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EXECUTIVE SUMMARY

CLOSE-OUT RADIOLOGICAL SURVEY REPORT

BUILDINGS 123(NORTH & WEST WINGS) AND 113

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Introduction

This *Close-Out Radiological Survey Report* (CORSR) supports the final disposition of building materials in Buildings 123 (north and west wings) and 113 Specifically, this report delineates areas in these buildings that may be released in an unrestricted manner, in a restricted manner and/or as radioactive waste These determinations were made after analyzing and comparing the results of the radiological surveys and samples obtained to support the CORSR with the requirements in the *Close-Out Radiological Survey Plan For The 123 Cluster* (CRSP)(#RF/RMRS-97-110), Revision 4, dated March, 1998 The results of this comparison show that all building materials, except for the Building 123 concrete slab, may be released in an unrestricted manner This conclusion was reached since all survey and sample data are complete and meet the unrestricted release criteria

Residual radioactivity in excess of the release criteria is contained within the Building 123 slab and is located in what was once Room 109 Based on historical data and verified through in-situ gamma spectroscopy, the source of radioactivity is from a spill of Cs-137 Attempts to remediate the slab in Room 109 failed In an effort to protect this area from the weather and demolition activities, this area has been sealed with a weather proof epoxy coating and covered with a steel plate bolted into the slab In addition, abandoned source wells and process waste piping are located in the Building 123 slab which have yet to be characterized An area of elevated activity has been identified in one process waste sump (Room 157) This sump is covered with steel access doors (as part of the original design) and is below grade These two attributes provide adequate assurance that residual radioactivity will remain undisturbed during demolition Following demolition, the sumps will be filled with soil and capped with concrete to mitigate the personnel hazard associated with an open pit This action will prevent the spread of residual radioactivity as a result of water intrusion into the sump Areas containing elevated levels of residual radioactivity will be addressed during the Building 123 Slab Remediation Project

It should be noted that three areas in the north wing, Room 111 south wall, the Room 105 slab surface and Room 123A cement transformer pad along the north wall were successfully decontaminated/remediated

The standard radiological survey form used at Rocky Flats Environmental technology Site (RFETS) does not provide the required level of traceability for use in a Decontamination & Decommissioning (D&D) project In an effort to provide data in the most traceable form, radiological survey data was recorded as gross instrument readings, net instrument readings and net survey results Gross instrument readings were obtained from the raw data sheets completed by the Radiological Control Technicians (RCT) performing the surveys Net survey results were calculated using the appropriate instrument background and efficiencies, as listed on the Survey Unit Specific Background Count Rate Calculation Sheets for the instrument(s) used to perform the surveys In some instances, due to the multitude of RCTs and instruments used to perform a survey, raw

data could not be tied to a specific instrument In these cases, the most limiting instrument (lowest background and lowest efficiency) was used to calculate the most conservative net survey results Net survey results calculated using this methodology are annotated as such on the Electra Background Log for the specific survey unit

To account for naturally occurring radioactivity present in some building materials, (specifically concrete/cinder block surfaces) a reference area background has been added to the instrument background, when appropriate "Instrument Only" and "Instrument + Reference Area" backgrounds are recorded on the Electra Background Log Sheet and on the Radioactive Contamination Data Form The "Instrument + Reference Area" background was used most often during final surveys of Building 123 Survey points with instrument only background subtracted (non-concrete/cinder block surfaces) are annotated on the Radioactive Contamination Survey Form by **bolding** the survey point number

The majority of the floor space and portions of the walls (up to six feet) were surveyed by the Shonka Research Associates, Inc (SRA) and Millennium Services Inc (MSI) team who were subcontracted to perform portions of the final contamination surveys in the north and west wings of Building 123 The surface contamination surveys portion of the north and west wings of Building 123 performed by this team are acceptable for use in final release survey documentation The information content, detection limits, and accuracy of the survey report meets or exceeds conventional survey technology Refer to the *Executive Summary of Radiation Surveys Performed at Rocky Flats Environmental Technology Site*, prepared by Shonka Research Associates, Inc and the associated *Final Survey Data Set North & West Wings Building 123* for SRA/MSI survey results Refer to Safe Sites of Colorado Interoffice Memorandum, RLM-004-98, *Qualification of SRA/Millennium Services, Inc Data for Use in Building 123 Final Surveys*, for acceptance criteria and survey methodology clarification

Site RCTs performed one minute direct contamination surveys and swipe surveys in all grids scanned by SRA/MSI, however, some overlap exists between the scan surveys performed by SRA/MSI and Site RCTs Grids scanned primarily by SRA/MSI are annotated as "See Millennium Data" on the radiological survey data forms Grids which were not completely scanned by SRA/MSI and annotated as "See Millennium Data" have a corresponding hand scan located at the end of the associated survey unit section of the final survey report In most cases, the radiological survey maps of the associated survey unit are overlaid with the SRA/MSI scan grids which are included, along with the associated data table(s), in the corresponding survey unit section of the final survey report Three areas, the south wall of Survey Unit 9 between the men's and lady's locker rooms (SRA/MSI survey area RF12310), the lady's locker room floor (SRA/MSI survey area RF12313) and the floor of Survey Unit 9 (SRA/MSI survey area RF12306) were not overlaid onto the corresponding survey unit maps SRA/MSI survey area RF12306 was overlaid onto the corresponding survey unit map by RMRS Radiological Engineering These survey areas and data tables are included in the corresponding survey unit section of the final survey report

An RCT accompanying the SRA/MSI team during their performance of surveys recorded areas which could not be scanned using the SRA/MSI equipment These areas were scanned by an RCT Although it could be justified to utilize the SRA/MSI survey data to satisfy the scan and direct survey requirements of the CRSP, the data obtained by SRA/MSI will only be used (along with the Site RCT scan surveys) to fulfill the 100% scan survey requirement for Survey Units 6, 7, 9 and 10

This CORSR is organized by the survey units associated with this phase of demolition Final surveys were performed following the removal of the interior walls which defined rooms and hallways Refer to the attached Building 123 Floor Plan and Survey Unit Maps to correlate room numbers with survey units The following describes the radiological surveys performed along with a comparison of those surveys with the unrestricted release criteria

Survey Group 2

Survey Group 2 consists of the interior West Wing of Building 123, Survey Units 6, 7 and 8 Refer to the Building 123 Survey Unit Map for survey unit layout Survey Units 6 and 7 were surveyed as Class 1 areas, Survey Unit 8 was surveyed as a Class 3 Area An out of scale blue print was used to determine the boundaries of the survey units, therefore, to meet the size limitation prescribed in the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) and the CRSP, each unit was divided into sub-units for statistical analysis

All required radiological surveys were performed in this survey group Fixed and removable surveys were performed for alpha and beta contamination at the prescribed coverage Scan surveys were performed at the prescribed coverage, including fixed equipment in all Survey Units

A review of the radiological data show that all of the removable surveys for alpha and beta contamination were below the Derived Concentration Guideline Level (DCGL) and a majority of the scan and direct surveys for total alpha and beta contamination were below the DCGL Two survey points, numbers 82 and 242 in Survey Unit 6, indicate residual radioactivity in excess of the DCGL (average), but below the maximum contamination level, as identified in Appendix A, *Surface Contamination Guidelines*, of the CRSP During the SRA/MSI scan of Survey Unit 6, an area of elevated residual radioactivity was identified in Grid 137 Residual radioactivity in excess of the DCGL (average) but below the maximum contamination level was confirmed by Site RCTs using RFETS survey instrumentation These areas have been reevaluated in accordance with Section 5 2 of the CRSP and meet the free release criteria

For each survey unit, the results of the total and removable contamination surveys were analyzed in accordance with Section 9 0 of the CRSP The sample mean, standard

deviation and 95% upper confidence level (μ_α) were determined for both alpha and beta total and removable contamination The value of μ_α was then compared against the applicable DCGL In all cases, the value of μ_α was less than the DCGL For Class 3 survey units, this indicates that the survey unit met the release criteria at a 95% confidence level For Class 1 survey units, the survey density was such that the population mean is below the DCGL Statistical analysis results are provided in Appendix A of this report

Based on the radiological survey results and analysis of these results, all portions of Survey Group 2, with the exception of the Building 123 slab, may be released for unrestricted use

Survey Group 3

Survey Group 3 consists of the interior North Wing of Building 123, Survey Units 9, 10 and 11 Refer to the Building 123 Survey Unit Map for survey unit layout Survey Units 9 and 10 were surveyed as Class 1 areas, Survey Unit 11 was surveyed as a Class 3 Area An out of scale blue print was used to determine the boundaries of the survey units, therefore, to meet the size limitation prescribed in the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) and the CRSP, each unit was divided into sub-units for statistical analysis

All required radiological surveys were performed in this survey group. Fixed and removable surveys were performed for alpha and beta contamination at the prescribed coverage Scan surveys were performed at the prescribed coverage, including fixed equipment in Survey Unit 11 Direct and removable contamination surveys were not obtained at specific locations on the piping in the overhead of Survey Unit 11 or on the column located in Survey Unit 10 The surveys performed on the walls and ceiling fulfill the final survey requirements Contamination surveys performed during the strip out of overhead process waste piping and ventilation ducting failed to identify contamination levels above the limits of Table 2-2 of the Site Radiological Control Manual The surveys obtained in Survey Unit 11 met the requirements of the CSRP, therefore, no additional surveys were required

A review of the radiological data show that all of the removable surveys for alpha and beta contamination were below the DCGL and a majority of the scan and direct surveys for total alpha and beta contamination were below the DCGL Several survey points, primarily in the locker rooms of Survey Unit 9, indicated residual radioactivity in excess of the DCGL (average), but below the maximum contamination level, as identified in Appendix A, *Surface Contamination Guidelines*, of the CRSP These areas have been reevaluated in accordance with Section 5 2 of the CRSP and meet the free release criteria. An area of elevated residual radioactivity was identified by the SRA/MSI team during their analysis of the scan data The coordinates to pinpoint this area were forwarded to Radiological Safety Supervision in order to perform verification surveys This area was

surveyed (direct measurement and 100 % scan of surrounding areas), and no contamination was discovered

As stated earlier, residual radioactivity in excess of the release criteria is contained within the Building 123 slab and is located in what was once Room 109 This radioactivity is a result of a spill of cesium 137 Controls are in place to prevent the migration of this radioactivity Refer to the specific survey unit Final Survey Package for radiological survey records

Three areas of the north wing were successfully decontaminated/remediated

1 Paint from the south wall of Room 111 was removed based on the paint sample results Paint sample results on adjacent walls did not necessitate remedial actions The south wall of Room 111 was surveyed as a Class 1 area following the removal of paint and was shown to meet the release criteria
2 The contaminated portion of the slab surface in Room 105 was successfully decontaminated
3 The contaminated portion of the cement transformer pad along the north wall of Room 123A, (refer to survey point #162 Survey Unit 9) was removed following the identification of residual radioactivity in excess of the maximum levels during 100% scan surveys

For each survey unit, the results of the total and removable contamination surveys were analyzed in accordance with Section 9 0 of the CRSP The sample mean, standard deviation and 95% upper confidence level (μ_α) were determined for both alpha and beta total and removable contamination The value of μ_α was then compared against the applicable DCGL In all cases, the value of μ_α was less than the DCGL For Class 3 survey units, this indicates that the survey unit met the release criteria at a 95% confidence level For Class 1 survey units, the survey density was such that the population mean is below the DCGL Statistical analysis results are provided in Appendix A of this report

Based on the radiological survey results and analysis of these results, all portions of Survey Group 3 (consisting of Survey Units 9 through 11), with the exception of the Building 123 slab, may be released for unrestricted use

Survey Group 4

Survey Group 4, Survey Unit 12, consists of the pipe chase located between the locker rooms in the north wing of Building 123 This unit was surveyed as a Class 3 Area

A review of the radiological data show that all of the removable, direct and scan surveys for alpha and beta contamination were below the DCGL Refer to the specific survey unit Final Survey Package for radiological survey records

The results of the total and removable contamination surveys were analyzed in accordance with Section 9.0 of the CSRP The sample mean, standard deviation and 95% upper confidence level (μ_α) were determined for both alpha and beta total and removable contamination The value of μ_α was then compared against the applicable DCGL In all cases, the value of μ_α was less than the DCGL For Class 3 survey units, this indicates that the survey unit met the release criteria at a 95% confidence level Statistical analysis results are provided in Appendix A of this report

Based on the radiological survey results and analysis of these results, all portions of Survey Unit 12 may be released for unrestricted use

Survey Group 5

Survey Group 5, Survey Unit 13, consists of the three process waste sumps located in what was once Rooms 156, 157 and 158 These sumps have been surveyed as a Class 1 Area, but will remain in place during demolition

A review of the radiological data show that all of the removable and scan surveys for alpha and beta contamination were below the DCGL One area, survey point #18 in Sump #2, which is the sump in what was once Room 157, exceeds the total beta DCGL Due to the small size of this area, the elevated point cannot be reevaluated in accordance with Section 5 2 of the CRSP The area of elevated activity is below grade and protected with steel doors mitigating the potential to disturb this area during building demolition Reevaluation and/or remedial actions will be taken following building demolition Refer to the specific survey unit Final Survey Package for radiological survey records

The results of the total and removable contamination surveys were analyzed in accordance with Section 9 0 of the CRSP The sample mean, standard deviation and 95% upper confidence level (μ_α) were determined for both alpha and beta total and removable contamination The value of μ_α was then compared against the applicable DCGL In all cases, the value of μ_α was less than the DCGL

Based on the radiological survey results and analysis of these results, most portions of Survey Unit 13 may be released for unrestricted use, but as stated above, the sumps will remain in place with the slab

Survey Group 6

Survey Group 6, Survey Unit 14, specifies the interior survey requirements for Building 113 This unit was surveyed as a Class 3 Area All required radiological surveys were performed in Survey Unit 14 for B113 Fixed and removable surveys were performed for alpha and beta contamination at the prescribed coverage Scan surveys were performed at the prescribed coverage

A review of the radiological data show that all of the removable, direct and scan surveys for alpha and beta contamination were below the DCGL Refer to the specific survey unit Final Survey Package for radiological survey records

The results of the total and removable contamination surveys were analyzed in accordance with Section 9 0 of the CRSP The sample mean, standard deviation and 95% upper confidence level (μ_α) were determined for both alpha and beta total and removable contamination The value of μ_α was then compared against the applicable DCGL In all cases, the value of μ_α was less than the DCGL For Class 3 survey units, this indicates that the survey unit met the release criteria at a 95% confidence level Statistical analysis results are provided in Appendix A of this report

Based on the radiological survey results and analysis of these results, all portions of Survey Unit 14 may be released for unrestricted use

Survey Group 9

Survey Group 9, Survey Unit 18 consists of the Building 123 exterior This survey unit was released with the east wing of Building 123

Survey Group 10

Survey Group 10, Survey Unit 19, consists of the exterior of Building 113 This unit was surveyed as a Class 3 Area All required radiological surveys were performed in this survey group Fixed and removable surveys were performed for alpha and beta contamination at the prescribed coverage Scan surveys were performed at the prescribed coverage

A review of the radiological data show that all fixed and removable surveys for alpha and beta contamination were below the DCGL The results of the scan surveys showed that all fixed alpha and beta contamination was below the DCGL Refer to the specific survey unit Final Survey Package for radiological survey records

The results of the total and removable contamination surveys were analyzed in accordance with Section 9 0 of the CRSP The sample mean, standard deviation and 95% upper confidence level (μ_α) was determined for both alpha and beta total and removable contamination The value of μ_α was then compared against the applicable DCGL In all cases, the value of μ_α were less than the DCGL For Class 3 survey units, this indicates that the survey unit met the release criteria at a 95% confidence level Statistical analysis results are provided in Appendix A of this report

Based on the radiological survey results and analysis of these results, all portions of Survey Unit 19 may be released for unrestricted use

Building Media Samples

Building media samples were obtained throughout the Building 123 interior and exterior and evaluated against the Department of Energy's No-Radioactivity-Added (NRA) Program in accordance with Site Procedure, 4-U50-REP-1006, *Radiological Characterization of Bulk or Volume Materials*

Paint Samples

Paint samples were taken in Building 123 to determine if radioactive material was present in the paint Per the NRA program, the presence of radioactive material in the paint above the Minimum Detectable Activity (MDA) of the radiation detection instrumentation or above the background value may indicate that the paint needs to be handled as radioactive waste Since there is a likelihood that naturally occurring radioactive material exists in the paint, the background level of radioactive material within the paint was evaluated This background level was used to evaluate all paint samples obtained from Building 123

Rooms 111 South Wall, 109B West Wall, 109 South Wall and 106 North Wall showed elevated gross alpha and/or gross beta activity above the background range for the paint Rooms 109B, 109 and 106 have been reevaluated in accordance with Section 7 5 2 2 of the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) and may be released for unrestricted use

As mentioned earlier, the paint from Room 111 South Wall was successfully decontaminated/remediated by removing and disposing of as radioactive waste All remaining paint samples are within the background mean plus two standard deviations or have been reevaluated in accordance with Section 7 5 2 2 of the MARSSIM and may be released for unrestricted use

Refer to RMRS memo JJM-13-98, Paint Sample Results, Building 123

Roof Samples

Fifteen samples were obtained from the Building 123 roof in accordance with Appendix B, Radiological Survey Instructions, of the CSRP, and analyzed for isotopic uranium, plutonium and americium The Building 123 roof was determined to meet the free release criteria during the final survey evaluation of the east wing of Building 123

Property Waste Release Evaluations (P/WRE):

In some cases 1-P73-HSP-18 10, *Radioactive Material Transfer and Unrestricted Release of Property and Waste* was used to release structures, equipment and items associated with the decontamination and demolition of the 123 Cluster P/WREs applicable to this phase of demolition are

P/WRE # 980429-123-01 Walk-in Refrigerator, Room 156
P/WRE # 980102-123-02 Internal portion of Building 123 House Vacuum System
P/WRE # 980102-123-03 Internal portion of Building 123 Process Cold Water System

In all cases, these systems and items met the unrestricted release criteria Refer to the P/WRE section of the Final Survey Radiological Survey Package The most restrictive alpha emitting isotope is based on transuranics, which have an alpha release limit of 20 dpm/100cm^2 removable and 100 dpm/100cm^2 total The beta release limit of 150 dpm/100cm^2 removable and 750 dpm/100cm^2 total is based on the residual radioactivity resulting from Th-232 and Th-nat, through the measurement of Ac-228 in or approaching secular equilibrium with Ra-228 and Th-232 The most restrictive beta emitting isotope identified in the building (after the approval of the P/WREs) is Sr-90, which has a beta release limit of 200 dpm/100cm^2 removable and 1000 dpm/100cm^2 total

For the P/WREs it is appropriate to base the beta release limits on the beta/gamma release limit of 1,000 dpm/100cm^2, in lieu of the release limits derived for Th-232 or Sr-90 The basis for this decision is as follows

1 The surfaces of the items surveyed were, for the most part, free of material that would shield alpha emissions, therefore, the presence of Th-232 could be accomplished through the detection of alpha emissions associated with the decay of Th-232 and Ra-228, alleviating the need to base the release for Th-232 on the detection of the beta emissions from Ac-228 All areas surveyed in the vicinity of the above mentioned systems and item met the 150 dpm/100 cm^2 removable beta contamination release limit Additionally, all swipes analyzed for alpha contamination were below the release level, supporting the premise that Th-232 was not present

2 The Sr-90 contamination was identified in Room 105 of the North Wing of Building 123, which is a substantial distance away from the systems and item released using a P/WRE Based on the results of the removable contamination surveys obtained during final surveys of Building 123 and the distance separating Room 105 and the areas containing these systems and item, likelihood that the above mentioned systems and item are contaminated with Sr-90 is slight

Additions, Anomalies and Explanations:

1 An administrative error during grid number assignments occurred in Survey Units 9 and 10 Grid numbers 438 through 443 were omitted from the sequence in Survey Unit 9 Grid numbers 171 through 179 were omitted from the sequence in Survey Unit 10

2 26 survey points are annotated on the survey map for Sump #3 (Room 156) of Survey Unit 13, however, only 24 direct measurements were obtained Because the area surveyed is less than one square meter, this inconsistency is acceptable since the surveys performed meet the intent of the CRSP

3 An independent radiological engineer was assigned to perform a verification of survey data gathered from B123 This verification included a check of raw, hand recorded data against the final computer generated reports The verification included a 100% review of the data points A total of 10 transcription errors were noted, this represents a small fraction of the total data population Refer to John M Forbes' Memo 98-003, dated April 30, 1998, included in the Correspondence Section of this report All discrepancies were corrected by RMRS Radiological Engineering personnel This transcription error rate is deemed acceptable

4 Some swipe surveys, Rooms 137 & 138 for instance, were counted using the Trench 1 Tennelec, Serial Number 38922, using a counting application with a 1 minute count time (vice 2 minutes) which did not subtract background In all cases, the MDA of the instrument is very close to or meets the goal of 50% of the DCGL Additionally, the background subtract error is a conservative error which would result in a higher calculated activity Neither of these errors invalidate the release for unrestricted use determinations

5 Nearly all Tennelec survey results show swipes 55 and 56 reversed This is due to an equipment manufacturer error on the numbering of carriers 55 and 56 which causes them to be displayed in reversed order In the statistical analysis section the data is entered as if the swipes had been counted in the correct order Since no activity above limits was noted on any of these surveys, it does not affect the validity of the results

6 The B123 roof is composed of many layers of roofing added on at different time and the presence of DOE added radioactive material in the roofing material may not have been conclusively determined through surveys on the surface alone Therefore, roof media samples were taken on this roof in addition to the removable, direct and scan surveys The B113 roof was constructed at one time with one layer of roofing, therefore, the combination of removable, direct and scan surveys on the surveyable surfaces is sufficient

7 For the paint sample analysis, the background was determined from samples taken in non-RMMA Rooms 126, 126C and 113 prior to the conservative re-designation of these rooms to Class 1 Areas Although these walls are in Class 1 survey areas, the following rational was used to justify their use as background contamination was not found on these walls during final survey, their activity (pCi/g) was consistent with

other areas not expected to contain radioactivity and process knowledge suggests that these areas are free of contamination Therefore, paint samples taken in these areas are valid for use as background

8 Radiological remediation work was performed in glovebags at various locations in the North and West wings to cut off process waste drain stub(s) flush with the floor In addition, the south wall of room 111 was remediated within a containment tent Since final surveys had been performed in these areas, post job surveys were taken to ensure that the status of those final surveys was not jeopardized Post-job surveys were taken in these areas to verify that no removable contamination was spread during the work Refer to the "Post-job" surveys which document that no removable contamination was detected

9 The tent used to contain the work area in Room 111 was surveyed free of contamination and left in place to be disposed of along with the building rubble

10 On several survey maps, grids annotated as being around windows and doors are not shown to scale Surveys were performed on the available material in each grid which was affected by doors and windows In the north wing of Building 123, the only door physically remaining with the building is the north west entrance which is located along the west wall of Survey Unit 10 In the west wing of Building 123, the only door physically remaining with the building is the entrance into what was once Room 159 This door is located along the west wall of Survey Unit 6 All other doors were removed prior to demolition In addition to missing doors, a large portion of the east wall of Rooms 155 and 156 was removed during the removal of the lung counting vault during the month of December This vault was placed directly on the soil instead of the slab, therefore, no credible scenario exists that would result in the dirt becoming contaminated, thus final surveys were not performed on the dirt In locations where the doors, walls and slab are missing, the radiological survey maps do not indicate survey points

11 Core samples of the Building 123 walls were not obtained to characterize the interior concrete or cinder block wall surfaces It is appropriate to assume that if the radioactivity contained within the paint sample is indistinguishable from background and if the contamination survey for the wall surface behind the sample area is below the release criteria, then the structural wall itself is free of DOE radioactive material In the case of unpainted walls, release was determined solely on the radiological surveys performed directly on the wall surface Based on the above logic, no additional sampling of the wall cores were needed to determine that the interior wall matrixes meet the release criteria

12 All wall surfaces exposed as a result of paint sampling were surveyed for fixed and removable contamination on April 23, 1998 The surveys indicate that the exposed wall surfaces are well below the release criteria

13 Reference area background was not applied to Building 113 or the three large process waste sumps in Survey Unit 13 Construction materials for Building 113 are not consistent with those used for Building 123 or with the buildings from which

reference area backgrounds were obtained The three large process waste sumps in the west wing of Building 123 are sealed with a thick epoxy coating It is presumed that the naturally occurring radioactive material (NORM) in the concrete would be shielded significantly by this coating

14 Several areas of elevated radioactivity were identified in Survey Unit 9, specifically in the locker rooms All the areas were reevaluated in accordance with Section 5 2 of the CRSP and were found to be below the average DCGL However, an explanation for the number of elevated areas was deemed necessary A walk down of the locker rooms revealed that the areas of elevated activity were predominately associated with surveys obtained on the tiled walls It appears that this material exhibits higher levels of NORM than the concrete walls and slab This assumption was verified by performing surveys on similarly tiled walls in Building 112 Refer to RMRS Interoffice Memorandum, *Alpha and Beta Background Levels Associated with Building 112 Wall Tile*, JJM-14-98

15 On all Radioactive Contamination Data Forms the units were omitted from the Scan column Units for scan surveys are dpm/100cm^2

16 Rooms 137 and 138 are exterior to Building 123 Specific surveys were not performed on the roof or exterior walls of Rooms 137 and 138 The surveys performed on the roof and exterior walls of the East Wing of Building 123 as part of Survey Unit 18, included in Close-Out Radiological Survey Report Building 123 East Wing Summary, are representative of these surface, no additional surveys are required As stated in the summary, all portions of Survey Unit 18 may be released for unrestricted use

17 In some cases, removable contamination surveys performed as part of post job surveys where counted using the Eberline SAC-4 and BC-4 for the detection of alpha and beta contamination respectively These instruments do not meet the stringent detection limits set in the CRSP for removable contamination Although the MDA for alpha contamination equals the alpha DCGL of 20 dpm/100cm^2 and the beta contamination MDA (200 or 205 dpm/100cm^2) exceeds the beta DCGL of 150 dpm/100cm^2 and, in some cases, the Sr-90 removable release limit of 200 dpm/100 cm^2, the post job surveys adequately demonstrate that final surveys were not jeopardized during radiological work The following rational was used to reach this decision

a) Prior to glove bag removal the interior surfaces of the glove bag along with the area enclosed by the glove bag were wiped down with a damp cloth, consistent with good radiological work practices, leaving the area to be surveyed relatively dirt free Therefore, the presence of Th-232 could be accomplished through the detection of alpha emissions associated with the decay of Th-232 and Ra-228, alleviating the need to base the release for Th-232 on the detection of the beta emissions from Ac-228, the basis for 150 dpm/100cm^2 removable beta release criteria

b) The Sr-90 contamination identified in Room 105 of the North Wing of Building 123, was remediated prior to final surveys Based on the results of the removable

contamination surveys obtained during final surveys of the North and West wings the likelihood that these areas are contaminated with Sr-90 is remote

Beta Background:

The reported total activity values for some of the survey points are significantly below zero This is attributed to the variance/fluctuation in local area background which is not unexpected This variability in background was also noted by the SRA/Millennium team during the acceptance testing and performance of radiological surveys in the north and west wings of Building 123 Dr Shonka reports "background is spatially variable, and different areas of the same survey grid exhibit real differences in background levels" Figure 3 1, *Beta Background Distribution for Floor Survey Grids with Standard Deviations Less Than 300* from the *Executive Summary of Radiation Surveys Performed at Rocky Flats Environmental Technology* Site illustrates a beta background range between 2500 dpa (dpm/100cm^2) to 3800 dpa with an arithmetic mean of 3300 dpa, which is consistent, but somewhat higher than the beta background obtained by RFETS RCTs using conventional counting instrumentation It has been hypothesized that this difference results from the edge (wall) effect associated with the conventional survey instrumentation used at RFETS

It should be noted that a 100% scan was performed in a majority of these areas and, therefore, an area of elevated residual radioactivity would have been identified

Shonka Research Associates, Inc. and Millennium Services, Inc. Survey Results:

As stated in the introduction, scan surveys were performed by the SRA team Data table and grid maps are included in the associated survey unit section of the Final Survey Report The data tables have been reviewed by RMRS Radiological Engineering and coincide with Table 5 1 *Alpha Survey Summary Tables of Building 123*, Table 5 2 *Evaluation of Areas in Excess of Maximum Contamination Limit* and Table 5 3 *Beta Survey Summary Tables of Building 123* from Section 5 *Discussion of Results* of the *Executive Summary of Radiation Surveys Performed at Rocky Flats Environmental Technology Site*, prepared by Shonka Research Associates, Inc Refer to this Executive Summary for survey methodology and data evaluation details

The following issues requiring clarification have been identified with the Shonka Report and will be addressed further in the Final COSR These findings do not affect the decision to release the North and West Wings of Building 123

1 On the some of the SRA/MSI overlay maps, there are grids which are blacked out that correspond to a grid in the data table where little or no surveys were taken giving the appearance that a 100% scan survey was performed by the SRA/MSI team These areas have been checked against the Site RCT scan surveys to determine if the required scan survey was met In all cases, grids not completely surveyed by the SRA/MSI team were surveyed by Site RCTs

2 There is a difference between the alpha and beta backgrounds used for SRA/MSI Survey Areas 12301 through 12311 and Survey Areas 12312 through 12314 No explanation is provided in their executive summary which explains the reason for this change In the cases were the background values for a survey area differ from those identified in the executive summary, the decision to release the area was based on more stringent contamination levels

Deviations From Final Survey Plan

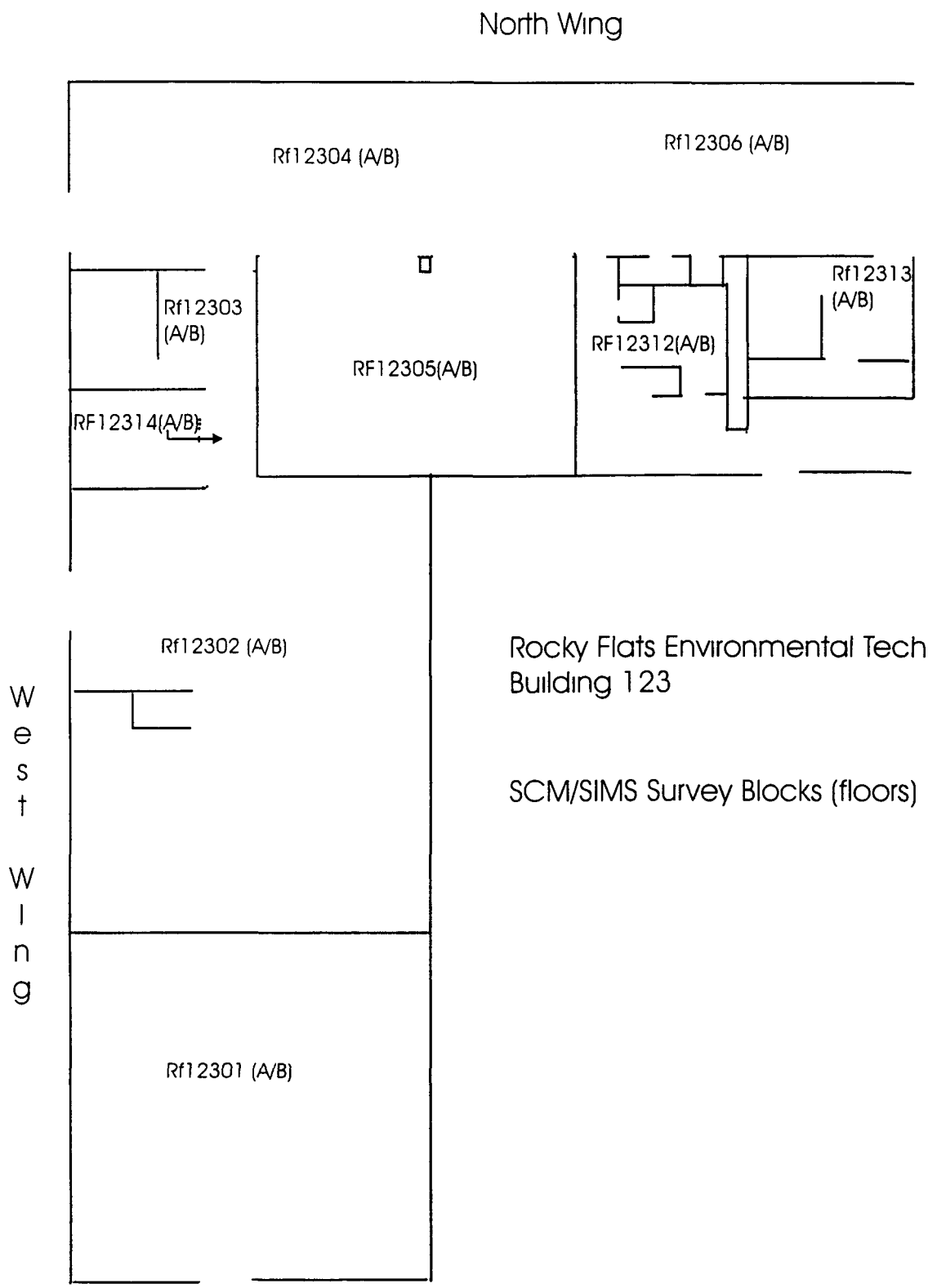
1 The CRSP, Appendix B, Survey Units 14 and 19, Note (3), specifies a DCGL of 100 dpm/100cm^2 alpha and 750 dpm/100cm^2 beta, based on the more restrictive isotopes used within Building 123, however, a DCGL of 5,000 dpm/100cm^2 beta was used for these survey units, as specified in early revisions This was an administrative error in the CRSP It is assumed that if residual radioactivity exists in these survey units, it would have been deposited as a result of a release from a process facility The basis for the 100 dpm/100cm^2 alpha and 5,000 dpm/100cm^2 beta DCGLs is the source terms, transuranics and uranium respectively, which would be associated with an airborne radiological release from a process facility

2 Appendix C states that a Reference Area Background will be determined daily in Building 551 until an adequate number of data points have been obtained and analyzed by Radiological Engineering Concern was raised regarding the adequacy of Building 551 for use as a reference area for material background determination A new reference area background was determined and applied to all the necessary survey data Refer to RMRS Interoffice Memorandum JBB-002-98, *Survey Unit Specific Background Count Rate (SUSBCR) Determination for Building 123 Final Surveys* This memo supersedes J J Miller memo, JJM-11-98, dated March 24, 1998

3 Rooms 137 and 138, part of Survey Unit 9 were surveyed independently This deviation from the CRSP is conservative in that the statistical analysis was performed using a smaller sample size and the results of the analysis indicate the sample size was adequate

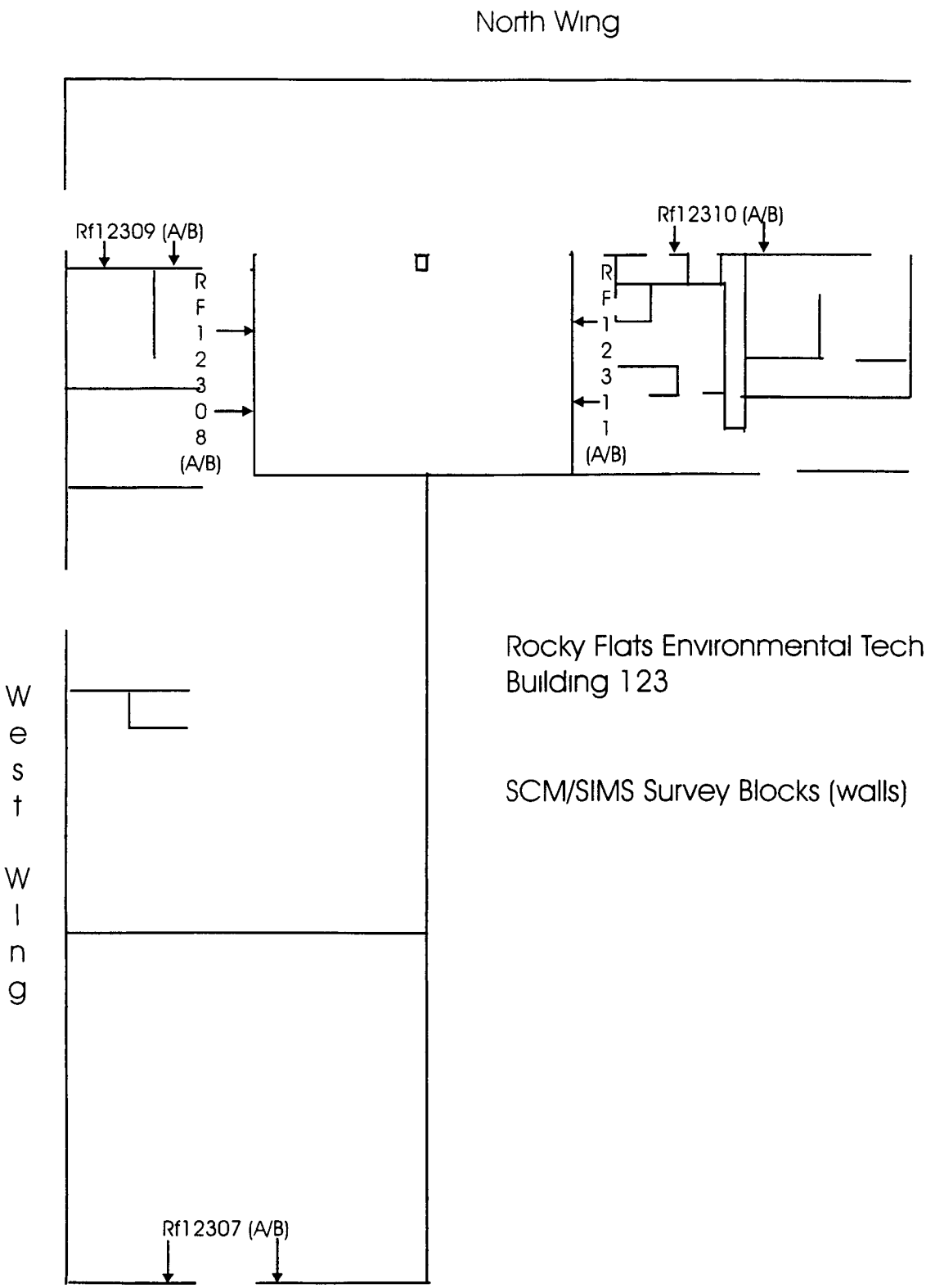
4 As stated in Section 6 0, Step 3 of the CRSP, the maximum background of 700 cpm (beta) for the NE Electra was recorded in error The maximum allowable background count rate is 1000 cpm (beta) Refer to Appendix 2 of 4-K62-ROI-03 01, *Performance of Surface Contamination Surveys*, for the corrected values

5 The CRSP initially identified the South end of the West wing as Survey Unit 7 and the North end of the West wing as Survey Unit 6 During the physical process of gridding the floors and walls, however, the RCTs labeled the South end of the West wing as Survey Unit 6 and the North end of the West wing as Survey Unit 7 The attached B123 Final Survey Units Diagram reflects this labeling change All radiological survey maps coincide with Survey Units 6 and 7 as shown on the attached B123 Final Survey Units Diagram



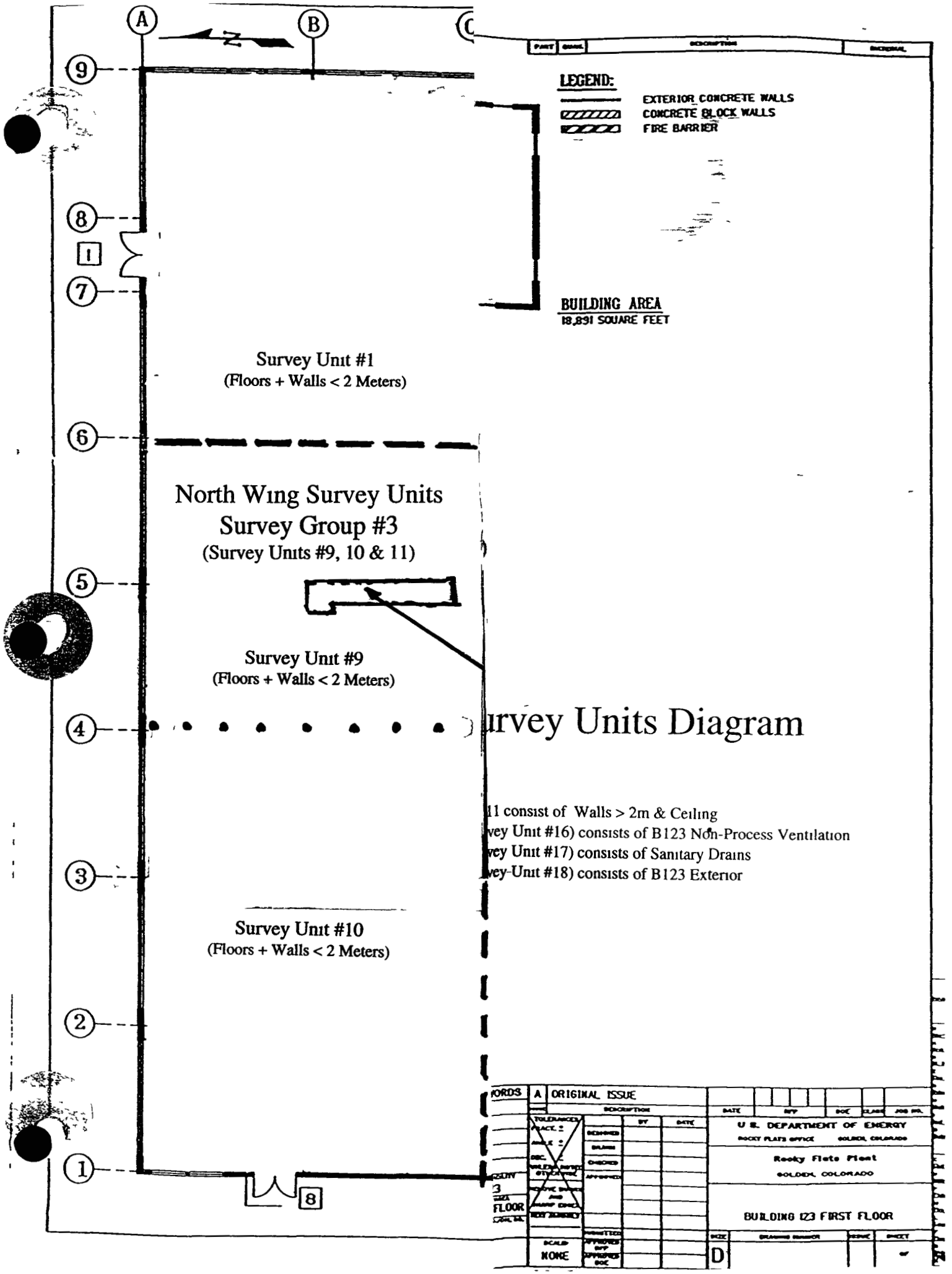
Rocky Flats Environmental Technology Site
Building 123

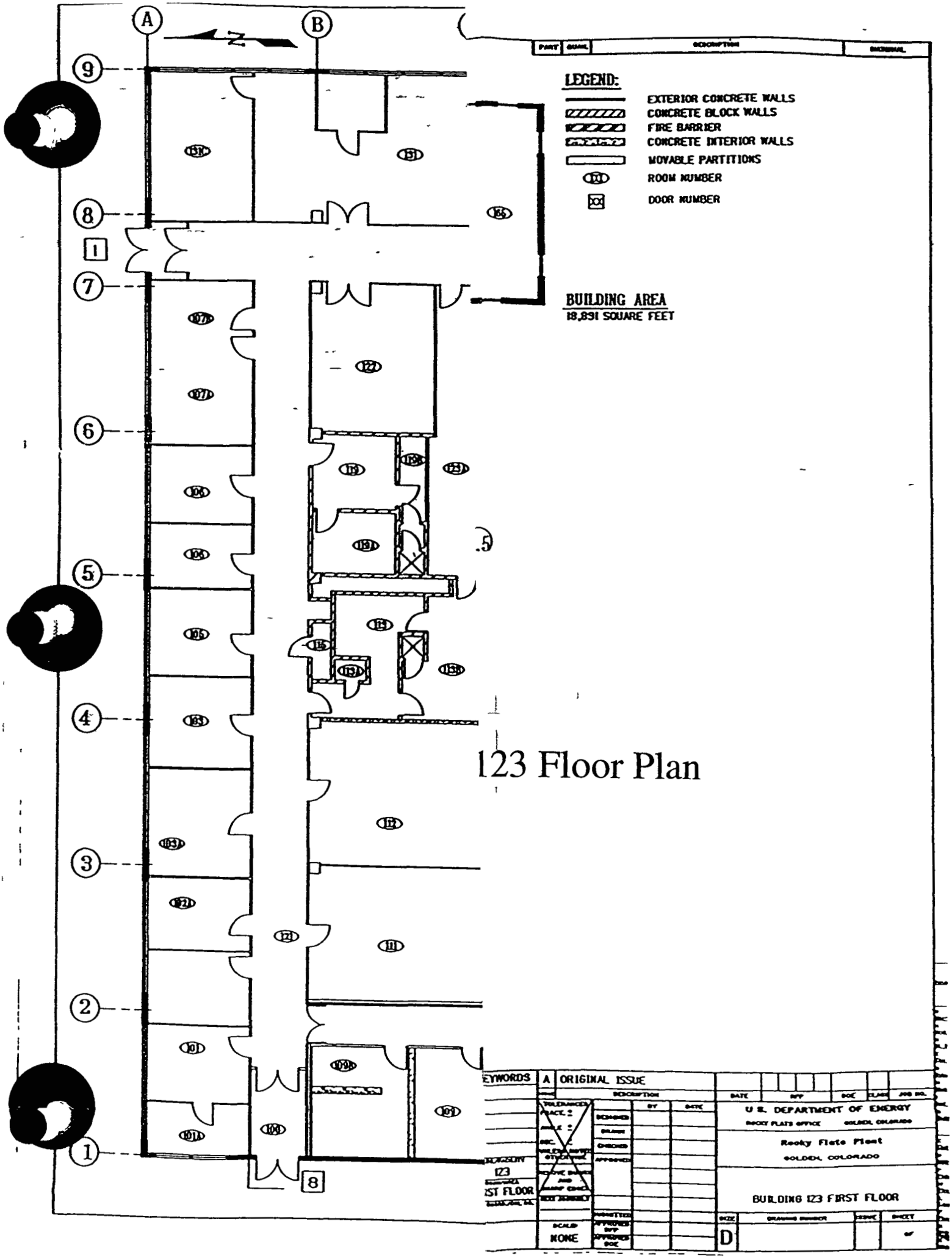
SCM/SIMS Survey Blocks (floors)



Rocky Flats Environmental Technology Site
Building 123

SCM/SIMS Survey Blocks (walls)


A
B
C
9
8
7
6
5
4
3
2
1
I
8
LEGEND:
EXTERIOR CONCRETE WALLS
CONCRETE BLOCK WALLS
FIRE BARRIER
BUILDING AREA
18,891 SQUARE FEET
Survey Unit #1
(Floors + Walls < 2 Meters)
North Wing Survey Units
Survey Group #3
(Survey Units #9, 10 & 11)
Survey Unit #9
(Floors + Walls < 2 Meters)
urvey Units Diagram
11 consist of Walls > 2m & Ceiling
vey Unit #16) consists of B123 Non-Process Ventilation
vey Unit #17) consists of Sanitary Drains
vey Unit #18) consists of B123 Exterior
Survey Unit #10
(Floors + Walls < 2 Meters)
A ORIGINAL ISSUE
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant
GOLDEN, COLORADO
BUILDING 123 FIRST FLOOR
NONE
D

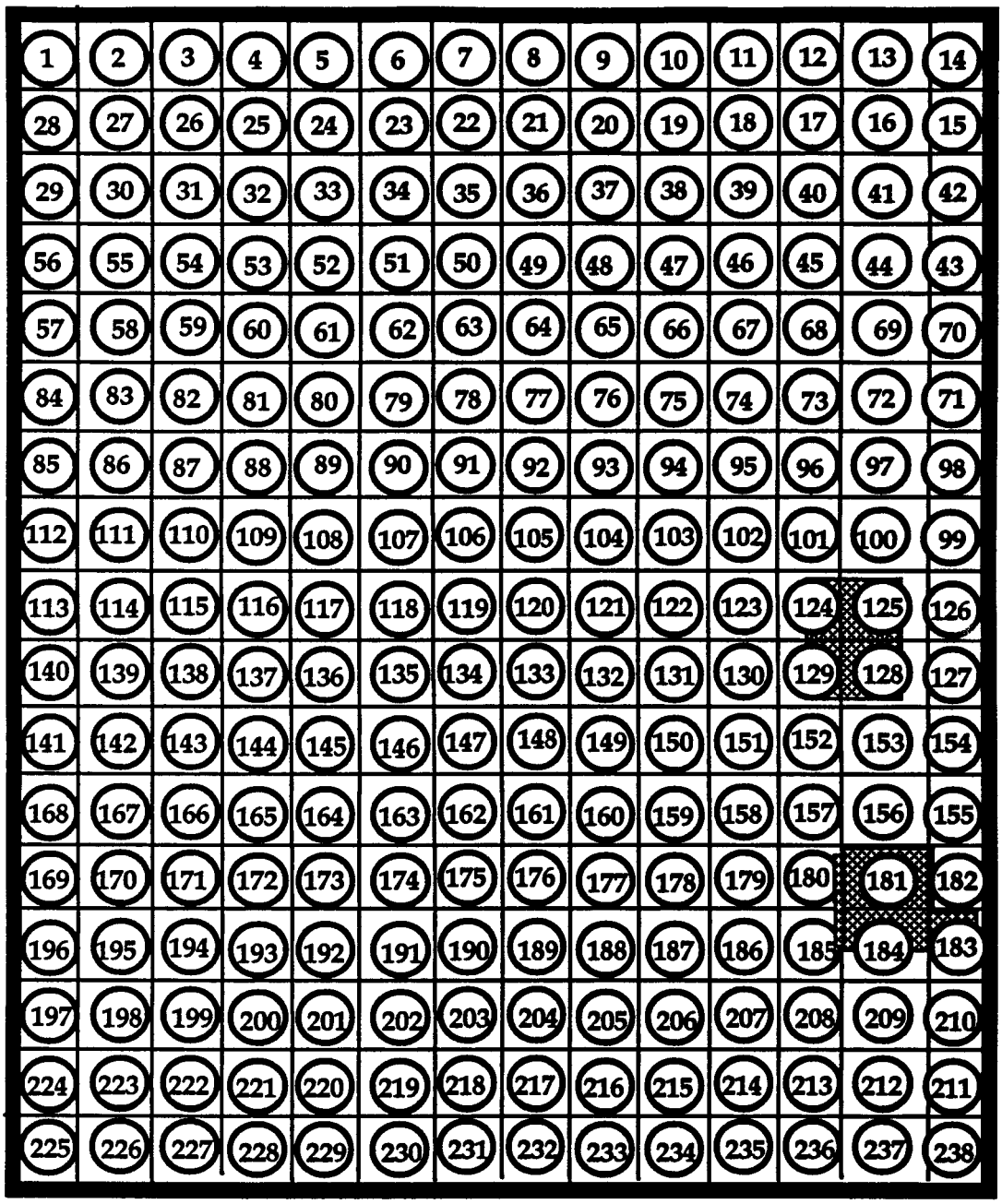

A
B
9
8
7
6
5
4
3
2
1
1
8
LEGEND:
EXTERIOR CONCRETE WALLS
CONCRETE BLOCK WALLS
FIRE BARRIER
CONCRETE INTERIOR WALLS
MOVABLE PARTITIONS
ROOM NUMBER
DOOR NUMBER
BUILDING AREA
18,891 SQUARE FEET
123 Floor Plan
A ORIGINAL ISSUE
123
1ST FLOOR
NONE
U.S. DEPARTMENT OF ENERGY
ROCKY FLATS OFFICE GOLDEN, COLORADO
Rocky Flats Plant
GOLDEN, COLORADO
BUILDING 123 FIRST FLOOR
D

ELECTRA BACKGROUND LOG FOR UNIT #6

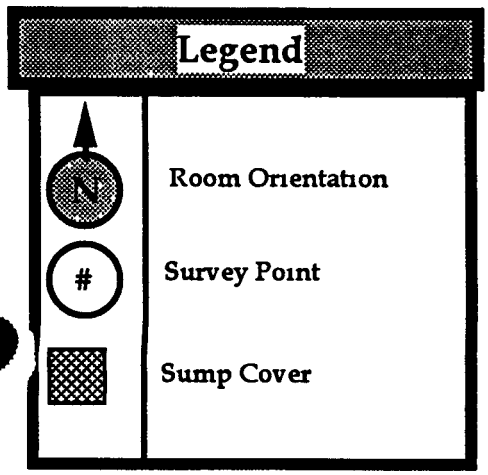
Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF β	M.D A (dpm/100 cm²) α	M.D.A (dpm/100 cm²) β
1402	03-29-98	09-19-98	1 3	584 3	704 3	22 90%	29 20%	34 99	394 22
1181	03-29-98	04-01-98	2	573 2	693 2	27 00%	33 50%	34 39	340 41
1390	03-29-98	08-13-98	4	726 3	846 3	23 30%	32 60%	51 55	392 72
1243	03-29-98	09-23-98	2 2	735 6	855 6	24 50%	38 40%	39 21	335 49
1392	03-29-98	09-12-98	2	636 2	756 2	23 40%	30 30%	39 68	396 03

West Wing; Unit VI

Floor



Legend

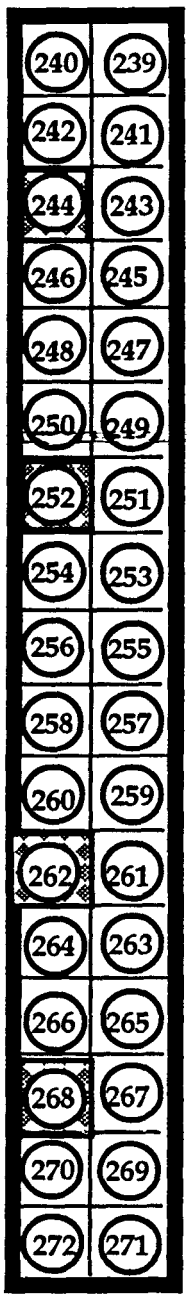


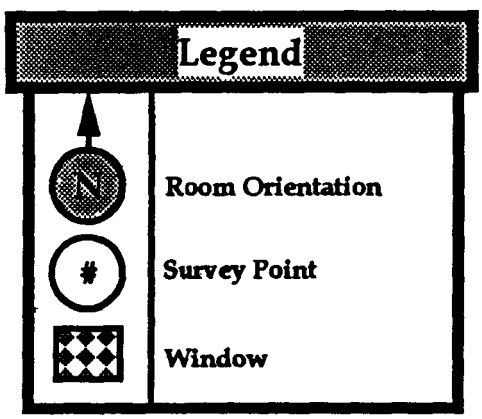
NOTE: Map not drawn to scale.

Survey Point 180 & 185 surveyed as a direct reading on concrete slab

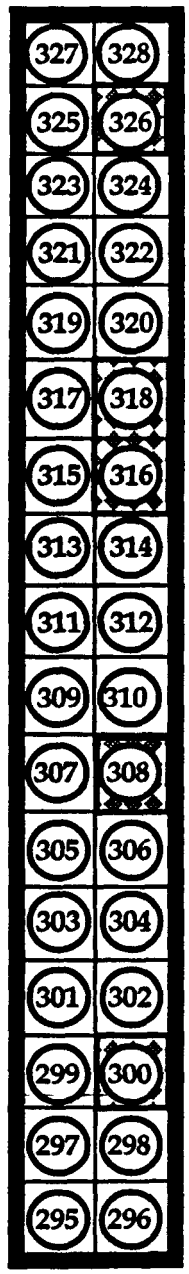
West Wing; Unit VI

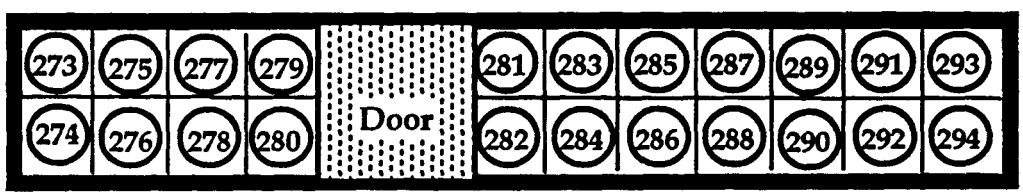
Walls





NOTE: Map not drawn to scale.





BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1392 03-29-98

Cal Due Date: 09-12-98

Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 2 0 βγ 756 2

636 2 Inst Only

Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	4	823	2 0	66 8	8 55	220 46
2	2	See Attached Map	See Millennium Data		1	800	-1 0	43 8	-4 27	144 55
3	3	See Attached Map	See Millennium Data		3	756	1 0	-0 2	4 27	- 66
4	4	See Attached Map	See Millennium Data		7	771	5 0	14 8	21 37	48 84
5	5	See Attached Map	See Millennium Data		2	760	0 0	3 8	0	12 54
6	6	See Attached Map	<100	<750	3	764	1 0	7 8	4 27	25 74
7	7	See Attached Map	See Millennium Data		1	772	-1 0	15 8	-4 27	52 15
8	9	See Attached Map	<100	<750	5	803	3 0	46 8	12 82	154 46
9	11	See Attached Map	See Millennium Data		3	838	1 0	81 8	4 27	269 97
10	13	See Attached Map	See Millennium Data		3	839	1 0	82 8	4 27	273 27
11	15	See Attached Map	<100	<750	5	735	3 0	-21 2	12 82	-69 97
12	19	See Attached Map	See Millennium Data		3	762	1 0	5 8	4 27	19 14
13	23	See Attached Map	See Millennium Data		1	751	-1 0	-5 2	-4 27	-17 16
14	27	See Attached Map	See Millennium Data		3	749	1 0	-7 2	4 27	-23 76
15	31	See Attached Map	See Millennium Data		1	780	-1 0	23 8	-4 27	78 55
16	35	See Attached Map	See Millennium Data		2	747	0 0	-9 2	0 0	-30 36
17	39	See Attached Map	See Millennium Data		2	754	0 0	-2 2	0 0	-7 26
18	43	See Attached Map	<100	<750	4	803	2 0	46 8	8 55	154 46
19	47	See Attached Map	See Millennium Data		1	759	-1 0	2 8	-4 27	9 24
20	51	See Attached Map	See Millennium Data		1	752	-1 0	-4 2	-4 27	-13 86

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 03-29-98
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 2 0 βγ 756 2 — 636 2 Inst Only — Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
21	55	See Attached Map	See Millennium Data		3	742	1 0	-14 2	4 27	-46 86
22	59	See Attached Map	See Millennium Data		1	813	-1 0	56 8	-4 27	187 46
23	63	See Attached Map	See Millennium Data		2	757	0 0	0 8	0 0	2 64
24	67	See Attached Map	<100	<750	1	771	-1 0	14 8	-4 27	48 84
25	71	See Attached Map	<100	<750	3	766	1 0	9 8	4 27	32 34
26	75	See Attached Map	See Millennium Data		4	806	2 0	49 8	8 55	164 36
27	79	See Attached Map	See Millennium Data		2	795	0 0	38 8	0 0	128 05
28	83	See Attached Map	See Millennium Data		1	772	-1 0	15 8	-4 27	52 15
29	87	See Attached Map	See Millennium Data		3	748	1 0	-8 2	4 27	-27 06
30	91	See Attached Map	See Millennium Data		6	765	4 0	8 8	17 09	29 04
31	95	See Attached Map	See Millennium Data		1	781	-1 0	24 8	-4 27	81 85
32	99	See Attached Map	<100	<750	3	791	1 0	34 8	4 27	114 85
33	103	See Attached Map	See Millennium Data		3	776	1 0	19 8	4 27	65 35
34	107	See Attached Map	<100	<750	7	757	5 0	0 8	21 37	2 64
35	111	See Attached Map	See Millennium Data		1	807	-1 0	50 8	-4 27	167 66
36	115	See Attached Map	See Millennium Data		2	781	0 0	24 8	0 0	81 85
37	119	See Attached Map	See Millennium Data		2	861	0 0	104 8	0 0	345 87
38	123	See Attached Map	See Millennium Data		0	801	-2 0	44 8	-8 55	147 85
39	127	See Attached Map	<100	<750	2	864	0 0	107 8	0 0	355 78
40	131	See Attached Map	See Millennium Data		0	736	-2 0	-20 2	-8 55	-66 67

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 03-29-98
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 2 0 βγ 756 2 (636 2 Inst Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
41	135	See Attached Map	<100	<750	0	718	-2 0	-38 2	-8 55	-126 07
42	139	See Attached Map	See Millennium Data		5	820	3 0	63 8	12 82	210 56
43	143	See Attached Map	See Millennium Data		3	839	1 0	82 8	4 27	273 27
44	147	See Attached Map	See Millennium Data		2	752	0 0	-4 2	0 0	-13 86

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1181 03-29-98
Cal Due Date: 04-01-98
Efficiency (%): α 27 00 βγ 33 50

Bkgd (cpm): α 2 0 βγ 693 2 (573 2 Inst Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	14	See Attached Map	<100	<750	7	681	5 0	-12 2	18 52	-36 42
2	18	See Attached Map	See Millineum Data		1	701	-1 0	7 8	-3 70	23 28
3	22	See Attached Map	See Millineum Data		2	655	0 0	-38 2	0 0	-114 03
4	26	See Attached Map	See Millineum Data		1	698	-1 0	4 8	-3 70	14 33
5	30	See Attached Map	See Millineum Data		0	739	-2 0	45 8	-7 41	136 72
6	34	See Attached Map	See Millineum Data		3	734	1 0	40 8	3 70	121 79
7	38	See Attached Map	See Millineum Data		0	708	-2 0	14 8	-7 41	44 18
8	42	See Attached Map	<100	<750	5	746	3 0	52 8	11 11	157 61
9	46	See Attached Map	See Millineum Data		1	669	-1 0	-24 2	-3 70	-72 24
10	50	See Attached Map	See Millineum Data		0	650	-2 0	-43 2	-7 41	-128 96
11	54	See Attached Map	See Millineum Data		3	688	1 0	-5 2	3 70	-15 52
12	58	See Attached Map	See Millineum Data		2	707	0 0	13 8	0 0	41 19
13	62	See Attached Map	See Millineum Data		2	684	0 0	-9 2	0 0	-27 46
14	66	See Attached Map	See Millineum Data		1	693	-1 0	-0 2	-3 70	- 60
15	70	See Attached Map	<100	<750	2	748	0 0	54 8	0 0	163 58
16	74	See Attached Map	See Millineum Data		3	767	1 0	73 8	3 70	220 30
17	78	See Attached Map	See Millineum Data		2	726	0 0	32 8	0 0	97 91
18	82	See Attached Map	See Millineum Data		4	996	2 0	302 8	7 41	903 88
19	86	See Attached Map	See Millineum Data		1	684	-1 0	-9 2	-3 70	-27 46

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1181 03-29-98
Cal Due Date: 04-01-98
Efficiency (%): α 27 00 βγ 33 50

Bkgd (cpm): α 2 0 βγ 693 2 | 573 2 Inst Only | Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
20	90	See Attached Map	<100	<750	4	690	2 0	-3 2	7 41	-9 55
21	94	See Attached Map	See Millennium Data		1	705	-1 0	11 8	-3 70	35 22
22	98	See Attached Map	<100	<750	9	684	7 0	-9 2	25 93	-27 46
23	102	See Attached Map	<100	<750	4	802	2 0	108 8	7 41	324 78
24	106*	See Attached Map	See Millennium Data		3	685	1 0	-8 2	3 70	-24 48
25	110	See Attached Map	See Millennium Data		3	722	1 0	28 8	3 70	85 97
26	114	See Attached Map	See Millennium Data		0	738	-2 0	44 8	-7 41	133 73
27	118	See Attached Map	See Millennium Data		2	765	0 0	71 8	0 0	214 33
28	122	See Attached Map	See Millennium Data		2	728	0 0	34 8	0 0	103 88
29	126	See Attached Map	<100	<750	0	726	-2 0	32 8	-7 41	97 91
30	130	See Attached Map	See Millennium Data		2	713	0 0	19 8	0 0	59 10
31	134	See Attached Map	See Millennium Data		2	704	0 0	10 8	0 0	32 24
32	138	See Attached Map	See Millennium Data		3	677	1 0	-16 2	3 70	-48 36
33	142	See Attached Map	See Millennium Data		2	731	0 0	37 8	0 0	112 84
34	146	See Attached Map	See Millennium Data		4	745	2 0	51 8	7 41	154 63
35	150	See Attached Map	See Millennium Data		3	699	1 0	5 8	3 70	17 31
36	151	See Attached Map	See Millennium Data		3	744	1 0	50 8	3 70	151 64
37	153	See Attached Map	See Millennium Data		7	736	5 0	42 8	18 52	127 76
38	155	See Attached Map	<100	<750	4	716	2 0	22 8	7 41	68 06

* Grid not completely scanned by SRA/MSA, see corresponding hand scan survey at the end of this survey unit section

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1181 03-29-98

Cal Due Date: 04-01-98

Efficiency (%): α 27 00 βγ 33 50

Bkgd (cpm): α 2 0 βγ 693 2 (573 2 Inst Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
39	157	See Attached Map	See Millennium Data		2	727	0 0	33 8	0 0	100 90
40	159	See Attached Map	See Millennium Data		2	700	0 0	6 8	0 0	20 30
41	161	See Attached Map	See Millennium Data		1	774	-1 0	80 8	-3 70	241 19
42	163	See Attached Map	See Millennium Data		2	673	0 0	-20 2	0 0	-60 30
43	165	See Attached Map	See Millennium Data		4	830	2 0	136 8	7 41	408 36
44	167	See Attached Map	See Millennium Data		2	811	0 0	117 8	0 0	351 64
45	168	See Attached Map	<100	<750	3	810	1 0	116 8	3 70	348 66
46	171	See Attached Map	See Millennium Data		1	760	-1 0	66 8	-3 70	199 40
47	173	See Attached Map	See Millennium Data		3	749	1 0	55 8	3 70	166 57
48	175	See Attached Map	See Millennium Data		4	788	2 0	94 8	7 41	282 99
49	177	See Attached Map	See Millennium Data		0	743	-2 0	49 8	-7 41	148 66
50	179	See Attached Map	See Millennium Data		4	790	2 0	96 8	7 41	288 96
51	181	See Attached Map	See Millennium Data		1	521	-1 0	-52 2	-3 70	-155 82
52	183	See Attached Map	<100	<750	3	804	1 0	230 8	3 70	688 96
53	185	See Attached Map	See Millennium Data		2	748	0 0	54 8	0 0	163 58
54	187	See Attached Map	See Millennium Data		1	776	-1 0	82 8	-3 70	247 16
55	189	See Attached Map	See Millennium Data		4	749	2 0	55 8	7 41	166 57
56	191	See Attached Map	See Millennium Data		5	811	3 0	117 8	11 11	351 64
57	193	See Attached Map	See Millennium Data		0	793	-2 0	99 8	-7 41	297 91

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1181 03-29-98
Cal Due Date: 04-01-98
Efficiency (%): α 27 00 βγ 33 50

Bkgd (cpm): α 2 0 βγ 693 2 Ref Area
573 2 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
58	195	See Attached Map	See Millennium Data		1	774	-1 0	80 8	-3 70	241 19
59	197	See Attached Map	<100	<750	0	792	-2 0	98 8	-7 41	294 93
60	199	See Attached Map	See Millennium Data		5	772	3 0	78 8	11 11	235 22
61	201	See Attached Map	See Millennium Data		1	759	-1 0	65 8	-3 70	196 42
62	203	See Attached Map	See Millennium Data		3	728	1 0	34 8	3 70	103 88
63	205	See Attached Map	See Millennium Data		3	751	1 0	57 8	3 70	172 54
64	207	See Attached Map	See Millennium Data		5	773	3 0	79 8	11 11	238 21
65	209	See Attached Map	See Millennium Data		2	694	0 0	0 8	0 0	2 39
66	211	See Attached Map	<100	<750	1	746	-1 0	52 8	-3 70	157 61
67	213	See Attached Map	See Millennium Data		0	723	-2 0	29 8	-7 41	88 96
68	215	See Attached Map	See Millennium Data		3	762	1 0	68 8	3 70	205 37
69	217	See Attached Map	See Millennium Data		1	764	-1 0	70 8	-3 70	211 34
70	219	See Attached Map	See Millennium Data		1	544	-1 0	-149 2	-3 70	-445 37
71	221	See Attached Map	See Millennium Data		4	742	2 0	48 8	7 41	145 67
72	223	See Attached Map	See Millennium Data		2	735	0 0	41 8	0 0	124 78
73	225	See Attached Map	<100	<750	2	724	0 0	30 8	0 0	91 94
74	227	See Attached Map	<100	<750	4	730	2 0	36 8	7 41	109 85
75	229	See Attached Map	<100	<750	2	748	0 0	54 8	0 0	163 58
76	231	See Attached Map	<100	<750	3	352	1 0	-341 2	3 70	-1018 51

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1181 03-29-98
Cal Due Date: 04-01-98
Efficiency (%): α 27 00 βγ 33 50

Bkgd (cpm): α 2 0 βγ 693 2 | 573 2 Inst Only | Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
77	233	See Attached Map	<100	<750	2	754	0 0	60 8	0 0	181 49
78	235	See Attached Map	<100	<750	3	707	1 0	13 8	3 70	41 19
79	237	See Attached Map	<100	<750	1	732	-1 0	38 8	-3 70	115 82
80	239	See Attached Map	<100	<750	9	562	7 0	-131 2	25 93	-391 64
81	241	See Attached Map	<100	<750	9	648	7 0	-45 2	25 93	-134 93
82	243	See Attached Map	<100	<750	4	614	2 0	-79 2	7 41	-236 42
83	245	See Attached Map	<100	<750	5	535	3 0	-158 2	11 11	-472 24
84	247	See Attached Map	<100	<750	11	597	9 0	-96 2	33 33	-287 16
85	249	See Attached Map	<100	<750	4	593	2 0	-100 2	7 41	-299 10
86	251	See Attached Map	<100	<750	5	567	3 0	-126 2	11 11	-376 72
87	253	See Attached Map	<100	<750	4	567	2 0	-126 2	7 41	-376 72
88	255	See Attached Map	<100	<750	3	597	1 0	-96 2	3 70	-287 16
89	257	See Attached Map	<100	<750	5	602	3 0	-91 2	11 11	-272 24
90	259	See Attached Map	<100	<750	3	559	1 0	-134 2	3 70	-400 60
91	261	See Attached Map	<100	<750	4	578	2 0	-115 2	7 41	-343 88
92	263	See Attached Map	<100	<750	10	579	8 0	-114 2	29 63	-340 90
93	265	See Attached Map	<100	<750	4	619	2 0	-74 2	7 41	-221 49
94	267	See Attached Map	<100	<750	6	600	4 0	-93 2	14 81	-278 21
95	269	See Attached Map	<100	<750	8	591	6 0	-102 2	22 22	-305 07

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1181 03-29-98
Cal Due Date: 04-01-98
Efficiency (%): α 27 00 βγ 33 50

Bkgd (cpm): α 2 0 βγ 693 2 (573 2 Inst Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
96	270	See Attached Map	<100	<750	6	740	4 0	46 8	14 81	139 70
97	271	See Attached Map	<100	<750	9	559	7 0	-134 2	25 93	-400 60
98	272	See Attached Map	<100	<750	2	666	0 0	-27 2	0 0	-81 19
99	273	See Attached Map	<100	<750	6	705	4 0	11 8	14 81	35 22
100	274	See Attached Map	<100	<750	8	698	6 0	4 8	22 22	14 33
101	275	See Attached Map	See Millennium Data		7	655	5 0	-38 2	18 52	-114 03
102	276	See Attached Map	See Millennium Data		6	699	4 0	5 8	14 81	17 31
103	277	See Attached Map	See Millennium Data		2	623	0 0	-70 2	0 0	-209 55
104	278	See Attached Map	See Millennium Data		5	663	3 0	-30 2	11 11	-90 15
105	280	See Attached Map	See Millennium Data		7	740	5 0	46 8	18 52	139 70
106	281	See Attached Map	See Millennium Data		6	680	4 0	-13 2	14 81	-39 40
107	282	See Attached Map	See Millennium Data		3	710	1 0	16 8	3 70	50 15
108	283	See Attached Map	See Millennium Data		4	670	2 0	-23 2	7 41	-69 25
109	284	See Attached Map	See Millennium Data		5	580	3 0	-113 2	11 11	-337 91
110	285	See Attached Map	See Millennium Data		6	706	4 0	12 8	14 81	38 21
111	286	See Attached Map	See Millennium Data		2	780	0 0	86 8	0 0	259 10
112	287	See Attached Map	See Millennium Data		6	684	4 0	-9 2	14 81	-27 46
113	288	See Attached Map	See Millennium Data		4	693	2 0	-0 2	7 41	- 60
114	289	See Attached Map	See Millennium Data		3	741	1 0	47 8	3 70	142 69

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1181 03-29-98
Cal Due Date: 04-01-98
Efficiency (%): α 27 00 βγ 33 50

Bkgd (cpm): α 2 0 βγ 693 2 | 573 2 Inst Only | Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
115	290	See Attached Map	See Millennium Data		2	755	0 0	61 8	0 0	184 48
116	291*	See Attached Map	See Millennium Data		2	710	0 0	16 8	0 0	50 15
117	292*	See Attached Map	See Millennium Data		6	680	4 0	-13 2	14 81	-39 40
118	293	See Attached Map	<100	<750	4	772	2 0	78 8	7 41	235 22
119	294	See Attached Map	<100	<750	3	760	1 0	66 8	3 70	199 40
120	295	See Attached Map	<100	<750	4	700	2 0	6 8	7 41	20 30

* Grid not completely scanned by SRA/MSA, see corresponding hand scan survey at the end of this survey unit section

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1243 03-29-98

Cal Due Date: 09-23-98

Efficiency (%): α 24 50 βγ 38 40

Bkgd (cpm): α 2 2 βγ 855 6 Ref Area

735 6 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	8	See Attached Map	<100	<750	4	886	1 8	30 4	7 35	79 17
2	12	See Attached Map	See Millennium Data		5	904	2 8	48 4	11 43	126 04
3	16	See Attached Map	See Millennium Data		3	895	0 8	39 4	3 27	102 60
4	20	See Attached Map	See Millennium Data		4	910	1 8	54 4	7 35	141 67
5	24	See Attached Map	See Millennium Data		2	894	-0 2	38 4	- 82	100 0
6	28	See Attached Map	<100	<750	2	925	-0 2	69 4	- 82	180 73
7	32	See Attached Map	See Millennium Data		3	895	0 8	39 4	3 27	102 60
8	36	See Attached Map	<100	<750	2	863	-0 2	7 4	- 82	19 27
9	40	See Attached Map	See Millennium Data		6	888	3 8	32 4	15 51	84 37
10	44	See Attached Map	See Millennium Data		4	856	1 8	0 4	7 35	1 04
11	48	See Attached Map	See Millennium Data		2	874	-0 2	18 4	- 82	47 92
12	52	See Attached Map	See Millennium Data		2	591	-0 2	-264 6	- 82	-689 06
13	56	See Attached Map	<100	<750	1	912	-1 2	56 4	-4 90	146 88
14	60	See Attached Map	See Millennium Data		5	869	2 8	13 4	11 43	34 90
15	64	See Attached Map	See Millennium Data		5	864	2 8	8 4	11 43	21 87
16	68	See Attached Map	See Millennium Data		1	895	-1 2	39 4	-4 90	102 60
17	72	See Attached Map	See Millennium Data		2	836	-0 2	-19 6	- 82	-51 04
18	76	See Attached Map	See Millennium Data		4	881	1 8	25 4	7 35	66 15
19	80	See Attached Map	See Millennium Data		1	882	-1 2	26 4	-4 90	68 75

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1243 03-29-98

Cal Due Date: 09-23-98

Efficiency (%): α 24 50 βγ 38 40

Bkgd (cpm): α 2 2 βγ 855 6 | 735 6 Inst Only | Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
20	84	See Attached Map	<100	<750	5	904	2 8	48 4	11 43	126 04
21	88	See Attached Map	See Millennium Data		4	901	1 8	45 4	7 35	118 23
22	92	See Attached Map	See Millennium Data		7	916	4 8	60 4	19 59	157 29
23	96	See Attached Map	See Millennium Data		4	881	1 8	25 4	7 35	66 15
24	100	See Attached Map	See Millennium Data		5	855	2 8	-0 6	11 43	-1 56
25	104	See Attached Map	See Millennium Data		3	938	0 8	82 4	3 27	214 58
26	108	See Attached Map	See Millennium Data		1	898	-1 2	42 4	-4 90	110 42
27	112	See Attached Map	<100	<750	4	920	1 8	64 4	7 35	167 71
28	116	See Attached Map	See Millennium Data		5	927	2 8	71 4	11 43	185 94
29	120	See Attached Map	See Millennium Data		6	964	3 8	108 4	15 51	282 29
30	124	See Attached Map	See Millennium Data		1	840	-1 2	104 4	-4 90	271 88
31	128	See Attached Map	See Millennium Data		4	741	1 8	5 4	7 35	14 06
32	132	See Attached Map	See Millennium Data		1	937	-1 2	81 4	-4 90	211 98
33	136	See Attached Map	<100	<750	4	991	1 8	135 4	7 35	352 60
34	140	See Attached Map	<100	<750	2	978	-0 2	122 4	- 82	318 75
35	144	See Attached Map	See Millennium Data		4	834	1 8	-21 6	7 35	-56 25
36	148	See Attached Map	See Millennium Data		3	936	0 8	80 4	3 27	209 38

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1402 03-29-98

Cal Due Date: 09-19-98

Efficiency (%): α 22 90 βγ 29 20

Bkgd (cpm): α 1 3 βγ 704 3 584 3 Inst Only Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	10	See Attached Map	See Millennium Data		4	725	2 7	20 7	11 79	70 89
2	17	See Attached Map	See Millennium Data		1	763	-0 3	58 7	-1 31	201 03
3	21	See Attached Map	See Millennium Data		1	747	-0 3	42 7	-1 31	146 23
4	25	See Attached Map	See Millennium Data		1	720	-0 3	15 7	-1 31	53 77
5	29	See Attached Map	<100	<750	3	750	1 7	45 7	7 42	156 51
6	33	See Attached Map	See Millennium Data		2	753	0 7	48 7	3 06	166 78
7	37	See Attached Map	See Millennium Data		3	781	1 7	76 7	7 42	262 67
8	41	See Attached Map	See Millennium Data		4	736	2 7	31 7	11 79	108 56
9	45	See Attached Map	See Millennium Data		1	828	-0 3	123 7	-1 31	423 63
10	49	See Attached Map	See Millennium Data		5	752	3 7	47 7	16 16	163 36
11	53	See Attached Map	See Millennium Data		2	748	0 7	43 7	3 06	149 66
12	57	See Attached Map	<100	<750	5	742	3 7	37 7	16 16	129 11
13	61	See Attached Map	See Millennium Data		2	768	0 7	63 7	3 06	218 15
14	65	See Attached Map	See Millennium Data		5	745	3 7	40 7	16 16	139 38
15	69	See Attached Map	See Millennium Data		1	800	-0 3	95 7	-1 31	327 74
16	73	See Attached Map	See Millennium Data		5	737	3 7	32 7	16 16	111 99
17	77	See Attached Map	See Millennium Data		4	687	2 7	-17 3	11 79	-59 25
18	81	See Attached Map	See Millennium Data		6	682	4 7	-22 3	20 52	-76 37
19	85	See Attached Map	<100	<750	2	754	0 7	49 7	3 06	170 21

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1402 03-29-98
Cal Due Date: 09-19-98
Efficiency (%): α 22 90 βγ 29 20

Bkgd (cpm): α 1 3 βγ 704 3 584 3 Inst Only Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
20	89	See Attached Map	See Millennium Data		2	738	0 7	33 7	3 06	115 41
21	93	See Attached Map	See Millennium Data		4	767	2 7	62 7	11 79	214 73
22	97	See Attached Map	See Millennium Data		2	635	0 7	-69 3	3 06	-237 33
23	101	See Attached Map	See Millennium Data		6	773	4 7	68 7	20 52	235 27
24	105	See Attached Map	<100	<750	3	764	1 7	59 7	7 42	204 45
25	109	See Attached Map	See Millennium Data		2	757	0 7	52 7	3 06	180 48
26	113	See Attached Map	<100	<750	0	756	-1 3	51 7	-5 68	177 05
27	117	See Attached Map	See Millennium Data		3	756	1 7	51 7	7 42	177 05
28	121	See Attached Map	See Millennium Data		2	736	0 7	31 7	3 06	108 56
29	125	See Attached Map	See Millennium Data		2	566	0 7	-18 3	3 06	-62 67
30	129	See Attached Map	See Millennium Data		1	752	-0 3	167 7	-1 31	574 32
31	133	See Attached Map	See Millennium Data		0	822	-1 3	117 7	-5 68	403 08
32	137	See Attached Map	<100	<750	4	776	2 7	71 7	11 79	245 55
33	141	See Attached Map	<100	<750	2	799	0 7	94 7	3 06	324 32
34	145	See Attached Map	See Millennium Data		2	737	0 7	32 7	3 06	111 99
35	149	See Attached Map	See Millennium Data		5	737	3 7	32 7	16 16	111 99
36	152	See Attached Map	See Millennium Data		2	774	0 7	69 7	3 06	238 70
37	154	See Attached Map	<100	<750	5	808	3 7	103 7	16 16	355 14
38	156	See Attached Map	See Millennium Data		7	812	5 7	107 7	24 89	368 84

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1402 03-29-98
Cal Due Date: 09-19-98
Efficiency (%): α 22 90 βγ 29 20

Bkgd (cpm): α 1 3 βγ 704 3 | 584 3 Inst Only | Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
39	158	See Attached Map	See Millennium Data		1	776	-0 3	71 7	-1 31	245 55
40	160	See Attached Map	See Millennium Data		5	858	3 7	153 7	16 16	526 37
41	162	See Attached Map	See Millennium Data		1	806	-0 3	101 7	-1 31	348 29
42	164	See Attached Map	See Millennium Data		4	748	2 7	43 7	11 79	149 66
43	166	See Attached Map	See Millennium Data		2	728	0 7	23 7	3 06	81 16
44	169	See Attached Map	<100	<750	2	805	0 7	100 7	3 06	344 86
45	170	See Attached Map	See Millennium Data		2	740	0 7	35 7	3 06	122 26
46	172	See Attached Map	See Millennium Data		4	733	2 7	28 7	11 79	98 29
47	174	See Attached Map	See Millennium Data		1	733	-0 3	28 7	-1 31	98 29
48	176	See Attached Map	See Millennium Data		3	748	1 7	43 7	7 42	149 66
49	178	See Attached Map	See Millennium Data		3	720	1 7	15 7	7 42	53 77
50	180	See Attached Map	See Millennium Data		4	709	2 7	4 7	11 79	16 10
51	182	See Attached Map	<100	<750	6	643	4 7	-61 3	20 52	-209 93
52	184	See Attached Map	See Millennium Data		2	725	0 7	140 7	3 06	481 85
53	186	See Attached Map	See Millennium Data		1	755	-0 3	50 7	-1 31	173 63
54	188	See Attached Map	See Millennium Data		0	763	-1 3	58 7	-5 68	201 03
55	190	See Attached Map	See Millennium Data		0	716	-1 3	11 7	-5 68	40 07
56	192	See Attached Map	See Millennium Data		1	709	-0 3	4 7	-1 31	16 10
57	194	See Attached Map	See Millennium Data		3	700	1 7	-4 3	7 42	-14 73

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1402 03-29-98
Cal Due Date: 09-19-98
Efficiency (%): α 22 90 βγ 29 20

Bkgd (cpm): α 1 3 βγ 704 3 584 3 Inst Only Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
58	196	See Attached Map	<100	<750	1	701	-0 3	-3 3	-1 31	-11 30
59	198	See Attached Map	See Millennium Data		2	720	0 7	15 7	3 06	53 77
60	200	See Attached Map	See Millennium Data		2	721	0 7	16 7	3 06	57 19
61	202	See Attached Map	See Millennium Data		1	680	-0 3	-24 3	-1 31	-83 22
62	204	See Attached Map	See Millennium Data		2	695	0 7	-9 3	3 06	-31 85
63	206	See Attached Map	See Millennium Data		3	696	1 7	-8 3	7 42	-28 42
64	208	See Attached Map	See Millennium Data		1	662	-0 3	-42 3	-1 31	-144 86
65	210	See Attached Map	<100	<750	2	707	0 7	2 7	3 06	9 25
66	212	See Attached Map	See Millennium Data		6	755	4 7	50 7	20 52	173 63
67	214	See Attached Map	See Millennium Data		1	380	-0 3	-324 3	-1 31	-1110 62
68	216	See Attached Map	See Millennium Data		0	810	-1 3	105 7	-5 68	361 99
69	218	See Attached Map	See Millennium Data		2	748	0 7	43 7	3 06	149 66
70	220	See Attached Map	See Millennium Data		4	741	2 7	36 7	11 79	125 68
71	222	See Attached Map	See Millennium Data		0	683	-1 3	-21 3	-5 68	-72 95
72	224	See Attached Map	<100	<750	4	752	2 7	47 7	11 79	163 36
73	226	See Attached Map	<100	<750	5	777	3 7	72 7	16 16	248 97
74	228	See Attached Map	<100	<750	4	758	2 7	53 7	11 79	183 90
75	230	See Attached Map	<100	<750	2	529	0 7	-175 3	3 06	-600 34
76	232	See Attached Map	<100	<750	5	785	3 7	80 7	16 16	276 37

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1402 03-29-98
Cal Due Date: 09-19-98
Efficiency (%): α 22 90 βγ 29 20

Bkgd (cpm): α 1 3 βγ 704 3 584 3 Inst Only Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
77	234	See Attached Map	<100	<750	5	754	3 7	49 7	16 16	170 21
78	236	See Attached Map	<100	<750	0	776	-1 3	71 7	-5 68	245 55
79	238	See Attached Map	<100	<750	1	717	-0 3	12 7	-1 31	43 49
80	240	See Attached Map	<100	<750	10	772	8 7	67 7	37 99	231 85
81	242	See Attached Map	<100	<750	2	928	0 7	223 7	3 06	766 10
82	244	See Attached Map	<100	<750	9	682	7 7	97 7	33 62	334 59
83	246	See Attached Map	<100	<750	4	756	2 7	51 7	11 79	177 05
84	248	See Attached Map	<100	<750	3	747	1 7	42 7	7 42	146 23
85	250	See Attached Map	<100	<750	2	748	0 7	43 7	3 06	149 66

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1390 03-29-98

Cal Due Date: 08-13-98

Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 4 0 βγ 846 3 (726 3 Inst Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	252	See Attached Map	<100	<750	3	848	-1 0	121 7	-4 29	373 31
2	254	See Attached Map	<100	<750	1	706	-3 0	-140 3	-12 88	-430 37
3	256	See Attached Map	<100	<750	9	714	5 0	-132 3	21 46	-405 83
4	258	See Attached Map	<100	<750	6	740	2 0	-106 3	8 58	-326 07
5	260	See Attached Map	<100	<750	5	719	1 0	-127 3	4 29	-390 49
6	262	See Attached Map	<100	<750	3	695	-1 0	-31 3	-4 29	-96 01
7	264	See Attached Map	<100	<750	6	775	2 0	-71 3	8 58	-218 71
8	266	See Attached Map	<100	<750	3	775	-1 0	-71 3	-4 29	-218 71
9	268	See Attached Map	<100	<750	4	814	0 0	87 7	0	269 02
10	279	See Attached Map	See Millennium Data		6	750	2 0	-96 3	8 58	-295 40
11	296	See Attached Map	<100	<750	6	890	2 0	43 7	8 58	134 05
12	297	See Attached Map	<100	<750	4	710	0 0	-136 3	0	-418 10
13	298	See Attached Map	<100	<750	3	700	-1 0	-146 3	-4 29	-448 77
14	299	See Attached Map	<100	<750	2	690	-2 0	-156 3	-8 58	-479 45
15	300	See Attached Map	<100	<750	4	780	0 0	53 7	0	164 72
16	301	See Attached Map	<100	<750	4	807	0 0	-39 3	0	-120 55
17	302	See Attached Map	<100	<750	3	790	-1 0	-56 3	-4 29	-172 70
18	303	See Attached Map	<100	<750	2	803	-2 0	-43 3	-8 58	-132 82

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1390 03-29-98
Cal Due Date: 08-13-98
Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 4 0 βγ 846 3 (726 3 Inst Only) Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
19	304	See Attached Map	<100	<750	4	813	0 0	-33 3	0	-102 15
20	305	See Attached Map	<100	<750	5	770	1 0	-76 3	4 29	-234 05
21	306	See Attached Map	<100	<750	6	793	2 0	-53 3	8 58	-163 50
22	307	See Attached Map	<100	<750	4	800	0 0	-46 3	0	-142 02
23	308	See Attached Map	<100	<750	3	761	-1 0	34 7	-4 29	106 44
24	309	See Attached Map	<100	<750	3	812	-1 0	-34 3	-4 29	-105 21
25	310	See Attached Map	<100	<750	4	794	0 0	-52 3	0	-160 43
26	311	See Attached Map	<100	<750	5	758	1 0	-88 3	4 29	-270 86
27	312	See Attached Map	<100	<750	2	801	-2 0	-45 3	-8 58	-138 96
28	313	See Attached Map	<100	<750	3	780	-1 0	-66 3	-4 29	-203 37
29	314	See Attached Map	<100	<750	5	801	1 0	-45 3	4 29	-138 96
30	315	See Attached Map	<100	<750	4	806	0 0	-40 3	0	-123 62
31	316	See Attached Map	<100	<750	6	783	2 0	56 7	8 58	173 93
32	317	See Attached Map	<100	<750	3	770	-1 0	-76 3	-4 29	-234 05
33	318	See Attached Map	<100	<750	4	810	0 0	83 7	0	256 75
34	319	See Attached Map	<100	<750	6	690	2 0	-156 3	8 58	-479 45
35	320	See Attached Map	<100	<750	5	653	1 0	-193 3	4 29	-592 94
36	321	See Attached Map	<100	<750	2	681	-2 0	-165 3	-8 58	-507 06

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 6

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1390 03-29-98
Cal Due Date: 08-13-98
Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 4 0 βγ 846 3 Ref Area
726 3 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
37	322	See Attached Map	<100	<750	3	696	-1 0	-150 3	-4 29	-461 04
38	323	See Attached Map	<100	<750	9	683	5 0	-163 3	21 46	-500 92
39	324	See Attached Map	<100	<750	5	770	1 0	-76 3	4 29	-234 05
40	325	See Attached Map	<100	<750	2	710	-2 0	-136 3	-8 58	-418 10
41	326	See Attached Map	<100	<750	3	682	-1 0	-44 3	-4 29	-135 89
42	327	See Attached Map	<100	<750	4	700	0 0	-146 3	0	-448 77
43	328	See Attached Map	<100	<750	6	703	2 0	-143 3	8 58	-439 57

OXFR **ECLIPSE LB** Version 1 10

Printing Date 3/29/98 Report Name Gross Alpha Beta Analysis CPM

Print Time 7 31 18AM

Count Date **3/29/98** ***ALPHA / BETA CONTAMINATION SURVEY***

Procedure Name **D&D Swipes - 199803290351** Unit #6 1-100

System Information

Serial No W O 3351C **Batch ID** **875**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 27	2 07
Batch MDA	6.995 dpm α	9.037 β

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
2		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
3		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
4		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
5		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
6		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
7		-0 27	-0 70	0 86	1 43	2 58	5 04	< MDA	< MDA
8		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
9		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
10		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
11		0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA
12		-0 27	-0 70	0 86	1 43	2 58	5 04	< MDA	< MDA
13		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
14		-0 27	-0 70	0 86	-1 57	-2 82	2 44	< MDA	< MDA
15		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
16		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
17		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
18		1 23	3 23	4 62	0 43	0 78	4 35	< MDA	< MDA
19		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
20		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
21		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
22		0 23	0 61	2 76	-0 57	-1 02	3 52	< MDA	< MDA
23		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
24		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
25		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
26		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
27		-0 27	-0 70	0 86	1 93	3 48	5 35	< MDA	< MDA
28		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
29		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
30		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
31		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
32		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
33		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
34		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA

Count Date 3/29/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name D&D Swipes - 199803290351 Unit #6

System Information

Serial No W O 3351C **Batch ID** 875

Detector S/N 658 Group A

Sample Information

Sample Units

Geometry 1/8 Stainless Steel

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract	Enable	

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

Background 0 27 2 07

Batch MDA 6,995 dpm 9037

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		-0 27	-0 70	0 86	1 43	2 58	5 04	< MDA	< MDA
36		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
37		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
38		-0 27	-0 70	0 86	-1 57	-2 82	2 44	< MDA	< MDA
39		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
40		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
41		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
42		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
43		-0 27	-0 70	0 86	-1 57	-2 82	2 44	< MDA	< MDA
44		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
45		-0 27	-0 70	0 86	-1 57	-2 82	2 44	< MDA	< MDA
46		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
47		0 23	0 61	2 76	0 43	0 78	4 35	< MDA	< MDA
48		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
49		-0 27	-0 70	0 86	-1 57	-2 82	2 44	< MDA	< MDA
50		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
51		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
52		0 23	0 61	2 76	-0 57	-1 02	3 52	< MDA	< MDA
53		0 23	0 61	2 76	0 43	0 78	4 35	< MDA	< MDA
54		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
56		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
55		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
57		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
58		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
59		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
60		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
61		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
62		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
63		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
64		0 23	0 61	2 76	-1 57	-2 82	2 44	< MDA	< MDA
65		-0 27	-0 70	0 86	3 43	6 19	6 20	< MDA	
66		0 23	0 61	2 76	1 93	3 48	5 35	< MDA	< MDA
67		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
68		-0 27	-0 70	0 86	2 43	4 38	5 65	< MDA	< MDA
69		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
70		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
71		-0 27	-0 70	0 86	-1 57	-2 82	2 44	< MDA	< MDA
72		-0 27	-0 70	0 86	1 43	2 58	5 04	< MDA	< MDA
73		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
74		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA

Count Date 3/29/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199803290351** Unit #6

System Information

Serial No W O 3351C **Batch ID** **875**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8' Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 27	2 07
Batch MDA	6 995 dpm	9037

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
75		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
76		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
77		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
78		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
79		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
80		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
81		0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA
82		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
83		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
84		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
85		-0 27	-0 70	0 86	-2 07	-3 72	1 64	< MDA	< MDA
86		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
87		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
88		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
89		0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA
90		-0 27	-0 70	0 86	1 93	3 48	5 35	< MDA	< MDA
91		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
92		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
93		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
94		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
95		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
96		0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA
97		-0 27	-0 70	0 86	1 93	3 48	5 35	< MDA	< MDA
98		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
99		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
100		-0 27	-0 70	0 86	1 43	2 58	5 04	< MDA	< MDA

OXFR **ECLIPSE LB** Version 1 10

Printing Date 3/29/98 Report Name Gross Alpha Beta Analysis CPM

Print Time 3 11 49PM

Count Date **3/29/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199803290836** Unit 6 101-200

System Information

Serial No W O 3351C **Batch ID** **876**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract	Enable	
Background	0 27	2 07
Batch MDA	6 99 dpm	9037

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
2		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
3		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
4		0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA
5		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
6		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
7		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
8		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
9		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
10		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
11		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
12		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
13		0 23	0 61	2 76	0 93	1 68	4 71	< MDA	< MDA
14		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
15		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
16		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
17		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
18		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
19		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
20		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
21		0 23	0 61	2 76	1 93	3 48	5 35	< MDA	< MDA
22		0 23	0 61	2 76	0 43	0 78	4 35	< MDA	< MDA
23		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
24		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
25		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
26		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
27		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
28		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
29		0 23	0 61	2 76	-0 57	-1 02	3 52	< MDA	< MDA
30		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
31		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
32		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
33		0 23	0 61	2 76	1 43	2 58	5 04	< MDA	< MDA
34		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA

Procedure Name **D&D Swipes - 199803290836**

System Information

Serial No W O 3351C **Batch ID** **876**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8 Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 27	2 07
Batch MDA	6 995 dpm	9 037

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
36		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
37		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
38		0 73	1 92	3 80	0 43	0 78	4 35	< MDA	< MDA
39		0 73	1 92	3 80	-0 57	-1 02	3 52	< MDA	< MDA
40		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
41		-0 27	-0 70	0 86	-2 07	-3 72	1 64	< MDA	< MDA
42		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
43		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
44		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
45		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
46		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
47		-0 27	-0 70	0 86	-1 57	-2 82	2 44	< MDA	< MDA
48		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
49		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
50		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
51		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
52		0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA
53		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
54		-0 27	-0 70	0 86	1 93	3 48	5 35	< MDA	< MDA
56		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
55		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
57		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
58		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
59		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
60		0 23	0 61	2 76	1 43	2 58	5 04	< MDA	< MDA
61		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
62		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
63		0 73	1 92	3 80	2 43	4 38	5 65	< MDA	< MDA
64		0 73	1 92	3 80	-0 07	-0 12	3 96	< MDA	< MDA
65		0 23	0 61	2 76	1 43	2 58	5 04	< MDA	< MDA
66		0 23	0 61	2 76	-2 07	-3 72	1 64	< MDA	< MDA
67		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
68		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
69		0 23	0 61	2 76	0 93	1 68	4 71	< MDA	< MDA
70		-0 27	-0 70	0 86	3 43	6 19	6 20	< MDA	
71		-0 27	-0 70	0 86	1 43	2 58	5 04	< MDA	< MDA
72		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
73		-0 27	-0 70	0 86	1 43	2 58	5 04	< MDA	< MDA
74		0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA

Procedure Name **D&D Swipes - 199803290836**

System Information

Serial No W O 3351C **Batch ID** **876**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract	Enable	
Background	0 27	2 07
Batch MDA	6 995 dpm	9.037

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
75		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
76		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
77		0 23	0 61	2 76	-0 57	-1 02	3 52	< MDA	< MDA
78		-0 27	-0 70	0 86	1 93	3 48	5 35	< MDA	< MDA
79		0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA
80		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
81		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
82		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
83		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
84		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
85		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
86		-0 27	-0 70	0 86	3 93	7 09	6 45	< MDA	
87		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
88		-0 27	-0 70	0 86	1 43	2 58	5 04	< MDA	< MDA
89		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
90		0 23	0 61	2 76	-0 57	-1 02	3 52	< MDA	< MDA
91		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
92		0 23	0 61	2 76	-0 57	-1 02	3 52	< MDA	< MDA
93		0 23	0 61	2 76	0 93	1 68	4 71	< MDA	< MDA
94		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
95		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
96		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
97		-0 27	-0 70	0 86	1 43	2 58	5 04	< MDA	< MDA
98		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
99		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
100		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA

OXFR **ECLIPSE LB** Version 1 10

Printing Date 3/30/98 Report Name Gross Alpha Beta Analysis CPM

Print Time 0 05 59AM

Count Date **3/29/98** ***ALPHA / BETA CONTAMINATION SURVEY***

Procedure Name **D&D Swipes - 199803291701** Unit 6 201-300 (201-234)

System Information

Serial No W O 3351C **Batch ID** **877**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1,410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 27	2 07
Batch MDA	6 995 dpm	9.037

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1	201	-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
2		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
3		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
4		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
5	205	-0 27	-0 70	0 86	17 93	32 31	11 52	< MDA	
6		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
7		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
8		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
9		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
10	210	-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
13		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
12		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
11		0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA
14		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
15	215	0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA
16		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
17		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
18		-0 27	-0 70	0 86	-2 07	-3 72	1 64	< MDA	< MDA
19		0 23	0 61	2 76	0 93	1 68	4 71	< MDA	< MDA
20	220	0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA
21		0 23	0 61	2 76	0 93	1 68	4 71	< MDA	< MDA
22		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
23		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
24		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
25	225	-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
26		-0 27	-0 70	0 86	-1 57	-2 82	2 44	< MDA	< MDA
27		-0 27	-0 70	0 86	1 43	2 58	5 04	< MDA	< MDA
28		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
29		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
30	230	0 23	0 61	2 76	-0 57	-1 02	3 52	< MDA	< MDA
31		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
32		-0 27	-0 70	0 86	-1 57	-2 82	2 44	< MDA	< MDA
33		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
34	234	-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA

Count Date 3/29/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199803291701**

Unit 6 (235 - 274)

System Information

Serial No W O 3351C **Batch ID** 877

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8 Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 27	2 07
Batch MDA	6 98 dpm	9 037

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35	235	-0 27	-0 70	0 86	1 93	3 48	5 35	< MDA	< MDA
36		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
37		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
38		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
39		-0 27	-0 70	0 86	-1 57	-2 82	2 44	< MDA	< MDA
40	240	-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
41		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
42		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
43		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
44		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
45	245	0 23	0 61	2 76	-0 57	-1 02	3 52	< MDA	< MDA
46		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
47		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
48		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
49		0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA
50	250	-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
51		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
52		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
53		-0 27	-0 70	0 86	1 43	2 58	5 04	< MDA	< MDA
54		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
56		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
55	255	-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
57		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
58		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
59		0 73	1 92	3 80	-0 57	-1 02	3 52	< MDA	< MDA
60	260	-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
61		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
62		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
63		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
64		-0 27	-0 70	0 86	0 43	0 78	4 35	< MDA	< MDA
65	265	-0 27	-0 70	0 86	-1 57	-2 82	2 44	< MDA	< MDA
66		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
67		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
68		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
69		0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA
70	270	-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
71		0 23	0 61	2 76	1 93	3 48	5 35	< MDA	< MDA
72		0 23	0 61	2 76	0 07	-0 12	3 96	< MDA	< MDA
73		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
74	274	-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA

Count Date 3/29/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name D&D Swipes - 199803291701

Unit 6 (275-300)

System Information

Serial No W O 3351C **Batch ID** 877

Detector S/N 658 Group A

Sample Information

Sample Units

Geometry 1/8 Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 27	2 07

Batch MDA 6995 dpm 9037

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
75	275	0 23	0 61	2 76	-0 57	-1 02	3 52	< MDA	< MDA
76		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
77		0 23	0 61	2 76	-1 07	-1 92	3 03	< MDA	< MDA
78		-0 27	-0 70	0 86	-1 57	-2 82	2 44	< MDA	< MDA
79		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
80	280	0 23	0 61	2 76	1 93	3 48	5 35	< MDA	< MDA
81		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
82		-0 27	-0 70	0 86	0 93	1 68	4 71	< MDA	< MDA
83		0 23	0 61	2 76	-0 57	-1 02	3 52	< MDA	< MDA
84		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
85	285	1 23	3 23	4 62	-1 07	-1 92	3 03	< MDA	< MDA
86		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
87		-0 27	-0 70	0 86	1 93	3 48	5 35	< MDA	< MDA
88		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
89		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
90	290	0 23	0 61	2 76	-0 07	-0 12	3 96	< MDA	< MDA
91		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
92		-0 27	-0 70	0 86	-1 57	-2 82	2 44	< MDA	< MDA
93		0 23	0 61	2 76	-0 57	-1 02	3 52	< MDA	< MDA
94		-0 27	-0 70	0 86	-1 07	-1 92	3 03	< MDA	< MDA
95	295	0 23	0 61	2 76	0 43	0 78	4 35	< MDA	< MDA
96		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
97		0 23	0 61	2 76	0 93	1 68	4 71	< MDA	< MDA
98		-0 27	-0 70	0 86	-0 57	-1 02	3 52	< MDA	< MDA
99		-0 27	-0 70	0 86	-0 07	-0 12	3 96	< MDA	< MDA
100	300	1 23	3 23	4 62	0 93	1 68	4 71	< MDA	< MDA

OXFR **ECLIPSE LB** Version 1 10

Printing Date 3/30/98 Report Name Gross Alpha Beta Analysis CPM

Print Time 3 01 14AM

Count Date **3/30/98** ***ALPHA / BETA CONTAMINATION SURVEY***

Procedure Name **D&D Swipes - 199803300157** Unit 6 (301-328)

System Information

Serial No W O 3351C **Batch ID** **881**

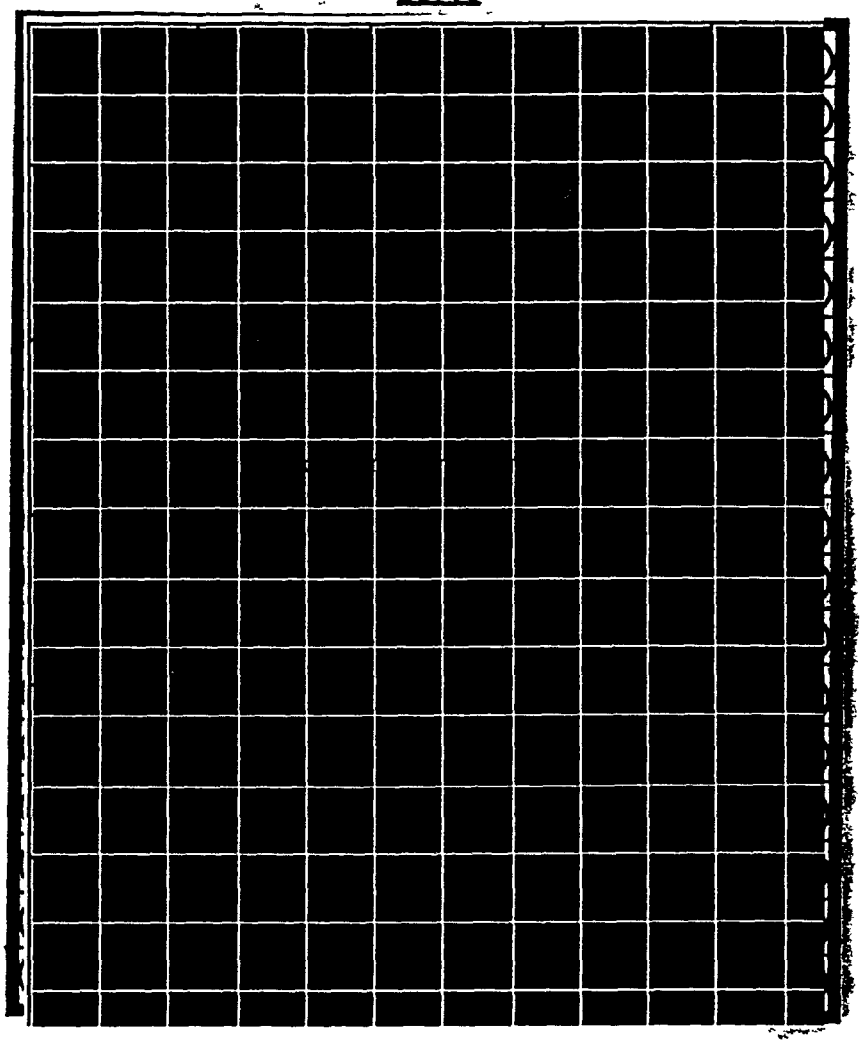
Detector S/N 658 Group **A**

			Alpha	**Beta**
Sample Information				
Sample Units		**Efficiency (%)**	38 16	55 51
Geometry	1/8" Stainless Steel			
		Background Subtract	Enable	
Count Parameters				
Count Mode	Simultaneous			
Operating Voltage	1 410 00	**Background**	0 07	1 47
Time	2 00			
Delay	0 00	**Batch MDA**	5.313 dpm	8.004
Sample Replicates	1			

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1	301	0 43	1 14	2 66	2 03	3 66	4 96	< MDA	< MDA
2		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
3		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
4		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
5	305	-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
6		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
7		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
8		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
9		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
10	310	-0 07	-0 17	0 43	3 53	6 37	5 86	< MDA	
11		0 43	1 14	2 66	4 03	7 27	6 13	< MDA	
12		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
13		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
14		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
15	315	-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
16		0 43	1 14	2 66	0 53	0 96	3 86	< MDA	< MDA
17		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
18		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
19		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
20	320	0 43	1 14	2 66	2 03	3 66	4 96	< MDA	< MDA
21		0 43	1 14	2 66	0 53	0 96	3 86	< MDA	< MDA
22		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
23		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
24		0 43	1 14	2 66	-0 97	-1 74	2 27	< MDA	< MDA
25	325	-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
26		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
27		0 43	1 14	2 66	0 53	0 96	3 86	< MDA	< MDA
29	328	0 43	1 14	2 66	2 03	3 66	4 96	< MDA	< MDA

West Wing; Unit VI

Floor



RF12301A

Legend

Room Orientation

Survey Point

Meter (1 15) Mean. 3 Max 37 Min 0 Std 6 0 Pix 400	Meter (2 15) Mean 9 Max 75 Min. 0 Std 11 3 Pix 400	Meter (3 15) Mean 9 Max 91 Min. 0 Std 11 1 Pix 400	Meter (4 15) Mean 8 Max 52 Min 0 Std 8 2 Pix 400	Meter (5 15) Mean 5 Max 22 Min 0 Std 4 1 Pix 400	Meter (6 15) Mean 10 Max 91 Min 0 Std 13 9 Pix 400	Meter (7 15) Mean 14 Max 122 Min 1 Std 15 8 Pix 400	Meter (8 15) Mean 9 Max 196 Min. 0 Std 24 0 Pix 400	Meter (9 15) Mean 10 Max. 126 Min. 0 Std 18 8 Pix 400	Meter (10 15) Mean 15 Max 195 Min. 0 Std 24 5 Pix 400	Meter (11 15) Mean 17 Max 117 Min. 5 Std 14 3 Pix 400	Meter (12 15) Mean 22 Max 221 Min 0 Std 36 4 Pix 300
Meter (1 14) Mean. 12 Max 125 Min 0 Std. 13 8 Pix 400	Meter (2 14) Mean 9 Max 89 Min 0 Std 9 2 Pix 400	Meter (3 14) Mean. 10 Max 79 Min 0 Std 10 3 Pix 400	Meter (4 14) Mean 13 Max 106 Min 0 Std 13 8 Pix 400	Meter (5 14) Mean 12 Max 103 Min 0 Std 11 7 Pix 400	Meter (6 14) Mean 7 Max 171 Min. 0 Std 16 8 Pix 400	Meter (7 14) Mean 8 Max 123 Min 0 Std 14 5 Pix 400	Meter (8 14) Mean. 9 Max 32 Min. 0 Std 4 9 Pix 400	Meter (9 14) Mean. 8 Max 63 Min. 0 Std 6 2 Pix 400	Meter (10 14) Mean 6 Max 29 Min 0 Std 5 5 Pix 400	Meter (11 14) Mean 10 Max 83 Min 0 Std 11 5 Pix 400	Meter (12 14) Mean. 18 Max 77 Min 2 Std 16 9 Pix 300
Meter (1 13) Mean. 17 Max 112 Min. 4 Std 18 3 Pix 400	Meter (2 13) Mean 16 Max 124 Min 0 Std. 20 2 Pix.400	Meter (3 13) Mean. 11 Max 146 Min. 0 Std. 19 9 Pix 400	Meter (4 13) Mean. 11 Max 104 Min 0 Std 15 6 Pix 400	Meter (5 13) Mean. 7 Max 25 Min. 0 Std. 3 8 Pix 400	Meter (6 13) Mean. 10 Max 170 Min. 0 Std. 23 3 Pix 400	Meter (7 13) Mean. 7 Max. 148 Min 0 Std. 16 1 Pix 400	Meter (8 13) Mean. 7 Max 91 Min. 0 Std 11 7 Pix 400	Meter (9 13) Mean. 6 Max. 31 Min 0 Std 4 7 Pix.400	Meter (10 13) Mean. 9 Max. 85 Min. 0 Std. 8 4 Pix 400	Meter (11 13) Mean. 9 Max. 46 Min 0 Std 6 3 Pix 400	Meter (12 13) Mean 12 Max 112 Min 0 Std 12 7 Pix 300
Meter (1 12) Mean 14 Max 168 Min. 0 Std 18 3 Pix 400	Meter (2 12) Mean. 11 Max 98 Min. 0 Std 11 6 Pix 400	Meter (3 12) Mean. 12 Max 134 Min. 0 Std 19 0 Pix 400	Meter (4 12) Mean. 8 Max 48 Min. 0 Std 7 9 Pix 400	Meter (5 12) Mean. 11 Max 105 Min 0 Std 13 5 Pix 400	Meter (6 12) Mean. 8 Max 48 Min. 0 Std 6 0 Pix 400	Meter (7 12) Mean 11 Max. 62 Min. 0 Std. 9 7 Pix 400	Meter (8 12) Mean. 11 Max. 90 Min. 0 Std 12 2 Pix 400	Meter (9 12) Mean. 11 Max 93 Min. 0 Std. 13 2 Pix 400	Meter (10 12) Mean. 9 Max 58 Min. 0 Std. 7 8 Pix 400	Meter (11 12) Mean 8 Max 41 Min. 0 Std 5 5 Pix 400	Meter (12 12) Mean 17 Max 171 Min. 0 Std 25 6 Pix 300
Meter (1 11) Mean. 14 Max 161 Min. 0 Std 19 4 Pix 400	Meter (2 11) Mean. 8 Max. 134 Min. 0 Std 10 1 Pix 400	Meter (3 11) Mean. 17 Max 136 Min 0 Std 23 4 Pix 400	Meter (4 11) Mean. 12 Max 72 Min. 0 Std 11 8 Pix 400	Meter (5 11) Mean 8 Max 51 Min. 0 Std 7 3 Pix 400	Meter (6 11) Mean. 16 Max 114 Min. 0 Std. 19 3 Pix 400	Meter (7 11) Mean. 11 Max 107 Min. 0 Std 13 3 Pix.400	Meter (8,11) Mean. 8 Max. 82 Min. 0 Std 10 4 Pix 400	Meter (9 11) Mean. 6 Max. 125 Min. 0 Std. 14 0 Pix 400	Meter (10 11) Mean. 8 Max 41 Min. 0 Std 5 2 Pix 400	Meter (11 11) Mean. 8 Max 54 Min. 0 Std 6 1 Pix 400	Meter (12 11) Mean 9 Max 42 Min. 0 Std 8 5 Pix 300
Meter (1 10) Mean. 10 Max. 54 Min. 0 Std 7 9 Pix.400	Meter (2 10) Mean 9 Max 160 Min 0 Std 17 0 Pix 400	Meter (3 10) Mean. 13 Max 248 Min. 0 Std 23 8 Pix 400	Meter (4 10) Mean. 13 Max 113 Min. 0 Std 15 1 Pix 400	Meter (5 10) Mean 6 Max 55 Min. 0 Std 7 0 Pix 400	Meter (6 10) Mean. 12 Max 50 Min. 0 Std 9 4 Pix 400	Meter (7 10) Mean 10 Max. 72 Min. 0 Std 10 3 Pix 400	Meter (8 10) Mean. 7 Max 75 Min. 0 Std 9 6 Pix 400	Meter (9 10) Mean. 14 Max. 86 Min. 0 Std 17 7 Pix 400	Meter (10 10) Mean. 9 Max. 65 Min. 0 Std 8 3 Pix 400	Meter (11 10) Mean. 9 Max 51 Min. 0 Std 7 5 Pix 400	Meter (12 10) Mean 15 Max 109 Min. 0 Std 20 2 Pix 300
Meter (1 9) Mean 10 Max. 57 Min. 0 Std 7 1 Pix 400	Meter (2 9) Mean. 8 Max 62 Min. 0 Std 9 2 Pix 400	Meter (3 9) Mean. 10 Max 146 Min. 0 Std 19 2 Pix 400	Meter (4 9) Mean. 13 Max 76 Min 0 Std 14 6 Pix 400	Meter (5 9) Mean. 11 Max 114 Min. 0 Std 16 7 Pix 400	Meter (6 9) Mean 9 Max 68 Min. 0 Std 10 6 Pix 400	Meter (7 9) Mean 12 Max 111 Min. 0 Std 16 6 Pix 400	Meter (8,9) Mean. 9 Max 75 Min. 0 Std 10.5 Pix 400	Meter (9 9) Mean. 18 Max. 265 Min. 0 Std 29 4 Pix 400	Meter (10 9) Mean. 10 Max 81 Min. 0 Std 9 7 Pix 400	Meter (11 9) Mean. 9 Max 32 Min 0 Std 4 4 Pix 400	Meter (12 9) Mean 13 Max 36 Min. 3 Std 6 5 Pix 300
Meter (1,8) Mean 15 Max 91 Min. 2 Std 14 0 Pix 400	Meter (2 8) Mean 8 Max 52 Min. 0 Std 5 4 Pix 400	Meter (3 8) Mean 20 Max 227 Min 0 Std 30 1 Pix 400	Meter (4 8) Mean 8 Max 47 Min 0 Std 8 5 Pix 400	Meter (5 8) Mean 11 Max 112 Min. 0 Std. 9 7 Pix 400	Meter (6 8) Mean. 10 Max. 39 Min. 0 Std 6.2 Pix 400	Meter (7 8) Mean 11 Max 111 Min 0 Std 11 0 Pix 400	Meter (8 8) Mean. 11 Max 93 Min. 0 Std 12 6 Pix 400	Meter (9 8) Mean. 17 Max. 208 Min. 0 Std 31 5 Pix 400	Meter (10 8) Mean. 9 Max. 82 Min. 0 Std 9 5 Pix 400	Meter (11 8) Mean 13 Max 141 Min. 0 Std 15 1 Pix 400	Meter (12 8) Mean 10 Max 122 Min. 2 Std 13 8 Pix 300
Meter (1 7) Mean. 9 Max 39 Min. 0 Std 6 9 Pix 400	Meter (2,7) Mean. 9 Max 34 Min 0 Std 5 5 Pix 400	Meter (3 7) Mean. 19 Max. 476 Min. 0 Std 47 7 Pix 400	Meter (4 7) Mean 9 Max 94 Min 0 Std 15 0 Pix 400	Meter (5 7) Mean 10 Max 114 Min 0 Std 13 6 Pix 400	Meter (6 7) Mean. 12 Max 89 Min. 0 Std 14 7 Pix 400	Meter (7 7) Mean. 8 Max 97 Min. 0 Std 10 9 Pix 400	Meter (8 7) Mean. 8 Max 46 Min 0 Std 6 0 Pix 400	Meter (9 7) Mean. 8 Max 38 Min. 0 Std 4 6 Pix 400	Meter (10 7) Mean 10 Max 171 Min. 0 Std 20 3 Pix 400	Meter (11 7) Mean 10 Max 51 Min 1 Std 7 1 Pix 400	Meter (12 7) Mean 12 Max 108 Min 2 Std 19 5 Pix 300
Meter (1 6)	Meter (2 6)	Meter (3 6)	Meter (4 6)	Meter (5 6)	Meter (6 6)	Meter (7 6)	Meter (8 6)	Meter (9,6)	Meter (10 6)	Meter (11 6)	Meter (12 6)

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Mean 9 Max 72 Min 0 Std 14 0 Pix 400	Mean 10 Max 104 Min. 0 Std 15 7 Pix 400	Mean 13 Max 101 Min 0 Std 15 7 Pix 400	Mean 14 Max 95 Min 0 Std 14 9 Pix 400	Mean 8 Max 70 Min 0 Std 10 4 Pix 400	Mean 13 Max 103 Min 0 Std 15 0 Pix 400	Mean 12 Max 90 Min 0 Std 11 2 Pix 400	Mean 17 Max 123 Min 0 Std 19 2 Pix 400	Mean 13 Max 137 Min 2 Std 17 3 Pix 400	Mean 16 Max 67 Min 1 Std 12 4 Pix 400	Mean 23 Max 141 Min 6 Std 22 6 Pix 400	Mean 20 Max 166 Min 3 Std 25 0 Pix 300
Meter (1 5) Mean 7 Max 52 Min 0 Std 7 9 Pix 400	Meter (2,5) Mean 3 Max 13 Min. 0 Std 3 8 Pix 400	Meter (3 5) Mean 8 Max 52 Min 0 Std 7 4 Pix 400	Meter (4 5) Mean 15 Max 103 Min. 4 Std 14 7 Pix 400	Meter (5 5) Mean 10 Max 130 Min 0 Std 11 2 Pix 400	Meter (6 5) Mean 9 Max 49 Min 0 Std 7 0 Pix 400	Meter (7 5) Mean. 15 Max 79 Min 4 Std 13 3 Pix 400	Meter (8 5) Mean. 13 Max 71 Min. 0 Std 11 6 Pix 400	Meter (9 5) Mean 6 Max 68 Min 0 Std 8 3 Pix 400	Meter (10 5) Mean 15 Max 121 Min. 0 Std 18 8 Pix 400	Meter (11 5) Mean. 13 Max 134 Min. 0 Std 15 8 Pix 400	Meter (12 5) Mean 9 Max 56 Min 0 Std 10 0 Pix 300
Meter (1 4) Mean. 11 Max 131 Min 0 Std 19 2 Pix 400	Meter (2 4) Mean 8 Max 54 Min 0 Std 6 1 Pix 400	Meter (3 4) Mean 11 Max 53 Min 0 Std 10 2 Pix 400	Meter (4 4) Mean. 10 Max 58 Min. 0 Std. 9 6 Pix 400	Meter (5 4) Mean 8 Max 93 Min. 0 Std 11 0 Pix 400	Meter (6 4) Mean. 6 Max 27 Min. 0 Std 5 0 Pix 400	Meter (7 4) Mean 7 Max 58 Min. 0 Std 10 1 Pix 400	Meter (8 4) Mean. 12 Max 144 Min. 0 Std 16 1 Pix 400	Meter (9 4) Mean 6 Max 72 Min. 0 Std 9 1 Pix 400	Meter (10 4) Mean 7 Max 136 Min. 0 Std 13 7 Pix 400	Meter (11 4) Mean 5 Max 57 Min 0 Std 5 8 Pix 400	Meter (12 4) Mean 9 Max 80 Min 1 Std 8 0 Pix 300
Meter (1 3) Mean. 9 Max 155 Min. 0 Std 16 1 Pix 400	Meter (2,3) Mean 9 Max 79 Min 0 Std 13 7 Pix 400	Meter (3 3) Mean. 16 Max 76 Min. 3 Std 11 4 Pix 400	Meter (4 3) Mean. 10 Max 130 Min. 0 Std 16 5 Pix 400	Meter (5 3) Mean. 4 Max 10 Min 0 Std 2 6 Pix 400	Meter (6 3) Mean. 9 Max 118 Min. 0 Std 15 8 Pix 400	Meter (7 3) Mean. 8 Max 80 Min. 0 Std 10 1 Pix 400	Meter (8,3) Mean. 7 Max 35 Min 0 Std 6 2 Pix 400	Meter (9 3) Mean. 8 Max 55 Min. 0 Std 7 2 Pix 400	Meter (10 3) Mean 7 Max 57 Min. 0 Std 9 0 Pix 400	Meter (11 3) Mean 8 Max 61 Min 0 Std 6 6 Pix 400	Meter (12 3) Mean. 4 Max 18 Min 0 Std 4 4 Pix 300
Meter (1 2) Mean. 13 Max 97 Min 0 Std 11 5 Pix 400	Meter (2 2) Mean 10 Max 75 Min 0 Std 7 8 Pix 400	Meter (3,2) Mean. 13 Max 126 Min 0 Std 17 8 Pix 400	Meter (4 2) Mean 4 Max 30 Min 0 Std 4 6 Pix 400	Meter (5,2) Mean 13 Max 108 Min 0 Std 17 7 Pix 400	Meter (6 2) Mean 15 Max 104 Min 0 Std 22 3 Pix 400	Meter (7 2) Mean. 9 Max 103 Min 0 Std 16 1 Pix 400	Meter (8,2) Mean 8 Max 66 Min. 0 Std 5 8 Pix 400	Meter (9,2) Mean. 11 Max 54 Min. 0 Std 10 2 Pix 400	Meter (10 2) Mean. 10 Max 111 Min 0 Std 16 0 Pix 400	Meter (11,2) Mean. 9 Max 19 Min. 0 Std 4 0 Pix 400	Meter (12 2) Mean 6 Max 21 Min 0 Std 5 0 Pix 300
Meter (1 1) Mean. 11 Max 51 Min 0 Std 9 5 Pix 217	Meter (2 1) Mean 9 Max 32 Min. 0 Std 5 1 Pix 220	Meter (3 1) Mean 10 Max 61 Min. 0 Std 10 1 Pix 220	Meter (4 1) Mean 14 Max 80 Min 0 Std 14 5 Pix 220	Meter (5 1) Mean 24 Max 144 Min. 0 Std 26 6 Pix 220	Meter (6 1) Mean. 11 Max 89 Min. 0 Std 16 4 Pix 220	Meter (7 1) Mean 8 Max 68 Min 0 Std 11 0 Pix 220	Meter (8 1) Mean. 12 Max 63 Min. 2 Std 9 1 Pix 220	Meter (9 1) Mean. 12 Max 134 Min 3 Std 19 8 Pix 220	Meter (10 1) Mean. 14 Max. 145 Min. 0 Std 20 5 Pix 220	Meter (11 1) Mean 15 Max 122 Min. 0 Std 18 4 Pix 220	Meter (12 1) Mean 10 Max 21 Min 0 Std 5 3 Pix 165

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (12,1) and Grids (12,1) - (12,15) are not one square meter Bold text denotes grids which exceed release limits

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COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the site-specific guidelines for release Figure 3 details which zones were above release limits

Meter (1 15) Mean 19 Max 168 Min 0 Std 26 6 Pix 400	Meter (2 15) Mean 9 Max 101 Min. 0 Std 13 2 Pix 400	Meter (3 15) Mean 15 Max 122 Min 0 Std 16 1 Pix 400	Meter (4 15) Mean. 9 Max 43 Min 0 Std 7 6 Pix 400	Meter (5 15) Mean 16 Max 185 Min 0 Std 25 1 Pix 400	Meter (6 15) Mean 16 Max 129 Min 0 Std 18 5 Pix 400	Meter (7 15) Mean 20 Max 182 Min 0 Std 26 8 Pix 400	Meter (8 15) Mean 17 Max 276 Min 0 Std 32 9 Pix 400	Meter (9 15) Mean 8 Max 276 Min 0 Std. 27 2 Pix 400	Meter (10 15) Mean 14 Max 56 Min. 1 Std 7 6 Pix 400	Meter (11 15) Mean 19 Max 154 Min 0 Std 22 3 Pix 400	Meter (12 15) Mean 10 Max 72 Min 1 Std 11 0 Pix 300
Meter (1 14) Mean 12 Max 93 Min 0 Std 11 6 Pix 400	Meter (2 14) Mean 12 Max 105 Min 0 Std 11 5 Pix 400	Meter (3 14) Mean. 8 Max 18 Min 0 Std 3 4 Pix 400	Meter (4 14) Mean 13 Max 87 Min. 0 Std 13 0 Pix 400	Meter (5 14) Mean 15 Max 101 Min 2 Std 11 6 Pix 400	Meter (6 14) Mean 10 Max 81 Min. 0 Std 13 0 Pix.400	Meter (7 14) Mean 11 Max 165 Min 0 Std 21 8 Pix 400	Meter (8,14) Mean. 7 Max. 14 Min. 0 Std 3 6 Pix 400	Meter (9 14) Mean. 8 Max 43 Min 0 Std. 4 8 Pix 400	Meter (10 14) Mean 9 Max 38 Min. 0 Std 7 0 Pix 400	Meter (11 14) Mean 12 Max 114 Min 0 Std 16 4 Pix 400	Meter (12 14) Mean 12 Max 84 Min 0 Std 11 0 Pix 300
Meter (1 13) Mean. 17 Max 120 Min. 0 Std 19 4 Pix 400	Meter (2 13) Mean 9 Max 88 Min. 0 Std 10 0 Pix.400	Meter (3 13) Mean 17 Max 136 Min 3 Std. 23 9 Pix 400	Meter (4 13) Mean. 14 Max 231 Min. 0 Std 22 8 Pix 400	Meter (5 13) Mean 12 Max 51 Min 1 Std. 7 2 Pix 400	Meter (6 13) Mean 8 Max 77 Min. 0 Std 15 9 Pix 400	Meter (7 13) Mean. 9 Max 156 Min. 0 Std. 15 4 Pix.400	Meter (8 13) Mean. 7 Max. 39 Min. 0 Std 5 8 Pix 400	Meter (9 13) Mean. 9 Max 67 Min. 0 Std. 11 1 Pix 400	Meter (10 13) Mean. 11 Max 102 Min. 0 Std 10 8 Pix 400	Meter (11 13) Mean. 8 Max 117 Min. 0 Std 13 4 Pix 400	Meter (12 13) Mean 23 Max 215 Min. 0 Std 30 2 Pix 300
Meter (1 12) Mean. 11 Max 44 Min. 0 Std 6 6 Pix 400	Meter (2 12) Mean. 15 Max 82 Min. 0 Std 14 7 Pix 400	Meter (3 12) Mean. 6 Max 138 Min 0 Std 12 6 Pix 400	Meter (4 12) Mean 11 Max. 74 Min 0 Std 12 1 Pix 400	Meter (5 12) Mean 13 Max 86 Min 0 Std 11 9 Pix 400	Meter (6 12) Mean. 13 Max 90 Min 0 Std. 14 4 Pix 400	Meter (7 12) Mean. 6 Max 27 Min. 0 Std 4 3 Pix 400	Meter (8 12) Mean 6 Max. 35 Min. 0 Std. 5 5 Pix 400	Meter (9 12) Mean. 9 Max 69 Min. 0 Std. 9 6 Pix 400	Meter (10 12) Mean. 6 Max 17 Min. 0 Std 4 1 Pix 400	Meter (11 12) Mean 9 Max 58 Min. 0 Std 7 7 Pix 400	Meter (12 12) Mean 22 Max 146 Min 1 Std 25 6 Pix 300
Meter (1 11) Mean. 10 Max 72 Min. 0 Std 10 6 Pix 400	Meter (2 11) Mean 9 Max 86 Min 0 Std 8 8 Pix 400	Meter (3 11) Mean. 7 Max 74 Min 0 Std 10 0 Pix 400	Meter (4 11) Mean 12 Max 100 Min. 0 Std 12 8 Pix 400	Meter (5 11) Mean 6 Max 20 Min. 0 Std 4 0 Pix 400	Meter (6 11) Mean. 10 Max 42 Min. 0 Std 5 8 Pix 400	Meter (7 11) Mean. 9 Max 77 Min 0 Std 11 0 Pix 400	Meter (8 11) Mean. 8 Max. 52 Min. 0 Std 6 9 Pix.400	Meter (9 11) Mean. 7 Max 30 Min. 0 Std. 4 5 Pix 400	Meter (10 11) Mean. 7 Max 14 Min. 0 Std 3 2 Pix 400	Meter (11 11) Mean 10 Max 171 Min. 0 Std 16 2 Pix 400	Meter (12 11) Mean 10 Max 107 Min. 0 Std 15 3 Pix 300
Meter (1 10) Mean. 12 Max 98 Min. 0 Std 14 7 Pix 400	Meter (2 10) Mean. 13 Max 127 Min. 0 Std 15 1 Pix 400	Meter (3 10) Mean 12 Max 86 Min. 0 Std 12 4 Pix 400	Meter (4 10) Mean 12 Max 58 Min. 0 Std 12 1 Pix 400	Meter (5 10) Mean. 15 Max 121 Min 0 Std 17 0 Pix 400	Meter (6 10) Mean 9 Max. 98 Min 0 Std 12 5 Pix 400	Meter (7 10) Mean. 15 Max. 216 Min. 0 Std 27 2 Pix 400	Meter (8 10) Mean 8 Max 54 Min. 0 Std 8 2 Pix 400	Meter (9 10) Mean 14 Max. 121 Min. 0 Std. 19 1 Pix.400	Meter (10 10) Mean. 8 Max 37 Min. 0 Std 5 9 Pix 400	Meter (11 10) Mean. 10 Max 45 Min 0 Std 6 6 Pix 400	Meter (12 10) Mean 26 Max 231 Min 2 Std 35 6 Pix 300
Meter (1 9) Mean. 14 Max 73 Min. 3 Std 10 8 Pix 400	Meter (2 9) Mean 11 Max 198 Min. 0 Std 23 8 Pix 400	Meter (3 9) Mean. 8 Max 108 Min. 0 Std 15 9 Pix 400	Meter (4 9) Mean. 8 Max 107 Min 0 Std 13 8 Pix 400	Meter (5 9) Mean 11 Max 117 Min 0 Std 16 7 Pix 400	Meter (6 9) Mean. 7 Max 50 Min. 0 Std 5 9 Pix 400	Meter (7 9) Mean 8 Max 108 Min. 0 Std 11 2 Pix 400	Meter (8 9) Mean. 12 Max 105 Min. 0 Std 17 6 Pix 400	Meter (9 9) Mean 12 Max. 150 Min. 0 Std. 18 8 Pix 400	Meter (10 9) Mean. 9 Max 40 Min. 0 Std 6 9 Pix 400	Meter (11 9) Mean. 9 Max 20 Min 1 Std 3 6 Pix 400	Meter (12 9) Mean. 22 Max 119 Min 0 Std 22 3 Pix 300
Meter (1 8) Mean. 10 Max 62 Min. 0 Std 6 2 Pix 400	Meter (2 8) Mean 10 Max 84 Min 0 Std. 9 7 Pix 400	Meter (3 8) Mean 13 Max 162 Min 0 Std 17 0 Pix 400	Meter (4 8) Mean. 19 Max 218 Min. 2 Std 26 7 Pix 400	Meter (5 8) Mean 10 Max 97 Min 0 Std 10 9 Pix 400	Meter (6 8) Mean 8 Max 35 Min 0 Std 5 3 Pix 400	Meter (7 8) Mean. 8 Max 16 Min 0 Std. 3 3 Pix 400	Meter (8 8) Mean. 7 Max 68 Min 0 Std 10 6 Pix 400	Meter (9 8) Mean. 5 Max. 47 Min. 0 Std 6 7 Pix 400	Meter (10 8) Mean. 9 Max 68 Min 0 Std 11 9 Pix 400	Meter (11 8) Mean. 6 Max 34 Min. 0 Std 3 9 Pix 400	Meter (12 8) Mean. 11 Max 53 Min. 0 Std 11 1 Pix 300
Meter (1 7) Mean. 15 Max 137 Min. 2 Std 14 6 Pix 400	Meter (2 7) Mean. 14 Max. 113 Min. 0 Std 14 8 Pix 400	Meter (3 7) Mean. 12 Max 304 Min 0 Std 31 4 Pix 400	Meter (4 7) Mean. 13 Max 111 Min 0 Std 18 4 Pix 400	Meter (5 7) Mean 6 Max 46 Min 0 Std 6 3 Pix 400	Meter (6 7) Mean 12 Max 152 Min 0 Std 16 6 Pix 400	Meter (7 7) Mean. 7 Max 201 Min 0 Std 15 5 Pix 400	Meter (8 7) Mean 6 Max 20 Min 0 Std 3 5 Pix 400	Meter (9 7) Mean. 9 Max. 110 Min. 0 Std 14 9 Pix 400	Meter (10 7) Mean. 9 Max. 57 Min 0 Std 7 8 Pix 400	Meter (11 7) Mean 15 Max 269 Min 0 Std 26 6 Pix 400	Meter (12 7) Mean 18 Max 173 Min. 2 Std 22 7 Pix 300
Meter (1 6)	Meter (2 6)	Meter (3 6)	Meter (4 6)	Meter (5 6)	Meter (6 6)	Meter (7 6)	Meter (8 6)	Meter (9,6)	Meter (10,6)	Meter (11 6)	Meter (12 6)

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Mean 11 Max 58 Min 0 Std 12 0 Pix 400	Mean 12 Max 118 Min 0 Std 17 9 Pix 400	Mean 14 Max 109 Min 0 Std 15 1 Pix 400	Mean 11 Max 60 Min 2 Std 7 5 Pix 400	Mean 7 Max 52 Min 0 Std 7 0 Pix 400	Mean 9 Max 58 Min 0 Std 7 3 Pix 400	Mean 15 Max 54 Min 0 Std 10 4 Pix 400	Mean 15 Max 158 Min 0 Std 17 9 Pix 400	Mean 10 Max 90 Min 0 Std 10 3 Pix 400	Mean. 17 Max 106 Min 2 Std 14 5 Pix 400	Mean 16 Max 135 Min 0 Std 17 8 Pix 400	Mean 21 Max 104 Min 6 Std 18 9 Pix 300
Meter (1 5) Mean. 13 Max 86 Min. 0 Std 12 1 Pix 400	Meter (2 5) Mean 7 Max 64 Min 0 Std 7 7 Pix 400	Meter (3 5) Mean 10 Max 116 Min 0 Std 15 2 Pix 400	Meter (4 5) Mean 11 Max. 87 Min 1 Std 12 4 Pix 400	Meter (5 5) Mean 10 Max 50 Min 1 Std 7 0 Pix 400	Meter (6 5) Mean 10 Max 61 Min 0 Std 7 8 Pix 400	Meter (7 5) Mean 11 Max 63 Min 0 Std 10 6 Pix 400	Meter (8,5) Mean 13 Max 128 Min 0 Std 17 4 Pix 400	Meter (9 5) Mean 6 Max 34 Min 0 Std 4 5 Pix 400	Meter (10 5) Mean 11 Max 58 Min. 0 Std 8 9 Pix 400	Meter (11 5) Mean 13 Max 201 Min 1 Std 20 7 Pix 400	Meter (12 5) Mean 16 Max 192 Min 0 Std 26 9 Pix 300
Meter (1 4) Mean. 12 Max 115 Min 0 Std 15 3 Pix 400	Meter (2 4) Mean 15 Max 154 Min 0 Std 21 3 Pix 400	Meter (3 4) Mean 11 Max 74 Min 1 Std 10 5 Pix 400	Meter (4 4) Mean 12 Max 197 Min 0 Std 19 4 Pix 400	Meter (5 4) Mean 4 Max 39 Min 0 Std 5 6 Pix 400	Meter (6,4) Mean 10 Max 62 Min. 0 Std 9 4 Pix 400	Meter (7 4) Mean 8 Max 67 Min 0 Std 8 4 Pix 400	Meter (8 4) Mean. 14 Max 184 Min 0 Std 21 0 Pix 400	Meter (9 4) Mean. 7 Max. 62 Min. 0 Std 9 0 Pix 400	Meter (10 4) Mean 9 Max 98 Min 0 Std 10 8 Pix 400	Meter (11 4) Mean 7 Max 28 Min. 0 Std 4 0 Pix 400	Meter (12 4) Mean 11 Max 83 Min 0 Std 15 6 Pix 300
Meter (1 3) Mean 5 Max 129 Min. 0 Std 12 0 Pix 400	Meter (2 3) Mean 7 Max 34 Min 0 Std 6 5 Pix 400	Meter (3 3) Mean. 10 Max 46 Min 2 Std 6 0 Pix 400	Meter (4 3) Mean 10 Max 91 Min 0 Std 10 0 Pix 400	Meter (5 3) Mean 12 Max 126 Min. 0 Std 16 4 Pix 400	Meter (6 3) Mean 14 Max 152 Min 0 Std 28 2 Pix 400	Meter (7 3) Mean 11 Max 115 Min 0 Std. 13 6 Pix 400	Meter (8 3) Mean 7 Max 28 Min. 0 Std 3 7 Pix 400	Meter (9 3) Mean 5 Max 16 Min. 0 Std 4 3 Pix 400	Meter (10 3) Mean. 11 Max 111 Min. 0 Std 14 3 Pix 400	Meter (11 3) Mean. 16 Max 130 Min 0 Std 21 8 Pix 400	Meter (12 3) Mean 8 Max 29 Min 0 Std 5 1 Pix 300
Meter (1,2) Mean 9 Max 65 Min. 0 Std 9 9 Pix 400	Meter (2,2) Mean. 7 Max 24 Min. 0 Std 4 4 Pix 400	Meter (3,2) Mean 12 Max 75 Min 0 Std 13 1 Pix 400	Meter (4 2) Mean 12 Max 112 Min. 0 Std 11 9 Pix 400	Meter (5 2) Mean. 14 Max 131 Min. 0 Std 17 9 Pix 400	Meter (6 2) Mean. 11 Max 77 Min 0 Std 11 8 Pix 400	Meter (7 2) Mean 11 Max 64 Min. 0 Std 9 9 Pix 400	Meter (8 2) Mean. 12 Max. 120 Min. 0 Std 15 7 Pix 400	Meter (9,2) Mean 11 Max. 49 Min. 0 Std 7 7 Pix 400	Meter (10,2) Mean. 9 Max 60 Min 0 Std 8 1 Pix 400	Meter (11,2) Mean 8 Max 22 Min 0 Std 4 2 Pix 400	Meter (12 2) Mean 11 Max 30 Min 0 Std 7 1 Pix 300
Meter (1 1) Mean 3 Max 17 Min. 0 Std 4 1 Pix 217	Meter (2 1) Mean. 7 Max 18 Min. 0 Std 4 8 Pix 220	Meter (3 1) Mean. 14 Max 68 Min 0 Std 14 1 Pix 220	Meter (4 1) Mean. 6 Max 70 Min. 0 Std 7 3 Pix 220	Meter (5 1) Mean 11 Max 75 Min 0 Std 14 0 Pix 220	Meter (6 1) Mean. 12 Max 145 Min. 0 Std 15 1 Pix 220	Meter (7 1) Mean 16 Max 114 Min. 1 Std 20 1 Pix 220	Meter (8 1) Mean. 11 Max 41 Min. 0 Std 6 7 Pix 220	Meter (9 1) Mean. 9 Max. 47 Min. 0 Std 6 2 Pix 220	Meter (10 1) Mean 15 Max 142 Min. 2 Std 23 5 Pix 220	Meter (11 1) Mean 15 Max 49 Min 2 Std 6 6 Pix 220	Meter (12 1) Mean 15 Max 34 Min 2 Std 6 8 Pix 165

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (12,1) and Grids (12,1) - (12,15) are not one square meter. Bold text denotes grids which exceed release limits

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COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

4050 dpm/100 cm^2, averaged over 1 m^2
5550 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 15) Mean. 2 990 Max 4 338 Min. 532 Std 745 7 Pix 400	Meter (2 15) Mean. 2 674 Max 3 716 Min. 791 Std 579 3 Pix 400	Meter (3 15) Mean. 3 112 Max 3 933 Min 1 744 Std 338 0 Pix 400	Meter (4 15) Mean. 3 083 Max 4,374 Min 483 Std 553 3 Pix 400	Meter (5 15) Mean 2 803 Max 4,064 Min. 555 Std 692 9 Pix 400	Meter (6 15) Mean 1 685 Max 3 072 Min. 0 Std 1009 2 Pix.288	Meter (7 15) Mean 1 697 Max 3 433 Min 0 Std 1052 9 Pix 288	Meter (8 15) Mean. 3 473 Max. 4,843 Min. 1 484 Std 610 3 Pix 400	Meter (9 15) Mean. 2 802 Max. 3 792 Min. 1 163 Std 407 2 Pix.400	Meter (10 15) Mean. 3 375 Max 4 513 Min. 2 044 Std 330 6 Pix 400	Meter (11 15) Mean. 3 248 Max 3 849 Min. 1 550 Std 371 0 Pix 400	Meter (12 15) Mean. 2 633 Max 3 705 Min. 641 Std 632 0 Pix 280
Meter (1 14) Mean. 3 191 Max 3 907 Min. 1 508 Std 369 1 Pix 400	Meter (2,14) Mean. 2 785 Max 3 676 Min. 2,324 Std. 293.8 Pix 400	Meter (3 14) Mean. 3,233 Max. 3 970 Min. 2 718 Std 181 3 Pix 400	Meter (4 14) Mean. 3,218 Max. 3 822 Min. 2 835 Std. 196 8 Pix 400	Meter (5 14) Mean. 3 109 Max 3 749 Min 2 406 Std 248 1 Pix 400	Meter (6 14) Mean. 2 172 Max. 3,279 Min. 176 Std 831 4 Pix.400	Meter (7 14) Mean. 2 657 Max 3,588 Min. 191 Std 1003 8 Pix 400	Meter (8 14) Mean. 3 374 Max. 3,831 Min. 2 938 Std 159 6 Pix.400	Meter (9 14) Mean. 2,856 Max. 3 663 Min. 2,336 Std. 238 0 Pix.400	Meter (10 14) Mean. 3 110 Max. 3,516 Min. 2 760 Std. 156 8 Pix 400	Meter (11 14) Mean. 3 259 Max 3 478 Min. 3 033 Std 84 8 Pix 400	Meter (12 14) Mean. 2 794 Max 3 451 Min. 1 328 Std 490 9 Pix 280
Meter (1 13) Mean. 3,220 Max 3 805 Min. 1 771 Std 354 3 Pix 400	Meter (2 13) Mean. 2 853 Max. 3 457 Min. 2,172 Std 264 1 Pix 400	Meter (3 13) Mean. 3,213 Max. 3 972 Min. 2 682 Std. 220.5 Pix 400	Meter (4 13) Mean. 3 222 Max. 3 727 Min. 2,877 Std. 191.3 Pix 400	Meter (5 13) Mean. 3 131 Max. 3 859 Min. 2,257 Std. 262 7 Pix 400	Meter (6 13) Mean. 2,743 Max. 3,394 Min. 1 765 Std 464 4 Pix 400	Meter (7 13) Mean. 3 184 Max. 3 925 Min. 2 765 Std. 213 0 Pix.400	Meter (8 13) Mean. 3,308 Max. 3 910 Min. 2 819 Std. 205 4 Pix 400	Meter (9 13) Mean. 2,760 Max. 3,368 Min. 2,306 Std 282 7 Pix.400	Meter (10 13) Mean. 3 133 Max. 3 440 Min. 2,838 Std. 105 0 Pix 400	Meter (11 13) Mean. 3,207 Max 3 455 Min. 2 933 Std 103 9 Pix 400	Meter (12,13) Mean. 2 726 Max 3 182 Min. 1,510 Std 393 5 Pix 280
Meter (1 12) Mean. 3,228 Max. 4,266 Min. 1 923 Std. 417 8 Pix 400	Meter (2 12) Mean. 2 990 Max 3 620 Min. 2,616 Std. 215 8 Pix 400	Meter (3 12) Mean. 3,210 Max. 3 878 Min. 2 807 Std 185 9 Pix 400	Meter (4 12) Mean. 3,211 Max. 3 653 Min. 2 813 Std 211 6 Pix.400	Meter (5 12) Mean. 3 180 Max. 3 831 Min 2 306 Std 332 6 Pix 400	Meter (6 12) Mean. 2 791 Max. 3 861 Min. 1 939 Std 397 4 Pix.400	Meter (7 12) Mean. 3 163 Max 4 675 Min. 2 566 Std 349 7 Pix.400	Meter (8 12) Mean 3,268 Max. 3 972 Min. 2 923 Std. 189 9 Pix.400	Meter (9 12) Mean. 3 090 Max. 3 694 Min. 2,516 Std. 273 7 Pix.400	Meter (10 12) Mean. 3 255 Max 3 697 Min. 2 931 Std. 139 4 Pix 400	Meter (11 12) Mean. 3 092 Max 3 366 Min 2,877 Std 103 2 Pix 400	Meter (12 12) Mean. 2 756 Max 3 271 Min 1 416 Std 455 7 Pix 280
Meter (1 11) Mean. 3 196 Max. 3 899 Min. 1 703 Std 367 8 Pix 400	Meter (2 11) Mean. 2 955 Max 3 950 Min. 2 485 Std 233 2 Pix 400	Meter (3 11) Mean. 3,201 Max. 4 412 Min. 2 693 Std 241 5 Pix 400	Meter (4 11) Mean. 3,241 Max. 3 756 Min. 2 913 Std 150 8 Pix 400	Meter (5 11) Mean. 3 173 Max. 3 692 Min. 2,365 Std 279 0 Pix 400	Meter (6,11) Mean. 2,776 Max 3 764 Min. 1 745 Std 488.5 Pix.400	Meter (7 11) Mean. 3,231 Max 3 789 Min. 2 687 Std 230 8 Pix.400	Meter (8 11) Mean. 3,251 Max. 3 758 Min. 2,720 Std. 172 0 Pix 400	Meter (9 11) Mean. 3,057 Max. 3 732 Min. 2 488 Std. 244 6 Pix.400	Meter (10,11) Mean. 3 186 Max. 3 785 Min. 2,585 Std 207 9 Pix 400	Meter (11 11) Mean. 3 160 Max. 3 412 Min. 2 817 Std. 126 8 Pix 400	Meter (12 11) Mean 2 757 Max. 3,258 Min. 1 495 Std 458 7 Pix 280
Meter (1 10) Mean. 3,234 Max 3 826 Min. 1 685 Std 424 0 Pix 400	Meter (2 10) Mean. 2 931 Max 3,509 Min. 2 500 Std 219 0 Pix 400	Meter (3 10) Mean. 3,215 Max 3 603 Min. 2 876 Std 144 4 Pix 400	Meter (4 10) Mean. 3 334 Max 3 829 Min 2 829 Std 250 3 Pix 400	Meter (5 10) Mean. 3 093 Max 3 746 Min 2 165 Std 277 0 Pix 400	Meter (6 10) Mean. 2 773 Max 3,586 Min. 1 737 Std 420 7 Pix 400	Meter (7 10) Mean. 3,259 Max 3 659 Min. 2,593 Std 216 2 Pix.400	Meter (8 10) Mean. 3,310 Max 4 409 Min. 2 772 Std 200 4 Pix 400	Meter (9 10) Mean. 2,851 Max. 3 732 Min. 2 436 Std 242 2 Pix.400	Meter (10 10) Mean. 3,211 Max 3 752 Min. 2 744 Std 175 1 Pix 400	Meter (11 10) Mean. 3 194 Max 3 588 Min. 2 838 Std 137 0 Pix 400	Meter (12 10) Mean. 2 681 Max 3 179 Min. 1 347 Std 447 6 Pix 280
Meter (1 9) Mean. 3,287 Max. 3 979 Min. 1,537 Std 357 5 Pix 400	Meter (2 9) Mean. 3 037 Max. 4,578 Min. 2,482 Std 330 1 Pix 400	Meter (3 9) Mean. 3 348 Max 4 057 Min. 2,593 Std 253 1 Pix 400	Meter (4 9) Mean. 3,289 Max 3 885 Min. 2 900 Std 220 3 Pix 400	Meter (5 9) Mean. 3,070 Max 3,570 Min. 2 314 Std 270 6 Pix 400	Meter (6 9) Mean. 2 743 Max. 3 457 Min. 1 745 Std 431 1 Pix 400	Meter (7 9) Mean. 3,273 Max. 3 789 Min. 2 760 Std 249 0 Pix 400	Meter (8 9) Mean. 3 194 Max. 3,655 Min. 2 828 Std 160 8 Pix 400	Meter (9 9) Mean. 2 991 Max. 3 727 Min. 2 463 Std. 275 6 Pix.400	Meter (10,9) Mean. 3,043 Max. 3 437 Min. 2 075 Std. 266 5 Pix 400	Meter (11 9) Mean. 2 891 Max. 3 575 Min. 2,090 Std 384 3 Pix 400	Meter (12 9) Mean. 2 661 Max 3 455 Min. 1 361 Std 475 8 Pix 280
Meter (1 8) Mean. 3,323 Max. 4,012 Min. 1,818 Std. 403 4 Pix 400	Meter (2 8) Mean. 2 954 Max. 3,593 Min. 2 474 Std 266 9 Pix 400	Meter (3 8) Mean. 3 256 Max. 4 188 Min. 2,557 Std 231 8 Pix 400	Meter (4 8) Mean. 3,321 Max 3,859 Min. 2 989 Std 151 7 Pix 400	Meter (5,8) Mean. 3 166 Max. 3 681 Min. 2 335 Std 274 6 Pix 400	Meter (6 8) Mean. 2 827 Max. 4 670 Min. 1 795 Std. 528 7 Pix 400	Meter (7 8) Mean. 3 439 Max. 4,359 Min. 2 993 Std 241 8 Pix 400	Meter (8,8) Mean. 3 495 Max. 3 957 Min. 2 917 Std 186 4 Pix 400	Meter (9 8) Mean. 2 982 Max. 3 726 Min. 2 612 Std 220 1 Pix 400	Meter (10 8) Mean. 2,525 Max. 3 857 Min. 1 787 Std 483 6 Pix 400	Meter (11 8) Mean. 2 181 Max. 2,503 Min. 1 913 Std 150 5 Pix 400	Meter (12 8) Mean. 2 800 Max. 3,273 Min. 1 550 Std 366 6 Pix 280
Meter (1 7) Mean. 3,245 Max. 4 118 Min. 1 663 Std 417 0 Pix 400	Meter (2 7) Mean. 3 091 Max 3 677 Min. 2 610 Std 253 1 Pix 400	Meter (3 7) Mean. 3,296 Max. 4,242 Min. 2 811 Std. 204 6 Pix 400	Meter (4 7) Mean. 3,315 Max. 3 741 Min. 2 893 Std 172 0 Pix 400	Meter (5 7) Mean. 3 050 Max. 3 739 Min. 2,257 Std. 324 1 Pix 400	Meter (6 7) Mean. 2,885 Max. 4 129 Min. 1 701 Std. 565 0 Pix 400	Meter (7 7) Mean. 3 385 Max. 4 697 Min. 2 974 Std 269 0 Pix.400	Meter (8 7) Mean. 3,396 Max 3 736 Min. 2 876 Std 173 9 Pix 400	Meter (9 7) Mean. 2 821 Max. 3,234 Min. 2,365 Std. 185 4 Pix 400	Meter (10 7) Mean. 2 762 Max. 3 690 Min. 1,859 Std 496 5 Pix 400	Meter (11 7) Mean. 2 661 Max. 3 730 Min. 1 912 Std 559 7 Pix 400	Meter (12 7) Mean. 2,865 Max 3 485 Min. 1 538 Std 473 0 Pix 280
Meter (1,6)	Meter (2,6)	Meter (3 6)	Meter (4,6)	Meter (5,6)	Meter (6,6)	Meter (7,6)	Meter (8,6)	Meter (9,6)	Meter (10,6)	Meter (11 6)	Meter (12 6)

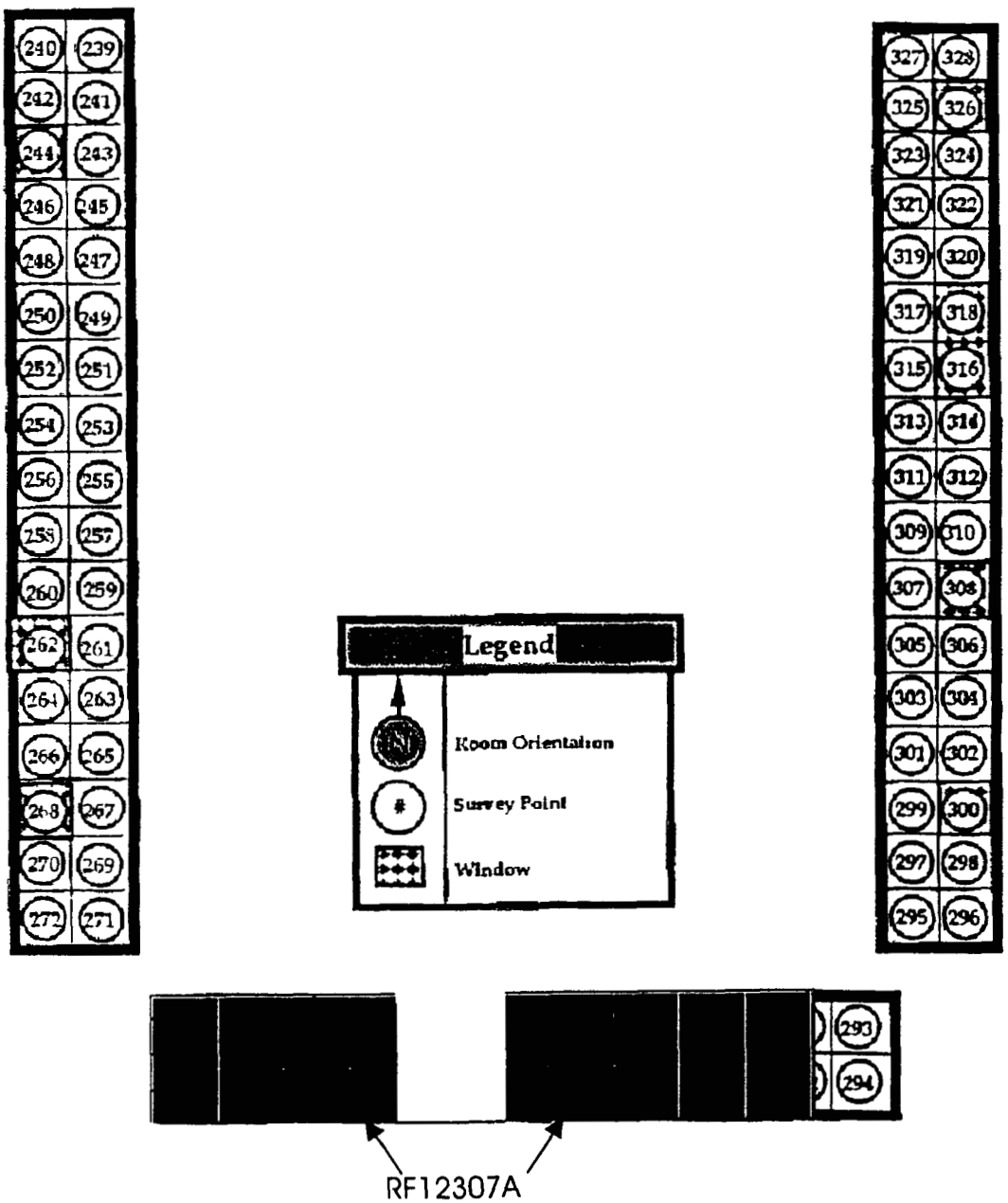
Mean. 3 316 Max 3 963 Min 1 325 Std 418 1 Pix 400	Mean 2 949 Max 4 005 Min 2 437 Std 325 0 Pix 400	Mean 3 252 Max 4 080 Min 2 685 Std 210 9 Pix 400	Mean 3 335 Max 4 262 Min. 2 338 Std 234 9 Pix 400	Mean 3 148 Max 3 700 Min. 2 457 Std 226 1 Pix 400	Mean 2 879 Max 3 932 Min 1 748 Std 546 6 Pix 400	Mean 3 540 Max 4 325 Min 3 002 Std 186 3 Pix 400	Mean. 3,526 Max 3 861 Min 3 097 Std 139 1 Pix 400	Mean. 3 051 Max 3,598 Min 2 581 Std 239 8 Pix 400	Mean. 3 323 Max 3 957 Min. 2 874 Std 183 3 Pix 400	Mean 3 385 Max 3 750 Min 3 094 Std 144 4 Pix 400	Mean 2 853 Max 3 701 Min 1 573 Std 414 8 Pix 280
Meter (1,5) Mean. 3 332 Max 3 935 Min. 1 781 Std 365 0 Pix 400	Meter (2 5) Mean 2 987 Max 3 623 Min. 2,360 Std. 302 3 Pix 400	Meter (3 5) Mean 3,266 Max 4 173 Min. 2 481 Std 266 7 Pix 400	Meter (4,5) Mean 3 346 Max. 3 930 Min. 2,894 Std 238 9 Pix 400	Meter (5 5) Mean 3 145 Max 4 041 Min 2 356 Std 237 3 Pix 400	Meter (6 5) Mean 2 859 Max 3 634 Min. 1 694 Std 510 8 Pix 400	Meter (7 5) Mean 3 326 Max 3 824 Min. 2 525 Std 265 3 Pix 400	Meter (8,5) Mean. 3,347 Max 3 953 Min. 2 789 Std 182 7 Pix 400	Meter (9,5) Mean. 2 932 Max 3 504 Min. 2,515 Std 261 1 Pix 400	Meter (10,5) Mean. 2 881 Max 3,515 Min. 2 054 Std 401 7 Pix 400	Meter (11 5) Mean 2 719 Max 3 595 Min 1 954 Std 511 1 Pix 400	Meter (12 5) Mean 2 783 Max 3 323 Min 1 188 Std 515 3 Pix 280
Meter (1 4) Mean. 3,325 Max 4 045 Min. 1,582 Std. 416 6 Pix 400	Meter (2 4) Mean. 2,879 Max 3 684 Min 2 177 Std 368 3 Pix 400	Meter (3 4) Mean. 3,350 Max 4 017 Min. 2 705 Std 252 4 Pix 400	Meter (4 4) Mean 3 308 Max 3 934 Min. 2 831 Std 218 0 Pix 400	Meter (5 4) Mean. 3,226 Max 4 146 Min. 2 233 Std. 283 1 Pix 400	Meter (6 4) Mean. 2 870 Max 3 963 Min. 1,877 Std 533 9 Pix 400	Meter (7 4) Mean. 3,293 Max. 4 040 Min. 2 792 Std. 292 2 Pix 400	Meter (8 4) Mean. 3 465 Max 4 008 Min. 3 019 Std 180 9 Pix 400	Meter (9 4) Mean. 2 869 Max 3,555 Min. 2 401 Std 274 9 Pix 400	Meter (10 4) Mean. 2,525 Max. 3 112 Min. 2 031 Std. 325 3 Pix.400	Meter (11 4) Mean 2 292 Max 3 269 Min 1 981 Std 305 5 Pix 400	Meter (12 4) Mean 2 399 Max. 3 042 Min. 1 064 Std 442 4 Pix 280
Meter (1 3) Mean. 3 259 Max 3 811 Min. 1 754 Std 356.7 Pix 400	Meter (2,3) Mean. 2 965 Max 3 492 Min. 2 531 Std 236 9 Pix 400	Meter (3,3) Mean. 3 139 Max 3 602 Min 2 808 Std. 168 3 Pix 400	Meter (4,3) Mean. 3,210 Max 4,010 Min. 2 774 Std 176 5 Pix 400	Meter (5 3) Mean. 3 049 Max 3 527 Min 2 321 Std 242 7 Pix 400	Meter (6,3) Mean. 2 795 Max. 3 660 Min. 1 898 Std 376 2 Pix 400	Meter (7,3) Mean. 3,077 Max. 3 741 Min. 2 648 Std 221 0 Pix 400	Meter (8,3) Mean. 3 136 Max. 3 762 Min. 2,565 Std. 274 4 Pix 400	Meter (9 3) Mean. 2 844 Max. 3 444 Min. 2 425 Std 213 1 Pix.400	Meter (10 3) Mean. 3 031 Max 3 471 Min. 2,535 Std 182 8 Pix 400	Meter (11 3) Mean. 3,282 Max 3 703 Min. 2 910 Std 151 2 Pix 400	Meter (12 3) Mean. 2 825 Max 3 373 Min. 1 521 Std 450 4 Pix 280
Meter (1,2) Mean. 3 166 Max 3 729 Min. 546 Std. 536 8 Pix 400	Meter (2 2) Mean. 3 030 Max 3,373 Min. 2 631 Std 141 6 Pix 400	Meter (3 2) Mean. 3 132 Max 3 646 Min. 2,556 Std 173 4 Pix 400	Meter (4 2) Mean. 3 180 Max. 3 959 Min. 2,592 Std 196 5 Pix 400	Meter (5,2) Mean. 2 582 Max. 3,360 Min. 2,085 Std. 311 8 Pix 400	Meter (6,2) Mean. 2 821 Max. 3 740 Min. 2 103 Std 443 3 Pix 400	Meter (7 2) Mean. 3 300 Max. 4 003 Min. 2,806 Std. 206 9 Pix 400	Meter (8,2) Mean. 3 464 Max 4 093 Min. 2,896 Std 191 7 Pix 400	Meter (9,2) Mean. 3 405 Max. 3 787 Min. 2,879 Std. 176 3 Pix 400	Meter (10,2) Mean. 3 341 Max. 3 919 Min. 3,002 Std. 174 0 Pix 400	Meter (11,2) Mean. 3 468 Max 3 756 Min. 2 999 Std 163 2 Pix 400	Meter (12 2) Mean 2 977 Max 3 702 Min. 1 046 Std 633 3 Pix 280
Meter (1 1) Mean. 1 789 Max. 2,890 Min 111 Std. 746 3 Pix 57	Meter (2 1) Mean. 2 011 Max 2 480 Min. 1,545 Std 228 9 Pix 60	Meter (3 1) Mean. 2 121 Max 2 819 Min. 1,505 Std 281 5 Pix 60	Meter (4 1) Mean 2 070 Max 2 867 Min. 1 482 Std 373 0 Pix 60	Meter (5 1) Mean. 1 701 Max. 2 099 Min. 1 307 Std 222 5 Pix 60	Meter (6,1) Mean. 2,312 Max. 3 697 Min. 1,536 Std 512 9 Pix 60	Meter (7 1) Mean. 2 764 Max. 3 463 Min. 2,003 Std 316 0 Pix 60	Meter (8,1) Mean. 3,074 Max. 3 795 Min. 2,360 Std 354 2 Pix 60	Meter (9 1) Mean. 2,580 Max. 3,370 Min. 1 956 Std 376 4 Pix 60	Meter (10,1) Mean. 2 830 Max. 3 498 Min. 2 173 Std. 290 9 Pix 60	Meter (11 1) Mean. 2 784 Max. 3 788 Min. 2 109 Std. 403 8 Pix 60	Meter (12 1) Mean 2 117 Max 3 305 Min. 317 Std 1203 4 Pix 39

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (12,1) and Grids (12,1) - (12,15) are not one square meter Bold text denotes grids which exceed release limits

West Wing, Unit VI

Page __ of __

Walls



Note map not drawn to scale 5/7/98

Meter (1 2) Mean. 3 Max 43 Min. 0 Std 7 0 Pix 400	Meter (2,2) Mean. 3 Max 55 Min 0 Std 6 5 Pix 400	Meter (3 2) Mean. 2 Max 49 Min 0 Std 5 2 Pix 400	Meter (4 2) Mean 5 Max 73 Min. 0 Std 12 9 Pix 320	Meter (5 2) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (6 2) Mean 2 Max 56 Min 0 Std 5 9 Pix 280	Meter (7 2) Mean 5 Max 101 Min 0 Std 14 2 Pix 400	Meter (8,2) Mean. 5 Max 73 Min. 0 Std 8 5 Pix 400	Meter (9,2) Mean 4 Max 33 Min 0 Std 5 2 Pix 400	Meter (10,2) Mean 3 Max 54 Min. 0 Std 5 3 Pix 400	Meter (11,2) Mean 2 Max 45 Min 0 Std 10 2 Pix 60
Meter (1 1) Mean 8 Max. 69 Min 0 Std 13 1 Pix 320	Meter (2 1) Mean. 3 Max 22 Min. 0 Std 4 4 Pix 320	Meter (3 1) Mean. 6 Max 54 Min. 0 Std 8 8 Pix 320	Meter (4 1) Mean 6 Max 146 Min. 0 Std 15 7 Pix 256	Meter (5 1) Mean. 0 Max 0 Min. 0 Std 0 Pix 0	Meter (6,1) Mean. 2 Max 5 Min 0 Std 1 8 Pix.224	Meter (7 1) Mean 5 Max 111 Min 0 Std. 14 4 Pix 320	Meter (8 1) Mean. 5 Max 32 Min. 0 Std 7 1 Pix 320	Meter (9 1) Mean. 4 Max. 48 Min. 0 Std 6 7 Pix 320	Meter (10,1) Mean. 7 Max. 64 Min. 0 Std 11 8 Pix 320	Meter (11 1) Mean. 7 Max 45 Min 0 Std 15 3 Pix 48

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (11,1) and Grids (11,1) - (11,2) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date 04-10-1998 Time 16 04 01 RF12307A-3

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 2) Mean 2 Max 32 Min. 0 Std 3 8 Pix 400	Meter (2 2) Mean 3 Max 19 Min. 0 Std 3 0 Pix 400	Meter (3,2) Mean. 7 Max 125 Min 0 Std 18 6 Pix 400	Meter (4,2) Mean 3 Max 57 Min 0 Std 7 1 Pix 320	Meter (5 2) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (6 2) Mean 2 Max 56 Min 0 Std 6 8 Pix 280	Meter (7 2) Mean. 2 Max 18 Min. 0 Std 2 6 Pix 400	Meter (8 2) Mean. 4 Max. 90 Min. 0 Std 9 9 Pix 400	Meter (9,2) Mean. 3 Max. 43 Min. 0 Std 5 9 Pix 400	Meter (10 2) Mean. 4 Max 49 Min 0 Std 8 6 Pix 400	Meter (11 2) Mean 1 Max 4 Min. 0 Std 1 9 Pix 60
Meter (1 1) Mean. 7 Max 126 Min. 0 Std 16 5 Pix 320	Meter (2 1) Mean. 2 Max 29 Min 0 Std 3 5 Pix 320	Meter (3 1) Mean. 5 Max 51 Min. 0 Std 8 9 Pix 320	Meter (4 1) Mean. 2 Max 67 Min. 0 Std 7 3 Pix 256	Meter (5 1) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (6 1) Mean. 4 Max 90 Min 0 Std 9 9 Pix 224	Meter (7 1) Mean. 7 Max 88 Min 0 Std 13 7 Pix 320	Meter (8 1) Mean. 7 Max. 119 Min. 0 Std 14 6 Pix 320	Meter (9 1) Mean. 6 Max. 93 Min. 0 Std 10 2 Pix 320	Meter (10,1) Mean. 7 Max 90 Min. 0 Std 13 0 Pix 320	Meter (11 1) Mean 7 Max 40 Min 0 Std 13 4 Pix 48

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (11,1) and Grids (11,1) - (11,2) are not one square meter Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

4050 dpm/100 cm^2, averaged over 1 m^2
5550 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1,2) Mean. 2 435 Max 2,973 Min. 1,289 Std. 282 4 Pix 400	Meter (2 2) Mean. 2 452 Max 2 873 Min 1,207 Std 284 0 Pix 400	Meter (3,2) Mean. 2 484 Max 3 047 Min. 1 447 Std 256 4 Pix 400	Meter (4 2) Mean 2 504 Max 3,023 Min. 1 217 Std 269 4 Pix 400	Meter (5 2) Mean 1 918 Max 3 107 Min. 0 Std 1166 1 Pix 280	Meter (6 2) Mean. 871 Max 2 201 Min 0 Std 557 3 Pix 140	Meter (7 2) Mean 2 374 Max 2 764 Min 1 382 Std 264 6 Pix 400	Meter (8 2) Mean. 2 310 Max. 2,550 Min. 1 180 Std 210 1 Pix 400	Meter (9 2) Mean. 2,301 Max. 2 675 Min. 1 062 Std 270 5 Pix 400	Meter (10,2) Mean. 2 159 Max 2 625 Min. 981 Std 277 6 Pix 180
Meter (1 1) Mean. 1,899 Max. 2 421 Min. 766 Std. 398 2 Pix 320	Meter (2 1) Mean. 1 983 Max 2,501 Min. 963 Std 356 1 Pix 320	Meter (3 1) Mean. 2 148 Max 2 609 Min. 1 034 Std. 324 5 Pix 320	Meter (4,1) Mean. 2,011 Max. 2,469 Min. 1,029 Std 331.6 Pix 320	Meter (5 1) Mean 1 498 Max 2 462 Min. 0 Std 906 4 Pix 224	Meter (6,1) Mean 724 Max 1,531 Min. 0 Std 426 8 Pix 112	Meter (7 1) Mean. 1 917 Max 2 411 Min 860 Std 331 8 Pix 320	Meter (8 1) Mean. 1 909 Max. 2,368 Min. 1 009 Std. 334 8 Pix.320	Meter (9 1) Mean. 1 940 Max 2 344 Min. 1 021 Std 328 6 Pix 320	Meter (10,1) Mean. 1 732 Max. 2,264 Min. 554 Std. 389 0 Pix 144

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (10,1) and Grids (10,1) - (10,2) are not one square meter Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date 04-10-1998 Time 19 45 39 RF12307B-3

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: ____ P/RE ____ PRL ____ RWP ✓ OTHER Bldg release Survey

BUILDING/LOCATION	ROOM
123	UNIT 6
DATE	**TIME**
5/6/98	1230

ITEM DESCRIPTION 100% SCAN SURVEY OF Unit 6 Grds 106 / 291 / 292

COMMENTS Results of scans done @ 1/2" per second 1/4" from surface are <100dpm/100cm2 and <750dpm/100cm2 beta.

[redacted] ME): [redacted]

[redacted] / [redacted] 5-6-98

RCT SIGNATURE EMP# DATE

REVIEWED [redacted] K. Cameron

RO SUPERVISION PRINT NAME

[redacted] 5/6/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR	EBER	EBER	EBER	EBER
MODEL	SAC 4	SAC 4	SAC 4	SAC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

MFR:	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N E TECH			
MODEL	ELECTRA			
SERIAL #	1386			
CAL DATE	1/5/98			
CAL DUE DATE	7/5/98			
BACKGROUND	See Bkgd sheet			
SFFICIENCY	α 23.72 / 31.528			
MDA	933/455			

MDA = CF X (2.71 + 4.65 √BACKGROUND (CPM))

ELECTRA BACKGROUND LOG FOR UNIT #6 (Scans)

Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D.A. (dpm/100 cm²) β
1386	05-06-98	07-05-98	7 1	700 2	820 2	23 70%	31 50%	63.71	399 22

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 7

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1243 4-8,4-9 1998
Cal Due Date: 09-23-98
Efficiency (%): α 24 10 βγ 34 10

Bkgd (cpm): α 1 8 βγ 719 2 Inst Only / 839 2 Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
20	169	See Attached Map	See Millennium Data		3	798	1 2	-41 2	4 98	-120 82
21	173	See Attached Map	See Millennium Data		4	898	2 2	58 8	9 13	172 43
22	177	See Attached Map	<100	<750	2	920	0 2	80 8	83	236 95
23	181	See Attached Map	See Millennium Data		1	853	-0 8	13 8	-3 32	40 47
24	185	See Attached Map	<100	<750	2	923	0 2	83 8	83	245 75
25	189	See Attached Map	See Millennium Data		1	877	-0 8	37 8	-3 32	110 85
26	193	See Attached Map	See Millennium Data		3	930	1 2	90 8	4 98	266 28
27	197	See Attached Map	See Millennium Data		0	923	-1 8	83 8	-7 47	245 75
28	201	See Attached Map	See Millennium Data		2	820	0 2	-19 2	83	-56 30
29	206	See Attached Map	<100	<750	2	538	0 2	-181 2	83	-531 38
30	210	See Attached Map	<100	<750	6	678	4 2	-161 2	17 43	-472 73
31	212	See Attached Map	<100	<750	2	656	0 2	-183 2	83	-537 24
32	215	See Attached Map	<100	<750	3	608	1 2	-231 2	4 98	-678 01
33	218	See Attached Map	<100	<750	4	667	2 2	-172 2	9 13	-504 99
34	220	See Attached Map	<100	<750	3	559	1 2	-160 2	4 98	-469 79
35	224	See Attached Map	<100	<750	2	577	0 2	-142 2	83	-417 01
36	226	See Attached Map	<100	<750	2	472	0 2	-247 2	83	-724 93
37	229	See Attached Map	<100	<750	3	528	1 2	-191 2	4 98	-560 70
38	231	See Attached Map	<100	<750	3	545	1 2	-174 2	4 98	-510 85

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 7

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1243 4-8,4-9 1998

Cal Due Date: 09-23-98

Efficiency (%): α 24 10 βγ 34 10

Bkgd (cpm): α 1 8 βγ 839 2 (719 2 Inst Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
39	234	See Attached Map	<100	<750	4	578	2 2	-141 2	9 13	-414 08
40	238	See Attached Map	<100	<750	2	557	0 2	-162 2	83	-475 66
41	241	See Attached Map	<100	<750	3	363	1 2	-356 2	4 98	-1044 57
42	244	See Attached Map	<100	<750	3	465	1 2	-254 2	4 98	-745 45
43	247	See Attached Map	<100	<750	5	575	3 2	-144 2	13 28	-422 87
44	256	See Attached Map	<100	<750	3	744	1 2	-95 2	4 98	-279 18
45	258	See Attached Map	<100	<750	4	556	2 2	-163 2	9 13	-478 59
46	260	See Attached Map	<100	<750	5	505	3 2	-214 2	13 28	-628 15
47	262	See Attached Map	<100	<750	2	730	0 2	-109 2	83	-320 23
48	264	See Attached Map	<100	<750	3	903	1 2	63 8	4 98	187 10
49	265	See Attached Map	<100	<750	2	790	0 2	-49 2	83	-144 28
50	266	See Attached Map	<100	<750	7	878	5 2	38 8	21 58	113 78
51	267	See Attached Map	<100	<750	4	920	2 2	80 8	9 13	236 95
52	268	See Attached Map	<100	<750	4	841	2 2	1 8	9 13	5 28
53	269	See Attached Map	<100	<750	7	920	5 2	80 8	21 58	236 95
54	270	See Attached Map	<100	<750	6	814	4 2	-25 2	17 43	-73 90
55	271	See Attached Map	<100	<750	4	845	2 2	5 8	9 13	17 01
56	272	See Attached Map	<100	<750	7	799	5 2	-40 2	21 58	-117 89
57	290	See Attached Map	<100	<750	7	700	5 2	-139 2	21 58	-408 21

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 7

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1243 4-8,4-9 1998

Cal Due Date: 09-23-98

Efficiency (%): α 24 10 βγ 34 10

Bkgd (cpm): α 1 8 βγ 839 2 (719 2 Inst Only, Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
58	293	See Attached Map	<100	<750	5	777	3 2	-62 2	13 28	-182 40
59	296	See Attached Map	<100	<750	2	771	0 2	-68 2	83	-200 0
60	299	See Attached Map	<100	<750	1	716	-0 8	-123 2	-3 32	-361 29
61	302	See Attached Map	<100	<750	8	647	6 2	-72 2	25 73	-211 73
62	305	See Attached Map	<100	<750	3	729	1 2	-110 2	4 98	-323 17
63	308	See Attached Map	<100	<750	2	728	0 2	-111 2	83	-326 10
64	311	See Attached Map	<100	<750	8	762	6 2	-77 2	25 73	-226 39
65	312	See Attached Map	<100	<750	4	613	2 2	-106 2	9 13	-311 44

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 7

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1551 03-30-98

Cal Due Date: 07-29-98

Efficiency (%): α 23 50 βγ 32 50

Bkgd (cpm): α 1 9 βγ 840 1

720 1 Inst Only

Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	160	See Attached Map	See Millennium Data		3	905	1 1	64 9	4 68	199 69
2	164	See Attached Map	See Millennium Data		3	902	1 1	61 9	4 68	190 46
3	168	See Attached Map	See Millennium Data		4	866	2 1	25 9	8 94	79 69
4	172	See Attached Map	See Millennium Data		3	858	1 1	17 9	4 68	55 08
5	176	See Attached Map	<100	<750	5	929	3 1	88 9	13 19	273 54
6	180	See Attached Map	See Millennium Data		1	969	-0 9	128 9	-3 83	396 62
7	184	See Attached Map	See Millennium Data		0	854	-1 9	13 9	-8 09	42 77
8	188	See Attached Map	<100	<750	3	925	1 1	84 9	4 68	261 23
9	192	See Attached Map	See Millennium Data		1	847	-0 9	6 9	-3 83	21 23
10	196	See Attached Map	<100	<750	1	903	-0 9	62 9	-3 83	193 54
11	200	See Attached Map	See Millennium Data		5	940	3 1	99 9	13 19	307 38
12	204	See Attached Map	<100	<750	3	982	1 1	141 9	4 68	436 62

Count Date **3/30/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199803300732**

System Information

Serial No W O 3351C **Batch ID** **882**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1,410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 07	1 47
Batch MDA	5 313 dpm	8 004

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
2		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
3		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
4		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
5		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
6		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
7		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
8		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
9		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
10		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
11		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
12		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
13		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
14		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
15		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
16		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
17		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
18		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
19		0 93	2 45	3 73	2 03	3 66	4 96	< MDA	< MDA
20		-0 07	-0 17	0 43	5 53	9 97	6 88	< MDA	
21		0 93	2 45	3 73	0 03	0 06	3 41	< MDA	< MDA
22		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
23		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
24		0 43	1 14	2 66	-0 47	-0 84	2 90	< MDA	< MDA
25		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
26		0 43	1 14	2 66	-1 47	-2 64	1 38	< MDA	< MDA
27		-0 07	-0 17	0 43	2 03	3 66	4 96	< MDA	< MDA
28		0 43	1 14	2 66	3 53	6 37	5 86	< MDA	
29		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
30		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
31		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
32		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
33		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
34		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA

Procedure Name **D&D Swipes - 199803300732**

System Information

Serial No W O 3351C **Batch ID** **882**

Detector S/N 658 Group **A**

Sample Information
Sample Units
Geometry 1/8 Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1 410 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 07	1 47
Batch MDA	5.313 dpm	8 004

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		0 43	1 14	2 66	-0 97	-1 74	2 27	< MDA	< MDA
36		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
37		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
38		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
39		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
40		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
41		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
42		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
43		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
44		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
45		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
46		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
47		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
48		-0 07	-0 17	0 43	-1 47	-2 64	1 38	< MDA	< MDA
49		0 93	2 45	3 73	-0 47	-0 84	2 90	< MDA	< MDA
50		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
51		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
52		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
53		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
54		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
56		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
55		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
57		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
58		0 43	1 14	2 66	1 03	1 86	4 26	< MDA	< MDA
59		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
60		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
61		-0 07	-0 17	0 43	2 53	4 56	5 28	< MDA	
62		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
63		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
64		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
65		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
66		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
67		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
68		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
69		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
70		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
71		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
72		-0 07	-0 17	0 43	2 53	4 56	5 28	< MDA	
73		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
74		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA

Procedure Name **D&D Swipes - 199803300732**

System Information

Serial No W O 3351C **Batch ID** **882**

Detector S/N 658 Group **A**

Sample Information
Sample Units
Geometry 1/8 Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1 410 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 07	1 47
Batch MDA	5 313 dpm	8 004

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
75		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
76		0 43	1 14	2 66	-0 47	-0 84	2 90	< MDA	< MDA
77		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
78		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
79		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
80		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
81		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
82		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
83		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
84		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
85		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
86		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
87		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
88		-0 07	-0 17	0 43	2 03	3 66	4 96	< MDA	< MDA
89		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
90		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
91		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
92		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
93		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
94		0 43	1 14	2 66	1 03	1 86	4 26	< MDA	< MDA
95		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
96		0 43	1 14	2 66	1 03	1 86	4 26	< MDA	< MDA
97		0 43	1 14	2 66	2 53	4 56	5 28	< MDA	
98		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
99		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
100		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA

Count Date **3/30/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199803301311**

System Information

Serial No W O 3351C **Batch ID** **883**

Detector S/N 658 Group **A**

Sample Information
Sample Units
Geometry 1/8" Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1,410 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 07	1 47
Batch MDA	5 313 dpm	8 004

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		0 93	2 45	3 73	1 03	1 86	4 26	< MDA	< MDA
2		-0 07	-0 17	0 43	2 03	3 66	4 96	< MDA	< MDA
3		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
4		0 43	1 14	2 66	-0 97	-1 74	2 27	< MDA	< MDA
5		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
6		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
7		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
8		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
9		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
10		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
11		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
12		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
13		0 43	1 14	2 66	0 53	0 96	3 86	< MDA	< MDA
14		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
15		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
16		-0 07	-0 17	0 43	2 03	3 66	4 96	< MDA	< MDA
17		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
18		-0 07	-0 17	0 43	-1 47	-2 64	1 38	< MDA	< MDA
19		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
20		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
21		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
22		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
23		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
24		0 43	1 14	2 66	-0 47	-0 84	2 90	< MDA	< MDA
25		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
26		-0 07	-0 17	0 43	-1 47	-2 64	1 38	< MDA	< MDA
27		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
28		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
29		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
30		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
31		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
32		0 43	1 14	2 66	1 53	2 76	4 62	< MDA	< MDA
33		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
34		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA

Procedure Name **D&D Swipes - 199803301311**

System Information

Serial No W O 3351C **Batch ID** **883**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1,410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract	Enable	
Background	0 07	1 47
Batch MDA	5 313dpm	8 004

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
36		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
37		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
38		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
39		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
40		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
41		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
42		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
43		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
44		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
45		-0 07	-0 17	0 43	3 03	5 46	5 58	< MDA	
46		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
47		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
48		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
49		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
50		0 43	1 14	2 66	1 03	1 86	4 26	< MDA	< MDA
51		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
52		0 43	1 14	2 66	-1 47	-2 64	1 38	< MDA	< MDA
53		0 43	1 14	2 66	0 53	0 96	3 86	< MDA	< MDA
54		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
55		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
56		0 43	1 14	2 66	-0 97	-1 74	2 27	< MDA	< MDA
57		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
58		0 43	1 14	2 66	-0 97	-1 74	2 27	< MDA	< MDA
59		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
60		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
61		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
62		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
63		-0 07	-0 17	0 43	2 53	4 56	5 28	< MDA	
64		0 43	1 14	2 66	-0 47	-0 84	2 90	< MDA	< MDA
65		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
66		-0 07	-0 17	0 43	2 03	3 66	4 96	< MDA	< MDA
67		0 43	1 14	2 66	1 53	2 76	4 62	< MDA	< MDA
68		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
69		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
70		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
71		0 43	1 14	2 66	1 03	1 86	4 26	< MDA	< MDA
72		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
73		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
74		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA

Procedure Name **D&D Swipes - 199803301311**

System Information

Serial No W O 3351C **Batch ID** **883**

Detector S/N 658 Group **A**

Sample Information
Sample Units
Geometry 1/8 Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1 410 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 07	1 47
Batch MDA	5 313 dpm	8 00

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
75		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
76		0 43	1 14	2 66	1 53	2 76	4 62	< MDA	< MDA
77		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
78		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
79		0 43	1 14	2 66	0 53	0 96	3 86	< MDA	< MDA
80		0 43	1 14	2 66	-0 97	-1 74	2 27	< MDA	< MDA
81		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
82		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
83		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
84		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
85		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
86		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
87		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
88		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
89		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
90		0 43	1 14	2 66	0 53	0 96	3 86	< MDA	< MDA
91		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
92		0 43	1 14	2 66	0 53	0 96	3 86	< MDA	< MDA
93		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
94		0 43	1 14	2 66	1 03	1 86	4 26	< MDA	< MDA
95		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
96		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
97		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
98		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
99		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
100		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA

Count Date **3/30/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199803301800**

System Information

Serial No W O 3351C **Batch ID** **884**

Detector S/N 658 Group **A**

Sample Information
Sample Units
Geometry 1/8" Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1,410 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	**Beta**
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 07	1 47

Batch MDA 5.313 dpm 8004

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		0 43	1 14	2 66	-0 97	-1 74	2 27	< MDA	< MDA
2		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
3		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
4		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
5		-0 07	-0 17	0 43	-1 47	-2 64	1 38	< MDA	< MDA
6		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
7		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
8		0 43	1 14	2 66	1 03	1 86	4 26	< MDA	< MDA
9		-0 07	-0 17	0 43	-1 47	-2 64	1 38	< MDA	< MDA
10		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
11		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
12		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
13		0 43	1 14	2 66	1 03	1 86	4 26	< MDA	< MDA
14		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
15		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
16		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
17		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
18		0 43	1 14	2 66	-0 97	-1 74	2 27	< MDA	< MDA
19		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
20		0 93	2 45	3 73	0 03	0 06	3 41	< MDA	< MDA
21		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
22		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
23		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
24		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
25		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
26		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
27		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
28		0 43	1 14	2 66	0 53	0 96	3 86	< MDA	< MDA
29		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
30		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
31		0 43	1 14	2 66	1 03	1 86	4 26	< MDA	< MDA
32		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
33		-0 07	-0 17	0 43	2 53	4 56	5 28	< MDA	
34		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA

Procedure Name **D&D Swipes - 199803301800**

System Information

Serial No W O 3351C **Batch ID** **884**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8 Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract	Enable	
Background	0 07	1 47
Batch MDA	5 313dpm	8 004

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
36		0 43	1 14	2 66	3 53	6 37	5 86	< MDA	
37		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
38		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
39		0 43	1 14	2 66	1 03	1 86	4 26	< MDA	< MDA
40		1 93	5 07	5 26	-0 47	-0 84	2 90		< MDA
41		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
42		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
43		0 43	1 14	2 66	-0 47	-0 84	2 90	< MDA	< MDA
44		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
45		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
46		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
47		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
48		0 43	1 14	2 66	-0 47	-0 84	2 90	< MDA	< MDA
49		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
50		0 43	1 14	2 66	1 03	1 86	4 26	< MDA	< MDA
51		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
52		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
53		0 43	1 14	2 66	1 53	2 76	4 62	< MDA	< MDA
54		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
55		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
56		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
57		0 43	1 14	2 66	0 53	0 96	3 86	< MDA	< MDA
58		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
59		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
60		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
61		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
62		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
63		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
64		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
65		0 43	1 14	2 66	1 03	1 86	4 26	< MDA	< MDA
66		-0 07	-0 17	0 43	2 03	3 66	4 96	< MDA	< MDA
67		0 43	1 14	2 66	0 03	0 06	3 41	< MDA	< MDA
68		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
69		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
70		0 43	1 14	2 66	1 03	1 86	4 26	< MDA	< MDA
71		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
72		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
73		-0 07	-0 17	0 43	2 03	3 66	4 96	< MDA	< MDA
74		0 43	1 14	2 66	2 03	3 66	4 96	< MDA	< MDA

Procedure Name **D&D Swipes - 199803301800**

System Information

Serial No W O 3351C **Batch ID** **884**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8 Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 07	1 47

Batch MDA 5.313 dpm 8 004

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
75		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
76		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
77		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
78		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
79		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
80		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
81		0 93	2 45	3 73	1 53	2 76	4 62	< MDA	< MDA
82		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
83		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
84		-0 07	-0 17	0 43	2 53	4 56	5 28	< MDA	
85		-0 07	-0 17	0 43	1 53	2 76	4 62	< MDA	< MDA
86		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
87		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
88		0 43	1 14	2 66	2 03	3 66	4 96	< MDA	< MDA
89		0 43	1 14	2 66	-0 97	-1 74	2 27	< MDA	< MDA
90		-0 07	-0 17	0 43	2 03	3 66	4 96	< MDA	< MDA
91		-0 07	-0 17	0 43	2 53	4 56	5 28	< MDA	
92		-0 07	-0 17	0 43	-0 47	-0 84	2 90	< MDA	< MDA
93		0 43	1 14	2 66	0 53	0 96	3 86	< MDA	< MDA
94		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
95		-0 07	-0 17	0 43	0 53	0 96	3 86	< MDA	< MDA
96		-0 07	-0 17	0 43	0 03	0 06	3 41	< MDA	< MDA
97		-0 07	-0 17	0 43	-1 47	-2 64	1 38	< MDA	< MDA
98		-0 07	-0 17	0 43	1 03	1 86	4 26	< MDA	< MDA
99		-0 07	-0 17	0 43	-0 97	-1 74	2 27	< MDA	< MDA
100		-0 07	-0 17	0 43	3 03	5 46	5 58	< MDA	

Count Date **3/31/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199803310911**

System Information

Serial No W O 3351C **Batch ID** **894**

Detector S/N 658 Group **A**

Sample Information
Sample Units
Geometry 1/8 Stainless Steel

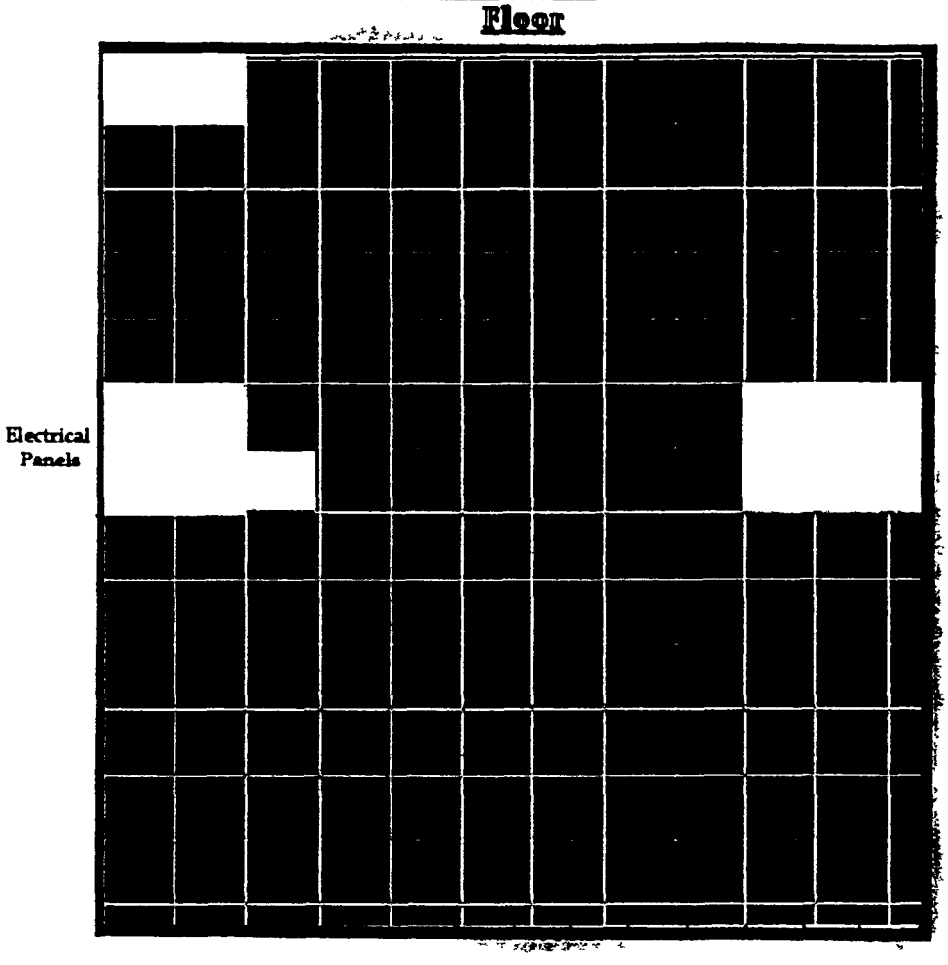
Count Parameters
Count Mode Simultaneous
Operating Voltage 1 410 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract	Enable	
Background	0 10	1 91
Batch MDA	5.657 dpm	8.782

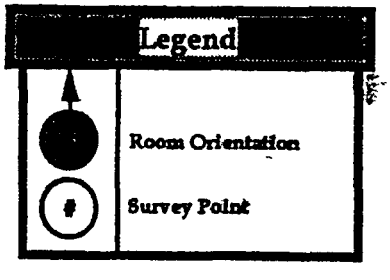
Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		1 40	3 67	4 57	0 09	0 16	3 93		< MDA
2		1 40	3 67	4 57	-0 41	-0 74	3 50		< MDA
3		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
4		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
5		-0 10	-0 26	0 53	-1 91	-3 44	1 58	< MDA	< MDA
6		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
7		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
8		0 40	1 05	2 67	-0 91	-1 64	3 00	< MDA	< MDA
9		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
10		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
11		0 40	1 05	2 67	0 09	0 16	3 93	< MDA	< MDA
12		-0 10	-0 26	0 53	1 59	2 87	5 02	< MDA	< MDA

West Wing; Unit VII

Floor



Rf12302A



Meter (1 14) Mean. 0 Max 0 Min. 0 Std 0 Pix·0	Meter (2 14) Mean 0 Max 0 Min. 0 Std 0 Pix·0	Meter (3 14) Mean 4 Max 62 Min 0 Std 7 5 Pix 340	Meter (4 14) Mean. 7 Max 75 Min 0 Std 12 5 Pix.400	Meter (5 14) Mean. 9 Max 76 Min 0 Std 14 4 Pix 400	Meter (6 14) Mean 8 Max 136 Min 0 Std 16 9 Pix 400	Meter (7 14) Mean 9 Max 103 Min. 0 Std 14 1 Pix 400	Meter (8 14) Mean 8 Max 97 Min. 0 Std 11 0 Pix 400	Meter (9 14) Mean 4 Max 36 Min 0 Std 3 7 Pix 400	Meter (10 14) Mean 6 Max 38 Min. 0 Std 5 7 Pix 400	Meter (11 14) Mean 8 Max 37 Min 0 Std 6 5 Pix 400	Meter (12 14) Mean 10 Max 127 Min. 0 Std 18 6 Pix 180
Meter (1 13) Mean. 4 Max 32 Min. 0 Std 4 1 Pix 221	Meter (2 13) Mean. 5 Max 81 Min. 0 Std 6 8 Pix 340	Meter (3 13) Mean 5 Max 25 Min. 0 Std 4 1 Pix.391	Meter (4 13) Mean. 5 Max 21 Min. 0 Std 2 7 Pix 400	Meter (5 13) Mean. 8 Max 70 Min 0 Std 13 4 Pix 400	Meter (6 13) Mean 8 Max 42 Min. 0 Std 5 6 Pix 400	Meter (7 13) Mean 7 Max 23 Min 0 Std 5 2 Pix 400	Meter (8 13) Mean. 6 Max 18 Min. 0 Std 3 7 Pix 400	Meter (9 13) Mean 9 Max 30 Min. 0 Std 4 1 Pix 400	Meter (10 13) Mean. 10 Max 53 Min. 1 Std 7 1 Pix 400	Meter (11 13) Mean 12 Max 133 Min. 1 Std 13 9 Pix 400	Meter (12 13) Mean. 8 Max 106 Min 0 Std 14 7 Pix 180
Meter (1 12) Mean 3 Max. 8 Min 0 Std 2 8 Pix 268	Meter (2 12) Mean. 12 Max. 197 Min. 0 Std 21 9 Pix 400	Meter (3 12) Mean. 13 Max 114 Min. 0 Std. 17 5 Pix 400	Meter (4 12) Mean. 6 Max 55 Min. 0 Std. 8 5 Pix.400	Meter (5 12) Mean. 5 Max 89 Min. 0 Std 9 5 Pix 400	Meter (6 12) Mean 10 Max 202 Min. 0 Std 16 5 Pix 400	Meter (7 12) Mean. 11 Max. 132 Min 0 Std 14 9 Pix 400	Meter (8 12) Mean. 8 Max. 77 Min. 0 Std 11 3 Pix 400	Meter (9 12) Mean. 9 Max. 60 Min. 0 Std 9 8 Pix 400	Meter (10 12) Mean. 10 Max 36 Min. 0 Std 7 7 Pix 400	Meter (11 12) Mean. 8 Max. 33 Min. 0 Std 6 4 Pix 400	Meter (12 12) Mean. 3 Max 15 Min. 0 Std 3 1 Pix 198
Meter (1 11) Mean. 6 Max 47 Min. 0 Std 7 7 Pix.300	Meter (2 11) Mean. 5 Max 32 Min. 0 Std 5 0 Pix 400	Meter (3 11) Mean. 9 Max 82 Min 0 Std 12 8 Pix 400	Meter (4 11) Mean. 7 Max 178 Min 0 Std 17 5 Pix 400	Meter (5 11) Mean 7 Max 82 Min 0 Std 13 9 Pix.400	Meter (6 11) Mean. 9 Max 72 Min. 0 Std 10 7 Pix 400	Meter (7 11) Mean 7 Max 47 Min. 0 Std 8 4 Pix 400	Meter (8 11) Mean. 9 Max 29 Min. 0 Std 5 4 Pix 400	Meter (9 11) Mean. 11 Max 49 Min 4 Std. 6 9 Pix 400	Meter (10 11) Mean 9 Max 53 Min. 0 Std 4 7 Pix 400	Meter (11 11) Mean 13 Max 93 Min. 1 Std 11 3 Pix 400	Meter (12 11) Mean. 5 Max 74 Min. 0 Std 8 0 Pix 240
Meter (1 10) Mean. 1 Max. 5 Min. 0 Std 1 9 Pix 285	Meter (2 10) Mean. 2 Max. 9 Min 0 Std 2 3 Pix.380	Meter (3 10) Mean 5 Max 31 Min. 0 Std 3 3 Pix 395	Meter (4 10) Mean 6 Max 59 Min. 0 Std 5 8 Pix 400	Meter (5 10) Mean. 7 Max 70 Min. 0 Std 10 8 Pix 400	Meter (6 10) Mean. 8 Max 66 Min. 1 Std. 7 0 Pix 400	Meter (7 10) Mean 8 Max. 51 Min. 0 Std. 7 6 Pix.400	Meter (8 10) Mean: 14 Max. 150 Min. 0 Std. 21 5 Pix 400	Meter (9 10) Mean. 7 Max. 66 Min. 0 Std. 10 3 Pix 290	Meter (10 10) Mean. 6 Max. 9 Min. 0 Std. 3 5 Pix 180	Meter (11 10) Mean. 9 Max 57 Min. 0 Std 8 3 Pix 180	Meter (12 10) Mean 0 Max 4 Min. 0 Std 7 Pix 108
Meter (1 9) Mean. 0 Max 0 Min. 0 Std 0 Pix 0	Meter (2 9) Mean 0 Max 0 Min. 0 Std 0 Pix 0	Meter (3 9) Mean. 5 Max. 49 Min. 0 Std 8 5 Pix 300	Meter (4 9) Mean 6 Max 131 Min. 0 Std 14 0 Pix 400	Meter (5 9) Mean 13 Max 149 Min 0 Std 25 7 Pix 400	Meter (6 9) Mean. 7 Max 65 Min. 0 Std 8 5 Pix 400	Meter (7 9) Mean: 11 Max 147 Min. 0 Std 20 6 Pix 400	Meter (8 9) Mean. 18 Max 258 Min. 1 Std 30 3 Pix 400	Meter (9 9) Mean. 9 Max. 122 Min. 0 Std 16 7 Pix 200	Meter (10 9) Mean. 0 Max 0 Min. 0 Std 0 Pix 0	Meter (11 9) Mean. 0 Max 0 Min. 0 Std 0 Pix 0	Meter (12 9) Mean 0 Max 0 Min. 0 Std 0 Pix 0
Meter (1,8) Mean 0 Max 0 Min. 0 Std. 0 Pix·0	Meter (2 8) Mean 0 Max 0 Min. 0 Std 0 Pix·0	Meter (3,8) Mean 0 Max 0 Min. 0 Std 0 Pix 0	Meter (4 8) Mean 1 Max 5 Min 0 Std 1 4 Pix 164	Meter (5 8) Mean 16 Max 153 Min. 1 Std 29 3 Pix 400	Meter (6,8) Mean 12 Max 123 Min 0 Std 18 8 Pix 400	Meter (7 8) Mean. 10 Max 139 Min. 0 Std 14 5 Pix 400	Meter (8,8) Mean 12 Max 119 Min. 1 Std 15 9 Pix 400	Meter (9 8) Mean 8 Max 59 Min. 0 Std 9 3 Pix 200	Meter (10 8) Mean 0 Max 0 Min. 0 Std 0 Pix·0	Meter (11 8) Mean 0 Max 0 Min. 0 Std 0 Pix 0	Meter (12 8) Mean 0 Max 0 Min. 0 Std 0 Pix·0
Meter (1 7) Mean. 0 Max 0 Min. 0 Std 0 Pix.120	Meter (2 7) Mean. 7 Max 48 Min. 0 Std 8 4 Pix 174	Meter (3 7) Mean. 3 Max 16 Min. 0 Std 2 4 Pix 240	Meter (4 7) Mean. 5 Max 27 Min 0 Std 4 0 Pix 360	Meter (5 7) Mean. 11 Max 81 Min. 0 Std 13 0 Pix 400	Meter (6 7) Mean. 21 Max 168 Min. 2 Std 25 0 Pix 400	Meter (7 7) Mean. 8 Max 86 Min 0 Std 10 6 Pix 400	Meter (8 7) Mean. 9 Max 144 Min. 0 Std 16 7 Pix 400	Meter (9 7) Mean. 8 Max 89 Min. 0 Std 11 5 Pix 341	Meter (10,7) Mean. 12 Max 69 Min. 0 Std 10 5 Pix 240	Meter (11 7) Mean. 24 Max 156 Min 0 Std 23 5 Pix 240	Meter (12 7) Mean 5 Max 11 Min 0 Std 2 9 Pix 72
Meter (1 6) Mean 12 Max. 123 Min. 0 Std 17 5 Pix 400	Meter (2 6) Mean 10 Max 143 Min. 0 Std 18 6 Pix 400	Meter (3 6) Mean. 7 Max 61 Min 0 Std 6 9 Pix 400	Meter (4 6) Mean. 8 Max 51 Min 0 Std 7 8 Pix 400	Meter (5 6) Mean 11 Max 95 Min. 0 Std 14 4 Pix 400	Meter (6 6) Mean. 7 Max 160 Min 0 Std 21 7 Pix 400	Meter (7 6) Mean. 3 Max 58 Min 0 Std 6 7 Pix 400	Meter (8 6) Mean. 6 Max 69 Min 0 Std 9 4 Pix 400	Meter (9 6) Mean 8 Max 55 Min. 0 Std 10 5 Pix 400	Meter (10 6) Mean 11 Max 48 Min 0 Std 8 5 Pix 400	Meter (11 6) Mean 13 Max 47 Min 1 Std 8 0 Pix 400	Meter (12 6) Mean 16 Max 109 Min 0 Std 17 7 Pix 218
Meter (1 5) Mean 10	Meter (2 5) Mean 8	Meter (3 5) Mean. 9	Meter (4 5) Mean 7	Meter (5,5) Mean 8	Meter (6 5) Mean. 8	Meter (7 5) Mean 10	Meter (8,5) Mean 6	Meter (9,5) Mean 12	Meter (10 5) Mean 9	Meter (11 5) Mean 10	Meter (12 5) Mean 20

Max 142 Min 0 Std 16 1 Pix 400	Max 95 Min 0 Std 11 7 Pix 400	Max 94 Min 0 Std 11 1 Pix 400	Max 87 Min 0 Std 7 6 Pix 400	Max 50 Min 0 Std 7 2 Pix 400	Max 220 Min. 0 Std 19 2 Pix 400	Max 154 Min. 0 Std 20 3 Pix 400	Max 68 Min 0 Std 6 7 Pix 400	Max 278 Min 0 Std 28 4 Pix 400	Max 70 Min 0 Std 14 6 Pix 400	Max 44 Min 0 Std 6 4 Pix 400	Max 169 Min 4 Std 23 7 Pix 260
Meter (1 4) Mean. 21 Max 185 Min. 0 Std 30 8 Pix 400	Meter (2 4) Mean. 8 Max 81 Min. 0 Std 8 9 Pix 400	Meter (3 4) Mean 10 Max 69 Min 0 Std 10 5 Pix 400	Meter (4 4) Mean 9 Max 89 Min. 0 Std 13 1 Pix 400	Meter (5 4) Mean 8 Max 49 Min 0 Std 8 3 Pix 400	Meter (6 4) Mean 10 Max 80 Min 0 Std 16 2 Pix 400	Meter (7 4) Mean. 11 Max 90 Min 0 Std 19 1 Pix 400	Meter (8 4) Mean 11 Max 87 Min. 0 Std 12 7 Pix 400	Meter (9 4) Mean 7 Max 47 Min. 0 Std 7 5 Pix 400	Meter (10 4) Mean. 8 Max 39 Min 0 Std 7 2 Pix 400	Meter (11 4) Mean. 15 Max 110 Min 0 Std 17 5 Pix 400	Meter (12 4) Mean 22 Max 144 Min 5 Std 29 0 Pix 260
Meter (1,3) Mean. 8 Max 98 Min. 0 Std 11 0 Pix 400	Meter (2 3) Mean 13 Max 90 Min. 2 Std 15 0 Pix 400	Meter (3 3) Mean 8 Max 109 Min 0 Std 13 5 Pix 400	Meter (4 3) Mean 4 Max 44 Min 0 Std 6 0 Pix 400	Meter (5 3) Mean 11 Max 159 Min 0 Std 20 3 Pix 400	Meter (6 3) Mean 10 Max 205 Min 0 Std 24 8 Pix 400	Meter (7 3) Mean. 10 Max 100 Min. 0 Std 17 5 Pix 400	Meter (8 3) Mean. 9 Max 90 Min. 1 Std 11 9 Pix 400	Meter (9 3) Mean. 9 Max 129 Min: 0 Std 19 3 Pix 400	Meter (10,3) Mean. 9 Max 100 Min 0 Std 12 7 Pix 400	Meter (11 3) Mean. 10 Max 66 Min 0 Std 8 5 Pix 400	Meter (12 3) Mean. 22 Max 116 Min 6 Std 25 5 Pix 260
Meter (1,2) Mean. 8 Max 68 Min. 0 Std 12 4 Pix 400	Meter (2,2) Mean. 7 Max 84 Min. 0 Std 8 7 Pix 400	Meter (3,2) Mean 11 Max. 98 Min. 0 Std 15 5 Pix 400	Meter (4,2) Mean. 7 Max 81 Min. 0 Std 14 1 Pix 400	Meter (5,2) Mean. 8 Max 116 Min: 0 Std 14 8 Pix 400	Meter (6 2) Mean. 9 Max 135 Min. 0 Std 20 3 Pix 400	Meter (7 2) Mean. 8 Max 149 Min. 0 Std 17 8 Pix 400	Meter (8,2) Mean. 6 Max 63 Min. 0 Std 11 5 Pix 400	Meter (9,2) Mean. 10 Max 92 Min. 0 Std. 11 2 Pix 400	Meter (10,2) Mean. 10 Max 100 Min. 0 Std 15 0 Pix 400	Meter (11,2) Mean 11 Max 212 Min. 0 Std 27 7 Pix 400	Meter (12 2) Mean. 17 Max 123 Min. 0 Std 24 4 Pix 260
Meter (1 1) Mean 7 Max 34 Min 0 Std 7 9 Pix 140	Meter (2 1) Mean. 8 Max. 40 Min. 0 Std 7 8 Pix 140	Meter (3 1) Mean 12 Max 57 Min. 5 Std 11 7 Pix 140	Meter (4 1) Mean. 19 Max 150 Min 1 Std 34 9 Pix 140	Meter (5 1) Mean 3 Max 7 Min 0 Std 2 2 Pix 140	Meter (6 1) Mean 5 Max 40 Min. 0 Std 8 6 Pix 140	Meter (7 1) Mean 5 Max 7 Min. 0 Std 2 0 Pix 140	Meter (8 1) Mean 10 Max 97 Min. 0 Std 17 4 Pix 140	Meter (9 1) Mean 5 Max 12 Min. 1 Std. 2 9 Pix 140	Meter (10 1) Mean. 23 Max. 219 Min 2 Std 38 0 Pix 140	Meter (11 1) Mean 30 Max 219 Min 2 Std 46 6 Pix 140	Meter (12 1) Mean. 8 Max. 25 Min. 3 Std 4 3 Pix 91

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (12,1) and Grids (12,1) - (12,14) are not one square meter Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date 04-10-1998 Time 15 45 20 RF12302A-4

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 14) Mean 0 Max 0 Min. 0 Std 0 Pix·0	Meter (2 14) Mean 0 Max 0 Min. 0 Std 0 Pix·0	Meter (3 14) Mean 8 Max 112 Min 0 Std 14 2 Pix 340	Meter (4 14) Mean 9 Max 91 Min. 0 Std 15 8 Pix 400	Meter (5 14) Mean 11 Max 151 Min 0 Std 24 0 Pix 400	Meter (6 14) Mean 10 Max 84 Min 0 Std 20 2 Pix 400	Meter (7 14) Mean 11 Max 118 Min. 0 Std 15 4 Pix 400	Meter (8 14) Mean 6 Max 15 Min 0 Std 3 1 Pix 400	Meter (9 14) Mean 4 Max 32 Min. 0 Std 3 7 Pix 400	Meter (10 14) Mean. 6 Max 25 Min. 0 Std 4 6 Pix 400	Meter (11 14) Mean 6 Max 22 Min. 0 Std 5 9 Pix 400	Meter (12 14) Mean 8 Max 110 Min. 0 Std 15 4 Pix 180
Meter (1 13) Mean 4 Max 73 Min 0 Std 7 5 Pix 221	Meter (2 13) Mean 8 Max 72 Min. 0 Std. 11 6 Pix.340	Meter (3 13) Mean. 6 Max 29 Min. 0 Std. 5 8 Pix 391	Meter (4 13) Mean. 8 Max 93 Min 0 Std. 13 8 Pix 400	Meter (5 13) Mean 7 Max 68 Min. 0 Std 11 5 Pix 400	Meter (6 13) Mean 7 Max 130 Min. 0 Std 13 6 Pix 400	Meter (7 13) Mean 11 Max 68 Min. 0 Std 10.2 Pix 400	Meter (8 13) Mean. 7 Max 14 Min. 0 Std 3 3 Pix.400	Meter (9 13) Mean. 9 Max 18 Min. 1 Std. 3 6 Pix 400	Meter (10 13) Mean 12 Max. 81 Min. 2 Std. 10 7 Pix 400	Meter (11 13) Mean. 6 Max 18 Min. 0 Std. 3 1 Pix 400	Meter (12 13) Mean 5 Max 61 Min 0 Std 6 4 Pix 180
Meter (1 12) Mean 5 Max. 9 Min. 0 Std 3 5 Pix.268	Meter (2 12) Mean. 17 Max. 127 Min. 0 Std. 22 0 Pix.400	Meter (3 12) Mean. 11 Max. 127 Min. 0 Std. 13 6 Pix 400	Meter (4 12) Mean. 11 Max 107 Min. 0 Std. 21 0 Pix.400	Meter (5 12) Mean. 4 Max 67 Min. 0 Std. 7 3 Pix 400	Meter (6 12) Mean. 10 Max 28 Min. 0 Std. 5 4 Pix 400	Meter (7 12) Mean. 3 Max. 12 Min. 0 Std 2 4 Pix.400	Meter (8 12) Mean. 10 Max. 75 Min. 0 Std 9 5 Pix 400	Meter (9 12) Mean. 8 Max. 86 Min. 0 Std. 7.8 Pix.400	Meter (10 12) Mean. 6 Max. 68 Min. 0 Std 5 6 Pix.400	Meter (11 12) Mean. 11 Max. 66 Min. 1 Std 9 5 Pix 400	Meter (12 12) Mean. 1 Max 4 Min. 0 Std. 1 9 Pix 198
Meter (1 11) Mean. 5 Max. 69 Min. 0 Std. 6 1 Pix 300	Meter (2 11) Mean. 5 Max. 45 Min. 0 Std. 5 0 Pix 400	Meter (3 11) Mean. 17 Max. 158 Min 0 Std 24 5 Pix 400	Meter (4 11) Mean. 9 Max. 117 Min. 0 Std 16 2 Pix 400	Meter (5 11) Mean. 6 Max 70 Min. 0 Std. 12 7 Pix 400	Meter (6 11) Mean. 9 Max. 67 Min. 0 Std 9 7 Pix 400	Meter (7 11) Mean. 13 Max 100 Min. 0 Std. 14 4 Pix 400	Meter (8 11) Mean. 9 Max. 67 Min. 0 Std. 10 1 Pix 400	Meter (9 11) Mean. 11 Max 53 Min. 0 Std. 7 6 Pix.400	Meter (10 11) Mean. 17 Max. 138 Min. 2 Std 15 9 Pix 400	Meter (11 11) Mean. 14 Max. 59 Min. 2 Std 8 4 Pix 400	Meter (12 11) Mean. 9 Max 69 Min. 0 Std 13 6 Pix 240
Meter (1 10) Mean. 5 Max 36 Min. 0 Std. 5 1 Pix 285	Meter (2 10) Mean. 4 Max 17 Min 0 Std 3 9 Pix 380	Meter (3 10) Mean. 2 Max. 7 Min. 0 Std 1 7 Pix 395	Meter (4 10) Mean 8 Max. 110 Min. 0 Std 10 5 Pix.400	Meter (5 10) Mean. 5 Max 63 Min. 0 Std 8 5 Pix 400	Meter (6 10) Mean. 8 Max 50 Min. 0 Std 6 5 Pix.400	Meter (7 10) Mean. 6 Max. 62 Min. 0 Std 7 8 Pix 400	Meter (8 10) Mean. 8 Max 118 Min. 0 Std. 14 8 Pix 400	Meter (9 10) Mean. 12 Max 180 Min. 0 Std. 18 4 Pix.290	Meter (10 10) Mean. 15 Max 132 Min. 0 Std 14 6 Pix 180	Meter (11 10) Mean. 12 Max 102 Min. 0 Std 13 8 Pix 180	Meter (12 10) Mean 1 Max 9 Min 0 Std 1 4 Pix 108
Meter (1 9) Mean. 0 Max 0 Min. 0 Std. 0 Pix·0	Meter (2,9) Mean. 0 Max 0 Min. 0 Std .0 Pix·0	Meter (3 9) Mean. 3 Max 10 Min. 0 Std 3 1 Pix 300	Meter (4 9) Mean. 4 Max 11 Min. 0 Std 2 1 Pix 400	Meter (5 9) Mean. 14 Max 158 Min. 0 Std 23 4 Pix 400	Meter (6 9) Mean. 10 Max 176 Min. 0 Std 18 9 Pix 400	Meter (7 9) Mean. 9 Max 128 Min. 0 Std 16 5 Pix 400	Meter (8 9) Mean. 14 Max. 263 Min. 0 Std 38 3 Pix 400	Meter (9 9) Mean. 4 Max. 32 Min. 0 Std 5 0 Pix.200	Meter (10,9) Mean. 0 Max. 0 Min. 0 Std. 0 Pix:0	Meter (11 9) Mean. 0 Max. 0 Min. 0 Std 0 Pix·0	Meter (12 9) Mean. 0 Max 0 Min. 0 Std. 0 Pix·0
Meter (1 8) Mean. 0 Max. 0 Min. 0 Std. 0 Pix·0	Meter (2 8) Mean. 0 Max. 0 Min. 0 Std. 0 Pix·0	Meter (3,8) Mean. 0 Max 0 Min. 0 Std 0 Pix·0	Meter (4,8) Mean. 2 Max. 17 Min. 0 Std 2 7 Pix 164	Meter (5 8) Mean 10 Max. 130 Min. 0 Std 18 8 Pix 400	Meter (6,8) Mean. 7 Max 60 Min. 0 Std. 8 6 Pix 400	Meter (7 8) Mean. 10 Max 82 Min. 1 Std 12 5 Pix 400	Meter (8,8) Mean. 11 Max 94 Min. 0 Std 14 3 Pix 400	Meter (9,8) Mean. 5 Max. 64 Min. 0 Std. 8 9 Pix 200	Meter (10,8) Mean. 0 Max. 0 Min. 0 Std 0 Pix·0	Meter (11 8) Mean. 0 Max. 0 Min. 0 Std 0 Pix·0	Meter (12,8) Mean 0 Max 0 Min. 0 Std 0 Pix·0
Meter (1 7) Mean. 2 Max 8 Min. 0 Std 1 8 Pix 120	Meter (2 7) Mean. 4 Max. 134 Min 0 Std 11 2 Pix 174	Meter (3 7) Mean. 6 Max 81 Min. 0 Std 10 0 Pix 240	Meter (4 7) Mean. 5 Max. 119 Min. 0 Std 9 2 Pix 360	Meter (5 7) Mean. 10 Max 70 Min. 0 Std 9 4 Pix 400	Meter (6,7) Mean. 7 Max 49 Min. 0 Std. 5 3 Pix 400	Meter (7 7) Mean. 13 Max. 136 Min. 0 Std. 14 3 Pix 400	Meter (8 7) Mean. 10 Max. 123 Min. 0 Std 16 4 Pix 400	Meter (9 7) Mean. 7 Max. 117 Min. 0 Std. 12 9 Pix 341	Meter (10,7) Mean. 15 Max 105 Min. 0 Std 13 5 Pix.240	Meter (11 7) Mean. 6 Max. 40 Min. 0 Std 6 8 Pix 240	Meter (12 7) Mean. 2 Max 10 Min. 0 Std 2 1 Pix 72
Meter (1 6) Mean. 9 Max. 46 Min. 0 Std. 9 3 Pix 400	Meter (2 6) Mean. 9 Max 96 Min 0 Std 10 1 Pix 400	Meter (3,6) Mean. 6 Max 96 Min. 0 Std 11 4 Pix 400	Meter (4,6) Mean. 7 Max 137 Min. 0 Std 11 8 Pix 400	Meter (5 6) Mean. 8 Max. 57 Min. 0 Std 9 4 Pix 400	Meter (6 6) Mean. 9 Max. 170 Min. 0 Std 18 0 Pix 400	Meter (7 6) Mean. 10 Max. 115 Min. 0 Std 15 2 Pix 400	Meter (8,6) Mean. 7 Max 133 Min. 0 Std 12 9 Pix 400	Meter (9 6) Mean. 8 Max. 62 Min. 0 Std. 12 7 Pix 400	Meter (10 6) Mean. 4 Max. 59 Min. 0 Std. 4 5 Pix 400	Meter (11 6) Mean. 15 Max 81 Min. 4 Std 11 0 Pix 400	Meter (12 6) Mean. 23 Max 206 Min 0 Std 31 5 Pix 218
Meter (1,5) Mean 10	Meter (2,5) Mean 9	Meter (3 5) Mean. 4	Meter (4,5) Mean. 7	Meter (5,5) Mean 11	Meter (6,5) Mean. 9	Meter (7 5) Mean 10	Meter (8,5) Mean 11	Meter (9,5) Mean. 13	Meter (10 5) Mean 13	Meter (11 5) Mean 8	Meter (12 5) Mean 33

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Max 100 Min 0 Std 15 8 Pix 400	Max 94 Min. 0 Std 11 6 Pix 400	Max 25 Min 0 Std. 4 1 Pix 400	Max 50 Min. 0 Std 6 8 Pix 400	Max 75 Min 0 Std 13 6 Pix 400	Max 139 Min 0 Std 13 8 Pix 400	Max 130 Min. 1 Std 18 5 Pix 400	Max 108 Min. 0 Std 15 3 Pix 400	Max 113 Min 2 Std 18 1 Pix 400	Max 147 Min. 0 Std 22 0 Pix 400	Max 37 Min 0 Std 5 5 Pix 400	Max 189 Min 4 Std 38 0 Pix 260
Meter (1 4) Mean. 6 Max 48 Min. 0 Std 5 9 Pix 400	Meter (2,4) Mean. 11 Max 79 Min. 0 Std 12 2 Pix 400	Meter (3 4) Mean. 6 Max 114 Min. 0 Std 13 2 Pix 400	Meter (4,4) Mean. 6 Max. 27 Min 0 Std 3 9 Pix 400	Meter (5 4) Mean. 9 Max 163 Min. 0 Std 14 0 Pix 400	Meter (6 4) Mean. 9 Max 139 Min 0 Std 17 9 Pix 400	Meter (7 4) Mean. 10 Max 91 Min 0 Std 18 8 Pix 400	Meter (8 4) Mean. 15 Max 96 Min. 0 Std 21 2 Pix 400	Meter (9 4) Mean. 10 Max 71 Min. 0 Std 12 2 Pix 400	Meter (10 4) Mean. 13 Max 98 Min 0 Std 15 1 Pix 400	Meter (11 4) Mean. 9 Max 37 Min 0 Std 4 6 Pix 400	Meter (12 4) Mean 18 Max 148 Min 0 Std 22 9 Pix 260
Meter (1 3) Mean. 8 Max 49 Min. 0 Std 7 1 Pix 400	Meter (2 3) Mean. 9 Max 48 Min. 0 Std 6 2 Pix 400	Meter (3 3) Mean 9 Max. 96 Min. 0 Std 15 0 Pix 400	Meter (4,3) Mean. 9 Max. 148 Min. 0 Std. 16 2 Pix 400	Meter (5 3) Mean. 7 Max. 68 Min. 0 Std 11 4 Pix 400	Meter (6 3) Mean. 10 Max 89 Min. 0 Std 18 5 Pix 400	Meter (7 3) Mean. 17 Max 216 Min. 0 Std 35 0 Pix 400	Meter (8,3) Mean. 9 Max 118 Min. 0 Std 14 7 Pix 400	Meter (9 3) Mean. 10 Max. 75 Min. 0 Std 12 0 Pix 400	Meter (10 3) Mean. 12 Max 127 Min 1 Std 20 4 Pix 400	Meter (11 3) Mean 9 Max 91 Min. 0 Std 11 6 Pix 400	Meter (12 3) Mean. 27 Max. 185 Min 4 Std 35 8 Pix 260
Meter (1,2) Mean. 10 Max. 200 Min. 0 Std. 22 3 Pix 400	Meter (2,2) Mean. 11 Max. 105 Min. 0 Std 16 1 Pix 400	Meter (3,2) Mean. 10 Max. 104 Min. 0 Std 13 7 Pix 400	Meter (4,2) Mean. 12 Max. 170 Min. 0 Std 20 6 Pix 400	Meter (5,2) Mean. 10 Max. 131 Min. 0 Std 20 1 Pix 400	Meter (6,2) Mean. 9 Max 140 Min. 0 Std 22 8 Pix 400	Meter (7,2) Mean. 10 Max 218 Min. 0 Std 22 0 Pix 400	Meter (8,2) Mean. 8 Max. 118 Min. 0 Std. 14 4 Pix 400	Meter (9,2) Mean. 11 Max. 95 Min. 0 Std. 15 1 Pix 400	Meter (10,2) Mean. 15 Max. 174 Min. 1 Std 24 7 Pix 400	Meter (11,2) Mean. 13 Max. 97 Min. 2 Std 13 8 Pix 400	Meter (12 2) Mean. 20 Max. 213 Min 0 Std 33 1 Pix 260
Meter (1 1) Mean. 13 Max. 75 Min. 0 Std 13 9 Pix 140	Meter (2,1) Mean. 12 Max 130 Min. 0 Std 20 4 Pix 140	Meter (3 1) Mean. 13 Max. 59 Min. 3 Std 14 2 Pix 140	Meter (4 1) Mean. 7 Max 41 Min 0 Std. 8 8 Pix 140	Meter (5 1) Mean. 12 Max 215 Min. 0 Std 39 4 Pix 140	Meter (6 1) Mean. 6 Max 88 Min. 0 Std 10 7 Pix 140	Meter (7 1) Mean. 7 Max 66 Min. 0 Std 14 2 Pix 140	Meter (8 1) Mean. 10 Max 61 Min. 3 Std. 12 5 Pix 140	Meter (9 1) Mean. 7 Max 60 Min. 0 Std 8 7 Pix 140	Meter (10 1) Mean. 11 Max 72 Min. 5 Std 12 2 Pix 140	Meter (11 1) Mean. 12 Max 47 Min. 3 Std 8 8 Pix 140	Meter (12 1) Mean 21 Max 172 Min 5 Std 30 6 Pix 91

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (12,1) and Grids (12,1) - (12,14) are not one square meter Bold text denotes grids which exceed release limits

(Filtered) (Recount) Date 04-10-1998 Time 15 48 20 RF12302A-4

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

4050 dpm/100 cm^2, averaged over 1 m^2
5550 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 14) Mean. 0 Max 0 Min. 0 Std 0 Pix:0	Meter (2 14) Mean. 109 Max 374 Min. 0 Std 45 4 Pix 33	Meter (3 14) Mean. 2 338 Max 3,518 Min 0 Std. 1377 1 Pix 332	Meter (4 14) Mean. 2 958 Max 3 973 Min. 1 480 Std 438 4 Pix 400	Meter (5 14) Mean. 3 140 Max 3 777 Min 1 982 Std 212 3 Pix 400	Meter (6 14) Mean 2 861 Max 3 819 Min. 1 007 Std 483 4 Pix 400	Meter (7 14) Mean 2 872 Max 4 173 Min. 773 Std 620 1 Pix 400	Meter (8 14) Mean 2 872 Max 3 793 Min. 784 Std 609 2 Pix 400	Meter (9 14) Mean. 2 860 Max 3 834 Min. 850 Std 647 4 Pix 400	Meter (10 14) Mean. 2 884 Max 3 823 Min. 886 Std 613 1 Pix 400	Meter (11 14) Mean 2 797 Max 3 661 Min 965 Std 563 7 Pix 400	Meter (12 14) Mean 1 048 Max 3 305 Min 0 Std 832 1 Pix 100
Meter (1 13) Mean. 0 Max 0 Min. 0 Std 0 Pix 0	Meter (2 13) Mean. 1 830 Max 3 654 Min. 0 Std. 1257 9 Pix 220	Meter (3 13) Mean. 2 925 Max 4 194 Min. 751 Std 397 7 Pix 400	Meter (4 13) Mean. 2 857 Max 3 623 Min. 2,264 Std 185 7 Pix 400	Meter (5 13) Mean. 3 175 Max 3 842 Min. 2 809 Std 213 0 Pix 400	Meter (6 13) Mean. 3 119 Max 4,286 Min. 2,202 Std 332 5 Pix 400	Meter (7 13) Mean. 2 902 Max 3,540 Min. 2 165 Std 298 1 Pix 400	Meter (8 13) Mean. 2 999 Max. 3,611 Min. 2,282 Std 260 8 Pix 400	Meter (9 13) Mean. 3 050 Max. 3 920 Min. 2 460 Std 300 1 Pix 400	Meter (10 13) Mean. 3 095 Max. 3 886 Min. 2 477 Std. 288 9 Pix 400	Meter (11 13) Mean. 2 889 Max 3 845 Min. 633 Std 463 0 Pix 400	Meter (12 13) Mean. 1 015 Max 3 312 Min. 0 Std 894 9 Pix 100
Meter (1 12) Mean 2 146 Max 3 708 Min. 0 Std. 1092 1 Pix.380	Meter (2 12) Mean. 2,528 Max 3 602 Min. 0 Std. 982 8 Pix 391	Meter (3 12) Mean 3 005 Max 3 691 Min. 2,583 Std. 211 6 Pix.400	Meter (4 12) Mean. 2 866 Max 4 122 Min. 2,208 Std. 273 1 Pix.400	Meter (5 12) Mean. 3,282 Max 3 899 Min. 2,883 Std. 166 3 Pix 400	Meter (6 12) Mean. 3,028 Max. 3 835 Min. 2,215 Std. 227 6 Pix 400	Meter (7 12) Mean. 3 170 Max. 4 043 Min. 2 460 Std 275 5 Pix.400	Meter (8 12) Mean. 3 181 Max. 3 926 Min. 2 524 Std 259 8 Pix.400	Meter (9 12) Mean. 3 137 Max. 3,836 Min. 2,551 Std 206.5 Pix.400	Meter (10 12) Mean. 3 120 Max. 4 056 Min. 2,563 Std 291.5 Pix 400	Meter (11 12) Mean. 2 647 Max. 3 478 Min. 386 Std. 843 6 Pix 400	Meter (12 12) Mean. 175 Max. 593 Min. 0 Std. 95 0 Pix 25
Meter (1 11) Mean. 3,099 Max. 3 931 Min. 1 954 Std 271 8 Pix.400	Meter (2 11) Mean 3 177 Max 3,563 Min. 2 880 Std. 148 9 Pix.400	Meter (3 11) Mean. 3 184 Max. 3 802 Min. 2 918 Std 177 8 Pix 400	Meter (4 11) Mean. 2 925 Max. 3,827 Min. 1 997 Std 239 3 Pix 400	Meter (5 11) Mean. 3 191 Max. 3 733 Min. 2 870 Std 130 2 Pix 400	Meter (6,11) Mean. 2 916 Max. 3 797 Min. 2 155 Std. 290 8 Pix.400	Meter (7 11) Mean. 2,896 Max. 4 185 Min. 2,195 Std 419 9 Pix.400	Meter (8 11) Mean. 2,826 Max. 3 836 Min. 2,236 Std. 344 1 Pix.400	Meter (9 11) Mean. 3 105 Max. 3,554 Min. 2 478 Std. 181 5 Pix 400	Meter (10 11) Mean. 3 034 Max 3 705 Min. 2 760 Std 173 2 Pix 400	Meter (11 11) Mean. 3 011 Max 3 788 Min. 1 802 Std 233 6 Pix 400	Meter (12 11) Mean 1 175 Max 3 476 Min. 0 Std 929 8 Pix 100
Meter (1 10) Mean 2 148 Max. 3 494 Min 0 Std 1199 5 Pix.336	Meter (2 10) Mean. 2 720 Max. 3,259 Min. 2,301 Std 157 7 Pix.400	Meter (3 10) Mean. 2 760 Max 3 186 Min. 2 379 Std. 155 0 Pix 400	Meter (4 10) Mean. 2 651 Max 3,393 Min. 2 230 Std 142 8 Pix 400	Meter (5 10) Mean. 3 140 Max. 3 436 Min. 2 808 Std 135 6 Pix.400	Meter (6 10) Mean 3 131 Max. 4 086 Min. 2,579 Std 218 2 Pix 400	Meter (7 10) Mean. 3 160 Max. 3 770 Min 2,507 Std. 207 9 Pix 400	Meter (8 10) Mean. 3 175 Max. 3 970 Min. 2 705 Std 254.0 Pix.400	Meter (9 10) Mean. 2,776 Max. 3 988 Min. 88 Std. 1090.1 Pix.376	Meter (10 10) Mean. 2,599 Max 3,538 Min. 108 Std 1104 7 Pix 360	Meter (11 10) Mean. 2 550 Max 3,855 Min. 79 Std. 1123 9 Pix 360	Meter (12,10) Mean. 1,006 Max 3 644 Min. 0 Std 863 2 Pix·90
Meter (1 9) Mean. 1,060 Max 2,359 Min. 0 Std. 609 4 Pix 128	Meter (2 9) Mean. 1 404 Max. 2,316 Min. 0 Std 773 6 Pix 160	Meter (3 9) Mean. 2 029 Max. 2,878 Min. 0 Std 814 0 Pix 376	Meter (4 9) Mean. 2,512 Max 2 982 Min. 1 940 Std 194 4 Pix 400	Meter (5 9) Mean. 3 166 Max 3 419 Min. 2,817 Std. 138 8 Pix 400	Meter (6,9) Mean. 3,043 Max. 4 137 Min. 2,379 Std 241 2 Pix 400	Meter (7 9) Mean. 3,075 Max. 3 433 Min. 2,511 Std 153 5 Pix 400	Meter (8 9) Mean. 3,079 Max. 4,034 Min. 2,618 Std 248 1 Pix 400	Meter (9 9) Mean. 1 928 Max. 4,324 Min. 0 Std. 1247 5 Pix 160	Meter (10,9) Mean. 0 Max. 0 Min. 0 Std 0 Pix 0	Meter (11 9) Mean. 0 Max. 0 Min. 0 Std 0 Pix·0	Meter (12 9) Mean. 0 Max. 0 Min. 0 Std 0 Pix·0
Meter (1,8) Mean. 0 Max 0 Min. 0 Std 0 Pix·0	Meter (2,8) Mean. 0 Max 0 Min. 0 Std 0 Pix·0	Meter (3 8) Mean. 730 Max 1 684 Min. 0 Std 353 8 Pix.90	Meter (4,8) Mean. 1,285 Max 2 935 Min. 0 Std. 928 4 Pix 270	Meter (5 8) Mean. 3 138 Max 3,520 Min. 2 615 Std 159 3 Pix 400	Meter (6,8) Mean. 3,084 Max. 4,057 Min. 2,208 Std. 295 8 Pix 400	Meter (7 8) Mean. 3,058 Max. 4,809 Min. 0 Std. 1065 8 Pix 380	Meter (8 8) Mean. 2,447 Max 3,993 Min. 0 Std. 1354 4 Pix 300	Meter (9 8) Mean. 1,532 Max. 3 761 Min. 0 Std. 969 0 Pix.120	Meter (10,8) Mean. 0 Max. 0 Min. 0 Std 0 Pix·0	Meter (11,8) Mean. 0 Max. 0 Min. 0 Std 0 Pix 0	Meter (12 8) Mean. 0 Max. 0 Min. 0 Std. 0 Pix·0
Meter (1 7) Mean. 1 861 Max 3 999 Min. 0 Std 1343 5 Pix 220	Meter (2 7) Mean. 1,589 Max 3 692 Min. 0 Std 1209 9 Pix 220	Meter (3 7) Mean. 202 Max 426 Min 0 Std 95 7 Pix 60	Meter (4 7) Mean. 2 087 Max. 3 140 Min. 0 Std 1225 5 Pix 332	Meter (5 7) Mean. 3,059 Max 3,350 Min. 2 773 Std 121 1 Pix 400	Meter (6,7) Mean. 1,231 Max 2 989 Min. 0 Std 865 2 Pix 218	Meter (7 7) Mean. 977 Max 2 733 Min. 0 Std 533 4 Pix 96	Meter (8,7) Mean. 178 Max. 400 Min. 0 Std. 55 3 Pix.26	Meter (9 7) Mean. 1 758 Max. 3,225 Min. 0 Std. 1225 7 Pix 260	Meter (10 7) Mean. 2,162 Max. 3 474 Min. 0 Std. 1431 2 Pix.260	Meter (11 7) Mean. 1 478 Max. 3 497 Min. 0 Std 1046 3 Pix 156	Meter (12 7) Mean. 0 Max 0 Min. 0 Std 0 Pix 0
Meter (1 6) Mean. 2,818 Max 3,567 Min. 1,089 Std 544 9 Pix 400	Meter (2 6) Mean. 2,993 Max 3,570 Min. 1 600 Std 268 5 Pix 400	Meter (3 6) Mean. 2 932 Max. 3 697 Min. 1 201 Std 473 0 Pix 400	Meter (4 6) Mean. 2 862 Max 3 461 Min. 1,525 Std 303 7 Pix 400	Meter (5 6) Mean. 3 148 Max 3 451 Min. 2 764 Std 136 4 Pix 400	Meter (6,6) Mean. 1 492 Max 3 171 Min. 0 Std. 1059 0 Pix 257	Meter (7 6) Mean. 1,556 Max 3 423 Min. 0 Std 1097 9 Pix 180	Meter (8 6) Mean. 1,342 Max. 3,351 Min. 0 Std 1032 8 Pix 202	Meter (9 6) Mean. 2 651 Max. 3 106 Min. 556 Std. 574 6 Pix 400	Meter (10 6) Mean. 2 983 Max 3 435 Min. 2 105 Std 316 2 Pix 400	Meter (11 6) Mean. 2 448 Max 3 958 Min 0 Std 1125 7 Pix 368	Meter (12 6) Mean. 2 307 Max 3 816 Min. 0 Std 1403 6 Pix 112
Meter (1 5) Mean 2 749	Meter (2,5) Mean. 2 992	Meter (3,5) Mean 3,218	Meter (4 5) Mean 3 013	Meter (5,5) Mean. 3 130	Meter (6,5) Mean 2 850	Meter (7 5) Mean. 3 109	Meter (8 5) Mean 2 964	Meter (9,5) Mean. 2,924	Meter (10 5) Mean 2 345	Meter (11 5) Mean 2 455	Meter (12 5) Mean 2 942

Max 3 502 Min. 1 046 Std. 498 7 Pix 400	Max 3 618 Min 2,613 Std 235 8 Pix 400	Max 3 833 Min 2 772 Std 180 0 Pix 400	Max 3 616 Min 2 600 Std 245 5 Pix 400	Max 3 646 Min 2 659 Std 167 7 Pix 400	Max 3 321 Min 2 276 Std 308 3 Pix 400	Max 3 700 Min 2 307 Std 302 0 Pix 400	Max 3 770 Min 2 458 Std 221 7 Pix 400	Max 3 773 Min 2 323 Std 304 6 Pix 400	Max 3 348 Min 1 846 Std 380 6 Pix 400	Max 3 448 Min 1 826 Std 458 6 Pix 400	Max 3 457 Min 1 973 Std 332 7 Pix 140
Meter (1 4) Mean 2 779 Max 4 300 Min. 1 005 Std 529 7 Pix 400	Meter (2 4) Mean 2,840 Max 3 687 Min 2 388 Std 241 7 Pix 400	Meter (3 4) Mean 3 117 Max 3 464 Min 2 789 Std 146 8 Pix 400	Meter (4 4) Mean 2 952 Max 3 537 Min. 2 539 Std 238 1 Pix 400	Meter (5 4) Mean 3 182 Max 3 651 Min 2 681 Std 148 6 Pix 400	Meter (6 4) Mean 2 809 Max 3 682 Min 2 241 Std 264 1 Pix 400	Meter (7 4) Mean 3 175 Max 4 021 Min 2 426 Std 276 3 Pix 400	Meter (8 4) Mean. 3 012 Max 3 725 Min 2 474 Std 261 3 Pix 400	Meter (9 4) Mean 2 969 Max 3 879 Min. 2 456 Std 272 6 Pix 400	Meter (10 4) Mean 2 975 Max 3 927 Min 2,555 Std 160 0 Pix 400	Meter (11 4) Mean 3 101 Max 4 081 Min 2 497 Std 224 0 Pix 400	Meter (12 4) Mean 3 227 Max 4 503 Min 1 976 Std 426 5 Pix 140
Meter (1 3) Mean. 2 774 Max 3 341 Min. 1,068 Std 497.5 Pix 400	Meter (2 3) Mean 2 977 Max 3 370 Min. 2 566 Std 204 9 Pix 400	Meter (3 3) Mean 3 153 Max 3 950 Min 2,550 Std 211 8 Pix 400	Meter (4 3) Mean. 2 871 Max 3 424 Min. 2 601 Std 156 6 Pix 400	Meter (5 3) Mean 3 138 Max 3 352 Min 2 744 Std 113 6 Pix 400	Meter (6,3) Mean. 2 928 Max 3 804 Min. 2 314 Std 328 6 Pix 400	Meter (7 3) Mean 3 023 Max 3 454 Min. 2 585 Std 158 2 Pix 400	Meter (8 3) Mean 3 093 Max 3 729 Min. 2 407 Std. 216 9 Pix 400	Meter (9 3) Mean. 2 817 Max 3 864 Min. 2 364 Std. 283 7 Pix 400	Meter (10 3) Mean 3 024 Max 4 019 Min. 2 645 Std 195 8 Pix 400	Meter (11 3) Mean 3 141 Max 3 945 Min. 2 734 Std 185 8 Pix 400	Meter (12 3) Mean 3 074 Max 3 708 Min. 1 977 Std 342 1 Pix 140
Meter (1,2) Mean. 2 703 Max 3,338 Min 1 040 Std 501 9 Pix 400	Meter (2,2) Mean 2 951 Max 3,577 Min 2 392 Std 202 8 Pix 400	Meter (3 2) Mean. 3 114 Max 3 750 Min. 2 527 Std 225 8 Pix 400	Meter (4 2) Mean. 2 935 Max 3,556 Min. 2,582 Std 209 4 Pix 400	Meter (5,2) Mean. 3 105 Max. 3 607 Min 2 677 Std 162 8 Pix 400	Meter (6,2) Mean. 2,299 Max 3 293 Min. 0 Std 1078 0 Pix 348	Meter (7,2) Mean 2 466 Max 3 687 Min. 0 Std 1230 8 Pix 340	Meter (8 2) Mean 3 083 Max. 3 730 Min. 2 147 Std 250 5 Pix 400	Meter (9,2) Mean. 3 047 Max 3 675 Min. 2 440 Std 298 6 Pix 400	Meter (10 2) Mean. 3 123 Max 3 679 Min. 2 696 Std 179 3 Pix 400	Meter (11,2) Mean. 3 283 Max 3 743 Min. 2 800 Std 162 0 Pix 400	Meter (12 2) Mean 3 050 Max 3 671 Min 2 002 Std 358 0 Pix 140
Meter (1 1) Mean. 1 983 Max 3 167 Min. 776 Std 648 9 Pix 60	Meter (2 1) Mean. 2 085 Max 2,979 Min. 1 358 Std 529 9 Pix 60	Meter (3 1) Mean. 2,232 Max 3,241 Min 1 520 Std 597 9 Pix 60	Meter (4 1) Mean. 2 095 Max. 3 119 Min. 1 335 Std 586 2 Pix 60	Meter (5 1) Mean 2,284 Max. 3,354 Min 1,569 Std 607 5 Pix 60	Meter (6 1) Mean. 812 Max. 2 014 Min 0 Std 524 3 Pix 21	Meter (7 1) Mean 444 Max 1,210 Min. 0 Std 250 7 Pix 15	Meter (8 1) Mean. 2 187 Max. 3 746 Min. 1,279 Std 628 1 Pix 60	Meter (9 1) Mean. 2 118 Max 3 602 Min. 1 287 Std 624 9 Pix 60	Meter (10 1) Mean. 2,217 Max 3 453 Min 1 410 Std 654 1 Pix 60	Meter (11 1) Mean 2 202 Max 3 280 Min. 1 412 Std 668 2 Pix 60	Meter (12 1) Mean 1 881 Max 2 508 Min 1,228 Std 550 7 Pix 21

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (12,1) and Grids (12,1) - (12,14) are not one square meter Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date 04-10-1998 Time 16 22 57 RF12302B-4

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 West Wing-Unit #7 Panel at Grid #85/86, Post at Grid #116

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1420 / 5-6-98

Cal Due Date: 07-12-98

Efficiency (%): α 25 12 βγ 34 74

Bkgd (cpm): α 1 5 βγ 742 7 Ref Area

622 7 Inst. Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	Post - North Side	<100	<750	4	420	2 5	-202 7	9 95	-583 48
2	2	Post - East Side	<100	<750	4	394	2 5	-228 7	9 95	-658 32
3	3	Post - South Side	<100	<750	3	440	1 5	-182 7	5 97	-525 91
4	4	Post - West Side	<100	<750	3	451	1 5	-171 7	5 97	-494 24
5	5	Panel - North Side (exterior)	<100	<750	3	403	1 5	-219 7	5 97	-632 41
6	6	Panel - North Side (exterior)	<100	<750	1	470	-0 5	-152 7	-1 99	-439 55
7	7	Panel - East Side (exterior)	<100	<750	6	452	4 5	-170 7	17 91	-491 36
8	8	Panel - East Side (exterior)	<100	<750	5	482	3 5	-140 7	13 93	-405 01
9	9	Panel - South Side (exterior)	<100	<750	1	475	-0 5	-147 7	-1 99	-425 16
10	10	Panel - South Side (exterior)	<100	<750	1	441	-0 5	-181 7	-1 99	-523 03
11	11	Panel - Top (exterior)	<100	<750	3	562	1 5	-60 7	5 97	-174 73
12	12	Panel - Top (exterior)	<100	<750	2	593	0 5	-29 7	1 99	-85 49
13	13	Panel - North Side (interior)	<100	<750	1	496	-0 5	-126 7	-1 99	-364 71
14	14	Panel - North Side (interior)	<100	<750	2	499	0 5	-123 7	1 99	-356 07
15	15	Panel - North Side (interior)	<100	<750	2	551	0 5	-71 7	1 99	-206 39
16	16	Panel - North Side (interior)	<100	<750	3	504	1 5	-118 7	5 97	-341 68
17	17	Panel - South Side (interior)	<100	<750	1	562	-0 5	-60 7	-1 99	-174 73
18	18	Panel - South Side (interior)	<100	<750	0	491	-1 5	-131 7	-5 97	-379 10

RADIOLOGICAL CONTAMINATION SURVEY FORM

AH

COPY

LOG NUMBER

FOR: ____ PA/RE ____ PRL ____ RWP ✓ OTHER 123 Final Survey

BUILDING/LOCATION	ROOM
123	Unit 7
DATE	**TIME**
5/6/98	1230

ITEM DESCRIPTION 100% scan survey of Unit 7 grids 51, 52, 61, 62, 82, 83, 84, 90 & 195. 1 min PATs, smears and 100% scans on A) 6x6x4 Post in grid 116 B) Electrical Boxes in grids 85 & 86.

COMMENTS See attached for PAT results recorded in Gross cpm α & β γ. See attached for Smear results counted on the Tennelec. All 100% scans done @ 1/2"/sec @ 1/4" from surface results on all scans <600dpm/100cm² Alpha and <750 dpm/100cm² Beta. 10 smears was taken @ each PAT location

PERFORMED BY (PRINT NAME) [redacted]

[redacted] / [redacted] / 5/6/98

RCT SIGNATURE / EMP# / DATE

REVIEWED BY K Gaylord

RO SUPERVISION PRINT NAME

[signature] / 5/6/98

RO SUPERVISION SIGNATURE / DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR	EBER	EBER	EBER	EBER
MODEL	SAC 4	SAC 4	SAC 4	SAC 4
SERIAL #				
CAL DATE	N/A	N/A	N/A	N/A
CAL DUE DATE				

MFR.	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL #				
CAL DATE	N/A	N/A	N/A	N/A
CAL DUE DATE				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	NE TECH	Tennelec		
MODEL	ELECTRA	5SXLB		
SERIAL #	1420			
CAL DATE	1/12/98			
CAL DUE DATE	7/12/98			
BACKGROUND	See Attached	See Attached		
EFFICIENCY	25.12α / 34.24%β	See Attached		
MDA	93.3 / 435	See Attached		

MDA = CF X [2.71 + 4.65 √BACKGROUND (CPM)]

ELECTRA BACKGROUND LOG FOR UNIT #7 (Scans)

Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D.A. (dpm/100 cm²) β
1420	05-06-98	07-12-98	1 5	622 7	742.7	25 12%	34 74%	33 46	341 81

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OXFR ECLIPSE LB
Printing Date 5/ 6/98
Print Time 3 49 53PM

Version 1 10
Report Name Gross Alpha Beta Analysis CPM DPM

Count Date 5/ 6/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name two minute D & D swipes - 199805061425

System Information

Serial No 38922 **Batch ID** 281

Detector S/N 758 Group D

Sample Information
Sample Units
Geometry Swipe/Smear 1/8"

Count Parameters
Count Mode Simultaneous
Operating Voltage 1 395 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract	Enable	
Background	0 03	1 37
Batch MDA (dpm)	α - 5.4	β - 8.86

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1	North Side Post	-0 03	-0 10	0 34	-0 87	-1 77	2 54	< MDA	< MDA
2	East Side Post	0 47	1 39	2 99	-0 87	-1 77	2 54	< MDA	< MDA
3	South Side Post	-0 03	-0 10	0 34	0 13	0 27	3 85	< MDA	< MDA
4	West Side Post	-0 03	-0 10	0 34	0 13	0 27	3 85	< MDA	< MDA
5	Electrical Panel Ext	0 47	1 39	2 99	-0 37	-0 75	3 26	< MDA	< MDA
6	↓	-0 03	-0 10	0 34	1 13	2 32	4 82	< MDA	< MDA
7		-0 03	-0 10	0 34	0 63	1 30	4 36	< MDA	< MDA
8		-0 03	-0 10	0 34	-0 37	-0 75	3 26	< MDA	< MDA
9		0 97	2 87	4 22	-0 87	-1 77	2 54		< MDA
10		-0 03	-0 10	0 34	-0 87	-1 77	2 54	< MDA	< MDA
11	Electrical Panel top	-0 03	-0 10	0 34	2 63	5 38	5 98	< MDA	
12	Electrical Panel top	-0 03	-0 10	0 34	-0 37	-0 75	3 26	< MDA	< MDA
13	Electrical Panel INT	0 47	1 39	2 99	0 63	1 30	4 36	< MDA	< MDA
14	↓	-0 03	-0 10	0 34	-0 87	-1 77	2 54	< MDA	< MDA
15		-0 03	-0 10	0 34	0 13	0 27	3 85	< MDA	< MDA
16		-0 03	-0 10	0 34	-0 87	-1 77	2 54	< MDA	< MDA
17		-0 03	-0 10	0 34	0 13	0 27	3 85	< MDA	< MDA
18		-0 03	-0 10	0 34	0 63	1 30	4 36	< MDA	< MDA

COPY

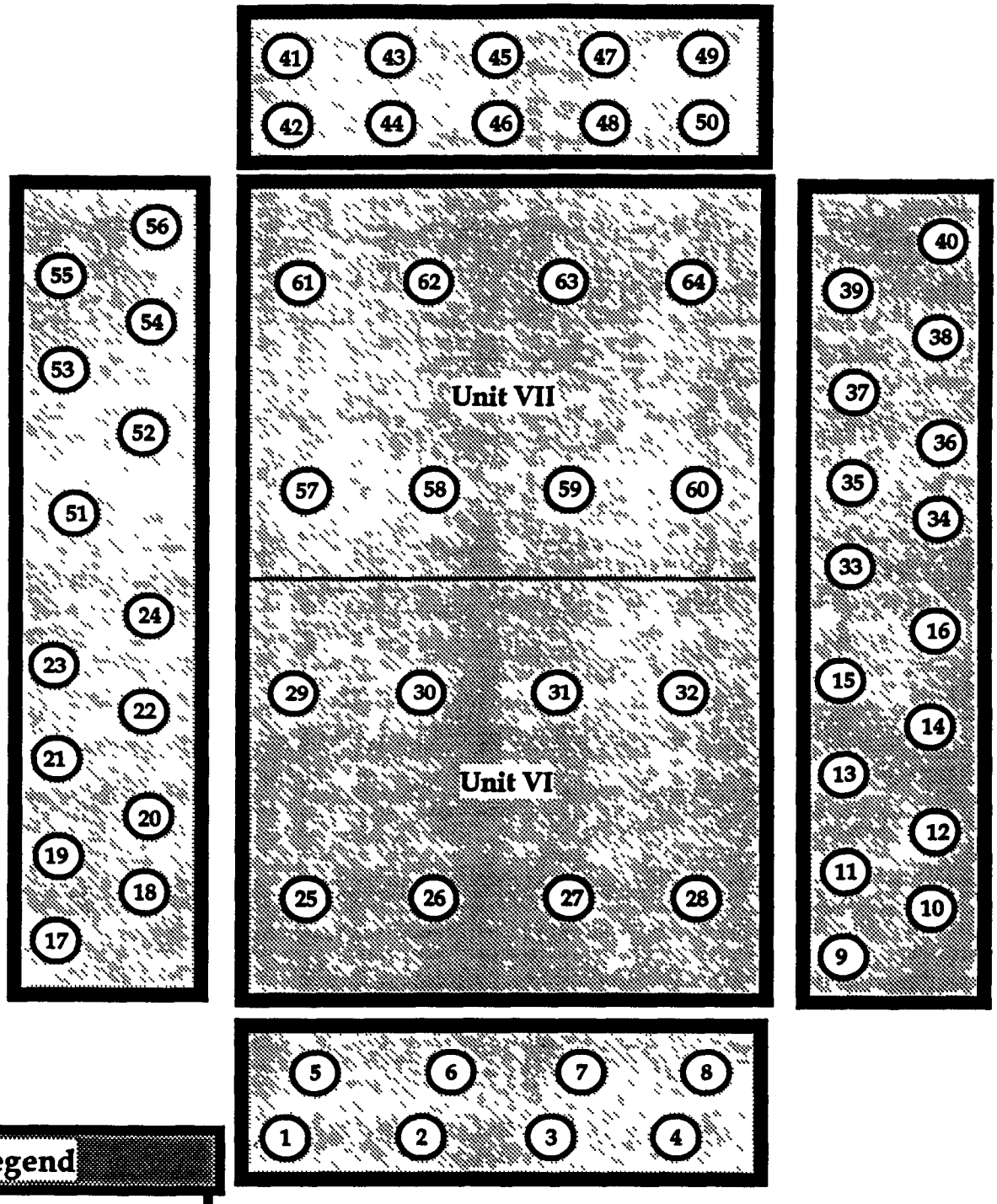
ELECTRA BACKGROUND LOG FOR UNIT #8

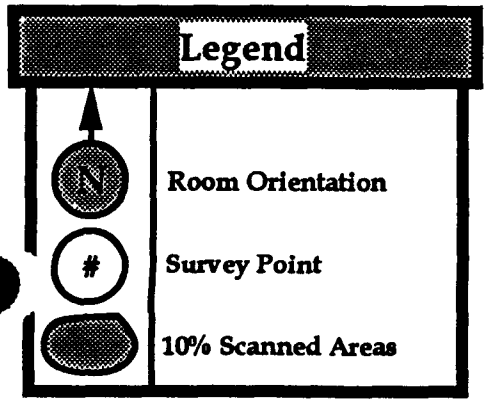
Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D.A. (dpm/100 cm²) β
1569	03-29-98	09-14-98	3.4	612 3	732.3	23 20%	33 20%	48 64	354 74
1392(1)	03-29-98	09-12-98	4.2	533 9	653 9	23 40%	30 30%	52 31	363 55
1243(1)	03-30-98	09-23-98	3.6	766	886	24 50%	38 40%	47 07	342.20
(1)	Two sets of background data for this date								
	Smallest alpha and beta backgrounds used to determine net counts								

Survey Unit #8
Page 1 of 8

West Wing; Unit VIII

Ceiling





NOTE : View from floor level looking up.
NOTE : Walls >2 meters on this survey.
NOTE : West is on the right, since you are looking up!
NOTE: Map not drawn to scale.

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 8

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1243 03-30-98
Cal Due Date: 09-23-98
Efficiency (%): α 24 50 βγ 38 40

Bkgd (cpm): α 3 6 βγ 886 0 Ref Area; 766 0 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	25	See Attached Map	<100	<750	8	921	4 4	35 0	17 96	91 15
2	26	See Attached Map	<100	<750	6	964	2 4	78 0	9 80	203 13
3	27	See Attached Map	<100	<750	1	901	-2 6	15 0	-10 61	39 06
4	28	See Attached Map	<100	<750	0	902	-3 6	16 0	-14 69	41 67
5	29	See Attached Map	<100	<750	4	930	0 4	44 0	1 63	114 58
6	30	See Attached Map	<100	<750	2	858	-1 6	-28 0	-6 53	-72 92
7	31	See Attached Map	<100	<750	7	914	3 4	28 0	13 88	72 92
8	32	See Attached Map	<100	<750	6	864	2 4	-22 0	9 80	-57 29
9	57	See Attached Map	<100	<750	3	860	-0 6	-26 0	-2 45	-67 71
10	58	See Attached Map	<100	<750	8	904	4 4	18 0	17 96	46 88
11	59	See Attached Map	<100	<750	4	853	0 4	-33 0	1 63	-85 94
12	60	See Attached Map	<100	<750	0	935	-3 6	49 0	-14 69	127 60
13	61	See Attached Map	<100	<750	11	844	7 4	-42 0	30 20	-109 38
14	62	See Attached Map	<100	<750	3	801	-0 6	-85 0	-2 45	-221 35
15	63	See Attached Map	<100	<750	4	900	0 4	14 0	1 63	36 46
16	64	See Attached Map	<100	<750	1	930	-2 6	44 0	-10 61	114 58

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 8

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 03-29-98
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 4 2 βγ 653 9 Ref Area
533 9 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	17	See Attached Map	<100	<750	17	745	12 8	91 1	54 70	300 66
2	18	See Attached Map	<100	<750	1	701	-3 2	47 1	-13 68	155 45
3	19	See Attached Map	<100	<750	1	729	-3 2	75 1	-13 68	247 85
4	20	See Attached Map	<100	<750	1	661	-3 2	7 1	-13 68	23 43
5	21	See Attached Map	<100	<750	5	659	0 8	5 1	3 42	16 83
6	22	See Attached Map	<100	<750	1	713	-3 2	59 1	-13 68	195 05
7	23	See Attached Map	<100	<750	6	651	1 8	-2 9	7 69	-9 57
8	24	See Attached Map	<100	<750	2	657	-2 2	3 1	-9 40	10 23
9	33	See Attached Map	<100	<750	2	624	-2 2	-29 9	-9 40	-98 68
10	34	See Attached Map	<100	<750	3	602	-1 2	-51 9	-5 13	-171 29
11	35	See Attached Map	<100	<750	3	731	-1 2	77 1	-5 13	254 46
12	36	See Attached Map	<100	<750	4	684	-0 2	30 1	-0 85	99 34
13	37	See Attached Map	<100	<750	3	502	-1 2	-31 9	-5 13	-105 28
14	38	See Attached Map	<100	<750	3	506	-1 2	-27 9	-5 13	-92 08
15	39	See Attached Map	<100	<750	2	487	-2 2	-46 9	-9 40	-154 79
16	40	See Attached Map	<100	<750	3	521	-1 2	-12 9	-5 13	-42 57

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 8

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1392 03-29-98

Cal Due Date: 09-12-98

Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 4 2 βγ 653 9 Ref Area; 533 9 Inst. Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10% α	Scan 10% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
17	41	See Attached Map	<100	<750	2	689	-2 2	35 1	-9 40	115 84
18	42	See Attached Map	<100	<750	7	758	2 8	104 1	11 97	343 56
19	43	See Attached Map	<100	<750	1	701	-3 2	47 1	-13 68	155 45
20	44	See Attached Map	<100	<750	5	706	0 8	52 1	3 42	171 95
21	45	See Attached Map	<100	<750	1	709	-3 2	55 1	-13 68	181 85
22	46	See Attached Map	<100	<750	6	717	1 8	63 1	7 69	208 25
23	47	See Attached Map	<100	<750	4	677	-0 2	23 1	-0 85	76 24
24	48	See Attached Map	<100	<750	3	792	-1 2	138 1	-5 13	455 78
25	49	See Attached Map	<100	<750	0	698	-4 2	44 1	-17 95	145 54
26	50	See Attached Map	<100	<750	0	745	-4 2	91 1	-17 95	300 66
27	51	See Attached Map	<100	<750	1	665	-3 2	11 1	-13 68	36 63
28	52	See Attached Map	<100	<750	1	648	-3 2	-5 9	-13 68	-19 47
29	53	See Attached Map	<100	<750	5	676	0 8	22 1	3 42	72 94
30	54	See Attached Map	<100	<750	4	663	-0 2	9 1	-0 85	30 03
31	55	See Attached Map	<100	<750	1	657	-3 2	3 1	-13 68	10 23
32	56	See Attached Map	<100	<750	3	660	-1 2	6 1	-5 13	20 13

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 8

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1569 03-29-98
Cal Due Date: 09-14-98
Efficiency (%): α 23 20 βγ 33 20

Bkgd (cpm): α 3 4 βγ 732 3 (612 3 Inst. Only) Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	2	807	-1 4	74 7	-6 03	225 00
2	2	See Attached Map	<100	<750	5	723	1 6	-9 3	6 90	-28 01
3	3	See Attached Map	<100	<750	6	769	2 6	36 7	11 21	110 54
4	4	See Attached Map	<100	<750	3	763	-0 4	30 7	-1 72	92 47
5	5	See Attached Map	<100	<750	3	748	-0 4	15 7	-1 72	47 29
6	6	See Attached Map	<100	<750	1	719	-2 4	-13 3	-10 34	-40 06
7	7	See Attached Map	<100	<750	2	752	-1 4	19 7	-6 03	59 34
8	8	See Attached Map	<100	<750	2	817	-1 4	84 7	-6 03	255 12
9	9	See Attached Map	<100	<750	4	768	0 6	35 7	2 59	107 53
10	10	See Attached Map	<100	<750	5	713	1 6	-19 3	6 90	-58 13
11	11	See Attached Map	<100	<750	4	743	0 6	10 7	2 59	32 23
12	12	See Attached Map	<100	<750	1	729	-2 4	-3 3	-10 34	-9 94
13	13	See Attached Map	<100	<750	4	719	0 6	-13 3	2 59	-40 06
14	14	See Attached Map	<100	<750	3	705	-0 4	-27 3	-1 72	-82 23
15	15	See Attached Map	<100	<750	0	677	-3 4	-55 3	-14 66	-166 57
16	16	See Attached Map	<100	<750	2	749	-1 4	16 7	-6 03	50 30

AREA 7 33-64

OXFR **ECLIPSE LB**

Printing Date 3/31/98

Print Time 12 18 31PM

Version 1 10

Report Name Gross Alpha Beta Analysis CPM

Survey Unit #8
Page 7 of 8

Count Date **3/31/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199803310957**

System Information

Serial No W O 3351C **Batch ID** **895**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	**Beta**
Efficiency (%)	38 16	55 51
Background Subtract	Enable	
Background	0 10	1 91
Batch MDA	566 dpm	878

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
2		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
3		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
4		0 40	1 05	2 67	0 09	0 16	3 93	< MDA	< MDA
5		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
6		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
7		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
8		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
9		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
10		0 40	1 05	2 67	-0 91	-1 64	3 00	< MDA	< MDA
11		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
12		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
13		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
14		0 40	1 05	2 67	-0 91	-1 64	3 00	< MDA	< MDA
15		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
16		-0 10	-0 26	0 53	1 59	2 87	5 02	< MDA	< MDA
17		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
18		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
19		-0 10	-0 26	0 53	-1 91	-3 44	1 58	< MDA	< MDA
20		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
21		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
22		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
23		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
24		-0 10	-0 26	0 53	-1 91	-3 44	1 58	< MDA	< MDA
25		0 40	1 05	2 67	0 09	0 16	3 93	< MDA	< MDA
26		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
27		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
28		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
29		0 40	1 05	2 67	0 59	1 06	4 33	< MDA	< MDA
30		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
31		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
32		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
33		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
34		-0 10	-0 26	0 53	2 09	3 77	5 33	< MDA	< MDA

Procedure Name **D&D Swipes - 199803310957**

System Information

Serial No W O 3351C **Batch ID** **895**

Detector S/N 658 Group **A**

Sample Information
Sample Units
Geometry 1/8" Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1,410 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 10	1 91
Batch MDA	566 dpm	878

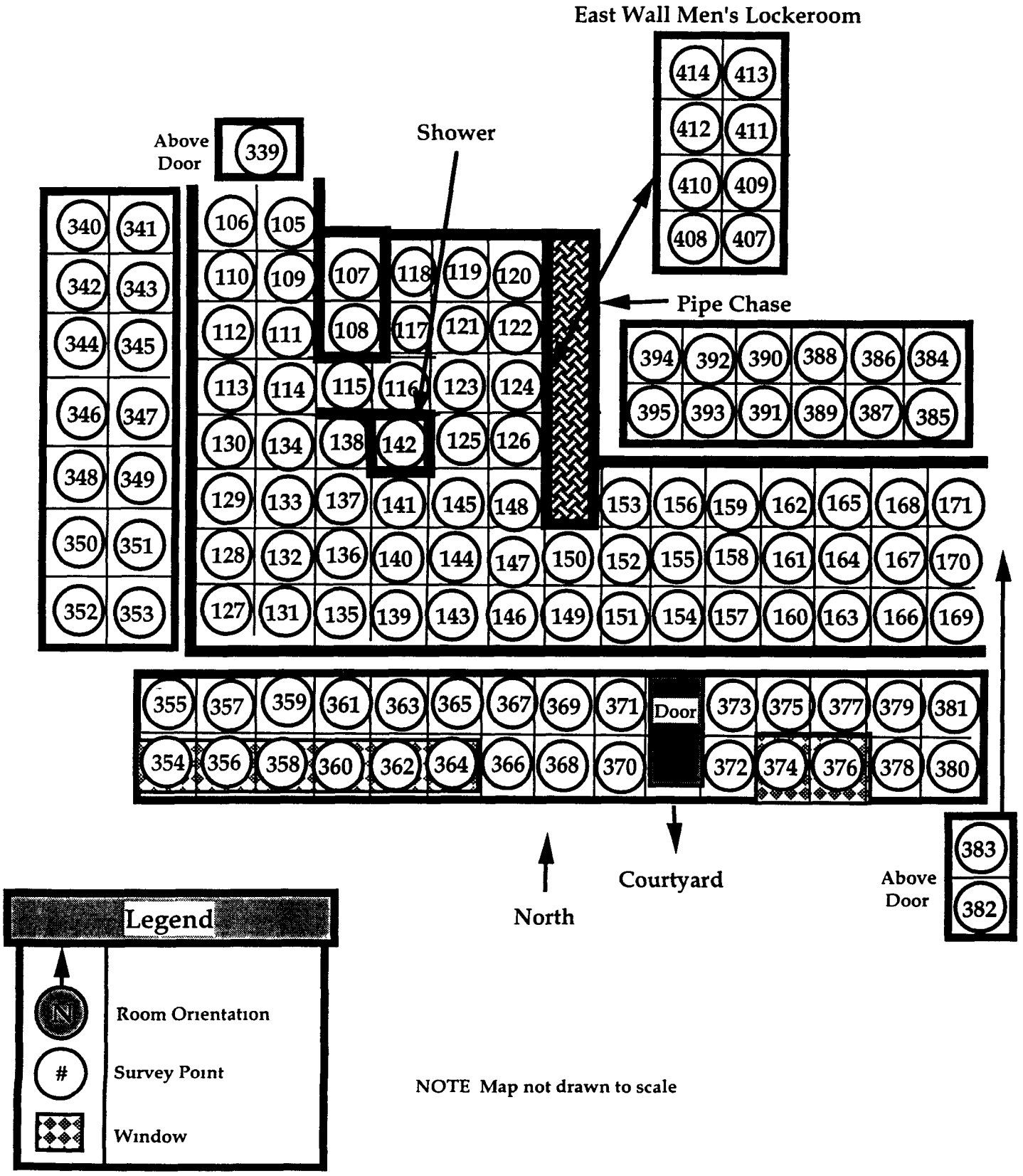
Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
36		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
37		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
38		1 40	3 67	4 57	0 59	1 06	4 33		< MDA
39		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
40		1 40	3 67	4 57	-0 91	-1 64	3 00		< MDA
41		-0 10	-0 26	0 53	1 59	2 87	5 02	< MDA	< MDA
42		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
43		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
44		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
45		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
46		0 40	1 05	2 67	-0 41	-0 74	3 50	< MDA	< MDA
47		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
48		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
49		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
50		-0 10	-0 26	0 53	2 09	3 77	5 33	< MDA	< MDA
51		0 90	2 36	3 74	-0 41	-0 74	3 50	< MDA	< MDA
52		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
53		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
54		0 90	2 36	3 74	0 09	0 16	3 93	< MDA	< MDA
55		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
56		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
57		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
58		-0 10	-0 26	0 53	1 59	2 87	5 02	< MDA	< MDA
59		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
60		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
61		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
62		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
63		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
64		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA

ELECTRA BACKGROUND LOG FOR UNIT #9

Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D A (dpm/100 cm²) β
1392	(1)	09-12-98	1 6	646 3	766 3	23 40%	30 30%	36 72	399 09
1390	(2)	08-13-98	2 2	805.9	925.9	23 30%	32 60%	41 23	413 24
1569	(3)	09-17-98	1 2	791 3	911 3	23 20%	33 20%	33 64	402.15
1255	(4)	04-16-98	2 1	807 8	927 8	23 40%	38 70%	40 38	348 51
1277	(5)	06-09-98	1 3	520.3	640 3	23 10%	29 00%	34 68	375 09
1407(6)	04-27-98	08-02-98	2 3	735 1	N/A	23 40%	31 60%	41 72	407 54
1397(6)	04-27-98	10-23-98	3 2	718 6	N/A	23 50%	30 70%	46 93	414 86
(1)	Instrument used 4/2 through 4/5 and 4/9								
(2)	Instrument used 4/3 through 4/5								
(3)	Instrument used 4/2, 4/5 and 4/8								
(4)	Instrument used 4/2 thorugh 4/4								
(5)	Instrument used 4/3 thorugh 4/5 and 4/8								
(6)	Instrument used for scan surveys only on 4/27								
NOTE	Due to the multitude of dates these instruments were used, the most restrictive (smallest) values for alpha and beta								
	background were used to determine net counts								

North Wing; Unit IX

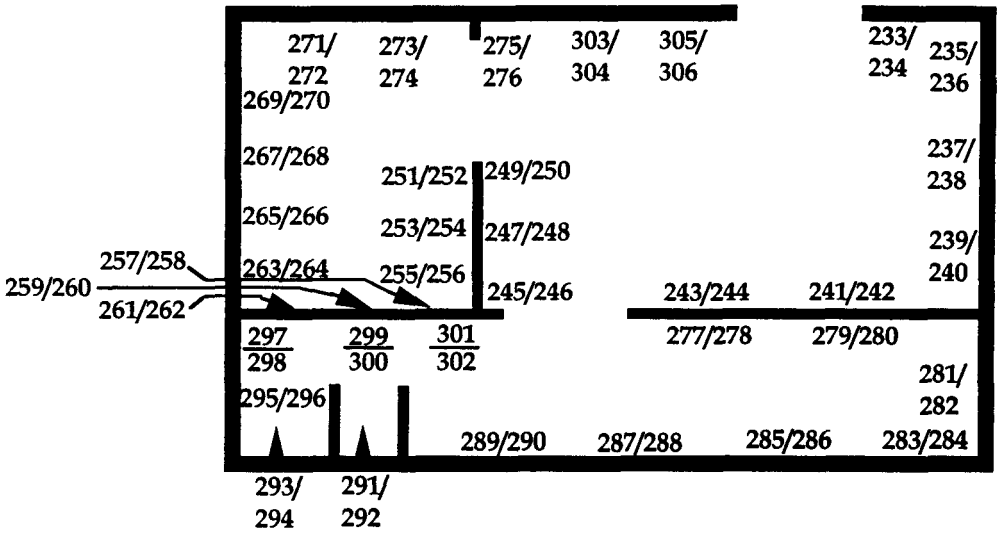
Men's Lockeroom Area; Floor & Walls



NOTE Map not drawn to scale

North Wing; Unit IX

Women's Locker Room; Interior Walls

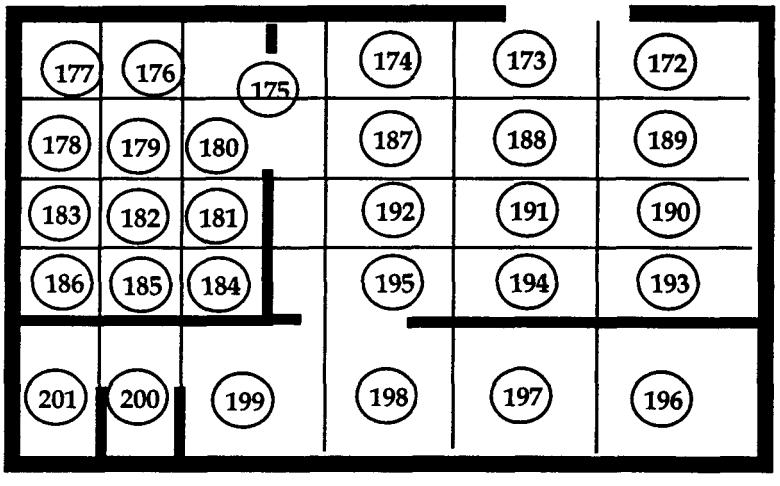


NOTE Upper # indicates higher swipe point on wall, Lower # indicates lower swipe point

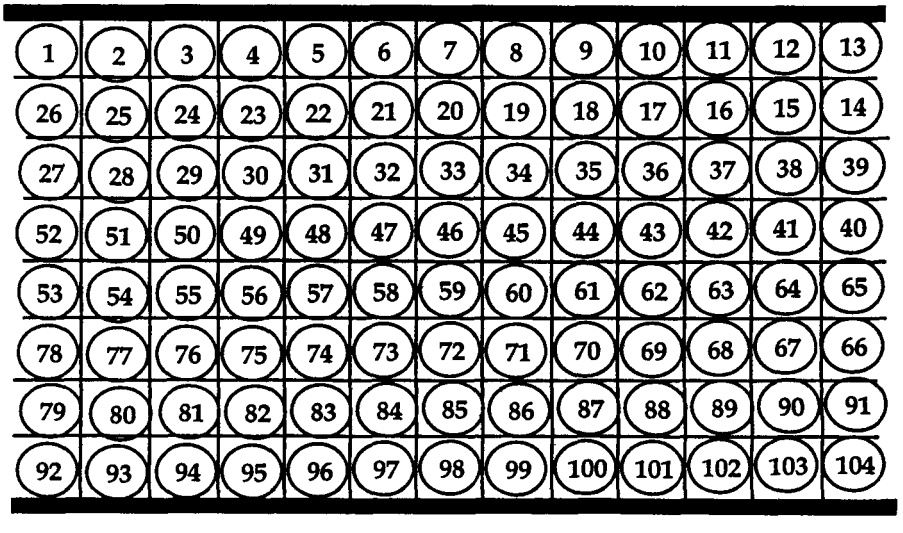
NOTE All areas gridded in 1m x 1m plots

NOTE Map not drawn to scale

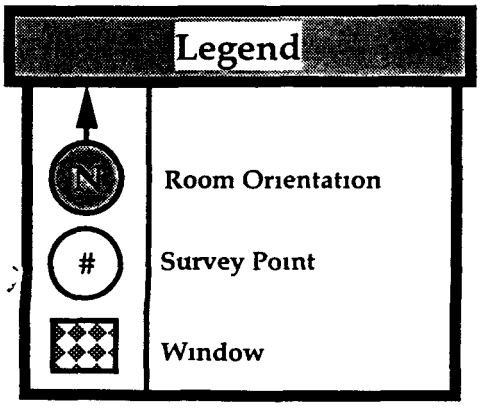
Women's Locker Room; Floor



Unit IX; North Room Floor & Walls

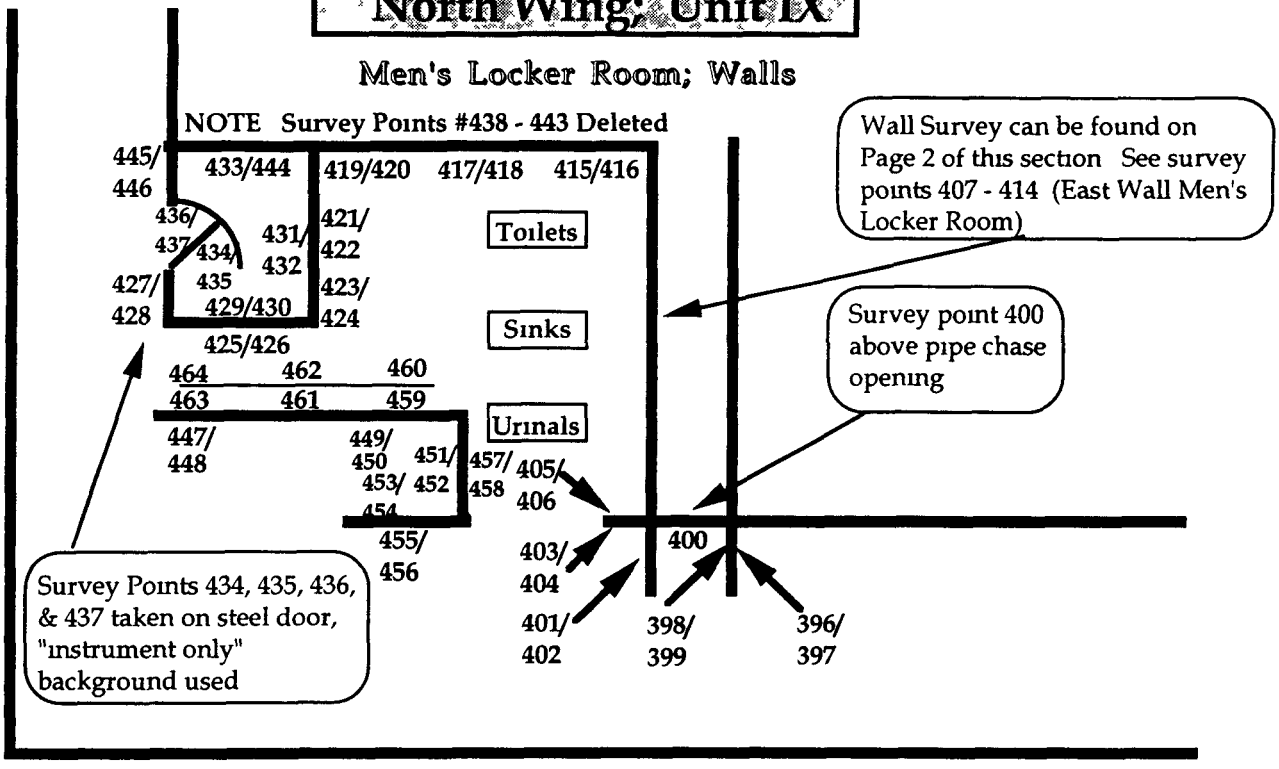


Legend



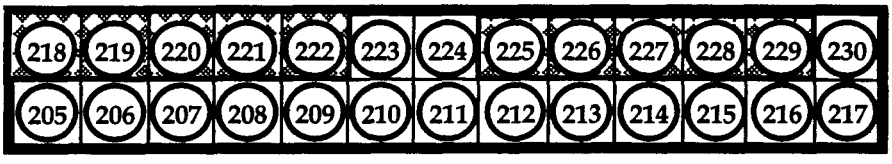
North Wing; Unit IX

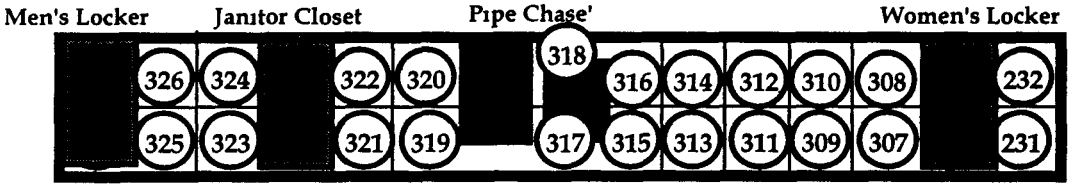
Men's Locker Room; Walls

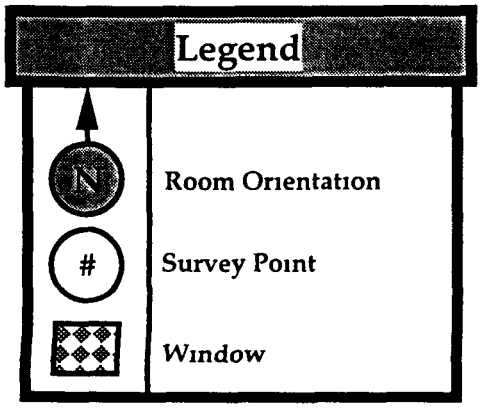


NOTE First # corresponds to upper survey point, second # to lower survey point
NOTE Walls were blocked off in 1m x 1m grids
NOTE Map not drawn to scale

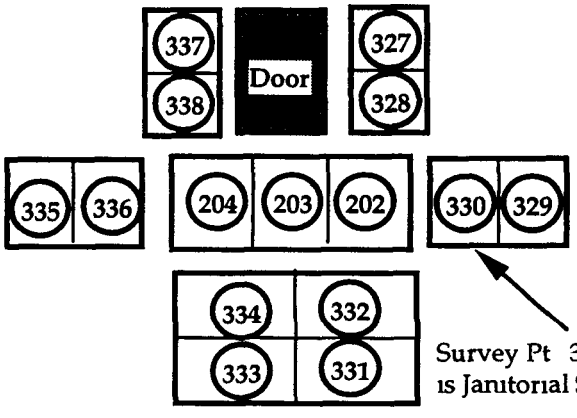
Walls; North Room







Janitor Closet



BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1390 4/3,4/4,4/5 1998
Cal Due Date: 08-13-98
Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 2 2 βγ 925 9 805 9 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	2	869	-0 2	-56 9	- 86	-174 54
2	5	See Attached Map	<100	<750	3	763	0 8	-162 9	3 43	-499 69
3	9	See Attached Map	<100	<750	0	1004	-2 2	78 1	-9 44	239 57
4	13	See Attached Map	<100	<750	4	996	1 8	70 1	7 73	215 03
5	17	See Attached Map	See Milleneum Data		5	921	2 8	-4 9	12 02	-15 03
6	21	See Attached Map	See Milleneum Data		2	894	-0 2	-31 9	- 86	-97 85
7	25	See Attached Map	See Milleneum Data		3	934	0 8	8 1	3 43	24 85
8	29	See Attached Map	See Milleneum Data		1	901	-1 2	-24 9	-5 15	-76 38
9	33	See Attached Map	<100	<750	1	913	-1 2	-12 9	-5 15	-39 57
10	37	See Attached Map	See Milleneum Data		2	910	-0 2	-15 9	- 86	-48 77
11	41	See Attached Map	See Milleneum Data		2	917	-0 2	-8 9	- 86	-27 30
12	45	See Attached Map	See Milleneum Data		6	946	3 8	20 1	16 31	61 66
13	49	See Attached Map	<100	<750	3	990	0 8	64 1	3 43	196 63
14	53	See Attached Map	See Milleneum Data		2	924	-0 2	-1 9	- 86	-5 83
15	54	See Attached Map	<100	<750	2	709	-0 2	-216 9	- 86	-665 34
16	57	See Attached Map	<100	<750	2	1015	-0 2	89 1	- 86	273 31
17	58	See Attached Map	See Milleneum Data		0	686	-2 2	-239 9	-9 44	-735 89
18	61	See Attached Map	<100	<750	3	906	0 8	-19 9	3 43	-61 04
19	62	See Attached Map	<100	<750	3	754	0 8	-171 9	3 43	-527 30
20	65	See Attached Map	<100	<750	2	910	-0 2	-15 9	- 86	-48 77

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1390 4/3,4/4,4/5 1998
Cal Due Date: 08-13-98
Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 2 2 βγ 925 9 (805 9 Inst Only)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
21	66	See Attached Map	See Milleneum Data		5	998	2 8	72 1	12 02	221 17
22	68	See Attached Map	See Milleneum Data		5	1037	2 8	111 1	12 02	340 80
23	70	See Attached Map	See Milleneum Data		2	1080	-0 2	154 1	- 86	472 70
24	72	See Attached Map	See Milleneum Data		6	1128	3 8	202 1	16 31	619 94
25	74	See Attached Map	See Milleneum Data		3	1082	0 8	156 1	3 43	478 83
26	76	See Attached Map	See Milleneum Data		4	1064	1 8	138 1	7 73	423 62
27	78	See Attached Map	See Milleneum Data		3	1024	0 8	98 1	3 43	300 92
28	80	See Attached Map	See Milleneum Data		4	1040	1 8	114 1	7 73	350 0
29	82	See Attached Map	See Milleneum Data		3	1028	0 8	102 1	3 43	313 19
30	84	See Attached Map	See Milleneum Data		8	1081	5 8	155 1	24 89	475 77
31	86	See Attached Map	See Milleneum Data		1	1051	-1 2	125 1	-5 15	383 74
32	88	See Attached Map	See Milleneum Data		6	1007	3 8	81 1	16 31	248 77
33	90	See Attached Map	See Milleneum Data		4	1129	1 8	203 1	7 73	623 01
34	92	See Attached Map	<100	<750	3	1011	0 8	85 1	3 43	261 04
35	94	See Attached Map	<100	<750	3	993	0 8	67 1	3 43	205 83
36	96	See Attached Map	<100	<750	4	981	1 8	55 1	7 73	169 02
37	98	See Attached Map	<100	<750	5	1066	2 8	140 1	12 02	429 75
38	100	See Attached Map	<100	<750	4	1062	1 8	136 1	7 73	417 48
39	102	See Attached Map	<100	<750	7	1017	4 8	91 1	20 60	279 45
40	104	See Attached Map	<100	<750	9	1021	6 8	95 1	29 18	291 72

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1390 4/3,4/4,4/5 1998

Cal Due Date: 08-13-98

Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 2 2 βγ 925 9 805 9 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
41	106	See Attached Map	<100	<750	1	988	-1 2	62 1	-5 15	190 49
42	108	See Attached Map	<100	<750	0	984	-2 2	58 1	-9 44	178 22
43	110	See Attached Map	<100	<750	2	967	-0 2	41 1	- 86	126 07
44	112	See Attached Map	<100	<750	3	862	0 8	-63 9	3 43	-196 01
45	114	See Attached Map	<100	<750	1	936	-1 2	10 1	-5 15	30 98
46	116	See Attached Map	<100	<750	3	971	0 8	45 1	3 43	138 34
47	118	See Attached Map	<100	<750	3	908	0 8	-17 9	3 43	-54 91
48	120	See Attached Map	<100	<750	3	915	0 8	-10 9	3 43	-33 44
49	122	See Attached Map	<100	<750	1	905	-1 2	-20 9	-5 15	-64 11
50	124	See Attached Map	<100	<750	0	911	-2 2	-14 9	-9 44	-45 71
51	126	See Attached Map	<100	<750	2	962	-0 2	36 1	- 86	110 74
52	128	See Attached Map	<100	<750	10	1066	7 8	140 1	33 48	429 75
53	130	See Attached Map	<100	<750	1	1004	-1 2	78 1	-5 15	239 57
54	132	See Attached Map	See Milleneum Data		1	1009	-1 2	83 1	-5 15	254 91
55	134	See Attached Map	<100	<750	5	1000	2 8	74 1	12 02	227 30
56	136	See Attached Map	See Milleneum Data		1	996	-1 2	70 1	-5 15	215 03
57	138	See Attached Map	<100	<750	0	933	-2 2	7 1	-9 44	21 78
58	140	See Attached Map	See Milleneum Data		2	956	-0 2	30 1	- 86	92 33
59	142	See Attached Map	<100	<750	0	897	-2 2	-28 9	-9 44	-88 65
60	144	See Attached Map	See Milleneum Data		2	932	-0 2	6 1	- 86	18 71

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1390 4/3,4/4,4/5 1998
Cal Due Date: 08-13-98
Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 2 2 βγ 925 9 (805 9 Inst Only)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
61	146	See Attached Map	<100	<750	0	898	-2 2	-27 9	-9 44	-85 58
62	148	See Attached Map	<100	<750	4	928	1 8	2 1	7 73	6 44
63	150	See Attached Map	See Milleneum Data		2	904	-0 2	-21 9	- 86	-67 18
64	152	See Attached Map	<100 [2]	<750 [2]	2	987	-0 2	61 1	- 86	187 42
65	154	See Attached Map	<100	<750	6	1007	3 8	81 1	16 31	248 77
66	156	See Attached Map	<100	<750	4	1000	1 8	74 1	7 73	227 30
67	158	See Attached Map	<100 [2]	<750 [2]	4	1064	1 8	138 1	7 73	423 62
68	160	See Attached Map	<100	<750	6	1053	3 8	127 1	16 31	389 88
69	162	See Attached Map	<100	33000	3	1085	0 8	159 1	3 43	488 04
70	164	See Attached Map	<100 [2]	<750 [2]	2	1040	-0 2	114 1	- 86	350 0
71	166	See Attached Map	<100	<750	1	1078	-1 2	152 1	-5 15	466 56
72	168	See Attached Map	<100	<750	3	1099	0 8	173 1	3 43	530 98
73	170	See Attached Map	<100 [2]	<750 [2]	4	1016	1 8	90 1	7 73	276 38
74	172	See Attached Map	<100	<750	0	994	-2 2	68 1	-9 44	208 90
75	174	See Attached Map	<100	<750	3	963	0 8	37 1	3 43	113 80
76	176	See Attached Map	<100	<750	1	1000	-1 2	74 1	-5 15	227 30
77	178	See Attached Map	<100	<750	1	992	-1 2	66 1	-5 15	202 76
78	180	See Attached Map	<100	<750	2	1007	-0 2	81 1	- 86	248 77
79	182	See Attached Map	<100	<750	4	927	1 8	1 1	7 73	3 37
80	184	See Attached Map	<100	<750	2	1105	-0 2	179 1	- 86	549 39

Survey Unit #9
Page 8 of 8 1

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1390 4/3,4/4,4/5 1998
Cal Due Date: 08-13-98
Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 2 2 βγ 925 9 805 9 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
81	186	See Attached Map	<100	<750	5	905	2 8	-20 9	12 02	-64 11
82	188	See Attached Map	<100	<750	17	1081	14 8	155 1	63 52	475 77
83	190	See Attached Map	<100	<750	2	1022	-0 2	96 1	- 86	294 79
84	192	See Attached Map	<100	<750	3	1037	0 8	111 1	3 43	340 80
85	194	See Attached Map	<100	<750	1	1008	-1 2	82 1	-5 15	251 84
86	196	See Attached Map	<100	<750	1	958	-1 2	32 1	-5 15	98 47
87	198	See Attached Map	<100	<750	0	1032	-2 2	106 1	-9 44	325 46
88	200	See Attached Map	<100	<750	1	933	-1 2	7 1	-5 15	21 78
89	202	See Attached Map	<100	<750	0	948	-2 2	22 1	-9 44	67 79
90	204	See Attached Map	<100	<750	3	928	0 8	2 1	3 43	6 44
91	206	See Attached Map	<100	<750	9	901	6 8	-24 9	29 18	-76 38
92	208	See Attached Map	<100	<750	5	911	2 8	-14 9	12 02	-45 71
93	209	See Attached Map	<100	<750	4	903	1 8	-22 9	7 73	-70 25
94	210	See Attached Map	<100	<750	8	841	5 8	-84 9	24 89	-260 43
95	211	See Attached Map	<100	<750	4	899	1 8	-26 9	7 73	-82 52
96	212	See Attached Map	<100	<750	8	917	5 8	-8 9	24 89	-27 30
97	213	See Attached Map	<100	<750	6	865	3 8	-60 9	16 31	-186 81
98	214	See Attached Map	<100	<750	3	948	0 8	22 1	3 43	67 79
99	215	See Attached Map	<100	<750	5	909	2 8	-16 9	12 02	-51 84
100	217	See Attached Map	<100	<750	2	862	-0 2	-63 9	- 86	-196 01

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1390 4/3,4/4,4/5 1998
Cal Due Date: 08-13-98
Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 2 2 βγ 925 9 805 9 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
101	218	See Attached Map	<100	<750	8	604	5 8	-201 9	24 89	-619 33
102	219	See Attached Map	<100	<750	3	595	0 8	-210 9	3 43	-646 93
103	220	See Attached Map	<100	<750	5	608	2 8	-197 9	12 02	-607 06
104	221	See Attached Map	<100	<750	5	576	2 8	-229 9	12 02	-705 21
105	222	See Attached Map	<100	<750	8	635	5 8	-170 9	24 89	-524 23
106	223	See Attached Map	<100	<750	2	824	-0 2	-101 9	- 86	-312 58
107	224	See Attached Map	<100	<750	5	884	2 8	-41 9	12 02	-128 53
108	225	See Attached Map	<100	<750	5	701	2 8	-104 9	12 02	-321 78
109	226	See Attached Map	<100	<750	4	567	1 8	-238 9	7 73	-732 82
110	227	See Attached Map	<100	<750	3	610	0 8	-195 9	3 43	-600 92
111	228	See Attached Map	<100	<750	7	513	4 8	-292 9	20 60	-898 47
112	230	See Attached Map	<100 [1]	<750 [1]	4	815	1 8	-110 9	7 73	-340 18
113	303	See Attached Map	<100	<750	4	886	1 8	-39 9	7 73	-122 39
114	304	See Attached Map	<100	<750	6	838	3 8	-87 9	16 31	-269 63
115	305	See Attached Map	<100	<750	2	750	-0 2	-175 9	- 86	-539 57
116	306	See Attached Map	<100	<750	2	820	-0 2	-105 9	- 86	-324 85
117	339	See Attached Map	<100 [1]	<750 [1]	6	914	3 8	-11 9	16 31	-36 50
118	340 *	See Attached Map	See Milleneum Data		5	897	2 8	-28 9	12 02	-88 65
119	342	See Attached Map	See Milleneum Data		10	889	7 8	-36 9	33 48	-113 19
120	344	See Attached Map	See Milleneum Data		4	866	1 8	-59 9	7 73	-183 74

* Grid not completely scanned by SRA/MSA, see corresponding hand scan survey at the end of this survey unit section

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1390 4/3,4/4,4/5 1998
Cal Due Date: 08-13-98
Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 2 2 βγ 925 9 805 9 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
121	347	See Attached Map	<100 [1]	<750 [1]	8	639	5 8	-286 9	24 89	-880 06
122	349	See Attached Map	<100 [1]	<750 [1]	4	904	1 8	-21 9	7 73	-67 18
123	351	See Attached Map	<100 [1]	<750 [1]	10	833	7 8	-92 9	33 48	-284 97
124	353	See Attached Map	<100 [1]	<750 [1]	10	984	7 8	58 1	33 48	178 22
125	355	See Attached Map	<100	<750	6	919	3 8	-6 9	16 31	-21 17
126	357	See Attached Map	<100	<750	7	942	4 8	16 1	20 60	49 39
127	359	See Attached Map	<100	<750	7	885	4 8	-40 9	20 60	-125 46
128	361	See Attached Map	<100	<750	5	910	2 8	-15 9	12 02	-48 77
129	363	See Attached Map	<100	<750	7	898	4 8	-27 9	20 60	-85 58
130	365	See Attached Map	<100	<750	6	923	3 8	-2 9	16 31	-8 90
131	367	See Attached Map	<100	<750	6	765	3 8	-160 9	16 31	-493 56
132	369	See Attached Map	<100	<750	9	822	6 8	-103 9	29 18	-318 71
133	371	See Attached Map	<100	<750	6	874	3 8	-51 9	16 31	-159 20
134	373	See Attached Map	<100	<750	6	890	3 8	-35 9	16 31	-110 12
135	375	See Attached Map	<100	<750	9	922	6 8	-3 9	29 18	-11 96
136	377	See Attached Map	<100	<750	8	943	5 8	17 1	24 89	52 45
137	379	See Attached Map	<100	<750	6	956	3 8	30 1	16 31	92 33
138	381	See Attached Map	<100	<750	4	837	1 8	-88 9	7 73	-272 70
139	383	See Attached Map	<100	<750	6	908	3 8	-17 9	16 31	-54 91
140	385	See Attached Map	<100 [2]	<750 [2]	2	814	-0 2	-111 9	- 86	-343 25

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1390 4/3,4/4,4/5 1998
Cal Due Date: 08-13-98
Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 2 2 βγ 925 9 805 9 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
141	387	See Attached Map	<100 [2]	<750 [2]	7	858	4 8	-67 9	20 60	-208 28
142	389	See Attached Map	<100 [2]	<750 [2]	2	907	-0 2	-18 9	- 86	-57 98
143	391	See Attached Map	<100 [2]	<750 [2]	5	824	2 8	-101 9	12 02	-312 58
144	393	See Attached Map	<100 [2]	<750 [2]	6	747	3 8	-178 9	16 31	-548 77
145	395	See Attached Map	<100 [2]	<750 [2]	3	778	0 8	-147 9	3 43	-453 68
146	453	See Attached Map	<100	<750	30	1082	27 8	156 1	119 31	478 83
147	454	See Attached Map	<100	<750	16	1103	13 8	177 1	59 23	543 25
148	455	See Attached Map	<100	<750	4	763	1 8	-162 9	7 73	-499 69
149	456	See Attached Map	<100	<750	5	774	2 8	-151 9	12 02	-465 95
150	457	See Attached Map	<100	<750	4	763	1 8	-162 9	7 73	-499 69
151	459	See Attached Map	<100	<750	5	781	2 8	-144 9	12 02	-444 48
152	461	See Attached Map	<100	<750	5	690	2 8	-235 9	12 02	-723 62
153	463	See Attached Map	<100	<750	4	720	1 8	-205 9	7 73	-631 60

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 4/2,4/3,4/4,4/5,4/9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 6 βγ 766 3 646 3 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	3	See Attached Map	<100	<750	8	782	6 4	15 7	27 35	51 82
2	7	See Attached Map	<100	<750	0	844	-1 6	77 7	-6 84	256 44
3	11	See Attached Map	<100	<750	7	823	5 4	56 7	23 08	187 13
4	15 *	See Attached Map	See Milleneum Data		4	845	2 4	78 7	10 26	259 74
5	19	See Attached Map	See Milleneum Data		7	830	5 4	63 7	23 08	210 23
6	23	See Attached Map	<100	<750	4	847	2 4	80 7	10 26	266 34
7	27	See Attached Map	See Milleneum Data		6	844	4 4	77 7	18 80	256 44
8	31	See Attached Map	<100	<750	4	909	2 4	142 7	10 26	470 96
9	35	See Attached Map	See Milleneum Data		3	849	1 4	82 7	5 98	272 94
10	39	See Attached Map	See Milleneum Data		7	849	5 4	82 7	23 08	272 94
11	43	See Attached Map	See Milleneum Data		3	844	1 4	77 7	5 98	256 44
12	47	See Attached Map	<100	<750	2	936	0 4	169 7	1 71	560 07
13	51	See Attached Map	See Milleneum Data		3	828	1 4	61 7	5 98	203 63
14	52	See Attached Map	See Milleneum Data		4	1044	2 4	277 7	10 26	916 50
15	55	See Attached Map	See Milleneum Data		3	871	1 4	104 7	5 98	345 54
16	56	See Attached Map	<100	<750	7	1085	5 4	318 7	23 08	1051 82
17	59	See Attached Map	<100	<750	1	884	-0 6	117 7	-2 56	388 45
18	60	See Attached Map	See Milleneum Data		9	1091	7 4	324 7	31 62	1071 62
19	63	See Attached Map	<100	<750	5	879	3 4	112 7	14 53	371 95
20	64	See Attached Map	<100	<750	4	999	2 4	232 7	10 26	767 99

* Grid not completely scanned by SRA/MSA, see corresponding hand scan survey at the end of this survey unit section

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 4/2,4/3,4/4,4/5,4/9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 6 βγ 646 3 Inst Only 766 3

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
21	67	See Attached Map	See Milleneum Data		2	821	0 4	54 7	1 71	180 53
22	69	See Attached Map	See Milleneum Data		2	916	0 4	149 7	1 71	494 06
23	71	See Attached Map	See Milleneum Data		3	925	1 4	158 7	5 98	523 76
24	73	See Attached Map	See Milleneum Data		1	879	-0 6	112 7	-2 56	371 95
25	75	See Attached Map	See Milleneum Data		0	817	-1 6	50 7	-6 84	167 33
26	77	See Attached Map	See Milleneum Data		0	934	-1 6	167 7	-6 84	553 47
27	79	See Attached Map	See Milleneum Data		3	835	1 4	68 7	5 98	226 73
28	81	See Attached Map	See Milleneum Data		2	912	0 4	145 7	1 71	480 86
29	83	See Attached Map	See Milleneum Data		1	803	-0 6	36 7	-2 56	121 12
30	85	See Attached Map	See Milleneum Data		4	863	2 4	96 7	10 26	319 14
31	87	See Attached Map	See Milleneum Data		3	917	1 4	150 7	5 98	497 36
32	89	See Attached Map	See Milleneum Data		0	923	-1 6	156 7	-6 84	517 16
33	91	See Attached Map	See Milleneum Data		0	862	-1 6	95 7	-6 84	315 84
34	93	See Attached Map	<100	<750	4	940	2 4	173 7	10 26	573 27
35	95	See Attached Map	<100	<750	4	886	2 4	119 7	10 26	395 05
36	97	See Attached Map	<100	<750	3	896	1 4	129 7	5 98	428 05
37	99	See Attached Map	<100	<750	3	892	1 4	125 7	5 98	414 85
38	101	See Attached Map	<100	<750	1	892	-0 6	125 7	-2 56	414 85
39	103	See Attached Map	<100	<750	2	955	0 4	188 7	1 71	622 77
40	105	See Attached Map	<100	<750	2	820	0 4	53 7	1 71	177 23

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 4/2,4/3,4/4,4/5,4/9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 6 βγ 766 3 646 3 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
41	107	See Attached Map	<100	<750	5	839	3 4	72 7	14 53	239 93
42	109	See Attached Map	<100	<750	0	742	-1 6	-24 3	-6 84	-80 20
43	111	See Attached Map	<100	<750	5	839	3 4	72 7	14 53	239 93
44	113	See Attached Map	<100	<750	4	826	2 4	59 7	10 26	197 03
45	115	See Attached Map	<100	<750	1	768	-0 6	1 7	-2 56	5 61
46	117	See Attached Map	<100	<750	0	807	-1 6	40 7	-6 84	134 32
47	119	See Attached Map	<100	<750	2	767	0 4	0 7	1 71	2 31
48	121	See Attached Map	<100	<750	1	768	-0 6	1 7	-2 56	5 61
49	123	See Attached Map	<100	<750	1	794	-0 6	27 7	-2 56	91 42
50	125	See Attached Map	<100	<750	1	852	-0 6	85 7	-2 56	282 84
51	127	See Attached Map	<100	<750	8	933	6 4	166 7	27 35	550 17
52	129	See Attached Map	<100	<750	3	899	1 4	132 7	5 98	437 95
53	131	See Attached Map	<100	<750	2	846	0 4	79 7	1 71	263 04
54	133	See Attached Map	See Milleneum Data		2	759	0 4	-7 3	1 71	-24 09
55	135	See Attached Map	<100	<750	1	853	-0 6	86 7	-2 56	286 14
56	137	See Attached Map	<100	<750	3	747	1 4	-19 3	5 98	-63 70
57	139	See Attached Map	<100	<750	0	881	-1 6	114 7	-6 84	378 55
58	141	See Attached Map	<100	<750	2	747	0 4	-19 3	1 71	-63 70
59	143	See Attached Map	<100	<750	1	791	-0 6	24 7	-2 56	81 52
60	145	See Attached Map	<100	<750	1	768	-0 6	1 7	-2 56	5 61

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 4/2,4/3,4/4,4/5,4/9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 6 βγ 766 3 646 3 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
61	147	See Attached Map	See Milleneum Data		2	742	0 4	-24 3	1 71	-80 20
62	149	See Attached Map	<100	<750	0	727	-1 6	-39 3	-6 84	-129 70
63	151	See Attached Map	<100	<750	7	778	5 4	11 7	23 08	38 61
64	153	See Attached Map	<100	<750	5	806	3 4	39 7	14 53	131 02
65	155	See Attached Map	<100	<750	2	864	0 4	97 7	1 71	322 44
66	157	See Attached Map	<100	<750	0	814	-1 6	47 7	-6 84	157 43
67	159	See Attached Map	<100	<750	2	857	0 4	90 7	1 71	299 34
68	161	See Attached Map	<100 [2]	<750 [2]	2	898	0 4	131 7	1 71	434 65
69	163	See Attached Map	<100	<750	1	930	-0 6	163 7	-2 56	540 26
70	165	See Attached Map	<100	<750	5	871	3 4	104 7	14 53	345 54
71	167	See Attached Map	<100 [2]	<750 [2]	3	845	1 4	78 7	5 98	259 74
72	169	See Attached Map	<100	<750	1	839	-0 6	72 7	-2 56	239 93
73	171	See Attached Map	<100	<750	3	853	1 4	86 7	5 98	286 14
74	173	See Attached Map	<100	<750	2	813	0 4	46 7	1 71	154 13
75	175	See Attached Map	<100	<750	1	802	-0 6	35 7	-2 56	117 82
76	177	See Attached Map	<100	<750	3	900	1 4	133 7	5 98	441 25
77	179	See Attached Map	<100	<750	1	758	-0 6	-8 3	-2 56	-27 39
78	181	See Attached Map	<100	<750	1	792	-0 6	25 7	-2 56	84 82
79	183	See Attached Map	<100	<750	2	841	0 4	74 7	1 71	246 53
80	185	See Attached Map	<100	<750	1	816	-0 6	49 7	-2 56	164 03

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 4/2,4/3,4/4,4/5,4/9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 6 βγ 766 3 (646 3 Inst Only)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
81	187	See Attached Map	<100	<750	0	805	-1 6	38 7	-6 84	127 72
82	189	See Attached Map	<100	<750	2	778	0 4	11 7	1 71	38 61
83	191	See Attached Map	<100	<750	0	824	-1 6	57 7	-6 84	190 43
84	193	See Attached Map	<100	<750	2	836	0 4	69 7	1 71	230 03
85	195	See Attached Map	<100	<750	1	814	-0 6	47 7	-2 56	157 43
86	197	See Attached Map	<100	<750	1	841	-0 6	74 7	-2 56	246 53
87	199	See Attached Map	<100	<750	0	873	-1 6	106 7	-6 84	352 15
88	201	See Attached Map	<100	<750	0	753	-1 6	-13 3	-6 84	-43 89
89	203	See Attached Map	<100	<750	3	815	1 4	48 7	5 98	160 73
90	216	See Attached Map	<100	<750	4	730	2 4	-36 3	10 26	-119 80
91	229	See Attached Map	<100	<750	5	558	3 4	-88 3	14 53	-291 42
92	232	See Attached Map	<100	<750	4	830	2 4	63 7	10 26	210 23
93	234	See Attached Map	<100	<750	1	750	-0 6	-16 3	-2 56	-53 80
94	236	See Attached Map	<100	<750	1	738	-0 6	-28 3	-2 56	-93 40
95	238	See Attached Map	<100	<750	1	728	-0 6	-38 3	-2 56	-126 40
96	240	See Attached Map	<100	<750	5	781	3 4	14 7	14 53	48 51
97	242	See Attached Map	<100	<750	3	668	1 4	-98 3	5 98	-324 42
98	244	See Attached Map	<100	<750	4	610	2 4	-156 3	10 26	-515 84
99	246	See Attached Map	<100	<750	5	659	3 4	-107 3	14 53	-354 13
100	248	See Attached Map	<100	<750	2	661	0 4	-105 3	1 71	-347 52

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 4/2,4/3,4/4,4/5,4/9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 6 βγ 646 3 Inst Only; βγ 766 3

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
101	250	See Attached Map	<100	<750	2	611	0 4	-155 3	1 71	-512 54
102	252	See Attached Map	<100	<750	14	930	12 4	163 7	52 99	540 26
103	254	See Attached Map	<100	<750	15	944	13 4	177 7	57 26	586 47
104	256	See Attached Map	<100	<750	21	922	19 4	155 7	82 91	513 86
105	258	See Attached Map	<100	<750	19	915	17 4	148 7	74 36	490 76
106	260	See Attached Map	<100	<750	29	1008	27 4	241 7	117 09	797 69
107	262	See Attached Map	<100	<750	18	956	16 4	189 7	70 09	626 07
108	264	See Attached Map	<100	<750	15	930	13 4	163 7	57 26	540 26
109	266	See Attached Map	<100	<750	16	898	14 4	131 7	61 54	434 65
110	268	See Attached Map	<100	<750	21	860	19 4	93 7	82 91	309 24
111	270	See Attached Map	<100	<750	11	918	9 4	151 7	40 17	500 66
112	272	See Attached Map	<100	<750	27	915	25 4	148 7	108 55	490 76
113	274	See Attached Map	<100	<750	20	926	18 4	159 7	78 63	527 06
114	276	See Attached Map	<100	<750	24	946	22 4	179 7	95 73	593 07
115	278	See Attached Map	<100	<750	6	743	4 4	-23 3	18 80	-76 90
116	280	See Attached Map	<100	<750	6	809	4 4	42 7	18 80	140 92
117	282	See Attached Map	<100	<750	2	712	0 4	-54 3	1 71	-179 21
118	284	See Attached Map	<100	<750	2	668	0 4	-98 3	1 71	-324 42
119	286	See Attached Map	<100	<750	3	649	1 4	-117 3	5 98	-387 13
120	288	See Attached Map	<100	<750	2	706	0 4	-60 3	1 71	-199 01

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 4/2,4/3,4/4,4/5,4/9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 6 βγ 766 3 646 3 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
121	290	See Attached Map	<100	<750	2	700	0 4	-66 3	1 71	-218 81
122	292	See Attached Map	<100	<750	21	854	19 4	87 7	82 91	289 44
123	294	See Attached Map	<100	<750	20	877	18 4	110 7	78 63	365 35
124	296	See Attached Map	<100	<750	21	921	19 4	154 7	82 91	510 56
125	298	See Attached Map	<100	<750	23	943	21 4	176 7	91 45	583 17
126	300	See Attached Map	<100	<750	18	954	16 4	187 7	70 09	619 47
127	302	See Attached Map	<100	<750	1	604	-0 6	-162 3	-2 56	-535 64
128	308	See Attached Map	<100	<750	4	772	2 4	5 7	10 26	18 81
129	310	See Attached Map	<100 [1]	<750 [1]	8	808	6 4	41 7	27 35	137 62
130	312	See Attached Map	<100 [1]	<750 [1]	4	791	2 4	24 7	10 26	81 52
131	314	See Attached Map	<100 [1]	<750 [1]	8	787	6 4	20 7	27 35	68 32
132	316	See Attached Map	<100 [1]	<750 [1]	8	811	6 4	44 7	27 35	147 52
133	318	See Attached Map	<100 [1]	<750 [1]	10	898	8 4	131 7	35 90	434 65
134	320	See Attached Map	<100 [1]	<750 [1]	10	763	8 4	-3 3	35 90	-10 89
135	322	See Attached Map	<100 [1]	<750 [1]	5	768	3 4	1 7	14 53	5 61
136	324	See Attached Map	<100 [2]	<750 [2]	10	880	8 4	113 7	35 90	375 25
137	326	See Attached Map	<100 [2]	<750 [2]	8	796	6 4	29 7	27 35	98 02
138	328	See Attached Map	<100	<750	1	772	-0 6	5 7	-2 56	18 81
139	330	See Attached Map	<100	<750	3	449	1 4	-197 3	5 98	-651 16
140	332	See Attached Map	<100	<750	4	610	2 4	-156 3	10 26	-515 84

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 4/2,4/3,4/4,4/5,4/9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 6 βγ 646 3 Inst Only 766 3

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
141	334	See Attached Map	<100	<750	2	608	0 4	-158 3	1 71	-522 44
142	336	See Attached Map	<100	<750	5	644	3 4	-122 3	14 53	-403 63
143	338	See Attached Map	<100	<750	5	706	3 4	-60 3	14 53	-199 01
144	346	See Attached Map	<100 [1]	<750 [1]	5	677	3 4	-89 3	14 53	-294 72
145	348	See Attached Map	<100 [1]	<750 [1]	3	728	1 4	-38 3	5 98	-126 40
146	350	See Attached Map	<100 [1]	<750 [1]	4	809	2 4	42 7	10 26	140 92
147	352	See Attached Map	<100 [1]	<750 [1]	11	776	9 4	9 7	40 17	32 01
148	354	See Attached Map	<100	<750	6	787	4 4	140 7	18 80	464 36
149	356	See Attached Map	<100	<750	3	748	1 4	101 7	5 98	335 64
150	358	See Attached Map	<100	<750	1	716	-0 6	69 7	-2 56	230 03
151	360	See Attached Map	<100	<750	3	682	1 4	35 7	5 98	117 82
152	362	See Attached Map	<100	<750	2	699	0 4	52 7	1 71	173 93
153	364	See Attached Map	<100	<750	5	725	3 4	78 7	14 53	259 74
154	366	See Attached Map	<100	<750	1	603	-0 6	-163 3	-2 56	-538 94
155	368	See Attached Map	<100	<750	2	611	0 4	-155 3	1 71	-512 54
156	370	See Attached Map	<100	<750	5	625	3 4	-141 3	14 53	-466 34
157	372	See Attached Map	<100	<750	5	598	3 4	-168 3	14 53	-555 45
158	374	See Attached Map	<100	<750	4	551	2 4	-95 3	10 26	-314 52
159	376	See Attached Map	<100	<750	7	748	5 4	101 7	23 08	335 64
160	378	See Attached Map	<100	<750	5	739	3 4	-27 3	14 53	-90 10

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 4/2,4/3,4/4,4/5,4/9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 6 βγ 766 3 646 3 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
161	380	See Attached Map	<100	<750	5	767	3 4	0 7	14 53	2 31
162	382	See Attached Map	<100	<750	11	711	9 4	-55 3	40 17	-182 51
163	384	See Attached Map	<100 [2]	<750 [2]	5	687	3 4	-79 3	14 53	-261 72
164	386	See Attached Map	<100 [2]	<750 [2]	5	687	3 4	-79 3	14 53	-261 72
165	388	See Attached Map	<100 [2]	<750 [2]	2	678	0 4	-88 3	1 71	-291 42
166	390	See Attached Map	<100 [2]	<750 [2]	3	638	1 4	-128 3	5 98	-423 43
167	392	See Attached Map	<100 [2]	<750 [2]	0	644	-1 6	-122 3	-6 84	-403 63
168	394	See Attached Map	<100 [2]	<750 [2]	6	617	4 4	-149 3	18 80	-492 74
169	458	See Attached Map	<100	<750	15	932	13 4	165 7	57 26	546 86
170	460	See Attached Map	<100	<750	25	920	23 4	153 7	100 0	507 26
171	462	See Attached Map	<100	<750	5	574	3 4	-192 3	14 53	-634 65
172	464	See Attached Map	<100	<750	3	606	1 4	-160 3	5 98	-529 04

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 /North Wing Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1569 4/2,4/5,4/8 1998

Cal Due Date: 09-17-98

Efficiency (%): α 23 20 βγ 33 20

Bkgd (cpm): α 1 2 βγ 911 3 (791 3 Inst Only)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	397	See Attached Map	<100	<750	2	687	0 8	-224 3	3 45	-675 60
2	399	See Attached Map	<100	<750	11	714	9 8	-197 3	42 24	-594 28
3	401	See Attached Map	<100	<750	3	791	1 8	-120 3	7 76	-362 35
4	403	See Attached Map	<100	<750	1	721	-0 2	-190 3	- 86	-573 19
5	405	See Attached Map	<100	<750	2	704	0 8	-207 3	3 45	-624 40
6	407	See Attached Map	<100	<750	2	686	0 8	-225 3	3 45	-678 61
7	409	See Attached Map	<100	<750	5	682	3 8	-229 3	16 38	-690 66
8	411	See Attached Map	<100	<750	4	599	2 8	-312 3	12 07	-940 66
9	413	See Attached Map	<100	<750	3	617	1 8	-294 3	7 76	-886 45
10	415	See Attached Map	<100	<750	3	601	1 8	-310 3	7 76	-934 64
11	417	See Attached Map	<100	<750	4	695	2 8	-216 3	12 07	-651 51
12	419	See Attached Map	<100	<750	1	652	-0 2	-259 3	- 86	-781 02
13	421	See Attached Map	<100	<750	5	682	3 8	-229 3	16 38	-690 66
14	423	See Attached Map	<100	<750	2	693	0 8	-218 3	3 45	-657 53
15	425	See Attached Map	<100	<750	1	694	-0 2	-217 3	- 86	-654 52
16	427	See Attached Map	<100	<750	1	702	-0 2	-209 3	- 86	-630 42
17	429	See Attached Map	<100	<750	1	736	-0 2	-175 3	- 86	-528 01
18	431	See Attached Map	<100	<750	3	701	1 8	-210 3	7 76	-633 43
19	433	See Attached Map	<100	<750	1	733	-0 2	-178 3	- 86	-537 05

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 /North Wing Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1569 4/2,4/5,4/8 1998
Cal Due Date: 09-17-98
Efficiency (%): α 23 20 βγ 33 20

Bkgd (cpm): α 1 2 βγ 911 3 791 3 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
20	434	See Attached Map	<100	<750	2	425	0 8	-366 3	3 45	-1103 31
21	437	See Attached Map	<100	<750	3	602	1 8	-189 3	7 76	-570 18
22	446	See Attached Map	<100	<750	4	464	2 8	-447 3	12 07	-1347 29
23	448	See Attached Map	<100	<750	4	460	2 8	-451 3	12 07	-1359 34
24	450	See Attached Map	<100	<750	13	858	11 8	-53 3	50 86	-160 54
25	452	See Attached Map	<100	<750	16	725	14 8	-186 3	63 79	-561 14

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1277 4/3,4/4,4/5 1998
Cal Due Date: 06-09-98
Efficiency (%): α 23 10 βγ 29 00

Bkgd (cpm): α 1 3 βγ 640 3 (520 3 Inst Only)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	2	See Attached Map	<100	<750	2	718	0 7	77 7	3 03	267 93
2	6	See Attached Map	<100	<750	2	650	0 7	9 7	3 03	33 45
3	10	See Attached Map	<100	<750	4	706	2 7	65 7	11 69	226 55
4	14	See Attached Map	See Milleneum Data		1	698	-0 3	57 7	-1 30	198 97
5	18	See Attached Map	<100	<750	3	714	1 7	73 7	7 36	254 14
6	22	See Attached Map	<100	<750	5	725	3 7	84 7	16 02	292 07
7	26	See Attached Map	See Milleneum Data		5	682	3 7	41 7	16 02	143 79
8	30	See Attached Map	<100	<750	3	673	1 7	32 7	7 36	112 76
9	34	See Attached Map	See Milleneum Data		4	774	2 7	133 7	11 69	461 03
10	38	See Attached Map	See Milleneum Data		3	664	1 7	23 7	7 36	81 72
11	42	See Attached Map	See Milleneum Data		3	710	1 7	69 7	7 36	240 34
12	46	See Attached Map	See Milleneum Data		3	733	1 7	92 7	7 36	319 66
13	50	See Attached Map	See Milleneum Data		4	679	2 7	38 7	11 69	133 45
14	231	See Attached Map	<100	<750	10	560	8 7	-80 3	37 66	-276 90
15	233	See Attached Map	<100	<750	1	627	-0 3	-13 3	-1 30	-45 86
16	235	See Attached Map	<100	<750	1	583	-0 3	-57 3	-1 30	-197 59
17	237	See Attached Map	<100	<750	3	593	1 7	-47 3	7 36	-163 10
18	239	See Attached Map	<100	<750	0	613	-1 3	-27 3	-5 63	-94 14
19	241	See Attached Map	<100	<750	2	495	0 7	-145 3	3 03	-501 03
20	243	See Attached Map	<100	<750	3	549	1 7	-91 3	7 36	-314 83

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1277 4/3,4/4,4/5 1998
Cal Due Date: 06-09-98
Efficiency (%): α 23 10 βγ 29 00

Bkgd (cpm): α 1 3 βγ 640 3 520 3 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
21	245	See Attached Map	<100	<750	5	466	3 7	-174 3	16 02	-601 03
22	247	See Attached Map	<100	<750	2	495	0 7	-145 3	3 03	-501 03
23	249	See Attached Map	<100	<750	1	478	-0 3	-162 3	-1 30	-559 66
24	251	See Attached Map	<100	<750	5	498	3 7	-142 3	16 02	-490 69
25	253	See Attached Map	<100	<750	3	499	1 7	-141 3	7 36	-487 24
26	255	See Attached Map	<100	<750	2	519	0 7	-121 3	3 03	-418 28
27	257	See Attached Map	<100	<750	2	505	0 7	-135 3	3 03	-466 55
28	259	See Attached Map	<100	<750	2	504	0 7	-136 3	3 03	-470 0
29	261	See Attached Map	<100	<750	4	477	2 7	-163 3	11 69	-563 10
30	263	See Attached Map	<100	<750	2	459	0 7	-181 3	3 03	-625 17
31	265	See Attached Map	<100	<750	4	513	2 7	-127 3	11 69	-438 97
32	267	See Attached Map	<100	<750	2	522	0 7	-118 3	3 03	-407 93
33	269	See Attached Map	<100	<750	3	522	1 7	-118 3	7 36	-407 93
34	271	See Attached Map	<100	<750	2	628	0 7	-12 3	3 03	-42 41
35	273	See Attached Map	<100	<750	2	588	0 7	-52 3	3 03	-180 34
36	275	See Attached Map	<100	<750	2	595	0 7	-45 3	3 03	-156 21
37	277	See Attached Map	<100	<750	9	636	7 7	-4 3	33 33	-14 83
38	279	See Attached Map	<100	<750	6	630	4 7	-10 3	20 35	-35 52
39	281	See Attached Map	<100	<750	4	653	2 7	12 7	11 69	43 79
40	283	See Attached Map	<100	<750	2	626	0 7	-14 3	3 03	-49 31

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1277 4/3,4/4,4/5 1998

Cal Due Date: 06-09-98

Efficiency (%): α 23 10 βγ 29 00

Bkgd (cpm): α 1 3 βγ 640 3 520 3 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
41	285	See Attached Map	<100	<750	1	579	-0 3	-61 3	-1 30	-211 38
42	287	See Attached Map	<100	<750	5	563	3 7	-77 3	16 02	-266 55
43	289	See Attached Map	<100	<750	2	604	0 7	-36 3	3 03	-125 17
44	291	See Attached Map	<100	<750	7	728	5 7	87 7	24 68	302 41
45	293	See Attached Map	<100	<750	8	782	6 7	141 7	29 0	488 62
46	295	See Attached Map	<100	<750	13	736	11 7	95 7	50 65	330 0
47	297	See Attached Map	<100	<750	12	750	10 7	109 7	46 32	378 28
48	299	See Attached Map	<100	<750	11	743	9 7	102 7	41 99	354 14
49	301	See Attached Map	<100	<750	1	503	-0 3	-137 3	-1 30	-473 45
50	307	See Attached Map	<100	<750	5	678	3 7	37 7	16 02	130 0
51	309	See Attached Map	<100 [1]	<750 [1]	5	691	3 7	50 7	16 02	174 83
52	311	See Attached Map	<100 [1]	<750 [1]	5	649	3 7	8 7	16 02	30 0
53	313	See Attached Map	<100 [1]	<750 [1]	7	652	5 7	11 7	24 68	40 34
54	315	See Attached Map	<100 [1]	<750 [1]	7	656	5 7	15 7	24 68	54 14
55	317	See Attached Map	<100 [1]	<750 [1]	8	580	6 7	-60 3	29 0	-207 93
56	319	See Attached Map	<100 [1]	<750 [1]	10	674	8 7	33 7	37 66	116 21
57	321	See Attached Map	<100 [2]	<750 [2]	7	674	5 7	33 7	24 68	116 21
58	323	See Attached Map	<100 [2]	<750 [2]	5	668	3 7	27 7	16 02	95 52
59	325	See Attached Map	<100 [2]	<750 [2]	6	614	4 7	-26 3	20 35	-90 69
60	327	See Attached Map	See Milleneum Data		3	603	1 7	-37 3	7 36	-128 62

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1277 4/3,4/4,4/5 1998
Cal Due Date: 06-09-98
Efficiency (%): α 23 10 βγ 29 00

Bkgd (cpm): α 1 3 βγ 640 3 520 3 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
61	329	See Attached Map	<100	<750	3	516	1 7	-124 3	7 36	-428 62
62	331	See Attached Map	<100	<750	3	541	1 7	-99 3	7 36	-342 41
63	333	See Attached Map	<100	<750	7	503	5 7	-137 3	24 68	-473 45
64	335	See Attached Map	<100	<750	2	552	0 7	-88 3	3 03	-304 48
65	337	See Attached Map	<100	<750	1	628	-0 3	-12 3	-1 30	-42 41
66	341 *	See Attached Map	See Milleneum Data		3	581	1 7	-59 3	7 36	-204 48
67	343	See Attached Map	See Milleneum Data		2	597	0 7	-43 3	3 03	-149 31
68	345	See Attached Map	See Milleneum Data		5	574	3 7	-66 3	16 02	-228 62
69	396	See Attached Map	<100	<750	2	504	0 7	-136 3	3 03	-470 0
70	398	See Attached Map	<100	<750	4	467	2 7	-173 3	11 69	-597 59
71	400	See Attached Map	<100	<750	8	587	6 7	-53 3	29 0	-183 79
72	402	See Attached Map	<100	<750	14	742	12 7	101 7	54 98	350 69
73	404	See Attached Map	<100	<750	12	824	10 7	183 7	46 32	633 45
74	406	See Attached Map	<100	<750	9	763	7 7	122 7	33 33	423 10
75	408	See Attached Map	<100	<750	21	708	19 7	67 7	85 28	233 45
76	410	See Attached Map	<100	<750	15	731	13 7	90 7	59 31	312 76
77	412	See Attached Map	<100	<750	15	701	13 7	60 7	59 31	209 31
78	414	See Attached Map	<100	<750	18	760	16 7	119 7	72 29	412 76
79	416	See Attached Map	<100	<750	25	758	23 7	117 7	102 60	405 86
80	418	See Attached Map	<100	<750	4	772	2 7	131 7	11 69	454 14

* Grid not completely scanned by SRA/MSA, see corresponding hand scan survey at the end of this survey unit section

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1277 4/3,4/4,4/5 1998
Cal Due Date: 06-09-98
Efficiency (%): α 23 10 βγ 29 00

Bkgd (cpm): α 1 3 βγ 640 3 520 3 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
81	420	See Attached Map	<100	<750	21	751	19 7	110 7	85 28	381 72
82	422	See Attached Map	<100	<750	18	713	16 7	72 7	72 29	250 69
83	424	See Attached Map	<100	<750	15	726	13 7	85 7	59 31	295 52
84	426	See Attached Map	<100	<750	5	515	3 7	-125 3	16 02	-432 07
85	428	See Attached Map	<100	<750	4	511	2 7	-129 3	11 69	-445 86
86	430	See Attached Map	<100	<750	6	483	4 7	-157 3	20 35	-542 41
87	432	See Attached Map	<100	<750	1	526	-0 3	-114 3	-1 30	-394 14
88	435	See Attached Map	<100	<750	1	599	-0 3	78 7	-1 30	271 38
89	436	See Attached Map	<100	<750	2	501	0 7	-19 3	3 03	-66 55
90	444	See Attached Map	<100	<750	0	528	-1 3	-112 3	-5 63	-387 24
91	445	See Attached Map	<100	<750	2	676	0 7	35 7	3 03	123 10
92	447	See Attached Map	<100	<750	2	654	0 7	13 7	3 03	47 24
93	449	See Attached Map	<100	<750	25	1085	23 7	444 7	102 60	1533 45
94	451	See Attached Map	<100	<750	13	978	11 7	337 7	50 65	1164 48

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 9

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1255 4/2,4/3,4/4 1998
Cal Due Date: 04-16-98
Efficiency (%): α 23 40 βγ 38 70

Bkgd (cpm): α 2 1 βγ 927 8 807 8 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	4	See Attached Map	<100	<750	1	850	-1 1	-77 8	-4 70	-201 03
2	8	See Attached Map	<100	<750	4	1123	1 9	195 2	8 12	504 39
3	12	See Attached Map	<100	<750	2	1031	-0 1	103 2	- 43	266 67
4	16	See Attached Map	See Milleneum Data		9	1077	6 9	149 2	29 49	385 53
5	20	See Attached Map	See Milleneum Data		4	1015	1 9	87 2	8 12	225 32
6	24	See Attached Map	See Milleneum Data		3	976	0 9	48 2	3 85	124 55
7	28	See Attached Map	<100	<750	4	954	1 9	26 2	8 12	67 70
8	32	See Attached Map	<100	<750	5	1038	2 9	110 2	12 39	284 75
9	36	See Attached Map	See Milleneum Data		0	1001	-2 1	73 2	-8 97	189 15
10	40	See Attached Map	See Milleneum Data		5	1054	2 9	126 2	12 39	326 10
11	44	See Attached Map	See Milleneum Data		3	1009	0 9	81 2	3 85	209 82
12	48	See Attached Map	<100	<750	6	1032	3 9	104 2	16 67	269 25
13	205	See Attached Map	<100	<750	5	894	2 9	-33 8	12 39	-87 34
14	207	See Attached Map	<100	<750	9	949	6 9	21 2	29 49	54 78

Notes 1 and 2 Survey point omitted from Millennium scan Point scanned on 4/27/98 with Electra 1407 (1) or 1397 (2) See Electra Backgound Log for Unit 9 for instrument information

UNIT 9 SMEARS 1-100

OXFR **ECLIPSE LB**

Version 1 10

Printing Date 4/ 6/98

Report Name Gross Alpha Beta Analysis CPM

Print Time 6 44 06AM

Count Date **4/ 6/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804060302**

System Information

Serial No W O 3351C **Batch ID** **936**

Detector S/N 658 Group **A**

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 10	1 63
Batch MDA.	5.66 dpm	8 30

Sample Information
Sample Units
Geometry 1/8" Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1 410 00
Time 2 00
Delay 0 00
Sample Replicates 1

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
2		-0 10	-0 26	0 52	-1 13	-2 04	2 32	< MDA	< MDA
3		-0 10	-0 26	0 52	1 37	2 46	4 65	< MDA	< MDA
4		-0 10	-0 26	0 52	2 37	4 26	5 30	< MDA	
5		-0 10	-0 26	0 52	1 37	2 46	4 65	< MDA	< MDA
6		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
7		-0 10	-0 26	0 52	0 87	1 56	4 28	< MDA	< MDA
8		-0 10	-0 26	0 52	0 37	0 66	3 89	< MDA	< MDA
9		0 40	1 05	2 67	0 37	0 66	3 89	< MDA	< MDA
10		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
11		-0 10	-0 26	0 52	0 37	0 66	3 89	< MDA	< MDA
12		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
13		0 40	1 05	2 67	0 37	0 66	3 89	< MDA	< MDA
14		-0 10	-0 26	0 52	0 87	1 56	4 28	< MDA	< MDA
15		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
16		1 40	3 67	4 57	0 37	0 66	3 89		< MDA
17		0 90	2 36	3 74	-0 13	-0 24	3 44	< MDA	< MDA
18		-0 10	-0 26	0 52	2 37	4 26	5 30	< MDA	
19		-0 10	-0 26	0 52	-1 63	-2 94	1 46	< MDA	< MDA
20		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
21		-0 10	-0 26	0 52	2 37	4 26	5 30	< MDA	
22		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
23		-0 10	-0 26	0 52	0 37	0 66	3 89	< MDA	< MDA
24		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
25		-0 10	-0 26	0 52	0 37	0 66	3 89	< MDA	< MDA
26		0 40	1 05	2 67	-0 63	-1 14	2 93	< MDA	< MDA
27		0 40	1 05	2 67	-0 63	-1 14	2 93	< MDA	< MDA
28		-0 10	-0 26	0 52	1 37	2 46	4 65	< MDA	< MDA
29		-0 10	-0 26	0 52	0 87	1 56	4 28	< MDA	< MDA
30		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
31		0 40	1 05	2 67	-1 63	-2 94	1 46	< MDA	< MDA
32		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
33		0 40	1 05	2 67	-0 63	-1 14	2 93	< MDA	< MDA
34		-0 10	-0 26	0 52	1 37	2 46	4 65	< MDA	< MDA

Procedure Name **D&D Swipes - 199804060302**

System Information

Serial No W O 3351C **Batch ID** 936

Detector S/N 658 Group A

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1,410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 10	1 63
Batch MDA	5.66 dpm	8.30

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		0 40	1 05	2 67	0 87	1 56	4 28	< MDA	< MDA
36		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
37		-0 10	-0 26	0 52	0 37	0 66	3 89	< MDA	< MDA
38		-0 10	-0 26	0 52	0 37	0 66	3 89	< MDA	< MDA
39		-0 10	-0 26	0 52	-1 13	-2 04	2 32	< MDA	< MDA
40		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
41		-0 10	-0 26	0 52	-1 63	-2 94	1 46	< MDA	< MDA
42		-0 10	-0 26	0 52	-1 13	-2 04	2 32	< MDA	< MDA
43		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
44		0 40	1 05	2 67	-0 13	-0 24	3 44	< MDA	< MDA
45		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
46		-0 10	-0 26	0 52	0 37	0 66	3 89	< MDA	< MDA
47		0 40	1 05	2 67	0 37	0 66	3 89	< MDA	< MDA
48		-0 10	-0 26	0 52	0 87	1 56	4 28	< MDA	< MDA
49		-0 10	-0 26	0 52	-1 13	-2 04	2 32	< MDA	< MDA
50		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
51		-0 10	-0 26	0 52	0 87	1 56	4 28	< MDA	< MDA
52		0 40	1 05	2 67	3 37	6 07	5 88	< MDA	
53		0 40	1 05	2 67	-0 63	-1 14	2 93	< MDA	< MDA
54		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
56		-0 10	-0 26	0 52	0 87	1 56	4 28	< MDA	< MDA
55		-0 10	-0 26	0 52	1 37	2 46	4 65	< MDA	< MDA
57		0 90	2 36	3 74	-0 13	-0 24	3 44	< MDA	< MDA
58		0 40	1 05	2 67	-0 13	-0 24	3 44	< MDA	< MDA
59		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
60		-0 10	-0 26	0 52	1 37	2 46	4 65	< MDA	< MDA
61		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
62		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
63		-0 10	-0 26	0 52	-1 13	-2 04	2 32	< MDA	< MDA
64		0 40	1 05	2 67	-0 63	-1 14	2 93	< MDA	< MDA
65		0 90	2 36	3 74	-0 13	-0 24	3 44	< MDA	< MDA
66		0 40	1 05	2 67	-0 63	-1 14	2 93	< MDA	< MDA
67		-0 10	-0 26	0 52	0 37	0 66	3 89	< MDA	< MDA
68		-0 10	-0 26	0 52	0 87	1 56	4 28	< MDA	< MDA
69		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
70		-0 10	-0 26	0 52	0 37	0 66	3 89	< MDA	< MDA
71		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
72		-0 10	-0 26	0 52	0 37	0 66	3 89	< MDA	< MDA
73		0 40	1 05	2 67	0 87	1 56	4 28	< MDA	< MDA
74		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA

Procedure Name D&D Swipes - 199804060302

System Information

Serial No W O 3351C **Batch ID** 936

Detector S/N 658 Group A

Sample Information
Sample Units
Geometry 1/8" Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1,410 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 10	1 63
Batch MDA	5.66 dpm	830

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
75		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
76		0 40	1 05	2 67	-1 13	-2 04	2 32	< MDA	< MDA
77		-0 10	-0 26	0 52	1 37	2 46	4 65	< MDA	< MDA
78		-0 10	-0 26	0 52	-1 13	-2 04	2 32	< MDA	< MDA
79		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
80		-0 10	-0 26	0 52	1 37	2 46	4 65	< MDA	< MDA
81		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
82		-0 10	-0 26	0 52	0 37	0 66	3 89	< MDA	< MDA
83		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
84		0 40	1 05	2 67	-0 13	-0 24	3 44	< MDA	< MDA
85		-0 10	-0 26	0 52	1 87	3 36	4 98	< MDA	< MDA
86		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
87		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
88		0 40	1 05	2 67	-0 13	-0 24	3 44	< MDA	< MDA
89		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
90		-0 10	-0 26	0 52	1 87	3 36	4 98	< MDA	< MDA
91		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
92		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
93		-0 10	-0 26	0 52	-1 63	-2 94	1 46	< MDA	< MDA
94		-0 10	-0 26	0 52	0 87	1 56	4 28	< MDA	< MDA
95		-0 10	-0 26	0 52	0 87	1 56	4 28	< MDA	< MDA
96		-0 10	-0 26	0 52	-1 13	-2 04	2 32	< MDA	< MDA
97		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA
98		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
99		-0 10	-0 26	0 52	-0 63	-1 14	2 93	< MDA	< MDA
100		-0 10	-0 26	0 52	-0 13	-0 24	3 44	< MDA	< MDA

OXFR **ECLIPSE LB** Version 1 10

Printing Date 4/20/98 Report Name Gross Alpha Beta Analysis CPM

Print Time 3 18 36PM

Count Date **4/ 5/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804051551** UNIT 9 101 to 200

System Information

Serial No W O 3351C **Batch ID** **929**

Detector S/N 658 Group **A**

			Alpha	Beta
Sample Information				
Sample Units		**Efficiency (%)**	38 16	55 51
Geometry	1/8" Stainless Steel			
		Background Subtract		Enable
Count Parameters				
Count Mode	Simultaneous			
Operating Voltage	1,410 00	**Background**	0 40	2 13
Time	2 00			
Delay	0 00	**Batch MDA**	7.77 dpm	9.14
Sample Replicates	1			

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1	101	-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
2		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
3		-0 40	-1 05	1 05	-2 13	-3 84	1 66	< MDA	< MDA
4		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
5		-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA
6		0 10	0 26	2 82	-2 13	-3 84	1 66	< MDA	< MDA
7		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
8		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
9		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
10		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
11		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
12		-0 40	-1 05	1 05	0 87	1 56	4 72	< MDA	< MDA
13		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
14		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
15		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
16		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
17		0 10	0 26	2 82	-0 13	-0 24	3 97	< MDA	< MDA
18		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
19		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
20		0 10	0 26	2 82	-1 63	-2 94	2 45	< MDA	< MDA
21		-0 40	-1 05	1 05	0 87	1 56	4 72	< MDA	< MDA
22		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
23		-0 40	-1 05	1 05	2 87	5 16	5 94	< MDA	
24		0 10	0 26	2 82	0 37	0 66	4 36	< MDA	< MDA
25		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
26		0 10	0 26	2 82	0 87	1 56	4 72	< MDA	< MDA
27		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
28		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
29		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
30		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
31		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
32		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
33		-0 40	-1 05	1 05	1 37	2 46	5 05	< MDA	< MDA
34		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA

Count Date 4/ 5/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804051551**

System Information

Serial No W O 3351C **Batch ID** 929

Detector S/N 658 Group A

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 40	2 13
Batch MDA	777 dpm	914

Sample Information
Sample Units
Geometry 1/8" Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1 410 00
Time 2 00
Delay 0 00
Sample Replicates 1

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		0 10	0 26	2 82	-1 13	-2 04	3 04	< MDA	< MDA
36		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
37		-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA
38		-0 40	-1 05	1 05	-2 13	-3 84	1 66	< MDA	< MDA
39		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
40		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
41		-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA
42		0 10	0 26	2 82	-0 63	-1 14	3 54	< MDA	< MDA
43		0 10	0 26	2 82	0 87	1 56	4 72	< MDA	< MDA
44		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
50		-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA
51		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
53		-0 40	-1 05	1 05	0 87	1 56	4 72	< MDA	< MDA
54		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
56		-0 40	-1 05	1 05	0 87	1 56	4 72	< MDA	< MDA
55		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
57		-0 40	-1 05	1 05	0 87	1 56	4 72	< MDA	< MDA
58		0 10	0 26	2 82	-1 13	-2 04	3 04	< MDA	< MDA
59		0 10	0 26	2 82	0 37	0 66	4 36	< MDA	< MDA
60		0 10	0 26	2 82	-0 63	-1 14	3 54	< MDA	< MDA
61		0 60	1 57	3 85	0 37	0 66	4 36	< MDA	< MDA
62		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
63		-0 40	-1 05	1 05	1 37	2 46	5 05	< MDA	< MDA
64		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
65		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
66		-0 40	-1 05	1 05	-2 13	-3 84	1 66	< MDA	< MDA
67		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
68		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
69		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
70		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
71		-0 40	-1 05	1 05	1 37	2 46	5 05	< MDA	< MDA
72		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
73		0 10	0 26	2 82	0 37	0 66	4 36	< MDA	< MDA
74		0 10	0 26	2 82	-0 13	-0 24	3 97	< MDA	< MDA
75		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
76		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
77		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
78		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
79		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
80		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA

Procedure Name **D&D Swipes - 199804051551**

System Information

Serial No W O 3351C **Batch ID** 929

Detector S/N 658 Group A

	Alpha	Beta
Efficiency (%)	38 16	55 51

Sample Information
Sample Units
Geometry 1/8" Stainless Steel

Background Subtract Enable

Count Parameters
Count Mode Simultaneous
Operating Voltage 1,410 00 **Background** 0 40 2 13
Time 2 00
Delay 0 00 **Batch MDA** 777 dpm 914
Sample Replicates 1

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
84	181	0 10	0 26	2 82	1 37	2 46	5 05	< MDA	< MDA
82	2	-0 40	-1 05	1 05	0 87	1 56	4 72	< MDA	< MDA
81	3	0 10	0 26	2 82	-0 63	-1 14	3 54	< MDA	< MDA
83	4	0 10	0 26	2 82	-0 63	-1 14	3 54	< MDA	< MDA
85		-0 40	-1 05	1 05	1 37	2 46	5 05	< MDA	< MDA
86		0 10	0 26	2 82	-0 13	-0 24	3 97	< MDA	< MDA
87		-0 40	-1 05	1 05	0 87	1 56	4 72	< MDA	< MDA
88		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
90		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
91		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
92		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
93		-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA
94		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
95		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
96		-0 40	-1 05	1 05	1 37	2 46	5 05	< MDA	< MDA
97		0 10	0 26	2 82	-0 63	-1 14	3 54	< MDA	< MDA
98		0 60	1 57	3 85	-1 13	-2 04	3 04	< MDA	< MDA
99		-0 40	-1 05	1 05	1 87	3 36	5 36	< MDA	< MDA
100	200	-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA

93

* Swipe #s 145-149, 152 and 155 counted 4/21/98. See last swipe result printout

OXFR **ECLIPSE LB**

Version 1 10

Printing Date 4/20/98

Report Name Gross Alpha Beta Analysis CPM

Print Time 3 21 58PM

Count Date **4/ 5/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804052120**

Unit 9 Smears 201-204

System Information

Serial No W O 3351C **Batch ID** **932**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 06	2 00
Batch MDA.	5.18 dpm	8.93

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		0 00	0 00	0 00	4 00	7 21	5 10	< MDA	
4		0 00	0 00	0 00	1 00	1 80	2 55	< MDA	< MDA
3		0 00	0 00	0 00	3 00	5 40	4 41	< MDA	< MDA
2		1 00	2 62	3 71	2 00	3 60	3 60	< MDA	< MDA

OXFR **ECLIPSE LB**

Version 1 10

Printing Date 4/ 4/98

Report Name Gross Alpha Beta Analysis CPM

Print Time 6 08 42AM

Count Date **4/ 4/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804040236**

Unit #9 205-300

System Information

Serial No W O 3351C **Batch ID** **922**

Detector S/N 658 Group A

		Alpha	Beta
Sample Information			
Sample Units	**Efficiency (%)**	38 16	55 51
Geometry 1/8" Stainless Steel			
	Background Subtract	Enable	
Count Parameters			
Count Mode Simultaneous			
Operating Voltage 1,410 00	**Background**	0 13	1 83
Time 2 00			
Delay 0 00	**Batch MDA**	5.95 dpm	8.65
Sample Replicates 1			

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
5		0 37	0 96	2 69	-1 33	-2 40	2 37	< MDA	< MDA
6		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
7		-0 13	-0 35	0 61	-1 33	-2 40	2 37	< MDA	< MDA
8		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
9		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
10		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
11		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
12		-0 13	-0 35	0 61	-0 83	-1 50	2 98	< MDA	< MDA
13		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
14		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
15		-0 13	-0 35	0 61	-0 83	-1 50	2 98	< MDA	< MDA
16		0 37	0 96	2 69	1 17	2 10	4 67	< MDA	< MDA
17		-0 13	-0 35	0 61	-0 83	-1 50	2 98	< MDA	< MDA
18		-0 13	-0 35	0 61	1 17	2 10	4 67	< MDA	< MDA
19		0 37	0 96	2 69	1 67	3 00	5 01	< MDA	< MDA
20		-0 13	-0 35	0 61	0 67	1 20	4 31	< MDA	< MDA
21		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
22		0 87	2 27	3 76	-0 83	-1 50	2 98	< MDA	< MDA
23		-0 13	-0 35	0 61	-1 33	-2 40	2 37	< MDA	< MDA
24		0 37	0 96	2 69	0 17	0 30	3 92	< MDA	< MDA
25		0 37	0 96	2 69	1 67	3 00	5 01	< MDA	< MDA
26		1 87	4 89	5 28	0 67	1 20	4 31		< MDA
27		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
28		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
29		0 37	0 96	2 69	-0 33	-0 60	3 48	< MDA	< MDA
30		-0 13	-0 35	0 61	1 17	2 10	4 67	< MDA	< MDA
31		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
32		-0 13	-0 35	0 61	1 17	2 10	4 67	< MDA	< MDA
33		-0 13	-0 35	0 61	1 67	3 00	5 01	< MDA	< MDA
34		0 37	0 96	2 69	0 17	0 30	3 92	< MDA	< MDA
35		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
36		-0 13	-0 35	0 61	-1 33	-2 40	2 37	< MDA	< MDA
37		-0 13	-0 35	0 61	-1 33	-2 40	2 37	< MDA	< MDA
38		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA

Count Date 4/ 4/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name D&D Swipes - 199804040236

System Information

Serial No W O 3351C **Batch ID** 922

Detector S/N 658 Group A

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 13	1 83
Batch MDA	5 95 dpm	8 65

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
39		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
40		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
41		-0 13	-0 35	0 61	1 17	2 10	4 67	< MDA	< MDA
42		0 87	2 27	3 76	-0 33	-0 60	3 48	< MDA	< MDA
43		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
44		0 37	0 96	2 69	-1 83	-3 30	1 54	< MDA	< MDA
45		-0 13	-0 35	0 61	2 17	3 90	5 32	< MDA	< MDA
46		-0 13	-0 35	0 61	0 67	1 20	4 31	< MDA	< MDA
47		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
48		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
49		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
50		0 37	0 96	2 69	0 17	0 30	3 92	< MDA	< MDA
51		-0 13	-0 35	0 61	1 17	2 10	4 67	< MDA	< MDA
52		1 37	3 58	4 58	-0 83	-1 50	2 98		< MDA
53		-0 13	-0 35	0 61	-1 33	-2 40	2 37	< MDA	< MDA
54		0 37	0 96	2 69	0 67	1 20	4 31	< MDA	< MDA
56		-0 13	-0 35	0 61	-0 83	-1 50	2 98	< MDA	< MDA
55		0 37	0 96	2 69	-1 33	-2 40	2 37	< MDA	< MDA
57		-0 13	-0 35	0 61	0 67	1 20	4 31	< MDA	< MDA
58		0 37	0 96	2 69	0 17	0 30	3 92	< MDA	< MDA
59		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
60		-0 13	-0 35	0 61	1 67	3 00	5 01	< MDA	< MDA
61		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
62		-0 13	-0 35	0 61	-1 33	-2 40	2 37	< MDA	< MDA
63		0 37	0 96	2 69	0 17	0 30	3 92	< MDA	< MDA
64		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
65		1 37	3 58	4 58	-0 33	-0 60	3 48		< MDA
66		-0 13	-0 35	0 61	-0 83	-1 50	2 98	< MDA	< MDA
67		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
68		0 37	0 96	2 69	0 67	1 20	4 31	< MDA	< MDA
69		0 37	0 96	2 69	-1 33	-2 40	2 37	< MDA	< MDA
70		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
71		-0 13	-0 35	0 61	1 67	3 00	5 01	< MDA	< MDA
72		-0 13	-0 35	0 61	1 67	3 00	5 01	< MDA	< MDA
73		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
74		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
75		0 37	0 96	2.69	-0 83	-1 50	2 98	< MDA	< MDA
76		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
77		-0 13	-0 35	0 61	-0 83	-1 50	2 98	< MDA	< MDA
78		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA

Count Date 4/ 4/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name D&D Swipes - 199804040236

System Information

Serial No W O 3351C **Batch ID** 922

Detector S/N 658 Group A

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 13	1 83
Batch MDA	5.95 dpm	8.65

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
79		-0 13	-0 35	0 61	-0 83	-1 50	2 98	< MDA	< MDA
80		-0 13	-0 35	0 61	-0 83	-1 50	2 98	< MDA	< MDA
81		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
82		-0 13	-0 35	0 61	-0 83	-1 50	2 98	< MDA	< MDA
83		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
84		-0 13	-0 35	0 61	-1 33	-2 40	2 37	< MDA	< MDA
85		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
86		0 37	0 96	2 69	0 67	1 20	4 31	< MDA	< MDA
87		-0 13	-0 35	0 61	-1 33	-2 40	2 37	< MDA	< MDA
88		0 37	0 96	2 69	-0 83	-1 50	2 98	< MDA	< MDA
89		-0 13	-0 35	0 61	0 67	1 20	4 31	< MDA	< MDA
90		-0 13	-0 35	0 61	1 17	2 10	4 67	< MDA	< MDA
91		0 37	0 96	2 69	-0 33	-0 60	3 48	< MDA	< MDA
92		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
93		-0 13	-0 35	0 61	0 17	0 30	3 92	< MDA	< MDA
94		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
95		-0 13	-0 35	0 61	-0 33	-0 60	3 48	< MDA	< MDA
96		-0 13	-0 35	0 61	-0 83	-1 50	2 98	< MDA	< MDA
97		-0 13	-0 35	0 61	0 67	1 20	4 31	< MDA	< MDA
98		0 37	0 96	2 69	0 67	1 20	4 31	< MDA	< MDA
99		-0 13	-0 35	0 61	-1 33	-2 40	2 37	< MDA	< MDA
100		0 87	2 27	3 76	1 17	2 10	4 67	< MDA	< MDA

OXFR **ECLIPSE LB**

Version 1 10

Printing Date 4/20/98

Report Name Gross Alpha Beta Analysis CPM

Print Time 3 08 38PM

Count Date 4/ 5/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804051039**

UNIT 9 301 to 400

System Information

Serial No W O 3351C **Batch ID** **927**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 40	2 13

Batch MDA. 777 dpm 9.14

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		-0 40	-1 05	1 05	-1 63	-2 94	2.45	< MDA	< MDA
2		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
3		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
4		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
5		-0 40	-1 05	1 05	-2 13	-3 84	1 66	< MDA	< MDA
6		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
7		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
8		0 10	0 26	2 82	0 37	0 66	4 36	< MDA	< MDA
9		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
10		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
11		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
12		0 10	0 26	2 82	-1 13	-2 04	3 04	< MDA	< MDA
13		-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA
14		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
15		-0 40	-1 05	1 05	1 87	3 36	5 36	< MDA	< MDA
16		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
17		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
18		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
19		0 10	0 26	2 82	-1 13	-2 04	3 04	< MDA	< MDA
20		0 10	0 26	2 82	-0 13	-0 24	3 97	< MDA	< MDA
21		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
22		0 10	0 26	2 82	0 37	0 66	4 36	< MDA	< MDA
23		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
24		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
25		-0 40	-1 05	1 05	1 37	2 46	5 05	< MDA	< MDA
26		0 10	0 26	2 82	0 37	0 66	4 36	< MDA	< MDA
27		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
28		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
29		0 10	0 26	2 82	-1 13	-2 04	3 04	< MDA	< MDA
30		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
31		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
32		0 10	0 26	2 82	-1 13	-2 04	3 04	< MDA	< MDA
33		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
34		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA

Count Date 4/ 5/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name D&D Swipes - 199804051039

System Information

Serial No W O 3351C **Batch ID** 927

Detector S/N 658 Group A

Sample Information
Sample Units
Geometry 1/8" Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1 410 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract	Enable	
Background	0 40	2 13

Batch MDA 1.11 dpm 9 14

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
36		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
37		-0 40	-1 05	1 05	2 87	5 16	5 94	< MDA	
38		-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA
39		-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA
40		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
41		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
42		-0 40	-1 05	1 05	0 87	1 56	4 72	< MDA	< MDA
43		0 10	0 26	2 82	1 87	3 36	5 36	< MDA	< MDA
44		0 10	0 26	2 82	-0 13	-0 24	3 97	< MDA	< MDA
45		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
46		0 10	0 26	2 82	-0 13	-0 24	3 97	< MDA	< MDA
47		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
48		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
49		0 10	0 26	2 82	-0 63	-1 14	3 54	< MDA	< MDA
50		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
51		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
52		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
53		0 10	0 26	2 82	0 87	1 56	4 72	< MDA	< MDA
54		0 10	0 26	2 82	-0 63	-1 14	3 54	< MDA	< MDA
56		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
55		-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA
57		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
58		-0 40	-1 05	1 05	-2 13	-3 84	1 66	< MDA	< MDA
59		-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA
60		-0 40	-1 05	1 05	0 87	1 56	4 72	< MDA	< MDA
61		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
62		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
63		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
64		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
65		-0 40	-1 05	1 05	1 87	3 36	5 36	< MDA	< MDA
66		-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA
67		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
68		0 10	0 26	2 82	-0 13	-0 24	3 97	< MDA	< MDA
69		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
70		0 10	0 26	2 82	-1 63	-2 94	2 45	< MDA	< MDA
71		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
72		0 10	0 26	2 82	0 87	1 56	4 72	< MDA	< MDA
73		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
74		-0 40	-1 05	1 05	2 37	4 26	5 66	< MDA	< MDA

Count Date 4/ 5/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804051039**

System Information

Serial No W O 3351C **Batch ID** 927

Detector S/N 658 Group A

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1,410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract	Enable	
Background	0 40	2 13
Batch MDA	777 dpm	914

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
75		-0 40	-1 05	1 05	1 87	3 36	5 36	< MDA	< MDA
76		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
77		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
78		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
79		-0 40	-1 05	1 05	1 37	2 46	5 05	< MDA	< MDA
80		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
81		0 10	0 26	2 82	-0 13	-0 24	3 97	< MDA	< MDA
82		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
83		0 10	0 26	2 82	-0 63	-1 14	3 54	< MDA	< MDA
84		-0 40	-1 05	1 05	1 37	2 46	5 05	< MDA	< MDA
85		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
86		0 10	0 26	2 82	-0 63	-1 14	3 54	< MDA	< MDA
87		0 10	0 26	2 82	-0 13	-0 24	3 97	< MDA	< MDA
88		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
89		0 10	0.26	2 82	-0 13	-0 24	3 97	< MDA	< MDA
90		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
91		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
92		-0 40	-1 05	1 05	0 87	1 56	4 72	< MDA	< MDA
93		-0 40	-1 05	1 05	-1 13	-2 04	3 04	< MDA	< MDA
94		-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA
95		-0 40	-1 05	1 05	-0 63	-1 14	3 54	< MDA	< MDA
96		0 10	0 26	2 82	1 37	2 46	5 05	< MDA	< MDA
97		-0 40	-1 05	1 05	-0 13	-0 24	3 97	< MDA	< MDA
98		-0 40	-1 05	1 05	0 87	1 56	4 72	< MDA	< MDA
99		-0 40	-1 05	1 05	-1 63	-2 94	2 45	< MDA	< MDA
100		-0 40	-1 05	1 05	0 37	0 66	4 36	< MDA	< MDA

OXFR **ECLIPSE LB**

Version 1 10

Printing Date 4/20/98

Report Name Gross Alpha Beta Analysis CPM

Print Time 3 31 56PM

Count Date **4/ 6/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804061306**

Unit 9 Smear 401-437

System Information

Serial No W O 3351C **Batch ID** **941**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1,410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 10	1 17

Batch MDA 5.66 dpm 740

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		-0 10	-0 26	0 52	0 33	0 60	3 35	< MDA	< MDA
2		0 40	1 05	2 67	2 83	5 10	5 24	< MDA	
3		-0 10	-0 26	0 52	0 33	0 60	3 35	< MDA	< MDA
4		-0 10	-0 26	0 52	0 33	0 60	3 35	< MDA	< MDA
5		-0 10	-0 26	0 52	-0 17	-0 30	2 83	< MDA	< MDA
6		-0 10	-0 26	0 52	-0 17	-0 30	2 83	< MDA	< MDA
7		-0 10	-0 26	0 52	-0 17	-0 30	2 83	< MDA	< MDA
8		-0 10	-0 26	0 52	-0 67	-1 20	2 18	< MDA	< MDA
9		-0 10	-0 26	0 52	0 83	1 50	3 81	< MDA	< MDA
10		-0 10	-0 26	0 52	1 33	2 40	4 21	< MDA	< MDA
11		-0 10	-0 26	0 52	2 33	4 20	4 92	< MDA	
12		-0 10	-0 26	0 52	0 83	1 50	3 81	< MDA	< MDA
13		-0 10	-0 26	0 52	1 33	2 40	4 21	< MDA	< MDA
14		-0 10	-0 26	0 52	2 33	4 20	4 92	< MDA	
15		-0 10	-0 26	0 52	-0 17	-0 30	2 83	< MDA	< MDA
16		-0 10	-0 26	0 52	0 83	1 50	3 81	< MDA	< MDA
17		-0 10	-0 26	0 52	0 83	1 50	3 81	< MDA	< MDA
18		-0 10	-0 26	0 52	0 83	1 50	3 81	< MDA	< MDA
19		-0 10	-0 26	0 52	0 83	1 50	3 81	< MDA	< MDA
20		0 40	1 05	2 67	1 33	2 40	4 21	< MDA	< MDA
21		0 90	2 36	3 74	0 83	1 50	3 81	< MDA	< MDA
22		-0 10	-0 26	0 52	1 83	3 30	4 58	< MDA	< MDA
23		-0 10	-0 26	0 52	0 83	1 50	3 81	< MDA	< MDA
24		-0 10	-0 26	0 52	-0 67	-1 20	2 18	< MDA	< MDA
25		-0 10	-0 26	0 52	0 83	1 50	3 81	< MDA	< MDA
26		0 40	1 05	2 67	-0 67	-1 20	2 18	< MDA	< MDA
27		-0 10	-0 26	0 52	1 83	3 30	4 58	< MDA	< MDA
28		-0 10	-0 26	0 52	1 83	3 30	4 58	< MDA	< MDA
29		-0 10	-0 26	0 52	0 33	0 60	3 35	< MDA	< MDA
30		-0 10	-0 26	0 52	0 83	1 50	3 81	< MDA	< MDA
31		-0 10	-0 26	0 52	-0 17	-0 30	2 83	< MDA	< MDA
32		-0 10	-0 26	0 52	-0 67	-1 20	2 18	< MDA	< MDA
33		-0 10	-0 26	0 52	-0 17	-0 30	2 83	< MDA	< MDA
34		-0 10	-0 26	0 52	-0 17	-0 30	2 83	< MDA	< MDA

Procedure Name **D&D Swipes - 199804061306**

System Information

Serial No W O 3351C **Batch ID** **941**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1,410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 10	1 17
Batch MDA	5 66 dpm	7 40

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		-0 10	-0 26	0 52	-0 17	-0 30	2 83	< MDA	< MDA
36		-0 10	-0 26	0 52	0 83	1 50	3 81	< MDA	< MDA
37		-0 10	-0 26	0 52	-0 37	-0 67	3 11	< MDA	< MDA

OXFR ECLIPSE LB

Printing Date 4/21/98
Print Time 10 10 51AM

Version 1 10
Report Name Gross Alpha Beta Analysis CPM DPM

Count Date **4/21/98**

ALPHA / BETA CONTAMINATION SURVEY

Bldg 123
Unit 9 444-464, 145-149
152 & 152
155

Procedure Name **one minute swipe count - 199804210936**

System Information

Serial No 38922 **Batch ID** **221**

Detector S/N 758 Group **A**

Sample Information

Sample Units
Geometry Swipe/Smear 1/8"

Count Parameters

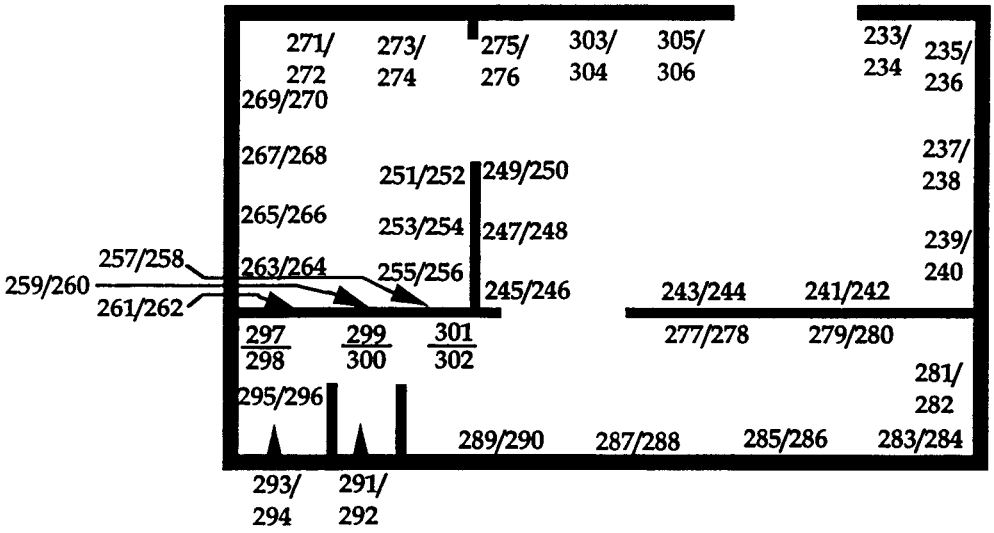
Count Mode Simultaneous
Operating Voltage 1 395 00
Time 1 00
Delay 0 00
Sample Replicates 1

	Alpha	**Beta**
Efficiency (%)	33 67	48 90
Background Subtract		Enable
Background	0 07	1 30
Batch MDA (dpm)	α - 10.7	β - 13.6

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1	444	-0 07	-0 20	0 49	-1 30	-2 66	1 48	< MDA	< MDA
2	445	-0 07	-0 20	0 49	1 70	3 48	7 24	< MDA	< MDA
3		-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
4		-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
5		-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
6		-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
7	456	-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
8		-0 07	-0 20	0 49	-1 30	-2 66	1 48	< MDA	< MDA
9		-0 07	-0 20	0 49	-1 30	-2 66	1 48	< MDA	< MDA
10		-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
11		-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
12	455	-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
13		-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
14		-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
15		-0 07	-0 20	0 49	-1 30	-2 66	1 48	< MDA	< MDA
16		-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
17	460	-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
18	461	-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
19	462	0 93	2 77	5 96	0 70	1 43	5 97	< MDA	< MDA
20	463	0 93	2 77	5 96	0 70	1 43	5 97	< MDA	< MDA
21	464	-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
22	145	-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
23	146	0 93	2 77	5 96	1 70	3 48	7 24	< MDA	< MDA
24	147	-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
25	148	-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
26	149	0 93	2 77	5 96	1 70	3 48	7 24	< MDA	< MDA
27	152	-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
28	155	-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA

West Wing; Unit IX

Women's Locker Room; Interior Walls

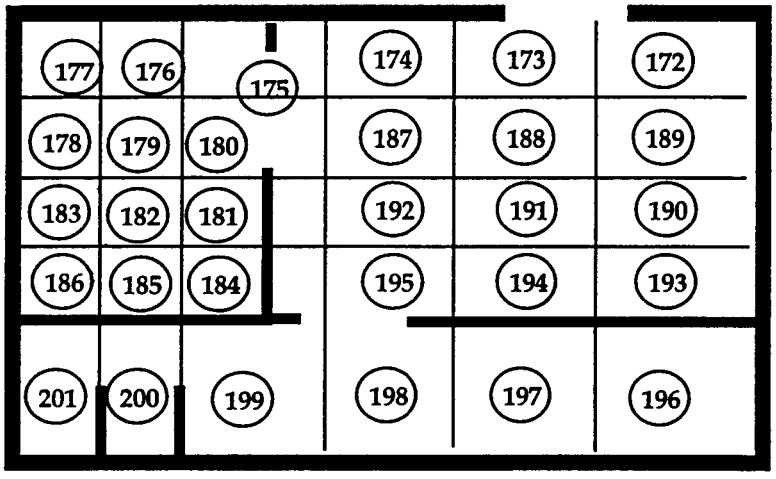


NOTE Upper # indicates higher swipe point on wall, Lower # indicates lower swipe point

NOTE All areas gridded in 1m x 1m plots

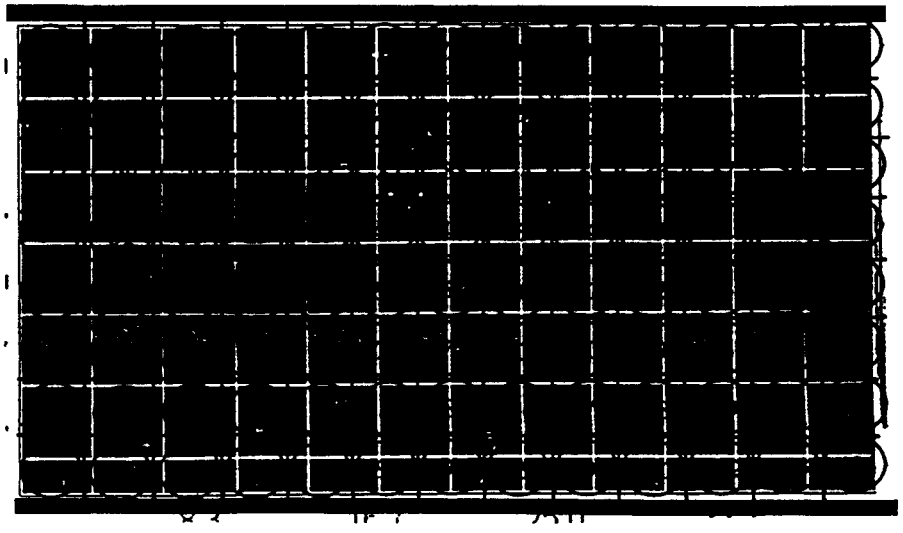
NOTE Map not drawn to scale

Women's Locker Room; Floor

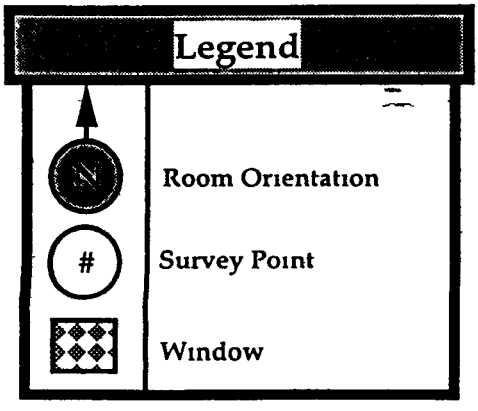


RF12306A-2

Unit IX; North Room Floor & Walls



Legend



Meter (1 7) Mean. 11 Max 76 Min. 0 Std 13 1 Pix 400	Meter (2 7) Mean 11 Max 73 Min. 0 Std 9 1 Pix 400	Meter (3 7) Mean 9 Max 80 Min. 0 Std 10 2 Pix 400	Meter (4 7) Mean 7 Max 15 Min 0 Std 3 9 Pix 400	Meter (5 7) Mean 8 Max 169 Min 0 Std 15 7 Pix 400	Meter (6 7) Mean 11 Max 201 Min. 0 Std 24 4 Pix 400	Meter (7 7) Mean 10 Max 55 Min 0 Std 8 4 Pix 400	Meter (8 7) Mean 10 Max 55 Min. 0 Std 9 9 Pix 400	Meter (9 7) Mean 7 Max 34 Min 0 Std 6 0 Pix 400	Meter (10 7) Mean 12 Max 64 Min. 0 Std 11 9 Pix 400	Meter (11 7) Mean 9 Max 34 Min. 0 Std 6 1 Pix 400	Meter (12 7) Mean 14 Max 83 Min. 2 Std 12 0 Pix 380
Meter (1 6) Mean. 9 Max. 143 Min. 0 Std 14 2 Pix 400	Meter (2 6) Mean. 8 Max 17 Min. 0 Std 4 2 Pix 400	Meter (3 6) Mean. 11 Max 54 Min. 1 Std 7 7 Pix 400	Meter (4 6) Mean. 9 Max. 82 Min. 0 Std 9 0 Pix 400	Meter (5 6) Mean 13 Max 251 Min. 0 Std 21 8 Pix 400	Meter (6 6) Mean. 11 Max 138 Min. 0 Std 19 2 Pix 400	Meter (7 6) Mean. 12 Max 89 Min. 1 Std 9 3 Pix 400	Meter (8 6) Mean. 8 Max. 166 Min. 0 Std. 19 1 Pix 400	Meter (9,6) Mean. 11 Max 61 Min. 0 Std. 8.1 Pix 400	Meter (10 6) Mean. 9 Max. 100 Min. 0 Std. 12 1 Pix 400	Meter (11 6) Mean. 10 Max. 50 Min. 0 Std 7 1 Pix 400	Meter (12 6) Mean 10 Max. 43 Min 0 Std 5 2 Pix 380
Meter (1,5) Mean. 7 Max. 28 Min. 0 Std. 5 3 Pix 384	Meter (2,5) Mean. 8 Max. 21 Min. 0 Std. 5 4 Pix 360	Meter (3,5) Mean 13 Max 78 Min. 2 Std 10 5 Pix 400	Meter (4,5) Mean. 15 Max. 187 Min. 0 Std. 25 1 Pix.400	Meter (5,5) Mean. 10 Max 72 Min. 0 Std 11 0 Pix 400	Meter (6,5) Mean. 21 Max. 235 Min. 1 Std 38 6 Pix 400	Meter (7,5) Mean. 15 Max. 72 Min. 3 Std 7 7 Pix 400	Meter (8 5) Mean. 17 Max. 137 Min. 0 Std. 21 2 Pix 400	Meter (9,5) Mean. 15 Max. 58 Min. 0 Std. 10 4 Pix 400	Meter (10,5) Mean. 13 Max. 90 Min. 0 Std 13 0 Pix 400	Meter (11,5) Mean. 10 Max. 77 Min. 0 Std. 9 0 Pix 400	Meter (12,5) Mean. 13 Max 84 Min. 0 Std. 11 9 Pix 380
Meter (1 4) Mean. 11 Max 79 Min. 0 Std 11 2 Pix.400	Meter (2 4) Mean. 14 Max. 90 Min. 0 Std 11 0 Pix 400	Meter (3 4) Mean. 11 Max 112 Min. 0 Std 14 1 Pix 400	Meter (4 4) Mean. 16 Max. 209 Min. 2 Std 25 3 Pix 400	Meter (5 4) Mean 10 Max. 93 Min. 0 Std 13 2 Pix.400	Meter (6,4) Mean. 11 Max. 67 Min. 0 Std 11 0 Pix 400	Meter (7 4) Mean. 18 Max. 162 Min. 0 Std 22 2 Pix.400	Meter (8 4) Mean. 11 Max. 61 Min. 0 Std. 10 7 Pix 400	Meter (9 4) Mean. 12 Max. 105 Min. 0 Std. 13 6 Pix 400	Meter (10,4) Mean. 13 Max. 110 Min. 0 Std. 13 3 Pix 400	Meter (11 4) Mean. 14 Max 80 Min. 0 Std 14 5 Pix 400	Meter (12 4) Mean. 11 Max. 156 Min. 0 Std 22 4 Pix 380
Meter (1,3) Mean. 13 Max. 46 Min. 0 Std. 8 0 Pix 400	Meter (2,3) Mean: 10 Max. 45 Min. 0 Std. 6.1 Pix.400	Meter (3 3) Mean. 19 Max. 97 Min. 4 Std 13 5 Pix.400	Meter (4 3) Mean. 20 Max 70 Min. 0 Std. 12 5 Pix 400	Meter (5,3) Mean. 8 Max. 27 Min. 0 Std. 3 9 Pix 400	Meter (6,3) Mean. 15 Max 93 Min. 0 Std. 10 9 Pix 400	Meter (7,3) Mean. 10 Max. 80 Min. 0 Std. 11 9 Pix 400	Meter (8,3) Mean. 10 Max. 48 Min. 0 Std. 8 7 Pix 400	Meter (9 3) Mean. 13 Max. 117 Min. 0 Std 16.3 Pix 400	Meter (10,3) Mean. 10 Max. 115 Min. 0 Std 13 1 Pix 400	Meter (11 3) Mean. 15 Max. 150 Min. 0 Std 24 1 Pix 400	Meter (12,3) Mean. 9 Max. 49 Min. 0 Std 9 9 Pix 380
Meter (1,2) Mean. 11 Max 85 Min. 0 Std 9 4 Pix 400	Meter (2,2) Mean. 16 Max 162 Min. 0 Std 22 6 Pix 400	Meter (3,2) Mean. 17 Max 81 Min. 3 Std 11 8 Pix 400	Meter (4,2) Mean. 13 Max 136 Min. 3 Std 13 1 Pix 400	Meter (5,2) Mean. 12 Max 116 Min. 0 Std 14 0 Pix 400	Meter (6,2) Mean. 14 Max 79 Min. 3 Std. 14 1 Pix.400	Meter (7,2) Mean. 24 Max. 166 Min. 2 Std 30 3 Pix 400	Meter (8,2) Mean. 14 Max. 135 Min. 0 Std. 17 8 Pix 400	Meter (9,2) Mean. 14 Max. 86 Min. 0 Std 11 4 Pix 400	Meter (10,2) Mean. 15 Max. 59 Min. 0 Std 14 4 Pix 400	Meter (11,2) Mean. 14 Max. 50 Min. 2 Std. 9 8 Pix 400	Meter (12,2) Mean. 18 Max 144 Min. 0 Std 17 0 Pix 380
Meter (1 1) Mean. 16 Max. 103 Min. 0 Std. 15 7 Pix.220	Meter (2 1) Mean. 13 Max. 195 Min. 0 Std. 35 3 Pix 220	Meter (3 1) Mean. 11 Max 56 Min. 0 Std 9 0 Pix 220	Meter (4 1) Mean. 16 Max 119 Min. 3 Std. 18 9 Pix 220	Meter (5 1) Mean. 14 Max. 125 Min. 0 Std. 19 5 Pix 220	Meter (6 1) Mean 18 Max. 88 Min. 1 Std. 22 9 Pix 220	Meter (7 1) Mean. 13 Max. 132 Min. 0 Std 16 4 Pix 220	Meter (8,1) Mean. 9 Max. 82 Min. 0 Std. 12 2 Pix 220	Meter (9 1) Mean. 14 Max. 151 Min. 0 Std. 22 2 Pix 220	Meter (10,1) Mean. 16 Max. 108 Min. 5 Std. 14 6 Pix 220	Meter (11 1) Mean. 19 Max. 166 Min. 0 Std. 21 2 Pix 220	Meter (12 1) Mean. 9 Max. 53 Min. 0 Std 8 9 Pix 209

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (12,1) and Grids (12,1) - (12,7) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria.

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 7) Mean. 12 Max 139 Min 0 Std 14 3 Pix.400	Meter (2 7) Mean 8 Max 32 Min. 0 Std 5 4 Pix 400	Meter (3 7) Mean. 9 Max 45 Min 0 Std 9 2 Pix 400	Meter (4 7) Mean. 9 Max 26 Min. 0 Std 4 8 Pix 400	Meter (5 7) Mean. 15 Max. 402 Min. 0 Std 40 5 Pix 400	Meter (6 7) Mean 14 Max. 359 Min. 0 Std 35 6 Pix 400	Meter (7 7) Mean. 16 Max 125 Min 0 Std 18 3 Pix 400	Meter (8,7) Mean. 13 Max 78 Min. 0 Std 17 9 Pix 400	Meter (9 7) Mean. 8 Max 145 Min. 0 Std 14 8 Pix 400	Meter (10 7) Mean. 9 Max 157 Min. 0 Std 14 3 Pix 400	Meter (11 7) Mean. 8 Max 47 Min. 0 Std 5 3 Pix 400	Meter (12 7) Mean 11 Max 84 Min. 0 Std 10 6 Pix 380
Meter (1 6) Mean. 12 Max. 73 Min. 0 Std. 8 7 Pix 400	Meter (2,6) Mean. 8 Max 25 Min. 0 Std. 4 4 Pix 400	Meter (3 6) Mean. 11 Max 56 Min. 0 Std 7 1 Pix.400	Meter (4 6) Mean. 8 Max. 16 Min. 0 Std 3 6 Pix 400	Meter (5 6) Mean. 13 Max 255 Min. 0 Std 26 0 Pix 400	Meter (6,6) Mean. 13 Max 141 Min. 0 Std 22 6 Pix 400	Meter (7 6) Mean. 20 Max. 177 Min 1 Std 21 2 Pix 400	Meter (8,6) Mean. 10 Max. 81 Min. 0 Std. 12 7 Pix 400	Meter (9 6) Mean. 9 Max. 35 Min. 0 Std. 5 8 Pix 400	Meter (10 6) Mean. 11 Max. 108 Min. 0 Std. 13 9 Pix 400	Meter (11 6) Mean. 14 Max. 93 Min. 0 Std 13 8 Pix 400	Meter (12 6) Mean. 15 Max 57 Min. 0 Std. 11 1 Pix 380
Meter (1,5) Mean. 11 Max. 92 Min. 0 Std. 9 7 Pix 384	Meter (2,5) Mean. 11 Max. 48 Min. 0 Std 7 5 Pix 360	Meter (3,5) Mean. 13 Max. 60 Min. 1 Std. 7 6 Pix 400	Meter (4,5) Mean. 8 Max. 50 Min. 0 Std. 7 6 Pix 400	Meter (5,5) Mean. 20 Max. 201 Min. 0 Std 32 4 Pix.400	Meter (6,5) Mean. 20 Max. 137 Min. 2 Std. 23 1 Pix 400	Meter (7,5) Mean. 12 Max 58 Min. 0 Std 8 3 Pix 400	Meter (8,5) Mean. 17 Max. 113 Min. 0 Std 20.2 Pix 400	Meter (9,5) Mean. 12 Max 28 Min. 4 Std 3 9 Pix 400	Meter (10,5) Mean. 10 Max. 66 Min. 0 Std. 9 2 Pix 400	Meter (11,5) Mean. 11 Max. 59 Min. 0 Std 10 4 Pix 400	Meter (12,5) Mean. 13 Max 62 Min. 0 Std 10 5 Pix 380
Meter (1 4) Mean. 15 Max. 57 Min. 4 Std 7 5 Pix 400	Meter (2 4) Mean. 19 Max 95 Min. 5 Std. 14 5 Pix 400	Meter (3 4) Mean. 13 Max 58 Min: 0 Std 6 0 Pix 400	Meter (4 4) Mean. 10 Max 47 Min. 0 Std. 4 6 Pix 400	Meter (5 4) Mean. 9 Max. 82 Min. 0 Std 10.5 Pix 400	Meter (6,4) Mean. 14 Max 185 Min. 0 Std. 22 8 Pix 400	Meter (7 4) Mean. 15 Max 81 Min. 0 Std. 12 2 Pix 400	Meter (8 4) Mean. 16 Max. 86 Min. 0 Std 14.5 Pix 400	Meter (9 4) Mean. 12 Max. 68 Min. 0 Std 8 6 Pix 400	Meter (10 4) Mean. 11 Max 92 Min. 0 Std 13 5 Pix 400	Meter (11 4) Mean. 17 Max. 137 Min. 0 Std. 22 4 Pix 400	Meter (12 4) Mean. 13 Max 66 Min. 0 Std 11 8 Pix 380
Meter (1,3) Mean. 14 Max 45 Min. 0 Std. 7 0 Pix 400	Meter (2,3) Mean. 20 Max. 159 Min. 4 Std. 16 2 Pix.400	Meter (3,3) Mean. 13 Max. 66 Min. 3 Std. 8 3 Pix 400	Meter (4,3) Mean. 15 Max. 35 Min. 3 Std 5 9 Pix 400	Meter (5,3) Mean. 13 Max. 114 Min. 0 Std. 14 0 Pix 400	Meter (6,3) Mean. 13 Max. 53 Min. 0 Std. 7 6 Pix.400	Meter (7,3) Mean. 23 Max. 150 Min. 4 Std 25 0 Pix 400	Meter (8,3) Mean. 13 Max. 64 Min. 0 Std. 9 9 Pix 400	Meter (9,3) Mean. 12 Max. 126 Min. 0 Std. 13 9 Pix 400	Meter (10 3) Mean. 7 Max. 106 Min. 0 Std. 9 6 Pix 400	Meter (11 3) Mean. 13 Max 133 Min. 0 Std. 17 6 Pix 400	Meter (12 3) Mean. 13 Max. 241 Min. 0 Std 27 5 Pix 380
Meter (1,2) Mean. 10 Max. 64 Min. 0 Std 7 7 Pix 400	Meter (2,2) Mean. 15 Max. 87 Min. 1 Std 14 2 Pix 400	Meter (3,2) Mean. 17 Max 148 Min. 0 Std 16 9 Pix 400	Meter (4,2) Mean. 18 Max 123 Min. 0 Std 20 3 Pix 400	Meter (5,2) Mean. 14 Max. 97 Min. 3 Std 12 8 Pix 400	Meter (6,2) Mean. 15 Max. 130 Min. 2 Std 16 2 Pix 400	Meter (7,2) Mean. 13 Max 90 Min. 0 Std. 14 0 Pix 400	Meter (8,2) Mean. 12 Max. 51 Min. 0 Std 8 0 Pix 400	Meter (9,2) Mean. 16 Max. 77 Min. 2 Std 10 3 Pix 400	Meter (10,2) Mean. 11 Max. 139 Min. 0 Std 13 4 Pix.400	Meter (11,2) Mean. 17 Max. 121 Min. 2 Std 17 5 Pix 400	Meter (12,2) Mean. 13 Max 51 Min. 0 Std. 8 6 Pix 380
Meter (1 1) Mean. 14 Max. 71 Min. 1 Std. 11 7 Pix 220	Meter (2 1) Mean. 15 Max 142 Min. 0 Std. 20 4 Pix 220	Meter (3 1) Mean. 16 Max 74 Min. 0 Std 12 3 Pix 220	Meter (4 1) Mean. 19 Max 96 Min. 4 Std 16 4 Pix 220	Meter (5 1) Mean. 8 Max 40 Min 0 Std 4 1 Pix 220	Meter (6 1) Mean. 14 Max. 103 Min. 0 Std. 14 1 Pix 220	Meter (7 1) Mean. 18 Max 127 Min. 1 Std 22 9 Pix 220	Meter (8 1) Mean. 14 Max 77 Min. 0 Std 10 8 Pix.220	Meter (9 1) Mean. 11 Max. 54 Min. 0 Std 9 0 Pix 220	Meter (10,1) Mean. 10 Max. 32 Min. 0 Std 5 4 Pix 220	Meter (11 1) Mean. 16 Max 102 Min. 3 Std 18 9 Pix 220	Meter (12 1) Mean. 12 Max. 50 Min 0 Std 10 8 Pix 209

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (12,1) and Grids (12,1) - (12,7) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Recount) Date 04-10-1998 Time 16 02 21 RF12306A-3

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the site-specific guidelines for release Figure 3 details which zones were above release limits

Meter (1 6) Mean 2 883 Max 4 027 Min. 682 Std 724 7 Pix 400	Meter (2 6) Mean 2 959 Max 3 945 Min. 972 Std 658 2 Pix 400	Meter (3 6) Mean 3 133 Max 4,296 Min 1 045 Std 699 5 Pix 400	Meter (4 6) Mean 2 032 Max 4 331 Min. 0 Std 1351 0 Pix 160	Meter (5 6) Mean 0 Max 0 Min. 0 Std 0 Pix 0	Meter (6 6) Mean 2 669 Max 4 694 Min. 0 Std 1420 7 Pix 360	Meter (7 6) Mean 3,235 Max 4 534 Min: 819 Std 632 4 Pix 400	Meter (8 6) Mean. 3 253 Max 4,572 Min 917 Std 695 2 Pix 400	Meter (9 6) Mean. 3 195 Max 4 419 Min. 957 Std 682 4 Pix 400	Meter (10 6) Mean 3 188 Max 4 219 Min. 1 019 Std 705 1 Pix 400	Meter (11 6) Mean 3 257 Max 4 465 Min 1 039 Std 681 7 Pix 400	Meter (12 6) Mean. 2 525 Max 3 865 Min. 243 Std 1043 3 Pix 320
Meter (1 5) Mean. 2 817 Max. 3 926 Min. 564 Std 851 1 Pix 400	Meter (2,5) Mean. 3 018 Max 3 701 Min. 602 Std 729 1 Pix 400	Meter (3,5) Mean. 3,335 Max. 4,255 Min. 2,411 Std. 362 0 Pix 400	Meter (4,5) Mean. 1 663 Max 4,824 Min. 0 Std 1245 0 Pix 232	Meter (5,5) Mean. 0 Max 0 Min. 0 Std 0 Pix 0	Meter (6,5) Mean. 2,512 Max. 4 431 Min. 0 Std 1493.2 Pix 360	Meter (7,5) Mean 3 179 Max 3 775 Min. 648 Std 472 6 Pix 400	Meter (8,5) Mean. 3 439 Max. 5,312 Min. 2,913 Std. 318 8 Pix 400	Meter (9,5) Mean. 3,548 Max. 4,226 Min. 2 952 Std. 292 9 Pix.400	Meter (10 5) Mean. 3 401 Max. 4,284 Min. 2 845 Std 293 9 Pix 400	Meter (11,5) Mean. 3 440 Max 4 350 Min. 2 775 Std 289 5 Pix 400	Meter (12 5) Mean. 2 833 Max 4 482 Min. 420 Std. 1108 1 Pix 320
Meter (1 4) Mean. 2 782 Max. 3 934 Min. 573 Std. 910 8 Pix 400	Meter (2 4) Mean. 3 031 Max 4 168 Min. 503 Std 778 0 Pix 400	Meter (3 4) Mean. 3,252 Max 4 330 Min. 2,516 Std. 384 7 Pix 400	Meter (4 4) Mean. 2 926 Max. 4,363 Min. 0 Std 1447 9 Pix 340	Meter (5 4) Mean. 0 Max 0 Min. 0 Std. 0 Pix 0	Meter (6,4) Mean. 4 Max. 135 Min. 0 Std. 21 8 Pix 0	Meter (7 4) Mean. 2 943 Max. 4 466 Min. 184 Std. 1285 8 Pix 380	Meter (8 4) Mean. 3,585 Max 4,394 Min. 3,063 Std. 247 4 Pix 400	Meter (9 4) Mean. 3,566 Max. 4,315 Min. 2 938 Std 281 7 Pix 400	Meter (10 4) Mean. 3,521 Max. 4,594 Min. 2,870 Std 302 1 Pix 400	Meter (11 4) Mean. 3,597 Max 4 123 Min. 2,845 Std 262 6 Pix 400	Meter (12 4) Mean 2 906 Max 4 463 Min. 448 Std. 1065 4 Pix 320
Meter (1,3) Mean. 3,269 Max. 4,318 Min. 1,213 Std. 634 4 Pix 400	Meter (2 3) Mean. 3 368 Max. 4 319 Min. 2,712 Std 395 5 Pix 400	Meter (3,3) Mean. 3,226 Max. 4,014 Min. 2 644 Std 297 8 Pix 400	Meter (4,3) Mean. 2 936 Max. 4 055 Min. 0 Std 1153 4 Pix 376	Meter (5,3) Mean. 2,209 Max. 4 196 Min. 0 Std 1514 3 Pix 240	Meter (6 3) Mean. 1 945 Max. 3,562 Min. 0 Std 1320 9 Pix 240	Meter (7,3) Mean. 2,858 Max 4,280 Min. 211 Std. 978 6 Pix.392	Meter (8,3) Mean. 3,353 Max. 4 179 Min. 2 684 Std. 369 3 Pix 400	Meter (9,3) Mean. 3,384 Max. 4,235 Min. 2,730 Std. 406 6 Pix.400	Meter (10,3) Mean. 3,226 Max. 4 071 Min. 2 450 Std 463 9 Pix 400	Meter (11 3) Mean. 3,355 Max. 4,268 Min 2 465 Std 371 5 Pix 400	Meter (12 3) Mean. 2 655 Max. 4 172 Min. 433 Std 1022 2 Pix 320
Meter (1,2) Mean. 3 347 Max. 3 733 Min. 1,507 Std. 417 7 Pix 400	Meter (2,2) Mean. 3 487 Max. 3 793 Min. 2,945 Std 189 1 Pix 400	Meter (3,2) Mean. 3,521 Max. 3,896 Min. 2 997 Std. 200.8 Pix 400	Meter (4 2) Mean. 3 636 Max. 3 921 Min. 3,342 Std. 127 0 Pix.400	Meter (5,2) Mean. 3,643 Max. 4 413 Min. 3,253 Std 173 7 Pix 400	Meter (6,2) Mean. 3,585 Max. 3 998 Min. 3 117 Std. 174 8 Pix.400	Meter (7,2) Mean. 3 621 Max. 4 105 Min. 2,987 Std. 263 5 Pix 400	Meter (8,2) Mean. 3,567 Max. 3,998 Min: 3 100 Std. 188 9 Pix.400	Meter (9,2) Mean. 3,552 Max. 3 905 Min. 3,077 Std. 204 3 Pix.400	Meter (10,2) Mean. 3,538 Max. 3 829 Min. 3 162 Std. 167 9 Pix.400	Meter (11,2) Mean. 3,538 Max. 3 971 Min. 3 150 Std. 202 5 Pix 400	Meter (12 2) Mean. 3 330 Max 3 917 Min. 604 Std 510 8 Pix 320
Meter (1 1) Mean. 3 166 Max 3 727 Min. 1 192 Std. 496 2 Pix 360	Meter (2 1) Mean. 3 430 Max 4,378 Min. 1 455 Std 376 3 Pix 360	Meter (3 1) Mean. 3 444 Max. 3 986 Min. 1 846 Std 429 9 Pix 360	Meter (4 1) Mean. 3 436 Max. 4 185 Min. 1 604 Std 378 9 Pix 360	Meter (5 1) Mean. 3 408 Max 3,885 Min. 1 935 Std 361 3 Pix 360	Meter (6,1) Mean. 3 406 Max 3,959 Min. 1,899 Std. 373 9 Pix 360	Meter (7 1) Mean. 3 425 Max. 4 136 Min. 1 611 Std 368 6 Pix 360	Meter (8 1) Mean. 3 465 Max. 4,061 Min. 1,543 Std 416.9 Pix 360	Meter (9 1) Mean. 3,518 Max. 3 905 Min. 2,011 Std. 345 4 Pix 360	Meter (10 1) Mean. 3,388 Max. 3 736 Min. 1,824 Std 383 2 Pix 360	Meter (11 1) Mean. 3,372 Max 3 961 Min. 1 652 Std. 352 5 Pix 360	Meter (12 1) Mean. 3 345 Max 3 935 Min. 1 760 Std 384 6 Pix 288

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (12,1) and Grids (12,1) - (12,6) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

4050 dpm/100 cm^2, averaged over 1 m^2
5550 dpm/100 cm^2, maximum in 100 cm^2

Results

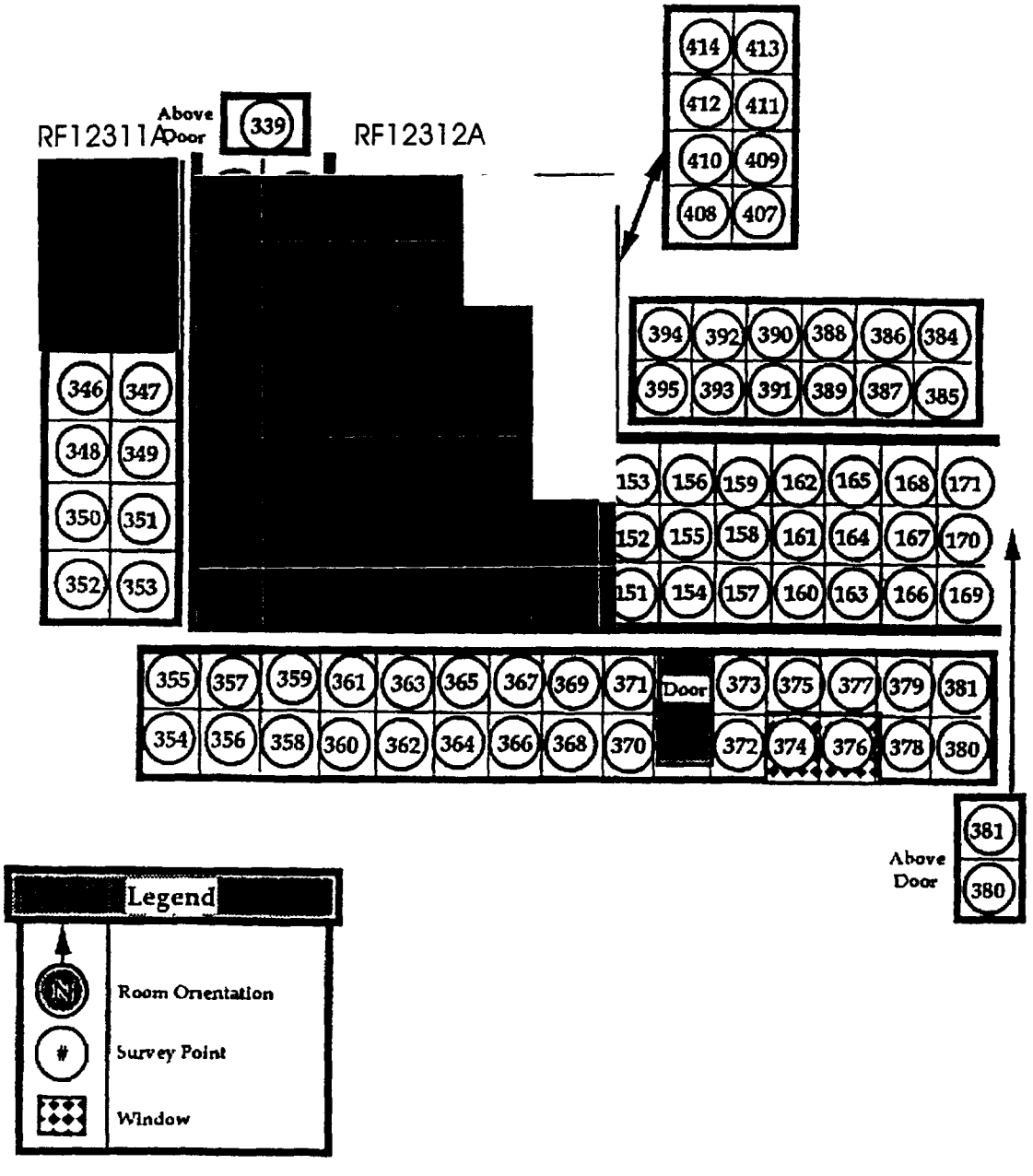
The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

West Wing, Unit IX

Page ___ of ___

Men's Lockeroom Area: Floor & Exterior Walls



Note Map not drawn to scale 5/7/98

Meter (1 3) Mean 13 Max 89 Min 0 Std 16 6 Pix 400	Meter (2 3) Mean 9 Max 114 Min 0 Std 14 1 Pix 320
Meter (1 2) Mean 9 Max 66 Min 0 Std 7 4 Pix 400	Meter (2 2) Mean 5 Max 10 Min 0 Std 1 9 Pix 320
Meter (1,1) Mean 0 Max 0 Min 0 Std 0 Pix 20	Meter (2 1) Mean 0 Max 0 Min 0 Std 0 Pix 16

Table 1 dpm/100cm^2 averaged over one square meter Grids (1,1) - (2,1) and Grids (2,1) - (2,3) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 3) Mean 10 Max 175 Min 1 Std 19 0 Pix 400	Meter (2,3) Mean 5 Max 27 Min 0 Std 4 7 Pix 320
Meter (1 2) Mean 9 Max 18 Min 0 Std 3 5 Pix 400	Meter (2 2) Mean 6 Max 26 Min 0 Std 4 0 Pix 320
Meter (1 1) Mean 0 Max 0 Min 0 Std 0 Pix 20	Meter (2 1) Mean 0 Max 0 Min 0 Std 0 Pix 16

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (2,1) and Grids (2,1) - (2,3) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1,7) Mean 5 Max 146 Min 0 Std 23 9 Pix 396	Meter (2,7) Mean 0 Max 0 Min 0 Std 0 Pix 198	Meter (3 7) Mean 7 Max 126 Min 0 Std 13 3 Pix 81	Meter (4 7) Mean 6 Max 126 Min 0 Std 13 3 Pix 108	Meter (5 7) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (6,7) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (7 7) Mean 0 Max 0 Min 0 Std 0 Pix 0
Meter (1,6) Mean 3 Max 126 Min 0 Std 18 6 Pix 400	Meter (2,6) Mean 3 Max 126 Min 0 Std 13 3 Pix 205	Meter (3,6) Mean 11 Max 290 Min 0 Std 29 3 Pix 180	Meter (4,6) Mean 5 Max 126 Min 0 Std 18 6 Pix 240	Meter (5,6) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (6,6) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (7,6) Mean 0 Max 0 Min 0 Std 0 Pix 0
Meter (1,5) Mean 4 Max 126 Min 0 Std 20 7 Pix 400	Meter (2,5) Mean 1 Max 126 Min 0 Std 13 3 Pix 400	Meter (3,5) Mean 0 Max 126 Min 0 Std 9 4 Pix 400	Meter (4,5) Mean 3 Max 146 Min 0 Std 20 2 Pix 400	Meter (5,5) Mean 3 Max 126 Min 0 Std 18 6 Pix 400	Meter (6,5) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (7,5) Mean 0 Max 0 Min 0 Std 0 Pix 0
Meter (1,4) Mean 4 Max 146 Min 0 Std 21 6 Pix 358	Meter (2,4) Mean 3 Max 290 Min 0 Std 26 4 Pix 400	Meter (3,4) Mean 0 Max 2 Min 0 Std 5 Pix 323	Meter (4,4) Mean 4 Max 146 Min 0 Std 21 6 Pix 344	Meter (5 4) Mean 4 Max 146 Min 0 Std 20 2 Pix 334	Meter (6,4) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (7,4) Mean 0 Max 0 Min 0 Std 0 Pix 0
Meter (1,3) Mean 5 Max 146 Min 0 Std 21 6 Pix 280	Meter (2,3) Mean 1 Max 126 Min 0 Std 13 3 Pix 400	Meter (3 3) Mean 0 Max 2 Min 0 Std 4 Pix 232	Meter (4,3) Mean 0 Max 0 Min 0 Std 0 Pix 100	Meter (5 3) Mean 0 Max 0 Min 0 Std 0 Pix 100	Meter (6,3) Mean 0 Max 0 Min 0 Std 0 Pix 10	Meter (7,3) Mean 0 Max 0 Min 0 Std 0 Pix 0
Meter (1 2) Mean 2 Max 126 Min 0 Std 13 3 Pix 280	Meter (2 2) Mean 0 Max 2 Min 0 Std 7 Pix 400	Meter (3 2) Mean 4 Max 146 Min 0 Std 22 7 Pix 400	Meter (4,2) Mean 3 Max 135 Min 0 Std 19 2 Pix 400	Meter (5 2) Mean 7 Max 146 Min 0 Std 29 0 Pix 400	Meter (6,2) Mean 0 Max 1 Min 0 Std 1 Pix 137	Meter (7 2) Mean 0 Max 2 Min 0 Std 6 Pix 35
Meter (1,1) Mean 0 Max 0 Min 0 Std 0 Pix 14	Meter (2,1) Mean 11 Max [illegible] Min 0 Std 39 5 Pix 286	Meter (3 1) Mean 4 Max 146 Min 0 Std 20 8 Pix 400	Meter (4,1) Mean 2 Max 126 Min 0 Std 16 2 Pix 400	Meter (5 1) Mean 8 Max 297 Min 0 Std 32 9 Pix 400	Meter (6,1) Mean 8 Max 146 Min 0 Std 23 7 Pix 400	Meter (7,1) Mean 28 Max 301 Min 0 Std 56 6 Pix 140

Table 1 dpm/100cm² averaged over one square meter Grids (1,1) - (7,1) and Grids (7,1) - (7,7) are not one square meter Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

103 dpm/100 cm^2, averaged over 1 m^2
303 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the site-specific guidelines for release Figure 3 details which zones were above release limits

Meter (1 7) Mean 3 Max 125 Min 0 Std 18 4 Pix 396	Meter (2,7) Mean 3 Max 125 Min 0 Std 13 2 Pix 198	Meter (3 7) Mean 4 Max 146 Min 0 Std 10 9 Pix 81	Meter (4 7) Mean 0 Max 2 Min 0 Std 3 Pix 108	Meter (5 7) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (6 7) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (7 7) Mean 0 Max 0 Min 0 Std 0 Pix 0
Meter (1 6) Mean 15 Max 156 Min 0 Std 42 3 Pix 400	Meter (2,6) Mean 3 Max 146 Min 0 Std 15 3 Pix 205	Meter (3 6) Mean 13 Max 153 Min 0 Std 28 1 Pix 180	Meter (4,6) Mean 11 Max 146 Min 0 Std 27 9 Pix 240	Meter (5 6) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (6 6) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (7 6) Mean 0 Max 0 Min 0 Std 0 Pix 0
Meter (1,5) Mean 0 Max 125 Min 0 Std 9 4 Pix 400	Meter (2 5) Mean 1 Max 85 Min 0 Std 7 9 Pix 400	Meter (3,5) Mean 0 Max 146 Min 0 Std 10 9 Pix 400	Meter (4 5) Mean 5 Max 153 Min 0 Std 25 4 Pix 400	Meter (5,5) Mean 1 Max 125 Min 0 Std 13 2 Pix 400	Meter (6 5) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (7 5) Mean 0 Max 0 Min 0 Std 0 Pix 0
Meter (1 4) Mean 1 Max 5 Min 0 Std 1 8 Pix 358	Meter (2 4) Mean 4 Max 153 Min 0 Std 23 1 Pix 400	Meter (3 4) Mean 2 Max 125 Min 0 Std 13 2 Pix 323	Meter (4,4) Mean 0 Max 0 Min 0 Std 0 Pix 344	Meter (5 4) Mean 2 Max 125 Min 0 Std 13 2 Pix 334	Meter (6,4) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (7,4) Mean 0 Max 0 Min 0 Std 0 Pix 0
Meter (1,3) Mean 5 Max 125 Min 0 Std 18 4 Pix 280	Meter (2 3) Mean 0 Max 2 Min 0 Std 5 Pix 400	Meter (3 3) Mean 0 Max 0 Min 0 Std 0 Pix 232	Meter (4,3) Mean 0 Max 0 Min 0 Std 0 Pix 100	Meter (5 3) Mean 0 Max 0 Min 0 Std 0 Pix 100	Meter (6 3) Mean 0 Max 0 Min 0 Std 0 Pix 10	Meter (7 3) Mean 0 Max 0 Min 0 Std 0 Pix 0
Meter (1 2) Mean 0 Max 2 Min 0 Std 3 Pix 280	Meter (2 2) Mean 4 Max 153 Min 0 Std 22 9 Pix 400	Meter (3,2) Mean 4 Max 125 Min 0 Std 20 5 Pix 400	Meter (4,2) Mean 1 Max 146 Min 0 Std 7 9 Pix 400	Meter (5 2) Mean 1 Max 125 Min 0 Std 13 2 Pix 400	Meter (6,2) Mean 2 Max 146 Min 0 Std 10 9 Pix 137	Meter (7 2) Mean 0 Max 1 Min 0 Std 3 Pix 35
Meter (1,1) Mean 0 Max 0 Min 0 Std 0 Pix 14	Meter (2 1) Mean 12 Max 150 Min 0 Std 27 2 Pix 286	Meter (3,1) Mean 7 Max 481 Min 0 Std 51 2 Pix 400	Meter (4,1) Mean 5 Max 148 Min 0 Std 23 0 Pix 400	Meter (5 1) Mean 12 Max 153 Min 0 Std 35 9 Pix 400	Meter (6,1) Mean 3 Max 146 Min 0 Std 16 9 Pix 400	Meter (7 1) Mean 7 Max 125 Min 0 Std 22 7 Pix 140

Table 1 dpm/100cm^2 averaged over one square meter Grids (1,1) - (7,1) and Grids (7,1) - (7,7) are not one square meter Bold text denotes grids which exceed release limits

(Filtered) (Recount) Date 04-11-1998 Time 00 34 46 RF12312A-3

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

103 dpm/100 cm^2, averaged over $1m^2$
303 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the site-specific guidelines for release Figure 3 details which zones were above release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

4050 dpm/100 cm^2, averaged over $1 m^2$
5550 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 2) Mean 2 628 Max 3 079 Min 1 412 Std 342 2 Pix 400	Meter (2 2) Mean 2 590 Max 3 059 Min 787 Std 459 4 Pix 380
Meter (1 1) Mean 2 154 Max 2 784 Min 796 Std 402 9 Pix 320	Meter (2 1) Mean 2,182 Max 2 871 Min 744 Std 443 4 Pix 304

Table 1 dpm/100cm^2 averaged over one square meter Grids (1,1) - (2,1) and Grids (2,1) - (2,2) are not one square meter Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

2300 dpm/100 cm^2, averaged over 1m^2
3850 dpm/100 cm^2, maximum in 100 cm^2

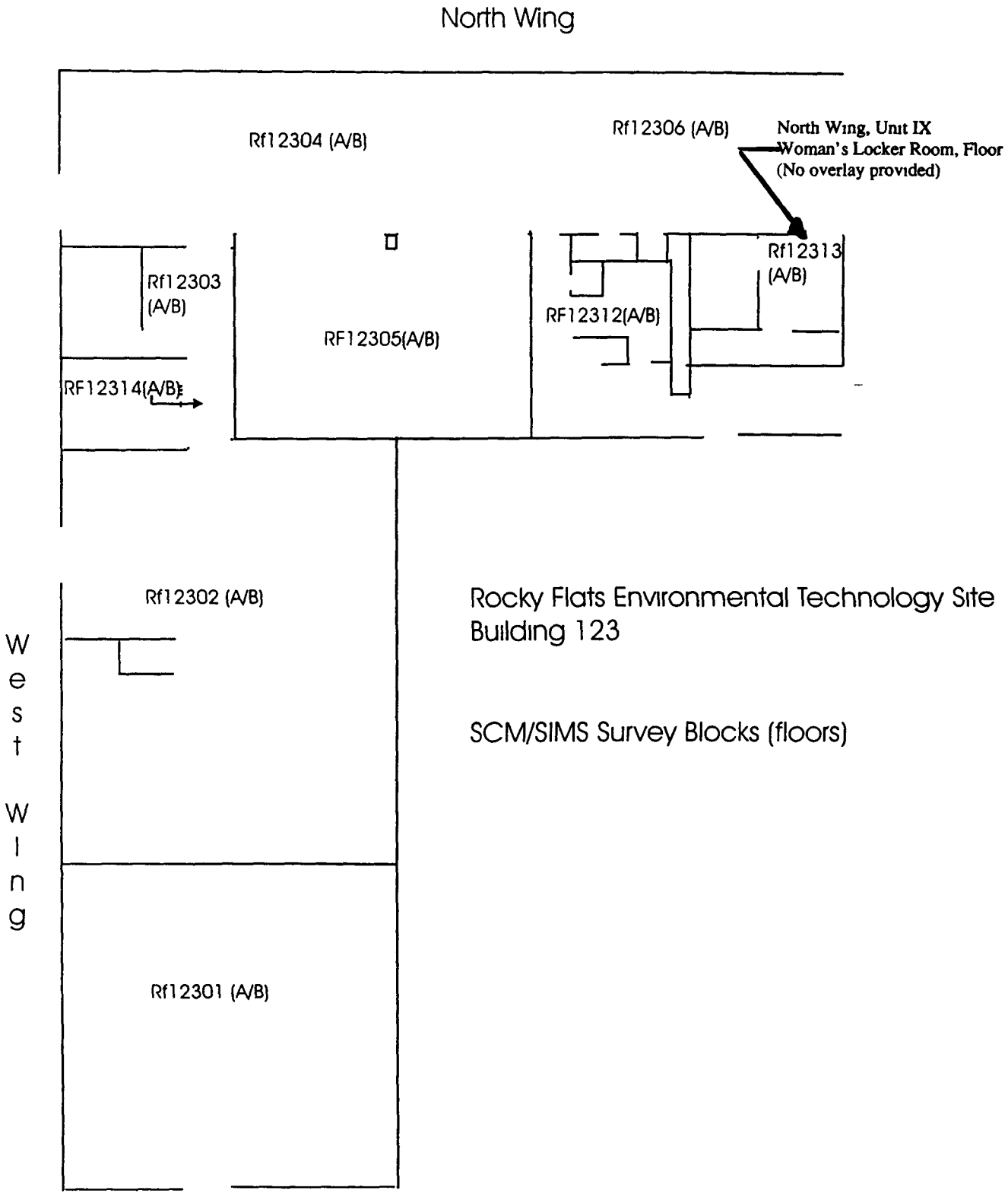
Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 7) Mean 1 234 Max 2 136 Min 0 Std 385 1 Pix 396	Meter (2 7) Mean 955 Max 2 437 Min 0 Std 687 1 Pix 198	Meter (3 7) Mean 462 Max 1 781 Min 0 Std 286 1 Pix 81	Meter (4 7) Mean 575 Max 1 582 Min 0 Std 372 8 Pix 108	Meter (5 7) Mean 0 Max 0 Min 0 Std 0 Pix 0
Meter (1 6) Mean 1,546 Max 2 223 Min 829 Std 191 2 Pix 400	Meter (2 6) Mean 988 Max 2,114 Min 0 Std 638 0 Pix 219	Meter (3 6) Mean 814 Max 1 866 Min 0 Std 537 2 Pix 180	Meter (4 6) Mean 1 120 Max 1 945 Min 0 Std 685 5 Pix 240	Meter (5 6) Mean 0 Max 0 Min 0 Std 0 Pix 0
Meter (1 5) Mean 1 519 Max 2 642 Min 998 Std 255 8 Pix 400	Meter (2,5) Mean 1 191 Max 2 212 Min 52 Std 409 7 Pix 400	Meter (3 5) Mean 1 310 Max 1 909 Min 33 Std 485 4 Pix 400	Meter (4 5) Mean 1 313 Max 2 234 Min 35 Std 439 3 Pix 400	Meter (5 5) Mean 1 258 Max 2 493 Min 20 Std 628 3 Pix 380
Meter (1 4) Mean 1 177 Max 2,234 Min 0 Std 589 2 Pix 350	Meter (2 4) Mean 1 069 Max 1,913 Min 395 Std 366 7 Pix 400	Meter (3 4) Mean 1 031 Max 1,700 Min 0 Std 567 3 Pix 330	Meter (4,4) Mean 1 217 Max 2,692 Min 0 Std 685 0 Pix 344	Meter (5 4) Mean 1 039 Max 2 926 Min 0 Std 686 7 Pix 307
Meter (1 3) Mean 1 071 Max 2,498 Min 0 Std 689 4 Pix 280	Meter (2,3) Mean 1 449 Max 2 649 Min 860 Std 220 4 Pix 400	Meter (3,3) Mean 754 Max 2,136 Min 0 Std 552 5 Pix 244	Meter (4,3) Mean 243 Max 734 Min 0 Std 146 3 Pix 112	Meter (5,3) Mean 224 Max 611 Min 0 Std 138 5 Pix 104
Meter (1,2) Mean 1 078 Max 2,410 Min 0 Std 730 0 Pix 266	Meter (2 2) Mean 1,326 Max 2,155 Min 80 Std 463 2 Pix 394	Meter (3,2) Mean 1 502 Max 2,863 Min 1,103 Std 235 7 Pix 400	Meter (4,2) Mean 1,460 Max 2 469 Min 690 Std 288 0 Pix 400	Meter (5,2) Mean 1,303 Max 2,455 Min 316 Std 387 8 Pix 380
Meter (1 1) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (2 1) Mean 1,115 Max 2,275 Min 0 Std 713 9 Pix 280	Meter (3,1) Mean 1,680 Max 2,498 Min 407 Std 367 2 Pix 400	Meter (4 1) Mean 1,352 Max 2,778 Min 0 Std 563 0 Pix 380	Meter (5 1) Mean 1,271 Max 2,111 Min 0 Std 688 3 Pix 285

Table 1 dpm/100cm^2 averaged over one square meter Grids (1,1) - (5,1) and Grids (5,1) - (5,7) are not one square meter Bold text denotes grids which exceed release limits



Rocky Flats Environmental Technology Site
Building 123

SCM/SIMS Survey Blocks (floors)

Meter (1 3) Mean 5 Max 157 Min 0 Std 23 1 Pix 400	Meter (2 3) Mean 0 Max 0 Min 0 Std 1 Pix 400	Meter (3 3) Mean 0 Max 0 Min 0 Std 0 Pix 321
Meter (1,2) Mean 0 Max 0 Min 0 Std 0 Pix 400	Meter (2 2) Mean 0 Max 0 Min 0 Std 0 Pix 400	Meter (3 2) Mean 0 Max 0 Min 0 Std 0 Pix 400
Meter (1,1) Mean 0 Max 0 Min 0 Std 0 Pix 380	Meter (2 1) Mean 1 Max 157 Min 0 Std 16 9 Pix 380	Meter (3 1) Mean 0 Max 0 Min 0 Std 0 Pix 380

Table 1 dpm/100cm^2 averaged over one square meter Grids (1,1) - (3,1) and Grids (3,1) - (3,3) are not one square meter Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

103 dpm/100 cm^2, averaged over 1m^2
303 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 3) Mean 2 Max 39 Min 0 Std 6 5 Pix 400	Meter (2 3) Mean 3 Max 154 Min 0 Std 22 8 Pix 400	Meter (3 3) Mean 0 Max 0 Min 0 Std 0 Pix 321
Meter (1,2) Mean 1 Max 143 Min 0 Std 15 0 Pix 400	Meter (2 2) Mean 0 Max 1 Min 0 Std 1 Pix 400	Meter (3 2) Mean 0 Max 1 Min 0 Std 2 Pix 400
Meter (1 1) Mean 2 Max 143 Min 0 Std 18 8 Pix 380	Meter (2 1) Mean 0 Max 1 Min 0 Std 2 Pix 380	Meter (3 1) Mean 3 [redacted] 308 Min 0 Std 28 7 Pix 380

Table 1 dpm/100cm^2 averaged over one square meter Grids (1,1) - (3,1) and Grids (3,1) - (3,3) are not one square meter Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

103 dpm/100 cm^2, averaged over $1m^2$
303 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the site-specific guidelines for release Figure 3 details which zones were above release limits

Meter (1 3) Mean 1 618 Max 2 451 Min 774 Std 269 7 Pix 400	Meter (2,3) Mean 1 589 Max 1 954 Min 667 Std 257 4 Pix 400	Meter (3 3) Mean 1,218 Max 1 886 Min 41 Std 505 8 Pix 367
Meter (1 2) Mean 1 781 Max 2 907 Min 1,169 Std 242 2 Pix 400	Meter (2,2) Mean 1 592 Max 1 963 Min 1 266 Std 130 1 Pix 400	Meter (3,2) Mean 1 515 Max 1 875 Min 579 Std 257 4 Pix 380
Meter (1 1) Mean 1 665 Max 2 801 Min 1 058 Std 276 0 Pix 340	Meter (2 1) Mean 1 485 Max 2 425 Min 813 Std 241 2 Pix 340	Meter (3 1) Mean 1 608 Max 2 596 Min 826 Std 279 3 Pix 323

Table 1 dpm/100cm^2 averaged over one square meter Grids (1,1) - (3,1) and Grids (3,1) - (3,3) are not one square meter Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

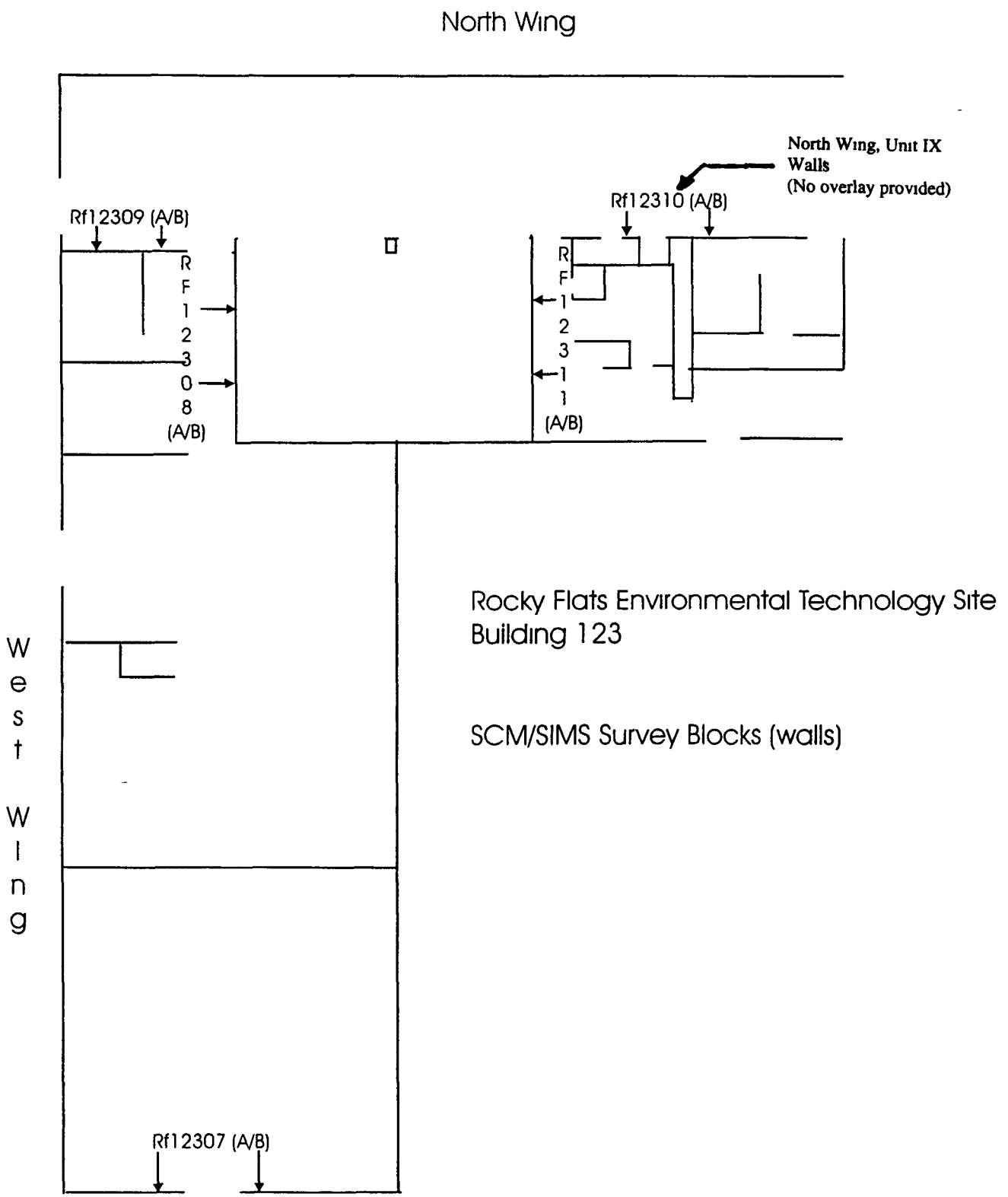
Total Activity

2300 dpm/100 cm^2, averaged over 1 m^2
3850 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release



Rocky Flats Environmental Technology Site
Building 123

SCM/SIMS Survey Blocks (walls)

Meter (1 2) Mean 8 Max 29 Min 0 Std 5 6 Pix 400	Meter (2,2) Mean 9 Max 83 Min 0 Std 10 8 Pix 400	Meter (3,2) Mean 15 Max 143 Min 2 Std 16 1 Pix 400	Meter (4 2) Mean 19 Max 101 Min 3 Std 12 1 Pix 400	Meter (5 2) Mean 15 Max 64 Min 3 Std 7 4 Pix 400	Meter (6,2) Mean 15 Max 124 Min 0 Std 14 6 Pix 400	Meter (7 2) Mean 23 Max 94 Min 7 Std 14 0 Pix 400	Meter (8 2) Mean 5 Max 14 Min 0 Std 3 5 Pix 120
Meter (1,1) Mean 11 Max 32 Min 0 Std 7 3 Pix 320	Meter (2,1) Mean 10 Max 50 Min 0 Std 7 5 Pix 320	Meter (3,1) Mean 21 Max 107 Min 4 Std 19 8 Pix 320	Meter (4,1) Mean 31 Max 123 Min 14 Std 15 4 Pix 320	Meter (5,1) Mean 30 Max 136 Min 5 Std 23 9 Pix 320	Meter (6,1) Mean 33 Max 110 Min 9 Std 22 1 Pix 320	Meter (7,1) Mean 29 Max 135 Min 7 Std 22 6 Pix 320	Meter (8,1) Mean 7 Max 15 Min 0 Std 3 5 Pix 96

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (8,1) and Grids (8,1) - (8,2) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1,2) Mean 8 Max 31 Min 0 Std 5 7 Pix 400	Meter (2 2) Mean 8 Max 26 Min 0 Std 4 1 Pix 400	Meter (3 2) Mean 12 Max 97 Min 0 Std 13 8 Pix 400	Meter (4,2) Mean 15 Max 48 Min 3 Std 6 1 Pix 400	Meter (5 2) Mean 12 Max 83 Min 0 Std 11 6 Pix 400	Meter (6,2) Mean 10 Max 32 Min 1 Std 5 3 Pix 400	Meter (7 2) Mean 15 Max 53 Min 2 Std 8 7 Pix 400	Meter (8 2) Mean 23 Max 134 Min 2 Std 24 5 Pix 120
Meter (1 1) Mean 10 Max 59 Min 0 Std 7 4 Pix 320	Meter (2,1) Mean 9 Max 64 Min 0 Std 7 0 Pix 320	Meter (3,1) Mean 12 Max 86 Min 0 Std 12 3 Pix 320	Meter (4,1) Mean 36 Max 255 Min 8 Std 37 7 Pix 320	Meter (5,1) Mean 20 Max 108 Min 6 Std 15 3 Pix 320	Meter (6,1) Mean 25 Max 166 Min 5 Std 26 4 Pix 320	Meter (7,1) Mean 31 Max 115 Min 10 Std 22 1 Pix 320	Meter (8,1) Mean 13 Max 49 Min 0 Std 9 8 Pix 96

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (8,1) and Grids (8,1) - (8,2) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1,2) Mean 2,788 Max 3,579 Min 906 Std 581 1 Pix 0	Meter (2 2) Mean 3,218 Max 3 570 Min 1,471 Std 321 2 Pix 0	Meter (3,2) Mean 3,287 Max 3 709 Min 1,801 Std 356 9 Pix 0	Meter (4,2) Mean 3,232 Max 3,708 Min 1,697 Std 354 6 Pix 0	Meter (5 2) Mean 3,189 Max 4 181 Min 1,969 Std 306 9 Pix 0	Meter (6,2) Mean 2,933 Max 3,341 Min 1,680 Std 279 5 Pix 0	Meter (7 2) Mean 2,851 Max 3,616 Min 925 Std 498 9 Pix 0
Meter (1,1) Mean 2,301 Max 3,237 Min 799 Std 588 9 Pix 0	Meter (2,1) Mean 2,771 Max 3,220 Min 1,455 Std 406 5 Pix 0	Meter (3,1) Mean 2,690 Max 3,229 Min 1,505 Std 438 8 Pix 0	Meter (4,1) Mean 2,674 Max 3,221 Min 1,480 Std 407 1 Pix 0	Meter (5,1) Mean 2,679 Max 3,294 Min 1,335 Std 405 6 Pix 0	Meter (6,1) Mean 2,414 Max 2,971 Min 1,355 Std 352 5 Pix 0	Meter (7,1) Mean 2,387 Max 3,117 Min 732 Std 472 4 Pix 0

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (7,1) and Grids (7,1) - (7,2) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

4050 dpm/100 cm^2, averaged over 1 m^2
5550 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: ____ P/W/RE ____ PRL ____ RWP ✓ OTHER 123 Final Survey

BUILDING/LOCATION	ROOM
123	Unit 9
DATE: 5/6/98	TIME 1230

ITEM DESCRIPTION 100% scans survey of Unit 9 grids 150/340/341/318

COMMENTS Results of scans done @ 1/2 per second 1/4" from surface are <100 dpm/100cm² α and <750 dpm/100 cm² β

[redacted] 5/6/98
DATE

REVIEWED BY K. Gomlowski
RO SUPERVISION PRINT NAME

[signature] 5/6/98
RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR	EBER	EBER	EBER	EBER
MODEL	SAC 4	SAC 4	SAC 4	SAC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

MFR:	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	NE TECH			
MODEL	ELECTRA			
SERIAL # :	1383			
CAL DATE	4/24/98			
CAL DUE DATE	10/24/98			
BACKGROUND	See Attached			
SFFICIENCY	22.5%α / 6 32.8%			
MDA:	933 / 455			

MDA = CF X (2.71 + 4.65 √BACKGROUND (CPM))

Survey Unit #9
Page 60 of 81

ELECTRA BACKGROUND LOG FOR UNIT #9 (Scans)

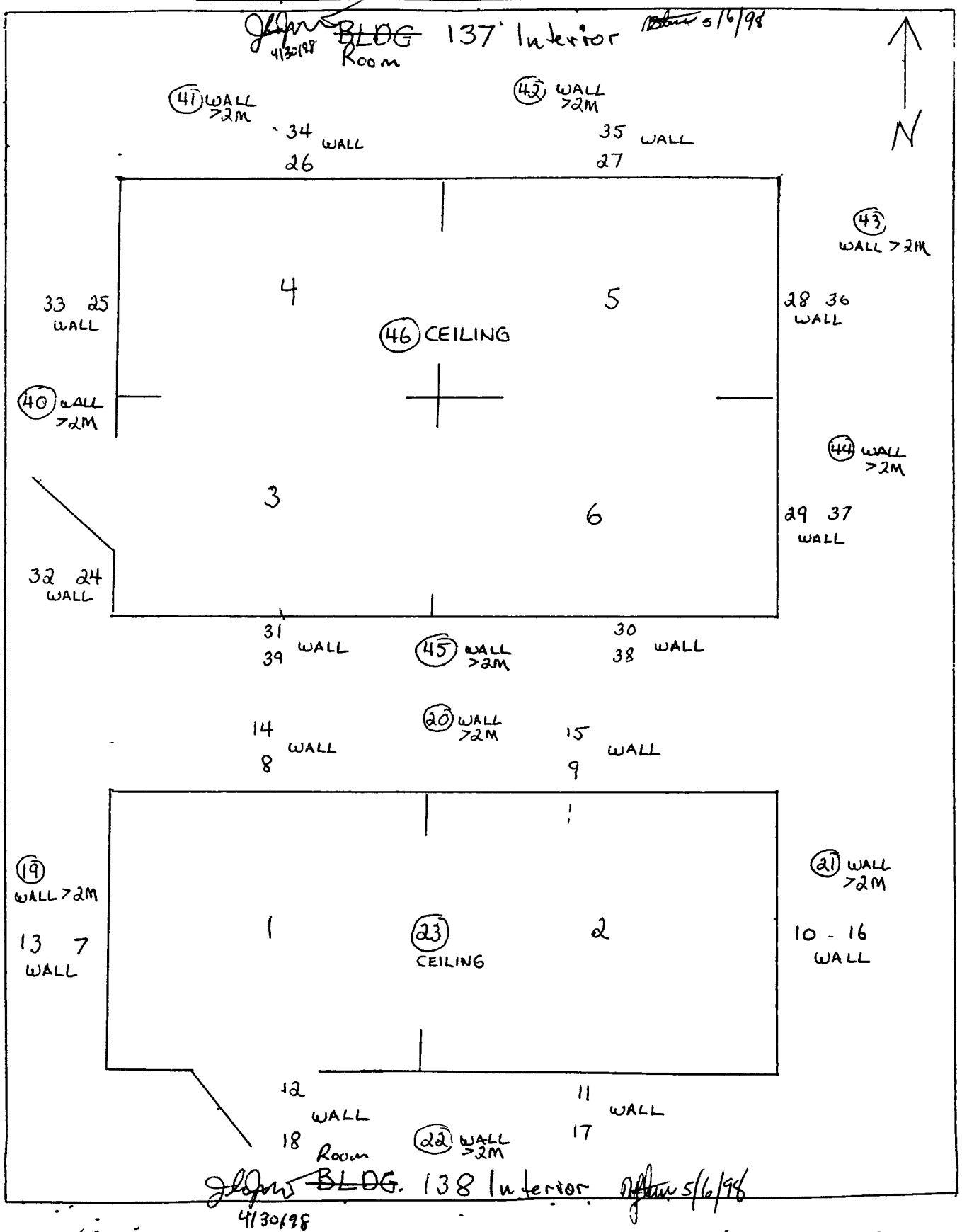
Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D.A. (dpm/100 cm²) β
1383	05-06-98	10-24-98	2.1	728	848	22 50%	32 80%	41 99	390 77

ELECTRA BACKGROUND LOG FOR UNIT #9 (Rooms 137&138)

Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst + ref. area (cpm)	EFF α	EFF. β	M.D.A (dpm/100 cm²) α	M D.A (dpm/100 cm²) β
1249	04-16-98	09-28-98	2 2	626 7	746 7	22 27%	35 20%	43 14	338 40
2336	04-16-98	09-05-98	2 3	717 3	837 3	23 60%	30 20%	41 36	421 35

Control No._____

Radiological Operations
Area or Equipment Drawing Showing Survey Points



Note: Map not drawn to scale. 4/29/98

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Rooms 137/138

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 2336 04-16-98
Cal Due Date: 09-05-98
Efficiency (%): α 23 60 βγ 30 20

Bkgd (cpm): α 2 3 βγ 837 3 (717.3 Inst Only, Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	3	See Attached Map	<100	<750	4	913	1 7	75 7	7 20	250 66
2	4	See Attached Map	<100	<750	7	964	4 7	126 7	19 92	419 54
3	5	See Attached Map	<100	<750	4	908	1 7	70 7	7 20	234 11
4	6	See Attached Map	<100	<750	10	910	7 7	72 7	32 63	240 73
5	24	See Attached Map	<100	<750	2	538	-0 3	-299 3	-1 27	-991 06
6	25	See Attached Map	<100	<750	7	861	4 7	23 7	19 92	78 48
7	26	See Attached Map	<100	<750	7	827	4 7	-10 3	19 92	-34 11
8	27	See Attached Map	<100	<750	10	899	7 7	61 7	32 63	204 30
9	28	See Attached Map	<100	<750	4	947	1 7	109 7	7 20	363 25
10	29	See Attached Map	<100	<750	6	911	3 7	73 7	15 68	244 04
11	30	See Attached Map	<100	<750	3	837	0 7	-0 3	2 97	-0 99
12	31	See Attached Map	<100	<750	4	757	1 7	-80 3	7 20	-265 89
13	32	See Attached Map	<100	<750	3	605	0 7	-232 3	2 97	-769 21
14	33	See Attached Map	<100	<750	4	826	1 7	-11 3	7 20	-37 42
15	34	See Attached Map	<100	<750	11	871	8 7	33 7	36 86	111 59
16	35	See Attached Map	<100	<750	5	851	2 7	13 7	11 44	45 36
17	36	See Attached Map	<100	<750	6	837	3 7	-0 3	15 68	-0 99
18	37	See Attached Map	<100	<750	4	868	1 7	30 7	7 20	101 66
19	38	See Attached Map	<100	<750	3	901	0 7	63 7	2 97	210 93
20	39	See Attached Map	<100	<750	5	803	2 7	-34 3	11 44	-113 58

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Rooms 137/138

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 2336 04-16-98
Cal Due Date: 09-05-98
Efficiency (%): α 23 60 βγ 30 20

Bkgd (cpm): α 2 3 βγ 837 3

717 3 Inst Only
Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
21	40	See Attached Map	<100	<750	6	805	3 7	-32 3	15 68	-106 95
22	41	See Attached Map	<100	<750	10	825	7 7	-12 3	32 63	-40 73
23	42	See Attached Map	<100	<750	3	844	0 7	6 7	2 97	22 19
24	43	See Attached Map	<100	<750	5	755	2 7	-82 3	11 44	-272 52
25	44	See Attached Map	<100	<750	3	801	0 7	-36 3	2 97	-120 20
26	45	See Attached Map	<100	<750	8	745	5 7	-92 3	24 15	-305 63
27	46	See Attached Map	<100	<750	10	829	7 7	-8 3	32 63	-27 48

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Rooms 137/138

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1249 04-16-98
Cal Due Date: 09-28-98
Efficiency (%): α 22 27 βγ 35 20

Bkgd (cpm): α 2 2 βγ 746 7 (626 7 Inst. Only) Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	8	812	5 8	65 3	26 04	185 51
2	2	See Attached Map	<100	<750	3	867	0 8	120 3	3 59	341 76
3	7	See Attached Map	<100	<750	4	771	1 8	24 3	8 08	69 03
4	8	See Attached Map	<100	<750	8	716	5 8	-30 7	26 04	-87 22
5	9	See Attached Map	<100	<750	3	797	0 8	50 3	3 59	142 90
6	10	See Attached Map	<100	<750	10	851	7 8	104 3	35 02	296 31
7	11	See Attached Map	<100	<750	3	855	0 8	108 3	3 59	307 67
8	12	See Attached Map	<100	<750	3	505	0 8	-241 7	3 59	-686 65
9	13	See Attached Map	<100	<750	11	767	8 8	20 3	39 52	57 67
10	14	See Attached Map	<100	<750	5	704	2 8	-42 7	12 57	-121 31
11	15	See Attached Map	<100	<750	3	801	0 8	54 3	3 59	154 26
12	16	See Attached Map	<100	<750	4	761	1 8	14 3	8 08	40 62
13	17	See Attached Map	<100	<750	4	722	1 8	-24 7	8 08	-70 17
14	18	See Attached Map	<100	<750	2	515	-0 2	-231 7	-0 90	-658 24
15	19	See Attached Map	<100	<750	3	810	0 8	63 3	3 59	179 83
16	20	See Attached Map	<100	<750	4	845	1 8	98 3	8 08	279 26
17	21	See Attached Map	<100	<750	6	798	3 8	51 3	17 06	145 74
18	22	See Attached Map	<100	<750	1	812	-1 2	65 3	-5 39	185 51
19	23	See Attached Map	<100	<750	3	723	0 8	-23 7	3 59	-67 33

OXFR ECLIPSE LB
Printing Date 4/23/98
Print Time 9 13 29AM

Version 1 10
Report Name Gross Alpha Beta Analysis CPM DPM

Count Date **4/16/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **one minute swipe count - 199804160953**

Rooms 137/138

System Information

Serial No 38922 **Batch ID** **203**

Detector S/N 758 Group **A**

Sample Information
Sample Units
Geometry Swipe/Smear 1/8"

Count Parameters
Count Mode Simultaneous
Operating Voltage 1 395 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	**Beta**
Efficiency (%)	33 67	48 90
Background Subtract		Enable
Background	0 00	~~0 00~~ 1 5
Batch MDA (dpm)	8 04	14 18

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	
2		0 00	0 00	0 00	5 00	10 22	9 15	< MDA	
3		0 00	0 00	0 00	3 00	6 13	7 08	< MDA	
4		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
5		1 00	2 97	5 94	3 00	6 13	7 08	< MDA	
6		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
7		2 00	5 94	8 41	0 00	0 00	0 00		< MDA
8		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	
9		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
10		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	
11		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
12		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
13		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	
14		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
15		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
16		0 00	0 00	0 00	3 00	6 13	7 08	< MDA	
17		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	
18		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	
19		0 00	0 00	0 00	4 00	8 18	8 18	< MDA	
20		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
21		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
22		0 00	0 00	0 00	4 00	8 18	8 18	< MDA	
23		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
24		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
25		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
26		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
27		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	
28		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
29		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
30		0 00	0 00	0 00	5 00	10 22	9 15	< MDA	
31		1 00	2 97	5 94	2 00	4 09	5 78	< MDA	
32		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
33		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
34		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
35		0 00	0 00	0 00	4 00	8 18	8 18	< MDA	

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name one minute swipe count - 199804160953

System Information

Serial No 38922 **Batch ID** 203

Detector S/N 758 Group A

Sample Information
Sample Units
Geometry Swipe/Smear 1/8"

Count Parameters
Count Mode Simultaneous
Operating Voltage 1 395 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract	Enable	
Background	0 00	0 00
Batch MDA (dpm)	8 04	14 18

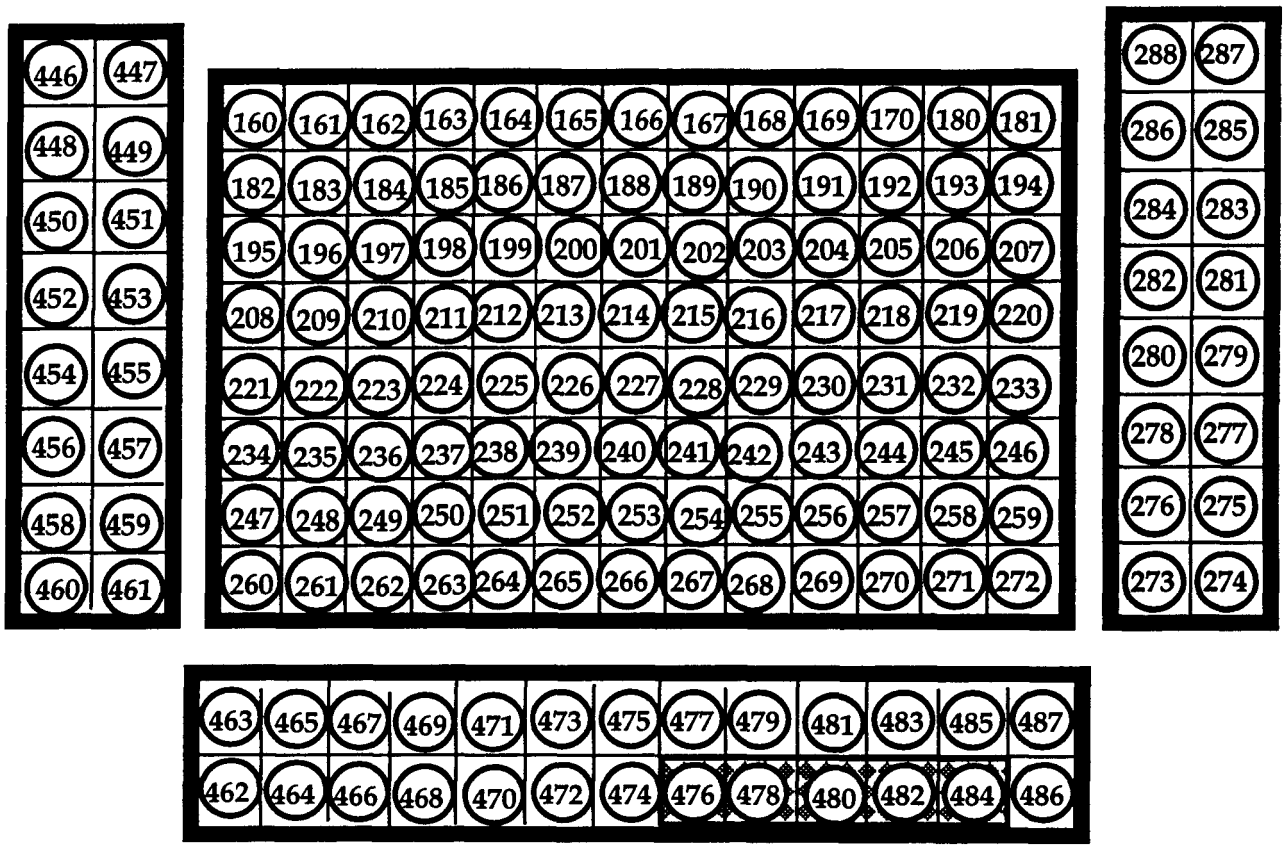
Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
36		0 00	0 00	0 00	3 00	6 13	7 08	< MDA	
37		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	
38		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	
39		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
40		0 00	0 00	0 00	3 00	6 13	7 08	< MDA	
41		2 00	5 94	8 41	2 00	4 09	5 78		
42		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
43		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
44		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
45		1 00	2 97	5 94	3 00	6 13	7 08	< MDA	
46		0 00	0 00	0 00	3 00	6 13	7 08	< MDA	

ELECTRA BACKGROUND LOG FOR UNIT #10

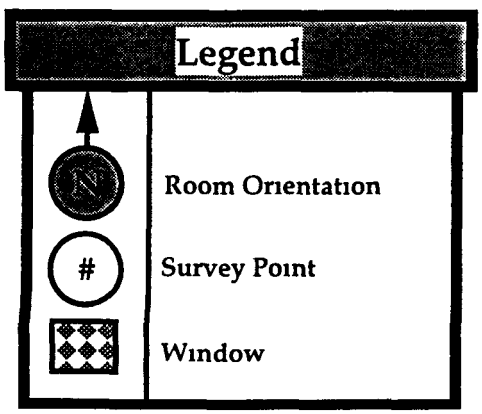
Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D.A. (dpm/100 cm²) β
1255	03-30-98	04-16-98	2 9	847 6	967 6	23 90%	38 70%	44 47	356 82
1569	(1)	09-17-98	1 6	810 4	930 4	23 20%	32 50%	37 03	415.64
1390	(1)	08-13-98	1 8	818 2	938 2	23 30%	32 60%	38 41	416 32
1386	(2)	07-05-98	1 7	750.6	870.6	23 70%	31 50%	37 02	413 04
1392	(3)	09-12-98	1 3	684 1	804 1	23 40%	30 30%	34 24	410 34
1392	04-17-98	09-12-98	2 2	672 2	792.2	23 40%	30 30%	41 06	406 83
1136	04-17-98	06-19-98	2 4	560 3	680.3	23 60%	30 20%	42 01	373 44
1136	04-20-98	06-19-98	1 4	597 6	717 6	23 60%	30 20%	34 80	385 37
2396	04-20-98	10-07-98	3 9	929.6	1049 6	23 90%	32 80%	49 76	440 50
1421	05-04-98	09-30-98	2 3	817 7	937 7	23 60%	31 70%	41 36	428 01
(1)	Instruments used on 3/31 and 4/1								
(2)	Instrument used on 3/31 and 4/8								
(3)	Instrument used on 3/30, 3/31 4/1 and 4/9								
NOTE	The most conservative background (smallest) used when an instrument was used on multiple days								

North Wing; Unit X

Walls; South East Room

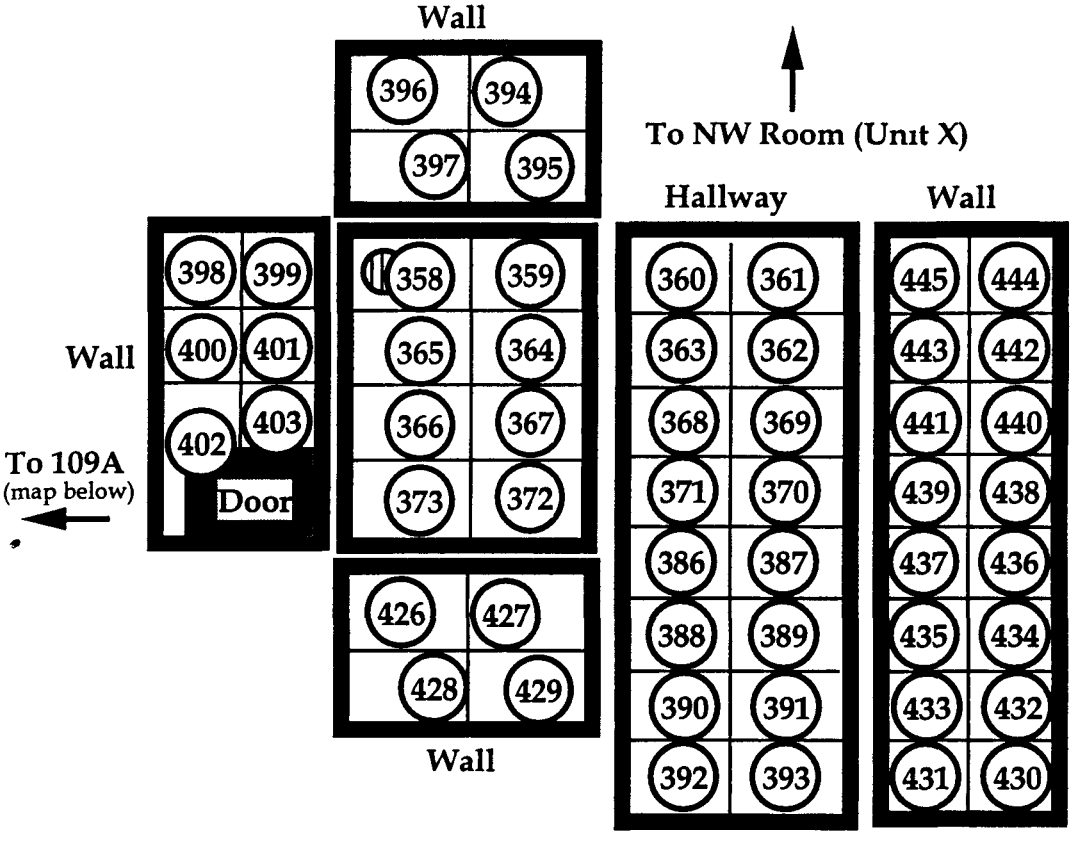


NOTE: Not drawn to scale.



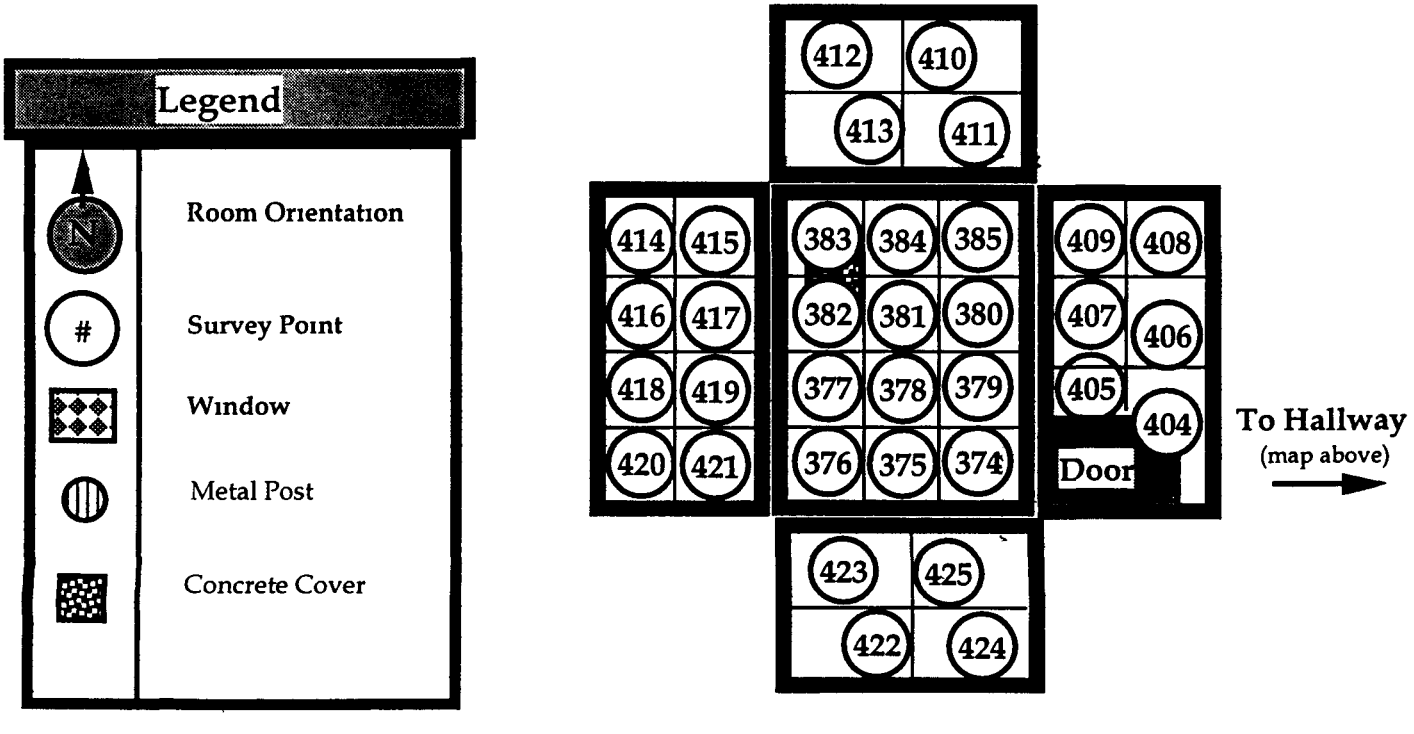
North Wing; Unit X

Hallway, Adjacent Room & Walls



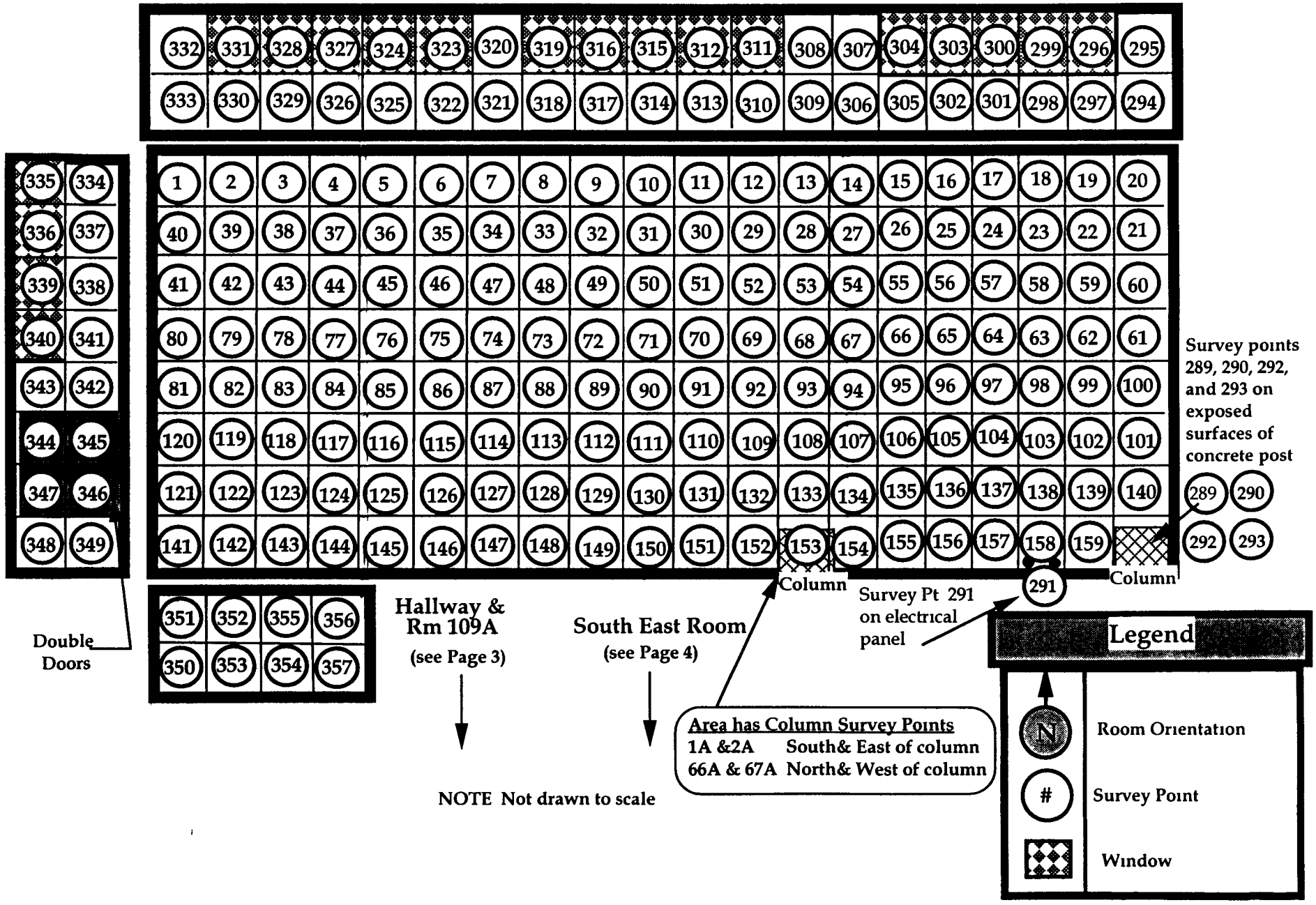
NOTE: Not drawn to scale.

Room 109A; Floor & Walls



North Wing; Unit X

Floor & Walls



BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 3-30,3-31,4-1,4-9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 3 βγ 804 1 (684 1 Inst Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	27	See Attached Map	See Millennium Data		1	679	-0 3	-125 1	-1 28	-412 87
2	29	See Attached Map	See Millennium Data		1	674	-0 3	-130 1	-1 28	-429 37
3	31	See Attached Map	<100	<750	3	711	1 7	-93 1	7 26	-307 26
4	33	See Attached Map	See Millennium Data		4	782	2 7	97 9	11 54	323 10
5	35	See Attached Map	<100	<750	0	844	-1 3	159 9	-5 56	527 72
6	37	See Attached Map	See Millennium Data		2	890	0 7	205 9	2 99	679 54
7	39	See Attached Map	See Millennium Data		1	900	-0 3	95 9	-1 28	316 50
8	41	See Attached Map	<100	<750	4	938	2 7	133 9	11 54	441 91
9	43	See Attached Map	See Millennium Data		1	905	-0 3	100 9	-1 28	333 0
10	46	See Attached Map	See Millennium Data		6	944	4 7	139 9	20 09	461 72
11	48	See Attached Map	See Millennium Data		2	922	0 7	117 9	2 99	389 11
12	50	See Attached Map	<100	<750	4	929	2 7	124 9	11 54	412 21
13	52	See Attached Map	See Millennium Data		2	897	0 7	92 9	2 99	306 60
14	54	See Attached Map	See Millennium Data		5	880	3 7	75 9	15 81	250 50
15	56	See Attached Map	See Millennium Data		2	917	0 7	112 9	2 99	372 61
16	58	See Attached Map	See Millennium Data		1	850	-0 3	45 9	-1 28	151 49
17	60	See Attached Map	<100	<750	1	833	-0 3	28 9	-1 28	95 38
18	62	See Attached Map	See Millennium Data		4	858	2 7	53 9	11 54	177 89
19	64	See Attached Map	See Millennium Data		1	819	-0 3	14 9	-1 28	49 17
20	66	See Attached Map	See Millennium Data		3	841	1 7	36 9	7 26	121 78
21	68	See Attached Map	See Millennium Data		2	860	0 7	55 9	2 99	184 49
22	70	See Attached Map	See Millennium Data		3	914	1 7	109 9	7 26	362 71
23	72	See Attached Map	See Millennium Data		4	936	2 7	131 9	11 54	435 31
24	74	See Attached Map	See Millennium Data		1	858	-0 3	53 9	-1 28	177 89
25	76	See Attached Map	See Millennium Data		2	987	0 7	182 9	2 99	603 63

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 3-30,3-31,4-1,4-9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 3 βγ 804 1 Ref Area
684 1 Inst. Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
26	78	See Attached Map	See Millennium Data		0	930	-1 3	125 9	-5 56	415 51
27	81	See Attached Map	<100	<750	0	930	-1 3	125 9	-5 56	415 51
28	84	See Attached Map	See Millennium Data		1	897	-0 3	92 9	-1 28	306 60
29	86	See Attached Map	<100	<750	2	860	0 7	55 9	2 99	184 49
30	89	See Attached Map	<100	<750	1	967	-0 3	162 9	-1 28	537 62
31	93	See Attached Map	See Millennium Data		2	865	0 7	60 9	2 99	200 99
32	97	See Attached Map	See Millennium Data		2	839	0 7	34 9	2 99	115 18
33	101	See Attached Map	See Millennium Data		3	914	1 7	109 9	7 26	362 71
34	105	See Attached Map	See Millennium Data		2	892	0 7	87 9	2 99	290 10
35	109	See Attached Map	See Millennium Data		4	967	2 7	162 9	11 54	537 62
36	113	See Attached Map	See Millennium Data		6	895	4 7	90 9	20 09	300 0
37	117	See Attached Map	See Millennium Data		5	963	3 7	158 9	15 81	524 42
38	121	See Attached Map	<100	<750	4	869	2 7	64 9	11 54	214 19
39	125	See Attached Map	See Millennium Data		2	949	0 7	144 9	2 99	478 22
40	129	See Attached Map	See Millennium Data		7	885	5 7	80 9	24 36	267 0
41	133	See Attached Map	See Millennium Data		3	839	1 7	34 9	7 26	115 18
42	137	See Attached Map	See Millennium Data		2	870	0 7	65 9	2 99	217 49
43	141	See Attached Map	<100	<750	3	895	1 7	90 9	7 26	300 0
44	145	See Attached Map	<100	<750	1	958	-0 3	153 9	-1 28	507 92
45	149	See Attached Map	See Millennium Data		1	915	-0 3	110 9	-1 28	366 01
46	153	See Attached Map	<100	<750	1	841	-0 3	36 9	-1 28	121 78
47	157	See Attached Map	See Millennium Data		2	901	0 7	96 9	2 99	319 80
48	163	See Attached Map	See Millennium Data		1	922	-0 3	117 9	-1 28	389 11
49	167	See Attached Map	See Millennium Data		3	862	1 7	57 9	7 26	191 09
50	180	See Attached Map	See Millennium Data		4	852	2 7	47 9	11 54	158 09

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 3-30,3-31,4-1,4-9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 3 βγ 804 1 (684 1 Inst Only, Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
51	182	See Attached Map	<100	<750	2	924	0 7	119 9	2 99	395 71
52	184	See Attached Map	<100	<750	5	955	3 7	150 9	15 81	498 02
53	186	See Attached Map	See Millennium Data		4	920	2 7	115 9	11 54	382 51
54	188	See Attached Map	<100	<750	2	977	0 7	172 9	2 99	570 63
55	190	See Attached Map	<100	<750	0	925	-1 3	120 9	-5 56	399 01
56	192	See Attached Map	See Millennium Data		3	893	1 7	88 9	7 26	293 40
57	194	See Attached Map	<100	<750	5	962	3 7	157 9	15 81	521 12
58	196	See Attached Map	See Millennium Data		2	911	0 7	106 9	2 99	352 81
59	198	See Attached Map	See Millennium Data		4	1004	2 7	199 9	11 54	659 74
60	200	See Attached Map	See Millennium Data		1	913	-0 3	108 9	-1 28	359 41
61	201	See Attached Map	See Millennium Data		1	887	-0 3	82 9	-1 28	273 60
62	203	See Attached Map	See Millennium Data		2	907	0 7	102 9	2 99	339 60
63	205	See Attached Map	See Millennium Data		2	821	0 7	16 9	2 99	55 78
64	207	See Attached Map	<100	<750	2	821	0 7	16 9	2 99	55 78
65	208	See Attached Map	<100	<750	2	960	0 7	155 9	2 99	514 52
66	210	See Attached Map	See Millennium Data		0	907	-1 3	102 9	-5 56	339 60
67	212	See Attached Map	See Millennium Data		1	944	-0 3	139 9	-1 28	461 72
68	214	See Attached Map	See Millennium Data		3	851	1 7	46 9	7 26	154 79
69	216	See Attached Map	<100	<750	1	896	-0 3	91 9	-1 28	303 30
70	218	See Attached Map	See Millennium Data		1	894	-0 3	89 9	-1 28	296 70
71	220	See Attached Map	<100	<750	3	840	1 7	35 9	7 26	118 48
72	222	See Attached Map	See Millennium Data		4	1001	2 7	196 9	11 54	649 83
73	224	See Attached Map	See Millennium Data		5	1004	3 7	199 9	15 81	659 74
74	226	See Attached Map	See Millennium Data		3	973	1 7	168 9	7 26	557 43
75	228	See Attached Map	See Millennium Data		3	972	1 7	167 9	7 26	554 13

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 3-30,3-31,4-1,4-9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 3 βγ 804 1 (684 1 Inst. Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
76	230	See Attached Map	See Millennium Data		2	937	0 7	132 9	2 99	438 61
77	232	See Attached Map	See Millennium Data		3	1016	1 7	211 9	7 26	699 34
78	234	See Attached Map	<100	<750	2	869	0 7	64 9	2 99	214 19
79	236	See Attached Map	See Millennium Data		2	931	0 7	126 9	2 99	418 81
80	238	See Attached Map	See Millennium Data		2	936	0 7	131 9	2 99	435 31
81	240	See Attached Map	<100	<750	5	880	3 7	75 9	15 81	250 50
82	242	See Attached Map	See Millennium Data		3	937	1 7	132 9	7 26	438 61
83	244	See Attached Map	See Millennium Data		1	856	-0 3	51 9	-1 28	171 29
84	246	See Attached Map	<100	<750	2	955	0 7	150 9	2 99	498 02
85	248	See Attached Map	See Millennium Data		1	950	-0 3	145 9	-1 28	481 52
86	250	See Attached Map	See Millennium Data		3	902	1 7	97 9	7 26	323 10
87	252	See Attached Map	See Millennium Data		5	842	3 7	37 9	15 81	125 08
88	254	See Attached Map	See Millennium Data		2	864	0 7	59 9	2 99	197 69
89	256	See Attached Map	See Millennium Data		3	893	1 7	88 9	7 26	293 40
90	260	See Attached Map	<100	<750	2	914	0 7	109 9	2 99	362 71
91	262	See Attached Map	<100	<750	1	915	-0 3	110 9	-1 28	366 01
92	264	See Attached Map	<100	<750	2	874	0 7	69 9	2 99	230 69
93	266	See Attached Map	<100	<750	1	937	-0 3	132 9	-1 28	438 61
94	268	See Attached Map	<100	<750	3	898	1 7	93 9	7 26	309 90
95	272	See Attached Map	<100	<750	3	934	1 7	129 9	7 26	428 71
96	275	See Attached Map	<100	<750	3	766	1 7	-38 1	7 26	-125 74
97	276	See Attached Map	<100	<750	12	780	10 7	-24 1	45 73	-79 54
98	279	See Attached Map	<100	<750	3	724	1 7	-80 1	7 26	-264 36
99	282	See Attached Map	<100	<750	2	777	0 7	-27 1	2 99	-89 44
100	285	See Attached Map	<100	<750	3	738	1 7	-66 1	7 26	-218 15

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1392 3-30,3-31,4-1,4-9 1998

Cal Due Date: 09-12-98

Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 3 βγ 684 1 Inst Only; 804 1 Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
101	288	See Attached Map	<100	<750	4	706	2 7	-98 1	11 54	-323 76
102	**291**	See Attached Map	<100	<750	3	480	1 7	-204 1	7 26	-673 60
103	294	See Attached Map	<100	<750	2	734	0 7	-70 1	2 99	-231 35
104	**296**	See Attached Map	<100	<750	2	510	0 7	-174 1	2 99	-574 59
105	**299**	See Attached Map	<100	<750	2	510	0 7	-174 1	2 99	-574 59
106	302	See Attached Map	<100	<750	2	750	0 7	-54 1	2 99	-178 55
107	305	See Attached Map	<100	<750	4	739	2 7	-65 1	11 54	-214 85
108	308	See Attached Map	<100	<750	2	745	0 7	-59 1	2 99	-195 05
109	**311**	See Attached Map	<100	<750	6	534	4 7	-150 1	20 09	-495 38
110	314	See Attached Map	<100	<750	4	781	2 7	-23 1	11 54	-76 24
111	317	See Attached Map	<100	<750	2	739	0 7	-65 1	2 99	-214 85
112	320	See Attached Map	<100	<750	4	696	2 7	-108 1	11 54	-356 77
113	**323**	See Attached Map	<100	<750	1	535	-0 3	-149 1	-1 28	-492 08
114	326	See Attached Map	<100	<750	2	747	0 7	-57 1	2 99	-188 45
115	329	See Attached Map	<100	<750	6	753	4 7	-51 1	20 09	-168 65
116	332	See Attached Map	<100	<750	3	742	1 7	-62 1	7 26	-204 95
117	**335**	See Attached Map	<100	<750	4	479	2 7	-205 1	11 54	-676 90
118	338	See Attached Map	<100	<750	4	725	2 7	-79 1	11 54	-261 06
119	341	See Attached Map	<100	<750	5	722	3 7	-82 1	15 81	-270 96
120	**344**	See Attached Map	<100	<750	3	477	1 7	-207 1	7 26	-683 50
121	**347**	See Attached Map	<100	<750	0	461	-1 3	-223 1	-5 56	-736 30
122	350*	See Attached Map	See Millennium Data		6	826	4 7	21 9	20 09	72 28
123	352	See Attached Map	See Millennium Data		8	828	6 7	23 9	28 63	78 88
124	355	See Attached Map	See Millennium Data		7	759	5 7	-45 1	24 36	-148 84
125	359*	See Attached Map	See Millennium Data		9	960	7 7	155 9	32 91	514 52

* Grid not completely scanned by SRA/MSA, see corresponding hand scan survey at the end of this survey unit

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 3-30,3-31,4-1,4-9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 3 βγ 804 1 (684 1 Inst Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
126	361	See Attached Map	<100	<750	10	964	8 7	159 9	37 18	527 72
127	363	See Attached Map	See Millennium Data		8	870	6 7	65 9	28 63	217 49
128	365	See Attached Map	<100	<750	5	928	3 7	123 9	15 81	408 91
129	367	See Attached Map	See Millennium Data		11	895	9 7	90 9	41 45	300 0
130	369	See Attached Map	<100	<750	5	883	3 7	78 9	15 81	260 40
131	371	See Attached Map	See Millennium Data		6	895	4 7	90 9	20 09	300 0
132	373	See Attached Map	<100	<750	5	927	3 7	122 9	15 81	405 61
133	387	See Attached Map	<100	<750	6	860	4 7	55 9	20 09	184 49
134	389	See Attached Map	<100	<750	7	900	5 7	95 9	24 36	316 50
135	391	See Attached Map	<100	<750	3	900	1 7	95 9	7 26	316 50
136	393	See Attached Map	<100	<750	2	875	0 7	70 9	2 99	233 99
137	396	See Attached Map	<100	<750	2	860	0 7	55 9	2 99	184 49
138	398	See Attached Map	<100	<750	6	825	4 7	20 9	20 09	68 98

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 04-17-98
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 2 2 βγ 792 2 (672 2 Inst Only) Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	160	See Attached Map	<100	<750	4	921	1 8	128 8	7 69	425 08
2	161	See Attached Map	See Millenium Data		3	865	0 8	72 8	3 42	240 26
3	257	See Attached Map	See Millenium Data		3	935	0 8	142 8	3 42	471 29
4	258	See Attached Map	<100	<750	4	949	1 8	156 8	7 69	517 49
5	259	See Attached Map	<100	<750	4	970	1 8	177 8	7 69	586 80
6	269	See Attached Map	<100	<750	7	970	4 8	177 8	20 51	586 80
7	270	See Attached Map	<100	<750	4	946	1 8	153 8	7 69	507 59
8	374	See Attached Map	<100	<750	2	919	-0 2	126 8	- 85	418 48
9	375	See Attached Map	<100	<750	2	926	-0 2	133 8	- 85	441 58
10	376	See Attached Map	<100	<750	2	904	-0 2	111 8	- 85	368 98
11	377	See Attached Map	<100	<750	2	898	-0 2	105 8	- 85	349 17
12	378	See Attached Map	<100	<750	1	960	-1 2	167 8	-5 13	553 80
13	379	See Attached Map	<100	<750	3	917	0 8	124 8	3 42	411 88
14	446	See Attached Map	<100	<750	3	854	0 8	61 8	3 42	203 96
15	447	See Attached Map	<100	<750	4	683	1 8	-109 2	7 69	-360 40
16	448	See Attached Map	<100	<750	2	750	-0 2	-42 2	- 85	-139 27
17	449	See Attached Map	<100	<750	5	758	2 8	-34 2	11 97	-112 87
18	450	See Attached Map	<100	<750	2	740	-0 2	-52 2	- 85	-172 28
19	451	See Attached Map	<100	<750	4	893	1 8	100 8	7 69	332 67
20	452	See Attached Map	<100	<750	3	736	0 8	-56 2	3 42	-185 48
21	453	See Attached Map	<100	<750	3	776	0 8	-16 2	3 42	-53 47
22	454	See Attached Map	<100	<750	1	702	-1 2	-90 2	-5 13	-297 69
23	455	See Attached Map	<100	<750	1	748	-1 2	-44 2	-5 13	-145 87
24	456	See Attached Map	<100	<750	3	713	0 8	-79 2	3 42	-261 39
25	457	See Attached Map	<100	<750	3	801	0 8	8 8	3 42	29 04

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 04-17-98
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 2 2 βγ 792 2 — 672 2 Inst Only — Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
26	458	See Attached Map	<100	<750	1	701	-1 2	-91 2	-5 13	-300 99
27	459	See Attached Map	<100	<750	1	766	-1 2	-26 2	-5 13	-86 47
28	460	See Attached Map	<100	<750	2	769	-0 2	-23 2	- 85	-76 57
29	461	See Attached Map	<100	<750	1	740	-1 2	-52 2	-5 13	-172 28

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

							818 2	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe		Bkgd (cpm)	α	1 8	βγ	938 2	Ref Area
Serial # / Date Used	1390	3-31,4-1 1998						
Cal Due Date	08-13-98		Survey Type	[X] Alpha		[X] Beta-Gamma		
Efficiency (%)	α 23 30	βγ 32 60						

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm^2)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	45	See Attached Map	See Millennium Data		5	1129	3 2	190 8	13 73	585 28
2	47	See Attached Map	See Millennium Data		3	1077	1 2	138 8	5 15	425 77
3	49	See Attached Map	See Millennium Data		5	1049	3 2	110 8	13 73	339 88
4	51	See Attached Map	See Millennium Data		4	1069	2 2	130 8	9 44	401 23
5	53	See Attached Map	See Millennium Data		1	1080	-0 8	141 8	-3 43	434 97
6	55	See Attached Map	<100	<750	1	734	-0 8	-204 2	-3 43	-626 38
7	57	See Attached Map	<100	<750	1	994	-0 8	55 8	-3 43	171 17
8	59	See Attached Map	See Millennium Data		3	1027	1 2	88 8	5 15	272 39
9	61	See Attached Map	See Millennium Data		4	1055	2 2	116 8	9 44	358 28
10	63	See Attached Map	See Millennium Data		3	1012	1 2	73 8	5 15	226 38
11	65	See Attached Map	See Millennium Data		1	1074	-0 8	135 8	-3 43	416 56
12	67	See Attached Map	See Millennium Data		1	1096	-0 8	157 8	-3 43	484 05
13	69	See Attached Map	See Millennium Data		4	1075	2 2	136 8	9 44	419 63
14	71	See Attached Map	<100	<750	4	1156	2 2	217 8	9 44	668 10
15	73	See Attached Map	See Millennium Data		3	1044	1 2	105 8	5 15	324 54
16	75	See Attached Map	<100	<750	3	1038	1 2	99 8	5 15	306 13
17	77	See Attached Map	See Millennium Data		5	1075	3 2	136 8	13 73	419 63
18	79	See Attached Map	See Millennium Data		4	1060	2 2	121 8	9 44	373 62
19	80	See Attached Map	<100	<750	1	1135	-0 8	196 8	-3 43	603 68
20	82	See Attached Map	<100	<750	0	1090	-1 8	151 8	-7 73	465 64
21	87	See Attached Map	<100	<750	6	1018	4 2	79 8	18 03	244 79
22	90	See Attached Map	<100	<750	2	1101	0 2	162 8	86	499 39
23	94	See Attached Map	See Millennium Data		6	1043	4 2	104 8	18 03	321 47
24	98	See Attached Map	See Millennium Data		5	1076	3 2	137 8	13 73	422 70
25	102	See Attached Map	See Millennium Data		3	1092	1 2	153 8	5 15	471 78

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1390 3-31,4-1 1998

Cal Due Date: 08-13-98

Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 1 8 βγ 938 2 (818 2 Inst. Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts β,γ	Total Activity (dpm/100 cm²) α	Total Activity β,γ
26	106	See Attached Map	See Millennium Data		5	1098	3 2	159 8	13 73	490 18
27	110	See Attached Map	See Millennium Data		4	1033	2 2	94 8	9 44	290 80
28	114	See Attached Map	See Millennium Data		3	1087	1 2	148 8	5 15	456 44
29	118	See Attached Map	See Millennium Data		2	1114	0 2	175 8	86	539 26
30	122	See Attached Map	See Millennium Data		3	1038	1 2	99 8	5 15	306 13
31	126	See Attached Map	See Millennium Data		3	1039	1 2	100 8	5 15	309 20
32	130	See Attached Map	See Millennium Data		2	1079	0 2	140 8	86	431 90
33	134	See Attached Map	See Millennium Data		1	1080	-0 8	141 8	-3 43	434 97
34	138	See Attached Map	See Millennium Data		4	1040	2 2	101 8	9 44	312 27
35	143	See Attached Map	<100	<750	3	1089	1 2	150 8	5 15	462 58
36	144	See Attached Map	<100	<750	5	1069	3 2	130 8	13 73	401 23
37	148	See Attached Map	See Millennium Data		4	1054	2 2	115 8	9 44	355 21
38	155	See Attached Map	<100	<750	5	1057	3 2	118 8	13 73	364 42
39	159*	See Attached Map	See Millennium Data		2	1141	0 2	202 8	86	622 09
40	165	See Attached Map	See Millennium Data		4	1061	2 2	122 8	9 44	376 69
41	169	See Attached Map	See Millennium Data		3	1070	1 2	131 8	5 15	404 29
42	170	See Attached Map	See Millennium Data		3	1087	1 2	148 8	5 15	456 44
43	181	See Attached Map	<100	<750	1	1038	-0 8	99 8	-3 43	306 13
44	183	See Attached Map	See Millennium Data		2	1042	0 2	103 8	86	318 40
45	185	See Attached Map	See Millennium Data		2	990	0 2	51 8	86	158 90
46	187	See Attached Map	See Millennium Data		0	995	-1 8	56 8	-7 73	174 23
47	189	See Attached Map	See Millennium Data		0	1128	-1 8	189 8	-7 73	582 21
48	191	See Attached Map	<100	<750	4	1009	2 2	70 8	9 44	217 18
49	193	See Attached Map	See Millennium Data		0	1007	-1 8	68 8	-7 73	211 04
50	195	See Attached Map	<100	<750	0	1010	-1 8	71 8	-7 73	220 25

* Grid not completely scanned by SRA/MSA, see corresponding hand scan survey at the end of this

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1390 3-31,4-1 1998
Cal Due Date: 08-13-98
Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 1 8 βγ 938 2 818 2 Inst Only Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
51	197	See Attached Map	<100	<750	1	993	-0 8	54 8	-3 43	168 10
52	199	See Attached Map	See Millennium Data		2	943	0 2	4 8	86	14 72
53	202	See Attached Map	See Millennium Data		2	953	0 2	14 8	86	45 40
54	204	See Attached Map	<100	<750	1	808	-0 8	-130 2	-3 43	-399 39
55	206	See Attached Map	See Millennium Data		3	950	1 2	11 8	5 15	36 20
56	209	See Attached Map	See Millennium Data		2	1084	0 2	145 8	86	447 24
57	211	See Attached Map	See Millennium Data		4	995	2 2	56 8	9 44	174 23
58	213	See Attached Map	See Millennium Data		1	979	-0 8	40 8	-3 43	125 15
59	215	See Attached Map	See Millennium Data		1	983	-0 8	44 8	-3 43	137 42
60	217	See Attached Map	See Millennium Data		2	1040	0 2	101 8	86	312 27
61	219	See Attached Map	See Millennium Data		4	958	2 2	19 8	9 44	60 74
62	221	See Attached Map	<100	<750	1	860	-0 8	-78 2	-3 43	-239 88
63	223	See Attached Map	See Millennium Data		2	930	0 2	-8 2	86	-25 15
64	225	See Attached Map	See Millennium Data		2	973	0 2	34 8	86	106 75
65	227	See Attached Map	<100	<750	2	865	0 2	-73 2	86	-224 54
66	229	See Attached Map	See Millennium Data		3	902	1 2	-36 2	5 15	-111 04
67	231	See Attached Map	See Millennium Data		3	959	1 2	20 8	5 15	63 80
68	233	See Attached Map	<100	<750	2	998	0 2	59 8	86	183 44
69	235	See Attached Map	See Millennium Data		7	1048	5 2	109 8	22 32	336 81
70	237	See Attached Map	See Millennium Data		2	1000	0 2	61 8	86	189 57
71	239	See Attached Map	See Millennium Data		1	1062	-0 8	123 8	-3 43	379 75
72	241	See Attached Map	See Millennium Data		6	986	4 2	47 8	18 03	146 63
73	243	See Attached Map	See Millennium Data		3	1078	1 2	139 8	5 15	428 83
74	245	See Attached Map	See Millennium Data		1	1050	-0 8	111 8	-3 43	342 94
75	247	See Attached Map	<100	<750	3	987	1 2	48 8	5 15	149 69

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1390 3-31,4-1 1998
Cal Due Date: 08-13-98
Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 1 8 βγ 938 2 (818 2 Inst Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
76	249	See Attached Map	See Millennium Data		1	1032	-0 8	93 8	-3 43	287 73
77	251	See Attached Map	See Millennium Data		2	1006	0 2	67 8	86	207 98
78	253	See Attached Map	<100	<750	3	936	1 2	-2 2	5 15	-6 75
79	255	See Attached Map	See Millennium Data		2	1014	0 2	75 8	86	232 52
80	261	See Attached Map	<100	<750	2	1026	0 2	87 8	86	269 33
81	263	See Attached Map	<100	<750	1	1073	-0 8	134 8	-3 43	413 50
82	265	See Attached Map	<100	<750	6	1023	4 2	84 8	18 03	260 12
83	267	See Attached Map	<100	<750	7	984	5 2	45 8	22 32	140 49
84	271	See Attached Map	<100	<750	3	1057	1 2	118 8	5 15	364 42
85	273	See Attached Map	<100	<750	11	984	9 2	45 8	39 48	140 49
86	274	See Attached Map	<100	<750	9	956	7 2	17 8	30 90	54 60
87	277	See Attached Map	<100	<750	4	953	2 2	14 8	9 44	45 40
88	280	See Attached Map	<100	<750	5	949	3 2	10 8	13 73	33 13
89	283	See Attached Map	<100	<750	10	1002	8 2	63 8	35 19	195 71
90	286	See Attached Map	<100	<750	7	866	5 2	-72 2	22 32	-221 47
91	289	See Attached Map	<100	<750	9	900	7 2	-38 2	30 90	-117 18
92	292	See Attached Map	<100	<750	10	961	8 2	22 8	35 19	69 94
93	295	See Attached Map	<100	<750	8	854	6 2	-84 2	26 61	-258 28
94	297	See Attached Map	<100	<750	6	891	4 2	-47 2	18 03	-144 79
95	301	See Attached Map	<100	<750	4	902	2 2	-36 2	9 44	-111 04
96	304	See Attached Map	<100	<750	5	547	3 2	-271 2	13 73	-831 90
97	307	See Attached Map	<100	<750	3	820	1 2	-118 2	5 15	-362 58
98	310	See Attached Map	<100	<750	3	905	1 2	-33 2	5 15	-101 84
99	313	See Attached Map	<100	<750	0	920	-1 8	-18 2	-7 73	-55 83
100	316	See Attached Map	<100	<750	6	606	4 2	-212 2	18 03	-650 92

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1390 3-31,4-1 1998
Cal Due Date: 08-13-98
Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 1 8 βγ 938 2 818 2 Inst Only Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
101	319	See Attached Map	<100	<750	4	798	2 2	-20 2	9 44	-61 96
102	322	See Attached Map	<100	<750	5	817	3 2	-121 2	13 73	-371 78
103	325	See Attached Map	<100	<750	8	856	6 2	-82 2	26 61	-252 15
104	328	See Attached Map	<100	<750	7	577	5 2	-241 2	22 32	-739 88
105	331	See Attached Map	<100	<750	3	720	1 2	-98 2	5 15	-301 23
106	334	See Attached Map	<100	<750	5	831	3 2	-107 2	13 73	-328 83
107	337	See Attached Map	<100	<750	6	875	4 2	-63 2	18 03	-193 87
108	340	See Attached Map	<100	<750	4	885	2 2	66 8	9 44	204 91
109	343	See Attached Map	<100	<750	3	892	1 2	-46 2	5 15	-141 72
110	346	See Attached Map	<100	<750	5	548	3 2	-270 2	13 73	-828 83
111	349	See Attached Map	<100	<750	4	865	2 2	-73 2	9 44	-224 54
112	353	See Attached Map	See Millennium Data		5	913	3 2	-25 2	13 73	-77 30
113	356	See Attached Map	See Millennium Data		6	967	4 2	28 8	18 03	88 34
114	358	See Attached Map	<100	<750	14	1135	12 2	196 8	52 36	603 68
115	360	See Attached Map	See Millennium Data		10	1130	8 2	191 8	35 19	588 34
116	362	See Attached Map	<100	<750	3	1138	1 2	199 8	5 15	612 88
117	364	See Attached Map	See Millennium Data		5	1012	3 2	73 8	13 73	226 38
118	366	See Attached Map	<100	<750	6	1035	4 2	96 8	18 03	296 93
119	368	See Attached Map	See Millennium Data		9	994	7 2	55 8	30 90	171 17
120	370	See Attached Map	<100	<750	10	1022	8 2	83 8	35 19	257 06
121	372	See Attached Map	<100	<750	6	999	4 2	60 8	18 03	186 50
122	386	See Attached Map	<100	<750	7	1022	5 2	83 8	22 32	257 06
123	388	See Attached Map	<100	<750	6	996	4 2	57 8	18 03	177 30
124	390	See Attached Map	<100	<750	2	1018	0 2	79 8	86	244 79
125	392	See Attached Map	<100	<750	2	966	0 2	27 8	86	85 28

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1390 3-31,4-1 1998
Cal Due Date: 08-13-98
Efficiency (%): α 23 30 βγ 32 60

Bkgd (cpm): α 1 8 βγ 938 2 — 818 2 Inst. Only; Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
126	394	See Attached Map	<100	<750	2	941	0 2	2 8	86	8 59
127	399	See Attached Map	<100	<750	8	917	6 2	-21 2	26 61	-65 03

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1569 3-31,4-1 1998
Cal Due Date: 09-17-98
Efficiency (%): α 23 20 βγ 32 50

Bkgd (cpm): α 1 6 βγ 930 4 (810 4 Inst Only, Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	91	See Attached Map	<100	<750	1	1036	-0 6	105 6	-2 59	324 92
2	95	See Attached Map	See Millennium Data		38	1181	36 4	250 6	156 90	771 08
3	99	See Attached Map	<100	<750	4	1012	2 4	81 6	10 34	251 08
4	103	See Attached Map	See Millennium Data		2	1054	0 4	123 6	1 72	380 31
5	107	See Attached Map	See Millennium Data		3	1036	1 4	105 6	6 03	324 92
6	111	See Attached Map	See Millennium Data		20	1112	18 4	181 6	79 31	558 77
7	115	See Attached Map	See Millennium Data		15	1162	13 4	231 6	57 76	712 62
8	119	See Attached Map	<100	<750	20	1210	18 4	279 6	79 31	860 31
9	124	See Attached Map	See Millennium Data		3	1120	1 4	189 6	6 03	583 38
10	128	See Attached Map	See Millennium Data		2	1062	0 4	131 6	1 72	404 92
11	132	See Attached Map	See Millennium Data		7	1039	5 4	108 6	23 28	334 15
12	136	See Attached Map	See Millennium Data		3	1116	1 4	185 6	6 03	571 08
13	140	See Attached Map	See Millennium Data		4	955	2 4	24 6	10 34	75 69
14	146	See Attached Map	<100	<750	2	1060	0 4	129 6	1 72	398 77
15	150	See Attached Map	See Millennium Data		7	1056	5 4	125 6	23 28	386 46
16	152	See Attached Map	See Millennium Data		2	1092	0 4	161 6	1 72	497 23
17	156	See Attached Map	See Millennium Data		5	1105	3 4	174 6	14 66	537 23
18	162	See Attached Map	See Millennium Data		3	1075	1 4	144 6	6 03	444 92
19	166	See Attached Map	See Millennium Data		6	1009	4 4	78 6	18 97	241 85
20	278	See Attached Map	<100	<750	8	820	- 6 4	-110 4	27 59	-339 69
21	281	See Attached Map	<100	<750	4	876	2 4	-54 4	10 34	-167 38
22	284	See Attached Map	<100	<750	2	913	0 4	-17 4	1 72	-53 54
23	287	See Attached Map	<100	<750	8	814	6 4	-116 4	27 59	-358 15
24	290	See Attached Map	<100	<750	10	933	8 4	2 6	36 21	8 0
25	293	See Attached Map	<100	<750	10	934	8 4	3 6	36 21	11 08
26	298	See Attached Map	<100	<750	6	849	4 4	-81 4	18 97	-250 46
27	300	See Attached Map	<100	<750	5	573	3 4	-237 4	14 66	-730 46

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1569 3-31,4-1 1998
Cal Due Date: 09-17-98
Efficiency (%): α 23 20 βγ 32 50

Bkgd (cpm): α 1 6 βγ 930 4 (810 4 Inst. Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
28	303	See Attached Map	<100	<750	5	577	3 4	-233 4	14 66	-718 15
29	306	See Attached Map	<100	<750	6	869	4 4	-61 4	18 97	-188 92
30	309	See Attached Map	<100	<750	1	884	-0 6	-46 4	-2 59	-142 77
31	312	See Attached Map	<100	<750	3	571	1 4	-239 4	6 03	-736 62
32	315	See Attached Map	<100	<750	4	566	2 4	-244 4	10 34	-752 0
33	318	See Attached Map	<100	<750	5	869	3 4	-61 4	14 66	-188 92
34	321	See Attached Map	<100	<750	5	814	3 4	-116 4	14 66	-358 15
35	324	See Attached Map	<100	<750	1	578	-0 6	-232 4	-2 59	-715 08
36	327	See Attached Map	<100	<750	6	604	4 4	-206 4	18 97	-635 08
37	330	See Attached Map	<100	<750	3	726	1 4	-204 4	6 03	-628 92
38	333	See Attached Map	<100	<750	1	817	-0 6	-113 4	-2 59	-348 92
39	336	See Attached Map	<100	<750	7	628	5 4	-182 4	23 28	-561 23
40	339	See Attached Map	<100	<750	4	606	2 4	-204 4	10 34	-628 92
41	342	See Attached Map	<100	<750	2	832	0 4	-98 4	1 72	-302 77
42	345	See Attached Map	<100	<750	2	556	0 4	-254 4	1 72	-782 77
43	348	See Attached Map	<100	<750	1	789	-0 6	-141 4	-2 59	-435 08
44	351 *	See Attached Map	See Millennium Data		12	950	10 4	19 6	44 83	60 31
45	354	See Attached Map	See Millennium Data		8	861	6 4	-69 4	27 59	-213 54
46	357	See Attached Map	See Millennium Data		6	862	4 4	-68 4	18 97	-210 46
47	395	See Attached Map	<100	<750	5	950	3 4	19 6	14 66	60 31
48	397	See Attached Map	<100	<750	3	904	1 4	-26 4	6 03	-81 23
49	400	See Attached Map	<100	<750	3	910	1 4	-20 4	6 03	-62 77

* Grid not completely scanned by SRA/MSA, see corresponding hand scan survey at the end of this survey unit section

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1386 3-31,4-8 1998
Cal Due Date: 07-05-98
Efficiency (%): α 23 70 βγ 31 50

Bkgd (cpm): α 1 7 βγ 870 6 (750 6 Inst. Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	83	See Attached Map	See Millennium Data		1	1030	-0 7	159 4	-2 95	506 03
2	85	See Attached Map	<100	<750	6	1003	4 3	132 4	18 14	420 32
3	88	See Attached Map	See Millennium Data		1	1011	-0 7	140 4	-2 95	445 71
4	92 *	See Attached Map	See Millennium Data		0	985	-1 7	114 4	-7 17	363 17
5	96	See Attached Map	See Millennium Data		1	990	-0 7	119 4	-2 95	379 05
6	100	See Attached Map	<100	<750	4	957	2 3	86 4	9 70	274 29
7	104	See Attached Map	See Millennium Data		5	933	3 3	62 4	13 92	198 10
8	108	See Attached Map	See Millennium Data		2	1046	0 3	175 4	1 27	556 83
9	112	See Attached Map	See Millennium Data		3	999	1 3	128 4	5 49	407 62
10	116	See Attached Map	See Millennium Data		5	1085	3 3	214 4	13 92	680 63
11	120	See Attached Map	<100	<750	1	745	-0 7	-125 6	-2 95	-398 73
12	123	See Attached Map	See Millennium Data		0	1005	-1 7	134 4	-7 17	426 67
13	127	See Attached Map	See Millennium Data		1	1045	-0 7	174 4	-2 95	553 65
14	131	See Attached Map	See Millennium Data		2	1002	0 3	131 4	1 27	417 14
15	135	See Attached Map	See Millennium Data		5	1007	3 3	136 4	13 92	433 02
16	139	See Attached Map	See Millennium Data		4	1008	2 3	137 4	9 70	436 19
17	142	See Attached Map	<100	<750	4	1059	2 3	188 4	9 70	598 10
18	147	See Attached Map	<100	<750	1	1013	-0 7	142 4	-2 95	452 06
19	151	See Attached Map	See Millennium Data		2	1067	0 3	196 4	1 27	623 49
20	154	See Attached Map	<100	<750	4	1038	2 3	167 4	9 70	531 43
21	158 *	See Attached Map	See Millennium Data		2	986	0 3	115 4	1 27	366 35
22	164	See Attached Map	See Millennium Data		1	952	-0 7	81 4	-2 95	258 41
23	168	See Attached Map	See Millennium Data		0	1046	-1 7	175 4	-7 17	556 83

* Grid not completely scanned by SRA/MSA, see corresponding hand scan survey at the end of this survey unit section

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1255 03-30-98
Cal Due Date: 04-16-98
Efficiency (%): α 23 90 βγ 38 70

Bkgd (cpm): α 2 90 βγ 967 60 847 60 Inst Only Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	2	1085	-0 90	117 40	-3 77	303 36
2	2	See Attached Map	<100	<750	1	1159	-1 90	191 40	-7 95	494 57
3	3	See Attached Map	<100	<750	8	1080	5 10	112 40	21 34	290 44
4	4	See Attached Map	<100	<750	1	1110	-1 90	142 40	-7 95	367 96
5	5	See Attached Map	<100	<750	6	1096	3 10	128 40	12 97	331 78
6	6	See Attached Map	<100	<750	3	1106	0 10	138 40	0 42	357 62
7	7	See Attached Map	<100	<750	3	1030	0 10	62 40	0 42	161 24
8	8	See Attached Map	<100	<750	2	1079	-0 90	111 40	-3 77	287 86
9	9	See Attached Map	<100	<750	3	1160	0 10	192 40	0 42	497 16
10	10	See Attached Map	<100	<750	3	1075	0 10	107 40	0 42	277 52
11	11	See Attached Map	<100	<750	5	1073	2 10	105 40	8 79	272 35
12	12	See Attached Map	<100	<750	6	1088	3 10	240 40	12 97	621 19
13	13	See Attached Map	<100	<750	5	1037	2 10	69 40	8 79	179 33
14	14	See Attached Map	<100	<750	1	1066	-1 90	98 40	-7 95	254 26
15	15	See Attached Map	<100	<750	1	1018	-1 90	50 40	-7 95	130 23
16	16	See Attached Map	<100	<750	3	1078	0 10	110 40	0 42	285 27
17	17	See Attached Map	<100	<750	3	990	0 10	22 40	0 42	57 88
18	18	See Attached Map	<100	<750	1	1066	-1 90	98 40	-7 95	254 26
19	19	See Attached Map	<100	<750	1	1107	-1 90	139 40	-7 95	360 21
20	20	See Attached Map	<100	<750	4	1084	1 10	116 40	4 60	300 78
21	21	See Attached Map	See Millennium Data		0	964	-2 90	-3 60	-12 13	-9 30
22	22	See Attached Map	See Millennium Data		1	996	-1 90	28 40	-7 95	73 39
23	23	See Attached Map	See Millennium Data		2	999	-0 90	31 40	-3 77	81 14
24	24	See Attached Map	See Millennium Data		4	1021	1 10	53 40	4 60	137 98
25	25	See Attached Map	See Millennium Data		5	964	2 10	-3 60	8 79	-9 30

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1255 03-30-98

Cal Due Date: 04-16-98

Efficiency (%): α 23 90 βγ 38 70

Bkgd (cpm): α 2 90 βγ 967 60 — 847 60 Inst Only — Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
26	26	See Attached Map	See Millennium Data		5	987	2 10	19 40	8 79	50 13
27	28	See Attached Map	See Millennium Data		0	1056	-2 90	88 40	-12 13	228 42
28	30	See Attached Map	See Millennium Data		6	1057	3 10	89 40	12 97	231 01
29	32	See Attached Map	See Millennium Data		5	1056	2 10	208 40	8 79	538 50
30	34	See Attached Map	See Millennium Data		4	1124	1 10	276 40	4 60	714 21
31	36	See Attached Map	See Millennium Data		2	1105	-0 90	257 40	-3 77	665 12
32	38	See Attached Map	See Millennium Data		2	1061	-0 90	93 40	-3 77	241 34
33	40	See Attached Map	<100	<750	6	1048	3 10	80 40	12 97	207 75
34	42	See Attached Map	See Millennium Data		5	1142	2 10	174 40	8 79	450 65
35	44	See Attached Map	See Millennium Data		5	1121	2 10	153 40	8 79	396 38

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1136 04-17-98

Cal Due Date: 06-19-98

Efficiency (%): α 23 60 βγ 30 20

Bkgd (cpm): α 2 4 βγ 680 3 | 560 3 Inst Only | Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	380	See Attached Map	<100	<750	4	907	1 6	226 7	6 78	750 66
2	381	See Attached Map	<100	<750	4	791	1 6	110 7	6 78	366 56
3	382	See Attached Map	<100	<750	1	773	-1 4	212 7	-5 93	704 30
4	383	See Attached Map	<100	<750	3	776	0 6	215 7	2 54	714 24
5	384	See Attached Map	<100	<750	2	811	-0 4	130 7	-1 69	432 78
6	385	See Attached Map	<100	<750	5	835	2 6	154 7	11 02	512 25
7	462	See Attached Map	<100	<750	0	662	-2 4	-18 3	-10 17	-60 60
8	463	See Attached Map	<100	<750	3	640	0 6	-40 3	2 54	-133 44
9	464	See Attached Map	<100	<750	4	631	1 6	-49 3	6 78	-163 25
10	465	See Attached Map	<100	<750	9	698	6 6	17 7	27 97	58 61
11	466	See Attached Map	<100	<750	4	661	1 6	-19 3	6 78	-63 91
12	467	See Attached Map	<100	<750	4	722	1 6	41 7	6 78	138 08
13	468	See Attached Map	<100	<750	2	633	-0 4	-47 3	-1 69	-156 62
14	469	See Attached Map	<100	<750	4	733	1 6	52 7	6 78	174 50
15	470	See Attached Map	<100	<750	3	603	0 6	-77 3	2 54	-255 96
16	471	See Attached Map	<100	<750	8	690	5 6	9 7	23 73	32 12
17	472	See Attached Map	<100	<750	1	692	-1 4	11 7	-5 93	38 74
18	473	See Attached Map	<100	<750	4	643	1 6	-37 3	6 78	-123 51
19	474	See Attached Map	<100	<750	5	664	2 6	-16 3	11 02	-53 97
20	475	See Attached Map	<100	<750	6	589	3 6	-91 3	15 25	-302 32
21	476	See Attached Map	<100	<750	4	485	1 6	-75 3	6 78	-249 34
22	477	See Attached Map	<100	<750	9	691	6 6	10 7	27 97	35 43
23	478	See Attached Map	<100	<750	3	506	0 6	-54 3	2 54	-179 80

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1136 04-17-98

Cal Due Date: 06-19-98

Efficiency (%): α 23 60 βγ 30 20

Bkgd (cpm): α 2 4 βγ 680 3 | 560 3 Inst Only | Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
24	479	See Attached Map	<100	<750	6	715	3 6	34 7	15 25	114 90
25	480	See Attached Map	<100	<750	4	507	1 6	-53 3	6 78	-176 49
26	481	See Attached Map	<100	<750	6	782	3 6	101 7	15 25	336 75
27	482	See Attached Map	<100	<750	4	640	1 6	79 7	6 78	263 91
28	483	See Attached Map	<100	<750	6	686	3 6	5 7	15 25	18 87
29	484	See Attached Map	<100	<750	3	459	0 6	-101 3	2 54	-335 43
30	485	See Attached Map	<100	<750	1	631	-1 4	-49 3	-5 93	-163 25
31	486	See Attached Map	<100	<750	4	676	1 6	-4 3	6 78	-14 24
32	487	See Attached Map	<100	<750	3	706	0 6	25 7	2 54	85 10

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1136 04-20-98
Cal Due Date: 06-19-98
Efficiency (%): α 23 60 βγ 30 20

Bkgd (cpm): α 1 4 βγ 717 6 | 597 6 Inst. Only | Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	401	See Attached Map	<100	<750	3	687	1 6	-30 6	6 78	-101 32
2	403	See Attached Map	<100	<750	5	702	3 6	-15 6	15 25	-51 66
3	405	See Attached Map	<100	<750	5	763	3 6	45 4	15 25	150 33
4	407	See Attached Map	<100	<750	12	710	10 6	-7 6	44 92	-25 17
5	409	See Attached Map	<100	<750	3	654	1 6	-63 6	6 78	-210 60
6	411	See Attached Map	<100	<750	6	638	4 6	-79 6	19 49	-263 58
7	413	See Attached Map	<100	<750	3	718	1 6	0 4	6 78	1 32
8	415	See Attached Map	<100	<750	3	643	1 6	-74 6	6 78	-247 02
9	417	See Attached Map	<100	<750	1	681	-0 4	-36 6	-1 69	-121 19
10	419	See Attached Map	<100	<750	0	657	-1 4	-60 6	-5 93	-200 66
11	421	See Attached Map	<100	<750	2	610	0 6	-107 6	2 54	-356 29
12	423	See Attached Map	<100	<750	4	579	2 6	-138 6	11 02	-458 94
13	425	See Attached Map	<100	<750	1	695	-0 4	97 4	-1 69	322 52
14	427	See Attached Map	<100	<750	3	680	1 6	-37 6	6 78	-124 50
15	429	See Attached Map	<100	<750	2	612	0 6	-105 6	2 54	-349 67
16	431	See Attached Map	<100	<750	2	631	0 6	-86 6	2 54	-286 75
17	433	See Attached Map	<100	<750	2	614	0 6	-103 6	2 54	-343 05
18	435	See Attached Map	<100	<750	1	619	-0 4	-98 6	-1 69	-326 49
19	437	See Attached Map	<100	<750	2	601	0 6	-116 6	2 54	-386 09
20	439	See Attached Map	<100	<750	3	612	1 6	-105 6	6 78	-349 67
21	441	See Attached Map	<100	<750	2	650	0 6	-67 6	2 54	-223 84
22	443	See Attached Map	<100	<750	3	670	1 6	-47 6	6 78	-157 62
23	445	See Attached Map	<100	<750	3	601	1 6	-116 6	6 78	-386 09

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 2396 04-20-98

Cal Due Date: 10-07-98

Efficiency (%): α 23 90 βγ 32 80

Bkgd (cpm): α 3 9 βγ 1049 6 929 6 Inst Only Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	402	See Attached Map	<100	<750	6	947	2 1	-102 6	8 79	-312 80
2	404	See Attached Map	<100	<750	6	957	2 1	-92 6	8 79	-282 32
3	406	See Attached Map	<100	<750	4	1013	0 1	-36 6	42	-111 59
4	408	See Attached Map	<100	<750	2	1048	-1 9	-1 6	-7 95	-4 88
5	410	See Attached Map	<100	<750	7	1044	3 1	-5 6	12 97	-17 07
6	412	See Attached Map	<100	<750	4	996	0 1	-53 6	42	-163 41
7	414	See Attached Map	<100	<750	3	1001	-0 9	-48 6	-3 77	-148 17
8	416	See Attached Map	<100	<750	2	994	-1 9	-55 6	-7 95	-169 51
9	418	See Attached Map	<100	<750	3	971	-0 9	-78 6	-3 77	-239 63
10	420	See Attached Map	<100	<750	6	894	2 1	-155 6	8 79	-474 39
11	422	See Attached Map	<100	<750	5	923	1 1	-6 6	4 60	-20 12
12	424	See Attached Map	<100	<750	4	917	0 1	-132 6	42	-404 27
13	426	See Attached Map	<100	<750	2	998	-1 9	-51 6	-7 95	-157 32
14	428	See Attached Map	<100	<750	3	1032	-0 9	-17 6	-3 77	-53 66
15	430	See Attached Map	<100	<750	4	942	0 1	-107 6	42	-328 05
16	432	See Attached Map	<100	<750	3	975	-0 9	-74 6	-3 77	-227 44
17	434	See Attached Map	<100	<750	3	960	-0 9	-89 6	-3 77	-273 17
18	436	See Attached Map	<100	<750	6	957	2 1	-92 6	8 79	-282 32
19	438	See Attached Map	<100	<750	3	981	-0 9	-68 6	-3 77	-209 15
20	440	See Attached Map	<100	<750	3	948	-0 9	-101 6	-3 77	-309 76
21	442	See Attached Map	<100	<750	5	999	1 1	-50 6	4 60	-154 27
22	444	See Attached Map	<100	<750	4	971	0 1	-78 6	42	-239 63

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1421 05-04-98
Cal Due Date: 09-30-98
Efficiency (%): α 23 60 βγ 31 70

Bkgd (cpm): α 2 3 βγ 937 7 Ref Area; 817 7 Inst. Only

Survey Type: [x] Alpha [x] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1A	See Attached Map	<100	<750	1	867	-1 3	-70 7	-5 51	-223 03
2	2A	See Attached Map	<100	<750	1	830	-1 3	-107 7	-5 51	-339 75
3	66A	See Attached Map	<100	<750	2	863	-0 3	-74 7	-1 27	-235 65
4	67A	See Attached Map	<100	<750	6	840	3 7	-97 7	15 68	-308 20

OXFR **ECLIPSE LB**

Printing Date 3/31/98

Print Time 4 54 42PM

Version 1 10

Report Name Gross Alpha Beta Analysis CPM

Count Date **3/31/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199803311313**

System Information

Serial No W O 3351C **Batch ID** **896**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1,410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 10	1 91
Batch MDA	5 66 dpm	8.78

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
2		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
3		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
4		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
5		-0 10	-0 26	0 53	-1 91	-3 44	1 58	< MDA	< MDA
6		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
7		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
8		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
9		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
10		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
11		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
12		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
13		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
14		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
15		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
16		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
17		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
18		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
19		0 40	1 05	2 67	0 09	0 16	3 93	< MDA	< MDA
20		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
21		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
22		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
23		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
24		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
25		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
26		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
27		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
28		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
29		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
30		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
31		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
32		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
33		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
34		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA

Procedure Name **D&D Swipes - 199803311313**

System Information

Serial No W O 3351C **Batch ID** **896**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 10	1 91
Batch MDA	5 66 dpm	8 78

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
36		0 40	1 05	2 67	0 59	1 06	4 33	< MDA	< MDA
37		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
38		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
39		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
40		0 40	1 05	2 67	1 59	2 87	5 02	< MDA	< MDA
41		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
42		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
43		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
44		0 40	1 05	2 67	0 09	0 16	3 93	< MDA	< MDA
45		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
46		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
47		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
48		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
49		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
50		0 90	2 36	3 74	-1 91	-3 44	1 58	< MDA	< MDA
51		-0 10	-0 26	0 53	0 41	-0 74	3 50	< MDA	< MDA
52		0 40	1 05	2 67	2 09	3 77	5 33	< MDA	< MDA
53		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
54		0 40	1 05	2 67	-0 41	-0 74	3 50	< MDA	< MDA
55		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
56		-0 10	-0 26	0 53	-1 91	-3 44	1 58	< MDA	< MDA
57		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
58		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
59		0 90	2 36	3 74	1 59	2 87	5 02	< MDA	< MDA
60		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
61		0 40	1 05	2 67	-0 41	-0 74	3 50	< MDA	< MDA
62		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
63		0 40	1 05	2 67	-0 41	-0 74	3 50	< MDA	< MDA
64		-0 10	-0 26	0 53	1 59	2 87	5 02	< MDA	< MDA
65		-0 10	-0 26	0 53	-1 91	-3 44	1 58	< MDA	< MDA
66		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
67		-0 10	-0 26	0 53	1 59	2 87	5 02	< MDA	< MDA
68		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
69		0 40	1 05	2 67	0 09	0 16	3 93	< MDA	< MDA
70		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
71		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
72		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
73		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
74		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA

Procedure Name **D&D Swipes - 199803311313**

System Information

Serial No W O 3351C **Batch ID** **896**

Detector S/N 658 Group **A**

Sample Information
Sample Units
Geometry 1/8" Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1 410 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 10	1 91
Batch MDA	5 66 dpm	8.78

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
75		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
76		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
77		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
78		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
79		0 90	2 36	3 74	-0 41	-0 74	3 50	< MDA	< MDA
80		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
81		0 40	1 05	2 67	0 09	0 16	3 93	< MDA	< MDA
82		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
83		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
84		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
85		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
86		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
87		0 40	1 05	2 67	-0 91	-1 64	3 00	< MDA	< MDA
88		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
89		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
90		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
91		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
92		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
93		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
94		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
95		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
96		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
97		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
98		-0 10	-0 26	0 53	2 59	4 67	5 63	< MDA	
99		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
100		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA

71-79 - VOID

OXFR **ECLIPSE LB**

Printing Date 3/31/98

Print Time 9 21 12PM

Version 1 10

Report Name Gross Alpha Beta Analysis CPM

Count Date **3/31/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199803311733**

System Information

Serial No W O 3351C **Batch ID** **897**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1,410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	**Beta**
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 10	1 91
Batch MDA	5.66 dpm	8.78

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
2		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
3		-0 10	-0 26	0 53	1 59	2 87	5 02	< MDA	< MDA
4		0 40	1 05	2 67	-0 91	-1 64	3 00	< MDA	< MDA
5		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
6		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
7		-0 10	-0 26	0 53	1 59	2 87	5 02	< MDA	< MDA
8		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
9		0 40	1 05	2 67	-1 41	-2 54	2 40	< MDA	< MDA
10		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
11		0 40	1 05	2 67	-0 41	-0 74	3 50	< MDA	< MDA
12		0 40	1 05	2 67	-0 91	-1 64	3 00	< MDA	< MDA
13		0 40	1 05	2 67	-0 91	-1 64	3 00	< MDA	< MDA
14		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
15		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
16		0 40	1 05	2 67	-0 91	-1 64	3 00	< MDA	< MDA
17		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
18		0 40	1 05	2 67	-0 91	-1 64	3 00	< MDA	< MDA
19		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
20		0 40	1 05	2 67	-0 91	-1 64	3 00	< MDA	< MDA
21		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
22		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
23		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
24		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
25		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
26		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
27		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
28		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
29		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
30		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
31		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
32		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
33		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
34		0 40	1 05	2 67	-0 41	-0 74	3 50	< MDA	< MDA

Procedure Name **D&D Swipes - 199803311733**

System Information

Serial No W O 3351C **Batch ID** 897

Detector S/N 658 Group A

Sample Information
Sample Units
Geometry 1/8 Stainless Steel

Efficiency (%) Alpha 38 16 Beta 55 51

Background Subtract Enable

Count Parameters
Count Mode Simultaneous
Operating Voltage 1,410 00
Time 2 00
Delay 0 00
Sample Replicates 1

Background 0 10 1 91

Batch MDA 566 dpm 8.78

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
36		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
37		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
38		0 90	2 36	3 74	0 09	0 16	3 93	< MDA	< MDA
39		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
40		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
41		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
42		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
43		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
44		0 40	1 05	2 67	2 09	3 77	5 33	< MDA	< MDA
45		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
46		-0 10	-0 26	0 53	1 59	2 87	5 02	< MDA	< MDA
47		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
48		0 40	1 05	2 67	-1 91	-3 44	1 58	< MDA	< MDA
49		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
50		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
51		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
52		0 40	1 05	2 67	-0 91	-1 64	3 00	< MDA	< MDA
53		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
54		0 40	1 05	2 67	-0 41	-0 74	3 50	< MDA	< MDA
55		0 40	1 05	2 67	0 09	0 16	3 93	< MDA	< MDA
56		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
57		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
58		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
59		0 40	1 05	2 67	-0 91	-1 64	3 00	< MDA	< MDA
60		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
61		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
62		-0 10	-0 26	0 53	-1 41	-2 54	2 40	< MDA	< MDA
63		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
64		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
65		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
66		0 40	1 05	2 67	-1 41	-2 54	2 40	< MDA	< MDA
67		0 90	2 36	3 74	1 09	1 96	4 69	< MDA	< MDA
68		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
69		0 40	1 05	2 67	-1 91	-3 44	1 58	< MDA	< MDA
70		0 40	1 05	2 67	-0 91	-1 64	3 00	< MDA	< MDA
71	No sw per	0 40	1 05	2 67	0 09	0 16	3 93	< MDA	< MDA
72	Counted;	-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
73	Carrier	-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
74	included	-0 10	-0 26	0 53	1 59	2 87	5 02	< MDA	< MDA
	to cont use								
	Sequence								

Procedure Name D&D Swipes - 199803311733

System Information

Serial No W O 3351C **Batch ID** 897

Detector S/N 658 Group A

Sample Information
Sample Units
Geometry 1/8" Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1 410 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 10	1 91
Batch MDA	5.66 dpm	8.78

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
75	See	-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
76	previous	0 40	1 05	2 67	-1 41	-2 54	2 40	< MDA	< MDA
77	Page	-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
78		0 90	2 36	3 74	-0 91	-1 64	3 00	< MDA	< MDA
79	4/03/98	-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
80		0 40	1 05	2 67	0 59	1 06	4 33	< MDA	< MDA
81		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
82		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
83		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
84		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
85		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
86		0 40	1 05	2 67	0 09	0 16	3 93	< MDA	< MDA
87		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
88		-0 10	-0 26	0 53	2 09	3 77	5 33	< MDA	< MDA
89		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
90		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
91		-0 10	-0 26	0 53	0 09	0 16	3 93	< MDA	< MDA
92		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
93		0 40	1 05	2 67	0 09	0 16	3 93	< MDA	< MDA
94		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
95		-0 10	-0 26	0 53	-0 41	-0 74	3 50	< MDA	< MDA
96		-0 10	-0 26	0 53	-0 91	-1 64	3 00	< MDA	< MDA
97		-0 10	-0 26	0 53	1 09	1 96	4 69	< MDA	< MDA
98		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
99		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA
100		-0 10	-0 26	0 53	0 59	1 06	4 33	< MDA	< MDA

Count Date **4/ 1/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804010811**

System Information

Serial No W O 3351C **Batch ID** **901**

Detector S/N 658 Group **A**

Sample Information
Sample Units
Geometry 1/8" Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1 410 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	**Beta**
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 30	1 73
Batch MDA	7 20 dpm	8 48

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		-0 30	-0 79	0 91	-0 23	-0 42	3 46	< MDA	< MDA
2		0 20	0 52	2 77	-0 23	-0 42	3 46	< MDA	< MDA
3		0 20	0 52	2 77	0 27	0 48	3 90	< MDA	< MDA
4		-0 30	-0 79	0 91	-1 73	-3 12	1 50	< MDA	< MDA
5		-0 30	-0 79	0 91	-0 23	-0 42	3 46	< MDA	< MDA
6		-0 30	-0 79	0 91	1 77	3 18	5 00	< MDA	< MDA
7		-0 30	-0 79	0 91	-0 23	-0 42	3 46	< MDA	< MDA
8		-0 30	-0 79	0 91	0 27	0 48	3 90	< MDA	< MDA
9		0 20	0 52	2 77	-1 23	-2 22	2 34	< MDA	< MDA
10		-0 30	-0 79	0 91	1 27	2 28	4 66	< MDA	< MDA
11		-0 30	-0 79	0 91	-0 23	-0 42	3 46	< MDA	< MDA
12		0 20	0 52	2 77	-1 23	-2 22	2 34	< MDA	< MDA
13		-0 30	-0 79	0 91	-0 23	-0 42	3 46	< MDA	< MDA
14		-0 30	-0 79	0 91	0 77	1 38	4 30	< MDA	< MDA
15		-0 30	-0 79	0 91	-0 23	-0 42	3 46	< MDA	< MDA
16		-0 30	-0 79	0 91	0 77	1 38	4 30	< MDA	< MDA
17		-0 30	-0 79	0 91	0 27	0 48	3 90	< MDA	< MDA
18		-0 30	-0 79	0 91	0 77	1 38	4 30	< MDA	< MDA
19		-0 30	-0 79	0 91	-1 23	-2 22	2 34	< MDA	< MDA
20		0 20	0 52	2 77	0 77	1 38	4 30	< MDA	< MDA
21		0 20	0 52	2 77	0 77	1 38	4 30	< MDA	< MDA
22		-0 30	-0 79	0 91	0 27	0 48	3 90	< MDA	< MDA
23		0 20	0 52	2 77	1 27	2 28	4 66	< MDA	< MDA
24		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA
25		0 20	0 52	2 77	0 27	0 48	3 90	< MDA	< MDA
26		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA
27		0 70	1 83	3 82	0 27	0 48	3 90	< MDA	< MDA
29		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA
28		0 20	0 52	2 77	0 27	0 48	3 90	< MDA	< MDA
30		-0 30	-0 79	0 91	-1 73	-3 12	1 50	< MDA	< MDA
31		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA
32		-0 30	-0 79	0 91	0 77	1 38	4 30	< MDA	< MDA
33		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA
34		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA

Procedure Name **D&D Swipes - 199804010811**

System Information

Serial No W O 3351C **Batch ID** 901

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 30	1 73
Batch MDA	7 20 dpm	8.48

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		-0 30	-0 79	0 91	0 77	1 38	4 30	< MDA	< MDA
36		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA
37		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA
38		-0 30	-0 79	0 91	-1 23	-2 22	2 34	< MDA	< MDA
39		-0 30	-0 79	0 91	0 77	1 38	4 30	< MDA	< MDA
40		-0 30	-0 79	0 91	1 27	2 28	4 66	< MDA	< MDA
41		0 20	0 52	2 77	0 27	0 48	3 90	< MDA	< MDA
42		0 20	0 52	2 77	-0 23	-0 42	3 46	< MDA	< MDA
43		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA
44		-0 30	-0 79	0 91	-0 23	-0 42	3 46	< MDA	< MDA
45		-0 30	-0 79	0 91	0 27	0 48	3 90	< MDA	< MDA
46		-0 30	-0 79	0 91	-0 23	-0 42	3 46	< MDA	< MDA
47		-0 30	-0 79	0 91	0 27	0 48	3 90	< MDA	< MDA
48		0 20	0 52	2 77	-0 23	-0 42	3 46	< MDA	< MDA
49		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA
50		-0 30	-0 79	0 91	1 77	3 18	5 00	< MDA	< MDA
51		0 20	0 52	2 77	-0 23	-0 42	3 46	< MDA	< MDA
52		0 20	0 52	2 77	-0 23	-0 42	3 46	< MDA	< MDA
53		-0 30	-0 79	0 91	-0 23	-0 42	3 46	< MDA	< MDA
54		-0 30	-0 79	0 91	0 27	0 48	3 90	< MDA	< MDA
55		-0 30	-0 79	0 91	0 27	0 48	3 90	< MDA	< MDA
56		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA
57		-0 30	-0 79	0 91	-0 23	-0 42	3 46	< MDA	< MDA
58		-0 30	-0 79	0 91	0 77	1 38	4 30	< MDA	< MDA
59		-0 30	-0 79	0 91	1 27	2 28	4 66	< MDA	< MDA
60		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA
61		-0 30	-0 79	0 91	0 77	1 38	4 30	< MDA	< MDA
62		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA
63		-0 30	-0 79	0 91	0 27	0 48	3 90	< MDA	< MDA
64		-0 30	-0 79	0 91	0 27	0 48	3 90	< MDA	< MDA
65		-0 30	-0 79	0 91	0 27	0 48	3 90	< MDA	< MDA
66		-0 30	-0 79	0 91	-0 73	-1 32	2 96	< MDA	< MDA
67		-0 30	-0 79	0 91	0 77	1 38	4 30	< MDA	< MDA
68		0 20	0 52	2 77	0 27	0 48	3 90	< MDA	< MDA
69		0 20	0 52	2 77	1 77	3 18	5 00	< MDA	< MDA
70		-0 30	-0 79	0 91	0 77	1 38	4 30	< MDA	< MDA
71		-0 30	-0 79	0 91	-1 73	-3 12	1 50	< MDA	< MDA
72		-0 30	-0 79	0 91	2 27	4 08	5 31	< MDA	< MDA

OXFR ECLIPSE LB

Printing Date 4/20/98

Print Time 4 58 39PM

Version 1 10

Report Name Gross Alpha Beta Analysis CPM DPM

Count Date **4/20/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **one minute swipe count - 199804201446**

BHg123 Unit 10 273-371

System Information

Serial No 38922 **Batch ID** **214**

Detector S/N 758 Group **A**

Sample Information

Sample Units

Geometry Swipe/Smear 1/8"

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 395 00

Time 1 00

Delay 0 00

Sample Replicates 1

	Alpha	**Beta**
Efficiency (%)	33 67	48 90
Background Subtract		Enable
Background	0 00	1 03
Batch MDA (dpm)	α-8.04	β⁻-12.7

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
2		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
3		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
4		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
5		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
6		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
7		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
8		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
9		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
10		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
11		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
12		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
13		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
14		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
15		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
16		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
17		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
18		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
19		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
20		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
21		0 00	0 00	0 00	2 97	6 07	8 29	< MDA	< MDA
22		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
23		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
24		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
25		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
26		1 00	2 97	5 94	1 97	4 02	7 20	< MDA	< MDA
27		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
28		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
29		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
30		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
31		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
32		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
33		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
34		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
35		1 00	2 97	5 94	1 97	4 02	7 20	< MDA	< MDA

Procedure Name **one minute swipe count - 199804201446**

System Information

Serial No 38922 **Batch ID** **214**

Detector S/N 758 Group **A**

Sample Information

Sample Units

Geometry Swipe/Smear 1/8

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 395 00

Time 1 00

Delay 0 00

Sample Replicates 1

	Alpha	**Beta**
Efficiency (%)	33 67	48 90
Background Subtract	Enable	
Background	0 00	1 03
Batch MDA (dpm)	α 8.04	β- 12.7

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
36		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
37		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
38		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
39		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
40		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
41		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
42		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
43		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
44		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
45		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
46		1 00	2 97	5 94	-0 03	-0 07	4 30	< MDA	< MDA
47		1 00	2 97	5 94	-0 03	-0 07	4 30	< MDA	< MDA
48		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
49		1 00	2 97	5 94	-0 03	-0 07	4 30	< MDA	< MDA
50		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
51		1 00	2 97	5 94	2 97	6 07	8 29	< MDA	< MDA
52		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
53		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
54		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
55		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
56		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
57		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
58		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
59		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
60		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
61		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
62		0 00	0 00	0 00	4 97	10 16	10 11	< MDA	< MDA
63		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
64		1 00	2 97	5 94	-1 03	-2 11	1 32	< MDA	< MDA
65		0 00	0 00	0 00	2 97	6 07	8 29	< MDA	< MDA
66		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
67		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
68		1 00	2 97	5 94	-0 03	-0 07	4 30	< MDA	< MDA
69		1 00	2 97	5 94	0 97	1 98	5 93	< MDA	< MDA
70		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
71		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
72		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
73		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
74		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
75		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA

Procedure Name one minute swipe count - 199804201446

System Information

Serial No 38922 **Batch ID** 214

Detector S/N 758 Group A

Sample Information

Sample Units

Geometry Swipe/Smear 1/8

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 395 00

Time 1 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract		Enable
Background	0 00	1 03
Batch MDA (dpm)	α 8 04	β- 12.7

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
76		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
77		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
78		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
79		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
80		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
81		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
82		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
83		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
84		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
85		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
86		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
88	missing #359	1 00	2 97	5 94	-1 03	-2 11	1 32	< MDA	< MDA
89		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
90		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
91		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
92		0 00	0 00	0 00	3 97	8 11	9 24	< MDA	< MDA
93		1 00	2 97	5 94	0 97	1 98	5 93	< MDA	< MDA
94		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
95		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
96		1 00	2 97	5 94	-0 03	-0 07	4 30	< MDA	< MDA
97		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
98		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
99		1 00	2 97	5 94	0 97	1 98	5 93	< MDA	< MDA

OXFR ECLIPSE LB
Printing Date 4/21/98
Print Time 7 04 12AM

Version 1 10
Report Name Gross Alpha Beta Analysis CPM DPM

Count Date **4/20/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **one minute swipe count - 199804202046**

Bldg 123 Unit 10 372 to 470

System Information

Serial No 38922 **Batch ID** **216**

Detector S/N 758 Group **A**

Sample Information

Sample Units

Geometry Swipe/Smear 1/8"

Count Parameters

Count Mode Simultaneous

Operating Voltage 1,395 00

Time 1 00

Delay 0 00

Sample Replicates 1

	Alpha	**Beta**
Efficiency (%)	33 67	48 90
Background Subtract		Enable
Background	0 00	1 03
Batch MDA (dpm)	α - 8.07	β⁻ - 12.7

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
2		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
3		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
4		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
5		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
6		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
7		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
8		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
9		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
10		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
11		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
12		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
13		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
14		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
15		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
16		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
17		1 00	2 97	5 94	-1 03	-2 11	1 32	< MDA	< MDA
18		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
19		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
20		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
21		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
22		0 00	0 00	0 00	2 97	6 07	8 29	< MDA	< MDA
23		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
24		0 00	0 00	0 00	2 97	6 07	8 29	< MDA	< MDA
25		1 00	2 97	5 94	-0 03	-0 07	4 30	< MDA	< MDA
26		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
27		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
28		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
29		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
30		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
31		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
32		0 00	0 00	0 00	2 97	6 07	8 29	< MDA	< MDA
33		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
34		1 00	2 97	5 94	0 97	1 98	5 93	< MDA	< MDA
35		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA

Procedure Name one minute swipe count - 199804202046

System Information

Serial No 38922 **Batch ID** 216

Detector S/N 758 Group A

Sample Information

Sample Units

Geometry Swipe/Smear 1/8'

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 395 00

Time 1 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract	Enable	
Background	0 00	1 03
Batch MDA (dpm)	α 8.07	β 12.7

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
36		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
37		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
38		1 00	2 97	5 94	-1 03	-2 11	1 32	< MDA	< MDA
39		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
40		0 00	0 00	0 00	2 97	6 07	8 29	< MDA	< MDA
41		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
42		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
43		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
44		1 00	2 97	5 94	0 97	1 98	5 93	< MDA	< MDA
45		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
46		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
47		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
48		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
49		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
50		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
51		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
52		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
53		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
54		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
55		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
56		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
57		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
58		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
59		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
→ missing #431 61		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
62		1 00	2 97	5 94	1 97	4 02	7 20	< MDA	< MDA
63		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
64		0 00	0 00	0 00	2 97	6 07	8 29	< MDA	< MDA
65		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
66		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
67		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
68		1 00	2 97	5 94	-1 03	-2 11	1 32	< MDA	< MDA
69		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
→ missing #441 71		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
72		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
73		1 00	2 97	5 94	-1 03	-2 11	1 32	< MDA	< MDA
74		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
75		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
76		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
77		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA

Procedure Name one minute swipe count - 199804202046

System Information

Serial No 38922 **Batch ID** 216

Detector S/N 758 Group A

Sample Information

Sample Units

Geometry Swipe/Smear 1/8

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 395 00

Time 1 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract		Enable
Background	0 00	1 03
Batch MDA (dpm)	α 8.07	β- 12.7

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
78		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
79		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
80		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
81		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
82		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
83		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
84		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
85		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
86		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
87		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
88		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
89		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
90		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
91		1 00	2 97	5 94	-0 03	-0 07	4 30	< MDA	< MDA
92		1 00	2 97	5 94	-0 03	-0 07	4 30	< MDA	< MDA
93		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA
94		0 00	0 00	0 00	1 97	4 02	7 20	< MDA	< MDA
95		0 00	0 00	0 00	-0 03	-0 07	4 30	< MDA	< MDA
96		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
97		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
98		0 00	0 00	0 00	-1 03	-2 11	1 32	< MDA	< MDA
99		0 00	0 00	0 00	0 97	1 98	5 93	< MDA	< MDA

OXFR ECLIPSE LB

Printing Date 4/21/98
Print Time 9 29 25AM

Version 1 10
Report Name Gross Alpha Beta Analysis CPM DPM

Count Date **4/21/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **one minute swipe count - 199804210901**

Bldg 123 Unit 10 471-487

System Information

Serial No 38922 **Batch ID** **220**

Detector S/N 758 Group **A**

Sample Information

Sample Units
Geometry Swipe/Smear 1/8"

Count Parameters

Count Mode Simultaneous
Operating Voltage 1,395 00
Time 1 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract	Enable	
Background	0 07	1 30
Batch MDA (dpm)	α 10.7	β 13.6

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
2		-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
3		-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
4		-0 07	-0 20	0 49	1 70	3 48	7 24	< MDA	< MDA
5		-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
6		-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
7		-0 07	-0 20	0 49	-1 30	-2 66	1 48	< MDA	< MDA
8		-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
9		-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
10		-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
11		-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
12		-0 07	-0 20	0 49	-1 30	-2 66	1 48	< MDA	< MDA
13		-0 07	-0 20	0 49	1 70	3 48	7 24	< MDA	< MDA
14		-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
15		-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
16		-0 07	-0 20	0 49	-1 30	-2 66	1 48	< MDA	< MDA
17		-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA

OXFR ECLIPSE LB
Printing Date 4/21/98
Print Time 3 08 25PM

Version 1 10
Report Name Gross Alpha Beta Analysis CPM DPM

Count Date **4/21/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **one minute swipe count - 199804211504**

UNIT ID #'S 359, 431, 441

System Information

Serial No 38922 **Batch ID** **224**

Detector S/N 758 Group **A**

Sample Information
Sample Units
Geometry Swipe/Smear 1/8"

Count Parameters
Count Mode Simultaneous
Operating Voltage 1,395 00
Time 1 00
Delay 0 00
Sample Replicates 1

	Alpha	**Beta**
Efficiency (%)	33 67	48 90
Background Subtract		Enable
Background	0 07	1 30
Batch MDA (dpm)	α - 10.7 dpm	β - 13.6 dpm

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1	359	-0 07	-0 20	0 49	-0 30	-0 61	4 35	< MDA	< MDA
2	431	-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA
3	441	-0 07	-0 20	0 49	0 70	1 43	5 97	< MDA	< MDA

OXFR ECLIPSE LB
Printing Date 5/ 4/98
Print Time 12 17 58PM

Version 1 10
Report Name Gross Alpha Beta Analysis CPM DPM

Count Date 5/ 4/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name two minute D & D swipes - 199805041207

Bldg 123 4-10 Column 1A, 2A 66A, 67A.

System Information

Serial No 38922 **Batch ID** 277

Detector S/N 758 Group A

Sample Information

Sample Units

Geometry Swipe/Smear 1/8"

Count Parameters

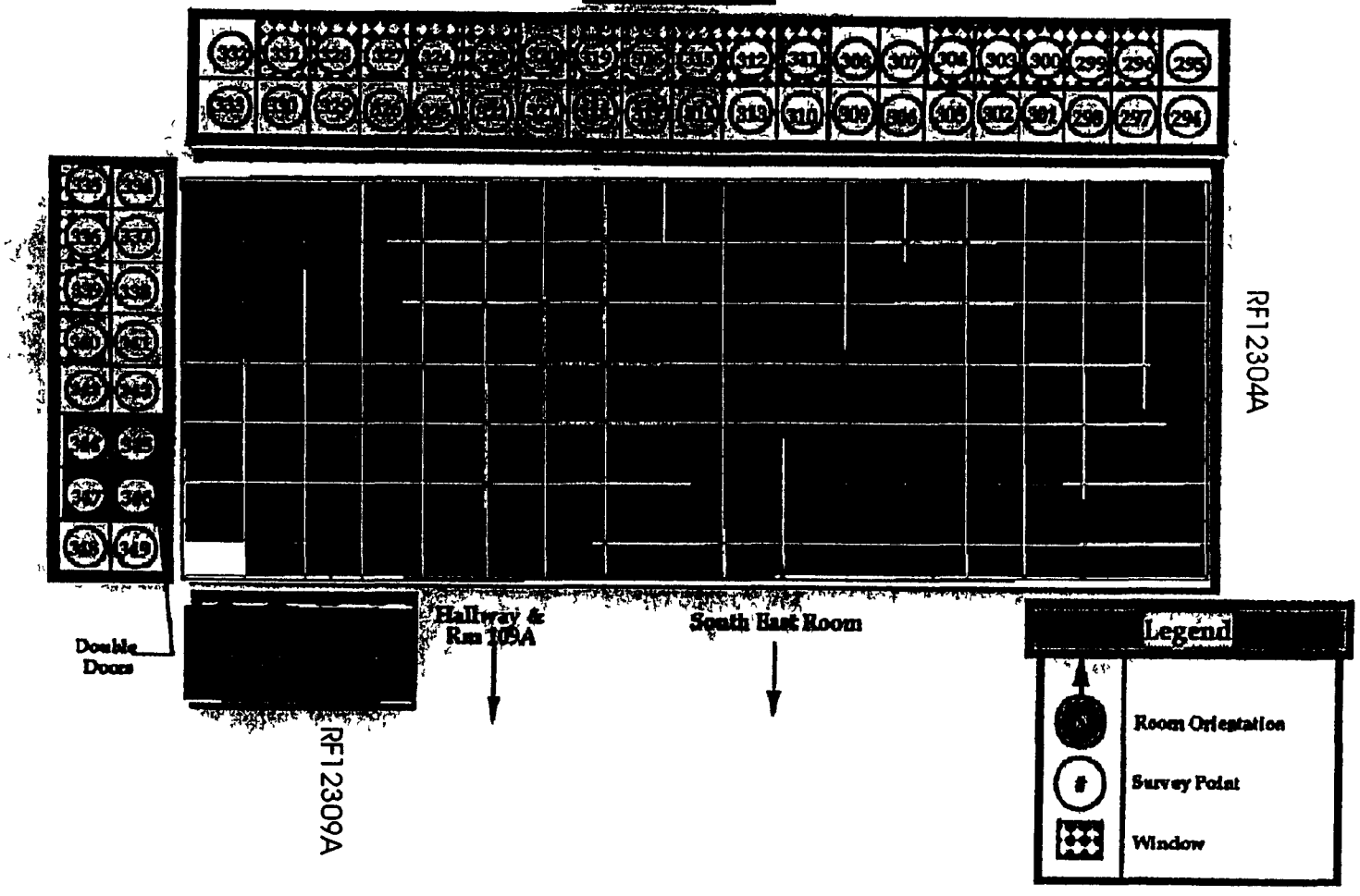
Count Mode Simultaneous
Operating Voltage 1,395 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract	Enable	
Background	0 07	1 23
Batch MDA (dpm)	α 5 97	β 8.55

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1	1A	0 43	1 29	3 01	0 77	1 57	4 33	< MDA	< MDA
2	2A	-0 07	-0 20	0 49	0 27	0 55	3 82	< MDA	< MDA
3	66A	-0 07	-0 20	0 49	-0 73	-1 50	2 50	< MDA	< MDA
4	67A	-0 07	-0 20	0 49	0 77	1 57	4 33	< MDA	< MDA

West Wing; Unit X

Floor & Walls



Note Map not drawn to scale. [illegible] 5/7/98

Meter (1 7) Mean. 7 Max. 60 Min 0 Std 9 9 Pix 380	Meter (2 7) Mean 16 Max 167 Min. 0 Std 23 7 Pix 400	Meter (3 7) Mean. 9 Max 85 Min. 0 Std 11 7 Pix 400	Meter (4 7) Mean. 12 Max 86 Min. 0 Std. 14.5 Pix 400	Meter (5 7) Mean 7 Max 31 Min. 0 Std 4 7 Pix 400	Meter (6 7) Mean. 5 Max 88 Min. 0 Std 11 7 Pix 400	Meter (7 7) Mean. 6 Max 39 Min 0 Std 6 2 Pix 400	Meter (8 7) Mean. 9 Max 83 Min. 0 Std 9 5 Pix 400	Meter (9 7) Mean. 8 Max. 84 Min. 0 Std 10 3 Pix 400	Meter (10 7) Mean. 16 Max. 144 Min. 0 Std. 21 2 Pix.400	Meter (11 7) Mean. 7 Max 74 Min. 0 Std. 9 6 Pix 400	Meter (12 7) Mean. 7 Max 15 Min. 0 Std 4 3 Pix 400	Meter (13 7) Mean. 15 Max 154 Min. 0 Std 20 1 Pix 400	Meter (14 7) Mean. 5 Max 17 Min 0 Std 3 7 Pix 400	Meter (15 7) Mean 10 Max 80 Min. 0 Std 11 1 Pix 400	Meter (16 7) Mean. 13 Max 189 Min 0 Std 19 5 Pix 400	Meter (17 7) Mean 13 Max 62 Min. 1 Std 8 9 Pix 400	Meter (18 7) Mean 7 Max 12 Min 2 Std 2 6 Pix 80
Meter (1 6) Mean. 8 Max. 91 Min. 0 Std. 11 0 Pix.390	Meter (2,6) Mean. 13 Max 67 Min. 0 Std 14 2 Pix 400	Meter (3,6) Mean 9 Max 47 Min. 0 Std. 7 0 Pix 400	Meter (4 6) Mean. 9 Max. 44 Min. 0 Std. 6 8 Pix.400	Meter (5 6) Mean. 9 Max 56 Min. 0 Std. 7 2 Pix 400	Meter (6 6) Mean. 12 Max 118 Min. 0 Std. 12 0 Pix 400	Meter (7 6) Mean 10 Max 44 Min. 0 Std 6 7 Pix 400	Meter (8,6) Mean. 10 Max 81 Min. 0 Std. 10 0 Pix 400	Meter (9 6) Mean. 12 Max. 63 Min. 0 Std. 9 9 Pix 400	Meter (10,6) Mean. 14 Max. 162 Min. 0 Std: 21 1 Pix.400	Meter (11 6) Mean. 10 Max. 67 Min. 0 Std. 9 7 Pix 400	Meter (12 6) Mean. 6 Max. 15 Min. 0 Std 3 6 Pix 400	Meter (13 6) Mean. 8 Max 58 Min. 0 Std. 12 5 Pix 400	Meter (14 6) Mean. 4 Max 11 Min. 0 Std 2 7 Pix 400	Meter (15 6) Mean. 5 Max 58 Min. 0 Std 6 9 Pix 400	Meter (16,6) Mean. 10 Max. 82 Min. 0 Std 12 1 Pix 400	Meter (17 6) Mean. 6 Max 19 Min 0 Std 4 7 Pix 400	Meter (18 6) Mean 3 Max 5 Min. 0 Std 1 9 Pix 80
Meter (1,5) Mean. 13 Max. 73 Min. 0 Std. 11 4 Pix 400	Meter (2,5) Mean. 18 Max 85 Min. 5 Std. 18 2 Pix.400	Meter (3 5) Mean. 21 Max. 189 Min. 3 Std. 27 2 Pix.400	Meter (4,5) Mean. 10 Max. 60 Min. 0 Std. 9 4 Pix 400	Meter (5,5) Mean. 14 Max. 80 Min. 0 Std 12 7 Pix 400	Meter (6,5) Mean. 19 Max. 88 Min. 0 Std. 17 8 Pix 400	Meter (7,5) Mean. 17 Max 80 Min. 0 Std. 19 3 Pix.400	Meter (8,5) Mean. 17 Max. 109 Min. 0 Std 17 1 Pix 400	Meter (9,5) Mean. 10 Max. 64 Min. 0 Std 10 2 Pix 400	Meter (10,5) Mean. 17 Max. 99 Min. 0 Std. 15 7 Pix 400	Meter (11,5) Mean. 13 Max 163 Min. 1 Std. 19 2 Pix 400	Meter (12,5) Mean. 11 Max. 49 Min. 0 Std 8 1 Pix 400	Meter (13,5) Mean. 11 Max. 50 Min. 0 Std. 7 7 Pix.400	Meter (14,5) Mean 10 Max. 59 Min. 0 Std. 11 0 Pix 400	Meter (15 5) Mean. 9 Max 91 Min 0 Std. 13 6 Pix 400	Meter (16,5) Mean. 6 Max. 104 Min. 0 Std 11 1 Pix 400	Meter (17,5) Mean. 9 Max. 30 Min. 0 Std 6 2 Pix 400	Meter (18,5) Mean 10 Max 27 Min 2 Std 6 4 Pix 80
Meter (1 4) Mean. 7 Max 53 Min. 0 Std 6 4 Pix.393	Meter (2 4) Mean. 7 Max. 41 Min. 0 Std 6 6 Pix 400	Meter (3 4) Mean. 8 Max. 55 Min. 0 Std 7 6 Pix 400	Meter (4 4) Mean. 8 Max 60 Min. 0 Std 8 2 Pix 400	Meter (5 4) Mean. 12 Max. 128 Min. 0 Std 19 1 Pix 400	Meter (6,4) Mean. 12 Max. 120 Min. 0 Std 19 1 Pix.400	Meter (7 4) Mean. 11 Max. 159 Min. 0 Std. 21 3 Pix 400	Meter (8 4) Mean. 10 Max 47 Min. 0 Std. 7 6 Pix 400	Meter (9 4) Mean. 11 Max 72 Min. 0 Std. 11 6 Pix 400	Meter (10,4) Mean. 12 Max. 103 Min. 2 Std. 13 1 Pix 400	Meter (11 4) Mean. 13 Max. 82 Min. 0 Std 13 3 Pix.400	Meter (12 4) Mean. 11 Max. 115 Min. 0 Std. 14 7 Pix 400	Meter (13 4) Mean. 12 Max. 70 Min. 0 Std. 11 0 Pix 400	Meter (14 4) Mean. 16 Max 166 Min. 0 Std 25 2 Pix 400	Meter (15 4) Mean. 5 Max. 14 Min. 0 Std 5 0 Pix 400	Meter (16 4) Mean. 8 Max 61 Min. 0 Std 9 2 Pix 400	Meter (17 4) Mean. 9 Max. 19 Min. 0 Std 4 9 Pix 400	Meter (18 4) Mean 13 Max 41 Min 5 Std 8 6 Pix 80
Meter (1 3) Mean. 8 Max 38 Min. 0 Std 5 4 Pix 380	Meter (2,3) Mean. 8 Max. 47 Min. 0 Std 7 3 Pix.400	Meter (3,3) Mean. 9 Max 56 Min. 0 Std 8 4 Pix 400	Meter (4,3) Mean. 13 Max 110 Min. 0 Std 14 9 Pix.400	Meter (5,3) Mean. 9 Max 97 Min. 0 Std. 9 2 Pix 400	Meter (6,3) Mean. 13 Max. 204 Min. 0 Std 26 5 Pix 400	Meter (7,3) Mean. 15 Max. 244 Min. 0 Std. 35 6 Pix 400	Meter (8,3) Mean. 13 Max. 102 Min. 4 Std. 19 7 Pix 400	Meter (9,3) Mean. 25 Max. 173 Min. 6 Std. 26 5 Pix 400	Meter (10,3) Mean. 18 Max. 156 Min. 4 Std. 18 3 Pix.400	Meter (11,3) Mean. 17 Max. 72 Min. 0 Std. 11 6 Pix 400	Meter (12,3) Mean. 11 Max 79 Min. 1 Std 10 8 Pix.400	Meter (13,3) Mean. 15 Max. 194 Min. 0 Std. 26 9 Pix 400	Meter (14 3) Mean. 12 Max 72 Min. 0 Std. 10 8 Pix 400	Meter (15 3) Mean. 12 Max 67 Min. 0 Std. 10 4 Pix 400	Meter (16 3) Mean. 12 Max. 76 Min. 2 Std. 9 5 Pix 400	Meter (17,3) Mean. 12 Max 69 Min. 0 Std 9 6 Pix 400	Meter (18 3) Mean 16 Max 51 Min 0 Std 14 6 Pix 80
Meter (1,2) Mean. 4 Max. 22 Min. 0 Std. 3 7 Pix 182	Meter (2,2) Mean. 16 Max. 175 Min. 0 Std. 21 4 Pix 400	Meter (3 2) Mean. 9 Max 30 Min. 0 Std. 4 0 Pix.400	Meter (4 2) Mean. 11 Max 63 Min. 0 Std 6.9 Pix 400	Meter (5,2) Mean. 17 Max. 69 Min. 2 Std. 15 5 Pix.400	Meter (6,2) Mean. 22 Max. 109 Min. 6 Std. 18 6 Pix 400	Meter (7,2) Mean. 20 Max. 62 Min. 4 Std. 15 1 Pix 400	Meter (8,2) Mean. 14 Max. 152 Min. 0 Std. 13 3 Pix 400	Meter (9,2) Mean. 16 Max. 91 Min. 0 Std. 14 3 Pix 400	Meter (10,2) Mean. 24 Max. 110 Min. 0 Std. 21 1 Pix 400	Meter (11,2) Mean. 17 Max. 110 Min. 5 Std. 11 3 Pix 400	Meter (12,2) Mean. 13 Max. 130 Min. 0 Std 15 3 Pix 400	Meter (13,2) Mean. 20 Max. 145 Min. 0 Std 24 1 Pix 400	Meter (14,2) Mean. 15 Max. 104 Min. 5 Std 13 9 Pix 400	Meter (15,2) Mean. 8 Max 43 Min. 0 Std. 7 5 Pix 400	Meter (16,2) Mean. 18 Max 109 Min. 2 Std 14 1 Pix 400	Meter (17,2) Mean 15 Max 100 Min. 4 Std 15 9 Pix 400	Meter (18 2) Mean. 4 Max. 8 Min 0 Std 1 8 Pix 80
Meter (1 1) Mean. 1 Max. 2 Min. 0 Std. 4 Pix 12	Meter (2 1) Mean. 12 Max. 81 Min. 0 Std 14 7 Pix 240	Meter (3 1) Mean. 10 Max 63 Min. 0 Std. 9 9 Pix 240	Meter (4 1) Mean. 15 Max. 62 Min. 2 Std 11 2 Pix 240	Meter (5 1) Mean. 13 Max. 60 Min. 3 Std. 10 2 Pix 240	Meter (6 1) Mean. 10 Max. 77 Min. 2 Std. 6 8 Pix.240	Meter (7 1) Mean. 10 Max. 89 Min. 0 Std 12 9 Pix 240	Meter (8 1) Mean. 17 Max. 169 Min. 0 Std. 20.9 Pix.240	Meter (9 1) Mean. 15 Max. 144 Min. 0 Std. 21 6 Pix 240	Meter (10,1) Mean: 8 Max. 19 Min. 2 Std. 3 1 Pix.240	Meter (11 1) Mean. 7 Max. 65 Min. 0 Std. 11 5 Pix 240	Meter (12 1) Mean. 6 Max. 51 Min. 0 Std 7 2 Pix 240	Meter (13 1) Mean. 12 Max. 63 Min. 0 Std. 12.6 Pix 240	Meter (14 1) Mean. 14 Max 117 Min. 0 Std. 19 9 Pix 240	Meter (15 1) Mean. 6 Max 16 Min. 0 Std 4 0 Pix 240	Meter (16,1) Mean. 4 Max. 29 Min. 0 Std 5 2 Pix 240	Meter (17 1) Mean 15 Max 100 Min. 0 Std. 14 8 Pix 240	Meter (18 1) Mean 2 Max 3 Min 1 Std 9 Pix 48

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (18,1) and Grids (18,1) - (18,7) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 7) Mean 11 Max 112 Min 0 Std 15 6 Pix 380	Meter (2 7) Mean. 11 Max 64 Min. 0 Std 11 1 Pix 400	Meter (3 7) Mean 18 Max 111 Min 1 Std 16 4 Pix 400	Meter (4 7) Mean 11 Max. 46 Min. 0 Std 6 5 Pix 400	Meter (5 7) Mean 7 Max 65 Min 0 Std 6 8 Pix 400	Meter (6 7) Mean 6 Max 43 Min 0 Std 6 8 Pix 400	Meter (7 7) Mean 7 Max 51 Min. 0 Std 5 8 Pix 400	Meter (8 7) Mean 15 Max 108 Min 1 Std 14 8 Pix 400	Meter (9 7) Mean. 6 Max. 16 Min. 0 Std 3 5 Pix 400	Meter (10 7) Mean. 13 Max 62 Min. 0 Std 10 8 Pix 400	Meter (11 7) Mean 20 Max 112 Min. 1 Std 16 3 Pix 400	Meter (12 7) Mean. 11 Max 86 Min. 0 Std 12 2 Pix 400	Meter (13 7) Mean 8 Max 52 Min 0 Std. 8 3 Pix 400	Meter (14 7) Mean 6 Max 65 Min 0 Std 5 6 Pix 400	Meter (15 7) Mean 11 Max 115 Min 0 Std 15 4 Pix 400	Meter (16 7) Mean 7 Max 26 Min 0 Std 6 0 Pix 400	Meter (17 7) Mean 12 Max 28 Min. 1 Std 5 6 Pix 400	Meter (18 7) Mean 6 Max 11 Min 3 Std 2 2 Pix 80
Meter (1 6) Mean 12 Max 138 Min. 0 Std. 18 9 Pix.390	Meter (2 6) Mean. 13 Max. 140 Min 0 Std 17 5 Pix 400	Meter (3 6) Mean. 15 Max. 145 Min. 0 Std. 20 9 Pix 400	Meter (4 6) Mean. 11 Max. 69 Min. 0 Std. 9 3 Pix 400	Meter (5,6) Mean. 16 Max 100 Min 3 Std. 15 6 Pix 400	Meter (6 6) Mean. 11 Max 116 Min. 0 Std. 12 4 Pix 400	Meter (7 6) Mean. 20 Max. 179 Min. 0 Std. 25 2 Pix 400	Meter (8,6) Mean. 15 Max. 129 Min. 0 Std. 16 8 Pix 400	Meter (9 6) Mean. 6 Max. 18 Min. 0 Std. 4 7 Pix.400	Meter (10 6) Mean. 10 Max. 77 Min: 0 Std. 6 9 Pix 400	Meter (11 6) Mean. 11 Max. 308 Min. 0 Std. 20 4 Pix 400	Meter (12 6) Mean. 7 Max 44 Min. 0 Std. 6.9 Pix 400	Meter (13,6) Mean. 9 Max. 58 Min. 0 Std 8 3 Pix 400	Meter (14 6) Mean. 12 Max 110 Min 0 Std 13 4 Pix 400	Meter (15 6) Mean 9 Max 75 Min 0 Std 9 4 Pix 400	Meter (16 6) Mean. 11 Max. 58 Min. 0 Std 8 3 Pix 400	Meter (17 6) Mean. 8 Max 20 Min. 0 Std 4 5 Pix 400	Meter (18 6) Mean 6 Max 12 Min 0 Std 4 0 Pix 80
Meter (1,5) Mean. 19 Max 137 Min. 0 Std 18 7 Pix.400	Meter (2,5) Mean. 15 Max 105 Min. 0 Std 16 1 Pix 400	Meter (3,5) Mean. 15 Max. 144 Min. 0 Std 21 6 Pix 400	Meter (4,5) Mean. 21 Max. 178 Min. 0 Std 26 2 Pix 400	Meter (5,5) Mean. 21 Max. 144 Min. 0 Std 24 5 Pix 400	Meter (6,5) Mean. 13 Max. 96 Min. 0 Std 10 8 Pix 400	Meter (7,5) Mean. 22 Max. 182 Min. 0 Std 32 6 Pix 400	Meter (8,5) Mean. 13 Max 57 Min. 0 Std. 9 9 Pix 400	Meter (9,5) Mean. 12 Max. 28 Min. 0 Std 5 2 Pix 400	Meter (10,5) Mean. 14 Max. 74 Min. 2 Std. 8.7 Pix.400	Meter (11,5) Mean. 11 Max. 85 Min. 3 Std. 9 7 Pix 400	Meter (12,5) Mean. 12 Max. 35 Min. 2 Std. 4 3 Pix 400	Meter (13,5) Mean. 8 Max. 29 Min. 0 Std 4 3 Pix 400	Meter (14 5) Mean 12 Max 162 Min. 0 Std 19 8 Pix 400	Meter (15,5) Mean. 8 Max. 51 Min 0 Std 7 8 Pix 400	Meter (16,5) Mean. 15 Max. 61 Min. 0 Std 14 9 Pix 400	Meter (17,5) Mean. 11 Max. 25 Min. 0 Std 5 2 Pix 400	Meter (18 5) Mean 5 Max 13 Min. 0 Std 4 4 Pix 80
Meter (1 4) Mean 9 Max 88 Min. 0 Std. 10 5 Pix 393	Meter (2 4) Mean. 9 Max. 58 Min. 0 Std 10 0 Pix 400	Meter (3 4) Mean 10 Max 53 Min. 1 Std 7 2 Pix 400	Meter (4 4) Mean. 8 Max 36 Min. 0 Std 6 9 Pix 400	Meter (5 4) Mean. 15 Max. 77 Min. 1 Std 12 1 Pix 400	Meter (6,4) Mean. 13 Max. 186 Min. 0 Std 15 9 Pix 400	Meter (7 4) Mean 11 Max. 115 Min. 0 Std. 20 2 Pix.400	Meter (8 4) Mean. 15 Max 109 Min. 0 Std. 20.7 Pix.400	Meter (9 4) Mean. 13 Max. 65 Min. 0 Std. 10 1 Pix 400	Meter (10,4) Mean. 13 Max. 106 Min. 0 Std. 15 0 Pix 400	Meter (11 4) Mean. 14 Max 127 Min. 0 Std. 17 1 Pix 400	Meter (12 4) Mean. 13 Max 76 Min. 0 Std 15 8 Pix 400	Meter (13 4) Mean. 16 Max 119 Min 0 Std 12 5 Pix 400	Meter (14 4) Mean 10 Max 61 Min. 0 Std 9 3 Pix 400	Meter (15 4) Mean 13 Max 99 Min 0 Std 12 8 Pix 400	Meter (16 4) Mean. 9 Max 56 Min 0 Std 6 5 Pix 400	Meter (17 4) Mean. 12 Max 97 Min. 0 Std 10 4 Pix 400	Meter (18 4) Mean 10 Max 57 Min 1 Std 16 6 Pix 80
Meter (1,3) Mean. 8 Max 81 Min. 0 Std. 12 9 Pix 380	Meter (2,3) Mean. 14 Max. 116 Min. 0 Std 17 5 Pix 400	Meter (3,3) Mean. 21 Max. 183 Min. 2 Std 30 3 Pix 400	Meter (4 3) Mean. 25 Max 171 Min. 0 Std 27 7 Pix 400	Meter (5,3) Mean. 12 Max 95 Min 0 Std 15 1 Pix 400	Meter (6,3) Mean. 20 Max. 168 Min 1 Std. 27 8 Pix 400	Meter (7,3) Mean. 11 Max. 209 Min. 0 Std 21 9 Pix 400	Meter (8,3) Mean. 20 Max. 165 Min. 0 Std 24 0 Pix 400	Meter (9,3) Mean. 13 Max. 92 Min. 0 Std 10 5 Pix 400	Meter (10,3) Mean. 25 Max. 188 Min. 6 Std 26 4 Pix.400	Meter (11,3) Mean. 19 Max 103 Min. 4 Std. 16 9 Pix 400	Meter (12,3) Mean. 16 Max. 132 Min. 0 Std 19 9 Pix 400	Meter (13,3) Mean. 18 Max. 107 Min. 4 Std 18 0 Pix 400	Meter (14 3) Mean 9 Max. 45 Min. 0 Std 7 3 Pix 400	Meter (15 3) Mean 14 Max 86 Min. 1 Std 10 2 Pix 400	Meter (16,3) Mean 13 Max 69 Min. 0 Std 13 2 Pix 400	Meter (17 3) Mean. 19 Max 144 Min 0 Std 25 1 Pix 400	Meter (18 3) Mean 14 Max 63 Min 3 Std 12 4 Pix 80
Meter (1,2) Mean 7 Max. 32 Min. 0 Std 5 2 Pix 182	Meter (2,2) Mean. 15 Max 108 Min 0 Std 13 3 Pix 400	Meter (3,2) Mean. 23 Max. 187 Min. 6 Std 26 1 Pix 400	Meter (4,2) Mean. 18 Max 75 Min. 2 Std 12 3 Pix 400	Meter (5,2) Mean 18 Max 97 Min. 1 Std 15 0 Pix 400	Meter (6,2) Mean. 17 Max 120 Min. 0 Std 16 0 Pix 400	Meter (7,2) Mean 20 Max. 194 Min. 0 Std. 29 0 Pix.400	Meter (8,2) Mean. 22 Max 106 Min. 4 Std. 18 7 Pix 400	Meter (9,2) Mean. 22 Max 132 Min. 6 Std 21 7 Pix 400	Meter (10,2) Mean. 18 Max. 121 Min. 0 Std. 16 9 Pix 400	Meter (11,2) Mean. 23 Max. 177 Min. 5 Std 19 0 Pix 400	Meter (12,2) Mean. 12 Max. 57 Min. 0 Std 7 9 Pix 400	Meter (13,2) Mean. 15 Max. 91 Min. 3 Std 14 2 Pix 400	Meter (14,2) Mean: 17 Max 147 Min 0 Std 22 1 Pix 400	Meter (15 2) Mean. 13 Max 63 Min 0 Std 9 1 Pix 400	Meter (16 2) Mean. 19 Max 113 Min. 3 Std 14 5 Pix 400	Meter (17 2) Mean. 18 Max 136 Min 0 Std 17 2 Pix 400	Meter (18 2) Mean 4 Max 14 Min 0 Std 4 6 Pix 80
Meter (1 1) Mean. 0 Max. 0 Min. 0 Std. 0 Pix 12	Meter (2 1) Mean. 11 Max 48 Min. 0 Std 8 4 Pix 240	Meter (3 1) Mean. 8 Max 40 Min. 0 Std 6 4 Pix 240	Meter (4 1) Mean. 9 Max 134 Min. 0 Std 14 8 Pix 240	Meter (5 1) Mean. 10 Max. 55 Min. 0 Std 7 7 Pix 240	Meter (6 1) Mean. 10 Max. 68 Min. 0 Std 7 2 Pix 240	Meter (7 1) Mean. 14 Max. 92 Min. 0 Std 17 3 Pix 240	Meter (8 1) Mean. 12 Max. 38 Min. 2 Std. 5 3 Pix 240	Meter (9 1) Mean. 8 Max. 49 Min: 0 Std. 6 9 Pix 240	Meter (10,1) Mean. 10 Max 112 Min. 0 Std. 10 3 Pix 240	Meter (11 1) Mean. 11 Max 33 Min. 2 Std. 4 6 Pix 240	Meter (12 1) Mean. 7 Max 120 Min. 0 Std 12 6 Pix 240	Meter (13 1) Mean. 14 Max. 72 Min. 0 Std 14 1 Pix 240	Meter (14 1) Mean. 8 Max 14 Min. 0 Std 3 6 Pix 240	Meter (15 1) Mean. 10 Max 40 Min. 0 Std 8 1 Pix 240	Meter (16 1) Mean 7 Max 15 Min. 1 Std 3 1 Pix 240	Meter (17 1) Mean. 16 Max 58 Min. 0 Std 16 5 Pix 240	Meter (18 1) Mean 6 Max 9 Min 2 Std 1 8 Pix 48

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (18,1) and Grids (18,1) - (18,7) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Recount) Date 04-10-1998 Time 15 54 32 RF12304A-3

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 2) Mean 15 Max 121 Min 0 Std 17 9 Pix 400	Meter (2 2) Mean 21 Max 185 Min 3 Std 23 2 Pix 400	Meter (3 2) Mean 26 Max 131 Min 3 Std 19 3 Pix 400	Meter (4 2) Mean 24 Max 88 Min 0 Std 16 6 Pix.400	Meter (5 2) Mean 3 Max 16 Min 0 Std 3 6 Pix 160	Meter (6 2) Mean 5 Max 14 Min 0 Std 4 1 Pix 320
Meter (1,1) Mean 13 Max 52 Min 1 Std 7 1 Pix 320	Meter (2,1) Mean 34 Max 168 Min 9 Std 29 0 Pix 320	Meter (3 1) Mean 35 Max 127 Min 7 Std 25 8 Pix 320	Meter (4,1) Mean 34 Max 94 Min 9 Std. 17 5 Pix 320	Meter (5,1) Mean 5 Max 16 Min 0 Std 3 7 Pix 128	Meter (6 1) Mean 6 Max 17 Min 0 Std 5 4 Pix 256

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (6,1) and Grids (6,1) - (6,2) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 2) Mean 11 Max 156 Min 0 Std 17 3 Pix 400	Meter (2,2) Mean 19 Max 112 Min 0 Std 22.8 Pix 400	Meter (3,2) Mean 17 Max 109 Min 3 Std 17 8 Pix 400	Meter (4 2) Mean 12 Max 95 Min 0 Std 11 5 Pix 400	Meter (5 2) Mean 10 Max 48 Min 0 Std 8 9 Pix 160	Meter (6 2) Mean 4 Max 19 Min 0 Std 4 4 Pix 320
Meter (1 1) Mean 8 Max 50 Min 0 Std 7 0 Pix 320	Meter (2,1) Mean 15 Max 131 Min 0 Std 17 6 Pix 320	Meter (3 1) Mean 21 Max 153 Min 7 Std 20 0 Pix 320	Meter (4,1) Mean 8 Max 16 Min 1 Std 3 6 Pix 320	Meter (5 1) Mean 13 Max 145 Min 0 Std 16 5 Pix 128	Meter (6 1) Mean 7 Max 14 Min 0 Std 4 6 Pix 256

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (6,1) and Grids (6,1) - (6,2) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

4050 dpm/100 cm^2, averaged over 1m^2
5550 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release.

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 7) Mean. 3,276 Max. 4 078 Min. 560 Std. 763 4 Pix 400	Meter (2 7) Mean. 3 708 Max 4 174 Min 1 915 Std 396 9 Pix 400	Meter (3 7) Mean. 3 726 Max 4 835 Min 1 561 Std. 556 1 Pix 400	Meter (4 7) Mean 3 743 Max 4 939 Min. 2 075 Std. 440 5 Pix 400	Meter (5 7) Mean 3,673 Max 4 331 Min. 1 834 Std 453 6 Pix 400	Meter (6,7) Mean. 3 604 Max 4 405 Min. 1 848 Std 458 0 Pix 400	Meter (7 7) Mean. 3,812 Max 4 780 Min. 1 809 Std 446 0 Pix 400	Meter (8 7) Mean. 3 660 Max 4 783 Min. 1 875 Std 486 0 Pix 400	Meter (9 7) Mean. 3 784 Max. 4 663 Min. 1 909 Std 427 2 Pix 400	Meter (10,7) Mean. 3 799 Max 4 826 Min. 1 673 Std 442 5 Pix 400	Meter (11 7) Mean 3 682 Max 4 560 Min. 1 881 Std 446 8 Pix 400	Meter (12 7) Mean 3 444 Max 4,591 Min. 1 835 Std 400 6 Pix 400	Meter (13 7) Mean 3 341 Max 4 272 Min. 2 003 Std 312 7 Pix 400	Meter (14 7) Mean. 3 377 Max 4 012 Min 1 707 Std 390 9 Pix 400	Meter (15 7) Mean 3,396 Max 4 122 Min 1 467 Std 396 0 Pix 400	Meter (16 7) Mean 3,292 Max 3 743 Min. 1 878 Std 336 4 Pix 400	Meter (17 7) Mean 3,385 Max 4 145 Min 1 769 Std 430 8 Pix 400	Meter (18 7) Mean 2 747 Max 0 Min 0 Std 411 9 Pix 40
Meter (1 6) Mean. 3 301 Max 4 128 Min. 1 000 Std 642 6 Pix 400	Meter (2 6) Mean 3,501 Max 4,042 Min. 2 785 Std 276.3 Pix 400	Meter (3 6) Mean. 3 405 Max 4,537 Min 2 930 Std 284 8 Pix 400	Meter (4 6) Mean. 3 383 Max 4,570 Min. 2 679 Std 406 4 Pix 400	Meter (5 6) Mean. 3,314 Max. 3 996 Min. 2 710 Std 289 3 Pix 400	Meter (6 6) Mean. 3 364 Max 4 184 Min. 2 868 Std. 286 6 Pix 400	Meter (7 6) Mean. 3 374 Max 4,098 Min. 2 807 Std. 382.4 Pix 400	Meter (8 6) Mean. 3 366 Max 4 699 Min 2 754 Std. 322 4 Pix 400	Meter (9,6) Mean. 3 290 Max 4 119 Min. 2,586 Std. 324 9 Pix 400	Meter (10,6) Mean. 3 303 Max. 4 015 Min. 2 631 Std. 389 3 Pix 400	Meter (11 6) Mean. 3 305 Max. 3 710 Min. 2 778 Std 217 4 Pix 400	Meter (12,6) Mean. 3,257 Max. 3 840 Min. 2 712 Std 289 8 Pix 400	Meter (13 6) Mean. 2 991 Max 3 587 Min. 2,565 Std 219 1 Pix.400	Meter (14 6) Mean 2 950 Max 3 429 Min 2 529 Std. 223 9 Pix 400	Meter (15 6) Mean. 2 979 Max 3,526 Min. 2 492 Std 281 4 Pix 400	Meter (16 6) Mean. 3 013 Max 3 497 Min. 2,552 Std 260 0 Pix 400	Meter (17 6) Mean. 3 011 Max 3 706 Min. 2 081 Std 275 3 Pix 400	Meter (18 6) Mean 2 276 Max 0 Min. 0 Std 340 8 Pix 40
Meter (1,5) Mean. 3 358 Max. 4 183 Min. 1 165 Std. 686 6 Pix 400	Meter (2,5) Mean. 3 775 Max 4 139 Min. 3,323 Std. 114 0 Pix 400	Meter (3,5) Mean. 3 747 Max. 4 369 Min. 3 173 Std 238 7 Pix 400	Meter (4,5) Mean. 3 740 Max. 4 646 Min. 3 258 Std. 241 5 Pix 400	Meter (5,5) Mean. 3,584 Max 4 343 Min. 3 156 Std 242 8 Pix 400	Meter (6,5) Mean. 3 642 Max. 4,389 Min. 2 993 Std 236.5 Pix 400	Meter (7,5) Mean. 3,689 Max. 4 494 Min. 3,012 Std. 324 1 Pix 400	Meter (8,5) Mean. 3 642 Max. 4 130 Min. 3 096 Std 234 9 Pix.400	Meter (9,5) Mean. 3 653 Max. 4 108 Min. 2 978 Std 229 7 Pix.400	Meter (10,5) Mean. 3 681 Max. 4,609 Min. 2 965 Std. 289 6 Pix.400	Meter (11,5) Mean. 3,577 Max. 3 940 Min. 3 142 Std. 160.2 Pix 400	Meter (12,5) Mean. 3,506 Max. 4,019 Min. 3,063 Std. 187 3 Pix 400	Meter (13,5) Mean. 3,361 Max. 3 735 Min. 2 782 Std 196 0 Pix 400	Meter (14,5) Mean 3 404 Max 4 078 Min. 2,840 Std 294 8 Pix 400	Meter (15,5) Mean. 3,354 Max 4 059 Min. 2,878 Std 239 7 Pix 400	Meter (16,5) Mean. 3 435 Max 3 915 Min. 2 729 Std 245 3 Pix 400	Meter (17,5) Mean. 3 289 Max 4,233 Min. 2 141 Std 393 5 Pix 400	Meter (18,5) Mean. 2 429 Max 0 Min. 0 Std 446 0 Pix 40
Meter (1 4) Mean. 2,827 Max. 4 133 Min. 0 Std. 1399.8 Pix 352	Meter (2 4) Mean. 3 799 Max 4 772 Min. 2,974 Std. 191 0 Pix 400	Meter (3 4) Mean. 3 704 Max 4 188 Min. 3 121 Std 221 9 Pix 400	Meter (4 4) Mean. 3 786 Max. 4 488 Min. 3,321 Std. 242 3 Pix 400	Meter (5 4) Mean. 3 793 Max 4 499 Min. 3 317 Std 216 9 Pix 400	Meter (6 4) Mean. 3 727 Max. 4 458 Min. 3 311 Std. 237 6 Pix 400	Meter (7 4) Mean. 3 724 Max 4,341 Min. 3,259 Std. 230 9 Pix 400	Meter (8 4) Mean. 3 740 Max. 4,501 Min. 3,263 Std. 238 0 Pix 400	Meter (9 4) Mean. 3,670 Max. 4,068 Min. 3 321 Std. 143 9 Pix.400	Meter (10,4) Mean. 3,818 Max. 4 439 Min. 3,298 Std. 237 1 Pix.400	Meter (11 4) Mean. 3 735 Max. 4 486 Min. 3,212 Std. 203 5 Pix 400	Meter (12 4) Mean. 3 711 Max. 4 765 Min. 3,215 Std 289 7 Pix 400	Meter (13 4) Mean. 3,717 Max 4 452 Min. 3,216 Std. 239 3 Pix.400	Meter (14 4) Mean. 3 624 Max. 4,342 Min. 3 221 Std. 211 5 Pix.400	Meter (15 4) Mean. 3,558 Max. 4 410 Min 3 201 Std 197 8 Pix 400	Meter (16 4) Mean. 3,597 Max. 4 132 Min. 3 155 Std 192 3 Pix 400	Meter (17 4) Mean. 3 638 Max 4,524 Min 2 708 Std 287 5 Pix 400	Meter (18 4) Mean. 2 809 Max 0 Min. 0 Std. 394 1 Pix 40
Meter (1,3) Mean. 550 Max. 814 Min. 0 Std. 233 9 Pix 80	Meter (2,3) Mean. 3,503 Max. 4,021 Min. 2,203 Std. 352.0 Pix 400	Meter (3,3) Mean. 3 757 Max. 4 579 Min. 2 930 Std 314 2 Pix 400	Meter (4,3) Mean. 3 828 Max. 4 277 Min. 3 520 Std. 150 0 Pix.400	Meter (5,3) Mean. 3 741 Max 4 320 Min. 3 342 Std 203 2 Pix 400	Meter (6,3) Mean. 3 715 Max. 4,074 Min. 3,358 Std 155 6 Pix 400	Meter (7,3) Mean. 3 638 Max. 4 165 Min. 3,298 Std 190.4 Pix 400	Meter (8,3) Mean. 3 713 Max. 4 448 Min. 3,320 Std. 222 1 Pix 400	Meter (9,3) Mean. 3 706 Max. 4 164 Min. 3,299 Std. 194 1 Pix 400	Meter (10,3) Mean. 3,635 Max. 4,086 Min. 3,291 Std. 185 7 Pix 400	Meter (11,3) Mean. 3 639 Max. 4,235 Min. 3 186 Std. 275 4 Pix 400	Meter (12,3) Mean. 3,665 Max. 4,566 Min. 2,952 Std 252 0 Pix 400	Meter (13,3) Mean. 3 706 Max. 4 135 Min. 3 355 Std 137 1 Pix 400	Meter (14,3) Mean. 3 657 Max 4 602 Min 3 266 Std 269 1 Pix 400	Meter (15 3) Mean. 3 431 Max 3 921 Min 3 069 Std 178 2 Pix 400	Meter (16 3) Mean. 3 644 Max. 4 096 Min 3 184 Std 205 0 Pix 400	Meter (17 3) Mean. 3 631 Max. 4 263 Min. 2 816 Std 241 1 Pix 400	Meter (18,3) Mean. 2 793 Max 0 Min. 0 Std 509 4 Pix 40
Meter (1,2) Mean. 414 Max 893 Min. 0 Std 130 5 Pix.32	Meter (2,2) Mean. 2,528 Max 3 797 Min. 0 Std. 1468 7 Pix 316	Meter (3,2) Mean. 3 622 Max. 4,085 Min. 3 344 Std. 139 8 Pix 400	Meter (4,2) Mean. 3 647 Max. 4 040 Min. 3,324 Std. 123 1 Pix 400	Meter (5,2) Mean. 3,599 Max 4 071 Min. 3 171 Std 156 6 Pix 400	Meter (6 2) Mean. 3,544 Max. 3 960 Min. 3,239 Std. 177 7 Pix 400	Meter (7,2) Mean. 3,632 Max. 4 020 Min. 3 275 Std 140.4 Pix.400	Meter (8,2) Mean. 3 721 Max. 4,269 Min. 3,317 Std 183 6 Pix 400	Meter (9,2) Mean. 3 725 Max. 4 134 Min. 3 427 Std. 155 2 Pix 400	Meter (10,2) Mean. 3,801 Max. 4 172 Min. 3 493 Std. 138 3 Pix 400	Meter (11,2) Mean. 3 658 Max. 4 024 Min. 3,283 Std. 137 5 Pix.400	Meter (12,2) Mean 3 795 Max. 4 401 Min. 3,369 Std: 245 3 Pix 400	Meter (13,2) Mean. 3 763 Max 4 538 Min. 3 309 Std 208 6 Pix 400	Meter (14,2) Mean 3 734 Max 4,280 Min. 3 310 Std 220 0 Pix 400	Meter (15,2) Mean 3 746 Max 4 119 Min. 3 272 Std 209 9 Pix 400	Meter (16 2) Mean. 3 750 Max 4 163 Min 3 351 Std 186 3 Pix 400	Meter (17,2) Mean 3 702 Max 4 308 Min. 2 548 Std 258 1 Pix 400	Meter (18 2) Mean 1 906 Max 0 Min. 0 Std 365 7 Pix 40
Meter (1 1) Mean. 0 Max 0 Min 0 Std. 0 Pix 0	Meter (2,1) Mean. 2 127 Max 3,621 Min 0	Meter (3 1) Mean. 2 926 Max 3 515 Min 1 143	Meter (4 1) Mean. 2 987 Max 3,897 Min 1 226	Meter (5 1) Mean. 2 906 Max 3 799 Min 1 079	Meter (6 1) Mean. 2 999 Max. 3 796 Min. 1 238	Meter (7 1) Mean. 2,892 Max 3 498 Min 1 264	Meter (8 1) Mean. 2 973 Max 3 661 Min. 1 326	Meter (9 1) Mean. 2 985 Max 3,849 Min. 1 146	Meter (10,1) Mean. 3 140 Max. 3 927 Min 1 062	Meter (11 1) Mean. 2 992 Max. 3 783 Min. 1 029	Meter (12 1) Mean. 3 101 Max. 3 891 Min 1 112	Meter (13 1) Mean. 2 989 Max 3 665 Min 1 091	Meter (14 1) Mean 2 948 Max 3 654 Min 1 181	Meter (15 1) Mean. 3 102 Max 3 830 Min 1 088	Meter (16 1) Mean. 2 924 Max 3 726 Min 1 035	Meter (17 1) Mean 2 925 Max 3 741 Min 1 310	Meter (18 1) Mean 1 508 Max 0 Min. 0 Std 315 9

	Std 1368 6 Pix 156	Std 640 0 Pix 240	Std. 633 6 Pix 240	Std 670 6 Pix 240	Std. 620 2 Pix 240	Std 566 1 Pix 240	Std 645 6 Pix 240	Std 652 8 Pix 240	Std 661 4 Pix 240	Std 643 4 Pix 240	Std 703 8 Pix 240	Std 638 7 Pix 240	Std 620 3 Pix 240	Std 728 3 Pix 240	Std 623 8 Pix 240	Std 614 9 Pix 240	Pix 24

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (18,1) and Grids (18,1) - (18,7) are not one square meter Bold text denotes grids which excee release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

4050 dpm/100 cm^2, averaged over 1 m^2
5550 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 2) Mean 2,247 Max 3,188 Min 0 Std 1026 2 Pix 360	Meter (2 2) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (3 2) Mean 2,124 Max 3,695 Min 0 Std 1329 0 Pix 280	Meter (4 2) Mean 3,123 Max 3,717 Min 1,522 Std 346 5 Pix 400	Meter (5 2) Mean 3 089 Max 3 518 Min 1,428 Std 388 7 Pix 400	Meter (6,2) Mean 3,155 Max 3,708 Min 1,453 Std 403 5 Pix 400	Meter (7 2) Mean 3,075 Max 3,831 Min 956 Std 691 9 Pix 220
Meter (1,1) Mean 1,931 Max 3,045 Min 0 Std 925 5 Pix 288	Meter (2,1) Mean 0 Max 0 Min 0 Std 0 Pix 0	Meter (3,1) Mean 1,925 Max 3,129 Min 0 Std 1199 6 Pix 224	Meter (4,1) Mean 2 898 Max 3,318 Min 1,671 Std 352 5 Pix 320	Meter (5,1) Mean 2,852 Max 3,382 Min 1,507 Std 352 9 Pix 320	Meter (6,1) Mean 2,990 Max 3,673 Min 1,785 Std 391 7 Pix 320	Meter (7,1) Mean 2,740 Max 3,472 Min 1,026 Std 569 8 Pix 176

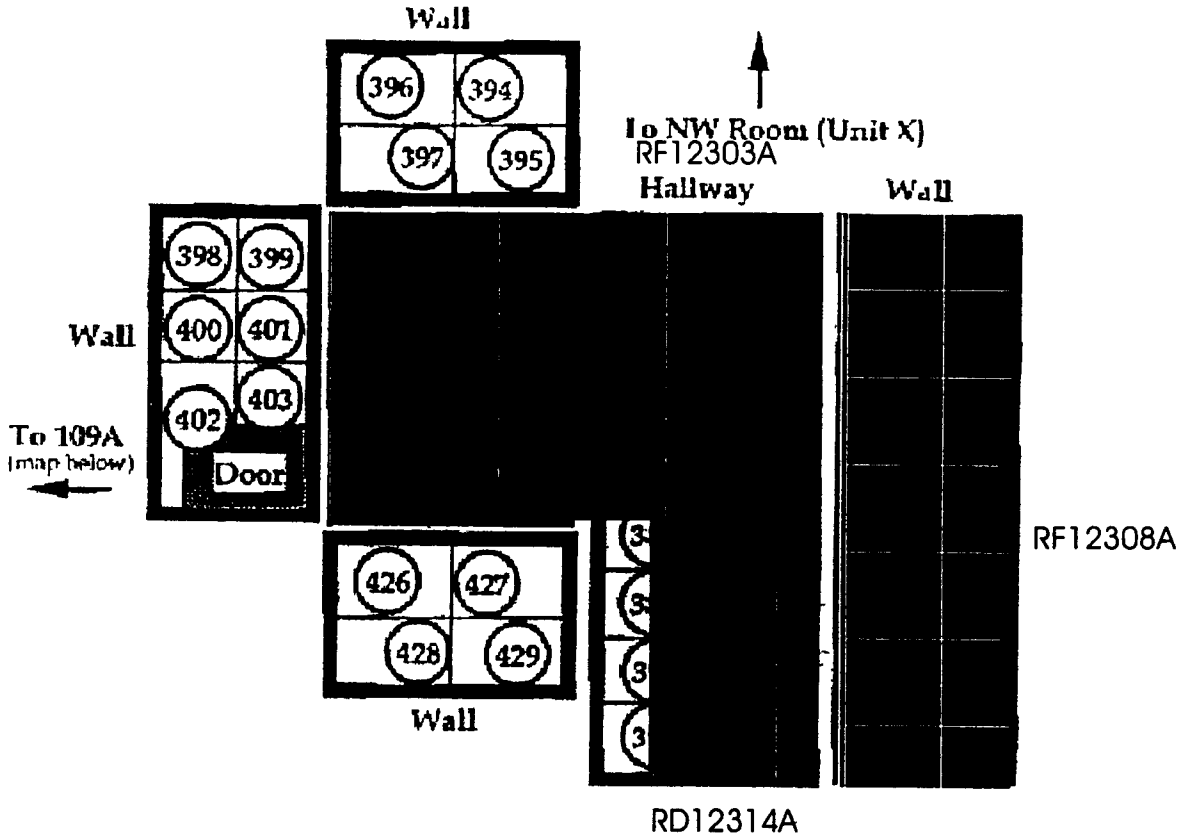
Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (7,1) and Grids (7,1) - (7,2) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date 04-10-1998 Time 19 49 33 RF12309B-3

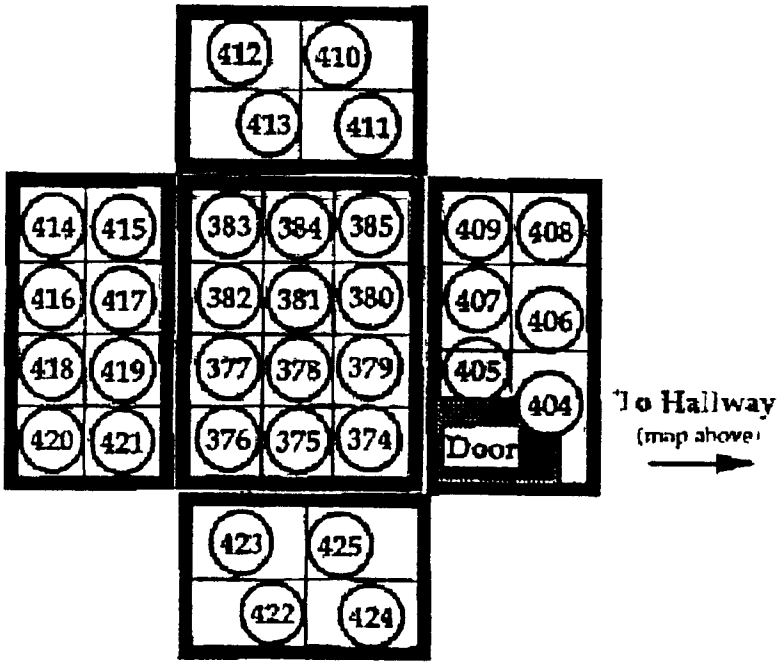
West Wing; Unit X

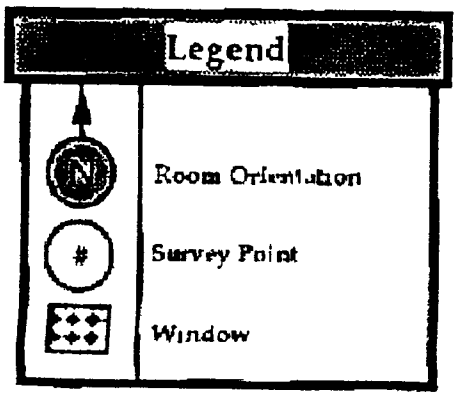
Page __ of __

Hallway, Adjacent Room & Walls



Room 109A: Floor & Walls





Note Map not drawn to scale [signature] 5/7/98

Meter (1 3) Mean 11 Max 56 Min 0 Std 11 2 Pix 400	Meter (2,3) Mean 6 Max 97 Min 0 Std 10 0 Pix 400	Meter (3,3) Mean 5 Max 42 Min 0 Std 4 1 Pix 400
Meter (1 2) Mean 10 Max 56 Min 0 Std 7 5 Pix 400	Meter (2 2) Mean 11 Max 167 Min 0 Std. 16 2 Pix 400	Meter (3,2) Mean 12 Max 70 Min 0 Std. 10 5 Pix 400
Meter (1,1) Mean 11 Max 164 Min 0 Std 23 3 Pix 400	Meter (2,1) Mean 7 Max 68 Min 0 Std 11 5 Pix 400	Meter (3,1) Mean 10 Max 63 Min 0 Std 13 6 Pix 400

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (3,1) and Grids (3,1) - (3,3) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 3) Mean 7 Max 31 Min 0 Std 4 1 Pix 400	Meter (2,3) Mean 6 Max 32 Min 0 Std 4 5 Pix 400	Meter (3 3) Mean 12 Max 136 Min 0 Std 17 2 Pix 400
Meter (1 2) Mean 9 Max 52 Min 0 Std 6 1 Pix 400	Meter (2,2) Mean 12 Max 113 Min 0 Std 12 2 Pix 400	Meter (3,2) Mean 11 Max 107 Min 0 Std 11 5 Pix 400
Meter (1,1) Mean 8 Max 119 Min 0 Std 14 6 Pix 400	Meter (2,1) Mean 8 Max 55 Min 0 Std 10 5 Pix 400	Meter (3 1) Mean 16 Max 106 Min 0 Std 20 0 Pix 400

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (3,1) and Grids (3,1) - (3,3) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 7) Mean 5 Max 22 Min 0 Std 3 5 Pix 400	Meter (2,7) Mean 3 Max 8 Min 0 Std 2 0 Pix 320
Meter (1 6) Mean 5 Max 118 Min 0 Std 12 2 Pix 360	Meter (2,6) Mean 4 Max 112 Min 0 Std 14 6 Pix 288
Meter (1,5) Mean 7 Max 85 Min 0 Std 11 4 Pix 400	Meter (2,5) Mean 4 Max 70 Min 0 Std 9 4 Pix 320
Meter (1,4) Mean 5 Max 70 Min 0 Std 9 2 Pix 400	Meter (2,4) Mean 7 Max 118 Min 0 Std. 12.8 Pix 320
Meter (1,3) Mean 7 Max 84 Min 0 Std 11 6 Pix 400	Meter (2,3) Mean 8 Max. 83 Min 0 Std. 11 6 Pix 320
Meter (1,2) Mean 4 Max 81 Min 0 Std 9 2 Pix 400	Meter (2,2) Mean 6 Max 37 Min 0 Std. 6 1 Pix 320
Meter (1,1) Mean 4 Max 14 Min 0 Std 2.1 Pix 300	Meter (2,1) Mean 7 Max 65 Min 0 Std 9 7 Pix 240

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (2,1) and Grids (2,1) - (2,7) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 7) Mean 4 Max 25 Min 0 Std 3 5 Pix 400	Meter (2 7) Mean 6 Max 166 Min 0 Std 20 3 Pix 320
Meter (1 6) Mean 3 Max 26 Min 0 Std 3 5 Pix 360	Meter (2 6) Mean 5 Max 85 Min 0 Std 11 6 Pix 288
Meter (1,5) Mean 4 Max 52 Min 0 Std 8 2 Pix 400	Meter (2,5) Mean 9 Max 105 Min 0 Std 15 5 Pix 320
Meter (1 4) Mean 6 Max 71 Min 0 Std 8 4 Pix 400	Meter (2,4) Mean 5 Max 100 Min 0 Std. 10 0 Pix 320
Meter (1,3) Mean 6 Max 57 Min 0 Std 9 6 Pix 400	Meter (2,3) Mean 7 Max 37 Min 0 Std 9 6 Pix 320
Meter (1 2) Mean 3 Max 78 Min 0 Std 8 4 Pix 400	Meter (2,2) Mean 8 Max 51 Min 0 Std 7 9 Pix 320
Meter (1,1) Mean 5 Max 49 Min 0 Std 8 9 Pix 300	Meter (2,1) Mean 4 Max. 22 Min 0 Std 3 2 Pix 240

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (2,1) and Grids (2,1) - (2,7) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 4) Mean 5 Max 296 Min 0 Std 28 0 Pix 400	Meter (2 4) Mean 14 Max 149 Min 0 Std 41 0 Pix 160
Meter (1,3) Mean 0 Max 2 Min 0 Std 3 Pix 400	Meter (2,3) Mean 0 Max 2 Min 0 Std 6 Pix 160
Meter (1 2) Mean 0 Max 18 Min 0 Std 2 3 Pix 400	Meter (2 2) Mean 0 Max 0 Min 0 Std 0 Pix 160
Meter (1 1) Mean 2 Max 132 Min 0 Std 16 1 Pix 300	Meter (2 1) Mean 0 Max 0 Min 0 Std 0 Pix 120

Table 1 dpm/100cm^2 averaged over one square meter Grids (1,1) - (2,1) and Grids (2,1) - (2,4) are not one square meter Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

103 dpm/100 cm^2, averaged over $1m^2$
303 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 4) Mean 3 Max 115 Min 0 Std 13 7 Pix 400	Meter (2 4) Mean 4 Max 115 Min 0 Std 19 7 Pix 160
Meter (1 3) Mean 5 Max 296 Min 0 Std 31 1 Pix 400	Meter (2 3) Mean 0 Max 3 Min 0 Std 1 0 Pix 160
Meter (1 2) Mean 2 Max 115 Min 0 Std 12 1 Pix 400	Meter (2 2) Mean 0 Max 3 Min 0 Std 9 Pix 160
Meter (1 1) Mean 7 Max 151 Min 0 Std 29 0 Pix 300	Meter (2 1) Mean 3 Max 141 Min 0 Std 20 0 Pix 120

Table 1 dpm/100cm^2 averaged over one square meter Grids (1,1) - (2,1) and Grids (2,1) - (2,4) are not one square meter Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

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The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

4050 dpm/100 cm^2, averaged over 1 m^2
5550 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 3) Mean 3,538 Max 4,340 Min 1 670 Std 452 5 Pix 400	Meter (2 3) Mean 3 196 Max 3,937 Min 1 701 Std 410 0 Pix 400	Meter (3,3) Mean 3,550 Max 3 995 Min 2,421 Std 302 8 Pix 400	Meter (4,3) Mean 2,548 Max 3,316 Min 1 230 Std 423 8 Pix 100
Meter (1,2) Mean 3,503 Max 4,141 Min 2,517 Std 269 7 Pix 400	Meter (2,2) Mean 3,383 Max. 3,730 Min 3,002 Std 148.3 Pix 400	Meter (3,2) Mean 3,734 Max 4,125 Min 3,306 Std. 148 9 Pix 400	Meter (4,2) Mean 2,756 Max 3,690 Min 1 639 Std 542 1 Pix 100
Meter (1 1) Mean 3 079 Max 4 025 Min 1 103 Std 651 8 Pix 360	Meter (2,1) Mean 3,143 Max 3 646 Min 1,394 Std 481.3 Pix 360	Meter (3,1) Mean 3,576 Max 4,369 Min 2,172 Std. 359 7 Pix 360	Meter (4,1) Mean 2,617 Max 3,528 Min 1,636 Std. 496.5 Pix 90

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (4,1) and Grids (4,1) - (4,3) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

4050 dpm/100 cm^2, averaged over 1 m^2
5550 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1,2) Mean 2,523 Max 2,850 Min 1,221 Std 295 7 Pix 400	Meter (2,2) Mean 1,976 Max 2 995 Min 0 Std 1215 6 Pix 240	Meter (3,2) Mean 1 737 Max 3,653 Min 0 Std 1166 6 Pix 220	Meter (4,2) Mean 2,697 Max 3,427 Min 1,423 Std 330 6 Pix 400	Meter (5 2) Mean 2,565 Max 2,966 Min 1,441 Std 279 6 Pix 400	Meter (6,2) Mean 2,552 Max 3,023 Min 1,361 Std 264 3 Pix 400	Meter (7 2) Mean 2,616 Max 2,979 Min 1 218 Std 317 7 Pix 400	Meter (8,2) Mean 2 138 Max 2 820 Min 656 Std 488 0 Pix 140
Meter (1,1) Mean 2,172 Max 2,608 Min 1,009 Std 332 7 Pix 320	Meter (2,1) Mean 1,688 Max 2,822 Min 0 Std 1043 2 Pix 192	Meter (3,1) Mean 1,348 Max 2,403 Min 0 Std 871 4 Pix 176	Meter (4 1) Mean 2,137 Max 2,695 Min 1,109 Std 319 8 Pix 320	Meter (5,1) Mean 2,101 Max 2,636 Min 1,118 Std 326 8 Pix 320	Meter (6,1) Mean 2,097 Max 2,570 Min 1,124 Std 347 7 Pix 320	Meter (7,1) Mean 2,052 Max 2,554 Min 1,057 Std 378 8 Pix 320	Meter (8 1) Mean 1,776 Max 2,436 Min 669 Std 421 5 Pix 112

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (8,1) and Grids (8,1) - (8,2) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

2300 dpm/100 cm^2, averaged over $1m^2$
3850 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Mean 1 832 Max 2 545 Min 308 Std 516 0 Pix 400	Mean 1 449 Max 2 072 Min 402 Std 467 3 Pix 160
Meter (1,3) Mean 2 101 Max 2,707 Min 1 275 Std 266 8 Pix 400	Meter (2,3) Mean 1 472 Max 2 242 Min 730 Std 422 8 Pix 160
Meter (1 2) Mean 2 162 Max 2 736 Min 1 323 Std 234 5 Pix 400	Meter (2 2) Mean 1 609 Max 2 289 Min 664 Std 431 5 Pix 160
Meter (1,1) Mean 1 924 Max 3 225 Min 1 026 Std 337 8 Pix 400	Meter (2,1) Mean 1 331 Max 2 055 Min 502 Std 357 3 Pix 160

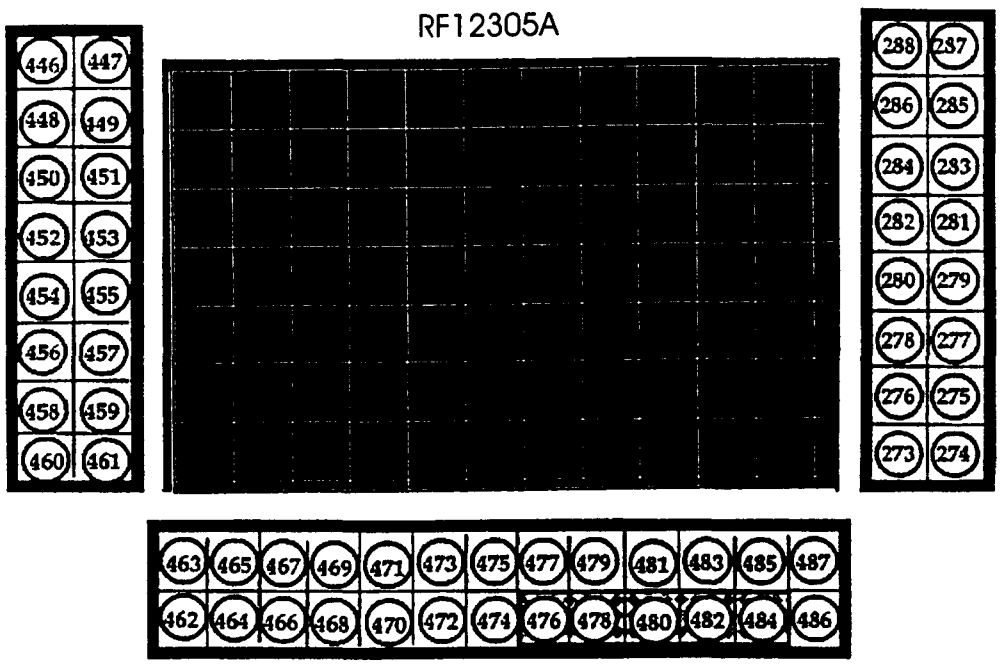
Table 1 dpm/100cm^2 averaged over one square meter Grids (1,1) - (2,1) and Grids (2,1) - (2,4) are not one square meter Bold text denotes grids which exceed release limits

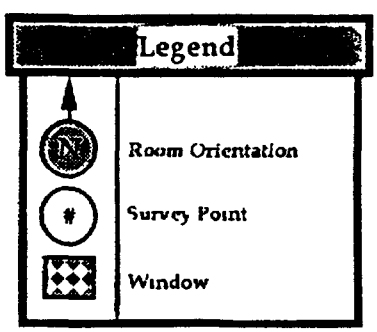
Page _ of ___

West Wing; Unit X

Walls: South East Room

RF12305A





Note map not drawn to scale. [illegible] 5/7/98

Meter (1,8) Mean. 6 Max 42 Min. 0 Std 6 8 Pix 400	Meter (2,8) Mean. 9 Max 59 Min. 0 Std 8 8 Pix 400	Meter (3 8) Mean. 11 Max 70 Min. 1 Std 8 3 Pix 400	Meter (4 8) Mean. 12 Max 86 Min 0 Std 8 6 Pix 400	Meter (5 8) Mean. 8 Max 147 Min 0 Std 14 8 Pix 400	Meter (6 8) Mean. 0 Max 3 Min. 0 Std 6 Pix 139	Meter (7 8) Mean. 8 Max 59 Min 0 Std 9 4 Pix 400	Meter (8,8) Mean. 15 Max. 63 Min. 1 Std 9 4 Pix 400	Meter (9,8) Mean 6 Max. 114 Min. 0 Std 11 9 Pix 400	Meter (10 8) Mean. 4 Max 10 Min. 0 Std. 3 1 Pix 340	Meter (11,8) Mean. 11 Max 82 Min 0 Std 13 9 Pix 340	Meter (12 8) Mean 0 Max 7 Min 0 Std 1 4 Pix 68
Meter (1 7) Mean. 13 Max. 111 Min. 0 Std. 19 2 Pix 400	Meter (2 7) Mean. 7 Max 39 Min. 0 Std 5 6 Pix 400	Meter (3 7) Mean. 16 Max 141 Min. 0 Std. 21.5 Pix.400	Meter (4 7) Mean. 10 Max. 63 Min. 0 Std. 7 7 Pix.400	Meter (5 7) Mean. 9 Max. 39 Min. 0 Std. 5 7 Pix 400	Meter (6,7) Mean. 7 Max 34 Min. 0 Std. 5 2 Pix.400	Meter (7 7) Mean. 14 Max 46 Min. 1 Std. 7 5 Pix.400	Meter (8 7) Mean. 16 Max. 86 Min. 0 Std. 14 0 Pix 400	Meter (9 7) Mean. 8 Max. 61 Min. 0 Std. 8 9 Pix 400	Meter (10,7) Mean. 11 Max. 103 Min. 2 Std. 13 9 Pix.400	Meter (11 7) Mean. 18 Max. 135 Min. 3 Std 21 9 Pix 400	Meter (12 7) Mean. 4 Max 14 Min. 0 Std 3 7 Pix 100
Meter (1,6) Mean. 7 Max 50 Min. 0 Std. 8.0 Pix 400	Meter (2,6) Mean. 12 Max. 71 Min. 0 Std. 11 5 Pix.400	Meter (3 6) Mean. 10 Max. 113 Min. 0 Std 16 6 Pix 400	Meter (4 6) Mean. 15 Max. 140 Min. 0 Std. 14 4 Pix 400	Meter (5 6) Mean. 14 Max. 225 Min. 0 Std. 31 0 Pix 400	Meter (6,6) Mean. 10 Max. 81 Min. 0 Std: 10 7 Pix 400	Meter (7,6) Mean. 12 Max 84 Min. 1 Std 9 3 Pix.400	Meter (8,6) Mean. 12 Max. 41 Min. 0 Std. 6.2 Pix.400	Meter (9,6) Mean. 11 Max. 64 Min. 0 Std. 8.2 Pix 400	Meter (10,6) Mean. 17 Max. 113 Min. 5 Std. 11 1 Pix 400	Meter (11,6) Mean. 19 Max. 139 Min. 0 Std 18 9 Pix 400	Meter (12,6) Mean. 18 Max 157 Min. 0 Std. 31 2 Pix 180
Meter (1,5) Mean. 11 Max. 49 Min. 0 Std 9 3 Pix 400	Meter (2,5) Mean. 10 Max. 77 Min. 0 Std 9 9 Pix 399	Meter (3,5) Mean. 6 Max 18 Min. 0 Std. 4 7 Pix 397	Meter (4,5) Mean. 13 Max 31 Min. 1 Std 4 9 Pix.400	Meter (5,5) Mean. 13 Max. 150 Min. 0 Std 25 0 Pix 400	Meter (6,5) Mean. 8 Max. 84 Min. 0 Std 10 2 Pix 400	Meter (7,5) Mean. 18 Max 181 Min. 3 Std. 22 0 Pix.400	Meter (8,5) Mean. 18 Max. 127 Min. 0 Std. 23 3 Pix 400	Meter (9,5) Mean. 5 Max. 44 Min. 0 Std. 7 8 Pix.343	Meter (10,5) Mean. 14 Max. 73 Min. 2 Std 11 1 Pix.400	Meter (11 5) Mean. 23 Max. 239 Min. 3 Std. 28 0 Pix 400	Meter (12,5) Mean. 10 Max 128 Min: 0 Std 14 5 Pix 180
Meter (1 4) Mean. 11 Max. 117 Min. 0 Std: 19 0 Pix.400	Meter (2,4) Mean. 6 Max. 40 Min. 0 Std. 4 7 Pix.400	Meter (3 4) Mean. 13 Max 90 Min. 0 Std. 9 7 Pix.400	Meter (4 4) Mean. 12 Max. 45 Min. 2 Std. 5 7 Pix 400	Meter (5 4) Mean. 15 Max. 172 Min. 1 Std. 21 1 Pix.400	Meter (6,4) Mean. 13 Max. 140 Min. 0 Std. 14 1 Pix.400	Meter (7 4) Mean. 10 Max 35 Min. 3 Std: 4 2 Pix.400	Meter (8,4) Mean: 12 Max. 138 Min: 0 Std. 16.4 Pix 400	Meter (9 4) Mean. 5 Max. 82 Min. 0 Std. 8 5 Pix.385	Meter (10 4) Mean. 14 Max. 49 Min. 0 Std. 8 2 Pix.400	Meter (11 4) Mean. 12 Max 84 Min. 2 Std. 10 2 Pix 400	Meter (12 4) Mean. 12 Max 76 Min. 0 Std 15 8 Pix 180
Meter (1,3) Mean. 12 Max. 161 Min. 0 Std. 14 8 Pix 400	Meter (2,3) Mean. 15 Max. 123 Min. 4 Std 20.4 Pix 400	Meter (3,3) Mean. 25 Max. 142 Min. 0 Std. 31 6 Pix.400	Meter (4,3) Mean. 12 Max 66 Min. 0 Std. 11 5 Pix 400	Meter (5,3) Mean. 15 Max. 134 Min. 0 Std. 22 3 Pix 400	Meter (6,3) Mean: 8 Max. 47 Min: 0 Std 7 5 Pix 400	Meter (7,3) Mean. 12 Max. 76 Min. 0 Std. 9 6 Pix 400	Meter (8,3) Mean. 16 Max. 205 Min. 0 Std. 21 6 Pix 400	Meter (9,3) Mean. 12 Max. 59 Min. 0 Std. 10 9 Pix 400	Meter (10,3) Mean. 12 Max. 92 Min. 0 Std. 7 8 Pix 372	Meter (11 3) Mean. 10 Max. 59 Min. 0 Std. 7 8 Pix.380	Meter (12,3) Mean. 0 Max 4 Min. 0 Std 1 5 Pix 171
Meter (1,2) Mean. 9 Max. 57 Min: 0 Std. 7 6 Pix 400	Meter (2,2) Mean. 8 Max. 104 Min. 0 Std. 10 6 Pix 400	Meter (3,2) Mean. 8 Max. 75 Min. 0 Std 10.8 Pix 400	Meter (4,2) Mean. 18 Max. 148 Min. 0 Std 26 5 Pix 400	Meter (5,2) Mean. 16 Max 104 Min. 2 Std 17 1 Pix 400	Meter (6,2) Mean. 8 Max. 60 Min. 0 Std. 9 3 Pix.400	Meter (7,2) Mean. 10 Max. 113 Min. 0 Std. 16 6 Pix.400	Meter (8,2) Mean. 17 Max. 150 Min. 0 Std. 16 9 Pix 400	Meter (9,2) Mean. 11 Max. 56 Min. 0 Std. 8 3 Pix 400	Meter (10,2) Mean. 0 Max. 0 Min. 0 Std. 0 Pix:0	Meter (11,2) Mean. 0 Max. 0 Min. 0 Std. 0 Pix:0	Meter (12,2) Mean. 0 Max 0 Min. 0 Std. 0 Pix 0
Meter (1 1) Mean. 10 Max. 33 Min. 4 Std. 6 0 Pix 80	Meter (2 1) Mean. 12 Max. 64 Min. 4 Std. 15 5 Pix 80	Meter (3 1) Mean. 5 Max 8 Min. 0 Std. 2 4 Pix.80	Meter (4 1) Mean. 5 Max. 10 Min. 0 Std. 3 0 Pix 80	Meter (5 1) Mean. 8 Max. 11 Min. 4 Std. 1 9 Pix 80	Meter (6,1) Mean. 3 Max. 9 Min. 0 Std. 3 3 Pix 80	Meter (7 1) Mean. 3 Max 11 Min. 0 Std 3 7 Pix 80	Meter (8 1) Mean. 13 Max. 57 Min. 4 Std. 11 7 Pix 80	Meter (9 1) Mean. 8 Max. 29 Min. 0 Std: 7 9 Pix 80	Meter (10,1) Mean. 0 Max. 0 Min. 0 Std. 0 Pix:0	Meter (11 1) Mean. 0 Max. 0 Min. 0 Std 0 Pix:0	Meter (12,1) Mean. 0 Max. 0 Min. 0 Std 0 Pix:0

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (12,1) and Grids (12,1) - (12,8) are not one square meter Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 8) Mean. 5 Max 75 Min. 0 Std 7 6 Pix 400	Meter (2,8) Mean. 5 Max 21 Min. 0 Std 4 3 Pix 400	Meter (3,8) Mean 10 Max 64 Min. 0 Std 8 9 Pix 400	Meter (4 8) Mean 11 Max 55 Min. 0 Std 8 3 Pix 400	Meter (5 8) Mean 9 Max 66 Min. 0 Std 9 9 Pix 400	Meter (6 8) Mean. 0 Max 3 Min. 0 Std 5 Pix 139	Meter (7 8) Mean 17 Max. 207 Min. 0 Std 25 2 Pix 400	Meter (8 8) Mean. 20 Max 120 Min. 1 Std 20 9 Pix 400	Meter (9,8) Mean. 9 Max. 65 Min. 0 Std. 8 5 Pix 400	Meter (10 8) Mean 9 Max 35 Min. 0 Std 6 6 Pix 340	Meter (11 8) Mean 7 Max 45 Min. 0 Std 6 7 Pix 340	Meter (12 8) Mean. 5 Max 9 Min 0 Std 3 3 Pix 68
Meter (1 7) Mean. 9 Max. 105 Min. 0 Std. 11 3 Pix.400	Meter (2 7) Mean. 12 Max 60 Min. 0 Std 10 6 Pix 400	Meter (3 7) Mean. 18 Max. 165 Min. 0 Std. 28 0 Pix 400	Meter (4 7) Mean. 14 Max. 50 Min. 0 Std. 8 2 Pix 400	Meter (5 7) Mean. 14 Max. 62 Min. 3 Std 8 6 Pix 400	Meter (6,7) Mean 11 Max. 91 Min. 0 Std 10 2 Pix 400	Meter (7 7) Mean. 13 Max. 121 Min. 0 Std 10 9 Pix.400	Meter (8 7) Mean. 17 Max 134 Min. 3 Std. 15 4 Pix 400	Meter (9 7) Mean. 10 Max. 82 Min. 0 Std. 14 9 Pix.400	Meter (10,7) Mean. 16 Max. 70 Min. 1 Std. 10 4 Pix.400	Meter (11 7) Mean. 14 Max. 128 Min 0 Std. 18 5 Pix 400	Meter (12 7) Mean 1 Max 7 Min 0 Std. 1 7 Pix 100
Meter (1 6) Mean. 9 Max 118 Min. 0 Std. 15 1 Pix 400	Meter (2 6) Mean. 13 Max. 81 Min. 1 Std. 11 3 Pix 400	Meter (3 6) Mean. 17 Max. 81 Min. 0 Std 14 4 Pix 400	Meter (4 6) Mean. 14 Max. 50 Min. 3 Std. 6 5 Pix.400	Meter (5 6) Mean. 10 Max. 201 Min. 0 Std. 17 5 Pix.400	Meter (6 6) Mean. 8 Max. 55 Min. 0 Std 5 9 Pix 400	Meter (7,6) Mean. 14 Max. 59 Min. 1 Std 8 6 Pix 400	Meter (8,6) Mean. 12 Max. 139 Min. 0 Std. 14 6 Pix 400	Meter (9,6) Mean. 14 Max 85 Min. 0 Std. 13 5 Pix 400	Meter (10,6) Mean. 16 Max. 56 Min. 3 Std. 8 0 Pix 400	Meter (11 6) Mean. 13 Max 64 Min. 0 Std 8 0 Pix.400	Meter (12 6) Mean. 16 Max 129 Min. 0 Std 27 2 Pix 180
Meter (1,5) Mean. 10 Max. 88 Min. 0 Std 12 2 Pix 400	Meter (2,5) Mean. 10 Max. 99 Min. 0 Std. 9 3 Pix 399	Meter (3,5) Mean. 13 Max. 120 Min. 0 Std 17 9 Pix 397	Meter (4,5) Mean. 14 Max. 100 Min. 4 Std. 12 4 Pix 400	Meter (5,5) Mean. 14 Max. 149 Min. 0 Std. 22 8 Pix 400	Meter (6,5) Mean. 7 Max. 121 Min. 0 Std. 10 3 Pix 400	Meter (7,5) Mean. 10 Max. 89 Min. 0 Std 12 1 Pix 400	Meter (8,5) Mean. 20 Max. 124 Min. 0 Std. 23 9 Pix 400	Meter (9,5) Mean. 10 Max. 134 Min. 0 Std. 15 7 Pix 343	Meter (10,5) Mean. 17 Max. 105 Min. 2 Std. 16 9 Pix 400	Meter (11,5) Mean. 14 Max. 185 Min. 0 Std 18.5 Pix.400	Meter (12 5) Mean. 9 Max 71 Min. 0 Std 13 2 Pix 180
Meter (1 4) Mean. 7 Max. 70 Min: 0 Std. 8 8 Pix 400	Meter (2,4) Mean. 7 Max 32 Min. 0 Std. 3 9 Pix 400	Meter (3 4) Mean. 24 Max. 344 Min. 2 Std. 32 1 Pix 400	Meter (4 4) Mean. 14 Max. 125 Min. 0 Std. 14 1 Pix 400	Meter (5 4) Mean. 14 Max 78 Min. 2 Std. 12 9 Pix.400	Meter (6 4) Mean. 11 Max. 37 Min. 3 Std. 5 5 Pix.400	Meter (7 4) Mean. 14 Max 43 Min. 2 Std. 5 7 Pix 400	Meter (8 4) Mean. 16 Max. 194 Min. 0 Std. 19 9 Pix 400	Meter (9 4) Mean. 10 Max. 116 Min. 0 Std. 11 1 Pix 385	Meter (10 4) Mean 15 Max. 65 Min. 2 Std 10 6 Pix 400	Meter (11 4) Mean. 18 Max. 134 Min. 1 Std 18 8 Pix 400	Meter (12 4) Mean. 6 Max. 61 Min. 0 Std 8 2 Pix 180
Meter (1,3) Mean. 12 Max 77 Min. 0 Std. 12 1 Pix 400	Meter (2 3) Mean. 16 Max. 104 Min. 0 Std. 18 7 Pix 400	Meter (3,3) Mean. 16 Max. 164 Min. 0 Std. 27 2 Pix 400	Meter (4,3) Mean. 12 Max. 131 Min. 0 Std. 17 9 Pix 400	Meter (5,3) Mean. 14 Max. 98 Min. 0 Std 14 7 Pix 400	Meter (6,3) Mean. 11 Max. 46 Min. 0 Std 7 2 Pix 400	Meter (7,3) Mean. 22 Max. 152 Min. 5 Std 22 5 Pix 400	Meter (8,3) Mean. 12 Max. 77 Min. 0 Std 8 4 Pix 400	Meter (9,3) Mean. 12 Max. 75 Min. 0 Std. 9 4 Pix.400	Meter (10,3) Mean. 17 Max. 101 Min. 0 Std. 15 7 Pix 372	Meter (11,3) Mean. 18 Max. 128 Min. 0 Std. 19 1 Pix.380	Meter (12 3) Mean. 10 Max. 80 Min. 0 Std 12 7 Pix 171
Meter (1,2) Mean. 9 Max. 118 Min. 0 Std. 9 4 Pix 400	Meter (2,2) Mean. 12 Max. 140 Min. 0 Std: 18 8 Pix 400	Meter (3,2) Mean. 16 Max. 215 Min. 0 Std. 23 7 Pix 400	Meter (4 2) Mean. 9 Max. 100 Min. 0 Std. 13 4 Pix.400	Meter (5,2) Mean. 14 Max. 140 Min. 0 Std. 19 3 Pix 400	Meter (6,2) Mean. 8 Max. 32 Min. 0 Std. 5 9 Pix.400	Meter (7,2) Mean. 9 Max. 190 Min. 0 Std. 15 7 Pix 400	Meter (8,2) Mean. 16 Max. 62 Min. 3 Std 10 1 Pix 400	Meter (9,2) Mean. 12 Max. 85 Min. 0 Std. 13 0 Pix 400	Meter (10,2) Mean. 0 Max. 0 Min. 0 Std. 0 Pix·0	Meter (11,2) Mean. 0 Max. 0 Min. 0 Std 0 Pix 0	Meter (12,2) Mean. 0 Max 0 Min 0 Std 0 Pix·0
Meter (1 1) Mean. 5 Max. 12 Min. 0 Std. 3 7 Pix 80	Meter (2,1) Mean. 1 Max 6 Min. 0 Std 2.3 Pix 80	Meter (3 1) Mean. 9 Max. 43 Min. 0 Std 12 6 Pix 80	Meter (4 1) Mean. 9 Max 51 Min. 0 Std 9 9 Pix 80	Meter (5 1) Mean. 8 Max 48 Min. 0 Std 11 0 Pix 80	Meter (6,1) Mean. 9 Max 39 Min. 2 Std 8 6 Pix 80	Meter (7 1) Mean. 3 Max. 10 Min. 0 Std. 2.8 Pix 80	Meter (8 1) Mean. 11 Max. 46 Min. 0 Std. 11 9 Pix 80	Meter (9 1) Mean. 5 Max. 12 Min. 0 Std. 4 3 Pix 80	Meter (10 1) Mean. 0 Max. 0 Min. 0 Std. 0 Pix·0	Meter (11 1) Mean. 0 Max 0 Min. 0 Std 0 Pix·0	Meter (12 1) Mean. 0 Max 0 Min. 0 Std 0 Pix 0

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (12,1) and Grids (12,1) - (12,8) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

110 dpm/100 cm^2, averaged over 1 m^2
310 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were above the site-specific guidelines for release Figure 3 details which zones were above release limits

COMPARISON OF RESULTS WITH GUIDELINES

The confirmatory survey results were compared with both the survey data provided by the SRA Surface Contamination Monitor , serial number SCM-1, and the following release criteria

Total Activity

4050 dpm/100 cm^2, averaged over 1 m^2
5550 dpm/100 cm^2, maximum in 100 cm^2

Results

The survey results indicate that surface activity levels averaged over one square meter were below the site-specific guidelines for release

The survey results indicate that the maximum surface activity levels in the 100 square centimeter zones were below the site-specific guidelines for release

Meter (1 7) Mean 3,550 Max. 4 436 Min. 1,270 Std 650 5 Pix 400	Meter (2 7) Mean. 3,287 Max 4,250 Min. 1 438 Std. 527 6 Pix 400	Meter (3 7) Mean. 3,558 Max 4,351 Min. 1 676 Std 495 8 Pix 400	Meter (4,7) Mean 3 354 Max 4 118 Min. 1 534 Std. 491 9 Pix.400	Meter (5 7) Mean. 3 005 Max 4 854 Min 546 Std 817 6 Pix 400	Meter (6,7) Mean. 1 876 Max 3 921 Min. 0 Std 1459 2 Pix 310	Meter (7 7) Mean. 3,377 Max. 4 148 Min. 1 692 Std 453 5 Pix 400	Meter (8 7) Mean. 2 971 Max 4 046 Min. 907 Std 689 7 Pix 400	Meter (9 7) Mean. 3,379 Max 4 254 Min. 1 355 Std. 513 5 Pix 400	Meter (10 7) Mean. 3,065 Max 3 964 Min. 1 183 Std. 628 8 Pix 400	Meter (11 7) Mean. 3 097 Max. 3 756 Min. 990 Std 641 1 Pix 400	Meter (12 7) Mean 2 771 Max 4,022 Min. 600 Std 837 3 Pix.200
Meter (1 6) Mean. 3 771 Max. 4,538 Min. 2,062 Std. 363 9 Pix.400	Meter (2,6) Mean. 3,382 Max. 4,038 Min. 2,831 Std. 234 6 Pix.400	Meter (3 6) Mean. 3 763 Max 4,336 Min. 3,235 Std 215.8 Pix 400	Meter (4,6) Mean. 3,410 Max. 3,858 Min. 2,962 Std..231 7 Pix.400	Meter (5 6) Mean. 3,528 Max. 3 923 Min. 2,540 Std 256.1 Pix 400	Meter (6 6) Mean. 3,343 Max. 3 987 Min. 1 901 Std. 399 3 Pix.400	Meter (7 6) Mean. 3,571 Max. 3 961 Min. 3,054 Std. 213 3 Pix.400	Meter (8 6) Mean. 3 402 Max. 3 987 Min. 1,958 Std. 355 6 Pix 400	Meter (9,6) Mean. 3,560 Max. 4 108 Min. 3,092 Std. 198 3 Pix.400	Meter (10,6) Mean. 3 460 Max. 3 906 Min. 3,001 Std. 207.3 Pix.400	Meter (11,6) Mean. 3,612 Max. 3,860 Min. 3 130 Std. 119.2 Pix.400	Meter (12 6) Mean. 3 142 Max. 4,261 Min. 1,247 Std. 771 5 Pix 200
Meter (1,5) Mean. 3 691 Max. 4,667 Min. 1 785 Std: 387 1 Pix 400	Meter (2,5) Mean. 3,027 Max. 4,012 Min. 124 Std. 974 9 Pix.390	Meter (3,5) Mean. 3 119 Max. 4,579 Min. 0 Std: 1547.3 Pix.350	Meter (4,5) Mean: 3,553 Max. 4 494 Min. 3 127 Std. 183 7 Pix.400	Meter (5,5) Mean. 3,630 Max. 4,662 Min. 2,968 Std. 234.0 Pix 400	Meter (6,5) Mean. 3,372 Max. 4,348 Min. 2,574 Std. 495.0 Pix.400	Meter (7,5) Mean. 3,537 Max. 4,007 Min. 2,939 Std. 250.1 Pix.400	Meter (8,5) Mean. 3,648 Max. 4,369 Min. 2,882 Std. 242.3 Pix.400	Meter (9,5) Mean. 3 401 Max. 3,989 Min. 2,646 Std. 344 2 Pix.400	Meter (10,5) Mean. 3,567 Max. 3,902 Min. 3 165 Std. 115 6 Pix.400	Meter (11,5) Mean. 3,602 Max. 3,861 Min. 3,002 Std. 130.4 Pix 400	Meter (12,5) Mean. 2,629 Max. 3 395 Min. 921 Std. 611 4 Pix 200
Meter (1 4) Mean. 3,660 Max. 4 441 Min. 2,213 Std. 350.3 Pix 400	Meter (2,4) Mean. 3 170 Max. 4,003 Min: 131 Std. 801 6 Pix.396	Meter (3 4) Mean. 3 194 Max. 4 458 Min. 0 Std 1239 6 Pix.380	Meter (4 4) Mean. 3,666 Max. 4,407 Min. 3 1[illegible]7 Std. 231 7 Pix 400	Meter (5 4) Mean. 3,611 Max. 4,007 Min. 3,227 Std. 134 4 Pix.400	Meter (6,4) Mean. 3,517 Max. 4 130 Min. 2 869 Std 351 1 Pix 400	Meter (7 4) Mean. 3,563 Max. 4 162 Min. 2,758 Std 285 2 Pix 400	Meter (8,4) Mean. 3 457 Max. 4 170 Min. 743 Std. 614 1 Pix.400	Meter (9 4) Mean. 3,314 Max. 3,994 Min. 2,631 Std. 293 8 Pix.400	Meter (10,4) Mean. 3,588 Max. 3 878 Min. 3,210 Std. 123 8 Pix 400	Meter (11 4) Mean. 3,508 Max. 3 779 Min. 3 187 Std. 135 1 Pix 400	Meter (12 4) Mean. 2,801 Max 3 639 Min. 1 042 Std 676 7 Pix.200
Meter (1,3) Mean. 3,635 Max. 4,544 Min. 1 861 Std. 402 6 Pix.400	Meter (2,3) Mean. 3 448 Max. 4,094 Min. 2,957 Std. 251 8 Pix 400	Meter (3,3) Mean. 3 766 Max. 4,619 Min. 2 935 Std. 303 7 Pix 400	Meter (4,3) Mean. 3,332 Max. 3 989 Min. 2 77[illegible] Std. 323,8 Pix 400	Meter (5,3) Mean. 3 640 Max 4,210 Min. 3,263 Std. 214 1 Pix 400	Meter (6,3) Mean. 3,349 Max. 4 426 Min. 2,722 Std. 336.4 Pix 400	Meter (7,3) Mean. 3 421 Max. 4,055 Min. 2,331 Std. 290 6 Pix 400	Meter (8,3) Mean. 2,424 Max. 3,892 Min. 534 Std. 1288 4 Pix 400	Meter (9,3) Mean. 3,657 Max. 4 670 Min. 3,096 Std. 292.8 Pix.400	Meter (10,3) Mean. 3,600 Max. 4 141 Min. 3,075 Std. 213 4 Pix 400	Meter (11,3) Mean. 3 492 Max. 3,829 Min. 3,273 Std. 109 5 Pix.400	Meter (12,3) Mean. 2 721 Max. 3 506 Min. 1,056 Std. 720 6 Pix 200
Meter (1,2) Mean. 3,690 Max. 4,295 Min. 2,188 Std. 334 3 Pix.400	Meter (2,2) Mean: 3,592 Max. 4,222 Min. 3,007 Std. 305 1 Pix 400	Meter (3,2) Mean. 3 762 Max. 4 730 Min. 3 166 Std. 243 9 Pix.400	Meter (4,2) Mean. 3,434 Max. 4 102 Min. 2 7[illegible]6 Std. 309,8 Pix 400	Meter (5,2) Mean. 3 661 Max. 4,264 Min. 3,095 Std. 227.6 Pix.400	Meter (6,2) Mean. 3,364 Max. 4,210 Min. 1 890 Std: 381 6 Pix 400	Meter (7,2) Mean. 3,597 Max. 4,009 Min. 2,468 Std. 284 3 Pix 400	Meter (8,2) Mean. 2,728 Max. 4,096 Min. 533 Std. 1150.2 Pix 400	Meter (9,2) Mean. 3,696 Max. 4,575 Min. 3,241 Std. 244 8 Pix.400	Meter (10,2) Mean. 3 644 Max. 4,062 Min. 3,320 Std. 161.5 Pix.400	Meter (11,2) Mean. 3,573 Max. 3 919 Min. 3,293 Std. 130 0 Pix.400	Meter (12,2) Mean. 2 684 Max 3,813 Min. 1 088 Std. 800 2 Pix 200
Meter (1 1) Mean. 3 437 Max. 4 150 Min. 1,923 Std. 391 7 Pix 360	Meter (2,1) Mean. 3 431 Max. 4,517 Min. 2,399 Std. 295 3 Pix 360	Meter (3 1) Mean. 3,637 Max. 4 405 Min. 2,291 Std. 286.6 Pix 360	Meter (4,1) Mean. 3,365 Max. 4,067 Min. 2,034 Std. 398 7 Pix 360	Meter (5 1) Mean. 3 416 Max. 4,087 Min. 2 461 Std. 240 3 Pix 360	Meter (6,1) Mean. 1 901 Max. 3,840 Min. 191 Std. 1125 6 Pix 360	Meter (7 1) Mean. 3 637 Max. 4,506 Min. 2 427 Std. 348 4 Pix 360	Meter (8,1) Mean. 3 442 Max. 4 078 Min. 2 403 Std. 369.5 Pix 360	Meter (9 1) Mean. 3,572 Max. 4 421 Min. 2,218 Std: 328 8 Pix 360	Meter (10,1) Mean. 3,636 Max. 4,210 Min. 2,340 Std: 287 1 Pix 360	Meter (11 1) Mean. 3 111 Max 3,999 Min. 0 Std. 1202 7 Pix 336	Meter (12 1) Mean. 2,012 Max. 3 722 Min. 0 Std. 1231 6 Pix 120

Table 1 dpm/100cm^2 averaged over one square meter. Grids (1,1) - (12,1) and Grids (12,1) - (12,7) are not one square meter. Bold text denotes grids which exceed release limits

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: ____ P/WRE ____ PRL ____ RWP ✓ OTHER R3 Final Survey

BUILDING/LOCATION	ROOM
123	Unit 10
DATE 5/6/98	TIME 1345

ITEM DESCRIPTION 100% scan survey of Unit 10 grids 350, 351, 92, 158, 159 and 359

COMMENTS Results of scans done @ 1/2" /sec @ 1/4" from surface are <100dpm/100cm²α and <750dpm/100cm² β/γ

[redacted] 5-6-98 DATE

REVIEWED BY K. Garland
RO SUPERVISION PRINT NAME

[signature] 5/6/98
RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR	EBER	EBER	EBER	EBER
MODEL	SAC 4	SAC 4	SAC 4	SAC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

MFR:	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	NE TECH			
MODEL	ELECTRA			
SERIAL #	1586			
CAL DATE	1/5/98			
CAL DUE DATE	7/5/98			
BACKGROUND	See attached			
SFFICIENCY	α 23.7% / β 31.5%			
MDA	93.3 / 455			

MDA = CF X (2.71 + 4.65 √BACKGROUND (CPM))

ELECTRA BACKGROUND LOG FOR UNIT #10 (Scans)

Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D.A. (dpm/100 cm²) β
1386	05-06-98	07-05-98	7.1	785.3	905 3	23 70%	31 50%	63 71	422.28

ELECTRA BACKGROUND LOG FOR UNIT #10 Room 109

Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D.A. (dpm/100 cm²) β
2342	04-10-98	04-13-98	3.1	630 4	750 4	23 80%	31 10%	45.79	384 12

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing Unit 10 Room 109 Only

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 2342 04-13-98
Cal Due Date: 04-13-98
Efficiency (%): α 23 80 βγ 31 10

Bkgd (cpm): α 4 5 βγ 750 4 | 630 4 Inst. Only | Ref Area

Survey Type: [x] Alpha [x] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	3	790	-1 5	39 6	-6 30	127 33
2	2	See Attached Map	<100	<750	8	869	3 5	118 6	14 71	381 35
3	3	See Attached Map	<100	<750	4	801	-0 5	50 6	-2 10	162 70
4	4	See Attached Map	<100	<750	5	871	0 5	120 6	2 10	387 78
5	5	See Attached Map	<100	<750	4	793	-0 5	162 6	-2 10	522 83
6	6	See Attached Map	<100	<750	3	843	-1 5	212 6	-6 30	683 60
7	7	See Attached Map	<100	<750	4	832	-0 5	81 6	-2 10	262 38
8	8	See Attached Map	<100	<750	1	756	-3 5	5 6	-14 71	18 01
9	9	See Attached Map	<100	<750	4	803	-0 5	52 6	-2 10	169 13
10	10	See Attached Map	<100	<750	7	779	2 5	28 6	10 50	91 96
11	11	See Attached Map	<100	<750	2	851	-2 5	100 6	-10 50	323 47
12	12	See Attached Map	<100	<750	5	769	0 5	18 6	2 10	59 81
13	13	See Attached Map	<100	<750	5	791	0 5	40 6	2 10	130 55
14	14	See Attached Map	<100	<750	4	863	-0 5	112 6	-2 10	362 06
15	15	See Attached Map	<100	<750	3	787	-1 5	36 6	-6 30	117 68
16	16	See Attached Map	<100	<750	4	695	-0 5	-55 4	-2 10	-178 14
17	17	See Attached Map	<100	<750	4	662	-0 5	-88 4	-2 10	-284 24
18	18	See Attached Map	<100	<750	3	735	-1 5	-15 4	-6 30	-49 52
19	19	See Attached Map	<100	<750	2	712	-2 5	-38 4	-10 50	-123 47
20	20	See Attached Map	<100	<750	3	592	-1 5	-158 4	-6 30	-509 32
21	21	See Attached Map	<100	<750	4	648	-0 5	-102 4	-2 10	-329 26
22	22	See Attached Map	<100	<750	4	686	-0 5	-64 4	-2 10	-207 07
23	23	See Attached Map	<100	<750	4	721	-0 5	-29 4	-2 10	-94 53
24	24	See Attached Map	<100	<750	3	691	-1 5	-59 4	-6 30	-191 0

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing Unit 10 Room 109 Only

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 2342 04-13-98
Cal Due Date: 04-13-98
Efficiency (%): α 23 80 βγ 31 10

Bkgd (cpm): α 4 5 βγ 750 4 | 630 4 Inst. Only | Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
25	25	See Attached Map	<100	<750	5	635	0 5	-115 4	2 10	-371 06
26	26	See Attached Map	<100	<750	5	650	0 5	-100 4	2 10	-322 83
27	27	See Attached Map	<100	<750	4	646	-0 5	-104 4	-2 10	-335 69
28	28	See Attached Map	<100	<750	5	640	0 5	-110 4	2 10	-354 98
29	29	See Attached Map	<100	<750	3	610	-1 5	-140 4	-6 30	-451 45
30	30	See Attached Map	<100	<750	5	651	0 5	-99 4	2 10	-319 61
31	31	See Attached Map	<100	<750	3	689	-1 5	-61 4	-6 30	-197 43
32	32	See Attached Map	<100	<750	3	509	-1 5	-241 4	-6 30	-776 21
33	33	See Attached Map	<100	<750	4	518	-0 5	-232 4	-2 10	-747 27
34	34	See Attached Map	<100	<750	2	528	-2 5	-222 4	-10 50	-715 11
35	35	See Attached Map	<100	<750	5	500	0 5	-250 4	2 10	-805 14
36	36	See Attached Map	<100	<750	5	565	0 5	-185 4	2 10	-596 14
37	37	See Attached Map	<100	<750	4	550	-0 5	-200 4	-2 10	-644 37
38	38	See Attached Map	<100	<750	4	683	-0 5	-67 4	-2 10	-216 72
39	39	See Attached Map	<100	<750	4	640	-0 5	-110 4	-2 10	-354 98
40	40	See Attached Map	<100	<750	3	630	-1 5	-120 4	-6 30	-387 14
41	41	See Attached Map	<100	<750	2	649	-2 5	-101 4	-10 50	-326 05

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER

FOR X P/WRE ____ PRL ____ RWP ____ OTHER ____

BUILDING/LOCATION	ROOM
123	109
DATE 4-10-98 ~~4-13-98~~	TIME 1430

ITEM DESCRIPTION Floor + Walls. 100 cm² Swipes. 60 sec. PATS, and 100% Scans

COMMENTS See attached tennelec page for swipe results.

Note. Raw data indicates Survey performed on 4-10-98. [illegible] 5/5/98

PE[redacted] 4-13-98 DATE

REVIEWED BY K. Garland
RO SUPERVISION PRINT NAME

[illegible] / 4-13-98
RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR	EBER	EBER	EBER	EBER
MODEL	SAC-4	SAC 4	SAC-4	SAC-4
SERIAL #				
CAL DATE				
CAL DUE DATE				
MFR	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR	NE TECH	NE TECH		
MODEL	ELECTRA	ELECTRA		
SERIAL #	2342	1684		
CAL DATE	10-13-97	2-12-98		
CAL DUE DATE	4-18-98	8-12-98		
BACKGROUND	α 4.52 cpm β 762.97 cpm	α 2.72 cpm β 715.97 cpm		
SFFICIENCY	α 23.8% β 31.1%	α 23.6% β 28.8%		
MDA				

MDA = CF X [2.71 + 4.65 √BACKGROUND (CPM)]

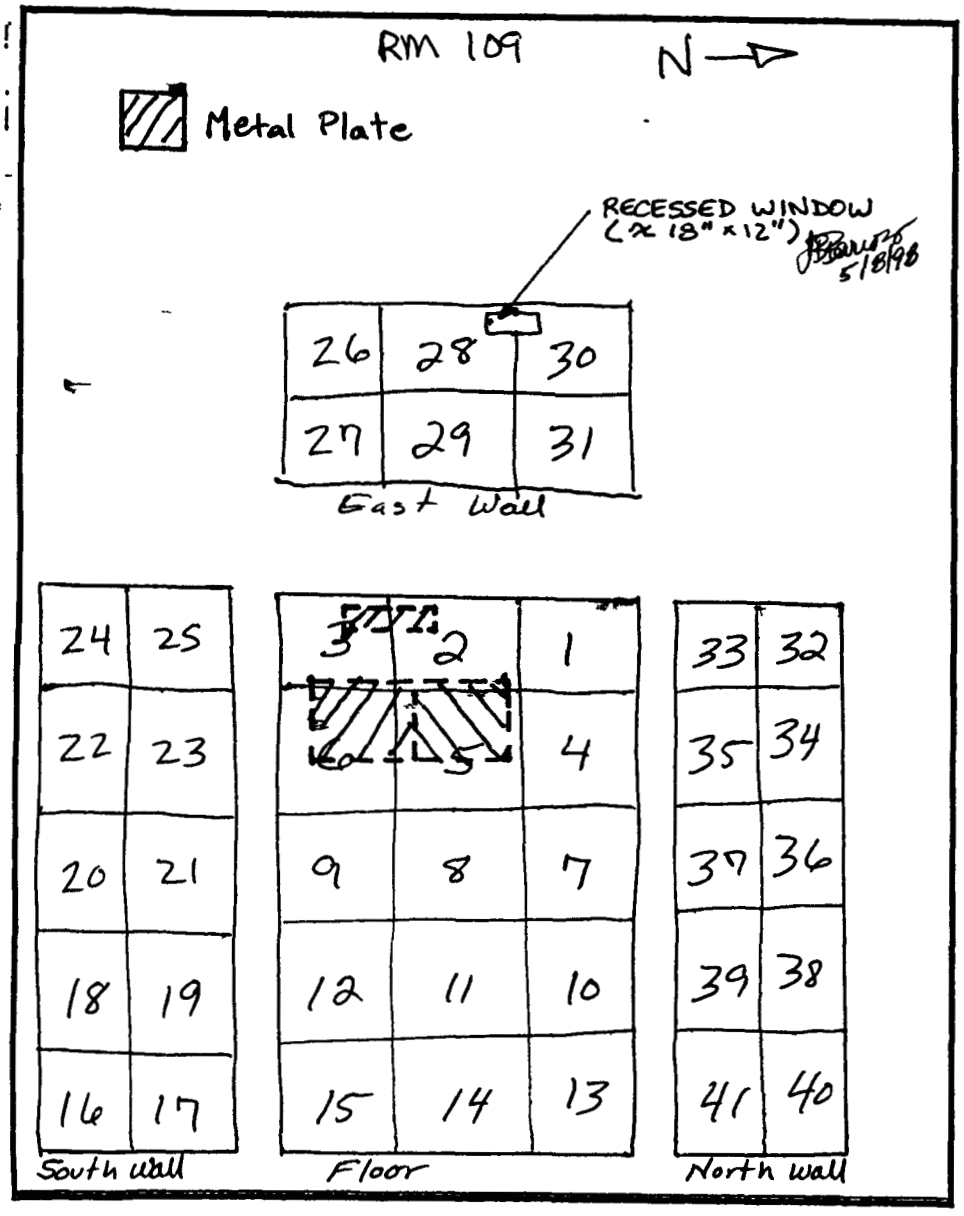
Room 109
Page 4 of 8

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG / SURVEY NUMBER

PAGE 2 OF 7

DRAWING



SURVEY RESULTS (DPM/100 CM SQ)

SWIP #'S	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/ GAMMA	TOTAL ALPHA (FRISK / 60 SEC COUNT)	TOTAL BETA/ GAMMA
1	Floor	<20	<200	<100	<750
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15	Floor				
16	South wall				
17					
18					
19					
20					
21	South wall	<20	<200	<100	<750

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG / SURVEY NUMBER _____

PAGE 3 OF 7

SURVEY RESULTS (DPM/100 CM SQ)

SWIP #'S	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/ GAMMA	TOTAL ALPHA (FRISK / 60 SEC COUNT)	TOTAL BETA/ GAMMA
22	South wall	<20	<200	<100	<750
23					
24					
25	South Wall				
26	East wall				
27					
28	*				
29					
30	*				
31	East Wall				
32	North wall				
33					
34					
35					
36					
37					
38					
39					
40					
41	North Wall	<20	<200	<100	<750
42	N/A				

SURVEY RESULTS (DPM/100 CM SQ)

SWIP #'S	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/ GAMMA	TOTAL ALPHA (FRISK / 60 SEC COUNT)	TOTAL BETA/ GAMMA
43					
44					
45					
46					
47					
48					
49					
50					
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					
61					
62					
63					

N/A

* 60 SECOND DIRECT COUNT PERFORMED ON CONCRETE, THERE FORE REFERENCE AREA BACKGROUND USED. JBBarnes 5/8/98

Room 109
Page 6 of 12

Bldg 123 Rm 109 Floor & walls.

OXFR ECLIPSE LB

Printing Date 4/13/98

Print Time 3 34 21PM

Version 1 10

Report Name Gross Alpha Beta Analysis CPM

Room 109

Count Date 4/13/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name D&D Swipes - 199804131358

System Information

Serial No W O 3351C **Batch ID** 994

Detector S/N 658 Group A

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 23	1 50
Batch MDA.	6.74 dpm	8.06

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		0 27	0 70	2 74	2 50	4 50	5 28	< MDA	
2		0 27	0 70	2 74	1 50	2 70	4 63	< MDA	< MDA
3		0 27	0 70	2 74	0 50	0 90	3 86	< MDA	< MDA
4		-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
5		-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
6		-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
7		-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
8		-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
9		-0 23	-0 61	0 80	-1 00	-1 80	2 28	< MDA	< MDA
10		0 27	0 70	2 74	0 00	0 00	3 42	< MDA	< MDA
11		-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
12		0 27	0 70	2 74	1 00	1 80	4 26	< MDA	< MDA
13		-0 23	-0 61	0 80	1 00	1 80	4 26	< MDA	< MDA
14		0 27	0 70	2 74	0 50	0 90	3 86	< MDA	< MDA
15		-0 23	-0 61	0 80	-1 00	-1 80	2 28	< MDA	< MDA
16		-0 23	-0 61	0 80	-1 00	-1 80	2 28	< MDA	< MDA
17		-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
18		-0 23	-0 61	0 80	1 50	2 70	4 63	< MDA	< MDA
19		-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
20		-0 23	-0 61	0 80	-0 50	-0 90	2.90	< MDA	< MDA
21		-0 23	-0 61	0 80	1 00	1 80	4 26	< MDA	< MDA
22		-0 23	-0 61	0 80	1 00	1 80	4 26	< MDA	< MDA
23		-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
24		-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
25		-0 23	-0 61	0 80	1 50	2 70	4 63	< MDA	< MDA
26		-0 23	-0 61	0 80	-1 00	-1 80	2 28	< MDA	< MDA
27		0 77	2 01	3 79	0 50	0 90	3 86	< MDA	< MDA
28		-0 23	-0 61	0 80	1 00	1 80	4 26	< MDA	< MDA
29		0 77	2 01	3 79	1 00	1 80	4 26	< MDA	< MDA
30		0 27	0 70	2 74	0 00	0 00	3 42	< MDA	< MDA
31		-0 23	-0 61	0 80	1 50	2.70	4 63	< MDA	< MDA
32		-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
33		-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
34		0 27	0 70	2 74	-0 50	-0 90	2 90	< MDA	< MDA

Count Date 4/13/98

ALPHA / BETA CONTAMINATION SURVEY

Survey Unit #9
Rooms 137,138
Page 8 of 8

Procedure Name **D&D Swipes - 199804131358**

System Information

Serial No W O 3351C **Batch ID** 994

Detector S/N 658 Group A

Sample Information
Sample Units
Geometry 1/8" Stainless Steel

Count Parameters
Count Mode Simultaneous
Operating Voltage 1,410 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 23	1 50

Batch MDA 674 dpm 806

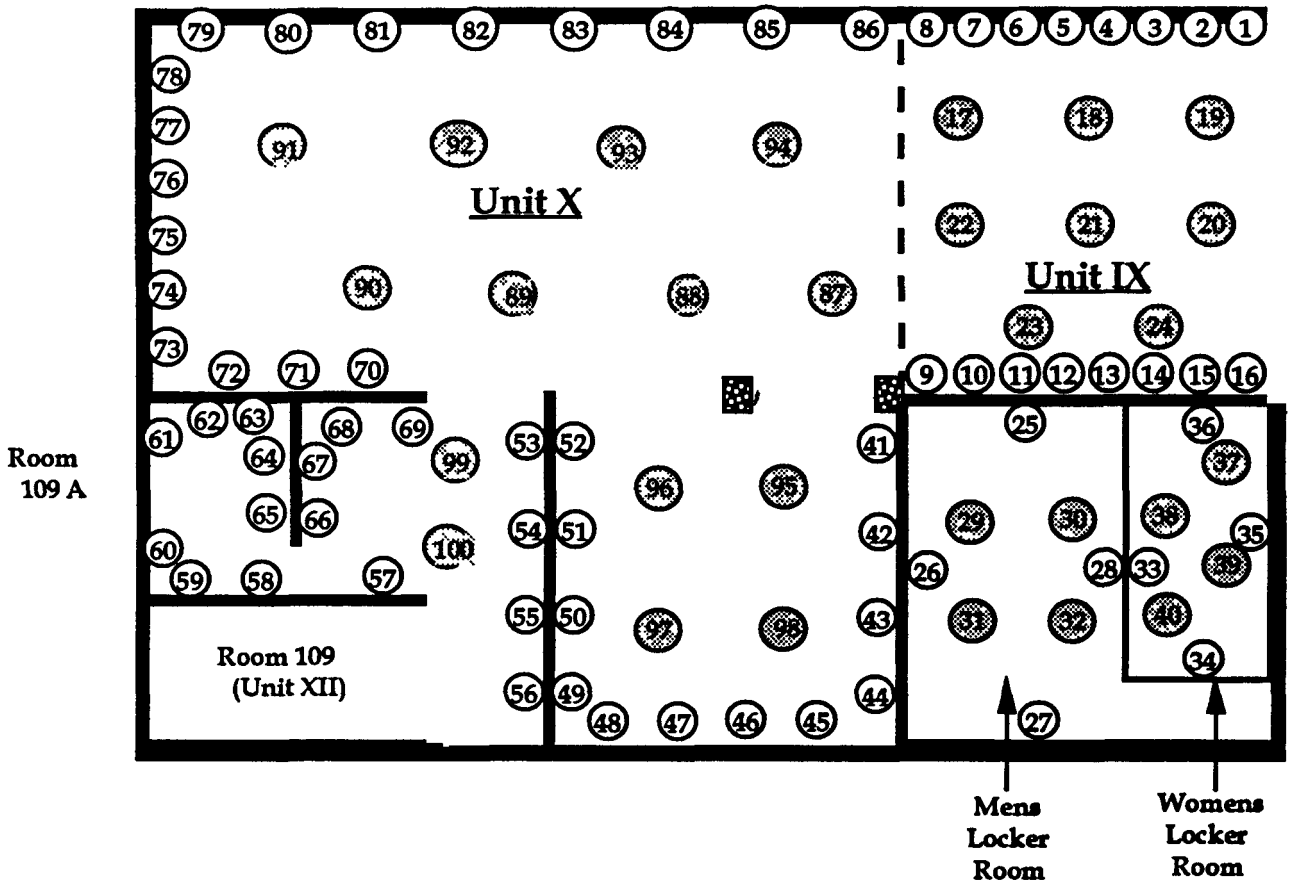
Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		0 27	0 70	2 74	0 50	0 90	3 86	< MDA	< MDA
36		-0 23	-0 61	0 80	2 00	3 60	4 97	< MDA	< MDA
37		-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
38		-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
39		-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
40		-0 23	-0 61	0 80	-1 00	-1 80	2 28	< MDA	< MDA
41		-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA

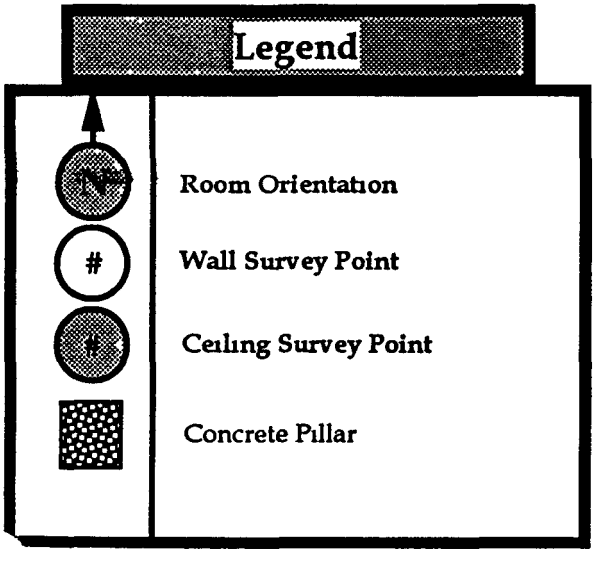
ELECTRA BACKGROUND LOG FOR UNIT #11

Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D.A. (dpm/100 cm²) β
1249	04-05-98	09-28-98	2 3	622 5	742.5	22 20%	35 20%	43 97	337 29
1551	04-06-98	07-29-98	2 1	612.6	732.6	23 40%	32 50%	40 38	362.46
1392	04-07-98	09-12-98	3 6	634 6	754.6	23 40%	30 30%	49 29	395 54

North Wing; Unit XI

Ceiling





NOTE : View from above, looking down.
NOTE : Walls >2 meters on this survey.
NOTE: Map not drawn to scale.

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 11

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1392 04-07-98

Cal Due Date: 09-12-98

Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 3 6 βγ 754 6 634 6 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	87	See Attached Map	<100	<750	3	877	-0 6	122 4	-2 56	403 96
2	88	See Attached Map	<100	<750	6	867	2 4	112 4	10 26	370 96
3	89	See Attached Map	<100	<750	1	888	-2 6	133 4	-11 11	440 26
4	90	See Attached Map	<100	<750	2	855	-1 6	100 4	-6 84	331 35
5	91	See Attached Map	<100	<750	2	840	-1 6	85 4	-6 84	281 85
6	92	See Attached Map	<100	<750	4	858	0 4	103 4	1 71	341 25
7	93	See Attached Map	<100	<750	4	810	0 4	55 4	1 71	182 84
8	94	See Attached Map	<100	<750	1	888	-2 6	133 4	-11 11	440 26
9	95	See Attached Map	<100	<750	6	881	2 4	126 4	10 26	417 16
10	96	See Attached Map	<100	<750	7	920	3 4	165 4	14 53	545 87
11	97	See Attached Map	<100	<750	5	863	1 4	108 4	5 98	357 76
12	98	See Attached Map	<100	<750	5	876	1 4	121 4	5 98	400 66
13	99	See Attached Map	<100	<750	3	860	-0 6	105 4	-2 56	347 85
14	100	See Attached Map	<100	<750	2	834	-1 6	79 4	-6 84	262 05

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 11

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1551 04-06-98
Cal Due Date: 07-29-98
Efficiency (%): α 23 40 βγ 32 50

Bkgd (cpm): α 2 1 βγ 732 6 612 6 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	41	See Attached Map	<100	<750	3	862	0 9	129 4	3 85	398 15
2	42	See Attached Map	<100	<750	2	810	-0 1	77 4	-0 43	238 15
3	43	See Attached Map	<100	<750	8	900	5 9	167 4	25 21	515 08
4	44	See Attached Map	<100	<750	4	894	1 9	161 4	8 12	496 62
5	45	See Attached Map	<100	<750	12	921	9 9	188 4	42 31	579 69
6	46	See Attached Map	<100	<750	7	941	4 9	208 4	20 94	641 23
7	47	See Attached Map	<100	<750	7	846	4 9	113 4	20 94	348 92
8	48	See Attached Map	<100	<750	3	872	0 9	139 4	3 85	428 92
9	49	See Attached Map	<100	<750	3	873	0 9	140 4	3 85	432 00
10	50	See Attached Map	<100	<750	4	909	1 9	176 4	8 12	542 77
11	51	See Attached Map	<100	<750	4	904	1 9	171 4	8 12	527 38
12	52	See Attached Map	<100	<750	4	843	1 9	110 4	8 12	339 69
13	53	See Attached Map	<100	<750	7	883	4 9	150 4	20 94	462 77
14	54	See Attached Map	<100	<750	2	955	-0 1	222 4	-0 43	684 31
15	55	See Attached Map	<100	<750	4	970	1 9	237 4	8 12	730 46
16	56	See Attached Map	<100	<750	4	875	1 9	142 4	8 12	438 15
17	57	See Attached Map	<100	<750	3	917	0 9	184 4	3 85	567 38
18	58	See Attached Map	<100	<750	2	928	-0 1	195 4	-0 43	601 23

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 11

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1551 04-06-98
Cal Due Date: 07-29-98
Efficiency (%): α 23 40 βγ 32 50

Bkgd (cpm): α 2 1 βγ 732 6 (612 6 Inst Only)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
19	59	See Attached Map	<100	<750	4	897	1 9	164 4	8 12	505 85
20	60	See Attached Map	<100	<750	5	913	2 9	180 4	12 39	555 08
21	61	See Attached Map	<100	<750	2	962	-0 1	229 4	-0 43	705 85
22	62	See Attached Map	<100	<750	8	920	5 9	187 4	25 21	576 62
23	63	See Attached Map	<100	<750	2	893	-0 1	160 4	-0 43	493 54
24	64	See Attached Map	<100	<750	0	935	-2 1	202 4	-8 97	622 77
25	65	See Attached Map	<100	<750	2	851	-0 1	118 4	-0 43	364 31
26	66	See Attached Map	<100	<750	4	942	1 9	209 4	8 12	644 31
27	67	See Attached Map	<100	<750	3	909	0 9	176 4	3 85	542 77
28	68	See Attached Map	<100	<750	2	907	-0 1	174 4	-0 43	536 62
29	69	See Attached Map	<100	<750	3	963	0 9	230 4	3 85	708 92
30	70	See Attached Map	<100	<750	12	881	9 9	148 4	42 31	456 62
31	71	See Attached Map	<100	<750	3	937	0 9	204 4	3 85	628 92
32	72	See Attached Map	<100	<750	12	934	9 9	201 4	42 31	619 69
33	73	See Attached Map	<100	<750	4	866	1 9	133 4	8 12	410 46
34	74	See Attached Map	<100	<750	7	932	4 9	199 4	20 94	613 54
35	75	See Attached Map	<100	<750	4	843	1 9	110 4	8 12	339 69
36	76	See Attached Map	<100	<750	3	943	0 9	210 4	3 85	647 38

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 11

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1551 04-06-98
Cal Due Date: 07-29-98
Efficiency (%): α 23 40 βγ 32 50

Bkgd (cpm): α 2 1 βγ 732 6 (612 6 Inst Only)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
37	77	See Attached Map	<100	<750	5	886	2 9	153 4	12 39	472 00
38	78	See Attached Map	<100	<750	3	883	0 9	150 4	3 85	462 77
39	79	See Attached Map	<100	<750	7	883	4 9	150 4	20 94	462 77
40	80	See Attached Map	<100	<750	5	903	2 9	170 4	12 39	524 31
41	81	See Attached Map	<100	<750	7	827	4 9	94 4	20 94	290 46
42	82	See Attached Map	<100	<750	6	877	3 9	144 4	16 67	444 31
43	83	See Attached Map	<100	<750	1	901	-1 1	168 4	-4 70	518 15
44	84	See Attached Map	<100	<750	6	775	3 9	42 4	16 67	130 46
45	85	See Attached Map	<100	<750	2	855	-0 1	122 4	-0 43	376 62
46	86	See Attached Map	<100	<750	11	922	8 9	189 4	38 03	582 77

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 11

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1249 04-05-98

Cal Due Date: 09-28-98

Efficiency (%): α 22 20 βγ 35 20

Bkgd (cpm): α 2 3 βγ 742 5 622 5 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	6	786	3 7	43 5	16 67	123 58
2	2	See Attached Map	<100	<750	7	452	4 7	-290 5	21 17	-825 28
3	3	See Attached Map	<100	<750	17	815	14 7	72 5	66 22	205 97
4	4	See Attached Map	<100	<750	5	715	2 7	-27 5	12 16	-78 13
5	5	See Attached Map	<100	<750	7	838	4 7	95 5	21 17	271 31
6	6	See Attached Map	<100	<750	8	442	5 7	-300 5	25 68	-853 69
7	7	See Attached Map	<100	<750	9	833	6 7	90 5	30 18	257 10
8	8	See Attached Map	<100	<750	4	743	1 7	0 5	7 66	1 42
9	9	See Attached Map	<100	<750	8	791	5 7	48 5	25 68	137 78
10	10	See Attached Map	<100	<750	5	740	2 7	-2 5	12 16	-7 10
11	11	See Attached Map	<100	<750	11	812	8 7	69 5	39 19	197 44
12	12	See Attached Map	<100	<750	8	769	5 7	26 5	25 68	75 28
13	13	See Attached Map	<100	<750	2	736	-0 3	-6 5	-1 35	-18 47
14	14	See Attached Map	<100	<750	11	765	8 7	22 5	39 19	63 92
15	15	See Attached Map	<100	<750	7	748	4 7	5 5	21 17	15 63
16	16	See Attached Map	<100	<750	3	843	0 7	100 5	3 15	285 51
17	17	See Attached Map	<100	<750	14	921	11 7	178 5	52 70	507 10
18	18	See Attached Map	<100	<750	7	823	4 7	80 5	21 17	228 69

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 11

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1249 04-05-98

Cal Due Date: 09-28-98

Efficiency (%): α 22 20 βγ 35 20

Bkgd (cpm): α 2 3 βγ 742 5 622 5 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
19	19	See Attached Map	<100	<750	5	678	2 7	-64 5	12 16	-183 24
20	20	See Attached Map	<100	<750	3	668	0 7	-74 5	3 15	-211 65
21	21	See Attached Map	<100	<750	7	867	4 7	124 5	21 17	353 69
22	22	See Attached Map	<100	<750	3	647	0 7	-95 5	3 15	-271 31
23	23	See Attached Map	<100	<750	12	819	9 7	76 5	43 69	217 33
24	24	See Attached Map	<100	<750	5	845	2 7	102 5	12 16	291 19
25	25	See Attached Map	<100	<750	5	703	2 7	-39 5	12 16	-112 22
26	26	See Attached Map	<100	<750	6	598	3 7	-144 5	16 67	-410 51
27	27	See Attached Map	<100	<750	3	589	0 7	-153 5	3 15	-436 08
28	28	See Attached Map	<100	<750	8	617	5 7	-125 5	25 68	-356 53
29	29	See Attached Map	<100	<750	3	675	0 7	-67 5	3 15	-191 76
30	30	See Attached Map	<100	<750	1	616	-1 3	-126 5	-5 86	-359 38
31	31	See Attached Map	<100	<750	6	627	3 7	-115 5	16 67	-328 13
32	32	See Attached Map	<100	<750	2	600	-0 3	-142 5	-1 35	-404 83
33	33	See Attached Map	<100	<750	8	692	5 7	-50 5	25 68	-143 47
34	34	See Attached Map	<100	<750	3	661	0 7	-81 5	3 15	-231 53
35	35	See Attached Map	<100	<750	6	693	3 7	-49 5	16 67	-140 63
36	36	See Attached Map	<100	<750	5	604	2 7	-138 5	12 16	-393 47

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 11

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1249 04-05-98

Cal Due Date: 09-28-98

Efficiency (%): α 22 20 βγ 35 20

Bkgd (cpm): α 2 3 βγ 742 5 622 5 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
37	37	See Attached Map	<100	<750	2	660	-0 3	-82 5	-1 35	-234 38
38	38	See Attached Map	<100	<750	2	681	-0 3	-61 5	-1 35	-174 72
39	39	See Attached Map	<100	<750	2	661	-0 3	-81 5	-1 35	-231 53
40	40	See Attached Map	<100	<750	2	616	-0 3	-126 5	-1 35	-359 38

OXFR **ECLIPSE LB**

Version 1 10

Printing Date 4/20/98

Report Name Gross Alpha Beta Analysis CPM

Print Time 2 21 26PM

Count Date **4/ 7/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804071730**

UNIT 11 area 9 (1-40) Walls >2m & ceiling

System Information

Serial No W O 3351C **Batch ID** **952**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 10	2 10
Batch MDA	5.66 dpm	7.09

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		0 90	2 36	3 74	0 40	0 72	4 35	< MDA	< MDA
2		0 40	1 05	2 67	-0 60	-1 08	3 53	< MDA	< MDA
3		-0 10	-0 26	0 52	-0 10	-0 18	3 96	< MDA	< MDA
4		-0 10	-0 26	0 52	0 90	1 62	4 71	< MDA	< MDA
5		0 90	2 36	3 74	2 90	5 22	5 93	< MDA	
6		-0 10	-0 26	0 52	1 40	2 52	5 04	< MDA	< MDA
7		-0 10	-0 26	0 52	-0 10	-0 18	3 96	< MDA	< MDA
8		-0 10	-0 26	0 52	-0 60	-1 08	3 53	< MDA	< MDA
9		-0 10	-0 26	0 52	0 40	0 72	4 35	< MDA	< MDA
10		-0 10	-0 26	0 52	0 40	0 72	4 35	< MDA	< MDA
11		-0 10	-0 26	0 52	0 90	1 62	4 71	< MDA	< MDA
12		-0 10	-0 26	0 52	0 40	0 72	4 35	< MDA	< MDA
13		-0 10	-0 26	0 52	-2 10	-3 78	1 65	< MDA	< MDA
14		-0 10	-0 26	0 52	0 40	0 72	4 35	< MDA	< MDA
15		-0 10	-0 26	0 52	-1 10	-1 98	3 04	< MDA	< MDA
16		0 40	1 05	2 67	-1 10	-1 98	3 04	< MDA	< MDA
17		0 40	1 05	2 67	-0 10	-0 18	3 96	< MDA	< MDA
18		-0 10	-0 26	0 52	-0 10	-0 18	3 96	< MDA	< MDA
19		-0 10	-0 26	0 52	-0 10	-0 18	3 96	< MDA	< MDA
20		-0 10	-0 26	0 52	0 90	1 62	4 71	< MDA	< MDA
21		-0 10	-0 26	0 52	-1 10	-1 98	3 04	< MDA	< MDA
22		-0 10	-0 26	0 52	-0 10	-0 18	3 96	< MDA	< MDA
23		0 40	1 05	2 67	-0 60	-1 08	3 53	< MDA	< MDA
24		0 40	1 05	2 67	-0 10	-0 18	3 96	< MDA	< MDA
25		-0 10	-0 26	0 52	-0 60	-1 08	3 53	< MDA	< MDA
26		-0 10	-0 26	0 52	0 40	0 72	4 35	< MDA	< MDA
27		0 40	1 05	2 67	0 90	1 62	4 71	< MDA	< MDA
28		-0 10	-0 26	0 52	-0 60	-1 08	3 53	< MDA	< MDA
29		-0 10	-0 26	0 52	-0 60	-1 08	3 53	< MDA	< MDA
30		-0 10	-0 26	0 52	-1 60	-2 88	2 44	< MDA	< MDA
31		-0 10	-0 26	0 52	-0 60	-1 08	3 53	< MDA	< MDA
32		-0 10	-0 26	0 52	-0 10	-0 18	3 96	< MDA	< MDA
33		-0 10	-0 26	0 52	0 40	0 72	4 35	< MDA	< MDA
34		-0 10	-0 26	0 52	-0 10	-0 18	3 96	< MDA	< MDA

Procedure Name **D&D Swipes - 199804071730**

System Information

Serial No W O 3351C **Batch ID** **952**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract	Enable	
Background	0 10	2 10
Batch MDA	5.66 dpm	7 09

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35		-0 10	-0 26	0 52	0 40	0 72	4 35	< MDA	< MDA
36		-0 10	-0 26	0 52	0 40	0 72	4 35	< MDA	< MDA
37		-0 10	-0 26	0 52	-0 60	-1 08	3 53	< MDA	< MDA
38		-0 10	-0 26	0 52	-0 10	-0 18	3 96	< MDA	< MDA
39		-0 10	-0 26	0 52	-1 60	-2 88	2 44	< MDA	< MDA
40		-0 10	-0 26	0 52	-1 10	-1 98	3 04	< MDA	< MDA

OXFR **ECLIPSE LB**

Version 1 10

Printing Date 4/20/98

Report Name Gross Alpha Beta Analysis CPM

Print Time 2 08 52PM

Count Date **4/ 8/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804080943**

Unit 11 area 10 walls 41-86

System Information

Serial No W O 3351C **Batch ID** **957**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	**Beta**
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 00	1 53
Batch MDA	3.55 dpm	8.17

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1	41	0 00	0 00	0 00	2 47	4 44	5 29	< MDA	
2		0 00	0 00	0 00	-0 03	-0 06	3 42	< MDA	< MDA
3		0 00	0 00	0 00	0 47	0 84	3 87	< MDA	< MDA
4		0 50	1 31	2 62	-0 03	-0 06	3 42	< MDA	< MDA
5		1 00	2 62	3 71	1 97	3 54	4 97		< MDA
6		0 00	0 00	0 00	0 47	0 84	3 87	< MDA	< MDA
7		0 00	0 00	0 00	-0 03	-0 06	3 42	< MDA	< MDA
8		0 00	0 00	0 00	1 47	2 64	4 63	< MDA	< MDA
9		0 50	1 31	2 62	0 47	0 84	3 87	< MDA	< MDA
10	50	0 00	0 00	0 00	1 47	2 64	4 63	< MDA	< MDA
11		0 00	0 00	0 00	-0 03	-0 06	3 42	< MDA	< MDA
12		0 00	0 00	0 00	-0 53	-0 96	2 91	< MDA	< MDA
13		0 00	0 00	0 00	0 97	1 74	4 27	< MDA	< MDA
14		0 00	0 00	0 00	0 97	1 74	4 27	< MDA	< MDA
15		0 00	0 00	0 00	-1 03	-1 86	2 29	< MDA	< MDA
16		0 00	0 00	0 00	0 47	0 84	3 87	< MDA	< MDA
17		0 00	0 00	0 00	-0 03	-0 06	3 42	< MDA	< MDA
18		0 50	1 31	2 62	0 47	0 84	3 87	< MDA	< MDA
19		0 00	0 00	0 00	-0 53	-0 96	2 91	< MDA	< MDA
20	60	0 00	0 00	0 00	1 47	2 64	4 63	< MDA	< MDA
21		0 00	0 00	0 00	-0 53	-0 96	2 91	< MDA	< MDA
22		0 00	0 00	0 00	-1 03	-1 86	2 29	< MDA	< MDA
23		1 00	2 62	3 71	1 97	3 54	4 97		< MDA
24		0 00	0 00	0 00	-0 03	-0 06	3 42	< MDA	< MDA
25		0 00	0 00	0 00	0 47	0 84	3 87	< MDA	< MDA
26		0 00	0 00	0 00	1 47	2 64	4 63	< MDA	< MDA
27		0 00	0 00	0 00	-1 03	-1 86	2 29	< MDA	< MDA
28		0 00	0 00	0 00	0 97	1 74	4 27	< MDA	< MDA
29		0 00	0 00	0 00	-0 03	-0 06	3 42	< MDA	< MDA
30	70	0 00	0 00	0 00	0 97	1 74	4 27	< MDA	< MDA
31	71	0 00	0 00	0 00	-1 53	-2 76	1 41	< MDA	< MDA
32	72	0 00	0 00	0 00	-0 53	-0 96	2 91	< MDA	< MDA
33	73	0 00	0 00	0 00	0 47	0 84	3 87	< MDA	< MDA
34	74	0 00	0 00	0 00	0 97	1 74	4 27	< MDA	< MDA

Procedure Name **D&D Swipes - 199804080943**

System Information

Serial No W O 3351C **Batch ID** **957**

Detector S/N 658 Group **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1,410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 00	1 53

Batch MDA 3 55 dpm 8.17

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
35	75	0 00	0 00	0 00	0 47	0 84	3 87	< MDA	< MDA
36	76	0 00	0 00	0 00	-0 53	-0 96	2 91	< MDA	< MDA
37	77	0 00	0 00	0 00	0 47	0 84	3 87	< MDA	< MDA
38	78	0 00	0 00	0 00	1 97	3 54	4 97	< MDA	< MDA
39	79	0 50	1 31	2 62	-0 03	-0 06	3 42	< MDA	< MDA
40	80	0 50	1 31	2 62	-1 03	-1 86	2 29	< MDA	< MDA
41	81	0 00	0 00	0 00	-0 03	-0 06	3 42	< MDA	< MDA
42	82	0 00	0 00	0 00	-0 03	-0 06	3 42	< MDA	< MDA
43	83	0 00	0 00	0 00	-0 03	-0 06	3 42	< MDA	< MDA
44	84	0 50	1 31	2 62	0 97	1 74	4 27	< MDA	< MDA
45	85	1 00	2 62	3 71	0 47	0 84	3 87		< MDA
46	86	0 52	1 37	2 74	0 56	1 01	4 03	< MDA	< MDA

OXFR **ECLIPSE LB** Version 1 10

Printing Date 4/20/98 Report Name Gross Alpha Beta Analysis CPM

Print Time 2 13 23PM

Count Date **4/ 8/98** ***ALPHA / BETA CONTAMINATION SURVEY***

Procedure Name **D&D Swipes - 199804081322**

Unit 11 Area 10 ceiling 87-100

System Information

Serial No W O 3351C **Batch ID** **958**

Detector S/N 658 Group **A**

			Alpha	Beta
Sample Information				
Sample Units		**Efficiency (%)**	38 16	55 51
Geometry	1/8" Stainless Steel			
		Background Subtract		Enable
Count Parameters				
Count Mode	Simultaneous			
Operating Voltage	1,410 00	**Background**	0 00	1 53
Time	2 00			
Delay	0 00	**Batch MDA**	3.55 dpm	8.17
Sample Replicates	1			

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1	87	0 00	0 00	0 00	-0 03	-0 06	3 42	< MDA	< MDA
2		0 00	0 00	0 00	2 47	4 44	5 29	< MDA	
3		0 00	0 00	0 00	-1 03	-1 86	2 29	< MDA	< MDA
4	90	0 00	0 00	0 00	0 97	1 74	4 27	< MDA	< MDA
5		0 00	0 00	0 00	1 47	2 64	4 63	< MDA	< MDA
6		0 00	0 00	0 00	-1 53	-2 76	1 41	< MDA	< MDA
7		0 00	0 00	0 00	2 47	4 44	5 29	< MDA	
8		0 00	0 00	0 00	0 47	0 84	3 87	< MDA	< MDA
9		0 00	0 00	0 00	-0 03	-0 06	3 42	< MDA	< MDA
10		0 00	0 00	0 00	0 47	0 84	3 87	< MDA	< MDA
11		0 00	0 00	0 00	-0 53	-0 96	2 91	< MDA	< MDA
12		0 50	1 31	2 62	1 97	3 54	4 97	< MDA	< MDA
13		0 00	0 00	0 00	-0 03	-0 06	3 42	< MDA	< MDA
14	100	0 50	1 31	2 62	-0 03	-0 06	3 42	< MDA	< MDA

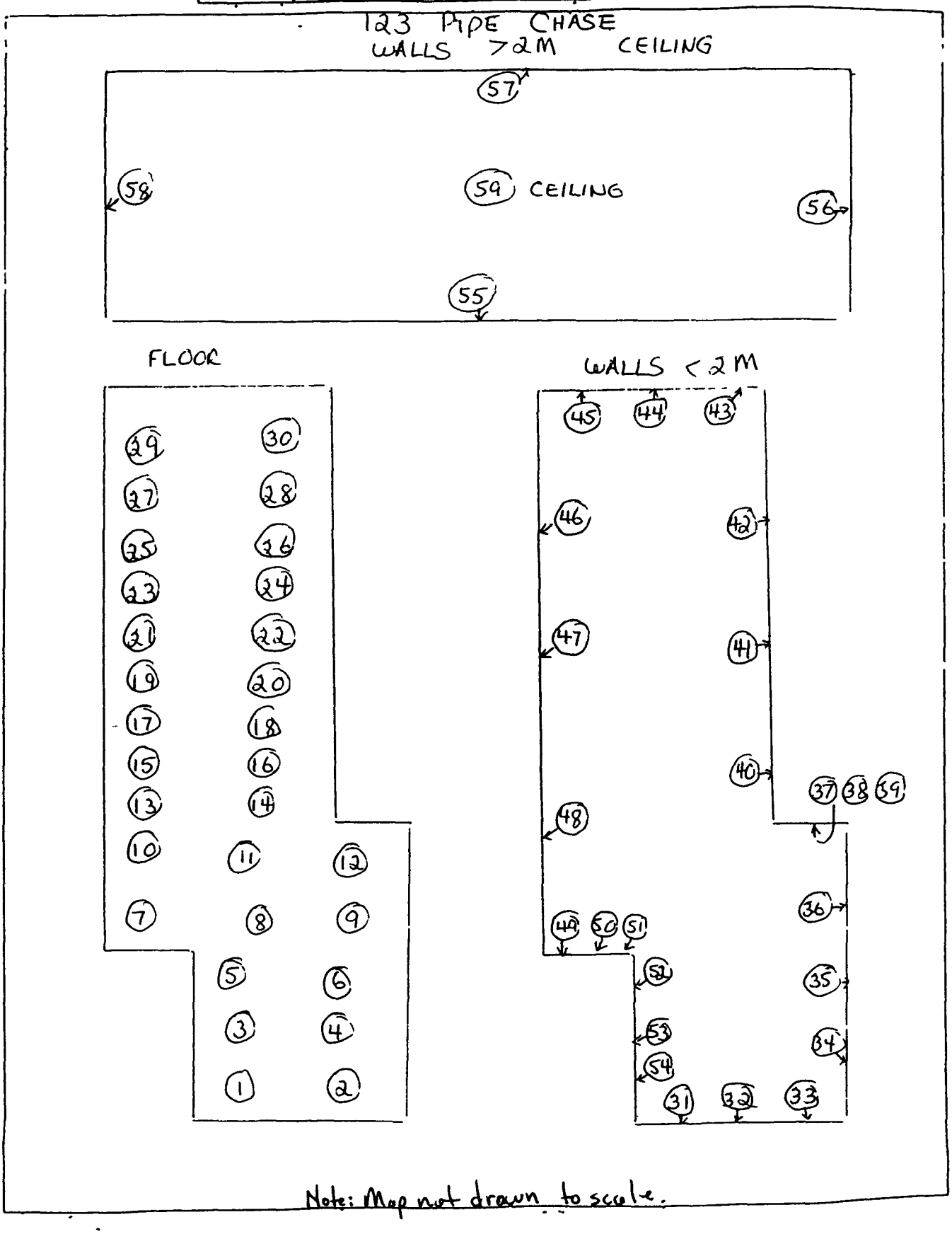
ELECTRA BACKGROUND LOG FOR UNIT #12

Instr. #	DATE	CAL. DUE	Bkg α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst + ref. area (cpm)	EFF. α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D.A (dpm/100 cm²) β
1421	04-27-98	09-30-98	1 3	754 4	874 4	23 60%	31 70%	33 95	411 45
2122	04-27-98	10-13-98	3	887 9	1007 9	24 10%	33 40%	44 66	422 96

Control No._____

Survey Unit #12
Page 2 of 8

Radiological Operations
Area or Equipment Drawing Showing Survey Points



Note: Map not drawn to scale.

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 12

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1421 04-27-98
Cal Due Date: 09-30-98
Efficiency (%): α 23 60 βγ 31 70

Bkgd (cpm): α 1 3 βγ 874 4 Ref Area
754 4 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	31	See Attached Map	<100	<750	10	908	8 7	33 6	36 86	105 99
2	32	See Attached Map	<100	<750	4	824	2 7	-50 4	11 44	-158 99
3	33	See Attached Map	<100	<750	1	791	-0 3	-83 4	-1 27	-263 09
4	34	See Attached Map	<100	<750	10	867	8 7	-7 4	36 86	-23 34
5	35	See Attached Map	<100	<750	5	888	3 7	13 6	15 68	42 90
6	36	See Attached Map	<100	<750	6	841	4 7	-33 4	19 92	-105 36
7	37	See Attached Map	<100	<750	7	741	5 7	-133 4	24 15	-420 82
8	38	See Attached Map	<100	<750	3	781	1 7	-93 4	7 20	-294 64
9	39	See Attached Map	<100	<750	1	736	-0 3	-138 4	-1 27	-436 59
10	40	See Attached Map	<100	<750	6	743	4 7	-131 4	19 92	-414 51
11	41	See Attached Map	<100	<750	3	722	1 7	-152 4	7 20	-480 76
12	42	See Attached Map	<100	<750	4	755	2 7	-119 4	11 44	-376 66
13	43	See Attached Map	<100	<750	5	893	3 7	18 6	15 68	58 68
14	44	See Attached Map	<100	<750	5	810	3 7	-64 4	15 68	-203 15
15	45	See Attached Map	<100	<750	4	791	2 7	-83 4	11 44	-263 09
16	46	See Attached Map	<100	<750	2	810	0 7	-64 4	2 97	-203 15
17	47	See Attached Map	<100	<750	3	642	1 7	-232 4	7 20	-733 12
18	48	See Attached Map	<100	<750	6	744	4 7	-130 4	19 92	-411 36
19	49	See Attached Map	<100	<750	6	854	4 7	-20 4	19 92	-64 35
20	50	See Attached Map	<100	<750	3	801	1 7	-73 4	7 20	-231 55
21	51	See Attached Map	<100	<750	2	791	0 7	-83 4	2 97	-263 09
22	52	See Attached Map	<100	<750	7	885	5 7	10 6	24 15	33 44
23	53	See Attached Map	<100	<750	6	879	4 7	4 6	19 92	14 51
24	54	See Attached Map	<100	<750	9	918	7 7	43 6	32 63	137 54
25	55	See Attached Map	<100	<750	6	863	4 7	-11 4	19 92	-35 96

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 12

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1421 04-27-98
Cal Due Date: 09-30-98
Efficiency (%): α 23 60 βγ 31 70

Bkgd (cpm): α 1 3 βγ 874 4 Ref Area
754 4 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
26	56	See Attached Map	<100	<750	1	714	-0 3	-160 4	-1 27	-505 99
27	57	See Attached Map	<100	<750	0	830	-1 3	-44 4	-5 51	-140 06
28	58	See Attached Map	<100	<750	1	721	-0 3	-153 4	-1 27	-483 91
29	59	See Attached Map	<100	<750	0	852	-1 3	-22 4	-5 51	-70 66

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 12

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 2122 04-27-98
Cal Due Date: 10-13-98
Efficiency (%): α 24 10 βγ 33 40

Bkgd (cpm): α 3 0 βγ 1007 9 (887 9 Inst Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	4	801	1 0	-206 9	4 15	-619 46
2	2	See Attached Map	<100	<750	3	900	0 0	-107 9	0	-323 05
3	3	See Attached Map	<100	<750	10	1054	7 0	46 1	29 05	138 02
4	4	See Attached Map	<100	<750	6	1051	3 0	43 1	12 45	129 04
5	5	See Attached Map	<100	<750	4	1023	1 0	15 1	4 15	45 21
6	6	See Attached Map	<100	<750	2	1033	-1 0	25 1	-4 15	75 15
7	7	See Attached Map	<100	<750	2	877	-1 0	-130 9	-4 15	-391 92
8	8	See Attached Map	<100	<750	8	1059	5 0	51 1	20 75	152 99
9	9	See Attached Map	<100	<750	11	1024	8 0	16 1	33 20	48 20
10	10	See Attached Map	<100	<750	6	1082	3 0	74 1	12 45	221 86
11	11	See Attached Map	<100	<750	6	1065	3 0	57 1	12 45	170 96
12	12	See Attached Map	<100	<750	6	1000	3 0	-7 9	12 45	-23 65
13	13	See Attached Map	<100	<750	2	1011	-1 0	3 1	-4 15	9 28
14	14	See Attached Map	<100	<750	5	987	2 0	-20 9	8 30	-62 57
15	15	See Attached Map	<100	<750	3	893	0 0	-114 9	0	-344 01
16	16	See Attached Map	<100	<750	7	1021	4 0	13 1	16 60	39 22
17	17	See Attached Map	<100	<750	3	955	0 0	-52 9	0	-158 38
18	18	See Attached Map	<100	<750	5	981	2 0	-26 9	8 30	-80 54
19	19	See Attached Map	<100	<750	6	910	3 0	-97 9	12 45	-293 11
20	20	See Attached Map	<100	<750	4	975	1 0	-32 9	4 15	-98 50
21	21	See Attached Map	<100	<750	8	1001	5 0	-6 9	20 75	-20 66
22	22	See Attached Map	<100	<750	7	988	4 0	-19 9	16 60	-59 58
23	23	See Attached Map	<100	<750	5	910	2 0	-97 9	8 30	-293 11
24	24	See Attached Map	<100	<750	6	951	3 0	-56 9	12 45	-170 36
25	25	See Attached Map	<100	<750	5	1013	2 0	5 1	8 30	15 27

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 12

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 2122 | 04-27-98
Cal Due Date: 10-13-98
Efficiency (%): α 24 10 βγ 33 40

Bkgd (cpm): α 3 0 βγ 1007 9 | 887 9 Inst Only | Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
26	26	See Attached Map	<100	<750	1	943	-2 0	-64 9	-8 30	-194 31
27	27	See Attached Map	<100	<750	4	975	1 0	-32 9	4 15	-98 50
28	28	See Attached Map	<100	<750	7	903	4 0	-104 9	16 60	-314 07
29	29	See Attached Map	<100	<750	7	901	4 0	-106 9	16 60	-320 06
30	30	See Attached Map	<100	<750	4	908	1 0	-99 9	4 15	-299 10

OXFR ECLIPSE LB

Printing Date 4/28/98
Print Time 6 20 56AM

Version 1 10
Report Name Gross Alpha Beta Analysis CPM DPM

Count Date 4/27/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name two minute D & D swipes - 199804271913

Bldg 123 Pipe chase

System Information

Serial No 38922 Batch ID 260

Detector S/N 758 Group A

Sample Information

Sample Units
Geometry Swipe/Smear 1/8"

Count Parameters

Count Mode Simultaneous
Operating Voltage 1,395 00
Time 2 00
Delay 0 00
Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract		Enable
Background	0 07	1 27
Batch MDA (dpm)	α 5 96	β- 8.63

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1	floor	-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
2		-0 07	-0 20	0 49	-0 27	-0 55	3 24	< MDA	< MDA
3		-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
4		0 43	1 29	3 01	-1 27	-2 59	1 46	< MDA	< MDA
5		-0 07	-0 20	0 49	0 73	1 50	4 34	< MDA	< MDA
6		1 43	4 26	5 18	-0 77	-1 57	2 51		< MDA
7		-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
8		-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
9		-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
10		-0 07	-0 20	0 49	-0 27	-0 55	3 24	< MDA	< MDA
11		-0 07	-0 20	0 49	1 23	2 52	4 80	< MDA	< MDA
12		0 43	1 29	3 01	3 23	6 61	6 31	< MDA	
13		-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
14		-0 07	-0 20	0 49	0 73	1 50	4 34	< MDA	< MDA
15		-0 07	-0 20	0 49	1 23	2 52	4 80	< MDA	< MDA
16		-0 07	-0 20	0 49	1 73	3 54	5 22	< MDA	< MDA
17		-0 07	-0 20	0 49	1 23	2 52	4 80	< MDA	< MDA
18		0 43	1 29	3 01	-0 27	-0 55	3 24	< MDA	< MDA
19		0 43	1 29	3 01	1 23	2 52	4 80	< MDA	< MDA
20		0 43	1 29	3 01	1 23	2 52	4 80	< MDA	< MDA
21		-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
22		-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
23		-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
24		0 43	1 29	3 01	-0 77	-1 57	2 51	< MDA	< MDA
25		-0 07	-0 20	0 49	-1 27	-2 59	1 46	< MDA	< MDA
26		-0 07	-0 20	0 49	0 73	1 50	4 34	< MDA	< MDA
27		-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
28		-0 07	-0 20	0 49	-1 27	-2 59	1 46	< MDA	< MDA
29		-0 07	-0 20	0 49	-0 77	-1 57	2 51	< MDA	< MDA
30	floor	0.43	1 29	3 01	0 23	0 48	3 83	< MDA	< MDA
31	walls - 2m	0 43	1 29	3 01	0 23	0 48	3 83	< MDA	< MDA
32		-0 07	-0 20	0 49	-0 77	-1 57	2 51	< MDA	< MDA
33		0 43	1 29	3 01	-0 27	-0 55	3 24	< MDA	< MDA
34		-0 07	-0 20	0 49	1 73	3 54	5 22	< MDA	< MDA
35		0 43	1 29	3 01	-0 77	-1 57	2 51	< MDA	< MDA

Count Date 4/27/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name two minute D & D swipes - 199804271913

System Information

Serial No 38922 **Batch ID** 260

Detector S/N 758 Group A

Sample Information

Sample Units

Geometry Swipe/Smear 1/8"

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 395 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract		Enable
Background	0 07	1 27
Batch MDA (dpm)		

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
36	Walls < 2 m	-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
37		-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
38		-0 07	-0 20	0 49	0 73	1 50	4 34	< MDA	< MDA
39		-0 07	-0 20	0 49	0 73	1 50	4 34	< MDA	< MDA
40		0 43	1.29	3 01	0 23	0 48	3 83	< MDA	< MDA
41		-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
42		-0 07	-0 20	0 49	-0 27	-0 55	3 24	< MDA	< MDA
43		-0 07	-0 20	0 49	-1 27	-2 59	1 46	< MDA	< MDA
44		-0 07	-0 20	0 49	-0 77	-1 57	2 51	< MDA	< MDA
45		-0 07	-0 20	0 49	0 73	1 50	4 34	< MDA	< MDA
46		-0 07	-0 20	0 49	-0 27	-0 55	3 24	< MDA	< MDA
47		-0 07	-0 20	0 49	0 73	1 50	4 34	< MDA	< MDA
48		-0 07	-0 20	0 49	1 73	3 54	5 22	< MDA	< MDA
49		-0 07	-0 20	0 49	2 23	4 57	5 60	< MDA	
50		-0 07	-0 20	0 49	-0 77	-1 57	2 51	< MDA	< MDA
51		-0 07	-0 20	0 49	-0 27	-0 55	3 24	< MDA	< MDA
52		-0 07	-0 20	0 49	-1 27	-2 59	1 46	< MDA	< MDA
53		-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
54		-0 07	-0 20	0 49	2 23	4 57	5 60	< MDA	
55	Walls & Ceiling >2m	-0 07	-0 20	0 49	-0 27	-0 55	3 24	< MDA	< MDA
56		-0 07	-0 20	0 49	-0 77	-1 57	2 51	< MDA	< MDA
57		-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
58		-0 07	-0 20	0 49	0 73	1 50	4 34	< MDA	< MDA
59		-0 07	-0 20	0 49	1 73	3 54	5 22	< MDA	< MDA

ELECTRA BACKGROUND LOG FOR UNIT #13

Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D.A. (dpm/100 cm²) β
1420	04-12-98	07-12-98	1.6	642.2	762.2	25 00%	32 80%	34.37	367 53
2403	04-12-98	10-07-98	4	771.9	891.9	24 30%	32 00%	49 42	412 19
1684	04-12-98	08-12-98	1 8	536 1	656.1	23 60%	28 80%	37 92	383.25

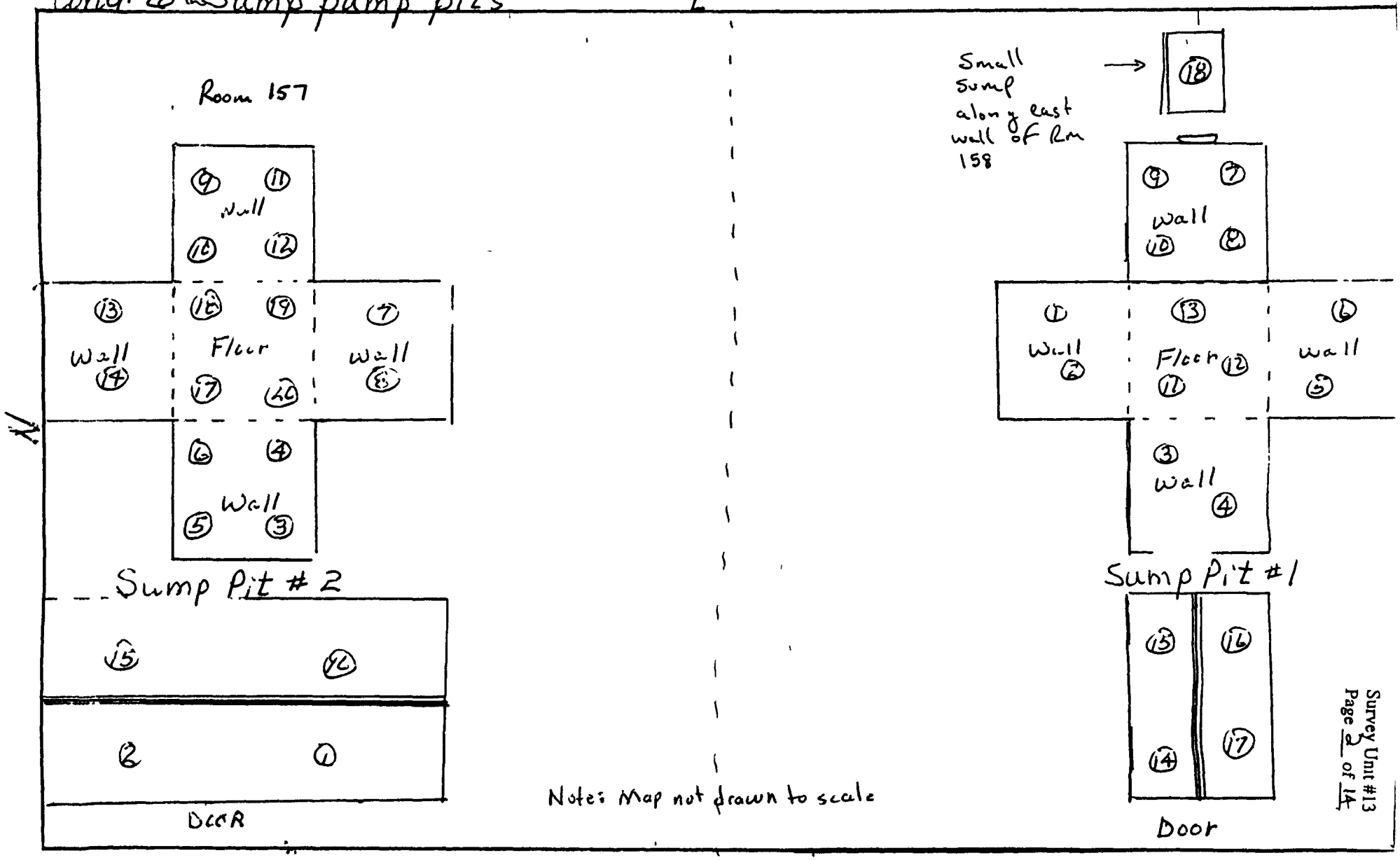
NOTE· Instrument only background used for all sumps with the exception of the small sump along the east wall of Room 158

The three large sumps are sealed with a heavy epoxy coating Inst + ref area background not appropriate in this situation

RADIOLOGICAL CONTAMINATION SKETCH FORM

LOG/PRE NUMBER _____ PAGE ____ OF ____

Unit ~~to~~ 13 Sump pump pits

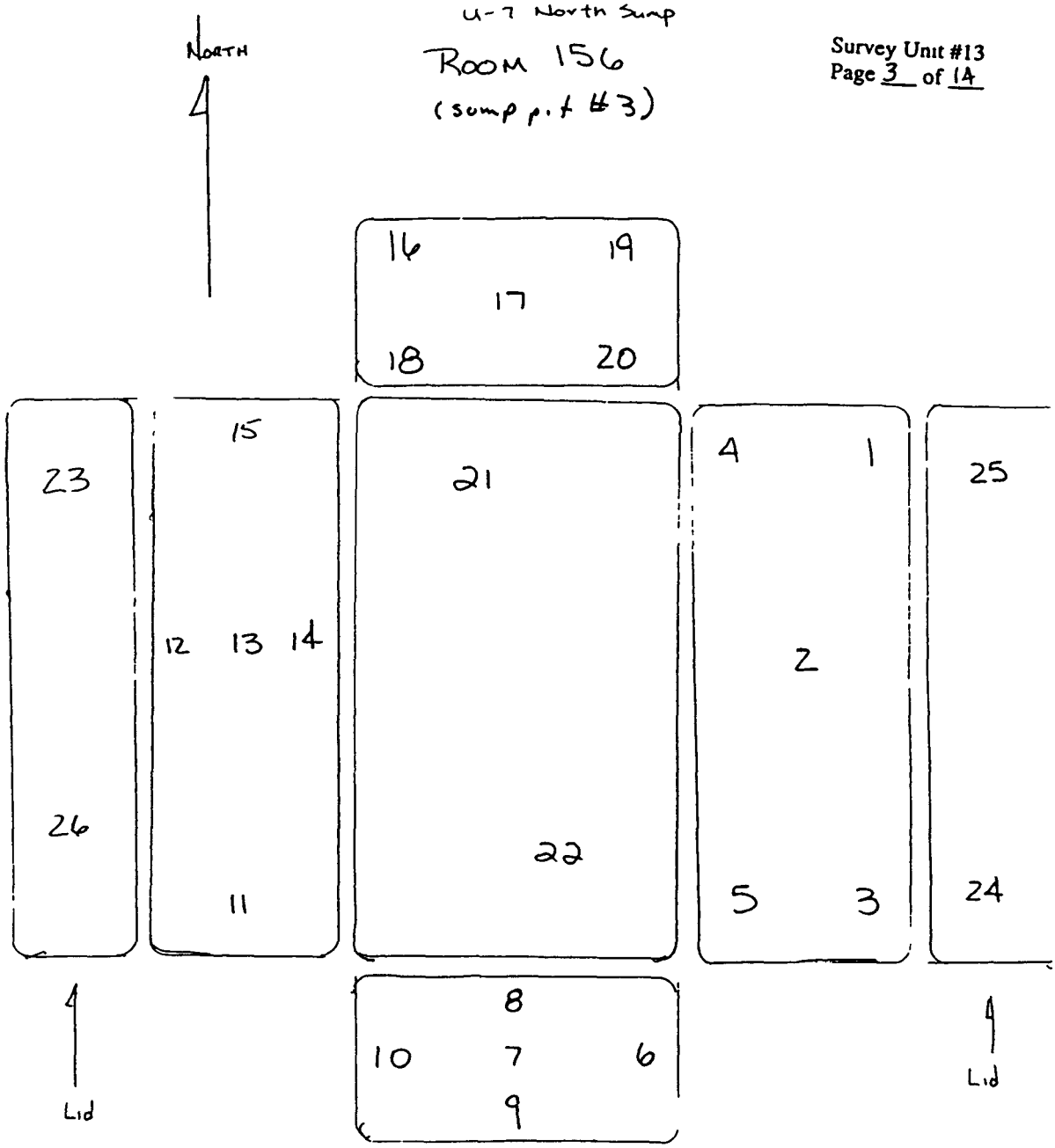


Survey Unit #13
Page 2 of 14

U-7 North Sump

ROOM 156

(sump pit #3)



NOTE: SMEARS ONLY PERFORMED ON PT's 25 AND 26

Lid AREA LESS THAN 1 m^2, NO FURTHER SURVEYS REQUIRED.

5-6-98

Note Map not drawn to scale

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #13, Sumps (Room 158)

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 2403 04-12-98
Cal Due Date: 10-07-98
Efficiency (%): α 24 30 βγ 32 00

Bkgd (cpm): α 4 0 βγ 891 9 Ref Area; 771 9 Inst. Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	6	816	2 0	44 1	8 23	137 81
2	2	See Attached Map	<100	<750	6	767	2 0	-4 9	8 23	-15 31
3	3	See Attached Map	<100	<750	7	808	3 0	36 1	12 35	112 81
4	6	See Attached Map	<100	<750	6	850	2 0	78 1	8 23	244 06
5	10	See Attached Map	<100	<750	5	823	1 0	51 1	4 12	159 69
6	12	See Attached Map	<100	<750	3	706	-1 0	-65 9	-4 12	-205 94
7	18	See Attached Map	<100	<750	2	1059	-2 0	167 1	-8 23	522 19

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #13, Sumps (Room 158)

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1684 04-12-98
Cal Due Date: 08-12-98
Efficiency (%): α 23 60 βγ 28 80

Bkgd (cpm): α 1 8 βγ 536 1 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	13	See Attached Map	<100	<750	1	522	-0 8	-14 1	-3 39	-48 96
2	14	See Attached Map	<100	<750	6	387	4 2	-149 1	17 80	-517 71
3	15	See Attached Map	<100	<750	4	385	2 2	-151 1	9 32	-524 65
4	16	See Attached Map	<100	<750	2	440	0 2	-96 1	85	-333 68
5	17	See Attached Map	<100	<750	1	440	-0 8	-96 1	-3 39	-333 68

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #13, Sumps (Room 158)

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1420 04-12-98
Cal Due Date: 07-12-98
Efficiency (%): α 25 00 βγ 32 80

Bkgd (cpm): α 1 6 βγ 642 2 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	4	See Attached Map	<100	<750	3	667	1 4	24 8	5 60	75 61
2	5	See Attached Map	<100	<750	2	700	0 4	57 8	1 60	176 22
3	7	See Attached Map	<100	<750	1	692	-0 6	49 8	-2 40	151 83
4	8	See Attached Map	<100	<750	4	626	2 4	-16 2	9 60	-49 39
5	9	See Attached Map	<100	<750	5	729	3 4	86 8	13 60	264 63
6	11	See Attached Map	<100	<750	2	650	0 4	7 8	1 60	23 78

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #13, Sump #2 (Room 157)

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1684 04-12-98
Cal Due Date: 08-12-98
Efficiency (%): α 23 60 βγ 28 80

Bkgd (cpm): α 1 8 βγ 536 1 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	1	468	-0 8	-68 1	-3 39	-236 46
2	2	See Attached Map	<100	<750	3	418	1 2	-118 1	5 08	-410 07
3	5	See Attached Map	<100	<750	2	560	0 2	23 9	85	82 99
4	9	See Attached Map	<100	<750	1	581	-0 8	44 9	-3 39	155 90
5	11	See Attached Map	<100	<750	2	550	0 2	13 9	85	48 26
6	15	See Attached Map	<100	<750	0	424	-1 8	-112 1	-7 63	-389 24
7	18	See Attached Map	<100	<750	2	840	0 2	303 9	85	**1055 21**

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #13, Sump #2 (Room 157)

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1420 04-12-98
Cal Due Date: 07-12-98
Efficiency (%): α 25 00 βγ 32 80

Bkgd (cpm): α 1 6 βγ 642 2 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	3	See Attached Map	<100	<750	0	706	-1 6	63 8	-6 40	194 51
2	4	See Attached Map	<100	<750	3	699	1 4	56 8	5 60	173 17
3	6	See Attached Map	<100	<750	2	684	0 4	41 8	1 60	127 44
4	10	See Attached Map	<100	<750	0	704	-1 6	61 8	-6 40	188 41
5	12	See Attached Map	<100	<750	3	686	1 4	43 8	5 60	133 54
6	13	See Attached Map	<100	<750	2	590	0 4	-52 2	1 60	-159 15
7	14	See Attached Map	<100	<750	2	664	0 4	21 8	1 60	66 46
8	17	See Attached Map	<100	<750	2	649	0 4	6 8	1 60	20 73
9	20	See Attached Map	<100	<750	0	626	-1 6	-16 2	-6 40	-49 39

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #13, Sump #2 (Room 157)

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 2403 | 04-12-98
Cal Due Date: 10-07-98
Efficiency (%): α 24 30 βγ 32 00

Bkgd (cpm): α 4 0 βγ 771 9 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	7	See Attached Map	<100	<750	5	795	1 0	23 1	4 12	72 19
2	8	See Attached Map	<100	<750	7	834	3 0	62 1	12 35	194 06
3	16	See Attached Map	<100	<750	5	662	1 0	-109 9	4 12	-343 44
4	19	See Attached Map	<100	<750	2	724	-2 0	-47 9	-8 23	-149 69

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #13, Sump #3 (Room 156)

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 2403 04-12-98
Cal Due Date: 10-07-98
Efficiency (%): α 24 30 βγ 32 00

Bkgd (cpm): α 4 0 βγ 771 9 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	6	See Attached Map	<100	<750	6	804	2 0	32 1	8 23	100 31
2	7	See Attached Map	<100	<750	5	696	1 0	-75 9	4 12	-237 19
3	8	See Attached Map	<100	<750	7	733	3 0	-38 9	12 35	-121 56
4	9	See Attached Map	<100	<750	11	717	7 0	-54 9	28 81	-171 56
5	10	See Attached Map	<100	<750	3	799	-1 0	27 1	-4 12	84 69
6	11	See Attached Map	<100	<750	9	799	5 0	27 1	20 58	84 69
7	12	See Attached Map	<100	<750	6	775	2 0	3 1	8 23	9 69
8	13	See Attached Map	<100	<750	6	794	2 0	22 1	8 23	69 06
9	14	See Attached Map	<100	<750	8	790	4 0	18 1	16 46	56 56
10	15	See Attached Map	<100	<750	8	821	4 0	49 1	16 46	153 44
11	22	See Attached Map	<100	<750	5	823	1 0	51 1	4 12	159 69
12	23	See Attached Map	<100	<750	6	633	2 0	-138 9	8 23	-434 06

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #13, Sump #3 (Room 156)

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1684 04-12-98
Cal Due Date: 08-12-98
Efficiency (%): α 23 60 βγ 28 80

Bkgd (cpm): α 1 8 βγ 536 1 Inst Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	1	538	-0 8	1 9	-3 39	6 60
2	2	See Attached Map	<100	<750	3	529	1 2	-7 1	5 08	-24 65
3	3	See Attached Map	<100	<750	0	526	-1 8	-10 1	-7 63	-35 07
4	4	See Attached Map	<100	<750	5	596	3 2	59 9	13 56	207 99
5	5	See Attached Map	<100	<750	1	523	-0 8	-13 1	-3 39	-45 49
6	16	See Attached Map	<100	<750	6	520	4 2	-16 1	17 80	-55 90
7	17	See Attached Map	<100	<750	2	530	0 2	-6 1	85	-21 18
8	18	See Attached Map	<100	<750	3	502	1 2	-34 1	5 08	-118 40
9	19	See Attached Map	<100	<750	3	469	1 2	-67 1	5 08	-232 99
10	20	See Attached Map	<100	<750	2	532	0 2	-4 1	85	-14 24
11	21	See Attached Map	<100	<750	1	524	-0 8	-12 1	-3 39	-42 01
12	24	See Attached Map	<100	<750	5	423	3 2	-113 1	13 56	-392 71

OXFR ***ECLIPSE LB***

Version 1 10

Printing Date 4/13/98

Report Name Gross Alpha Beta Analysis CPM

Print Time 8 44 45PM

Count Date **4/13/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804132004** Room 158 (Sump #1)

System Information

Serial No W O 3351C **Batch ID 1,000**

Detector S/N 658 Group **A**

			Alpha	Beta
Sample Information				
Sample Units		**Efficiency (%)**	38 16	55 51
Geometry	1/8" Stainless Steel			
		Background Subtract		Enable
Count Parameters				
Count Mode	Simultaneous			
Operating Voltage	1,410 00	**Background**	0 23	1 50
Time	2 00			
Delay	0 00	**Batch MDA**	6 75 dpm	8 06
Sample Replicates	1			

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		0 27	0 70	2 74	2 00	3 60	4 97	< MDA	< MDA
2		-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
3		-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
4		-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
5		-0 23	-0 61	0 80	2 00	3 60	4 97	< MDA	< MDA
6		-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
7		-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
8		-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
9		-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
10		-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
11		0 27	0 70	2 74	0 00	0 00	3 42	< MDA	< MDA
12		0 27	0 70	2 74	2 00	3 60	4 97	< MDA	< MDA
13		-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
14		-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
15		-0 23	-0 61	0 80	-1 00	-1 80	2 28	< MDA	< MDA
16		-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
17		-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
18		0 27	0 70	2 74	1 00	1 80	4 26	< MDA	< MDA

OXFR **ECLIPSE LB**

Version 1 10

Printing Date 4/13/98

Report Name Gross Alpha Beta Analysis CPM

Print Time 10 02 12PM

Count Date **4/13/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804132113** Room 157 (Sump #2)

System Information

Serial No W O 3351C **Batch ID** **1,003**

Detector S/N 658 Group A

			Alpha	Beta
Sample Information				
Sample Units		**Efficiency (%)**	38 16	55 51
Geometry	1/8" Stainless Steel			
		Background Subtract		Enable
Count Parameters				
Count Mode	Simultaneous			
Operating Voltage	1,410 00	**Background**	0 23	1 50
Time	2 00			
Delay	0 00	**Batch MDA**	6 75 dpm	8 06
Sample Replicates	1			

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
28	1	-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
29	2	-0 23	-0 61	0 80	1 00	1 80	4 26	< MDA	< MDA
30	3	0 27	0 70	2 74	0 00	0 00	3 42	< MDA	< MDA
31	4	-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
32	5	-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
33	6	-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
34	7	-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
35	8	-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
36	9	-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
37	10	-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
38	11	0 27	0 70	2 74	0 50	0 90	3 86	< MDA	< MDA
39	12	0 27	0 70	2 74	0 50	0 90	3 86	< MDA	< MDA
40	13	-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
41	14	-0 23	-0 61	0 80	-1 00	-1 80	2 28	< MDA	< MDA
42	15	-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
43	16	-0 23	-0 61	0 80	-1 00	-1 80	2 28	< MDA	< MDA
44	17	0 27	0 70	2 74	1 50	2 70	4 63	< MDA	< MDA
45	18	0 27	0 70	2 74	0 00	0 00	3 42	< MDA	< MDA
46	19	-0 23	-0 61	0 80	-1 00	-1 80	2 28	< MDA	< MDA
47	20	0 77	2 01	3 79	4 00	7 21	6 14	< MDA	

OXFR **ECLIPSE LB**

Version 1 10

Printing Date 4/13/98

Report Name Gross Alpha Beta Analysis CPM

Print Time 11 29 36PM

Count Date **4/13/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **D&D Swipes - 199804132231** Room 156 (Sump #3)

System Information

Serial No W O 3351C **Batch ID** **1,006**

Detector S/N 658 *Group* **A**

Sample Information

Sample Units

Geometry 1/8" Stainless Steel

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 410 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	**Beta**
Efficiency (%)	38 16	55 51
Background Subtract		Enable
Background	0 23	1 50
Batch MDA	6.75 dpm	8.06

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
48	1	-0 23	-0 61	0 80	1 50	2 70	4 63	< MDA	< MDA
49	2	0 27	0 70	2 74	0 00	0 00	3 42	< MDA	< MDA
50	3	-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
51	4	-0 23	-0 61	0 80	1 00	1 80	4 26	< MDA	< MDA
52	5	-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
53	6	0 27	0 70	2 74	0 00	0 00	3 42	< MDA	< MDA
54	7	-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
56	8	-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
55	9	-0 23	-0 61	0 80	-1 00	-1 80	2 28	< MDA	< MDA
57	10	-0 23	-0 61	0 80	1 50	2 70	4 63	< MDA	< MDA
58	11	-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
59	12	0 27	0 70	2 74	-1 00	-1 80	2 28	< MDA	< MDA
60	13	-0 23	-0 61	0 80	1 00	1 80	4 26	< MDA	< MDA
61	14	0 27	0 70	2 74	0 00	0 00	3 42	< MDA	< MDA
62	15	0 27	0 70	2 74	0 50	0 90	3 86	< MDA	< MDA
63	16	-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
64	17	-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
65	18	-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
66	19	-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
67	20	-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
68	21	-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
69	22	-0 23	-0 61	0 80	-1 00	-1 80	2 28	< MDA	< MDA
70	23	-0 23	-0 61	0 80	-0 50	-0 90	2 90	< MDA	< MDA
71	24	-0 23	-0 61	0 80	0 00	0 00	3 42	< MDA	< MDA
72	25	-0 23	-0 61	0 80	0 50	0 90	3 86	< MDA	< MDA
73	26	2 27	5 94	5 92	2 50	4 50	5 28		

No corresponding Direct measurements

4/23/98

ELECTRA BACKGROUND LOG FOR UNIT #14

Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D A (dpm/100 cm²) β
1249	04-15-98	09-28-98	3 8	521 9	641 9	22 30%	35 20%	52 80	309 49
2336	04-15-98	09-05-98	4 9	473 8	593 8	28 00%	35 80%	46 44	290 30

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 113 Interior Unit 14

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 2336 04-15-98
Cal Due Date: 09-05-98
Efficiency (%): α 28 00 βγ 35 80

Bkgd (cpm): α 4 9 βγ 593 8 — 473 8 Inst Only, Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity * (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	8	803	3 1	329 2	11 07	919 55
2	2	See Attached Map	<100	<750	2	735	-2 9	261 2	-10 36	729 61
3	3	See Attached Map	<100	<750	5	783	0 1	309 2	36	863 69
4	4	See Attached Map	<100	<750	4	677	-0 9	203 2	-3 21	567 60
5	5	See Attached Map	<100	<750	3	698	-1 9	224 2	-6 79	626 26
6	6	See Attached Map	<100	<750	7	700	2 1	226 2	7 50	631 84
7	7	See Attached Map	<100	<750	2	738	-2 9	264 2	-10 36	737 99
8	8	See Attached Map	<100	<750	3	748	-1 9	274 2	-6 79	765 92
9	9	See Attached Map	<100	<750	5	733	0 1	259 2	36	724 02
10	31	See Attached Map	<100	<750	2	791	-2 9	317 2	-10 36	886 03
11	32	See Attached Map	<100	<750	6	644	1 1	170 2	3 93	475 42
12	33	See Attached Map	<100	<750	2	632	-2 9	158 2	-10 36	441 90
13	34	See Attached Map	<100	<750	1	667	-3 9	193 2	-13 93	539 66
14	35	See Attached Map	<100	<750	3	656	-1 9	182 2	-6 79	508 94
15	36	See Attached Map	<100	<750	6	688	1 1	214 2	3 93	598 32

* As noted in the executive summary, the DCGL for Survey Unit 14 is 5,000 dpm/100cm² beta.

R N.
5-7-98

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 113 Interior Unit 14

Meter Model: NE/Technology Electra w/ DP6 Probe

Serial # / Date Used: 1249 04-15-98

Cal Due Date: 09-28-98

Efficiency (%): α 22 27 βγ 35 20

Bkgd (cpm): α 3 8 βγ 641 9 (521 9 Inst Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10% α	Scan 10% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	10	See Attached Map	<100	<750	5	392	1 2	-129 9	5 39	-369 03
2	11	See Attached Map	<100	<750	7	402	3 2	-119 9	14 37	-340 63
3	12	See Attached Map	<100	<750	2	467	-1 8	-54 9	-8 08	-155 97
4	13	See Attached Map	<100	<750	3	478	-0 8	-43 9	-3 59	-124 72
5	14	See Attached Map	<100	<750	0	414	-3 8	-107 9	-17 06	-306 53
6	15	See Attached Map	<100	<750	3	427	-0 8	-94 9	-3 59	-269 60
7	16	See Attached Map	<100	<750	2	403	-1 8	-118 9	-8 08	-337 78
8	17	See Attached Map	<100	<750	1	360	-2 8	-161 9	-12 57	-459 94
9	18	See Attached Map	<100	<750	3	452	-0 8	-69 9	-3 59	-198 58
10	19	See Attached Map	<100	<750	1	385	-2 8	-136 9	-12 57	-388 92
11	20	See Attached Map	<100	<750	3	455	-0 8	-66 9	-3 59	-190 06
12	21	See Attached Map	<100	<750	1	437	-2 8	-84 9	-12 57	-241 19
13	22	See Attached Map	<100	<750	2	425	-1 8	-96 9	-8 08	-275 28
14	23	See Attached Map	<100	<750	3	441	-0 8	-80 9	-3 59	-229 83
15	24	See Attached Map	<100	<750	3	408	-0 8	-113 9	-3 59	-323 58
16	25	See Attached Map	<100	<750	3	440	-0 8	-81 9	-3 59	-232 67
17	26	See Attached Map	<100	<750	3	487	-0 8	-34 9	-3 59	-99 15
18	27	See Attached Map	<100	<750	2	444	-1 8	-77 9	-8 08	-221 31
19	28	See Attached Map	<100	<750	6	573	2 2	51 1	9 88	145 17
20	29	See Attached Map	<100	<750	4	540	0 2	18 1	0 90	51 42
21	30	See Attached Map	<100	<750	1	590	-2 8	68 1	-12 57	193 47

OXFR ECLIPSE LB

Printing Date 4/15/98
Print Time 12 05 25PM

Version 1 10
Report Name Gross Alpha Beta Analysis CPM DPM

Count Date **4/15/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **one minute swipe count - 199804151042**

Bldg 113 Interior

System Information

Serial No 38922 **Batch ID** **198**

Detector S/N 758 Group **A**

Sample Information

Sample Units
Geometry Swipe/Smear 1/8"

	Alpha	Beta
Efficiency (%)	33 67	48 90

Background Subtract Disable

Count Parameters

Count Mode Simultaneous
Operating Voltage 1 395 00
Time 1 00
Delay 0 00
Sample Replicates 1

Background α- 0.1 β- 1.4

Batch MDA (dpm). α-8.04 β-5.33

Carrier ID	Swipe No	Gross Alpha cpm	Alpha dpm	2 Sigma dpm	Gross Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		0 00	0 00	0 00	4 00	8 18	8 18	< MDA	
2		0 00	0 00	0 00	3 00	6 13	7 08	< MDA	
3		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
4		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
5		0 00	0 00	0 00	2.00	4 09	5 78	< MDA	< MDA
6		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
7		0 00	0 00	0 00	3 00	6 13	7 08	< MDA	
8		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
9		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	< MDA
10		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
11		0 00	0 00	0 00	2.00	4 09	5 78	< MDA	< MDA
12		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	< MDA
13		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
14		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
15		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
16		1 00	2 97	5 94	2 00	4 09	5 78	< MDA	< MDA
17		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
18		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
19		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
20		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	< MDA
21		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	< MDA
22		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
23		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
24		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	< MDA
25		1 00	2 97	5 94	0 00	0 00	0 00	< MDA	< MDA
26		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
27		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
28		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
29		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	< MDA
30		0 00	0 00	0 00	0 00	0 00	0 00	< MDA	< MDA
31		1 00	2 97	5 94	2 00	4 09	5 78	< MDA	< MDA
32		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
33		1 00	2 97	5 94	2 00	4 09	5 78	< MDA	< MDA
34		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA
35		0 00	0 00	0 00	2 00	4 09	5 78	< MDA	< MDA

Count Date 4/15/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **one minute swipe count - 199804151042**

B113 Interior

System Information

Serial No 38922 **Batch ID** 198

Detector S/N 758 Group A

Sample Information

Sample Units

Geometry Swipe/Smear 1/8"

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 395 00

Time 1 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract		Disable
Background		
Batch MDA (dpm)		

Carrier ID	Swipe No	Gross Alpha cpm	Alpha dpm	2 Sigma dpm	Gross Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
36		0 00	0 00	0 00	1 00	2 04	4 09	< MDA	< MDA

COPY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER

FOR _____ P/WRE _____ PRL

_____ RWP _____ OTHER ✓

BUILDING/LOCATION	ROOM
113	INTERIOR
DATE 4-15-98	TIME 1000

ITEM DESCRIPTION Bldg. 113 INTERIOR

COMMENTS
SWIPES COUNTED ON TENNELEC
10% SCAN

Carpet surveyed during removal. R.N 5-5-98

PE[redacted]

12-4

REVIEWED BY K. Gan (RAD)
RO SUPERVISION PRINT NAME

4-12

K. S. [illegible] 4/15/98
RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR	EBER	EBER	EBER	EBER
MODEL	SAC-4	SAC 4	SAC 4	SAC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

MFR	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR	NE TECH	OXFORD	NE TECH	
MODEL	ELECTRA	TENNELEC	ELECTRA	
SERIAL #	2336	38922	1249	
CAL DATE	3-5-98	2-5-98	3-25-98	
CAL DUE DATE	9-5-98	8-5-98	9-28-98	
BACKGROUND	α 4.9 β 473.8	SEE ATTACHED	α 3.8 β 521.9	
SFFICIENCY	α 28% β 35.8	SEE ATTACHED	α 22.8% β 35.2%	
MDA	<93.3 <455	SEE ATTACHED.	<93.3 <455	

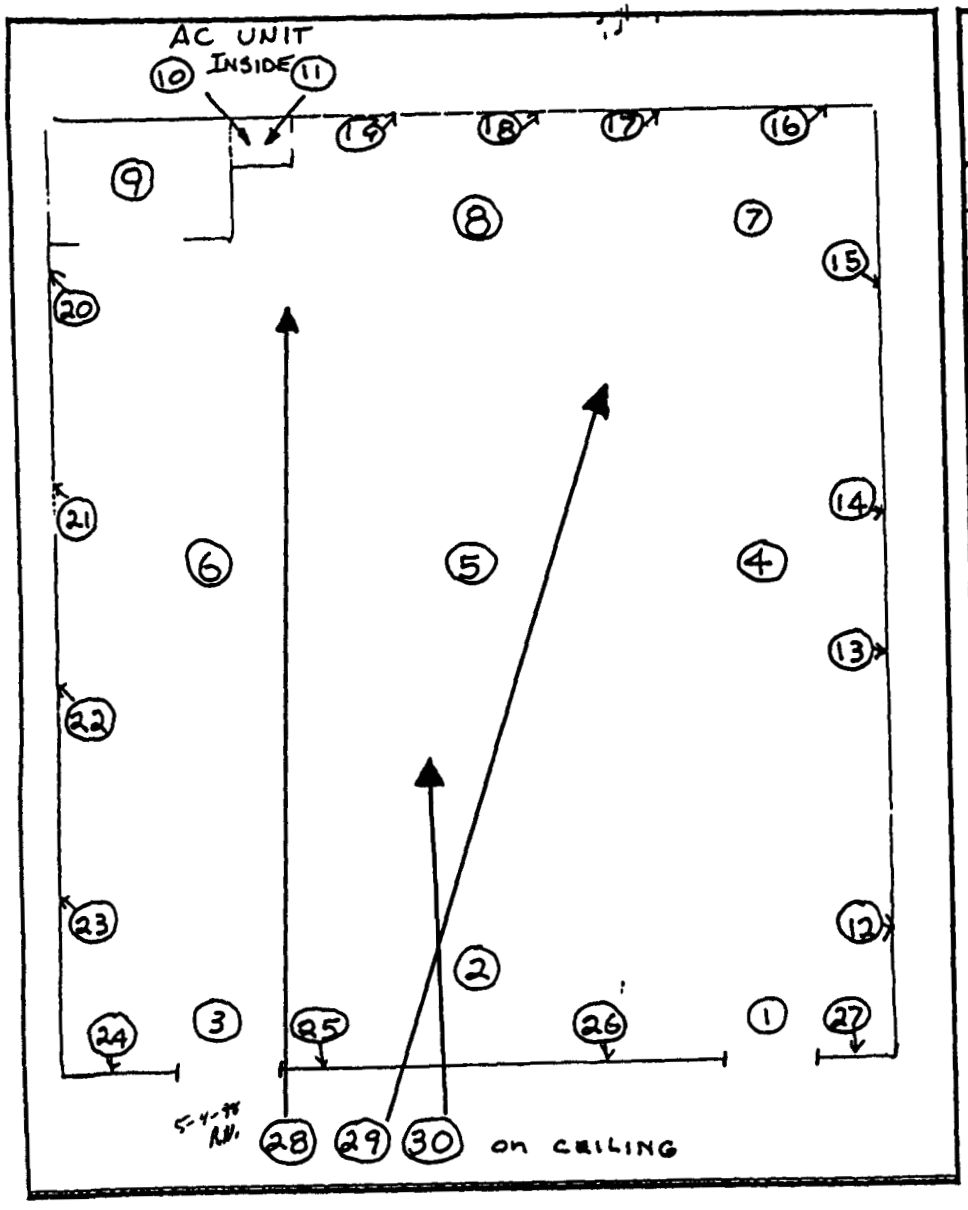
MDA = CF X [2.71 + 4.65 √BACKGROUND (CPM)]

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG / SURVEY NUMBER _____

PAGE 2 OF 2

DRAWING



SURVEY RESULTS (DPM/100 CM SQ)

SWIP #S	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISK / 60 SEC COUNT)	TOTAL BETA/GAMMA
1	Bldg. 113			18.6	987.6
2				(17.4)	783.6
3				.6	927.6
4				(5.4)	609.6
5				(11.4)	672.6
6				12.6	678.6
7				(17.4)	792.6
8				(11.4)	822.6
9				.6	777.6
10				7.2	(389.7)
11				19.2	359.7
12				(10.8)	(164.7)
13				(4.8)	(131.7)
14				(22.8)	(323.7)
15				(4.8)	284.7
16				(10.8)	(356.7)
17				(16.8)	(485.7)
18				(4.8)	(209.7)
19				(16.8)	(410.7)
20				(4.8)	(200.7)
21				(16.8)	(254.7)

Note Map not drawn to scale. 4/29/98

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG / SURVEY NUMBER _____

PAGE 3a OF 5a

SURVEY RESULTS (DPM/100 CM SQ)

SWIP #'S	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/ GAMMA	TOTAL ALPHA (FRISK / 60 SEC COUNT)	TOTAL BETA/ GAMMA
22	Bldg. 113			(10.8)	(290.7)
23				(4.8)	(242.7)
24				(4.8)	(341.7)
25				(4.8)	(245.7)
26				(4.8)	(104.7)
27				(10.8)	(233.7)
28				13.2	153.3
29				1.2	54.3
30				(16.8)	204.3
31	Bldg 113 CARPET			(17.4)	951.6
32	" "			3.3	510.6
33	" "			(17.4)	474.6
34	" "			(23.4)	579.6
35	" "			(11.4)	546.6
36	" "			6.6	642.6
37					
38					
39					
40					
41					
42					

SURVEY RESULTS (DPM/100 CM SQ)

SWIP #'S	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/ GAMMA	TOTAL ALPHA (FRISK / 60 SEC COUNT)	TOT. BET GAM
43					
44					
45					
46					
47					
48					
49					
50					
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					
61					
62					
63					

Survey Unit #14
Page 8 of 8

ELECTRA BACKGROUND LOG FOR UNIT #19

Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF. β	M.D A. (dpm/100 cm²) α	M.D.A. (dpm/100 cm²) β
1421	04-27-98	09-30-98	1	583	703	23 60%	31 70%	31 19	362 73

RADIOLOGICAL CONTAMINATION SURVEY FORM

COPY

LOG NUMBER

FOR _____ P/WRE _____ PRL

_____ RWP X OTHER _____

BUILDING/LOCATION 113

ROOM EXTERIOR

DATE 4-27-98

TIME 1000

ITEM DESCRIPTION Bldg. 113 EXTERIOR WALLS & Roof

COMMENTS

SWIPES COUNTED ON TENNELEC

10% SCAN <100 Alpha <750 BETA

PERFORMED BY (PRINT NAME) [redacted]

REVIEWED BY K. Garland

RO SUPERVISION PRINT NAME

[signature] 4/27/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR	EBER	EBER	EBER	EBER
MODEL	SAC-4	SAC 4	SAC 4	SAC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

MFR	EBER	EBER	EBER	EBER
MODEL.	BC 4	BC 4	BC 4	BC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

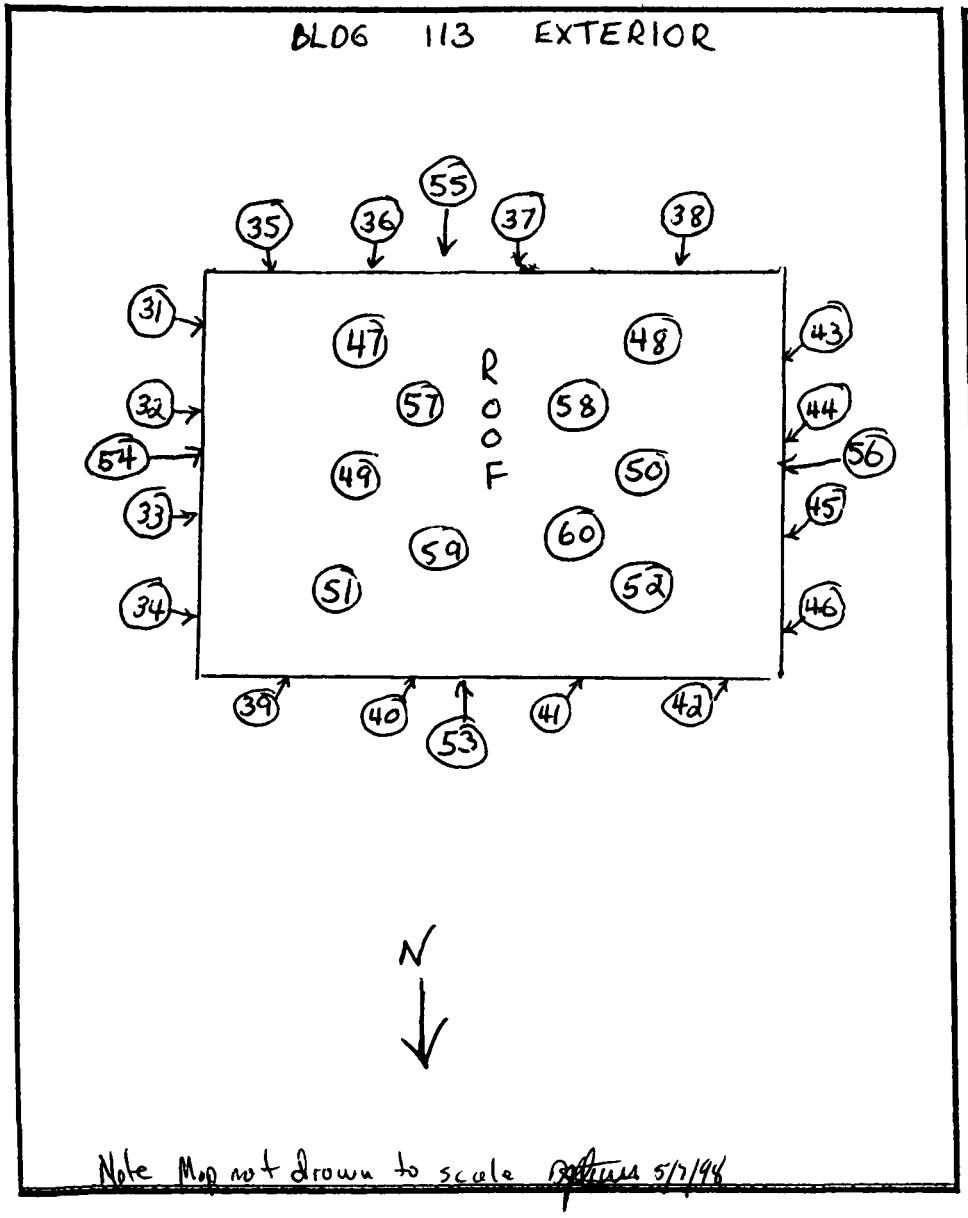
MFR	N.E TECH	TENNELEC		
MODEL	ELECTRA	5SXLB	1	
SERIAL #	1421	38922		
CAL DATE	3-31-98	2-5-98		
CAL DUE DATE	9-30-98	8-5-98		
BACKGROUND	α 1.0 β 583	NA		
SFFICIENCY	α 23.6% β 31.7%	NA		
MDA.	<93.3 <455	NA		

MDA = CF X [2.71 + 4.65 √BACKGROUND (CPM)]

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG / SURVEY NUMBER ____ PAGE 2 OF ~~4~~ 6

DRAWING



Note Map not drawn to scale [illegible] 5/7/98

SURVEY RESULTS (DPM/100 CM SQ)

SWIP #'S	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/ GAMMA	TOTAL ALPHA (FRISK / 60 SEC COUNT)	TOTAL BETA/ GAMMA
1	#31 WALLS			36	(351)
2	#32			30	261
3	#33			18	(444)
4	#34			30	147
5	#35			6	(288)
6	#36			18	(330)
7	#37			48	162
8	#38			18	(39)
9	#39			30	213
10	#40			36	(501)
11	#41			6	387
12	#42			30	(42)
13	#43			42	87
14	#44			72	276
15	#45			18	(525)
16	#46			6	147
17	#47 Roof			78	(75)
18	#48			96	(252)
19	#49			42	(159)
20	#50			72	(90)
21	#51			78	(342)
22	#52			96	(324)

RADIOLOGICAL CONTAMINATION SURVEY FORM

COPY

LOG / SURVEY NUMBER _____

PAGE 3 OF 6

SURVEY RESULTS (DPM/100 CM SQ)

SWIP #'S	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/ GAMMA	TOTAL ALPHA (FRISK / 60 SEC COUNT)	TOTAL BETA/ GAMMA
~~22~~ 19					
23	#53 WALLS			42	255
24	#54			12	120
25	#55			24	360
26	#56			0	315
27	#57 Roof			12	(120)
28	#58			6	(135)
29	#59			18	(105)
30	#60			12	(195)
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					

SURVEY RESULTS (DPM/100 CM SQ)

SWIP #'S	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/ GAMMA	TOTAL ALPHA (FRISK / 60 SEC COUNT)	TOT BET GAM
43					
44					
45					
46					
47					
48					
49					
50					
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					
61					
62					
63					

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 113 Exterior Unit 19

583 0 Inst Only

Meter Model: NE/Technology Electra w/ DP6 Probe

Bkgd (cpm): α 1 0 βγ 703 0 Ref Area

Serial # / Date Used: 1421 04-27-98

Cal Due Date: 09-30-98

Survey Type: [X] Alpha [X] Beta-Gamma

Efficiency (%): α 23 60 βγ 31 70

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity * (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	31	See Attached Map	<100	<750	7	466	6 0	-117 0	25 42	-369 09
2	32	See Attached Map	<100	<750	6	670	5 0	87 0	21 19	274 45
3	33	See Attached Map	<100	<750	4	435	3 0	-148 0	12 71	-466 88
4	34	See Attached Map	<100	<750	6	632	5 0	49 0	21 19	154 57
5	35	See Attached Map	<100	<750	2	487	1 0	-96 0	4 24	-302 84
6	36	See Attached Map	<100	<750	4	473	3 0	-110 0	12 71	-347 0
7	37	See Attached Map	<100	<750	9	637	8 0	54 0	33 90	170 35
8	38	See Attached Map	<100	<750	4	570	3 0	-13 0	12 71	-41 01
9	39	See Attached Map	<100	<750	6	654	5 0	71 0	21 19	223 97
10	40	See Attached Map	<100	<750	7	416	6 0	-167 0	25 42	-526 81
11	41	See Attached Map	<100	<750	2	712	1 0	129 0	4 24	406 94
12	42	See Attached Map	<100	<750	6	569	5 0	-14 0	21 19	-44 16
13	43	See Attached Map	<100	<750	8	612	7 0	29 0	29 66	91 48
14	44	See Attached Map	<100	<750	13	675	12 0	92 0	50 85	290 22
15	45	See Attached Map	<100	<750	4	408	3 0	-175 0	12 71	-552 05
16	46	See Attached Map	<100	<750	2	632	1 0	49 0	4 24	154 57
17	47	See Attached Map	<100	<750	14	558	13 0	-25 0	55 08	-78 86
18	48	See Attached Map	<100	<750	17	499	16 0	-84 0	67 80	-264 98
19	49	See Attached Map	<100	<750	8	530	7 0	-53 0	29 66	-167 19
20	50	See Attached Map	<100	<750	13	553	12 0	-30 0	50 85	-94 64
21	51	See Attached Map	<100	<750	14	469	13 0	-114 0	55 08	-359 62
22	52	See Attached Map	<100	<750	17	475	16 0	-108 0	67 80	-340 69
23	53	See Attached Map	<100	<750	8	668	7 0	85 0	29 66	268 14
24	54	See Attached Map	<100	<750	3	623	2 0	40 0	8 47	126 18
25	55	See Attached Map	<100	<750	5	703	4 0	120 0	16 95	378 55

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 113 Exterior Unit 19

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1421 04-27-98
Cal Due Date: 09-30-98
Efficiency (%): α 23 60 βγ 31 70

Bkgd (cpm): α 1 0 βγ 703 0 583 0 Inst Only Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 10%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity* (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
26	56	See Attached Map	<100	<750	1	688	0 0	105 0	0	331 23
27	57	See Attached Map	<100	<750	3	543	2 0	-40 0	8 47	-126 18
28	58	See Attached Map	<100	<750	2	538	1 0	-45 0	4 24	-141 96
29	59	See Attached Map	<100	<750	4	548	3 0	-35 0	12 71	-110 41
30	60	See Attached Map	<100	<750	3	518	2 0	-65 0	8 47	-205 05

* As noted in the executive summary, the DCGL for Survey Unit 19 is 5,000 dpm/100 cm² beta

R.W.
5-7-98

OXFR ECLIPSE LB
Printing Date 4/27/98
Print Time 12 49 14PM

Version 1 10
Report Name Gross Alpha Beta Analysis CPM DPM

Count Date 4/27/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name two minute D & D swipes - 199804271210

BLD 113 EXTERIOR WALLS

System Information

Serial No 38922 **Batch ID** 254

Detector S/N 758 Group A

Sample Information

Sample Units

Geometry Swipe/Smear 1/8"

Count Parameters

Count Mode Simultaneous

Operating Voltage 1,395 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract	Enable	
Background	0 07	1 27
Batch MDA (dpm)	α 5.97 dpm	β 8.63 dpm

Carrier ID	Swipe No *	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1	31	-0 07	-0 20	0 49	0 73	1 50	4 34	< MDA	< MDA
2	32	0 43	1 29	3 01	0 73	1 50	4 34	< MDA	< MDA
3	33	-0 07	-0 20	0 49	-1 27	-2 59	1 46	< MDA	< MDA
4	34	-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
5	35	-0 07	-0 20	0 49	0 73	1 50	4 34	< MDA	< MDA
6	36	-0 07	-0 20	0 49	1 23	2 52	4 80	< MDA	< MDA
7	37	-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
8	38	-0 07	-0 20	0 49	0 73	1 50	4 34	< MDA	< MDA
9	39	-0 07	-0 20	0 49	-0 27	-0 55	3 24	< MDA	< MDA
10	40	-0 07	-0 20	0 49	-0 77	-1 57	2 51	< MDA	< MDA
11	41	0 43	1 29	3 01	0 23	0 48	3 83	< MDA	< MDA
12	42	0 43	1 29	3 01	2 23	4 57	5 60	< MDA	
13	43	-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
14	44	-0 07	-0 20	0 49	2 73	5 59	5 97	< MDA	
15	45	-0 07	-0 20	0 49	-0 27	-0 55	3 24	< MDA	< MDA
16	46	-0 07	-0 20	0 49	-1 27	-2 59	1 46	< MDA	< MDA

* Swipe Numbering sequence starts at 31. RN
5-7-98

OXFR ECLIPSE LB

Printing Date 4/27/98

Print Time 1 41 27PM

Version 1 10

Report Name Gross Alpha Beta Analysis CPM DPM

Count Date **4/27/98**

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name **two minute D & D swipes - 199804271326**

113 Exterior roof

System Information

Serial No 38922 **Batch ID** **255**

Detector S/N 758 Group **A**

Sample Information

Sample Units

Geometry Swipe/Smear 1/8"

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 395 00

Time 2.00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract	Enable	
Background	0 07	1 27
Batch MDA (dpm)	α - 5.97	β - 8.63

	Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
17	~~1 47~~	47	0 43	1 29	3 01	1 23	2 52	4 80	< MDA	< MDA
18	~~2 48~~	48	0 43	1 29	3 01	1 23	2 52	4 80	< MDA	< MDA
19	~~3 49~~	49	-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
20	~~4 50~~	50	1 43	4 26	5 18	3 73	7 63	6 63		
21	~~5 51~~	51	-0 07	-0 20	0 49	0 23	0 48	3 83	< MDA	< MDA
22	~~6 52~~	52	-0 07	-0 20	0 49	5 23	10 70	7 52	< MDA	

OXFR ECLIPSE LB
Printing Date 4/28/98
Print Time 6 23 31AM

Version 1 10
Report Name Gross Alpha Beta Analysis CPM DPM

Count Date 4/27/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name two minute D & D swipes - 199804271920

Bldg 113 Ext

System Information

Serial No 38922 Batch ID 261

Detector S/N 758 Group B

Sample Information

Sample Units

Geometry Swipe/Smear 1/8"

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 395 00

Time 2 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract		Enable
Background	0 07	1 27
Batch MDA (dpm)	α 5.96	β 8.63

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
23 ~~60~~	North ~~South~~ Ext wall	0 43	1 29	3 01	0 23	0 48	3 83	< MDA	< MDA
24 ~~61~~	West Ext wall	-0 07	-0 20	0 49	-0 77	-1 57	2 51	< MDA	< MDA
25 ~~62~~	South ~~North~~ Ext wall	0 93	2 77	4 23	0 73	1 50	4 34	< MDA	< MDA
26 ~~63~~	East wall Ext	0 43	1 29	3 01	2 73	5 59	5 97	< MDA	
27 ~~64~~	Roof	-0 07	-0 20	0 49	-1 27	-2 59	1 46	< MDA	< MDA
28 ~~65~~	↓	0 43	1 29	3 01	1 23	2 52	4 80	< MDA	< MDA
29 ~~66~~	↓	-0 07	-0 20	0 49	-0 27	-0 55	3 24	< MDA	< MDA
30 ~~67~~	Roof	-0 07	-0 20	0 49	-0 27	-0 55	3 24	< MDA	< MDA

53 Thru 60

COPY

ELECTRA BACKGROUND LOG FOR RESURVEYS

Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D.A. (dpm/100 cm²) β
2396(1)	04-20-98	10-07-98	3.4	898 7	1018.7	23 90%	32 80%	47 21	433.26
1136(2)	04-20-98	06-19-98	1 4	597 6	717.6	23 60%	30 20%	34 80	385 37
2396(2)	04-20-98	10-07-98	3 9	929 6	1049 6	23 90%	32 80%	49 76	440 50
1249(3)	04-20-98	09-28-98	1 6	646 3	766 3	22 27%	35 20%	38 58	343.53
1136(3)	04-23-98	06-19-98	2 7	571	691	23 60%	30 20%	43 86	376.90
1569(4)	04-24-98	09-17-98	2.3	743	863	23 20%	33 20%	42 08	389.94
1569(2)	04-27-98	09-17-98	2	780 8	900 8	23 20%	33 20%	40.03	399 53
1383(4)	04-30-98	10-24-98	4 8	604.3	724.3	22 50%	32 80%	57 32	356.76
(1)	Survey Unit 9								
(2)	Survey Unit 10								
(3)	Survey Unit 9								
(4)	Survey Unit 6								

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #6 Grid 82 Resurvey

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1569 / 4-24-98
Cal Due Date: 09-17-98
Efficiency (%): α 23 20 βγ 33 20

Bkgd (cpm): α 2 3 βγ 863 0 Ref Area; 743 0 Inst. Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	5	916	2 7	53 0	11 64	159 64
2	2	See Attached Map	<100	<750	3	944	0 7	81 0	3 02	243 98
3	3	See Attached Map	<100	<750	6	958	3 7	95 0	15 95	286 14
4	4	See Attached Map	<100	<750	6	862	3 7	-1 0	15 95	-3 01
5	5	See Attached Map	<100	<750	5	940	2 7	77 0	11 64	231 93
6	6	See Attached Map	<100	<750	0	926	-2 3	63 0	-9 91	189 76
7	7	See Attached Map	<100	<750	0	891	-2 3	28 0	-9 91	84 34
8	8	See Attached Map	<100	<750	3	889	0 7	26 0	3 02	78 31
9	9	See Attached Map	<100	<750	4	881	1 7	18 0	7 33	54 22

Initial Survey Point:

Grid #82	See Attached Map	See Millineum Data	4	996	2 0	302 8	7 41	903 88

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 6, Grid #82) initially surveyed using the following instrument

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1181 / 3-29-98
Cal Due Date: 04-01-98
Efficiency (%): α 27 00 βγ 33 50

Bkgd (cpm): α 2 0 βγ 693 2 Ref Area; 573 2 Inst. Only

Survey Type: [X] Alpha [X] Beta-Gamma

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 6 GRID #- 82

RESURVEY OF THE ABOVE GRID

1 5.0 / 916	2 3.0 / 944	3 6.0 / 958
4 6.0 / 862	5 5.0 / 940	6 0.0 / 926
7 0.0 / 891	8 3.0 / 889	9 4.0 / 881

ELECTRA # 1569

CAL DUE DATE 9/17/98

ALPHA BKGD 2.3

BETA BKGD 863.0

RK 516830
4/24/98

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #6 Grid 242 Resurvey

						604 3	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	4 8	βγ	724 3	Ref Area
Serial # / Date Used	1383 / 4-30-98						
Cal Due Date	10-24-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 22 50	βγ 32 80					

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	4	464	-0 8	-260 3	-3 56	-793 60
2	2	See Attached Map	<100	<750	3	651	-1 8	-73 3	-8 0	-223 48
3	3	See Attached Map	<100	<750	2	657	-2 8	-67 3	-12 44	-205 18
4	4	See Attached Map	<100	<750	5	576	0 2	-148 3	89	-452 13
5	5	See Attached Map	<100	<750	5	614	0 2	-110 3	89	-336 28
6	6	See Attached Map	<100	<750	1	641	-3 8	-83 3	-16 89	-253 96
7	7	See Attached Map	<100	<750	7	636	2 2	-88 3	9 78	-269 21
8	8	See Attached Map	<100	<750	7	625	2 2	-99 3	9 78	-302 74
9	9	See Attached Map	<100	<750	5	672	0 2	-52 3	89	-159 45

Initial Survey Point.

Grid# 242	See Attached Map	<100	<750	2	928	0 7	223 7	3 06	766 10

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 6, Grid #242) initially surveyed using the following instrument

						584 3	Inst. Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	1 3	βγ	704 3	Ref Area
Serial # / Date Used	1402 / 3-29-98						
Cal Due Date	09-19-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 22 90	βγ 29 20					

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 6 GRID #- 242

RESURVEY OF THE ABOVE GRID

1 4/464	2 3/651	3 2/657
4 5/576	5 5/614	6 1/641
7 7/636	8 7/625	9 5/622

DK

ELECTRA # 1383

CAL DUE DATE 10/24/98

ALPHA BKGD (4.8) 4.8

BETA BKGD (604.3) 724.8

( ) - Denotes uncorrected Background.

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #9 Grid 60 Resurvey

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1136 / 4-23-98
Cal Due Date: 06-19-98
Efficiency (%): α 23 60 βγ 30 20

Bkgd (cpm): α 2 7 βγ 691 0 Ref Area; 571 0 Inst. Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	4	815	1 3	124 0	5 51	410 60
2	2	See Attached Map	<100	<750	0	822	-2 7	131 0	-11 44	433 77
3	3	See Attached Map	<100	<750	5	797	2 3	106 0	9 75	350 99
4	4	See Attached Map	<100	<750	4	788	1 3	97 0	5 51	321 19
5	5	See Attached Map	<100	<750	3	809	0 3	118 0	1 27	390 73
6	6	See Attached Map	<100	<750	2	849	-0 7	158 0	-2 97	523 18
7	7	See Attached Map	<100	<750	3	838	0 3	147 0	1 27	486 75
8	8	See Attached Map	<100	<750	0	768	-2 7	77 0	-11 44	254 97
9	9	See Attached Map	<100	<750	3	820	0 3	129 0	1 27	427 15

Initial Survey Point:

Grid #60	See Attached Map	<100	<750	9	1091	7 4	324 7	31 62	1071 62

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 9, Grid #60) initially surveyed using the following instrument

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 /2, 4/3, 4/4, 4/5, 4/9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 6 βγ 766 3 Ref Area; 646 3 Inst. Only

Survey Type: [X] Alpha [X] Beta-Gamma

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT # 9 GRID # 60

Resurvey of the above grid

1 4.0/815	2 0.0/822	3 5.0/797
4 4.0/788	5 3.0/809	6 2.0/849
7 3.0/838	8 0.0/768	9 3/820

Electra # 1136
Cal Due Date: 6.19.98
X Bkgd = 2.8 B Bkgd = 123.2

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #9 Grid 64 Resurvey

						571 0	Inst. Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	2 7	βγ	691 0	Ref Area
Serial # / Date Used	1136/ 4-23-98						
Cal Due Date	06-19-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 60	βγ 30 20					

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	1	791	-1 7	100 0	-7 20	331 13
2	2	See Attached Map	<100	<750	3	855	0 3	164 0	1 27	543 05
3	3	See Attached Map	<100	<750	6	733	3 3	42 0	13 98	139 07
4	4	See Attached Map	<100	<750	0	732	-2 7	41 0	-11 44	135 76
5	5	See Attached Map	<100	<750	4	770	1 3	79 0	5 51	261 59
6	6	See Attached Map	<100	<750	7	725	4 3	34 0	18 22	112 58
7	7	See Attached Map	<100	<750	7	760	4 3	69 0	18 22	228 48
8	8	See Attached Map	<100	<750	9	787	6 3	96 0	26 69	317 88
9	9	See Attached Map	<100	<750	3	737	0 3	46 0	1 27	152 32

Initial Survey Point:

Grid #64	See Attached Map	<100	<750	4	999	2 4	232 7	10 26	767 99

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 9, Grid #64) initially surveyed using the following instrument

						646 3	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	1 6	βγ	766 3	Ref Area
Serial # / Date Used	1392 /2, 4/3, 4/4, 4/5, 4/9 1998						
Cal Due Date	09-12-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 40	βγ 30 30					

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 9 **GRID #-** 64

RESURVEY OF THE ABOVE GRID

1 1.0 / 791	2 3.0 / 855	3 6.0 / 733
4 0.0 / 732	5 4.0 / 770	6 7.0 / 725
7 7.0 / 760	8 9.0 / 781	9 3.0 / 737

ELECTRA # 1136

CAL DUE DATE 6.1998

ALPHA BKGD 27

BETA BKGD 691.0

RLL 4/23/98
511 8:30

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #9 Grid 416 Resurvey

						571 0	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	2 7	βγ	691 0	Ref Area
Serial # / Date Used	1136 / 4-20-98						
Cal Due Date	06-19-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 60	βγ 30 20					

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	23	757	20 3	66 0	86 02	218 54
2	2	See Attached Map	<100	<750	15	757	12 3	66 0	52 12	218 54
3	3	See Attached Map	<100	<750	11	759	8 3	68 0	35 17	225 17
4	4	See Attached Map	<100	<750	16	758	13 3	67 0	56 36	221 85
5	5	See Attached Map	<100	<750	22	765	19 3	74 0	81 78	245 03
6	6	See Attached Map	<100	<750	13	804	10 3	113 0	43 64	374 17
7	7	See Attached Map	<100	<750	17	765	14 3	74 0	60 59	245 03
8	8	See Attached Map	<100	<750	7	701	4 3	10 0	18 22	33 11
9	9	See Attached Map	<100	<750	5	664	2 3	-27 0	9 75	-89 40

Initial Survey Point:

Grid #416	See Attached Map	<100	<750	25	758	23 7	117 7	102 60	405 86

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 9, Grid #416) initially surveyed using the following instrument

						520.3	Inst. Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	1 3	βγ	640 3	Ref Area
Serial # / Date Used	1277 4/3, 4/4, 4/5 1998						
Cal Due Date	06-09-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 10	βγ 29 00					

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 9 **GRID #-** 416

RESURVEY OF THE ABOVE GRID

1 23.0/751	2 15.0/757	3 11.0/759
4 16.0/758	5 22.0/765	6 13.0/804
7 17.0/765	8 7.0/701	9 5.0/664

ELECTRA # 1136

CAL DUE DATE 6.19.98

ALPHA BKGD 2.8

BETA BKGD 723.2

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #9 Grid 453 Resurvey

						571.0	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	2 7	βγ	691 0	Ref Area
Serial # / Date Used	1136/ 4-23-98						
Cal Due Date	06-19-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 60	βγ 30 20					

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	15	760	12 3	69 0	52 12	228 48
2	2	See Attached Map	<100	<750	16	802	13 3	111 0	56 36	367 55
3	3	See Attached Map	<100	<750	16	837	13 3	146 0	56 36	483 44
4	4	See Attached Map	<100	<750	15	882	12 3	191 0	52 12	632 45
5	5	See Attached Map	<100	<750	18	752	15 3	61 0	64 83	201 99
6	6	See Attached Map	<100	<750	23	757	20 3	66 0	86 02	218 54
7	7	See Attached Map	<100	<750	19	1009	16 3	318 0	69 07	1052 98
8	8	See Attached Map	<100	<750	12	847	9 3	156 0	39 41	516 56
9	9	See Attached Map	<100	<750	13	820	10 3	129 0	43 64	427 15

Initial Survey Point:

Grid #453	See Attached Map	<100	<750	30	1082	27 8	156 1	119 31	478 83

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 9, Grid #453) initially surveyed using the following instrument

						805 9	Inst. Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	2 2	βγ	925 9	Ref Area
Serial # / Date Used	1390 4/3, 4/4, 4/5 1998						
Cal Due Date	08-13-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 30	βγ 32 60					

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 9 **GRID #-** 453

RESURVEY OF THE ABOVE GRID

1 15.0/760	2 16.0/802	3 16.0/837
4 15.0/882	5 18.0/752	6 23.0/757
7 19/1009	8 12.0/847	9 13.0/820

ELECTRA # 1136

CAL DUE DATE 6.19.98

ALPHA BKGD 21

BETA BKGD 691.0

KA 516830
11/23/98

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #9 Grid 52 Resurvey

						646 3	Inst. Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	1 6	βγ	766 3	Ref Area
Serial # / Date Used	1249 / 4-20-98						
Cal Due Date	09-28-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 22 30	βγ 35 20					

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	4	868	2 4	101 7	10 76	288 92
2	2	See Attached Map	<100	<750	1	780	-0 6	13 7	-2 69	38 92
3	3	See Attached Map	<100	<750	5	832	3 4	65 7	15 25	186 65
4	4	See Attached Map	<100	<750	3	831	1 4	64 7	6 28	183 81
5	5	See Attached Map	<100	<750	1	835	-0 6	68 7	-2 69	195 17
6	6	See Attached Map	<100	<750	3	779	1 4	12 7	6 28	36 08
7	7	See Attached Map	<100	<750	2	782	0 4	15 7	1 79	44 60
8	8	See Attached Map	<100	<750	4	793	2 4	26 7	10 76	75 85
9	9	See Attached Map	<100	<750	5	793	3 4	26 7	15 25	75 85

Initial Survey Point:

Grid #52	See Attached Map	<100	<750	4	1044	2 4	277 7	10 26	916 50

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 9, Grid #52) initially surveyed using the following instrument

						646 3	Inst. Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	1 6	βγ	766 3	Ref Area
Serial # / Date Used	1392 /2, 4/3, 4/4, 4/5, 4/9 1998						
Cal Due Date	09-12-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 40	βγ 30 30					

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT # 9 GRID # 52 PK

Resurvey of the above grid
Gross Counts

1 4-A 868-B	2 1.0 780	3 5.0 832
4 3.0 831	5 1.0 835	6 3.0 779
7 2.0 782	8 4.0 793	9 5.0 793

Electra # 1249
Cal Due Date: 9.28.98
α Bkgd = 1.6 β Bkgd = ~~658.3~~ 646.3
4/29/98

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #9 Grid 260 Resurvey

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1249 / 4-20-98
Cal Due Date: 09-28-98
Efficiency (%): α 22 30 βγ 35 20

Bkgd (cpm): α 1 6 βγ 766 3 — 646 3 Inst Only, Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	1	See Attached Map	<100	<750	14	909	12 4	142 7	55 61	405 40
2	2	See Attached Map	<100	<750	18	922	16 4	155 7	73 54	442 33
3	3	See Attached Map	<100	<750	11	992	9 4	225 7	42 15	641 19
4	4	See Attached Map	<100	<750	17	876	15 4	109 7	69 06	311 65
5	5	See Attached Map	<100	<750	25	942	23 4	175 7	104 93	499 15
6	6	See Attached Map	<100	<750	22	945	20 4	178 7	91 48	507 67
7	7	See Attached Map	<100	<750	15	954	13 4	187 7	60 09	533 24
8	8	See Attached Map	<100	<750	21	867	19 4	100 7	87 0	286 08
9	9	See Attached Map	<100	<750	21	914	19 4	147 7	87 0	419 60

Initial Survey Point:

Grid #260	See Attached Map	<100	<750	29	1008	27 4	241 7	117 09	797 69

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 9, Grid #260) initially surveyed using the following instrument

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 4/3, 4/4, 4/5, 4/9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 6 βγ 766 3 — 646 3 Inst Only, Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT # 9 GRID # 260 PK

Resurvey of the above grid
Gross Count's

(1) 14.0 909	(2) 18.0 922	(3) 11.0 992
(6) 22.0 945	(5) 25.0 942	(4) 17.0 876
(7) 15.0 954	(8) 21.0 867	(9) 21.0 914

Electra # 1249
Cal Due Date: 9-28-98
α Bkgd = 1.6 β Bkgd = ~~658.3~~ 646.3
4/29/98

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #9 Grid 449 Resurvey

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1249 / 4-20-98
Cal Due Date: 09-28-98
Efficiency (%): α 22 30 βγ 35 20

Bkgd (cpm): α 1 6 βγ 766 3 Ref Area; 646 3 Inst. Only

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	18	908	16 4	141 7	73 54	402 56
2	2	See Attached Map	<100	<750	24	883	22 4	116 7	100 45	331 53
3	3	See Attached Map	<100	<750	26	854	24 4	87 7	109 42	249 15
4	4	See Attached Map	<100	<750	20	919	18 4	152 7	82 51	433 81
5	5	See Attached Map	<100	<750	17	904	15 4	137 7	69 06	391 19
6	6	See Attached Map	<100	<750	26	932	24 4	165 7	109 42	470 74
7	7	See Attached Map	<100	<750	28	878	26 4	111 7	118 39	317 33
8	8	See Attached Map	<100	<750	19	862	17 4	95 7	78 03	271 88
9	9	See Attached Map	<100	<750	11	899	9 4	132 7	42 15	376 99

Initial Survey Point:

Grid #449	See Attached Map	<100	<750	25	1085	23 7	444 7	102 60	1533 45

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 9, Grid #449) initially surveyed using the following instrument

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1277 4/3, 4/4, 4/5 1998
Cal Due Date: 06-09-98
Efficiency (%): α 23 10 βγ 29 00

Bkgd (cpm): α 1 3 βγ 640 3 Ref Area; 520 3 Inst. Only

Survey Type: [X] Alpha [X] Beta-Gamma

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 9 **GRID #-** 449

RESURVEY OF THE ABOVE GRID

Gross Count

1 18.0 908	2 24.0 883	3 26.0 854
6 26.0 932	5 17.0 904	4 20.0 919
7 28.0 878	8 19.0 862	9 11.0 899

ELECTRA # 1249

CAL DUE DATE 9-28-98

ALPHA BKGD 1.6

BETA BKGD ~~658.3~~ 646.3 Insl. only

4/29/98

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #9 Grid 451 Resurvey

						646 3	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	1 6	βγ	766 3	Ref Area
Serial # / Date Used	1249 / 4-20-98						
Cal Due Date	09-28-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 22 30	βγ 35 20					

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	13	843	11 4	76 7	51 12	217 90
2	2	See Attached Map	<100	<750	24	851	22 4	84 7	100 45	240 63
3	3	See Attached Map	<100	<750	18	855	16 4	88 7	73 54	251 99
4	4	See Attached Map	<100	<750	18	829	16 4	62 7	73 54	178 13
5	5	See Attached Map	<100	<750	7	805	5 4	38 7	24 22	109 94
6	6	See Attached Map	<100	<750	19	862	17 4	95 7	78 03	271 88
7	7	See Attached Map	<100	<750	13	908	11 4	141 7	51 12	402 56
8	8	See Attached Map	<100	<750	2	502	0 4	-264 3	1 79	-750 85
9	9	See Attached Map	<100	<750	19	843	17 4	76 7	78 03	217 90

Initial Survey Point:

Grid #451	See Attached Map	<100	<750	13	978	11 7	337 7	50 65	1164 48

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 9, Grid #451) initially surveyed using the following instrument

						520 3	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	1 3	βγ	640 3	Ref Area
Serial # / Date Used	1277 4/3, 4/4, 4/5 1998						
Cal Due Date	06-09-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 10	βγ 29 00					

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 9 **GRID #-** 451

Pre

RESURVEY OF THE ABOVE GRID

Gross Count

1. 13.0 843	2 24.0 851	3 18.0 855
6 19.0 862	5 7.0 805	4 18.0 829
7 13.0 908	8 2.0 502	9. 19.0 843

ELECTRA # 1249

CAL DUE DATE 9-28-98

ALPHA BKGD 1.6

BETA BKGD ~~658.3~~ 646.3 Inst. only

4/29/98

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #9 Grid 56 Resurvey

						898 7	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	3 4	βγ	1018 7	Ref Area
Serial # / Date Used	2396 / 4-20-98						
Cal Due Date	10-07-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 90	βγ 32 80					

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	2	1050	-1 4	31 3	-5 86	95 43
2	2	See Attached Map	<100	<750	2	1182	-1 4	163 3	-5 86	497 87
3	3	See Attached Map	<100	<750	1	1124	-2 4	105 3	-10 04	321 04
4	4	See Attached Map	<100	<750	6	1086	2 6	67 3	10 88	205 18
5	5	See Attached Map	<100	<750	1	1175	-2 4	156 3	-10 04	476 52
6	6	See Attached Map	<100	<750	2	1167	-1 4	148 3	-5 86	452 13
7	7	See Attached Map	<100	<750	4	1143	0 6	124 3	2 51	378 96
8	8	See Attached Map	<100	<750	4	1100	0 6	81 3	2 51	247 87
9	9	See Attached Map	<100	<750	1	1178	-2 4	159 3	-10 04	485 67

Initial Survey Point:

Grid #56	See Attached Map	<100	<750	7	1085	5 4	318 7	23 08	1051 82

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 9, Grid #56) initially surveyed using the following instrument

						646 3	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	1 6	βγ	766 3	Ref Area
Serial # / Date Used	1392 4/2, 4/3, 4/4, 4/5, 4/9 1998						
Cal Due Date	09-12-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 40	βγ 30 30					

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT # 9 GRID # 56

Resurvey of the above grid K Stovall

GROSS CPM

1 α β 2.0/1050	2 α β 2.0/1182	3 α β 1.0/1124
4 α β 6.0/1086	5 α β 1.0/1175	6 α β 2.0/1167
7 α β 4.0/1143	8 α β 4.0/1100	9 α β 1.0/1178

Electra # 2396
Cal Due Date: 10.7 98
α Bkgd = 3.4 β Bkgd = 1018.7

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #9 Grid 272 Resurvey

						898 7	Inst. Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	3 4	βγ	1018 7	Ref Area
Serial # / Date Used	2396 / 4-20-98						
Cal Due Date	10-07-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 90	βγ 32 80					

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	20	1176	16 6	157 3	69 46	479 57
2	2	See Attached Map	<100	<750	25	1156	21 6	137 3	90 38	418 60
3	3	See Attached Map	<100	<750	21	1158	17 6	139 3	73 64	424 70
4	4	See Attached Map	<100	<750	21	1180	17 6	161 3	73 64	491 77
5	5	See Attached Map	<100	<750	26	1130	22 6	111 3	94 56	339 33
6	6	See Attached Map	<100	<750	24	1105	20 6	86 3	86 19	263 11
7	7	See Attached Map	<100	<750	27	1164	23 6	145 3	98 74	442 99
8	8	See Attached Map	<100	<750	18	1137	14 6	118 3	61 09	360 67
9	9	See Attached Map	<100	<750	24	1154	20 6	135 3	86 19	412 50

Initial Survey Point:

Grid #272	See Attached Map	<100	<750	27	915	25 4	148 7	108 55	490 76

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 9, Grid #272) initially surveyed using the following instrument

						646 3	Inst. Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	1 6	βγ	766 3	Ref Area
Serial # / Date Used	1392 4/2, 4/3, 4/4, 4/5, 4/9 1998						
Cal Due Date	09-12-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 40	βγ 30 30					

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT # 9 GRID # 272

Resurvey of the above grid
K Stovall

GROSS CPM

1 α 20.0 / β 1176	2 α 25.0 / β 1156	3 α 21.0 / β 1158
4 α 21.0 / β 1180	5 α 26.0 / β 1130	6 α 24.0 / β 1165
7 α 27.0 / β 1164	8 α 18.0 / β 1137	9 α 24.0 / β 1154

Electra # 2396
Cal Due Date: 10-7-98
α Bkgd = 3.4 β Bkgd = 1018.7

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #9 Grid 460 Resurvey

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 2396 / 4-20-98
Cal Due Date: 10-07-98
Efficiency (%): α 23 90 βγ 32 80

Bkgd (cpm): α 3 4 βγ 1018 7 — 898.7 Inst. Only — Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	14	1065	10 6	46 3	44 35	141 16
2	2	See Attached Map	<100	<750	20	1108	16 6	89 3	69 46	272 26
3	3	See Attached Map	<100	<750	19	1063	15 6	44 3	65 27	135 06
4	4	See Attached Map	<100	<750	31	1103	27 6	84 3	115 48	257 01
5	5	See Attached Map	<100	<750	21	1135	17 6	116 3	73 64	354 57
6	6	See Attached Map	<100	<750	23	1117	19 6	98 3	82 01	299 70
7	7	See Attached Map	<100	<750	17	1151	13 6	132 3	56 90	403 35
8	8	See Attached Map	<100	<750	21	1154	17 6	135 3	73 64	412 50
9	9	See Attached Map	<100	<750	19	1128	15 6	109 3	65 27	333 23

Initial Survey Point:

Grid #460	See Attached Map	<100	<750	25	920	23 4	153 7	100 0	507 26

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 9, Grid #460) initially surveyed using the following instrument

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1392 4/2, 4/3, 4/4, 4/5, 4/9 1998
Cal Due Date: 09-12-98
Efficiency (%): α 23 40 βγ 30 30

Bkgd (cpm): α 1 6 βγ 766 3 — 646 3 Inst. Only — Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 9 **GRID #-** 460

RESURVEY OF THE ABOVE GRID

1 14.0/1065	2 20.0/1108	3 19.0/1063
4 31.0/1103	5 21.0/1135	6 23.0/1117
7 17.0/1151	8 21.0/1154	9 19.0/1128

ELECTRA # 2396

CAL DUE DATE 10.7.98

ALPHA BKGD 2.1

BETA BKGD 1011.5

Instrument 2396

516830
11/23/98

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #10 Grid 95 Resurvey

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1136 / 4-20-98
Cal Due Date: 06-19-98
Efficiency (%): α 23 60 βγ 30 20

Bkgd (cpm): α 1 4 βγ 717 6 — 597 6 Inst. Only, Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	1	See Attached Map	<100	<750	3	794	1 6	76 4	6 78	252 98
2	2	See Attached Map	<100	<750	4	850	2 6	132 4	11 02	438 41
3	3	See Attached Map	<100	<750	3	836	1 6	118 4	6 78	392 05
4	4	See Attached Map	<100	<750	1	820	-0 4	102 4	-1 69	339 07
5	5	See Attached Map	<100	<750	3	820	1 6	102 4	6 78	339 07
6	6	See Attached Map	<100	<750	1	840	-0 4	122 4	-1 69	405 30
7	7	See Attached Map	<100	<750	2	775	0 6	57 4	2 54	190 07
8	8	See Attached Map	<100	<750	2	843	0 6	125 4	2 54	415 23
9	9	See Attached Map	<100	<750	3	758	1 6	40 4	6 78	133 77

Initial Survey Point:

Grid #95	See Attached Map	See Millenium Data	38	1181	36 4	250 6	156 90	771 08

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 10, Grid #95) initially surveyed using the following instrument

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1569 3-31,4-1 1998
Cal Due Date: 09-17-98
Efficiency (%): α 23 20 βγ 32 50

Bkgd (cpm): α 1 6 βγ 930 4 — 810 4 Inst. Only, Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 10 GRID #- 95

RESURVEY OF THE ABOVE GRID

1 3/794	2 4/850	3 3/836
4 1/820	5 3/820	6 1/840
7 2/775	8 2/843	9 3/758

ELECTRA # 1136

CAL DUE DATE 6-19-98

ALPHA BKGD 1.4 cpm

BETA BKGD 717.6 cpm

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #10 Grid 119 Resurvey

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1136 / 4-20-98
Cal Due Date: 06-19-98
Efficiency (%): α 23 60 βγ 30 20

Bkgd (cpm): α 1 4 βγ 717 6 — 597.6 Inst. Only — Ref Area

Survey Type: [x] Alpha [x] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	1	See Attached Map	<100	<750	1	637	-0 4	-80 6	-1 69	-266 89
2	2	See Attached Map	<100	<750	3	796	1 6	78 4	6 78	259 60
3	3	See Attached Map	<100	<750	1	793	-0 4	75 4	-1 69	249 67
4	4	See Attached Map	<100	<750	8	800	6 6	82 4	27 97	272 85
5	5	See Attached Map	<100	<750	1	871	-0 4	153 4	-1 69	507 95
6	6	See Attached Map	<100	<750	1	827	-0 4	109 4	-1 69	362 25
7	7	See Attached Map	<100	<750	6	807	4 6	89 4	19 49	296 03
8	8	See Attached Map	<100	<750	6	770	4 6	52 4	19 49	173 51
9	9	See Attached Map	<100	<750	1	789	-0 4	71 4	-1 69	236 42

Initial Survey Point:

Grid #119	See Attached Map	<100	<750	20	1210	18 4	279 6	79 31	860 31

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 10, Grid #119) initially surveyed using the following instrument

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1569 3-31,4-1 1998
Cal Due Date: 09-17-98
Efficiency (%): α 23 20 βγ 32 50

Bkgd (cpm): α 1 6 βγ 930 4 — 810 4 Inst. Only — Ref Area

Survey Type: [x] Alpha [x] Beta-Gamma

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 10 GRID #- 119

RESURVEY OF THE ABOVE GRID

1 1/637	2 3/796	3 1/793
4 8/800	5 1/871	6 1/827
7 6/807	8 6/770	9 1/789

ELECTRA # 1136

CAL DUE DATE 6·19·98

ALPHA BKGD 1.4 cpm

BETA BKGD 717.6 cpm

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #10 Grid 380 Resurvey

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 2396 / 4-20-98
Cal Due Date: 10-07-98
Efficiency (%): α 23 90 βγ 32 80

Bkgd (cpm): α 3 9 βγ 1049 6 — 929 6 Inst Only, Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	1	See Attached Map	<100	<750	2	1148	-1 9	98 4	-7 95	300 0
2	2	See Attached Map	<100	<750	3	1142	-0 9	92 4	-3 77	281 71
3	3	See Attached Map	<100	<750	3	1140	-0 9	90 4	-3 77	275 61
4	4	See Attached Map	<100	<750	3	1179	-0 9	129 4	-3 77	394 51
5	5	See Attached Map	<100	<750	4	1243	0 1	193 4	42	589 63
6	6	See Attached Map	<100	<750	1	1182	-2 9	132 4	-12 13	403 66
7	7	See Attached Map	<100	<750	4	1206	0 1	156 4	42	476 83
8	8	See Attached Map	<100	<750	9	1200	5 1	150 4	21 34	458 54
9	9	See Attached Map	<100	<750	6	1179	2 1	129 4	8 79	394 51

Initial Survey Point:

Grid #380	See Attached Map	<100	<750	4	907	1 6	226 7	6 78	750 66

Mean Total Activity calculations found in back of Re-Survey Section

NOTE Re-survey Point #5 (Unit 10, Grid #380) initially surveyed using the following instrument

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1136 04-17-98
Cal Due Date: 06-19-98
Efficiency (%): α 23 60 βγ 30 20

Bkgd (cpm): α 2 4 βγ 680 3 — 560 3 Inst. Only, Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 10 GRID #- 380

RESURVEY OF THE ABOVE GRID

1 2/1148	2 3/1142	3 3/1140
4 3/1179	5 4/1243	6 1/1182
7 4/1206	8 9/1200	9 6/1179

ELECTRA # 2396

CAL DUE DATE 10.7.98

ALPHA BKGD 3.9 cpm

BETA BKGD 1049.6.

Post-Job Resurveys:
Re-surveys of Post-Job Survey Points

(See Post-Job Survey Section for initial activities)

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #10, Grid 199 Post-job Resurvey

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1569 04-27-98
Cal Due Date: 09-17-98
Efficiency (%): α 23 20 βγ 33 20

Bkgd (cpm): α 2 0 βγ 900 8 — 780 8 Inst Only — Ref Area

Survey Type: [x] Alpha [x] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	1	See Attached Map	<100	<750	3	1046	1 0	145 2	4 31	437 35
2	2	See Attached Map	<100	<750	3	984	1 0	83 2	4 31	250 60
3	3	See Attached Map	<100	<750	6	1008	4 0	107 2	17 24	322 89
4	4	See Attached Map	<100	<750	4	955	2 0	54 2	8 62	163 25
5	5	See Attached Map	<100	<750	2	1010	0 0	109 2	0 00	328 92
6	6	See Attached Map	<100	<750	4	1105	2 0	204 2	8 62	615 06
7	7	See Attached Map	<100	<750	5	1062	3 0	161 2	12 93	485 54
8	8	See Attached Map	<100	<750	3	1078	1 0	177 2	4 31	533 73
9	9	See Attached Map	<100	<750	3	967	1 0	66 2	4 31	199 40

Post-Job Survey Point:

Grid #199	See Attached Map	<100	<750	2	1053	0	246 7	0 00	847 77

Mean Total Activity calculations found in back of Re-Survey Section

Post-job survey point resurveyed after Unit #10 tent/scabbling activities Initial survey point located in the Post-Job Survey section

NOTE Post-job Survey Point #5 (Unit 10, Grid #199) initially surveyed using the following instrument

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1536 04-25-98
Cal Due Date: 06-10-98
Efficiency (%): α 22 50 βγ 29 10

Bkgd (cpm): α 2 0 βγ 806 3 — 686 3 Inst Only

Survey Type: [x] Alpha [x] Beta-Gamma

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 10 **GRID #-** 199

RESURVEY OF THE ABOVE GRID

ALL READINGS LISTED IN GROSS CPM

3.0 1046	3.0 984	6.0 1008
4.0 955	2.0 1010	4.0 1105
5.0 1062	3.0 1078	3.0 967

N

ELECTRA # 1569

CAL DUE DATE 9-17-98

ALPHA BKGD 20 cpm

BETA BKGD 900.8 cpm

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #10, Grid 212 Post-job Resurvey

Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α 2 0	βγ 900 8	780 8	Inst. Only
Serial # / Date Used	1569 04-27-98					Ref Area
Cal Due Date	09-17-98	Survey Type	[X] Alpha	[X] Beta-Gamma		
Efficiency (%)	α 23 20 βγ 33 20					

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	4	1081	2 0	180 2	8 62	542 77
2	2	See Attached Map	<100	<750	7	960	5 0	59 2	21 55	178 31
3	3	See Attached Map	<100	<750	2	1028	0 0	127 2	0 00	383 13
4	4	See Attached Map	<100	<750	2	1012	0 0	111 2	0 00	334 94
5	5	See Attached Map	<100	<750	1	1088	-1 0	187 2	-4 31	563 86
6	6	See Attached Map	<100	<750	1	1040	-1 0	139 2	-4 31	419 28
7	7	See Attached Map	<100	<750	3	1028	1 0	127 2	4 31	383 13
8	8	See Attached Map	<100	<750	3	1038	1 0	137 2	4 31	413 25
9	9	See Attached Map	<100	<750	1	1048	-1 0	147 2	-4 31	443 37

Post-Job Survey Point:

Grid #212	See Attached Map	<100	<750	5	1120	3 0	313 7	13 33	1078 01

Mean Total Activity calculations found in back of Re-Survey Section

Post-job survey point resurveyed after Unit #10 tent/scabbling activities Initial survey point located in the Post-Job Survey section

NOTE Post-job Survey Point #5 (Unit 10, Grid #212) initially surveyed using the following instrument

Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α 2 0	βγ 806 3	686 3	Inst Only
Serial # / Date Used	1536 04-25-98					
Cal Due Date	06-10-98	Survey Type	[X] Alpha	[X] Beta-Gamma		
Efficiency (%)	α 22 50 βγ 29 10					

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 10 GRID #- 212

RESURVEY OF THE ABOVE GRID

ALL READINGS LISTED IN GROSS CPM

4.0 1081	7.0 960	2.0 1028
2.0 1012	1.0 1088	1.0 1040
3.0 1028	3.0 1038	1.0 1048

N

ELECTRA # 1569

CAL DUE DATE 9-17-98

ALPHA BKGD 2.0 cpm

BETA BKGD 900.8 cpm

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #10, Grid 221 Post-job Resurvey

						780 8	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	2 0	βγ	900 8	Ref Area
Serial # / Date Used	1569 04-27-98						
Cal Due Date	09-17-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 20 βγ 33 20						

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	1	1023	-1 0	122 2	-4 31	368 07
2	2	See Attached Map	<100	<750	1	1062	-1 0	161 2	-4 31	485 54
3	3	See Attached Map	<100	<750	6	980	4 0	79 2	17 24	238 55
4	4	See Attached Map	<100	<750	0	1016	-2 0	115 2	-8 62	346 99
5	5	See Attached Map	<100	<750	4	1096	2 0	195 2	8 62	587 95
6	6	See Attached Map	<100	<750	2	1118	0 0	217 2	0 00	654 22
7	7	See Attached Map	<100	<750	1	1031	-1 0	130 2	-4 31	392 17
8	8	See Attached Map	<100	<750	2	1052	0 0	151 2	0 00	455 42
9	9	See Attached Map	<100	<750	2	1087	0 0	186 2	0 00	560 84

Post-Job Survey Point:

Grid #221	See Attached Map	<100	<750	5	1120	3 0	313 7	13 33	1078 01

Mean Total Activity calculations found in back of Re-Survey Section

Post-job survey point resurveyed after Unit #10 tent/scabbling activities Initial survey point located in the Post-Job Survey section

NOTE Post-job Survey Point #5 (Unit 10, Grid #221) initially surveyed using the following instrument

						686 3	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	2 0	βγ	806 3	
Serial # / Date Used	1536 04-25-98						
Cal Due Date	06-10-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 22 50 βγ 29 10						

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 10 **GRID #-** 221

RESURVEY OF THE ABOVE GRID

ALL READINGS LISTED IN GROSS CPM

N ↑

1.0 1023	1.0 1062	6.0 986
0.0 1016	4.0 1096	2.0 1118
1.0 1031	2.0 1052	2.0 1087

ELECTRA # 1569

CAL DUE DATE 9-17-98

ALPHA BKGD 2.0 cpm

BETA BKGD 900.8 cpm

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #10, Grid 234 Post-job Resurvey

Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α 2 0	βγ 900 8	780 8	Inst Only
Serial # / Date Used	1569 04-27-98					Ref Area
Cal Due Date	09-17-98	Survey Type	[X] Alpha	[X] Beta-Gamma		
Efficiency (%)	α 23 20 βγ 33 20					

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	3	1060	1 0	159 2	4 31	479 52
2	2	See Attached Map	<100	<750	1	1049	-1 0	148 2	-4 31	446 39
3	3	See Attached Map	<100	<750	1	1141	-1 0	240 2	-4 31	723 49
4	4	See Attached Map	<100	<750	1	1089	-1 0	188 2	-4 31	566 87
5	5	See Attached Map	<100	<750	1	1013	-1 0	112 2	-4 31	337 95
6	6	See Attached Map	<100	<750	3	1118	1 0	217 2	4 31	654 22
7	7	See Attached Map	<100	<750	1	1007	-1 0	106 2	-4 31	319 88
8	8	See Attached Map	<100	<750	5	966	3 0	65 2	12 93	196 39
9	9	See Attached Map	<100	<750	3	1094	1 0	193 2	4 31	581 93

Post-Job Survey Point:

Grid #234	See Attached Map	<100	<750	0	1033	-2 0	226 7	-8 89	779 04

Mean Total Activity calculations found in back of Re-Survey Section

Post-job survey point resurveyed after Unit #10 tent/scabbling activities Initial survey point located in the Post-Job Survey section

NOTE Post-job Survey Point #5 (Unit 10, Grid #234) initially surveyed using the following instrument

Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α 2 0	βγ 806 3	686 3	Inst Only
Serial # / Date Used	1536 04-25-98					
Cal Due Date	06-10-98	Survey Type	[X] Alpha	[X] Beta-Gamma		
Efficiency (%)	α 22 50 βγ 29 10					

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 10 **GRID #-** 234

RESURVEY OF THE ABOVE GRID

ALL READINGS LISTED IN GROSS CPM

N

3.0 1060	1.0 1049	1.0 1141
1.0 1089	1.0 1013	3.0 1118
1.0 1007	5.0 966	3.0 1094

ELECTRA # 1569

CAL DUE DATE 9-17-98

ALPHA BKGD 2.0 cpm

BETA BKGD 900.8 cpm

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #10, Grid 237 Post-job Resurvey

						780 8	Inst. Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	2 0	βγ	900 8	Ref Area
Serial # / Date Used	1569 04-27-98						
Cal Due Date	09-17-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 20 βγ 33 20						

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	1	1020	-1 0	119 2	-4 31	359 04
2	2	See Attached Map	<100	<750	1	1025	-1 0	124 2	-4 31	374 10
3	3	See Attached Map	<100	<750	2	1041	0 0	140 2	0 00	422 29
4	4	See Attached Map	<100	<750	3	1040	1 0	139 2	4 31	419 28
5	5	See Attached Map	<100	<750	3	1086	1 0	185 2	4 31	557 83
6	6	See Attached Map	<100	<750	5	1037	3 0	136 2	12 93	410 24
7	7	See Attached Map	<100	<750	1	1088	-1 0	187 2	-4 31	563 86
8	8	See Attached Map	<100	<750	4	1057	2 0	156 2	8 62	470 48
9	9	See Attached Map	<100	<750	2	1029	0 0	128 2	0 00	391 80

Post-Job Survey Point:

Grid #237	See Attached Map	<100	<750	3	1106	1 0	299 7	4 44	1029 90

Mean Total Activity calculations found in back of Re-Survey Section

Post-job survey point resurveyed after Unit #10 tent/scabbling activities Initial survey point located in the Post-Job Survey section

NOTE Post-job Survey Point #5 (Unit 10, Grid #237) initially surveyed using the following instrument

						686 3	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	2 0	βγ	806 3	
Serial # / Date Used	1536 04-25-98						
Cal Due Date	06-10-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 22 50 βγ 29 10						

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 10 GRID #- 237

RESURVEY OF THE ABOVE GRID

ALL READINGS LISTED IN GROSS CPM

1.0 1020	1.0 1025	2.0 1041
3.0 1040	3.0 1086	5.0 1037
1.0 1088	4.0 1057	2.0 1029

N

COPY

ELECTRA # 1569

CAL DUE DATE 9-17-98

ALPHA BKGD 2.0 cpm

BETA BKGD 900.8 cpm

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #10, Grid 247 Post-job Resurvey

						780 8	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	2 0	βγ	900 8	Ref Area
Serial # / Date Used	1569 04-27-98						
Cal Due Date	09-17-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 20 βγ 33 20						

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			a	b,g	a	b,g	a	b,g	a	b,g
1	1	See Attached Map	<100	<750	1	1028	-1 0	127 2	-4 31	383 13
2	2	See Attached Map	<100	<750	2	1036	0 0	135 2	0 00	407 23
3	3	See Attached Map	<100	<750	8	1070	6 0	169 2	25 86	509 64
4	4	See Attached Map	<100	<750	2	1054	0 0	153 2	0 00	461 45
5	5	See Attached Map	<100	<750	2	1011	0 0	110 2	0 00	331 93
6	6	See Attached Map	<100	<750	3	1098	1 0	197 2	4 31	593 98
7	7	See Attached Map	<100	<750	0	1063	-2 0	162 2	-8 62	488 55
8	8	See Attached Map	<100	<750	1	1097	-1 0	196 2	-4 31	590 96
9	9	See Attached Map	<100	<750	2	1088	0 0	187 2	0 00	391 80

Post-Job Survey Point:

Grid #247	See Attached Map	<100	<750	4	1133	2 0	326 7	8 89	1122 68

Mean Total Activity calculations found in back of Re-Survey Section

Post-job survey point resurveyed after Unit #10 tent/scabbling activities Initial survey point located in the Post-Job Survey section

NOTE Post-job Survey Point #5 (Unit 10, Grid #247) initially surveyed using the following instrument

						686 3	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	2 0	βγ	806 3	
Serial # / Date Used	1536 04-25-98						
Cal Due Date	06-10-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 22 50 βγ 29 10						

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 10 GRID #- 247

RESURVEY OF THE ABOVE GRID

ALL READINGS LISTED IN GROSS CPM

1.0 1028	2.0 1036	8.0 1070
2.0 1054	2.0 1011	3.0 1098
0.0 1063	1.0 1097	2.0 1088

N

ELECTRA # 1569

CAL DUE DATE 9-17-98

ALPHA BKGD 2.0 cpm

BETA BKGD 900.8 cpm

COPY

COPY

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit #10, Grid 250 Post-job Resurvey

						780 8	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	2 0	βγ	900 8	Ref Area
Serial # / Date Used	1569 04-27-98						
Cal Due Date	09-17-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 23 20 βγ 33 20						

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	2	1101	0 0	200 2	0 00	603 01
2	2	See Attached Map	<100	<750	1	1042	-1 0	141 2	-4 31	425 30
3	3	See Attached Map	<100	<750	0	1087	-2 0	186 2	-8 62	560 84
4	4	See Attached Map	<100	<750	4	1057	2 0	156 2	8 62	470 48
5	5	See Attached Map	<100	<750	4	1111	2 0	210 2	8 62	633 13
6	6	See Attached Map	<100	<750	0	1063	-2 0	162 2	-8 62	488 55
7	7	See Attached Map	<100	<750	1	1073	-1 0	172 2	-4 31	518 67
8	8	See Attached Map	<100	<750	4	1108	2 0	207 2	8 62	624 10
9	9	See Attached Map	<100	<750	1	1093	-1 0	192 2	-4 31	391 80

Post-Job Survey Point:

Grid #250	See Attached Map	<100	<750	6	1119	4	313	17 78	1074 57

Mean Total Activity calculations found in back of Re-Survey Section

Post-job survey point resurveyed after Unit #10 tent/scabbling activities Initial survey point located in the Post-Job Survey section

NOTE Post-job Survey Point #5 (Unit 10, Grid #250) initially surveyed using the following instrument

						686 3	Inst Only
Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α	2 0	βγ	806 3	
Serial # / Date Used	1536 04-25-98						
Cal Due Date	06-10-98	Survey Type	[X]	Alpha	[X]	Beta-Gamma	
Efficiency (%)	α 22 50 βγ 29 10						

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

UNIT #- 10 **GRID #-** 250

RESURVEY OF THE ABOVE GRID

ALL READINGS LISTED IN GROSS CPM

2.0 1101	1.0 1042	0.0 1087
4.0 1057	4.0 1111	0 0 1063
1.0 1073	4.0 1108	1.0 1093

N

ELECTRA # 1569

CAL DUE DATE 9-17-98

ALPHA BKGD 2.0 cpm

BETA BKGD 900.8 cpm

COPY

RESURVEY STATISTICS

Reviewer _____ 5-7-98
Signature Date

Reviewer _____ 5-7-98
Signature Date

Unit 6, Grid 82 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	11 64	159 64
2	2	3 02	243 98
3	3	15 95	286 14
4	4	15 95	-3 01
5	5 (#82)	7 41	903 88
6	6	-9 91	189 76
7	7	-9 91	84 34
8	8	3 02	78 31
9	9	7 33	54 22
	MEAN	4 94182	221 91712

Unit 6, Grid 242 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	-3 56	-793 60
2	2	-8 00	-223 48
3	3	-12 44	-205 18
4	4	0 89	-452 13
5	5 (#242)	3 06	766 10
6	6	-16 89	-253 96
7	7	9 78	-269 21
8	8	9 78	-302 74
9	9	0 89	-159 45
	MEAN	-1 83320	-210 40669

Unit 9, Grid 60 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	5 08	303 97
2	2	-11 86	327 15
3	3	9 32	244 37
4	4	5 08	214 57
5	5 (#60)	31 62	1071 62
6	6	-3 39	416 56
7	7	0 85	380 13
8	8	-11 86	148 34
9	9	0 85	320 53
	MEAN	2 85464	380 80514

Unit 9, Grid 64 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	-7 20	331 13
2	2	1 27	543 05
3	3	13 98	139 07
4	4	-11 44	135 76
5	5 (#64)	10 26	767 99
6	6	18 22	112 58
7	7	18 22	228 48
8	8	26 69	317 88
9	9	1 27	152 32
	MEAN	7 91926	303 13908

Unit 9, Grid 52 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	10 76	288 92
2	2	-2 69	38 92
3	3	15 25	186 65
4	4	6 28	183 81
5	5 (#52)	10 26	916 50
6	6	6 28	36 08
7	7	1 79	44 60
8	8	10 76	75 85
9	9	15 25	75 85
	MEAN	8 21484	205 24261

Unit 9, Grid 260 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	55 61	405 40
2	2	73 54	442 33
3	3	42 15	641 19
4	4	69 06	311 65
5	5 (#260)	117 09	797 69
6	6	91 48	507 67
7	7	60 09	533 24
8	8	87 00	286 08
9	9	87 00	419 60
	MEAN	75 89037	482 76098

Unit 9, Grid 56 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	-5 86	95 43
2	2	-5 86	497 87
3	3	-10 04	321 04
4	4	10 88	205 18
5	5 (#56)	23 08	1051 82
6	6	-5 86	452 13
7	7	2 51	378 96
8	8	2 51	247 87
9	9	-10 04	485 67
	MEAN	0 14662	415 10684

Unit 9, Grid 272 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	69 46	479 57
2	2	90 38	418 60
3	3	73 64	424 70
4	4	73 64	491 77
5	5 (#272)	108 55	490 76
6	6	86 19	263 11
7	7	98 74	442 99
8	8	61 09	360 67
9	9	86 19	412 50
	MEAN	83 09751	420 51795

Unit 9, Grid 460 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	49 79	163 11
2	2	74 90	294 21
3	3	70 71	157 01
4	4	120 92	278 96
5	5 (#460)	100 00	507 26
6	6	87 45	321 65
7	7	62 34	425 30
8	8	79 08	434 45
9	9	70 71	355 18
	MEAN	79 54440	326 34875

Unit 9, Grid 449 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	73 54	402 56
2	2	100 45	331 53
3	3	109 42	249 15
4	4	82 51	433 81
5	5 (#449)	102 60	1533 45
6	6	109 42	470 74
7	7	118 39	317 33
8	8	78 03	271 88
9	9	42 15	376 99
	MEAN	90 72208	487 49173

Unit 9, Grid 451 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	51 12	217 90
2	2	100 45	240 63
3	3	73 54	251 99
4	4	73 54	178 13
5	5 (#451)	50 65	1164 48
6	6	78 03	271 88
7	7	51 12	402 56
8	8	1 79	-750 85
9	9	78 03	217 90
	MEAN	62 03030	243 84404

Unit 9, Grid 416 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	85 59	111 92
2	2	51 69	111 92
3	3	34 75	118 54
4	4	55 93	115 23
5	5 (#416)	102 60	405 86
6	6	43 22	267 55
7	7	60 17	138 41
8	8	17 80	-73 51
9	9	9 32	-196 03
	MEAN	51 23022	111 10020

Unit 9, Grid 453 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	52 12	228 48
2	2	56 36	367 55
3	3	56 36	483 44
4	4	52 12	632 45
5	5 (#453)	119 31	478 83
6	6	86 02	218 54
7	7	69 07	1052 98
8	8	39 41	516 56
9	9	43 64	427 15
	MEAN	63 82201	489 55407

Unit 10, Grid 95 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	6 69	252 98
2	2	10 88	438 41
3	3	6 69	392 05
4	4	-1 67	339 07
5	5 (#95)	156 90	771 08
6	6	-1 67	405 30
7	7	2 51	190 07
8	8	2 51	415 23
9	9	6 69	133 77
	MEAN	21 05917	370 88493

Unit 10, Grid 119 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	-1 67	-266 89
2	2	6 69	259 60
3	3	-1 67	249 67
4	4	27 62	272 85
5	5 (#119)	79 31	860 31
6	6	-1 67	362 25
7	7	19 25	296 03
8	8	19 25	173 51
9	9	-1 67	236 42
	MEAN	16 15768	271 52793

Unit 10, Grid 380 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	-7 95	300 00
2	2	-3 77	281 71
3	3	-3 77	275 61
4	4	-3 77	394 51
5	5 (#406)	6 78	750 66
6	6	-12 13	403 66
7	7	0 42	476 83
8	8	21 34	458 54
9	9	8 79	394 51
	MEAN	0 66032	415 11423

Post-Job Re-Survey

Unit 10, Grid 199 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	4 31	437 35
2	2	4 31	250 60
3	3	17 24	322 89
4	4	8 62	163 25
5	5 (#199)	0 00	847 77
6	6	8 62	615 06
7	7	12 93	485 54
8	8	4 31	533 73
9	9	4 31	199 40
	MEAN	7 18391	428 40015

Post-Job Re-Survey

Unit 10, Grid 212 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	8 62	542 77
2	2	21 55	178 31
3	3	0 00	383 13
4	4	0 00	334 94
5	5 (#212)	13 33	1078 01
6	6	-4 31	419 28
7	7	4 31	383 13
8	8	4 31	413 25
9	9	-4 31	443 37
	MEAN	4 83360	464 02253

Post-Job Re-Survey

Unit 10, Grid 221 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	-4 31	368 07
2	2	-4 31	485 54
3	3	17 24	238 55
4	4	-8 62	346 99
5	5 (#221)	13 33	1078 01
6	6	0 00	654 22
7	7	-4 31	392 17
8	8	0 00	455 42
9	9	0 00	560 84
	MEAN	1 00218	508 86858

Post-Job Re-Survey
Unit 10, Grid 234 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	4 31	479 52
2	2	-4 31	446 39
3	3	-4 31	723 49
4	4	-4 31	566 87
5	5 (#234)	-8 89	779 04
6	6	4 31	654 22
7	7	-4 31	319 88
8	8	12 93	196 39
9	9	4 31	581 93
	MEAN	-0 02992	527 52386

Post-Job Re-Survey
Unit 10, Grid 237 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	-4 31	359 04
2	2	-4 31	374 10
3	3	0 00	422 29
4	4	4 31	419 28
5	5 (#237)	4 44	1029 90
6	6	12 93	410 24
7	7	-4 31	563 86
8	8	8 62	470 48
9	9	0 00	391 80
	MEAN	1 93011	493 44190

Post-Job Re-Survey
Unit 10, Grid 247 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	-4 31	383 13
2	2	0 00	407 23
3	3	25 86	509 64
4	4	0 00	461 45
5	5 (#247)	8 89	1122 68
6	6	4 31	593 98
7	7	-8 62	488 55
8	8	-4 31	590 96
9	9	0 00	391 80
	MEAN	2 42456	549 93553

Post-Job Re-Survey
Unit 10, Grid 250 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	0 00	603 01
2	2	-4 31	425 30
3	3	-8 62	560 84
4	4	8 62	470 48
5	5 (#250)	17 78	1074 57
6	6	-8 62	488 55
7	7	-4 31	518 67
8	8	8 62	624 10
9	9	-4 31	391 80
	MEAN	0 53877	573 03710

SRA RESURVEYS:

Resurveys of Elevated Areas
As Indicated by SRA Survey Results

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 North/West Wing - Unit #6 Grid 137 Resurvey

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1653 / 5-5-98
Cal Due Date: 10-06-98
Efficiency (%): α 23 60 βγ 30 60

Bkgd (cpm): α 2 8 βγ 830 1 (710.1 Inst. Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	Grid#137 (1)	See Attached Map	<100	<750	2	893	-0 8	62 9	-3 39	205 56
2	Grid#137 (2)	See Attached Map	<100	<750	1	918	-1 8	87 9	-7 63	287 25
3	Grid#137 (3)	See Attached Map	<100	<750	0	890	-2 8	59 9	-11 86	195 75
4	Grid#137 (4)	See Attached Map	<100	<750	37	837	34 2	6 9	144 92	22 55
5	Grid#137 (5)	See Attached Map	<100	<750	3	874	0 2	43 9	85	143 46
6	Grid#137 (6)	See Attached Map	<100	<750	2	891	-0 8	60 9	-3 39	199 02
7	Grid#136 (1)	See Attached Map	<100	<750	3	901	0 2	70 9	85	231 70
8	Grid#136 (2)	See Attached Map	<100	<750	10	929	7 2	98 9	30 51	323 20
9	Grid#136 (3)	See Attached Map	<100	<750	4	865	1 2	34 9	5 08	114 05

Initial Survey Point:

Grid #137	See Attached Map	See Millineum Data	NA	NA	NA	NA	see below	NA

Mean Total Activity located at the end of this section

NOTE Re-survey Point #5 (Unit 6, Grid #137) initially surveyed by

ALPHA ACTIVITIES

RCT Survey: Survey Unit #6, Grid 137 — 208 dpm/100 cm^2 (used for mean activity calculation)

Millenium/Shonka: Shonka Grid (3,7) - Survey Area RF12301A — 379 dpm/100 cm^2

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

Copy

UNIT #- 6 GRID #- SEE BELOW

RESURVEY OF THE ABOVE GRID

GRID 137 #1 2.0 α 893 β	GRID 137 #2 1.0 α 918 β	GRID 136 #1 3.0 α 901 β
GRID 137 #3 0.0 α 890 β	GRID 137 #4 (original HOTSPOT) 37.0 α 837 β	GRID 136 #2 10.0 α 829 β
GRID ~~#~~ 137 #5 3.0 α 874 β	GRID #137 #6 2.0 α 891 β	GRID 136 #3 4.0 α 865 β

ELECTRA # 1653

CAL DUE DATE 10.6.98

ALPHA BKGD 2.8

BETA BKGD 722.1

5/5/98
R Atkinson

Shonka/Millenium Resurvey

Unit 6, Grid 137 Mean Activities

n	survey point	Alpha Activity (dpm/100 cm2)	Beta Activity (dpm/100 cm2)
1	1	-3 39	205 56
2	2	-7 63	287 25
3	3	-11 86	195 75
4	4	144 92	22 55
5	5 (#137)[a]	208 00	143 46
6	6	-3 39	199 02
7	7	0 85	231 70
8	8	30 51	323 20
9	9	5 08	114 05
	MEAN	40 34275	191 39434

[a] RCT survey data used for initial activity

Analyzer _____ 5-8-98
Radiological Engineer Date

Peer Review _____ 5-8-98
Radiological Engineer Date

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER

FOR _____ P/WRE _____ PRL

_____ RWP X OTHER _____

BUILDING/LOCATION	ROOM
123	UNIT-9
DATE 4-14-98	TIME 1000

ITEM DESCRIPTION
SCAN SURVEY UNIT-9
GRIDS 133*? 140
*'s 1 & 2 on MAP are 1 minute PAT's in area of highest readings after 100% scan - all scans < 100dpm & < 100dpm

COMMENTS 9' EAST of WEST WALL
2' NORTH of SOUTH WALL
RESURVEY OF ELEVATED AREA RF12312A
GRID 3,1 AS INDICATED BY SRA SURVEY RESULTS
*2 areas surveyed to encompass more area than actual SRA coordinates as not to miss their point of elevated activity

[redacted]

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR	EBER	EBER	EBER	EBER
MODEL	SAC-4	SAC-4	SAC-4	SAC-4
SERIAL #				
CAL DATE				
CAL DUE DATE				
MFR	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR	N.E TECH			
MODEL	ELECTRA			
SERIAL #	2336			
CAL DATE	3-5-98			
CAL DUE DATE	9-5-98			
BACKGROUND	α 50 β 724			
SFFICIENCY	α 28.0% β 35.8			
MDA	<93.3 <455			

REVIEWED BY Diane Brady
RO SUPERVISION PRINT NAME

D L Brady 5/5/98
RO SUPERVISION SIGNATURE DATE

MDA = CF X (2.71 + 4.65 √BACKGROUND (CPM))

* GRID # 133 RECORDED IN ERROR - ACTUAL GRID SURVEYED WAS GRID # 139 (This note done as I was present during this survey [signature] 5/6/98)

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG / SURVEY NUMBER _____

PAGE 2 OF 2

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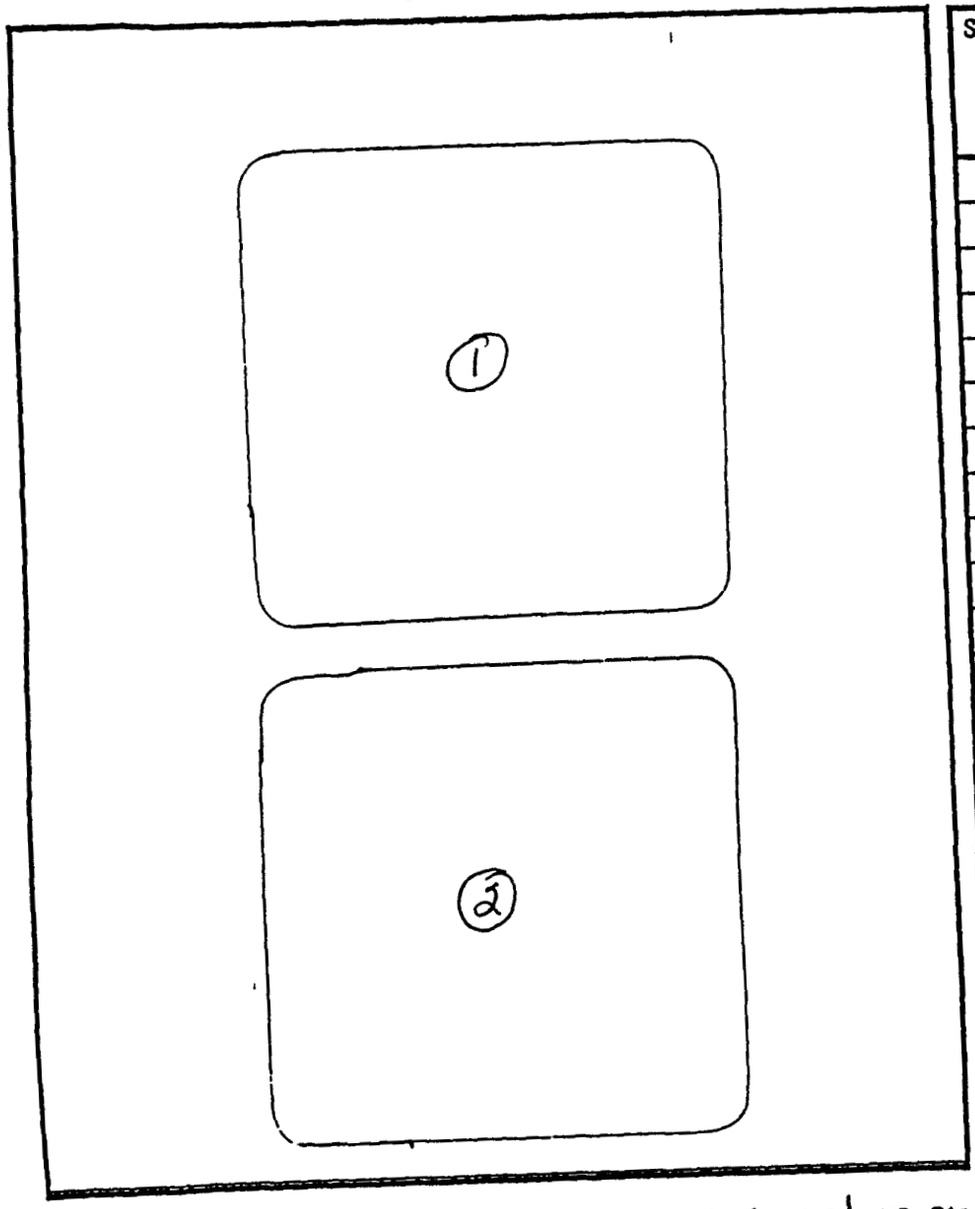


SURVEY RESULTS (DPM/100 CM SQ)

SWIP #'S	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/ GAMMA	TOTAL ALPHA (FRISK / 60 SEC COUNT)	TOTAL BETA/ GAMMA
1	GRID 133 *			<933	<455
2	GRID 140			<933	<455
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					

* GRID #133 Recorded in error - Actual grid surveyed was grid #139 (This note done as I was present during this survey [signature] 5/8/98)

RADOLOGICAL CONTAMINATION &/OR DOSE SURVEY FORM (α β γ η)

SURVEY/LOG#	
P/WRE ___ ROUTINE ___ R W P ___ OTHER X	RAD MT'L TRANSFER ___ UNRESTRICTED RELEASE ___
BUILDING/LOCATION 123	ROOM UNIT 9
DATE 5/8/98	TIME 0900

- Resurvey of grids 139 & 140
- All results on attached sheets are in gross cpm.
- See attached background sheet for Cs values
- Resurvey of Shonka coordinates in Mens locker room 9' East of West wall and 2' north of South wall. Grids 139/140 surveyed to totally encompass aprox area

Mfg:	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Serial #				
Date calib'd				
Cal Due Date				

Mfg:	Eberline	Eberline	Eberline	Eberline
Model	BC-4	BC-4	BC-4	BC-4
Serial #				
Date calib'd				
Cal Due Date				

Mfg:	NE Electra	NE Electra	NE Electra	NE Electra
Model	DP-6	DP-6	DP-6	DP-6
Serial #	1653			
Date Calib'd	4-6-98			
Cal Due Date	10-6-98			
Background	~~σ = 2.0 B~~ 20 cpm			
Efficiency	σ = 33.6%			

Mfg	Ludlum	Eberline		
Model	12-4	RO-20		
Serial #				
Date Calib'd				
Cal Due Date				
Background				

[redacted]

UNIT #- 9 **GRID #-** 140

RESURVEY OF THE ABOVE GRID

1 c/m 1.0 / 924	2 c/m 1.0 / 939	3 c/m 2.0 / 954
4 c/m 1.0 / 883	5 c/m 0.0 / 900	6 c/m 1.0 / 898
7 c/m 1.0 / 863	8 c/m 0.0 / 894	9 c/m 2.0 / 923

ELECTRA # 1653

CAL DUE DATE 10/6/98

ALPHA BKGD α = ~~2.0~~ 1.9 β = ~~820~~

BETA BKGD β = ~~820~~ 904.5

UNIT #- 9 GRID #- 139

RESURVEY OF THE ABOVE GRID

1 c/m 1.0 / 893	2 c/m 1.0 / 907	3 c/m 2.0 / 909
4 c/m 2.0 / 953	5 c/m 2.0 / 893	6 c/m 3.0 / 921
7 c/m 0.0 / 945	8 c/m 3.0 / 898	9 c/m 0.0 / 953

ELECTRA # 1653

CAL DUE DATE 10/6/98.

ALPHA BKGD α = ~~2.0~~ 1.9

BETA BKGD β = ~~81~~ 904.5

ELECTRA BACKGROUND LOG FOR SRA (Scans)

Instr. #	DATE	CAL. DUE	Bkg. α (cpm)	Bkg. β Inst. only (cpm)	Bkg. β Inst. + ref. area (cpm)	EFF. α	EFF. β	M.D.A. (dpm/100 cm²) α	M.D.A. (dpm/100 cm²) β
1653	05-08-98	10-06-98	1.9	784.5	904 5	23 60%	30 60%	38 64	434.48

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 - Unit #9 Grid 140 Resurvey

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1653 5-08-98
Cal Due Date: 10-06-98
Efficiency (%): α 23 60 βγ 30 60

Bkgd (cpm): α 1 9 βγ 904 5 (784.5 Inst. Only; Ref Area)

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	1	924	-0 9	19 5	-3 81	63 73
2	2	See Attached Map	<100	<750	1	939	-0 9	34 5	-3 81	112 75
3	3	See Attached Map	<100	<750	2	954	0 1	49 5	42	161 76
4	4	See Attached Map	<100	<750	1	883	-0 9	-21 5	-3 81	-70 26
5	5	See Attached Map	<100	<750	0	900	-1 9	-4 5	-8 05	-14 71
6	6	See Attached Map	<100	<750	1	898	-0 9	-6 5	-3 81	-21 24
7	7	See Attached Map	<100	<750	1	863	-0 9	-41 5	-3 81	-135 62
8	8	See Attached Map	<100	<750	0	894	-1 9	-10 5	-8 05	-34 31
9	9	See Attached Map	<100	<750	2	923	0 1	18 5	42	60 46

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 - Unit #9 Grid 139 Resurvey

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1653 5-08-98
Cal Due Date: 10-06-98
Efficiency (%): α 23 60 βγ 30 60

Bkgd (cpm): α 1 9 βγ 904 5 — 784.5 Inst. Only — Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	1	893	-0 9	-11 5	-3 81	-37 58
2	2	See Attached Map	<100	<750	1	907	-0 9	2 5	-3 81	8 17
3	3	See Attached Map	<100	<750	2	909	0 1	4 5	42	14 71
4	4	See Attached Map	<100	<750	2	953	0 1	48 5	42	158 50
5	5	See Attached Map	<100	<750	2	893	0 1	-11 5	42	-37 58
6	6	See Attached Map	<100	<750	3	921	1 1	16 5	4 66	53 92
7	7	See Attached Map	<100	<750	0	945	-1 9	40 5	-8 05	132 35
8	8	See Attached Map	<100	<750	3	898	1 1	-6 5	4 66	-21 24
9	9	See Attached Map	<100	<750	0	953	-1 9	48 5	-8 05	158 50

All points re-surveyed as stated in Section 5 2 of the Close-Out Radiological Survey Plan for the 123 Cluster, March, 1998

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER 98 - 113 - 7025

FOR ____ P/WRE ____ PRL
X RWP ____ OTHER ____

BUILDING/LOCATION 123

ROOM NORTH SIDE

DATE 4-11-98

TIME 1500

ITEM DESCRIPTION PROCESS PIPE STUB REMOVAL

COMMENTS
UNIT #9 GRIDS 4 & 18 10 MINUTE
COUNTS ON SAC-4

[redacted]

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR	EBER	EBER	EBER	EBER
MODEL	SAC-4	SAC 4	SAC 4	SAC 4
SERIAL #	1199			
CAL DATE	2-12-98			
CAL DUE DATE	8-12-98			

MFR	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL #	706			
CAL DATE	1-14-98			
CAL DUE DATE	7-14-98			

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR	N E. TECH	NE TECH		
MODEL	ELECTRA	ELECTRA		
SERIAL #	1684	1136		
CAL DATE	2-12-98	12-19-97		
CAL DUE DATE	8-12-98	6-19-98		
BACKGROUND	α 2.0 β 815	α 4 0 β 910		
SFFICIENCY	α 23.6 β 28.8	α 23.6% β 30 2		
MDA	< 93.3% < 455	< 93 3 < 455		

REVIEWED BY K. Copeland
RO SUPERVISION PRINT NAME

K E Sheard 4/12/98
RO SUPERVISION SIGNATURE DATE

MDA = CF X [2 71 + 4 65 √BACKGROUND (CPM)]

Post Job Surveys
Page 1 of 28

Survey/Log# 98-113-7025

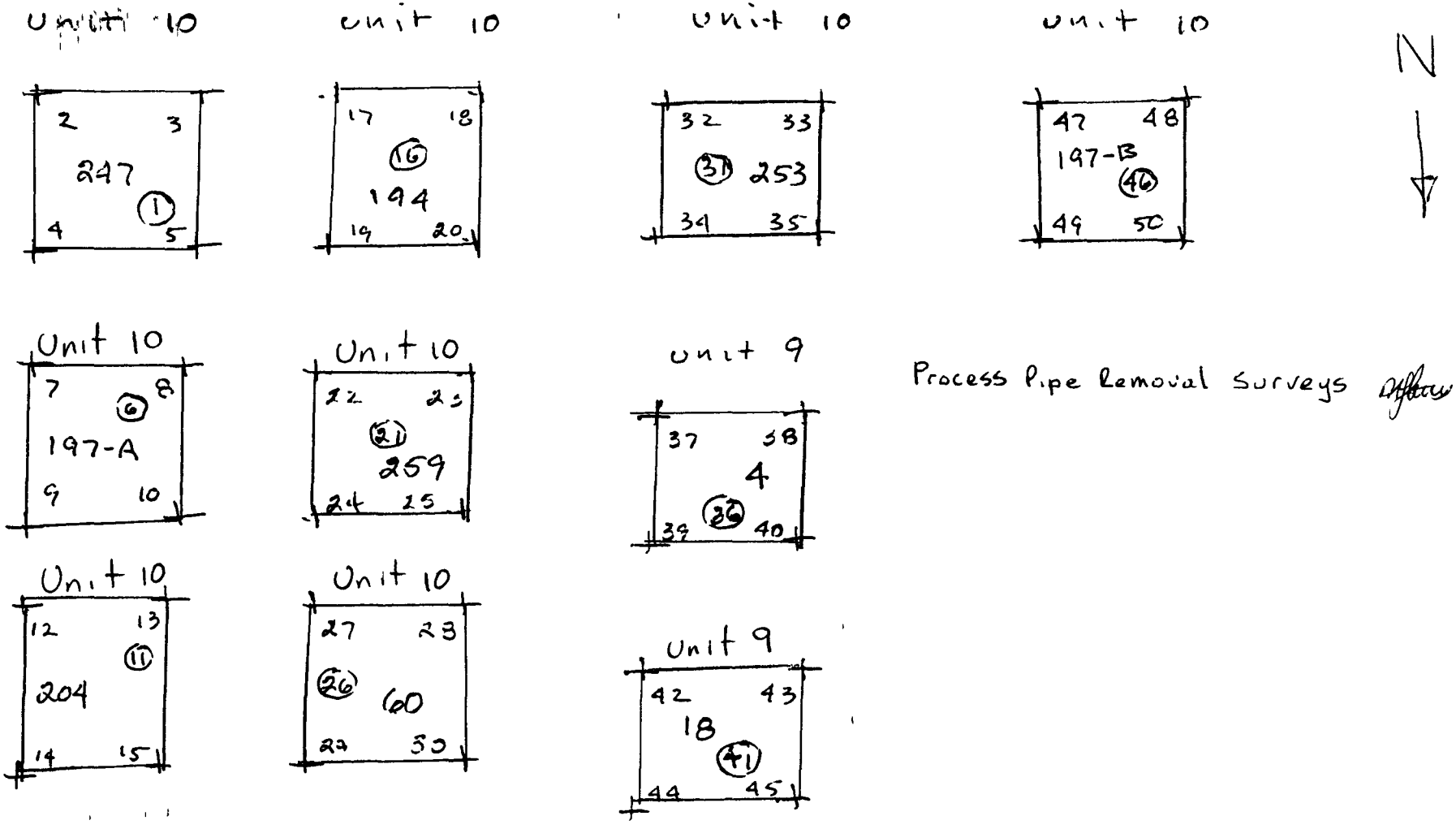
RADIOLOGICAL SURVEY FORM

Survey Point #	Location/description	Results in dpm/100cm sq: Removeable 60s counts α	Removeable 60s counts β/γ	Total 60s counts α	Total 60s counts β/γ
1	UNIT 10	<20	<200	<93.3	<455
2	GRID 247	<20	<200	<93.3	<455
3		<20	<200	<93.3	<455
4		<20	<200	<93.3	<455
5		<20	<200	<93.3	<455
6	UNIT 10	<20	<200	<93.3	<455
7	GRID 197-A	<20	<200	<93.9	<455
8		<20	<200	<93.3	<455
9		<20	<200	<93.3	<455
10		<20	<200	<93.3	<455
11	UNIT 10	<20	<200	<93.3	<455
12	GRID 204	<20	<200	<93.3	<455
13		<20	<200	<93.3	<455
14		<20	<200	<93.3	<455
15		<20	<200	<93.3	<455
16	UNIT 10	<20	<200	<93.3	<455
17	GRID 194	<20	<200	<93.3	<455
18		<20	<200	<93.3	<455
19		<20	<200	<93.3	<455
20		<20	<200	<93.3	<455
21	UNIT 10	<20	<200	<93.3	<455
22	GRID 259	<20	<200	<93.3	<455
23		<20	<200	<93.3	<455
24		<20	<200	<93.3	<455
25		<20	<200	<93.3	<455
26	UNIT 10	<20	<200	<93.3	<455
27	GRID 60	<20	<200	<93.3	<455
28		<20	<200	<93.3	<455
29		<20	<200	<93.3	<455
30		<20	<200	<93.3	<455
31	UNIT 10	<20	<200	<93.3	<455

Survey Point #	Location/description	Results in dpm/100cm sq: Removeable 60s counts α	Removeable 60s counts β/γ	Total 60s counts α	Total 60s counts β/γ
32	UNIT 10	<20	<200	<93.3	<455
33	GRID 253	<20	<200	<93.3	<455
34		<20	<200	<93.3	<455
35		<20	<200	<93.3	<455
36	UNIT 10	<20	<200	<93.3	<455
37	GRID 18	<20	<200	<93.3	<455
38		<20	<200	<93.3	<455
39		<20	<200	<93.3	<455
40		<20	<200	<93.3	<455
41	UNIT 9	<10	<200	<93.3	<455
42	GRID 4	<10	<200	<93.3	<455
43		<10	<200	<93.3	<455
44		<10	<200	<93.3	<455
45		<10	<200	<93.3	<455
46	UNIT 9	<10	<200	<93.9	<455
47	GRID 18	<10	<200	<93.3	<455
48		<10	<200	<93.3	<455
49		<10	<200	<93.3	<455
50		<10	<200	<93.3	<455
51	UNIT 10	<20	<200	<93.3	<455
52	GRID 197 B	<20	<200	<93.3	<455
53		<20	<200	<93.3	<455
54		<20	<200	<93.3	<455
55		<20	<200	<93.3	<455
56					
57					
58					
59					
60					
61					
62					

RADIOLOGICAL CONTAMINATION SKETCH FORM

LOG/PRE NUMBER 98-113-7025



Process Pipe Removal Surveys 5/7/98

Note: Map not drawn to scale. 5/24/98

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: 98113 7030

FOR: ____ P/WRE ____ PRL
X RWP ____ OTHER ____

BUILDING/LOCATION	ROOM
123 At Door 5	Unit 9
DATE. 4-11-98	TIME 1500

ITEM DESCRIPTION Post Job Survey Removed Concrete Ledge HOT SPOT

COMMENTS Background is Subtracted
60 Sec. Pats are in Dpm per 100cm²
Scan α <100 β <750

[redacted]

REVIEWED BY K. Gaillard
RO SUPERVISION PRINT NAME

[signature] / 4/12/98
RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR	EBER	EBER	EBER	EBER
MODEL	SAC 4	SAC 4	SAC 4	SAC 4
SERIAL #	1199			
CAL DATE	2-12-98			
CAL DUE DATE	8-12-98			

MFR:	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL #	706			
CAL DATE	1-14-98			
CAL DUE DATE	7-14-98			

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E TECH			
MODEL	ELECTRA			
SERIAL #	1136			
CAL DATE	12-19-97			
CAL DUE DATE	6-19-98			
BACKGROUND	α 3.1 β 749.4			
EFFICIENCY	α 23.6% β 30.2%			
MDA	α 493.3 β <455			

MDA = CF X (2.71 + 4.65 √BACKGROUND (CPM))

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG / SURVEY NUMBER 98 113 7030

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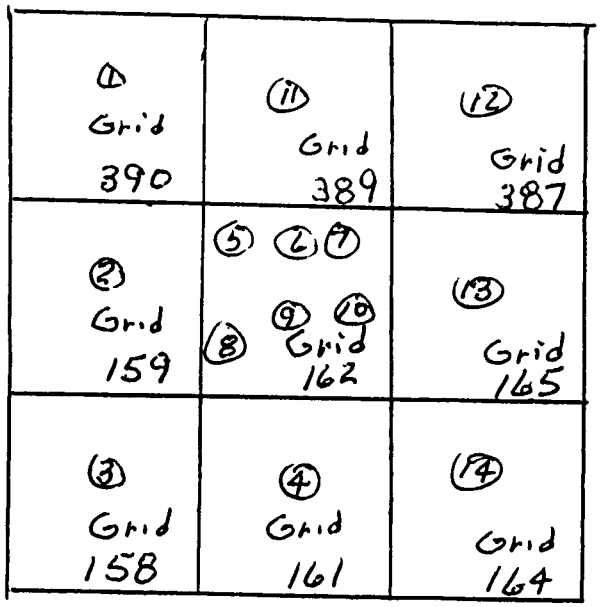

Note: Map not drawn to Scale

B 4/21/98

SURVEY RESULTS (DPM/100 CM SQ)

SWIP #'S	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/ GAMMA	TOTAL ALPHA (TRUSK/60 SEC COUNT)	TOTAL BETA/ GAMMA
1	390 Grid	<20	<200	-6	225
2	159 "	<20	<200	12	30
3	158 "	<20	<200	-6	-150
4	161 "	<20	<200	12	-18
5	162 "	<20	<200	6	279
6	" "	<20	<200	-12	168
7	" "	<20	<200	6	36
8	" "	<20	<200	18	51
9	" "	<20	<200	-6	165
10	" "	<20	<200	0	246
11	389 "	<20	<200	0	-174
12	387 "	<20	<200	0	123
13	165 "	<20	<200	24	291
14	164 "	<20	<200	6	279
15					
16					
17					
18					
19					
20					
21					

4-11-98

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER 98549 6382

FOR: ____ P/WRE ____ PRL

X RWP ____ OTHER ____

BUILDING/LOCATION	ROOM
123	Outside Tent
DATE	TIME
4-24-98	2030

ITEM DESCRIPTION Post Survey

COMMENTS Scan < 93.3 β < 455

[redacted]

REVIEWED BY K Gonzalez

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE 14/25/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER	EBER	EBER	EBER
MODEL	SAC 4	SAC 4	SAC 4	SAC 4
SERIAL #	861	1050		
CAL DATE	12-3-97	2-27-98		
CAL DUE DATE	6-3-98	8-27-98		

MFR:	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL	[redacted]	385	381	
CAL DATE	[redacted]	11-24-97	11-24-97	
CAL DUE DATE		5-24-98	5-24-98	

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E TECH			
MODEL	ELECTRA			
SERIAL #	1421			
CAL DATE	3-31-98			
CAL DUE DATE	9-30-98			
BACKGROUND	α 5 β 593			
EFFICIENCY	α 23.6% β 31.7%			
MDA	α 93.3 β 455			

MDA = CF X [illegible] X 4.65 √BACKGROUND (CPM)

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG / SURVEY NUMBER _____

PAGE _____ OF _____

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[illegible] 5/7/98

SURVEY RESULTS (DPM/100 CM SQ)

SWIP #'S	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (TRUE X / 60 SEC COUNT)	TOTAL BETA/ GAMMA
		ALPHA	BETA/ GAMMA		
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					

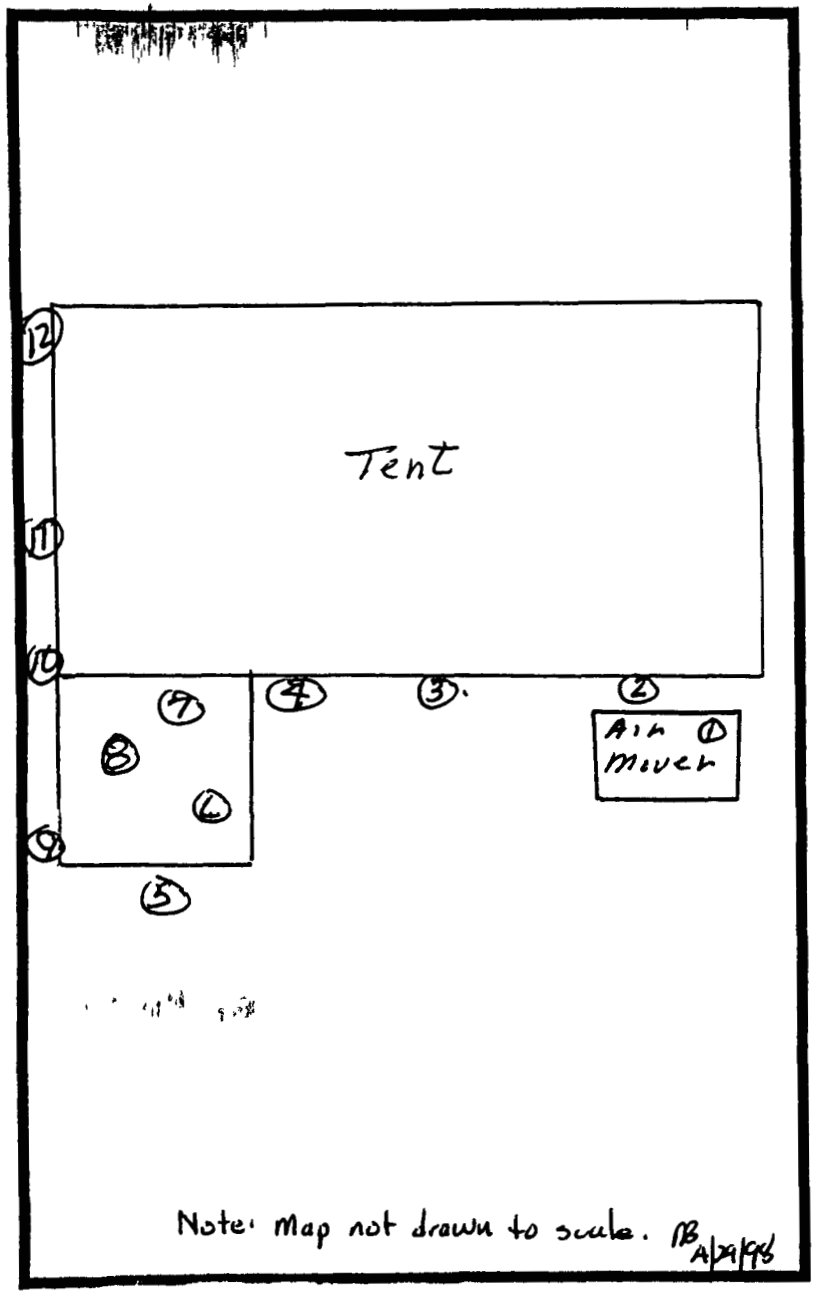
Printed with soy ink on recycled paper

LOG NUMBER 98 549 6382

PAGE 2 OF 2

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FROM 60 SEC COUNT)	TOTAL BETA/GAMMA
1		<20	<200		
2		<20	<200		
3		<20	<200		
4		<20	<200		
5		<20	<200		
6		<20	<200		
7		<20	<200		
8		<20	<200		
9		<20	<200		
10		<20	<200		
11		<20	<200		
12		<20	<200		

Post Job Surveys
Page 8 of 28

RADIOLOGICAL CONTAMINATION SURVEY FORM

AH

LOG NUMBER:

FOR: ____ P/WRE ____ PRL ____ RWP ____ OTHER Unit 10

BUILDING/LOCATION	ROOM
123	Unit 10
DATE	**TIME**
4-25-98	14:00

ITEM DESCRIPTION ~~South Wall, Inside, Outside Tent~~ UNIT 10 Floor

COMMENTS Refer to Data Forms. 5/6/98

[redacted]

REVIEWED BY K. Gordon
RO SUPERVISION PRINT NAME

K. Gordon 4/25/98
RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER	EBER	EBER	EBER
MODEL	SAC 4	SAC 4	SAC 4	SAC 4
SERIAL #	861	1050		
CAL DATE	12-3-97	2-27-98		
CAL DUE DATE	6-3-98	8-27-98		

MFR:	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL [redacted]		385	381	
CAL DATE		11-24-97	11-24-97	
CAL DUE DATE		5-24-98	5-24-98	

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E TECH	NE Tech	NE Tech	NE Tech
MODEL	ELECTRA	Electra	Electra	Electra
SERIAL #	2122	1536	1569	1421
CAL DATE	~~4-13-98~~	2-10-97	3-17-98	3-31-98
CAL DUE DATE	~~10-13-98~~	6-10-98	9-17-98	9-30-98
BACKGROUND	A-3 B 528	A-1 B 461	A-0 B 612	A-2 B 543
EFFICIENCY	A 29.1 B 33.4	A-22.5 B 29.1	A-23.3 B 33.2	A 28.6 B 31.7
MDA	α 93.3 β 455 JB 5/6/98	α 93.3 β 455 JB 5/5/98	α 93.3 β 455 JB 5/5/98	α 93.3 β 455 JB 5/5/98

MDA = CF X (2.71 + 4.65 √BACKGROUND (CPM))

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG / SURVEY NUMBER _____

PAGE _____ OF _____

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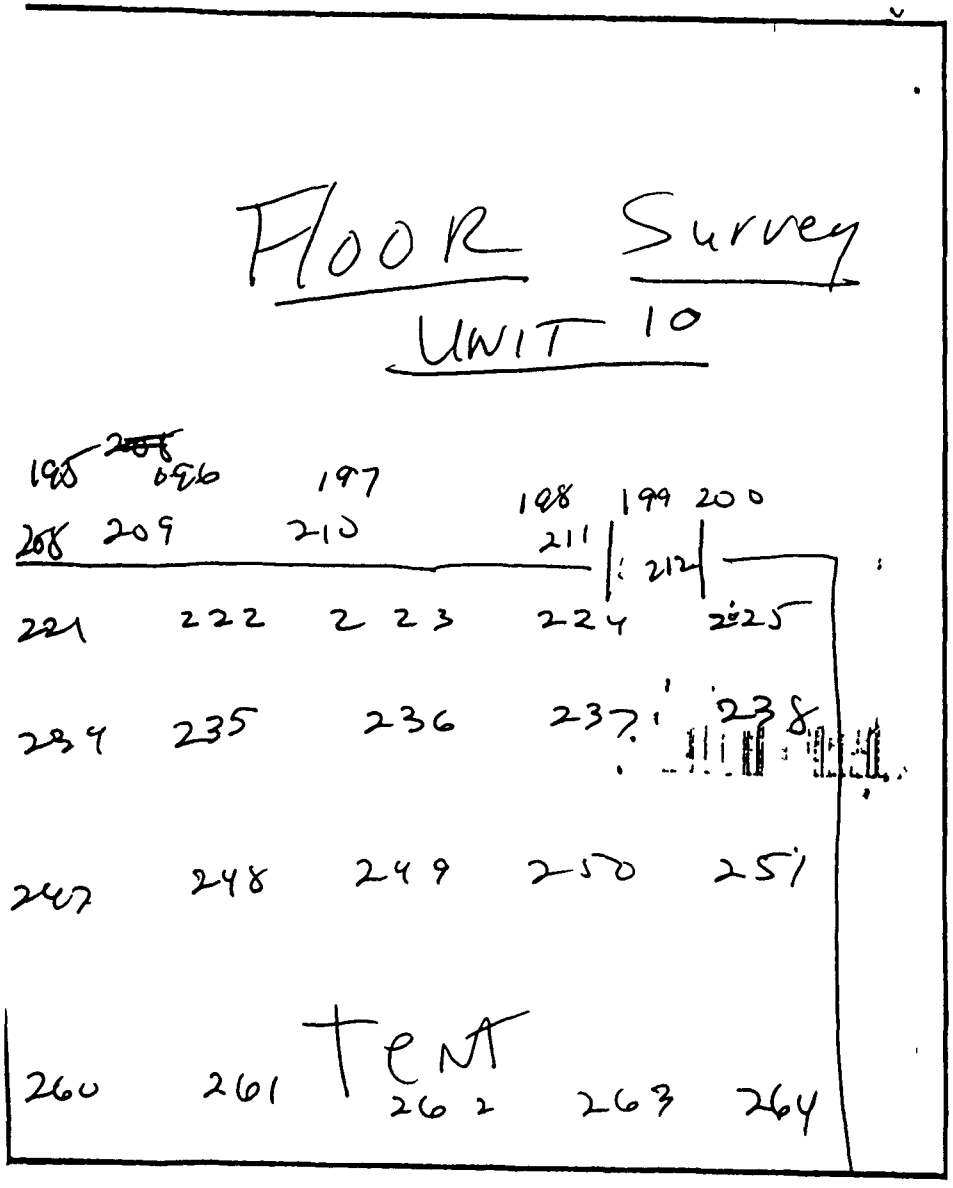

SURVEY RESULTS (DPM/100 CM SQ)

SWIP #'S	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (TRISK/60 SEC COUNT)	TOTAL BETA/GAMMA
1					
2	As Attached				
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					

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LOG NUMBER _____

PAGE ____ OF ____

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FROM/60 SEC COUNT)	TOTAL BETA/GAMMA
221	FLOOR	<20	<200	<93.3	<455
222	Survey	<20	<200	<93.3	<455
223	UNIT 10	<20	<200	<93.3	<455
224		<20	<200	<93.3	<455
225		<20	<200	<93.3	<455
234		<20	<200	<93.3	<455
235		<20	<200	<93.3	<455
236		<20	<200	<93.3	<455
237		<20	<200	<93.3	<455
238		<20	<200	<93.3	<455
247		<20	<200	<93.3	<455
248		<20	<200	<93.3	<455
249		<20	<200	<93.3	<455
250		<20	<200	<93.3	<455
251		<20	<200	<93.3	<455
260		<20	<200	<93.3	<455
262		<20	<200	<93.3	<455
263		<20	<200	<93.3	<455
264		<20	<200	<93.3	<455

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LOG NUMBER _____

PAGE _____ OF _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FRISK/60 SEC COUNT)	TOTAL BETA/ GAMMA
		ALPHA	BETA/ GAMMA		
195	UNIT 10	<20	<200	<93.3	<455
196		<20	<200	<93.3	<455
197	FLOOR	<20	<200	<93.3	<455
198		<20	<200	<93.3	<455
199	SURVEY	<20	<200	<93.3	<455
200		<20	<200	<93.3	<455
208		<20	<200	<93.3	<455
209		<20	<200	<93.3	<455
210		<20	<200	<93.3	<455
211		<20	<200	<93.3	<455
212		<20	<200	<93.3	<455

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER

FOR: ____ P/WRE ____ PRL

____ RWP X OTHER Post Job 5/5/98

BUILDING/LOCATION	ROOM
123	UNIT 10 Tent
DATE: 4-25-98	TIME 1300

ITEM DESCRIPTION Inside, Outside Tent South Wall

COMMENTS Refer to Data Form for Grids 1 through 15, South wall.

5/6/98

[redacted]

REVIEWED BY K. Gunlund

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE 4/25/98

DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR	EBER	EBER	EBER	EBER
MODEL	SAC-4	SAC 4	SAC 4	SAC 4
SERIAL #	461	1050	892	
CAL DATE	12-3-97	2-27-98	12-3-97	
CAL DUE DATE	6-3-98	8-27-98	6-3-98	

MFR	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL #	385	381		
CAL DATE	11-24-97	11-24-97		
CAL DUE DATE	5-24-98	5-24-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR	N.E TECH	NE	NE	NE
MODEL	ELECTRA	ELECTRA	ELECTRA	ELECTRA
SERIAL #	2122	1536	1569	1421
CAL DATE	4-13-98	12-10-97	3-17-98	3-31-98
CAL DUE DATE	10-13-98	6-10-98	9-17-98	9-30-98
BACKGROUND	α 3.0 β 528	α 1.0 β 461	α 0.0 β 612	α 2.0 β 543
SFFICIENCY	α 24.1 β 33.4	α 22.5 β 29.1	α 23.2 β 33.2	α 23.6 β 31.7
MDA	α 93.3 β 455 B 5/5/98	α 93.3 β 455 B 5/5/98	α 93.3 β 455 B 5/5/98	α 93.3 β 455 B 5/5/98

MDA = CF X (2.71 + 4.65 √BACKGROUND (CPM))

Survey/Log#_____

RADIOLOGICAL SURVEY FORM

Survey Point #	Location/description	Results in dpm/100cm sq. Removeable 60s counts α	Removeable 60s counts β/γ	Total 60s counts α	Total 60s counts β/γ	Survey Point #	Location/description	Results in dpm/100cm sq. Removeable 60s counts α	Removeable 60s counts β/γ	Total 60s counts α	Total 60s counts β/γ
	Unit 10										
1	~~[illegible]~~ South Wall	< 20	< 200	< 93.3	< 455	32					
2		< 20	< 200	< 93.3	< 455	33					
3		< 20	< 200	< 93.3	< 455	34					
4		< 20	< 200	< 93.3	< 455	35					
5		< 20	< 200	< 93.3	< 455	36					
6		< 20	< 200	< 93.3	< 455	37					
7		< 20	< 200	< 93.3	< 455	38					
8		< 20	< 200	< 93.3	< 455	39					
9		< 20	< 200	< 93.3	< 455	40					
10		< 20	< 200	< 93.3	< 455	41					
11		< 20	< 200	< 93.3	< 455	42					
12		< 20	< 200	< 93.3	< 455	43					
13		< 20	< 200	< 93.3	< 455	44					
14		< 20	< 200	< 93.3	< 455	45					
15		< 20	< 200	< 93.3	< 455	46					
16						47					
17						48					
18						49					
19						50					
20						51					
21						52					
22						53					
23						54					
24						55					
25						56					
26						57					
27						58					
28						59					
29						60					
30						61					
31						62					

4-25-98

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER _____

PAGE _____ OF _____

SURVEY RESULTS (DPM/100 CM²)

SWIP #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FBIRK/60 SEC COUNT)	TOTAL BETA/GAMMA
1	Ceiling	<20	<200	<93.3	<455
2		<20	<200	<93.3	<455
3		<20	<200	<93.3	<455
4		<20	<200	<93.3	<455
5		<20	<200	<93.3	<455
6		<20	<200	<93.3	<455
7		<20	<200	<93.3	<455
8		<20	<200	<93.3	<455
9	North Wall	<20	<200	<93.3	<455
10		<20	<200	<93.3	<455
11		<20	<200	<93.3	<455
12		<20	<200	<93.3	<455
13		<20	<200	<93.3	<455
14		<20	<200	<93.3	<455
15		<20	<200	<93.3	<455
16		<20	<200	<93.3	<455
17	West Wall	<20	<200	<93.3	<455
18		<20	<200	<93.3	<455
19		<20	<200	<93.3	<455
20		<20	<200	<93.3	<455
21		<20	<200	<93.3	<455
22		<20	<200	<93.3	<455

SURVEY RESULTS (DPM/100 CM²)

SWIP #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FBIRK/60 SEC COUNT)	TOTAL BETA/GAMMA
23	East Wall	<20	<200	<93.3	<455
24		<20	<200	<93.3	<455
25		<20	<200	<93.3	<455
26		<20	<200	<93.3	<455
27		<20	<200	<93.3	<455
28		<20	<200	<93.3	<455
29	Inside CA Door	<20	<200	<93.3	<455
30	" " "	<20	<200	<93.3	<455
31	Inside RBA Door	<20	<200	<93.3	<455
32	" " "	<20	<200	<93.3	<455
33	East Wall RBA	<20	<200	<93.3	<455
34		<20	<200	<93.3	<455
35	West Wall RBA	<20	<200	<93.3	<455
36		<20	<200	<93.3	<455
37	Out Side Nth Wall	<20	<200	<93.3	<455
38		<20	<200	<93.3	<455
39		<20	<200	<93.3	<455
40		<20	<200	<93.3	<455
41		<20	<200	<93.3	<455
42		<20	<200	<93.3	<455
43		<20	<200	<93.3	<455
44		<20	<200	<93.3	<455

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LOG NUMBER _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE _____ OF _____

SURVEY RESULTS (DPM/100 CM²)

SWIP #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FROM/60 SEC COUNT)	TOTAL BETA/ GAMMA
		ALPHA	BETA/ GAMMA		
45	Outside East Wall	<20	<200	<93.3	<455
46		<20	<200	<93.3	<455
47		<20	<200	<93.3	<455
48		<20	<200	<93.3	<455
49		<20	<200	<93.3	<455
50		<20	<200	<93.3	<455
51	Outside RBA	<20	<200	<93.3	<455
52		<20	<200	<93.3	<455
53	Outside Westwall RBA	<20	<200	<93.3	<455
54		<20	<200	<93.3	<455
55	Outside East wall RBA	<20	<200	<93.3	<455
56		<20	<200	<93.3	<455

Rel 4-25-98

SURVEY RESULTS (DPM/100 CM²)

SWIP #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FROM/60 SEC COUNT)	TOTAL BETA/ GAMMA
		ALPHA	BETA/ GAMMA		

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LOG NUMBER _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE ____ OF ____

Grids South Wall Unit 10

15	14	13	12	11
6	7	8	9	10
5	4	3	2	1

Note: Map not drawn to scale 4/29/88

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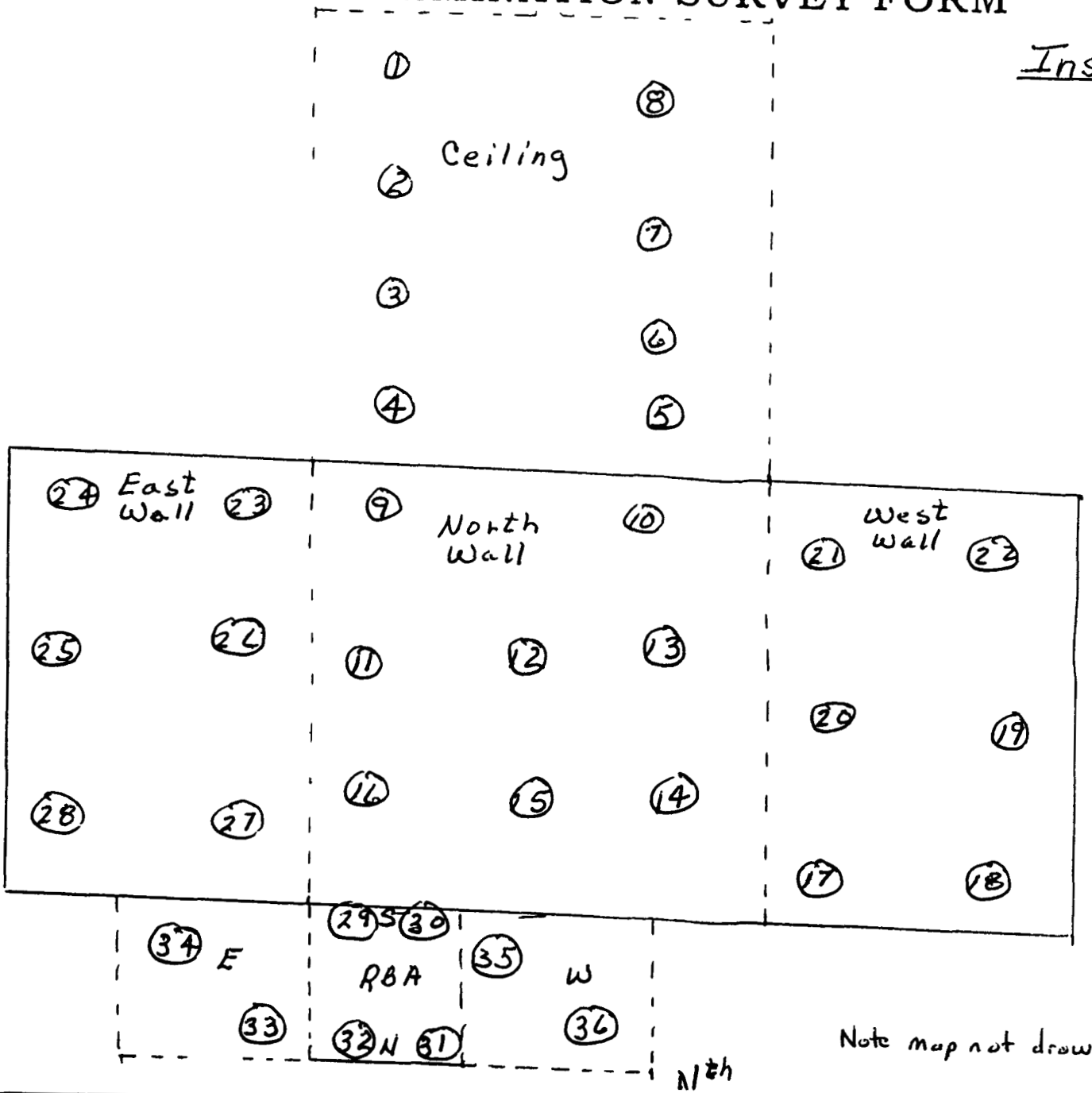
LOG NUMBER ___

RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE ____ OF ____

Inside Tent



Note map not drawn to scale

4/29/98

Post Job Survey
Page 14 of 29

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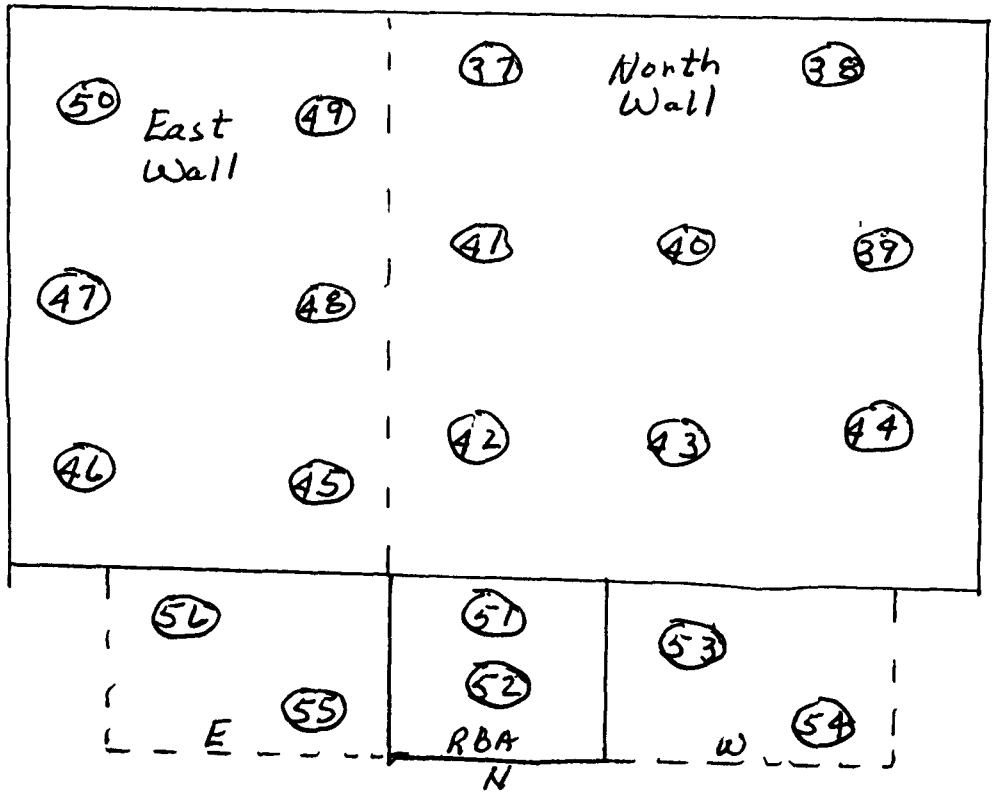
LOG NUMBER _____

PAGE ____ OF ____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Outside Tent



Nth

Note: map not drawn to scale

BB 4/24/98

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10 Room 111 South Wall - Tent Floor

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1536 04-25-98
Cal Due Date: 06-10-98
Efficiency (%): α 22 50 βγ 29 10

Bkgd (cpm): α 2 0 βγ 806 3 | 686 3 Inst. Only Ref Area

Survey Type: [x] Alpha [x] Beta-Gamma

Line Item	Survey Point	Description*	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	4	See Attached Map	<100	<750	7	754	5 0	-52 3	22 22	-179 73
2	6	See Attached Map	<100	<750	6	776	4 0	-30 3	17 78	-104 12
3	7	See Attached Map	<100	<750	3	829	1 0	22 7	4 44	78 01
4	8	See Attached Map	<100	<750	6	863	4 0	56 7	17 78	194 85
5	9	See Attached Map	<100	<750	4	823	2 0	16 7	8 89	57 39
6	13	See Attached Map	<100	<750	7	713	5 0	-93 3	22 22	-320 62
7	195	See Attached Map	<100	<750	4	866	2 0	59 7	8 89	205 15
8	197	See Attached Map	<100	<750	2	908	0 0	101 7	0	349 48
9	199	See Attached Map	<100	<750	2	1053	0 0	246 7	0	847 77
10	208	See Attached Map	<100	<750	0	842	-2 0	35 7	-8 89	122 68
11	210	See Attached Map	<100	<750	4	887	2 0	80 7	8 89	277 32
12	212	See Attached Map	<100	<750	5	1120	3 0	313 7	13 33	1078 01
13	221	See Attached Map	<100	<750	5	1120	3 0	313 7	13 33	1078 01
14	223	See Attached Map	<100	<750	4	960	2 0	153 7	8 89	528 18
15	234	See Attached Map	<100	<750	0	1033	-2 0	226 7	-8 89	779 04
16	237	See Attached Map	<100	<750	3	1106	1 0	299 7	4 44	1029 90
17	247	See Attached Map	<100	<750	4	1133	2 0	326 7	8 89	1122 68
18	250	See Attached Map	<100	<750	6	1119	4 0	312 7	17 78	1074 57
19	262	See Attached Map	<100	<750	1	960	-1 0	153 7	-4 44	528 18

*See maps on pages 10 and 17 of "Post Job Surveys" section. JBBarrows 5/8/98

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10 Room 111 South Wall - Tent Floor

Meter Model: NE/Technology Electra w/ DP6 Probe
Serial # / Date Used: 1421 04-25-98
Cal Due Date: 09-30-98
Efficiency (%): α 23 60 βγ 31 70

Bkgd (cpm): α 0 9 βγ 975 7 — 855.7 Inst. Only, Ref Area

Survey Type: [X] Alpha [X] Beta-Gamma

Line Item	Survey Point	Description*	Scan 100% α	Scan 100% β,γ	Gross Counts 60 sec PATS (cpm) α	Gross Counts 60 sec PATS (cpm) β,γ	Net Counts 60 sec PATS (cpm) α	Net Counts 60 sec PATS (cpm) β,γ	Total Activity (dpm/100 cm²) α	Total Activity (dpm/100 cm²) β,γ
1	2	See Attached Map	<100	<750	6	901	5 1	-74 7	21 61	-235 65
2	11	See Attached Map	<100	<750	4	837	3 1	-138 7	13 14	-437 54
3	12	See Attached Map	<100	<750	7	867	6 1	-108 7	25 85	-342 90
4	211	See Attached Map	<100	<750	0	1061	-0 9	85 3	-3 81	269 09
5	224	See Attached Map	<100	<750	5	1045	4 1	69 3	17 37	218 61
6	235	See Attached Map	<100	<750	6	1025	5 1	49 3	21 61	155 52
7	238	See Attached Map	<100	<750	4	836	3 1	-139 7	13 14	-440 69
8	248	See Attached Map	<100	<750	3	1083	2 1	107 3	8 90	338 49
9	251	See Attached Map	<100	<750	4	1048	3 1	72 3	13 14	228 08
10	261	See Attached Map	<100	<750	6	1000	5 1	24 3	21 61	76 66
11	264	See Attached Map	<100	<750	2	1045	1 1	69 3	4 66	218 61

* See maps on pages 10 and 17 of " Post Job Surveys" section [illegible] 5/8/98

BUILDING 123 RADIOACTIVE CONTAMINATION DATA FORM

Site / Location: Building 123 Unit 10 Room 111 South Wall - Tent Floor

Meter Model	NE/Technology Electra w/ DP6 Probe	Bkgd (cpm)	α 1 5	βγ 970 0	850.0	Inst. Only
Serial # / Date Used	1569 04-25-98					Ref Area
Cal Due Date	09-17-98	Survey Type	[X] Alpha	[X] Beta-Gamma		
Efficiency (%)	α 23 20 βγ 33 20					

Line Item	Survey Point	Description*	Scan 100%		Gross Counts 60 sec PATS (cpm)		Net Counts 60 sec PATS (cpm)		Total Activity (dpm/100 cm²)	
			α	β,γ	α	β,γ	α	β,γ	α	β,γ
1	1	See Attached Map	<100	<750	8	908	6 5	-62 0	28 02	-186 75
2	3	See Attached Map	<100	<750	7	953	5 5	-17 0	23 71	-51 20
3	5	See Attached Map	<100	<750	6	917	4 5	-53 0	19 40	-159 64
4	10	See Attached Map	<100	<750	0	823	-1 5	-147 0	-6 47	-442 77
5	14	See Attached Map	<100	<750	4	634	2 5	-336 0	10 78	-1012 05
6	15	See Attached Map	<100	<750	3	932	1 5	-38 0	6 47	-114 46
7	196	See Attached Map	<100	<750	6	1016	4 5	46 0	19 40	138 55
8	198	See Attached Map	<100	<750	6	1073	4 5	103 0	19 40	310 24
9	200	See Attached Map	<100	<750	3	1020	1 5	50 0	6 47	150 60
10	209	See Attached Map	<100	<750	2	1073	0 5	103 0	2 16	310 24
11	222	See Attached Map	<100	<750	5	1005	3 5	35 0	15 09	105 42
12	225	See Attached Map	<100	<750	7	867	5 5	-103 0	23 71	-310 24
13	236	See Attached Map	<100	<750	2	848	0 5	-122 0	2 16	-367 47
14	249	See Attached Map	<100	<750	7	867	5 5	-103 0	23 71	-310 24
15	260	See Attached Map	<100	<750	4	1028	2 5	58 0	10 78	174 70
16	263	See Attached Map	<100	<750	7	1061	5 5	91 0	23 71	274 10

* See maps on pages 10 and 17 of "Post Job Surveys" section. JBRamos 5/8/98

RADIOLOGICAL CONTAMI TION SURVEY FORM

LOG NUMBER

FOR _____ P/WRE _____ PRL

_____ RWP _____ OTHER X

BUILDING/LOCATION	ROOM
123	EAST / WEST / NORTH WING
DATE 4/23/98	TIME 2000

ITEM DESCRIPTION SURVEY OF AREAS OF PAINT SAMPLE REMOVED.

COMMENTS (1) ON ATTACHED SHTS ~~SHADED~~ BOLDED PT WERE SURVEYED WITH ELECTRA # 1392, THE ~~NONSHADED~~ NON-BOLD WITH # 2396

(2) SEE ATTACHED TENNELEC RESULTS FOR SMEAR RESULTS.

(3) SEPERATE BACKGROUNDS TAKEN ID EACH UNIT

(4) Reference area Backgrounds not used or subtracted

[redacted]

REVIEWED BY K. Cartland

RO SUPERVISION PRINT NAME

4/24/98

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR	EBER	EBER	EBER	EBER
MODEL	SAC-4	SAC-4	SAC-4	SAC-4
SERIAL #	N/A	N/A	N/A	N/A
CAL DATE				
CAL DUE DATE				

MFR	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL #	N/A	N/A	N/A	N/A
CAL DATE				
CAL DUE DATE				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR	N.E. TECH	NE TECH		TENNELEC
MODEL	ELECTRA	ELECTRA		XLB
SERIAL #	2396	1392		38922
CAL DATE	4.7.98	3 12 98		2.5.98
CAL DUE DATE	10 7.98	9 12 98		8.5.98
BACKGROUND	SEE ATTACHED	SEE ATTACHED		SEE
EFFICIENCY	α 23.9/32.8 β⁻	α 23.4/30.3 β⁻		ATTACHED
MDA	93.3/455	93.3/455		

MDA = CF X [2.71 + 4.65 √BACKGROUND (CPM)]

BUILDING 123 PAINT SAMPLE AREA SURVEY

Unit #	Grid #	Sample #	Sample ID	Alpha Bkgd (cpm)	Gross Alpha (cpm)	Net Alpha (cpm)	Alpha (dpm)	Beta Bkgd (cpm)	Gross Beta (cpm)	Net Beta (cpm)	Beta (dpm)
6	293	1	1	0	6	6	36	600	665	65	195
6	391	2	2	0	1	1	6	600	689	89	267
6	289	3	3	0	4	4	24	600	678	78	234
6	285	4	4	0	5	5	30	600	675	75	225
6	283	5	5	0	2	2	12	600	699	99	297
6	297	6	6	0	4	4	24	600	694	94	282
6	299	7	7	0	3	3	18	600	633	33	99
6	301	8	8	0	0	0	0	600	723	123	369
6	303	9	9	0	1	1	6	600	590	-10	-30
6	303	10	10	0	2	2	12	600	682	82	246
6	313	11	11	0	4	4	24	600	655	55	165
6	317	12	12	0	3	3	18	600	609	9	27
6	321	13	13	0	3	3	18	600	608	8	24
6	322	14	14	0	3	3	18	600	614	14	42
6	325	15	15	0	2	2	12	600	624	24	72
10 Room 109	19	16	16	2	5	3	18	773	815	42	126
10 Room 109	18	17	17	2	5	3	18	773	650	-123	0
10 Room 109	22	18	18	2	4	2	12	773	803	30	90
10 Room 109	23	19	19	2	2	0	0	773	797	24	72
10 Room 109	25	20	20	2	4	2	12	773	803	30	90

NOTE REFERENCE THE FINAL SURVEY MAPS FOR UNIT # AND GRID # LOCATIONS

BUILDING 123 PAINT SAMPLE AREA SURVEY

10 Room 109	27	21	21	2	2	0	0	773	788	15	45
10 Room 109	29	22	22	2	6	4	24	773	876	103	309
10 Room 109	28	23	23	2	4	2	12	773	720	-53	-159
10 Room 109	31	24	24	2	4	2	12	773	747	-26	-78
10 Room 109	30	25	25	2	1	1	6	773	748	-25	-75
10 Room 109	37	26	26	2	7	5	30	773	785	12	36
10 Room 109	39	27	27	2	4	2	12	773	743	-30	-90
10 Room 109	41	28	28	2	6	4	24	773	741	-32	-96
10 Room 109	40	29	29	2	6	4	24	773	753	-20	-60
10 Room 109	36	30	30	2	3	1	6	773	827	54	162
2	293	31	31	2	5	3	18	906	1014	108	324
2	293	32	32	2	10	8	48	906	964	58	174
2	293	33	33	2	4	2	12	906	948	42	126

NOTE REFERENCE THE FINAL SURVEY MAPS FOR UNIT # AND GRID # LOCATIONS

BUILDING 123 PAINT SAMPLE AREA SURVEY

2	293	34	34	2	2	0	0	906	882	-24	-72
2	293	35	35	2	11	9	54	906	909	3	9
9	369	36	36	2	7	5	30	906	864	-42	-126
9	368	37	37	2	3	1	6	906	827	-79	-237
9	396	38	38	2	8	6	36	906	787	-119	-357
9	397	39	39	2	6	4	24	906	809	-97	-291
9	397	40	40	2	5	3	18	906	760	-146	-438
9	395	41	41	2	4	2	12	906	815	-91	-273
9	393	42	42	2	5	3	18	906	861	-45	-135
9	389	43	43	2	12	10	60	906	869	-37	-111
9	387	44	44	2	4	2	12	906	959	53	159
9	386	45	45	2	1	1	6	906	967	61	183
9	380	46	46	2	8	6	36	906	970	64	192
9	381	47	47	2	11	9	54	906	976	70	210
9	379	48	48	2	10	8	48	906	908	2	6
9	377	49	49	0	9	9	54	736	734	-2	-6
9	375	50	50	0	5	5	30	736	754	18	54
9	205	51	51	2	11	9	54	914	919	5	15
9	207	52	52	2	13	11	66	914	960	46	138
9	208	53	53	2	5	3	18	914	843	-71	-213
9	209	54	54	1	4	3	18	692	728	36	108
9	210	55	55	1	8	7	42	692	777	85	255
9	210	56	56	1	5	4	24	692	756	64	192

NOTE REFERENCE THE FINAL SURVEY MAPS FOR UNIT # AND GRID # LOCATIONS

OXFR ECLIPSE LB

Printing Date 4/24/98

Print Time 6 07 49AM

Version 1 10

Report Name Gross Alpha Beta Analysis CPM DPM

Count Date 4/23/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name two minuteD & D swipe count - 199804232152

Bldg 123 Paint Samples Areas

System Information

Serial No 38922 Batch ID 235

Detector S/N 758 Group A

Sample Information

Sample Units

Geometry Swipe/Smear 1/8"

Count Parameters

Count Mode Simultaneous

Operating Voltage 1,395 00

Time 1 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract	Enable	
Background	0 17	1 37
Batch MDA (dpm)		

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
1		-0 17	-0 50	0 77	1 63	3 34	7 24	< MDA	< MDA
2		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA
3		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
4		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
5		-0 17	-0 50	0 77	3 63	7 43	9 27	< MDA	< MDA
6		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
7		-0 17	-0 50	0 77	1 37	-2 79	1 51	< MDA	< MDA
8		-0 17	-0 50	0 77	-1 37	-2 79	1 51	< MDA	< MDA
9		-0 17	-0 50	0 77	1 37	-2 79	1 51	< MDA	< MDA
10		-0 17	-0 50	0 77	-1 37	-2 79	1 51	< MDA	< MDA
11		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA
12		-0 17	-0 50	0 77	-1 37	-2 79	1 51	< MDA	< MDA
13		-0 17	-0 50	0 77	-1 37	-2 79	1 51	< MDA	< MDA
14		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA
15		0 83	2 48	5 99	0 63	1 30	5 98	< MDA	< MDA
16		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA
17		-0 17	-0 50	0 77	2 63	5 38	8 32	< MDA	< MDA
18		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
19		0 83	2 48	5 99	0 63	1 30	5 98	< MDA	< MDA
20		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA
21		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
22		-0 17	-0 50	0 77	2 63	5 38	8 32	< MDA	< MDA
23		-0 17	-0 50	0 77	1 37	-2 79	1 51	< MDA	< MDA
24		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA
25		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
26		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
27		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
28		-0 17	-0 50	0 77	1 63	3 34	7 24	< MDA	< MDA
29		-0 17	-0 50	0 77	1 37	-2 79	1 51	< MDA	< MDA
30		-0 17	-0 50	0 77	1 37	-2 79	1 51	< MDA	< MDA
31		-0 17	-0 50	0 77	1 37	-2 79	1 51	< MDA	< MDA
32		0 83	2 48	5 99	1 63	3 34	7 24	< MDA	< MDA
33		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
34		0 83	2 48	5 99	0 63	1 30	5 98	< MDA	< MDA
35		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA

Count Date 4/23/98

ALPHA / BETA CONTAMINATION SURVEY

Procedure Name two minuteD & D swipe count - 199804232152

System Information

Serial No 38922 Batch ID 235

Detector S/N 758 Group A

Sample Information

Sample Units

Geometry Swipe/Smear 1/8"

Count Parameters

Count Mode Simultaneous

Operating Voltage 1 395 00

Time 1 00

Delay 0 00

Sample Replicates 1

	Alpha	Beta
Efficiency (%)	33 67	48 90
Background Subtract	Enable	
Background	0 17	1 37
Batch MDA (dpm)		

Carrier ID	Swipe No	Net Alpha cpm	Alpha dpm	2 Sigma dpm	Net Beta cpm	Beta dpm	2 Sigma dpm	< Alpha MDA	< Beta MDA
36		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA
37		-0 17	-0 50	0 77	-1 37	-2 79	1 51	< MDA	< MDA
38		-0 17	-0 50	0 77	-1 37	-2 79	1 51	< MDA	< MDA
39		-0 17	-0 50	0 77	1 63	3 34	7 24	< MDA	< MDA
40		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA
41		0 83	2 48	5 99	0 63	1 30	5 98	< MDA	< MDA
42		-0 17	-0 50	0 77	1 63	3 34	7 24	< MDA	< MDA
43		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA
44		0 83	2 48	5 99	-0 37	-0 75	4 36	< MDA	< MDA
45		-0 17	-0 50	0 77	2 63	5 38	8 32	< MDA	< MDA
46		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
47		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA
48		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA
49		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA
50		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
51		-0 17	-0 50	0 77	-1 37	-2 79	1 51	< MDA	< MDA
52		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
53		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
54		-0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA
55		-0 17	-0 50	0 77	-0 37	-0 75	4 36	< MDA	< MDA
56		0 17	-0 50	0 77	0 63	1 30	5 98	< MDA	< MDA

PROPERTY/WASTE RELEASE EVALUATION

P/WRE Number 980429-123-01 Charge Number

EXTENDED NO EXPIRES

ART I SENDER/CUSTODIAN

Description of Property/Waste To Be Released/Transferred: (1) One Walk-In refrigerator This in a rewrite of P/WRE 971211-123-01

ORIGINAL in blue

Property's Current Location	Room 156 Building 123
Property's Destination	Newell Recycling, Denver Co
Property's New Recipient/Custodian	Newell Recycling, Denver Co
Property History/Process Knowledge	This refrigerator was used to store fecal samples waiting analysis Room 156 was controlled as an RMMA This P/WRE was rewritten to document a change in disposotion o f the item mentioned above

Has the specified property/waste contacted DOE controlled radioactive material or entered an RMMA at RFETS? Yes

ACKNOWLEDGEMENT

SEE 971211-123-01 FOR ACKNOWLGEMENT AND SIGNATURE

Sender/Custodian /S/ Ron Heitland Emp No Date Ext Pager

PART II RADIOLOGICAL ENGINEERING EVALUATION

Radiological Survey Requirements

Radiological Surveys are required for fixed and removable contamination (1) Alpha (2) Beta

Specific Requirements and/or Comments:

The Radiological Control Technician (RCT) shall perform a representative survey of each item identified above for unrestricted release as per ROI 3 02 Special attention should be given to the air supply, exhaust and fan/blower

The RCT shall provide a copy of the completed Survey Form to the Sender / Custodian The Sender / Custodian will return the completed surveys and P/WRE to Radiological Engineering for final approval

Refer to 971211-123-01 for survey results

Evaluated [redacted] Date 4/29/98 Ext 2454 Pager 7981

APPROVAL FOR TRANSFER / SHIPMENT

The waste/property specified above is being provided with an unrestricted release from radiological controls and may be transferred to the destination indicated in Part I of this release evaluation

Approved [redacted] Date 4/29/98 Ext 8457 Pager 5888

PROPERTY/WASTE RELEASE EVALUATION

P/WRE Number 971211-123-01 Charge Number

EXTENDED: NO EXPIRES

ORIGINAL in blue

ART I. **SENDER/CUSTODIAN**

Description of Property/Waste To Be Released/Transferred: (1) One Walk-In refrigerator

Property's Current Location: Room 156 Building 123

Property's Destination: P U & D

Property's New Recipient/Custodian: Millie Gleason

Property History/Process Knowledge: This refrigerator was used to store fecal samples waiting analysis Room 156 was controlled as an RMMA

Has the specified property/waste contacted DOE controlled radioactive material or entered an RMMA at RFETS? Yes

ACKNOWLEDGEMENT

By signing below, I certify the information provided in PART I of this P/WRE to be true and accurate

Sender/Custodi [redacted] Date 12/11/97 Ext 2862 Pager 0174

PART II: **RADIOLOGICAL ENGINEERING EVALUATION**

Radiological Survey Requirements:

Radiological Surveys are required for fixed and removable contamination (1) Alpha (2) Beta

Specific Requirements and/or Comments:

The Radiological Control Technician (RCT) shall perform a representative survey of each item identified above for unrestricted release as per ROI 3 02 Special attention should be given to the air supply, exhaust and fan/blower

The RCT shall provide a copy of the completed Survey Form to the Sender / Custodian The Sender / Custodian will return the completed surveys and P/WRE to Radiological Engineering for final approval

Evaluate [redacted] Date 12/11/97 Ext 2454 Pager 7981

APPROVAL FOR TRANSFER / SHIPMENT

The waste/property specified above is being provided with an unrestricted release from radiological controls and may be transferred to the destination indicated in Part I of this release evaluation

Approved [redacted] Date 12-23-97 Ext 2454 Pager 7981

Copy

RADIOLOGICAL CONTAMINATION &/or DOSE SURVEY FORM (A, B, λ, η)

SURVEY/LOG# 123-97-075	
P/WRE X ROUTINE	RAD MT'L TRANSFER
R.W.P OTHER	UNRESTRICTED RELEASE X
BUILDING/LOCATION 123	ROOM: 156
DATE. 12/17/97	TIME. 1400

Survey Description

Survey of Walkin Refrigerator in Bldg 123, Rm 156.

Comments

No Survey performed on *inside* of Refrigeration Compressor (inside unit)!!

Some Areas are inaccessible for surveying.

PRE# 971215-123-01

Alpha/Beta Contamination Survey Instruments

Mfg:	Eberline	Eberline	Eberline	Eberline
Model:	SAC-4	SAC-4	SAC-4	SAC-4
Serial #:	1199	795		
Date Calib'd:	8/6/97	11/20/97		
Cal Due Date:	2/6/98	5/20/97		

Mfg:	Eberline	Eberline	Eberline	Eberline
Model	BC-4	BC-4	BC-4	BC-4
Serial #:	914			
Date Calib'd:	8/7/97			
Cal Due Date:	2/7/98			

Gamma Radiation Survey Instruments

Mfg:	NE Electra	Ludlum		
Model:	DP-6	31		
Serial #:	1681			
Date Calib'd:	8/4/97			
Cal Due Date:	2/4/98			
Background:	α. 0.0 / β: 530			
Efficiency:	α. 19 4%/β 30 7%			

Gamma/Neutron Survey Instruments

Mfg:	Ludlum	Eberline		
Model:	12-4	RO-20		
Serial #:				
Date Calib'd.				
Cal Due Date:				
Background:				

Signature Required Signature

[redacted]

Survey/Log# 123-97-075

RADIOLOGICAL SURVEY FORM

Survey Point #	Location/description	Results in dpm/100cm sq				Survey Point #	Location/description	Results in dpm/100cm sq			
		Removable		Total				Removable		Total	
		Alpha	Beta/ Gamma	Alpha 60 sec	Beta/ Gamma			Alpha	Beta/ Gamma	Alpha 60 sec	Beta/ Gamma
1	See Sketch (S S)	<18	<205	<60	<455	32	See Sketch (S S)	<18	<205	<60	<455
2	See Sketch (S S)	<18	<205	<60	<455	33	See Sketch (S S)	<18	<205	<60	<455
3	See Sketch (S S)	<18	<205	<60	<455	34	See Sketch (S.S)	<18	<205	<60	<455
4	See Sketch (S S)	<18	<205	<60	<455	35	See Sketch (S S)	<18	<205	<60	<455
5	See Sketch (S S)	<18	<205	<60	<455	36	See Sketch (S S)	<18	<205	<60	<455
6	See Sketch (S S.)	<18	<205	<60	<455	37	See Sketch (S.S)	<18	<205	<60	<455
7	See Sketch (S S)	<18	<205	<60	<455	38	See Sketch (S S)	<18	<205	<60	<455
8	See Sketch (S S)	<18	<205	<60	<455	39	See Sketch (S S)	<18	<205	<60	<455
9	See Sketch (S.S)	<18	<205	<60	<455	40	See Sketch (S S)	<18	<205	<60	<455
10	See Sketch (S S)	<18	<205	<60	<455	41	See Sketch (S S)	<18	<205	<60	<455
11	See Sketch (S S)	<18	<205	<60	<455	42	See Sketch (S S)	<18	<205	<60	<455
12	See Sketch (S S)	<18	<205	<60	<455	43	See Sketch (S.S)	<18	<205	<60	<455
13	See Sketch (S S)	<18	<205	<60	<455	44	See Sketch (S S)	<18	<205	<60	<455
14	See Sketch (S S)	<18	<205	<60	<455	45	See Sketch (S S)	<18	<205	<60	<455
15	See Sketch (S S)	<18	<205	<60	<455	46	See Sketch (S S)	<18	<205	<60	<455
16	See Sketch (S S)	<18	<205	<60	<455	47	See Sketch (S S)	<18	<205	<60	<455
17	See Sketch (S S)	<18	<205	<60	<455	48	See Sketch (S S)	<18	<205	<60	<455
18	See Sketch (S S)	<18	<205	<60	<455	49	See Sketch (S S)	<18	<205	<60	<455
19	See Sketch (S S)	<18	<205	<60	<455	50	See Sketch (S S)	<18	<205	<60	<455
20	See Sketch (S S)	<18	<205	<60	<455	51	See Sketch (S S)	<18	<205	<60	<455
21	See Sketch (S S)	<18	<205	<60	<455	52	See Sketch (S S)	<18	<205	<60	<455
22	See Sketch (S S)	<18	<205	<60	<455	53	See Sketch (S S)	<18	<205	<60	<455
23	See Sketch (S S)	<18	<205	<60	<455	54	See Sketch (S S)	<18	<205	<60	<455
24	See Sketch (S S)	<18	<205	<60	<455	55	See Sketch (S S)	<18	<205	<60	<455
25	See Sketch (S S)	<18	<205	<60	<455	56	See Sketch (S S)	<18	<205	<60	<455
26	See Sketch (S S)	<18	<205	<60	<455	57	See Sketch (S S)	<18	<205	<60	<455
27	See Sketch (S S)	<18	<205	<60	<455	58	See Sketch (S S)	<18	<205	<60	<455
28	See Sketch (S S)	<18	<205	<60	<455	59	See Sketch (S S)	<18	<205	<60	<455
29	See Sketch (S S)	<18	<205	<60	<455	60	See Sketch (S S)	<18	<205	<60	<455
30	See Sketch (S S)	<18	<205	<60	<455	61	See Sketch (S S)	<18	<205	<60	<455
31	See Sketch (S S)	<18	<205	<60	<455	62	See Sketch (S S)	<18	<205	<60	<455

Survey/Log# 123-97-075

RADIOLOGICAL SURVEY FORM

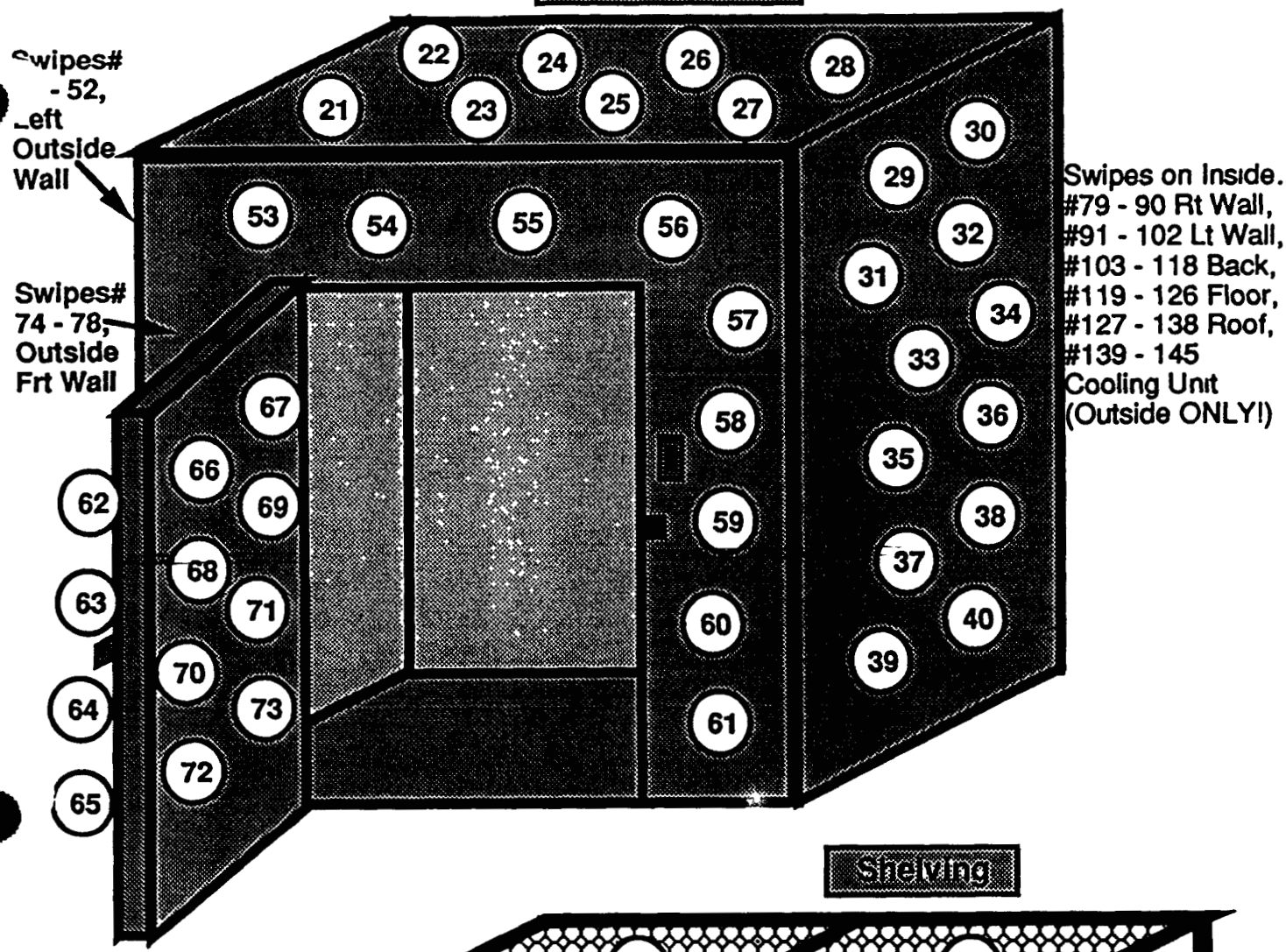
Survey Point #	Location/description	Results in dpm/100cm sq				Survey Point #	Location/description	Results in dpm/100cm sq			
		Removable		Total				Removable		Total	
		Alpha	Beta/ Gamma	Alpha 60 sec	Beta/ Gamma			Alpha	Beta/ Gamma	Alpha 60 sec	Beta/ Gamma
63	See Sketch (S S)	<18	<205	<60	<455	94	See Sketch (S S)	<18	<205	<60	<455
64	See Sketch (S S)	<18	<205	<60	<455	95	See Sketch (S S)	<18	<205	<60	<455
65	See Sketch (S S)	<18	<205	<60	<455	96	See Sketch (S S)	<18	<205	<60	<455
66	See Sketch (S S)	<18	<205	<60	<455	97	See Sketch (S S)	<18	<205	<60	<455
67	See Sketch (S S)	<18	<205	<60	<455	98	See Sketch (S S)	<18	<205	<60	<455
68	See Sketch (S S)	<18	<205	<60	<455	99	See Sketch (S S)	<18	<205	<60	<455
69	See Sketch (S S)	<18	<205	<60	<455	100	See Sketch (S S)	<18	<205	<60	<455
70	See Sketch (S S)	<18	<205	<60	<455	101	See Sketch (S S)	<18	<205	<60	<455
71	See Sketch (S S)	<18	<205	<60	<455	102	See Sketch (S S)	<18	<205	<60	<455
72	See Sketch (S S)	<18	<205	<60	<455	103	See Sketch (S S)	<18	<205	<60	<455
73	See Sketch (S S)	<18	<205	<60	<455	104	See Sketch (S S)	<18	<205	<60	<455
74	See Sketch (S S)	<18	<205	<60	<455	105	See Sketch (S S)	<18	<205	<60	<455
75	See Sketch (S S)	<18	<205	<60	<455	106	See Sketch (S S)	<18	<205	<60	<455
76	See Sketch (S S)	<18	<205	<60	<455	107	See Sketch (S S)	<18	<205	<60	<455
77	See Sketch (S S)	<18	<205	<60	<455	108	See Sketch (S S.)	<18	<205	<60	<455
78	See Sketch (S S)	<18	<205	<60	<455	109	See Sketch (S S)	<18	<205	<60	<455
79	See Sketch (S.S)	<18	<205	<60	<455	110	See Sketch (S S)	<18	<205	<60	<455
80	See Sketch (S S)	<18	<205	<60	<455	111	See Sketch (S S)	<18	<205	<60	<455
81	See Sketch (S S)	<18	<205	<60	<455	112	See Sketch (S S)	<18	<205	<60	<455
82	See Sketch (S S)	<18	<205	<60	<455	113	See Sketch (S S)	<18	<205	<60	<455
83	See Sketch (S S)	<18	<205	<60	<455	114	See Sketch (S S)	<18	<205	<60	<455
84	See Sketch (S S)	<18	<205	<60	<455	115	See Sketch (S S)	<18	<205	<60	<455
85	See Sketch (S S)	<18	<205	<60	<455	116	See Sketch (S S)	<18	<205	<60	<455
86	See Sketch (S S)	<18	<205	<60	<455	117	See Sketch (S S)	<18	<205	<60	<455
87	See Sketch (S S)	<18	<205	<60	<455	118	See Sketch (S S)	<18	<205	<60	<455
88	See Sketch (S S)	<18	<205	<60	<455	119	See Sketch (S S)	<18	<205	<60	<455
89	See Sketch (S S)	<18	<205	<60	<455	120	See Sketch (S S)	<18	<205	<60	<455
90	See Sketch (S S)	<18	<205	<60	<455	121	See Sketch (S S)	<18	<205	<60	<455
91	See Sketch (S.S)	<18	<205	<60	<455	122	See Sketch (S S)	<18	<205	<60	<455
92	See Sketch (S S.)	<18	<205	<60	<455	123	See Sketch (S S)	<18	<205	<60	<455
93	See Sketch (S.S)	<18	<205	<60	<455	124	See Sketch (S S)	<18	<205	<60	<455

Survey/Log# 123-97-075

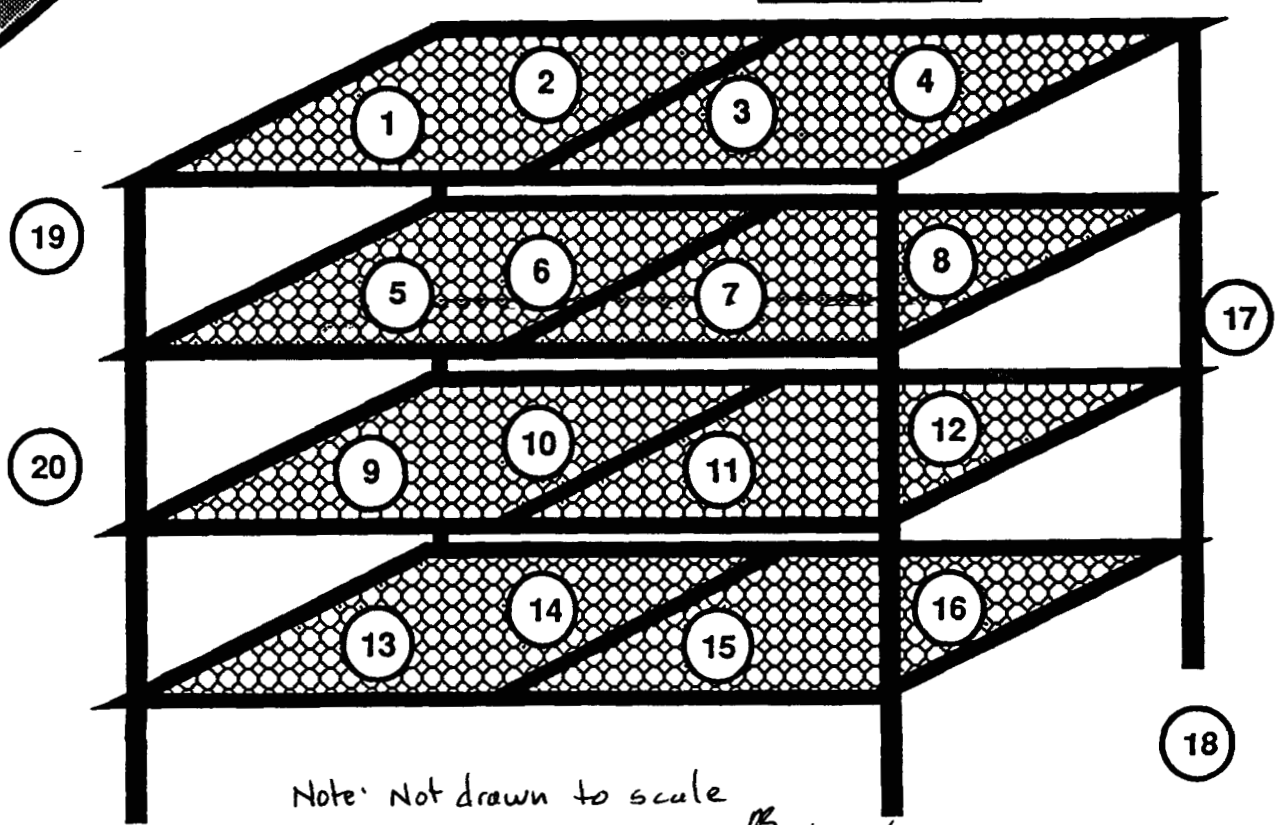
RADIOLOGICAL SURVEY FORM

Survey Point #	Location/description	Results in dpm/100cm sq				Survey Point #	Location/description	Results in dpm/100cm sq			
		Removable		Total				Removable		Total	
		Alpha	Beta/ Gamma	Alpha 60 sec	Beta/ Gamma			Alpha	Beta/ Gamma	Alpha 60 sec	Beta/ Gamma
125	See Sketch (S S)	<18	<205	<60	<455	156					
126	See Sketch (S S)	<18	<205	<60	<455	157					
127	See Sketch (S S)	<18	<205	<60	<455	158					
128	See Sketch (S S)	<18	<205	<60	<455	159					
129	See Sketch (S S.)	<18	<205	<60	<455	160					
130	See Sketch (S S)	<18	<205	<60	<455	161					
131	See Sketch (S S)	<18	<205	<60	<455	162					
132	See Sketch (S S)	<18	<205	<60	<455	163					
133	See Sketch (S S)	<18	<205	<60	<455	164					
134	See Sketch (S S)	<18	<205	<60	<455	165					
135	See Sketch (S S)	<18	<205	<60	<455	166					
136	See Sketch (S S)	<18	<205	<60	<455	167					
137	See Sketch (S S)	<18	<205	<60	<455	168					
138	See Sketch (S S)	<18	<205	<60	<455	169					
139	See Sketch (S S)	<18	<205	<60	<455	170					
140	See Sketch (S S)	<18	<205	<60	<455	171					
141	See Sketch (S S)	<18	<205	<60	<455	172					
142	See Sketch (S S)	<18	<205	<60	<455	173					
143	See Sketch (S S)	<18	<205	<60	<455	174					
144	See Sketch (S S)	<18	<205	<60	<455	175					
145	See Sketch (S S)	<18	<205	<60	<455	176					
146						177					
147						178					
148						179					
149						180					
150						181					
151						182					
152						183					
153						184					
154						185					
155						186					

Refrigerator



Shelving



Note: Not drawn to scale

BS 4/29/98

PROPERTY/WASTE RELEASE EVALUATION

ORIGINAL
IN Blue

P/WRE Number 980102-123-02 Charge Number

EXTENDED NO EXPIRES

PART I. SENDER/CUSTODIAN

Description of Property/Waste To Be Released/Transferred	Building 123 House Vacuum System (internal portion) The system supplies the building laboratories, most of which are controlled as RMMAs The system originates in Room 132 The system is constructed primarily of 1/2 inch diameter piping which will not accommodate typical contamination survey methodology NOTE External Portions of this system will be surveyed during the Final Survey Phase of Building 123 D&D Project
Property's Current Location	Building 123
Property's Destination	USA Waste Services Inc , Erie ,CO Phone (303) 321-7744
Property's New Recipient/Custodian	USA Waste Services Inc , Erie ,CO Phone (303) 321-7744
Property History/Process Knowledge	This system supplied vacuum for laboratory operations The system is not labeled as radiologically contaminated, however the internal portion of this system requires investigation Following engineering walk downs of this system, it was determined that a representative survey of the entire system could be accomplished by surveying the vacuum receiver tank (Tank 327-66) located in Room 132 This system will remain in place during the demolition of Building 123 and will be disposed of along with the demolition rubble
Has the specified property/waste contacted DOE controlled radioactive material or entered an RMMA at RFETS?	Unknown

ACKNOWLEDGEMENT

By signing below, I certify the information provided in PART I of this P/WRE to be true and accurate and agree to comply with the requirements noted in Part II of this release evaluation

Sender/Custodian [redacted] Date 01/06/98 Ext 2862 Pager 0174

PART II. RADIOLOGICAL ENGINEERING EVALUATION

Radiological Survey Requirements:

Radiological Surveys are required for fixed and removable contamination (1) Alpha (2) Beta

Specific Requirements and/or Comments:

Tank 327-66 will be breached at the inlet and outlet piping The RCT will perform removable contamination surveys at these breaches If removable contamination surveys confirm levels are below the limits of identified in Table 2-2 of the RFETS Radiological Control manual, Tank 327-66 shall cut in half so that the internal surfaces are surveyable The Radiological Control Technician (RCT) shall perform surveys of the interior tank walls for unrestricted in accordance with ROI 3 02 These results will be applied to the remaining portions of the system Radiological Engineering has determined that this is representative in that all vacuum lines originating from laboratory hoods tie into a common header which originates at Tank 327-66

The RCT shall provide a copy of the completed Survey Form(s) to the Sender / Custodian The Sender / Custodian will return the completed surveys and P/WRE to Radiological Engineering for final approval

NOTE Approval signature will not be signed until final surveys are completed and verified

[redacted] Date 01/06/98 Ext 2454 Pager 7981

APPROVAL FOR TRANSFER / SHIPMENT

The waste/property specified above is being provided with an unrestricted release from radiological controls and may be transferred to the destination indicated in Part I of this release evaluation

Approv[redacted] Date 2/2/98 Ext 3769 Pager 3209

Copy

RADIOLOGICAL CONTAMINATION &/or DOSE SURVEY FORM (A, B, γ, η)

SURVEY/LOG# 980102-123-02

P/WRE X ROUTINE	RAD MT'L TRANSFER
RWP OTHER	UNRESTRICTED RELEASE X
BUILDING/LOCATION 123	ROOM: 125
DATE 1/26/98	TIME 1500

Total Survey Description

House Vacuum System (Internal Portion)

Comments

Performed by (RCT)

Removable Contamination Survey Instruments

Mfg	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Serial #:	795	1199		
Date Calib'd	11/20/97	8/6/97		
Cal Due Date.	5/20/98	2/6/98		

Mfg	Eberline	Eberline	Eberline	Eberline
Model	BC-4	BC-4	BC-4	BC-4
Serial #	706	694	914	
Date Calib'd	1/14/98	12/23/97	8/7/97	
Cal Due Date	7/14/98	6/23/98	2/7/97	

Total (Fixed + Removable) Survey Instruments

Mfg	NE Electra	Ludlum		
Model	DP-6	31		
Serial #	1681			
Date Calib'd	8/4/97			
Cal Due Date	2/4/98			
Background.	α=00/β=420			
Efficiency:	α=19.4%/β=30 7%			

Gamma / Neutron Survey Instruments

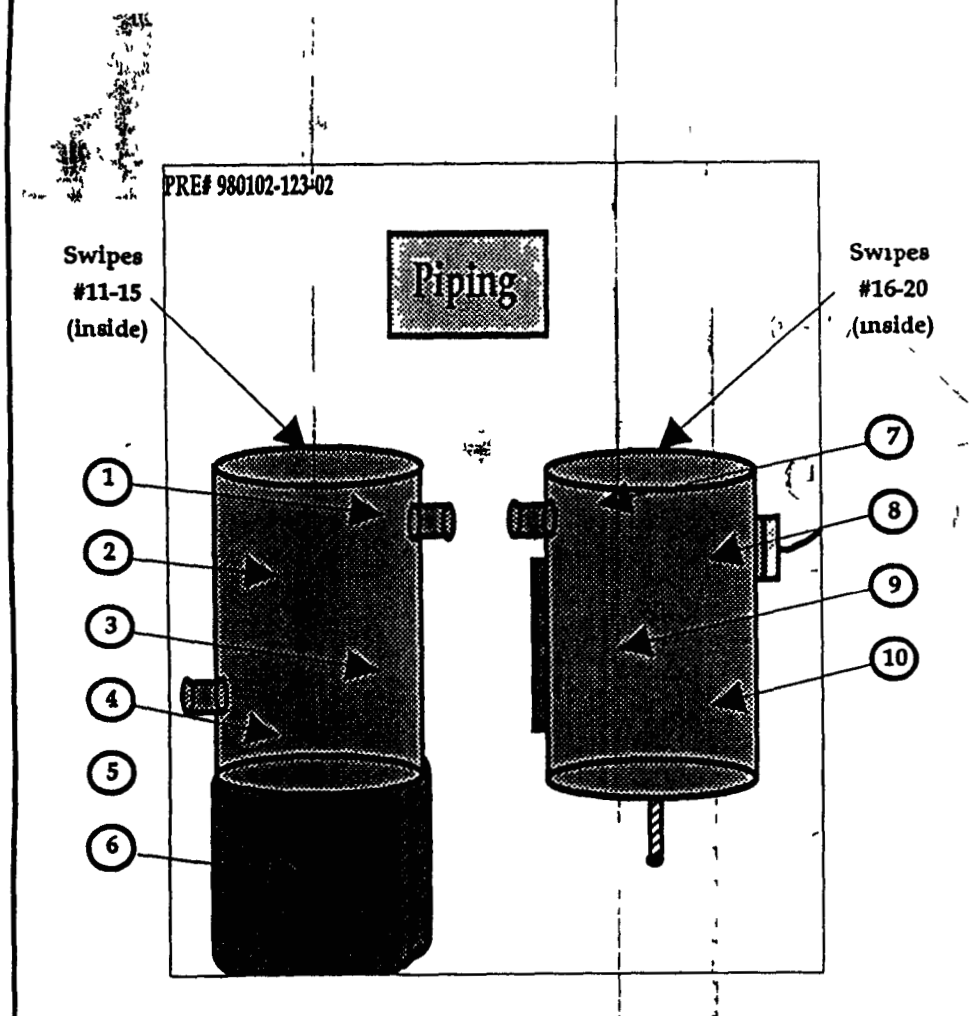
Mfg.	Ludlum	Eberline		
Model	12-4	RO-20		
Serial #:				
Date Calib'd:				
Cal Due Date.				
Background:				

Reviewed by (Rad Ord's Supervision)

[redacted]

Survey/Log#_____

RADIOLOGICAL SURVEY FORM



Note: Map not drawn to scale. 4/29/98

Survey Point #	Location/description	Results in dpm/100cm sq Removable α	Removable β/γ	Total α	Total β/γ
1	Outside of Pipe, see Sketch	<20	<200	<93 3	<455
2	Outside of Pipe, see Sketch	<20	<200	<93 3	<455
3	Outside of Pipe, see Sketch	<20	<200	<93 3	<455
4	Outside of Pipe, see Sketch	<20	<200	<93 3	<455
5	Outside of Pipe, see Sketch	<20	<200	<93 3	<455
6	Outside of Pipe, see Sketch	<20	<200	<93 3	<455
7	Outside of Pipe, see Sketch	<20	<200	<93 3	<455
8	Outside of Pipe, see Sketch	<20	<200	<93 3	<455
9	Outside of Pipe, see Sketch	<20	<200	<93 3	<455
10	Outside of Pipe, see Sketch	<20	<200	<93 3	<455
11	Inside of Pipe, see Sketch	<20	<200	<93 3	<455
12	Inside of Pipe, see Sketch	<20	<200	<93 3	<455
13	Inside of Pipe, see Sketch	<20	<200	<93 3	<455
14	Inside of Pipe, see Sketch	<20	<200	<93 3	<455
15	Inside of Pipe, see Sketch	<20	<200	<93 3	<455
16	Inside of Pipe, see Sketch	<20	<200	<93 3	<455
17	Inside of Pipe, see Sketch	<20	<200	<93 3	<455
18	Inside of Pipe, see Sketch	<20	<200	<93 3	<455
19	Inside of Pipe, see Sketch	<20	<200	<93 3	<455
20	Inside of Pipe, see Sketch	<20	<200	<93 3	<455
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					

BBalduin 516301 1-26-98

PROPERTY/WASTE RELEASE EVALUATION ORIGINAL

P/WRE Number 980102-123-03 Charge Number

EXTENDED NO EXPIRES

ART I. SENDER/CUSTODIAN

Description of Property/Waste To Be Released/Transferred	Building 123 Process Cold Water System (internal portion of system labeled as potential internal contamination) The system originates in Room 159 and is supplied by domestic water The system is constructed primarily of 4 inch diameter piping which will not accommodate typical contamination survey methodology
Property's Current Location	Building 123 Rooms 155, 156 and 157
Property's Destination	USA Waste Services Inc , Erie ,CO Phone (303) 321-7744
Property's New Recipient/Custodian	USA Waste Services Inc , Erie ,CO Phone (303) 321-7744
Property History/Process Knowledge	This system supplied water for flushing hood exhaust ducting on the roof and Scrubber S-3 The system was labeled as potential internal contamination because the supply header to the ventilation ducting on the roof also acts as a drain line for residual water in the ventilation system Refer to attached figure This system will remain in place during the demolition of Building 123 and will be disposed of along with the demolition rubble NOTE External Portions of this system will be surveyed during the Final Survey Phase of Building 123 D&D Project
Has the specified property/waste contacted DOE controlled radioactive material or entered an RMMA at RFETS?	Unknown

ACKNOWLEDGEMENT

By signing below, I certify the information provided in PART I of this P/WRE to be true and accurate and agree to comply with the requirements noted in Part II of this release evaluation

Sender/Custodia [redacted] Date 01/06/98 Ext 2862 Pager 0174

PART II: RADIOLOGICAL ENGINEERING EVALUATION

Radiological Survey Requirements.

Radiological Surveys are required for fixed and removable contamination (1) Alpha (2) Beta

Specific Requirements and/or Comments:

Following engineering walk downs of this system, it was determined that a representative survey of the affected portion of the system, (Rooms 159, 155, 156 and 157) could be accomplished by surveying the internal portion of the pressure regulator, flow meter and valves, as indicated on the attached figure The Radiological Control Technician (RCT) shall perform surveys of the interior surfaces, i e valve seats, stems diaphragms etc for unrestricted in accordance with ROI 3 02 These results will be applied to the remaining portions of the system

The RCT shall provide a copy of the completed Survey Form(s) to the Sender / Custodian The Sender / Custodian will return the completed surveys and P/WRE to Radiological Engineering for final approval

NOTE Approval signature will not be signed until final surveys are completed and verified

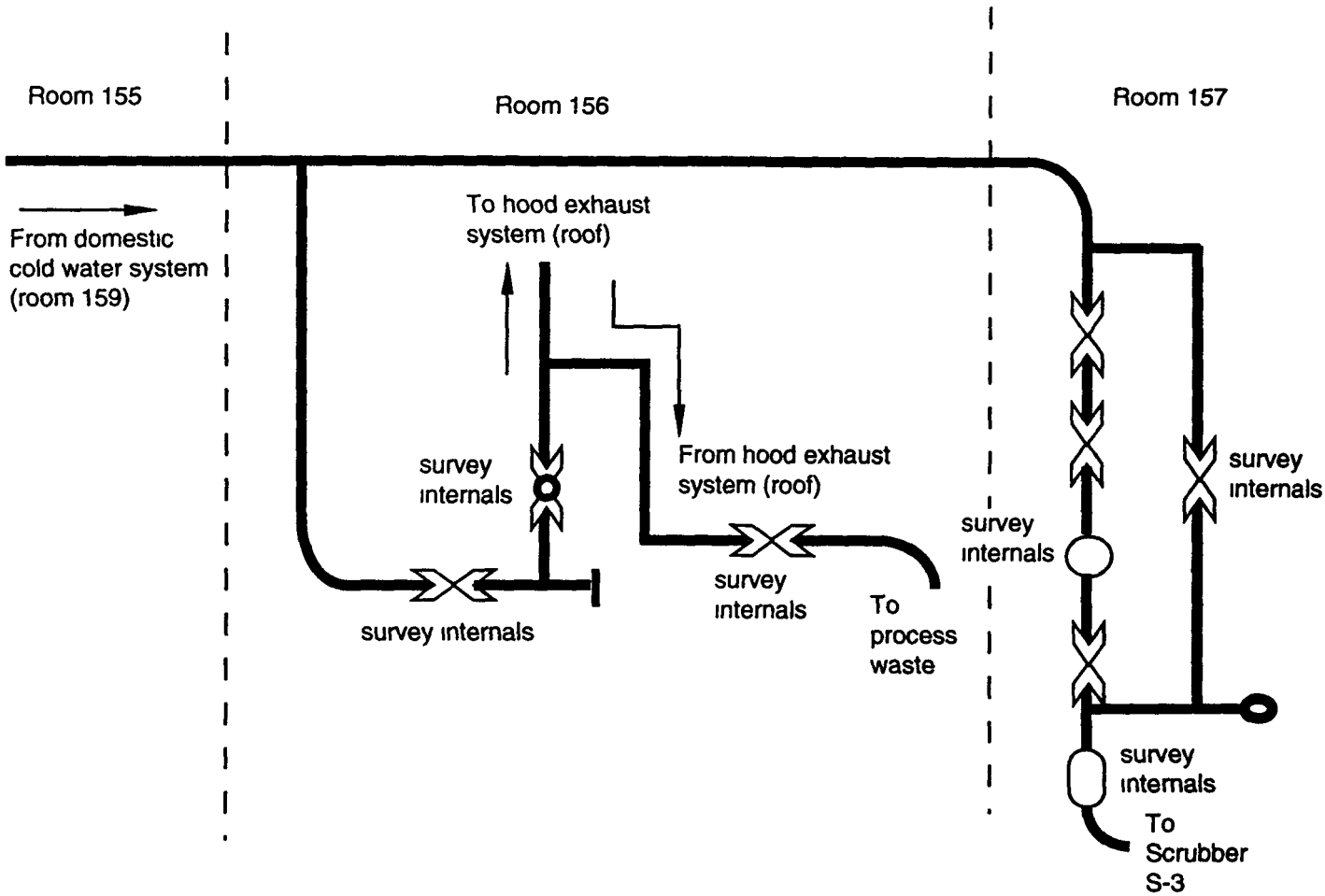
E [redacted] Date 01/06/98 Ext 2454 Pager 7981

APPROVAL FOR TRANSFER / SHIPMENT

The waste/property specified above is being provided with an unrestricted release from radiological controls and may be transferred to the destination indicated in Part I of this release evaluation

Approved [redacted] Date 4/27/98 Ext 8451 Pager 5888

PROCESS COLD WATER SYSTEM ROOMS 155, 156 AND 157



Manually operated valve

Solinoid valve

Pressure regulator

Flow meter

Pressure gage

Note: Map not drawn to scale. DB 4/29/98

RADIOLOGICAL CONTAMINATION &/or DOSE SURVEY FORM (A, B, γ, η)

SURVEY/LOG# 980102-123-03

P/WRE X ROUTINE ____	RAD MT'L TRANSFER ____
R.W.P ____ OTHER ____	UNRESTRICTED RELEASE X
BUILDING/LOCATION 123	ROOM. 155,156,157
DATE 2/9/98	TIME 1500

Area Survey Description

Bldg. 123 Process Cold Water System

Comments

Items surveyed have areas <100 cm sq ; No sketch required.

Survey Results

Portable Contamination Survey Instruments

Mfg	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Serial #	795			
Date Calib'd	11/20/97			
Cal Due Date	5/20/98			

Mfg	Eberline	Eberline	Eberline	Eberline
Model	BC-4	BC-4	BC-4	BC-4
Serial #	706	694		
Date Calib'd	1/14/98	12/23/97		
Cal Due Date	7/14/98	6/23/98		

Fixed Dose Rate Survey Instruments

Mfg	NE Electra	NE Electra		
Model	DP-6	DP-6		
Serial #	1181	1569		
Date Calib'd	10/1/97	8/28/97		
Cal Due Date	4/1/98	2/28/98		
Background	α = 1 0/ β = 389	α = 1 0/ β = 443		
Efficiency	α=23 4% /β=33 4%	α=23 1% /β=30 9%		

Airborne Monitor Survey Instruments

Mfg	Ludlum	Eberline		
Model	12-4	RO-20		
Serial #				
Date Calib'd				
Cal Due Date				
Background				

Reviewed by Rad Ops Supervisor

[redacted]

Survey/Log# 980102-~~98~~123-03

RADIOLOGICAL SURVEY FORM

Survey Point #	Location/description	Results in dpm/100cm sq Removeable 60s counts α	Removeable 60s counts β/γ	Total 60s counts α	Total 60s counts β/γ	Survey Point #	Location/description	Results in dpm/100cm sq Removeable 60s counts α	Removeable 60s counts β/γ	Total 60s counts α	Total 60s counts β/γ
1	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	32					
2	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	33					
3	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	34					
4	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	35					
5	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	36					
6	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	37					
7	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	38					
8	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	39					
9	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	40					
10	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	41					
11	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	42					
12	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	43					
13	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	44					
14	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	45					
15	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	46					
16	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	47					
17	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	48					
18	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	49					
19	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	50					
20	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	51					
21	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	52					
22	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	53					
23	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	54					
24	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	55					
25	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	56					
26	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	57					
27	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	58					
28	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	59					
29	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	60					
30	Msc Valve, Piping, Stems, etc	<20	<200	<100	<455	61					
31						2					

RMRS Rocky Mountain Remediation Services, L.L.C.
protecting the environment

INTEROFFICE MEMORANDUM

DATE May 7, 1998

TO FILE

FROM J J Miller, Radiological Engineering, Bldg T130B, X2454

SUBJECT ALPHA AND BETA SCAN RATES FOR BUILDING 123

FINAL SURVEYS JJM-15-98

The purpose of this memorandum is to document the basis for the scan rates associated with the Bicron NE Electra during the performance of Final Surveys in Building 123 as described in Appendix D, Performance of Scans for Alpha and Beta Contamination of the Close-Out Radiological Survey Plan for the 123 Cluster (CSRP)

As a result of the more restrictive beta release limit associated with the Decontamination and Decommissioning of Building 123, the applicability of the scan rates identified in Radiological Operations Procedure 4-K62-ROI-3 01 Revision 1, Performance of Surface Contamination Surveys (ROI 3 01) was evaluated. This evaluation included a comparison between the Multi-Agency Radiation Survey and Site Investigation Manual (MARRSIM), December 1997 and Radiological Engineering Site Operations Technical Basis Document, Methods to Demonstrate Compliance with Performance Requirements for Swipe Counting and Portable Contamination Survey Instruments used to Evaluate Property and Waste for Unrestricted Release (TBD) June 7, 1995 The methodologies used in developing scan rates which were most applicable to the 123 Project were the primary focus of this comparison

Following Radiological Engineering's evaluation of the MARRSIM and TBD, the scan rate for beta contamination using the NE Electra was calculated using the methodology identified in Section 6 7 2, *Scanning Sensitivity*, of MARRSIM. Based on the typical beta background characteristic of Building 123, (approximately 600 cpm), and a release level of 750 dpm/100 cm^2, a scan speed of 0 5 in/s was applied generically in the field for all scans using the NE Electra Refer to the attached calculation spread sheet For consistency, the probability of detecting 2 or more counts during the alpha scan was calculated using Section 6 7 2 of MARSSIM. The maximum alpha background limit of 8 cpm with a minimum 4π efficiency of 32%, associated with the NE Electra was used in the calculations The result of this calculation (Attachment 2) shows that the NE Electra

would have a 21% probability of detecting two or more counts if scanning a large surface uniformly contaminated at 100 dpm, which does not meet the 50% probability recommended by ANSI N13 12, *Draft American National Standard Control of Radioactive Surface Contamination on Materials, Equipment ands Facilities to be Released for Uncontrolled Use* However, since the NE Electra scans for alpha and beta contamination simultaneously, it is appropriate to consider the detection probability at the reduced scan rate At the 0 5 in/s scan rate the probability of detection increases to 86% which exceeds the ANSI 13 12N recommendation While the ANSI 13 12N detection probability is based on one or more counts, the MARSSIM probability calculation is based on the detection of two or more counts This difference is subtle and the ANSI 13 12N recommendation is considered applicable to both cases

In an effort not to complicate the performance of final surveys more so than necessary, the language used in Appendix D of the CSRP for the performance of alpha scans was kept as close to that in ROI 3 01, knowing that the alpha scan would be performed at the more restrictive beta scan rate of 0 5 in/s

The scan rate used with the NE Electra during the performance of final surveys for Building 123 is adequate to achieve the detection limits needed to release the building

Contact me with questions regarding this memo

jjm

Attachments (2)
As Stated

cc

J B Barroso
C J Bianconi
R L Morris
B A Watson

MINIMUM DETECTABLE CONCENTRATION FOR THE NE ELECTRA
SCANNING FOR BETA CONTAMINATION

Background Count Rate (cpm)	Scan Rate (in/sec)	Probe Width (in)	Observation Interval Length (i) (sec)	Average Background Counts (b_i)	d'	Minimum Net Source Counts (s_i)	Minimum Detectable Count Rate (cpm)	Surveyor Efficiency (p)	Detector Efficiency	Probe Area (cm^2)	Scan Minimum Detectable Concentration ($dpm/100cm^2$)
1000	4	2.6	0.65	10.8	1.38	4.5	419	0.5	0.33	100	1797
1000	2	2.6	1.3	21.7	1.38	6.4	296	0.5	0.33	100	1271
1000	1	2.6	2.6	43.3	1.38	9.1	210	0.5	0.33	100	898
1000	0.5	2.6	5.2	86.7	1.38	12.8	148	0.5	0.33	100	635
900	4	2.6	0.65	9.8	1.38	4.3	398	0.5	0.33	100	1705
900	2	2.6	1.3	19.5	1.38	6.1	281	0.5	0.33	100	1205
900	1	2.6	2.6	39.0	1.38	8.6	199	0.5	0.33	100	852
900	0.5	2.6	5.2	78.0	1.38	12.2	141	0.5	0.33	100	603
800	4	2.6	0.65	8.7	1.38	4.1	375	0.5	0.33	100	1607
800	2	2.6	1.3	17.3	1.38	5.7	265	0.5	0.33	100	1136
800	1	2.6	2.6	34.7	1.38	8.1	188	0.5	0.33	100	804
800	0.5	2.6	5.2	69.3	1.38	11.5	133	0.5	0.33	100	566
700	4	2.6	0.65	7.6	1.38	3.8	351	0.5	0.33	100	1503
700	2	2.6	1.3	15.2	1.38	5.4	248	0.5	0.33	100	1063
700	1	2.6	2.6	30.3	1.38	7.6	175	0.5	0.33	100	752
700	0.5	2.6	5.2	60.7	1.38	10.7	124	0.5	0.33	100	531
600	4	2.6	0.65	6.5	1.38	3.5	325	0.5	0.33	100	1392
600	2	2.6	1.3	13.0	1.38	5.0	230	0.5	0.33	100	984
600	1	2.6	2.6	26.0	1.38	7.0	162	0.5	0.33	100	696
600	0.5	2.6	5.2	52.0	1.38	10.0	115	0.5	0.33	100	492
500	4	2.6	0.65	5.4	1.38	3.2	296	0.5	0.33	100	1271
500	2	2.6	1.3	10.8	1.38	4.5	210	0.5	0.33	100	898
500	1	2.6	2.6	21.7	1.38	6.4	148	0.5	0.33	100	635
500	0.5	2.6	5.2	43.3	1.38	9.1	106	0.5	0.33	100	449
400	4	2.6	0.65	4.3	1.38	2.9	265	0.5	0.33	100	1136
400	2	2.6	1.3	8.7	1.38	4.1	188	0.5	0.33	100	804
400	1	2.6	2.6	17.3	1.38	5.7	133	0.5	0.33	100	566
400	0.5	2.6	5.2	34.7	1.38	8.1	94	0.5	0.33	100	402
300	4	2.6	0.65	3.3	1.38	2.5	230	0.5	0.33	100	984
300	2	2.6	1.3	6.5	1.38	3.5	162	0.5	0.33	100	696
300	1	2.6	2.6	13.0	1.38	5.0	115	0.5	0.33	100	492
300	0.5	2.6	5.2	26.0	1.38	7.0	81	0.5	0.33	100	348
200	4	2.6	0.65	2.2	1.38	2.0	188	0.5	0.33	100	804
200	2	2.6	1.3	4.3	1.38	2.9	133	0.5	0.33	100	566
200	1	2.6	2.6	8.7	1.38	4.1	94	0.5	0.33	100	402
200	0.5	2.6	5.2	17.3	1.38	5.7	66	0.5	0.33	100	284
100	4	2.6	0.65	1.1	1.38	1.4	133	0.5	0.33	100	566
100	2	2.6	1.3	2.2	1.38	2.0	94	0.5	0.33	100	402
100	1	2.6	2.6	4.3	1.38	2.9	66	0.5	0.33	100	284
100	0.5	2.6	5.2	8.7	1.38	4.1	47	0.5	0.33	100	201

Scan MDC = MDCR/(sqrt p) x e_s x e_s x (probe area/100 cm^2)
where. MDCR is minimum detectable count rate
e_i is instrument efficiency
e_s is surface efficiency assumed to be 1 (Ac-228 1.17 MeV)
p is surveyor efficiency

Scan MDCR = s_i x (60/i)
where s_i is minimum detectable net source counts in count interval
i is the observation interval

s_i = d' x sqrt (b_i)

where d' = 1.38 which is the detectability value associated with a 95% true positive proportion and a 60% false positive proportion.
b_i is number of background counts in the count interval

J. J. Miller RMRS Radiological Engineering — 5-7-98 date

C. J. Bianconi, SSOC Radiological Engineering — 5/7/98 date

Probability of getting 2 or more counts during alpha scan

G	100	dpm
B	8	cpm
E	0 32	4π eff
d	2 6	in
v	2	in/sec
t	1 3	sec
n	2	
P(n≥2)	0 215346	

G	300	dpm
B	8	cpm
E	0 32	4π eff
d	2 6	in
v	2	in/sec
t	1 3	sec
n	2	
P(n≥2)	0 658242	

G	100	dpm
B	8	cpm
E	0 32	4π eff
d	2 6	in
v	1	in/sec
t	2 6	sec
n	2	
P(n≥2)	0 517035	

G	300	dpm
B	8	cpm
E	0 32	4π eff
d	2 6	in
v	1	in/sec
t	2 6	sec
n	2	
P(n≥2)	0 939233	

G	100	dpm
B	8	cpm
E	0 32	4π eff
d	2 6	in
v	0 5	in/sec
t	5 2	sec
n	2	
P(n≥2)	0 860547	

G	300	dpm
B	8	cpm
E	0 32	4π eff
d	2 6	in
v	0 5	in/sec
t	5 2	sec
n	2	
P(n≥2)	0 998781	

$P(n \geq 2) = 1 - [1 + ((GE + B) \times d) / (v \times 60)] \times (e^{-((GE + B) \times d) / (v \times 60)})$

where
G = contamination activity
E = 4 π detector eff
B = background count rate
d = width of detector in direction of scan in inches
v = scan speed in inches/second
t = d/v, dwell time over the source
n = number of counts detected

J J Miller, RMRS Radiological Engineering — date 5-7-98

C J Bianconi, SSOC Radiological Engineering — date 5/7/98

Refer to MARSSIM Section 6 7 2 2

RMRS Rocky Mountain Remediation Services, L L C
protecting the environment

INTEROFFICE MEMORANDUM

DATE April 14, 1998

TO FILE

FROM. J B Barroso, Radiological Engineering, Bldg T130B, X8451

SUBJECT SURVEY UNIT SPECIFIC BACKGROUND COUNT RATE (SUSBCR) DETERMINATION FOR BUILDING 123 FINAL SURVEYS JBB-002-98

Ref J J Miller Memo, JJM-11-98, dated March 24, 1998

The above referenced memo documents the use of B551 for a reference area background. Due to concern about the use of B551 for a reference area background, a similar Radiological Engineering analysis was performed using Buildings 111, 112 and 443

These building were chosen because their age and construction is comparable to B123 (placed in service in 1953) B111 was place in service in 1953 This building houses general offices, a print lithographic shop, a photography laboratory, and a photocopying center Building 112 was previously used as a cafeteria, it is now however, the home for external dosimetry Building 443 was placed into service in 1953 This building houses the steam generation plant

In addition, all of these buildings were evaluated as non-Radioactive Material Management Areas(non-RMMA) in 1994 The evaluations showed no evidence to indicate the presence of unencapsulated radioactive material, airborne radioactivity or contamination which would warrant an RMMA designation On this basis and "by utilization of process history/knowledge"(sic), the buildings were designated as non-RMMA The RMMA/non-RMMA determinations for all building on-site are filed with the SSOC Radiological Engineering core group

Following radiological analysis of at least 10 random data points acquired from each of the above buildings, standard values for alpha and beta reference area (shielded - unshielded) background were determined The value is 119 73 cpm for beta, a rounded value of 120 cpm will be used for the reference area background application An alpha background will not be used since the value is very small, and not applying a reference area background for alpha is a conservative application Refer to the attached worksheets

for the summary of data used to determine the standard value for beta It should be noted that the newly derived beta value of 120 cpm is consistent with the initial beta reference value derived from B551 (132 57 cpm)

Contact me with questions regarding this memo

jbb

Attachments
As Stated

cc

K A Dorr
C L Guthrie
M B Mattheiss
J J Miller

Refere ce Area Beta Background

Buildings 111, 112 and 443
Performed 4/8/98

	Survey #	Location	unshielded (cpm)	shielded (cpm)	delta (cpm)
Bldg 111	1	Loading dock 6 ft west from the centerline of garage door	982	762	220
Bldg 111	2	Same as above	967	757	210
Bldg 111	3	Mechanical Room 2 ft west sanitary drain, 3 ft 6in east air conditioner	927	705	222
Bldg 111	4	Mechanical Room West wall (poured) 2 ft north of pump breaker, 6 ft 6 in above slab	860	693	167
Bldg 111	5	Hallway 5 ft west of Room 1B (Library) door centerline	863	725	138
Bldg 111	6	Same as above	860	720	140
Bldg 111	7	Room 2 3 ft east of door centerline	853	658	195
Bldg 111	8	28 ft south of Door #6 5 ft above slab (poured)	771	687	84
Bldg 111	9	Same as above	789	687	102
Bldg 111	10	38 ft south of Door #6 6ft 5 in above slab on seal of third window moving from north to south (poured)	785	715	70
Bldg 111	11	3 1/2 ft north, 5 ft west of Door #6 centerline 5 ft 2 in above slab, 2 ft west phone #F364	830	690	140
Bldg 111	12	Hallway wall, 5 ft south Door #9 centerline, 6 feet above slab (cinder block)	835	775	60
Bldg 111	13	Hallway wall, 2 ft 6 in north and 3 ft west Door #7, 6 feet above slab (cinder block)	749	702	47
				mean	138 08
				stdev	62 091
Bldg 112	1	Room 106 10 ft east of door	941	834	107
Bldg 112	2	Same as above	956	812	144
Bldg 112	3	6 ft west Door #2, end of hallway, 5 ft 8 in above slab (poured)	801	684	117
Bldg 112	4	Same as above	764	710	54
Bldg 112	5	1 ft 6 in north Room 106, edge of door 2 ft above slab (cinder block)	651	625	26
Bldg 112	6	Room 114, men's room, North wall 5 ft above slab (poured)	874	767	107
Bldg 112	7	Same as above	839	753	86
Bldg 112	8	Room 116, between 2 water heaters, 2 ft south	863	761	102
Bldg 112	9	Same as above	854	780	74
Bldg 112	10	4 ft south of Door #3D, 4 ft 6 in above slab	846	643	203
Bldg 112	11	West wall centerline radiator #331 space 891, 3 ft above slab (cinder block)	659	631	28
Bldg 112	12	11 ft 8 in north of interior double doors 1 ft above slab west wall (cinder block)	770	714	56
Bldg 112	13	4 ft 8 in south Door #1 centerline	832	755	77
Bldg 112	14	2 ft 6 in west Door #1 edge, 3 ft north, 4 ft above slab (poured)	838	727	111
				mean	90 846
				stdev	48 27

Refer... Area Beta Background

Buildings 111, 112 and 443
Performed 4/8/98

	Survey #	Location	unshielded (cpm)	shielded (cpm)	delta (cpm)
Bldg 443	1	7 ft west Door #1 centerline	844	755	89
Bldg 443	2	Same as above	905	762	143
Bldg 443	3	Column D1 East wall, west face 3 ft above slab	889	700	189
Bldg 443	4	Wall opposite of Column E1 6 ft above slab (cinder block)	625	557	68
Bldg 443	5	Column F2 6 ft 6 in above slab north face, 2 ft from east edge	854	693	161
Bldg 443	6	Same as above	910	676	234
Bldg 443	7	West wall between columns D3 and E3 6 ft east of wall (poured)	872	705	167
Bldg 443	8	Same as above	837	714	123
Bldg 443	9	4 ft north of girder 3A	789	686	103
Bldg 443	10	3 ft east of girder K-3A	772	635	137
Bldg 443	11	5 ft west of column N3B	720	613	107
Bldg 443	12	9 ft west of girder K-6	634	587	47
Bldg 443	13	8 ft west, 2 ft south column B1adjacent to water fountain	932	798	134

Instrument NE Electra
Serial Number 2401
Beta efficiency 31 7%
Calibration date 4/7/98
Calibration due 10/7/98

mean 130 92
stdev 50 474

total mean 119 73
total stdev 55 866

Analysis of slab and poured walls only mean 131 42
stdev 50 676

Analysis of slab only mean 134 5
stdev 48 949

surveyor	R. AYALA (print) Radiological Control Technician	R. Ayala (sign)	4 8 98 (date)
analyzer	John J. Miller (print) Radiological Engineer	(sign)	4-10-98 (date)

RMRS Rocky Mountain Remediation Services, L.L.C.
protecting the environment

INTEROFFICE MEMORANDUM

DATE May 1, 1998

TO FILE

FROM J J Miller, Radiological Engineering, Bldg T130B, X2454

SUBJECT ALPHA AND BETA BACKGROUND LEVELS ASSOCIATED WITH BUILDING 112 WALL TILE JJM-14-98

Several areas of elevated radioactivity were identified in Survey Unit 9, specifically in the locker rooms All the areas were reevaluated in accordance with Section 5 2 of the CRSP and were found to be below the average DCGL However, an explanation for the number of elevated areas was deemed necessary A walk down of the locker rooms revealed that the areas of elevated activity were predominately associated with surveys obtained on the tiled walls It appears that this material exhibits higher levels of naturally occurring radioactivity than the concrete walls and slab. This assumption was verified by performing surveys on similarly tiled walls in Building 112 Refer to the attached spread sheet for survey results

These survey results are consist with the results obtained on the tiled walls of the locker rooms in the north wing of Building 123 Both buildings were constructed during the same year, therefore the tiles in Building 112 are representative of those in Building 123.

Contact me with questions regarding this memo

jjm

Attachments
As Stated

cc

J B Barroso

Attachment 1
Page 1 of 1
JJM-14-98

Instrument Data

NE Electra. Serial # 1383 | Cal Due Date 6/10/98 | Survey Date 5/1/98
Alpha Background. 1 0 cpm | Alpha Efficiency 22 5%
Beta background 567 cpm | Beta Efficiency 29 1%

Survey Point	Gross alpha (cpm)	Net alpha (cpm)	alpha activity (dpm)	Gross beta (cpm)	Net beta (cpm)	beta activity (dpm)
1	17	16	71 11	852	285	979 38
2	20	19	84 44	869	302	1037 80
3	14	13	57 78	806	239	821 31
4	12	11	48 89	773	206	707 90
5	15	14	62 22	764	197	676 98
6	12	11	48 89	726	159	546 39
7	11	10	44 44	785	218	749 14
8	20	19	84 44	791	224	769 76
9	13	12	53 33	802	235	807 56
10	12	11	48 89	778	211	725 09
11	18	17	75 56	770	203	697 59
12	17	16	71 11	863	296	1017 18
13	16	15	66 67	869	302	1037 80
14	28	27	120 00	855	288	989 69
15	13	12	53 33	823	256	879 73

RMRS Rocky Mountain Remediation Services, L L C
protecting the environment

INTEROFFICE CORRESPONDENCE

DATE April 30, 1998

TO RMRS Radiological Engineering File

FROM J M Forbes, SEG Radiological Engineer, Bldg 664A, X8098, D6256

SUBJECT Verification of Building 123 North and West Wing Radiological Survey Data - JMF-003-98

On April 29, 1998, I completed a 100 percent verification of all radiological survey data collected from the North and West Wing Sections of Building 123 This verification included a check of all raw, hand recorded data against the final computer generated reports It also included a check of instrument calibration data indicated on the survey forms as well as a complete review of all Millennium data

On the computer generated reports for Survey Units 6 and 7, I discovered 10 database errors as a result of incorrect alpha and beta background entries as well as incorrect instrument efficiency entries for alpha and beta channels All 10 discrepancies on the computer generated reports for Survey Units 6 and 7 were immediately corrected by the RMRS Radiological Engineering personnel

I verified all 10 corrections on the computer generated reports for Survey Units 6 and 7

No other errors were discovered during the 100 percent verification

JMF

cc

J B Barroso Bldg T130B

SafeSites
OF COLORADO, L.L.C.

Rocky Flats Environmental Technology Site

INTEROFFICE MEMORANDUM

DATE April 24, 1998

TO C L Guthrie, ENGR/CONS/DECON, Bldg T130F, X2419

FROM R L Morris, Radiological Engineering, Bldg T130B, X6468

SUBJECT QUALIFICATION OF SRA/MILLENNIUM SERVICES, INC. DATA FOR USE IN BUILDING 123 FINAL SURVEY - RLM-004-98

The Safe Sites of Colorado Radiological Engineering group evaluates and approves radiological survey technology used at the Rocky Flats Environmental Technology Site to assure compliance with 10 CFR § 835.401 The subject report, which is attached, documents our approval of the data and survey method used by the Shonka Research Associates, Inc and Millennium Services, Inc. team in Building 123. The Executive Summary for the report states

Surface contamination surveys of portions of the north and west wings of Building 123 performed by Shonka Research Associates are acceptable for use in final release survey documentation The information content, detection limits, and accuracy of the survey report meets or exceeds conventional survey technology.

Please contact me if you have questions or I can be of further assistance

cjb

Attachment
As Stated

cc
K W Daniels
J J Miller
J. M. Stewart-Bell
J M Wood

cc
J B Barroso w/o Attach
K A Dorr w/o Attach
D J Harward w/o Attach
E D Lesses w/o Attach
T L Vaughn w/o Attach
B A Watson w/o Atach

Qualification of SRA/Millennium Services, Inc. Data for Use in Building 123 Final Survey

Rocky Flats Environmental Technology Site
April 24, 1998

Revision 0

Prepared by Robert Morris, CHP _____ 4/24/98
Safe Sites of Colorado, Radiological Engineer

Reviewed by Elliott Lesses _____ 4/24/98
Safe Sites of Colorado, Radiological Engineer

Approved by Terry Vaughn, CHP _____ 4/24/98
Safe Sites of Colorado, Manager, Radiological Engineering

Qualification of SRA/Millennium Services, Inc. Data for Use in Building 123 Final Survey

Executive Summary

Surface contamination surveys of portions of the north and west wings of Building 123 performed by Shonka Research Associates are acceptable for use in final release survey documentation. The information content, detection limits, and accuracy of the survey report meets or exceeds conventional survey technology.

Introduction

In early April, 1998, Shonka Research Associates, Inc and Millennium Services, Inc (called, for this report, SRA) teamed to perform alpha and beta surface contamination surveys of certain prepared and accessible portions of the north and west wings of Building 123 The contamination surveys were intended for use in the final release surveys of the building. To assure compliance with 10 CFR § 835 401*, survey technology used at Rocky Flats Environmental Technology Site (RFETS) for radiological control purposes is normally pre-approved by the central Radiological Engineering group of Safe Sites of Colorado (SSOC) In this case, pre-approval was not obtained due to the short lead-time for use of the technology Project management recognized and accepted the risk that the data might not prove to be acceptable

Prior to collecting data, SRA and Rocky Mountain Remediation Services, Inc (RMRS) project staff members were provided with an acceptance test plan prepared by SSOC A copy of the plan is included as Attachment 1 Acceptance is based on demonstrating the following

- Information presented by the SRA report provides at least the same information as surveys performed by conventional means.
- The Minimum Detectable Concentration for the SRA survey is adequate to meet the release criteria in the final survey plan
- The average measured value for each of four NIST-traceable test sources is within ±20% of the conventionally true value

10 CFR § 835 401(c) Instruments used for monitoring and contamination control shall be
(2) Appropriate for the types(s), levels, and energies of the radiations(s) encountered,
(3) Appropriate for existing environmental conditions,

Acceptance Test Results

Refer to Attachment 1 for the specific requirements of each test The SRA survey method provided data that passed the acceptance tests in each case Details of the test results, exceptions, and conclusions follow

Confirmatory Measurements

Measurements were made at ten of the same one-meter square survey grids by SRA using their method, and by Radiological Control Technicians using conventional RFETS methods The SRA surveys are documented in their draft final survey report The conventionally acquired survey report for alpha and beta contamination is included as Attachment 2 Surveys were collected in two separate sessions in which the alpha and beta backgrounds and reporting formats varied The conventionally acquired surveys were reported on the basis of square yard grids, not square meter grids as requested in the test plan Consequently a direct comparison of grids was not entirely possible The SRA grid that most closely overlaid the conventionally acquired grid was chosen for comparison This exception to the test plan, although undesirable, does not negate the value of the comparison because major portions of the matched grids do overlap

A quantitatively comparison of the degree of agreement between the measurement methods is shown in Table 1 To avoid working with negative numbers[†], SRA reports results including background In order to create a readily comparable data set, the conventionally acquired survey data, which are normally reported as net results, have been reformatted to show gross results It does appear that there is a systematic bias is between the data sets These biases do not appear to be important differences in the context of the question at hand

[†] The image processing algorithms used by SRA require non-negative measurement values To accommodate this and preserve the integrity of the data, gross measurement values which include background are reported The assumed value for background is added to the net release limit and used for comparison to decide if the survey grid meets release criteria

Table 1 Comparison of conventional survey results and SRA measurement results for alpha and beta contamination

	Conventional Measurement Results					SRA Measurement Results									
		gross values reported						gross values reported							
Area	Grid #	Alpha Scan, dpm/100cm2	Alpha Pat, dpm/100 cm2, 60 sec count	Beta Scan, dpm/100cm2	Beta Pat dpm/100 cm2, 60 sec count	SRA survey block	closest SRA grid	Alpha Mean, dpm/100 cm2	Alpha Standard Deviation, dpm/100 cm2	Alpha Minimum Value, dpm/100 cm2	Alpha Maximum Value dpm/100 cm2	Beta Mean dpm/100 cm2	Beta Standard Deviation, dpm/100 cm2	Beta Minimum Value dpm/100 cm2	Beta Maximum Value dpm/100 cm2
6	276	<117	37	<3200	-440	12307	(9,2)	2	5 6	0	41	2301	270 5	1062	2675
6	288	<117	37	<3200	-299	12307	(4,2)	3	6 8	0	55	2504	269 4	1217	3023
10	356 wall	<117	56	<3200	2550	12309	(6,2)	4	3 9	0	13	3155	403 5	1453	3708
10	439 wall	<117	5	<3200	-347	12308	(4,1)	5	8 8	0	67	2137	319 8	1109	2695
10	27 floor	<117	18	<3200	2799	12304	(12,6)	7	6 6	0	42	3023	290 3	2485	3638
10	77 floor	<117	22	<3200	2697	12304	(4,5)	20	25 1	0	171	3500	163 4	3011	3878
10	103 floor	<117	18	<3200	2856	12304	(16,3)	12	9 5	2	76	3563	152 3	3212	4408
10	129 floor	<117	24	<3200	2742	12304	(8,2)	21	17 9	3	101	3444	194 6	3024	3873
10	213 floor	<117	18	<3200	2538	12305	(5,5)	14	21 8	0	143	3395	104 1	3127	3700
10	256 floor	<117	18	<3200	2769	12305	(9,2)	12	12 5	0	81	3631	153 4	3325	4124

Note Conventional measurement grids are based on square yards, SRA measurements are based on square meters, therefore the overlay is not exact.

The information in the SRA data set is consistent with and exceeds the information available from the conventional survey data set Each square meter of the SRA data set contains 400 quantified measurements covering the entire surface (10,000 cm^2)

The conventional survey data set includes a notation that the whole surface was scanned and no area of elevated count rate was perceived In other words the beta scan was < 750 dpm/100 cm^2 and the alpha scan was < 100 dpm/100 cm^2 The values correspond to the nominal background after corrections for counting efficiency have been applied One quantitative measurement representing 100 cm^2 is documented

As a quality assurance measure, and as a way to reduce detection limits, the SRA method independently recounts each location with a second detector following the first. For each measurement the primary and secondary detector results are plotted Well-behaved data follow a 45° degree line when plotted on an x-y axis Data points that fall off the 45° degree line are easily spotted and can be investigated

Control charting of periodic measurements made on standard sources during the survey provides assurance that system performance is not degrading during use This practice eliminates the need to maintain environmental conditions within arbitrary limits If measurements of the standard source fall out of control limits, the data collected since the last measurement that was within control would be evaluated and re-measured if necessary

The SRA method reduces the human factors involved in surveys on flat prepared surfaces The surface to detector distance is fixed by the wheel height and varies only when the surface roughness is substantial Survey speed is computer-controlled by the motorized cart

Presentation of the data visually and numerically (representing minimum, maximum, mean and standard deviation) for each square meter, is more descriptive that the conventional method The SRA method eliminates the problem of data censoring that occurs when "less than" detection limit values are recorded in the conventional method This allows complete statistical evaluation to be performed on low activity data sets which are of interest in release surveys

The SRA data passes the confirmatory measurements criteria

Detection Limits

To meet final survey plan criteria the Minimum Detectable Concentration[‡] (MDC) of the system should be 50% of the net release limits or less This corresponds to an MDC for ^{239}Pu alpha contamination of 50 dpm / 100 cm^2 or better and the MDC for $^{90}Sr/^{90}Y$ beta contamination of 375 dpm / 100 cm^2 or better

Attachment 3 is a letter from Dr Shonka that explains how detection limits are determined for the SRA method For beta measurements he concludes "Any measurement that would lie above the desired performance limits of 375 dpa[§] would clearly be above the distribution of background, and could easily have been identified for further confirmatory measurements " A similar conclusion could be drawn for the alpha measurements

Although the MDC concept, which is conceptually based on paired background and sample measurements, does not apply to the data as collected by SRA, it is easy to conclude that the method is able to detect the kinds and amounts of radiation that the final survey plan specifies This is confirmed by the fact that the SRA survey discovered a small spot in the midst of a large uncontaminated area, where the contamination level was 300 dpm/100 cm^2

The SRA data passes the detection limits criteria

NIST-Traceable Source Measurements

Dr Shonka's letter (Attachment 3), especially the last page, describes measurements of NIST-traceable sources and presents the results of that testing Several minor difficulties arose in testing that required exceptions to the plan Those difficulties do not reflect badly on the SRA survey method Although it was specified in the test plan, Dr. Shonka was told that RFETS-supplied sources should be used for testing The high activity beta ($^{90}Sr/^{90}Y$) source that was supplied by RFETS was 50 cm^2, not 100 cm^2 as nominally specified Dr. Shonka used a 100 cm^2 ^{137}Cs source that he provided to complete the test In spite of the widely differing beta energies, all measurements of test sources passed the acceptance criteria

---

[‡] Minimum Detectable Concentration may also be called Minimum Detectable Activity For this purpose the terms are interchangeable The SRA calculation of MDA is determined *a posteriori* based on data representing a square meter

[§] dpa is a term used by SRA and others to denote disintegrations per specified area, in this case per 100 cm^2

Wall-mounting the test sources proved to be more difficult than expected and the source location could not be maintained Handling knobs attached to some of the sources prevented a flush mount As a result the test source measurements were all done on the floor

The exceptions to the acceptance test plan are of little practical importance for evaluation of instrument performance They do not prevent drawing the conclusion that the accuracy of the measurements was well within the ± 20% criteria normally established for routine radiation assessments

The SRA data passes the NIST-traceable source measurements criteria

Attachment 1

Acceptance Test Plan for Shonka Research Associates Surface Contamination Monitor for Use in Building 123 Closeout Surveys

Robert Morris, CHP
SSOC Radiological Engineering
March 31,1998

RMRS Project Management has arranged for the Shonka Research Associates (SRA) Surface Contamination Monitor to be demonstrated by Millennium Technologies, Inc in Building 123 If acceptable, the data will be used for closeout release surveys of real property in the north and west wings of Building 123 The data will be acceptable if the Safe Sites of Colorado Radiological Engineering staff determines that acceptance criteria for two tests have been met Shonka Research Associates and Millennium Technologies, Inc personnel will be allowed to review preliminary conclusions to assure the data are not misinterpreted due to lack of understanding of the technology by SSOC staff. The tests that will be performed are·

- confirmatory measurements by comparing surveys made by RCTs using standard portable instruments in a few selected areas
- measurements of ~~a test jig fitted with~~** sealed sources

Confirmatory measurements

Confirmatory measurements should be made with respect to approximately ten unobstructed 1-meter square areas that have been characterized for total alpha and beta contamination At least four of these areas should represent vertical surfaces no more than six feet above floor level Attempts should be made to locate areas with residual contamination so non-zero data can be compared A special survey report should be prepared that summarizes the scan and quantitative measurements for each square meter on a separate page The survey report should note the amount of time expended to obtain the characterization

The results from the SRA survey should be compared quantitatively and qualitatively to the RCT surveys. A verbal description of the degree of

** This correction was made on April 20, 1998, after the data were collected In writing the final report it was recogized that this introductory remark did not match the details of the acceptance test specified later in the plan *R Morris*

agreement should be provided by SSOC Radiological Engineering after the data have been collected

To meet final survey plan criteria the Minimum Detectable Concentration[††] (MDC) of the system should be 50% of the release limits or less The release limits are 100 dpm / 100 cm^2 alpha and 750 dpm / 100 cm^2 beta

Acceptance criteria Acceptance will be based on the determination that the information presented by the SRA survey report provides at least the same information available from characterization performed by conventional means The MDC for ^{239}Pu alpha contamination shall be 50 dpm / 100 cm^2 or better and the MDC for $^{90}Sr/^{90}Y$ beta contamination shall be 375 dpm / 100 cm^2 or better

Test Measurements

Test measurements should be made by moving the Surface Contamination Monitor over selected test sources The test set up should include the following characteristics

- A thin backing plate may be used as an aid for reproducibly locating the sources

- Two Amersham anodized aluminum ^{239}Pu alpha sources, nominally 100 cm^2, of known activity traceable to NIST or equivalent, reproducibly located, ± 2 cm, with respect to the reference points for the survey One of the sources should have activity in the range of 500 to 1000 dpm The other source should have activity at least a factor of 10 higher

- Two Amersham anodized aluminum $^{90}Sr/^{90}Y$ beta sources, nominally 100 cm^2, of known activity traceable to NIST or equivalent, reproducibly located, ± 2 cm, with respect to the reference points for the survey One of the sources should have total activity in the range of 500 to 5000 dpm The other source should have total activity at least a factor of 10 higher

- ~~A sketch of the source layout on the backing plate should be provided~~ [‡‡]

[††] Minimum Detectable Concentration may also be called Minimum Detectable Activity For this purpose the terms are interchangeable The SRA calculation of MDA is determined *a posterion* based on data representing a square meter

[‡‡] This correction was made on April 20, 1998, after the data were collected In writing the final report it was recognized that this requirement did not match the details of the acceptance test which allowed, but did not require use of a backing plate *R Morris*

In a measurement campaign separate from the normal survey, SRA will use their normal survey technique to collect a set of test data representing twenty measurements at one horizontal location and twenty measurements at one vertical location

The calibration procedure for this data set may be modified to closely match the conditions that will occur during the test SRA may also choose to collect background data for the test locations and subtract that as appropriate

The average net measured value for each test source will be computed and reported in dpm/100 cm^2 If the test sources are not exactly 100 cm^2 the conventionally true value will be calculated and reported in dpm/100 cm^2

Field measurements made under good conditions are expected to be accurate to within ± 20%

Acceptance criteria The SRA data set will be accepted if the average measured value for each of the test sources is within ±20% of the conventionally true value

Robert L Morris _____original signed by Robert Morris_____3/31/98

Attachment 2

Survey Reports of Ten Survey Grids by Convention Methods

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER

FOR. X P/WRE ____ PRL

____ RWP ____ OTHER ____

BUILDING/LOCATION	ROOM
123	AREA 10
DATE	**TIME**
4-15-98	1300

ITEM DESCRIPTION PAT & Scan survey of grids 27, 77, 103, 129, 213, 256, 280, 337, 356, 455.

COMMENTS

PERFORMED BY (PRINT NAME) [redacted]

REVIEWED BY K. Gaylord
RO SUPERVISION PRINT NAME

[signature] 4/15/98
RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR	EBER	EBER	EBER	EBER
MODEL	SAC-4	SAC 4	SAC 4	SAC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

MFR	EBER	EBER	EBER	EBER
MODEL	BC 4	BC 4	BC 4	BC 4
SERIAL #				
CAL DATE				
CAL DUE DATE				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR	NE TECH			
MODEL	ELECTRA			
SERIAL #	1420			
CAL DATE	3-12-98			
CAL DUE DATE	9-12-98			
BACKGROUND	α 4.22 cpm β- 831.39 cpm			
SFFICIENCY	α 25.0 % β- 32.8 %			
MDA	α 93.3 β- 455			

MDA = CF X (2.71 + 4.65 √BACKGROUND (CPM))

Survey Unit Specific Background Count Rate Calculation Sheet

ALPHA (α)

Survey Unit : 10	Serial # : 1420	α Efficiency : 25.0%	RadioNuclide : α		
Date : 4-15-98	Cal. Due Date : 9-12-98	β Efficiency : 32.8%	RCT Initial : MF		
Survey Unit (plywood shield)	"A" (cpm)	Reference Area (unshielded)	"B" (cpm)	Reference Area (plywood shield)	"C" (cpm)	Difference	("B" - "C") (cpm)
Background (1)	5	Background (1)	N/A	Background (1)	N/A	N/A	N/A
Background (2)	3	Background (2)	N/A	Background (2)	N/A	N/A	N/A
Background (3)	2	Background (3)	N/A	Background (3)	N/A	N/A	N/A
Background (4)	2	Background (4)	N/A	Background (4)	N/A	N/A	N/A
Background (5)	2	Background (5)	N/A	Background (5)	N/A	N/A	N/A
Background (6)	5	Background (6)	N/A	Background (6)	N/A	N/A	N/A
Background (7)	1	Background (7)	N/A	Background (7)	N/A	N/A	N/A
Background (8)	1	Background (8)	N/A	Background (8)	N/A	N/A	N/A
Background (9)	4	Background (9)	N/A	Background (9)	N/A	N/A	N/A
Background (10)	3	Background (10)	N/A	Background (10)	N/A	N/A	N/A
Average ("A")	2.8					Average ("B" - "C")	1.42

SUSBCR (concrete mt'ls) = Average ("A") 2.8 plus Average ("B" - "C") 1.42 cpm
SUSBCR (concrete mt'ls) = 4.22
SUSBCR (all other mt'ls) = Average ("A")
SUSBCR (all other mt'ls) =

2.8 cpm

BETA (β)

Survey Unit : 10	Serial # : 1420	α Efficiency : 25.0%	RadioNuclide : β		
Date : 4-15-98	Cal. Due Date : 9-12-98	β Efficiency : 32.8%	RCT Initial : MF		
Survey Unit (plywood shield)	"A" (cpm)	Reference Area (unshielded)	"B" (cpm)	Reference Area (plywood shield)	"C" (cpm)	Difference	("B" - "C") (cpm)
Background (1)	691	Background (1)	N/A	Background (1)	N/A	N/A	N/A
Background (2)	688	Background (2)	N/A	Background (2)	N/A	N/A	N/A
Background (3)	724	Background (3)	N/A	Background (3)	N/A	N/A	N/A
Background (4)	714	Background (4)	N/A	Background (4)	N/A	N/A	N/A
Background (5)	668	Background (5)	N/A	Background (5)	N/A	N/A	N/A
Background (6)	762	Background (6)	N/A	Background (6)	N/A	N/A	N/A
Background (7)	710	Background (7)	N/A	Background (7)	N/A	N/A	N/A
Background (8)	672	Background (8)	N/A	Background (8)	N/A	N/A	N/A
Background (9)	684	Background (9)	N/A	Background (9)	N/A	N/A	N/A
Background (10)	675	Background (10)	N/A	Background (10)	N/A	N/A	N/A
Average ("A")						Average ("B" - "C")	132.57

SUSBCR (concrete mt'ls) = Average ("A") 698.8 plus Average ("B" - "C") 132.57 cpm
SUSBCR (concrete mt'ls) = 831.37
SUSBCR (all other mt'ls) = Average ("A")
SUSBCR (all other mt'ls) =

818.8 cpm

PAT Readings; Electras

STR. #	Electra #	Electra #	Electra #	Electra #	STR. #	Electra #	Electra #	Electra #	Electra #
	1420								
1	3 782	Wall 455	✓		51				
2	8 769	Wall 280	✓		52				
3	3 737	Wall 337	✓		53				
4	10 850	Wall 356	✓		54				
5	2 909	Floor 77	✓		55				
6	4 914	Floor 129	✓		56				
7	3 846	Floor 213	✓		57				
8	3 923	Floor 256	✓		58				
9	3 952	Floor 103	✓		59				
10	3 933	Floor 27	✓		60				
11					61				
12					62				
13					63				
14					64				
15					65				
16					66				
17					67				
18					68				
19					69				
20					70				
21					71				
22					72				
23					73				
24					74				
25					75				
26					76				
27					77				
28					78				
29					79				
30					80				
31					81				
32					82				
33					83				
34					84				
35					85				
36					86				
37					87				
38					88				
39					89				
40					90				
41					91				
42					92				
43					93				
44					94				
45					95				
46					96				
47					97				
48					98				
49					99				
50					100				

SURVEY RESULTS
AREA 10

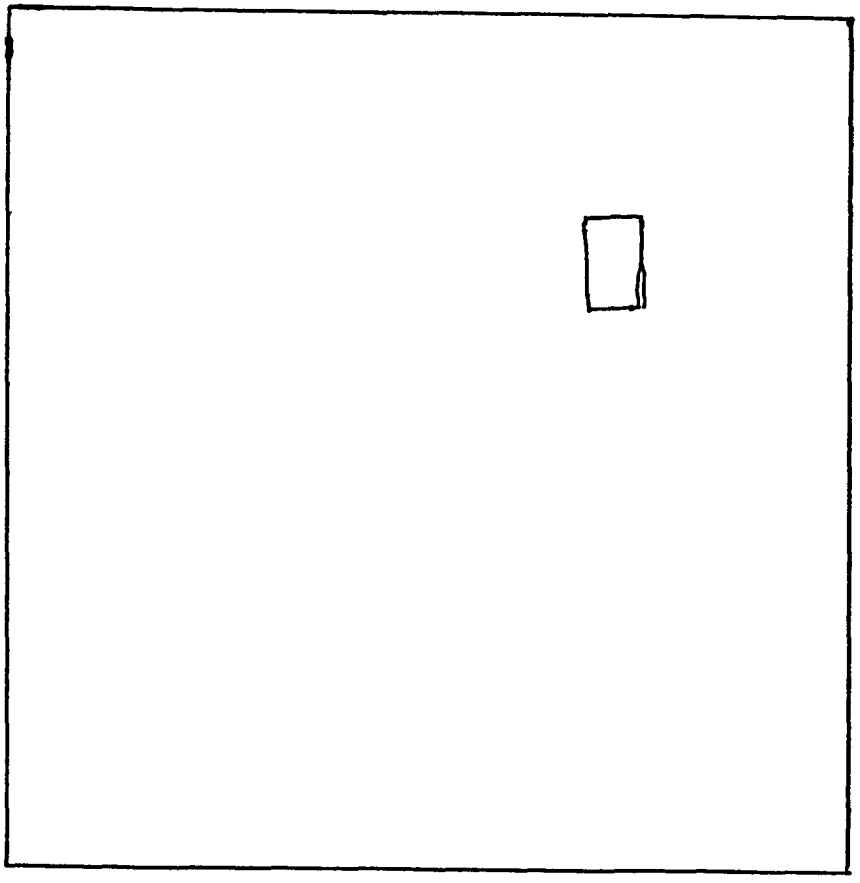
LOCATION: WALL

GRID NUMBER: 280

SCAN RESULTS: ALPHA <100 dpm BETA <750 dpm

60 SEC. PAT RESULTS: ALPHA 8 cp counts BETA 769 counts
31.2 DPM -147 DPM

APPROXIMATE LOCATION
FOR PAT READING



SURVEY RESULTS
AREA 10

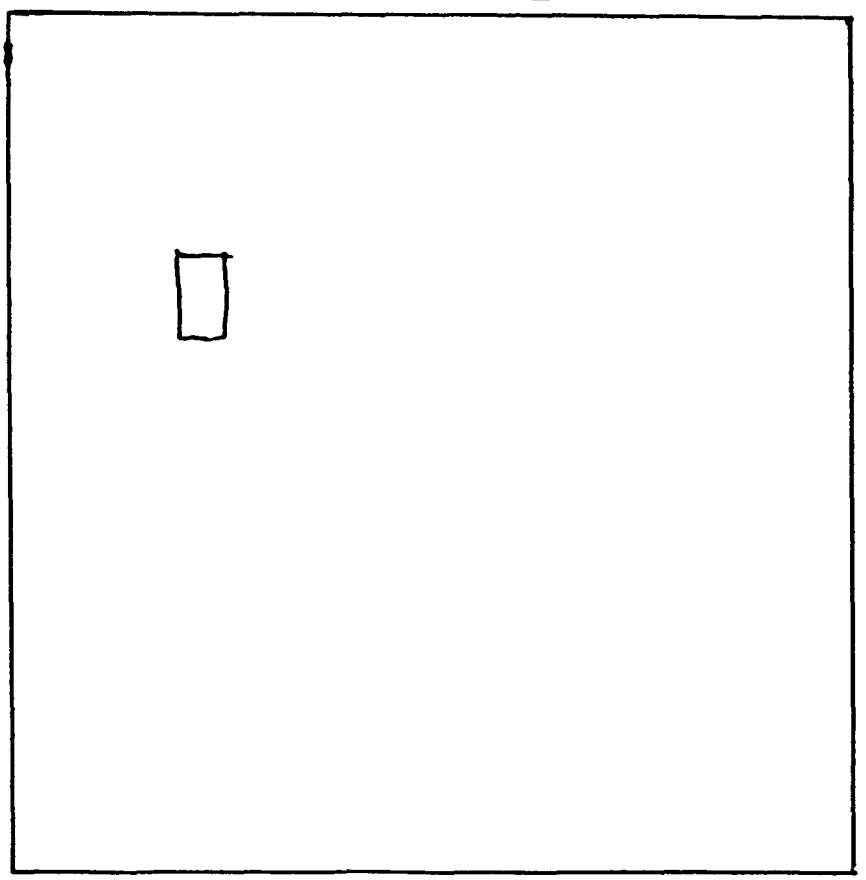
LOCATION: WALL

GRID NUMBER: 337

SCAN RESULTS: ALPHA <100 dpm BETA <750 dpm

60 SEC. PAT RESULTS: ALPHA 3 BETA 737 counts
1.2 DPM -245.4 DPM

APPROXIMATE LOCATION
FOR PAT READING



SURVEY RESULTS
AREA 10

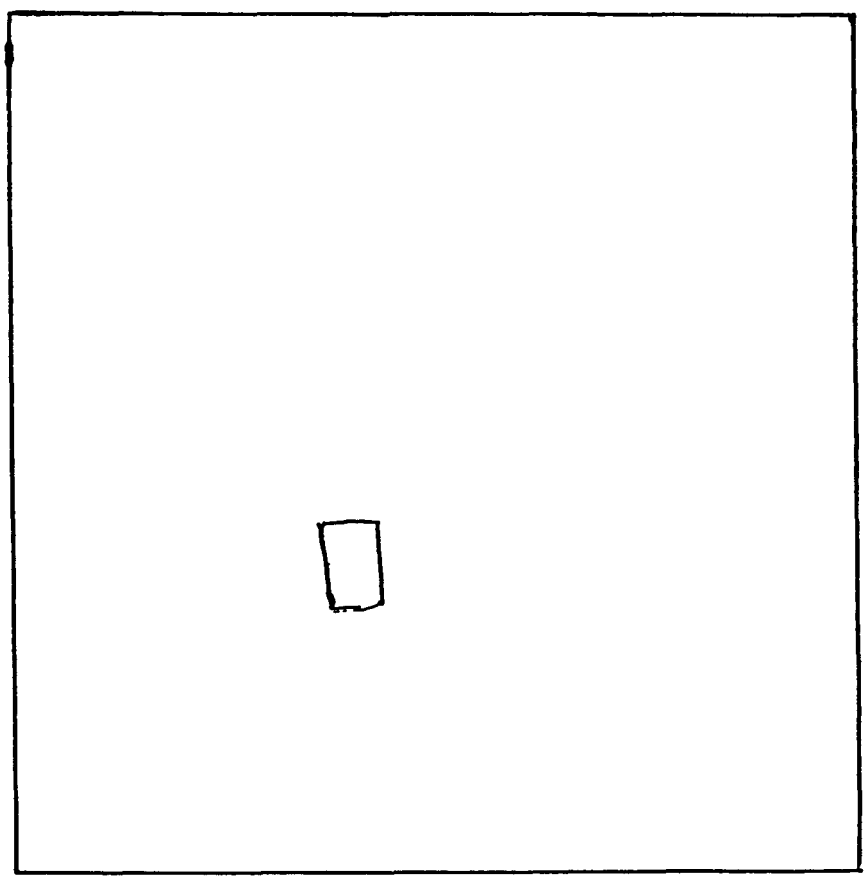
LOCATION: WALL

GRID NUMBER: 356

SCAN RESULTS: ALPHA <100 dpm BETA <750 dpm

60 SEC. PAT RESULTS: 10 counts ALPHA 850 counts BETA
43.2 DPM 93.6 DPM

APPROXIMATE LOCATION
FOR PAT READING



SURVEY RESULTS
AREA 10

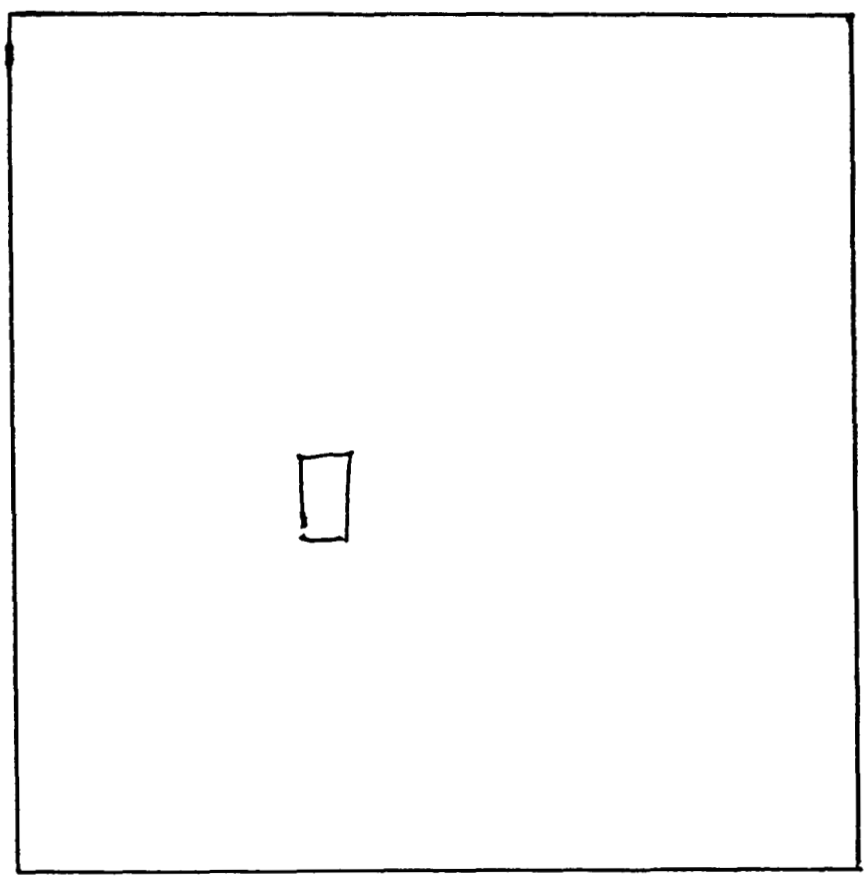
LOCATION: FLOOR

GRID NUMBER: 455

SCAN RESULTS: ALPHA <100 dpm BETA <750 dpm

60 SEC. PAT RESULTS: ALPHA 3 counts BETA 782 counts
1 2 DPM -110 4 DPM

APPROXIMATE LOCATION
FOR PAT READING



SURVEY RESULTS
AREA 10

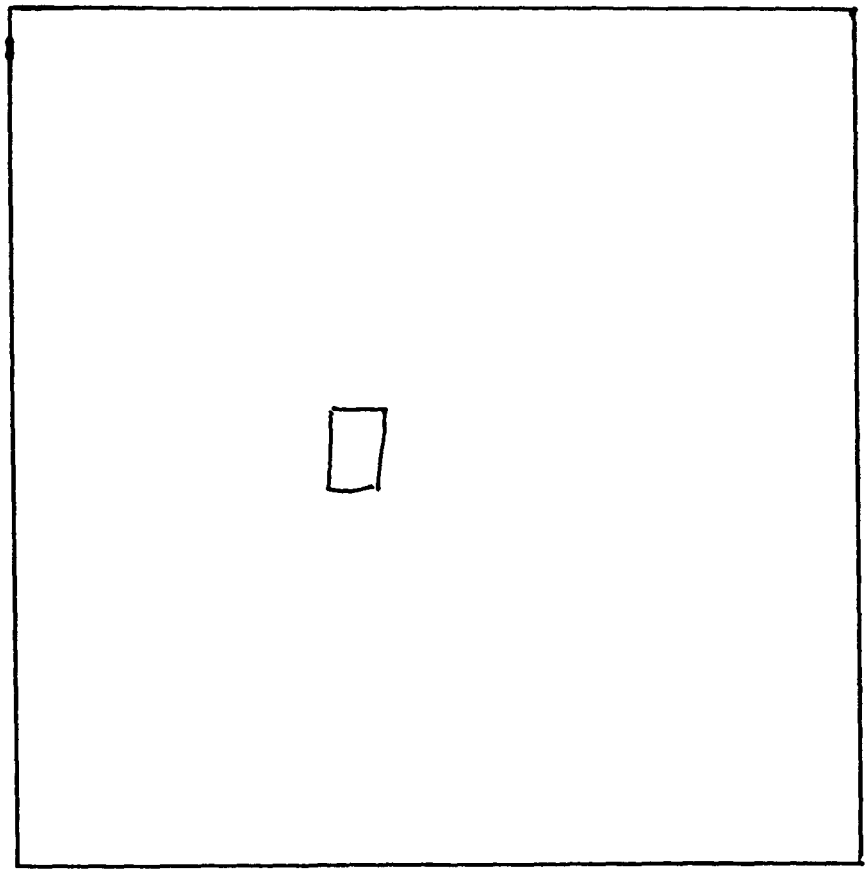
LOCATION: FLOOR

GRID NUMBER: 27

SCAN RESULTS: ALPHA <100 dpm BETA 750 dpm

60 SEC. PAT RESULTS: ALPHA 3 counts BETA 933 counts
1.2 DPM 342.6 DPM

APPROXIMATE LOCATION
FOR PAT READING



SURVEY RESULTS
AREA 10

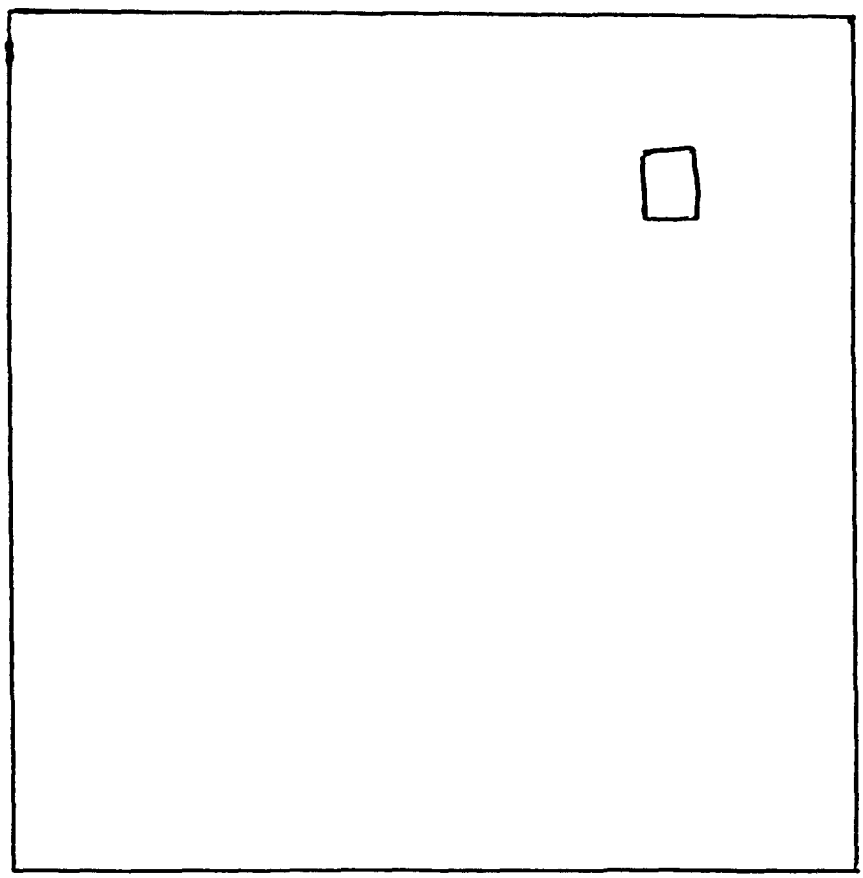
LOCATION: FLOOR

GRID NUMBER: 77

SCAN RESULTS: ALPHA <100 dpm BETA <750 dpm

60 SEC. PAT RESULTS: ALPHA 2 counts BETA 909 counts
-4.8 DPM 2110.6 DPM

APPROXIMATE LOCATION
FOR PAT READING



SURVEY RESULTS
AREA 10

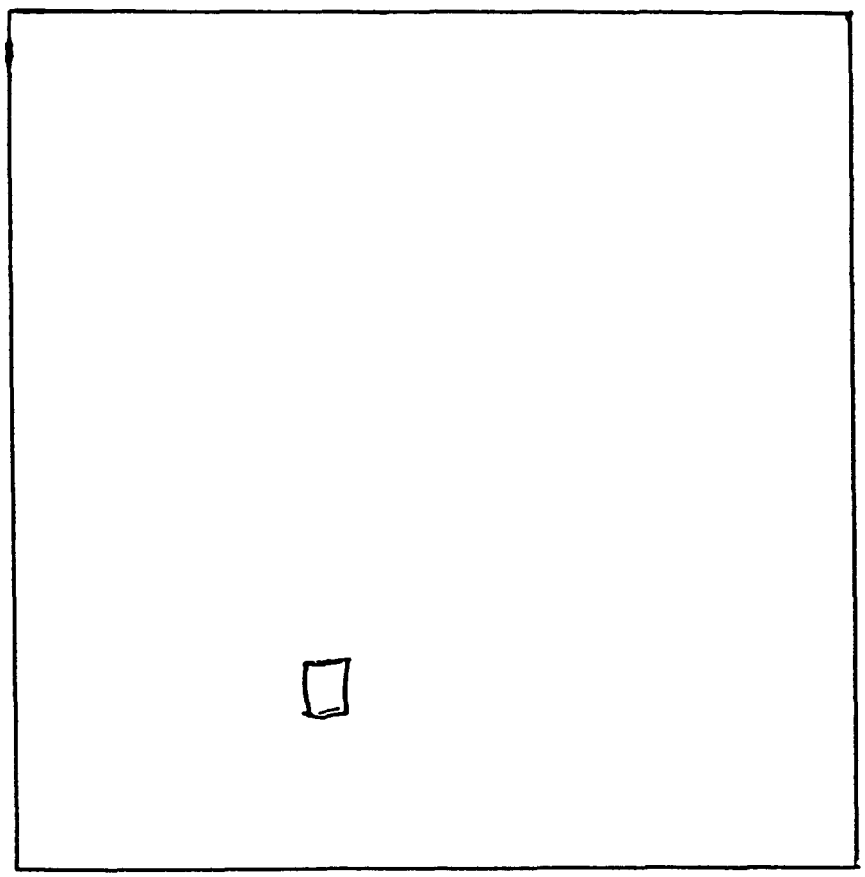
LOCATION: FLOOR

GRID NUMBER: 103

SCAN RESULTS: ALPHA <100 dpm BETA <750 dpm

60 SEC. PAT RESULTS: ALPHA 3 counts BETA 952 counts
1.2 DPM 3996 DPM

APPROXIMATE LOCATION
FOR PAT READING



SURVEY RESULTS
AREA 10

LOCATION: FLOOR

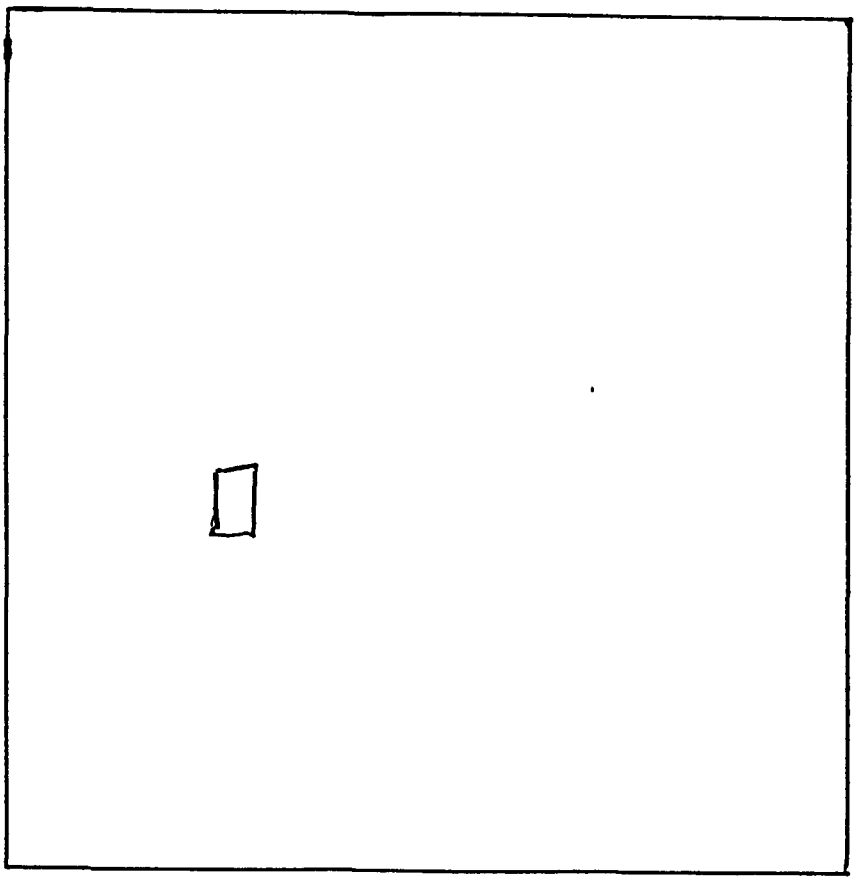
GRID NUMBER: 129

SCAN RESULTS: ALPHA <100 dpm BETA <750 dpm

60 SEC. PAT RESULTS: ALPHA 4 counts BETA 914 counts

7.2 DPM 225.6 DPM

APPROXIMATE LOCATION
FOR PAT READING



SURVEY RESULTS
AREA 10

LOCATION: FLOOR

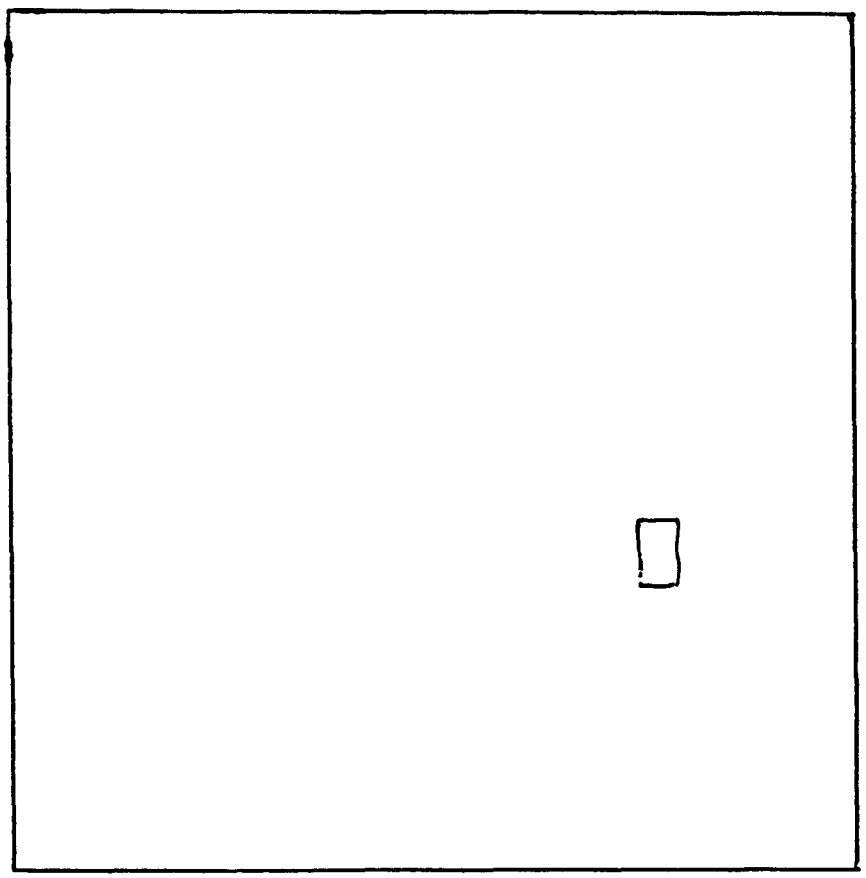
GRID NUMBER: 213

SCAN RESULTS: ALPHA <100 dpm BETA <150 dpm

60 SEC. PAT RESULTS: ALPHA 3 counts BETA 846 counts

1.2 DPM 81.6 DPM

APPROXIMATE LOCATION
FOR PAT READING



SURVEY RESULTS
AREA 10

LOCATION: FLOOR

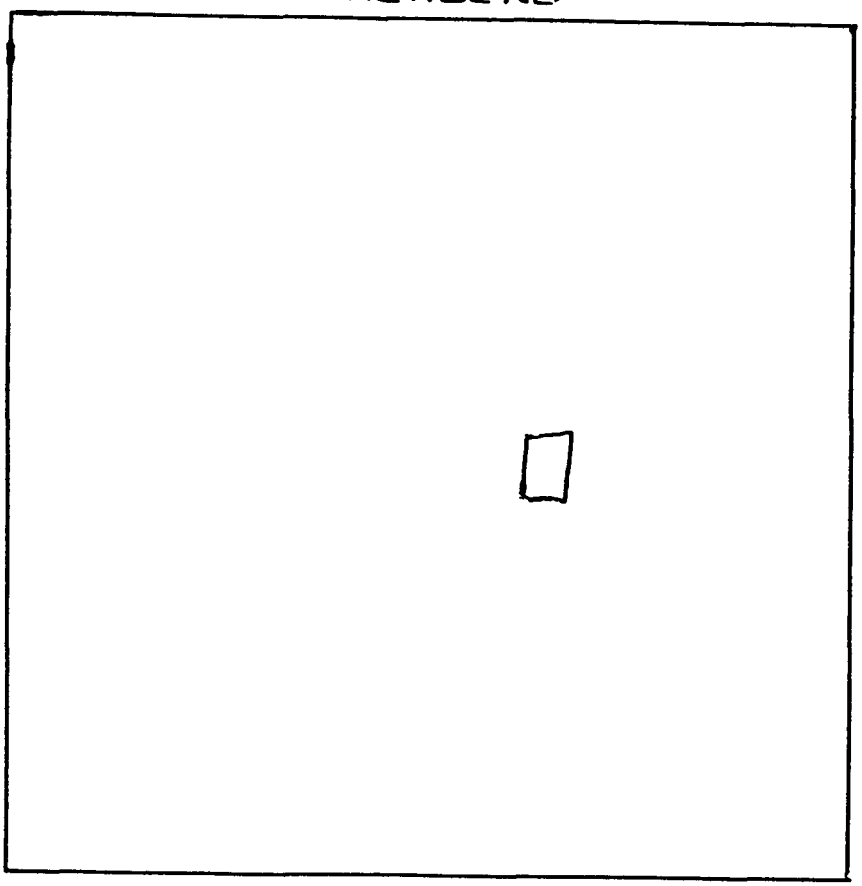
GRID NUMBER: 256

SCAN RESULTS: ALPHA <100 dpm BETA ~~923~~ <750 dpm 4-15-93

60 SEC. PAT RESULTS: ALPHA 3 counts BETA 923 counts

1.2 DPM 312.6 DPM

APPROXIMATE LOCATION FOR PAT READING



Survey Unit Specific Background Count Rate Calculation Sheet

ALPHA (α)

Survey Unit : 6	Serial # : 2396	α Efficiency : 23.9	RadioNuclide : α		
Date : 4/23/98	Cal. Due Date : 10.7.98	β Efficiency : 32.8	RCT Initial : RLb		
Survey Unit (plywood shield)	"A" (cpm)	Reference Area (unshielded)	"B" (cpm)	Reference Area (plywood shield)	"C" (cpm)	Difference	("B" - "C") (cpm)
Background (1)	4.0	Background (1)	N/A	Background (1)	N/A	N/A	N/A
Background (2)	2.0	Background (2)	N/A	Background (2)	N/A	N/A	N/A
Background (3)	2.0	Background (3)	N/A	Background (3)	N/A	N/A	N/A
Background (4)	2.0	Background (4)	N/A	Background (4)	N/A	N/A	N/A
Background (5)	0.0	Background (5)	N/A	Background (5)	N/A	N/A	N/A
Background (6)	1.0	Background (6)	N/A	Background (6)	N/A	N/A	N/A
Background (7)	0.0	Background (7)	N/A	Background (7)	N/A	N/A	N/A
Background (8)	4.0	Background (8)	N/A	Background (8)	N/A	N/A	N/A
Background (9)	1.0	Background (9)	N/A	Background (9)	N/A	N/A	N/A
Background (10)	2.0	Background (10)	N/A	Background (10)	N/A	N/A	N/A
Average ("A")	1.8					Average ("B" - "C")	1.42

SUSBCR (concrete mt'ls) = Average ("A") 1.8 plus Average ("B" - "C") ~~1.42 cpm~~ 0.0 RLb

SUSBCR (concrete mt'ls) = 1.8

SUSBCR (all other mt'ls) = Average ("A") 1.8

SUSBCR (all other mt'ls) =

BETA (β)

Survey Unit : 6	Serial # : 2396	α Efficiency : 23.9	RadioNuclide : β		
Date : 4/23/98	Cal. Due Date : 10.7.98	β Efficiency : 32.8	RCT Initial : RLb		
Survey Unit (plywood shield)	"A" (cpm)	Reference Area (unshielded)	"B" (cpm)	Reference Area (plywood shield)	"C" (cpm)	Difference	("B" - "C") (cpm)
Background (1)	771	Background (1)	N/A	Background (1)	N/A	N/A	N/A
Background (2)	761	Background (2)	N/A	Background (2)	N/A	N/A	N/A
Background (3)	787	Background (3)	N/A	Background (3)	N/A	N/A	N/A
Background (4)	781	Background (4)	N/A	Background (4)	N/A	N/A	N/A
Background (5)	767	Background (5)	N/A	Background (5)	N/A	N/A	N/A
Background (6)	824	Background (6)	N/A	Background (6)	N/A	N/A	N/A
Background (7)	815	Background (7)	N/A	Background (7)	N/A	N/A	N/A
Background (8)	788	Background (8)	N/A	Background (8)	N/A	N/A	N/A
Background (9)	758	Background (9)	N/A	Background (9)	N/A	N/A	N/A
Background (10)	740	Background (10)	N/A	Background (10)	N/A	N/A	N/A
Average ("A")	779.8					Average ("B" - "C")	132.57

SUSBCR (concrete mt'ls) = Average ("A") 779.8 plus Average ("B" - "C") ~~132.57 cpm~~ 120.0 RLb

SUSBCR (concrete mt'ls) = 899.8

SUSBCR (all other mt'ls) = Average ("A") 779.8

SUSBCR (all other mt'ls) =

UNIT #- 6 **GRID #-** 276

RESURVEY OF THE ABOVE GRID

100% Scan performed over grid
1 min. Pat taken at highest alpha reading

assumeded Scan
MDC α = 100 dpm/100 cm
with 17 dpm/100 cm²
bkg equivalent = 117

β = 3200 gross
dpm/100 cm²

RM 4/24/98

	8 80/753	

Assumptions used in interpretation of this report

dpm/100cm² = (counts − bkg) * CF

80/753

α counts in 60s

β counts in 60 s

RM 4/24/98

ELECTRA # 2396

CAL DUE DATE 10.7.98

ALPHA BKGD 1.8

BETA BKGD 899.8

UNIT #- 6 **GRID #-** 288

RESURVEY OF THE ABOVE GRID

100% Scan performed over grid
1 min Pat taken - at highest alpha reading

4 8.0/800		

The same interpretation assumptions used for unit 6 #276 are applied here
RA
4/24/98

ELECTRA # 2396

CAL DUE DATE 10-7 98

ALPHA BKGD 1.8

BETA BKGD 899.8

RA 516830
4/23/98

Survey Unit Specific Background Count Rate Calculation Sheet

ALPHA (α)

Survey Unit : 10	Serial # : 2396	α Efficiency : 23.9	RadioNuclide : α
Date : 4/23/98	Cal. Due Date : 10 7 98	β Efficiency : 32.8	RCT Initial : [illegible]

Survey Unit (plywood shield)	"A" (cpm)	Reference Area (unshielded)	"B" (cpm)	Reference Area (plywood shield)	"C" (cpm)	Difference	("B" - "C") (cpm)
Background (1)	3.0	Background (1)	N/A	Background (1)	N/A	N/A	N/A
Background (2)	0.0	Background (2)	N/A	Background (2)	N/A	N/A	N/A
Background (3)	3.0	Background (3)	N/A	Background (3)	N/A	N/A	N/A
Background (4)	3.0	Background (4)	N/A	Background (4)	N/A	N/A	N/A
Background (5)	3.0	Background (5)	N/A	Background (5)	N/A	N/A	N/A
Background (6)	1.0	Background (6)	N/A	Background (6)	N/A	N/A	N/A
Background (7)	30	Background (7)	N/A	Background (7)	N/A	N/A	N/A
Background (8)	4.0	Background (8)	N/A	Background (8)	N/A	N/A	N/A
Background (9)	0.0	Background (9)	N/A	Background (9)	N/A	N/A	N/A
Background (10)	2.0	Background (10)	N/A	Background (10)	N/A	N/A	N/A
Average ("A")	2.2					Average ("B" - "C")	1.42

SUSBCR (concrete mt'ls) = Average ("A") 2.2 plus Average ("B" - "C") ~~1.42 cpm~~ 0.0
SUSBCR (concrete mt'ls) =
SUSBCR (all other mt'ls) = Average ("A")
SUSBCR (all other mt'ls) =

BETA (β)

Survey Unit : 10	Serial # : 2396	α Efficiency : 23.9	RadioNuclide : β
Date : 4/23/98	Cal. Due Date : 10.7.98	β Efficiency : 32.8	RCT Initial : [illegible]

Survey Unit (plywood shield)	"A" (cpm)	Reference Area (unshielded)	"B" (cpm)	Reference Area (plywood shield)	"C" (cpm)	Difference	("B" - "C") (cpm)
Background (1)	793	Background (1)	N/A	Background (1)	N/A	N/A	N/A
Background (2)	913	Background (2)	N/A	Background (2)	N/A	N/A	N/A
Background (3)	935	Background (3)	N/A	Background (3)	N/A	N/A	N/A
Background (4)	905	Background (4)	N/A	Background (4)	N/A	N/A	N/A
Background (5)	891	Background (5)	N/A	Background (5)	N/A	N/A	N/A
Background (6)	966	Background (6)	N/A	Background (6)	N/A	N/A	N/A
Background (7)	938	Background (7)	N/A	Background (7)	N/A	N/A	N/A
Background (8)	866	Background (8)	N/A	Background (8)	N/A	N/A	N/A
Background (9)	854	Background (9)	N/A	Background (9)	N/A	N/A	N/A
Background (10)	975	Background (10)	N/A	Background (10)	N/A	N/A	N/A
Average ("A")	903.6					Average ("B" - "C")	132.57

SUSBCR (concrete mt'ls) = Average ("A") 903.6 plus Average ("B" - "C") ~~132.57 cpm~~ 120
SUSBCR (concrete mt'ls) = 120.0
SUSBCR (all other mt'ls) = Average ("A") 1023.6
SUSBCR (all other mt'ls) =

UNIT #- 10 **GRID #-** 4/39

RESURVEY OF THE ABOVE GRID

100% Scan Performed 1min Pat Taken at Highest Reading (alpha)

The same interpretation assumptions used in unit 6 grid 276 are applied here
RA
4/24/98

	Highest Reading 30/908	

ELECTRA # 2396

CAL DUE DATE 10.7.98

ALPHA BKGD RA ~~23.9~~ 2.2

BETA BKGD RA ~~3~~ 10236

RA
4/24

Attachment 3

Letter from Dr. Shonka

SRA
Shonka Research Associates, Inc.

April 20, 1998

To Bob Morris

From Joe Shonka

Subject Source testing with SRA's SCM/SIMS at RFETS Building 123

Ref Acceptance Test Plan for Shonka Research Associates Surface Contamination Monitor for Use in Building 123 Closeout Surveys, March 31, 1998 (rev 1)

cc Joan Stewart-Bell

A test was performed in accordance with the revised Test Plan The test plan required confirmatory measurements for up to ten areas that had residual contamination, qualitative and quantitative comparisons with site RCT surveys; demonstration of MDCs for beta of 375 dpa and 50 dpa for alpha measurements, and 20 test measurements for four NIST traceable sources as specified in the test plan The test plan provided for allowances (changes) for field conditions.

The requirements are listed in a summary form, followed by the test results and discussion

1 Confirmatory measurements should be made for up to ten square meters with residual contamination by RFETS RCTs

The survey results which were provided under separate cover included documentation on more than 750 partial or full square meters for which 1600 measurements were made (400 measurements per square meter, primary and recount detector; alpha and beta plus alpha surveys) There was only one area with detectable residual contamination, a small spot of alpha contamination of approximately 400 dpm activity There was a survey of this contamination by site RCTs, and similar results were obtained If the site desires more measurements, any of the areas we surveyed could be subjected to confirmatory surveys by site RCTs Assuming that the site RCTs find no evidence of residual contamination, the primary finding would be that neither method found evidence of residual contamination It is likely that these will simply be comparisons of backgrounds for the two methods Our data gives strong evidence that background is spatially variable Thus, the ratio of the gross counts observed in measurements by the site RCTs should trend with our data, which is expressed as gross dpa Without residual contamination, this is about the only additional test that can be quantified We believe that you have all of the documentation that you need from us Please let us know if there is more information that is required

4939 Lower Roswell Road, Suite 106
Marietta GA 30068-4338
(770) 509-7606 ph.
(770) 509-7507 fax

2 The MDC for ^{239}Pu alpha contamination shall be 50 dpm / 100 cm^2 (dpa) or better and the MDC for $^{90}Sr/^{90}Y$ beta contamination shall be 375 dpm / 100 cm^2 (dpa) or better

SRA surveys scan and record data, rather than report the results of fixed location counts acquired through a scaler function as is commonly evaluated for lab measurements As such, the MDC SRA asserts is based on a method that we call the *a posteriori* method, to differentiate it from the *a priori* method commonly used We could compute an *a priori* MDC in a traditional fashion, however, we believe this number is not applicable because contamination and background is not distributed normally, but is log-normal in character Also, background is spatially variable, and different areas of the same survey grid exhibit real differences in background levels Additionally, the typical criteria used (Type I Error = Type II Error = 5%) is not relevant in that we took over 1 2 million measurements with a computerized logging radiation detector If the background was normally distributed we would have encountered 60,000 false positive indications at the conventionally calculated MDC at the 5% level

We choose to demonstrate our detection limit in a practical way Figure 1 shows data taken from the beta survey of the southern end of the West wing of Building 123. Shown on the figure is (gross count rate converted to $^{90}Sr/^{90}Y$ equivalent dpa) data from the primary and recount detectors for each meter measured (180 meters shown) The conventionally calculated standard deviation of the 400 measurements is shown as "error bars" for both the primary and recount data It is interesting to observe that the cluster of measured values (data points) appear to be more tightly grouped than would be inferred from the standard deviation as shown (2/3 of the data points variability appears to be due to causes other that statistical fluctuations due to count rate effects) Shown also on the figure is the mean background (3300 dpa) which was derived in the executive summary based on all of the survey data for the building. We have labeled the RFETS desired MDC (375 dpa) as a "performance limit", and also show the site reporting criteria of 750 dpa. As can be seen from the image, background is clustered between 2500 dpa and 3500 dpa There are a few lower values, which come from meter areas that were not concrete (steel or wood covers over drains or sumps, etc) The background is not "random" since the data show that the primary detector exhibits a high count rate per meter for the same meters as the recount detector (data follow the indicated primary = recount line) The highest measured data (upper right data points in the figure) are 200 dpa above background, and appear to be part of the distribution exhibited by most meter areas Any measurement that would lie above the desired performance limit of 375 dpa would clearly be above the distribution of background, and could easily have been identified for further confirmatory measurements A practical performance limit of 200 dpa would have dictated that two of the 180 meters (1%, not 5%) be studied to determine if contamination were present or not

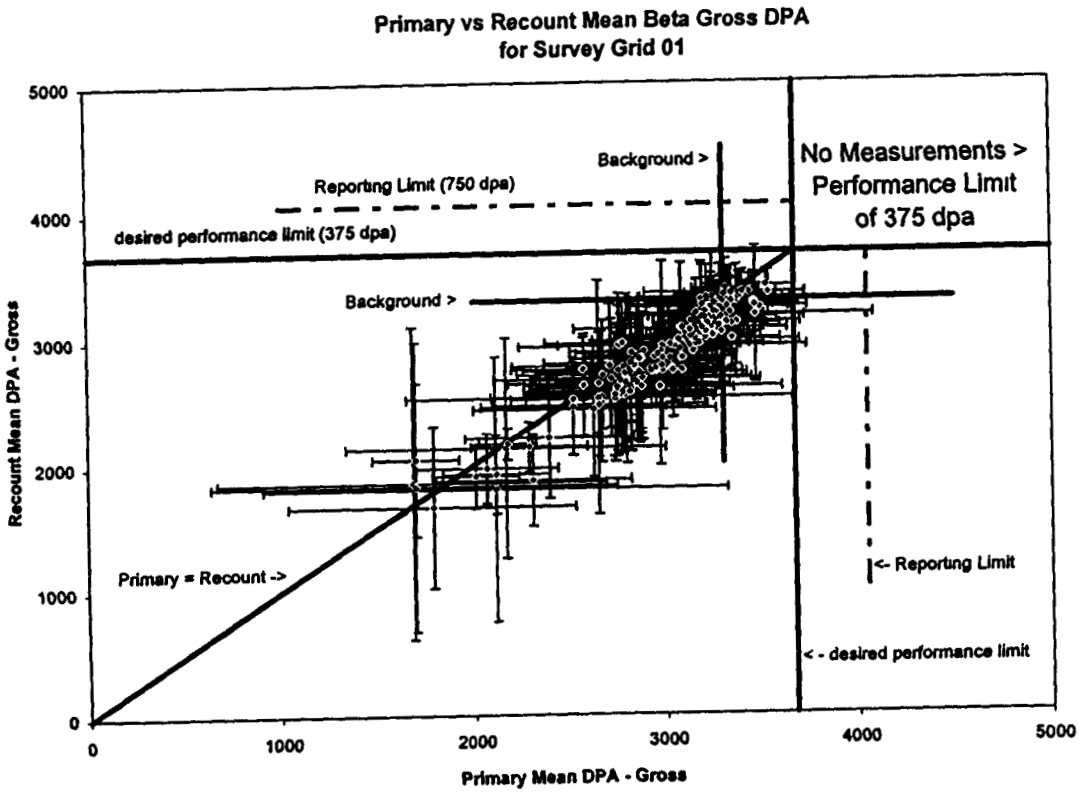


Figure 1 Demonstration of *a posteriori* Beta Detection Limit

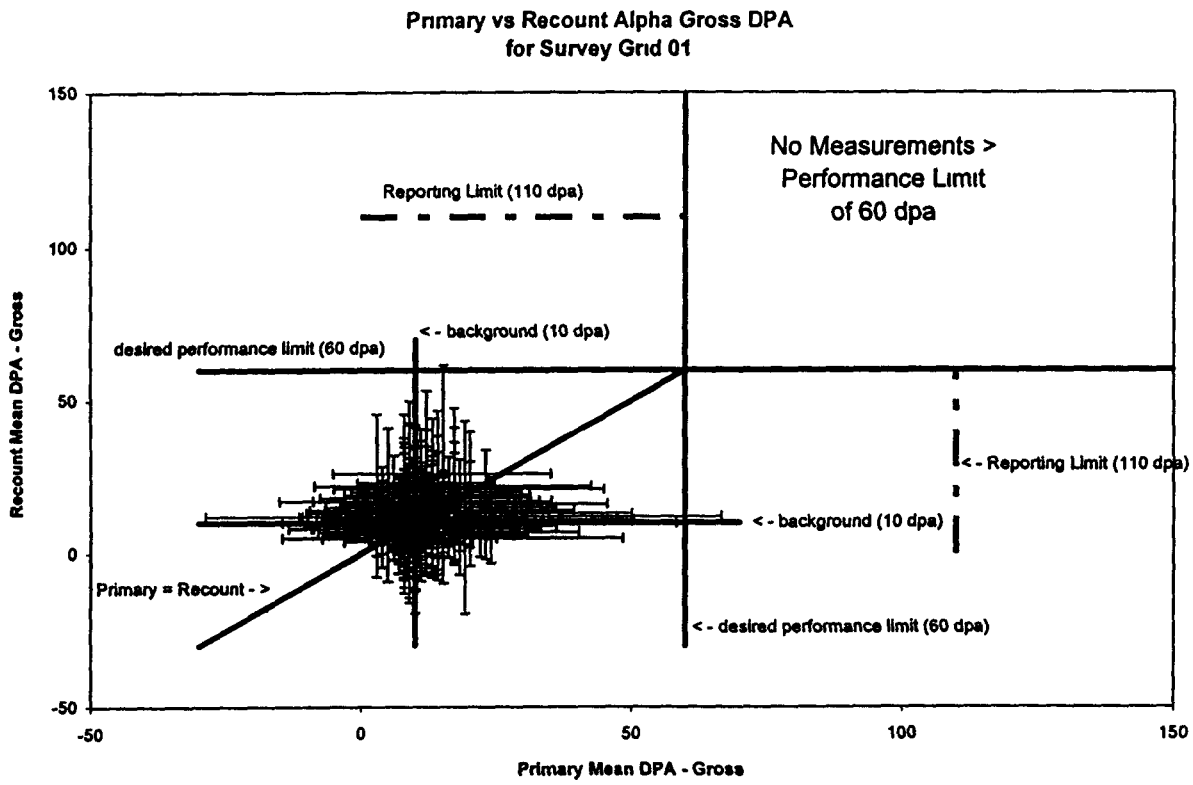


Figure 2 Demonstration of *a posteriori* Alpha Detection Limit

The Figure 2 shows the data for the alpha survey of the same block The background was 10 dpa, and no measurements were recorded greater than 26 dpa As can be seen from the figure, the data is more variable, reflecting the Poisson distribution of count rate data Because the count rate data is so low, the counting statistics dominate the error bars that are shown

This memo documents the performance of the SCM/SIMS in meeting the Test Measurements requirements of the Test Plan It also provides our assertion of the *a posteriori* detection limit that was achieved in the survey We provided documented measurements for more than 750 square meters in our survey reports for Building 123 We found only one area with residual contamination Our survey required 5 shifts to complete the acceptance tests, the alpha measurements, and the alpha plus beta measurements This is a rate just under 20 square meters per hour The rate of coverage achieved during actual survey measurements was around 100 square meters per hour The reduction to an average rate of 20 included all operational issues, special tests, etc The SCM sweeps 180 square meters per hour for alpha surveys and 360 square meters per hour for beta surveys when outfitted with the two meter detectors

3 Obtain 20 Measurements of NIST traceable alpha and beta sources

We took more than 20 measurements each of high and low activity sources of beta radiation and also similar measurements for alpha radiation We selected sources that were 100 cm^2 in area The data are summarized in Table 1 To generate the values in Table 1, we used 4π emission rates for Sr-90 (included the Y-90) We used the Cs-137 source since it was 100 cm^2 in area We used the Sr-90 efficiency for Cs-137, however, we divided the NIST traceable Cs-137 activity by 2 to place it on a common basis with Sr-90 (but made no energy correction to account for slight differences in beta efficiency) We used the mean 3300 dpa for beta background taken from the survey that is documented in the executive summary of the Building 123 survey We did not subtract the 10 dpa alpha background from the data. The low activity alpha source has large statistical uncertainty, and the background is moot for the high activity alpha source

We measured the sources by rolling over them in 4 strips, with a single source placed 5 times as the SCM rolled forward on a strip The sources that did not have a knob on the back were placed on RFETS survey grid locations 72 through 76 (with the source placed on the grid numbers) in the North wing, outside of the bathrooms The strips were stitched together to form a block that had 20 occurrences of the same source in the data set in four rows of 5 spots The sources that had a knob on the back were located elsewhere in the building in a hole in the floor and were rolled over 20 times in the same location

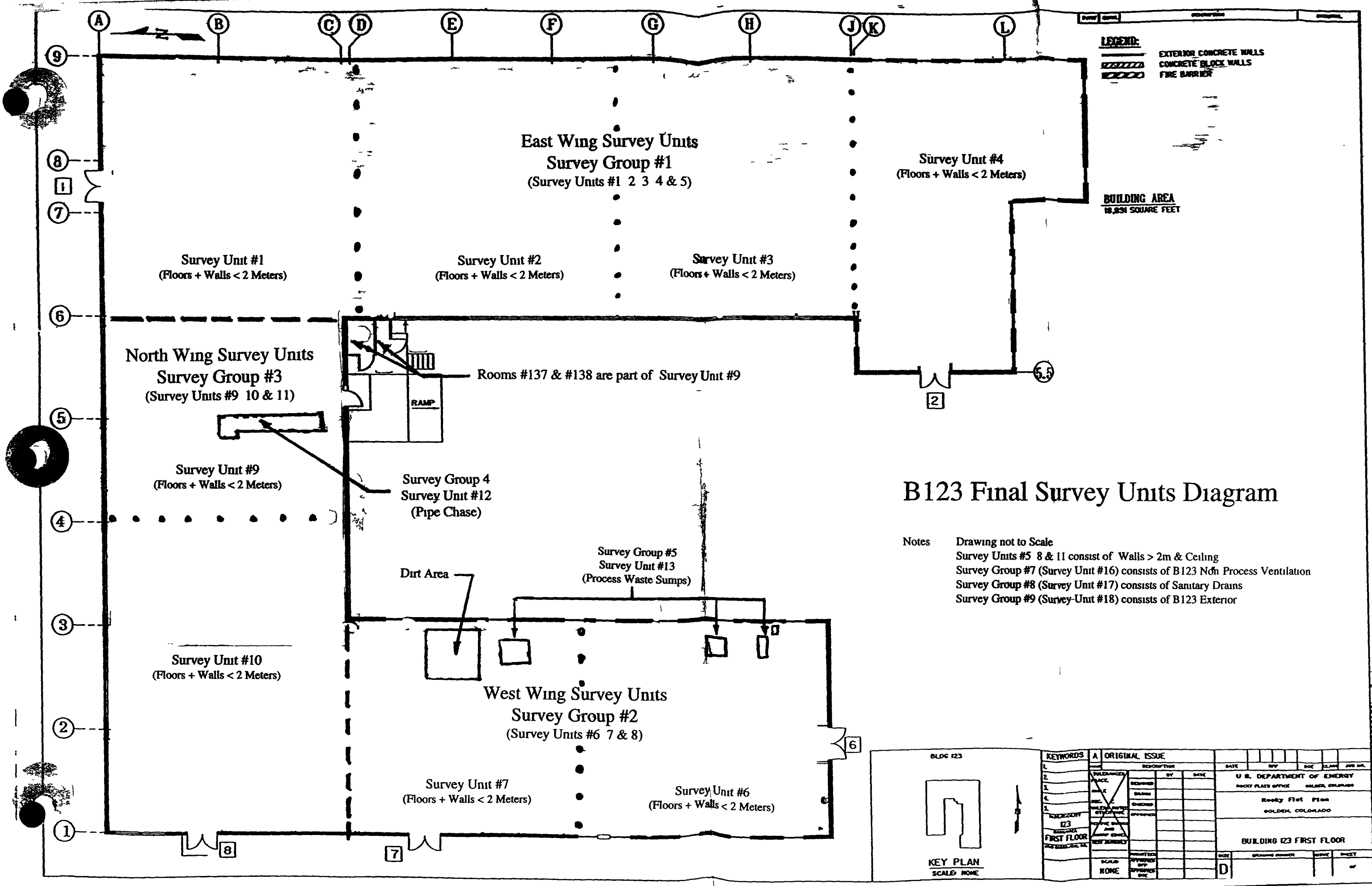
We attempted to measure the sources on the wall by "taping" the back of the sources with duct tape The data was taken several times and is included in the QA charts of the executive summary, however, the sources tended to loosen and begin to drop because the wall was not a good surface for testing We suspended the wall portion of the tests to avoid damage to the sources We believe that the data in the executive summary demonstrates that equivalent performance is obtained in the wall mount configuration as is shown for the floor mount

The data were taken under field conditions In a conventional "daily source check" performed by the RCTs on a portable survey instrument, the instrument is generally positioned in a source holding fixture Care is taken to assure that both the instrument and source are held in the same position as previous measurements (INEEL even controls the rotation of the source relative to the instrument probe) These measurements eliminate variables that occur under field conditions and score the variability of the response of the instrument alone Under these conditions, general industry practice and standards dictate that rate meter class instruments respond within 20% to the same source Meters which integrate counts (scalers) should respond within three standard deviations of a nominal value established during calibration and should be re-tested if the response is more than two standard deviations off nominal We did not do this, but tested the instrument variability with field variability added

The instrument was tested immediately after all of the surveys were completed The system was not adjusted or otherwise improved.

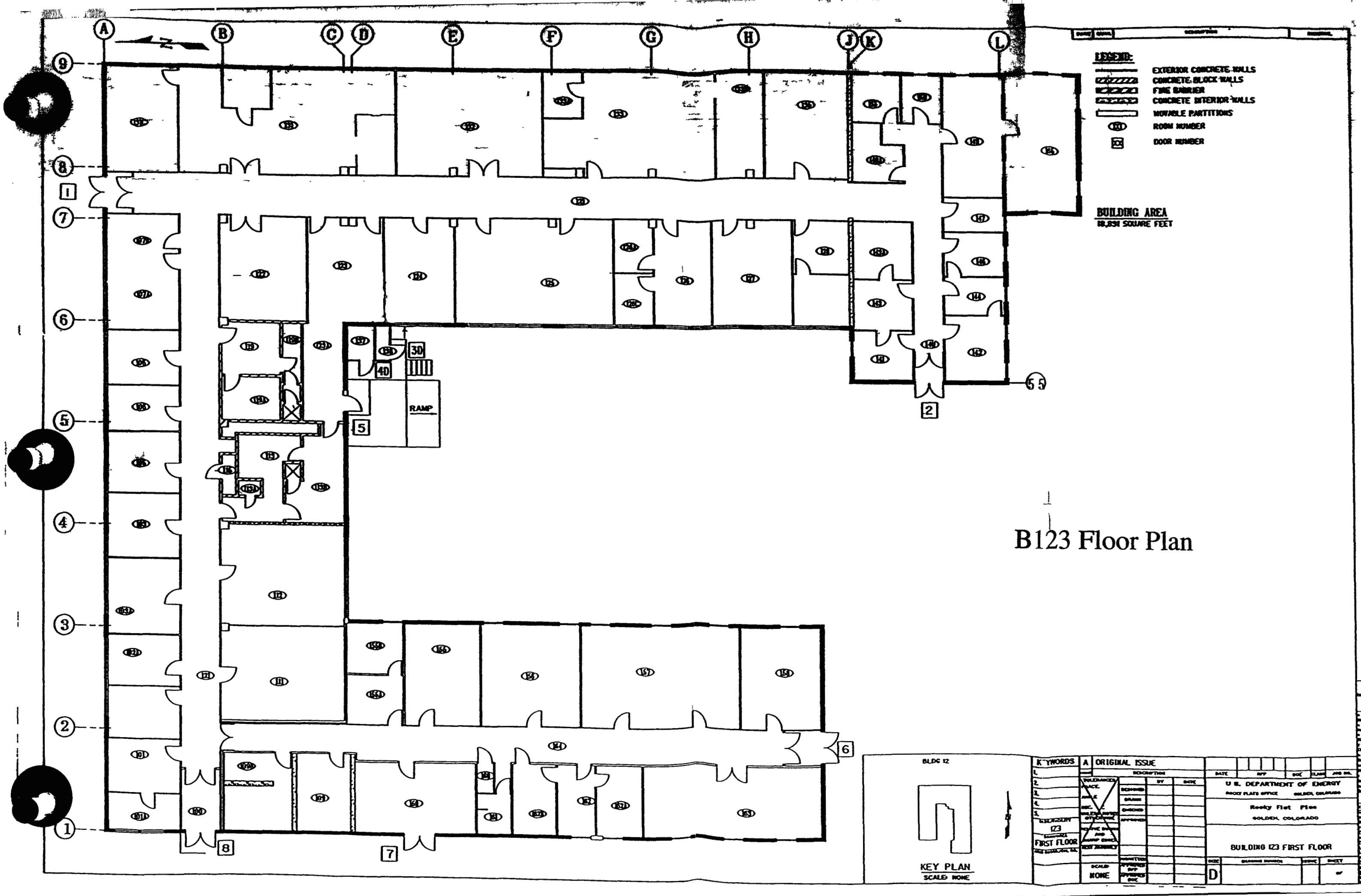
Table 1 Results of 20 Measurements of Low and High Activity Alpha and Beta Sources

Mx #	Primary		Primary		Primary		Primary	
1	6096		97738		191217		696	
2	7620		101490		199438		433	
3	5839		103183		184330		340	
4	8635		108130		183301		958	
5	7876		101752		181434		617	
6	6120		105891		163147		689	
7	8322		99772		184617		460	
8	8873		103893		172485		526	
9	7337		107236		176533		321	
10	7457		99142		161786		723	
11	9457		101694		166156		385	
12	11037		108872		171800		227	
13	9257		108310		178616		469	
14	7274		95912		172981		594	
15	8285		101382		184152		880	
16	8960		127094		188902		534	
17	8640		104316		180764		462	
18	8976		110602		193480		310	
19	8938		102533		180760		246	
20	11153		107328		167718		526	
Mean	8308		104814		179181		520	
Std Dev	17 2%		6 3%		5 7%		38 2%	
Bias	-7 8%		5 6%		-13 7%		-1 4%	
Area (cm^2)	100		100		100		100	
4 pi DPM	9010		99266	(4pi/2)	207600		527	
File #	Beta16		Beta12		Alpha11		Alpha12	
Source #	DK794		SRA2676		DK795		DK792	
Type	Sr90		Cs137*		Pu239		Pu239	



B123 Final Survey Units Diagram

Notes
Drawing not to Scale
Survey Units #5 8 & 11 consist of Walls > 2m & Ceiling
Survey Group #7 (Survey Unit #16) consists of B123 Non Process Ventilation
Survey Group #8 (Survey Unit #17) consists of Sanitary Drains
Survey Group #9 (Survey-Unit #18) consists of B123 Exterior



B123 Floor Plan