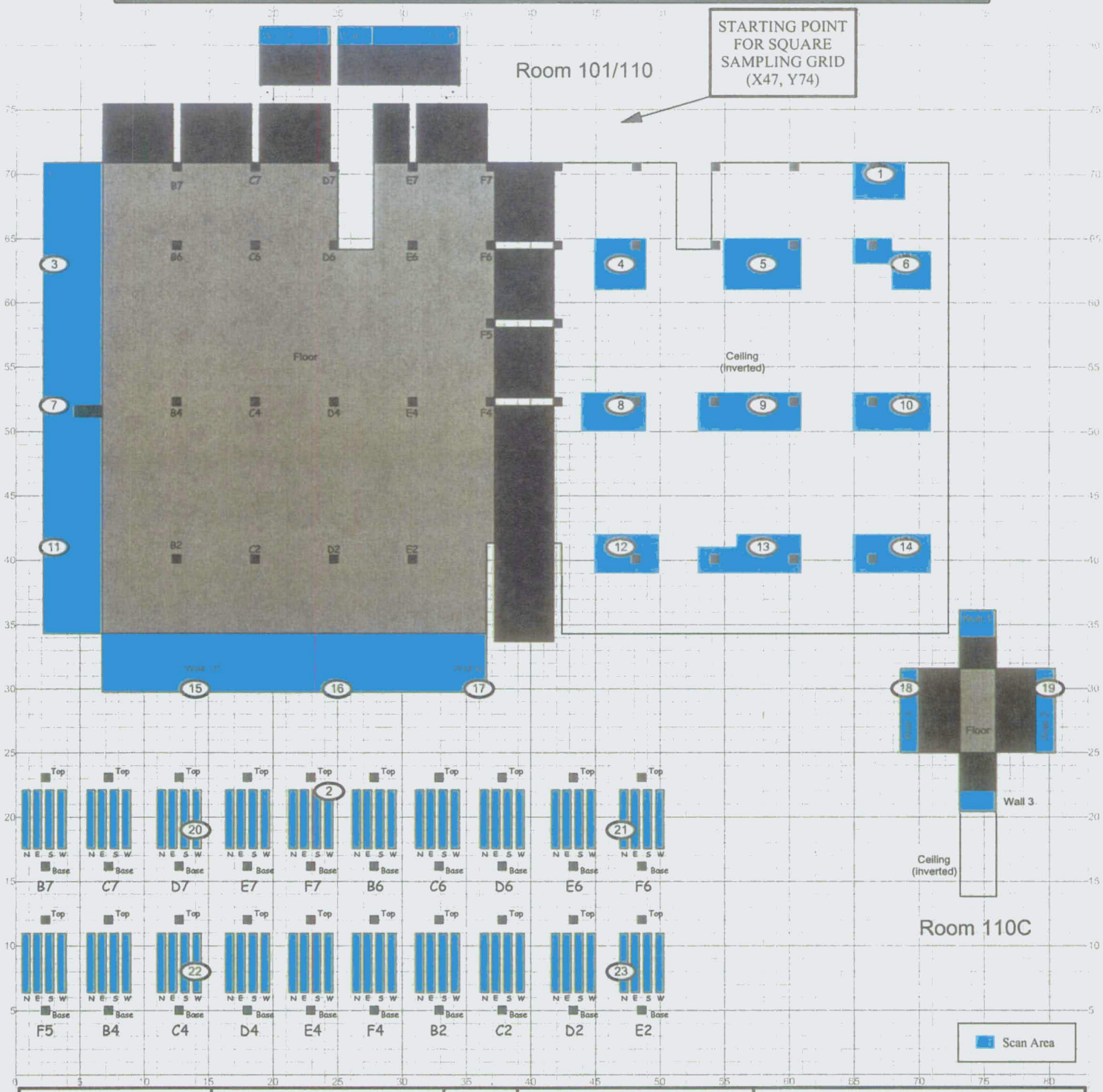
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I06PRP-N001	3	33.6	N/A	
881I06PRP-N002	3	33.6	N/A	
881I06PRP-N003	3	53.3	N/A	
881I06PRP-N004	3	13.9	N/A	
881I06PRP-N005	3	13.9	N/A	
881I06PRP-N006	3	63.1	N/A	
881I06QRP-N006	5	32.1	N/A	
881I06PRP-N007	3	-0.9	N/A	
881I06PRP-N008	3	23.7	N/A	
881I06PRP-N009	3	13.9	N/A	
881I06PRP-N010	3	-0.9	N/A	
881I06PRP-N011	3	33.6	N/A	
881I06PRP-N012	3	43.4	N/A	
881I06PRP-N013	3	18.8	N/A	
881I06PRP-N014	3	-5.8	N/A	
881I06PRP-N015	3	9.0	N/A	
881I06PRP-N016	3	33.6	N/A	
881I06PRP-N017	3	43.4	N/A	
881I06QRP-N017	5	23.0	N/A	
881I06PRP-N018	3	33.6	N/A	
881I06PRP-N019	3	18.8	N/A	
881I06PRP-N020	3	-10.7	N/A	
881I06PRP-N021	3	4.0	N/A	
881I06PRP-N022	3	4.0	N/A	
881I06PRP-N023	3	-15.7	N/A	

Comments:

225

PRE-DEMOLITION SURVEY FOR B881

Survey Area: I Survey Unit: 881I06 Classification: 2
Building: 881
Survey Unit Description: Building 881, Management Unit I, Rooms 101, 102, 103, 104, 110 & 110C, Walls & Ceiling
Total Area: 1,958 sq. m. Total Floor Area: 1,113 sq. m.
Grid Spacing for Survey Points: 11 m. X 11 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 45
0 METERS 15

1 inch = 36 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 4

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707
CH2MHILL Communications Group

Prepared for:
KAISER-HILL

MAP ID: 03-0568/881I06-SC June 04, 2004

226

Survey Area: I	Survey Unit: 881I07	Building: 881

Description: Building 881, Management Unit I, Room 116 Floor

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 37 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 4

Nbr Random Measurements Performed: 64 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 4

Alpha

Maximum:	159.4 dpm/100cm²
Minimum:	-29.4 dpm/100cm²
Mean:	38.1 dpm/100cm²
Standard Deviation:	36.2
QC Maximum:	155.5 dpm/100cm²
QC Minimum:	68.0 dpm/100cm²
QC Mean:	117.5 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 37 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 64 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	5.5 dpm/100cm²
Minimum:	-0.9 dpm/100cm²
Mean:	0.1 dpm/100cm²
Standard Deviation:	1.8
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

227

Survey Area: I **Survey Unit:** 881I07 **Building:** 881

Description: Building 881, Management Unit I, Room 116 Floor

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	702575	06/15/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
2	702575	06/15/04	SAC-4	961	NA	09/30/04	0.330	NA	16.0	NA	R
3	903346	06/17/04	Electra	3105	DP-6	11/18/04	0.196	NA	93.0	NA	T/S
4	903346	06/17/04	Electra	674	DP-8	06/22/04	0.199	NA	93.0	NA	S
5	712193	06/17/04	Electra	662	DP-6	12/10/04	0.217	NA	93.0	NA	Q/S
6	702575	06/17/04	Electra	1417	DP-6	12/03/04	0.207	NA	48.0	NA	T/S

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

228

Survey Area: I **Survey Unit:** 881I07 **Building:** 881

Description: Building 881, Management Unit I, Room 116 Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I07PRP-N001	1	-0.6	N/A	
881I07PRP-N002	2	2.1	N/A	
881I07PRP-N003	1	-0.6	N/A	
881I07PRP-N004	2	-0.9	N/A	
881I07PRP-N005	1	-0.6	N/A	
881I07PRP-N006	2	-0.9	N/A	
881I07PRP-N007	1	-0.6	N/A	
881I07PRP-N008	2	2.1	N/A	
881I07PRP-N009	1	-0.6	N/A	
881I07PRP-N010	2	-0.9	N/A	
881I07PRP-N011	1	2.4	N/A	
881I07PRP-N012	2	-0.9	N/A	
881I07PRP-N013	1	-0.6	N/A	
881I07PRP-N014	2	-0.9	N/A	
881I07PRP-N015	1	-0.6	N/A	
881I07PRP-N016	2	-0.9	N/A	
881I07PRP-N017	1	5.5	N/A	
881I07PRP-N018	2	-0.9	N/A	
881I07PRP-N019	1	-0.6	N/A	
881I07PRP-N020	2	-0.9	N/A	
881I07PRP-N021	1	-0.6	N/A	
881I07PRP-N022	2	2.1	N/A	
881I07PRP-N023	1	-0.6	N/A	
881I07PRP-N024	2	-0.9	N/A	
881I07PRP-N025	1	2.4	N/A	
881I07PRP-N026	2	-0.9	N/A	
881I07PRP-N027	1	-0.6	N/A	
881I07PRP-N028	2	-0.9	N/A	
881I07PRP-N029	1	-0.6	N/A	

229

Survey Area: I **Survey Unit:** 881I07 **Building:** 881

Description: Building 881, Management Unit I, Room 116 Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I07PRP-N030	2	-0.9	N/A	
881I07PRP-N031	1	-0.6	N/A	
881I07PRP-N032	2	-0.9	N/A	
881I07PRP-N033	1	-0.6	N/A	
881I07PRP-N034	2	-0.9	N/A	
881I07PRP-N035	1	-0.6	N/A	
881I07PRP-N036	2	2.1	N/A	
881I07PRP-N037	1	-0.6	N/A	
881I07PRP-N038	2	-0.9	N/A	
881I07PRP-N039	1	-0.6	N/A	
881I07PRP-N040	2	2.1	N/A	
881I07PRP-N041	1	-0.6	N/A	
881I07PRP-N042	2	5.2	N/A	
881I07PRP-N043	1	-0.6	N/A	
881I07PRP-N044	2	-0.9	N/A	
881I07PRP-N045	1	-0.6	N/A	
881I07PRP-N046	2	-0.9	N/A	
881I07PRP-N047	1	-0.6	N/A	
881I07PRP-N048	2	5.2	N/A	
881I07PRP-N049	1	-0.6	N/A	
881I07PRP-N050	2	-0.9	N/A	
881I07PRP-N051	1	2.4	N/A	
881I07PRP-N052	2	-0.9	N/A	
881I07PRP-N053	1	2.4	N/A	
881I07PRP-N054	2	-0.9	N/A	
881I07PRP-N055	1	-0.6	N/A	
881I07PRP-N056	2	-0.9	N/A	
881I07PRP-N057	1	-0.6	N/A	
881I07PRP-N058	2	-0.9	N/A	

230

Survey Area: I **Survey Unit:** 881I07 **Building:** 881

Description: Building 881, Management Unit I, Room 116 Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I07PRP-N059	1	5.5	N/A	
881I07PRP-N060	2	-0.9	N/A	
881I07PRP-N061	1	2.4	N/A	
881I07PRP-N062	2	-0.9	N/A	
881I07PRP-N063	1	-0.6	N/A	
881I07PRP-N064	2	2.1	N/A	

Comments:

231

Survey Area: I **Survey Unit:** 881I07 **Building:** 881

Description: Building 881, Management Unit I, Room 116 Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I07PRP-N001	3	21.6	N/A	
881I07PRP-N002	3	47.1	N/A	
881I07PRP-N003	3	67.5	N/A	
881I07PRP-N004	3	87.9	N/A	
881I07PRP-N005	3	154.3	N/A	
881I07QRP-N005	5	155.5	N/A	
881I07PRP-N006	6	14.1	N/A	
881I07PRP-N007	3	42.0	N/A	
881I07PRP-N008	6	18.9	N/A	
881I07PRP-N009	3	47.1	N/A	
881I07PRP-N010	6	-10.1	N/A	
881I07PRP-N011	3	26.7	N/A	
881I07PRP-N012	6	57.6	N/A	
881I07PRP-N013	3	26.7	N/A	
881I07PRP-N014	6	38.2	N/A	
881I07PRP-N015	3	36.9	N/A	
881I07PRP-N016	6	9.2	N/A	
881I07PRP-N017	3	16.5	N/A	
881I07PRP-N018	6	52.7	N/A	
881I07PRP-N019	3	31.8	N/A	
881I07PRP-N020	6	14.1	N/A	
881I07PRP-N021	3	16.5	N/A	
881I07PRP-N022	6	14.1	N/A	
881I07PRP-N023	3	6.3	N/A	
881I07PRP-N024	6	4.4	N/A	
881I07PRP-N025	3	77.7	N/A	
881I07PRP-N026	6	28.6	N/A	

232

Survey Area: I **Survey Unit:** 881I07 **Building:** 881

Description: Building 881, Management Unit I, Room 116 Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I07PRP-N027	3	77.7	N/A	
881I07PRP-N028	6	52.7	N/A	
881I07PRP-N029	3	67.5	N/A	
881I07PRP-N030	6	33.4	N/A	
881I07PRP-N031	3	31.8	N/A	
881I07PRP-N032	6	14.1	N/A	
881I07PRP-N033	3	36.9	N/A	
881I07PRP-N034	6	23.7	N/A	
881I07PRP-N035	3	52.2	N/A	
881I07QRP-N036	5	68.0	N/A	
881I07PRP-N036	6	86.5	N/A	
881I07PRP-N037	3	62.4	N/A	
881I07PRP-N038	6	-5.2	N/A	
881I07PRP-N039	3	139.0	N/A	
881I07QRP-N039	5	109.4	N/A	
881I07PRP-N040	6	14.1	N/A	
881I07PRP-N041	3	31.8	N/A	
881I07PRP-N042	6	38.2	N/A	
881I07PRP-N043	3	6.3	N/A	
881I07PRP-N044	6	-0.4	N/A	
881I07PRP-N045	3	6.3	N/A	
881I07PRP-N046	6	28.6	N/A	
881I07PRP-N047	3	42.0	N/A	
881I07PRP-N048	6	47.9	N/A	
881I07PRP-N049	3	26.7	N/A	
881I07PRP-N050	6	52.7	N/A	
881I07PRP-N051	3	21.6	N/A	

234

Survey Area: I **Survey Unit:** 881I07 **Building:** 881

Description: Building 881, Management Unit I, Room 116 Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I07PRP-N052	6	23.7	N/A	
881I07PRP-N053	3	16.5	N/A	
881I07PRP-N054	6	33.4	N/A	
881I07PRP-N055	3	-9.0	N/A	
881I07PRP-N056	6	-29.4	N/A	
881I07PRP-N057	6	18.9	N/A	
881I07PRP-N058	6	14.1	N/A	
881I07PRP-N059	6	-0.4	N/A	
881I07PRP-N060	3	77.7	N/A	
881I07PRP-N061	3	98.2	N/A	
881I07PRP-N062	3	159.4	N/A	
881I07QRP-N062	5	137.1	N/A	
881I07PRP-N063	3	67.5	N/A	
881I07PRP-N064	3	31.8	N/A	

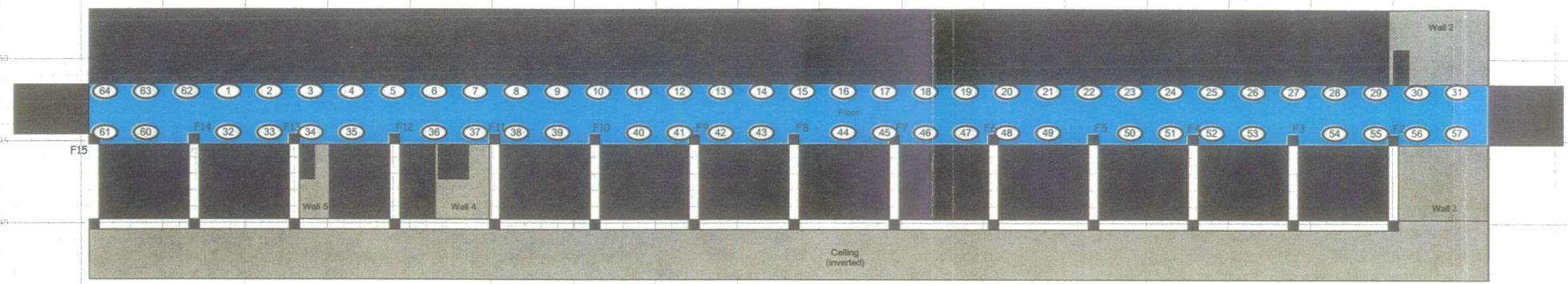
Comments:

235

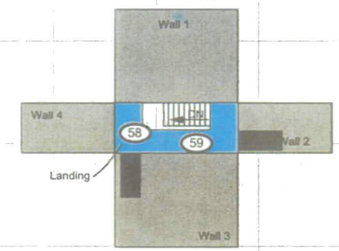
PRE-DEMOLITION SURVEY FOR B881

Survey Area: I Survey Unit: 881I07 Classification: 1
Building: 881
Survey Unit Description: Building 881, Management Unit I, Room 116, Floor
Total Area: 245 sq. m. Total Floor Area: 245 sq. m.
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.

Room 116



Stair 133
(1st Floor
Landing)



STARTING POINT
FOR SQUARE
SAMPLING GRID
(X9, Y8)

Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
3, 4, 5, 6

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL COMPANY

MAP ID: 03-0568/881I07-SC June 04, 2004

236

Survey Area: I	Survey Unit: 881I08	Building: 881

Description: Building 881, Management Unit I, Room 116, Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15
Nbr Random Measurements Performed: 23
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0
Nbr QC Required: 2
Nbr QC Performed: 2

Alpha

Maximum:	268.4	dpm/100cm²
Minimum:	-7.7	dpm/100cm²
Mean:	24.4	dpm/100cm²
Standard Deviation:	56.5	
QC Maximum:	232.8	dpm/100cm²
QC Minimum:	85.3	dpm/100cm²
QC Mean:	159.0	dpm/100cm²
Uranium $DCGL_W$:	5,000.0	dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0	dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15
Nbr Random Measurements Performed: 23
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0

Alpha

Maximum:	5.5	dpm/100cm²
Minimum:	-0.6	dpm/100cm²
Mean:	0.8	dpm/100cm²
Standard Deviation:	1.8	
Uranium $DCGL_W$:	1,000.0	

Media Sample Results

Nbr Random Required: 0
Nbr Random Collected: 0
Nbr Biased Required: 0
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

237

Survey Area: I | **Survey Unit:** 881I08 | **Building:** 881

Description: Building 881, Management Unit I, Room 116, Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	711447	06/15/04	Electra	673	DP-8	06/30/04	0.180	NA	93.0	NA	S
2	702567	06/15/04	Electra	674	DP-8	06/22/04	0.199	NA	93.0	NA	S
3	903346	06/15/04	Electra	1417	DP-6	12/03/04	0.207	NA	93.0	NA	T/S
4	700835	06/15/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	T/S
5	903346	06/15/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
6	903346	06/17/04	Electra	1417	DP-6	12/03/04	0.207	NA	93.0	NA	T/S
7	903346	06/17/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
8	712193	06/17/04	Electra	662	DP-6	12/10/04	0.217	NA	93.0	NA	Q/S

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

238

Survey Area: I	Survey Unit: 881I08	Building: 881

Description: Building 881, Management Unit I, Room 116, Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I08PRP-N001	7	-0.6	N/A	
881I08PRP-N002	7	2.4	N/A	
881I08PRP-N003	7	2.4	N/A	
881I08PRP-N004	5	2.4	N/A	
881I08PRP-N005	5	-0.6	N/A	
881I08PRP-N006	5	2.4	N/A	
881I08PRP-N007	5	-0.6	N/A	
881I08PRP-N008	5	-0.6	N/A	
881I08PRP-N009	5	-0.6	N/A	
881I08PRP-N010	5	2.4	N/A	
881I08PRP-N011	7	5.5	N/A	
881I08PRP-N012	7	2.4	N/A	
881I08PRP-N013	5	-0.6	N/A	
881I08PRP-N014	5	-0.6	N/A	
881I08PRP-N015	5	-0.6	N/A	
881I08PRP-N016	5	-0.6	N/A	
881I08PRP-N017	5	2.4	N/A	
881I08PRP-N018	5	-0.6	N/A	
881I08PRP-N019	5	-0.6	N/A	
881I08PRP-N020	5	2.4	N/A	
881I08PRP-N021	5	-0.6	N/A	
881I08PRP-N022	5	-0.6	N/A	
881I08PRP-N023	5	2.4	N/A	

Comments:

239

Survey Area: I	Survey Unit: 881I08	Building: 881

Description: Building 881, Management Unit I, Room 116, Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I08PRP-N001	6	17.1	N/A	
881I08PRP-N002	6	-2.2	N/A	
881I08PRP-N003	6	2.7	N/A	
881I08PRP-N004	4	6.0	N/A	
881I08PRP-N005	4	-7.7	N/A	
881I08PRP-N006	4	15.2	N/A	
881I08PRP-N007	4	6.0	N/A	
881I08PRP-N008	4	-7.7	N/A	
881I08PRP-N009	4	-3.2	N/A	
881I08PRP-N010	4	-7.7	N/A	
881I08PRP-N011	6	268.4	N/A	
881I08QRP-N011	8	232.8	N/A	
881I08PRP-N012	6	79.9	N/A	
881I08QRP-N012	8	85.3	N/A	
881I08PRP-N013	3	2.7	N/A	
881I08PRP-N014	3	7.5	N/A	
881I08PRP-N015	3	31.6	N/A	
881I08PRP-N016	3	2.7	N/A	
881I08PRP-N017	3	26.8	N/A	
881I08PRP-N018	3	12.3	N/A	
881I08PRP-N019	3	17.1	N/A	
881I08PRP-N020	3	36.5	N/A	
881I08PRP-N021	3	17.1	N/A	
881I08PRP-N022	3	26.8	N/A	
881I08PRP-N023	3	12.3	N/A	

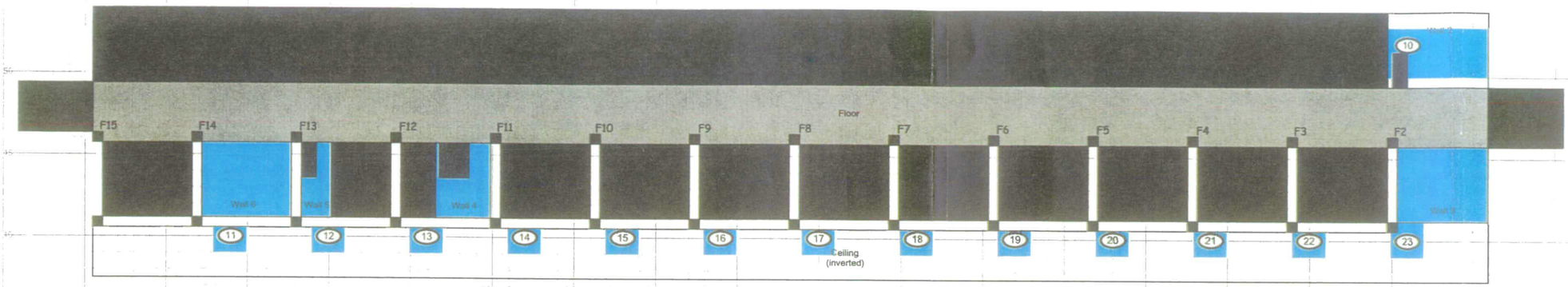
Comments:

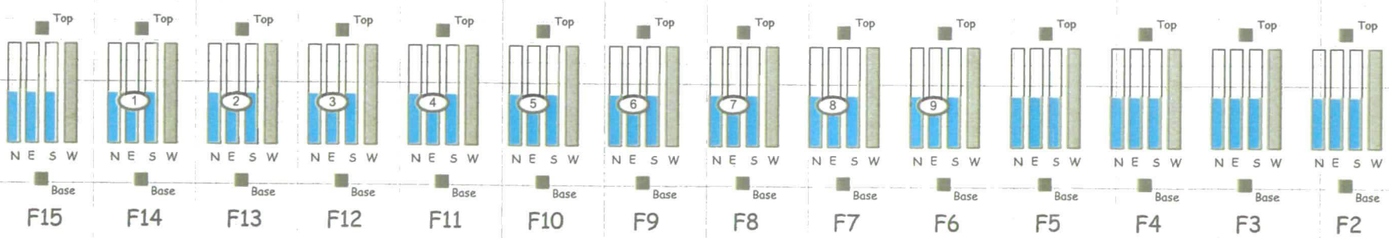
240

PRE-DEMOLITION SURVEY FOR B881

Survey Area: I Survey Unit: 881I08 Classification: 2
Building: 881
Survey Unit Description: Building 881, Management Unit I, Room 116, Walls & Ceilling
Total Area: 609 sq. m. Total Floor Area: 245 sq. m.
Grid Spacing for Survey Points: 6 m. X 6 m.

Room 116





STARTING POINT FOR SQUARE SAMPLING GRID (X14, Y16)

Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 2, 3, 4, 6, 8

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL COMPANY

MAP ID: 03-0568/881I08-SC June 04, 2004

241

Survey Area: I	Survey Unit: 881I09	Building: 881

Description: Building 881, Management Unit I, Room 144 North, Floor

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 52 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 3

Nbr Random Measurements Performed: 60 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 3

Alpha

Maximum:	233.3 dpm/100cm²
Minimum:	-2.6 dpm/100cm²
Mean:	79.9 dpm/100cm²
Standard Deviation:	44.7
QC Maximum:	160.6 dpm/100cm²
QC Minimum:	87.2 dpm/100cm²
QC Mean:	116.2 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 52 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 60 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	2.7 dpm/100cm²
Minimum:	-0.3 dpm/100cm²
Mean:	0.3 dpm/100cm²
Standard Deviation:	1.2
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

242

Survey Area: I	Survey Unit: 881I09	Building: 881

Description: Building 881, Management Unit I, Room 144 North, Floor

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	702567	06/07/04	Electra	675	DP-8	12/01/04	0.176	NA	93.0	NA	S
2	702575	06/07/04	Electra	632	DP-8	07/07/04	0.163	NA	93.0	NA	S
3	903346	06/07/04	Electra	681	DP-8	06/29/04	0.151	NA	93.0	NA	S
4	702567	06/08/04	Electra	681	DP-8	06/29/04	0.151	NA	93.0	NA	S
5	702575	06/08/04	Electra	632	DP-8	07/07/04	0.163	NA	93.0	NA	S
6	903346	06/08/04	Electra	675	DP-8	12/01/04	0.176	NA	93.0	NA	S
7	711447	06/08/04	Electra	1681	DP-6	10/07/04	0.212	NA	93.0	NA	T
8	903346	06/09/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
9	712193	06/09/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	Q

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

243

Survey Area: I	Survey Unit: 881I09	Building: 881

Description: Building 881, Management Unit I, Room 144 North, Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I09PRP-N001	8	-0.3	N/A	
881I09PRP-N002	8	-0.3	N/A	
881I09PRP-N003	8	2.7	N/A	
881I09PRP-N004	8	2.7	N/A	
881I09PRP-N005	8	-0.3	N/A	
881I09PRP-N006	8	2.7	N/A	
881I09PRP-N007	8	-0.3	N/A	
881I09PRP-N008	8	-0.3	N/A	
881I09PRP-N009	8	-0.3	N/A	
881I09PRP-N010	8	-0.3	N/A	
881I09PRP-N011	8	-0.3	N/A	
881I09PRP-N012	8	-0.3	N/A	
881I09PRP-N013	8	-0.3	N/A	
881I09PRP-N014	8	2.7	N/A	
881I09PRP-N015	8	-0.3	N/A	
881I09PRP-N016	8	-0.3	N/A	
881I09PRP-N017	8	-0.3	N/A	
881I09PRP-N018	8	-0.3	N/A	
881I09PRP-N019	8	2.7	N/A	
881I09PRP-N020	8	2.7	N/A	
881I09PRP-N021	8	-0.3	N/A	
881I09PRP-N022	8	-0.3	N/A	
881I09PRP-N023	8	-0.3	N/A	
881I09PRP-N024	8	-0.3	N/A	
881I09PRP-N025	8	-0.3	N/A	
881I09PRP-N026	8	-0.3	N/A	
881I09PRP-N027	8	-0.3	N/A	
881I09PRP-N028	8	2.7	N/A	
881I09PRP-N029	8	-0.3	N/A	

244

Survey Area: I	Survey Unit: 881I09	Building: 881

Description: Building 881, Management Unit I, Room 144 North, Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I09PRP-N030	8	2.7	N/A	
881I09PRP-N031	8	-0.3	N/A	
881I09PRP-N032	8	-0.3	N/A	
881I09PRP-N033	8	-0.3	N/A	
881I09PRP-N034	8	-0.3	N/A	
881I09PRP-N035	8	-0.3	N/A	
881I09PRP-N036	8	-0.3	N/A	
881I09PRP-N037	8	-0.3	N/A	
881I09PRP-N038	8	2.7	N/A	
881I09PRP-N039	8	-0.3	N/A	
881I09PRP-N040	8	-0.3	N/A	
881I09PRP-N041	8	-0.3	N/A	
881I09PRP-N042	8	-0.3	N/A	
881I09PRP-N043	8	-0.3	N/A	
881I09PRP-N044	8	2.7	N/A	
881I09PRP-N045	8	-0.3	N/A	
881I09PRP-N046	8	-0.3	N/A	
881I09PRP-N047	8	-0.3	N/A	
881I09PRP-N048	8	-0.3	N/A	
881I09PRP-N049	8	-0.3	N/A	
881I09PRP-N050	8	-0.3	N/A	
881I09PRP-N051	8	-0.3	N/A	
881I09PRP-N052	8	-0.3	N/A	
881I09PRP-N053	8	-0.3	N/A	
881I09PRP-N054	8	-0.3	N/A	
881I09PRP-N055	8	-0.3	N/A	
881I09PRP-N056	8	-0.3	N/A	
881I09PRP-N057	8	-0.3	N/A	
881I09PRP-N058	8	-0.3	N/A	

245

Survey Area: I	Survey Unit: 881I09	Building: 881

Description: Building 881, Management Unit I, Room 144 North, Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I09PRP-N059	8	2.7	N/A	
881I09PRP-N060	8	-0.3	N/A	

Comments:

246

Survey Area: I	Survey Unit: 881I09	Building: 881

Description: Building 881, Management Unit I, Room 144 North, Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I09PRP-N001	7	87.0	N/A	
881I09PRP-N002	7	87.0	N/A	
881I09PRP-N003	7	87.0	N/A	
881I09PRP-N004	7	134.2	N/A	
881I09PRP-N005	7	30.4	N/A	
881I09PRP-N006	7	35.1	N/A	
881I09PRP-N007	7	35.1	N/A	
881I09PRP-N008	7	30.4	N/A	
881I09PRP-N009	7	35.1	N/A	
881I09PRP-N010	7	44.6	N/A	
881I09PRP-N011	7	82.3	N/A	
881I09PRP-N012	7	39.9	N/A	
881I09PRP-N013	7	101.2	N/A	
881I09QRP-N013	9	100.9	N/A	
881I09PRP-N014	7	87.0	N/A	
881I09PRP-N015	7	35.1	N/A	
881I09PRP-N016	7	77.6	N/A	
881I09PRP-N017	7	72.9	N/A	
881I09PRP-N018	7	63.4	N/A	
881I09PRP-N019	7	68.2	N/A	
881I09PRP-N020	7	16.3	N/A	
881I09PRP-N021	7	181.4	N/A	
881I09PRP-N022	7	58.7	N/A	
881I09PRP-N023	7	25.7	N/A	
881I09PRP-N024	7	30.4	N/A	
881I09PRP-N025	7	82.3	N/A	
881I09PRP-N026	7	68.2	N/A	

Survey Area: I	Survey Unit: 881I09	Building: 881

Description: Building 881, Management Unit I, Room 144 North, Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I09PRP-N027	7	72.9	N/A	
881I09PRP-N028	7	21.0	N/A	
881I09PRP-N029	7	30.4	N/A	
881I09PRP-N030	7	-2.6	N/A	
881I09PRP-N031	7	87.0	N/A	
881I09PRP-N032	7	49.3	N/A	
881I09PRP-N033	7	54.0	N/A	
881I09PRP-N034	7	72.9	N/A	
881I09PRP-N035	7	110.6	N/A	
881I09PRP-N036	7	110.6	N/A	
881I09PRP-N037	7	72.9	N/A	
881I09PRP-N038	7	58.7	N/A	
881I09QRP-N038	9	87.2	N/A	
881I09PRP-N039	7	82.3	N/A	
881I09PRP-N040	7	110.6	N/A	
881I09PRP-N041	7	129.5	N/A	
881I09PRP-N042	7	39.9	N/A	
881I09PRP-N043	7	77.6	N/A	
881I09PRP-N044	7	72.9	N/A	
881I09PRP-N045	7	124.8	N/A	
881I09PRP-N046	7	105.9	N/A	
881I09PRP-N047	7	63.4	N/A	
881I09PRP-N048	7	63.4	N/A	
881I09PRP-N049	7	72.9	N/A	
881I09PRP-N050	7	91.7	N/A	
881I09PRP-N051	7	105.9	N/A	
881I09PRP-N052	7	96.5	N/A	

248

Survey Area: I	Survey Unit: 881I09	Building: 881

Description: Building 881, Management Unit I, Room 144 North, Floor

Random/QC Total Surface Activity Data Sheet

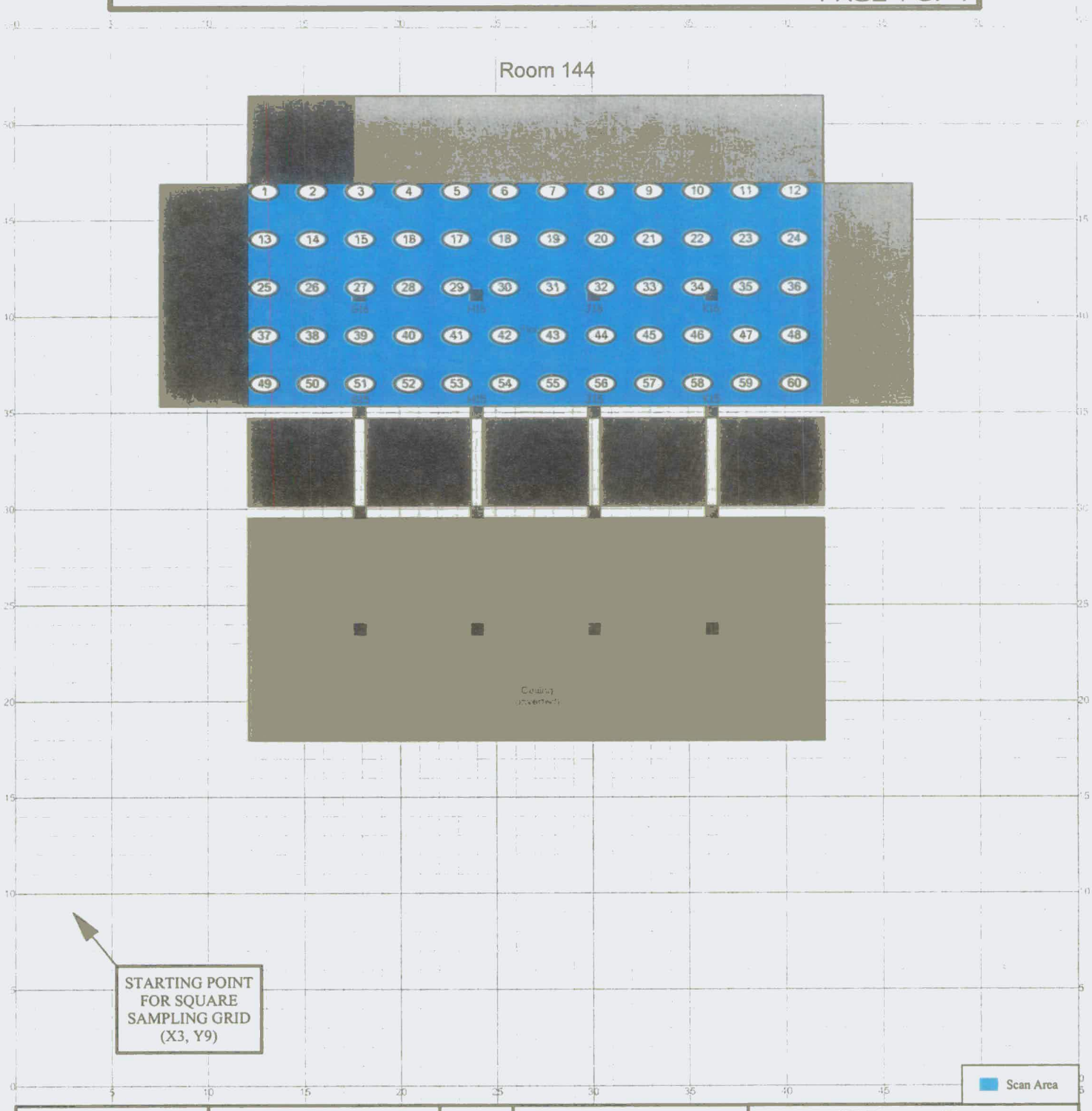
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I09PRP-N053	7	105.9	N/A	
881I09PRP-N054	7	63.4	N/A	
881I09PRP-N055	7	82.3	N/A	
881I09PRP-N056	7	233.3	N/A	
881I09QRP-N056	9	160.6	N/A	
881I09PRP-N057	7	181.4	N/A	
881I09PRP-N058	7	153.1	N/A	
881I09PRP-N059	7	176.6	N/A	
881I09PRP-N060	7	124.8	N/A	

Comments:

249

PRE-DEMOLITION SURVEY FOR B881

Survey Area: I **Survey Unit: 881I09** **Classification: 1**
Building: 881
Survey Unit Description: 881 Building Management Unit I, Room 144 North, Floor
Total Area: 346 sq. m. **Total Floor Area: 346 sq. m.**
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 2, 3, 4, 5, 6

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 **Prepared for:**

CH2MHILL Communications Group

KAISER-HILL COMPANY

MAP ID: 03-0568/881I09-SC **June 04, 2004**

250

Survey Area: I	Survey Unit: 881I10	Building: 881

Description: Building 881, Management Unit I, Room 144 North, Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 17 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 2

Alpha

Maximum:	102.2 dpm/100cm²
Minimum:	-31.5 dpm/100cm²
Mean:	33.6 dpm/100cm²
Standard Deviation:	34.6
QC Maximum:	103.2 dpm/100cm²
QC Minimum:	80.2 dpm/100cm²
QC Mean:	91.7 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 17 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	2.7 dpm/100cm²
Minimum:	-0.3 dpm/100cm²
Mean:	0.4 dpm/100cm²
Standard Deviation:	1.3
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: I	Survey Unit: 881I10	Building: 881

Description: Building 881, Management Unit I, Room 144 North, Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	711447	06/08/04	Electra	1518	DP-6	12/02/04	0.217	NA	93.0	NA	T/S
2	712193	06/08/04	Electra	681	DP-8	06/29/04	0.151	NA	93.0	NA	S
3	702575	06/08/04	Electra	632	DP-8	07/07/04	0.163	NA	93.0	NA	S
4	702567	06/08/04	Electra	675	DP-8	12/01/04	0.176	NA	93.0	NA	S
5	903346	06/09/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
6	712193	06/09/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	Q/S

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

252

Survey Area: I	Survey Unit: 881I10	Building: 881

Description: Building 881, Management Unit I, Room 144 North, Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I10PRP-N001	5	2.7	N/A	
881I10PRP-N002	5	-0.3	N/A	
881I10PRP-N003	5	-0.3	N/A	
881I10PRP-N004	5	-0.3	N/A	
881I10PRP-N005	5	-0.3	N/A	
881I10PRP-N006	5	2.7	N/A	
881I10PRP-N007	5	-0.3	N/A	
881I10PRP-N008	5	-0.3	N/A	
881I10PRP-N009	5	-0.3	N/A	
881I10PRP-N010	5	-0.3	N/A	
881I10PRP-N011	5	-0.3	N/A	
881I10PRP-N012	5	-0.3	N/A	
881I10PRP-N013	5	-0.3	N/A	
881I10PRP-N014	5	2.7	N/A	
881I10PRP-N015	5	-0.3	N/A	
881I10PRP-N016	5	-0.3	N/A	
881I10PRP-N017	5	2.7	N/A	

Comments:

253

Survey Area: I	Survey Unit: 881I10	Building: 881

Description: Building 881, Management Unit I, Room 144 North, Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

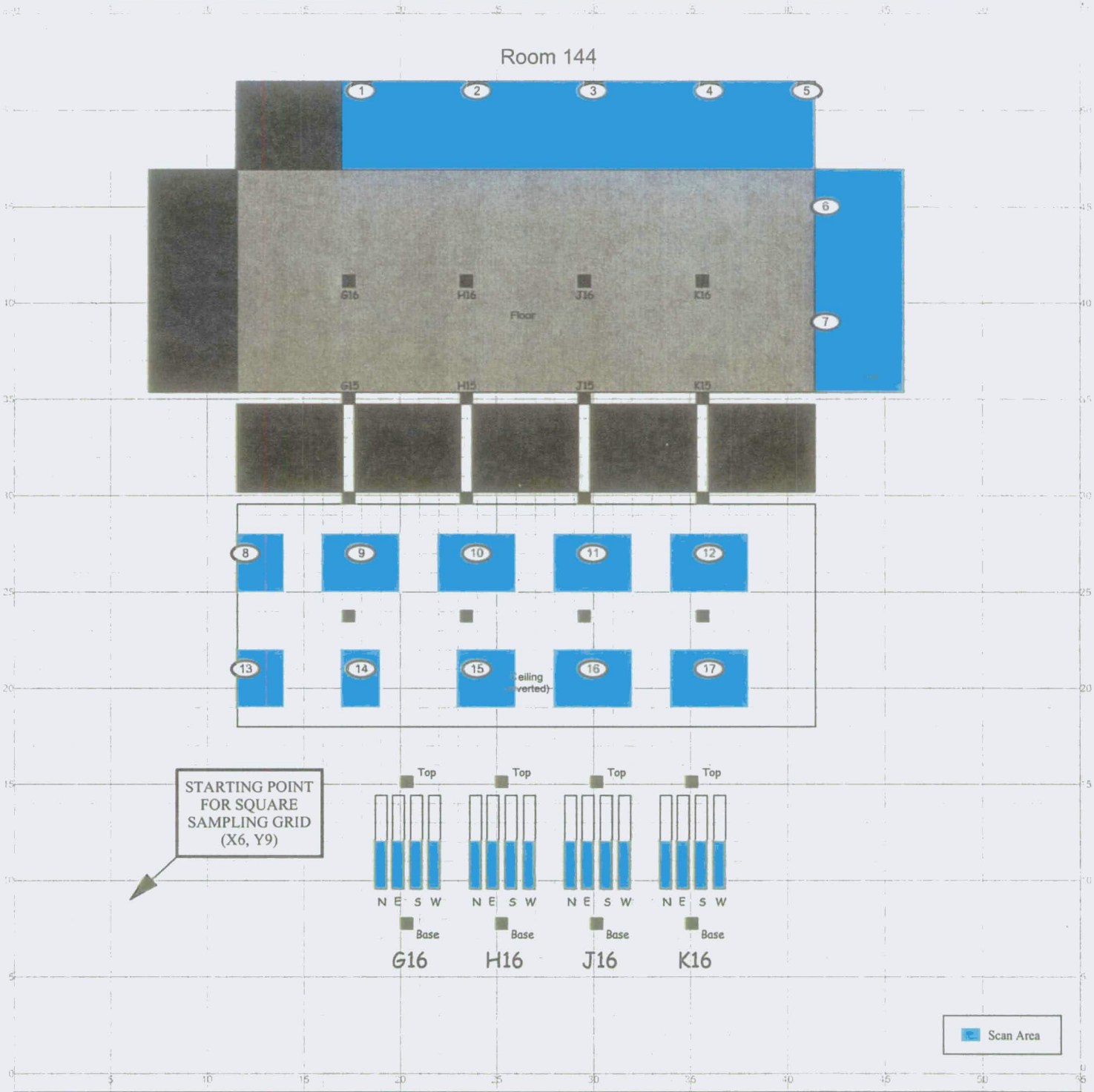
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881I10PRP-N001	1	33.1	N/A	
881I10PRP-N002	1	23.8	N/A	
881I10PRP-N003	1	14.6	N/A	
881I10PRP-N004	1	23.8	N/A	
881I10PRP-N005	1	102.2	N/A	
881I10QRP-N005	6	80.2	N/A	
881I10PRP-N006	1	102.2	N/A	
881I10PRP-N007	1	79.1	N/A	
881I10QRP-N007	6	103.2	N/A	
881I10PRP-N008	1	23.8	N/A	
881I10PRP-N009	1	46.9	N/A	
881I10PRP-N010	1	-31.5	N/A	
881I10PRP-N011	1	42.3	N/A	
881I10PRP-N012	1	10.0	N/A	
881I10PRP-N013	1	5.4	N/A	
881I10PRP-N014	1	46.9	N/A	
881I10PRP-N015	1	10.0	N/A	
881I10PRP-N016	1	14.6	N/A	
881I10PRP-N017	1	23.8	N/A	

Comments:

254

PRE-DEMOLITION SURVEY FOR B881

Survey Area: I Survey Unit: 881I10 Classification: 2
Building: 881
Survey Unit Description: 881 Building Management Unit I, Room 144 North, walls & ceiling
Total Area: 536 sq. m. Total Floor Area: 346 sq. m.
Grid Spacing for Survey Points: 6 m. X 6 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 2, 3, 4, 6

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group

KAISER HILL

MAP ID: 03-0568/881I10-SC June 04, 2004

255

Survey Area: K	Survey Unit: 881K01	Building: 881

Description: Building 881, Management Unit K, Rooms 122A-122D, Floor

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 26 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 28 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 2

Alpha

Maximum:	265.9 dpm/100cm²
Minimum:	-23.9 dpm/100cm²
Mean:	87.9 dpm/100cm²
Standard Deviation:	86.1
QC Maximum:	228.2 dpm/100cm²
QC Minimum:	214.3 dpm/100cm²
QC Mean:	221.2 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 26 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 28 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	8.8 dpm/100cm²
Minimum:	-0.3 dpm/100cm²
Mean:	2.4 dpm/100cm²
Standard Deviation:	2.8
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

256

Survey Area: K	Survey Unit: 881K01	Building: 881

Description: Building 881, Management Unit K, Rooms 122A-122D, Floor

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm²)		Survey Type
							Alpha	Beta	Alpha	Beta	
1	711447	06/13/04	Electra	673	DP-8	06/30/04	0.180	NA	93.0	NA	S
2	702575	06/13/04	Electra	660	DP-8	10/08/04	0.156	NA	93.0	NA	S
3	702567	06/13/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	T/S
4	702575	06/13/04	Electra	1417	DP-6	12/03/04	0.207	NA	93.0	NA	T/S
5	712193	06/13/04	Electra	662	DP-6	12/10/04	0.217	NA	93.0	NA	Q/S
6	712193	06/14/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

257

Survey Area: K	Survey Unit: 881K01	Building: 881

Description: Building 881, Management Unit K, Rooms 122A-122D, Floor

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K01PRP-N001	6	2.7	N/A	
881K01PRP-N002	6	8.8	N/A	
881K01PRP-N003	6	-0.3	N/A	
881K01PRP-N004	6	-0.3	N/A	
881K01PRP-N005	6	5.8	N/A	
881K01PRP-N006	6	-0.3	N/A	
881K01PRP-N007	6	-0.3	N/A	
881K01PRP-N008	6	2.7	N/A	
881K01PRP-N009	6	2.7	N/A	
881K01PRP-N010	6	2.7	N/A	
881K01PRP-N011	6	-0.3	N/A	
881K01PRP-N012	6	2.7	N/A	
881K01PRP-N013	6	-0.3	N/A	
881K01PRP-N014	6	-0.3	N/A	
881K01PRP-N015	6	5.8	N/A	
881K01PRP-N016	6	-0.3	N/A	
881K01PRP-N017	6	2.7	N/A	
881K01PRP-N018	6	2.7	N/A	
881K01PRP-N019	6	2.7	N/A	
881K01PRP-N020	6	-0.3	N/A	
881K01PRP-N021	6	2.7	N/A	
881K01PRP-N022	6	-0.3	N/A	
881K01PRP-N023	6	5.8	N/A	
881K01PRP-N024	6	5.8	N/A	
881K01PRP-N025	6	-0.3	N/A	
881K01PRP-N026	6	2.7	N/A	
881K01PRP-N027	6	8.8	N/A	
881K01PRP-N028	6	2.7	N/A	

Comments:

258

Survey Area: K	Survey Unit: 881K01	Building: 881

Description: Building 881, Management Unit K, Rooms 122A-122D, Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K01PRP-N001	3	-10.9	N/A	
881K01PRP-N002	4	-19.1	N/A	
881K01PRP-N003	3	255.2	N/A	
881K01QRP-N003	5	214.3	N/A	
881K01PRP-N004	4	222.5	N/A	
881K01QRP-N004	5	228.2	N/A	
881K01PRP-N005	3	7.5	N/A	
881K01PRP-N006	4	34.1	N/A	
881K01PRP-N007	3	191.0	N/A	
881K01PRP-N008	4	265.9	N/A	
881K01PRP-N009	3	-1.7	N/A	
881K01PRP-N010	4	-23.9	N/A	
881K01PRP-N011	3	85.5	N/A	
881K01PRP-N012	4	169.3	N/A	
881K01PRP-N013	3	-15.5	N/A	
881K01PRP-N014	4	34.1	N/A	
881K01PRP-N015	3	154.3	N/A	
881K01PRP-N016	4	111.4	N/A	
881K01PRP-N017	3	48.8	N/A	
881K01PRP-N018	4	82.4	N/A	
881K01PRP-N019	3	181.8	N/A	
881K01PRP-N020	4	106.5	N/A	
881K01PRP-N021	3	90.0	N/A	
881K01PRP-N022	4	116.2	N/A	
881K01PRP-N023	3	53.3	N/A	
881K01PRP-N024	4	34.1	N/A	
881K01PRP-N025	3	-15.5	N/A	

259

Survey Area: K	Survey Unit: 881K01	Building: 881

Description: Building 881, Management Unit K, Rooms 122A-122D, Floor

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K01PRP-N026	4	67.9	N/A	
881K01PRP-N027	3	177.2	N/A	
881K01PRP-N028	4	58.2	N/A	

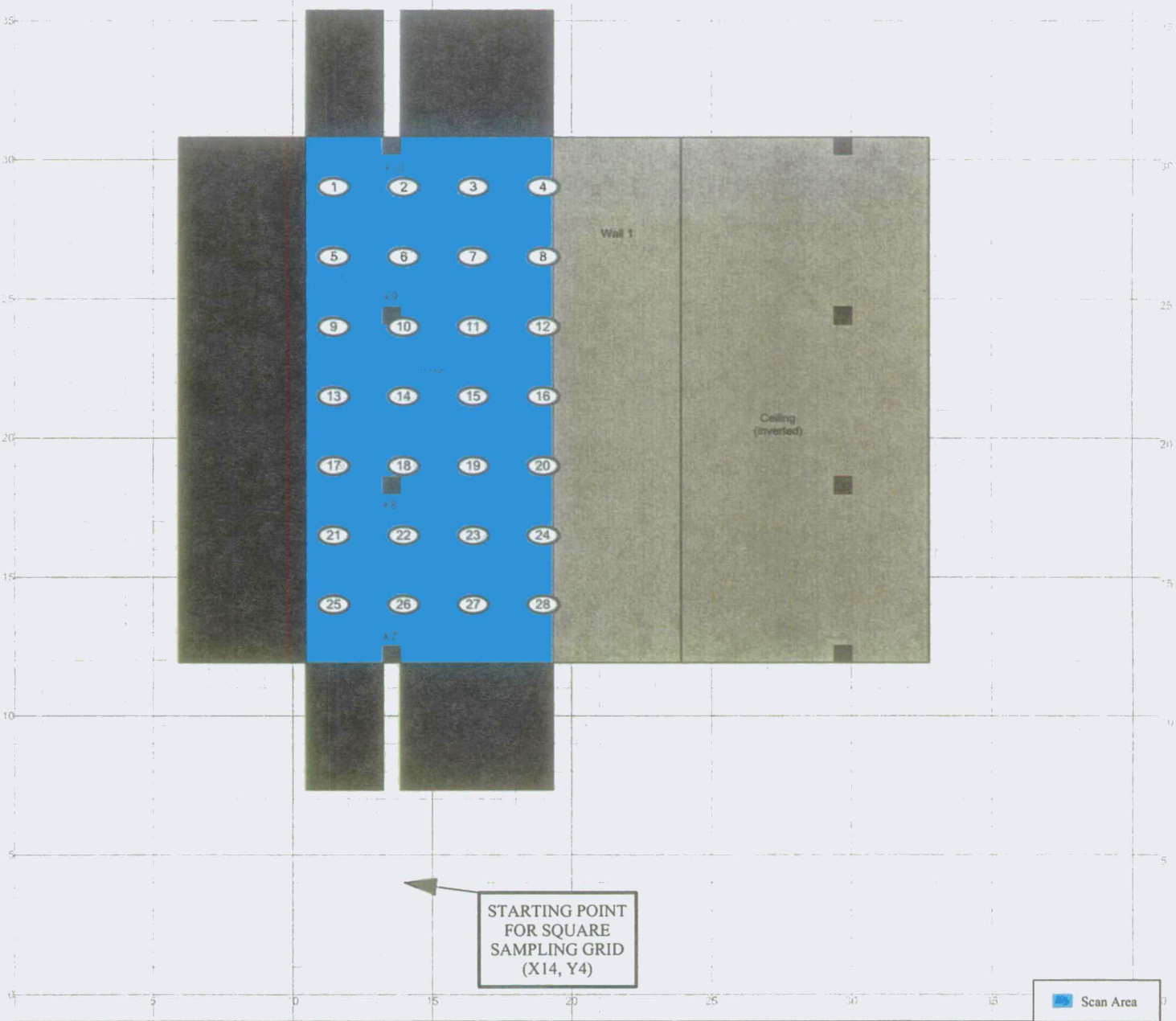
Comments:

260

PRE-DEMOLITION SURVEY FOR B881

Survey Area: K Survey Unit: 881K01 Classification: 1
Building: 881
Survey Unit Description: Building 881 Management Unit K, Rooms 122A - 122D, Floor
Total Area: 168 sq. m. Total Floor Area: 168 sq. m.
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.

Rooms 122A - 122D



Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 2, 3, 4, 5

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group KAISER-HILL

MAP ID: 03-0568/881K02-SC June 04, 2004

261

Survey Area: K	Survey Unit: 881K03	Building: 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Floors

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 97
Nbr Random Measurements Performed: 102
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 1
Nbr QC Required: 6
Nbr QC Performed: 6

Alpha

Maximum:	760.2	dpm/100cm²
Minimum:	-22.1	dpm/100cm²
Mean:	100.8	dpm/100cm²
Standard Deviation:	115.0	
QC Maximum:	248.1	dpm/100cm²
QC Minimum:	77.6	dpm/100cm²
QC Mean:	160.5	dpm/100cm²
Uranium $DCGL_W$:	5,000.0	dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0	dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 97
Nbr Random Measurements Performed: 102
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 1

Alpha

Maximum:	36.1	dpm/100cm²
Minimum:	-0.3	dpm/100cm²
Mean:	1.1	dpm/100cm²
Standard Deviation:	3.9	
Uranium $DCGL_W$:	1,000.0	

Media Sample Results

Nbr Random Required: 0
Nbr Random Collected: 0
Nbr Biased Required: 0
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

262

Survey Area: K | **Survey Unit:** 881K03 | **Building:** 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Floors

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	702567	06/13/04	Electra	673	DP-8	06/30/04	0.180	NA	93.0	NA	S
2	711447	06/13/04	Electra	674	DP-8	06/22/04	0.199	NA	93.0	NA	S
3	712193	06/13/04	Electra	660	DP-8	10/08/04	0.156	NA	93.0	NA	S
4	702567	06/14/04	Electra	2394	DP-6	08/19/04	0.214	NA	93.0	NA	T/S
5	702567	06/14/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
6	702575	06/14/04	SAC-4	961	NA	09/30/04	0.330	NA	16.0	NA	R
7	702575	06/17/04	Electra	3105	DP-6	11/18/04	0.196	NA	93.0	NA	T/S
8	712193	06/17/04	Electra	662	DP-6	12/10/04	0.217	NA	93.0	NA	Q/S
9	702575	06/17/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

263

Survey Area: K | **Survey Unit:** 881K03 | **Building:** 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K03PRP-N001	9	0.0	N/A	
881K03PRP-N002	9	0.0	N/A	
881K03PRP-N003	9	0.0	N/A	
881K03PRP-N004	9	3.0	N/A	
881K03PRP-N005	9	0.0	N/A	
881K03PRP-N006	9	0.0	N/A	
881K03PRP-N007	5	-0.3	N/A	
881K03PRP-N008	5	-0.3	N/A	
881K03PRP-N009	5	-0.3	N/A	
881K03PRP-N010	5	5.8	N/A	
881K03PRP-N011	5	-0.3	N/A	
881K03PRP-N012	9	3.0	N/A	
881K03PRP-N013	9	6.1	N/A	
881K03PRP-N014	9	3.0	N/A	
881K03PRP-N015	9	3.0	N/A	
881K03PRP-N016	9	0.0	N/A	
881K03PRP-N017	9	0.0	N/A	
881K03PRP-N018	5	-0.3	N/A	
881K03PRP-N019	5	-0.3	N/A	
881K03PRP-N020	5	-0.3	N/A	
881K03PRP-N021	5	8.8	N/A	
881K03PRP-N022	5	2.7	N/A	
881K03PRP-N023	9	0.0	N/A	
881K03PRP-N024	9	0.0	N/A	
881K03PRP-N025	9	0.0	N/A	
881K03PRP-N026	9	0.0	N/A	
881K03PRP-N027	9	0.0	N/A	
881K03PRP-N028	5	-0.3	N/A	
881K03PRP-N029	5	-0.3	N/A	

Survey Area: K	Survey Unit: 881K03	Building: 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K03PRP-N030	5	-0.3	N/A	
881K03PRP-N031	5	-0.3	N/A	
881K03PRP-N032	5	-0.3	N/A	
881K03PRP-N033	5	2.7	N/A	
881K03PRP-N034	5	-0.3	N/A	
881K03PRP-N035	5	-0.3	N/A	
881K03PRP-N036	5	2.7	N/A	
881K03PRP-N037	5	-0.3	N/A	
881K03PRP-N038	5	-0.3	N/A	
881K03PRP-N039	5	2.7	N/A	
881K03PRP-N040	5	2.7	N/A	
881K03PRP-N041	5	-0.3	N/A	
881K03PRP-N042	5	-0.3	N/A	
881K03PRP-N043	5	-0.3	N/A	
881K03PRP-N044	5	-0.3	N/A	
881K03PRP-N045	5	-0.3	N/A	
881K03PRP-N046	5	-0.3	N/A	
881K03PRP-N047	5	-0.3	N/A	
881K03PRP-N048	5	-0.3	N/A	
881K03PRP-N049	5	-0.3	N/A	
881K03PRP-N050	5	-0.3	N/A	
881K03PRP-N051	5	2.7	N/A	
881K03PRP-N052	5	-0.3	N/A	
881K03PRP-N053	5	2.7	N/A	
881K03PRP-N054	5	2.7	N/A	
881K03PRP-N055	5	-0.3	N/A	
881K03PRP-N056	5	-0.3	N/A	
881K03PRP-N057	5	-0.3	N/A	
881K03PRP-N058	5	-0.3	N/A	

265

Survey Area: K	Survey Unit: 881K03	Building: 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K03PRP-N059	5	2.7	N/A	
881K03PRP-N060	5	-0.3	N/A	
881K03PRP-N061	5	2.7	N/A	
881K03PRP-N062	5	2.7	N/A	
881K03PRP-N063	5	2.7	N/A	
881K03PRP-N064	5	-0.3	N/A	
881K03PRP-N065	5	2.7	N/A	
881K03PRP-N066	5	-0.3	N/A	
881K03PRP-N067	5	-0.3	N/A	
881K03PRP-N068	5	-0.3	N/A	
881K03PRP-N069	5	-0.3	N/A	
881K03PRP-N070	5	-0.3	N/A	
881K03PRP-N071	5	-0.3	N/A	
881K03PRP-N072	5	-0.3	N/A	
881K03PRP-N073	5	-0.3	N/A	
881K03PRP-N074	5	-0.3	N/A	
881K03PRP-N075	5	-0.3	N/A	
881K03PRP-N076	5	2.7	N/A	
881K03PRP-N077	5	-0.3	N/A	
881K03PRP-N078	5	-0.3	N/A	
881K03PRP-N079	5	-0.3	N/A	
881K03PRP-N080	5	5.8	N/A	
881K03PRP-N081	5	-0.3	N/A	
881K03PRP-N082	5	-0.3	N/A	
881K03PRP-N083	5	-0.3	N/A	
881K03PRP-N084	5	-0.3	N/A	
881K03PRP-N085	5	-0.3	N/A	
881K03PRP-N086	5	2.7	N/A	
881K03PRP-N087	5	2.7	N/A	

266

Survey Area: K	Survey Unit: 881K03	Building: 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Floors

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K03PRP-N088	5	2.7	N/A	
881K03PRP-N089	5	5.8	N/A	
881K03PRP-N090	5	-0.3	N/A	
881K03PRP-N091	5	-0.3	N/A	
881K03PRP-N092	5	-0.3	N/A	
881K03PRP-N093	5	-0.3	N/A	
881K03PRP-N094	5	-0.3	N/A	
881K03PRP-N095	5	2.7	N/A	
881K03PRP-N096	5	-0.3	N/A	
881K03PRP-N097	5	-0.3	N/A	
881K03PRP-N098	5	-0.3	N/A	
881K03PRP-N099	5	-0.3	N/A	
881K03PRP-N100	5	-0.3	N/A	
881K03PRP-N101	5	-0.3	N/A	
881K03PRP-N102	5	-0.3	N/A	

Biased Removable Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K03PBP-N103	5	36.1	N/A	

Comments:

267

Survey Area: K | **Survey Unit:** 881K03 | **Building:** 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K03PRP-N001	7	260.2	N/A	
881K03PRP-N002	7	188.8	N/A	
881K03PRP-N003	7	137.8	N/A	
881K03PRP-N004	7	367.4	N/A	
881K03PRP-N005	7	107.2	N/A	
881K03PRP-N006	7	40.8	N/A	
881K03PRP-N007	4	104.1	N/A	
881K03PRP-N008	4	136.8	N/A	
881K03PRP-N009	4	202.2	N/A	
881K03PRP-N010	4	43.3	N/A	
881K03PRP-N011	4	220.9	N/A	
881K03QRP-N011	8	192.8	N/A	
881K03PRP-N012	7	183.7	N/A	
881K03PRP-N013	7	224.5	N/A	
881K03PRP-N014	7	331.6	N/A	
881K03PRP-N015	7	250.0	N/A	
881K03PRP-N016	7	760.2	N/A	
881K03PRP-N017	7	137.8	N/A	
881K03PRP-N018	4	244.2	N/A	
881K03PRP-N019	4	220.9	N/A	
881K03PRP-N020	4	225.6	N/A	
881K03PRP-N021	4	202.2	N/A	
881K03PRP-N022	4	43.3	N/A	
881K03PRP-N023	7	158.2	N/A	
881K03PRP-N024	7	97.0	N/A	
881K03PRP-N025	7	40.8	N/A	
881K03PRP-N026	7	15.3	N/A	

268

Survey Area: K | **Survey Unit:** 881K03 | **Building:** 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K03PRP-N027	7	260.2	N/A	
881K03QRP-N027	8	188.2	N/A	
881K03PRP-N028	4	192.8	N/A	
881K03PRP-N029	4	62.0	N/A	
881K03PRP-N030	4	104.1	N/A	
881K03PRP-N031	4	272.3	N/A	
881K03PRP-N032	4	361.1	N/A	
881K03PRP-N033	4	57.3	N/A	
881K03PRP-N034	4	99.4	N/A	
881K03PRP-N035	4	10.6	N/A	
881K03PRP-N036	4	90.0	N/A	
881K03PRP-N037	4	127.4	N/A	
881K03PRP-N038	4	57.3	N/A	
881K03PRP-N039	4	24.6	N/A	
881K03PRP-N040	4	43.3	N/A	
881K03PRP-N041	4	183.5	N/A	
881K03QRP-N041	8	146.7	N/A	
881K03PRP-N042	4	15.3	N/A	
881K03PRP-N043	4	94.7	N/A	
881K03PRP-N044	4	48.0	N/A	
881K03PRP-N045	4	38.6	N/A	
881K03PRP-N046	4	38.6	N/A	
881K03PRP-N047	4	-3.4	N/A	
881K03PRP-N048	4	34.0	N/A	
881K03PRP-N049	4	19.9	N/A	
881K03PRP-N050	4	62.0	N/A	
881K03PRP-N051	4	80.7	N/A	

269

Survey Area: K	Survey Unit: 881K03	Building: 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K03PRP-N052	4	5.9	N/A	
881K03PRP-N053	4	-3.4	N/A	
881K03PRP-N054	4	-8.1	N/A	
881K03PRP-N055	4	62.0	N/A	
881K03PRP-N056	4	80.7	N/A	
881K03PRP-N057	4	15.3	N/A	
881K03PRP-N058	4	66.7	N/A	
881K03PRP-N059	4	104.1	N/A	
881K03PRP-N060	4	66.7	N/A	
881K03PRP-N061	4	38.6	N/A	
881K03PRP-N062	4	146.1	N/A	
881K03PRP-N063	4	305.0	N/A	
881K03PRP-N064	4	262.9	N/A	
881K03QRP-N064	8	248.1	N/A	
881K03PRP-N065	4	150.8	N/A	
881K03PRP-N066	4	15.3	N/A	
881K03PRP-N067	4	1.3	N/A	
881K03PRP-N068	4	62.0	N/A	
881K03PRP-N069	4	71.3	N/A	
881K03PRP-N070	4	80.7	N/A	
881K03PRP-N071	4	19.9	N/A	
881K03PRP-N072	4	10.6	N/A	
881K03PRP-N073	4	66.7	N/A	
881K03PRP-N074	4	146.1	N/A	
881K03PRP-N075	4	24.6	N/A	
881K03PRP-N076	4	136.8	N/A	
881K03PRP-N077	4	15.3	N/A	

270

Survey Area: K	Survey Unit: 881K03	Building: 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Floors

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K03PRP-N078	4	43.3	N/A	
881K03PRP-N079	4	66.7	N/A	
881K03PRP-N080	4	90.0	N/A	
881K03PRP-N081	4	57.3	N/A	
881K03PRP-N082	4	5.9	N/A	
881K03PRP-N083	4	1.3	N/A	
881K03PRP-N084	4	136.8	N/A	
881K03QRP-N084	8	109.8	N/A	
881K03PRP-N085	4	29.3	N/A	
881K03PRP-N086	4	15.3	N/A	
881K03PRP-N087	4	71.3	N/A	
881K03PRP-N088	4	24.6	N/A	
881K03PRP-N089	4	5.9	N/A	
881K03PRP-N090	4	1.3	N/A	
881K03PRP-N091	4	29.3	N/A	
881K03PRP-N092	4	10.6	N/A	
881K03PRP-N093	4	48.0	N/A	
881K03QRP-N093	8	77.6	N/A	
881K03PRP-N094	4	10.6	N/A	
881K03PRP-N095	4	10.6	N/A	
881K03PRP-N096	4	1.3	N/A	
881K03PRP-N097	4	10.6	N/A	
881K03PRP-N098	4	24.6	N/A	
881K03PRP-N099	4	5.9	N/A	
881K03PRP-N100	4	-22.1	N/A	
881K03PRP-N101	4	1.3	N/A	
881K03PRP-N102	4	80.7	N/A	

271

Survey Area: K	Survey Unit: 881K03	Building: 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Floors

Biased Total Surface Activity Data Sheet

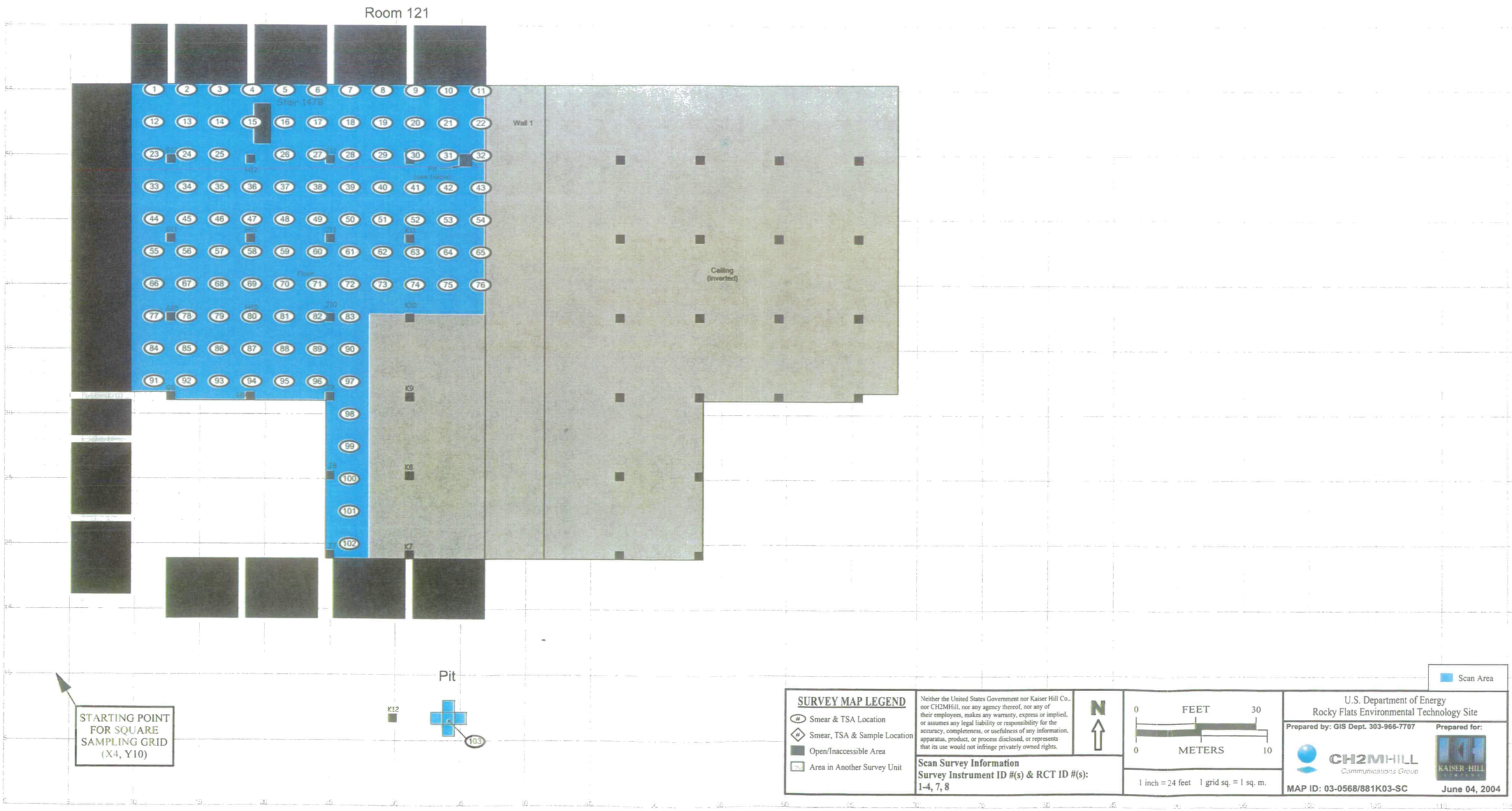
Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K03PBP-N103	4	359.8	N/A	

Comments:

272

PRE-DEMOLITION SURVEY FOR B881

Survey Area: K Survey Unit: 881K03 Classification: 1
Building: 881
Survey Unit Description: Building 881 Management Unit K, Rooms 121, 145 & 147, Floor
Total Area: 641 sq. m. Total Floor Area: 641 sq. m.
Grid Spacing for Survey Points: 2.5 m. X 2.5 m.



273

Survey Area: K	Survey Unit: 881K04	Building: 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 23 | Nbr Biased Measurements Performed: 4 | Nbr QC Performed: 2

Alpha

Maximum:	130.6 dpm/100cm²
Minimum:	-13.6 dpm/100cm²
Mean:	21.7 dpm/100cm²
Standard Deviation:	31.1
QC Maximum:	57.6 dpm/100cm²
QC Minimum:	43.7 dpm/100cm²
QC Mean:	50.7 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 23 | Nbr Biased Measurements Performed: 4

Alpha

Maximum:	5.8 dpm/100cm²
Minimum:	-0.3 dpm/100cm²
Mean:	1.2 dpm/100cm²
Standard Deviation:	1.9
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

274

Survey Area: K	Survey Unit: 881K04	Building: 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	711447	06/14/04	Electra	1241	DP-8	10/06/04	0.193	NA	93.0	NA	S
2	712193	06/14/04	Electra	677	DP-8	07/06/04	0.188	NA	93.0	NA	S
3	702575	06/14/04	Electra	667	DP-6	10/22/04	0.222	NA	93.0	NA	T/S
4	702567	06/14/04	Electra	1417	DP-6	12/03/04	0.207	NA	93.0	NA	T/S
5	700835	06/14/04	Electra	680	DP-8	12/08/04	0.167	NA	93.0	NA	S
6	712193	06/14/04	Electra	662	DP-6	12/10/04	0.217	NA	93.0	NA	Q/S
7	702575	06/14/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

275

Survey Area: K	Survey Unit: 881K04	Building: 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K04PRP-N001	7	5.8	N/A	
881K04PRP-N002	7	-0.3	N/A	
881K04PRP-N003	7	2.7	N/A	
881K04PRP-N004	7	-0.3	N/A	
881K04PRP-N005	7	-0.3	N/A	
881K04PRP-N006	7	2.7	N/A	
881K04PRP-N007	7	-0.3	N/A	
881K04PRP-N008	7	-0.3	N/A	
881K04PRP-N009	7	-0.3	N/A	
881K04PRP-N010	7	-0.3	N/A	
881K04PRP-N011	7	-0.3	N/A	
881K04PRP-N012	7	-0.3	N/A	
881K04PRP-N013	7	2.7	N/A	
881K04PRP-N014	7	-0.3	N/A	
881K04PRP-N015	7	-0.3	N/A	
881K04PRP-N016	7	2.7	N/A	
881K04PRP-N017	7	5.8	N/A	
881K04PRP-N018	7	-0.3	N/A	
881K04PRP-N019	7	2.7	N/A	
881K04PRP-N020	7	2.7	N/A	
881K04PRP-N021	7	-0.3	N/A	
881K04PRP-N022	7	-0.3	N/A	
881K04PRP-N023	7	-0.3	N/A	

276

Survey Area: K	Survey Unit: 881K04	Building: 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Walls and Ceiling

Biased Removable Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K04PBP-N024	7	2.7	N/A	
881K04PBP-N025	7	-0.3	N/A	
881K04PBP-N026	7	2.7	N/A	
881K04PBP-N027	7	2.7	N/A	

Comments:

277

Survey Area: K	Survey Unit: 881K04	Building: 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K04PRP-N001	3	4.4	N/A	
881K04PRP-N002	3	13.5	N/A	
881K04PRP-N003	4	75.3	N/A	
881K04QRP-N003	6	43.7	N/A	
881K04PRP-N004	3	130.6	N/A	
881K04PRP-N005	3	40.5	N/A	
881K04PRP-N006	3	4.4	N/A	
881K04PRP-N007	4	12.5	N/A	
881K04PRP-N008	4	17.4	N/A	
881K04PRP-N009	4	51.2	N/A	
881K04PRP-N010	4	22.2	N/A	
881K04PRP-N011	4	17.4	N/A	
881K04PRP-N012	3	31.5	N/A	
881K04PRP-N013	4	75.3	N/A	
881K04QRP-N013	6	57.6	N/A	
881K04PRP-N014	3	-9.1	N/A	
881K04PRP-N015	4	27.0	N/A	
881K04PRP-N016	3	18.0	N/A	
881K04PRP-N017	3	8.9	N/A	
881K04PRP-N018	4	2.9	N/A	
881K04PRP-N019	4	2.9	N/A	
881K04PRP-N020	3	-13.6	N/A	
881K04PRP-N021	4	22.2	N/A	
881K04PRP-N022	3	-0.1	N/A	
881K04PRP-N023	4	-11.6	N/A	

Survey Area: K	Survey Unit: 881K04	Building: 881

Description: Building 881 Management Unit K, Rooms 121, 145 and 147, Walls and Ceiling

Biased Total Surface Activity Data Sheet

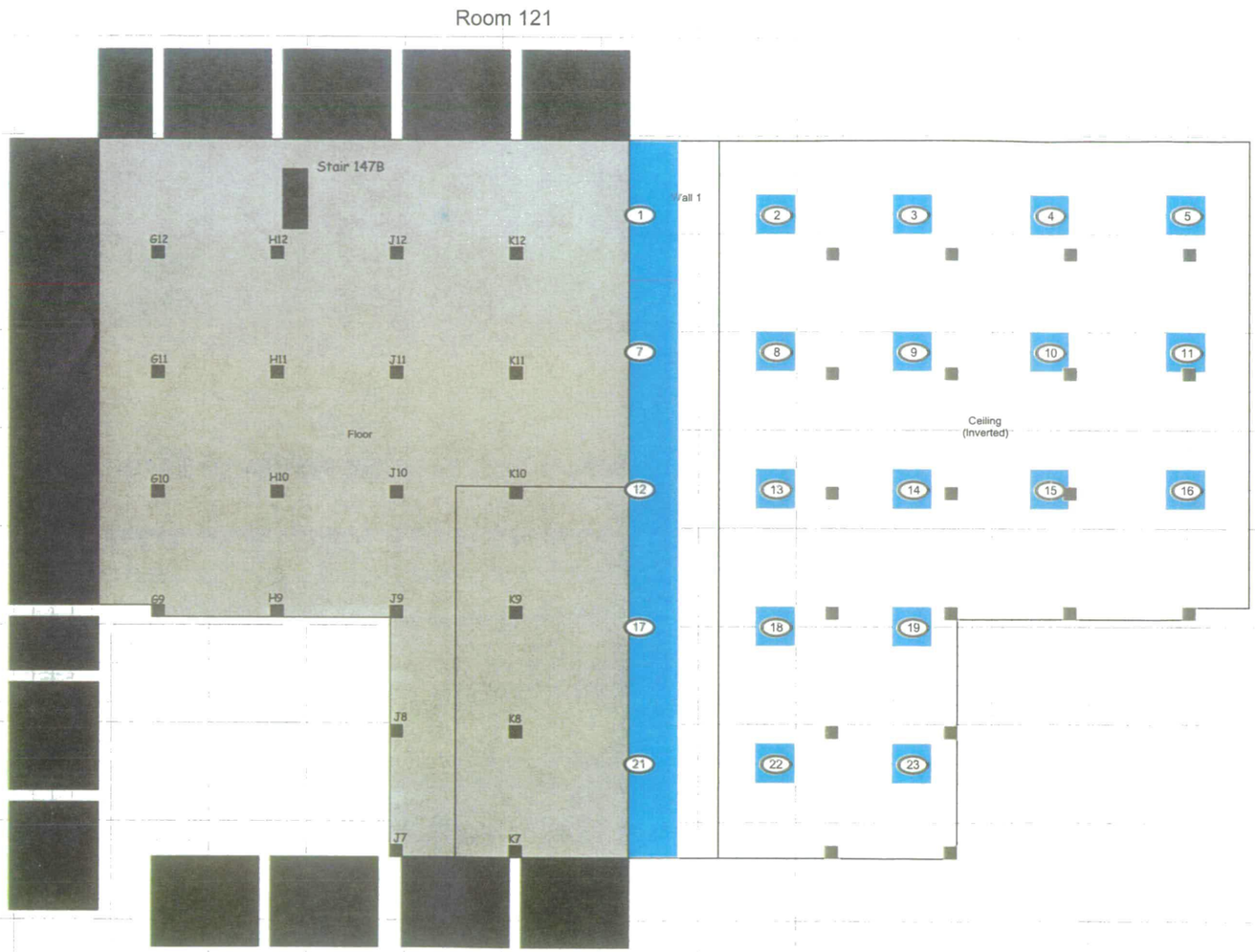
Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K04PBP-N024	4	5.6	N/A	
881K04PBP-N025	4	24.9	N/A	
881K04PBP-N026	3	10.7	N/A	
881K04PBP-N027	3	1.7	N/A	

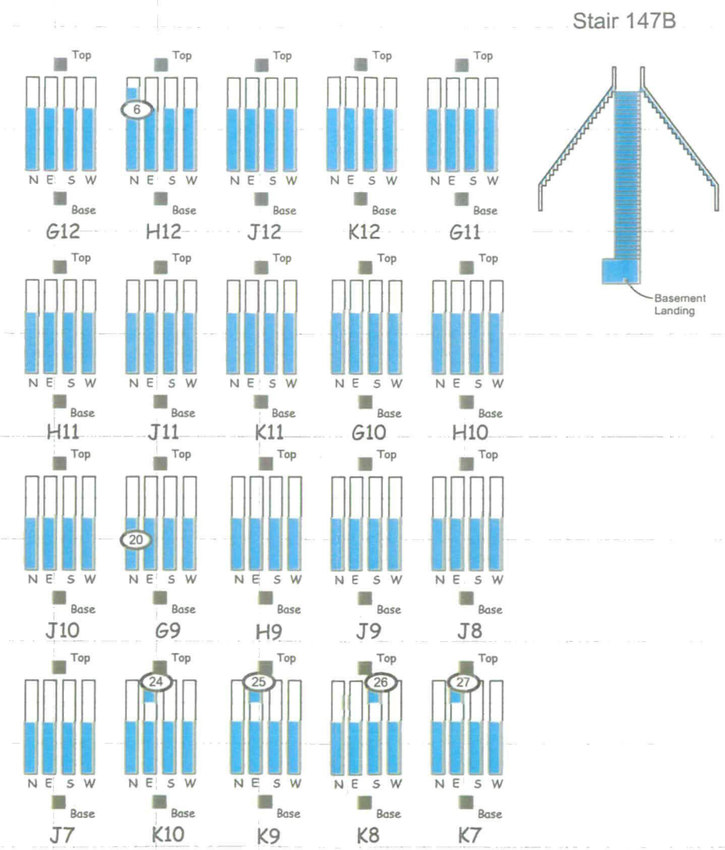
Comments:

279

PRE-DEMOLITION SURVEY FOR B881

Survey Area: K Survey Unit: 881K04 Classification: 2
Building: 881
Survey Unit Description: Building 881 Management Unit K, Rooms 121, 145 & 147, Wall & Ceiling
Total Area: 808 sq. m. Total Floor Area: 641 sq. m.
Grid Spacing for Survey Points: 7 m. X 7 m.





Scan Area

STARTING POINT FOR SQUARE SAMPLING GRID (X37, Y9)

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10
1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s): 1-6

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707
CH2MHILL Communications Group
Prepared for: KAISER-HILL COMPANY

MAP ID: 03-0568/881K04-SC
June 04, 2004

280

Survey Area: K	Survey Unit: 881K05	Building: 881

Description: Building 881, Management Unit K, Room 121, Manhole Pit, all surfaces

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0 | Nbr QC Required: 2

Nbr Random Measurements Performed: 16 | Nbr Biased Measurements Performed: 0 | Nbr QC Performed: 2

Alpha

Maximum:	59.9 dpm/100cm²
Minimum:	-6.4 dpm/100cm²
Mean:	22.3 dpm/100cm²
Standard Deviation:	19.4
QC Maximum:	40.4 dpm/100cm²
QC Minimum:	26.9 dpm/100cm²
QC Mean:	33.7 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 15 | Nbr Biased Measurements Required: 0

Nbr Random Measurements Performed: 16 | Nbr Biased Measurements Performed: 0

Alpha

Maximum:	5.5 dpm/100cm²
Minimum:	-0.6 dpm/100cm²
Mean:	2.0 dpm/100cm²
Standard Deviation:	2.4
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0 | Nbr Biased Required: 0

Nbr Random Collected: 0 | Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

281

Survey Area: K	Survey Unit: 881K05	Building: 881

Description: Building 881, Management Unit K, Room 121, Manhole Pit, all surfaces

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm²)		Survey Type
							Alpha	Beta	Alpha	Beta	
1	712193	06/15/04	Electra	3105	DP-6	11/18/04	0.196	NA	93.0	NA	T/S
2	712193	06/15/04	SAC-4	830	NA	11/18/04	0.330	NA	16.0	NA	R
3	711447	06/15/04	Electra	3109	DP-6	12/14/04	0.223	NA	93.0	NA	Q/S

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

282

Survey Area: K	Survey Unit: 881K05	Building: 881

Description: Building 881, Management Unit K, Room 121, Manhole Pit, all surfaces

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K05PRP-N001	2	5.5	N/A	
881K05PRP-N002	2	-0.6	N/A	
881K05PRP-N003	2	5.5	N/A	
881K05PRP-N004	2	2.4	N/A	
881K05PRP-N005	2	2.4	N/A	
881K05PRP-N006	2	-0.6	N/A	
881K05PRP-N007	2	-0.6	N/A	
881K05PRP-N008	2	2.4	N/A	
881K05PRP-N009	2	-0.6	N/A	
881K05PRP-N010	2	2.4	N/A	
881K05PRP-N011	2	-0.6	N/A	
881K05PRP-N012	2	5.5	N/A	
881K05PRP-N013	2	5.5	N/A	
881K05PRP-N014	2	2.4	N/A	
881K05PRP-N015	2	2.4	N/A	
881K05PRP-N016	2	-0.6	N/A	

Comments:

283

Survey Area: K	Survey Unit: 881K05	Building: 881

Description: Building 881, Management Unit K, Room 121, Manhole Pit, all surfaces

Random/QC Total Surface Activity Data Sheet

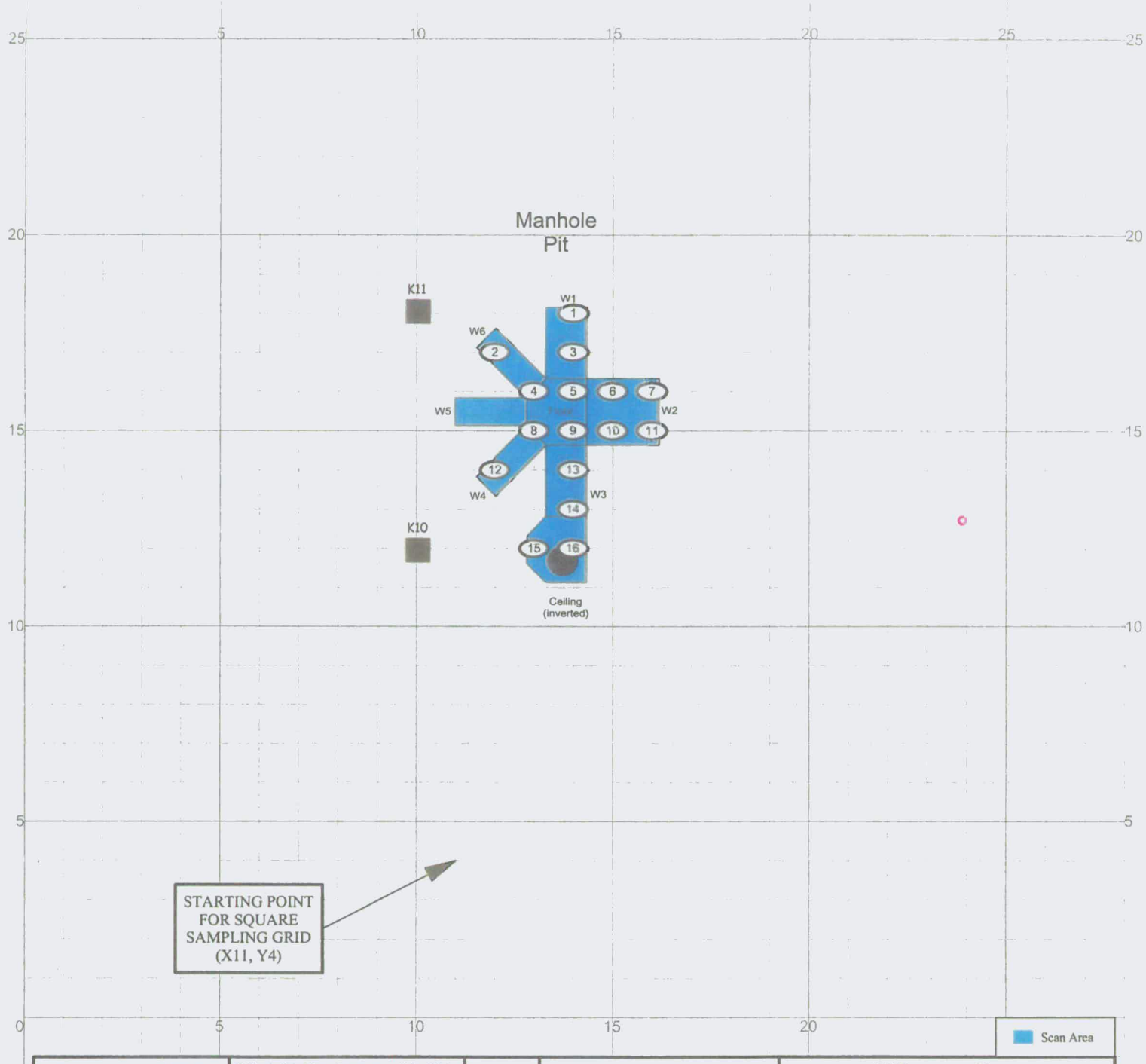
Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881K05PRP-N001	1	8.9	N/A	
881K05PRP-N002	1	44.6	N/A	
881K05PRP-N003	1	34.4	N/A	
881K05QRP-N003	3	26.9	N/A	
881K05PRP-N004	1	19.1	N/A	
881K05PRP-N005	1	19.1	N/A	
881K05PRP-N006	1	8.9	N/A	
881K05PRP-N007	1	24.2	N/A	
881K05PRP-N008	1	14.0	N/A	
881K05PRP-N009	1	-6.4	N/A	
881K05PRP-N010	1	19.1	N/A	
881K05PRP-N011	1	24.2	N/A	
881K05PRP-N012	1	54.8	N/A	
881K05PRP-N013	1	34.4	N/A	
881K05PRP-N014	1	59.9	N/A	
881K05QRP-N014	3	40.4	N/A	
881K05PRP-N015	1	-1.3	N/A	
881K05PRP-N016	1	-1.3	N/A	

Comments:

284

PRE-DEMOLITION SURVEY FOR B881

Survey Area: K Survey Unit: 881K05 Classification: 1
Building: 881
Survey Unit Description: Building 881 Management Unit K, Room 121, Manhole Pit, All Surfaces
Total Area: 15 sq. m. Total Floor Area: 2 sq. m.
Grid Spacing for Survey Points: 1m. X 1m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 15
0 METERS 5

1 inch = 12 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 3

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group

KAISER-HILL

MAP ID: 03-0568/881K05-SC June 14, 2004

285

Survey Area: M	Survey Unit: 881M05	Building: 881

Description: Building 881, Management Unit M, Rooms 162, 163, 164, 165 & 166, Floors, Walls and Ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 36
Nbr Random Measurements Performed: 51
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 1
Nbr QC Required: 3
Nbr QC Performed: 3

Alpha

Maximum:	1,297.9 dpm/100cm²
Minimum:	-17.2 dpm/100cm²
Mean:	117.3 dpm/100cm²
Standard Deviation:	200.5
QC Maximum:	250.7 dpm/100cm²
QC Minimum:	126.9 dpm/100cm²
QC Mean:	206.4 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 36
Nbr Random Measurements Performed: 51
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 1

Alpha

Maximum:	505.2 dpm/100cm²
Minimum:	-0.9 dpm/100cm²
Mean:	12.8 dpm/100cm²
Standard Deviation:	70.1
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0
Nbr Random Collected: 0
Nbr Biased Required: 0
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

286

Survey Area: M	Survey Unit: 881M05	Building: 881

Description: Building 881, Management Unit M, Rooms 162, 163, 164, 165 & 166, Floors, Walls and Ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency		A-Priori MDA (dpm/100cm²)		Survey Type
							Alpha	Beta	Alpha	Beta	
1	903346	06/12/04	Electra	1417	DP-6	12/03/04	0.207	NA	93.0	NA	T/I/S
2	700835	06/12/04	SAC-4	961	NA	09/30/04	0.330	NA	16.0	NA	R
3	903346	06/12/04	Electra	1241	AP-6	10/06/04	0.193	NA	93.0	NA	S
4	712193	06/12/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	Q

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

287

Survey Area: M	Survey Unit: 881M05	Building: 881

Description: Building 881, Management Unit M, Rooms 162, 163, 164, 165 & 166, Floors, Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M05PRP-N001	2	5.2	N/A	
881M05PRP-N002	2	-0.9	N/A	
881M05PRP-N003	2	-0.9	N/A	
881M05PRP-N004	2	-0.9	N/A	
881M05PRP-N005	2	11.2	N/A	
881M05PRP-N006	2	17.3	N/A	
881M05PRP-N007	2	5.2	N/A	
881M05PRP-N008	2	2.1	N/A	
881M05PRP-N009	2	5.2	N/A	
881M05PRP-N010	2	-0.9	N/A	
881M05PRP-N011	2	2.1	N/A	
881M05PRP-N012	2	2.1	N/A	
881M05PRP-N013	2	17.3	N/A	
881M05PRP-N014	2	2.1	N/A	
881M05PRP-N015	2	5.2	N/A	
881M05PRP-N016	2	-0.9	N/A	
881M05PRP-N017	2	8.2	N/A	
881M05PRP-N018	2	5.2	N/A	
881M05PRP-N019	2	2.1	N/A	
881M05PRP-N020	2	5.2	N/A	
881M05PRP-N021	2	2.1	N/A	
881M05PRP-N022	2	2.1	N/A	
881M05PRP-N023	2	2.1	N/A	
881M05PRP-N024	2	2.1	N/A	
881M05PRP-N025	2	5.2	N/A	
881M05PRP-N026	2	-0.9	N/A	
881M05PRP-N027	2	-0.9	N/A	
881M05PRP-N028	2	-0.9	N/A	
881M05PRP-N029	2	50.6	N/A	

Survey Area: M	Survey Unit: 881M05	Building: 881

Description: Building 881, Management Unit M, Rooms 162, 163, 164, 165 & 166, Floors, Walls and Ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M05PRP-N030	2	2.1	N/A	
881M05PRP-N031	2	-0.9	N/A	
881M05PRP-N032	2	-0.9	N/A	
881M05PRP-N033	2	2.1	N/A	
881M05PRP-N034	2	-0.9	N/A	
881M05PRP-N035	2	-0.9	N/A	
881M05PRP-N036	2	2.1	N/A	
881M05PRP-N037	2	-0.9	N/A	
881M05PRP-N038	2	2.1	N/A	
881M05PRP-N039	2	-0.9	N/A	
881M05PRP-N040	2	-0.9	N/A	
881M05PRP-N041	2	-0.9	N/A	
881M05PRP-N042	2	-0.9	N/A	
881M05PRP-N043	2	2.1	N/A	
881M05PRP-N044	2	2.1	N/A	
881M05PRP-N045	2	5.2	N/A	
881M05PRP-N046	2	-0.9	N/A	
881M05PRP-N047	2	-0.9	N/A	
881M05PRP-N048	2	-0.9	N/A	
881M05PRP-N049	2	2.1	N/A	
881M05PRP-N050	2	-0.9	N/A	
881M05PRP-N051	2	-0.9	N/A	

Biased Removable Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M05PBP-N052	2	505.2	N/A	

Comments:

289

Survey Area: M	Survey Unit: 881M05	Building: 881

Description: Building 881, Management Unit M, Rooms 162, 163, 164, 165 & 166, Floors, Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M05PRP-N001	1	69.7	N/A	
881M05PRP-N002	1	6.9	N/A	
881M05PRP-N003	1	-2.8	N/A	
881M05PRP-N004	1	40.7	N/A	
881M05PRP-N005	1	74.5	N/A	
881M05PRP-N006	1	325.7	N/A	
881M05QRP-N006	4	250.7	N/A	
881M05PRP-N007	1	6.9	N/A	
881M05PRP-N008	1	118.0	N/A	
881M05PRP-N009	1	35.9	N/A	
881M05PRP-N010	1	40.7	N/A	
881M05PRP-N011	1	-17.2	N/A	
881M05PRP-N012	1	2.1	N/A	
881M05PRP-N013	1	461.0	N/A	
881M05PRP-N014	1	176.0	N/A	
881M05PRP-N015	1	533.5	N/A	
881M05PRP-N016	1	248.5	N/A	
881M05PRP-N017	1	166.3	N/A	
881M05PRP-N018	1	11.7	N/A	
881M05PRP-N019	1	6.9	N/A	
881M05PRP-N020	1	6.9	N/A	
881M05PRP-N021	1	11.7	N/A	
881M05PRP-N022	1	205.0	N/A	
881M05PRP-N023	1	195.3	N/A	
881M05QRP-N023	4	126.9	N/A	
881M05PRP-N024	1	74.5	N/A	
881M05PRP-N025	1	147.0	N/A	

Survey Area: M	Survey Unit: 881M05	Building: 881

Description: Building 881, Management Unit M, Rooms 162, 163, 164, 165 & 166, Floors, Walls and Ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M05PRP-N026	1	40.7	N/A	
881M05PRP-N027	1	113.2	N/A	
881M05PRP-N028	1	84.2	N/A	
881M05PRP-N029	1	151.8	N/A	
881M05PRP-N030	1	142.2	N/A	
881M05PRP-N031	1	156.7	N/A	
881M05PRP-N032	1	64.9	N/A	
881M05PRP-N033	1	16.6	N/A	
881M05PRP-N034	1	55.2	N/A	
881M05PRP-N035	1	31.1	N/A	
881M05PRP-N036	1	98.7	N/A	
881M05PRP-N037	1	55.2	N/A	
881M05PRP-N038	1	16.6	N/A	
881M05PRP-N039	1	11.7	N/A	
881M05PRP-N040	1	267.8	N/A	
881M05QRP-N040	4	241.5	N/A	
881M05PRP-N041	1	11.7	N/A	
881M05PRP-N042	1	50.4	N/A	
881M05PRP-N043	1	16.6	N/A	
881M05PRP-N044	1	60.0	N/A	
881M05PRP-N045	1	21.4	N/A	
881M05PRP-N046	1	50.4	N/A	
881M05PRP-N047	1	98.7	N/A	
881M05PRP-N048	1	50.4	N/A	
881M05PRP-N049	1	103.5	N/A	
881M05PRP-N050	1	11.7	N/A	
881M05PRP-N051	1	74.5	N/A	

Survey Area: M	Survey Unit: 881M05	Building: 881

Description: Building 881, Management Unit M, Rooms 162, 163, 164, 165 & 166, Floors, Walls and Ceiling

Biased Total Surface Activity Data Sheet

Biased Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M05SBP-N052	1	1,297.9	N/A	

Comments: Scan surveys detected an initial Alpha Net Activity of 6,661.8 dpm/100cm2 at location 52. Eight (8) additional measurements were collected within the surrounding square meter and the results averaged. The average of the nine (9) measurements are reported. No further investigation is required.

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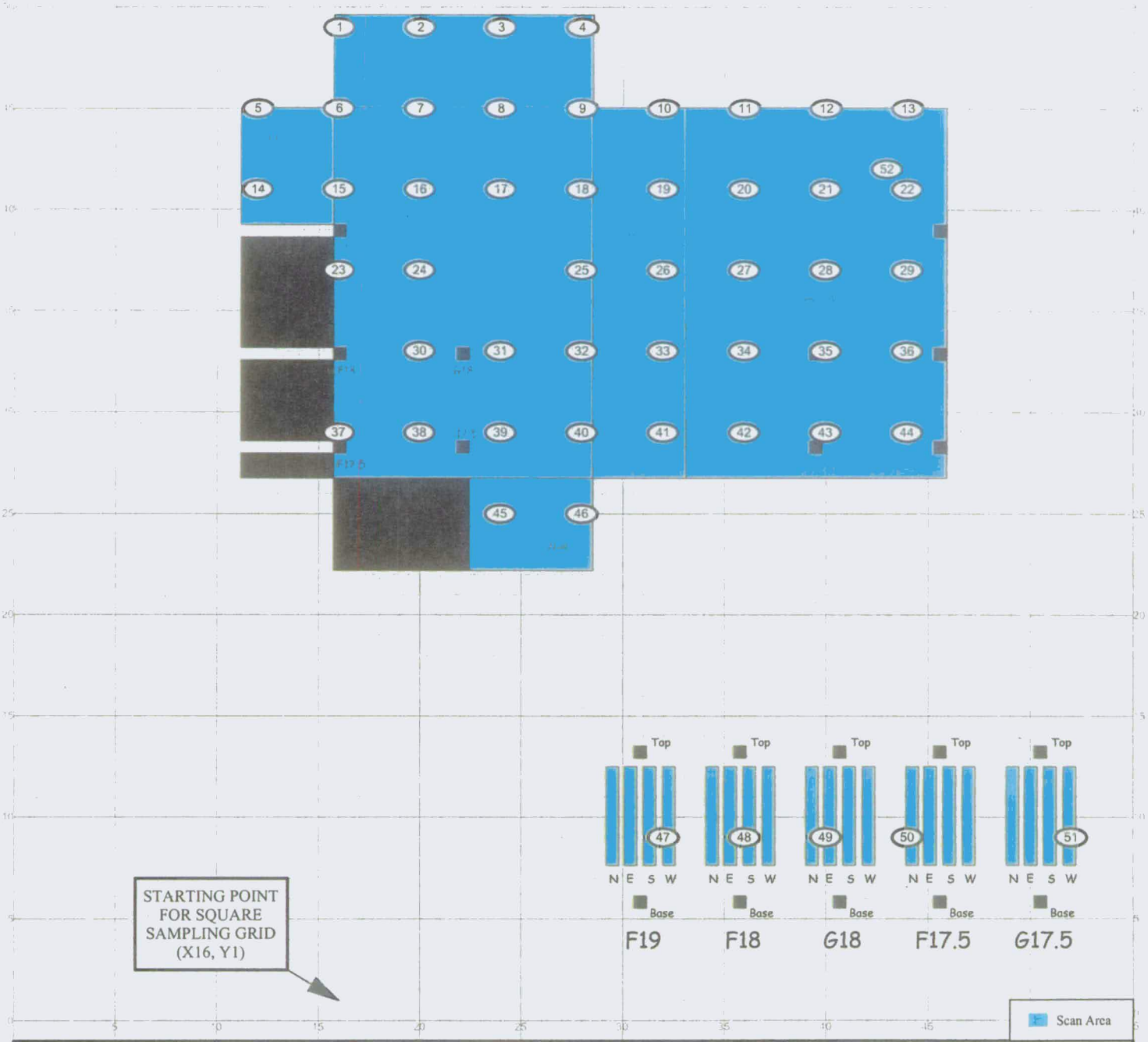
PRE-DEMOLITION SURVEY FOR B881

Survey Area: M Survey Unit: 881M05 Classification: 1
Building: 881
Survey Unit Description: Building 881, Management Unit M, Rooms 162, 163, 164, 165 & 166, Floor, Walls & Ceiling
Total Area: 724 sq. m. Total Floor Area: 234 sq. m.
Grid Spacing for Survey Points: 4 m. X 4 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1, 3

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group

KAISER-HILL COMPANY

MAP ID: 03-0568/881M05-SC June 13, 2004

293

Survey Area: M	Survey Unit: 881M06	Building: 881

Description: Building 881, Management Unit M, Rooms 144A & 144 South, floors, walls and ceiling

Rocky Flats Environmental Technology Site
Final Radiological Survey Summary Results

Total Surface Activity Measurements

Nbr Random Measurements Required: 52
Nbr Random Measurements Performed: 93
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0
Nbr QC Required: 5
Nbr QC Performed: 5

Alpha

Maximum:	1,436.8 dpm/100cm²
Minimum:	-21.4 dpm/100cm²
Mean:	192.8 dpm/100cm²
Standard Deviation:	282.9
QC Maximum:	956.8 dpm/100cm²
QC Minimum:	57.8 dpm/100cm²
QC Mean:	311.9 dpm/100cm²
Uranium $DCGL_W$:	5,000.0 dpm/100cm²
Uranium $DCGL_{EMC}$:	15,000.0 dpm/100cm²

Removable Surface Activity Measurements

Nbr Random Measurements Required: 52
Nbr Random Measurements Performed: 93
Nbr Biased Measurements Required: 0
Nbr Biased Measurements Performed: 0

Alpha

Maximum:	26.4 dpm/100cm²
Minimum:	-0.9 dpm/100cm²
Mean:	4.5 dpm/100cm²
Standard Deviation:	6.2
Uranium $DCGL_W$:	1,000.0

Media Sample Results

Nbr Random Required: 0
Nbr Random Collected: 0
Nbr Biased Required: 0
Nbr Biased Collected: 0

Conclusion - A comparison of the random, biased and QC measurement results against the PDSP Table 7-1 Surface Contamination Guideline limits was conducted; the comparison demonstrates that this survey unit passes the criterion specified in the PDSP.

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Survey Area: M | **Survey Unit:** 881M06 | **Building:** 881

Description: Building 881, Management Unit M, Rooms 144A & 144 South, floors, walls and ceiling

Instrument Data Sheet

Inst/RCT Number	RCT ID	Analysis Date	Instr Model	Instru S/N	Probe Type	Calibration Due Dt	Instru Efficiency Alpha	Instru Efficiency Beta	A-Priori MDA (dpm/100cm²) Alpha	A-Priori MDA (dpm/100cm²) Beta	Survey Type
1	711746	06/12/04	Electra	680	DP-8	12/08/04	0.167	NA	93.0	NA	S
2	711449	06/12/04	Electra	677	DP-8	07/06/04	0.188	NA	93.0	NA	S
3	711746	06/13/04	Electra	1241	DP-8	10/06/04	0.193	NA	93.0	NA	S
4	711449	06/13/04	Electra	674	DP-8	06/22/04	0.199	NA	93.0	NA	S
5	712193	06/13/04	Electra	660	DP-8	10/08/04	0.156	NA	93.0	NA	S
6	700835	06/13/04	Electra	667	DP-6	10/22/04	0.222	NA	93.0	NA	T/S
7	712454	06/13/04	Electra	662	DP-6	12/10/04	0.217	NA	93.0	NA	T/S
8	702575	06/13/04	Electra	2394	DP-6	08/19/04	0.214	NA	93.0	NA	T/S
9	700835	06/14/04	SAC-4	961	NA	09/30/04	0.330	NA	16.0	NA	R
10	712193	06/14/04	Electra	663	DP-6	09/18/04	0.218	NA	93.0	NA	Q
11	700835	06/15/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
12	700835	06/17/04	Electra	3105	DP-6	11/18/04	0.196	NA	93.0	NA	T
13	702575	06/17/04	Electra	1417	DP-6	12/03/04	0.207	NA	93.0	NA	T
14	712193	06/17/04	Electra	662	DP-6	12/10/04	0.217	NA	93.0	NA	T
15	700835	06/17/04	SAC-4	830	NA	10/30/04	0.330	NA	16.0	NA	R
16	711447	06/17/04	Electra	673	DP-8	06/30/04	0.180	NA	93.0	NA	S
17	712193	06/17/04	Electra	674	DP-8	06/30/04	0.199	NA	93.0	NA	S

Survey Types: T = Total Surface Activity, Q = TSA QC, S = Scan, R = Removable Surface Activity, I = Investigation

295

Survey Area: M | **Survey Unit:** 881M06 | **Building:** 881

Description: Building 881, Management Unit M, Rooms 144A & 144 South, floors, walls and ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M06PRP-N001	9	-0.9	N/A	
881M06PRP-N002	9	8.2	N/A	
881M06PRP-N003	9	11.2	N/A	
881M06PRP-N004	9	8.2	N/A	
881M06PRP-N005	9	-0.9	N/A	
881M06PRP-N006	9	5.2	N/A	
881M06PRP-N007	9	2.1	N/A	
881M06PRP-N008	9	14.2	N/A	
881M06PRP-N009	9	20.3	N/A	
881M06PRP-N010	9	5.2	N/A	
881M06PRP-N011	9	2.1	N/A	
881M06PRP-N012	9	5.2	N/A	
881M06PRP-N013	9	8.2	N/A	
881M06PRP-N014	9	8.2	N/A	
881M06PRP-N015	9	14.2	N/A	
881M06PRP-N016	9	26.4	N/A	
881M06PRP-N017	9	11.2	N/A	
881M06PRP-N018	9	8.2	N/A	
881M06PRP-N019	9	5.2	N/A	
881M06PRP-N020	9	2.1	N/A	
881M06PRP-N021	9	-0.9	N/A	
881M06PRP-N022	9	-0.9	N/A	
881M06PRP-N023	9	-0.9	N/A	
881M06PRP-N024	9	2.1	N/A	
881M06PRP-N025	9	-0.9	N/A	
881M06PRP-N026	9	-0.9	N/A	
881M06PRP-N027	9	-0.9	N/A	
881M06PRP-N028	9	-0.9	N/A	
881M06PRP-N029	9	2.1	N/A	

Survey Area: M	Survey Unit: 881M06	Building: 881

Description: Building 881, Management Unit M, Rooms 144A & 144 South, floors, walls and ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M06PRP-N030	9	-0.9	N/A	
881M06PRP-N031	9	-0.9	N/A	
881M06PRP-N032	9	-0.9	N/A	
881M06PRP-N033	9	-0.9	N/A	
881M06PRP-N034	9	-0.9	N/A	
881M06PRP-N035	9	-0.9	N/A	
881M06PRP-N036	9	2.1	N/A	
881M06PRP-N037	9	2.1	N/A	
881M06PRP-N038	9	-0.9	N/A	
881M06PRP-N039	9	2.1	N/A	
881M06PRP-N040	9	-0.9	N/A	
881M06PRP-N041	9	-0.9	N/A	
881M06PRP-N042	9	2.1	N/A	
881M06PRP-N043	9	-0.9	N/A	
881M06PRP-N044	9	-0.9	N/A	
881M06PRP-N045	9	-0.9	N/A	
881M06PRP-N046	9	-0.9	N/A	
881M06PRP-N047	9	-0.9	N/A	
881M06PRP-N048	9	-0.9	N/A	
881M06PRP-N049	9	-0.9	N/A	
881M06PRP-N050	9	2.1	N/A	
881M06PRP-N051	15	6.1	N/A	
881M06PRP-N052	9	14.2	N/A	
881M06PRP-N053	15	3.0	N/A	
881M06PRP-N054	9	2.1	N/A	
881M06PRP-N055	15	9.1	N/A	
881M06PRP-N056	15	0.0	N/A	
881M06PRP-N057	15	12.1	N/A	
881M06PRP-N058	9	-0.9	N/A	

297

Survey Area: M	Survey Unit: 881M06	Building: 881

Description: Building 881, Management Unit M, Rooms 144A & 144 South, floors, walls and ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M06PRP-N059	9	2.1	N/A	
881M06PRP-N060	9	-0.9	N/A	
881M06PRP-N061	9	-0.9	N/A	
881M06PRP-N063	15	6.1	N/A	
881M06PRP-N064	15	12.1	N/A	
881M06PRP-N065	15	12.1	N/A	
881M06PRP-N066	15	9.1	N/A	
881M06PRP-N067	15	6.1	N/A	
881M06PRP-N068	11	8.5	N/A	
881M06PRP-N069	11	2.4	N/A	
881M06PRP-N070	11	5.5	N/A	
881M06PRP-N071	11	5.5	N/A	
881M06PRP-N072	11	8.5	N/A	
881M06PRP-N073	15	6.1	N/A	
881M06PRP-N074	11	-0.6	N/A	
881M06PRP-N075	15	12.1	N/A	
881M06PRP-N076	15	0.0	N/A	
881M06PRP-N077	15	3.0	N/A	
881M06PRP-N078	15	18.2	N/A	
881M06PRP-N079	15	3.0	N/A	
881M06PRP-N080	11	2.4	N/A	
881M06PRP-N081	11	2.4	N/A	
881M06PRP-N082	11	-0.6	N/A	
881M06PRP-N083	11	-0.6	N/A	
881M06PRP-N084	15	6.1	N/A	
881M06PRP-N085	11	5.5	N/A	
881M06PRP-N086	15	24.2	N/A	
881M06PRP-N087	15	18.2	N/A	
881M06PRP-N088	15	12.1	N/A	

298

Survey Area: M	Survey Unit: 881M06	Building: 881

Description: Building 881, Management Unit M, Rooms 144A & 144 South, floors, walls and ceiling

Random Removable Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M06PRP-N089	15	3.0	N/A	
881M06PRP-N090	15	18.2	N/A	
881M06PRP-N091	11	5.5	N/A	
881M06PRP-N092	11	-0.6	N/A	
881M06PRP-N093	11	-0.6	N/A	
881M06PRP-N094	11	2.4	N/A	

Comments:

299

Survey Area: M	Survey Unit: 881M06	Building: 881

Description: Building 881, Management Unit M, Rooms 144A & 144 South, floors, walls and ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M06PRP-N001	6	136.0	N/A	
881M06PRP-N002	7	434.8	N/A	
881M06PRP-N003	6	847.7	N/A	
881M06PRP-N004	7	646.8	N/A	
881M06PRP-N005	6	536.9	N/A	
881M06PRP-N006	7	651.4	N/A	
881M06PRP-N007	6	784.6	N/A	
881M06PRP-N008	7	213.6	N/A	
881M06PRP-N009	6	217.1	N/A	
881M06PRP-N010	7	38.5	N/A	
881M06PRP-N011	6	136.0	N/A	
881M06PRP-N012	7	706.7	N/A	
881M06PRP-N013	6	122.5	N/A	
881M06PRP-N014	7	605.4	N/A	
881M06PRP-N015	6	424.3	N/A	
881M06PRP-N016	7	1,232.1	N/A	
881M06QRP-N016	10	956.8	N/A	
881M06PRP-N017	6	658.5	N/A	
881M06PRP-N018	7	425.6	N/A	
881M06PRP-N019	6	433.3	N/A	
881M06QRP-N019	10	255.0	N/A	
881M06PRP-N020	7	15.5	N/A	
881M06PRP-N021	6	27.9	N/A	
881M06PRP-N022	7	1.7	N/A	
881M06PRP-N023	6	-17.2	N/A	
881M06PRP-N024	7	29.3	N/A	
881M06PRP-N025	6	-12.7	N/A	

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Survey Area: M | **Survey Unit:** 881M06 | **Building:** 881

Description: Building 881, Management Unit M, Rooms 144A & 144 South, floors, walls and ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M06PRP-N026	7	20.1	N/A	
881M06PRP-N027	6	-8.2	N/A	
881M06PRP-N028	7	-7.6	N/A	
881M06PRP-N029	7	33.9	N/A	
881M06PRP-N030	8	25.5	N/A	
881M06PRP-N031	7	43.1	N/A	
881M06PRP-N032	8	-2.5	N/A	
881M06PRP-N033	7	1.7	N/A	
881M06PRP-N034	8	11.5	N/A	
881M06PRP-N035	7	1.7	N/A	
881M06PRP-N036	8	25.5	N/A	
881M06PRP-N037	7	38.5	N/A	
881M06QRP-N037	10	57.8	N/A	
881M06PRP-N038	8	-21.2	N/A	
881M06PRP-N039	7	-21.4	N/A	
881M06PRP-N040	8	-11.8	N/A	
881M06PRP-N041	7	6.3	N/A	
881M06PRP-N042	8	-2.5	N/A	
881M06PRP-N043	7	10.9	N/A	
881M06PRP-N044	8	-2.5	N/A	
881M06PRP-N045	7	-12.2	N/A	
881M06PRP-N046	8	-2.5	N/A	
881M06PRP-N047	7	1.7	N/A	
881M06PRP-N048	8	6.9	N/A	
881M06PRP-N049	7	-2.9	N/A	
881M06PRP-N050	8	11.5	N/A	
881M06PRP-N051	14	-7.6	N/A	

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Survey Area: M	Survey Unit: 881M06	Building: 881

Description: Building 881, Management Unit M, Rooms 144A & 144 South, floors, walls and ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M06PRP-N052	8	72.3	N/A	
881M06PRP-N053	14	-2.9	N/A	
881M06PRP-N054	8	11.5	N/A	
881M06PRP-N055	14	241.3	N/A	
881M06PRP-N056	14	204.4	N/A	
881M06PRP-N057	14	250.5	N/A	
881M06PRP-N058	8	390.0	N/A	
881M06PRP-N059	7	660.7	N/A	
881M06PRP-N060	8	1,436.8	N/A	
881M06PRP-N061	7	374.9	N/A	
881M06PRP-N063	14	176.8	N/A	
881M06PRP-N064	14	163.0	N/A	
881M06PRP-N065	14	384.2	N/A	
881M06PRP-N066	14	172.2	N/A	
881M06PRP-N067	14	568.5	N/A	
881M06PRP-N068	6	374.7	N/A	
881M06PRP-N069	6	235.1	N/A	
881M06PRP-N070	6	798.1	N/A	
881M06PRP-N071	6	203.5	N/A	
881M06PRP-N072	6	181.0	N/A	
881M06PRP-N073	13	32.4	N/A	
881M06PRP-N074	6	145.0	N/A	
881M06PRP-N075	13	172.5	N/A	
881M06PRP-N076	12	133.2	N/A	
881M06PRP-N077	12	97.5	N/A	
881M06PRP-N078	12	20.9	N/A	
881M06PRP-N079	13	288.5	N/A	

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Survey Area: M	Survey Unit: 881M06	Building: 881

Description: Building 881, Management Unit M, Rooms 144A & 144 South, floors, walls and ceiling

Random/QC Total Surface Activity Data Sheet

Random Measurement Location	Inst / RCT Nbr	Net Alpha (dpm/100cm²)	Net Beta (dpm/100cm²)	
881M06PRP-N080	6	81.9	N/A	
881M06PRP-N081	6	104.4	N/A	
881M06PRP-N082	7	10.9	N/A	
881M06PRP-N083	7	6.3	N/A	
881M06PRP-N084	13	17.9	N/A	
881M06PRP-N085	7	66.2	N/A	
881M06QRP-N085	10	195.4	N/A	
881M06PRP-N086	12	26.0	N/A	
881M06PRP-N087	12	112.8	N/A	
881M06PRP-N088	12	36.2	N/A	
881M06PRP-N089	12	102.6	N/A	
881M06PRP-N090	12	61.7	N/A	
881M06PRP-N091	7	24.7	N/A	
881M06PRP-N092	8	2.2	N/A	
881M06PRP-N093	6	14.3	N/A	
881M06PRP-N094	7	47.7	N/A	
881M06QRP-N094	10	94.5	N/A	

Comments:

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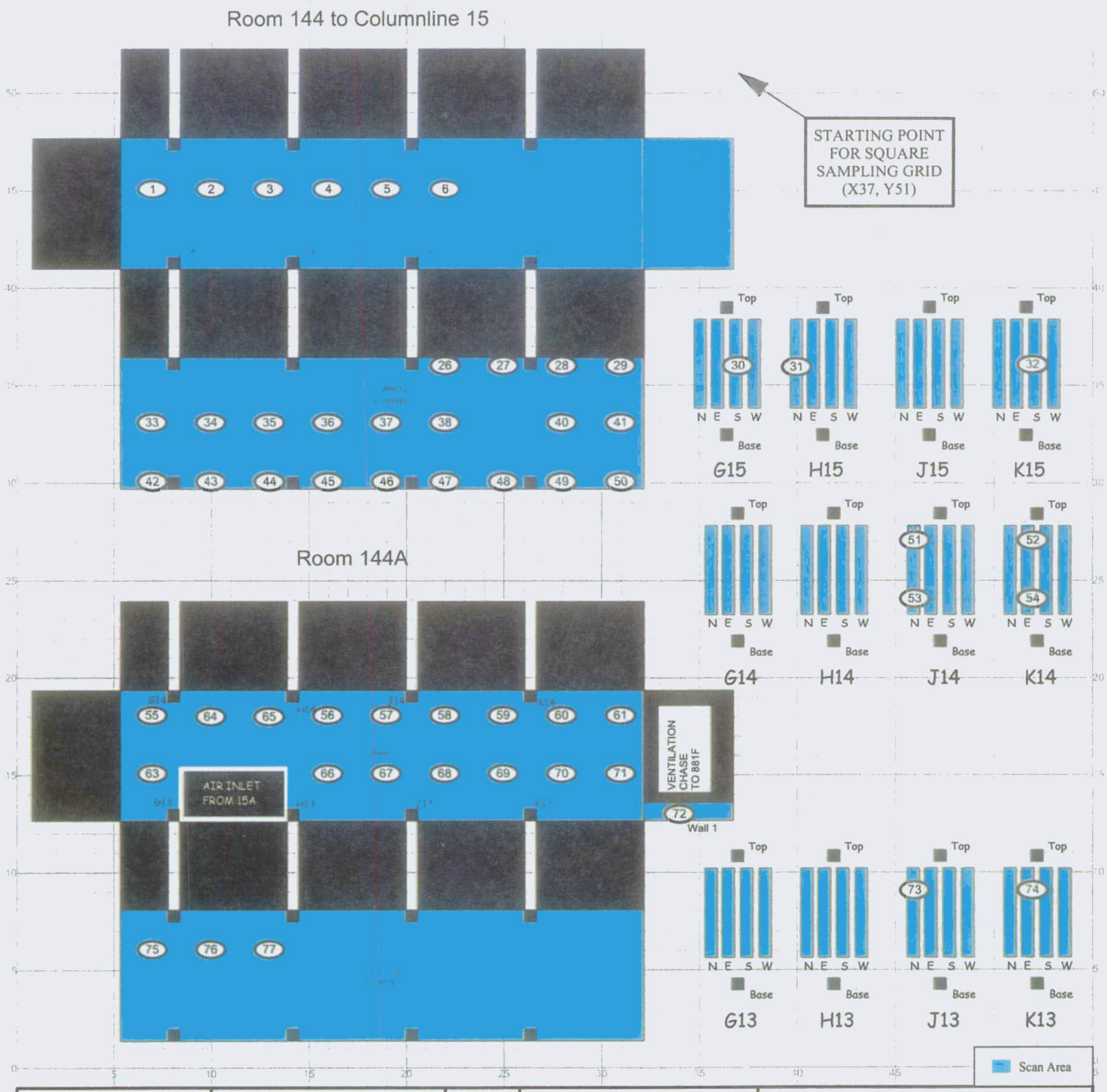
PRE-DEMOLITION SURVEY FOR B881

Survey Area: M **Survey Unit: 881M06** **Classification: 1**
Building: 881
Survey Unit Description: Building 881, Management Unit M, Room 144A & 144 South, Floor, Walls & Ceiling
Total Area: 566 sq. m. **Total Floor Area: 342 sq. m.**
Grid Spacing for Survey Points: 3 m. X 3 m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s):
1-8, 16, 17

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 **Prepared for:**

CH2MHILL Communications Group

KAISER-HILL

MAP ID: 03-0568/881M06-SC **June 9, 2004**

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ATTACHMENT C-1

PDS Beryllium Data Summary and Sample Maps

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Table C-1 Beryllium Data Summary

Sample Map Location #	Sample Map Page #	Room	RIN	Sample Number	Sample Location	Result (ug/100 cm2)
4	3 of 5	154A	04C0443	881-04152004-26-025	On concrete floor, random	< 0.1
5	3 of 5	154	04C0443	881-04152004-26-026	On concrete floor, random	< 0.1
11	3 of 5	154G	04C0443	881-04152004-26-027	On concrete floor, random	< 0.1
33	3 of 5	154A	04C0443	881-04152004-26-024	On concrete floor, random	< 0.1
50	3 of 5	159A	03Z0940	881-02142003-EC6-453	On wall, biased	< 0.1
51	3 of 5	159A	03Z0940	881-02142003-EC6-454	On wall, biased	< 0.1
75	3 of 5	159A	04D0799	881-05232004-313-075	On concrete floor, random	< 0.1
76	3 of 5	159A	04D0799	881-05232004-313-076	On concrete floor, random	< 0.1
80	3 of 5	154	04D0799	881-05232004-313-080	On concrete floor, random	< 0.1
81	3 of 5	154	04D0799	881-05232004-313-081	On concrete floor, random	< 0.1
82	3 of 5	154	04D0799	881-05232004-313-082	On concrete floor, random	< 0.1
83	3 of 5	154D	04D0799	881-05232004-313-083	On concrete floor, random	< 0.1
84	3 of 5	154E	04D0799	881-05232004-313-084	On concrete floor, random	< 0.1
85	3 of 5	154G	04D0799	881-05232004-313-085	On concrete floor, random	< 0.1
86	3 of 5	154H	04D0799	881-05232004-313-086	On concrete floor, random	< 0.1
87	3 of 5	154H	04D0799	881-05232004-313-087	On concrete floor, random	< 0.1
88	3 of 5	154J	04D0799	881-05232004-313-088	On concrete floor, random	< 0.1
89	3 of 5	179C	04D0799	881-05232004-313-089	On concrete floor, random	< 0.1
90	3 of 5	154K	04D0799	881-05232004-313-090	On concrete floor, random	< 0.1
1	4 of 5	137E	04Z1354	881-3102004-313-001	On concrete floor, random	< 0.1
2	4 of 5	121	04D0727	881-05132004-26-009	On concrete floor, random	< 0.1
3	4 of 5	104	04D0726	881-05122004-26-024	On concrete floor, random	< 0.1
4	4 of 5	110E	04D0726	881-05122004-26-017	On concrete floor, random	< 0.1
5	4 of 5	143B	04Z1975	881-06042004-26-005	On concrete floor, random	< 0.1
6	4 of 5	137	04Z1354	881-3102004-313-006	On concrete floor, random	< 0.1
7	4 of 5	115	04Z1621	881-04052004-500-007	On concrete floor, random	< 0.1
8	4 of 5	131	04Z1354	881-3102004-313-008	On concrete floor, random	< 0.1
9	4 of 5	137	04Z1354	881-3102004-313-009	On concrete floor, random	< 0.1
10	4 of 5	168	04D0726	881-05122004-26-001	On concrete floor, random	< 0.1
11	4 of 5	100	04Z1445	881-03182004-313-021	On concrete floor, biased	< 0.1
11	4 of 5	122	04Z1755	881-04282004-26-011	On concrete floor, random	< 0.1
12	4 of 5	100	04Z1445	881-03182004-313-022	On concrete floor, biased	< 0.1
12	4 of 5	116	04Z1621	881-04052004-500-012	On concrete floor, random	< 0.1
13	4 of 5	100	04Z1445	881-03182004-313-023	On concrete floor, biased	< 0.1
13	4 of 5	137	04Z1354	881-3102004-313-013	On concrete floor, random	< 0.1
14	4 of 5	100	04Z1445	881-03182004-313-024	On concrete floor, biased	< 0.1
14	4 of 5	115E	04Z1621	881-04052004-500-014	On concrete floor, random	< 0.1
15	4 of 5	100	04Z1445	881-03182004-313-025	On concrete floor, biased	< 0.1
15	4 of 5	145	04D0727	881-05132004-26-017	On concrete floor, random	< 0.1
16	4 of 5	144	04D0799	881-05232004-313-016	On concrete floor, random	< 0.1
17	4 of 5	144	04D0726	881-05122004-26-009	On concrete floor, random	< 0.1
18	4 of 5	144A	04D0727	881-05132004-26-027	On concrete floor, random	< 0.1
19	4 of 5	168	04D0726	881-05122004-26-003	On concrete floor, random	< 0.1
20	4 of 5	171	04D0726	881-05122004-26-004	On concrete floor, random	< 0.1
21	4 of 5	143A	04Z1975	881-06042004-26-021	On concrete floor, random	< 0.1
22	4 of 5	143H	04Z1975	881-06042004-26-022	On concrete floor, random	< 0.1
23	4 of 5	137	04Z1354	881-3102004-313-023	On concrete floor, random	< 0.1
24	4 of 5	164	04D0799	881-05232004-313-024	On concrete floor, random	< 0.1
25	4 of 5	160	04D0726	881-05122004-26-007	On concrete floor, random	< 0.1
26	4 of 5	113	04Z1755	881-04282004-26-026	On concrete floor, random	< 0.1
27	4 of 5	110E	04D0726	881-05122004-26-016	On concrete floor, random	< 0.1
28	4 of 5	101	04D0726	881-05122004-26-022	On concrete floor, random	< 0.1
29	4 of 5	104	04D0726	881-05122004-26-025	On concrete floor, random	< 0.1
30	4 of 5	163	04D0799	881-05232004-313-030	On concrete floor, random	< 0.1
31	4 of 5	144A	04D0727	881-05132004-26-024	On concrete floor, random	< 0.1

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Table C-1 Beryllium Data Summary

Sample Map Location #	Sample Map Page #	Room	RIN	Sample Number	Sample Location	Result (ug/100 cm2)
32	4 of 5	179B	04Z1621	881-04052004-500-032	On concrete floor, random	< 0.1
33	4 of 5	122O	04Z1755	881-04282004-26-033	On concrete floor, random	< 0.1
33	4 of 5	154A	04D0799	881-05232004-313-033	On concrete floor, random	< 0.1
34	4 of 5	122B	04Z1755	881-04282004-26-034	On concrete floor, random	< 0.1
35	4 of 5	114D	04D0726	881-05122004-26-013	On stainless steel floor, random	< 0.1
36	4 of 5	143A	04Z1975	881-06042004-26-036	On concrete floor, random	< 0.1
37	4 of 5	137D	04Z1354	881-3102004-313-037	On concrete floor, random	< 0.1
38	4 of 5	110B	04D0726	881-05122004-26-021	On concrete floor, random	< 0.1
39	4 of 5	110F	04D0726	881-05122004-26-018	On concrete floor, random	< 0.1
40	4 of 5	121	04D0727	881-05132004-26-012	On concrete floor, random	< 0.1
41	4 of 5	160	04D0726	881-05122004-26-008	On concrete floor, random	< 0.1
42	4 of 5	137E	04Z1354	881-3102004-313-042	On concrete floor, random	< 0.1
43	4 of 5	144	04D0799	881-05232004-313-043	On concrete floor, random	< 0.1
44	4 of 5	121	04D0727	881-05132004-26-008	On concrete floor, random	< 0.1
45	4 of 5	107	04D0726	881-05122004-26-028	On concrete floor, random	< 0.1
46	4 of 5	144	04D0726	881-05122004-26-011	On concrete floor, random	< 0.1
47	4 of 5	122	04Z1755	881-04282004-26-047	On concrete floor, random	< 0.1
48	4 of 5	143	04Z1621	881-04052004-500-048	On concrete floor, random	< 0.1
49	4 of 5	144	04D0726	881-05122004-26-010	On concrete floor, random	< 0.1
50	4 of 5	160	04D0726	881-05122004-26-006	On concrete floor, random	< 0.1
51	4 of 5	144A	04D0727	881-05132004-26-022	On concrete floor, random	< 0.1
52	4 of 5	113	04Z1755	881-04282004-26-052	On concrete floor, random	< 0.1
53	4 of 5	143C	04Z1975	881-06042004-26-053	On concrete floor, random	< 0.1
54	4 of 5	122	04D0635	881-05022004-313-001	On concrete floor, random	< 0.1
55	4 of 5	114	04D0726	881-05122004-26-012	On stainless steel floor, random	< 0.1
56	4 of 5	144	04D0799	881-05232004-313-056	On concrete floor, random	< 0.1
57	4 of 5	145A	04D0727	881-05132004-26-016	On concrete floor, random	< 0.1
58	4 of 5	127A	04Z1354	881-3102004-313-058	On concrete floor, random	< 0.1
59	4 of 5	125E	04Z1354	881-3102004-313-059	On concrete floor, random	< 0.1
60	4 of 5	S1 Tunnel	04Z1712	881-04222004-26-001	On concrete floor, random	< 0.1
61	4 of 5	108	04D0726	881-05122004-26-015	On stainless steel floor, random	< 0.1
62	4 of 5	130	04Z1354	881-3102004-313-062	On concrete floor, random	< 0.1
63	4 of 5	162	04D0799	881-05232004-313-063	On concrete floor, random	< 0.1
64	4 of 5	110B	04D0726	881-05122004-26-020	On concrete floor, random	< 0.1
65	4 of 5	162	04D0799	881-05232004-313-065	On concrete floor, random	< 0.1
66	4 of 5	122	04Z1755	881-04282004-26-066	On concrete floor, random	< 0.1
67	4 of 5	101	04D0726	881-05122004-26-023	On concrete floor, random	< 0.1
68	4 of 5	114D	04D0726	881-05122004-26-014	On stainless steel floor, random	< 0.1
69	4 of 5	161	04D0726	881-05122004-26-002	On concrete floor, random	< 0.1
70	4 of 5	110B	04D0726	881-05122004-26-019	On concrete floor, random	< 0.1
71	4 of 5	101	04D0726	881-05122004-26-027	On concrete floor, random	< 0.1
72	4 of 5	122	04D0635	881-05022004-313-002	On concrete floor, random	< 0.1
73	4 of 5	171	04D0726	881-05122004-26-005	On concrete floor, random	< 0.1
74	4 of 5	101	04D0726	881-05122004-26-026	On concrete floor, random	< 0.1
75	4 of 5	137	04Z1354	881-3102004-313-075	On concrete floor, random	< 0.1
101	4 of 5	116	04Z1621	881-04052004-500-101	On concrete floor, biased	< 0.1
101	4 of 5	137A	04Z1354	881-3102004-313-101	On concrete floor, biased	< 0.1
102	4 of 5	116	04Z1621	881-04052004-500-102	On concrete floor, biased	< 0.1
102	4 of 5	137B	04Z1354	881-3102004-313-102	On equipment, biased	< 0.1
103	4 of 5	116	04Z1621	881-04052004-500-103	On concrete floor, biased	< 0.1
103	4 of 5	137D	04Z1354	881-3102004-313-103	On duct, biased	< 0.1
104	4 of 5	116	04Z1621	881-04052004-500-104	On concrete floor, biased	< 0.1
104	4 of 5	137D	04Z1354	881-3102004-313-104	On duct, biased	< 0.1
105	4 of 5	115	04Z1621	881-04052004-500-105	On concrete floor, biased	< 0.1
105	4 of 5	137	04Z1354	881-3102004-313-105	On I-beam, biased	< 0.1

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Table C-1 Beryllium Data Summary

Sample Map Location #	Sample Map Page #	Room	RIN	Sample Number	Sample Location	Result (ug/100 cm2)
106	4 of 5	137	04Z1354	881-3102004-313-106	On concrete floor, biased	< 0.1
107	4 of 5	137	04Z1354	881-3102004-313-107	On concrete floor, biased	< 0.1
108	4 of 5	137	04Z1354	881-3102004-313-108	On concrete floor, biased	< 0.1
109	4 of 5	137	04Z1354	881-3102004-313-109	On concrete floor, biased	< 0.1
110	4 of 5	137E	04Z1354	881-3102004-313-110	On concrete floor, biased	< 0.1
111	4 of 5	137	04Z1354	881-3102004-313-111	On concrete floor, biased	< 0.1
112	4 of 5	137	04Z1354	881-3102004-313-112	On concrete floor, biased	< 0.1
113	4 of 5	137	04Z1354	881-3102004-313-113	On concrete floor, biased	< 0.1
114	4 of 5	131A	04Z1354	881-3102004-313-114	On concrete floor, biased	< 0.1
115	4 of 5	131	04Z1354	881-3102004-313-115	On concrete floor, biased	< 0.1
116	4 of 5	131D	04Z1354	881-3102004-313-116	On concrete floor, biased	< 0.1
117	4 of 5	127	04Z1354	881-3102004-313-117	On concrete floor, biased	< 0.1
118	4 of 5	125B	04Z1354	881-3102004-313-118	On concrete floor, biased	< 0.1
119	4 of 5	125D	04Z1354	881-3102004-313-119	On concrete floor, biased	< 0.1
120	4 of 5	127C	04Z1354	881-3102004-313-120	On concrete floor, biased	< 0.1
121	4 of 5	115	04Z1621	881-04052004-500-121	On concrete floor, biased	< 0.1
121	4 of 5	127B	04Z1354	881-3102004-313-121	On I-beam, biased	< 0.1
122	4 of 5	115F	04Z1621	881-04052004-500-122	On concrete floor, biased	< 0.1
122	4 of 5	127B	04Z1354	881-3102004-313-122	On I-beam, biased	< 0.1
123	4 of 5	131D	04Z1354	881-3102004-313-123	On concrete floor, biased	< 0.1
124	4 of 5	131D	04Z1354	881-3102004-313-124	On concrete floor, biased	< 0.1
125	4 of 5	131C	04Z1354	881-3102004-313-125	On concrete floor, biased	< 0.1
130	4 of 5	122A	04D0635	881-05022004-313-008	On equipment, biased	< 0.1
131	4 of 5	122A	04Z1755	881-04282004-26-131	On concrete floor, biased	< 0.1
132	4 of 5	122B	04Z1755	881-04282004-26-132	Top of transformer, biased	< 0.1
133	4 of 5	122C	04Z1755	881-04282004-26-133	On concrete floor, biased	< 0.1
134	4 of 5	122C	04Z1755	881-04282004-26-134	Top of transformer, biased	< 0.1
135	4 of 5	112	04Z1755	881-04282004-26-135	On concrete floor, biased	< 0.1
136	4 of 5	113C	04Z1621	881-04052004-500-136	On concrete floor, biased	< 0.1
136	4 of 5	133C	04Z1755	881-04282004-26-136	On concrete floor, biased	< 0.1
137	4 of 5	113	04Z1755	881-04282004-26-137	On concrete floor, biased	< 0.1
153	4 of 5	115F	04Z1621	881-04052004-500-153	On top of duct, biased	< 0.1
205	4 of 5	169	04Z1621	881-04052004-500-005	On wall ledge, biased	< 0.1
315	4 of 5	121	04D0727	881-05132004-26-001	On concrete floor, biased	< 0.1
316	4 of 5	121	04D0727	881-05132004-26-002	On concrete floor, biased	< 0.1
317	4 of 5	121	04D0727	881-05132004-26-003	On concrete floor, biased	< 0.1
318	4 of 5	121	04D0727	881-05132004-26-004	On concrete floor, biased	< 0.1
319	4 of 5	121	04D0727	881-05132004-26-005	On concrete floor, biased	< 0.1
320	4 of 5	121	04D0727	881-05132004-26-006	On concrete floor, biased	< 0.1
321	4 of 5	121	04D0727	881-05132004-26-007	On concrete floor, biased	< 0.1
322	4 of 5	121	04D0727	881-05132004-26-010	On concrete floor, biased	< 0.1
323	4 of 5	121	04D0727	881-05132004-26-011	On concrete floor, biased	< 0.1
324	4 of 5	147	04D0727	881-05132004-26-013	On concrete floor, biased	< 0.1
325	4 of 5	146	04D0727	881-05132004-26-014	On concrete floor, biased	< 0.1
326	4 of 5	145	04D0727	881-05132004-26-015	On concrete floor, biased	< 0.1
327	4 of 5	147	04D0727	881-05132004-26-018	On concrete floor, biased	< 0.1
328	4 of 5	121	04D0727	881-05132004-26-019	On concrete floor, biased	< 0.1
329	4 of 5	121	04D0727	881-05132004-26-020	On concrete pedestal, biased	< 0.1
330	4 of 5	121	04D0727	881-05132004-26-021	On concrete pedestal, biased	< 0.1
331	4 of 5	144A	04D0727	881-05132004-26-023	On concrete floor, biased	< 0.1
332	4 of 5	144A	04D0727	881-05132004-26-025	On concrete floor, biased	< 0.1
333	4 of 5	144A	04D0727	881-05132004-26-026	On concrete floor, biased	< 0.1
334	4 of 5	122	04D0635	881-05022004-313-003	On concrete floor, biased	< 0.1
335	4 of 5	122A	04Z1807	881-05062004-500-001	On equipment, biased	< 0.1
336	4 of 5	122	04D0635	881-05022004-313-005	On concrete floor, biased	< 0.1

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Table C-1 Beryllium Data Summary

Sample Map Location #	Sample Map Page #	Room	RIN	Sample Number	Sample Location	Result (ug/100 cm2)
337	4 of 5	122	04D0635	881-05022004-313-006	On concrete floor, biased	< 0.1
338	4 of 5	122	04D0635	881-05022004-313-007	On concrete floor, biased	< 0.1
339	4 of 5	122A	04Z1807	881-05062004-500-002	On equipment, biased	< 0.1
340	4 of 5	122A	04Z1807	881-05062004-500-003	On equipment, biased	< 0.1
341	4 of 5	122B	04D0635	881-05022004-313-011	On equipment, biased	< 0.1
342	4 of 5	122B	04D0635	881-05022004-313-012	On equipment, biased	< 0.1
343	4 of 5	122C	04D0635	881-05022004-313-013	On equipment, biased	< 0.1
344	4 of 5	122C	04D0635	881-05022004-313-014	On equipment, biased	< 0.1
345	4 of 5	143	04Z1975	881-06042004-26-048	On concrete floor, biased	< 0.1
346	4 of 5	144A	04Z1865	881-05202004-26-001	On concrete floor, biased	< 0.1
347	4 of 5	144A	04Z1865	881-05202004-26-002	On concrete floor, biased	< 0.1
348	4 of 5	144A	04Z1865	881-05202004-26-003	On concrete floor, biased	< 0.1
349	4 of 5	144A	04Z1865	881-05202004-26-004	On concrete floor, biased	< 0.1
350	4 of 5	144A	04Z1865	881-05202004-26-005	On concrete floor, biased	< 0.1
351	4 of 5	144A	04Z1865	881-05202004-26-006	On concrete floor, biased	< 0.1
352	4 of 5	144A	04Z1865	881-05202004-26-007	On concrete floor, biased	< 0.1

Footnotes:

(1) Some Sample Map Location numbers are used more than once on the same Sample Map page, however each is unique in terms of the room numbers.

(2) Only the final "as left" condition sample results are reported in the above table. Any areas requiring decontamination were cleaned and resurveyed and reported above.

(3) The majority of the interior walls have been removed, thus each floor is general just a few wide open rooms. Therefore, sample results in adjoining rooms are representive of adjacent rooms where no samples were collected.

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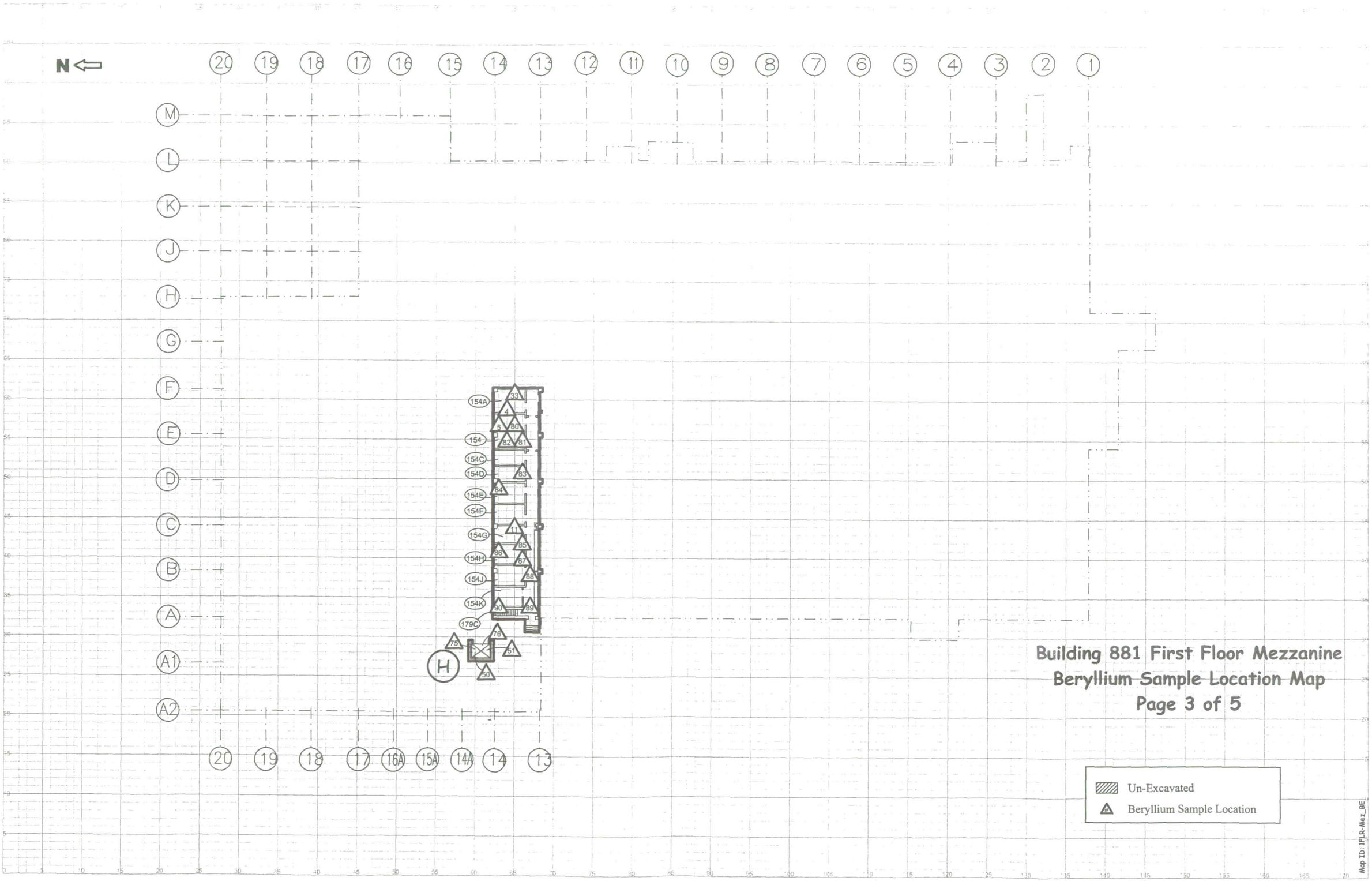

Building 881 First Floor Mezzanine
Beryllium Sample Location Map
Page 3 of 5

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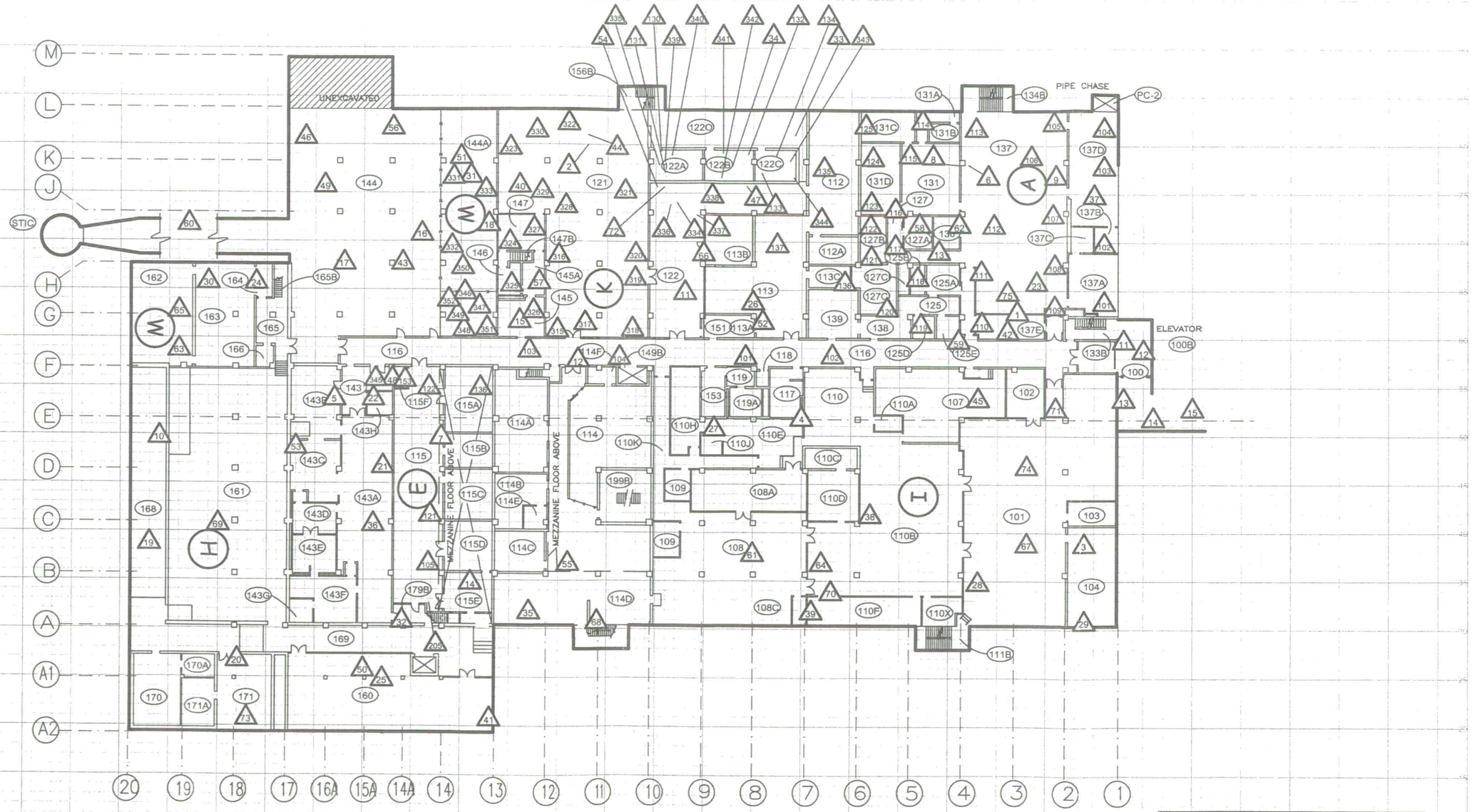
Building 881 First Floor
Beryllium Sample Location Map

N ⇦



Map ID: 1FLR_BE

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ATTACHMENT C-2

In-Process Biased Beryllium Data

Note: Data that has been lined out was in locations not applicable to this report.

Industrial Hygiene Information System
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Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
881-01062004-613-001	WIPE	BART	149B ELEVATOR FLOOR TRACK 1.5 MEZZ WEST	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01062004-613-002	WIPE	BART	149B ELEVATOR INSIDE DOOR TRACK WALL 1ST FL.	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01062004-613-003	WIPE	BART	149B ELEVATOR CAR NORTH BLUE FRAME	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01152004-26-001	WIPE	KH	114 MU-E / WAVE/FLOOR PLATFORM	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01152004-26-002	WIPE	KH	114 MU-E / WAVE/YELLOW AREA ABOVE FLOOR	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01152004-26-003	WIPE	KH	114 MU-E / WAVE/CONTROL PANEL	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01152004-26-004	WIPE	KH	114 MU-E / WAVE/WORK PLATFORM	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01152004-26-005	WIPE	KH	114 MU-E / WAVE/ BLACK GRILL	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01152004-26-006	WIPE	KH	114 MU-E / LIFT/TOP RAIL	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01152004-26-007	WIPE	KH	114 MU-E / LIFT/BOTTOM RAIL	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01152004-26-008	WIPE	KH	114 MU-E / LIFT/FLOOR	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01152004-26-009	WIPE	KH	114 MU-E / LIFT/SCISSORS	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01152004-26-010	WIPE	KH			

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Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
881-01152004-26-010	WIPE	KH	114 MU-E / LIFT/FRONT PANEL	BERYLLIUM AND B	< 0.1000 _ UG/100CM
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
881-01212004-26-601	WIPE	KH	144 DUCT REMOVAL	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01212004-26-602	WIPE	KH	144 DUCT REMOVAL	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01212004-26-603	WIPE	KH	144 DUCT REMOVAL	BERYLLIUM AND B	< 0.1000 _ UG/100CM
[redacted]					
[redacted]					
[redacted]					

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SURFACE

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Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
[redacted]	Sample Work Pkg	Comp	Room Location		
	[redacted]				
[redacted]	Sample Work Pkg	Comp	Room Location		
	[redacted]				
[redacted]	Sample Work Pkg	Comp	Room Location		
	[redacted]				
881-01312004-26-001	Sample Work Pkg WIPE	Comp KH	Room Location 114 CORNER FLOOR	BERYLLIUM AND B < 0.1000 _ UG/100CM	
881-01312004-26-002	Sample Work Pkg WIPE	Comp KH	Room Location 114 FLOOR, METAL PLATFORM	BERYLLIUM AND B < 0.1000 _ UG/100CM	
881-01312004-26-003	Sample Work Pkg WIPE	Comp KH	Room Location 114 I-BEAM, SURFACE	BERYLLIUM AND B < 0.1000 _ UG/100CM	
881-01312004-26-004	Sample Work Pkg WIPE	Comp KH	Room Location 114 FLOOR, UPPER LEVEL	BERYLLIUM AND B < 0.1000 _ UG/100CM	
881-01312004-26-005	Sample Work Pkg WIPE	Comp KH	Room Location 114 I-BEAM BY STAIRS/UPPER LEVEL	BERYLLIUM AND B < 0.1000 _ UG/100CM	
881-01312004-26-006	Sample Work Pkg WIPE	Comp KH	Room Location 114 FLOOR	BERYLLIUM AND B < 0.1000 _ UG/100CM	
881-01312004-26-007	Sample Work Pkg WIPE	Comp KH	Room Location 114 TOP OF PIPE	BERYLLIUM AND B < 0.1000 _ UG/100CM	
881-01312004-26-008	Sample Work Pkg WIPE	Comp KH	Room Location 114 FLOOR, CORNER	BERYLLIUM AND B < 0.1000 _ UG/100CM	
881-01312004-26-009	Sample Work Pkg WIPE	Comp KH	Room Location 114 I-BEAM	BERYLLIUM AND B < 0.1000 _ UG/100CM	
881-01312004-26-010	Sample Work Pkg WIPE	Comp KH	Room Location		

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SURFACE

Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
881-01312004-26-010	WIPE	KH	114 FLOOR, NEAR PIPE	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01312004-26-011	WIPE	KH	114 FLOOR, LOAD OUT	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01312004-26-012	WIPE	KH	114 FLOOR	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01312004-26-013	WIPE	KH	114 FLOOR	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01312004-26-014	WIPE	KH	114 FLOOR	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01312004-26-015	WIPE	KH	114 FLOOR	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01312004-26-016	WIPE	KH	114 FLOOR - E MEZZ	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01312004-26-017	WIPE	KH	114 LOAD OUT - E MEZZ	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01312004-26-018	WIPE	KH	114 FLOOR - E MEZZ	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01312004-26-019	WIPE	KH	114 STEP OF TANK - E MEZZ	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-01312004-26-020	WIPE	KH	114 LEDGE FLOOR - E MEZZ	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02102004-500-001	WIPE	KH	ELEV ELEVATOR CYLINDER INTERIOR	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02102004-500-002	WIPE	KH			

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Ad Hoc Sample Report
SURFACE

Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
881-02102004-500-002	WIPE	KH	ELEV MU-F/ELEVATOR CYLINDER	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02102004-500-003	WIPE	KH	ELEV ELEVATOR CYLINDER INTERIOR	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02102004-500-004	WIPE	KH	ELEV ELEVATOR SHAFT	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02282004-313-001	WIPE	FE	104 FLOOR RAD CON AREA	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02282004-313-002	WIPE	FE	104 FLOOR IH AREA	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02282004-313-003	WIPE	FE	101 FLOOR CENTRAL	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02282004-313-004	WIPE	FE	101 FLOOR DRESS-OUT AREA	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02282004-313-005	WIPE	FE	116 116S/FLOOR S END OF HALLWAY 116	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02282004-313-006	WIPE	FE	116 116M/FLOOR MIDWAY IN HALLWAY 116	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02282004-313-007	WIPE	FE	116 116N/FLOOR NORTH END OF HALLWAY 116	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02282004-313-008	WIPE	FE	114 FLOOR CENTRAL	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02282004-313-009	WIPE	FE	114 FLOOR INSIDE OF EAST DOORWAY	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02282004-313-010	WIPE	FE			

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Ad Hoc Sample Report
SURFACE

Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
881-02282004-313-010	WIPE	FE	144 FLOOR SOUTH END OF DOWNED DUCT	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-02282004-313-011	WIPE	FE	144 FLOOR NORTH END OF DOWNED DUCT	BERYLLIUM AND B	< 0.1000 _ UG/100CM
[redacted]					
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Ad Hoc Sample Report
SURFACE

Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
[redacted]	Sample Work Pkg	Comp	Room Location		
	WIPE	FE	OUTS FLOOR (232) OUTSIDE W OF T-19 CONTAINMEN	BERYLLIUM AND B	< 0.1000 _ UG/100CM
[redacted]	Sample Work Pkg	Comp	Room Location		
	WIPE	FE	OUTS FLOOR (232) OUTSIDE SW OF T-19 CONTAINME	BERYLLIUM AND B	< 0.1000 _ UG/100CM
	Sample Work Pkg	Comp	Room Location		
881-03082004-617-001	WIPE	UNK	115 MU-E/BACK OF PLATFORM	BERYLLIUM AND B	< 0.1000 _ UG/100CM
	Sample Work Pkg	Comp	Room Location		
881-03082004-617-002	WIPE	UNK	115 MU-E/FRONT OF PLATFORM	BERYLLIUM AND B	< 0.1000 _ UG/100CM
	Sample Work Pkg	Comp	Room Location		
881-03082004-617-003	WIPE	UNK	115 MU-E/EXTENSION PART OF LIFT OPPOSITE CON	BERYLLIUM AND B	< 0.1000 _ UG/100CM
	Sample Work Pkg	Comp	Room Location		
881-03082004-617-004	WIPE	UNK	115 MU-E/LEFT REAR WHEEL RIM	BERYLLIUM AND B	< 0.1000 _ UG/100CM
	Sample Work Pkg	Comp	Room Location		
881-03082004-617-005	WIPE	UNK	115 MU-E/RT. FRONT WHEEL RIM	BERYLLIUM AND B	< 0.1000 _ UG/100CM
	Sample Work Pkg	Comp	Room Location		
881-03082004-617-006	WIPE	UNK	115 MU-E/EXTENSION PART OF LIFT CONTROL SI06	BERYLLIUM AND B	< 0.1000 _ UG/100CM
	Sample Work Pkg	Comp	Room Location		
881-03082004-617-007	WIPE	UNK	115 MU-E/OUTSIDE ROOM 115/RIGHT AT ENTRANCE	BERYLLIUM AND B	< 0.1000 _ UG/100CM
	Sample Work Pkg	Comp	Room Location		
881-03082004-617-008	WIPE	UNK	115 MU-E/COLUMN F13/FIRST FLOOR HALLWAY	BERYLLIUM AND B	< 0.1000 _ UG/100CM
	Sample Work Pkg	Comp	Room Location		
881-03082004-617-009	WIPE	UNK	115 MU-E/COLUMN F8/FIRST FLOOR HALLWAY	BERYLLIUM AND B	< 0.1000 _ UG/100CM
	Sample Work Pkg	Comp	Room Location		
881-03082004-617-010	WIPE	UNK	115 MU-E/COLUMN F2 NEXT TO DOUBLE DOORS	BERYLLIUM AND B	< 0.1000 _ UG/100CM
	Sample Work Pkg	Comp	Room Location		
881-03102004-313-001	WIPE	FE			

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Industrial Hygiene Information System
Ad Hoc Sample Report
SURFACE

Building No

Sample Number	Sample	Work Pkg	Comp	Room Location	Analyte Name	Concentration
881						
881-03102004-313-001	WIPE		FE	137E MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-006	WIPE		FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-008	WIPE		FE	131 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-009	WIPE		FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-013	WIPE		FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-023	WIPE		FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-037	WIPE		FE	137D MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-042	WIPE		FE	137E MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-058	WIPE		FE	127A MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-059	WIPE		FE	125E MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-062	WIPE		FE	130 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-075	WIPE		FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-101	WIPE		FE			

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Industrial Hygiene Information System
Ad Hoc Sample Report
SURFACE

Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
881-03102004-313-101	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-102	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-103	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-104	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-105	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-106	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-107	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-108	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-109	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-110	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-111	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-112	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-113	WIPE	FE			

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Industrial Hygiene Information System
Ad Hoc Sample Report
SURFACE

Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
881-03102004-313-113	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-114	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-115	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-116	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-117	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-118	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-119	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-120	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-121	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-122	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-123	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-124	WIPE	FE	137 MU-A/CLEARANCE/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03102004-313-125	WIPE	FE			

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Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
881-03262004-26-001	WIPE	KH	114A HF SCRUBBER/2ND FLOOR/SEE MAP	BERYLLIUM AND B < 0.1000 _ UG/100CM	
881-03262004-26-002	WIPE	KH	114A HF SCRUBBER/2ND FLOOR/SEE MAP	BERYLLIUM AND B < 0.1000 _ UG/100CM	
881-03262004-26-003	WIPE	KH	114A HF SCRUBBER/2ND FLOOR/SEE MAP	BERYLLIUM AND B < 0.1000 _ UG/100CM	
881-03262004-26-004	WIPE	KH			

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Ad Hoc Sample Report
SURFACE

Building No

Sample Number	Sample	Work Pkg	Comp	Room Location	Analyte Name	Concentration
881						
881-03262004-26-004	WIPE	KH		114A HF SCRUBBER/2ND FLOOR/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-005	WIPE	KH		114A HF SCRUBBER/2ND FLOOR/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-006	WIPE	KH		114A HF SCRUBBER/2ND FLOOR/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-007	WIPE	KH		114A HF SCRUBBER/2ND FLOOR/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-008	WIPE	KH		114A HF SCRUBBER/2ND FLOOR/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-009	WIPE	KH		114A HF SCRUBBER/FLOOR/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-010	WIPE	KH		114A HF SCRUBBER/FLOOR/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-011	WIPE	KH		114A HF SCRUBBER/FLOOR/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-012	WIPE	KH		114A HF SCRUBBER/FLOOR/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-013	WIPE	KH		114A HF SCRUBBER/FLOOR/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-014	WIPE	KH		114A HF SCRUBBER/FLOOR/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-015	WIPE	KH		114A HF SCRUBBER/TOP OF PIPE RUN/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-016	WIPE	KH				

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Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
881-03262004-26-016	WIPE	KH	114A HF SCRUBBER/TOP OF PIPE RUN/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-017	WIPE	KH	114A HF SCRUBBER/FLOOR/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-018	WIPE	KH	114A HF SCRUBBER/FLOOR/SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-019	WIPE	KH	114A HF SCRUBBER/AROUND PENETRATION LIP/SEE M	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-03262004-26-020	WIPE	KH	114A HF SCRUBBER/AROUND PENETRATION LIP/SEE M	BERYLLIUM AND B	< 0.1000 _ UG/100CM
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
881-12152003-313-001	WIPE	FE	110 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-002	WIPE	FE	110 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-003	WIPE	FE	110 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-004	WIPE	FE	110B MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-005	WIPE	FE	110B MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-006	WIPE	FE	110B MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-007	WIPE	FE	110B MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-008	WIPE	FE	110B MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-009	WIPE	FE	110B MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-010	WIPE	FE	101 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-011	WIPE	FE	101 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-012	WIPE	FE	101 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-013	WIPE	FE			

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Ad Hoc Sample Report
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Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
881-12152003-313-013	WIPE	FE	104 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-014	WIPE	FE	101 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-015	WIPE	FE	101 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-016	WIPE	FE	101 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-017	WIPE	FE	101 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-018	WIPE	FE	101 MU-I WALL - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-019	WIPE	FE	107 MU-I WALL - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-020	WIPE	FE	110B MU-I WALL - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-021	WIPE	FE	110B MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-022	WIPE	FE	110B MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-023	WIPE	FE	110B MU-I WALL - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-024	WIPE	FE	110B MU-I WALL - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-025	WIPE	FE			

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Ad Hoc Sample Report
SURFACE

Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
881-12152003-313-025	WIPE	FE	101 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-026	WIPE	FE	101 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-027	WIPE	FE	101 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-028	WIPE	FE	101 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-029	WIPE	FE	101 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12152003-313-030	WIPE	FE	101 MU-I FLOOR - SEE MAP	BERYLLIUM AND B	< 0.1000 _ UG/100CM
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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Ad Hoc Sample Report
SURFACE

Building No

Sample Number	Sample Work Pkg	Comp	Room Location	Analyte Name	Concentration
881					
[redacted]	Sample Work Pkg	Comp	Room Location		
881-12302003-26-101	WIPE	KH	137 LOAD OUT AREA OF ROOM 137	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12302003-26-102	WIPE	KH	137 LOAD OUT AREA OF ROOM 137	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12302003-26-103	WIPE	KH	137 LOAD OUT AREA OF ROOM 137	BERYLLIUM AND B	< 0.1000 _ UG/100CM
881-12302003-26-104	WIPE	KH	137 LOAD OUT AREA OF ROOM 137	BERYLLIUM AND B	< 0.1000 _ UG/100CM
[redacted]					
[redacted]					
881-12312003-26-103	WIPE	KH	137 DUCT WORK/RELEASE OF BE AREA	BERYLLIUM AND B	< 0.1000 _ UG/100CM
[redacted]					

TOTAL SAMPLES: 417

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ATTACHMENT D

Data Quality Assessment (DQA) Detail

DATA QUALITY ASSESSMENT (DQA)

VERIFICATION & VALIDATION (V&V) OF RESULTS

V&V of the data confirm that appropriate quality controls are implemented throughout the sampling and analysis process, and that any substandard controls result in qualification or rejection of the data in question. The required quality controls and their implementation are summarized in a tabular, checklist format for each category of data – radiological surveys and chemical analyses (specifically beryllium).

DQA criteria and results are provided in a tabular format for each suite of surveys or chemical analyses performed. The radiological survey assessment is provided in Table D-1 and Beryllium in Table D-2. A data completeness summary for all results is given in Table D-3.

All relevant Quality records supporting this report are maintained in the RISS Characterization Project File. The report will be submitted to the CERCLA Administrative Record for permanent storage within 30 days of approval by the Regulators. All radiological data are organized into Survey Packages, which correlate to unique (MARSSIM) Survey Units. Chemical data are organized by RIN (Report Identification Number) and are traceable to the sample number and corresponding sample location.

Media samples were taken and analyzed by ISOCS Canberra gamma spectroscopy. Transuranic isotope activity and Uranium and/or other naturally occurring isotope activity were evaluated against, and were less than the Transuranic $DCGL_w$ (100 dpm/100cm^2) and the Uranium $DCGL_w$ (5,000 dpm/100cm^2) unrestricted release limits. Media results were converted to dpm/100cm^2 using media conversion tables, evaluated against the transuranic and uranium DCGL limits, and are the values reported in Attachment B-1. Survey designs were implemented for Building 881 1st Floor and 1st Floor Mezzanine based on the uranium limits (DCGLs) in the unrestricted release decision process. On this basis, all PDS results were less than the PDSP unrestricted release limits.

Consistent with EPA's G-4 DQO process, the radiological survey design for each survey unit performed per PDS requirements was optimized by checking actual measurement results acquired during pre-demolition surveys against the model output with original estimates. Use of actual sample/survey (result) variances in the MARSSIM DQO model confirms that an adequate number of surveys were acquired.

DQA SUMMARY

In summary, the data presented in this report have been verified and validated relative to the quality requirements and project decisions as stated in the original DQOs. All data are useable based on qualifications stated herein and are considered satisfactory without qualification. All media surveyed and sampled yielded results less than their associated action levels and with acceptable certainties, except for the following areas:

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- During PDS scan surveys, elevated activity was identified in Survey Unit 881E01 on the floor of Room 154. The area of elevated activity was assigned biased sample locations 32, 33 and 34. The initial Alpha net activity for locations 32, 33 and 34 were 5,321.0 dpm/100cm^2, 4,654.3 dpm/100cm^2 and 6200.6 dpm/100cm^2 respectively. These locations were decontaminated and resurveyed. All results were less than the PDS unrestricted release limits and are the values reported in the PDS Data Summary. No further investigation is required. Refer to Attachment B-5 for the radiological survey results.
- Initial Alpha net activity identified in Survey Unit 881M05 at location #52 (6,661.8 dpm/100cm^2) was greater than the Uranium $DCGL_w$ (5000 dpm/100cm^2). A one square meter investigation was performed in accordance with RSP 16.01. The average of the original point and the eight (8) additional points within the square meter was 1,297.9 dpm/100cm^2. The result is less than the unrestricted release limits and is the value reported in the PDS Data Summary. No further investigation is required.

Stainless steel and media samples and surveys were collected in accordance with the Pre-Demolition Survey Plan for D&D Facilities (MAN-127-PDSP) requirements. The media sample results and stainless steel survey maps are located in Attachments B-1 and B-2 respectively, and the RISS Characterization Project files. All final "as left" results for both the stainless steel samples/surveys and media samples were below the Transuranic and/or Uranium unrestricted release limits as applicable. Although these survey units are not included in Table D, *Data Completeness Summary,* the packages were reviewed as part of the DQA process and verified that the original project DQOs satisfied MARSSIM guidance and DQO objectives were met.

Based upon an independent review of the radiological data, it was determined that the original project DQOs satisfied MARSSIM guidance. Except as noted above, facility contamination levels were below applicable DCGL unrestricted release levels confirming a Type 2 Facility classification. Minimum survey requirements were met, sampling/survey protocol was performed in accordance with applicable RSPs, survey units were properly designed and bounded, and instrument performance and calibration was within acceptable limits. All final "as left" results meet the PDS unrestricted release.

Chain of Custody was intact; documentation was complete, hold times were acceptable (where applicable,) and packaging integrity/custody seals were maintained throughout the sampling/analysis process. Level 1 Isolation Controls have been posted to prevent the inadvertent introduction of further contamination into Building 881 1st Floor and 1st Floor Mezzanine. On this basis, Building 881 1st Floor and 1st Floor Mezzanine meet the unrestricted release criteria with the confidences stated herein.

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Table D-1 V&V of Radiological Results - Building 881, 1st Floor and 1st Floor Mezzanine

V&V CRITERIA, RADIOLGICAL SURVEYS		K-H RSP 16.00 Series MARSSIM (NUREG-1575)		
QUALITY REQUIREMENTS				
	Parameters	**Measure**	**Frequency**	**COMMENTS**
ACCURACY	Initial calibrations	90%<x<110%	≥1	Multi-point calibration through the measurement range encountered in the field; programmatic records.
	Daily source checks	80%<x<120%	≥1/day	Performed daily/within range.
	Local area background: Field	typically < 10 dpm	≥1/day	All local area backgrounds were within expected ranges (i.e., no elevated anomalies.)
PRECISION	Field duplicate measurements for TSA	≥5% of real survey points	≥10% of reals	N/A
REPRESENTATIVENESS	MARSSIM methodology: Multiple Survey Units – refer to Table D-3.	statistical and biased	NA	Random w/ statistical confidence.
	Survey Maps	NA	NA	Random and biased measurement locations controlled/mapped to ±1m.
	Controlling Documents (Characterization Pkg; RSPs)	qualitative	NA	Refer to the Characterization Package (planning document) for field/sampling procedures (located in Project files); thorough documentation of the planning, sampling/analysis process, and data reduction into formats.
COMPARABILITY	Units of measure	dpm/100cm^2	NA	Use of standardized engineering units in the reporting of measurement results.
COMPLETENESS	Plan vs. Actual surveys Usable results vs. unusable	>95% >95%	NA	See Table D-3 for details.
SENSITIVITY	Detection limits	(Uranium) TSA: ≤2,500 dpm/100cm^2 RA: ≤500 dpm/100cm^2	all measures	MDAs ≤ 50% $DCGL_w$ per MARSSIM guidelines.

Table D-2 V&V of Beryllium Results - Building 881, 1st Floor and 1st Floor Mezzanine

V&V CRITERIA, CHEMICAL ANALYSES		DATA PACKAGE		
BERYLLIUM	Prep: NMAM 7300 METHOD: OSHA ID-125G	LAB ---->	Johns Manville Littleton, Colorado	
		RIN ---->	Multiple RINs – see table D-3	
				COMMENTS
QUALITY	REQUIREMENTS	Measure	Frequency	All results were below unrestricted release limits.
ACCURACY	**Calibrations** Initial	linear calibration	≥1	
	Continuing	80%<%R<120%	≥1	
	LCS/MS	80%<%R<120%	≥1	
	Blanks – lab & field	<MDL	≥1	
	Interference check std (ICP)	NA	NA	
PRECISION	LCSD	80%<%R<120% (RPD<20%)	≥1	
	Field duplicate	all results < RL	≥1	
REPRESENTATIVENESS	COC	Qualitative	NA	
	Hold times/preservation	Qualitative	NA	
	Controlling Documents (Plans, Procedures, maps, etc.)	Qualitative	NA	
COMPARABILITY	Measurement units	ug/100cm^2	NA	
COMPLETENESS	Plan vs. Actual samples Usable results vs. unusable	>95% >95%	NA	
SENSITIVITY	Detection limits	MDL of 0.00084 ug/swipe	all measures	

Table D-3 Data Completeness Summary - Building 881, 1st Floor and 1st Floor Mezzanine

ANALYTE	Building/Area/Unit	Sample Number Planned (Real & QC)	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Beryllium	Building 881 1st Floor (interior)	46 random (interior)	162 Interior (76 random/86 biased)	No Be contamination found at any location, all results were below associated action levels	10CFR850; OSHA ID-125G • RIN04D0635: sample map locations 54, 72, 130, 334, 336, 337, 338, 341, 342, 343 and 344 • RIN04Z1712: sample map location 60 • RIN04Z1354: sample map locations 1, 6, 8, 9, 13, 23, 37, 42, 58, 59, 62, 75 and 101 through 125 • RIN04D0727: sample map locations 2, 15, 18, 31, 40, 44, 51, 57 and 315 through 333 • RIN04D0726: sample map locations 3, 4, 10, 17, 19, 20, 25, 27, 28, 29, 35, 38, 39, 41, 45, 46, 49, 50, 55, 61, 64, 67, 68, 69, 70, 71, 73 and 74 • RIN04Z1975: sample map locations 5, 21, 22, 36, 53, and 345 • RIN04Z1621: sample map locations 7, 12, 14, 32, 48, 101, 102, 103, 104, 105, 121, 122, 136, 153 and 205 • RIN04Z1755: sample map locations 11, 26, 33, 34, 47, 52, 66 and 131 through 137 • RIN04Z1445: sample map locations 11, 12, 13, 14 and 15 • RIN04D0799: sample map locations 16, 24, 30, 33, 43, 56, 63 and 65 • RIN04Z1807: sample map locations 335, 339 and 340 • RIN04Z1865: sample map locations 346, 347, 348, 349, 350, 351 and 352 Refer to Table C-1 for sample locations. All results were below the action level (0.2 ug/100cm^2) and investigative level (0.1 ug/100cm^2).

Table D-3 Data Completeness Summary - Building 881, 1st Floor and 1st Floor Mezzanine

ANALYTE	Building/Area/Unit	Sample Number Planned (Real & QC)	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Beryllium	Building 881 1st Floor Mezzanine (interior)	15 random (interior)	19 interior (17 random/2 biased)	No Be contamination found at any location, all results were below associated action levels	10CFR850; OSHA ID-125G RIN04Z0443: sample locations 4, 5, 11 and 13 RIN03Z094: sample locations 50 and 51 RIN04D0799: sample locations 75, 76, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89 and 90 Refer to Table C-1 for sample locations. All results were below the action level (0.2 ug/100cm^2) and investigative level (0.1 ug/100cm^2).
Radiological	Survey Area (MU) A Survey Unit 881A01 Bldg. 881 – MU-A, Room 137 Floor	85 α TSA (systematic) 85 α Smears (systematic) 5 QC TSA 100% scan	85 α TSA (systematic) 85 α Smears (systematic) 5 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) A Survey Unit 881A02 Bldg. 881 – MU-A, Room 137 Walls and Ceilings	16 α TSA (systematic) 16 α Smears (systematic) 2 QC TSA 25% scan	16 α TSA (systematic) 16 α Smears (systematic) 2 QC TSA 25% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.

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Table D-3 Data Completeness Summary - Building 881, 1st Floor and 1st Floor Mezzanine

ANALYTE	Building/Area/Unit	Sample Number Planned (Real & QC)	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Radiological	Survey Area (MU) A Survey Unit 881A03 Bldg. 881 – MU-A, Rooms 112, 113, 125, 127, 130, 138, 139 and 151 Floors	110 α TSA (107 systematic/ 3 biased) 110 α Smears (107 systematic/ 3 biased) 6 QC TSA 100% scan	110 α TSA (107 systematic/ 3 biased) 110 α Smears (107 systematic/ 3 biased) 6 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) A Survey Unit 881A04 Bldg. 881 – MU-A, Rooms 112, 113, 125, 127, 130, 138, 139 and 151 Walls and Ceilings	16 α TSA (systematic) 16 α Smears (systematic) 2 QC TSA 25% scan	16 α TSA (systematic) 16 α Smears (systematic) 2 QC TSA 25% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) A Survey Unit 881A05 Bldg. 881 – MU-A, Room 112 Electrical Chase All Surfaces	16 α TSA (systematic) 16 α Smears (systematic) 2 QC TSA 100% scan	16 α TSA (systematic) 16 α Smears (systematic) 2 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.

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Table D-3 Data Completeness Summary - Building 881, 1st Floor and 1st Floor Mezzanine

ANALYTE	Building/Area/Unit	Sample Number Planned (Real & QC)	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Radiological	Survey Area (MU) E Survey Unit 881E01 Building 881 – MU-E, Room 154 - floor	31 α TSA (systematic) 31 α Smears (systematic) 2 QC TSA 100% scan	34 α TSA (31 systematic/3 biased) 341 α Smears (31 systematic/3 biased) 2 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used. See Attachment D (DQA) for discussion on elevated activity identified during scan surveys for locations 32, 33 and 34.
Radiological	Survey Area (MU) E Survey Unit 881E02 Building 881 – MU-E, Room 154 – walls and ceiling	20 α TSA (systematic) 20 α Smears (systematic) 2 QC TSA 50% scan	20 α TSA (systematic) 20 α Smears (systematic) 2 QC TSA 50% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) E Survey Unit 881E03 Bldg. 881 – MU-E, Rooms 114A through 114F Floors	86 α TSA (systematic) 86 α Smears (systematic) 5 QC TSA 100% scan	86 α TSA (systematic) 86 α Smears (systematic) 5 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.

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Table D-3 Data Completeness Summary - Building 881, 1st Floor and 1st Floor Mezzanine

ANALYTE	Building/Area/Unit	Sample Number Planned (Real & QC)	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Radiological	Survey Area (MU) E Survey Unit 881E04 Bldg. 881 – MU-E, Rooms 114A through 114F Walls and Ceilings	20 α TSA (systematic) 20 α Smears (systematic) 2 QC TSA 25% scan	20 α TSA (systematic) 20 α Smears (systematic) 2 QC TSA 25% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) E Survey Unit 881E06 Bldg. 881 – MU-E, Rooms 115A through 115F Floors	59 α TSA (systematic) 59 α Smears (systematic) 3 QC TSA 100% scan	60 α TSA (59 random/1 biased) 60 α Smears (59 random/1 biased) 3 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) E Survey Unit 881E07 Bldg. 881 – MU-E, Rooms 115A through 115F Walls and Ceilings	16 α TSA (systematic) 16 α Smears (systematic) 2 QC TSA 25% scan	18 α TSA (16 random/2 biased) 18 α Smears (16 random/2 biased) 2 QC TSA 25% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.

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Table D-3 Data Completeness Summary - Building 881, 1st Floor and 1st Floor Mezzanine

ANALYTE	Building/Area/Unit	Sample Number Planned (Real & QC)	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Radiological	Survey Area (MU) E Survey Unit 881E08 Bldg. 881 – MU-E, Rooms 143A through 143H Floors	58 α TSA (systematic) 58 α Smears (systematic) 4 QC TSA 100% scan	58 α TSA (systematic) 58 α Smears (systematic) 3 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) E Survey Unit 881E09 Bldg. 881 – MU-E, Rooms 143A through 143H Walls and Ceilings	20 α TSA (systematic) 20 α Smears (systematic) 2 QC TSA 25% scan	20 α TSA (systematic) 20 α Smears (systematic) 2 QC TSA 25% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) E Survey Unit 881E10 Bldg. 881 – MU-E, Room 199 and Vent, Floor and Walls	20 α TSA (systematic) 20 α Smears (systematic) 2 QC TSA 100% scan	20 α TSA (systematic) 20 α Smears (systematic) 2 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) H Survey Unit 881H01 Building 881 (MU-H) - Rooms 160, 169, 170 and 171 - floors	78 α TSA (systematic) 78 α Smears (systematic) 4 QC TSA 100% scan	78 α TSA (systematic) 78 α Smears (systematic) 4 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.

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Table D-3 Data Completeness Summary - Building 881, 1st Floor and 1st Floor Mezzanine

ANALYTE	Building/Area/Unit	Sample Number Planned (Real & QC)	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Radiological	Survey Area (MU) H Survey Unit 881H02 Building 881 – MU-H, Rooms 160, 169, 170 and 171 – walls and ceilings	25 α TSA (systematic) 25 α Smears (systematic) 2 QC TSA 50% scan	25 α TSA (systematic) 25 α Smears (systematic) 2 QC TSA 50%	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) H Survey Unit 881H04 Building 881 – MU-H, Rooms 161 and 168 Floors, Walls and Ceilings	95 α TSA (systematic) 95 α Smears (systematic) 5 QC TSA 100% scan	95 α TSA (systematic) 95 α Smears (systematic) 5 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) I Survey Unit 881I01 Building 881 (MU-I) ST1 Exhaust tunnel floor	20 α TSA (systematic) 20 α Smears (systematic) 2 QC TSA 100% scan	20 α TSA (systematic) 20 α Smears (systematic) 2 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) I Survey Unit 881I02 Building 881 – MU-I ST1 Exhaust tunnel walls and ceiling	17 α TSA (systematic) 17 α Smears (systematic) 2 QC TSA 25% scan	17 α TSA (systematic) 17 α Smears (systematic) 2 QC TSA 25% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.

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Table D-3 Data Completeness Summary - Building 881, 1st Floor and 1st Floor Mezzanine

ANALYTE	Building/Area/Unit	Sample Number Planned (Real & QC)	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Radiological	Survey Area (MU) I Survey Unit 881I03 Bldg. 881 – MU-I, Rooms 108, 109, 110, 117, 118, 119 and 153 Floors	91 α TSA (systematic) 91 α Smears (systematic) 5 QC TSA 100% scan	91 α TSA (systematic) 91 α Smears (systematic) 5 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) I Survey Unit 881I04 Bldg. 881 – MU-I, Rooms 108, 109, 110, 117, 118, 119 and 153 Walls and Ceilings	18 α TSA (systematic) 18 α Smears (systematic) 2 QC TSA 25% scan	18 α TSA (systematic) 18 α Smears (systematic) 2 QC TSA 25% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) I Survey Unit 881I05 Bldg. 881 – MU-I, Rooms 101, 102, 103, 104, 110 and 110C Floors	186 α TSA (systematic) 186 α Smears (systematic) 10 QC TSA 100% scan	186 α TSA (systematic) 186 α Smears (systematic) 10 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) I Survey Unit 881I06 Bldg. 881 – MU-I, Rooms 101, 102, 103, 104 and 110 Walls and Ceilings	23 α TSA (systematic) 23 α Smears (systematic) 2 QC TSA 25% scan	23 α TSA (systematic) 23 α Smears (systematic) 2 QC TSA 25% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.

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Table D-3 Data Completeness Summary - Building 881, 1st Floor and 1st Floor Mezzanine

ANALYTE	Building/Area/Unit	Sample Number Planned (Real & QC)	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Radiological	Survey Area (MU) I Survey Unit 881I07 Bldg. 881 – MU-I, Room 116 Floor	64 α TSA (systematic) 64 α Smears (systematic) 4 QC TSA 100% scan	64 α TSA (systematic) 64 α Smears (systematic) 4 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) I Survey Unit 881I08 Bldg. 881 – MU-I, Room 116 Walls and Ceiling	23 α TSA (systematic) 23 α Smears (systematic) 2 QC TSA 25% scan	23 α TSA (systematic) 23 α Smears (systematic) 2 QC TSA 25% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) I Survey Unit 881I09 Bldg. 881 – Room 144 North Floor	60 α TSA (systematic) 60 α Smears (systematic) 3 QC TSA 100% scan	60 α TSA (systematic) 60 α Smears (systematic) 3 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) I Survey Unit 881I10 Bldg. 881 – Room 144 North Walls and Ceiling	17 α TSA (systematic) 17 α Smears (systematic) 2 QC TSA 25% scan	17 α TSA (systematic) 17 α Smears (systematic) 2 QC TSA 25% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.

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Table D-3 Data Completeness Summary - Building 881, 1st Floor and 1st Floor Mezzanine

ANALYTE	Building/Area/Unit	Sample Number Planned (Real & QC)	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Radiological	Survey Area (MU) K Survey Unit 881K01 Bldg. 881 – MU-K, Rooms 122A through 122D Floors	28 α TSA (systematic) 28 α Smears (systematic) 2 QC TSA 100% scan	28 α TSA (systematic) 28 α Smears (systematic) 2 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) K Survey Unit 881K03 Bldg. 881 – MU-K, Rooms 121, 145 and 147 Floors	103 α TSA (102 systematic/ 1 biased) 103 α Smears (102 systematic/ 1 biased) 6 QC TSA 100% scan	103 α TSA (102 systematic/ 1 biased) 103 α Smears (102 systematic/ 1 biased) 6 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) K Survey Unit 881K04 Bldg. 881 – MU-K, Rooms 121, 145 and 147 Walls and Ceilings	27 α TSA (23 systematic/ 4 biased) 27 α Smears (23 systematic/ 4 biased) 2 QC TSA 25% scan	27 α TSA (23 systematic/ 4 biased) 27 α Smears (23 systematic/ 4 biased) 2 QC TSA 25% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.

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Table D-3 Data Completeness Summary - Building 881, 1st Floor and 1st Floor Mezzanine

ANALYTE	Building/Area/Unit	Sample Number Planned (Real & QC)	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Radiological	Survey Area (MU) K Survey Unit 881K05 Bldg. 881 – MU-K, Room 121, Manhole Pit, All Surfaces	16 α TSA (systematic) 16 α Smears (systematic) 2 QC TSA 100% scan	16 α TSA (systematic) 16 α Smears (systematic) 2 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.
Radiological	Survey Area (MU) M Survey Unit 881M05 Bldg. 881 – MU-M, Rooms 162, 163, 164,, 165 and 166 Floors, Walls and Ceilings	52 α TSA (51 systematic/ 1biased) 52 α Smears (51 systematic/ 1biased) 3 QC TSA 100% scan	52 α TSA (51 systematic/ 1biased) 52 α Smears (51 systematic/ 1biased) 3 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used. Refer to Attachment D, Data Quality Assessment, for discussion of the elevated net activity identified at location #52 and the subsequent square meter investigation.
Radiological	Survey Area (MU) M Survey Unit 881M06 Bldg. 881 – MU-M, Rooms 144A and 144 South, Floors, Walls and Ceiling	93 α TSA (systematic) 93 α Smears (systematic) 6 QC TSA 100% scan	93 α TSA (systematic) 93 α Smears (systematic) 5 QC TSA 100% scan	No contamination at any location; all locations below PDS unrestricted release levels	Uranium DCGLs used.