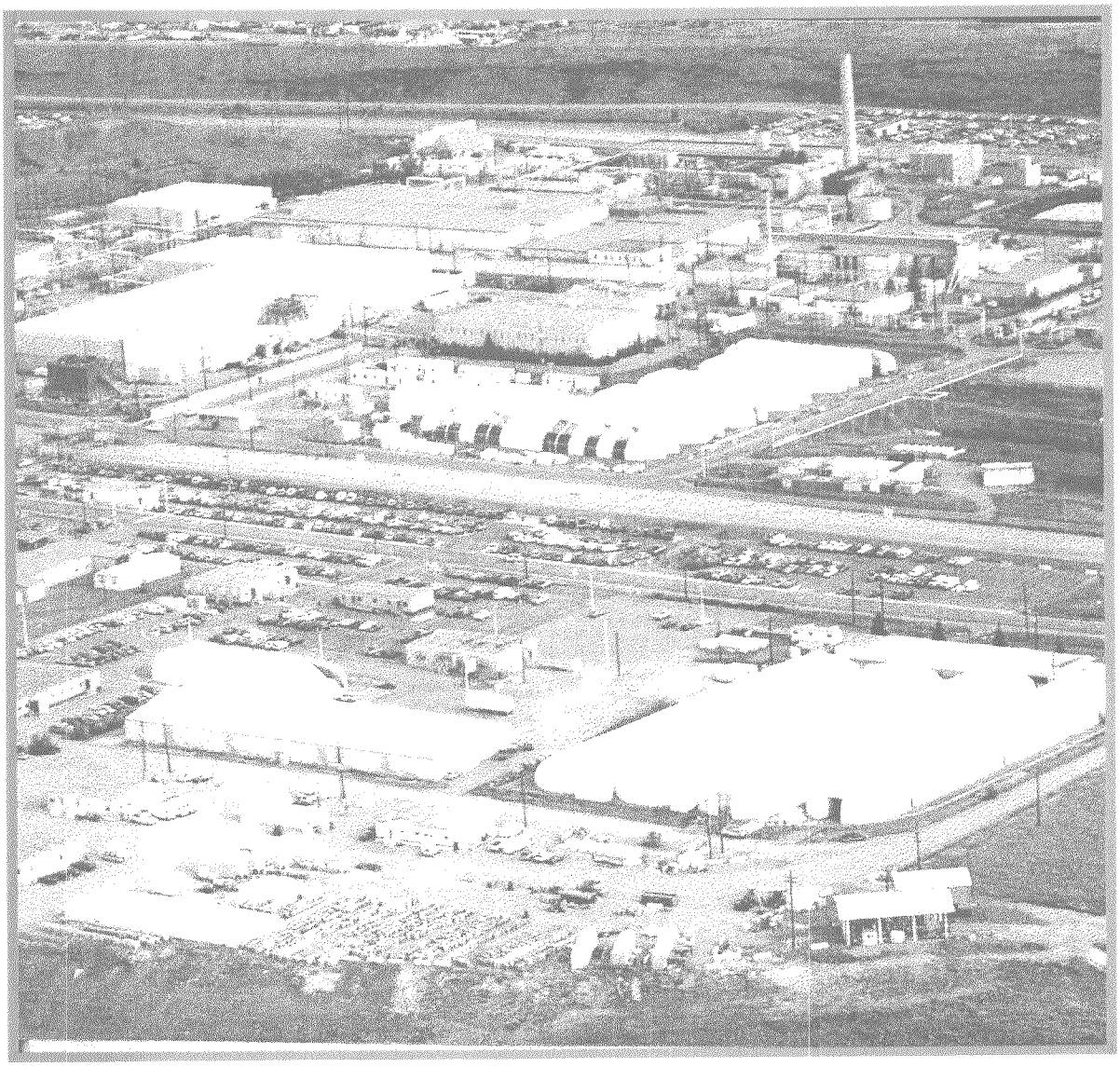

HAZARDS ASSESSMENT REPORT

FOR TENTS 7, 8 and 9

August 18, 1999 - REVISION 0

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HAZARDS ASSESSMENT REPORT

FOR TENTS 7, 8 and 9

REVISION 0

August 18, 1999

This report has been reviewed and approved by:

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ABBREVIATIONS/ACRONYMS

CDPHE	Colorado Department of Public Health and the Environment
CERCLA	Comprehensive Emergency Response, Compensation and Liability Act
CHWA	Colorado Hazardous Waste Act
cm	centimeter
D&D	Decontamination and Decommissioning
dpm	disintegration per minute
DOE	U.S. Department of Energy
DQOs	Data Quality Objectives
EPA	U.S. Environmental Protection Agency
HEPA	High Efficiency Particulate Air
HSP	RFETS Health & Safety Practices
K-H	Kaiser-Hill
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MDA	Minimum Detectable Activity
MDC	Minimum Detectable Concentration
NRA	No-Rad-Added
PCB	Polychlorinated Biphenyls
PPE	Personal Protective Equipment
PRE	Property Release Evaluation
RCRA	Resource Conservation and Recovery Act
RCT	Radiological Control Technician
RFETS	Rocky Flats Environmental Technology Site
RLC	Reconnaissance Level Characterization
RSP	RFETS Radiological Safety Practices
TCLP	Toxicity Characteristic Leaching Procedure
TLD	Thermoluminescent Dosimeter

EXECUTIVE SUMMARY

Physical, chemical and radiological hazards associated with Tents 7, 8 and 9 have been characterized and assessed following Health and Safety Practices (HSP) 18.10. This Preliminary Hazards Assessment is necessary to initially characterize these hazards in order to support the project planning effort. Hazards were assessed based on a review of historical and process knowledge, previously collected radiological data, and additional data recently collected as part of the reconnaissance level characterization of Group A facilities. Results indicate no physical, chemical, or radiological hazards are present. However, process knowledge, the condition and contents of the tents at the time of the characterization and the additional data collected from radiological surveys and scans "could" indicate the presence of radioactive contamination as the project proceeds. Physical hazards include those related to the dismantlement of structural components, such as structural metal, fabric panels, and associated cabling. These hazards can be controlled by the use of standard industry practices. In addition, the 904 Pad could contain residual chemical contamination (RCRA-listed spent solvents and electroplating wastes containing heavy metals) from the release of pondcrete and saltcrete that occurred on the pad prior to the tents being erected. However, no occupational or industrial hygiene issues have been identified, and no related controls have been instituted.

Based on this initial assessment, the 50 tons of structural metal and approximately 10 tons of tent panels and miscellaneous debris, which will be generated during the project, is "initially" considered sanitary waste and can be free-released. However, it is recommended that, during demolition, in-process characterization be conducted to further assess waste management options and health and safety practices.

1.0 INTRODUCTION

As part of the Rocky Flats Environmental Technology Site (RFETS) Closure Project, Tent 7 is the only tent to be dispositioned. Tent 8 and 9 will continue to be used for interim waste storage and will be dispositioned in the future. Tent 7 no longer supports the RFETS mission, and will be dispositioned to reduce Site hazards, risks and operating costs. Tents 8 and 9 are located on the west side of the 904 Pad, which is located in the southeastern part of the Industrial Area. Tent 7 is located in the same general area west of the southwest corner of the 904 Pad. Exhibit 1-1 presents an aerial overview of the 904 Pad and tents, and Exhibit 1-2 shows the interior of Tent 7, which is similar to the interior and structural characteristics of the other two tents. Exhibit 1-3 presents a schematic drawing of the 904 Pad and tents. These tents will be closed as a partial closure of the 904 Pad pursuant to requirements of the Resource Conservation and Recovery Act (RCRA). Closure details are presented in the Project Execution Plan for the Tent 7, 8, 9 Removal Project (K-H, 1999), and will also be included in the Closure Description Document for the three tents. The tents are within RCRA Unit 15 B.

Before the tents can be dispositioned, the hazards will be identified and addressed in closure/cleanup plans for waste management and health and safety purposes. This document presents an preliminary assessment of existing physical, radiological and chemical hazards associated with these three tents. This hazards assessment is based on facility and process knowledge, operating and spill history, and radiological survey data collected. This report also presents estimated decommissioning waste types and volumes.

1.1 Purpose

The purpose of this report is to communicate and document the results of the hazard assessment, including summarizing the data into concise, usable formats and interpreting the data for use in management decisions, primarily for:

- definition of individual hazards and overall risk associated with dismantling the tents and managing resulting waste; and
- identification of waste types based on assessment results
- characterization of the facility and its materials as a prelude to job hazard analyses and to ensure compliance with state and federal waste regulations.

1.2 Scope

This report assesses the physical, radiological and chemical hazards of the three tents. The radiological assessment was conducted using RFETS Health and Safety Practices 18.10, "Radioactive Material Transfer and Unrestricted Release of Property and Waste," Property Release Evaluation (PRE) criteria and the RFETS Radiological Control Manual.

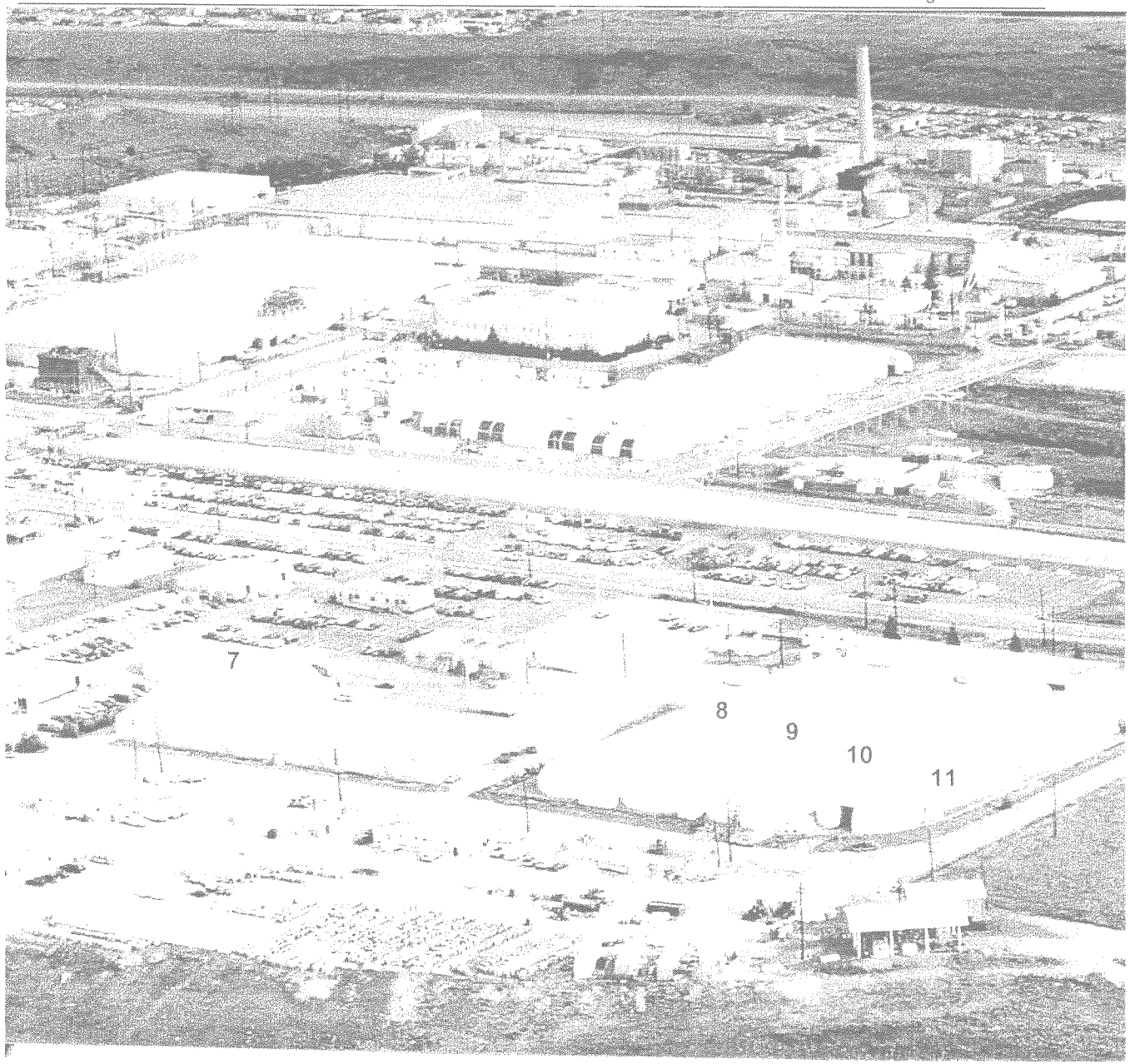
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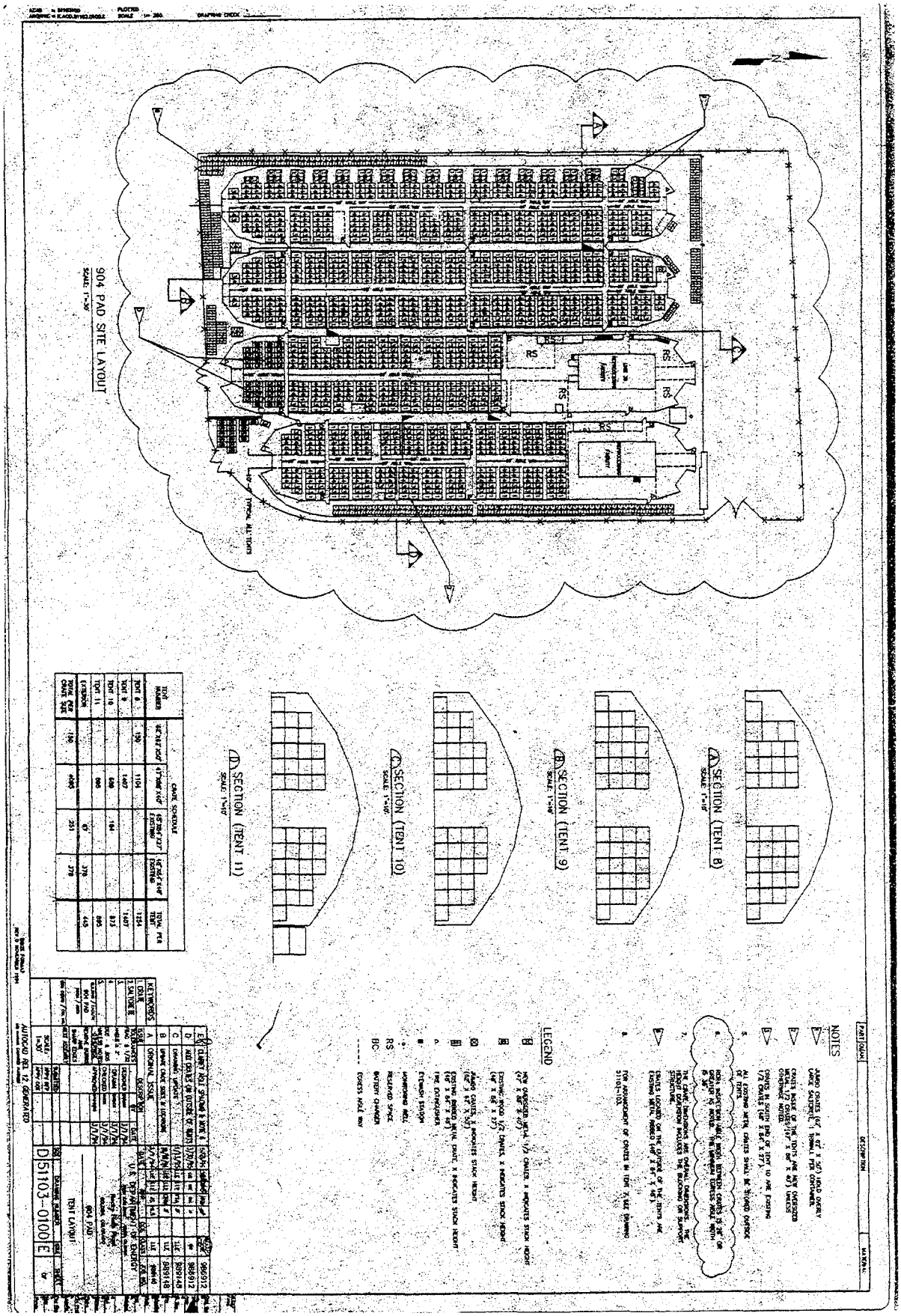
Exhibit 1-3 Schematic Drawing of the 904 Pad and Tents



Chemical characterization was conducted using RCRA/CHWA regulations as a means to segregate materials as either hazardous or non-hazardous waste. Environmental media beneath and surrounding the tents, including the (non-surficial portions of) asphalt pads, are not within this scope.

1.3 Building Description and History

In January 1990, the 904 Pad tents were constructed for the controlled storage of low-level mixed and hazardous waste (pondcrete and saltcrete), and for waste inspection, sampling and repackaging activities (K-H, 1999). Pondcrete and saltcrete are, respectively, sediments from the solar evaporation ponds and the Building 374 evaporator, which have been mixed with cement to create a solid waste form. These wastes carry EPA codes and are RCRA wastes.

The tents were erected on bermed, asphalt-paved pads to protect the waste containers from the adverse effects of the weather, even though the tents are not credited as a shelter in the hazard evaluation (K-H 1999). The tents are modular, stressed membrane, weatherproof fabric shelters with earth anchors and ancillary features and hardware, including doors and vehicle accessways. Tents 7, 8 and 9 consist primarily of structural framing, tent panels and cabling. They possess no windows, lighting, ventilation and heating systems, related electrical and natural gas systems, nor potable or fire-water systems. The 904 Pad is sloped for drainage and has a 6- to 12- inch berm around it. Tent 7, located on the 902 Pad, also is sloped for drainage. Berms approximately 6 to 12 inches high are located on the inside of Tent 7 (approximately 3 feet from the walls) to collect potential spills. Tent 7 is 167 ft long and 60 ft wide. Tents 8 and 9 are 362 ft long and 60 ft wide.

The tents are within RCRA Unit 15 B, and current operations are limited to maintaining the stored wastes in compliance with all governing environmental and safety rules and regulations. This requires regular inspections to assure the integrity of the packages and the contents. Tent 7, 8 and 9 contain no RCRA wastes.

Before the tents were erected, the 904 Pad was also used for the storage of pondcrete and saltcrete. These wastes were contained in Tri-Wall containers. Some of these waste containers lost their integrity, and some wastes were released to the pad. According to current facility personnel, the pad was cleaned up (to some extent) prior to the tents being erected (refer to interview forms in the administrative record). The tents and pads will be officially closed pursuant to RCRA regulations and standards. Details will be presented in the Closure Description Document for the three tents.

2.0 SUMMARY OF CHARACTERIZATION ACTIVITIES

Radiological characterization (e.g., review of historical information and conduct of additional surveys and scans) was performed to determine the nature and extent of radioactive contamination that may be present. These activities were based on data quality objectives (DQOs) developed to assess the radiological and non-radiological hazards associated with the tents. This section presents DQOs for radiological characterization, historical radiological data on the tents, and the additional data collected.

Pre-existing beryllium data, together with historical and process knowledge, were sufficient to characterize hazards, materials and potential wastes (refer to Section 3.1.3). Therefore, no chemical sampling was conducted. DQOs for chemical constituents are presented in the

Decontamination and Decommissioning Characterization Protocol, MAN-077-DDCP, dated November 20, 1998.

2.1 Radiological Data Quality Objectives

Decisions regarding radiological characterization of Tents 7, 8 and 9 are being made in accordance with the DQOs outlined below. These DQOs apply to the tent structure only and are not applicable to the floor area and tent contents. Any contamination associated with the pad will be addressed during environmental restoration of the 904 Pad area. The contents of the tents will be removed prior to disposition.

2.1.1 The Decisions

The decisions associated with this project concern the tent panels and structure, specifically tent materials (i.e., panels, ribbing and associated structural materials). A sufficient number of radiological surveys/samples to assess the radiological hazards is required.

2.1.2 Inputs to the Decision

The inputs to the decision are the magnitude and location of data from radiological surveys/samples taken. Radiological surveys/samples were taken in accordance with the requirements of Health & Safety Practices (HSP) Procedure 18.10, "Radioactive Material Transfer and Unrestricted Release of Property and Waste," and Radiological Safety Practices (RSP) Procedure 9.01, "Unrestricted Release of Property, Material, Equipment and Waste." RSP 9.03, "Unrestricted Release of Bulk or Volume Material," is also applicable. Based on adequate process knowledge of the types of radionuclides associated with the RCRA storage unit, no radiochemical sampling and analysis is necessary.

2.1.3 Decision Boundaries

The decision boundaries include spatial confines of building structures, which includes tent panels, tent ribbing and associated structural materials.

2.1.4 Decision Rules

These decision rules are developed to initially assess the radiological hazards and to recommend safe work control practices.

1. **If** the Historical Site Assessment and/or current building configuration indicate that no radiological hazards may be present due to process knowledge and history, **then** activities in the area may be performed with no radiological controls in place.

2. **If** the Historical Site Assessment and/or current building configuration indicate that any radiological hazards may be present due to process knowledge and history, **then** activities in the area must be performed with proper radiological controls in place per the RFETS Radiological Control Manual requirements.

3. **If** all radiological survey measurements are below the surface contamination thresholds provided in the RFETS Radiological Control Manual, **then** no significant radiological hazards exist. This indicates that no radiological controls are necessary depending on the results of Steps 1 and 2 above.

4. **If** any radiological survey measurement exceeds the surface contamination thresholds provided in the RFETS Radiological Control Manual, **then** a potential radiological hazard may exist. Activities in the area must be performed with proper radiological controls in place per the RFETS Radiological Control Manual.

2.1.5 Tolerable Limits on Decision Error

The radiological surveys/samples required to comply with these DQOs will not be statistically based. Therefore, quantitative decision errors are not defined.

2.1.6 Optimization of Plan Design

Radiological surveys and scans were taken in accordance with the requirements of the RFETS Radiological Control Manual, Health & Safety Practices (HSP) Procedure 18.10, "Radioactive Material Transfer and Unrestricted Release of Property and Waste," and Radiological Safety Practices (RSP) Procedure 9.01, "Unrestricted Release of Property, Material, Equipment and Waste." RSP 9.03, "Unrestricted Release of Bulk or Volume Material," is also applicable.

2.2 Summary of Historical Radiological Data

Historically, only routine radiological surveys were taken of tent floors to assure that radiological contamination was being controlled in the tents. No routine radiological samples were taken of any of the three tents. Existing radiological survey data were reviewed for the period from 1/1/98 to 12/1/98. Survey results are summarized below in Table 2-1, and data are presented in Appendixes A.1, B.1, and C.1. Results are compared with the surface contamination limits prescribed in the RFETS Radiological Control Manual (Table 2-2). Results are below contamination limits.

Table 2-1 Summary of Historical Radiological Data

	Number of Radiological Survey Points Taken per Survey Frequency (Annually or Weekly)		Results Below Surface Contamination Limits?	
	Weekly Surveys - Interior Floor (1)	Annual Surveys - Interior Floor (2)	Weekly Surveys - Interior Floor (1)	Annual Surveys - Interior Floor (2)
Tent 7 - 904 Pad	10	10	YES	YES
Tent 8 - 904 Pad	19	19	YES	YES
Tent 9 - 904 Pad	19	19	YES	YES

(1) - Removable, alpha and beta-gamma surveys were performed at each location.
(2) - Both total and removable, alpha and beta-gamma surveys were performed at each location.

2.3 Summary of " Tent" Reconnaissance Level Characterization Radiological Data

During Reconnaissance Level Characterization (RLC) of Group A facilities, radiological surveys and scans were taken to initially characterize radiological contamination in all the tents on the 904/902 Pads, including Tents 7, 8 and 9. Surveys and scans were conducted on March 30 and March 31,1999. No radiological samples were taken in any of the tents. Survey results for Tents 7, 8 and 9 are summarized below in Table 2-2, and are presented in Appendixes A.2, B.2, and C.2. Results are compared with the surface contamination limits prescribed in the RFETS Radiological Control Manual (Table 2-2). Results are elevated, but below contamination limits.

Table 2-2 Summary of Group A RLC Radiological Data

	Number of Radiological Surveys/Scans Taken (1)			Results Below Surface Contamination Limits?		
	Interior Floor & Walls < 2 meter (2)	Interior Walls > 2 meters & Ceiling	Exterior Walls	Interior Floor & Walls < 2 meter (2)	Interior Walls > 2 meters & Ceiling	Exterior Walls
Tent 7 - 904 Pad	30	10	30	YES	YES	YES
Tent 8 - 904 Pad	30	10	30	YES	YES	YES
Tent 9 - 904 Pad	30	10	30	YES	YES	YES

(1) - Both total and removable, alpha and beta-gamma surveys were performed at each location
(2) - A $1m^2$ scan survey was also performed around each of these locations.

2.4 Summary of Additional Radiological Data

Due to elevated results as indicated in Section 2.3, further characterization was necessary to identify isotopes of concern. Surveys and scans were taken in accordance with the requirements of HSP 18.10 and RSP 9.01. Radiological survey and scan results are

summarized below in Table 2-3, and data are presented in Appendixes A.3, B.3, and C.3. Results are compared with the surface contamination limits prescribed in the RFETS Radiological Control Manual (Table 2-2). Some results are elevated, but do not exceed contamination limits.

Table 2-3 Summary of Additional Radiological Data

	Number of Radiological Surveys Taken					Results Below Surface Contamination Limits?				
	Tent Interior Panels < 8 feet (1)	**Tent Interior Panels > 8 feet (2)**	**Interior Metal Ribs (2)**	**Tent Exterior Panels (2)**	**Vent System (3)**	**Tent Interior Panels < 8 feet**	**Tent Interior Panels > 8 feet**	**Interior Metal Ribs**	**Tent Exterior Panels**	**Vent System**
Tent 7 904 Pad	27	10	5	30	3	Yes	Yes	Yes	Yes	Yes
Tent 8 904 Pad	50	11	10	30	6	Yes	Yes	Yes	Yes	Yes
Tent 9 904 Pad	50	12	10	30	6	Yes	Yes	Yes	Yes	Yes

(1) -Both total and removable, alpha and beta-gamma surveys were performed at each location with a 10% scan.
(2) -Both total and removable, alpha and beta-gamma surveys were performed at each location.
(3) - Removable, alpha and beta-gamma surveys were performed at each location.

2.5 Measurement Methods, Procedures and Equipment

Radiological surveys/scans were taken in accordance with the requirements of HSP 18.10, "Radioactive Material Transfer and Unrestricted Release of Property and Waste," and RSP 9.01, "Unrestricted Release of Property, Material, Equipment and Waste." No radiological samples were required

3.0 IDENTIFIED HAZARDS AND ANTICIPATED WASTE VOLUMES

3.1 Hazards

Based on facility and process knowledge and radiological data collected, physical, radiological and chemical hazards were identified and are presented below. Wastes currently being stored in the tents, as well as empty waste containers and miscellaneous equipment and supplies will be removed prior to project initiation, and therefore, will not present any hazards.

3.1.1 Physical Hazards

Physical hazards associated with the tents include those related to structural components, such as structural metal, fabric panels, and associated cabling. These hazards and other standard industrial and construction hazards will have to be addressed in the removal project health and safety plan. No other hazards are present, including those associated with electrical, natural gas, or water systems. The three tents do not possess such systems.

3.1.2 Radiological Hazards

Overview

Radiological hazards were evaluated in Tents 7, 8 and 9 through the use of radiological surveys and scans. Radiological samples were not required to support this assessment. Radiological surveys were performed on the tents for removable and total, gross alpha and beta-gamma contamination. Scan surveys were performed on the tent panels for gross alpha and beta-gamma contamination. Radiological surveys were performed on each interior panel below 8 feet with an accompanying 10% scan of the area. Every other panel was surveyed on the exterior at a minimum. Ten survey points were selected at random above 6 to 8 feet. Every fifth metal structural tent rib was surveyed below 6 feet, and a survey was performed on each vent system.

A majority of survey points did not exceed the Minimum Detectable Concentration (MDC) of the instrument. However, there were many survey points above the MDC of the instrument but below the contamination limits prescribed in the RFETS Radiological Control Manual. These elevated survey points were located on the floor and on the tent walls less than 6 ft high.

There were also a few survey points that initially exceeded the contamination limits prescribed in the RFETS Radiological Control Manual. To further qualify/quantify the data and define the isotopes of concern, these points were resurveyed either using a portable alpha spectroscopy instrument or with the same type of instrument as was used to perform the original survey. These elevated readings and isotopes of concern could not be confirmed during the re-survey. At the time of the re-survey, these points were either attributed to radon or were below the MDC and the contamination limits prescribed in the RFETS Radiological Control Manual. These re-survey results are attributed to radon progeny in the area of the initial survey that had radiologically decayed between survey events. If DOE-added radioactive material had been the source of these elevated survey points, the elevated survey results would have been confirmed.

Contamination above the limits could be present in areas that were inaccessible to surveying (e.g., under waste crates and other materials in storage). Therefore, even though no readings exceeded contamination limits as specified in the RFETS Radiological Control Manual, all work in the tents will initially be radiologically controlled per "Contamination Area" work control requirements. Based on the nature of stored materials and historical releases, there is potential for worker exposure during disposition and associated configuration changes.
Results are summarized below and in Table 3-1, "Radiological Survey Results for Tents 7, 8 and 9." This table includes the survey results.

Radiological Surveys in Tent 7

There were 27 radiological survey points on the interior tent panels. The 10% scan of each tent panel was below the MDC of the survey instrument. All survey points were less than the MDC of the instrument for removable alpha and beta-gamma contamination. There were 26 points less than the MDC of the instrument for total alpha and total beta-gamma contamination. There was one elevated total alpha survey point at 174 dpm/100 cm^2, which is above the contamination limits prescribed in the total RFETS Radiological Control Manual. There was one elevated total beta-gamma survey point at 369 dpm/100 cm^2, which is below the contamination limits prescribed in the RFETS Radiological Control Manual.

The one elevated total alpha survey point was investigated using a portable alpha spectroscopy instrument (AP-2). The re-survey indicated total alpha contamination at 66dpm/100 cm^2, which is above the MDC of the instrument, but is below the contamination limits prescribed the RFETS Radiological Control Manual.

There were 10 radiological survey points of the interior tent panels above 6 to 8 feet. All survey points were less than the MDC of the instrument for removable and total, alpha and beta-gamma contamination.

There were 5 radiological survey points of the interior tent panels ribs. All survey points were less than the MDC of the instrument for removable and total, alpha and beta-gamma contamination.

There were 30 radiological survey points of the exterior tent panels. All survey points were less than the MDC of the instrument for removable and total, alpha and beta-gamma contamination.

There were 3 radiological survey points within the vent systems. All survey points were less than the MDC of the instrument for removable and total, alpha and beta-gamma contamination.

Radiological Surveys in Tent 8

There were 50 radiological survey points of the interior tent panels. The 10% scan of each tent panel was below the MDC of the survey instrument. All survey points were less than the MDC of the instrument for removable alpha and beta-gamma contamination. There were 48 points less than the MDC of the instrument for total alpha contamination. There were 46 points less than the MDC of the instrument for total beta-gamma contamination. There were two elevated total alpha survey points at 108 and 228 dpm/100 cm^2, which are above the surface contamination limits prescribed in the RFETS Radiological Control Manual. There were four

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elevated total beta-gamma survey points at 648, 390, 396 and 489 dpm/100 cm^2, which are below the contamination limits prescribed in the RFETS Radiological Control Manual.

The two elevated survey points were resurveyed. The re-survey results indicate elevated total alpha contamination of 30 and 30 dpm/100 cm^2, which is above the MDC of the instrument, but below the contamination limits prescribed in the RFETS Radiological Control Manual.

There were 11 radiological survey points on the interior tent panels above 6 to 8 feet. All survey points were less than the MDC of the instrument for removable and total, alpha and beta-gamma contamination.

Table 3-1 Radiological Survey Results for Tents 7, 8 and 9

	Removable Contamination						Total Contamination					
	Alpha (dpm/100 cm^2)			Beta (dpm/100 cm^2)			Alpha (dpm/100 cm^2)			Beta (dpm/100 cm^2)		
	Survey Points	Minimum	Maximum	Survey Points	Minimum	Maximum	Survey Points	Minimum	Maximum	Survey Points	Minimum	Maximum
Tent 7 – Interior Panels < 8 Feet	27	<20	<20	27	<200	<200	27	<59	66	27	<316	369
Tent 7 – Interior Panels > 8 Feet	10	<20	<20	10	<200	<200	10	<72	<72	10	<313	<313
Tent 7 – Interior Metal Ribs	5	<20	<20	5	<200	<200	5	<59	<59	5	<316	<316
Tent 7 – Exterior Panels	30	<20	<20	30	<200	<200	30	<66	<66	30	<303	<303
Tent 7 – Vent System	3	<20	<20	3	<200	<200	3	<72	<72	3	<313	<313
– Interior Panels <	50	<20	<20	50	<200	<200	50	<33	30	50	<302	648
Tent 8 – Interior > 8 Feet	11	<20	<20	11	<200	<200	11	<72	<72	11	<313	<313
Tent 8 – Interior Metal Ribs	10	<20	<20	10	<200	<200	10	<33	90	10	<302	<302
Tent 8 – Exterior Panels	30	<20	<20	30	<200	<200	30	<56	<56	30	<331	<331
Tent 8 – Vent System	6	<20	<20	6	<200	<200	6	<72	<72	6	<313	<313
Tent 9 – Interior Panels < 8 Feet	50	<20	<20	50	<200	<200	50	<33	72	50	<302	936
Tent 9 – Interior Panels > 8 Feet	12	<20	<20	12	<200	<200	12	<72	<72	12	<313	<313
Tent 9 – Interior Metal Ribs	10	<20	<20	10	<200	<200	10	<33	<33	10	<302	<302
Tent 9 – Exterior Panels	30	<20	<20	30	<200	<200	30	<55	66	30	<317	465
Tent 9 – Vent System	6	<20	<20	6	<200	<200	6	<72	<72	6	<313	<313

There were 10 radiological survey points on the interior tent panels ribs. All survey points were less than the MDC of the instrument for removable alpha and beta-gamma contamination and for total beta-gamma contamination. There were 7 points less than the MDC of the instrument for total alpha contamination. There were three elevated total alpha survey points at 42, 60 and 90 dpm/100 cm^2, which is above the MDC of the instrument, but are below the contamination limits prescribed in the RFETS Radiological Control Manual.

There were 30 radiological survey points on the exterior tent panels. All survey points were less than the MDC of the instrument for removable and total, alpha and beta-gamma contamination.

There were 6 radiological survey points within the vent systems. All survey points were less than the MDC of the instrument for removable and total, alpha and beta-gamma contamination.

Radiological Surveys in Tent 9

There were 50 radiological survey points on the interior tent panels. The 10% scan of each tent panel was below the MDC of the survey instrument. All survey points were less than the MDC of the instrument for removable alpha and beta-gamma contamination. There were 44 points less than the MDC of the instrument for total alpha contamination. There were 40 points less than the MDC of the instrument for total beta-gamma contamination. There were two elevated total alpha survey points at 144 and 216 dpm/100 cm^2, which exceed the contamination limits prescribed in the RFETS Radiological Control Manual. There were four elevated total alpha survey points at 60, 84, 84 and 66 dpm/100 cm^2, which is above the MDC of the instrument, but are below the contamination limits prescribed in the RFETS Radiological Control Manual. There were ten elevated total beta-gamma survey points at 729, 654, 732, 936, 642, 861, 696, 615, 600 and 462 dpm/100 cm^2, which are above the MDC of the instrument, but are below the contamination limits prescribed in the RFETS Radiological Control Manual.

The two total alpha survey points that exceeded contamination limits were resurveyed. The re-survey results indicate elevated total alpha contamination at 72 and 66 dpm/100 cm^2, which are above the MDC of the instrument, but are below the contamination limits prescribed in the RFETS Radiological Control Manual.

There were 12 radiological survey points on the interior tent panels above 6 to 8 feet. All survey points were less than the MDC of the instrument for removable and total, alpha and beta-gamma contamination.

There were 10 radiological survey points on the interior tent panels ribs. All survey points were less than the MDC of the instrument for removable and total, alpha and beta-gamma contamination.

There were 30 radiological survey points on the exterior tent panels. All survey points were less than the MDC of the instrument for removable alpha and beta-gamma contamination. There were 28 points less than the MDC of the instrument for total alpha contamination. There were 29 points less than the MDC of the instrument for total beta-gamma contamination. There were two elevated alpha survey point at 66 and 66 dpm/100 cm^2, which is above the MDC of the instrument, but are below the contamination limits prescribed in the RFETS Radiological Control

Manual. There was one elevated beta-gamma survey point at 465 dpm/100 cm^2, which is above the MDC of the instrument, but is below the contamination limits prescribed in the RFETS Radiological Control Manual

There were 6 radiological survey points within the vent systems. All survey points were less than the MDC of the instrument for removable and total, alpha and beta-gamma contamination.

3.1.3 Chemical Hazards

Based on visual inspection (i.e., lack of stains, discoloration, etc.), and historical and process knowledge (refer to interview forms in the administrative record), no chemical hazards are associated with the tent materials (i.e., tent panels and support structures). The 904 Pad may contain some residual chemical contamination from the release/spill of pondcrete and saltcrete that occurred on the pad prior to the tents being erected. Pondcrete and saltcrete possess RCRA-listed spent solvents (i.e., F001, F002, & F005) and electroplating wastes containing heavy metals (i.e., F006, F007 & F009). However, no occupational or industrial hygiene issues have been identified, and no related controls have been instituted. In addition, the Site RCRA Permit allows for the storage of mixed wastes on the 904 Pad without imposing permit conditions to control residual contamination, which indicates that State did not perceive any chemical hazard on the pad. However, during tent removal, it is recommended that the pad be covered to prevent any potential release or migration of residual contamination.

Lead

No painted surfaces exist on the tent panels or support structures. Railings and other structures are painted, however, Environmental Waste Compliance Guidance #27, *Lead-based Paint (LBP) and Lead-based Paint Debris Disposal* states that LBP debris generated outside of high contamination areas shall be managed as non-hazardous (solid) wastes and that additional analysis for characteristics of hazardous waste derived from LBP is not a requirement for disposal. Process knowledge does not give reason to suspect other sources of lead contamination on the tent panels or support structures.

Beryllium

Results from beryllium surface smears, conducted by the RFETS Chronic Beryllium Disease Prevention Program (CBDPP), yielded all non-detect results (i.e., $\leq$ 0.1 µg/100 cm^2). Refer to Appendix D. A total of 70 smears were analyzed in Tent 7, 25 smears in Tent 8, and 25 smears in Tent 9. Smears represent surface areas of waste containers, pallets, work surfaces, and the asphalt pad surface. The CBDPP free-release criteria for Be is 0.2 µg/100 cm^2 (Occupational Safety and Industrial Hygiene Program Manual, Chapter 28).

Other Metals

Tent panels were secured at the base by being nailed to wooden 4x8's, which are bolted to the asphalt pad. Some of these wooden 4x8's are greenish-tinted, arsenical-treated ("wolmanized") wood. Solid waste that consists of discarded arsenical-treated wood or wood products that exceed the toxicity characteristic leaching procedure (TCLP) threshold for hazardous waste

codes D004 through D017 are not considered hazardous waste per 40 CFR 261.4(b)(9). Process knowledge of the waste storage practices does not give reason to suspect any other metal contamination on the tent panels or support structures. Containers were situated on the asphalt pad and were not in contact with the tent materials. Also, even though there were releases of pondcrete and saltcrete on the pad, releases were small and did not represent reportable quantities (Site Historical Release Report). In addition, removable surface levels of metals on the pad are expected to be very low based on the beryllium analytical results (i.e., all beryllium smears were below detectable limits). However, TCLP characterization of the pad will be performed at a later time.

PCBs

Process knowledge does not give reason to suspect PCB contamination on the tent panels or support structure. According to the Waste Stream and Residue Identification and Characterization of the 904 Pad, no PCB wastes or PCB-containing equipment were located in the pad. In addition, the *Operation Unit 10 RCRA Facility Inventory and Remedial Investigation , Technical Memorandum 1, January, 1995* does not indicate the presence of PCBs on the pad.

Chlorinated Solvents

Process knowledge does not give reason to suspect chlorinated solvent contamination on the tent panels or support structures. Containers were situated on the asphalt pad and were not in contact with the tent materials. Also, even though there were releases of pondcrete and saltcrete on the pad, releases were small and did not represent reportable quantities (Site Historical Release Report). In addition, any solvents on surfaces from the release/spill of pondcrete and saltcrete would have evaporated. Solvents may have penetrated into the pad, and the pad will be characterized for solvent contamination at a later time.

Other Organics

Process knowledge does not give reason to suspect other organic contamination on the tent panels or support structures. Containers were situated on the asphalt pad and were not in contact with the tent materials. Also, even though there were releases of pondcrete and saltcrete on the pad, releases were small and did not represent reportable quantities (Site Historical Release Report). In addition, no spill were observed during walkdowns of the tents, and organic contaminants would not likely be resuspended and attach to the tent materials. Organic contaminants may have penetrated into the pad, and the pad will be characterized for organic contamination at a later time.

Roofing cement was used to seal the tent panels to wooden 4x8's, which are bolted to the asphalt pad. The cement contains isoparafinnic hydrocarbons and asphalt, but no RCRA constituents.

Asbestos

Tents 7, 8, and 9 were inspected by a CDPHE-certified asbestos inspector (refer to Appendix E). No potential asbestos-containing material was observed on the tent panels or support structure.

3.2 Anticipated Waste Volumes

Approximately 50 tons of structural metal and approximately 10 tons of ten panels and miscellaneous debris will be generated during tent disposition. Based on the initial results, this volume is considered sanitary waste and can be free released.

4.0 DATA QUALITY ASSESSMENT

Data used in making management decisions regarding health and safety and waste management must be of adequate quality to ensure 1) compliance with waste requirements and 2) adequate safety of human health and the environment. Verification and validation of the data ensure that data used in decisions resulting from the site hazard assessment are usable and defensible.

Verification and validation (V&V) of data contained in this report are the primary components of the data quality assessment (DQA). V&V constitutes the cornerstone of the DQA, because statistical tests and background determinations relative to decision-making for radiological survey units are not required for decisions regarding hazards or the free-release of materials vs. low-level waste classification. Instead, measurement results were compared, on a one-to-one basis, with free-release criteria given in the RFETS Radiological Control Manual (Table 2-2). The DQA presented in this section supports conclusions in the report based on implementation of the relevant data quality requirements and accomplishment of the DQOs.

4.1 Verification/Validation Of Results

Verification of the radiological survey data set(s) corroborates that data produced and used by the project are documented and traceable per quality requirements. Specifically, verification confirmed that:

- format and content of the data are clearly presented relative to the project decisions;
- survey and scan results are properly authenticated, dated, and labeled, which allows clear traceability to survey and scan locations and responsible technical personnel ;
- calibrations and periodic performance checks produced satisfactory accuracy and precision; and
- count times of surveys produced adequate sensitivity of measurements for comparison with action levels.

Validation consists of a technical review of all data that directly support the dismantling and waste management decisions, so that any limitations of the data relative to project goals are delineated and that associated data are qualified (caveated) accordingly. Data were validated relative to the DQOs.

PARCC parameters -- Precision, Accuracy, Representativeness, Comparability, and Completeness – were used and address characteristics of the data that must be defined for scientific integrity and defensibility. The following subsections on PARCC parameters also include discussion on bias and sensitivity.

4.1.1 Precision

Precision of the radiological instrumentation was satisfactory based on tolerance charting of daily source checks for each individual sensor used on the project, which includes all measurement types (scans and static measures for total contamination, and swipes for removable). Adequate precision was established through instrument performance within a

±20% range as defined by measurement results compared to a standard source value. Based on standard protocol RFETS Radiological Safety Practices (RSP) 02.01, Radiological Instrumentation, any measurement exceeding the defined tolerance limits required corrective action (repair or replacement) prior to the instrument's use in measurement of real samples.

4.1.2 Accuracy (and Bias)

Accuracy of radiological surveys ands scans is satisfactory based on RFETS-programmatic annual calibrations that establish instrument efficiencies and sensitivities for all instrumentation used on this project. Daily source checks also provided periodic checks to ensure that all sensors are within accuracy tolerances during daily operations. Calibration and calibration check results were within the RFETS and industry-standard requirement of 20% of the applicable reference standard values.

No biases were noted that would cause data to be qualified or rejected.

4.1.3 Representativeness

Surveys and scans are representative based on the following criteria:

- familiarity with facilities -- multiple walk-downs and collaborations by and within the sampling team;
- controlled and approved methods (RFETS Radiological Safety Practices); and
- compliance with the Characterization Package (RMRS, April 1999) and the PRE -- reviewed and approved by technical and management consensus prior to implementation.

4.1.4 Completeness

The data set for this project is complete, with respect to both survey results and quality records resulting from the characterization process. The total number of planned surveys was determined by Radiological Engineering professional judgement and consensus approval by Quality Assurance and management organizations. All surveys and scans planned were accomplished and are summarized in Table 3-1.

4.1.5 Comparability

All results presented are comparable with radiological survey and free-release criteria on a site- and DOE-complex wide basis. This comparability is based on:

- use of standardized engineering units in the reporting of measurement results;
- use of site-approved procedures (RFETS Radiological Safety Practices); and
- thorough documentation of the planning, sampling/analysis process, and data reduction into formats designed for making decisions based on the project's original DQOs.

4.1.6 Sensitivity

Adequate sensitivities, in units of dpm/100^2 cm, were attained for all surveys and scans based on MDAs less than decision limits.

4.2 Summary

In summary, the data presented in this report have been verified and are qualified as valid and complete for comparison with free-release criteria (action levels) as stated in the original DQOs. All media surveys and scans relative to both total and removable beta activities yielded results less than action levels for the potentially existing actinides.

APPENDIX A

TENT 7 RADIOLOGICAL DATA

A.1 HISTORICAL RADIOLOGICAL DATA

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER "Routine

BUILDING/LOCATION: 904 PAd

ROOM: tent 7

DATE: 01-07-98

TIME: 10:30

ITEM DESCRIPTION: Weekly Survey

COMMENTS: 7-2-99 I Hank I Forgot to Enter Electra Reading on the Survey Instrument Date Form I Hank I Feel the Copy is the Last used JH

PERFORMED BY (PRINT NAME): J Hankins

J Hankins [redacted] 01-07-98

RCT SIGNATURE EMP# DATE

REVIEWED BY: TH yasher

RO SUPERVISION PRINT NAME

[signature] 1/14/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	956	1050		
CAL DATE:	9-12-97	9-16-97		
CAL DUE DATE:	3-12-98	3-16-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 838			
CAL DATE:	1-6-98			
CAL DUE DATE:	7-6-98			

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:	1427			
CAL DATE:	1-7-98			
CAL DUE DATE:	5-12-98			
BACKGROUND:	22-33			
SFFICIENCY:	35 49 %			
MDA:	13 < 4 5 5			

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

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LOG NUMBER: _____

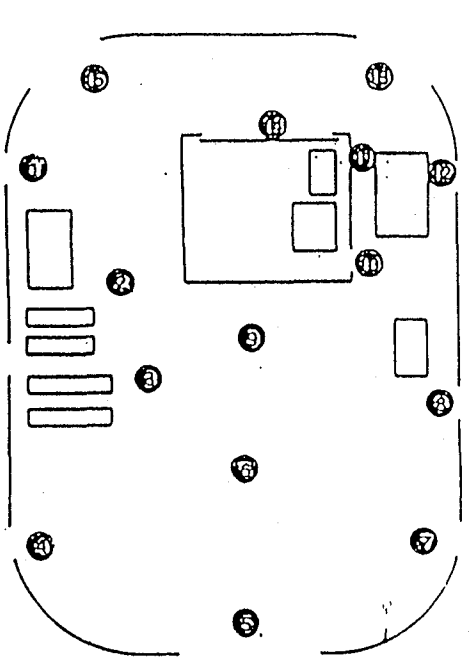
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 10



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 CM²)	TOTAL BETA (DPM/100 CM²)
		ALPHA	BETA (GAMMA)		
1		<18	<205	<60	<455
2		<18	<205	<60	<455
3		<18	<205	<60	<455
4		<18	<205	<60	<455
5		<18	<205	<60	<455
6		<18	<205	<60	<455
7		<18	<205	<60	<455
8		<18	<205	<60	<455
9		<18	<205	<60	<455
10		<18	<205	<60	<455
11		<18	<205	<60	<455
12		<18	<205	<60	<455
13		<18	<205	<60	<455
14		<18	<205	<60	<455
15		<18	<205	<60	<455
		<18	<205	<60	<455

JH 01-07-98

30

Copy

Performance Test Log

Instrument Serial Number: 1427

Instrument Efficiency Alpha 22.73 % Beta 35.49 %

Instrument Calibration Due Date 5-12-98

Source Serial Number	Cal. Due Date	Source Act. (dpm)	Source Act. (cpm)[1]	Source Acceptable Range[2]
680144 α	11-98	17220	3914	3131 - 4697
603930 β	11-98	19881	7059	5647 - 8471

Date 98	ALPHA Bkgd	ALPHA Reading (Corrected cpm)	ALPHA PASS/FAIL	BETA Bkgd	BETA Reading (Corrected cpm)	BETA PASS/FAIL	RCT Employee Number	RCT NAME (Print)	RCT Signature
1-13-98	2.0	3810	Pass	539	6517	Pass	[redacted]	Munoz	Munoz
1-14-98	1.0	3880	Pass	547	6550	Pass		Hawkins	Hawkins

1. Source activity in cpm is equal to the source activity in dpm multiplied by the instrument efficiency.

2. Acceptable range is ± 20% (source activity in cpm multiplied by 0.8 or 1.2).

3. All counts are to be 1 minute in duration.

NOTE: If the instrument will be used for alpha measurements only, the beta portion of the test log should be lined through. If the instrument will be used for beta only, then the alpha portion should be lined through.

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE:	TIME:
1-8-98	0900

ITEM DESCRIPTION: CONTROL POINT

COMMENTS: Could Not Access Tent due to Snow.

PERFORMED BY (PRINT NAME): Munoz 98

[redacted] 1-8-98

RCT SIGNATURE DATE

REVIEWED BY: Titpsher

RO SUPERVISION PRINT NAME

[redacted] 1/14/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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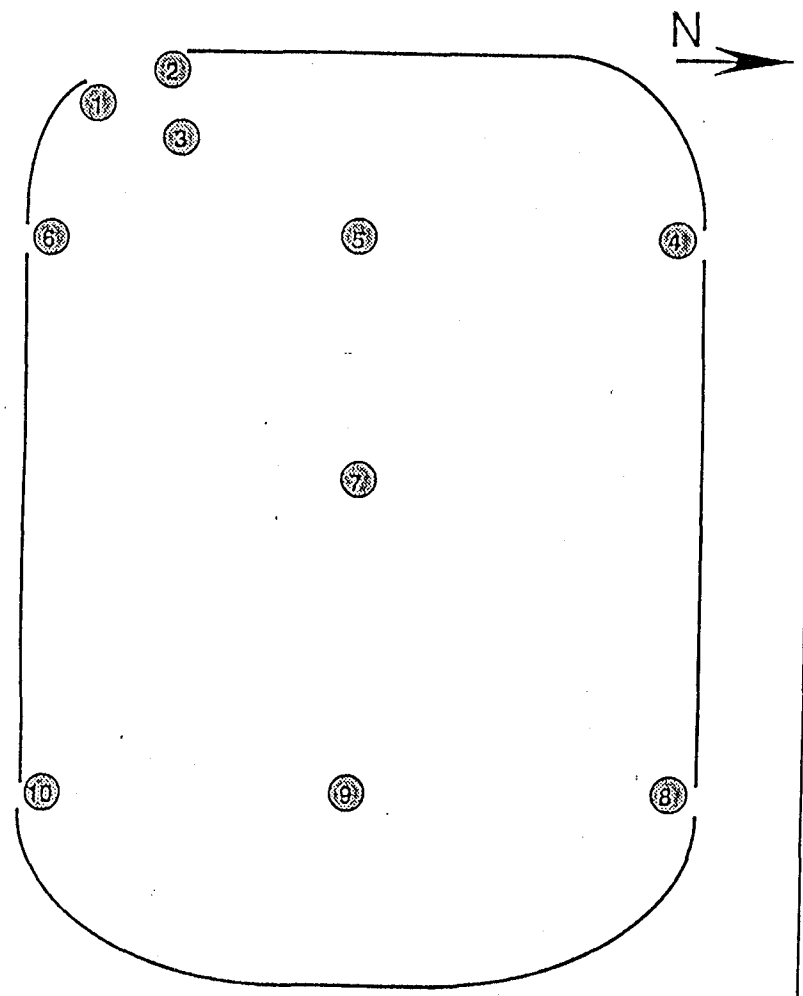
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



(#) 10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FRISK/60 SEC COUNT)	TOTAL BETA/GAMMA
		ALPHA	BETA/GAMMA		

[illegible] 1-8-98

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE:	TIME:
1-16-98	1210

ITEM DESCRIPTION: CONTROL POINT

COMMENTS: 7-2-98 J Hank I Forgot to Enter the Electra Data. I Feel the Information is Correct on this Data 1-16-98 See Performance Test Log J Hank 7-2-98

PERFORMED BY (PRINT NAME): HANKINS L

J Hank [redacted] 1-16-98

RCT SIGNATURE DATE

REVIEWED BY: THipsher

RO SUPERVISION PRINT NAME

[signature] 1/19/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	959		
CAL DATE:	9-16-97	9-17-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	770	838		
CAL DATE:	1-7-98	1-06-98		
CAL DUE DATE:	7-7-98	9-06-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH		
MODEL:	ELECTRA		
SERIAL #:	1290		
CAL DATE:	1-16-98		
CAL DUE DATE:	1-29-98		
BACKGROUND:			
SFFICIENCY:	A 23.49 B 34.2		
MDA:	A <60 B <455		

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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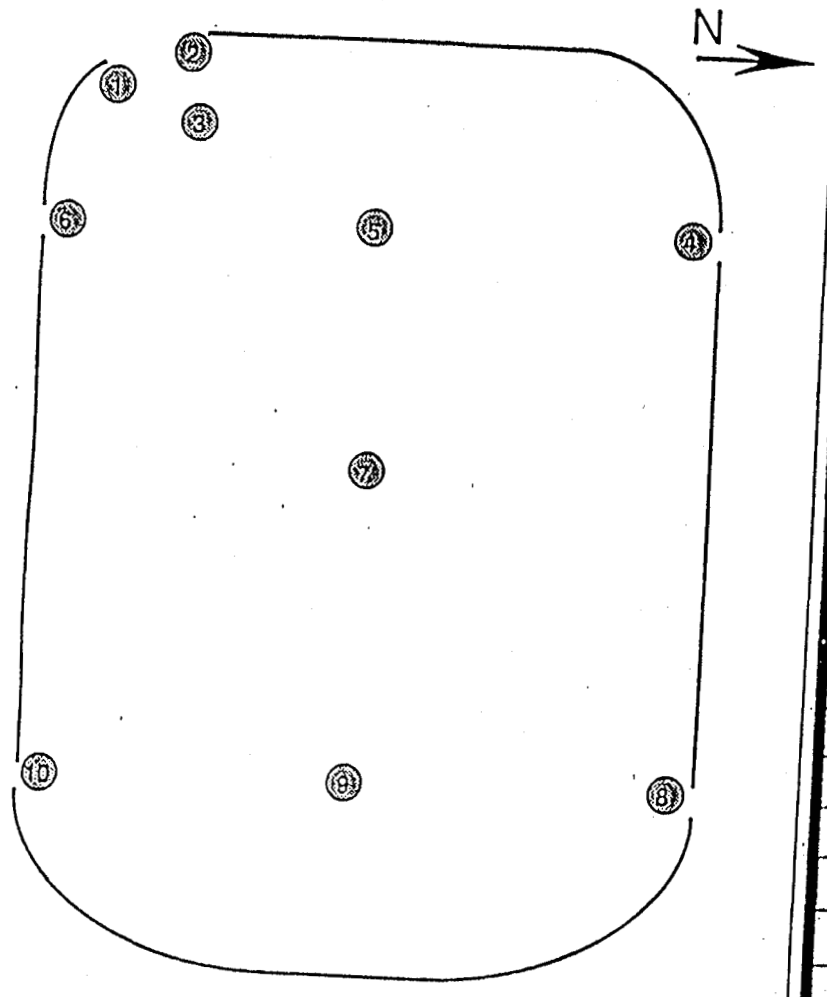
RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

PAGE 2 OF 2

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISK/SB SEC COUNT)	TOTAL BETA/GAMMA
1		<18	<205	<60	<455
2		<18	<205	<60	<455
3		<18	<205	<60	<455
4		<18	<205	<60	<455
5		<18	<205	<60	<455
6		<18	<205	<60	<455
7		<18	<205	<60	<455
8		<18	<205	<60	<455
9		<18	<205	<60	<455
10		<18	<205	<60	<455

COPY

JH 1-16-98

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COPY

Electra Perfor nce Test Log

Instrument Serial Number: 1290

Instrument Efficiency Alpha 23.4% Beta 34.2%

Instrument Calibration Due Date 1-29-98

Source Serial Number	Calibration Due Date	Source Act. (dpm)	Source Acct. (cpm)	Source Acceptable Range (sq)
680147 α	11-98	17220	4029	3224 – 4835
603930 β	11-98	19891	6803	5442 – 8163

Date	ALPHA BKGD3	ALPHA Reading (Corrected cpm)3	ALPHA Pass/Fail	BETA Bkgd 3	BETA Reading (Corrected cpm)3	BETA Pass/Fail	RCT Employee Number	RCT NAME (Print)	RCT Signature
1/15/98	2.0	3920	Pass	496	7089	Pass	[redacted]	Munoz	Munoz
1/16/98	2.0	3940	PASS	539	6860	PASS		Hawkins	Hawk
1/19/98	2.0	3810	PASS	529	7620	PASS		Hawkins	Hawk
1/20/98	2.0	4010	PASS	494	6940	PASS		Hawkins	Hawk
1/21/98	2.0	3960	PASS	506	6610	PASS		Hawkins	Hawk
1/22/98	2.0	3770	Pass	465	7090	Pass		Munoz	Munoz
1/26/98	1.0	3910	PASS	463	7590	PASS		Hawkins	Hawk
1/27/98	2.0	4000	PASS	482	7390	PASS		Hawkins	Hawk
1/28/98	1.0	3970	Pass	434	7195	Pass		Munoz	Munoz
/ /									
/ /									
/ /									
/ /									
/ /									

1. Source activity in cpm is equal to the source activity in dpm multiplied by the efficiency.
2. Acceptable range is a + 20% (source activity in cpm multiplied by 0.8 or 1.2).
3. All counts are to be 1 minute in duration.

NOTE If the instrument will be used for alpha measurements only, the beta portion of the test log should be lined through. If the instrument will be used for beta only, then the alpha portion should be lined through.

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE: 1-21-98	TIME: 0900

ITEM DESCRIPTION: CONTROL POINT WEEKLY

COMMENTS:

PERFORMED BY (PRINT NAME): Hawkins

J Hawk [redacted] 1-21-98

RCT SIGNATURE DATE

REVIEWED BY: T.H. Josher

RO SUPERVISION PRINT NAME

[signature] 1/27/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	959		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-11-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 720	BC 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

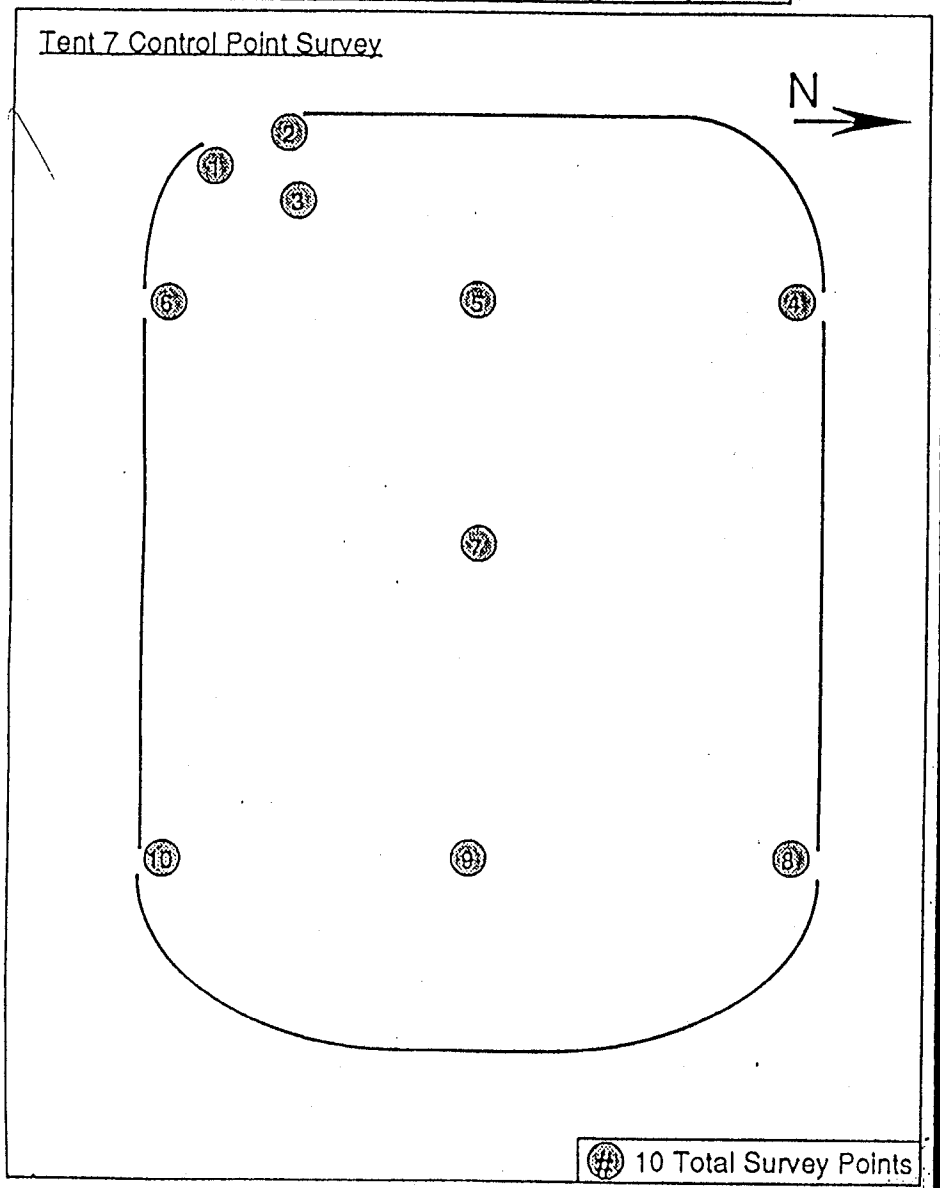
Printed with soy ink on recycled paper

LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (CPM/100 SQ CM)	TOTAL BETA/GAMMA
		ALPHA	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		
		<20	<200		

7-19
1-21-98

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: ____ P/WRE ____ PRL ____ RWP ✓ OTHER ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE: 1-29-98	TIME: 0830

ITEM DESCRIPTION: CONTROL POINT Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): M Munoz

RCT SIGNATURE [redacted] DATE 1-29-98

REVIEWED BY: T Hughes

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE DATE 2/23/98

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	959		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc 770	Bc 888		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF'X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

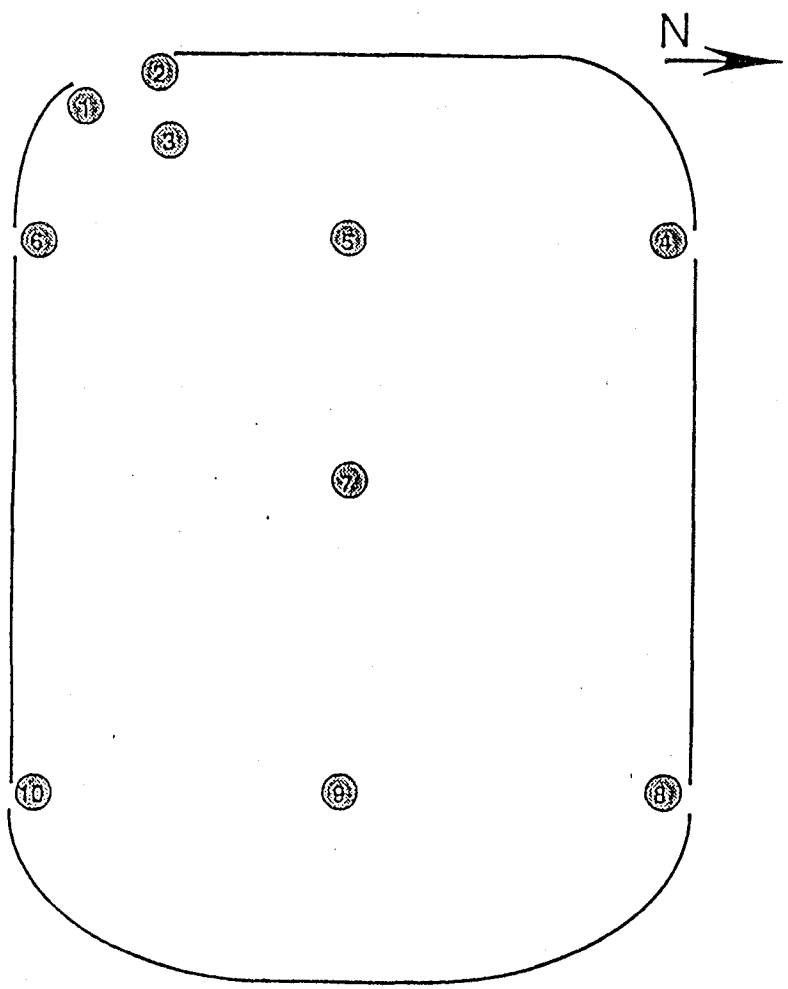
Printed with soy ink on recycled paper

LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISK/SU 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		

[illegible] 1-29-98

40

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: ———

FOR: ____ P/WRE ____ PRL

____ RWP ✓ OTHER "ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE:	TIME:
2-4-98	0800

ITEM DESCRIPTION: CONTROL POINT Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

RCT SIGNATURE / EMP# [redacted] / 2-4-98 DATE

REVIEWED BY: T Hughes
RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE / 2/12/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	959		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

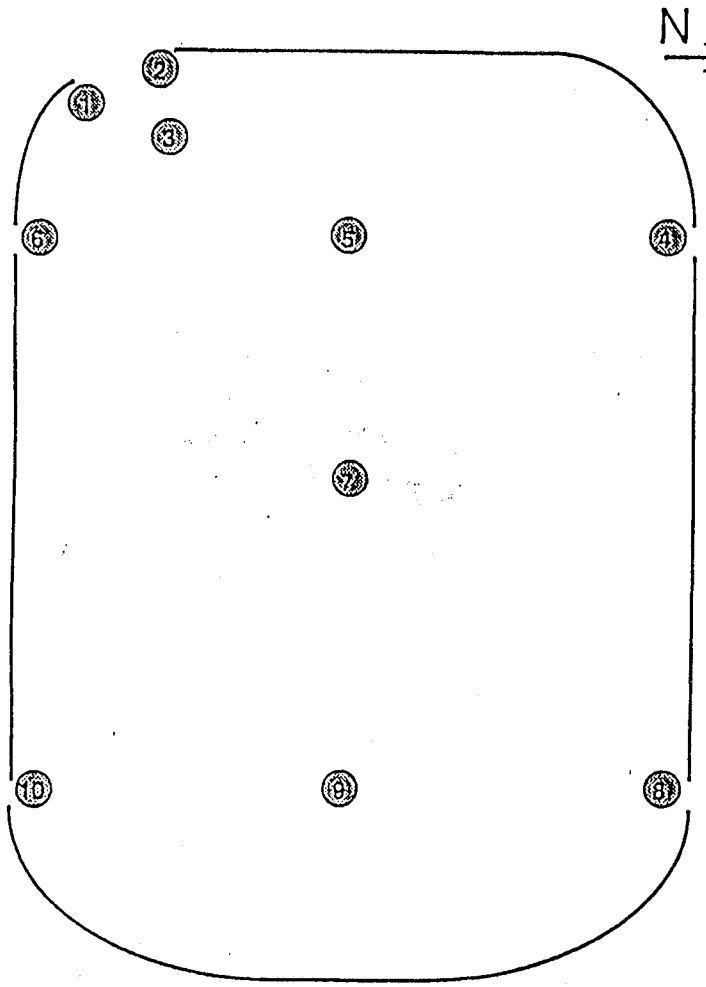
Printed with soy ink on recycled paper

LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FIXED/SEC COUNT)	TOTAL BETA/GAMMA
		ALPHA	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		

Grey 2-4-98

42

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER "ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE:	TIME:
02/12/98	1230

ITEM DESCRIPTION: CONTROL POINT

COMMENTS: Weekly Survey

PERFORMED BY (PRINT NAME): L Hopkins

L Hopkins [redacted] 02/12/98

RCT SIGNATURE EMP# DATE

REVIEWED BY: THopsher

RO SUPERVISION PRINT NAME

12/23/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	959		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC830		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

43

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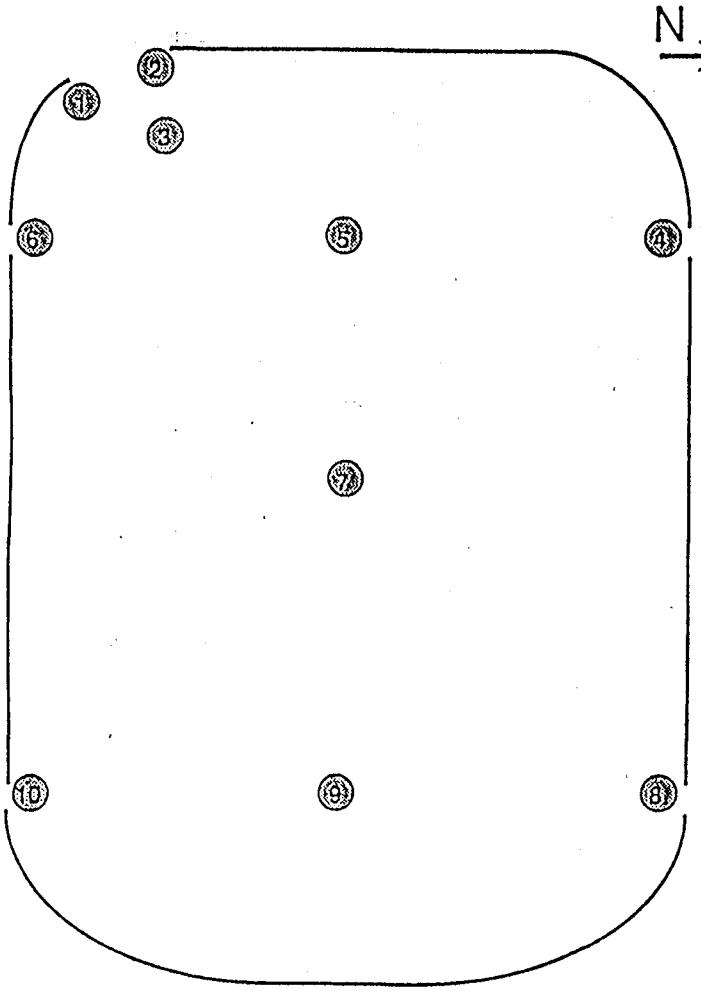
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 SQ CM)	TOTAL BETA/ GAMMA
		ALPHA	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		

7H 02/12/98

44

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL _____ RWP _____ OTHER ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE: 02-26-98	TIME: 0830

ITEM DESCRIPTION: CONTROL POINT Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): Larry Hawkins

RCT SIGNATURE [redacted] EMP # 02-26-98 DATE

REVIEWED BY: T Hypsher
RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE 3/4/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	797	959		
CAL DATE:	10-8-97	9-12-97		
CAL DUE DATE:	4-8-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc770	Bc838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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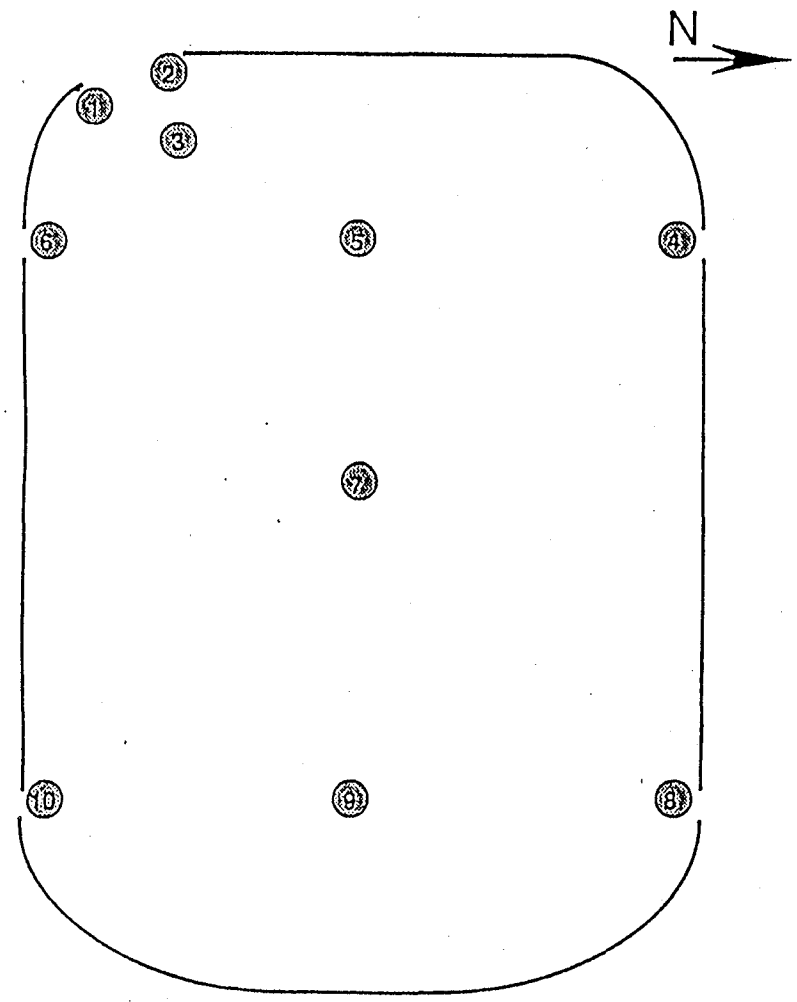
LOG NUMBER: _____

PAGE 2 OF 2

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISK/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		

JH 02-26-98

46

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER "ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE: 3-11-98 3-10-98 SH	TIME: 1450

ITEM DESCRIPTION: CONTROL POINT Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): HANKINS J

[redacted] 13-10-98

RCT SIGNATURE DATE

REVIEWED BY: K. GARLAND

RO SUPERVISION PRINT NAME

[redacted] 13/10/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	797	767		
CAL DATE:	10-8-97	10-10-97		
CAL DUE DATE:	4-8-98	4-10-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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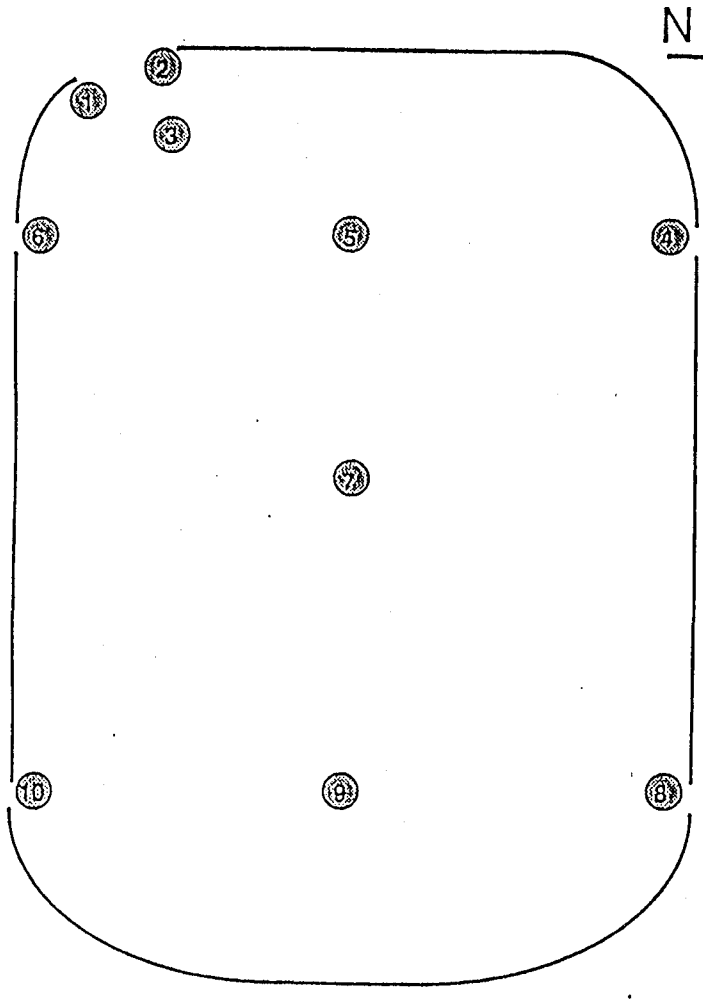
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE ____ OF ____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 SQ CM)	TOTAL BETA/ GAMMA
		ALPHA	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		

JH 3-16-98

47

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER "ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE:	TIME:
3-18-98	0800

ITEM DESCRIPTION: CONTROL POINT

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[redacted] 12-18-98
RCT SIGNATURE DATE

REVIEWED BY: K. Carlson
RO SUPERVISION PRINT NAME

[redacted] 1/23/98
RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	767	797		
CAL DATE:	10-10-97	10-8-97		
CAL DUE DATE:	4-10-98	4-8-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X (2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$)

49

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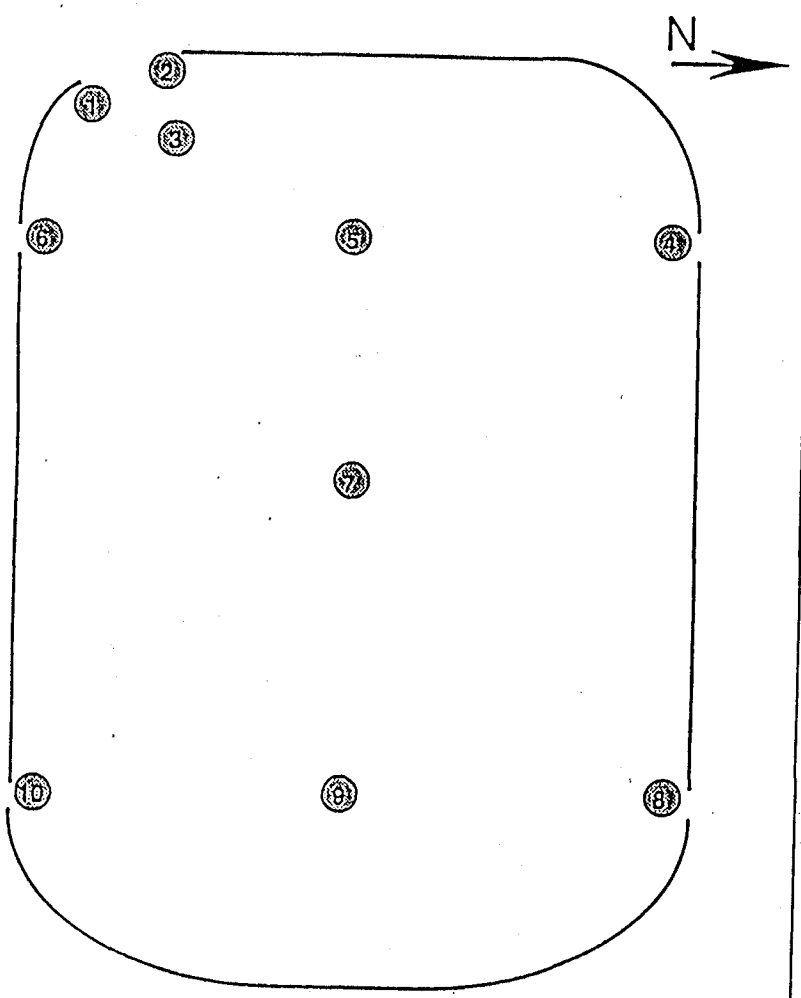
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE ____ OF ____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISK/50 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		

JH 3-18-98

50

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER ROUTINE

BUILDING/LOCATION: 904 PAD

ROOM: TENT 7

DATE: 3-26-98

TIME: 1015

ITEM DESCRIPTION: CONTROL POINT Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

RCT SIGNATURE

DATE 3-26-98

REVIEWED BY: K. GARLAND

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE

DATE 4-1-98

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	767	767		
CAL DATE:	10-8-97	10-10-97		
CAL DUE DATE:	4-8-98	4-10-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$$

51

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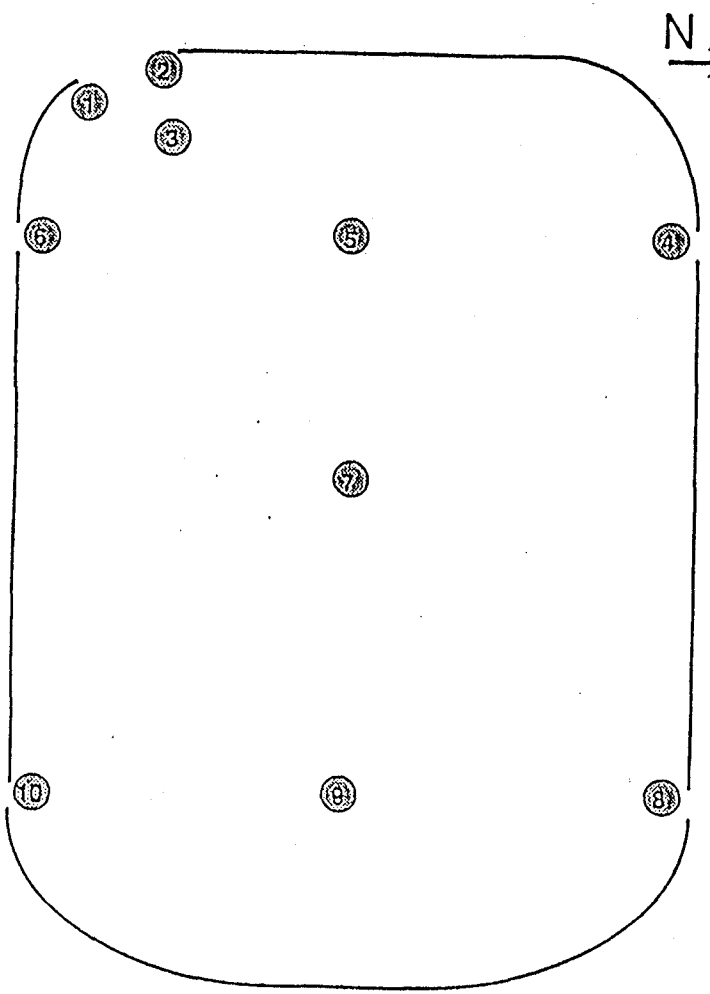
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE ____ OF ____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (CPM/100 SQ CM/PT)	TOTAL BETA/ GAMMA
		ALPHA	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		

DH 3-26-98

57

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: ———

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE: 4-1-98 ~~4-1-98~~	TIME: 0830

ITEM DESCRIPTION: CONTROL POINT Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): Munoz

[redacted] / 4-1-98

RCT SIGNATURES DATE

REVIEWED BY: K. Garland

RO SUPERVISION PRINT NAME

[redacted] / 4/10/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	797	267		
CAL DATE:	10-8-97	10-10-97		
CAL DUE DATE:	4-8-98	4-10-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

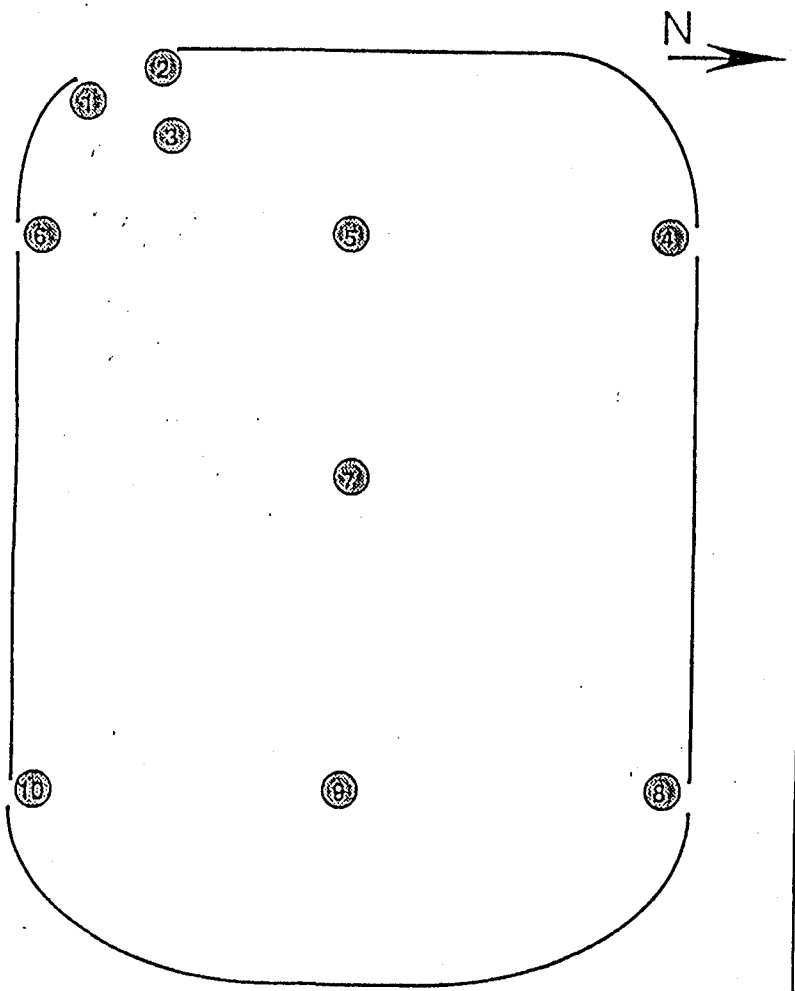
Printed with soy ink on recycled paper

LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISK/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		

[illegible] 4-1-98

54

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE:	TIME:
4-8-98	1430

ITEM DESCRIPTION: CONTROL POINT

COMMENTS:

PERFORMED BY (PRINT NAME): HANKINS L

[redacted] 4-8-98

RCT SIGNATURE DATE

REVIEWED BY: K. GARLAND

RO SUPERVISION PRINT NAME

[redacted] 5/5/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	767			
CAL DATE:	10-10-88			
CAL DUE DATE:	4-10-88			

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc 720	Bc 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF·X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

55

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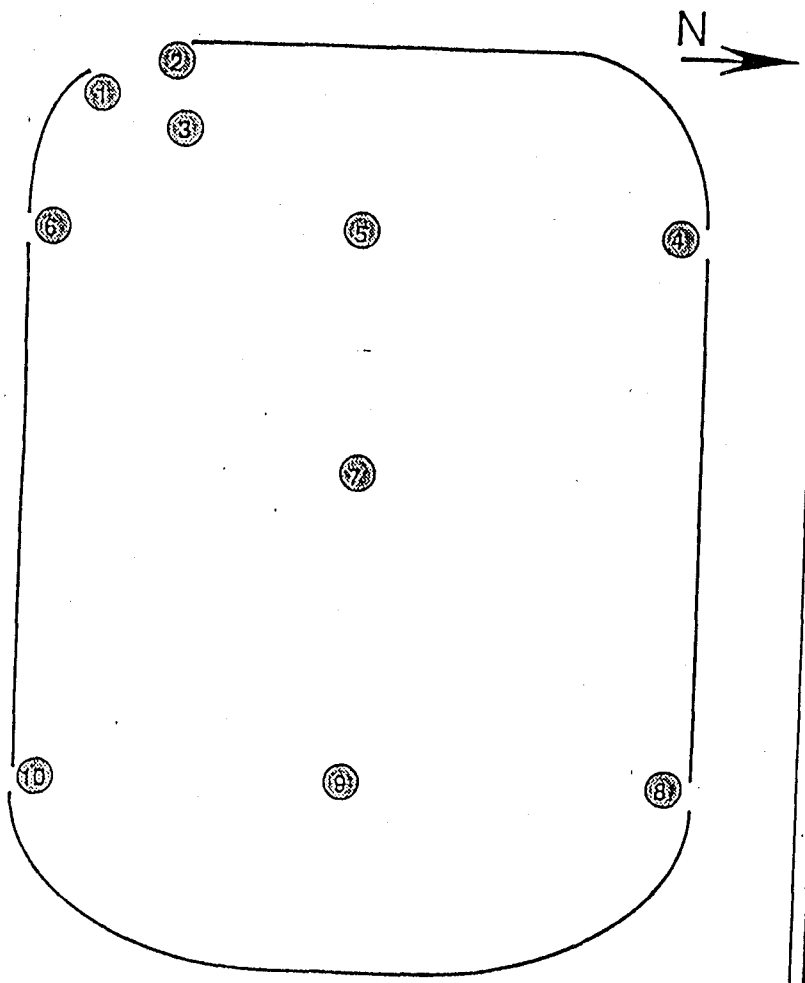
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE ____ OF ____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISK/50 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		

JH 4-8-98

56

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE:	TIME:
4-15-98	0230

ITEM DESCRIPTION: CONTROL POINT

COMMENTS:

PERFORMED BY (PRINT NAME): HANKINS L

[redacted] 4-15-98

RCT SIGNATURE DATE

REVIEWED BY: K. CAMPLAND

RO SUPERVISION PRINT NAME

[redacted] 5/4/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC720	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X (2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$)

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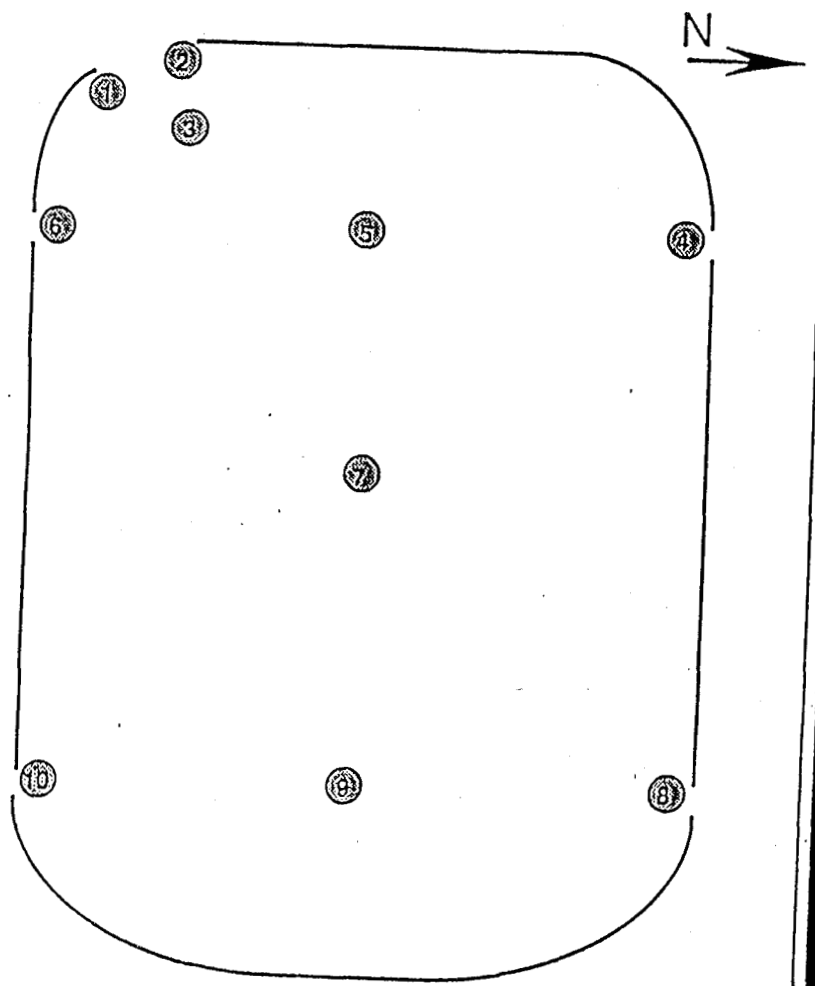
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE 2 OF 2

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRIER/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		

4-15-98

56

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER "ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE: 4-23-98	TIME: 0930

ITEM DESCRIPTION: CONTROL POINT Weekly Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[redacted] 4-23-98

RCT SIGNATURE DATE

REVIEWED BY: K. Garland

RO SUPERVISION PRINT NAME

[redacted] 5/20/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC270	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

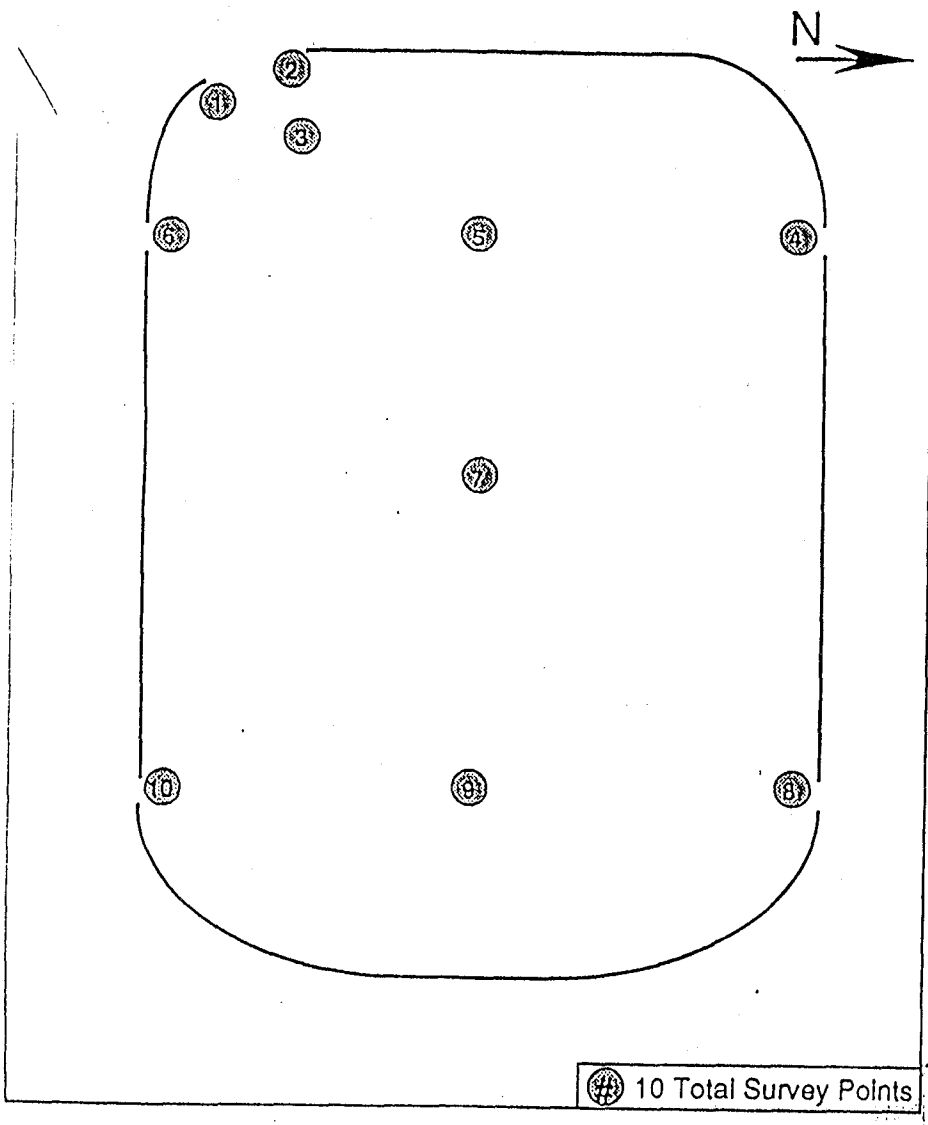
Printed with soy ink on recycled paper

LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FIXED/SEC COUNT)	TOTAL BETA/ GAMMA
		ALPHA	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		

Exp 4-28-08

40

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: ____ P/WRE ____ PRL

____ RWP ✓ OTHER "ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE:	TIME:
4-28-98	1100

ITEM DESCRIPTION: CONTROL POINT
Weekly Survey

COMMENTS:

PERFORMED BY (PRINT NAME): Munoz

Munoz [redacted] 4-28-98

RCT SIGNATURE EMP# DATE

REVIEWED BY: K. Gonzalez

RO SUPERVISION PRINT NAME

[signature] 5/19/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	8-24		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 770	BC 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$MDA = CF \times (2.71 + 4.65 \sqrt{\text{BACKGROUND (CPM)}})$

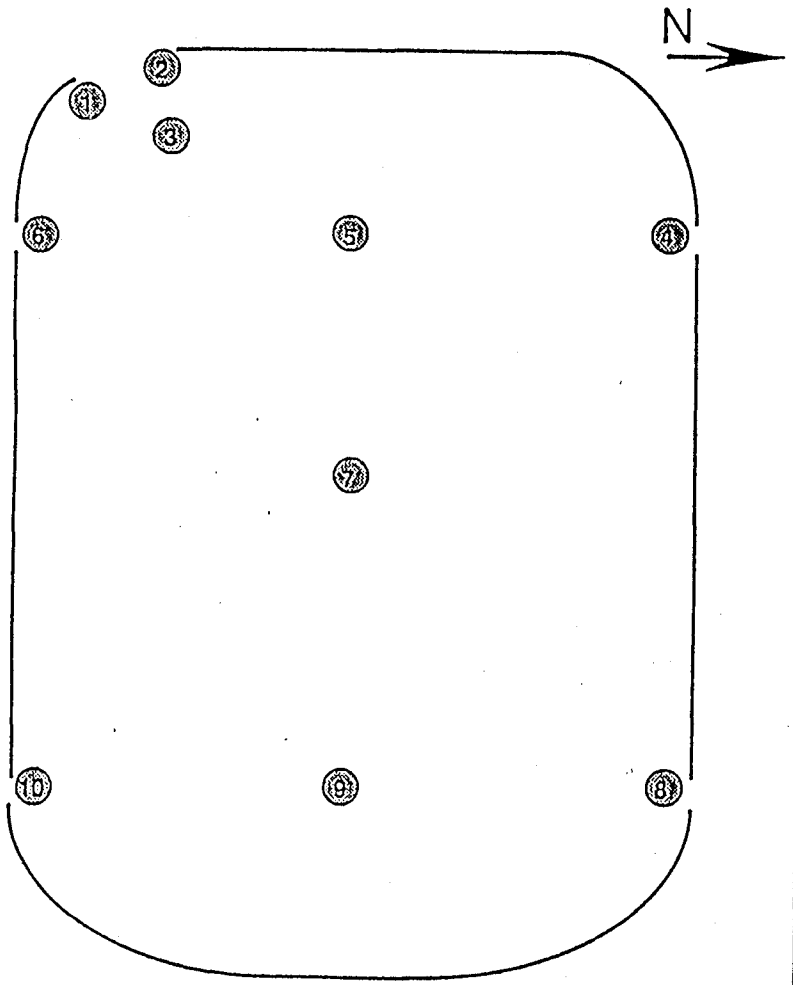
Printed with soy ink on recycled paper

LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISK/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		

[illegible] 4-28-95

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL _____ RWP ✓ OTHER "ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE:	TIME:
5-7-98	0900

ITEM DESCRIPTION: CONTROL POINT Weekly Survey

COMMENTS:

PERFORMED BY (PRINT NAME): Munoz

RCT SIGNATURE / [redacted] EMP # / 5-7-98 DATE

REVIEWED BY: K. Copeland

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE 1/5/2098 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC720	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X (2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$)

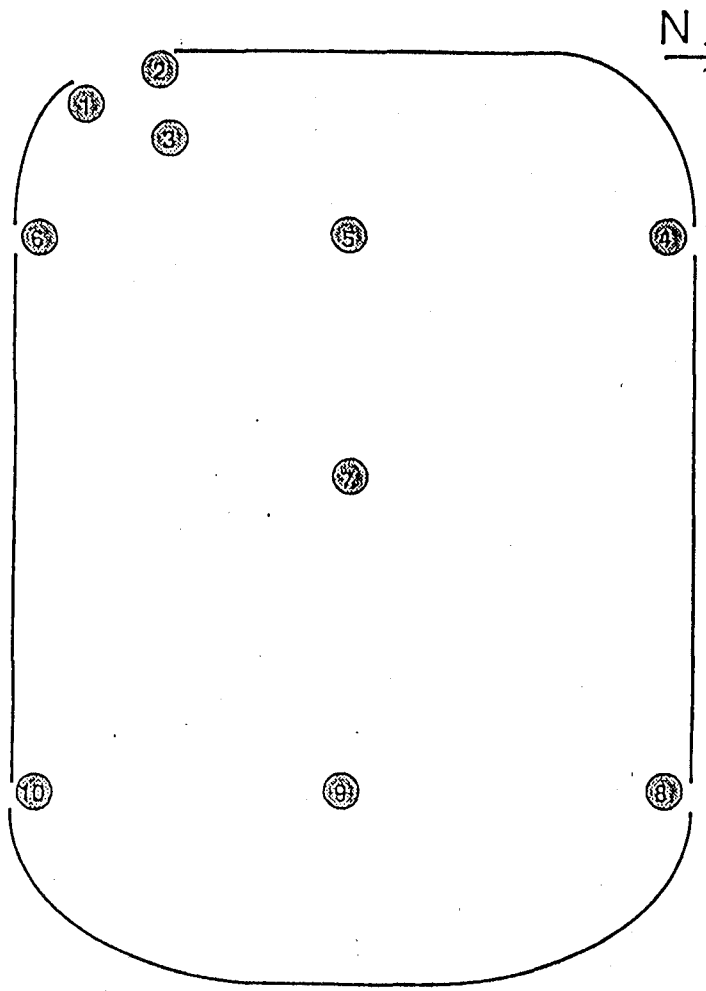
Printed with soy ink on recycled paper

LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 SQ CM)	TOTAL BETA/ GAMMA
		ALPHA	BETA/ GAMMA		
1		<20	<200 ~~<200~~	~~<1-98~~	
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		

5-7-98

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: ____ P/WRE ____ PRL

____ RWP ✓ OTHER ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE:	TIME:
5-26-98	0900

ITEM DESCRIPTION: CONTROL POINT Weekly Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[redacted] 5-26-98

RCT SIGNATURE EMP # DATE

REVIEWED BY: J. Stewart-Bell

RO SUPERVISION PRINT NAME

J. Stewart-Bell 16·10·98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

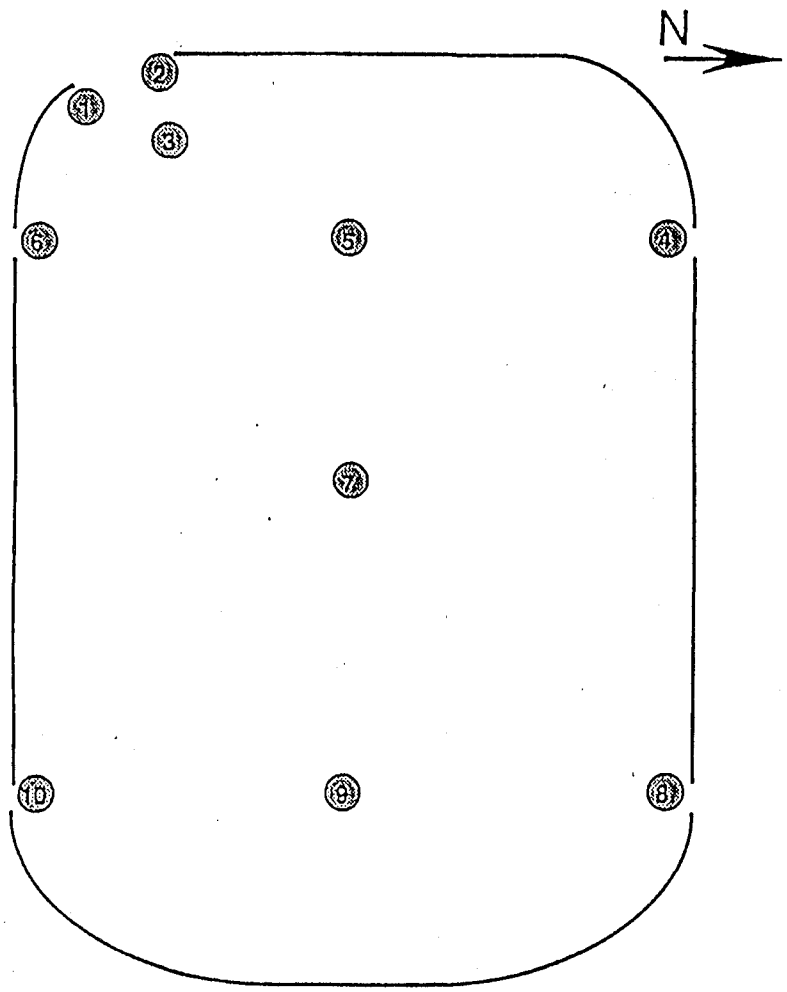
Printed with soy ink on recycled paper

LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISK/60 SEC COUNT)	TOTAL BETA/GAMMA
1	refer to map.	<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		

[illegible] 5-26-98

164

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE:	TIME:
5-13-98	0930

ITEM DESCRIPTION: CONTROL POINT Weekly Survey

COMMENTS: _____

PERFORMED BY (PRINT NAME): Munoz

Munoz / [redacted] 5-13-98

RCT SIGNATURE EMP# DATE

REVIEWED BY: J. Stewart-Bell

RO SUPERVISION PRINT NAME

J Stewart Bell 16·10·98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 770	BC 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

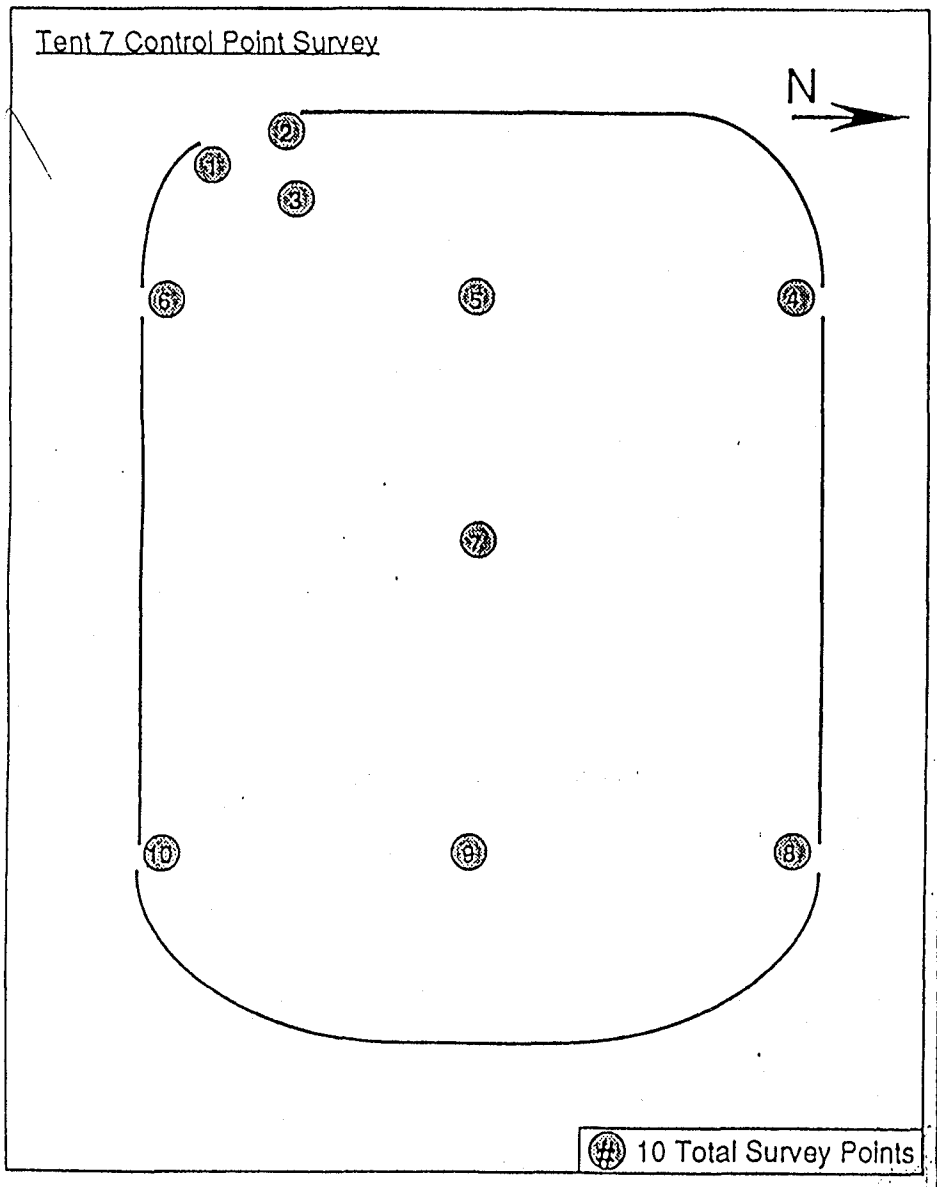
Printed with soy ink on recycled paper

LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



(#) 10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 SQ CM)	TOTAL BETA/GAMMA
		ALPHA	BETA/GAMMA		
1	refer to map.	<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		

5-15-98

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER "ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE:	TIME:
5-21-98	0930

ITEM DESCRIPTION: CONTROL POINT
Weekly Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[redacted] 5-21-98
RCT SIGNATURE DATE

REVIEWED BY: J. Stewart-Bell
RO SUPERVISION PRINT NAME

J. Stewart-Bell 16.10.98
RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-2498		
MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

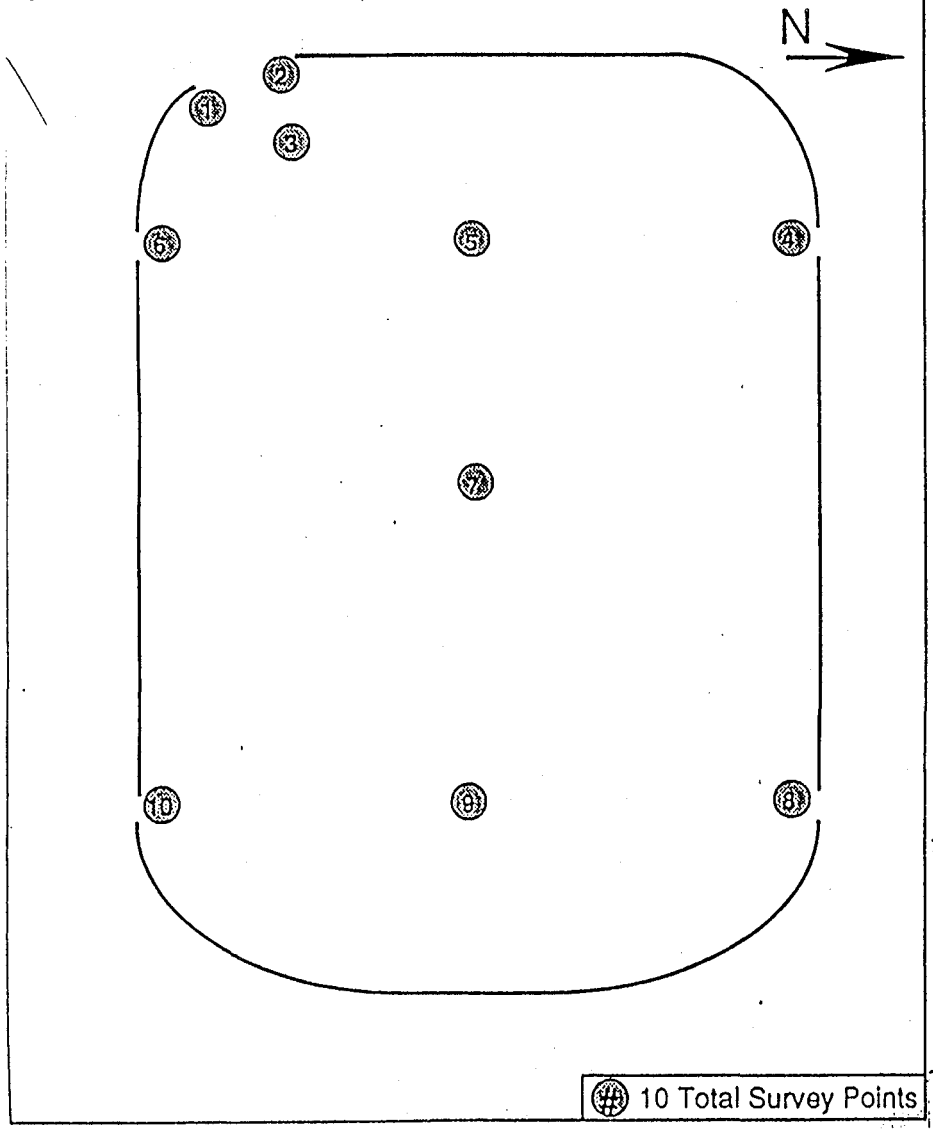
Printed with soy ink on recycled paper

LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



(#) 10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FIXED/SEC COUNT)	TOTAL BETA/GAMMA
		ALPHA	BETA/GAMMA		
1	refer to map	<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					

@ 5-21-98

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER ROUTINE

BUILDING/LOCATION: 904 PAD

ROOM: TENT 7

DATE: 06-04-98

TIME: 10.00

ITEM DESCRIPTION: CONTROL POINT

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

RCT SIGNATURE

06-04-98
DATE

REVIEWED BY: R. Sanyer
RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE

6/8 6/9/98
DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 770	BC 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$$

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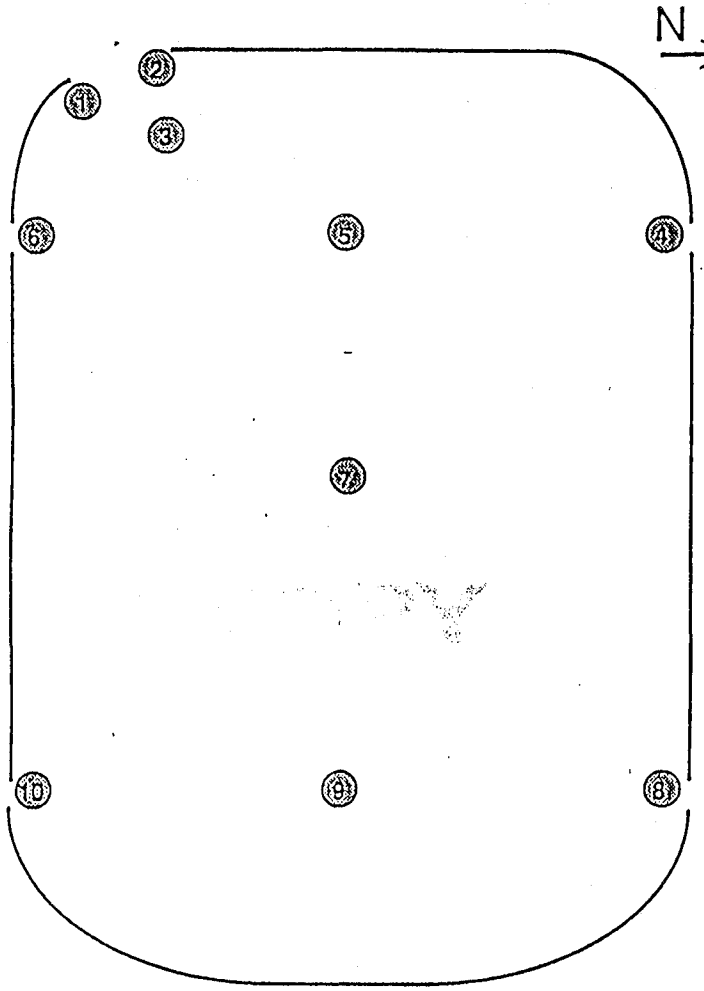
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE ____ OF ____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (PROBE/100 SQ CM)	TOTAL BETA/ GAMMA
		ALPHA	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		

JH 06-04-98

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COPY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE: 6-9-98	TIME: 1430

ITEM DESCRIPTION: CONTROL POINT

COMMENTS:

PERFORMED BY (PRINT NAME): Hankins

Hankins J [redacted] 6-9-98

RCT SIGNATURE DATE

REVIEWED BY: R. Sawyer

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE 6/25/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-17-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	720	838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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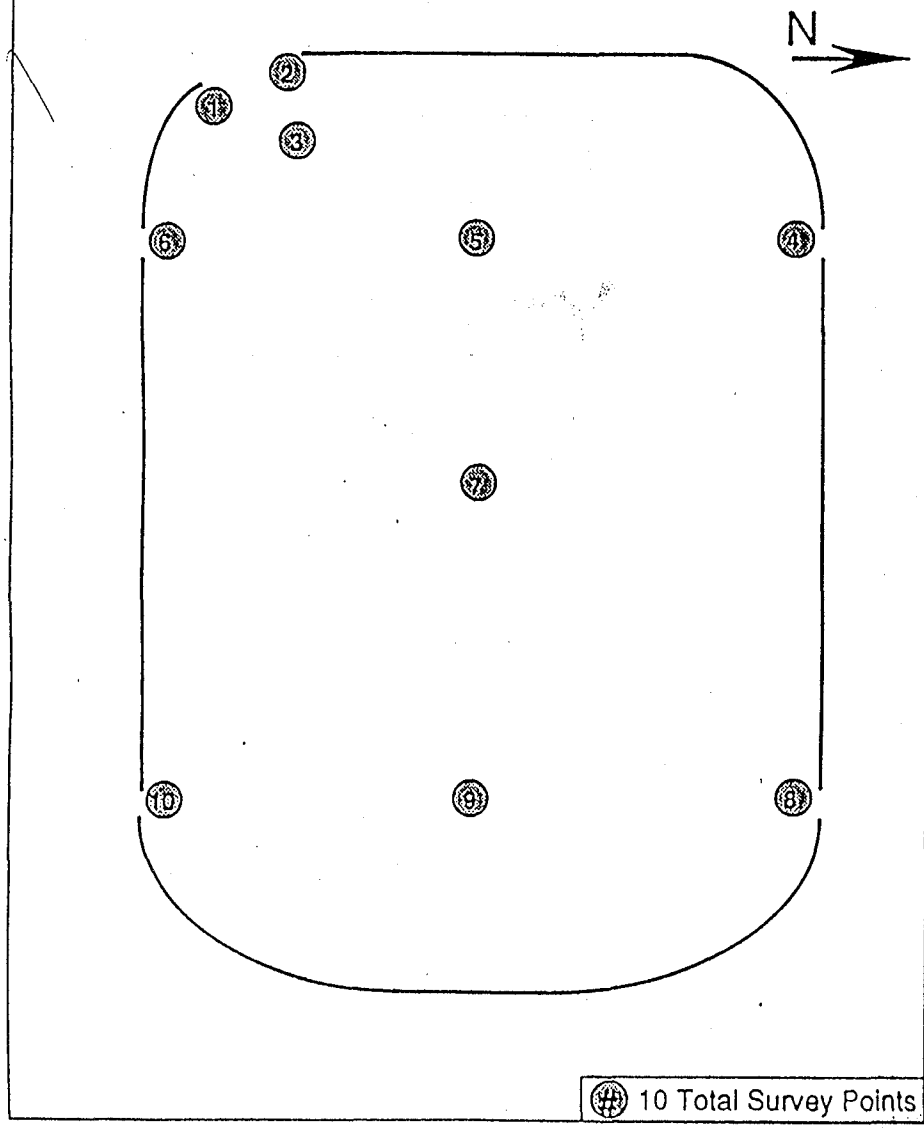
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE ____ OF ____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (Fixed/Sec Count)	TOTAL BETA/GAMMA
1	See map	<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	<201		
10		<20	<200		

6-9-98

74

CONTAMINATION SURVEY FORM

LOCATION NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP X OTHER "ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE: 6-17-98	TIME: 0815

ITEM DESCRIPTION: CONTROL POINT

COMMENTS: Weekly Survey

PERFORMED BY (PRINT NAME): Hawkins L

RCT SIGNATURE [redacted] EMP # DATE 6-17-98

REVIEWED BY: R. Sowder

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE 6/25/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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Printed with soy ink on recycled paper

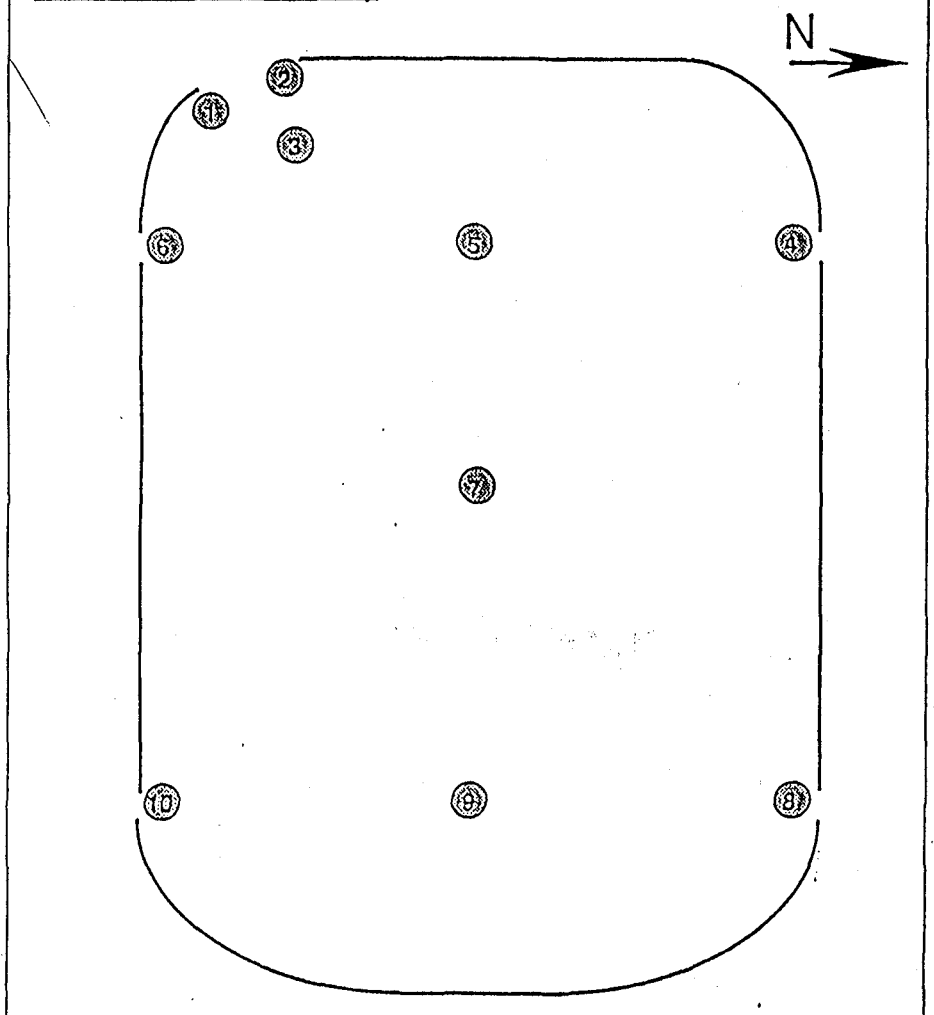
LOG NUMBER: _____

PAGE ____ OF ____

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISK/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		

JH 6-17-98

JH 6-17-98

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE: 6-24-98	TIME: 0915

ITEM DESCRIPTION: CONTROL POINT

COMMENTS: Weekly Survey

PERFORMED BY (PRINT NAME): L Hanbin

L Hanbin [redacted] 6-24-98

RCT SIGNATURE DATE

REVIEWED BY: T Sawyer.

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE 6/25/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	7-13-98	2-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 770	BC 818		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

Printed with soy ink on recycled paper

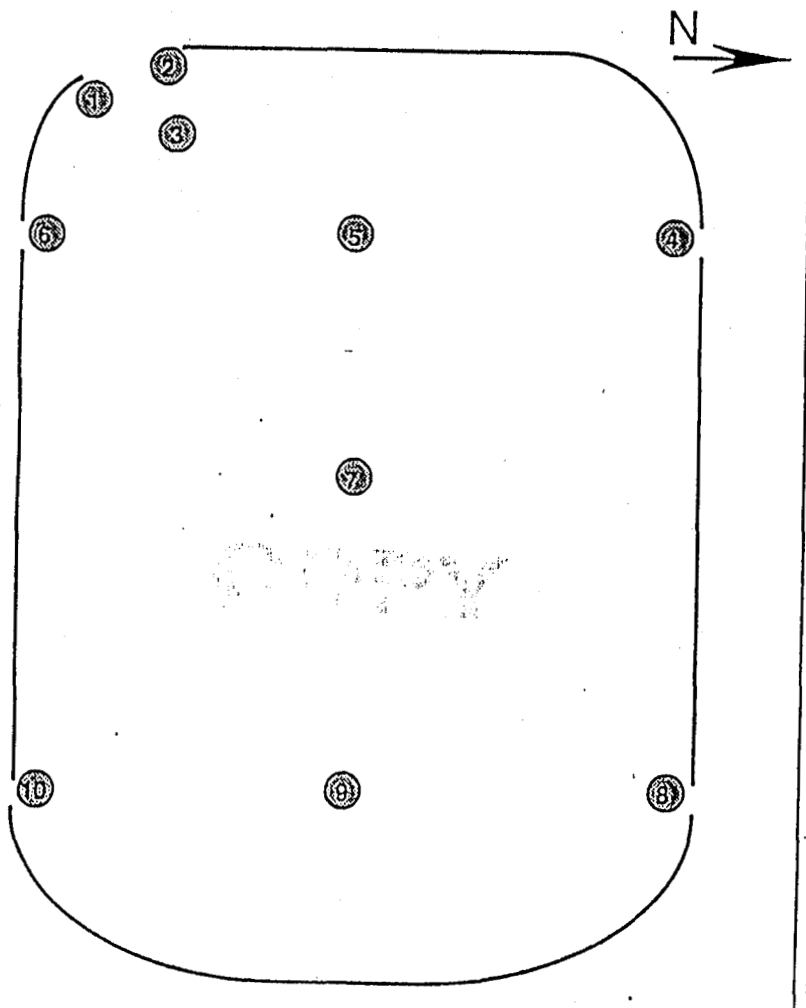
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE ____ OF ____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISK/50 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		

JH 6-24-98

JH 6-24-98

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg.
Model SAC-4	Model SAC-4	Model
Serial # 795	Serial # 824	Serial #
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due
Bkg. 0.0	Bkg. 0.0	Bkg.
Efficiency ~~33%~~ 33%	Efficiency 33%	Efficiency
MDA 20 d/m	MDA 20 d/m	MDA
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # BC704	Serial # BC702	Serial #
Cal Due 12-11-98	Cal Due 12-15-98	Cal Due
Bkg. 36	Bkg. 38	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 200 d/m	MDA ~~200~~ d/m	MDA

Survey Type: Contamination Survey

Building: 904 Pad

Location: 904 Pad T-7 T8-T9 T10 TH Break Room Locker Room, Service Locker

Purpose: Weekly Control Point on 7-22-98

RWP #:

Date: 7-22-98 Time: 0800

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

RCT: MUNOZ / [redacted]
Print name Signature

PRL # : on 7-22-98

Comments:

* See attached survey forms for survey results

TENT 7

SURVEY RESULTS

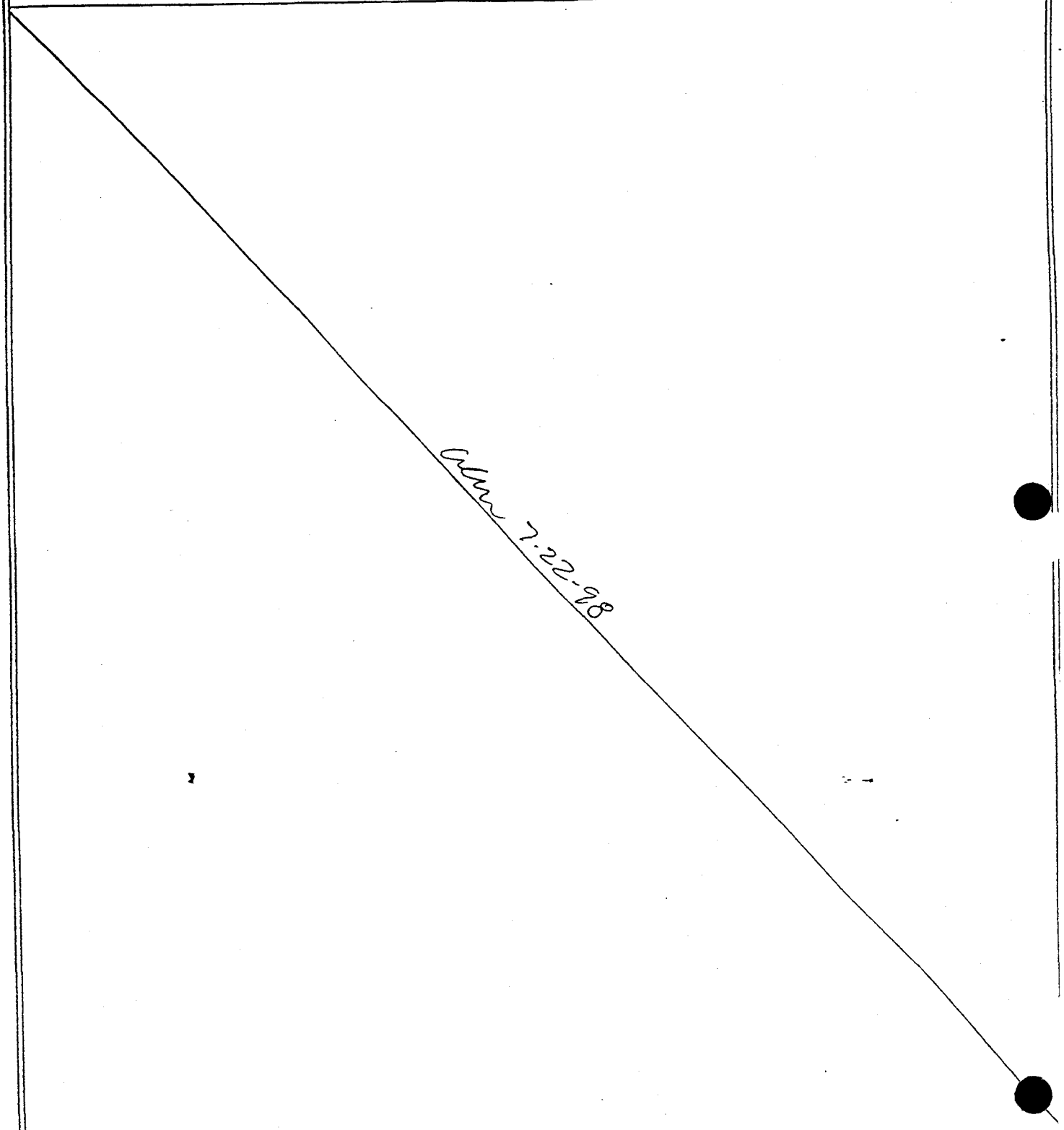
on 7-22-98

Date Reviewed: 8/5/98 RS Supervision: [redacted]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER ROUTINE

BUILDING/LOCATION:	ROOM:
904 PAD	TENT 7
DATE: 7-1-98	TIME: 1000

ITEM DESCRIPTION: CONTROL POINT

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[redacted] 7-1-98

RCT SIGNATURE DATE

REVIEWED BY: _____

RO SUPERVISION PRINT NAME

_____ / _____

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824	ZK 7-1-98	
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		
Bkg	0.2	0.2		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	770	838	ZK 7-1-98	
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		
Bkg	41	43		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:		ZK 7-1-98		
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

Printed with soy ink on recycled paper

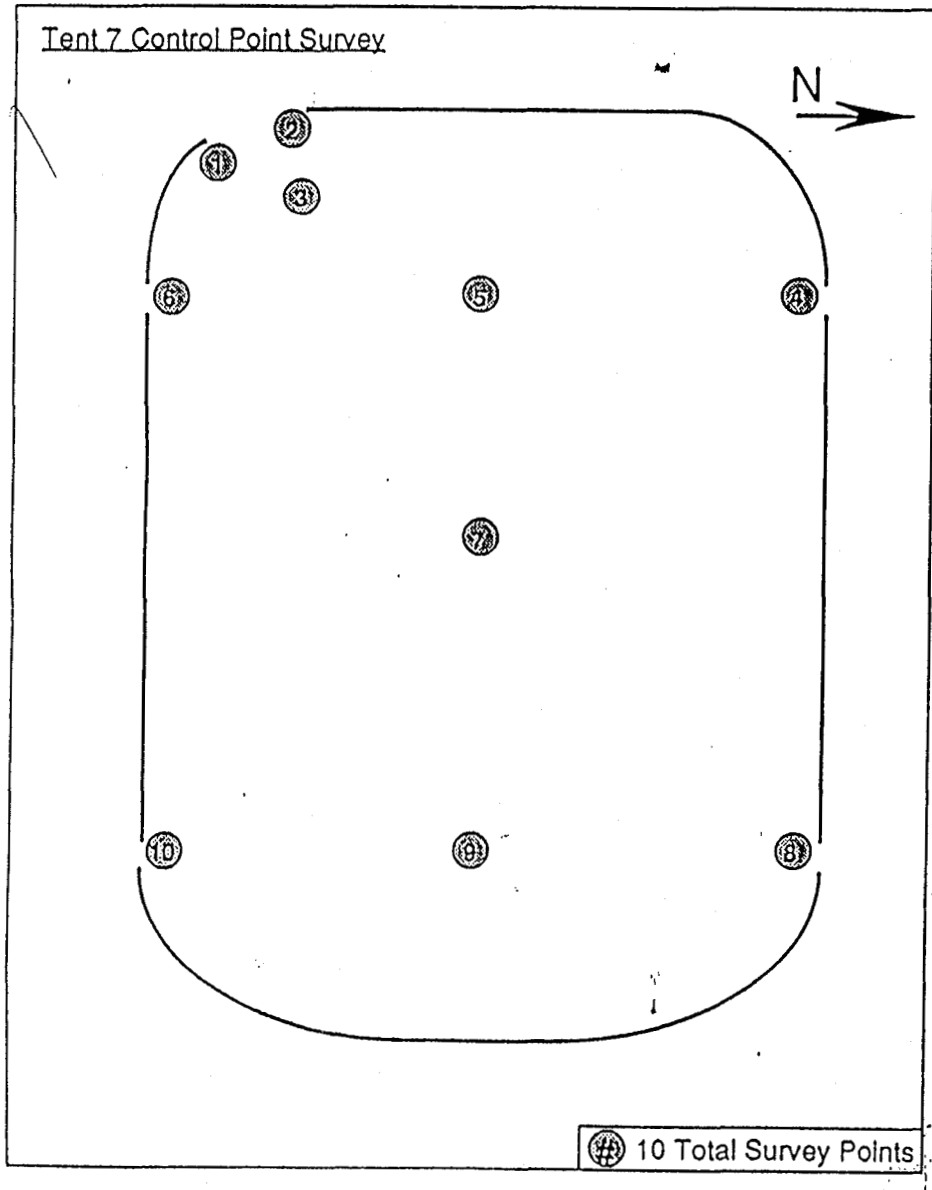
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE ____ OF ____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (DPM/100 SQ CM²)	TOTAL BETA/GAMMA
1	See Map	<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		

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg.
Model SAC-4	Model SAC-4	Model
Serial # 795	Serial # 824	Serial #
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due
Bkg. 0.0	Bkg. 0.0	Bkg.
Efficiency ~~33%~~ 33%	Efficiency 33%	Efficiency
MDA 20 d/m	MDA 20 d/m	MDA
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # BC704	Serial # BC702	Serial #
Cal Due 12-11-98	Cal Due 12-15-98	Cal Due
Bkg. 36	Bkg. 38	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 200 d/m	MDA 200 d/m	MDA

7-22-98

Survey Type: Contamination Survey

Building: 904 Pad

Location: 904 Pad T-7 T8-T9 T10, TH Break Room Locker Room, Service Locker

Purpose: Weekly Control Point on 7-22-98

RWP #:

Date: 7-22-98 Time: 0800

RCT: Hankins / [signature] [redacted]
Print name Signature

RCT: Munoz / [signature] [redacted]
Print name Signature

PRL #: on 7-22-98

Comments:

* See attached survey forms for survey results

TENT 7

SURVEY RESULTS

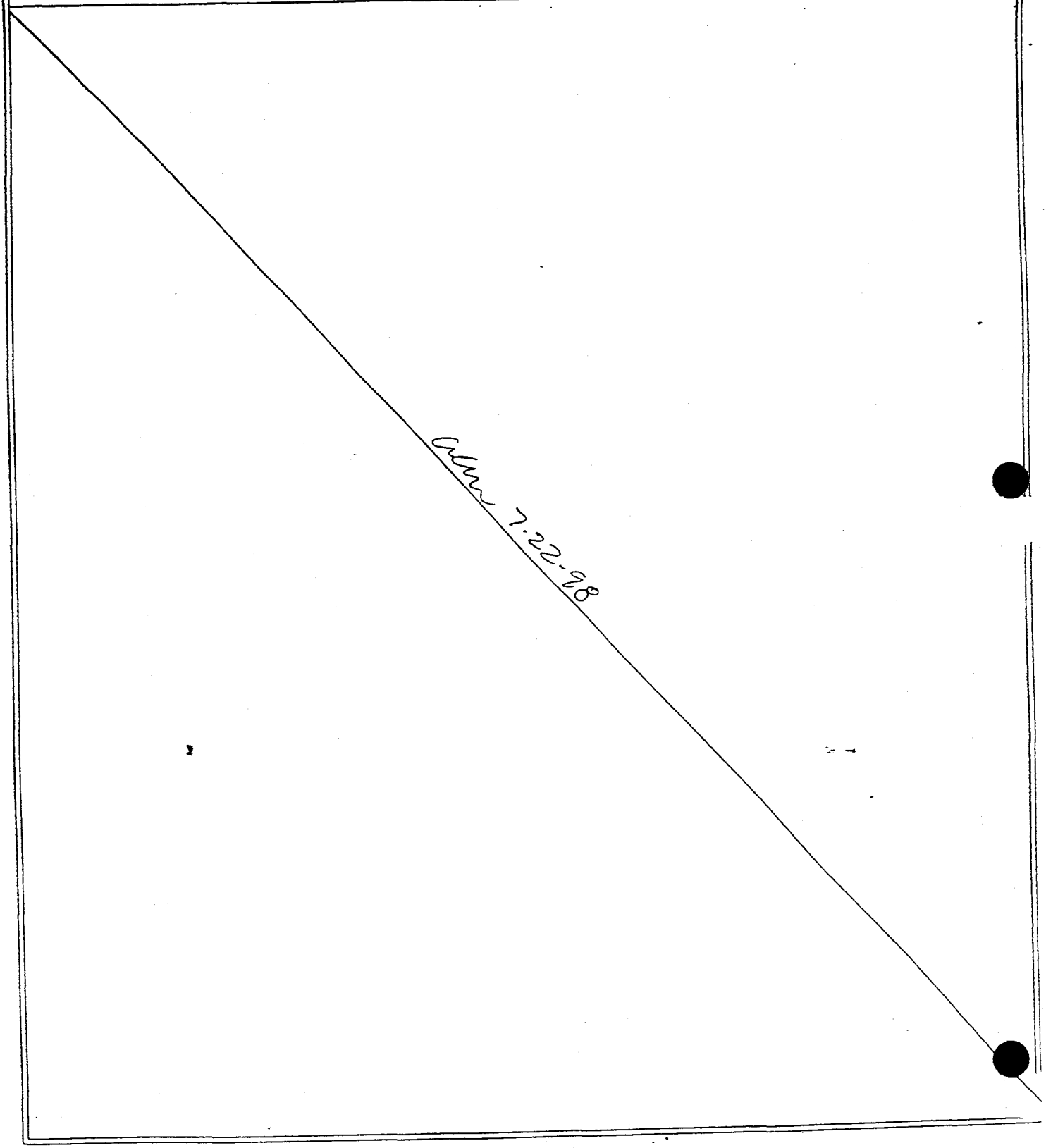
on 7-22-98

Date Reviewed: 8/5/98 RS Supervision: [signature] / [signature] [redacted]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER ROUTINE

BUILDING/LOCATION: 904 PAV

ROOM: TENT 7

DATE:

TIME:

ITEM DESCRIPTION: CONTROL POINT

2-22-25

COMMENTS:

PERFORMED BY (PRINT NAME):

_____

RCT SIGNATURE / EMP# / DATE

REVIEWED BY: _____

RO SUPERVISION PRINT NAME

_____ /

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

Printed with soy ink on recycled paper

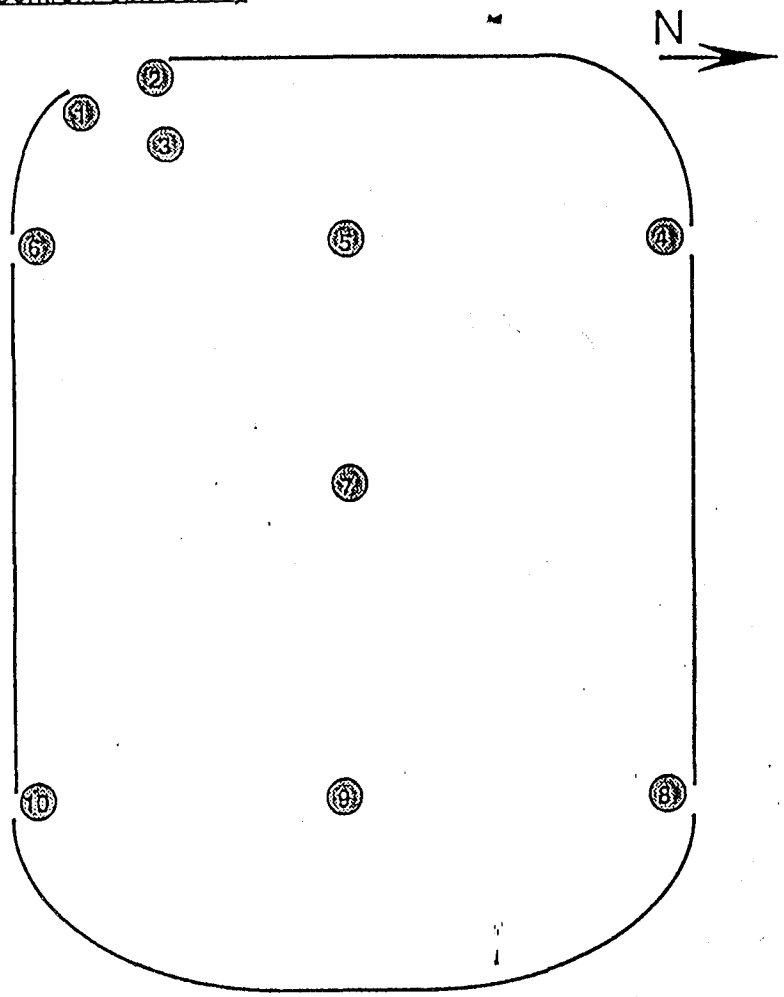
LOG NUMBER: 7-22-98

PAGE 2 OF 2

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISK/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		

7-22-98

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 795	Serial # B24	Serial # BC 704
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.0	Bkg. 0.0	Bkg. 38
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 d/m	MDA 20 d/m	MDA 200 d/m

Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC 702	Serial # ~~an 7-30-98~~	Serial # ~~an 7-30-98~~
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 38	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA ~~an 7-30-98~~ 20 200 d/m	MDA	MDA

Survey Type: CONTAMINATION

Building: 904 Pad

Location: T-7 Locker Room Break Room 904 Pad, T-8, T-9, T-10, T-11

Purpose: Source Locker Weekly Control Point Survey

TENT

~~RWP #:~~ an 7-30-98

Date: 7-30-98 Time: 0900

RCT: MUNOZ I Munoz [redacted]
Print name Signature

RCT: / /
Print name Signature Emp. #

~~PRL #:~~ an 7-30-98

Comments: Survey results, for each survey, are located on attached sheets.

SURVEY RESULTS

	REMOVABLE		DIRECT			REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA		ALPHA	BETA	ALPHA	BETA
1.					23.				
2.					24.				
3.					25.				
4.					26.				
5.					27.				
6.					28.				
7.					29.				
8.				an 7-30-98	30.				
9.					31.				
10.					32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

Date Reviewed 8/26/98 RS Supervision: R Sawyer [redacted]
Print Name Signature

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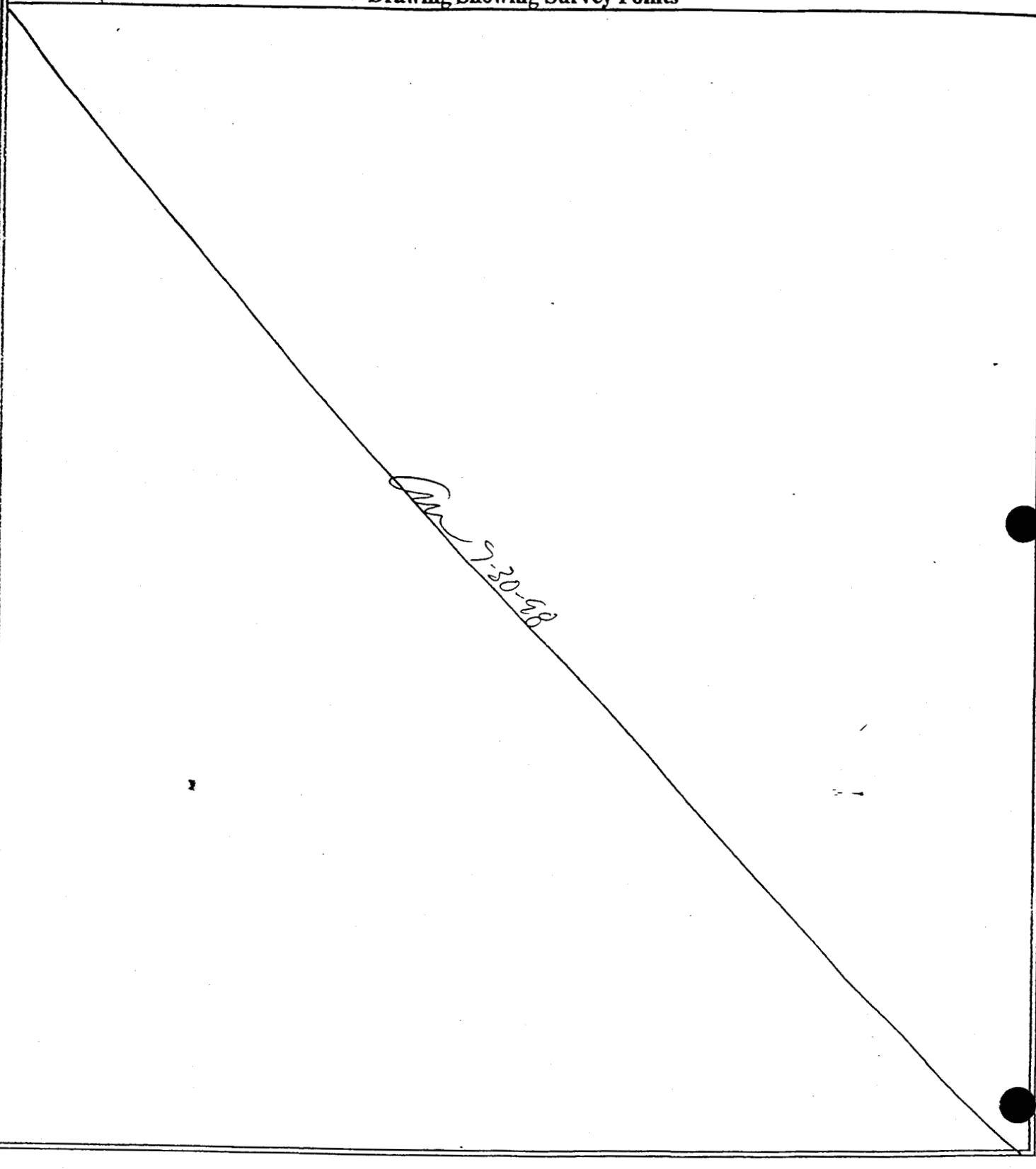
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



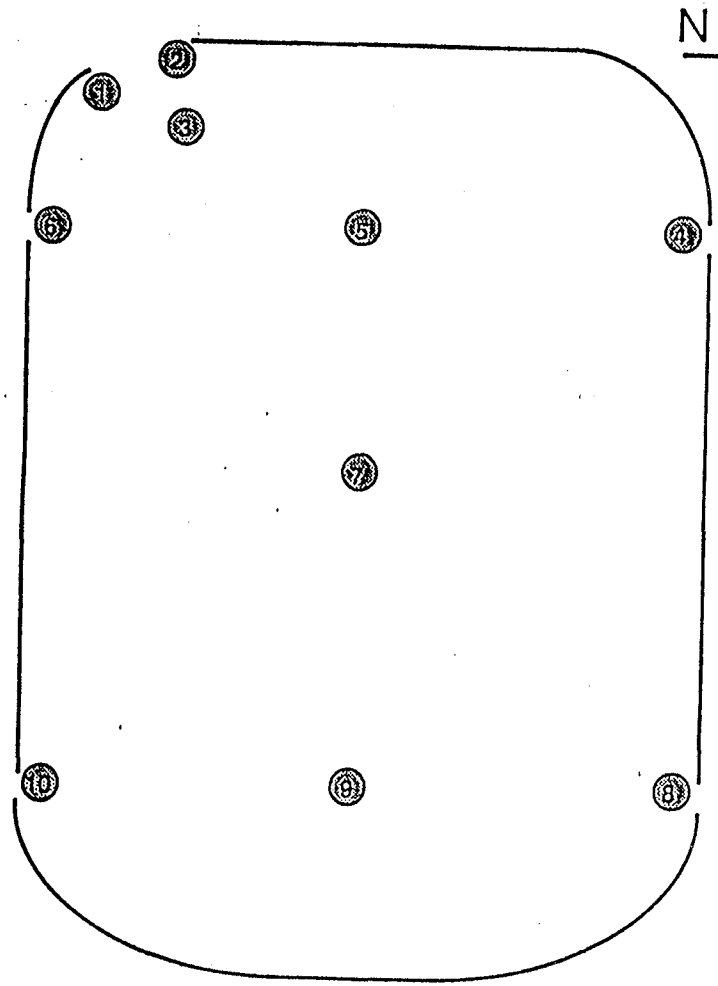
Printed with soy ink on recycled paper

LOG NUMBER: Cw 7-30-88

RADIOLOGICAL CONTAMINATION SURVEY FORM

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 7 Control Point Survey



10 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (PREFERRED SEC COUNT)	TOTAL BETA/ GAMMA
		ALPHA	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		

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER ROUTINE

BUILDING/LOCATION: 904 PAD

ROOM: TENT 7

DATE:

TIME:

ITEM DESCRIPTION: CONTROL POINT

COMMENTS:

PERFORMED BY (PRINT NAME):

RCT SIGNATURE / EMP# / DATE

REVIEWED BY:

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE / DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$$MDA = CF \times (2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)})$$

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RS FORMS 07.02.01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

8/13/98 8/13/98

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 795	Serial # 9/24/98	Serial # BC 704
Cal Due 9/13/98	Cal Due	Cal Due 12/11/98
Bkg. 0.0	Bkg. 0.0	Bkg. 36
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20	MDA <20	MDA <200

Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC 702	Serial #	Serial #
Cal Due 12/15/98	Cal Due	Cal Due
Bkg. 38	Bkg.	Bkg.
Efficiency 25%	Efficiency 8/13/98	Efficiency
MDA <200	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

RWP #: NA

Date: 9/13/98 Time: 10^00

RCT: [redacted] / [redacted]
Print name Signature

RCT: / /
Print name Signature Emp. #

PRL #: NA

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.			
2.	<20	<200			24.			
3.	<20	<200			25.			
4.	<20	<200			26.			
5.	<20	<200			27.			
6.	<20	<200			28.			
7.	<20	<200			29.			
8.	<20	<200			30.			
9.	<20	<200			31.			
10.	<20	<200			32.			
11.					33.			
12.					34.			
13.					35.			
14.					36.			
15.					37.			
16.					38.			
17.					39.			
18.					40.			
19.					41.			
20.					42.			
21.					43.			
22.					44.			

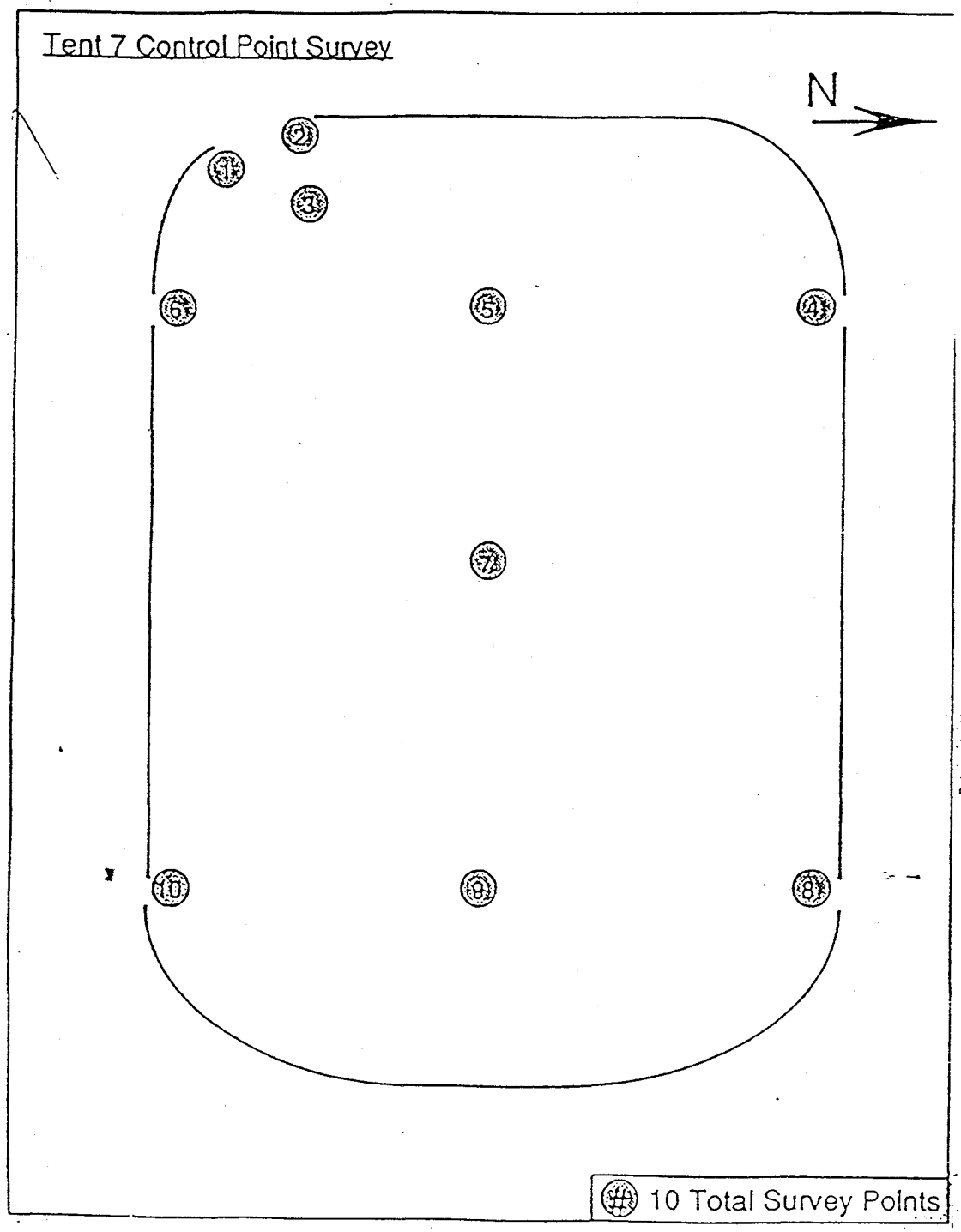
8/13/98 8/13/98 8/13/98

Date Reviewed: 8/26/98 RS Supervision: P. Sawyer / [redacted]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC~~ BC-4
Serial # 795	Serial # 824	Serial # 704
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.1	Bkg. 0.1	Bkg. 33
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 34	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

JH 8-5-98

JH 8-5-98

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

~~RWP #~~ JH 8-5-98

Date: 8-5-98 Time: 0900

RCT: HANKINS LI (Print name) J Hank (Signature) [redacted]

RCT: (Print name) JH 8-5-98 (Signature) Emp. #

~~PRL #~~ JH 8-5-98

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

JH 8-5-98

JH 8-5-98

JH 8-5-98

Date Reviewed: 8/26/98 RS Supervision: [signature] (Print Name) [signature] (Signature) [redacted]

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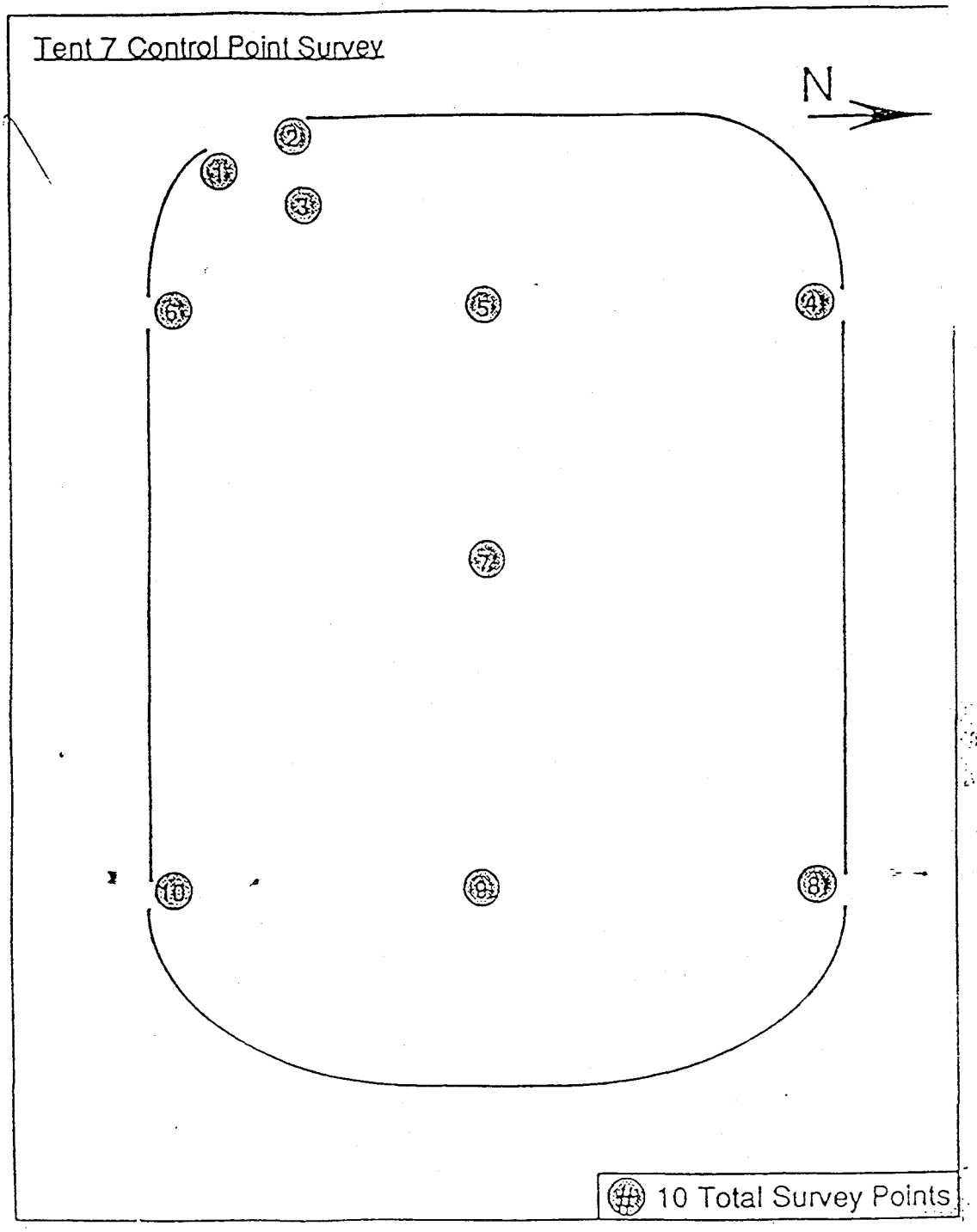
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC~~ BC-4
Serial # 795	Serial # 824	Serial # BC704
Cal Due 9-17-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.0	Bkg. 0.2	Bkg. 36
Efficiency 33%	Efficiency 33%	Efficiency 33%
MDA <20 dpm	MDA <20 dpm	MDA <200 dpm
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC707	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 36	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200 dpm	MDA	MDA

JH 8-27-98 JH 8-27-98

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

~~RWP #~~: 8-27-98 JH

Date: 8-27-98 Time: 10:20

RCT: HANKINS / [signature] [redacted]
Print name Sig

RCT: / /
Print name Signature Emp. #

JH 8-27-98

~~PRL #~~: JH 8-26-98

Comments: See page 2 of 2 for survey map

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

JH 8-27-98 JH 8-27-98 JH 8-27-98

Date Reviewed: 9/3/98 RS Supervision: K. Garland / [signature] [redacted]
Print Name Signature

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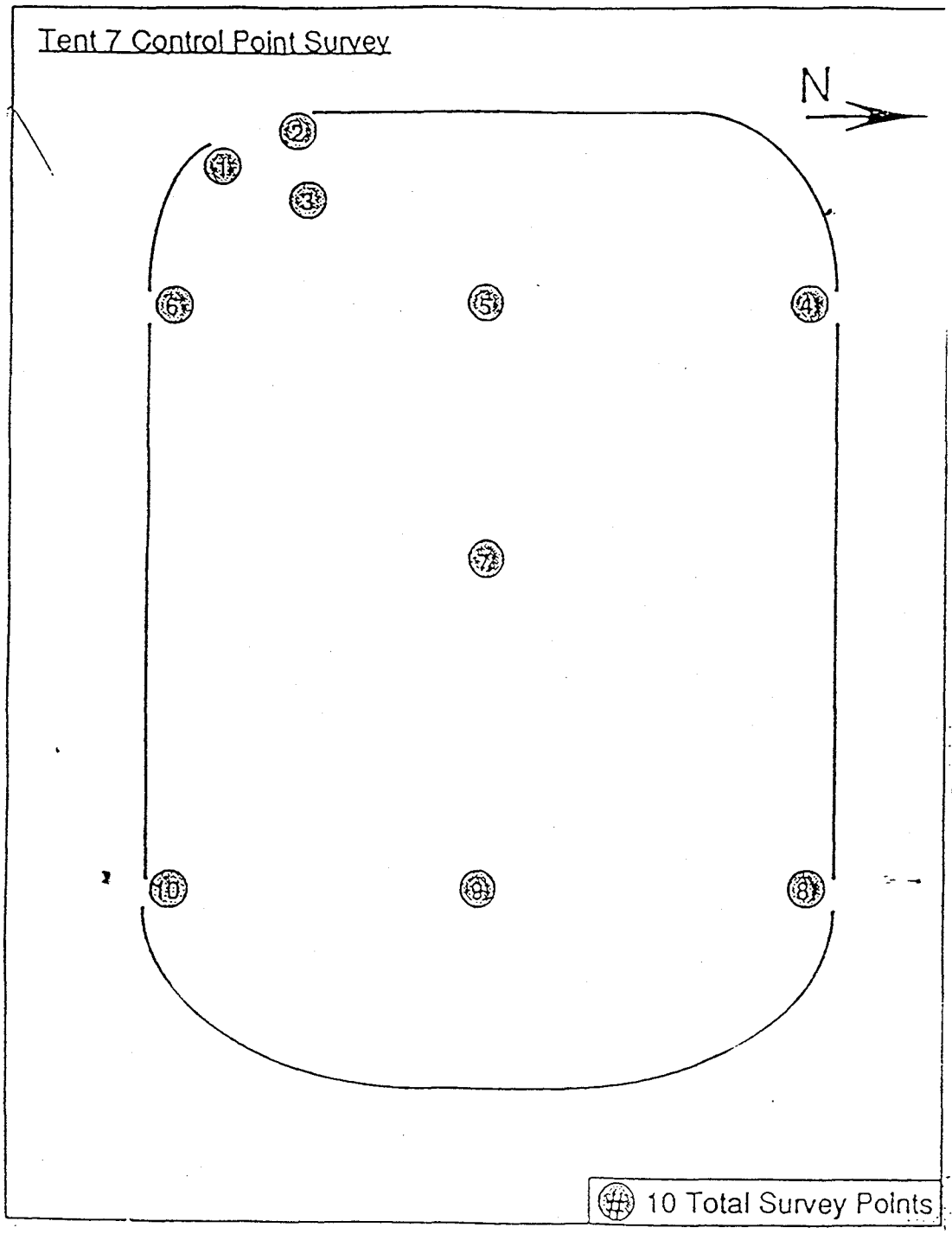
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



9L6

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model SAC-4
Serial # 795	Serial # 824	Serial # 704
Cal Due 11-98	Cal Due 11-98	Cal Due 11-98
Bkg. 0.0	Bkg. 0.2	Bkg. 41
Efficiency 33 %	Efficiency 33 %	Efficiency 25 %
MDA < 30 dpm	MDA < 20 dpm	MDA < 200 dpm
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 707	Serial # JH 8-19-98	Serial # JH 8-19-98
Cal Due 11-98	Cal Due	Cal Due
Bkg. 38	Bkg.	Bkg.
Efficiency 25 %	Efficiency	Efficiency
MDA < 200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

~~RWP~~ #: JH 8-19-98

Date: 8-19-98 Time: 0930

RCT: Hawkins U J Hall [redacted]
Print name Signature

RCT: JH 8-19-98 1
Print name Signature Emp. #

~~PRL~~ #: JH 8-19-98

Comments: JH 8-19-98

SURVEY RESULTS

	REMOVABLE		DIRECT		REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA	ALPHA	BETA	ALPHA	BETA
1.	< 20	< 200	JH 8-19-98		23.		JH 8-19-98	
2.	< 20	< 200			24.			
3.	< 20	< 200			25.			
4.	< 20	< 200			26.			
5.	< 20	< 200			27.			
6.	< 20	< 200			28.			
7.	< 20	< 200			29.			
8.	< 20	< 200			30.			
9.	< 20	< 200			31.			
10.	< 20	< 200			32.			
11.					33.			
12.					34.			
13.					35.			
14.					36.			
15.					37.			
16.					38.			
17.					39.			
18.					40.			
19.					41.			
20.					42.			
21.					43.			
22.	JH 8-19-98				44.			

Date Reviewed: 9/3/98 RS Supervision: K. Gustafson K Gustafson [redacted]
Print Name Signature

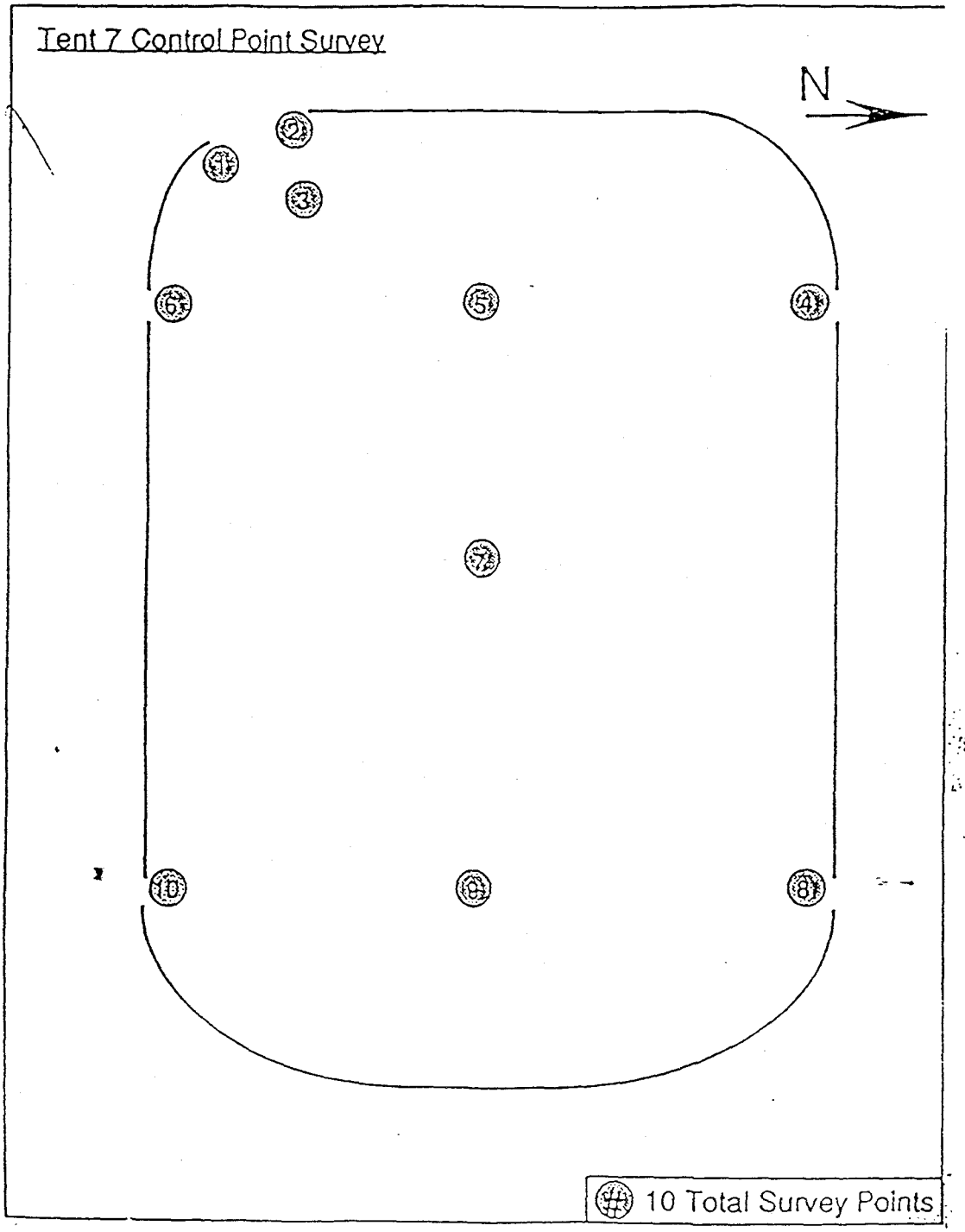
97

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



96

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 795	Serial # 824	Serial # 704
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.3	Bkg. 0.1	Bkg. 37
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 39	Bkg.	Bkg.
Efficiency 22%	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

RWP #: ___

Date: 9-2-98 Time: 1245

RCT: M.E. VAUGHN [redacted]
Print name Signature

RCT: ___ / ___ / ___
Print name Signature Emp. #

PRL # : ___

Comments: ___

SURVEY RESULTS

	REMOVABLE		DIRECT		REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA	ALPHA	BETA	ALPHA	BETA
1.	<20	<200						
2.								
3.								
4.								
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40.								
41.								
42.								
43.								
44.								

Date Reviewed: 9/3/98 RS Supervision: K. Copeland / [redacted]
Print Name Signature

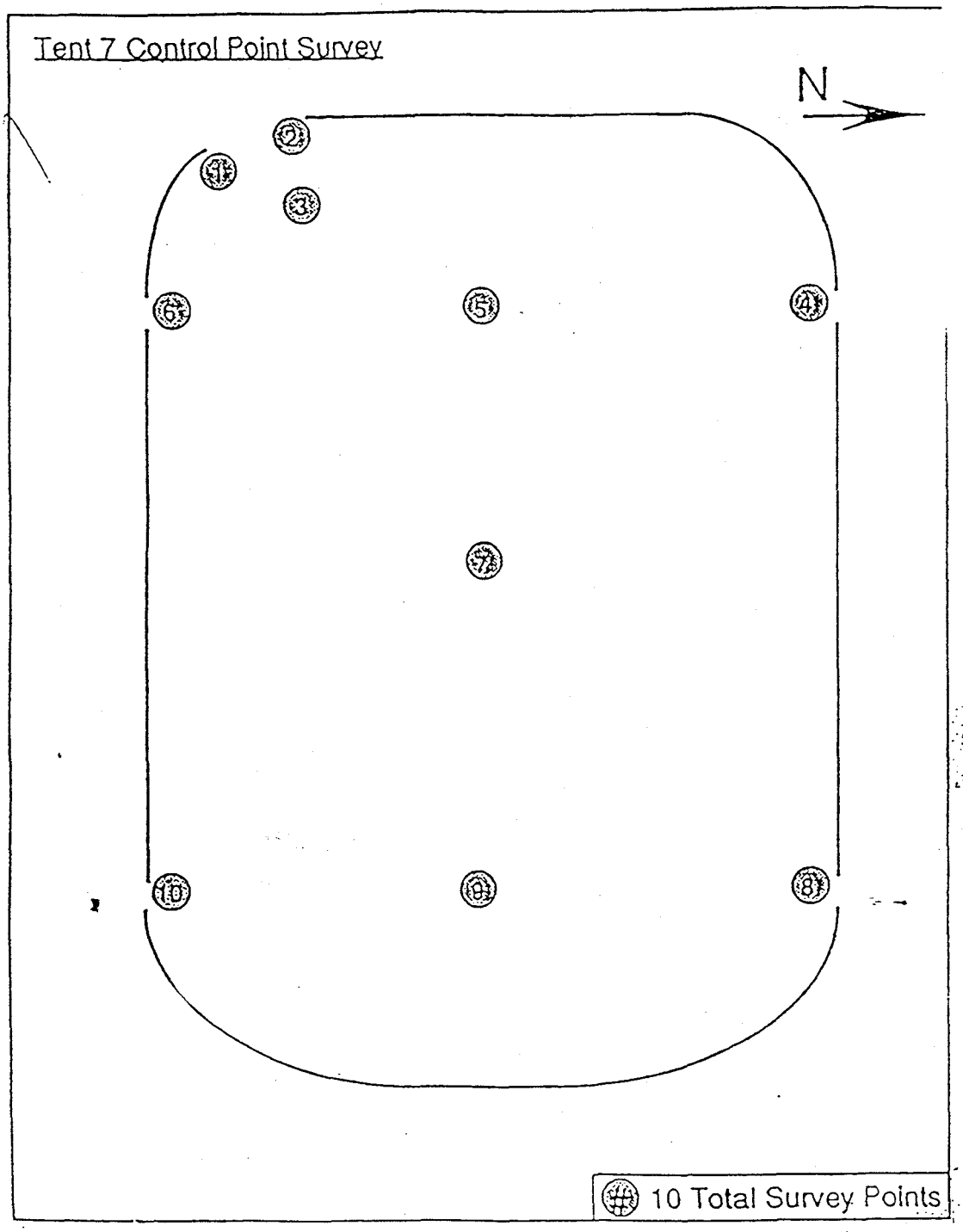
99

@RAH—

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



100

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC
Serial # 795	Serial # 824	Serial # 838
Cal Due 9-13-98	Cal Due 8-24-98	Cal Due 1-9-98
Bkg. 0.1	Bkg. 0.0	Bkg. 39 c
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20 dpm	MDA <20 dpm	MDA <200 dpm
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 44 c	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

~~RWP #:~~ JH 9-9-98

Date: 9-9-98 Time: 0945

RCT: HANKINS L / JH [redacted] 9-9-98 /
Print name Signature Emp. #

RCT: / /
Print name Signature Emp. #

PRL #: JH 9-9-98

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
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.				
12.				
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37.				
38.				
39.				
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42.				
43.				
44.				

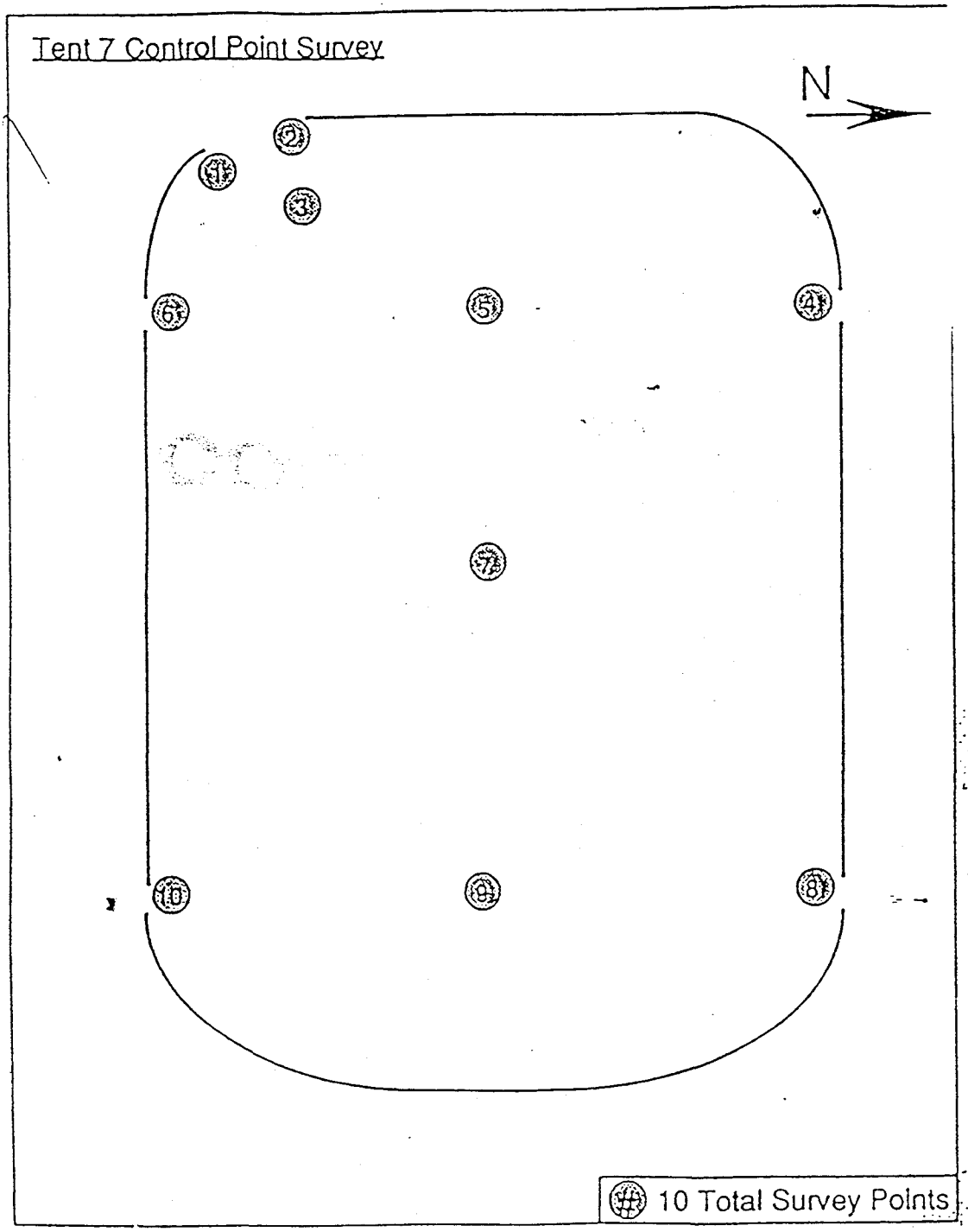
Date Reviewed: 9/15/98 RS Supervision: J. Ewell / J Ewell [redacted]
Print Name Signature

101

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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@RAH

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC~~ BC-4
Serial # 767	Serial # 824	Serial # 838
Cal Due 10-14-98	Cal Due 9-24-98	Cal Due 1-9-98
Bkg. 0.0	Bkg. 0.1	Bkg. 40
Efficiency 33%	Efficiency 37%	Efficiency 25%
MDA <20 dpm	MDA <20 dpm	MDA <200 dpm
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 41	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200 dpm	MDA	MDA

JH 9-16-98

JH 9-16-98

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

RWP #: JH 9-16-98

Date: 9-16-98 Time: 1200

RCT: HANKINS L / JH [redacted]

Print name Sig[redacted]

RCT: JH 9-16-98

Print name Signature Emp. #

PRL # :

Comments: JH 9-16-98

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

JH 9-16-98

JH 9-16-98

JH 9-16-98

Date Reviewed: 9/22/98 RS Supervision: J. Ewell [signature] [redacted]

Print Name Signature

103

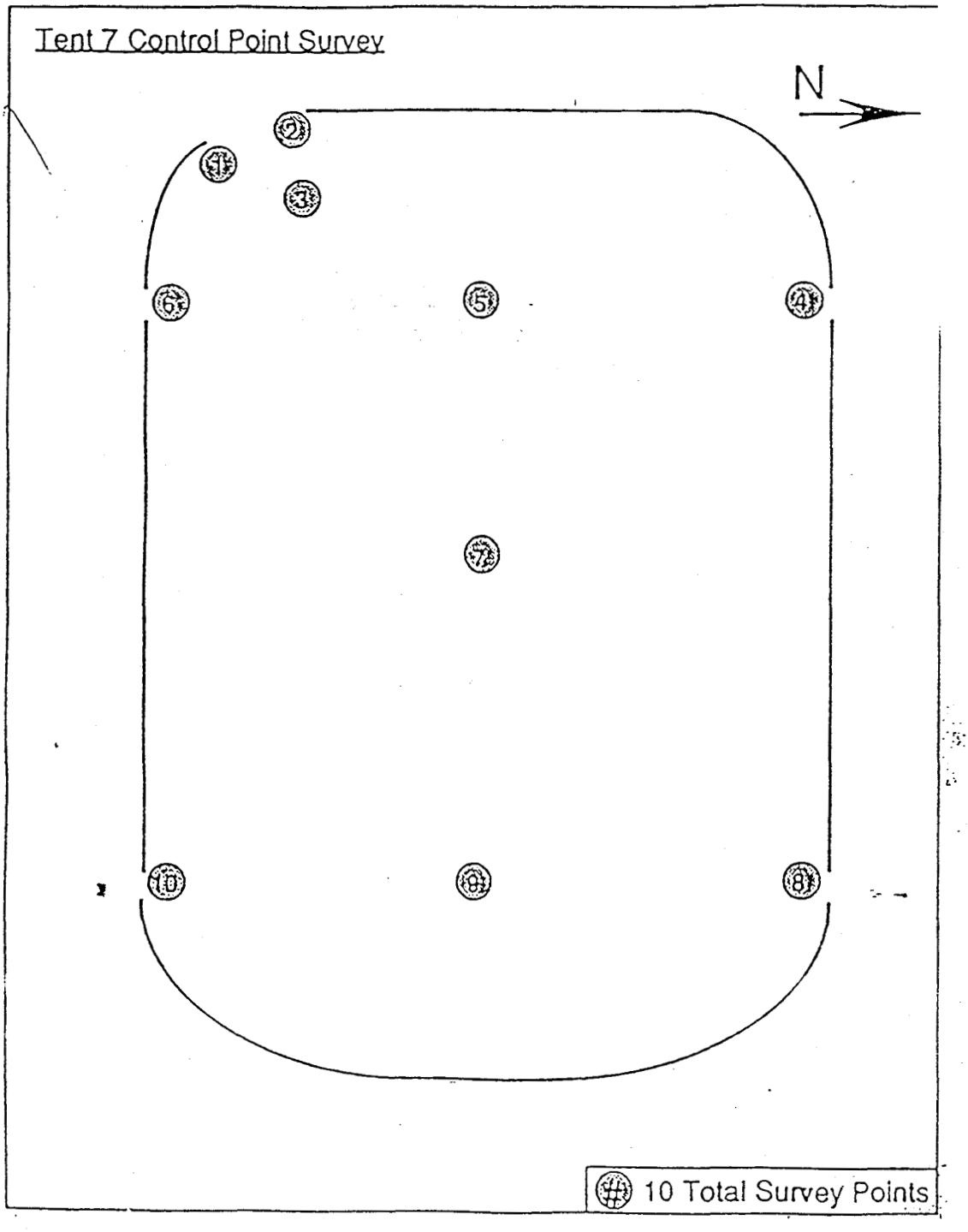
@RAH

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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@RAH

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 767	Serial # 795	Serial # 838
Cal Due 10-14-98	Cal Due 3-16-99	Cal Due 1-9-99
Bkg. .1	Bkg. .2	Bkg. 39
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 d/m	MDA 20 d/m	MDA 200 d/m
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 38	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200 d/m	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

RWP #: N/A

Date: 9-23-98 Time: 1030

RCT: L. Meacham / L. Meac[redacted]
Print name Signatu[redacted]

RCT: Hankins L [redacted]
Print name

PRL #: N/A

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

Date Reviewed: 10/5/98 RS Supervision: J. Ewell / J. Ewell
Print Name Signature

105

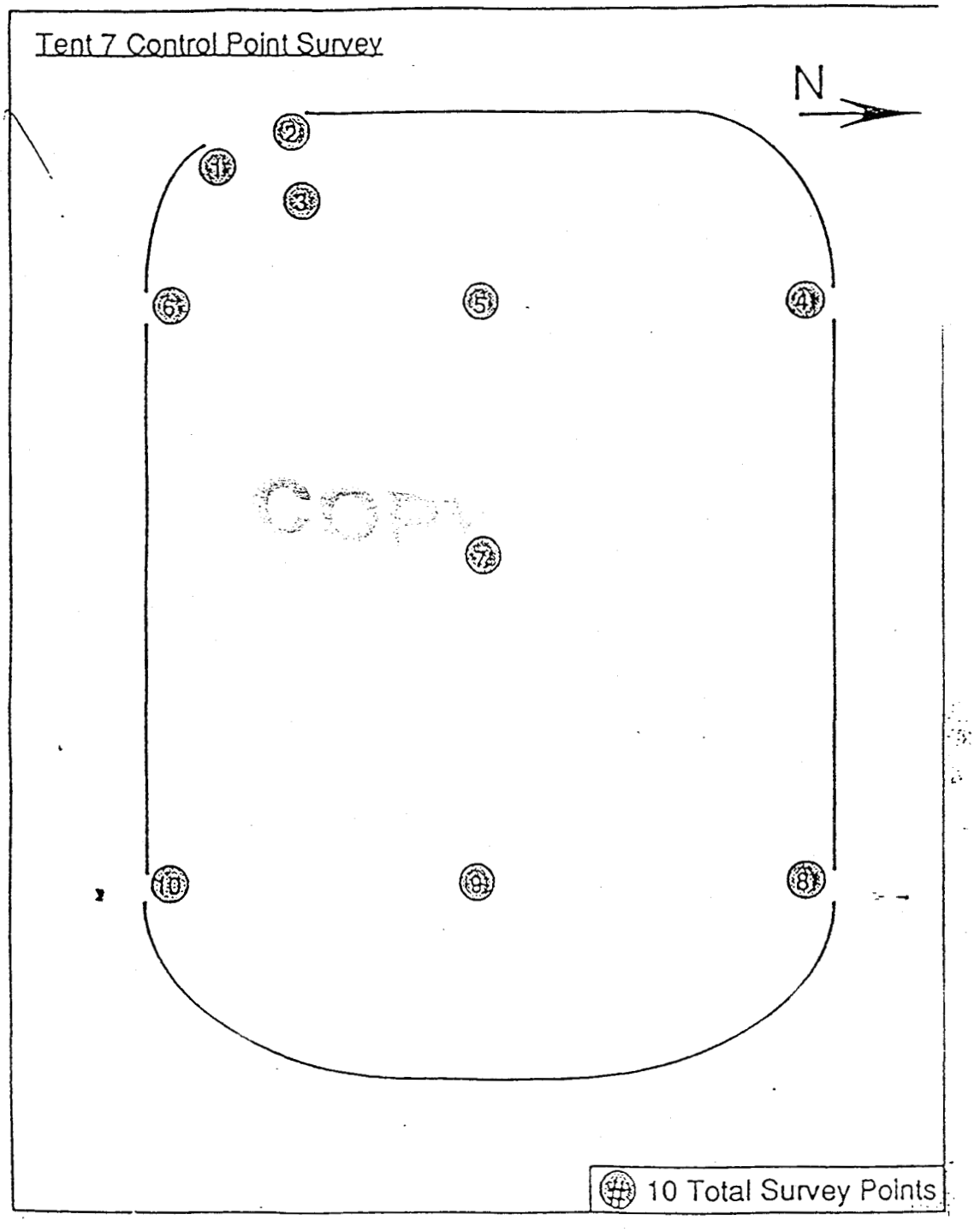
@RAH

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



COPY

1010

@RAH

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC~~ BC-4
Serial # 767	Serial # 795	Serial # 838
Cal Due 10-14-98	Cal Due 3-16-99	Cal Due 1-9-99
Bkg. 0.1	Bkg. 0.2	Bkg. 43
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20 dpm	MDA <20 dpm	MDA <200 dpm
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 36	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200 dpm	MDA	MDA

JH 9-30-98

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

~~RWP #:~~ JH 9-30-98

Date: 9-30-98 Time: 12:00

RCT: Hankins / J Hak[redacted]
Print name

~~RCT:~~ JH [redacted]
Print name Signature Emp. #

~~PRL #:~~ JH 9-30-98

Comments: JH 9-30-98

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

JH 9-30-98

JH 9-30-98

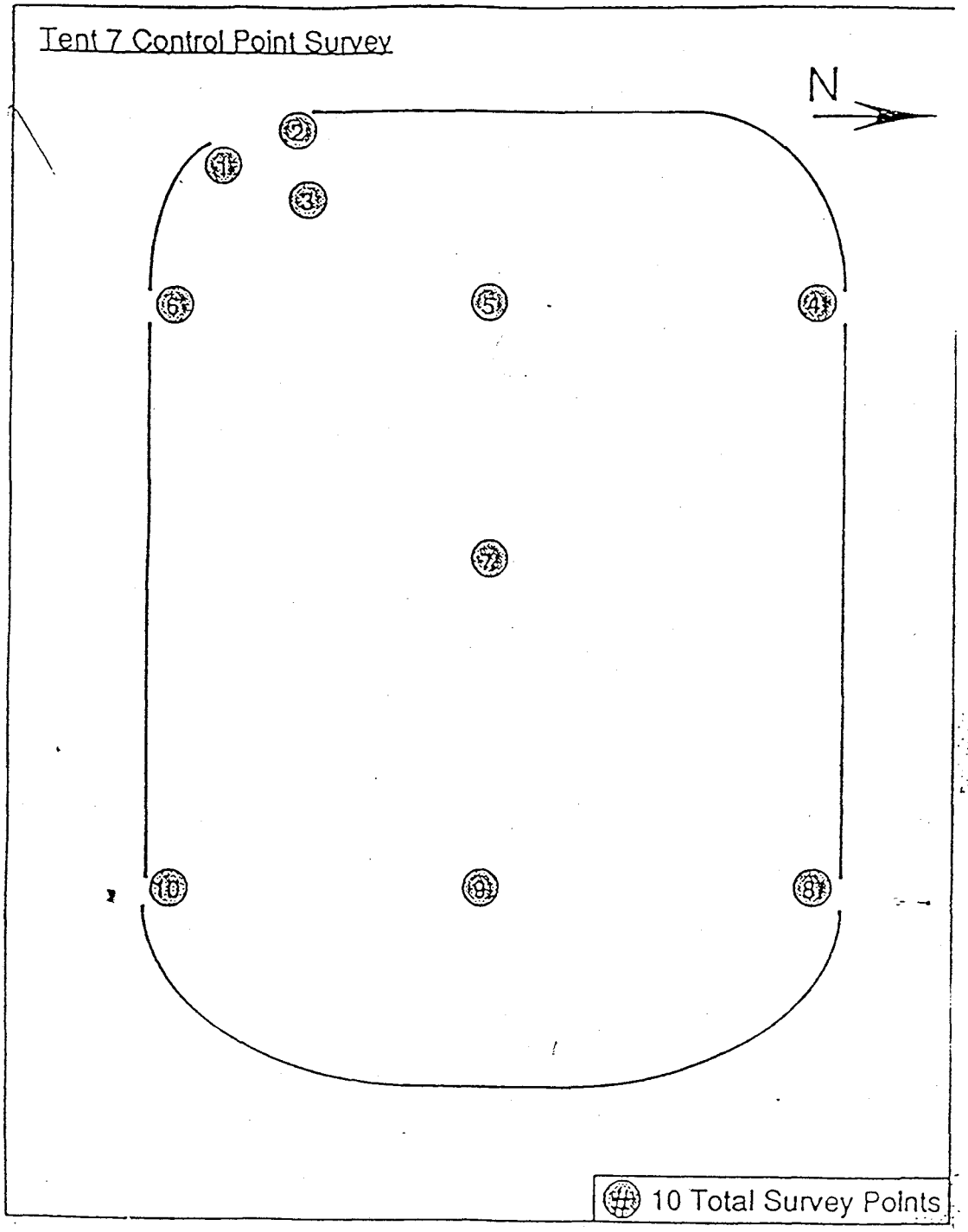
JH 9-30-98

Date Reviewed: 10/5/98 RS Supervision: J. Ewell / J Ewell [redacted]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC~~ BC-4
Serial # 1050	Serial # 1199	Serial # 914
Cal Due 2-26-99	Cal Due 2-14-99	Cal Due 2-4-99
Bkg. 0.0	Bkg. 0.6	Bkg. 43
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20dpm	MDA <20dpm	MDA <200dpm
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 706	Serial #	Serial #
Cal Due 12-22-98	Cal Due	Cal Due
Bkg. 38	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200dpm	MDA	MDA

JH 10-7-98

JH 10-7-98

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

~~RWP #:~~ JH 10-7-98

Date: 10-7-98 Time: 1320

RCT: Hawkins L [redacted]

Print name Sig[redacted]

RCT: JH 10-7-98

Print name Signature Emp. #

~~PRL #:~~

~~Comments:~~ JH 10-7-98

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

JH 10-7-98

JH 10-7-98

JH 10-7-98

Date Reviewed: 10/12/98 RS Supervision: [signature] J. Ewell [signature]

Print Name Signature

[redacted]

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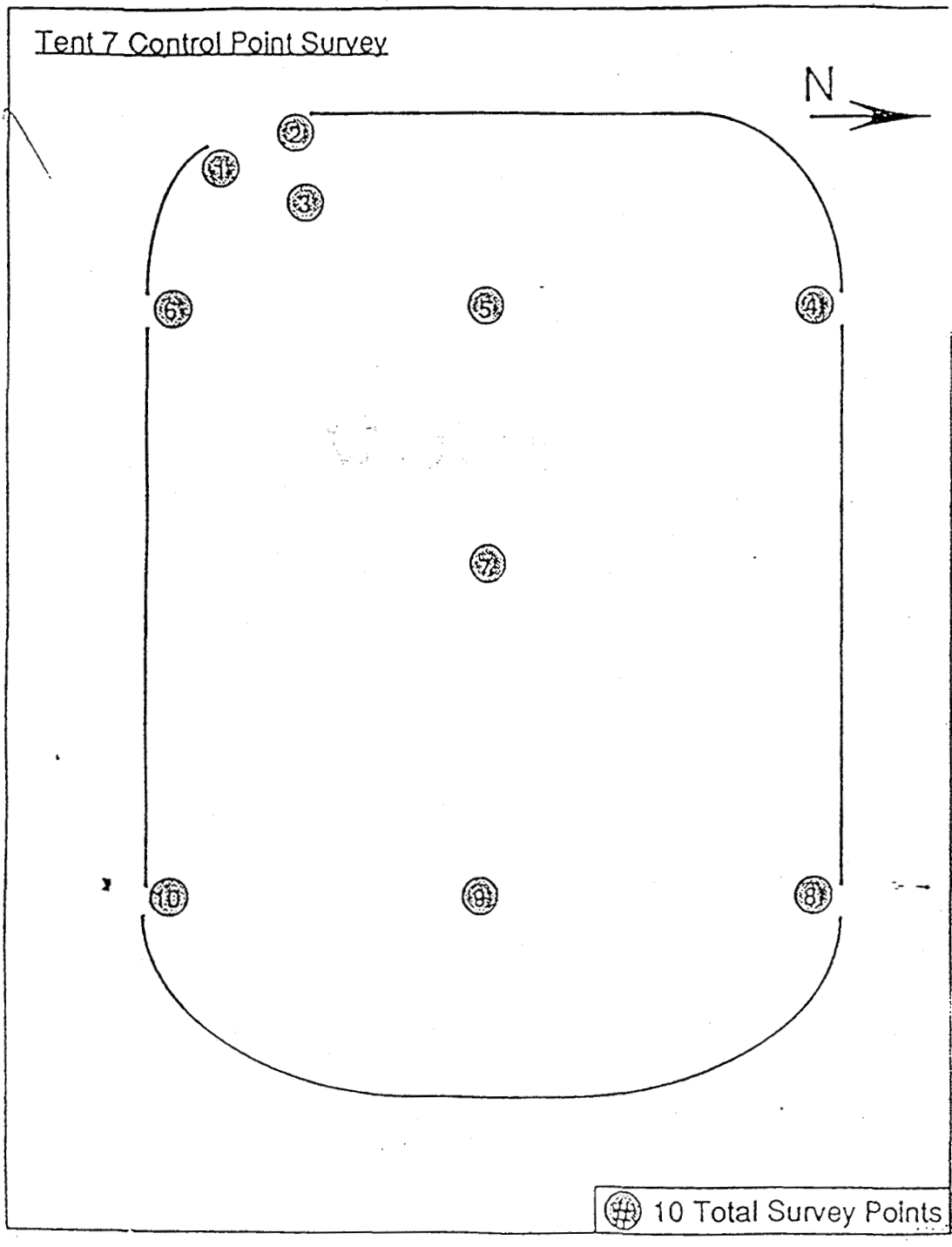
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

SJ 10-14-98

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ SAC-4
Serial # 824	Serial # 795	Serial # 838
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 1-9-99
Bkg. 0.0 cpm	Bkg. 0.1 cpm	Bkg. 40 cpm
Efficiency .33	Efficiency .33	Efficiency .25
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 42 cpm	Bkg.	Bkg.
Efficiency .25	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

~~RWP #:~~ JH 10-14-98

Date: 10-14-98 Time: 1315

RCT: Hawkins Hank [redacted]
Print name

RCT: JH 10-14-98 1
Print name Signature Emp. #

PRL # : JH 10-14-98

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
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		
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JH 10-14-98

Date Reviewed: 10/19/98 RS Supervision: B T Cooper [redacted]
Print Name Signature

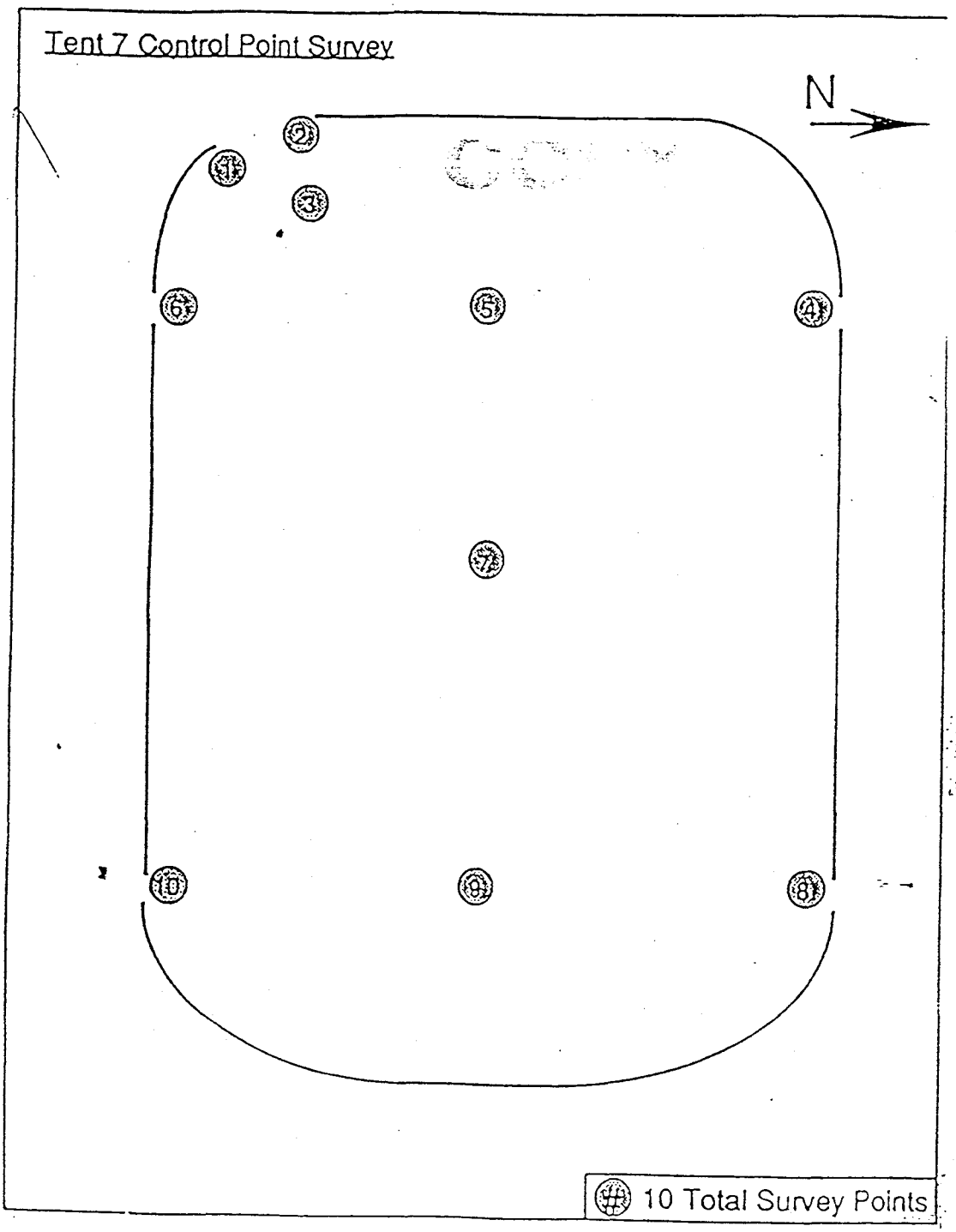
111

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

10-19-98 SJ

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 824	Serial # 795	Serial # 838
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 1-9-99
Bkg. 0.0 cpm	Bkg. 0.0 cpm	Bkg. 41 cpm
Efficiency .33	Efficiency .33	Efficiency .25
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg. EBERLINE	Mfg. NE. TECH	Mfg. NE. TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 36 cpm	Bkg.	Bkg.
Efficiency .25	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

RWP #:

Date: 10-19-98 Time: 1340

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

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

PRL # :

Comments:

SURVEY RESULTS

	REMOVABLE		DIRECT		REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA	ALPHA	BETA	ALPHA	BETA
1.	< 20	< 200			23.			
2.	< 20	< 200			24.			
3.	< 20	< 200			25.			
4.	< 20	< 200			26.			
5.	< 20	< 200			27.			
6.	< 20	< 200			28.			
7.	< 20	< 200			29.			
8.	< 20	< 200			30.			
9.	< 20	< 200			31.			
10.	< 20	< 200			32.			
11.					33.			
12.					34.			
13.					35.			
14.					36.			
15.					37.			
16.					38.			
17.					39.			
18.					40.			
19.					41.			
					42.			
					43.			
22.					44.			

Date Reviewed: 10/23/98 RS Supervision: S. Fewell / [redacted]
Print Name / Signature

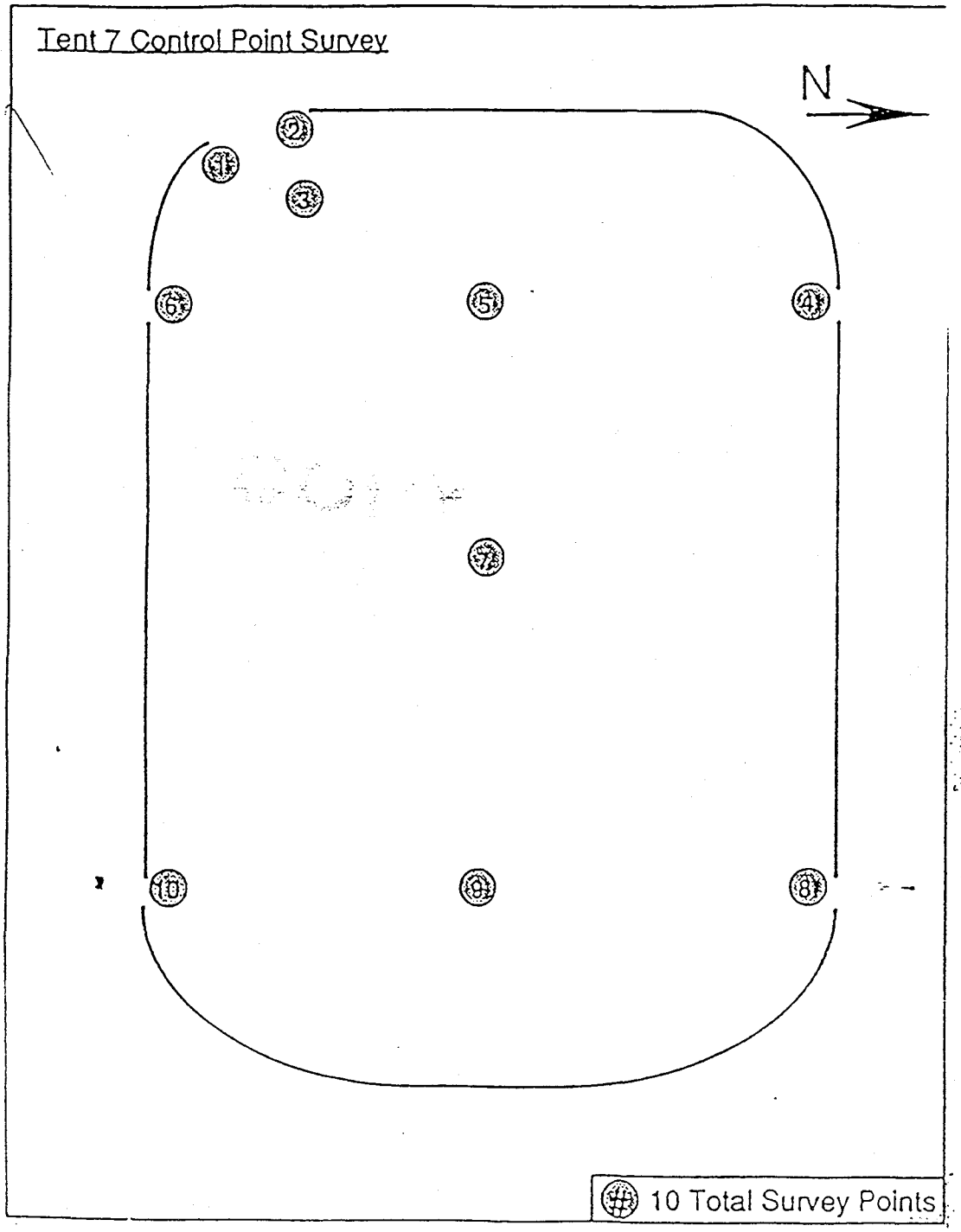
13

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model SAC-4
Serial # 824	Serial # 795	Serial # 838
Cal Due 3-21-99	Cal Due 3-16-98	Cal Due 1-8-99
Bkg. 0.1 c	Bkg. 0.2 c	Bkg. 40
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20 dpm	MDA <20 dpm	MDA <200 dpm
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial # JH	Serial # JH
Cal Due 12-15-98	Cal Due 10-28-98	Cal Due 10-28-98
Bkg. 40 c	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

RWP #: JH 10-28-98

Date: 10-28-98 Time: 0915

RCT: Hankins [redacted] Signature Emp. #
Print name

RCT: JH 10-28-98 / Signature Emp. #
Print name

RL #: JH

Comments: 10-28-98

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
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.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				
31.				
32.				
33.				
34.				
35.				
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37.				
38.				
39.				
40.				
41.				
42.				
43.				
44.				

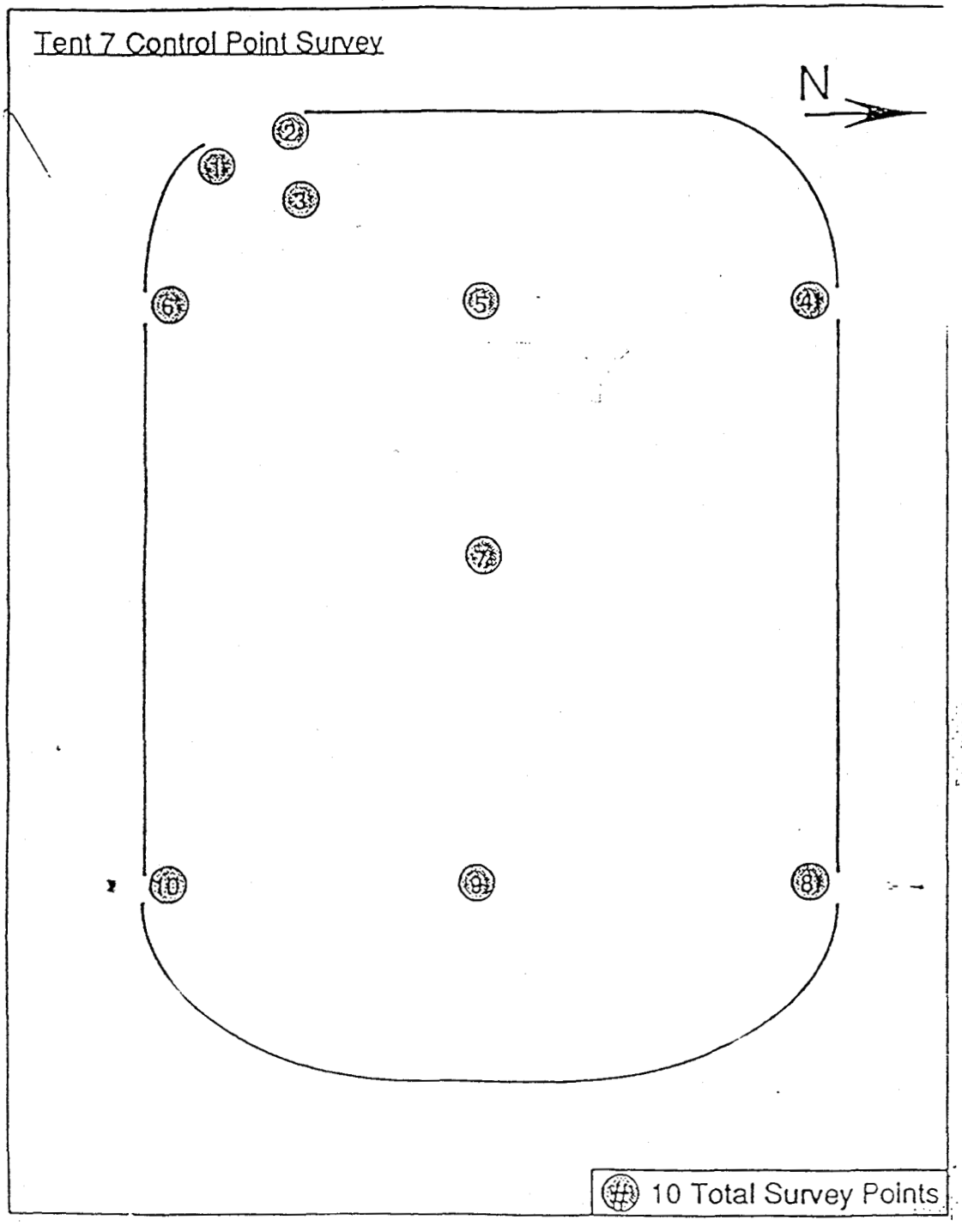
Date Reviewed: 10/28/98 RS Supervision: J. Ewell / J. Ewell / [redacted]
Print Name Signature Emp. #

115

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



116

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 829	Serial # 795	Serial # 916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.1	Bkg. 0.2	Bkg. 43
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20	MDA 20	MDA 200
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 36	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

RWP #:

Date: 11-4-98 Time: 1400

RCT: Rick Muller / [redacted]
Print name Signatur

RCT: / /
Print name Signature Emp. #

PRL # :

Comments:

SURVEY RESULTS

	REMOVABLE		DIRECT			REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA		ALPHA	BETA	ALPHA	BETA
1.	< 20	< 200			23.				
2.	< 20	< 200			24.				
3.	< 20	< 200			25.				
4.	< 20	< 200			26.				
5.	< 20	< 200			27.				
6.	< 20	< 200			28.				
7.	< 20	< 200			29.				
8.	< 20	< 200			30.				
9.	< 20	< 200			31.				
10.	< 20	< 200			32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

Date Reviewed: 11/17/98 RS Supervision: J. Tenell / [redacted]
Print Name Signature

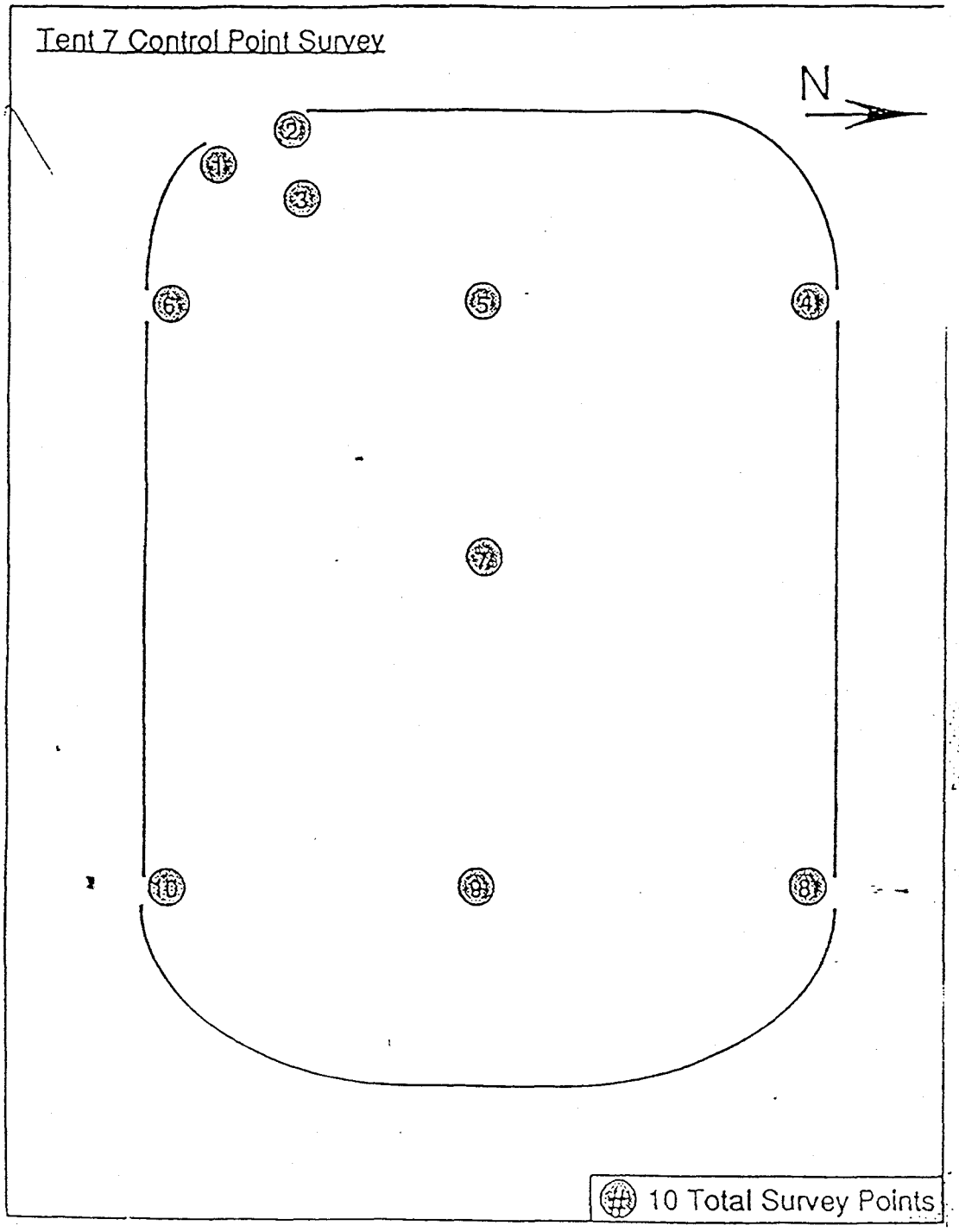
117

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 824	Serial # 795	Serial # BC916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.0	Bkg. 0.0	Bkg. 41
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20dpm	MDA 20dpm	MDA 200dpm
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 42	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200dpm	MDA	MDA

11-11-98 11-11-98 11-11-98

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

RWP #:

Date: 11-11-98 Time: 1230

RCT: Munoz / [signature] [redacted]

Print name Signature Emp. #

11-11-98

RCT: / /

Print name Signature Emp. #

11-11-98

PRL #:

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

11-11-98 11-11-98 11-11-98

Date Reviewed: 11/17/98 RS Supervision: J. Ewell / J. Ewell [redacted]

Print Name Signature

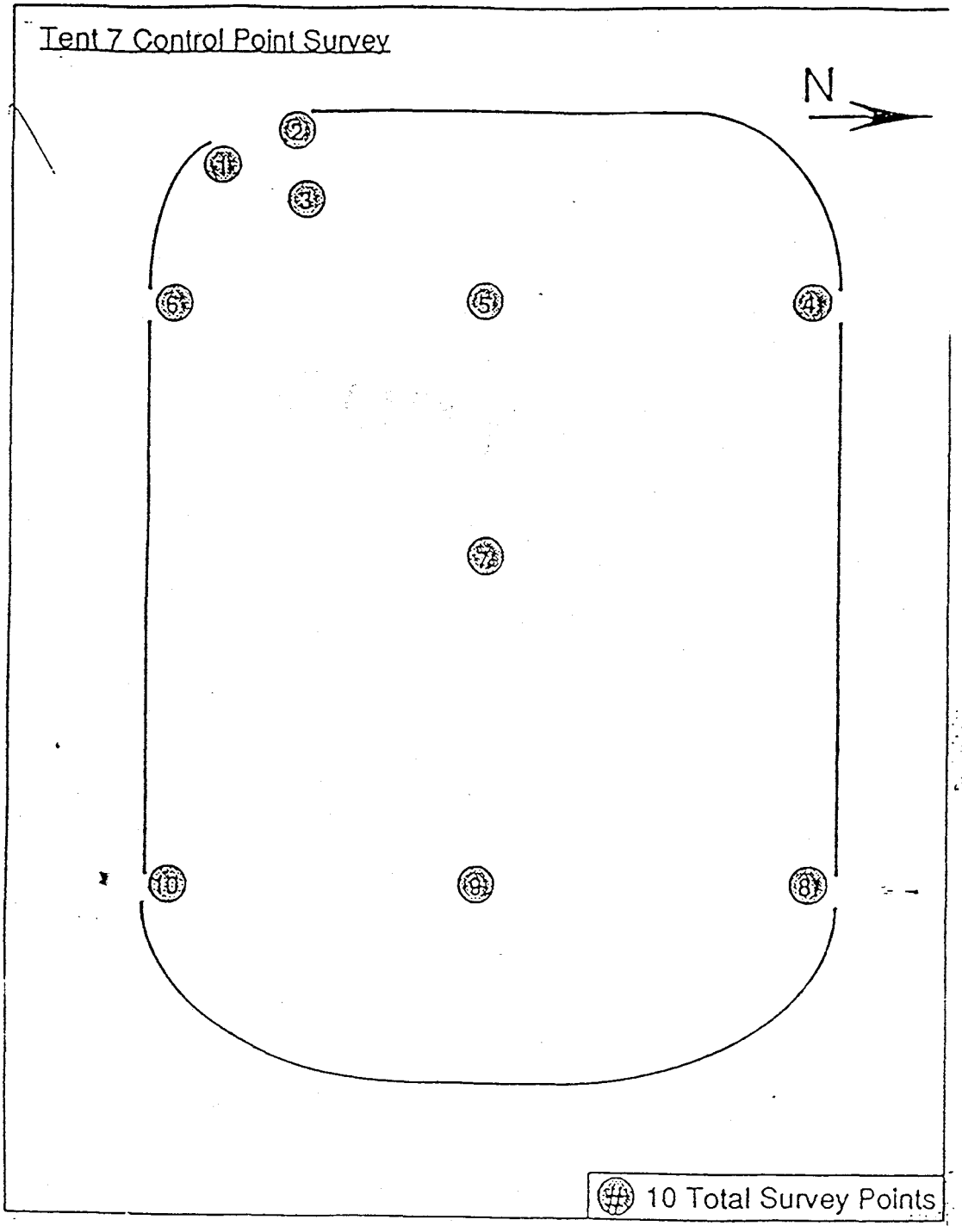
119

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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1035

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC
Serial # 824	Serial # 795	Serial # 916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.0	Bkg. 0.0	Bkg. 43
Efficiency 23%	Efficiency 33%	Efficiency 25%
MDA <20	MDA <20	MDA <200
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 39	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

RWP #:

Date: 11/19/98 Time: 1200

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

RCT: / /
Print name Signature Emp. #

PRL # :

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

[initials] 11/19/98

[initials] 11/19/98

[initials] 11/19/98

Date Reviewed: 11/19/98 RS Supervision: J. Ewell / [signature] [redacted]
Print Name Signature

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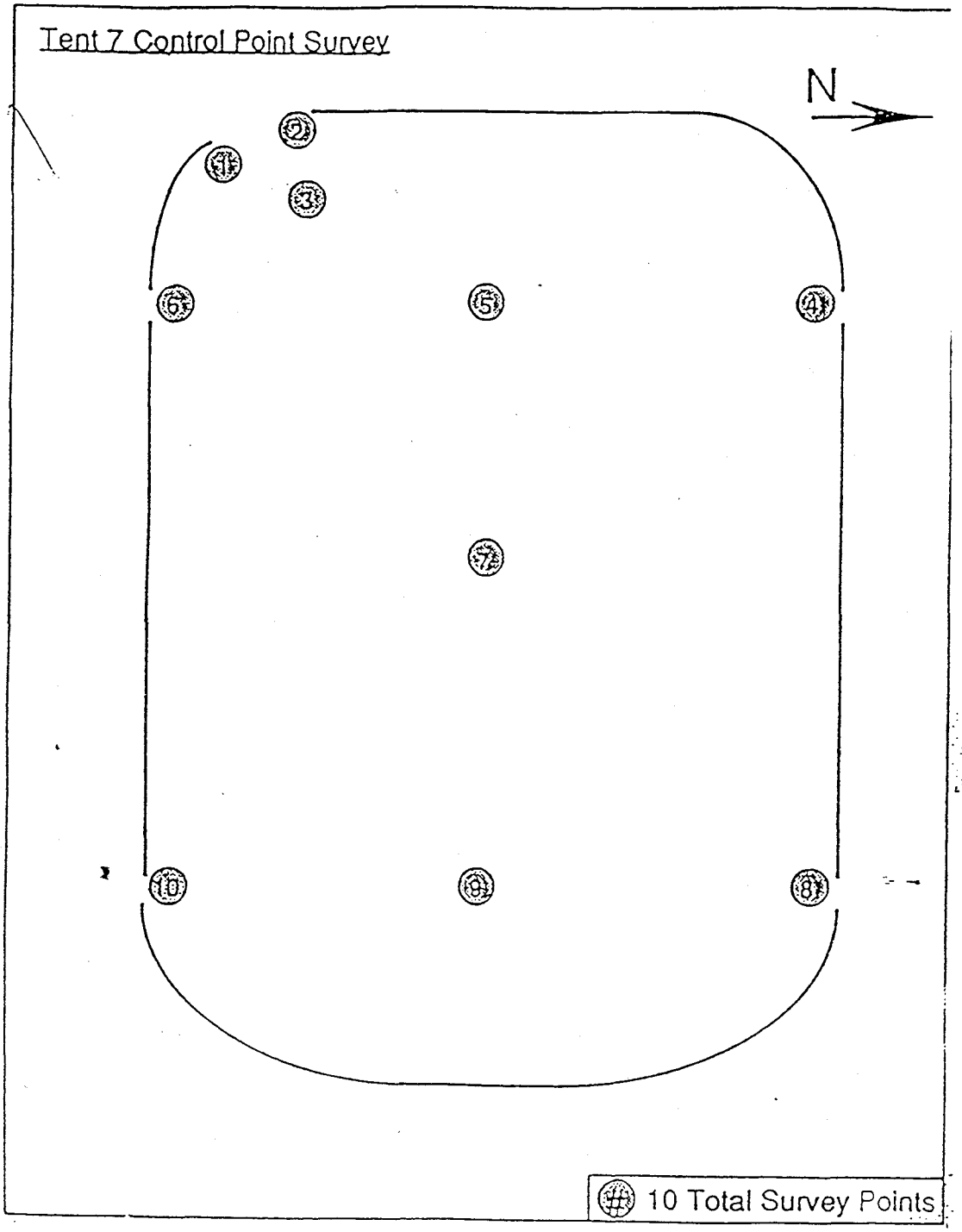
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC
Serial # 824	Serial # 795	Serial # 916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.1	Bkg. 0.0	Bkg. 43
Efficiency 33	Efficiency 33	Efficiency 25
MDA 20	MDA 20	MDA 200
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 37	Bkg.	Bkg.
Efficiency 33	Efficiency	Efficiency
MDA 20	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

RWP #:

Date: 11/23/98 Time: 1020

RCT: [redacted] / [redacted]

Print name Signature

RCT: / /

Print name Signature Emp. #

PRL # :

Comments:

SURVEY RESULTS

	REMOVABLE		DIRECT			REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA		ALPHA	BETA	ALPHA	BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

Date Reviewed: 11/24/98 RS Supervision: [redacted] / [redacted]

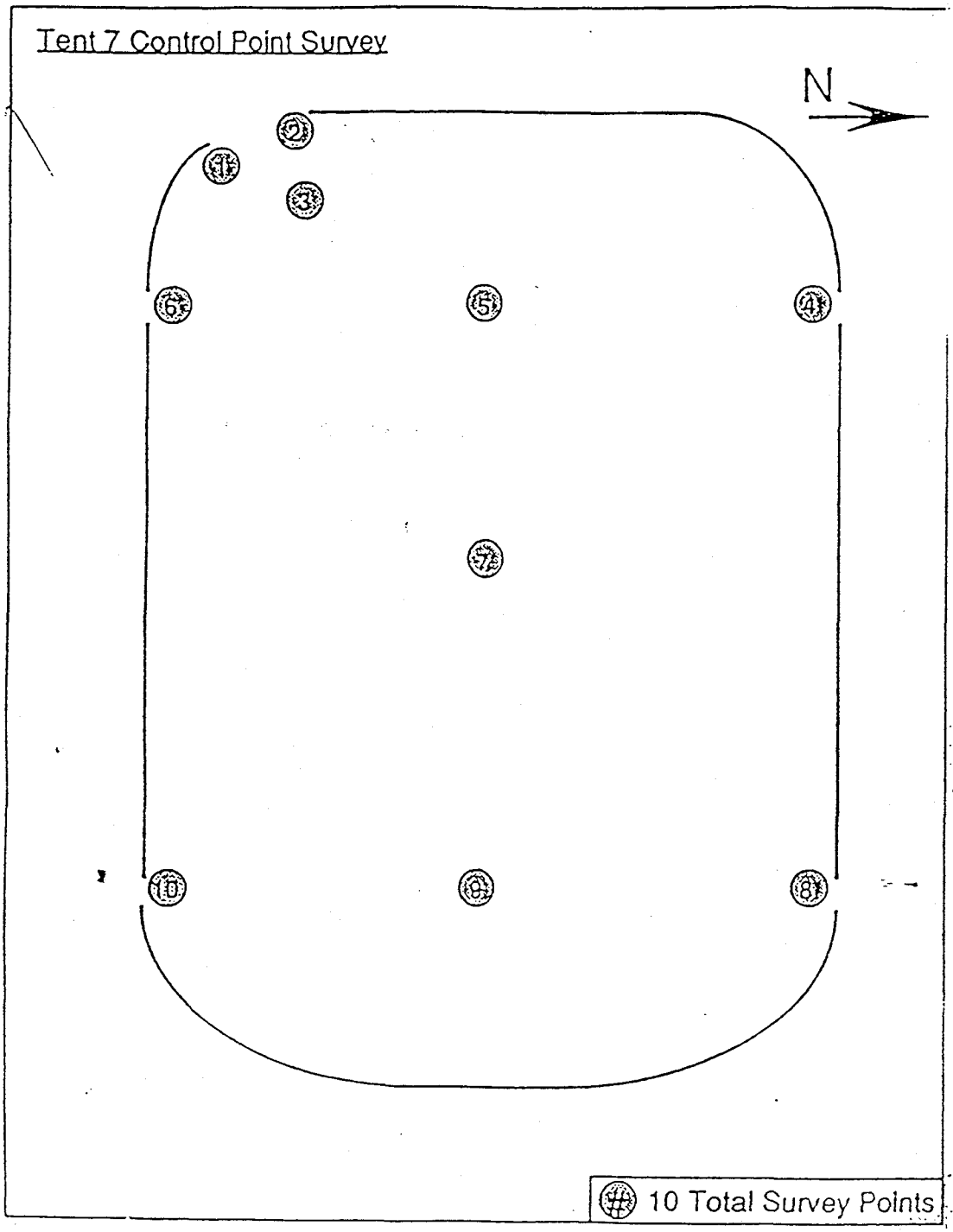
Print Name Signature

123

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC
Serial # 824	Serial # 795	Serial # 916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.2	Bkg. 0.0	Bkg. 40.5
Efficiency 33	Efficiency 33	Efficiency 25
MDA <20	MDA <20	MDA <200
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 38.8	Bkg.	Bkg.
Efficiency 25	Efficiency	Efficiency
MDA <200	MDA	MDA

N/A RW 12-2-98

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

RWP #: N/A 12/2/98 RW

Date: 12/2/98 Time: 143[redacted]

RCT: [signature] / [signature] [redacted]
Print name Signature

RCT: N/A 12/2/98 RW / /
Print name Signature Emp. #

PRL # :

Comments: RW 12-2-98

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

12/2/98 RW

RW 12/2/98

12-2-98 RW

Date Reviewed: 12/10/98 RS Supervision: J. Ewell / [signature] [redacted]
Print Name Signature

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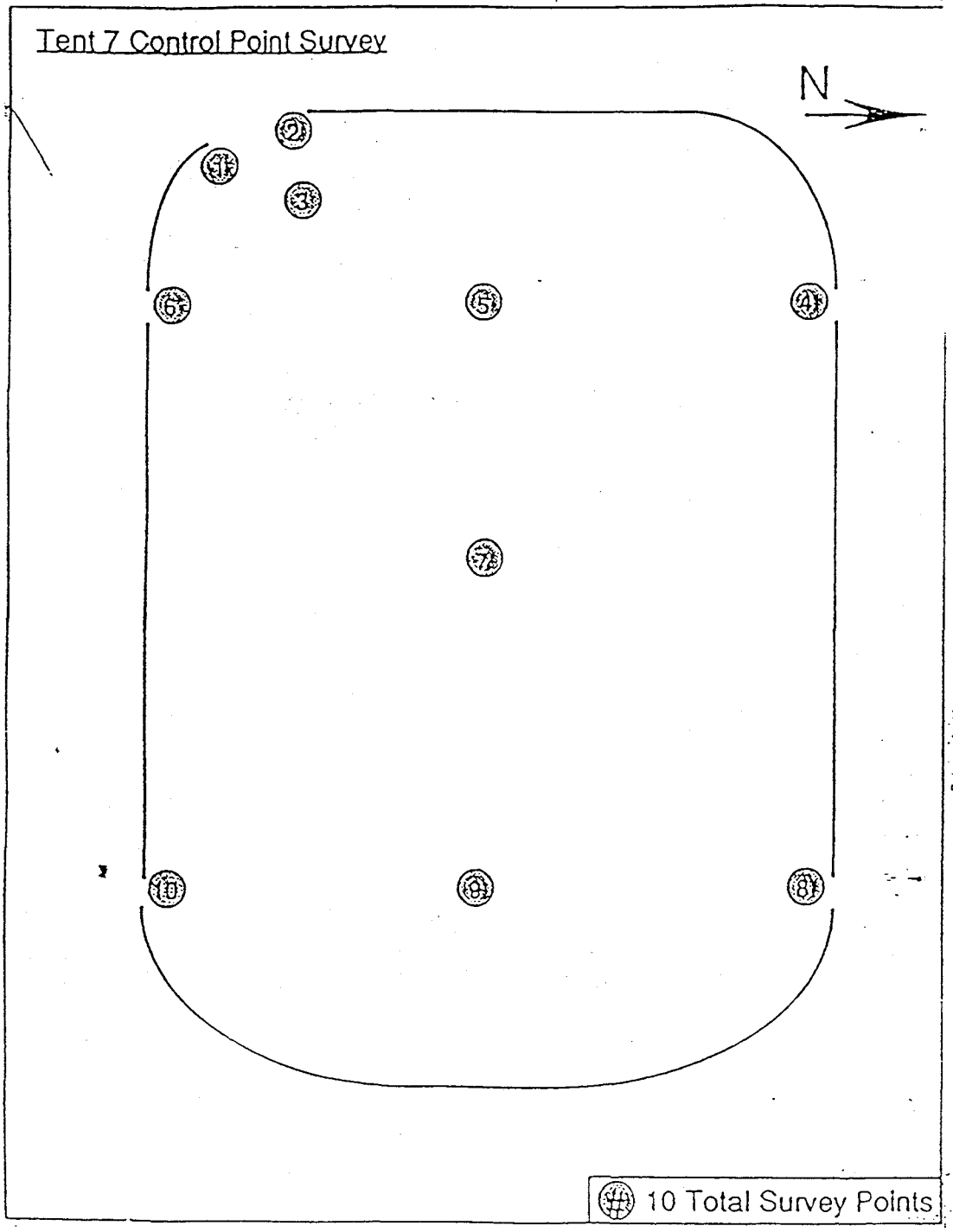
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 824	Serial # 795	Serial # 916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 2	Bkg. 0.0	Bkg. 40
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20 dpm	MDA <20 dpm	MDA <200 dpm
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 43	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

~~RWP #:~~ JH 12-17-98

Date: 12-17-98 Time: 1355

RCT: Hankins [redacted]
Print name Signature

~~RCT:~~ [redacted] 12-[redacted]
Print name Signature Emp. #

PRL #:

Comments: JH 12-17-98

SURVEY RESULTS

	REMOVABLE		DIRECT		REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA	ALPHA	BETA	ALPHA	BETA
1.	<20	<200			23.			
2.	<20	<200			24.			
3.	<20	<200			25.			
4.	<20	<200			26.			
5.	<20	<200			27.			
6.	<20	<200			28.			
7.	<20	<200			29.			
8.	<20	<200			30.			
9.	<20	<200			31.			
10.	<20	<200			32.			
11.					33.			
12.					34.			
13.					35.			
14.					36.			
15.					37.			
16.					38.			
17.					39.			
18.					40.			
19.					41.			
20.					42.			
21.					43.			
22.					44.			

JH 12-17-98

Date Reviewed: 1/6/99 RS Supervision: J. Ewell / J. Ewell
Print Name Signature

[redacted]

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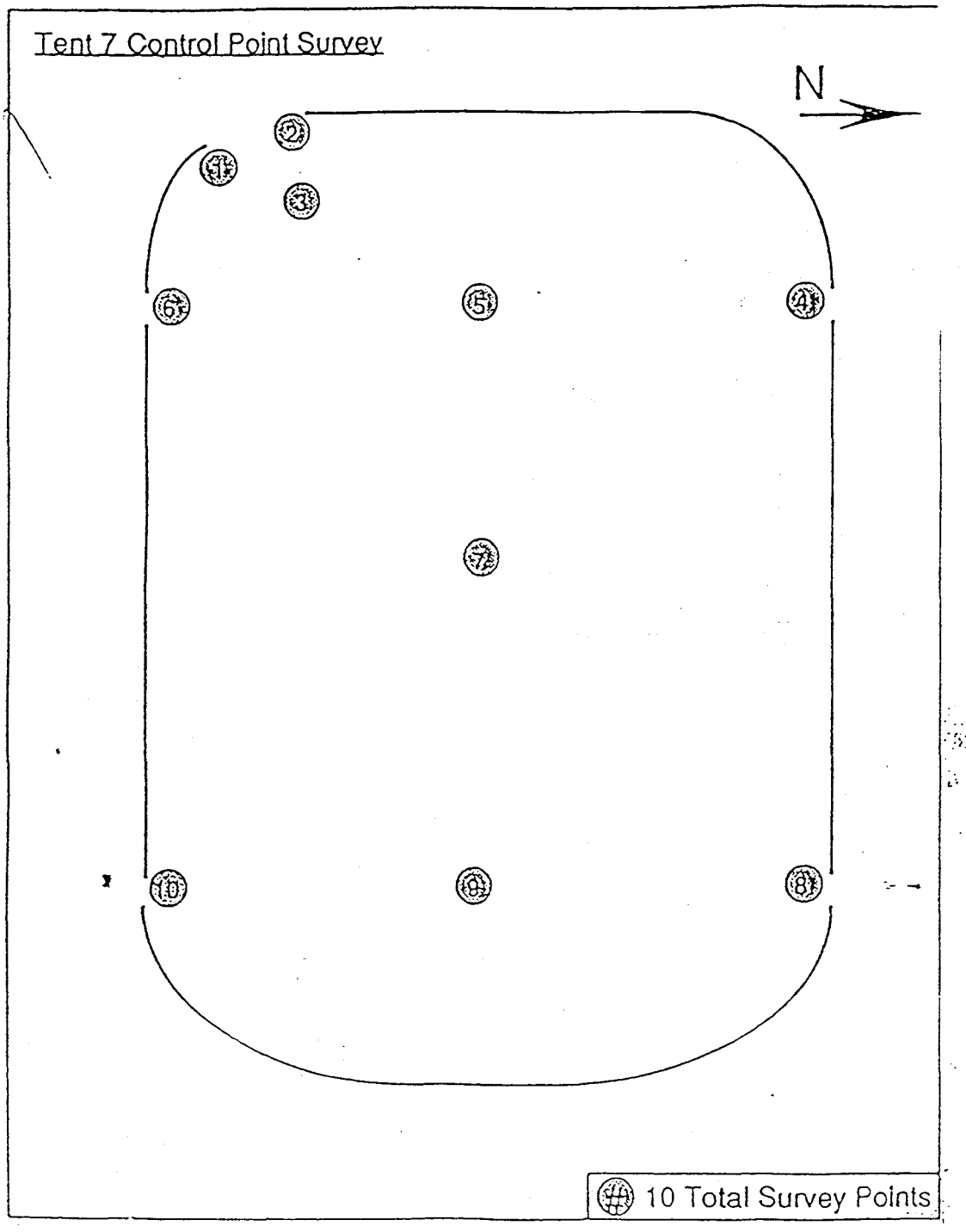
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC4
Serial # 824	Serial # 795	Serial # BC916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.1	Bkg. 0.0	Bkg. 43
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm

Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC838	Serial # ~~6~~	Serial #
Cal Due 1-9-99	Cal Due ~~12-21-98~~	Cal Due
Bkg. 41	Bkg. ~~12-21-98~~	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

~~RWP #:~~ am 12-21-98

Date: 12-21-98 Time: 0930

RCT: MUNOZ [signature] [redacted]
Print name Signature Emp. #

~~RCT:~~ am 12-21-98
Print name Signature Emp. #

~~PRL #:~~ am 12-21-98

Comments: See Page 2 of 2 for survey map

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200		
2.	<20	<200		
3.	<20	<200		
4.	<20	<200		
5.	<20	<200		
6.	<20	<200		
7.	<20	<200		
8.	<20	<280		
9.	<20	<200		
10.	<20	<200		
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				

am 12-21-98

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				
31.				
32.				
33.				
34.				
35.				
36.				
37.				
38.				
39.				
40.				
41.				
42.				
43.				
44.				

am 12-21-98

Date Reviewed: 1/6/99 RS Supervision: S. Ewell [signature] [redacted]
Print Name Signature

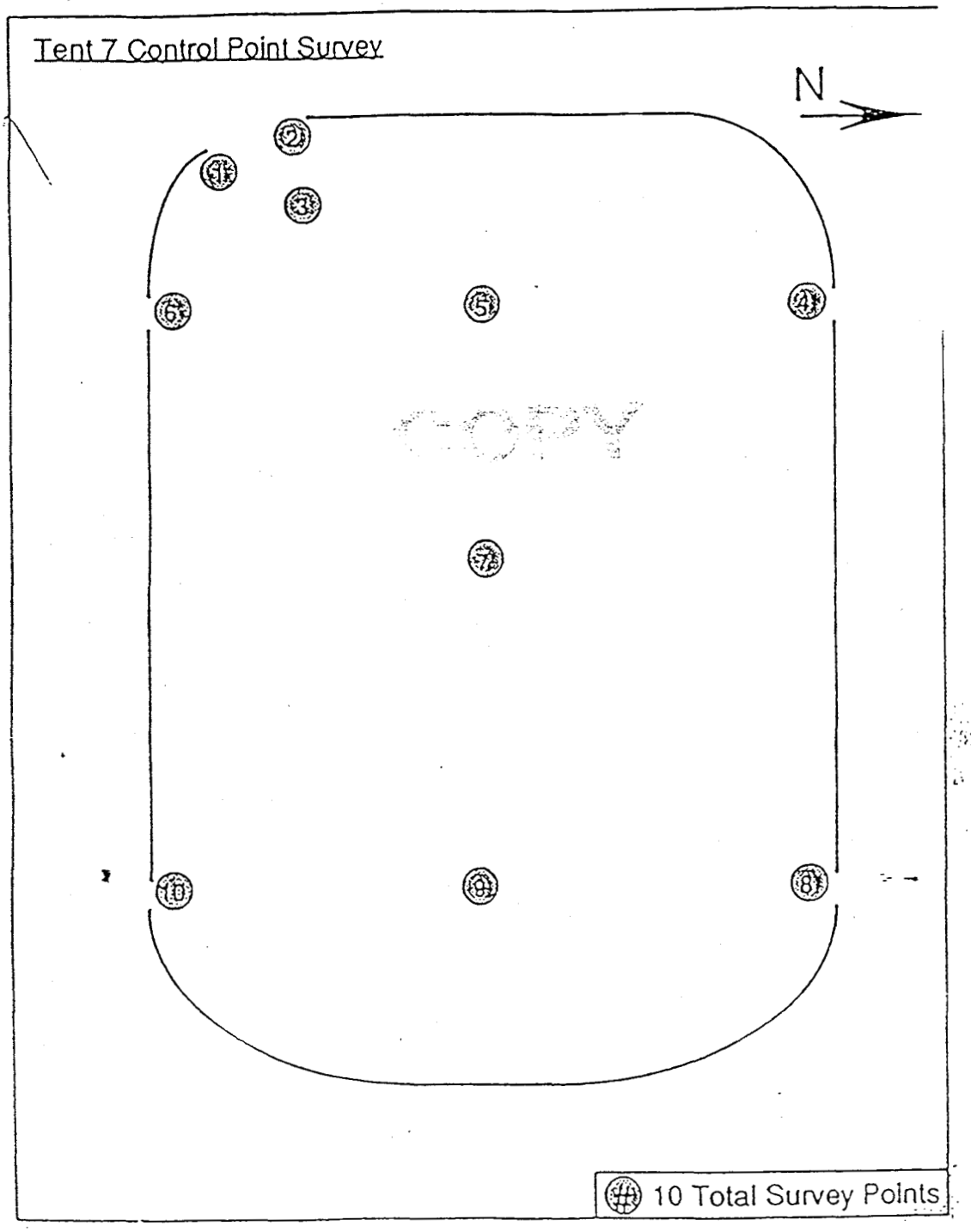
129

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



COPY

B0

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ SE
Serial # 824	Serial # 795	Serial # 916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.2	Bkg. 0.2	Bkg. 41
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA < 20 dpm	MDA < 20 dpm	MDA < 200 dpm
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 42	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA < 200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 7

Purpose: WEEKLY CONTAMINATION

~~RWP #:~~ JH 12-29-98

Date: 12-29-98 Time: 0850

RCT: HANKINS Hal [redacted]
Print name Sig

~~RCT:~~ JH 12-29-98 1
Print name Signature Emp. #

PRL #:

Comments: JH 12-29-98

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
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.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				
31.				
32.				
33.				
34.				
35.				
36.				
37.				
38.				
39.				
40.				
41.				
42.				
43.				
44.				

Date Reviewed: 1/6/99 RS Supervision: J. Fewell / Fewell [redacted]
Print Name Signature

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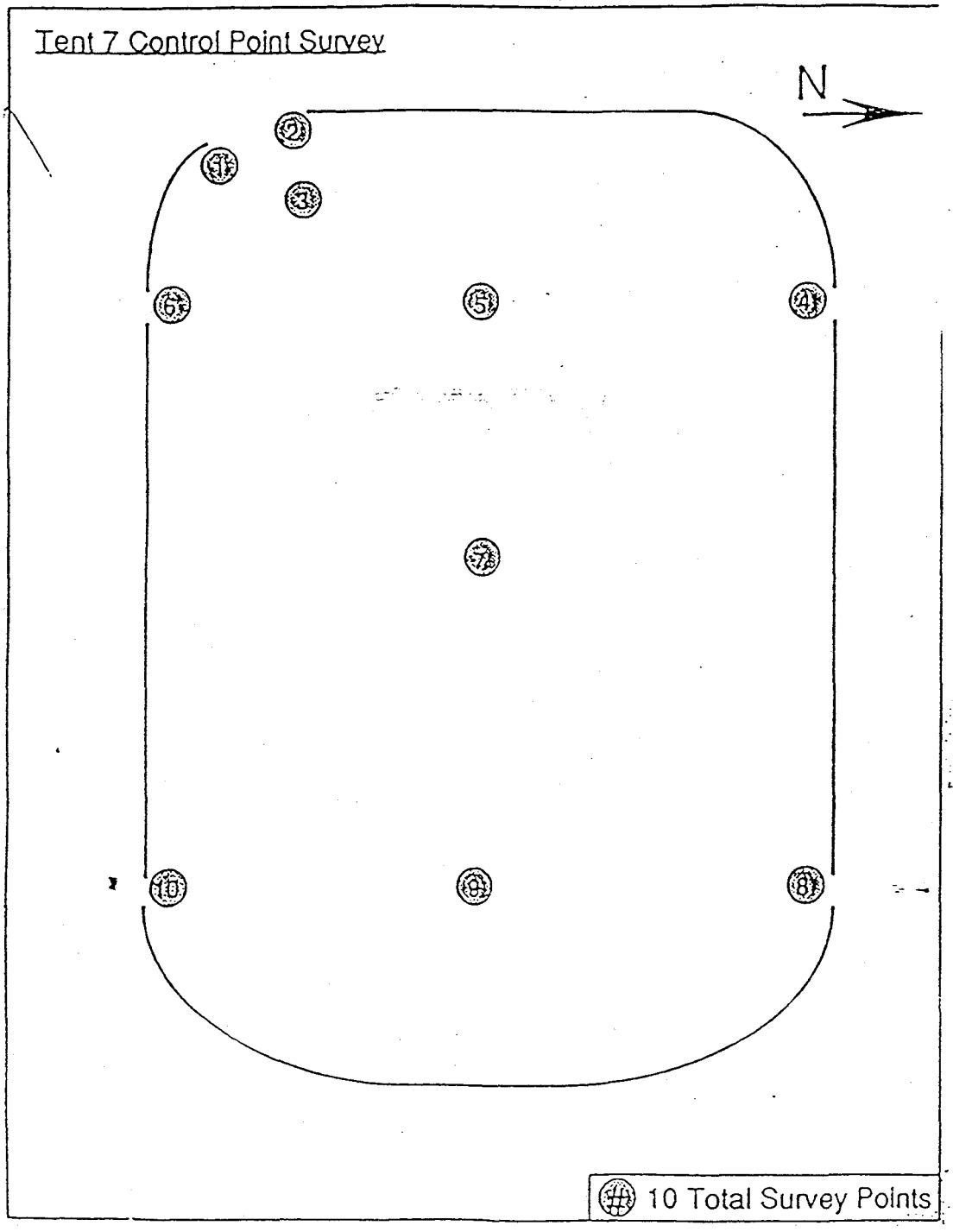
RS FORMS 07:02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



A.2 RECONNAISSANCE LEVEL CHARACTERIZATION RADIOLOGICAL DATA

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 38	Bkg. 39	Bkg. 0.2
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 1685	Serial # 1685
Cal Due 6/16/99	Cal Due 6-18-99	Cal Due 6-18-99
Bkg. 0.2	Bkg. 6	Bkg. 448
Efficiency 33%	Efficiency 21.9%	Efficiency 31.3%
MDA <20	MDA 66	MDA 303

Survey Type: Contamination Survey
Building: TENT # 7
Location: 904 PAD
Purpose: CHARACTERIZATION SURVEYS
RWP #: — NA —
Date: 03-30-99 Time: 1500
RCT: Rex Snyder / Rex Snyder [redacted]
Print name Signature
RCT: N / A / 1 [redacted]
Print name Signature Emp. #

PRL # :
Comments Exterior Survey

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct			Removable		Direct	
	Alpha	Beta	Alpha	Beta		Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 66	< 303	23.	< 20	< 200	< 66	< 303
2.	< 20	< 200	< 66	< 303	24.	< 20	< 200	< 66	< 303
3.	< 20	< 200	< 66	< 303	25.	< 20	< 200	< 66	< 303
4.	< 20	< 200	< 66	< 303	26.	< 20	< 200	< 66	< 303
5.	< 20	< 200	< 66	< 303	27.	< 20	< 200	< 66	< 303
6.	< 20	< 200	< 66	< 303	28.	< 20	< 200	< 66	< 303
7.	< 20	< 200	< 66	< 303	29.	< 20	< 200	< 66	< 303
8.	< 20	< 200	< 66	< 303	30.	< 20	< 200	< 66	< 303
9.	< 20	< 200	< 66	< 303	31.				
10.	< 20	< 200	< 66	< 303	32.				
11.	< 20	< 200	< 66	< 303	33.				
12.	< 20	< 200	< 66	< 303	34.				
13.	< 20	< 200	< 66	< 303	35.				
14.	< 20	< 200	< 66	< 303	36.				
15.	< 20	< 200	< 66	< 303	37.		N		A
16.	< 20	< 200	< 66	< 303	38.				
17.	< 20	< 200	< 66	< 303	39.				
18.	< 20	< 200	< 66	< 303	40.				
19.	< 20	< 200	< 66	< 303	41.				
20.	< 20	< 200	< 66	< 303	42.				
21.	< 20	< 200	< 66	< 303	43.				
22.	< 20	< 200	< 66	< 303	44.				

Date 4-1-99 RS Supervision: Greg Osburn [redacted]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SIT

RADIOLOGICAL SAFETY

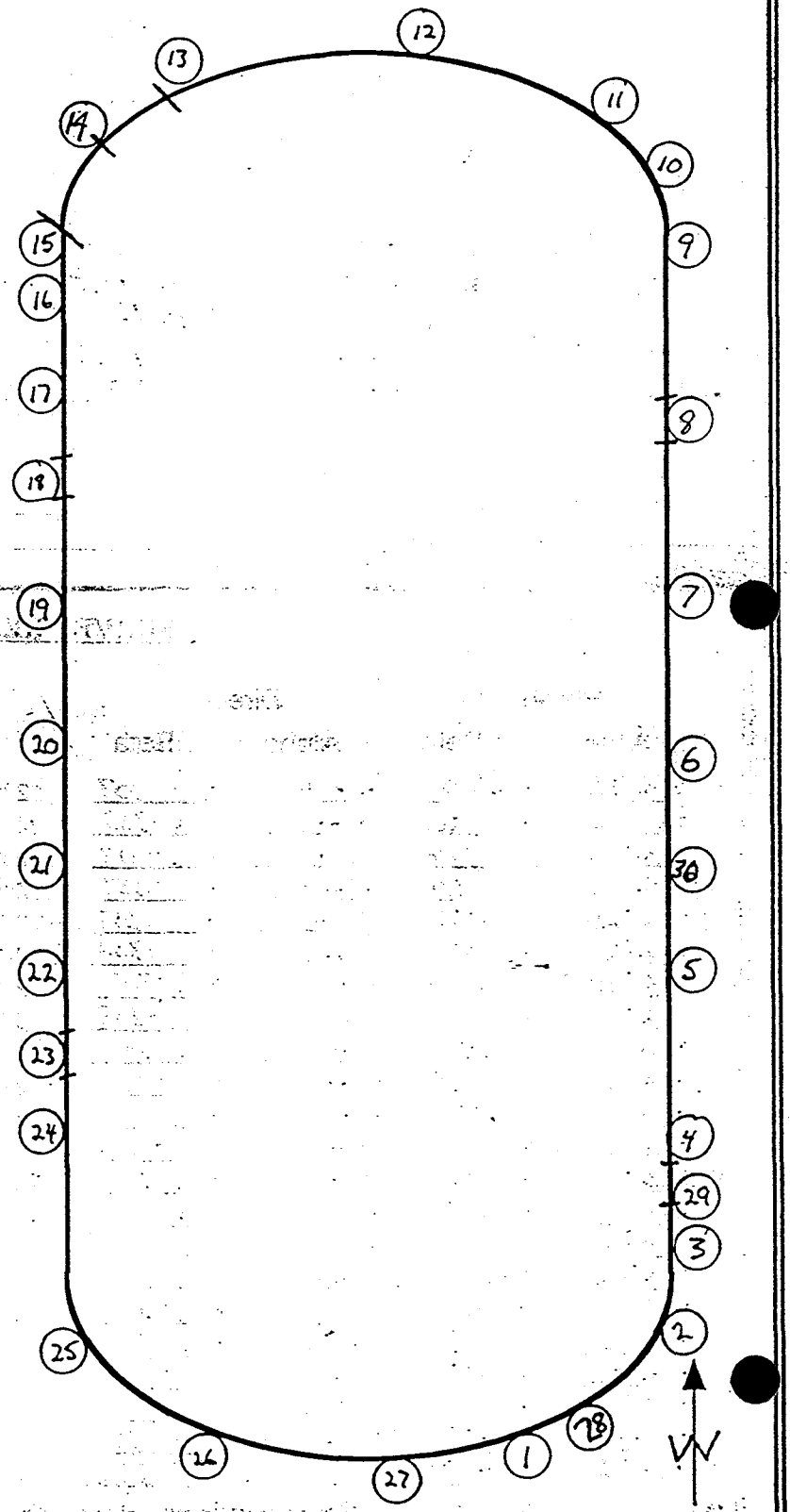
Drawing Showing Survey Points

	Location
1.	# 10 - C - 3'
2.	# 9 - C - 6'
3.	# N8 - C - 8'
4.	# N6 DOOR - C - 1'
5.	# N5 - C - 1'
6.	N6/N5 - C - 8' # N4 - 4'
7.	# N-3 - C - 1'
8.	# N3N2 - C - 8' (over Door)
9.	# N2 - C - 4'
10.	# N1 - 2'
11.	# 16 - 8'
12.	# 15 - C - 3'
13.	# 14 - 6'
14.	Door - C - 5'
15.	# 13 - C - 1'
16.	# S1 - 4'
17.	# S2 - C - 4'
18.	# S2/S3 - DOOR - 3'
19.	# S3 - C - 1'
20.	# S4 - C - 8'
21.	# S5 - C - 4'
22.	# S6 - 2'
23.	# S6/S7 - C - 8' (above door)
24.	# S7 - C - 1'
25.	# S8 - C - 8'
26.	# 12 - C - 1'
27.	# 13 - 6'
28.	# 10 - C - 4'
29.	DOOR
30.	N6/N5 - C - 8'
31.	
32.	
33.	
34.	
35.	
36.	
37.	N A
38.	
39.	
40.	
41.	
42.	
43.	
44.	

C = Canvas

= Support ID

#(ft) = Height from Ground



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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 41	Bkg. 38	Bkg. 0.1
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 2343	Serial # 2343
Cal Due 6/16/99	Cal Due 8-12-99	Cal Due 8-12-99
Bkg. 0.1	Bkg. 9 2	Bkg. 3 392
Efficiency 33%	Efficiency 22.0%	Efficiency 32.0%
MDA <20	MDA 43	MDA 284

Survey Type: Contamination Survey

Building: #7 Tent

Location: 904 Pad

Purpose: CHARACTERIZATION SURVEYS

RWP #: - NA -

Date: 04-05-99 Time: 1600

RCT: Rex Snyder / Rex Snyder [redacted]
Print name Signature

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

PRL #:

Comments: Internal Tent Survey Posted: Rad Material - Personnel Dosimetry Req
Plus DIRECT Scan at all points < 2mrad/hr at 1cm²

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct			Removable		Direct	
	Alpha	Beta	Alpha	Beta		Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 43	1932	23.	< 20	< 200	< 43	< 284
2.	< 20	< 200	66	1740	24.	< 20	< 200	< 43	< 284
3.	< 20	< 200	< 43	1479	25.	< 20	< 200	< 43	< 284
4.	< 20	< 200	< 43	1578	26.	< 20	< 200	< 43	< 284
5.	< 20	< 200	< 43	1475	27.	< 20	< 200	< 43	< 284
6.	< 20	< 200	< 43	1641	28.	< 20	< 200	< 43	< 284
7.	< 20	< 200	< 43	1497	29.	< 20	< 200	< 43	< 284
8.	< 20	< 200	< 43	1647	30.	< 20	< 200	< 43	< 284
9.	< 20	< 200	< 43	1665	31.	< 20	< 200	< 43	< 284
10.	< 20	< 200	< 43	1314	32.	< 20	< 200	< 43	< 284
11.	< 20	< 200	48	1638	33.	< 20	< 200	< 43	1866
12.	< 20	< 200	< 43	1500	34.	< 20	< 200	< 43	< 284
13.	< 20	< 200	< 43	1623	35.	< 20	< 200	< 43	< 284
14.	< 20	< 200	< 43	1611	36.	< 20	< 200	< 43	< 284
15.	< 20	< 200	< 43	1680	37.	< 20	< 200	< 43	< 284
16.	< 20	< 200	48	1470	38.	< 20	< 200	< 43	< 284
17.	< 20	< 200	54	1860	39.	< 20	< 200	< 43	< 284
18.	< 20	< 200	48	1806	40.	< 20	< 200	< 43	< 284
19.	< 20	< 200	< 43	1476	41.				
20.	< 20	< 200	< 43	1635	42.				
21.	< 20	< 200	< 43	< 284	43.		N	A	
22.	< 20	< 200	< 43	< 284	44.				

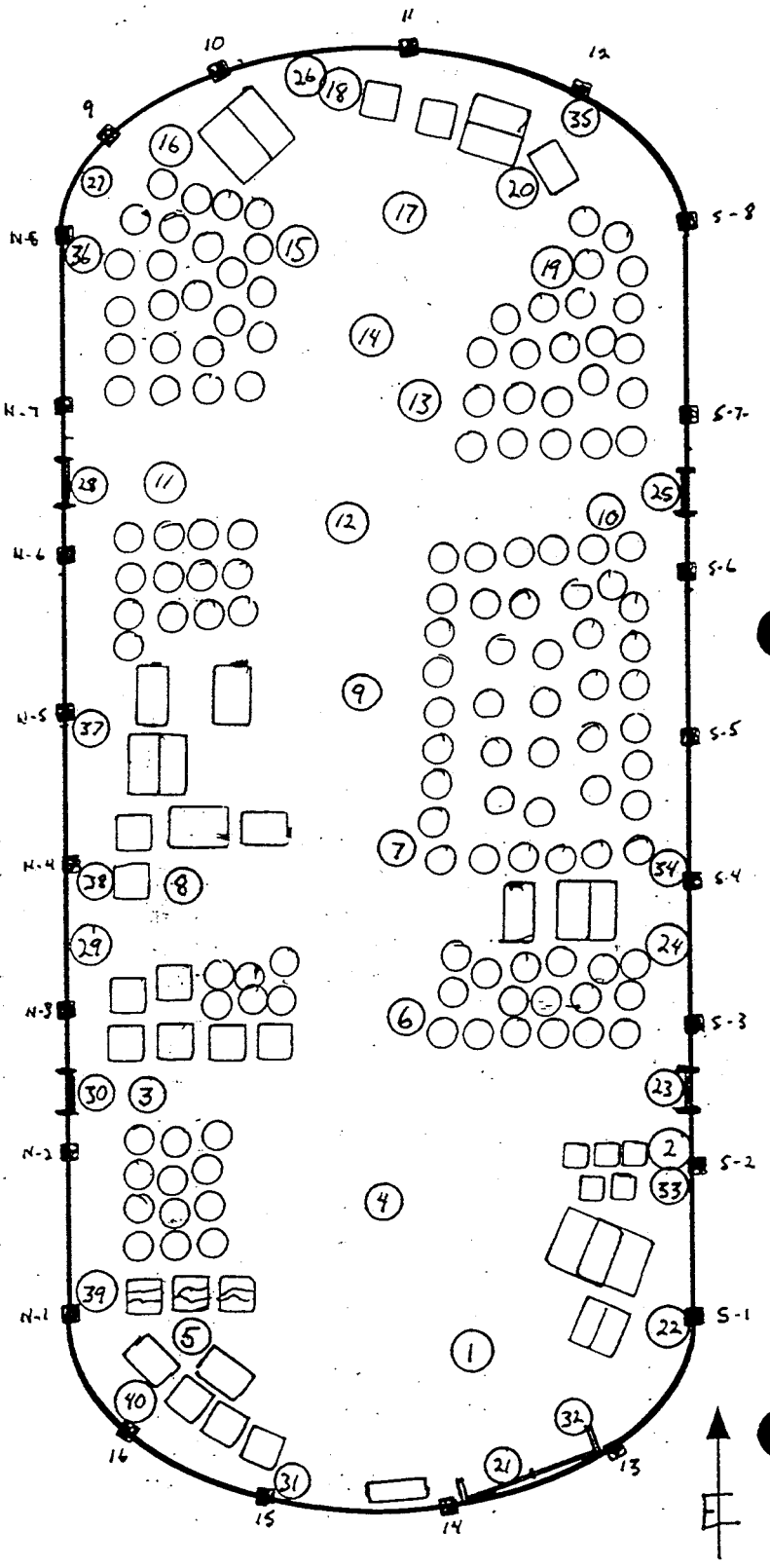
Date 4-6-99 RS Supervision: G. F. OSBURN / [redacted]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

	Location
1.	Doorway - F - 20'
2.	#S-2 - F - 5'
3.	#N-3/N-4 - F 10'
4.	#Center - F-
5.	#N1 - F - 10'
6.	#S-3 - F - 25'
7.	#S4 - F 30'
8.	#N4 - F - 6'
9.	#Center - F - 30'
10.	#S-6 - F - 5'
11.	#N-6 - F 10'
12.	#N-6 - F 25'
13.	#S-7 - F 25'
14.	#Center - F - 30'
15.	#N8 - F - 25'
16.	#9 - F - 6'
17.	#10 - F - 15'
18.	#10-11 F - 4'
19.	#S8 - F - 15'
20.	#11 - F - 10'
21.	Door - C - 4'
22.	#S1 - 4'
23.	Door - 3'
24.	#S4/S3 - C - 4'
25.	Door 3'
26.	#10/11 - C - 4'
27.	#9/N-8 - C - 4'
28.	Door - 4'
29.	#N4/N3 - C - 4'
30.	Door - 3'
31.	#15 - 8'
32.	#13 - White Support - 8'
33.	#S2 - 8'
34.	#S4 - 8'
35.	#12 - 8'
36.	#N8 - 8'
37.	#N5 - 8'
38.	#N4 - 8'
39.	#N1 - 8'
40.	#16 - 8'
41.	
42.	
43.	N
44.	



A.3 SITE HAZARD ASSESSMENT RADIOLOGICAL DATA

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 44	Bkg. 41	Bkg. 0.1
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 1680	Serial # 1680
Cal Due 6/16/99	Cal Due 8-10-99	Cal Due 8-10-99
Bkg. 0.1	Bkg. 5	Bkg. 490
Efficiency 33%	Efficiency 22.9%	Efficiency 34.7%
MDA <20	MDA 59	MDA 316

Survey Type: Contamination Survey

Building: TENT # 7

Location: 904 PAD

Purpose: CHARACTERIZATION SURVEYS

RWP #: NA

Date: 05-05-99 Time: 1600

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

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

PRL #:

Comments: Canvas Panels + 10% Scan & Every 5th Support Survey Points

* Reading at 7' ** Reading at Ground Level *** Panel was marked & posted as "Fixed Contam." per L. Cooper

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct			Removable		Direct	
	Alpha	Beta	Alpha	Beta		Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 59	< 316	23.	< 20	< 200	< 59	< 316
2.	< 20	< 200	< 59	369	24.	< 20	< 200	< 59	< 316
3.	< 20	< 200	< 59	< 316	25.	< 20	< 200	< 59	< 316
4.	< 20	< 200	< 59	< 316	*26.	< 20	< 200	< 59	< 316
5.	< 20	< 200	< 59	< 316	27.	< 20	< 200	< 59	< 316
6.	< 20	< 200	< 59	< 316	28.	< 20	< 200	< 59	< 316
7.	< 20	< 200	< 59	< 316	29.	< 20	< 200	< 59	< 316
8.	< 20	< 200	< 59	< 316	30.	< 20	< 200	< 59	< 316
9.	< 20	< 200	< 59	< 316	31.	< 20	< 200	< 59	< 316
10.	< 20	< 200	< 59	< 316	**32.	< 20	< 200	174	< 316
11.	< 20	< 200	< 59	< 316	33.				
12.	< 20	< 200	< 59	< 316	34.				
13.	< 20	< 200	< 59	< 316	35.				
14.	< 20	< 200	< 59	< 316	36.				
15.	< 20	< 200	< 59	< 316	37.				
16.	< 20	< 200	< 59	< 316	38.				
17.	< 20	< 200	< 59	< 316	39.				
18.	< 20	< 200	< 59	< 316	40.				
19.	< 20	< 200	< 59	< 316	41.				
20.	< 20	< 200	< 59	< 316	42.				
21.	< 20	< 200	< 59	< 316	43.				
22.	< 20	< 200	< 59	< 316	44.				

Date 5/10/99 RS Supervision: LN Cooper / [redacted]
Print Name Signature

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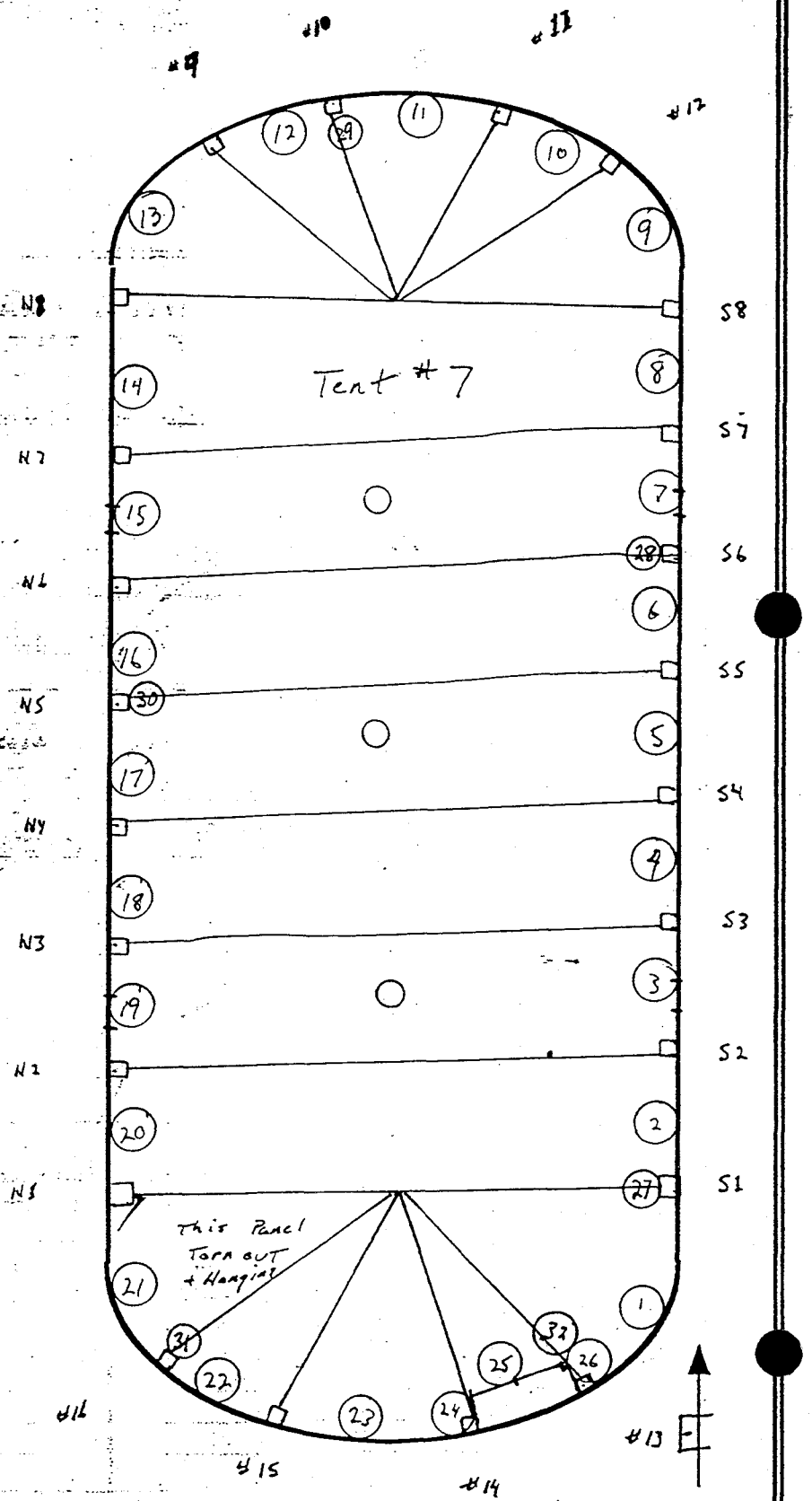
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SIT

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

	Location
1.	Canvas Panel
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	
25.	
26.	Canvas Panel
27.	Support S1
28.	Support S6
29.	Support #10
30.	Support N5
31.	Support #16
32.	Canvas Panel
33.	
34.	
35.	
36.	
37.	
38.	
39.	
40.	
41.	
42.	
43.	
44.	



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model SAC-4
Serial # 959	Serial # 1188	Serial #
Cal Due 7-5-99	Cal Due 6-16-99	Cal Due
Bkg. 0.1	Bkg. 0.1	Bkg.
Efficiency 33%	Efficiency 33%	Efficiency
MDA < 20	MDA < 20	MDA
Mfg. EBERLINE	Mfg. NE. TECH	Mfg. NE. TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial # 1680	Serial # 1680
Cal Due 7-13-99	Cal Due 8-10-99	Cal Due 8-10-99
Bkg. 44	Bkg. α 5	Bkg. 490
Efficiency 25%	Efficiency 22.9%	Efficiency 34.7%
MDA 200	MDA 59	MDA 316

Survey Type: CONTAMINATION

Building: TENT 7

Location:

Purpose: Characterization Survey

RWP #: -NA

Date: 05-05-99 Time: 1500

RCT: Rex SNYDER / [signature] [redacted]
Print name Signature Emp. #

RCT: N / [signature]
Print name Signature Emp #

PRL #:

Comments: Survey Points on Canvas Panel on South Side of Big Door.
This Area has been posted as "Fixed Contam" until further notice.
Plus 10% Scan on area

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	< 20	< 200	72	< 316
2.	< 20	< 200	78	546
3.	< 20	< 200	84	417
4.	< 20	< 200	114	< 316
5.	< 20	< 200	114	< 316
6.	< 20	< 200	174	< 316
7.	< 20	< 200	90	< 316
8.	< 20	< 200	< 59	< 316
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.			A	
17.				
18.				
19.		N		
20.				
21.				
22.				

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
23.				
24.				
25.				
26.				
27.				
28.				
29.			A	
30.				
31.				
32.				
33.		N		
34.				
35.				
36.				
37.				
38.				
39.				
40.				
41.				
42.				
43.				
44.				

Date Reviewed: 5/10/99 RS Supervision: N Cooper / Kelly Nooper [redacted]
Print Name Signature

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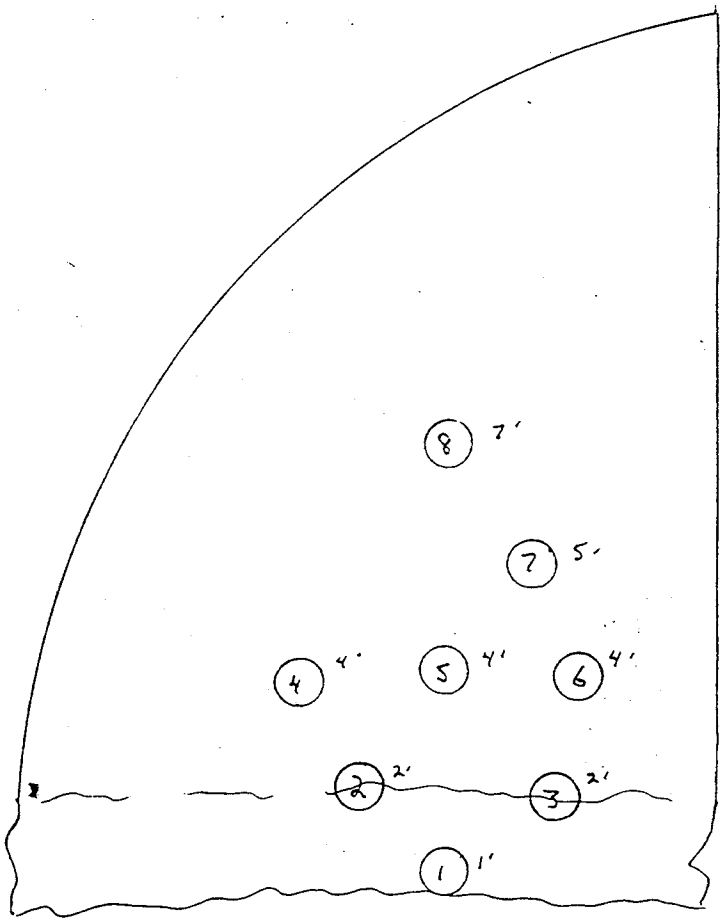
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Note...
- Measurements are approx. distance from bottom of canvas

Tent # 7

Panel on South Side of Big Door

COPY

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model SAC-4
Serial #	Serial #	Serial #
Cal Due	Cal Due	Cal Due
Bkg.	Bkg.	Bkg.
Efficiency	Efficiency	Efficiency
MDA	MDA	MDA
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial #	Serial #	Serial # 1354
Cal Due	Cal Due	Cal Due 8-99
Bkg.	Bkg.	Bkg. 1.0d 449b
Efficiency	Efficiency	Efficiency .248d .308
MDA	MDA	MDA ~~<29.6~~ <328

Km 5-20-99

Survey Type: CONTAMINATION

Building: 664

Location: 904 PAd

Purpose: Tent panel

RWP #: 99-549-6095

Date: 5-20-99 Time: 1600

RCT: K Mote / K Mote [redacted]
Print name Signature

RCT: / /
Print name Signature Emp. #

PRL #:

Comments: Tent #7 panel Resurveyed, 1g Area wipe + direct Reading Per conversation with Bill Bair, RAD. Eng., this isn't considered DOE enhanced material. L Cooper

*Large Area Wipe

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<29.6	<328	<29.6	<328	23.				
2.	<29.6	<328	66.0	<328	24.				
3.	<29.6	<328	Km ~~<29.6~~ <29.6	<328	25.				
4.	<29.6	<328	30	<328	26.				
5.	<29.6	<328	30	<328	27.				
6.	<29.6	<328	<29.6	<328	28.				
7.	<29.6	<328	<29.6	<328	29.				
8.	<29.6	<328	<29.6	<328	30.				
9.					31.				
10.					32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

Km 5-20-99

Km 5-20-99

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Date Reviewed: 5/21/99 RS Supervision: LN Cooper / Letty N Cooper / [redacted]

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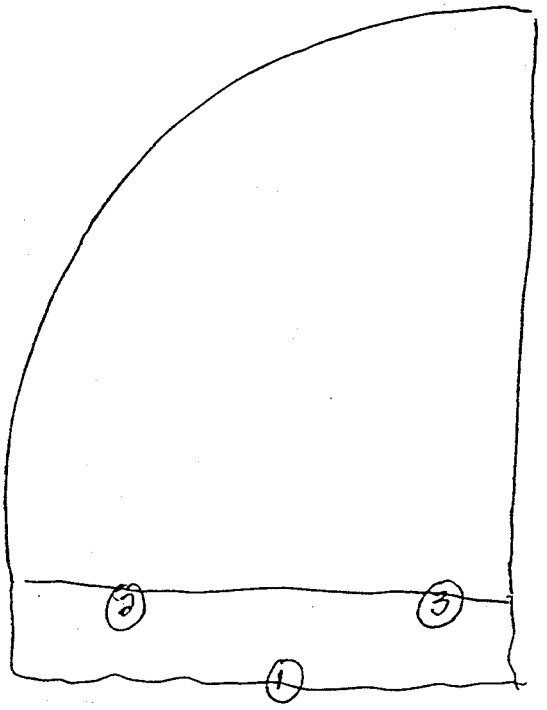
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

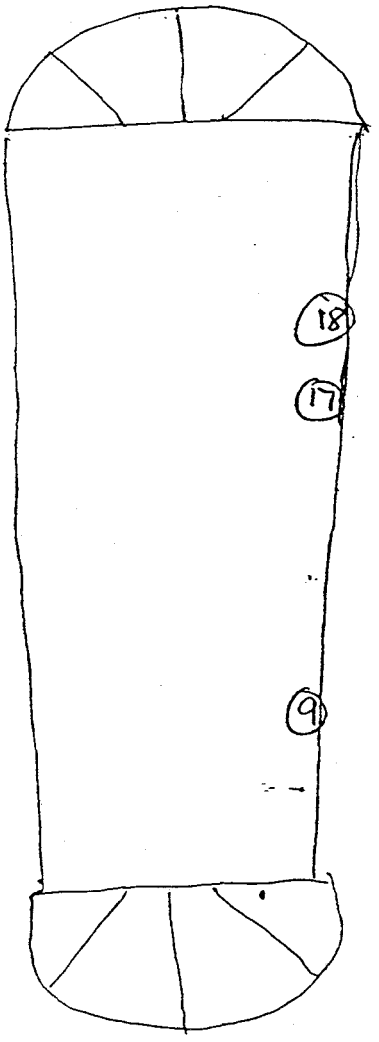
RADIOLOGICAL SAFETY

Drawing Showing Survey Points

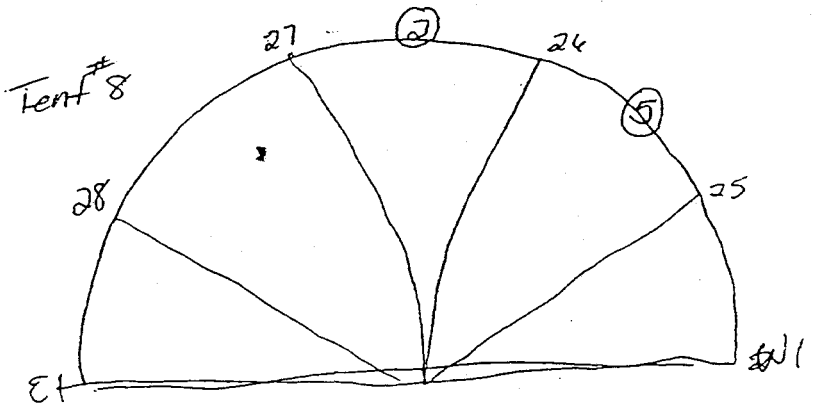
Tent #7



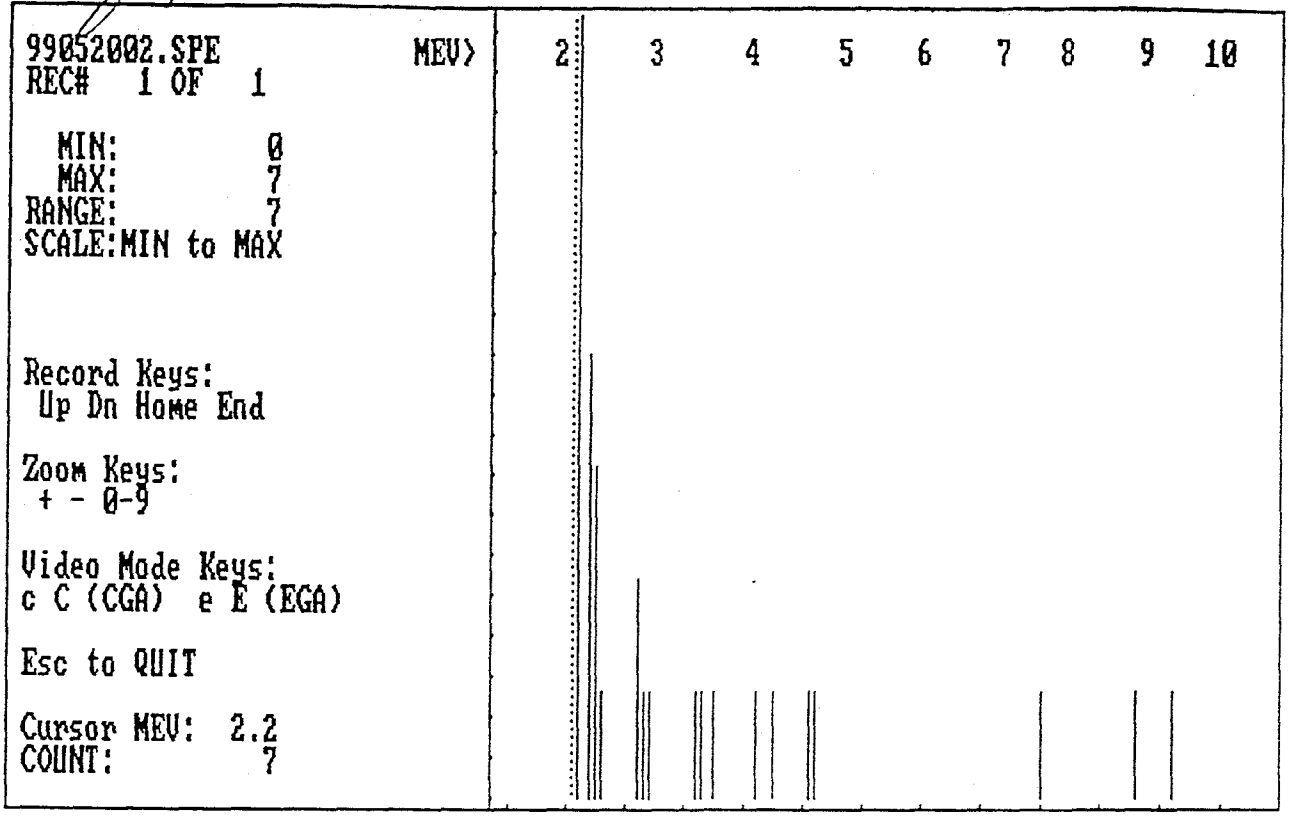
Tent #9



Tent #8



3 of 4


99052002.SPE
MEV>
REC# 1 OF 1
MIN: 0
MAX: 7
RANGE: 7
SCALE:MIN to MAX
Record Keys:
Up Dn Home End
Zoom Keys:
+ - 0-9
Video Mode Keys:
c C (CGA) e E (EGA)
Esc to QUIT
Cursor MEV: 2.2
COUNT: 7
2
3
4
5
6
7
8
9
10

RSFORMS-03.02-03

SAIC AP-2 SURVEY RESULTS LOG

Serial No.: A119 Calibration Due Date: 6-99

Date	Spectrum File Name	Description	Pu-239 ROI Counts	Radon ROI Counts	Gross ROI Counts	Instrument User (print/signature)
5/20/99	99052002.	Tent #7 PANEL	2.0	1.0	36.0	Remote/Remote

Comments:

Approved by:
RS Supervision:
LA Cooper / [redacted] 5/21/99
Name (print) Signature Date

INFORMATIONAL

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL _____ RWP ✓ OTHER Routine

BUILDING/LOCATION: 904 Pad

ROOM: TENT #5

DATE: 5-13-98

TIME: 0800

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): M. E. VAUGHN

M. E. V. [redacted] 10-13-98

RCT SIGNATURE DATE

REVIEWED BY: J. Stewart-Bell

RO SUPERVISION PRINT NAME

J. Stewart-Bell 10-10-98

RO SUPERVISION SIGNATURE DATE

1477

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	799	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	720	838		
CAL DATE:	1-2-98	1-4-98		
CAL DUE DATE:	7-2-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$

Printed with soy ink on recycled paper

LOG NUMBER: _____

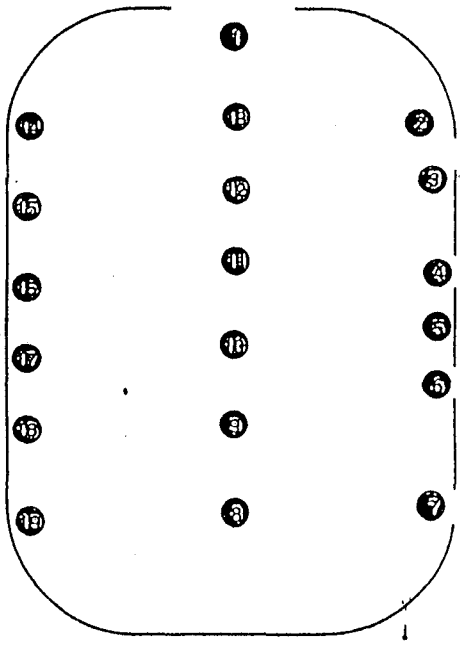
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FIXED/SU FACE COUNT)	TOTAL BETA/ GAMMA
		ALPHA	BETA/ GAMMA		
1	refer to Map	<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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

Roberts, Rick

From: Neveau, Rock
Sent: Thursday, May 27, 1999 8:03 AM
To: Roberts, Rick
Subject: RE: Tent 7-9 Hazard Assessment

TO: Rick Roberts, Radiological Engineering, T130B

FROM: Rock Neveau, Bldg. 886 / 904 Pad Radiological Engineer, T886A

SUBJECT: Alpha Spectroscopy (AP-2) results for 904 Pad Tent Panel Survey

As I instructed the RCTs on the 904 Pad project to do, an alpha spectroscopy measurement was performed on a single panel of Tent #7. The attached spectrum (titled: 99052002.SPE) shows a main peak in the 2.2 MeV range of the spectrum.

The purpose of using the AP-2 was to determine the presence of naturally occurring radioactive material (NORM), with the most obvious being the radon progeny polonium-218. However, the spectrum obtained on this tent panel is inconclusive. The energy peak of 2.2 MeV is not from any known isotope of concern. Additionally, the AP-2 survey instrument can only confirm the presence of an isotope, not the absence of an isotope.

Therefore, although the spectrum does not have any energy peaks in the ranges of NORM or DOE enhanced material, the spectrum cannot be interpreted to show an absence of radiological contamination of any kind. The spectrum obtained on the Tent #7 panel is inconclusive.

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 38	Bkg. 39	Bkg. 0.2
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 1685	Serial # 1685
Cal Due 6/16/99	Cal Due 6-18-99	Cal Due 6-18-99
Bkg. 0.2	Bkg. 6	Bkg. 448
Efficiency 33%	Efficiency 21.9%	Efficiency 31.3%
MDA <20	MDA 66	MDA 303

Survey Type: Contamination Survey
Building: TENT # 7
Location: 904 PAD
Purpose: CHARACTERIZATION SURVEYS

RWP #: — NA —

Date: 03-30-99 Time: 1500

RCT: Rex Snyder / Rex Snyder [redacted]
Print name Signature

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

PRL # :

Comments Exterior Survey

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct			Removable		Direct	
	Alpha	Beta	Alpha	Beta		Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 66	< 303	23.	< 20	< 200	< 66	< 303
2.	< 20	< 200	< 66	< 303	24.	< 20	< 200	< 66	< 303
3.	< 20	< 200	< 66	< 303	25.	< 20	< 200	< 66	< 303
4.	< 20	< 200	< 66	< 303	26.	< 20	< 200	< 66	< 303
5.	< 20	< 200	< 66	< 303	27.	< 20	< 200	< 66	< 303
6.	< 20	< 200	< 66	< 303	28.	< 20	< 200	< 66	< 303
7.	< 20	< 200	< 66	< 303	29.	< 20	< 200	< 66	< 303
8.	< 20	< 200	< 66	< 303	30.	< 20	< 200	< 66	< 303
9.	< 20	< 200	< 66	< 303	31.				
10.	< 20	< 200	< 66	< 303	32.				
11.	< 20	< 200	< 66	< 303	33.				
12.	< 20	< 200	< 66	< 303	34.				
13.	< 20	< 200	< 66	< 303	35.				
14.	< 20	< 200	< 66	< 303	36.				
15.	< 20	< 200	< 66	< 303	37.		N	A	
16.	< 20	< 200	< 66	< 303	38.				
17.	< 20	< 200	< 66	< 303	39.				
18.	< 20	< 200	< 66	< 303	40.				
19.	< 20	< 200	< 66	< 303	41.				
20.	< 20	< 200	< 66	< 303	42.				
21.	< 20	< 200	< 66	< 303	43.				
22.	< 20	< 200	< 66	< 303	44.				

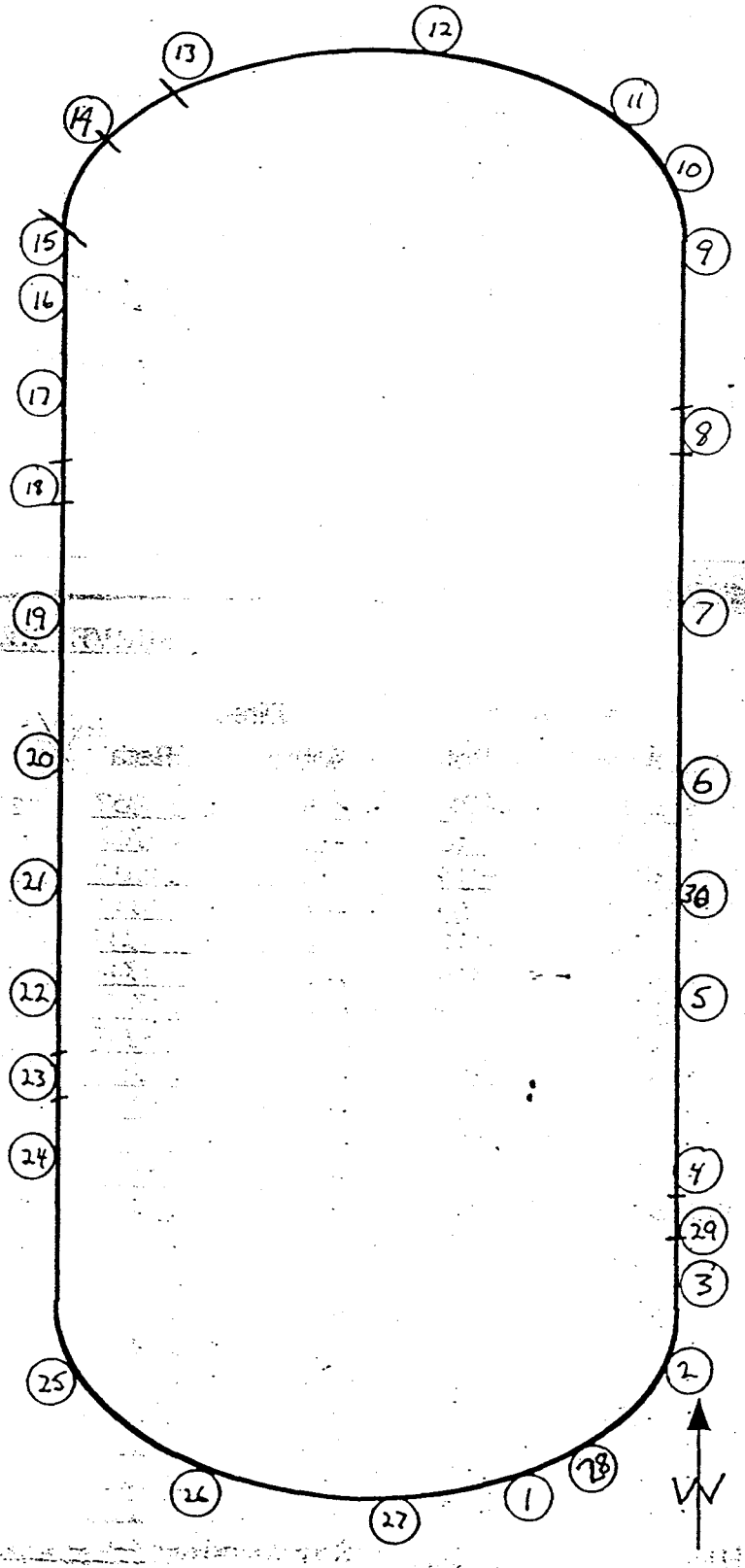
te 1500 4-1-99 RS Supervision: Greg Osborn [redacted]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SIT

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

	Location
1.	#10 - C - 3'
2.	#9 - C - 6'
3.	#N8 - C - 8'
4.	#N6 DOOR - C - 1'
5.	#N5 - C - 1'
6.	N6/N5 - C - 8' #N4 - 4'
7.	#N-3 - C - 1'
8.	#N3N2 - C - 8' (over Door)
9.	#N2 - C - 4'
10.	#N1 - 2'
11.	#16 - 8'
12.	#15 - C - 3'
13.	#14 - 6'
14.	Door - C - 5'
15.	#13 - C - 1'
16.	#S1 - 4'
17.	#S2 - C - 4'
18.	#S2/S3 - DOOR - 3'
19.	#S3 - C - 1'
20.	#S4 - C - 8'
21.	#S5 - C - 4'
22.	#S6 - 2'
23.	#S6/S7 - C - 8' (above door)
24.	#S7 - C - 1'
25.	#S8 - C - 8'
26.	#12 - C - 1'
27.	#13 - 6'
28.	#10 - C - 4'
29.	DOOR
30.	N6/N5 - C - 8'
31.	
32.	
33.	
34.	
35.	
36.	
37.	N A
38.	
39.	
40.	
41.	
42.	
43.	
44.	



C = Canvas
# = support ID
'(FT) = Height from Ground

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 44	Bkg. 37	Bkg. 0.1
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 1425	Serial # 1475
Cal Due 6/16/99	Cal Due 8-25-99	Cal Due 8-25-99
Bkg. 0.1	Bkg. 7	Bkg. 480
Efficiency 33%	Efficiency 21.0%	Efficiency 31.6%
MDA <20	MDA 72	MDA 313

Survey Type: Contamination Survey

Building: TENT # 7

Location: 904 PAD

Purpose: CHARACTERIZATION SURVEYS

RWP #: NA

Date: 05-12-99 Time: 1600

RCT: Rex Snyder / [signature] [redacted]
Print name Signature

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

L #:

Comments: Tent #7 Over Head Survey Points + Vents

Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct	
	Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 72	< 313
2.	< 20	< 200	< 72	< 313
3.	< 20	< 200	< 72	< 313
4.	< 20	< 200	< 72	< 313
5.	< 20	< 200	< 72	< 313
6.	< 20	< 200	< 72	< 313
7.	< 20	< 200	< 72	< 313
8.	< 20	< 200	< 72	< 313
9.	< 20	< 200	< 72	< 313
10.	< 20	< 200	< 72	< 313
11.	< 20	< 200	< 72	< 313
12.	< 20	< 200	< 72	< 313
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				

	Removable		Direct	
	Alpha	Beta	Alpha	Beta
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				
31.				
32.			N/A	
33.				
34.	N/A			
35.				
36.				
37.				
38.				
39.				
40.				
41.				
42.				
43.				
44.				

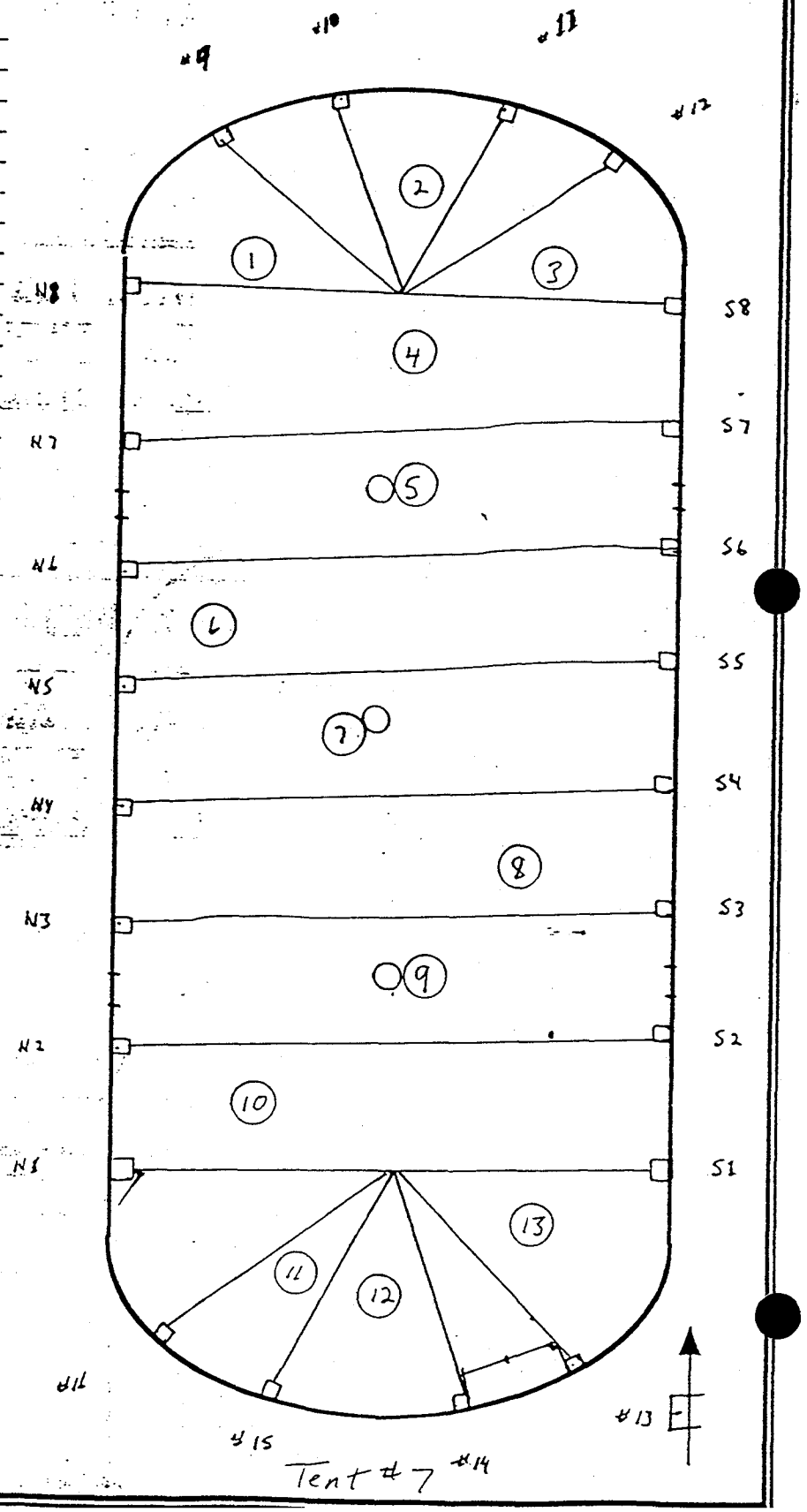
1592 5-13-99 RS Supervision: L. Sorrels / [signature] [redacted]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SIT

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

	Location
1.	Canvas
2.	↓
3.	↓
4.	Canvas
5.	Vent
6.	Canvas
7.	Vent
8.	Canvas
9.	Vent
10.	Canvas
11.	#16 Support
12.	Canvas
13.	51 Support
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	
25.	
26.	
27.	
28.	
29.	
30.	
31.	
32.	
33.	
34.	
35.	
36.	
37.	
38.	
39.	
40.	
41.	
42.	
43.	
44.	



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APPENDIX B

TENT 8 RADIOLOGICAL DATA

B.1 HISTORICAL RADIOLOGICAL DATA

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION: 904 PAd

ROOM: tent 8

DATE: 01-07-98

TIME: 0910

ITEM DESCRIPTION: Weekly Survey 7/2/99 J Hankins I Forgot to Enter the Electra Data See Performance Log, this statement is true to the best of my knowage JH 7-2-99

COMMENTS:

PERFORMED BY (PRINT NAME): L Hankins

J Hankins [redacted] 01-07-98

RCT SIGNATURE DATE

REVIEWED BY: T Hipsher

RO SUPERVISION PRINT NAME

[signature] 1/14/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	959	1050		
CAL DATE:	9-12-97	9-16-97		
CAL DUE DATE:	3-12-98	3-16-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 838			
CAL DATE:	1-6-98			
CAL DUE DATE:	7-6-98			

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH	NE tech		
MODEL:	ELECTRA	Electra		
SERIAL #:	~~[illegible]~~ 1-7-98	1427		
CAL DATE:	7-7-98 1-7-98	1-7-98		
CAL DUE DATE:	5-12-98	5-12-98		
BACKGROUND:	JH			
SFFICIENCY:	α 22.73 β 35.49	α 22.73 β 35.49 %		
MDA:	α < 60 β < 455	α < 60 β < 455		

MDA = CF X (2.7 [illegible] BACKGROUND (CPM)

INFORMATION ONLY

156

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INFORMATION ONLY

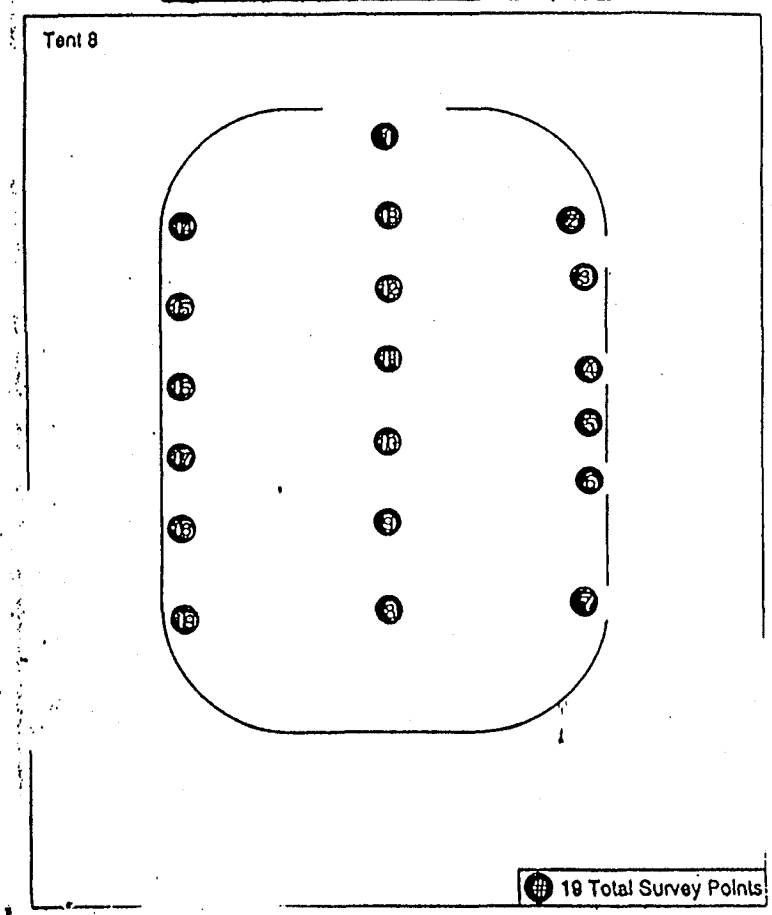
LOG NUMBER:

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No.

Radiological Operations
Area or Equipment Drawing Showing Survey Points



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FIXED/SUBSEC COUNT)	TOTAL BETA/GAMMA
1		<18	<205	<60	<455
2		<18	<205	<60	<455
3		<18	<205	<60	<455
4		<18	<205	<60	<455
5		<18	<205	<60	<455
6		<18	<205	<60	<455
7		<18	<205	<60	<455
8		<18	<205	<60	<455
9		<18	<205	<60	<455
10		<18	<205	<60	<455
11		<18	<205	<60	<455
12		<18	<205	<60	<455
13		<18	<205	<60	<455
14		<18	<205	<60	<455
15		<18	<205	<60	<455
16		<18	<205	<60	<455
17		<18	<205	<60	<455
18		<18	<205	<60	<455
19		<18	<205	<60	<455

JH 1-7-98

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP X OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	tent 8
DATE:	TIME:
01-07-98	0910

ITEM DESCRIPTION: Weekly Survey

COMMENTS:

PERFORMED BY (PRINT NAME): L Hankins

L Hankins [redacted] 1-01-07-98

RCT SIGNATURE DATE

REVIEWED BY: TH Lipsher

RO SUPERVISION PRINT NAME

[signature] 1/14/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	959	1050		
CAL DATE:	9-12-97	9-16-97		
CAL DUE DATE:	3-12-98	3-16-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC838			
CAL DATE:	1-6-98			
CAL DUE DATE:	7-6-98			

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:	184 1-7-98			
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X (2.71 + 3.29 √BACKGROUND)

INFORMATION ONLY

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LOG NUMBER: _____

PAGE 2 OF 2

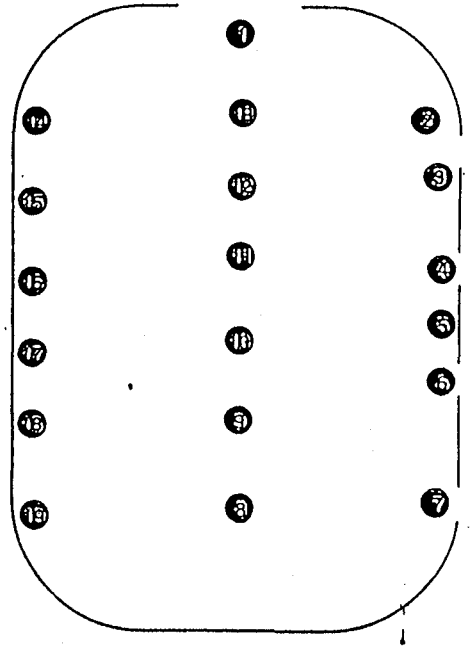
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FIXED/SU FACE COUNT)	TOTAL BETA/ GAMMA
		ALPHA	BETA/ GAMMA		
1		<18	<205	<60	<455
2		<18	<205	<60	<455
3		<18	<205	<60	<455
4		<18	<205	<60	<455
5		<18	<205	<60	<455
6		<18	<205	<60	<455
7		<18	<205	<60	<455
8		<18	<205	<60	<455
9		<18	<205	<60	<455
10		<18	<205	<60	<455
11		<18	<205	<60	<455
12		<18	<205	<60	<455
13		<18	<205	<60	<455
14		<18	<205	<60	<455
15		<18	<205	<60	<455
16		<18	<205	<60	<455
17		<18	<205	<60	<455
18		<18	<205	<60	<455
19		<18	<205	<60	<455
	24-12-98				

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COPY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 PHd	tent 8
DATE: 1-16-98	TIME: 1345

ITEM DESCRIPTION: Weekly Survey

COMMENTS: 2-2-99 I Hanks I Forgot to Enter the Electra Data. I Feel the Information is Correct on this Date 1-16-98 See PeR Formance test Log Copy

PERFORMED BY (PRINT NAME): Hankins L

I Hanks — [redacted] — 1-16-98

RCT SIGNATURE / EMP# / DATE

REVIEWED BY: THipsher

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE — 1/19/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	955		
CAL DATE:	3-16-97	3-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	220	838		
CAL DATE:	1-7-98	1-06-98		
CAL DUE DATE:	7-7-98	9-06-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:	1290			
CAL DATE:	1-16-98			
CAL DUE DATE:	1-29-98			
BACKGROUND:				
SFFICIENCY:	α 23.4 % β 34.2 %			
MDA:	α < 60 β < 455			

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

INFORMATION ONLY

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LOG NUMBER: [illegible]

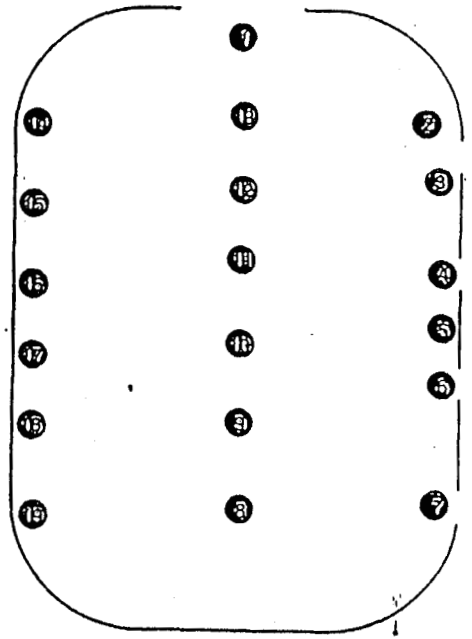
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 CM² PER COUNT)	TOTAL BETA/GAMMA
		ALPHA	BETA/GAMMA		
1		<18	<205	<60	<455
2		<18	<205	<60	<455
3		<18	<205	<60	<455
4		<18	<205	<60	<455
5		<18	<205	<60	<455
6		<18	<205	<60	<455
7		<18	<205	<60	<455
8		<18	<205	<60	<455
9		<18	<205	<60	<455
10		<18	<205	<60	<455
11		<18	<205	<60	<455
12		<18	<205	<60	<455
13		<18	<205	<60	<455
14		<18	<205	<60	<455
15		<18	<205	<60	<455
16		<18	<205	<60	<455
17		<18	<205	<60	<455
18		<18	<205	<60	<455
19		<18	<205	<60	<455

24 1-16-98

161

COPY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: —

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION: 904 Pad

ROOM: Tent 8

DATE: 1-21-98

TIME: 0930

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [signature] / [redacted] / 1-21-98

RCT SIGNATURE EMP# DATE

REVIEWED BY: T Hipsher

RO SUPERVISION PRINT NAME

[signature] / 1/27/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	959		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc 770	Bc 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

INFORMATION ONLY

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

162

LOG NUMBER: _____

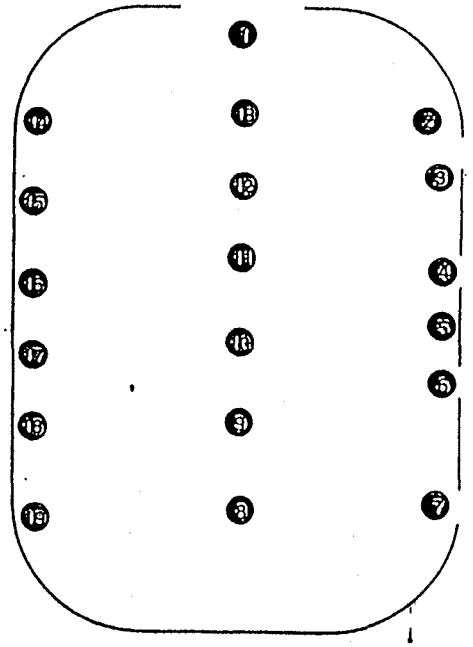
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (dpm/100 sq cm)	TOTAL BETA/ GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

1-21-98

COPY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: ____ P/WRE ____ PRL

____ RWP ✓ OTHER

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 8
DATE:	TIME:
1-29-98	1230

ITEM DESCRIPTION: Weekly Control Point Survey.

COMMENTS:

PERFORMED BY (PRINT NAME): Munoz

RCT SIGNATURE [redacted] EMP# 1-29-98 DATE

REVIEWED BY: T Hughes

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE 1/12/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	959		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X (2.71 + √BACKGROUND (CPM))

INFORMATION ONLY

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LOG NUMBER: _____

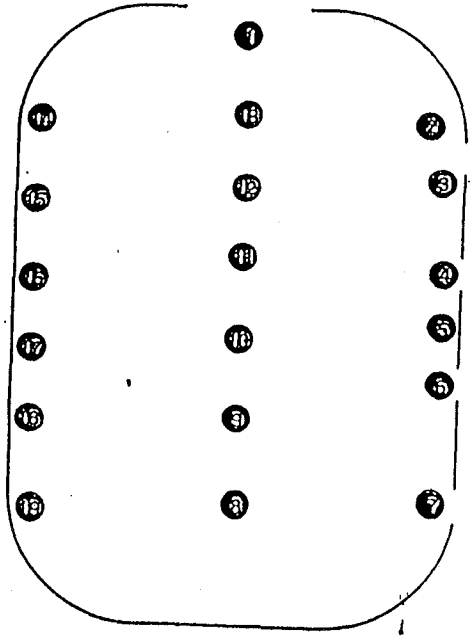
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 CM² OR COUNTS PER SWIPE)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

Cm 1-29-98

165

B.2 RECONNAISSANCE LEVEL CHARACTERIZATION RADIOLOGICAL DATA

1466

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 40	Bkg. 36	Bkg. 0.1
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 1386	Serial # 1386
Cal Due 6/16/99	Cal Due 8-15-99	Cal Due 8-15-99
Bkg. 0.0	Bkg. 9 4	Bkg. B 536
Efficiency 33%	Efficiency 21.8%	Efficiency 31.1%
MDA <20	MDA 56	MDA 331

Survey Type: Contamination Survey
Building: Test # 8
Location: 904 Pad
Purpose: CHARACTERIZATION SURVEYS

RWP #: — NA —

Date: 3-30-99 Time: 1100

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

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

PRL # :

Comments Exterior Survey

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct			Removable		Direct	
	Alpha	Beta	Alpha	Beta		Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 56	< 331	23.	< 20	< 200	< 56	< 331
2.	< 20	< 200	< 56	< 331	24.	< 20	< 200	< 56	< 331
3.	< 20	< 200	< 56	< 331	25.	< 20	< 200	< 56	< 331
4.	< 20	< 200	< 56	< 331	26.	< 20	< 200	< 56	< 331
5.	< 20	< 200	< 56	< 331	27.	< 20	< 200	< 56	< 331
6.	< 20	< 200	< 56	< 331	28.	< 20	< 200	< 56	< 331
7.	< 20	< 200	< 56	< 331	29.	< 20	< 200	< 56	< 331
8.	< 20	< 200	< 56	< 331	30.	< 20	< 200	< 56	< 331
9.	< 20	< 200	< 56	< 331	31.				
10.	< 20	< 200	< 56	< 331	32.				
11.	< 20	< 200	< 56	< 331	33.				
12.	< 20	< 200	< 56	< 331	34.				
13.	< 20	< 200	< 56	< 331	35.				
14.	< 20	< 200	< 56	< 331	36.				
15.	< 20	< 200	< 56	< 331	37.				
16.	< 20	< 200	< 56	< 331	38.				
17.	< 20	< 200	< 56	< 331	39.				
18.	< 20	< 200	< 56	< 331	40.				
19.	< 20	< 200	< 56	< 331	41.				
20.	< 20	< 200	< 56	< 331	42.				
21.	< 20	< 200	< 56	< 331	43.				
22.	< 20	< 200	< 56	< 331	44.				

N A

Date 4/5/99 RS Supervision: RSnyder [redacted]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

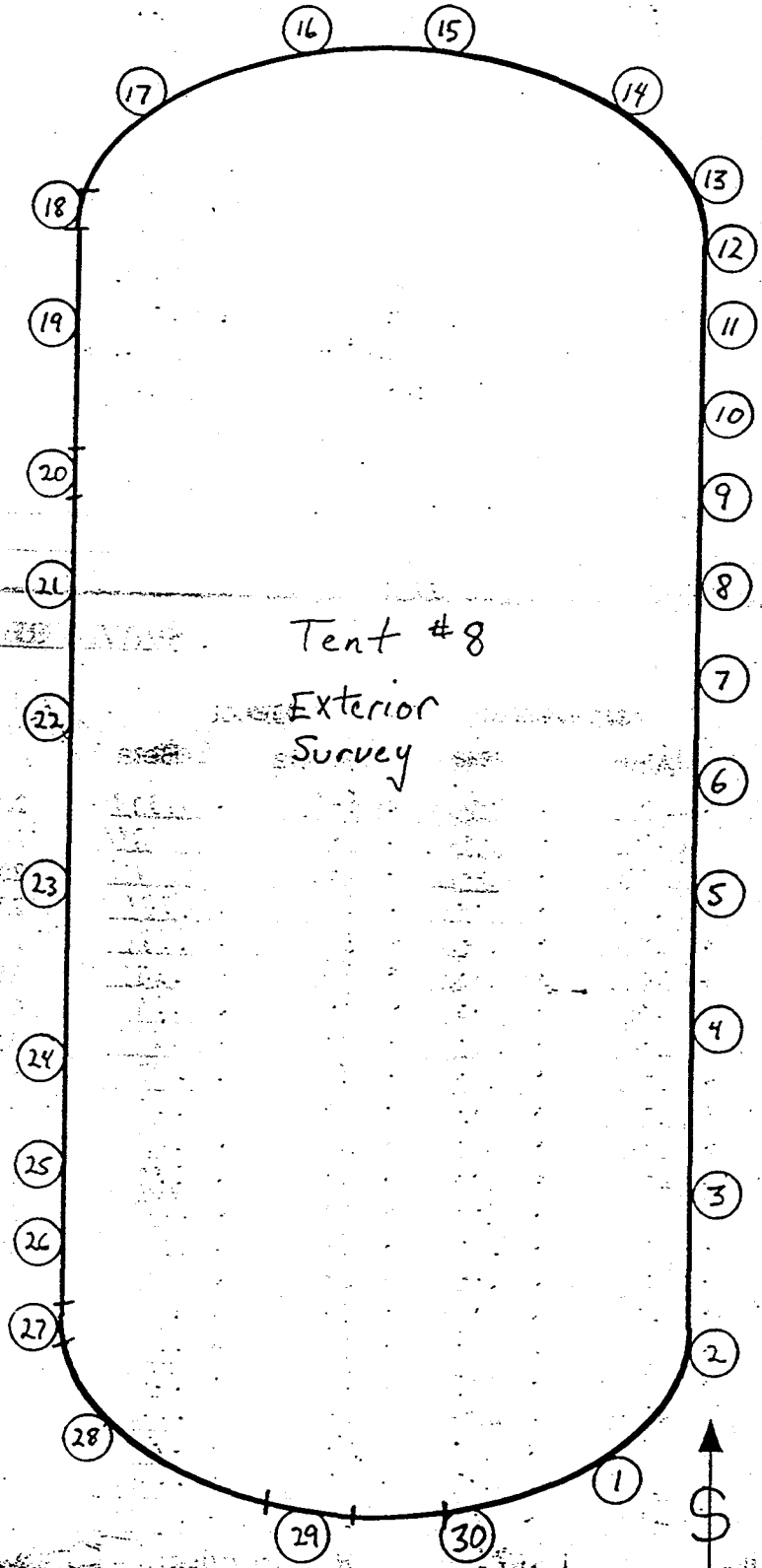
Drawing Showing Survey Points

	Location
1.	# 23/24 - C - 1'
2.	# W20 - C - 5'
3.	# W19/W18 - C - 8'
4.	# W16 - C - 1'
5.	# W15/W14 - C - 6'
6.	# W13 - 8'
7.	# W12/W11 - C - 3'
8.	# W9 - 1'
9.	# W8/W7 - C - 4'
10.	# W6/W5 - C - 8'
11.	# W4/W3 - C - 1'
12.	# W3/W2 - C - 5'
13.	# W1 - 2'
14.	# 25/26 - C - 4'
15.	# 27 - 3'
16.	# 28 - 6'
17.	# E1 - C - 4'
18.	# E2/E3 - C - 8' (above door)
19.	# E4/E5 - C - 1'
20.	# E5/E6 - Door - 3'
21.	# E7/E8 - C - 8'
22.	# E9/E10 - C - 4'
23.	# E11 - [illegible]
24.	# E14/E13 - C - 6'
25.	# E16 - 7'
26.	# E17/E18 - C - 1'
27.	# E18/19 - C - 8' (above door)
28.	# E21 - C - 4'
29.	Canvas Door 1'
30.	Canvas Door 4'
31.	
32.	
33.	
34.	
35.	
36.	
37.	N A
38.	
39.	
40.	
41.	
42.	
43.	
44.	

= Support ID

C = Canvas

#(ft) = height from ground



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 38	Bkg. 39	Bkg. 0.2
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 1685	Serial # 1685
Cal Due 6/16/99	Cal Due 6-18-99	Cal Due 6-18-99
Bkg. 0.2	Bkg. 9 6	Bkg. 8 448
Efficiency 33%	Efficiency 21.9%	Efficiency 31.3%
MDA <20	MDA 66	MDA 303

Survey Type: Contamination Survey
Building: Tent # 8
Location: 904 PAD
Purpose: CHARACTERIZATION SURVEYS
RWP #: — NA —
Date: 03-31-99 Time: 1600
RCT: Rex Snyder / [redacted]
Print name Signature
RCT: N / [redacted] / [redacted]
Print name Signature Emp. #

PRL # :
Comments Interior Survey Plus Direct Scan 1m² at all locations < 2 meter

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct			Removable		Direct	
	Alpha	Beta	Alpha	Beta		Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 66	753	23.	< 20	< 200	< 66	< 303
2.	< 20	< 200	< 66	879	24.	< 20	< 200	< 66	< 303
3.	< 20	< 200	< 66	792	25.	< 20	< 200	< 66	< 303
4.	< 20	< 200	< 66	846	26.	< 20	< 200	< 66	< 303
5.	< 20	< 200	< 66	732	27.	< 20	< 200	< 66	< 303
6.	< 20	< 200	< 66	615	28.	< 20	< 200	< 66	< 303
7.	< 20	< 200	< 66	678	29.	< 20	< 200	< 66	< 303
8.	< 20	< 200	< 66	730	30.	< 20	< 200	< 66	< 303
9.	< 20	< 200	< 66	684	31.	< 20	< 200	< 66	< 303
10.	< 20	< 200	< 66	777	32.	< 20	< 200	< 66	< 303
11.	< 20	< 200	< 66	849	33.	< 20	< 200	< 66	< 303
12.	< 20	< 200	< 66	804	34.	< 20	< 200	< 66	< 303
13.	< 20	< 200	< 66	918	35.	< 20	< 200	< 66	< 303
14.	< 20	< 200	< 66	747	36.	< 20	< 200	< 66	< 303
15.	< 20	< 200	< 66	762	37.	< 20	< 200	< 66	< 303
16.	< 20	< 200	< 66	768	38.	< 20	< 200	< 66	< 303
17.	< 20	< 200	< 66	696	39.	< 20	< 200	< 66	< 303
18.	< 20	< 200	< 66	927	40.	< 20	< 200	< 66	< 303
19.	< 20	< 200	< 66	867	41.				
20.	< 20	< 200	< 66	807	42.			A	
21.	< 20	< 200	< 66	< 303	43.		N		
22.	< 20	< 200	< 66	< 303	44.				

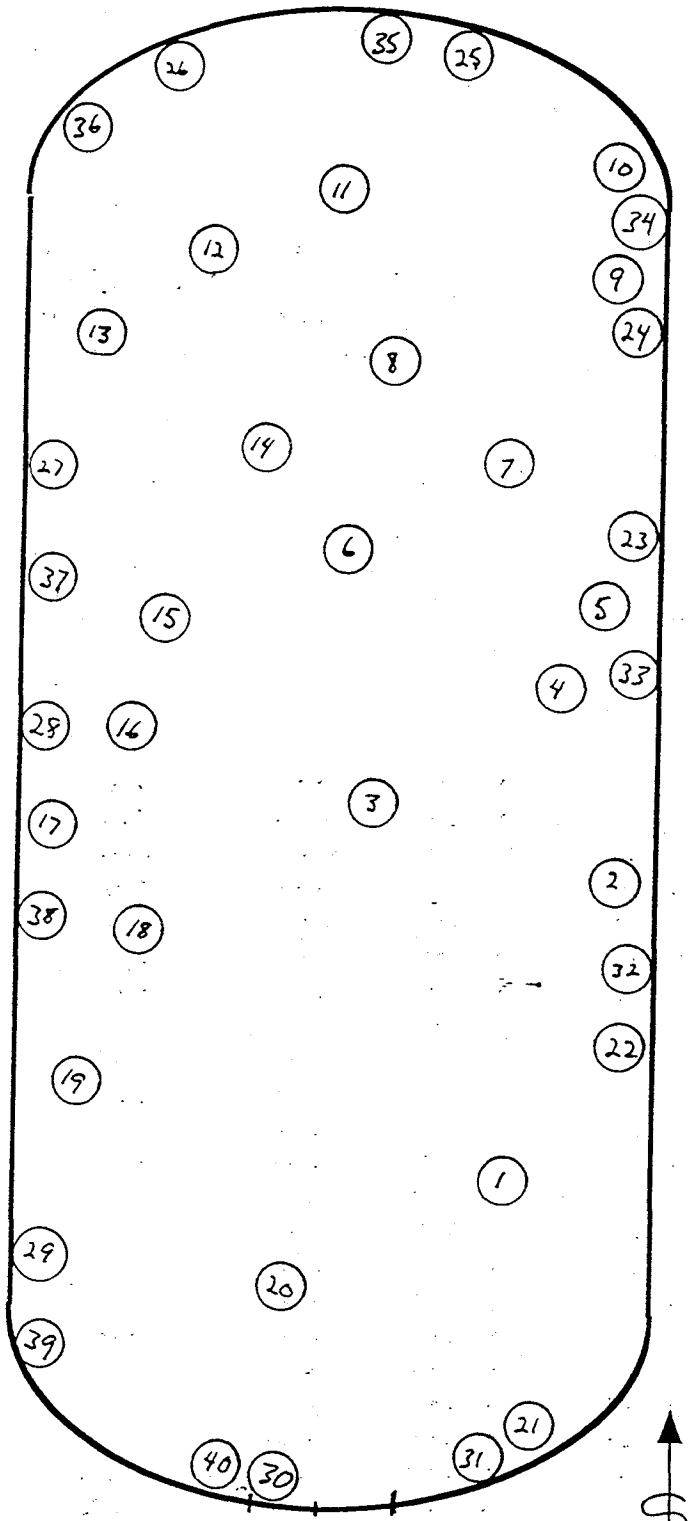
Date 4/5/99 RS Supervision: R Snyder / [redacted]
Print Name Signature Emp. #

169

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SIT

RADIOLOGICAL SAFETY
Drawing Showing Survey Points

	Location
1.	#W20 - F - 15'
2.	#W18 - F - 1'
3.	#W16 - F - 20'
4.	#W14 - F - 5'
5.	#W12 - F - 3'
6.	#W10 - F - 15'
7.	#W8 - F - 10'
8.	#W6 - F - 20'
9.	#W4 - F - 5'
10.	#W1 - F - 2'
11.	#27/26 - F - 25'
12.	#E2 - F - 15'
13.	#E4 - F - 4'
14.	#E6 - F - 28'
15.	#E9 - F - 10'
16.	#E11 - F - 9'
17.	#E14 - F - 2'
18.	#E17 - F - 10
19.	#E19 - F - 4'
20.	#22/23 - F - 25'
21.	#23 - Yellow Support - 4'
22.	#W16 - C - 7'
23.	#W12 - W11 - C - 5'
24.	#W6 - 3'
25.	#27/26 - C - 5'
26.	#E1 - 4'
27.	#E2/E3 - Door - 3'
28.	#E10 - C - 5'
29.	#E20/E19 - C - 5'
30.	#21 - Door - 6'
31.	#23 - Yellow Support - 8'
32.	#W17 - 8'
33.	#W11 - C - 8'
34.	#W2 - 8'
35.	#26 - C - 8'
36.	#E1 - 8'
37.	#E7 - 8'
38.	#E16 - 8'
39.	#E20 - 8'
40.	#22 - Yellow Support - 8'
41.	
42.	
43.	
44.	



Tent # 8

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: →

FOR: ____ P/WRE ____ PRL ____ RWP ✓ OTHER "Routine"

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 8
DATE: 2-4-98	TIME: 1300

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): M Munoz

[redacted] / 12-4-98

RCT SIGNATURE / EMP# / DATE

REVIEWED BY: T Hipsher

RO SUPERVISION PRINT NAME

/ 12/12/98

RO SUPERVISION SIGNATURE / DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	959		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc720	Bc838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

177

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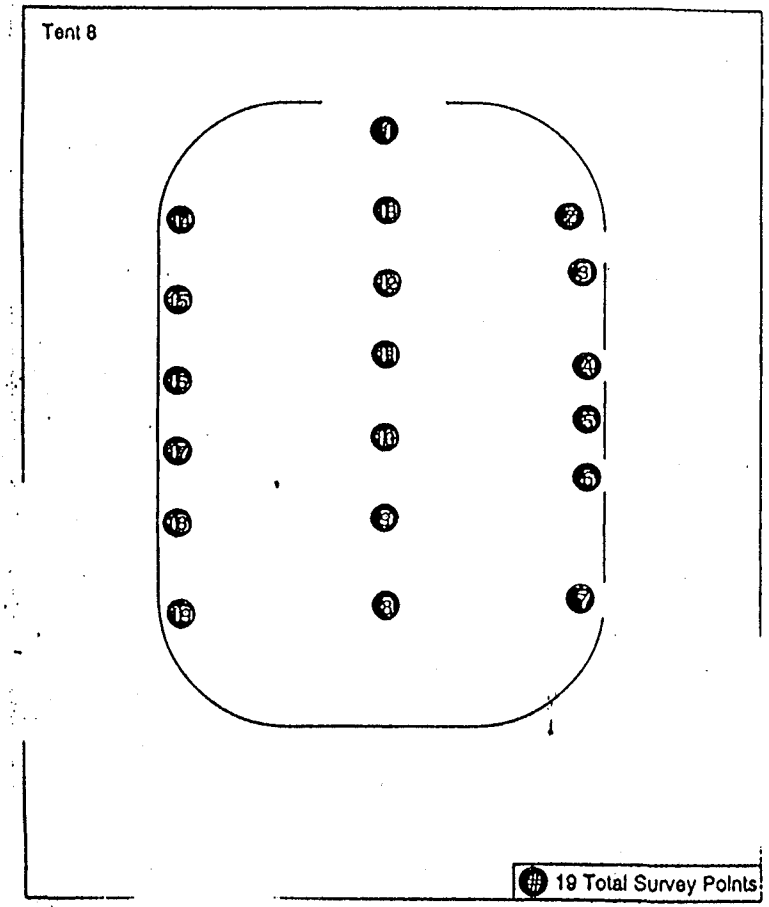
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 SQ CM)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

GM 2-4-98

172

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: ——

FOR: ____ P/WRE ____ PRL

____ RWP ✓ OTHER Routine

BUILDING/LOCATION: 904 Pad

ROOM: Tent 8

DATE: 2/12/98

TIME: 0930

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

RCT SIGNATURE

DATE: 2-12-98

REVIEWED BY: THypsher

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE

DATE: 2/23/98

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	959		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 770	BC 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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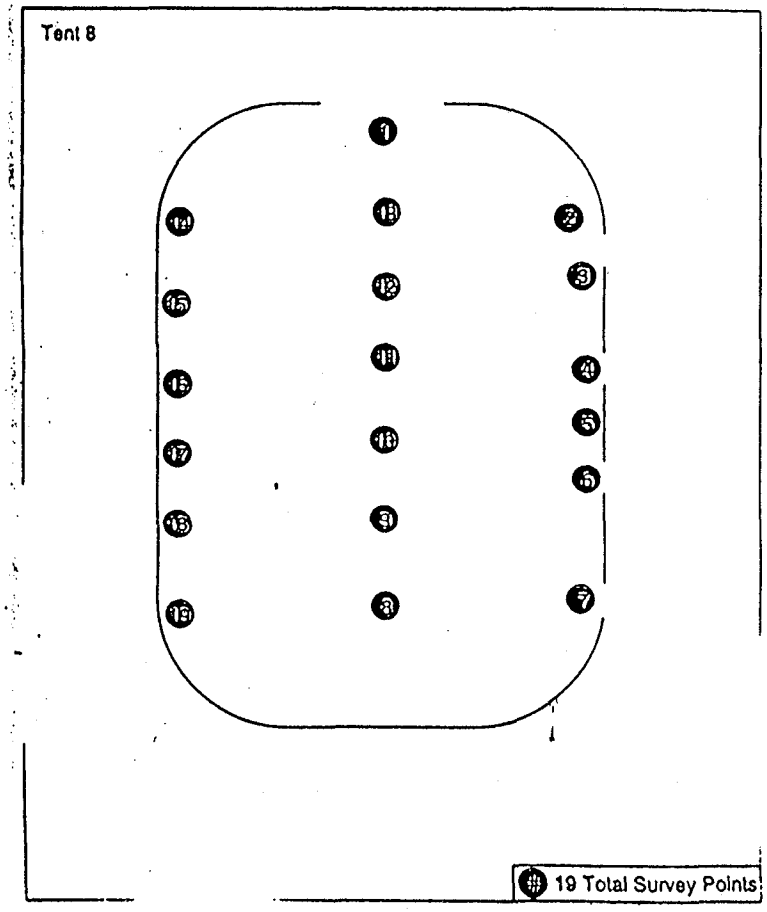
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/SU 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

[illegible] 2-12-98

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INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER "Routine"

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 8
DATE:	TIME:
2-18-98	0900

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): Munoz

Munoz [redacted] 12-18-98

RCT SIGNATURE EMP# DATE

REVIEWED BY: T Hopsher

RO SUPERVISION PRINT NAME

[signature] 12/23/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	759		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc 770	Bc 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

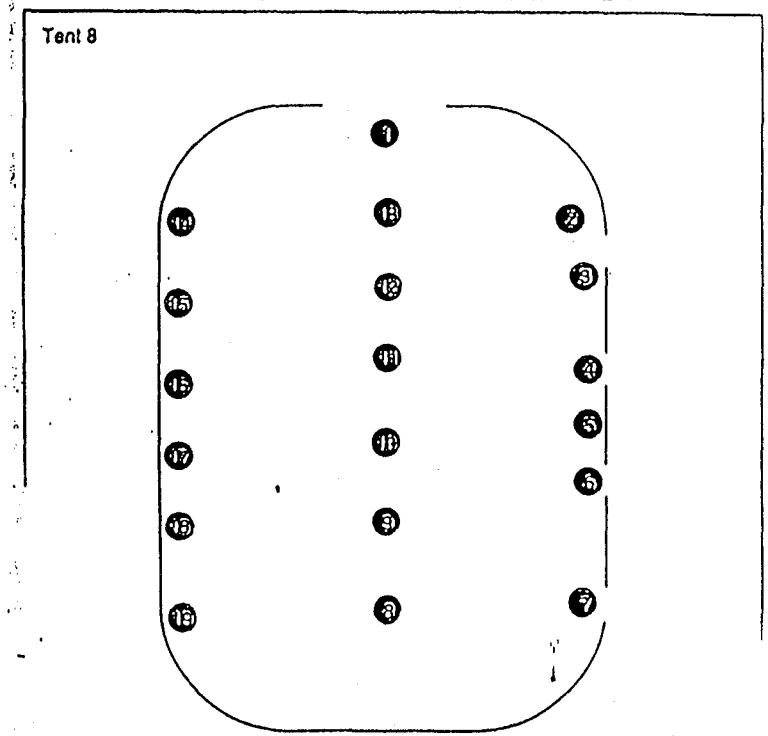
PAGE 2 OF 2

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/SUB 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

[illegible] 2-18-98

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INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER "Routine"

BUILDING/LOCATION:	ROOM:
904 PAd	tent 8
DATE:	TIME:
02-26-98	1410

ITEM DESCRIPTION: weekly

COMMENTS:

PERFORMED BY (PRINT NAME): L Hopkins

RCT SIGNATURE [redacted] EMP # 02-26-98 DATE

REVIEWED BY: THipsher

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE 3/4/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	797	959		
CAL DATE:	10-8-97	9-12-97		
CAL DUE DATE:	4-8-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 770	BC 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

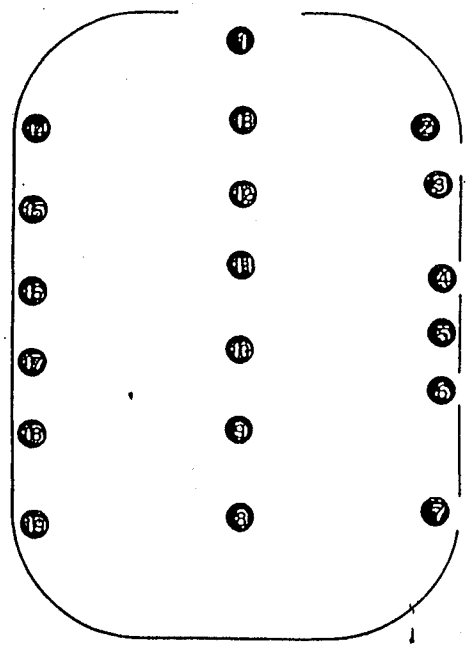
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (optional)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

02-26-98

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOC[illegible]MBER:

PAGE OF 2

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	tent 8
DATE: 3-11-98 3-10-98 JX	TIME: 1400

ITEM DESCRIPTION: weekly

COMMENTS:

PERFORMED BY (PRINT NAME): J Hawkins

J Hah
RCT SIGNATURE

[redacted] 3-10-98
DATE

REVIEWED BY: K. Garland
RO SUPERVISION PRINT NAME

[signature] 3-17-98
RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	797	767		
CAL DATE:	10-8-97	10-10-97		
CAL DUE DATE:	4-8-98	4-10-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

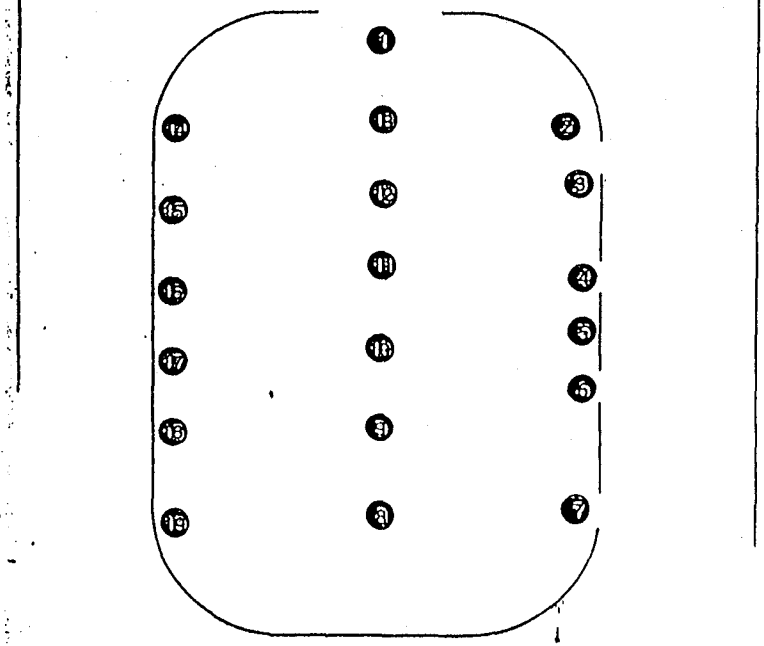
PAGE ____ OF ____

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No.: _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 SQ CM)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

JH 3-10-98

180

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP X OTHER Routine

BUILDING/LOCATION: 904 PAd

ROOM: tent 8

DATE: 3-17-98

TIME: 12:30

ITEM DESCRIPTION: Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): Hankins

Hank

RCT SIGNATURE [redacted] 3-17-98

DATE

REVIEWED BY: K. GARLAND

RO SUPERVISION PRINT NAME

Kevin E. Garland 3/26/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	767	797		
CAL DATE:	10-10-97	10-8-97		
CAL DUE DATE:	4-10-98	4-8-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

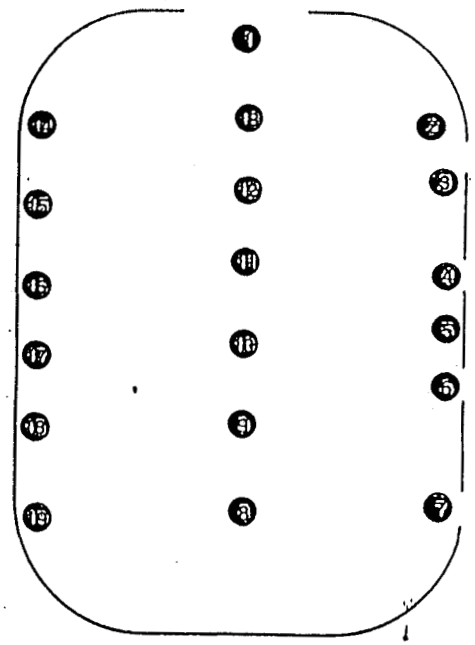
PAGE ____ OF ____

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/SU 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

J.H. 3-17-98

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INFORMATION

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	tent 8
DATE: 3-25-98	TIME: 10:00

ITEM DESCRIPTION: Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): Hawkins

Hawk [redacted] 3-26-98

RCT SIGNATURE DATE

REVIEWED BY: K. Garland

RO SUPERVISION PRINT NAME

[signature] 4-1-98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	797	767		
CAL DATE:	10-8-97	10-10-97		
CAL DUE DATE:	4-8-98	4-10-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC878		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

PAGE ____ OF ____

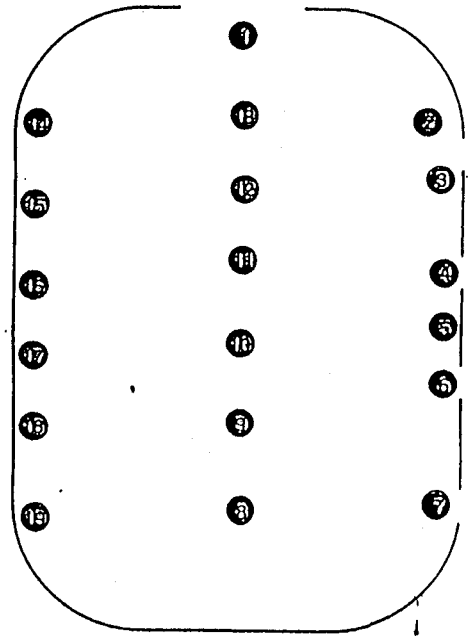
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/50 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

DH 3-26-98

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INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 8
DATE:	TIME:
4-1-98	1000

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS: * Could not complete survey due to ice & snow blocking all entrances to tent. √

PERFORMED BY (PRINT NAME): M Munoz

RCT SIGNATURE [redacted] 4-1-98 DATE

REVIEWED BY: K-Control (print)

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE 4/10/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

PAGE 2 OF 2

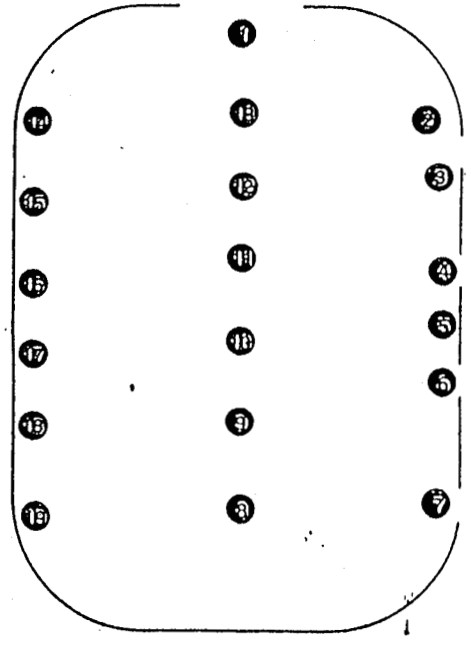
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 SQ CM)	TOTAL BETA/GAMMA
		ALPHA	BETA/GAMMA		

4-1-98

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INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 PAd	tent #8
DATE: 4-9-98	TIME: 1315

ITEM DESCRIPTION: Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): Hartline

Hal
RCT SIGNATURE

[redacted] 4-9-98
DATE

REVIEWED BY: K. Garland
RO SUPERVISION PRINT NAME

K E Garland 5/5/98
RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	824	767		
CAL DATE:	3-24-98	10-10-97		
CAL DUE DATE:	9-24-98	4-10-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$

187

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LOG NUMBER: _____

PAGE ____ OF ____

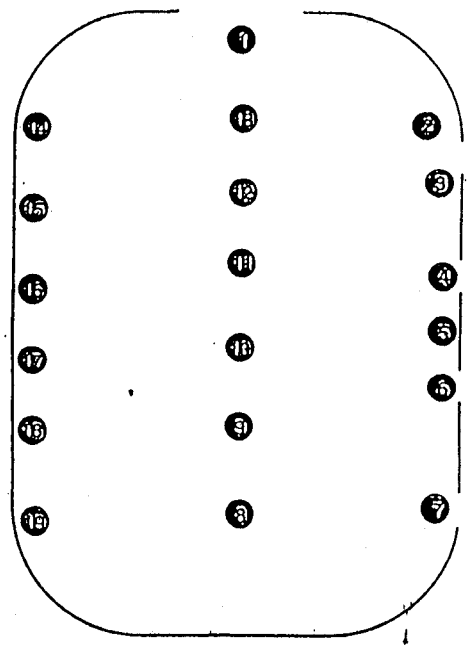
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FIXED/SU 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

GH 4-9-98

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 PAd	Tent 8
DATE:	TIME: 0830

ITEM DESCRIPTION: Weekly Survey

COMMENTS:

PERFORMED BY (PRINT NAME): Hankins

Hankins [redacted] 4-15-98

RCT SIGNATURE DATE

REVIEWED BY: K. Crawford

RO SUPERVISION PRINT NAME

[signature] 5/4/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X (2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$)

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LOG NUMBER: _____

PAGE ____ OF ____

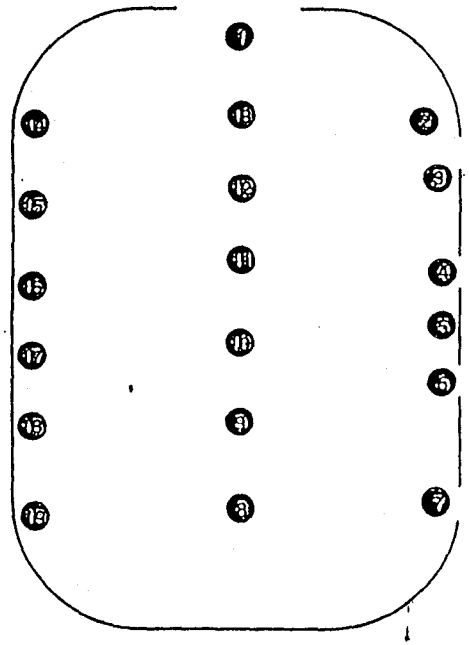
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

190

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (CORRECTED FOR EFFICIENCY & GEOMETRY)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

Zl 4-15-98

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 8
DATE:	TIME:
4-23-98	0900

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[redacted] / 4-23-98

RCT SIGNATURE / DATE

REVIEWED BY: K. Gartman

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE / 5/20/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC270	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

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

19

Printed with soy ink on recycled paper

LOG NUMBER: _____

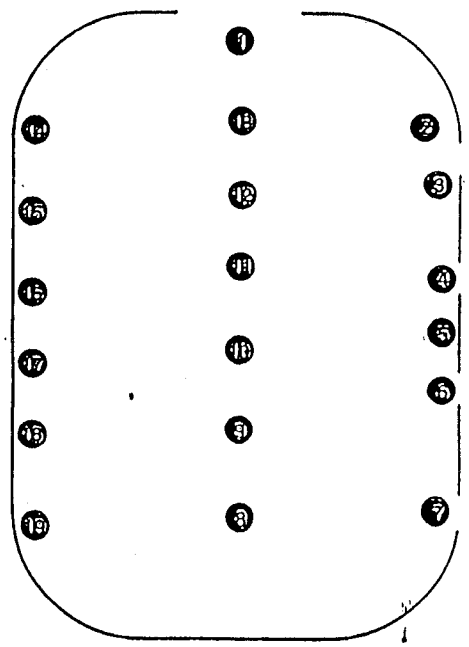
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FRISK/SUBSEC 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

[illegible] 4.23.98

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INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: ____ P/WRE ____ PRL

____ RWP ✓ OTHER Routine

BUILDING/LOCATION: 904 Pad

ROOM: Tent 8

DATE: 4-28-98

TIME: 0900

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[signature] / [redacted] 4-28-98

RCT SIGNATURE DATE

REVIEWED BY: K. Garland

RO SUPERVISION PRINT NAME

[signature] / 5/19/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc770	Bc838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

PAGE 2 OF 2

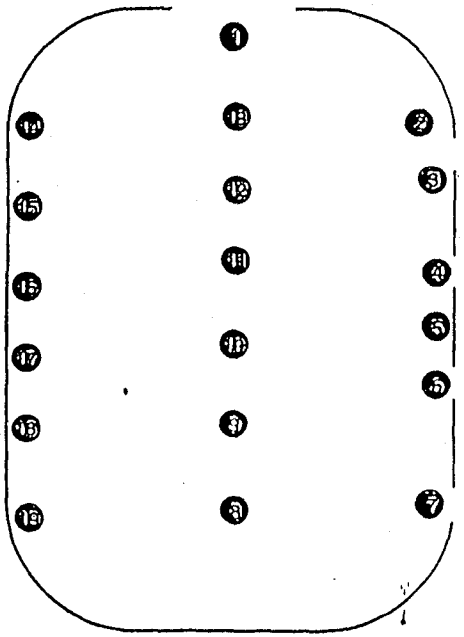
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/SQ 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

[illegible] 4-28-98

194

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: ——

FOR: ____ P/WRE ____ PRL

____ RWP ✓ OTHER Routine

BUILDING/LOCATION: 904 Pad

ROOM: Tent 8

DATE: 5-7-98

TIME: 1330

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [signature] [redacted] / 5-7-98

RCT SIGNATURE DATE

REVIEWED BY: K. Garland

RO SUPERVISION PRINT NAME

[signature] / 5/20/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc 770	Bc 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$$

195

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LOG NUMBER: _____

PAGE 2 OF 2

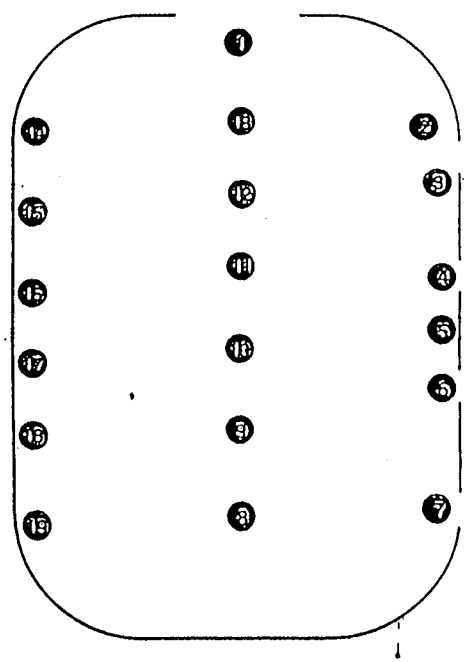
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

[illegible] 5-7-98

196

INFORMATION

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION: 904 Pad

ROOM: TENT #5

DATE: 5-13-98

TIME: 0800

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): M. E. VAUGHN

M. E. V. / [redacted] / 5-13-98

RCT SIGNATURE EMP# DATE

REVIEWED BY: J. Stewart-Bell

RO SUPERVISION PRINT NAME

J. Stewart-Bell 16-10-98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	799	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	720	838		
CAL DATE:	1-2-98	1-4-98		
CAL DUE DATE:	7-2-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X (2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$)

197

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LOG NUMBER: _____

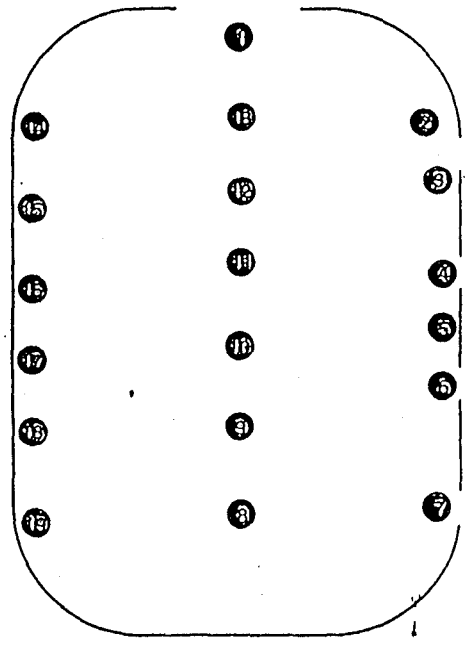
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FIXED/SU SEC COUNT)	TOTAL BETA/GAMMA
1	refer to Map	<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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

198

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: ———

FOR: ____ P/WRE ____ PRL

____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 8
DATE: 5-21-98	TIME: 0900

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): Hankins L

J Hankins [redacted] 5-21-98

RCT SIGNATURE DATE

REVIEWED BY: J. Stewart-Bell

RO SUPERVISION PRINT NAME

J Stewart-Bell 6-10-98.

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc770	Bc838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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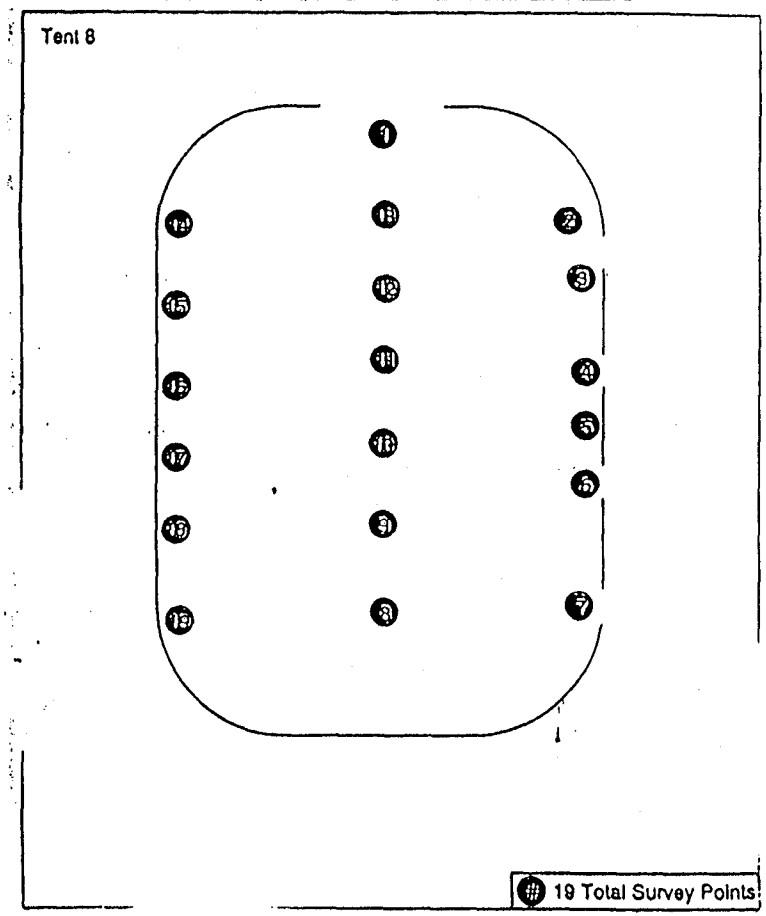
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FIXED/SQ SEC COUNT)	TOTAL BETA/GAMMA
1	refer to map	<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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

9 5-21-98

200

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: ____ P/WRE ____ PRL

____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 8
DATE:	TIME:
5-27-98	0930

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): W Suarez

[signature] [redacted] 5-27-98

RCT SIGNATURE EMP# DATE

REVIEWED BY: J. Stewart-Bell

RO SUPERVISION PRINT NAME

J Stewart-Bell 6-10-98

RO SUPERVISION SIGNATURE DATE

201

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc 770	Bc 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

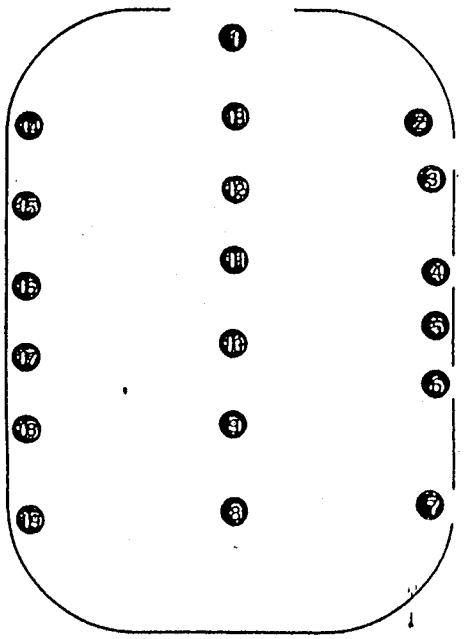
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

202

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FIXED/SEE COMM)	TOTAL BETA/GAMMA
		ALPHA	BETA/GAMMA		
1	refer to map.	<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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		
	CM 5-22-98				

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER Routine

BUILDING/LOCATION: 904 Pad

ROOM: tent #8

DATE: 06-04-98

TIME: 1300

ITEM DESCRIPTION: Weekly Survey

COMMENTS:

PERFORMED BY (PRINT NAME): HANKINS L

[signature] [redacted] / 06-04-98

RCT SIGNATURE DATE

REVIEWED BY: R. Sawyer

RO SUPERVISION PRINT NAME

[signature] / 6/9/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 770	BC 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

203

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LOG NUMBER: _____

PAGE ____ OF ____

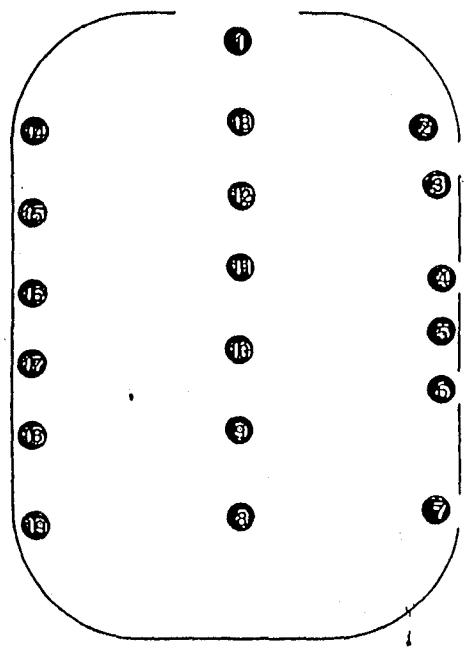
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

JH 06-04-98

JH 06-04-98

204

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 8
DATE:	TIME:
6-9-98	0900

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS: _____

PERFORMED BY (PRINT NAME): Munoz

[redacted] 6-9-98

RCT SIGNATURE DATE

REVIEWED BY: Sawyer

RO SUPERVISION PRINT NAME

6/26/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc220	Bc838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X (2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$)

205

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LOG NUMBER: _____

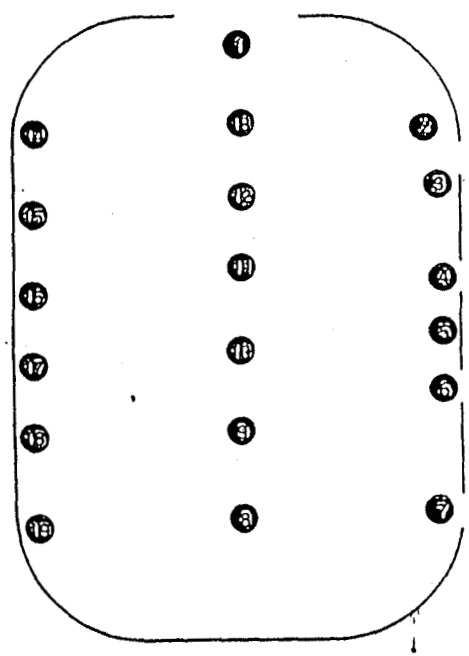
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 SQ CM)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

6-9-98

206

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP X OTHER "Routine"

BUILDING/LOCATION: 904 PAD

ROOM: Tent 8

DATE: 6-10-97

TIME: 0915

ITEM DESCRIPTION: weekly CC survey

COMMENTS:

PERFORMED BY (PRINT NAME): M. MACKENZIE

M. Mackenzie [redacted] 6-10-97

RCT SIGNATURE EMP # DATE

REVIEWED BY: Teresa Johnston

RO SUPERVISION PRINT NAME

Teresa Johnston 6-12-97

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	624	1050		
CAL DATE:	3-10-97	3-11-97		
CAL DUE DATE:	9-10-97	9-11-97		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	636	770		
CAL DATE:	12-11-96	1-9-97		
CAL DUE DATE:	6-11-97	7-9-97		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

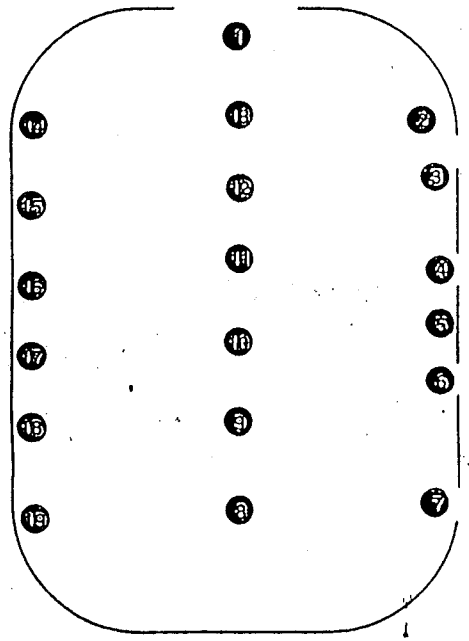
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/60 SEC COUNT)	TOTAL BETA/GAMMA
1	SEE SKETCH	<18	<205		
2		<18	<205		
3		<18	<205		
4		<18	<205		
5		<18	<205		
6		<18	<205		
7		<18	<205		
8		<18	<205		
9		<18	<205		
10		<18	<205		
11		<18	<205		
12		<18	<205		
13		<18	<205		
14		<18	<205		
15		<18	<205		
16		<18	<205		
17		<18	<205		
18		<18	<205		
19		<18	<205		

[illegible] 6-16-97

208

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 8
DATE: ~~6-16~~ 6-17-98	TIME: 0800

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): M Munoz

RCT SIGNATURE / [redacted] EMP# 6-17-98 DATE

REVIEWED BY: R. Sawyer
RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE 6/25/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		
MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC720	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

209

Printed with soy ink on recycled paper

LOG NUMBER: _____

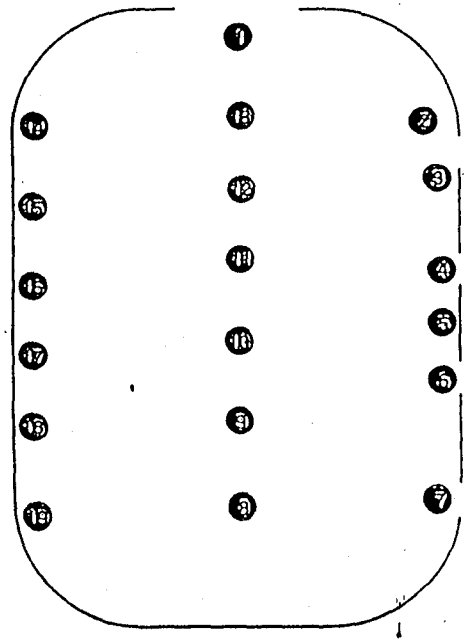
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FIXED/SEC COUNT)	TOTAL BETA/GAMMA
		ALPHA	BETA/GAMMA		
1	SEE MAP	<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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

6-12-98

210

INFORMATIONAL

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 8
DATE:	TIME:
6-24-98	0730

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS: _____

PERFORMED BY (PRINT NAME): Munoz

Munoz / [redacted] / 6-24-98

RCT SIGNATURE / EMP# / DATE

REVIEWED BY: R. Sample

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE / 7/23/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 770	BC 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

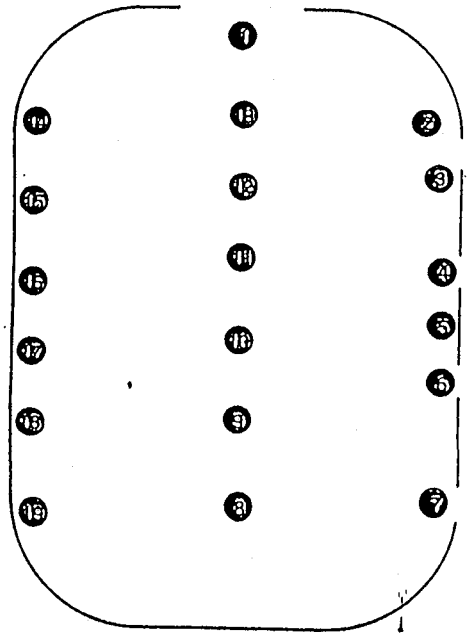
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

[illegible] 6-24-98

212

INFORMATION ONLY

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg.
Model SAC-4	Model SAC-4	Model
Serial # 795	Serial # 824	Serial #
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due
Bkg. 0.2	Bkg. 0.2	Bkg.
Efficiency 33%	Efficiency 38%	Efficiency
MDA <20	MDA <20	MDA
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # BC270	Serial # BC838	Serial #
Cal Due 7-7-98	Cal Due 7-6-98	Cal Due
Bkg. 41	Bkg. 43	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA <200	MDA <200	MDA

Survey Type: Contamination Survey
Building: 904 Pad
Location: Tent 8
Purpose: Weekly Control Point Survey

~~RWP #:~~ on 7-1-98

Date: 7-1-98 Time: 0930

RCT: Munoz [redacted]
Print name Signature Emp. #

~~RCT:~~ on 7-1-98
Print name Signature Emp. #

~~PRL #:~~ on 7-1-98

Comments: See attached form for survey results

SURVEY RESULTS

on 7-1-98

Date Reviewed: 7/23/98 RS Supervision: R. Sawyer [redacted]
Print Name Signature

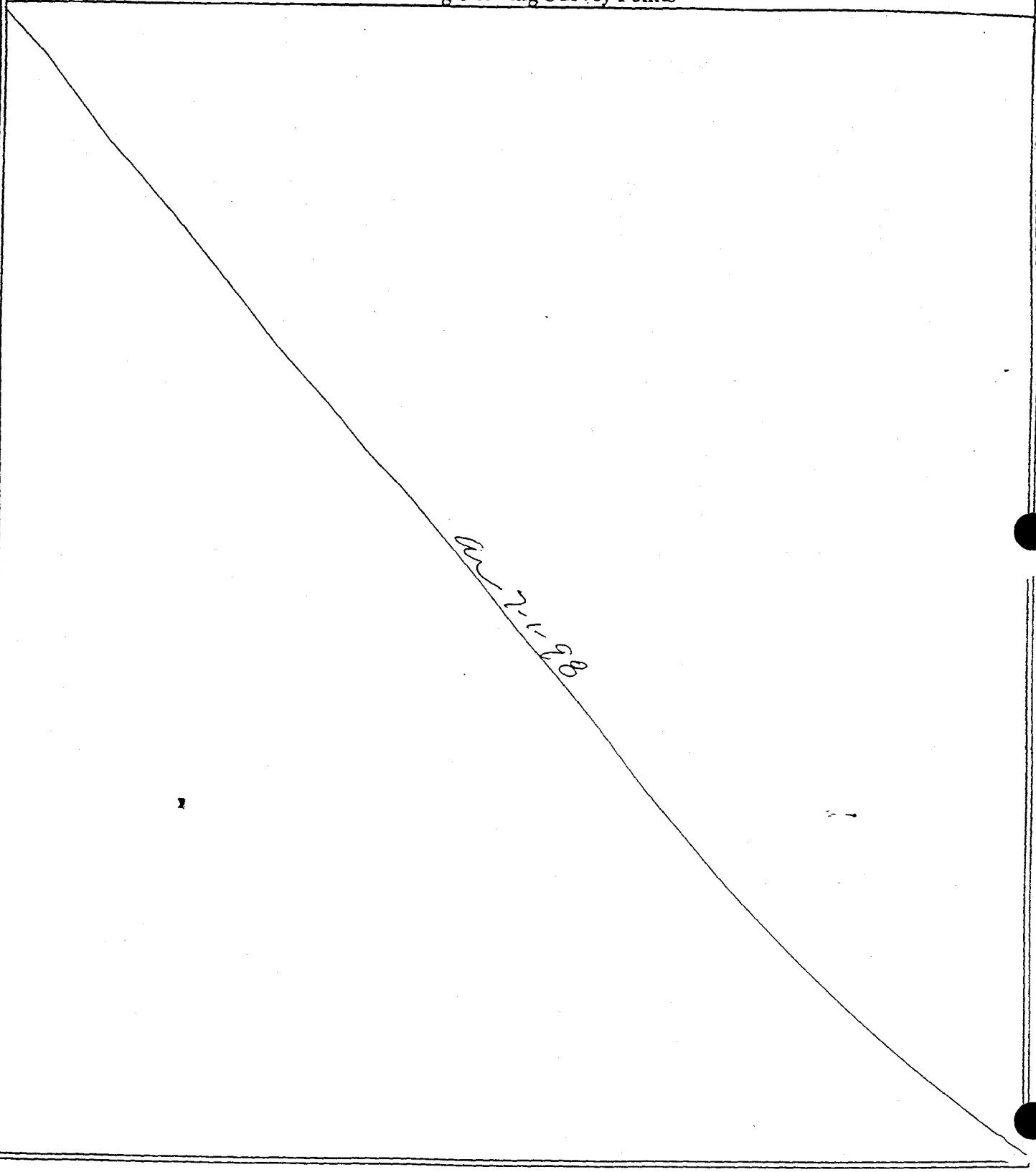
213

@RAH

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Printed with soy ink on recycled paper

LOG NUMBER: Au 7-1-98

RADIOLOGICAL CONTAMINATION SURVEY FORM

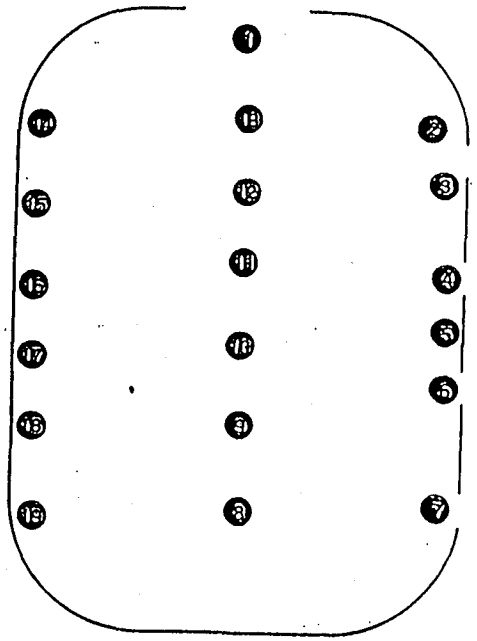
PAGE 2 OF 3

SKETCH

Control No.

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/SQ FEC COUNT)	TOTAL BETA/GAMMA
1	See Map	<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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

Au 7-1-98

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE 3 OF 3

7-1-98

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER _____

BUILDING/LOCATION: | ROOM:

DATE: | TIME:

ITEM DESCRIPTION:

COMMENTS:

PERFORMED BY (PRINT NAME): _____

RCT SIGNATURE / EMP# / DATE

REVIEWED BY: _____

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE / DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
EFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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INFORMATION ONLY

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg.
Model SAC-4	Model SAC-4	Model
Serial # 795	Serial # 824	Serial #
Cal Due 9-13-98	Cal Due 9-13-98	Cal Due
Bkg. 0.1	Bkg. 0.1	Bkg.
Efficiency 33%	Efficiency 33%	Efficiency
MDA 20 dpm	MDA 20 dpm	MDA
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # BC704	Serial # BC702	Serial #
Cal Due 12-4-98	Cal Due 12-15-98	Cal Due
Bkg. 36	Bkg. 38	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 200 dpm	MDA 200 dpm	MDA

Survey Type: Contamination Survey
Building: 904 Pad
Location:
Purpose: Weekly Control Point Survey

RWP #: on 7-8-98

Date: 7-8-98 Time: 0800

RCT: Munoz [redacted]
Print name Signature Emp. #

RCT: Hawkins [redacted]
Print name Signature

TLD #: on 7-8-98

Comments: Weekly Surveys include Source Locker, ~~Tent 7~~ Tent 8, Locker Room, Break Room, 904 Pad Tent 8, Tent 9, Tent 10, Tent 11

SURVEY RESULTS

* See attached sheets for weekly survey results

Date Reviewed: 7/13/98 RS Supervision: R Sawyer [redacted]
Print Name Signature Emp. #

217

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LOG NUMBER: a-7-8-98

PAGE ____ OF ____

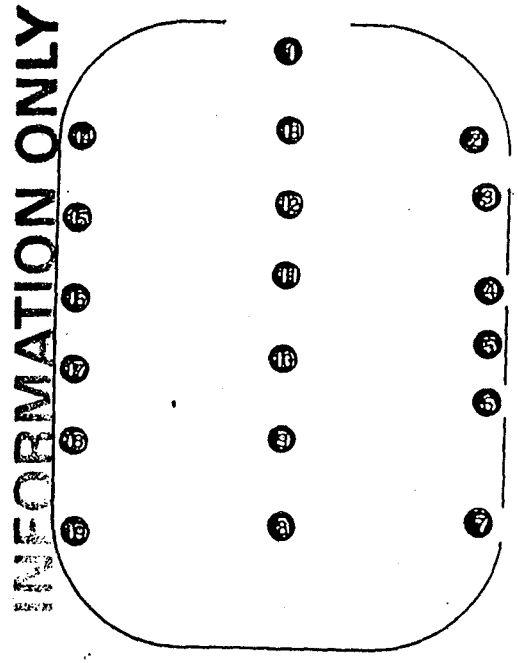
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. ____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



INFORMATION ONLY

19 Total Survey Points

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SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FIXED/SUBSEC 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

a-7-8-98

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER _____

BUILDING/LOCATION:	ROOM:
DATE:	TIME:

ITEM DESCRIPTION: _____

COMMENTS: _____

PERFORMED BY (PRINT NAME): _____

_____ / _____ / _____

RCT SIGNATURE EMP# DATE

REVIEWED BY: _____

RO SUPERVISION PRINT NAME

_____ /

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$$MDA = CF \times (2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)})$$

24

INFORMATION ONLY

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. Eberline
Model SAC 4	Model SAC 4	Model BC 4
Serial # 795	Serial # 824	Serial # 704
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.0	Bkg. 0.0	Bkg. 35
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20	MDA <20	MDA <200
Mfg. Eberline	Mfg. NE tec	Mfg.
Model BC 4	Model Electra	Model
Serial # 702	Serial # 1680	Serial #
Cal Due 12-15-98	Cal Due 9-3-98	Cal Due
Bkg. 38	Bkg. α 2.0 β 388	Bkg.
Efficiency 25%	Efficiency α 24.3% β 93.3	Efficiency
MDA <200	MDA β 455	MDA

JH 7-16-98

Survey Type: Contamination

Building: 904

Location: 904 Pad ~~Office Locker~~ TENT

Purpose: Weekly

~~RWP #~~ JH

Date: 7-16-98 Time: 1540

RCT: L Hankins L Hah [redacted]

Print name Signature

RCT: / /

Print name Signature Emp. #

~~PRL #~~: JH 7-16-98

Comments: NONE

SURVEY RESULTS

See Following pages for survey results.

JH 7-16-98

Date Reviewed: 8/5/98 RS Supervision: [signature] [signature] [redacted]

Print Name Signature

220

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

JH 7-16-98

Printed with soy ink on recycled paper

LOG NUMBER: 7-16-98

RADIOLOGICAL CONTAMINATION SURVEY FORM

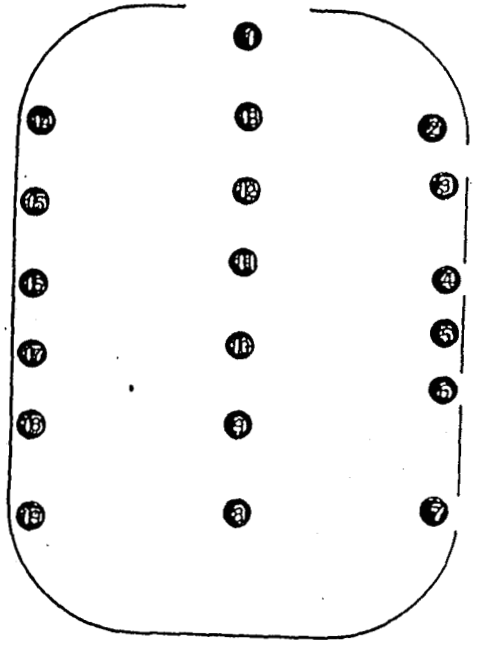
PAGE 2 OF 2

SKETCH

Control No.

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FIXED/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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

7-16-98

222

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER _____

BUILDING/LOCATION: ROOM:

DATE: TIME:

ITEM DESCRIPTION: _____

COMMENTS: _____

PERFORMED BY (PRINT NAME): _____

_____ / _____ / _____

RCT SIGNATURE EMP# DATE

Cm 7-16-98

REVIEWED BY: _____

RO SUPERVISION PRINT NAME

_____ / _____

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$$

223

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INFORMATION ONLY

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg.
Model SAC-4	Model SAC-4	Model
Serial # 795	Serial # 824	Serial #
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due
Bkg. 0.0	Bkg. 0.0	Bkg.
Efficiency ~~33%~~ 33%	Efficiency 33%	Efficiency
MDA 20 d/m	MDA 20 d/m	MDA
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # BC704	Serial # BC702	Serial #
Cal Due 12-11-98	Cal Due 12-15-98	Cal Due
Bkg. 36	Bkg. 38	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 200 d/m	MDA 200 d/m	MDA

7-22-98

Survey Type: Contamination Survey

Building: 904 Pad

Location: 904 Pad T-7 T8-T9 T10 T11 Break Room Locker Room, Service Locker

Purpose: Weekly Control Point on 7-22-98

RWP #:

Date: 7-22-98 Time: 0800

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

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

PRL #: on 7-22-98

Comments:

* See attached survey forms for survey results

TENT 8

SURVEY RESULTS

on 7-22-98

Date Reviewed: 8/5/98 RS Supervision: [signature] / [signature] [redacted]
Print Name Signature Emp. #

224

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Admin 7-22-98

225

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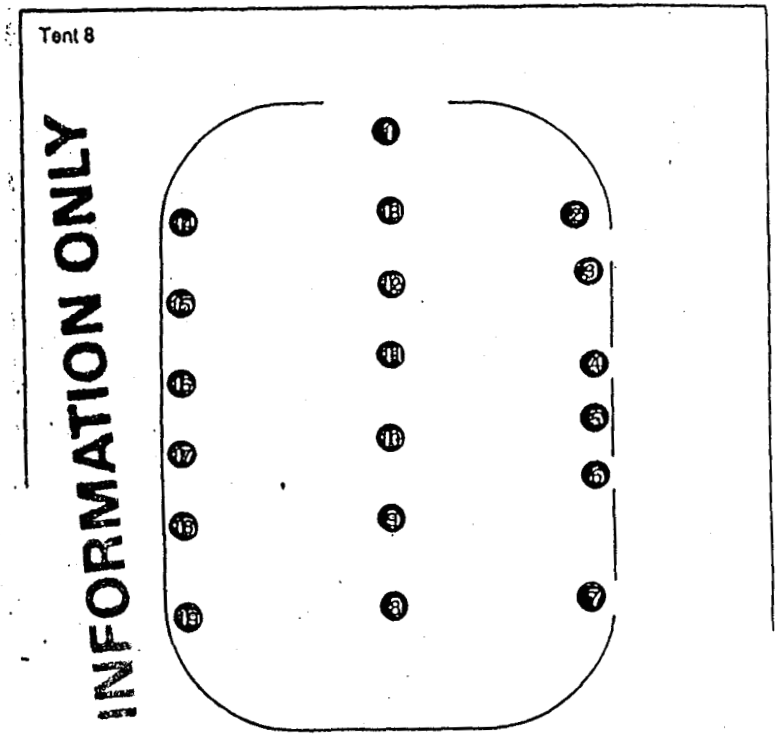
LOG NUMBER: 7-22-98

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No.

Radiological Operations
Area or Equipment Drawing Showing Survey Points



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 SQ CM)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

7-22-98

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER _____

BUILDING/LOCATION: | ROOM:

DATE: | TIME:

ITEM DESCRIPTION: Qual 7-22-98

COMMENTS:

PERFORMED BY (PRINT NAME): _____

_____ / _____ / _____

RCT SIGNATURE | EMP# | DATE

REVIEWED BY: _____

RO SUPERVISION PRINT NAME

_____ / _____

RO SUPERVISION SIGNATURE | DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$$

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RS FORMS 07.02-01

INFORMATION ONLY

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 795	Serial # 824	Serial # BC 704
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.0	Bkg. 0.0	Bkg. 38
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 d/m	MDA 20 d/m	MDA 200 d/m
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 38	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA ~~20~~ 200 d/m	MDA	MDA

Survey Type: CONTAMINATION

Building: 904 Pad

Location: T-7, Locker Room, Break Room 904 Pad, T-8, T-9, T-10, T-11

Purpose: Source Locker Weekly Control Point Survey

TENT 8

~~RWP #:~~ 7-30-98

Date: 7-30-98 Time: 0900

RCT: Munoz / [signature] [redacted]
Print name Signature

RCT: / /
Print name Signature Emp. #

~~PRL #:~~ 7-30-98

Comments: Survey results, for each survey, are located on attached sheets.

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.					23.				
2.					24.				
3.					25.				
4.					26.				
5.					27.				
6.					28.				
7.					29.				
8.					30.				
9.					31.				
10.					32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

7-30-98

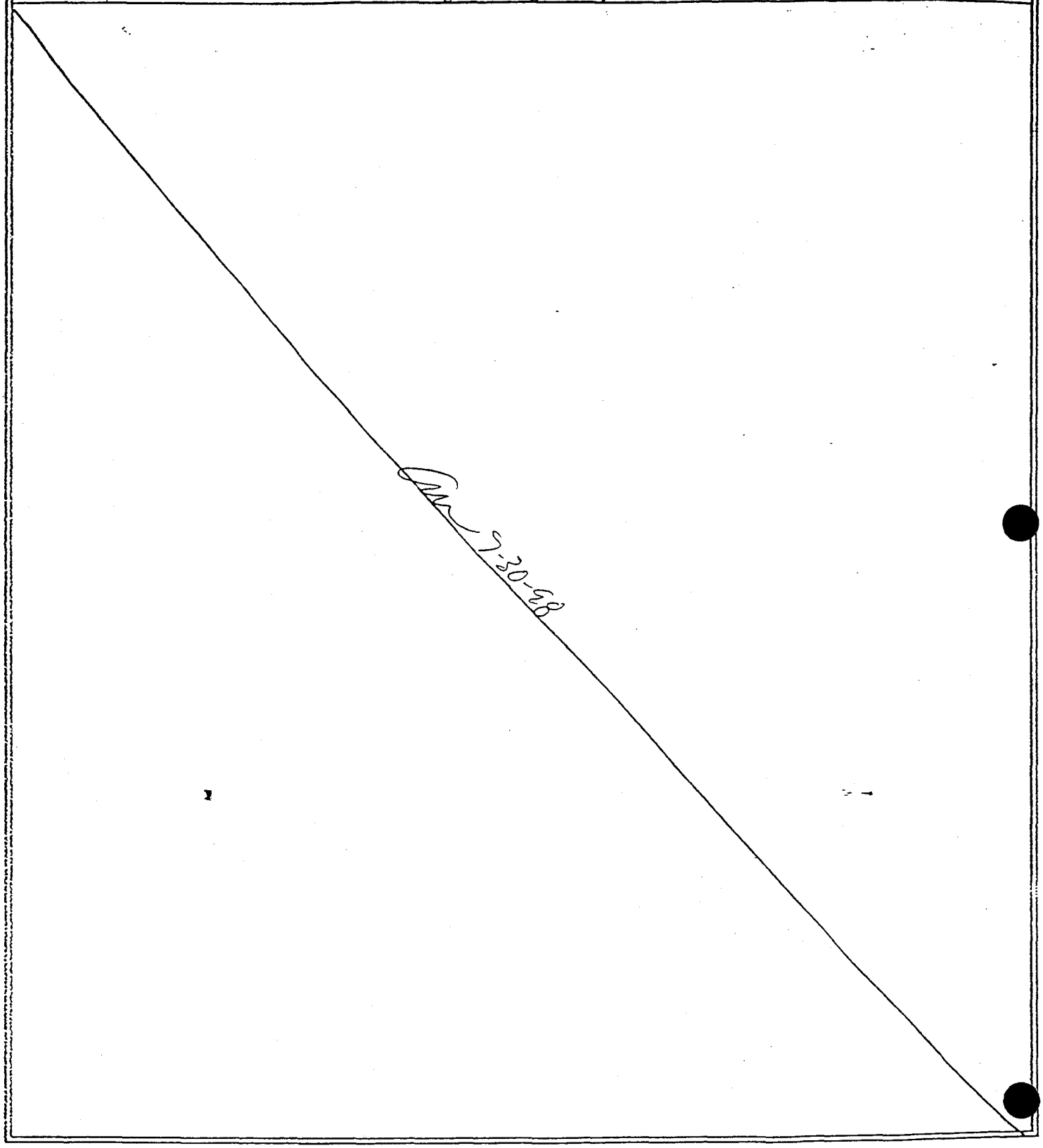
Date Reviewed 8/26/98 RS Supervision: [signature] [signature] [redacted]
Print Name Signature

228

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



229

Printed with soy ink on recycled paper

LOG NUMBER: am 7-30-98

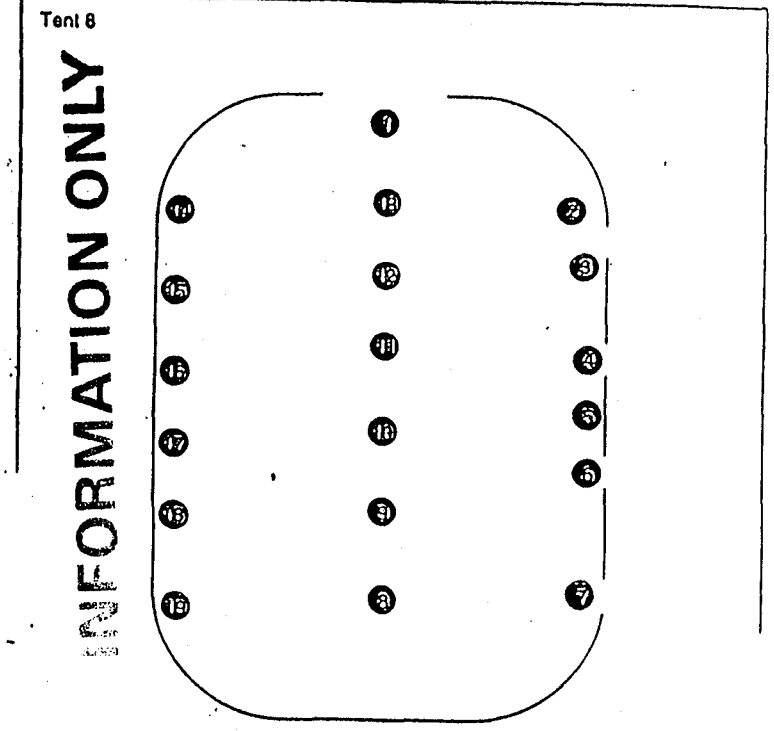
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No.

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (minimum 100 counts)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		
	am 7-30-98				

230

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER _____

BUILDING/LOCATION: | ROOM:

DATE: | TIME:

ITEM DESCRIPTION: _____

COMMENTS: _____

PERFORMED BY (PRINT NAME): _____

_____ / _____ / _____

RCT SIGNATURE | EMP# | DATE

REVIEWED BY: _____

RO SUPERVISION PRINT NAME

_____ /

RO SUPERVISION SIGNATURE | DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$

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Page 1 of 2 **INFORMATION ONLY**

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model SAC-4
Serial # 1050	Serial # 1199	Serial # 914
Cal Due 2-26-99	Cal Due 2-14-99	Cal Due 2-4-99
Bkg. 0.0 c	Bkg. 0.6 c	Bkg. 43 c
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20 dpm	MDA <20 dpm	MDA <200 dpm
Mfg. EBERLINE	Mfg. NE. TECH	Mfg. NE. TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 706	Serial #	Serial #
Cal Due 12-22-98	Cal Due 10-7-98	Cal Due 10-7-98
Bkg. 38 c	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200 dpm	MDA	MDA

Survey Type: CONTAMINATION
Building: 904
Location: TENT 8
Purpose: WEEKLY SURVEY

~~RWP #:~~ LH 10-7-98

Date: 10-7-98 Time: 1345

RCT: Hawkins L Ha [redacted]
Print name

RCT: LH 10-7-98 1
Print name Signature Emp. #

PRL # :

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.			
2.	<20	<200			24.			
3.	<20	<200			25.			
4.	<20	<200			26.			
5.	<20	<200			27.			
6.	<20	<200			28.			
7.	<20	<200			29.			
8.	<20	<200			30.			
9.	<20	<200			31.			
10.	<20	<200			32.			
11.	<20	<200			33.			
12.	<20	<200			34.			
13.	<20	<200			35.			
14.	<20	<200			36.			
15.	<20	<200			37.			
16.	<20	<200			38.			
17.	<20	<200			39.			
18.	<20	<200			40.			
19.	<20	<200			41.			
20.	LH 10-7-98				42.			
21.					43.			
22.					44.			

Date Reviewed: 10/12/98 RS Supervision: B J. Ewell / J Ewell [redacted]
Print Name Signature

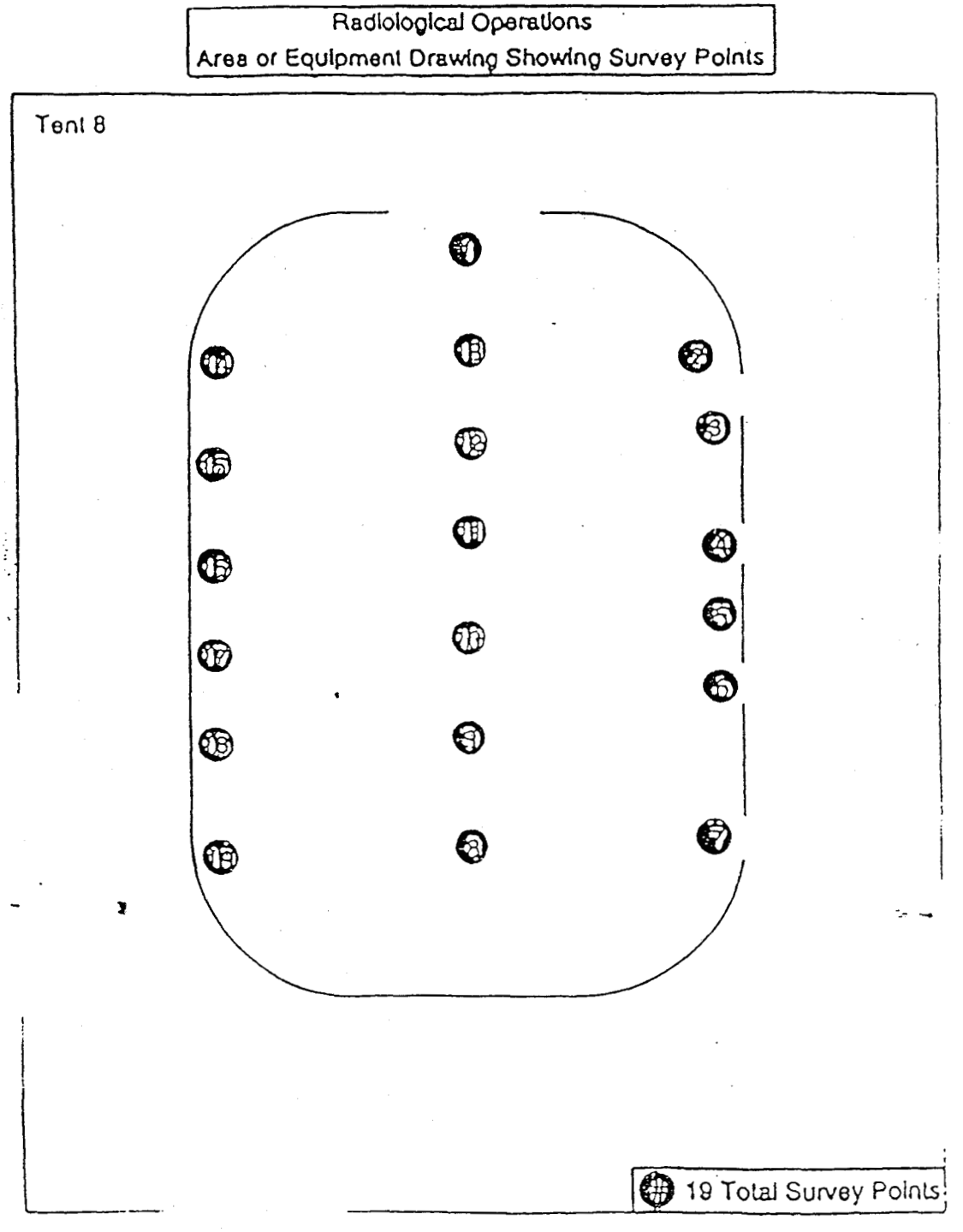
232

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



Page ___ of ___ **INFORMATION ONLY** RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model SAC-4
Serial # 824	Serial # 795	Serial #
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due
Bkg. 0.0 cpm	Bkg. 0.1 cpm	Bkg.
Efficiency .33	Efficiency .33	Efficiency
MDA 20 dpm	MDA 20 dpm	MDA
Mfg.EBERLINE	Mfg. ~~NE.TECH~~ EBERLINE	Mfg.NE.TECH
Model BC-4	Model ~~ELECTRA~~ BC-4	Model ELECTRA
Serial # 838	Serial # 702	Serial #
Cal Due 1-9-99	Cal Due 12-15-98	Cal Due
Bkg. 40 cpm	Bkg. 42 cpm	Bkg.
Efficiency .25	Efficiency .25	Efficiency
MDA 200 dpm	MDA 200 dpm	MDA

10-14-98 SK

Survey Type: CONTAMINATION

Building: 904

Location: TENT 8

Purpose: WEEKLY SURVEY

RWP #:

Date: 10-14-98 Time: 1310

RCT: [illegible] / [signature] [redacted]

Print name Signature Emp. #

RCT: / /

Print name Signature Emp. #

PRL # :

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	< 20	< 200			23.				
2.	< 20	< 200			24.				
3.	< 20	< 200			25.				
4.	< 20	< 200			26.				
5.	< 20	< 200			27.				
6.	< 20	< 200			28.				
7.	< 20	< 200			29.				
8.	< 20	< 200			30.				
9.	< 20	< 200			31.				
10.	< 20	< 200			32.				
11.	< 20	< 200			33.				
12.	< 20	< 200			34.				
13.	< 20	< 200			35.				
14.	< 20	< 200			36.				
15.	< 20	< 200			37.				
16.	< 20	< 200			38.				
17.	< 20	< 200			39.				
18.	< 20	< 200			40.				
19.	< 20	< 200			41.				
20.					42.				
21.					43.				
22.					44.				

Date Reviewed: 10/19/98 RS Supervision: [signature] / [signature] [redacted]

Print Name Signature

234

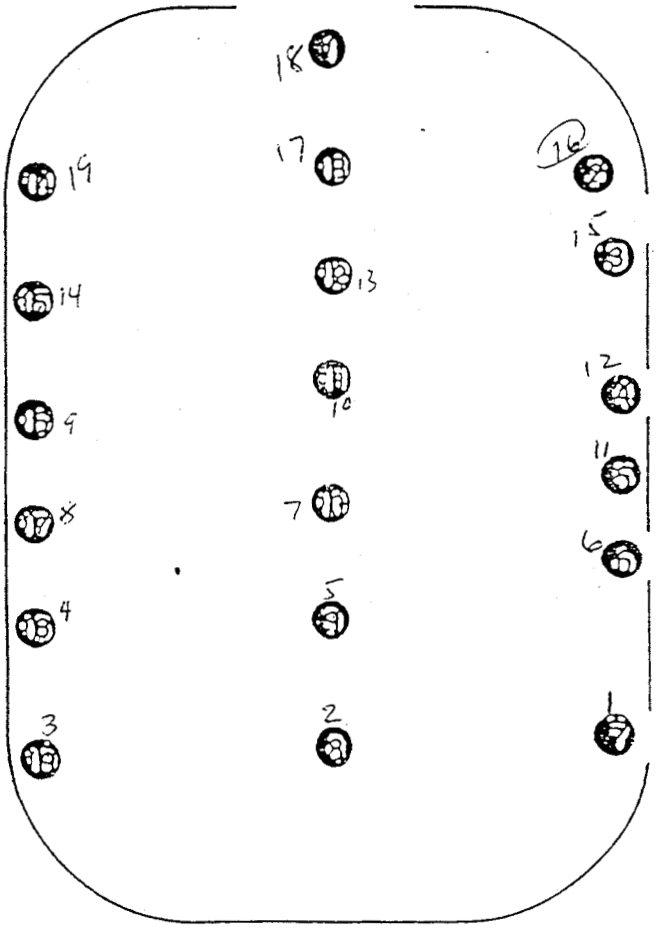
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

RS FORMS 07.02-01

~~INFORMATION ONLY~~

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

10-19-98 SJ

INSTRUMENT DATA

EBERLINE_	Mfg.EBERLINE_	Mfg.EBERLINE
l SAC-4___	Model SAC-4___	Model ~~SAC-4~~ PC-4
l # 824	Serial # 795	Serial # 838
ue 3-21-99	Cal Due 3-16-99	Cal Due 1-9-99
0.0 cpm	Bkg. 0.10 cpm	Bkg. 41 cpm
ency .33	Efficiency .33	Efficiency .25
20 dpm	MDA 20 dpm	MDA 200 dpm
EBERLINE	Mfg.NE.TECH___	Mfg.NE.TECH__
l BC-4___	Model ELECTRA_	Model ELECTRA
# 702	Serial # _____	Serial # _____
ue 12-15-98	Cal Due _____	Cal Due _____
36	Bkg. _____	Bkg. _____
ency .25	Efficiency _____	Efficiency _____
700 dpm	MDA _____	MDA _____

Survey Type: CONTAMINATION

Building: 904

Location: TENT 8

Purpose: WEEKLY SURVEY

RWP #: _____

Date: 10-19-98 Time: 1340

RCT: KUBICKOWSKI [redacted]
Print name Signature

RCT: _____ / _____ / _____
Print name Signature Emp. #

#: _____

nents: _____

SURVEY RESULTS

REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
20	< 200			23.				
20	< 200			24.				
20	< 200			25.				
20	< 200			26.				
20	< 200			27.				
20	< 200			28.				
20	< 200			29.				
20	< 200			30.				
20	< 200			31.				
20	< 200			32.				
20	< 200			33.				
20	< 200			34.				
20	< 200			35.				
20	< 200			36.				
20	< 200			37.				
20	< 200			38.				
20	< 200			39.				
20	< 200			40.				
20	< 200	<		41.				
	10-19-98 SJ			42.				
				43.				
				44.				

iewed: 10/23/98 RS Supervision: J. Ewell / J Ewell [redacted]
Print Name Signature

236

RS FORMS 07.02-01

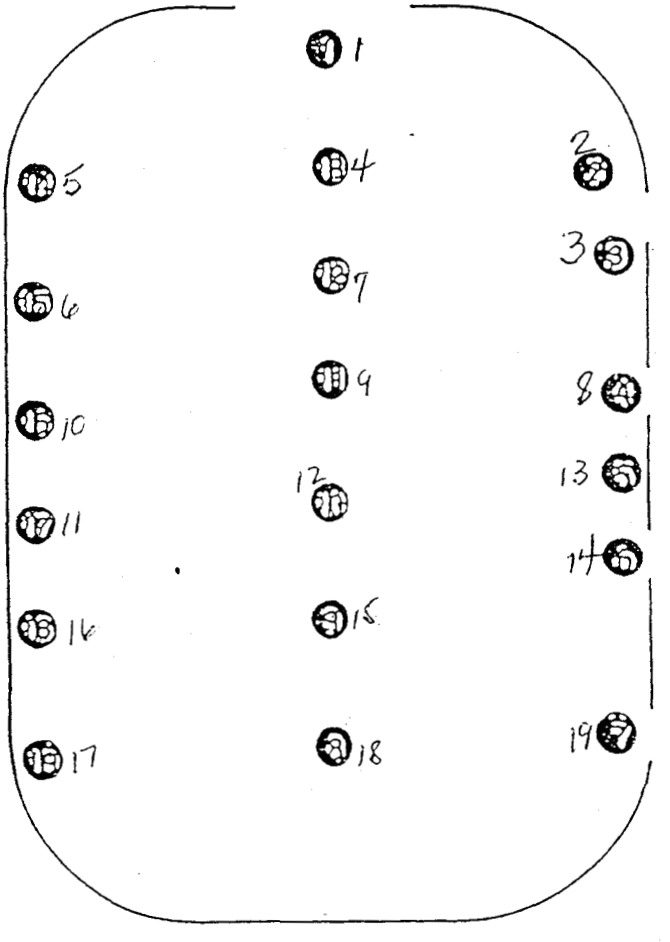
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

237

INFORMATION ONLY

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

BERLINE	Mfg.EBERLINE	Mfg.EBERLINE
SAC-4	Model SAC-4	Model ~~SAC~~ BC-4
# 824	Serial # 795	Serial # 838
ie 3-21-99	Cal Due 3-16-99	Cal Due 1-9-99
0.1	Bkg. 0.2	Bkg. 40
ncy .33	Efficiency .33	Efficiency .25
20 dpm	MDA 20 dpm	MDA 200 dpm
BERLINE	Mfg.NE.TECH	Mfg.NE.TECH
BC-4	Model ELECTRA	Model ELECTRA
# 702	Serial #	Serial #
~~40~~ 12-15-98	Cal Due	Cal Due
40	Bkg.	Bkg.
ncy .25	Efficiency	Efficiency
200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 8

Purpose: WEEKLY SURVEY

RWP #: N/A

Date: 10-29-98 Time: 0800

RCT: P Everich / P Everich [redacted]
Print name Signature

RCT: _____ / _____ / _____
Print name Signature Emp. #

: _____

ients: _____

SURVEY RESULTS

	REMOVABLE		DIRECT			REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA		ALPHA	BETA	ALPHA	BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.	20	<200			33.				
12.	20	<200			34.				
13.	20	<200			35.				
14.	20	<200			36.				
15.	20	<200			37.				
16.	20	<200			38.				
17.	20	<200			39.				
18.	20	<200			40.				
19.	20	<200			41.				
20.					42.				
21.					43.				
22.					44.				

10-29-98

Reviewed: _____ RS Supervision: TR / _____ / _____
Print Name Signature Emp #

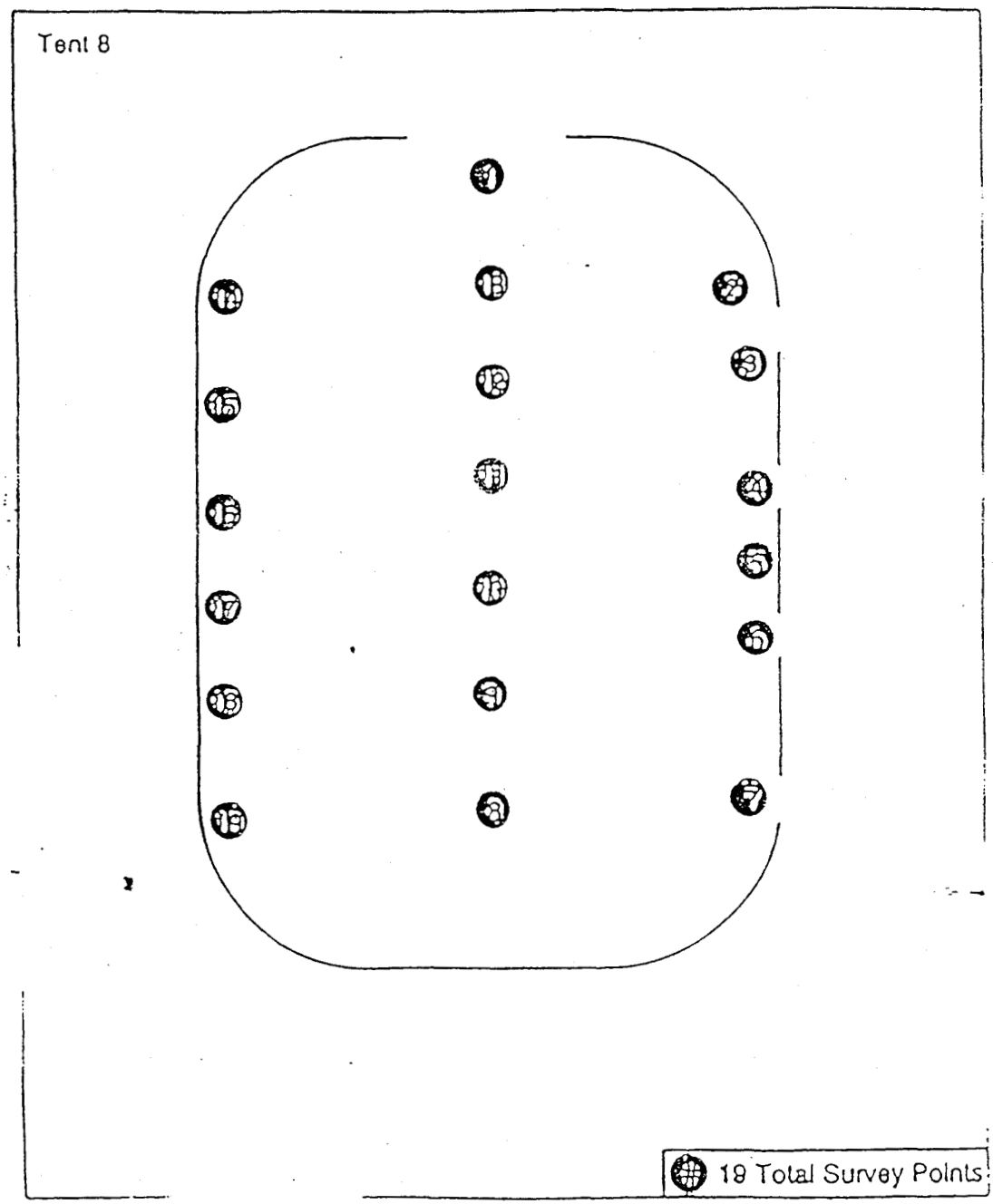
728

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



INFORMATION ONLY

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

g.EBERLINE_	Mfg.EBERLINE__	Mfg.EBERLINE
del SAC-4___	Model SAC-4___	Model ~~SAC-4~~ BC-4 per 11490
ial # 829	Serial # 795	Serial # 916
Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
0.1	Bkg. 0.2	Bkg. 43
iciency 33%	Efficiency 33%	Efficiency 25%
)A 20	MDA 20	MDA 200
g.EBERLINE	Mfg.NE.TECH___	Mfg.NE.TECH__
del BC-4___	Model ELECTRA_	Model ELECTRA
ial # 838	Serial # _____	Serial # _____
Due 1-9-99	Cal Due _____	Cal Due _____
36	Bkg. _____	Bkg. _____
ciency 25%	Efficiency _____	Efficiency _____
)A 200	MDA _____	MDA _____

Survey Type: CONTAMINATION

Building: 904

Location: TENT 8

Purpose: WEEKLY SURVEY

RWP #: _____

Date: 11-4-98 Time: 1400

RCT: Rick Muller / [redacted]
Print name Signatu

RCT: _____ / _____ / _____
Print name Signature Emp. #

L #: _____

nments: _____

SURVEY RESULTS

	REMOVABLE		DIRECT			REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA		ALPHA	BETA	ALPHA	BETA
1.	< 20	< 200			23.				
2.	< 20	< 200			24.				
3.	< 20	< 200			25.				
4.	< 20	< 200			26.				
5.	< 20	< 200			27.				
6.	< 20	< 200			28.				
7.	< 20	< 200			29.				
8.	< 20	< 200			30.				
9.	< 20	< 200			31.				
10.	< 20	< 200			32.				
11.	< 20	< 200			33.				
12.	< 20	< 200			34.				
13.	< 20	< 200			35.				
14.	< 20	< 200			36.				
15.	< 20	< 200			37.				
16.	< 20	< 200			38.				
17.	< 20	< 200			39.				
18.	< 20	< 200			40.				
19.	< 20	< 200			41.				
20.					42.				
21.					43.				
22.					44.				

11-4-98

Reviewed: 11/17/98 RS Supervision: J. Fewell / J. Fewell
Print Name Signature

[redacted]

240

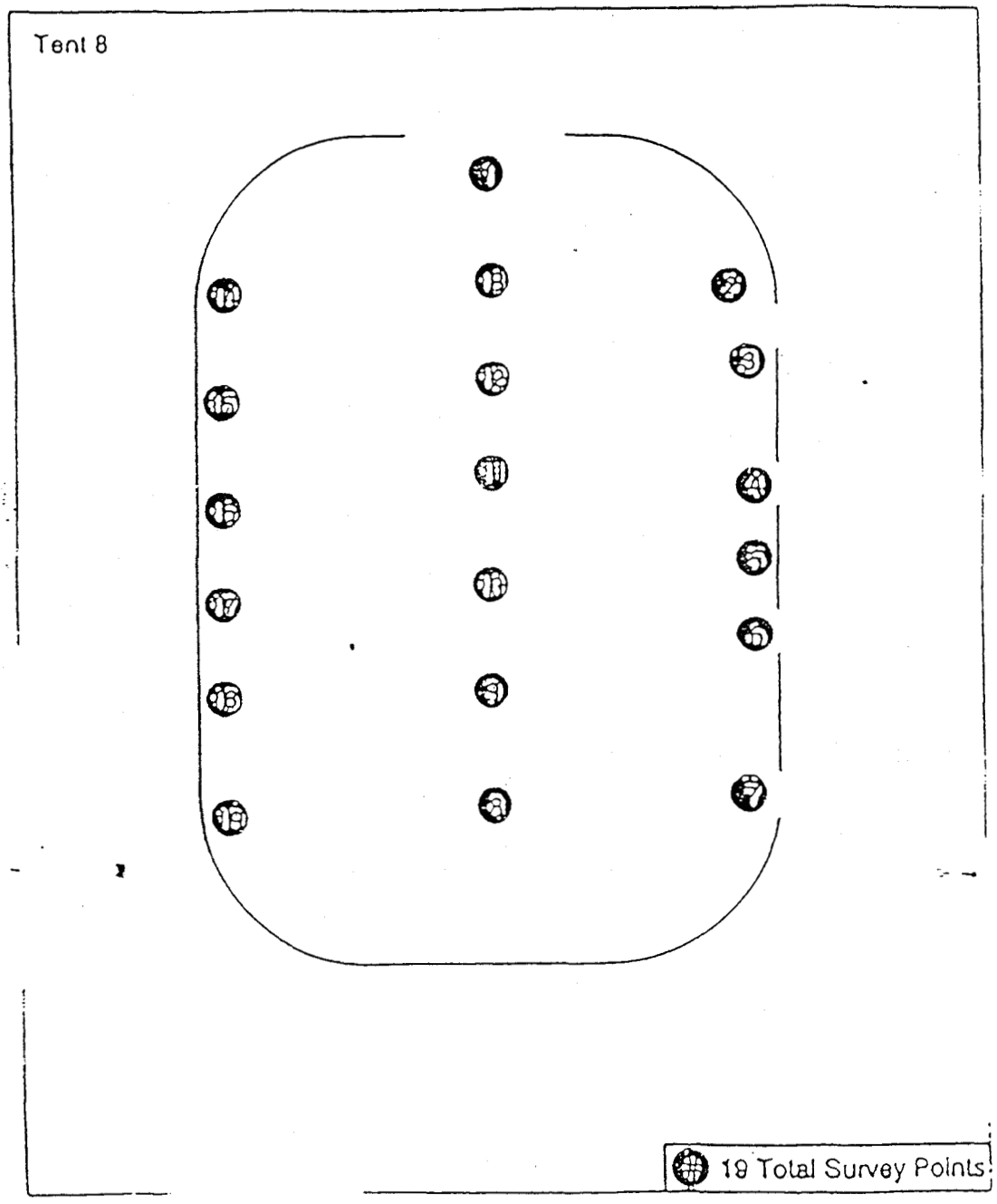
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



INFORMATION ONLY

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 824	Serial # 795	Serial # 916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.0	Bkg. 0.0	Bkg. 41
Efficiency .33	Efficiency .33	Efficiency .25
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 42	Bkg.	Bkg.
Efficiency .25	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 8

Purpose: WEEKLY SURVEY

RWP #:

Date: 11-11-98 Time: 1430

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

RCT: / /
Print name Signature Emp. #

PRL #:

Comments:

SURVEY RESULTS

	REMOVABLE		DIRECT			REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA		ALPHA	BETA	ALPHA	BETA
	<20	<200			23.				
	<20	<200			24.				
	<20	<200			25.				
	<20	<200			26.				
	<20	<200			27.				
	<20	<200			28.				
	<20	<200			29.				
	<20	<200			30.				
	<20	<200			31.				
0.	<20	<200			32.				
1.	<20	<200			33.				
2.	<20	<200			34.				
3.	<20	<200			35.				
4.	<20	<200			36.				
5.	<20	<200			37.				
6.	<20	<200			38.				
7.	<20	<200			39.				
8.	<20	<200			40.				
9.	<20	<200			41.				
0.					42.				
1.		11-11-98			43.				
2.					44.				

Date Reviewed: 11/17/98 RS Supervision: J. Ewell / J. Ewell [redacted]
Print Name Signature

242

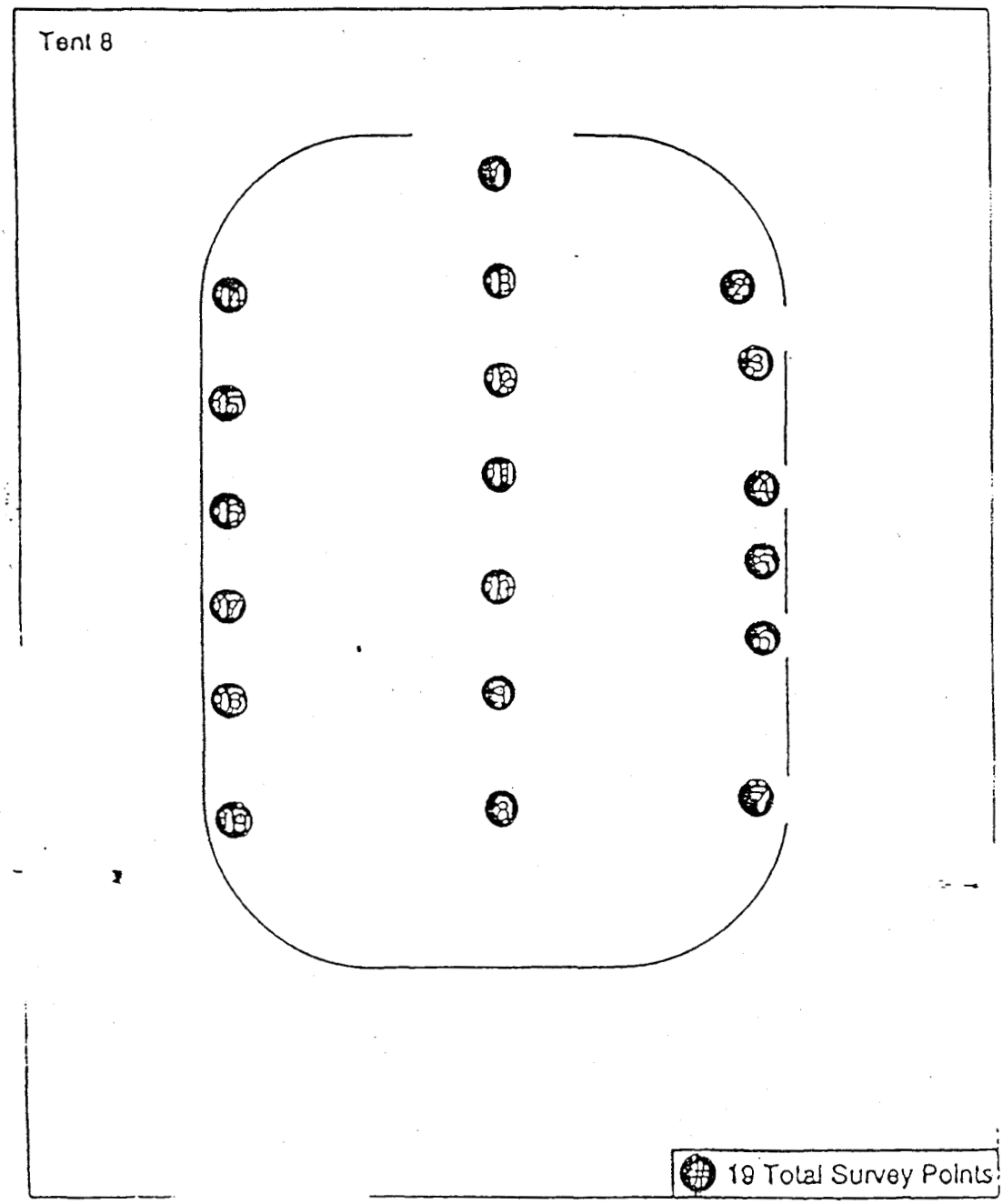
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



INFORMATION ONLY

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model SAC-4
Serial # 824	Serial # 795	Serial # 916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.0	Bkg. 0.0	Bkg. 43
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20	MDA <20	MDA <200
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 39	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 8

Purpose: WEEKLY SURVEY

RWP #: LH 11-19-98

Date: 11/19/98 Tim

RCT: Hankins

Print name

RCT: LH

Print name 11-19-98 Signature Emp. #

PRL # LH

Comments: 11-19-98

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
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		
13.	<20	<200		
14.	<20	<200		
15.	<20	<200		
16.	<20	<200		
17.	<20	<200		
18.	<20	<200		
19.	<20	<200		
20.				
21.				
22.				
23.				
24.				
25.				
26.				
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30.				
31.				
32.				
33.				
34.				
35.				
36.				
37.				
38.				
39.				
40.				
41.				
42.				
43.				
44.				

Date Reviewed: 11/19/98 RS Supervision: J. Ewell

Print Name Signature

244

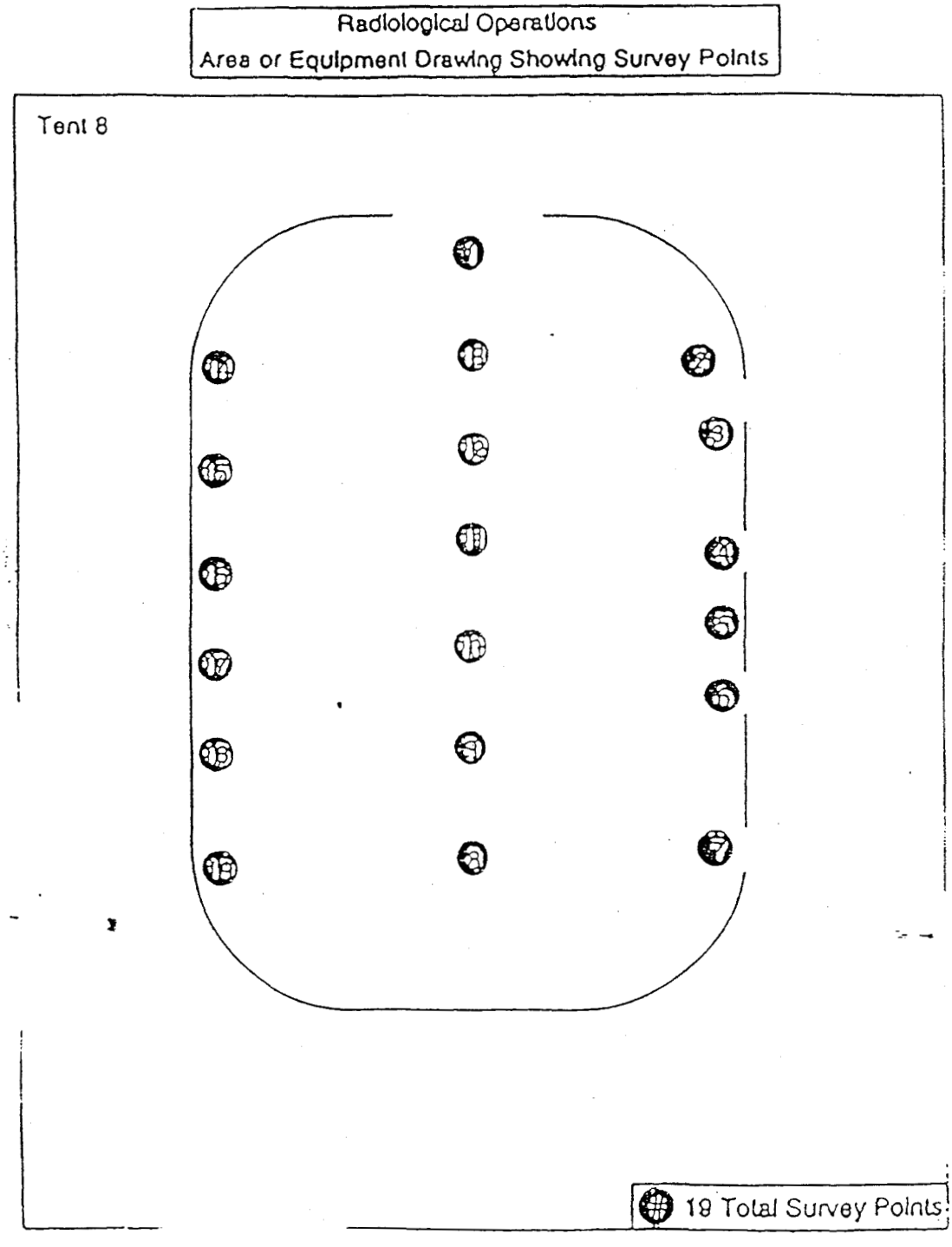
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC
Serial # 824	Serial # 795	Serial # 916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.1	Bkg. 0.0	Bkg. 43
Efficiency 33	Efficiency 33	Efficiency 25
MDA 20	MDA 20	MDA 200
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 37	Bkg.	Bkg.
Efficiency 25	Efficiency	Efficiency
MDA 20	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 8

Purpose: WEEKLY SURVEY

RWP #:

Date: 11-23-98 Time: 0930

RCT: Munoz [signature] [redacted]
Print name Signature

RCT: / /
Print name Signature Emp. #

PRL #:

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.	<20	<200			33.				
12.	<20	<200			34.				
13.	<20	<200			35.				
14.	<20	<200			36.				
15.	<20	<200			37.				
16.	<20	<200			38.				
17.	<20	<200			39.				
18.	<20	<200			40.				
19.	<20	<200			41.				
					42.				
21.					43.				
22.					44.				

Date Reviewed: 11/24/98 RS Supervision: J. Ewell [signature] [redacted]
Print Name Signature

246

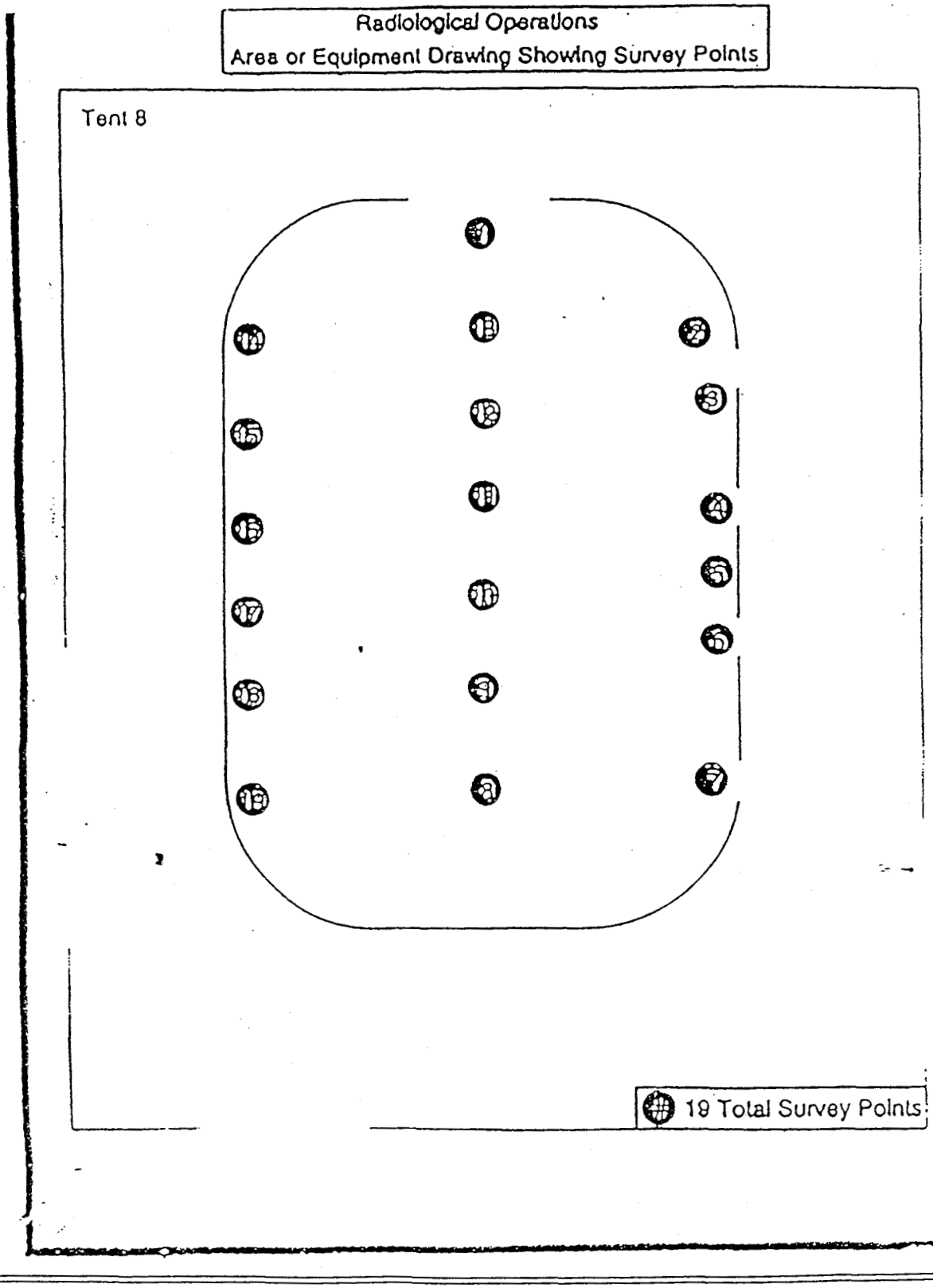
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



INFORMATION ONLY

8-5-98
Page 2 of 2

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4 ~~B-5-98~~	Model ~~SAC-4~~ BC-4
Serial # 795	Serial # 824	Serial # BC 704
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.1	Bkg. 0.1	Bkg. 33
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg. EBERLINE	Mfg. NE. TECH	Mfg. NE. TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC 702	Serial # ~~8-5-98~~	Serial # ~~8-5-98~~
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 34	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION
Building: 904
Location: TENT 8
Purpose: WEEKLY SURVEY

RWP #: am 8-5-98

Date: 8-5-98 Time: 0830

RCT: Munoz (Print name) [redacted] (Signature)

RCT: am 8-5-98 (Print name) / (Signature) / (Emp. #)

PRL #: am 8-5-98

Comments: See Reverse side for map

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
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		
13.	<20	<200		
14.	<20	<200		
15.	<20	<200		
16.	<20	<200		
17.	<20	<200		
18.	<20	<200		
19.	<20	<200		
20.			am 8-5-98	
21.				
22.				

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
23.				
24.				
25.				
26.				
27.				
28.				
29.				
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31.				
32.				
33.				
34.				
35.				
36.				
37.				
38.				
39.				
40.				
41.				
42.				
43.				
44.				

am 8-5-98

Date Reviewed: 8/26/98 RS Supervision: [redacted] (Print Name) (Signature)

[redacted]

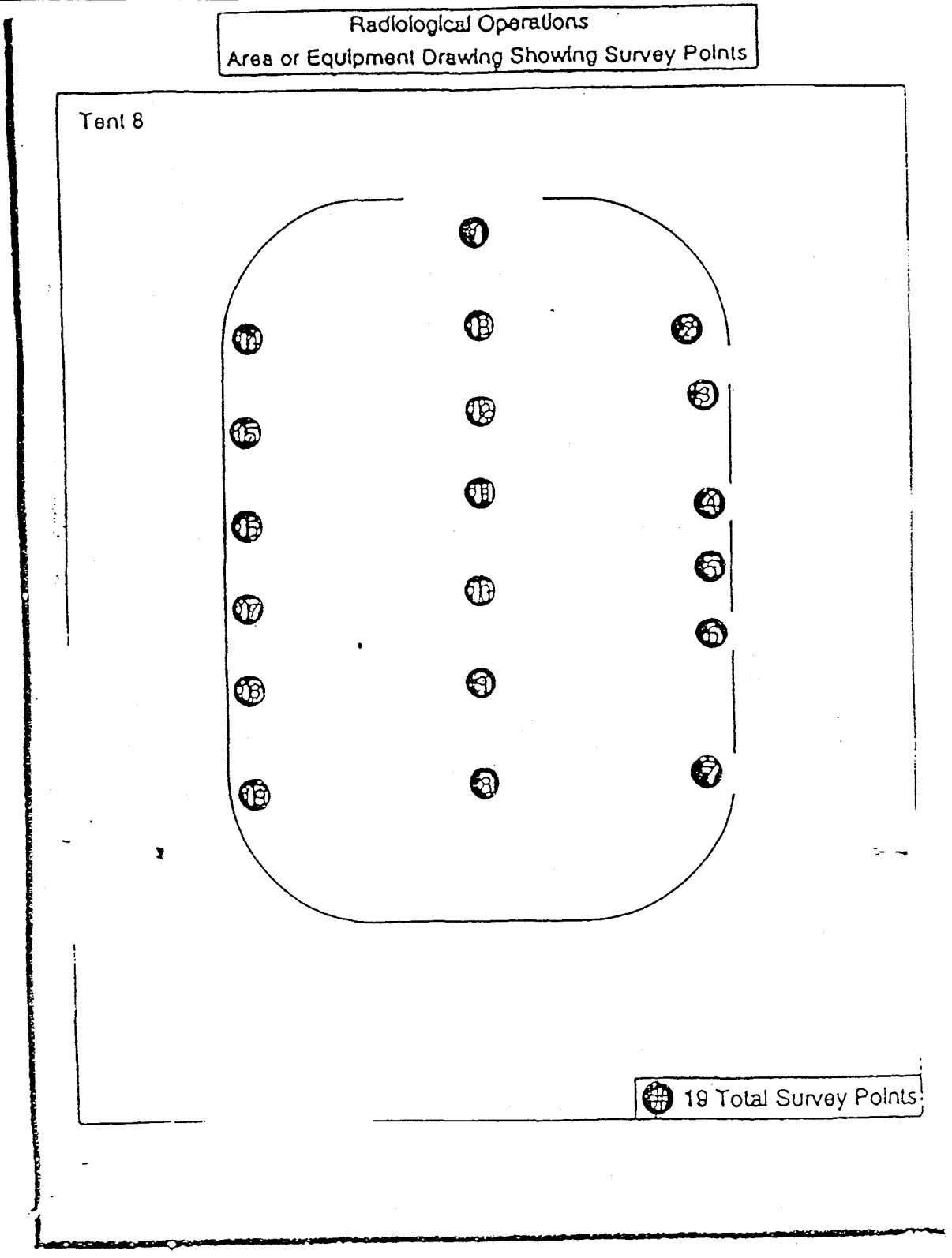
247

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



INFORMATION ONLY

Page 1 of 2

~~INFORMATION ONLY~~

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC4
Serial # 795	Serial # 824	Serial # BC 704
Cal Due 9/13/98	Cal Due 9/24/98	Cal Due 12/11/98
Bkg. 0.0	Bkg. 0.0	Bkg. 36
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20	MDA <20	MDA <200
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC 702	Serial #	Serial #
Cal Due 12/15/98	Cal Due	Cal Due
Bkg. 38	Bkg. 8/13/98	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200	MDA	MDA

TP 8/13/98

Survey Type: CONTAMINATION

Building: 904

Location: TENT 8

Purpose: WEEKLY SURVEY

RWP #: NA

Date: 8/13/98 Time: 10:00

RCT: [illegible] / [illegible] [redacted]

Print name Signature Emp. #

RCT: / /

Print name Signature Emp. #

PRL #: NA

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.	<20	<200			33.				
12.	<20	<200			34.				
13.	<20	<200			35.				
14.	<20	<200			36.				
15.	<20	<200			37.				
16.	<20	<200			38.				
17.	<20	<200			39.				
18.	<20	<200			40.				
19.	<20	<200			41.				
20.					42.				
21.					43.				
22.					44.				

TP 8/13/98

TP 8/13/98

TP 8/13/98

Date Reviewed: 8/26/98 RS Supervision: [illegible] [redacted]

Print Name Signature

249

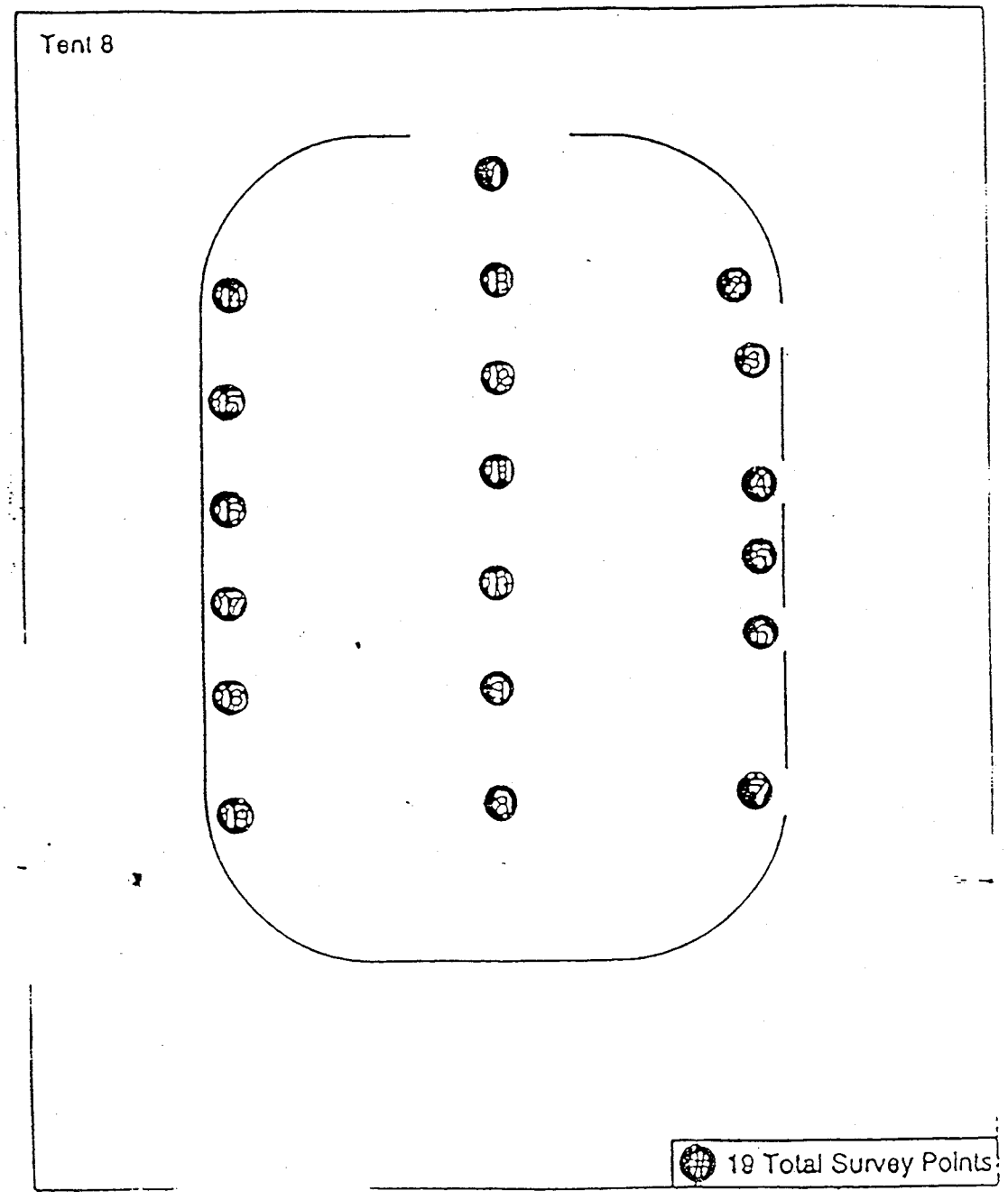
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



250

INFORMATION ONLY

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 795	Serial # B24	Serial # Bc704
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.0	Bkg. 0.2	Bkg. 41
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20 dpm	MDA <20 dpm	MDA <200 dpm

Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # Bc702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 38	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 8

Purpose: WEEKLY SURVEY

RWP #: 9a 8-19-98

Date: 8-19-98 Time: 0930

RCT: Munoz [redacted] [redacted]
Print name Signature Emp. #

RCT: 9a 8-19-98 / /
Print name Signature Emp. #

PRL # : 9a 8-19-98

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.			
2.	<20	<200			24.			
3.	<20	<200			25.			
4.	<20	<200			26.			
5.	<20	<200			27.			
6.	<20	<200			28.			
7.	<20	<200			29.			
8.	<20	<200			30.			
9.	<20	<200			31.			
10.	<20	<200			32.			
11.	<20	<200			33.			
12.	<20	<200			34.			
13.	<20	<200			35.			
14.	<20	<200			36.			
15.	<20	<200			37.			
16.	<20	<200			38.			
17.	<20	<200			39.			
18.	<20	<200			40.			
19.	<20	<200			41.			
20.					42.			
21.					43.			
22.					44.			

Date Reviewed: 9/3/98 RS Supervision: K. Gallegos [redacted]
Print Name Signature

251

RS FORMS 07.02-01

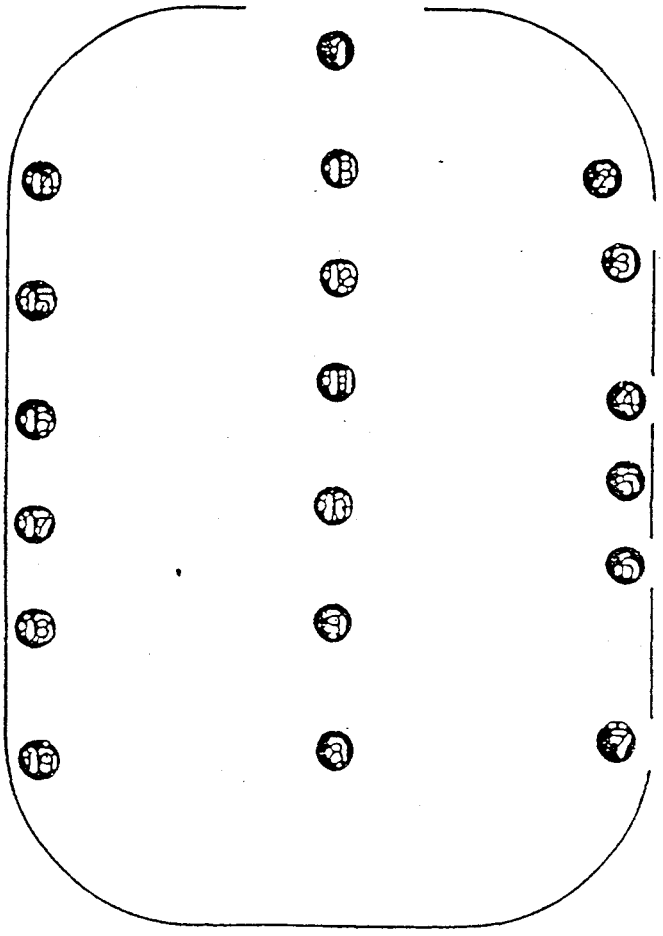
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

252

 INFORMATION ONLY

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 795	Serial # 824	Serial # BC 204
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.0	Bkg. 0.2	Bkg. 36
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 dpm	MDA 20 dpm	MDA ~~<~~ 200 8-27-98
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC 202	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 36	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

8-27-98 8-27-98

Survey Type: CONTAMINATION

Building: 904

Location: TENT 8

Purpose: WEEKLY SURVEY

8-27-98

RWP #:

Date: 8-27-98 Time: 1030

RCT: [signature] / [signature] [redacted]
Print name Signature

8-27-98

RCT: / /
Print name Signature Emp. #

8-27-98

PRL # :

Comments:

See page 2 of 2 for survey map

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.	<20	<200			33.				
12.	<20	<200			34.				
13.	<20	<200			35.				
14.	<20	<200			36.				
15.	<20	<200			37.				
16.	<20	<200			38.				
17.	<20	<200			39.				
18.	<20	<200			40.				
19.	<20	<200			41.				
					42.				
21.					43.				
22.					44.				

8-27-98 8-27-98

Date Reviewed: 4/3/98 RS Supervision: K. [signature] / K [signature] [redacted]
Print Name Signature

053

RS FORMS 07.02-01

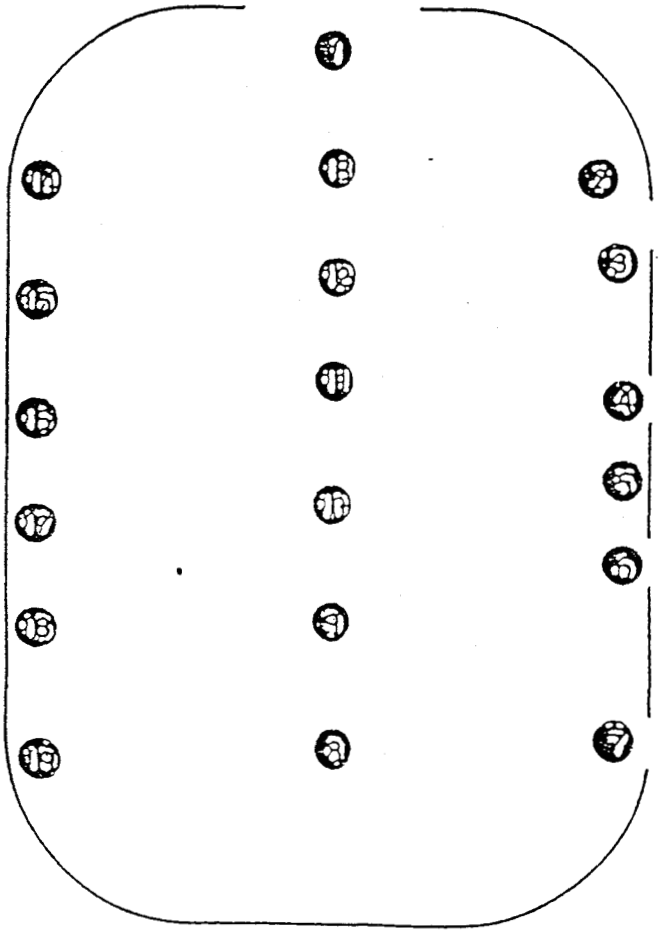
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



19 Total Survey Points

254

Page ___ of ___ **INFORMATION ONLY** RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 795	Serial # 824	Serial # 704
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.3	Bkg. 0.1	Bkg. 37
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20dpm	MDA 20dpm	MDA 200dpm
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 39	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 8

Purpose: WEEKLY SURVEY

RWP #:

Date: 9-2-98 Time: 1215

RCT: M.E. VAUGHN / M.E. V [redacted]

Print name Signature Emp. #

RCT: / /

Print name Signature Emp. #

PRL # :

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<20			23.				
2.					24.				
3.					25.				
4.					26.				
5.					27.				
6.					28.				
7.					29.				
8.					30.				
9.					31.				
10.					32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

Date Reviewed: 9/3/98 RS Supervision: K. Gatland / K E [redacted]

Print Name Signature

255

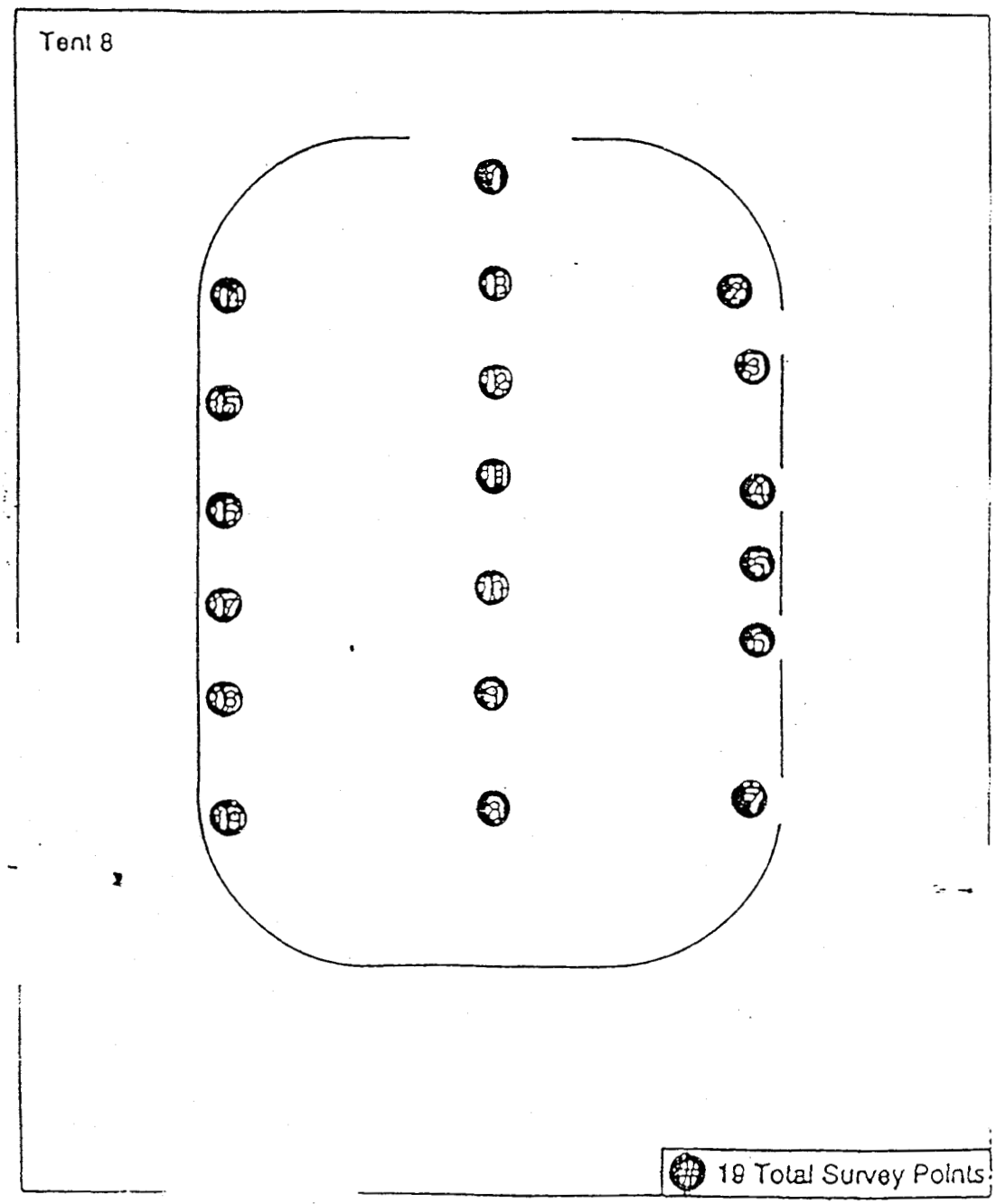
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



RS FORMS 07.02-01

INFORMATION ONLY

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 795	Serial # 824	Serial # BC838
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 1-9-99
Bkg. 0.1	Bkg. 0.0	Bkg. 39
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg. EBERLINE	Mfg. NE. TECH	Mfg. NE. TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 44	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 8

Purpose: WEEKLY SURVEY

an 9-9-98

RWP #:

Date: 9-9-98 Time: 1030

RCT: MUNOZ [redacted]
Print name Signature

an 9-9-98

RCT: / /
Print name Signature Emp. #

an 9-9-98

PRL #:

Comments: See Survey Map for Survey points

SURVEY RESULTS

	REMOVABLE		DIRECT			REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA		ALPHA	BETA	ALPHA	BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.	<20	<200			33.				
12.	<20	<200			34.				
13.	<20	<200			35.				
14.	<20	<200			36.				
15.	<20	<200			37.				
16.	<20	<200			38.				
17.	<20	<200			39.				
18.	<20	<200			40.				
19.	<20	<200			41.				
20.					42.				
21.					43.				
22.					44.				

Date Reviewed: 9/10/98 RS Supervision: J. Ewell [redacted]
Print Name Signature

251

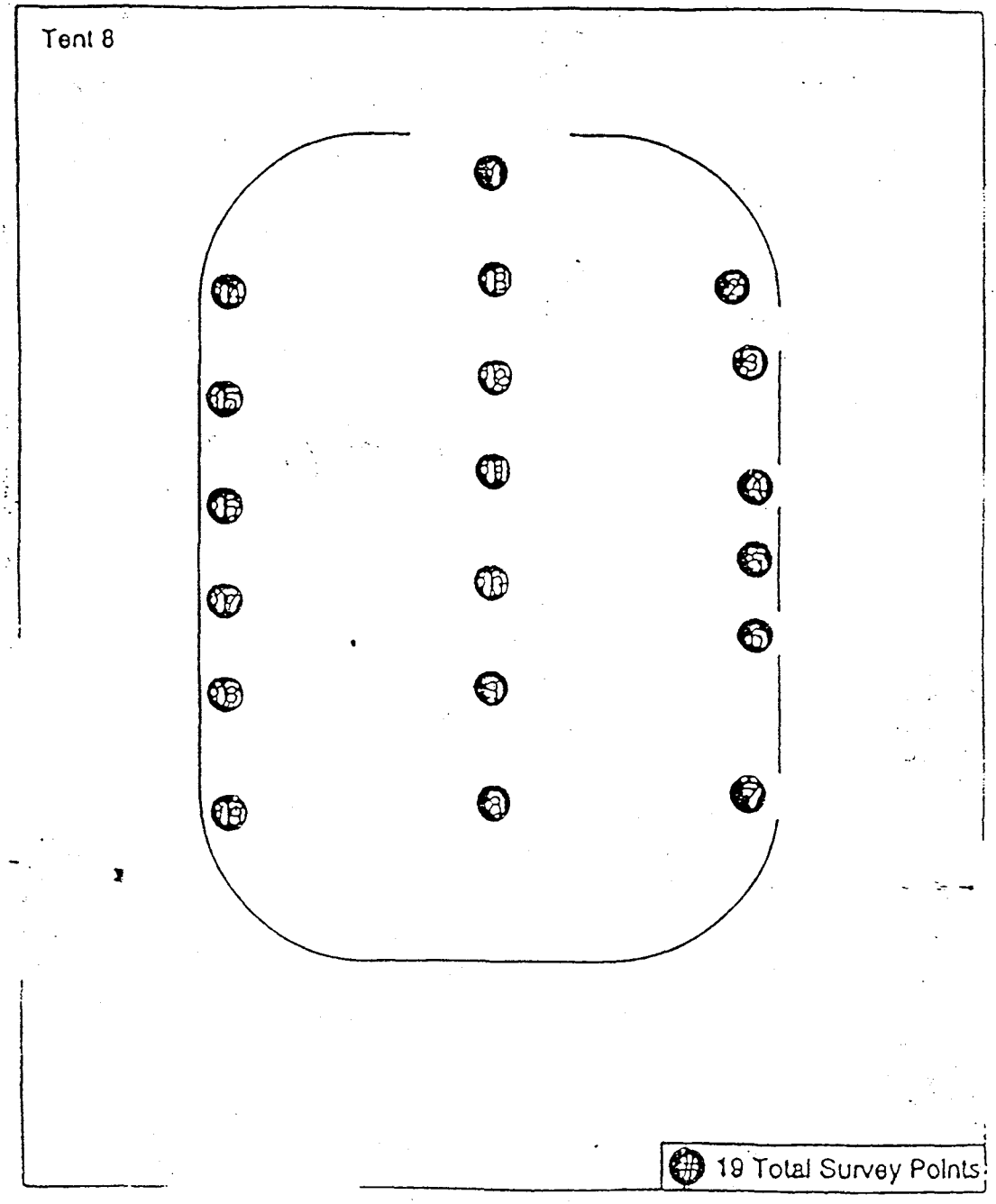
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



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INFORMATION ONLY

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC~~ BC-4
Serial # 767	Serial # 824	Serial # 838
Cal Due 10-14-98	Cal Due 9-24-98	Cal Due 1-9-98
Bkg. 0.0	Bkg. 0.1	Bkg. 40
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20 dpm	MDA <20 dpm	MDA <200 dpm

Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial # 216	Serial # 5
Cal Due 12-15-98	Cal Due 9-16-98	Cal Due 9-16-98
Bkg. 41	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 8

Purpose: WEEKLY SURVEY

~~RWP #:~~ JH 9-16-98

Date: 9-16-98 Time: 1245

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

RCT: JH 9-16-98 / 1 Emp. #
Print name Signature

PRL # :

Comments: JH 9-16-98

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
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		
13.	<20	<200		
14.	<20	<200		
15.	<20	<200		
16.	<20	<200		
17.	<20	<200		
18.	<20	<200		
19.	<20	<200		
20.				
21.	JH 9-16-98			
22.				
23.				
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42.				
43.				
44.				

Date Reviewed: 9/22/98 RS Supervision: J. Ewell / [redacted]
Print Name Signature

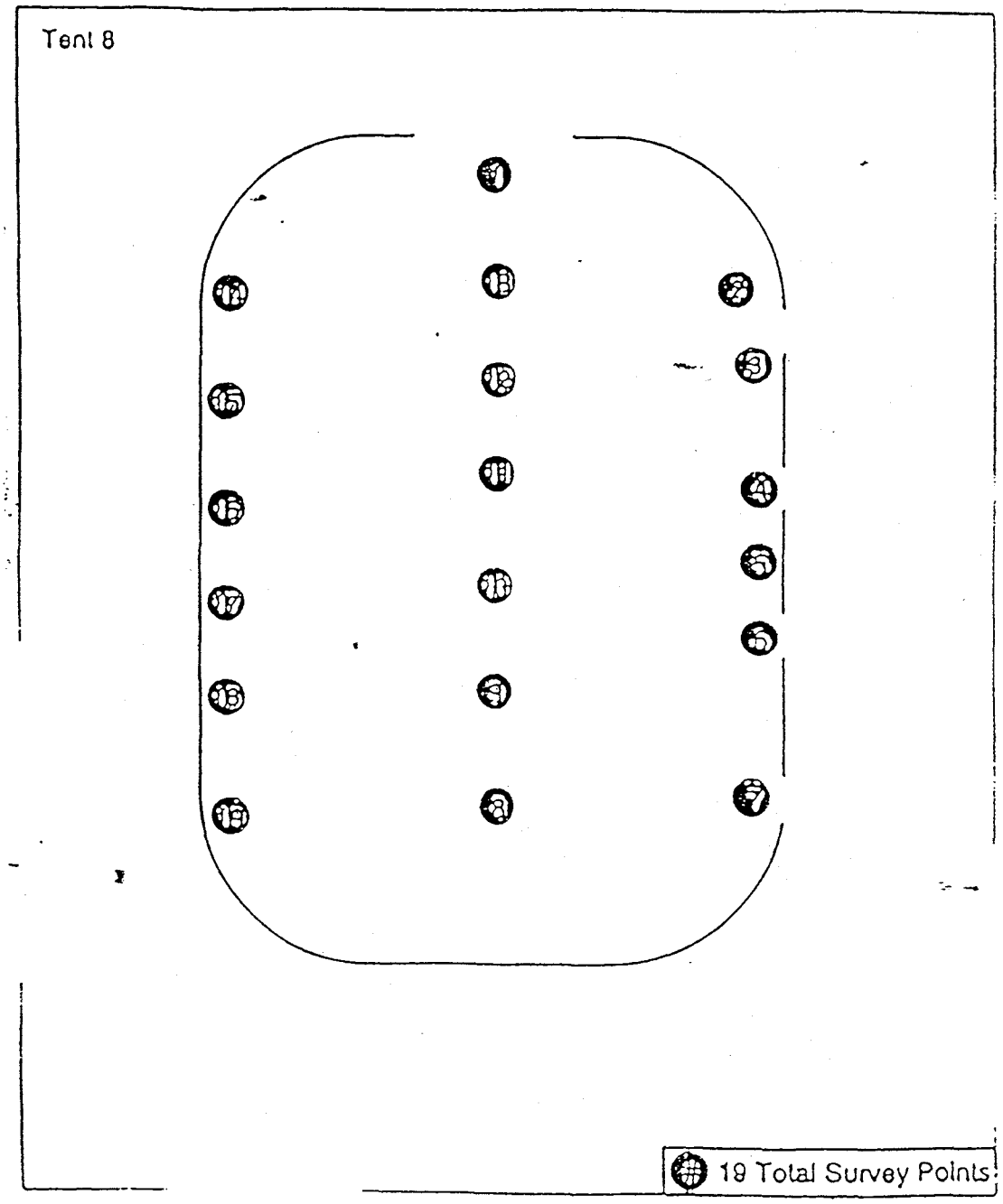
259

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



 INFORMATION ONLY RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 767	Serial # 795	Serial # Bc838
Cal Due 10-14-98	Cal Due 3-16-99	Cal Due 1-9-99
Bkg. 0.1	Bkg. 0.2	Bkg. 39
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg. EBERLINE	Mfg. NE. TECH	Mfg. NE. TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # Bc702	Serial # ~~9-23-98~~	Serial # ~~9-23-98~~
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 38	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION
Building: 904
Location: TENT 8
Purpose: WEEKLY SURVEY
on 9-23-98
RWP #:
Date: 9-23-98 Time: 1000
RCT: MUNOZ / [redacted]
Print name Signature
on 9-23-98
RCT: / /
Print name Signature Emp. #

PRL #: on 9-23-98
Comments:
See Map Page 2

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.			
2.	<20	<200			24.			
3.	<20	<200			25.			
4.	<20	<200			26.			
5.	<20	<200			27.			
6.	<20	<200			28.			
7.	<20	<200			29.			
8.	<20	<200			30.			
9.	<20	<200			31.			
10.	<20	<200			32.			
11.	<20	<200			33.			
12.	<20	<200			34.			
13.	<20	<200			35.			
14.	<20	<200			36.			
15.	<20	<200			37.			
16.	<20	<200			38.			
17.	<20	<200			39.			
18.	<20	<200			40.			
19.	<20	<200			41.			
20.					42.			
21.					43.			
22.					44.			

on 9-23-98

Date Reviewed: 10/5/98 RS Supervision: J. Farell / [redacted]
Print Name Signature

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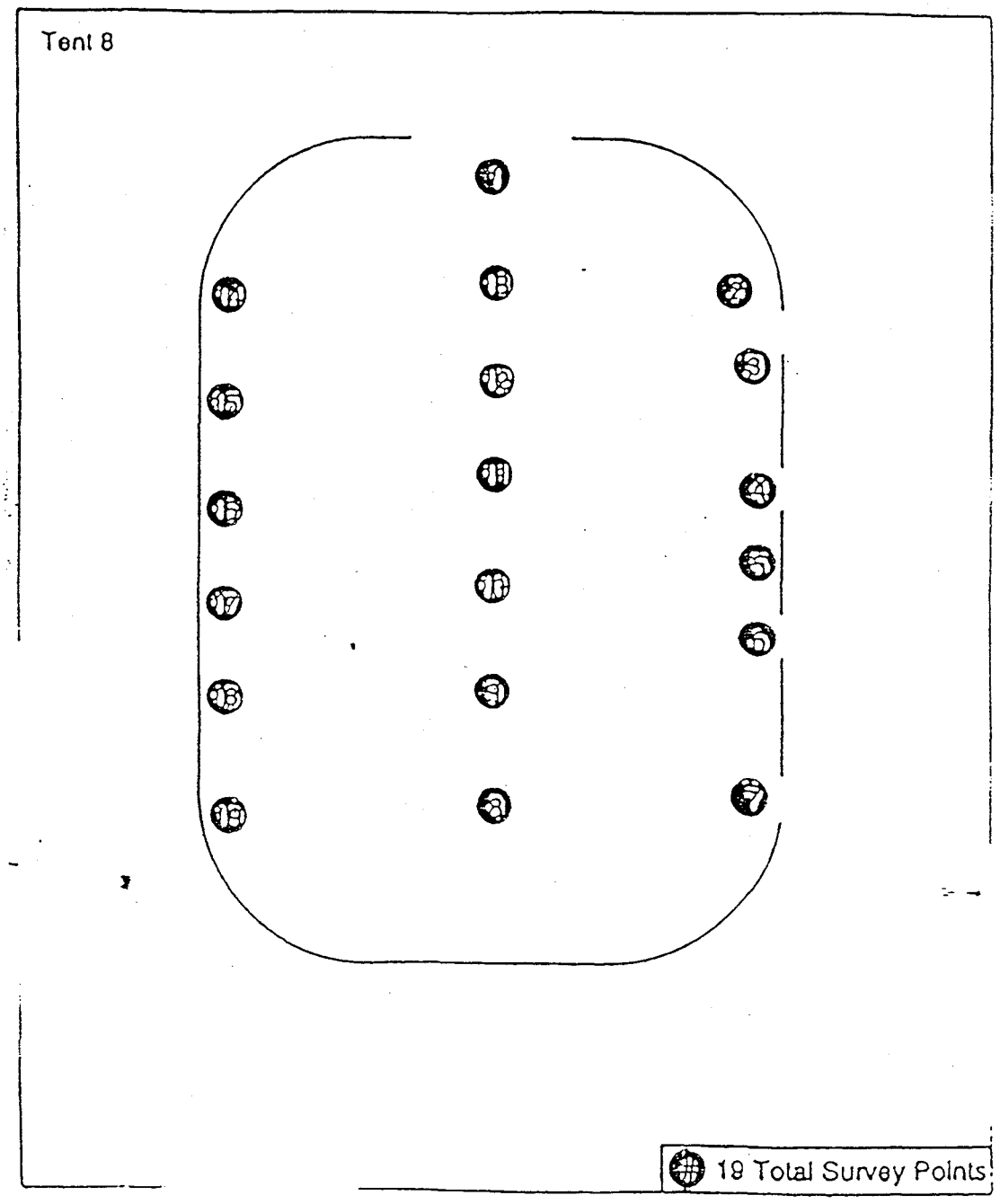
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



 INFORMATION ONLY RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model SAC-4
Serial # 767	Serial # 795	Serial # Bc 838
Cal Due 10-14-98	Cal Due 3-16-99	Cal Due 1-9-99
Bkg. 0.1	Bkg. 0.7	Bkg. 43
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # Bc 702	Serial # C 9-30-98	Serial # C 9-30-98
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 36	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION
Building: 904
Location: TENT 8
Purpose: WEEKLY SURVEY
C 9-30-98
RWP #:
Date: 9-30-98 Time: 1000
RCT: Munoz / Munoz [redacted]
Print name Signature
C 9-30-98
RCT: / /
Print name Signature Emp. #

C 9-30-98
PRL #:
Comments: See Survey Map Pg. 2

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.	<20	<200			33.				
12.	<20	<200			34.				
13.	<20	<200			35.				
14.	<20	<200			36.				
15.	<20	<200			37.				
16.	<20	<200			38.				
17.	<20	<200			39.				
18.	<20	<200			40.				
19.	<20	<200			41.				
20.					42.				
21.					43.				
22.					44.				

C 9-30-98

Date Reviewed: 10/5/98 RS Supervision: J. Ewell / [redacted]
Print Name Signature

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RS FORMS 07.02-01

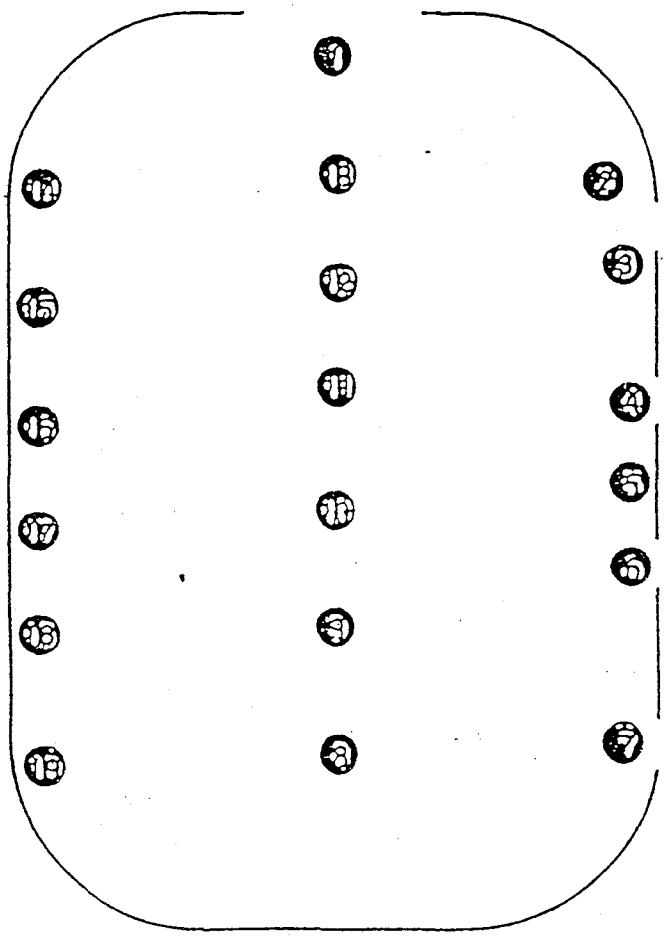
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 8



2624

B.3 SITE HAZARD ASSESSMENT RADIOLOGICAL DATA

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 44	Bkg. 41	Bkg. 0.1
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 1680	Serial # 1680
Cal Due 6/16/99	Cal Due 8-10-99	Cal Due 8-10-99
Bkg. 0.1	Bkg. 4	Bkg. 504
Efficiency 33%	Efficiency 22.9%	Efficiency 34.7%
MDA <20	MDA 54	MDA 321

Survey Type: Contamination Survey

Building: TENT # 8

Location: 904 PAD

Purpose: CHARACTERIZATION SURVEYS

RWP #: NA

Date: 05-08-99 Time: 1500

RCT: Rex Snyder / [signature] [redacted]
Print name Signatu[redacted]

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

PRL #:

Comments Survey Points on Canvas Panels also perform 10% Scan on Canvas panels direct < 8 ft

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable Alpha	Removable Beta	Direct Alpha	Direct Beta		Removable Alpha	Removable Beta	Direct Alpha	Direct Beta
1.	< 20	< 200	< 54	< 321	23.	< 20	< 200	108	< 321
2.	< 20	< 200	< 54	< 321	24.	< 20	< 200	228	648
3.	< 20	< 200	< 54	< 321	25.	< 20	< 200	< 54	< 321
4.	< 20	< 200	< 54	< 321	26.	< 20	< 200	< 54	390
5.	< 20	< 200	< 54	< 321	27.	< 20	< 200	< 54	< 321
6.	< 20	< 200	< 54	< 321	28.	< 20	< 200	< 54	< 321
7.	< 20	< 200	< 54	< 321	29.	< 20	< 200	< 54	< 321
8.	< 20	< 200	< 54	< 321	30.	< 20	< 200	< 54	< 321
9.	< 20	< 200	< 54	< 321	31.	< 20	< 200	< 54	< 321
10.	< 20	< 200	< 54	< 321	32.	< 20	< 200	< 54	< 321
11.	< 20	< 200	< 54	< 321	33.	< 20	< 200	< 54	< 321
12.	< 20	< 200	< 54	< 321	34.	< 20	< 200	< 54	< 321
13.	< 20	< 200	< 54	< 321	35.	< 20	< 200	< 54	< 321
14.	< 20	< 200	< 54	< 321	36.	< 20	< 200	< 54	< 321
15.	< 20	< 200	< 54	< 321	37.	< 20	< 200	< 54	< 321
16.	< 20	< 200	< 54	< 321	38.	< 20	< 200	< 54	< 321
17.	< 20	< 200	< 54	< 321	39.	< 20	< 200	< 54	< 321
18.	< 20	< 200	< 54	< 321	40.	< 20	< 200	< 54	< 321
[illegible]	20	< 200	< 54	< 321	41.	< 20	< 200	< 54	396
20.	< 20	< 200	< 54	< 321	42.	< 20	< 200	< 54	< 321
21.	< 20	< 200	< 54	< 321	43.	< 20	< 200	< 54	< 321
22.	< 20	< 200	< 54	< 321	44.	< 20	< 200	< 54	< [redacted]

Date 5/10/99 RS Supervision: L N Cooper / [signature]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

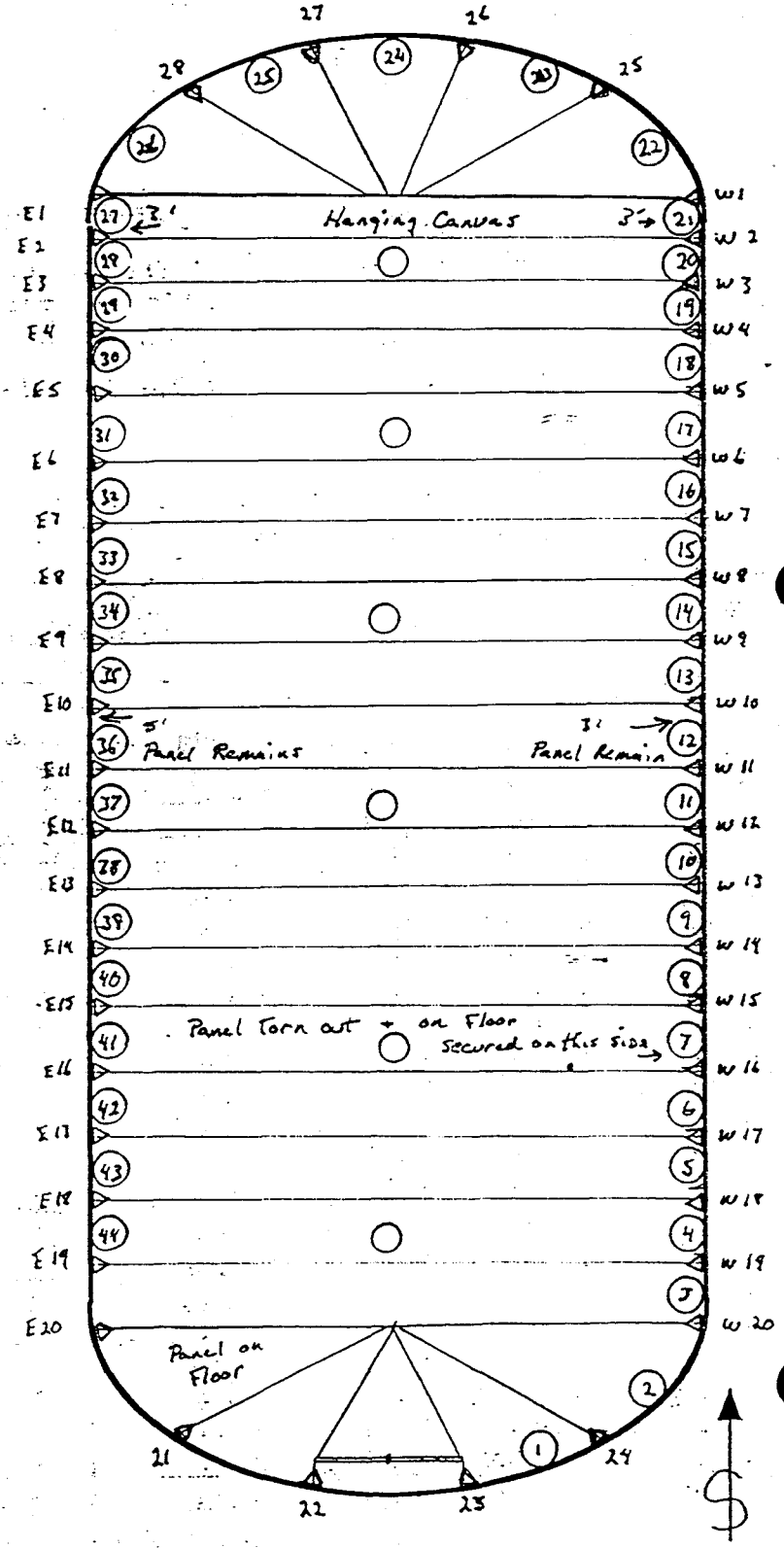
RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Location

1. Canvas
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.
21.
22.
23.
24.
25.
26.
27.
28.
29.
30.
31.
32.
33.
34.
35.
36.
37.
38.
39.
40.
41.
42.
43.
44. Canvas

Tent # 8



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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model SAC-4
Serial # 959	Serial # 1188	Serial # 835
Cal Due 7-5-99	Cal Due 6-16-99	Cal Due 10-26-99
Bkg. 0.2	Bkg. 0.5	Bkg. 0.3
Efficiency 33%	Efficiency 33%	Efficiency 33%
MDA 20	MDA 20	MDA 20
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial # 1680	Serial # 1680
Cal Due 7-13-99	Cal Due 8-10-99	Cal Due 8-10-99
Bkg. 45	Bkg. 4	Bkg. 504
Efficiency 25%	Efficiency 22.9%	Efficiency 34.7%
MDA 200	MDA 54	MDA 321

Survey Type: CONTAMINATION

Building: Tent # 8

Location: 904 Pad

Purpose: Characterization Survey

RWP #: - NA -

Date: 05-10-99 Time: 1000

RCT: Rex Snyder / [signature] [redacted]

Print name Signature

RCT: N / A

Print name Signature Emp. #

PRL # :

Comments: Survey Points on Canvas, plus 10% direct scan on canvas < 8 FT

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	< 20	< 200	96	378	23.				
2.	< 20	< 200	228	648	24.				
3.	< 20	< 200	120	< 321	25.				
4.	< 20	< 200	168	< 321	26.				
5.	< 20	< 200	216	< 321	27.				
6.	< 20	< 200	144	< 321	28.				
7.	< 20	< 200	< 54	< 321	29.				
8.	< 20	< 200	< 54	< 321	30.				
9.					31.				
10.					32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

N/A (lines 9–22 and 23–44 lined through)

Date Reviewed: 5/10/99 RS Supervision: LW Cooper / [signature] [redacted]

Print Name Signature Emp #

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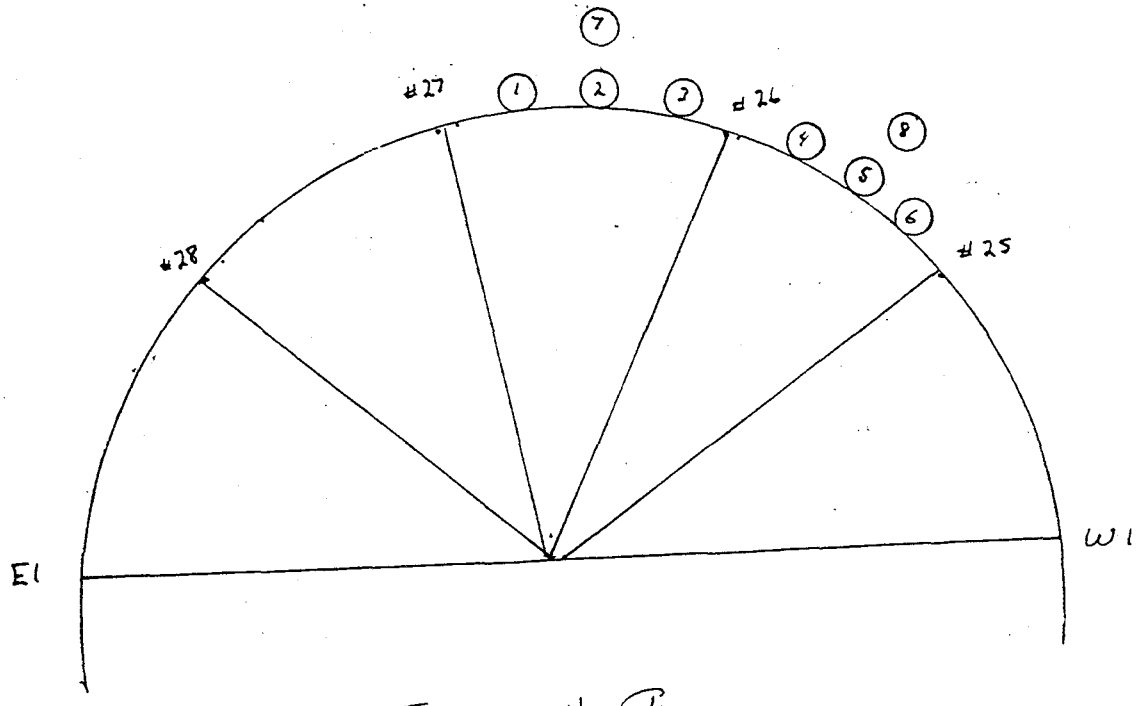
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Tent # 8

⑦ + ⑧ = 4' High

① through ⑥ = Floor line where canvas Had Been secured down

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 44	Bkg. 41	Bkg. 0.1
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 1680	Serial # 1680
Cal Due 6/16/99	Cal Due 8-10-99	Cal Due 8-10-99
Bkg. 0.1	Bkg. 1	Bkg. 446
Efficiency 33%	Efficiency 22.9%	Efficiency 34.7%
MDA <20	MDA 33	MDA 302

Survey Type: Contamination Survey

Building: TENT # 8

Location: 904 PAD

Purpose: CHARACTERIZATION SURVEYS

RWP #: NA

Date: 05-06-99 Time: 1800

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

RCT: N / A
Print name Signature Emp. #

PRL #:

Comments: Survey Points - every Fifth Support + Remaining Canvas Panels plus 10% Direct Scan on Canvas < 85T

Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct			Removable		Direct	
	Alpha	Beta	Alpha	Beta		Alpha	Beta	Alpha	Beta
1.	< 20	< 200	42	< 302	23.				
2.	< 20	< 200	< 33	< 302	24.				
3.	< 20	< 200	60	< 302	25.				
4.	< 20	< 200	< 33	< 302	26.				
5.	< 20	< 200	90	< 302	27.				
6.	< 20	< 200	< 33	< 302	28.				
7.	< 20	< 200	< 33	< 302	29.				
8.	< 20	< 200	< 33	< 302	30.			A	
9.	< 20	< 200	< 33	< 302	31.				
10.	< 20	< 200	< 33	< 302	32.		N		
11.	< 20	< 200	< 33	< 302	33.				
12.	< 20	< 200	< 33	489	34.				
13.	< 20	< 200	< 33	< 302	35.				
14.	< 20	< 200	< 33	< 302	36.				
15.	< 20	< 200	< 33	< 302	37.				
16.	< 20	< 200	< 33	< 302	38.				
17.					39.				
					40.				
					41.				
20.			A		42.				
21.		N			43.				
22.					44.				

Date 170 6/10/99 RS Supervision: J N Cooper / [redacted]
Print Name Signature

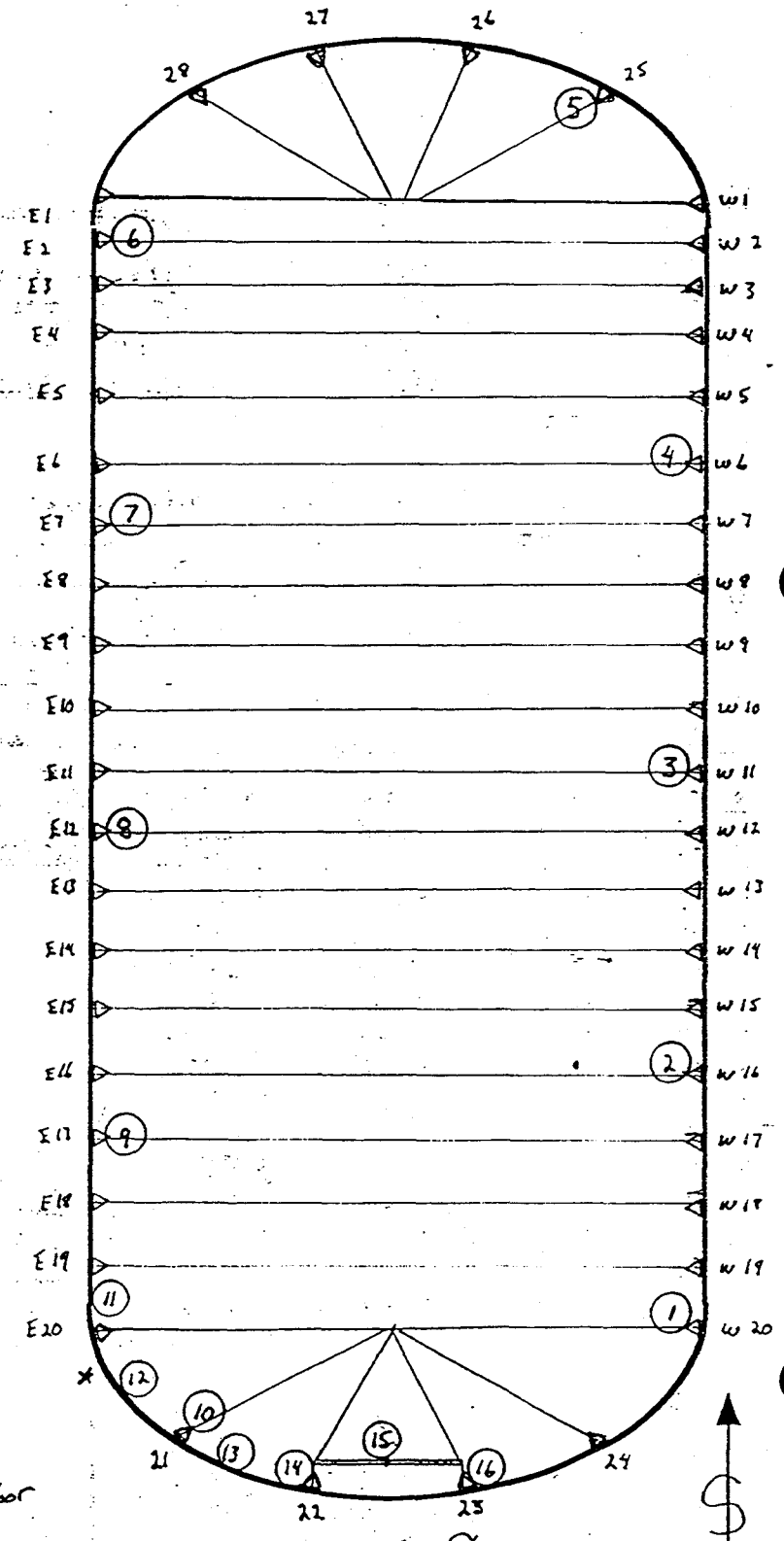
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SIT

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

	Location	
1.	Support	W 20
2.		W 16
3.		W 11
4.		W 6
5.		# 25
6.		E 2
7.		E 7
8.		E 12
9.		E 17
10.	Support	# 21
11.	Canvas	
12.		
13.		
14.		
15.		
16.	Canvas	
17.		
18.		
19.		
20.		
21.		
22.		
23.		
24.		
25.		
26.		
27.		
28.		
29.		
30.		
31.		
32.		
33.		
34.		
35.		
36.		
37.		
38.		
39.		
40.		
41.		
42.		
43.		
44.		

* Panel is torn out and on floor



Tent # 8

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 40	Bkg. 36	Bkg. 0.1
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 1386	Serial # 1386
Cal Due 6/16/99	Cal Due 8-15-99	Cal Due 8-15-99
Bkg. 0.0	Bkg. 9 4	Bkg. B 536
Efficiency 33%	Efficiency 21.8%	Efficiency 31.1%
MDA <20	MDA 56	MDA 331

Survey Type: Contamination Survey
Building: Tent # 8
Location: 904 Pad
Purpose: CHARACTERIZATION SURVEYS

RWP #: — NA —

Date: 3-30-99 Time: 1100

RCT: Rex Snyder / [redacted]
Print name Signature

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

PRL # :

Comments Exterior Survey

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct	
	Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 56	< 331
2.	< 20	< 200	< 56	< 331
3.	< 20	< 200	< 56	< 331
4.	< 20	< 200	< 56	< 331
5.	< 20	< 200	< 56	< 331
6.	< 20	< 200	< 56	< 331
7.	< 20	< 200	< 56	< 331
8.	< 20	< 200	< 56	< 331
9.	< 20	< 200	< 56	< 331
10.	< 20	< 200	< 56	< 331
11.	< 20	< 200	< 56	< 331
12.	< 20	< 200	< 56	< 331
13.	< 20	< 200	< 56	< 331
14.	< 20	< 200	< 56	< 331
15.	< 20	< 200	< 56	< 331
16.	< 20	< 200	< 56	< 331
17.	< 20	< 200	< 56	< 331
18.	< 20	< 200	< 56	< 331
19.	< 20	< 200	< 56	< 331
20.	< 20	< 200	< 56	< 331
21.	< 20	< 200	< 56	< 331
22.	< 20	< 200	< 56	< 331

	Removable		Direct	
	Alpha	Beta	Alpha	Beta
23.	< 20	< 200	< 56	< 331
24.	< 20	< 200	< 56	< 331
25.	< 20	< 200	< 56	< 331
26.	< 20	< 200	< 56	< 331
27.	< 20	< 200	< 56	< 331
28.	< 20	< 200	< 56	< 331
29.	< 20	< 200	< 56	< 331
30.	< 20	< 200	< 56	< 331
31.				
32.				
33.				
34.				
35.				
36.				
37.				
38.		N / A		
39.				
40.				
41.				
42.				
43.				
44.				

Date 4/5/99 RS Supervision: [redacted]
Print Name Signature

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

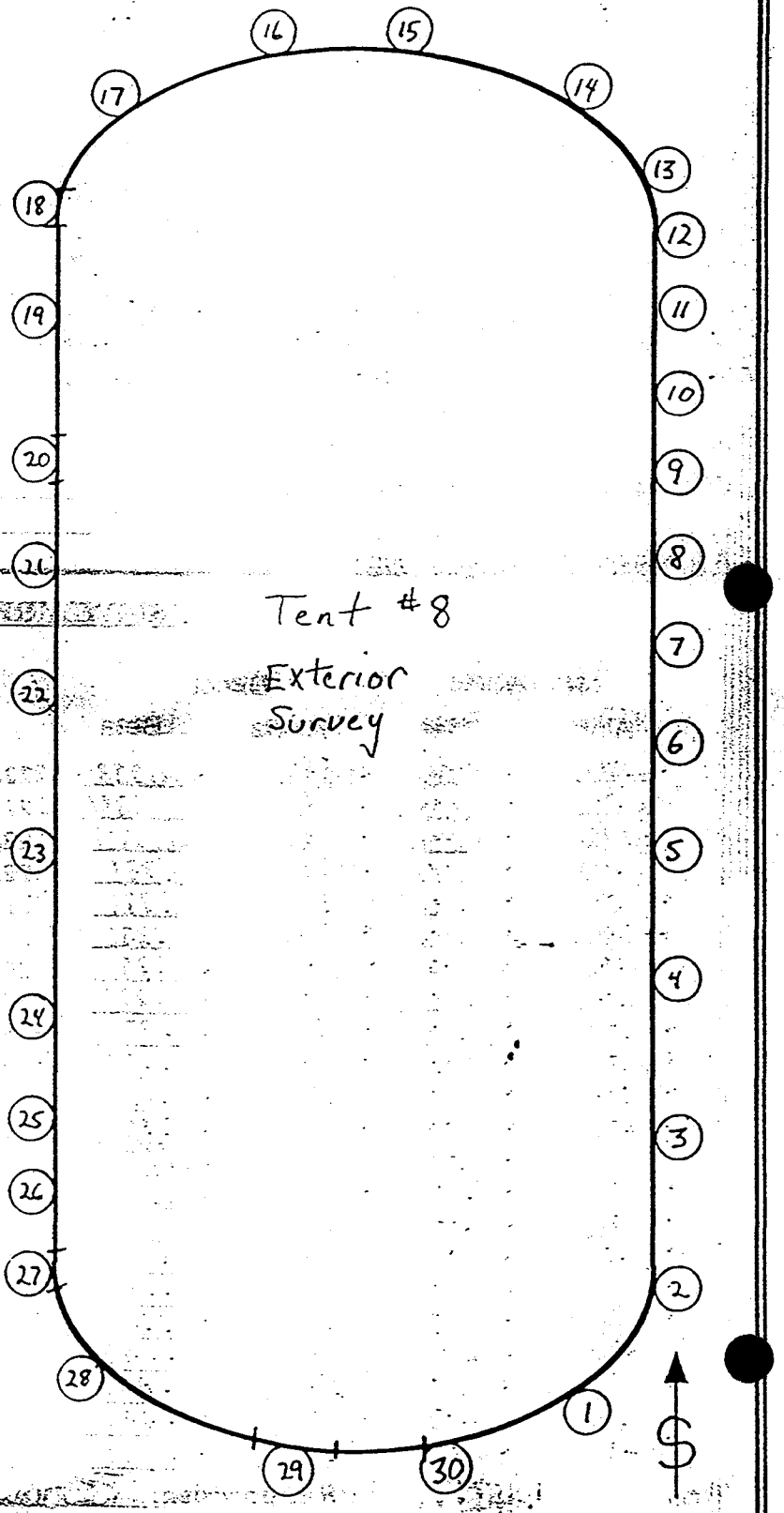
Drawing Showing Survey Points

	Location
1.	# 23/24 - C - 1'
2.	# W20 - C - 5'
3.	# W19/W18 - C - 8'
4.	# W16 - C - 1'
5.	# W15/W14 - C - 6'
6.	# W13 - 8'
7.	# W12/W11 - C - 3'
8.	# W9 - 1'
9.	# W8/W7 - C - 4'
10.	# W6/W5 - C - 8'
11.	# W4/W3 - C - 1'
12.	# W3/W2 - C - 5'
13.	# W1 - 2'
14.	# 25/26 - C - 4'
15.	# 27 - 3'
16.	# 28 - 6'
17.	# E1 - C - 4'
18.	# E2/E3 - C - 8' (above door)
19.	# E4/E5 - C - 1'
20.	# E5/E6 - Door - 3'
21.	# E7/E8 - C - 8'
22.	# E9/E10 - C - 4'
23.	# E11 - C - 4'
24.	# E14/E13 - C - 6'
25.	# E16 - 7'
26.	# E17/E18 - C - 7'
27.	# E18/19 - C - 8' (above door)
28.	# E21 - C - 4'
29.	- Canvas Door 1'
30.	- Canvas Door 4'
31.	
32.	
33.	
34.	
35.	
36.	
37.	N A
38.	
39.	
40.	
41.	
42.	
43.	
44.	

= Support ID

C = Canvas

(ft) = height from ground



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 44	Bkg. 37	Bkg. 0.1
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 1425	Serial # 1425
Cal Due 6/16/99	Cal Due 8-25-99	Cal Due 8-25-99
Bkg. 0.1	Bkg. 7	Bkg. 480
Efficiency 33%	Efficiency 21.0%	Efficiency 31.6%
MDA <20	MDA 72	MDA 313

Survey Type: Contamination Survey
Building: TENT # 8
Location: 904 PAD
Purpose: CHARACTERIZATION SURVEYS

RWP #: NA

Date: 5-13-99 Time: 1000

RCT: Rex Snyder / [signature] [redacted]
Print name Signature

RCT: [illegible] / [illegible] / [illegible]
Print name Signature Emp. #

PRL #:

Comments: Tent #8 10 overhead survey points + vents

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct	
	Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 72	< 313
2.	< 20	< 200	< 72	< 313
3.	< 20	< 200	< 72	< 313
4.	< 20	< 200	< 72	< 313
5.	< 20	< 200	< 72	< 313
6.	< 20	< 200	< 72	< 313
7.	< 20	< 200	< 72	< 313
8.	< 20	< 200	< 72	< 313
9.	< 20	< 200	< 72	< 313
10.	< 20	< 200	< 72	< 313
11.	< 20	< 200	< 72	< 313
12.	< 20	< 200	< 72	< 313
13.	< 20	< 200	< 72	< 313
14.	< 20	< 200	< 72	< 313
15.	< 20	< 200	< 72	< 313
16.	< 20	< 200	< 72	< 313
17.	< 20	< 200	< 72	< 313
18.				
19.				
20.				
21.				
22.				

	Removable		Direct	
	Alpha	Beta	Alpha	Beta
23.				
24.				
25.				
26.				
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40.				
41.				
42.				
43.				
44.				

Date 5-13-99 RS Supervision: [signature] [redacted]
Print Name

274

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SIT

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

	Location
1.	Vent
2.	
3.	
4.	
5.	
6.	Vent
7.	Support # 22
8.	Canvas E20/21
9.	Canvas W20/24
10.	Canvas E17/E18
11.	Support # 15
12.	Canvas 14/13
13.	Support # 5
14.	Canvas 1/2
15.	Canvas 1/26
16.	Support # 27
17.	Canvas 26/25
18.	
19.	
20.	
21.	
22.	
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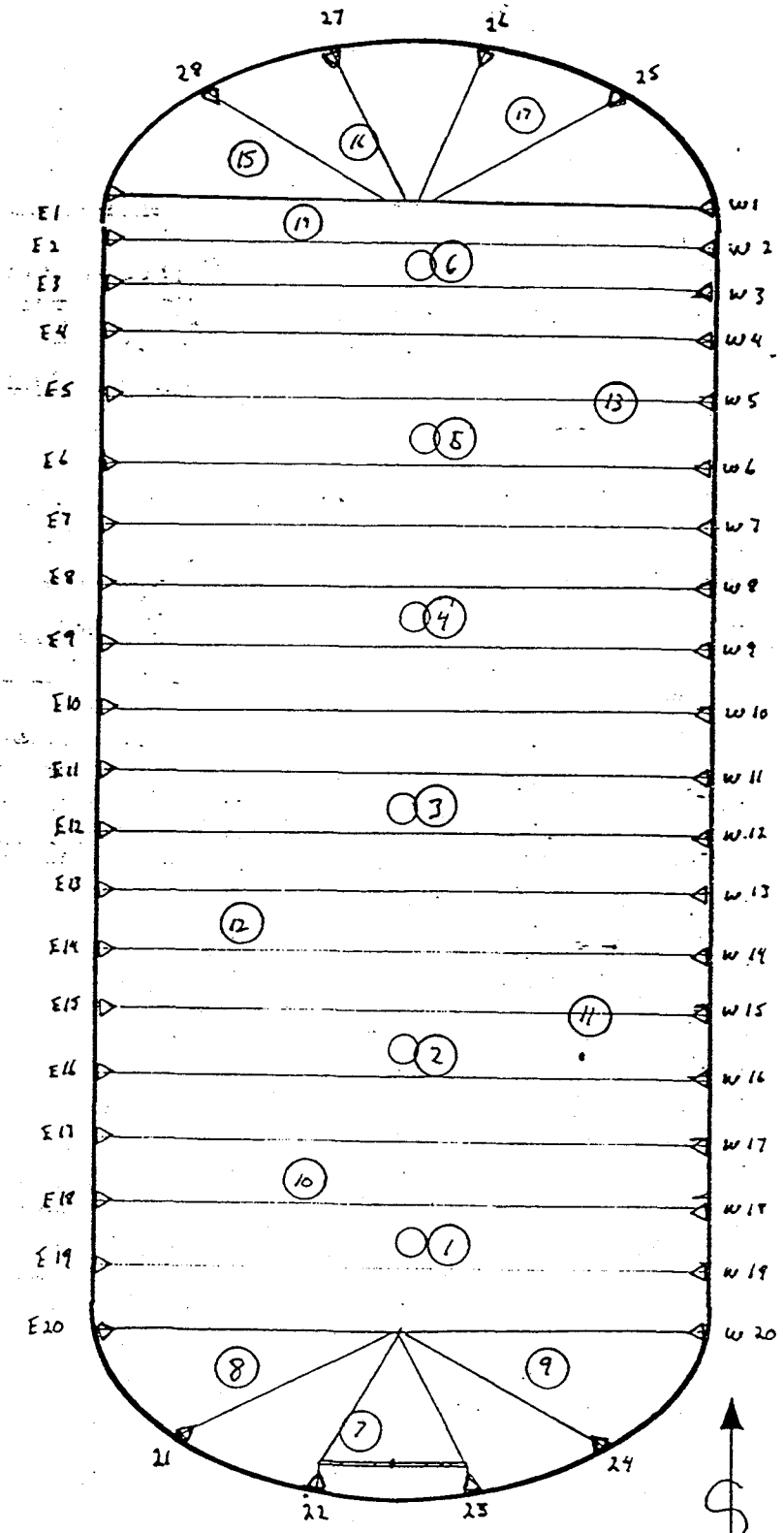
41.	
42.	
43.	
44.	



275

Tent # 8

APPENDIX C

TENT 9 RADIOLOGICAL DATA

C.1 HISTORICAL RADIOLOGICAL DATA

COPY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER "Routine

BUILDING/LOCATION:	ROOM:
904 PAD	tent 9
DATE:	TIME:
01-07-98	0815

ITEM DESCRIPTION: weekly survey

COMMENTS:

PERFORMED BY (PRINT NAME): L Hankins

J Hankins [redacted] 01-07-98

RCT SIGNATURE DATE

REVIEWED BY: T Hipsher

RO SUPERVISION PRINT NAME

[signature] 1/14/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	956	1050		
CAL DATE:	3-12-97	3-16-97		
CAL DUE DATE:	3-12-98	3-16-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC838			
CAL DATE:	1-6-98			
CAL DUE DATE:	7-6-98			

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

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

INFORMATION COPY

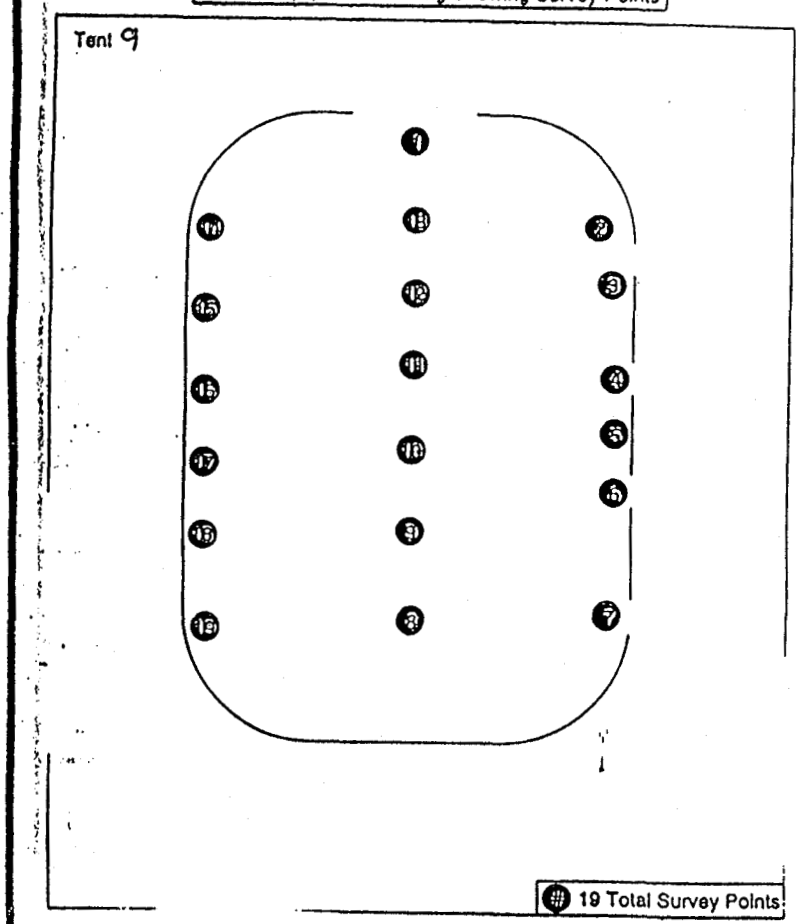
278

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No.

Radiological Operations
Area or Equipment Drawing Showing Survey Points



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FROM/SO SEC COUNT)	TOTAL BETA/GAMMA
1		<18	<205	<60	<455
2		<18	<205	<60	<455
3		<18	<205	<60	<455
4		<18	<205	<60	<455
5		<18	<205	<60	<455
6		<18	<205	<60	<455
7		<18	<205	<60	<455
8		<18	<205	<60	<455
9		<18	<205	<60	<455
10		<18	<205	<60	<455
11		<18	<205	<60	<455
12		<18	<205	<60	<455
13		<18	<205	<60	<455
14		<18	<205	<60	<455
15		<18	<205	<60	<455
16		<18	<205	<60	<455
17		<18	<205	<60	<455
18		<18	<205	<60	<455
19		<18	<205	<60	<455
	LJR 01-07-98				

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RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: —

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 9
DATE:	TIME:
1-21-98	1000

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[redacted] 1-21-98

RCT SIGNATURE DATE

REVIEWED BY: T Hipsher

RO SUPERVISION PRINT NAME

[redacted] 1/27/98

RO SUPERVISION SIGNATURE DATE

280

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	959		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

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

INFORMATION ONLY

LOG NUMBER: _____

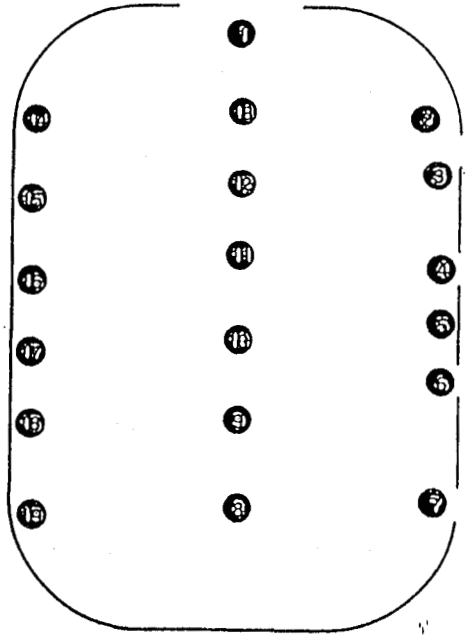
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FIXED/SEC COUNT)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

1-21-98

281

COPY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 9
DATE:	TIME:
1-29-98	1300

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS: _____

PERFORMED BY (PRINT NAME): [redacted]

[redacted] 1-29-98

RCT SIGNATURE DATE

REVIEWED BY: T Hipsher

RO SUPERVISION PRINT NAME

[redacted] 1/2/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	959		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

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

INFORMATION ONLY

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LOG NUMBER: _____

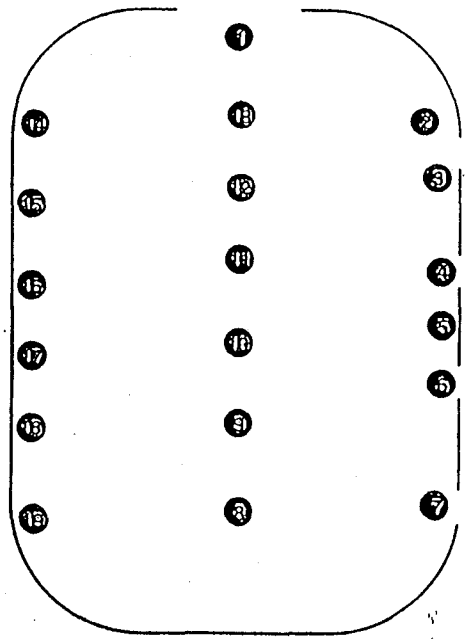
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No.: _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FIXED/SEC COUNT)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		
	GM 1-29-98				

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INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 PAD	tent 9
DATE:	TIME:
2-5-98	0830

ITEM DESCRIPTION: Weekly Control Point

COMMENTS:

PERFORMED BY (PRINT NAME): Hankins L

[redacted] 2-5-98

RCT SIGNATURE DATE

REVIEWED BY: T Hopsher

RO SUPERVISION PRINT NAME

[redacted] / 2/12/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	959		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

PAGE ____ OF ____

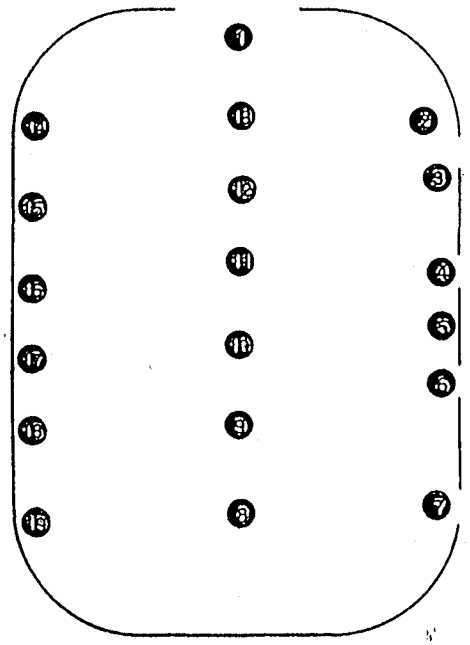
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 SQ CM)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

LH 2-5-98

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INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 9
DATE:	TIME:
2/12/98	0900

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS: _____

PERFORMED BY (PRINT NAME): Munoz

Munoz / [redacted] / 2-12-98

RCT SIGNATURE — [redacted] — DATE

REVIEWED BY: T Hopsher

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE — 2/23/98 — DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	955		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC220	BC838		
CAL DATE:	1-2-98	1-6-98		
CAL DUE DATE:	7-2-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

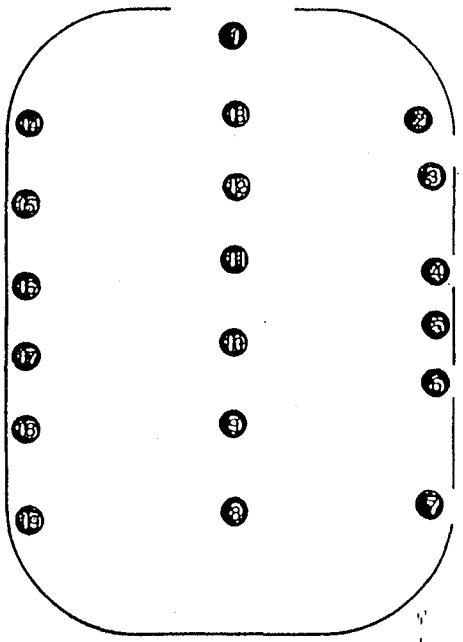
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FIXED/50 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		
	[illegible] 2-12-98				

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: ———

FOR: ____ P/WRE ____ PRL

____ RWP ✓ OTHER "Routine"

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 9
DATE:	TIME:
2-18-98	0930

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[signature] / 2-18-98

RCT SIGNATURE DATE

REVIEWED BY: T Hopsher

RO SUPERVISION PRINT NAME

[signature] / 2/23/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	1050	959		
CAL DATE:	9-16-97	9-12-97		
CAL DUE DATE:	3-16-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC270	BC888		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

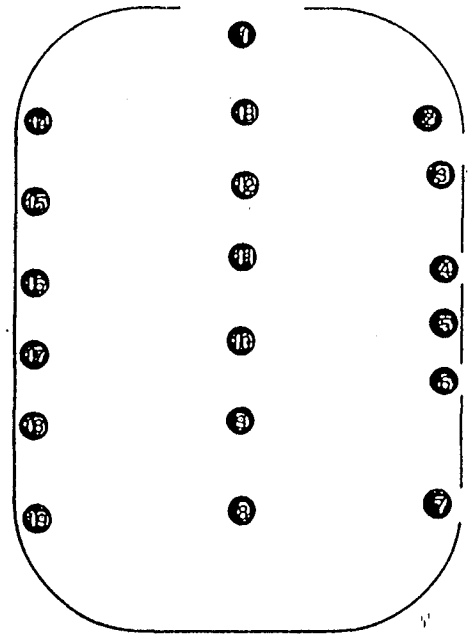
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (including background counts)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

GA 2-18-98

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER "Routine

BUILDING/LOCATION: 904 PAd

ROOM: Tent 9

DATE: 02-26-98

TIME: 1030

ITEM DESCRIPTION: Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): L Hawkins

[redacted] 02-26-98

RCT SIGNATURE EMP # DATE

REVIEWED BY: T Hypsher

RO SUPERVISION PRINT NAME

3/4/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	797	958		
CAL DATE:	10-8-97	9-12-97		
CAL DUE DATE:	4-8-98	3-12-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 770	BC 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

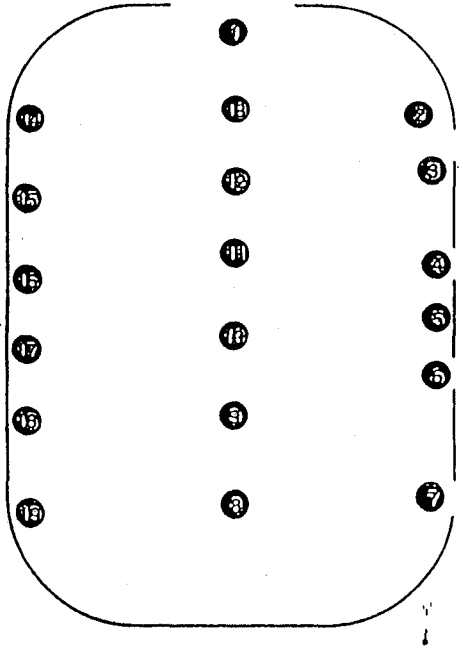
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

JH 02-26-98

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INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER Routine

BUILDING/LOCATION: 904 PAd

ROOM: tent 9

DATE: 3-11-98 ~~3-10-98~~ JH

TIME: 13:30

ITEM DESCRIPTION: Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): J Hankins

J Hankins [redacted] 3-10-98

RCT SIGNATURE DATE

REVIEWED BY: K. Garland

RO SUPERVISION PRINT NAME

[signature] 3-17-98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	797	767		
CAL DATE:	10-8-97	10-10-97		
CAL DUE DATE:	4-8-98	4-10-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 770	BC 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

PAGE ____ OF ____

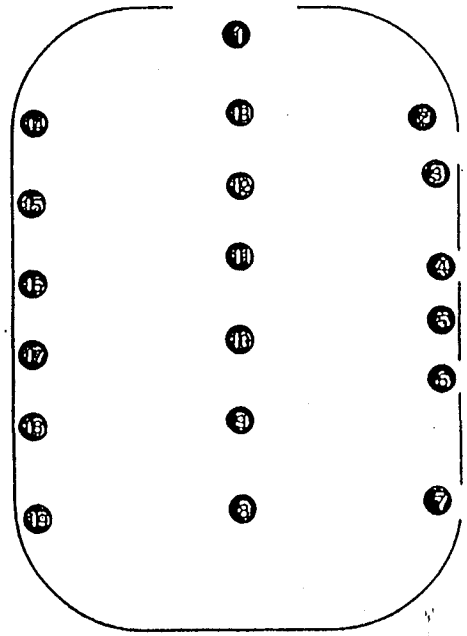
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (dpm/100 sq cm)	TOTAL BETA/ GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

JH 3-10-98

293

INFORMATIONAL RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP X OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 9
DATE: 3-17-98	TIME: 1320

ITEM DESCRIPTION: Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): HANKINS

Hank [redacted] 3-17-98

RCT SIGNATURE DATE

REVIEWED BY: K. CONNORS

RO SUPERVISION PRINT NAME

[signature] 3/26/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	767	797		
CAL DATE:	10-10-97	10-8-97		
CAL DUE DATE:	4-10-98	4-8-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

294

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LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

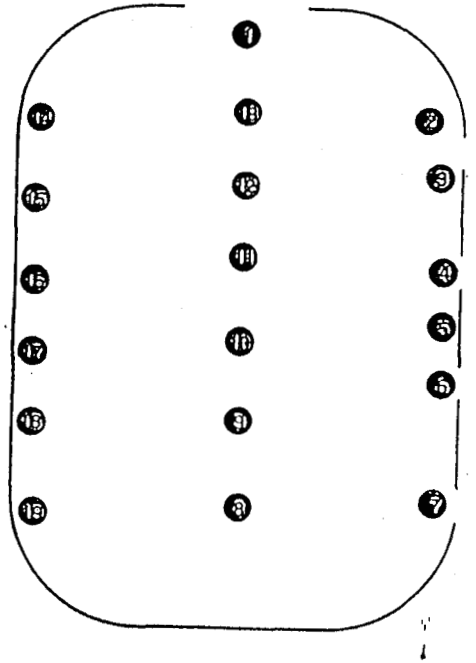
PAGE ____ OF ____

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (PHIS/SUB 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

JH 3-17-98

295

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	tent 9
DATE:	TIME:
3-26-98	0945

ITEM DESCRIPTION: Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): Hawkins L

Hawk [redacted] 3-26-98

RCT SIGNATURE DATE

REVIEWED BY: K. Graham

RO SUPERVISION PRINT NAME

[signature] 4-1-98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	797	767		
CAL DATE:	10-8-97	10-10-97		
CAL DUE DATE:	4-8-98	4-10-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc720	Bc878		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

296 296

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LOG NUMBER: _____

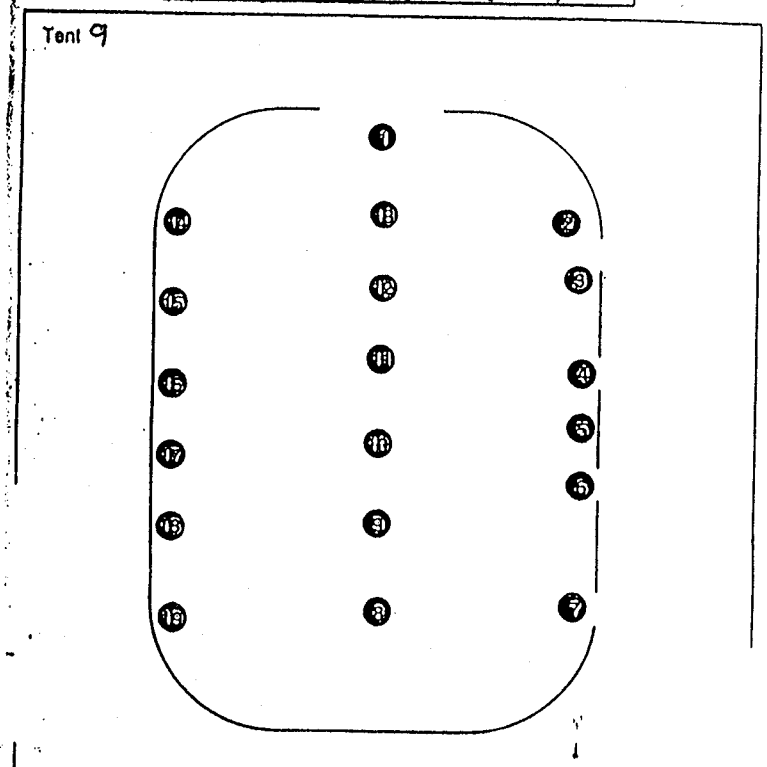
RADIOLOGICAL CONTAMINATION SURVEY FORM

PAGE ____ OF ____

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

JH 3-26-98

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INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ___V___ OTHER "Routine"

BUILDING/LOCATION:	ROOM:
904 PA01	tent 9
DATE: 4-1-98	TIME: 1315

ITEM DESCRIPTION: weekly

COMMENTS:

PERFORMED BY (PRINT NAME): Hawkins

Hak [redacted] 4-1-98

RCT SIGNATURE DATE

REVIEWED BY: K. Gartland

RO SUPERVISION PRINT NAME

[signature] 4/10/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	797	767		
CAL DATE:	10-8-97	10-10-97		
CAL DUE DATE:	4-8-98	4-10-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC 720	BC 828		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$

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LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

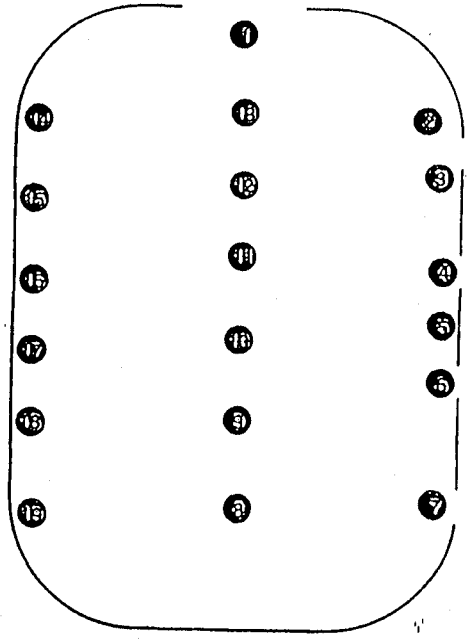
PAGE ____ OF ____

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/50 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

JH 4-1-98

299

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 PAD	tent #9
DATE: 4-9-98	TIME: 1245

ITEM DESCRIPTION: Weekly

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[redacted] 4-9-98

RCT SIGNATURE DATE

REVIEWED BY: K. GARLAND

RO SUPERVISION PRINT NAME

[redacted] 5/5/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	824	767		
CAL DATE:	3-24-98	10-10-97		
CAL DUE DATE:	9-24-98	4-10-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

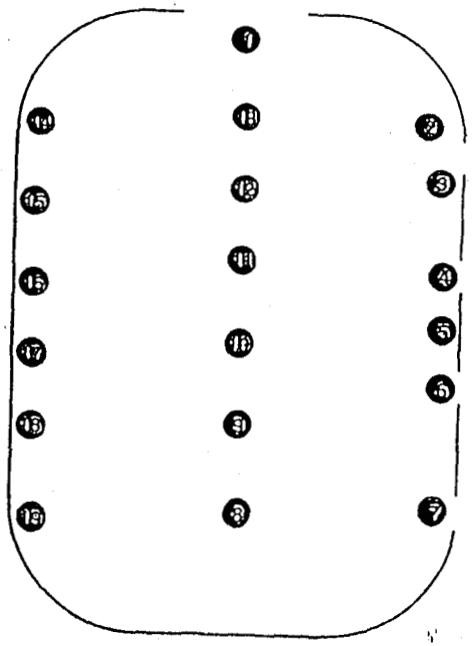
PAGE ____ OF ____

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (PRINTED 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

[signature] 4-9-98

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INFORMATIONAL ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP X OTHER "Routine

BUILDING/LOCATION:	ROOM:
904 PAd	tent 9
DATE: 4-15-98	TIME: 0930

ITEM DESCRIPTION: weekly Survey

COMMENTS:

PERFORMED BY (PRINT NAME): HANKINS L

Hal. L [redacted] 4-15-98

RCT SIGNATURE DATE

REVIEWED BY: K. Cashman

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE DATE

302

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

PAGE ____ OF ____

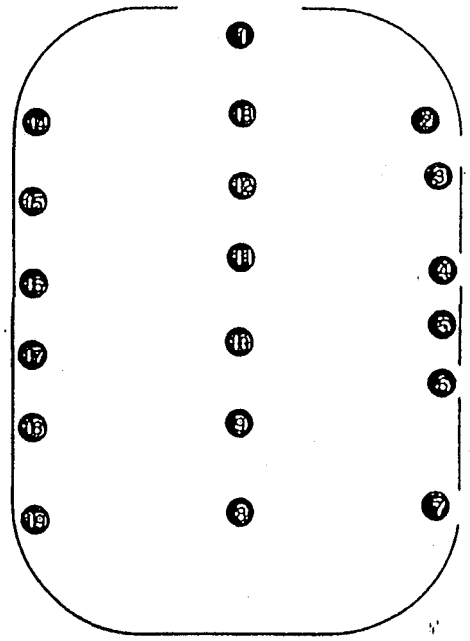
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 SQ CM)	TOTAL BETA/ GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

JH 4-15-98

303

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION: 904 Pad

ROOM: Tent 9

DATE: 4-23-98

TIME: 0830

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): Munoz

[signature] / [redacted] 4-23-98

RCT SIGNATURE DATE

REVIEWED BY: K. Garland

RO SUPERVISION PRINT NAME

[signature] / 5/20/98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc 770	Bc 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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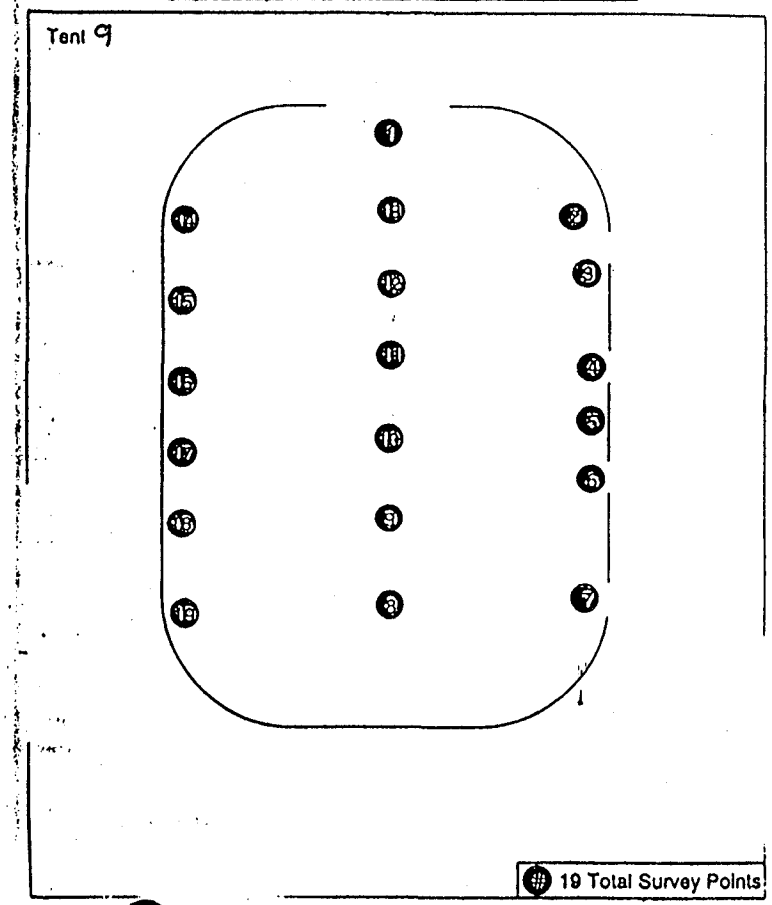
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/100 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

[illegible] 4-23-98

305

RADIOLOGICAL CONTAMINATION SURVEY FORM

INFORMATION ONLY

LOG NUMBER: ____

FOR: ____ P/WRE ____ PRL

____ RWP ✓ OTHER Routine

BUILDING/LOCATION: 904 Pad

ROOM: Tent 9

DATE: 4-28-98

TIME: 0930

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [signature]

[signature] / [redacted] 4-28-98

RCT SIGNATURE — EMP # — DATE

REVIEWED BY: K. Garland

RO SUPERVISION PRINT NAME

[signature] 5/19/98

RO SUPERVISION SIGNATURE — DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-~~98~~ 98	3-24-98		
CAL DUE DATE:	9-13-93	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc 770	Bc 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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Printed with soy ink on recycled paper

LOG NUMBER: _____

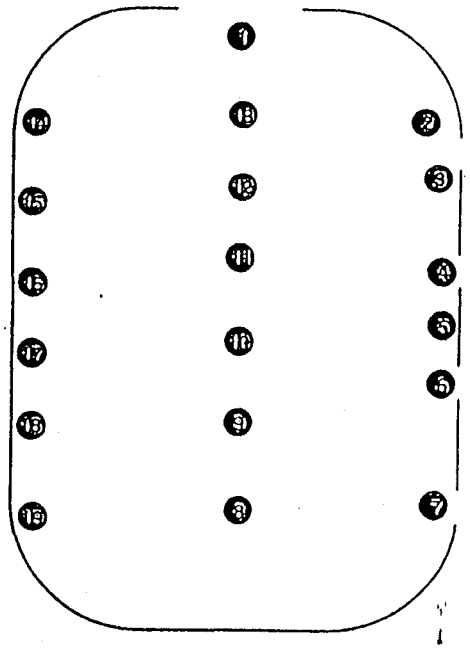
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (FIELD/LAB SEC COUNT)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		
	Clean 4-25-88				

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER "Routine"

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 9
DATE: 5-7-98	TIME: 1300

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[redacted] / 5-7-98

RCT SIGNATURE / DATE

REVIEWED BY: K. Cornelius

RO SUPERVISION PRINT NAME

[redacted] / 5/20/98

RO SUPERVISION SIGNATURE / DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	8-24		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$MDA = CF \times (2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)})$

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LOG NUMBER: _____

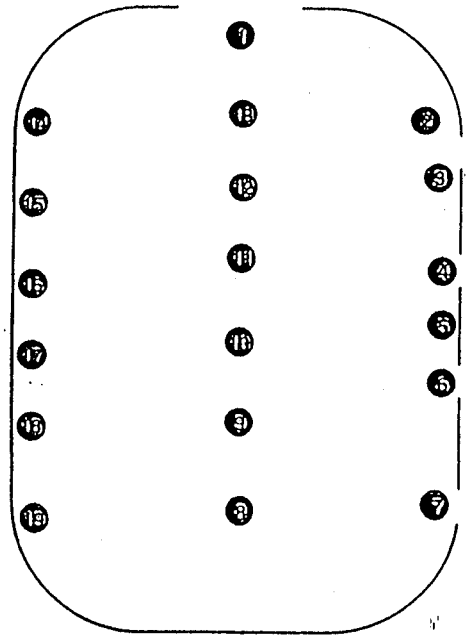
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FIRST/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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

5-7-98

309

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION: 904 Pad

ROOM: TENT #9

DATE: 5-13-98

TIME: 0830

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): M.E. VAUGHN

M.E. Vaughn [redacted] 5-13-98

RCT SIGNATURE DATE

REVIEWED BY: J. Stewart Bell

RO SUPERVISION PRINT NAME

J. Stewart Bell 16-10-98

RO SUPERVISION SIGNATURE DATE

310

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	799	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	720	838		
CAL DATE:	1-7-98	1-4-98		
CAL DUE DATE:	7-7-98	7-4-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

Printed with soy ink on recycled paper

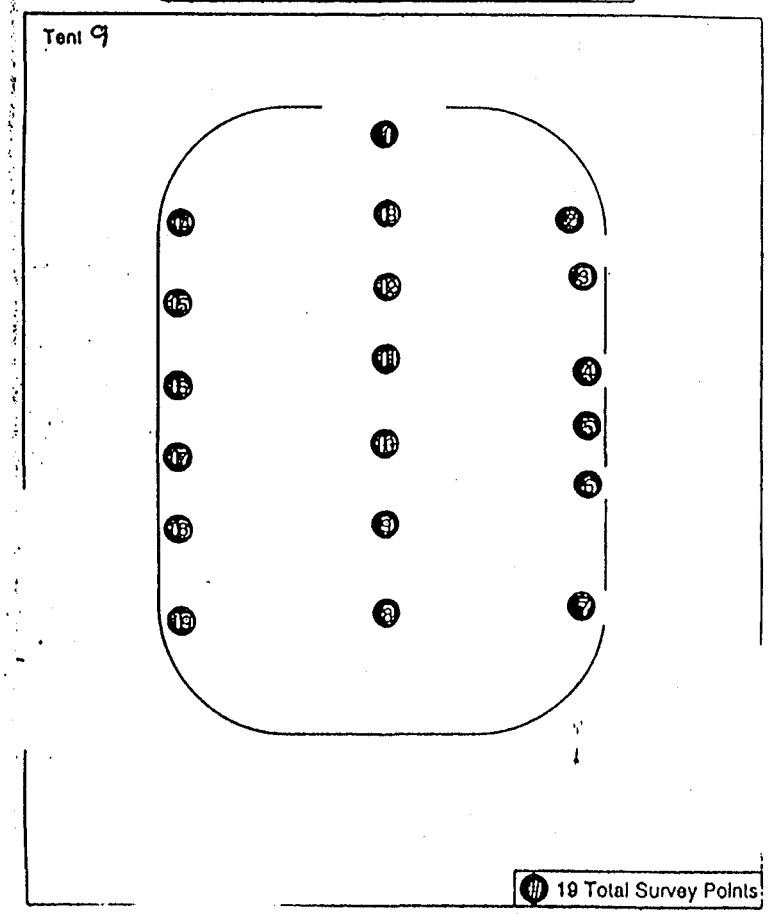
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points



SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/SQ SEC COUNT)	TOTAL BETA/GAMMA
1	refer to map	<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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

311

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 9
DATE:	TIME:
5-21-98	0830

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS: _____

PERFORMED BY (PRINT NAME): M Munoz

M Munoz [redacted] 5-21-98

RCT SIGNATURE DATE

REVIEWED BY: J. Stewart-Bell

RO SUPERVISION PRINT NAME

J Stewart-Bell 16-10-98

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	BC770	BC838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

312

Printed with soy ink on recycled paper

LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

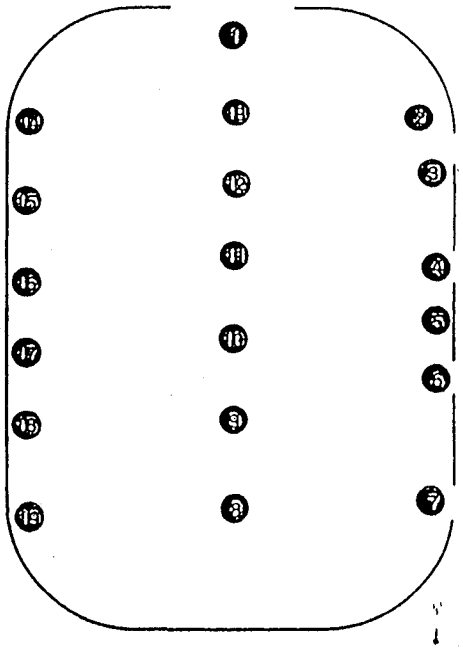
SKETCH

_____

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 SQ CM)	TOTAL BETA/ GAMMA
		ALPHA	BETA/ GAMMA		
1	refer to map	<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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		
	G 5-21-98				

B13

INFORMATION ONLY

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 9
DATE: 5-27-98	TIME: 0900

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [illegible]

[illegible] / [redacted] / 5-27-98

RCT SIGNATURE / EMP# / DATE

REVIEWED BY: J. Stewart-Bell

RO SUPERVISION PRINT NAME

J. Stewart-Bell 16.10.98

RO SUPERVISION SIGNATURE / DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc 770	Bc 858		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

Printed with soy ink on recycled paper

LOG NUMBER: _____

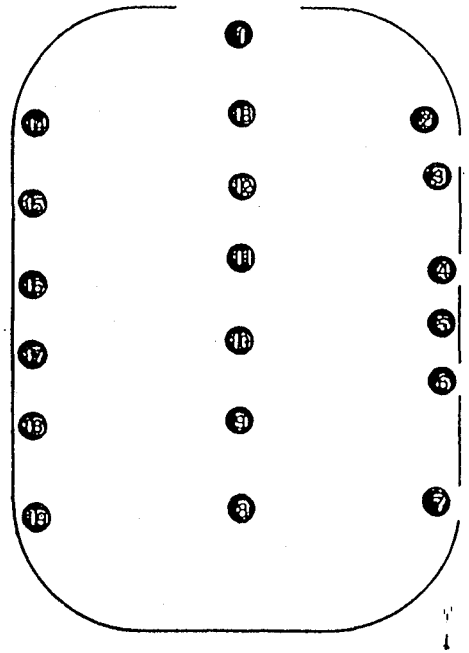
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (minimum 100 counts)	TOTAL BETA/ GAMMA
		ALPHA	BETA/ GAMMA		
1	refer to map.	<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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

5-27-98

315

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 9
DATE:	TIME:
6-3-98	0900

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[redacted] / 6-3-98

RCT SIGNATURE / DATE

REVIEWED BY: R. Samuel

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE / 6/9/98

DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc 720	Bc 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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Printed with soy ink on recycled paper

LOG NUMBER: _____

PAGE 2 OF 2

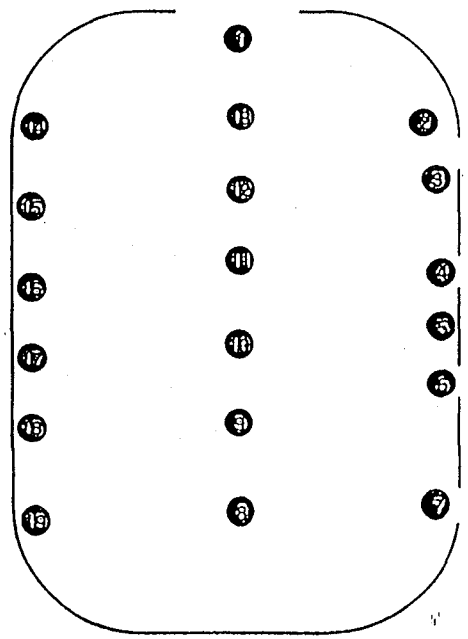
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (CRIME/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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

[illegible] 6-3-98

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RADIOLOGICAL CONTAMINATION SURVEY FORM

INFORMATION ONLY

PAGE 1 OF 2 1

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 9
DATE:	TIME:
6-9-98	0930

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[redacted] / 6-9-98

RCT SIGNATURE DATE

REVIEWED BY: R Sawyer

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE 6/26/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc770	Bc838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$

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Printed with soy ink on recycled paper

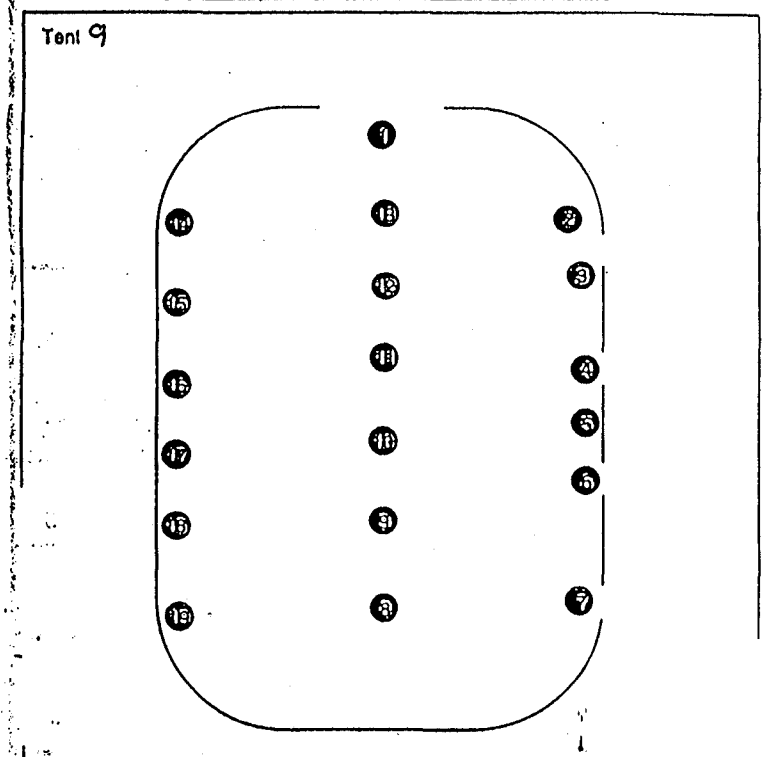
LOG NUMBER: _____

RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/50 DEC 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

[illegible] 6-9-98

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RADIOLOGICAL CONTAMINATION SURVEY FORM

INFORMATIONAL

PAGE 1 OF 1

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION: 904 Pad

ROOM: Tent 9

DATE: 6-17-98

TIME: 0830

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): [redacted]

[redacted] / 6-17-98

RCT SIGNATURE DATE

REVIEWED BY: R Bayles

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE / 6/25/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc 770	Bc 838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$

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LOG NUMBER: _____

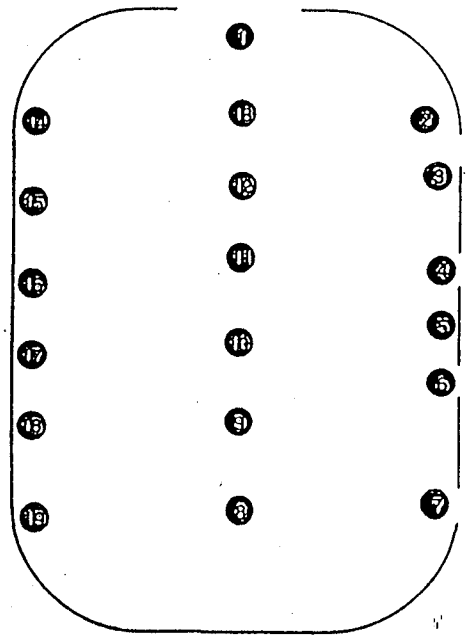
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 SQ CM)	TOTAL BETA/GAMMA
		ALPHA	BETA/GAMMA		
1	SEE MAP	<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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

6-17-98

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER: _____

FOR: _____ P/WRE _____ PRL

_____ RWP ✓ OTHER Routine

BUILDING/LOCATION:	ROOM:
904 Pad	Tent 9
DATE:	TIME:
6-24-98	0800

ITEM DESCRIPTION: Weekly Control Point Survey

COMMENTS:

PERFORMED BY (PRINT NAME): M Munoz

M Munoz / [redacted] / 6-24-98

RCT SIGNATURE / EMP # / DATE

REVIEWED BY: R SAMPER

RO SUPERVISION PRINT NAME

RO SUPERVISION SIGNATURE 7/23/98 DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:	795	824		
CAL DATE:	3-13-98	3-24-98		
CAL DUE DATE:	9-13-98	9-24-98		

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:	Bc720	Bc838		
CAL DATE:	1-7-98	1-6-98		
CAL DUE DATE:	7-7-98	7-6-98		

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

MDA = CF X [2.71 + 4.65 $\sqrt{\text{BACKGROUND (CPM)}}$]

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LOG NUMBER: _____

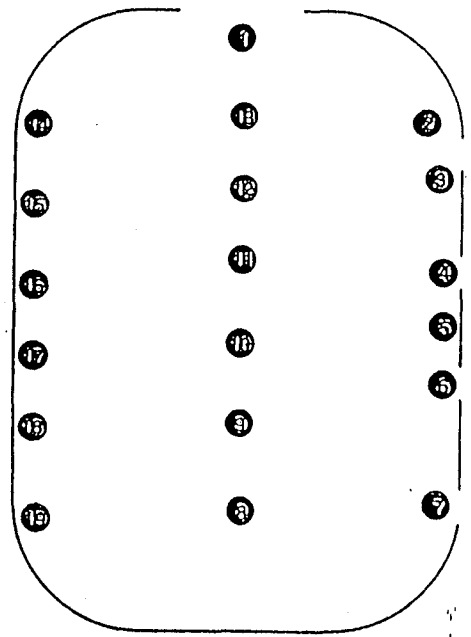
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FINISH/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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

6-24-98

6-24-98

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INFORMATION ONLY

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg.
Model SAC-4	Model SAC-4	Model
Serial # 795	Serial # 824	Serial #
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due
Bkg. 0.2	Bkg. 0.2	Bkg.
Efficiency 33%	Efficiency 33%	Efficiency
MDA <20	MDA <20	MDA
Mfg. Eberline	Mfg. Eberline	Mfg.
Model Bc-4	Model Bc-4	Model
Serial # Bc770	Serial # Bc838	Serial #
Cal Due 7-7-98	Cal Due 7-6-98	Cal Due
Bkg. 41	Bkg. 43	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA <200	MDA <200	MDA

Survey Type: Contamination Survey
Building: 904 Pad
Location: Test 9
Purpose: Weekly Control Point Survey

~~RWP #:~~ a/r 7-1-98

Date: 7-1-98 Time: 0900

RCT: Munoz [redacted]
Print name Signature

RCT: a/r 7-1-98
Print name Signature Emp. #

~~PRL #:~~ a/r 7-1-98

Comments: See attached form for survey results

SURVEY RESULTS

a/r 7-1-98

Date Reviewed: 7/23/98 RS Supervision: R Sawyer [redacted]
Print Name Signature

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ev 05/98

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Cm 7-1-88

325

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LOG NUMBER: GA 7-1-98

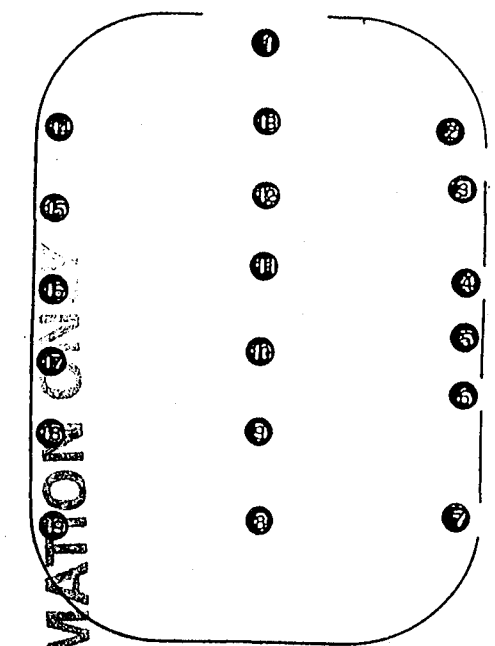
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

INFORMATION

326

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (if more than one count)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		
	GA 7-1-98				

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER _____

BUILDING/LOCATION: ROOM:

DATE: TIME:

ITEM DESCRIPTION: _____

COMMENTS: _____

PERFORMED BY (PRINT NAME): _____

_____ / _____ / _____

RCT SIGNATURE EMP# DATE

REVIEWED BY: _____

RO SUPERVISION PRINT NAME

_____ / _____

RO SUPERVISION SIGNATURE DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$$

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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg.
Model SAC-4	Model SAC-4	Model
Serial # 795	Serial # 824	Serial #
Cal Due 9-13-98	Cal Due 9-13-98	Cal Due
Bkg. 0.1	Bkg. 0.1	Bkg.
Efficiency 33%	Efficiency 33%	Efficiency
MDA 20 dpm	MDA 20 dpm	MDA
Mfg. Eberline	Mfg. Eberline	Mfg.
Model Bc-4	Model Bc-4	Model
Serial # Bc704	Serial # Bc702	Serial #
Cal Due 12-11-98	Cal Due 12-15-98	Cal Due
Bkg. 36	Bkg. 38	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 200 dpm	MDA 200 dpm	MDA

Survey Type: Contamination Survey

Building: 904 Pad

Location:

Purpose: Weekly Control Point Survey

RWP #: am 7-8-98

Date: 7-8-98 Time: 0800

RCT: Munoz [signature] [redacted]
Print name Signature Emp. #

RCT: Hankins [signature] [redacted]
Print name Signature Emp. #

PRL #: am 7-8-98

Comments: Weekly Surveys include Source Locker, Tent 7, Tent 9, Locker Room, Break Room, 904 Pad, Tent 8, Tent 9, Tent 10, Tent 11

SURVEY RESULTS

* See attached sheets for weekly survey results

ORMATION ...

Date Reviewed: 7/23/98 RS Supervision: R. Sawyer [signature] [redacted]
Print Name Signature Emp.

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Printed with soy ink on recycled paper

LOG NUMBER: ~~Gm 7-8-98~~

PAGE ____ OF ____

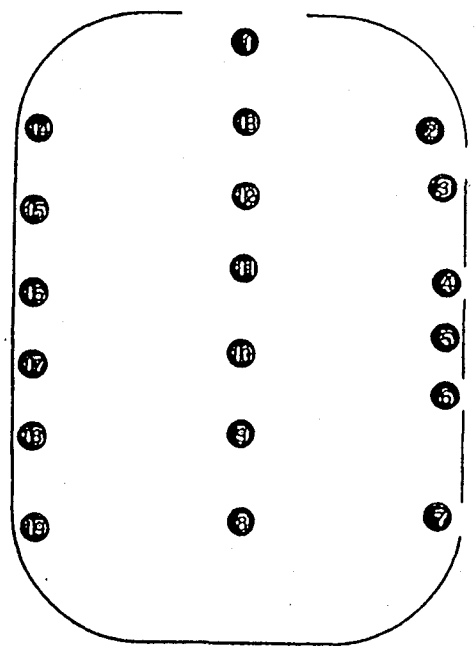
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

329

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (DPM/100 CM² PER COUNT)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		
	~~Gm 7-8-98~~				

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER _____

BUILDING/LOCATION: | ROOM:

DATE: | TIME:

ITEM DESCRIPTION: _____

COMMENTS: _____

PERFORMED BY (PRINT NAME): _____

_____ / _____ / _____

RCT SIGNATURE | EMP# | DATE

REVIEWED BY: _____

RO SUPERVISION PRINT NAME

_____ /

RO SUPERVISION SIGNATURE | DATE

330

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$$MDA = CF \times (2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)})$$

FORMATION ONLY

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg. Eberline
Model SAC 4	Model SAC 4	Model BC 4
Serial # 795	Serial # 824	Serial # 704
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.0	Bkg. 0.0	Bkg. 35
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 420	MDA 420	MDA 4200
Mfg. Eberline	Mfg. NE Tec	Mfg.
Model BC 4	Model Electra	Model
Serial # 702	Serial # 1680	Serial #
Cal Due 12-15-98	Cal Due 9-3-98	Cal Due
Bkg. 38	Bkg. ~~0 388~~ ~210	Bkg.
Efficiency 25%	Efficiency ~~24.3%~~ 93.3%	Efficiency
MDA 4200	MDA ~~B 455~~	MDA

Survey Type: Contamination
Building: 904
Location: 904 Pad ~~OFFICE~~ ~~LOCKER~~ TENT 9
Purpose: Weekly

~~RWP #~~ 1H

Date: 7-16-98 Time: 1540

RCT: L Hankins L Hank [redacted]
Print name Signature

RCT: / /
Print name Signature Emp. #

~~PRL #~~: 1H 7-16-98

Comments: NONE

SURVEY RESULTS

See Following pages for survey results.

1H 7-16-98

Date Reviewed: 8/5/98 RS Supervision: [redacted]
Print Name Signature

Printed with soy ink on recycled paper

LOG NUMBER: 7-6-98

RADIOLOGICAL CONTAMINATION SURVEY FORM

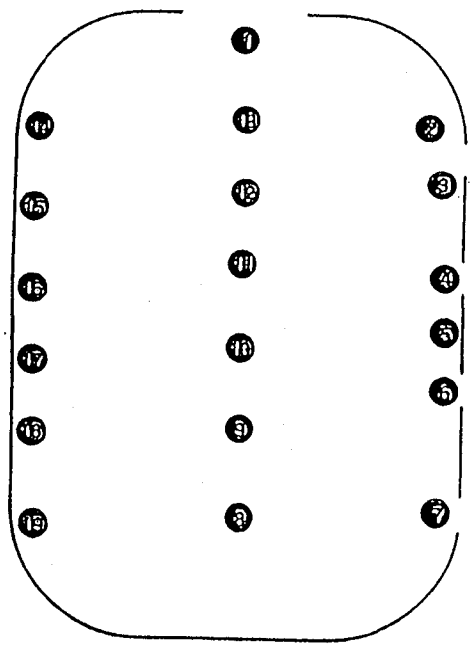
PAGE 2 OF 2

SKETCH

Control No.

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



INFORMATION

19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (FUSION/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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

7-16-98

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER _____

BUILDING/LOCATION: | ROOM:

DATE: | TIME:

ITEM DESCRIPTION: Eq. 7-16-98

COMMENTS:

PERFORMED BY (PRINT NAME): _____

_____ / _____ / _____

RCT SIGNATURE | EMP# | DATE

REVIEWED BY: _____

RO SUPERVISION PRINT NAME

_____ /

RO SUPERVISION SIGNATURE | DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$$MDA = CF \times (2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)})$$

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. Eberline	Mfg. Eberline	Mfg.
Model SAC-4	Model SAC-4	Model
Serial # 795	Serial # 824	Serial #
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due
Bkg. 0.0	Bkg. 0.0	Bkg.
Efficiency ~~33%~~ 33%	Efficiency 33%	Efficiency
MDA 20 ~~33%~~ d/m	MDA 20 d/m	MDA
Mfg. Eberline	Mfg. Eberline	Mfg.
Model BC-4	Model BC-4	Model
Serial # BC704	Serial # BC702	Serial #
Cal Due 12-11-98	Cal Due 12-15-98	Cal Due
Bkg. 36	Bkg. 38	Bkg.
Efficiency 25%	Efficiency 25%	Efficiency
MDA 200 d/m	MDA 200 d/m	MDA

Survey Type: Contamination Survey
Building: 904 Pad
Location: 904 Pad T-7 T8-T9 T10 T11 Break Room Locker Room, Service Locker
Purpose: Weekly Control Point on 7-22-98
RWP #:
Date: 7-22-98 Time: 0800
RCT: HAWKINS / [redacted] Print name / Signature
RCT: MUNOZ / [redacted] Print name / Signature
PRL # : on 7-22-98
Comments:
* See attached survey forms for survey results
TENT 9

SURVEY RESULTS

INFORMATION ONLY

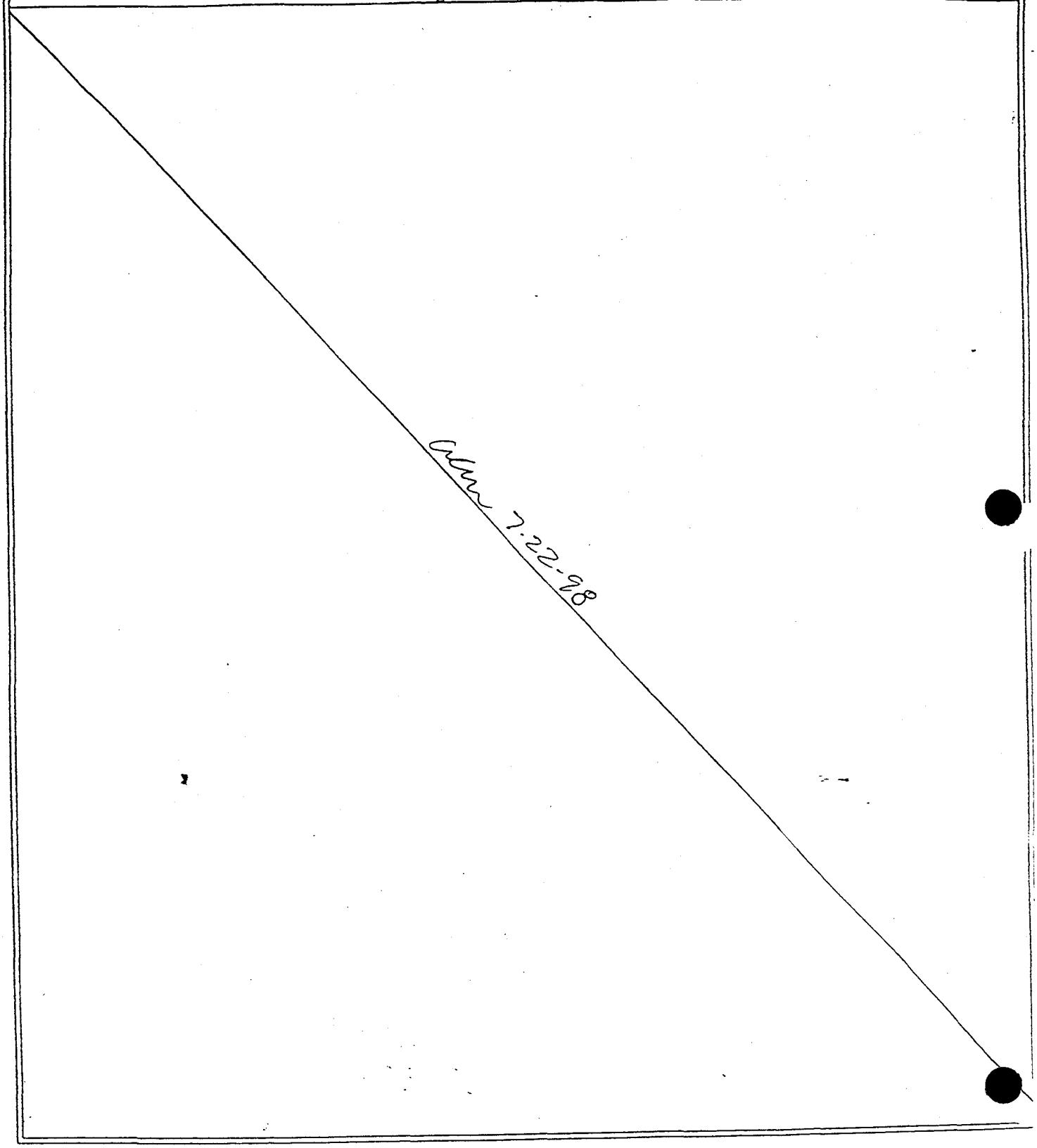
on 7-22-98

Date Reviewed: 8/5/98 RS Supervision: [redacted] Print Name / Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points



Printed with soy ink on recycled paper

LOG NUMBER: cm 7-22-98

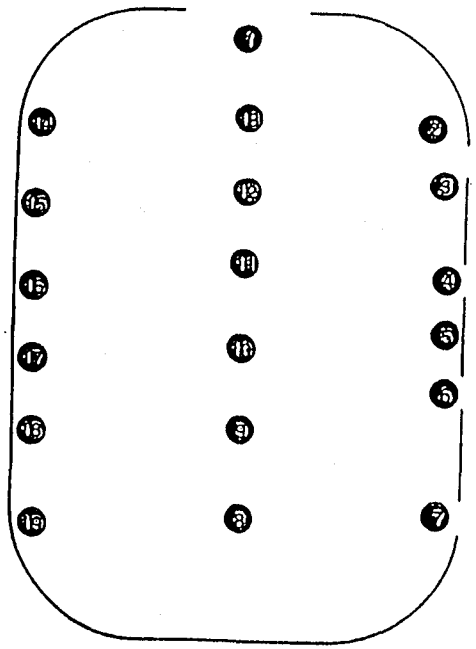
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No. _____

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE		TOTAL ALPHA (PREVIOUS SEC COUNT)	TOTAL BETA/GAMMA
		ALPHA	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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

cm 7-22-98

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER _____

BUILDING/LOCATION: | ROOM:

DATE: | TIME:

ITEM DESCRIPTION: _____ Rev. 7-22-98

COMMENTS: _____

PERFORMED BY (PRINT NAME): _____

_____ / _____ / _____

RCT SIGNATURE | EMP# | DATE

REVIEWED BY: _____

RO SUPERVISION PRINT NAME

_____ / _____

RO SUPERVISION SIGNATURE | DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$$

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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 795	Serial # 824	Serial # BC 704
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.0	Bkg. 0.0	Bkg. 38
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 d/m	MDA 20 d/m	MDA 200 d/m
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 38	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA ~~20~~ 200 d/m	MDA	MDA

Survey Type: CONTAMINATION

Building: 904 Pad

Location: T-7, Locker Room, Break Room, 904 Pad, T-8, T-9, T-10, T-11

Purpose: Source Locker Weekly Control Point Survey

TENT 9

~~RWP #:~~ 7-30-98

Date: 7-30-98 Time: 0900

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

RCT: / /
Print name Signature Emp. #

~~PRL #:~~ 7-30-98

Comments: Survey results, for each survey, are located on attached sheets.

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.					23.				
2.					24.				
3.					25.				
4.					26.				
5.					27.				
6.					28.				
7.					29.				
8.					30.				
9.					31.				
10.					32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

Date Reviewed 8/26/98 RS Supervision: [signature] [signature] / [redacted]
Print Name Signature

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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

7-30-98

Printed with soy ink on recycled paper

LOG NUMBER: [illegible] 7-30-98

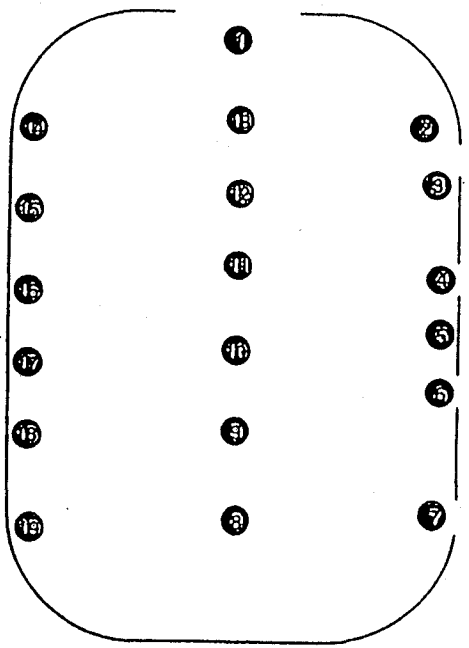
RADIOLOGICAL CONTAMINATION SURVEY FORM

SKETCH

Control No.

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

340

SURVEY RESULTS (DPM/100 CM²)

SWIPE #	LOCATION/DESCRIPTION	REMOVABLE ALPHA	REMOVABLE BETA/GAMMA	TOTAL ALPHA (PHOSPHORIC 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		
13		<20	<200		
14		<20	<200		
15		<20	<200		
16		<20	<200		
17		<20	<200		
18		<20	<200		
19		<20	<200		

[illegible] 7-30-98

RADIOLOGICAL CONTAMINATION SURVEY FORM

LOG NUMBER:

FOR: _____ P/WRE _____ PRL

_____ RWP _____ OTHER _____

BUILDING/LOCATION: | ROOM:

DATE: | TIME:

ITEM DESCRIPTION: Gen 7-30-98

COMMENTS:

PERFORMED BY (PRINT NAME): _____

_____ / _____ / _____

RCT SIGNATURE | EMP# | DATE

REVIEWED BY: _____

RO SUPERVISION PRINT NAME

_____ / _____

RO SUPERVISION SIGNATURE | DATE

REMOVABLE CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4	S.A.C. - 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

MFR:	EBER.	EBER.	EBER.	EBER.
MODEL:	B.C. 4	B.C. 4	B.C. 4	B.C. 4
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				

TOTAL CONTAMINATION SURVEY INSTRUMENT DATA

MFR:	N.E. TECH			
MODEL:	ELECTRA			
SERIAL #:				
CAL DATE:				
CAL DUE DATE:				
BACKGROUND:				
SFFICIENCY:				
MDA:				

$MDA = CF \times [2.71 + 4.65 \sqrt{BACKGROUND\ (CPM)}]$

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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 795	Serial # 824	Serial # BC704
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.1	Bkg. 0.1	Bkg. 33
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC702	Serial #	Serial #
Cal Due 12-15-98	Cal Due ~~8-5-98~~	Cal Due ~~8-5-98~~
Bkg. 34	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

RWP #: ~~a~~ 8-5-98

Date: 8-5-98 Time: 0900

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

RCT: ~~a~~ 8-5-98 / /
Print name Signature Emp. #

PRL #: ~~a~~ 8-5-98

Comments: INFORMATION ONLY

See reverse side for map.

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.			
2.	<20	<200			24.			
3.	<20	<200			25.			
4.	<20	<200			26.			
5.	<20	<200			27.			
6.	<20	<200			28.			
7.	<20	<200			29.			
8.	<20	<200			30.			
9.	<20	<200			31.			
10.	<20	<200			32.			
11.	<20	<200			33.			
12.	<20	<200			34.			
13.	<20	<200			35.			
14.	<20	<200			36.			
15.	<20	<200			37.			
16.	<20	<200			38.			
17.	<20	<200			39.			
18.	<20	<200			40.			
19.	<20	<200			41.			
20.			~~a~~ 8-5-98		42.			
21.					43.			
22.					44.			

~~a~~ 8-5-98

~~a~~ 8-5-98

Date Reviewed: 8/26/98 RS Supervision: R Sawyer / [redacted]
Print Name Signature

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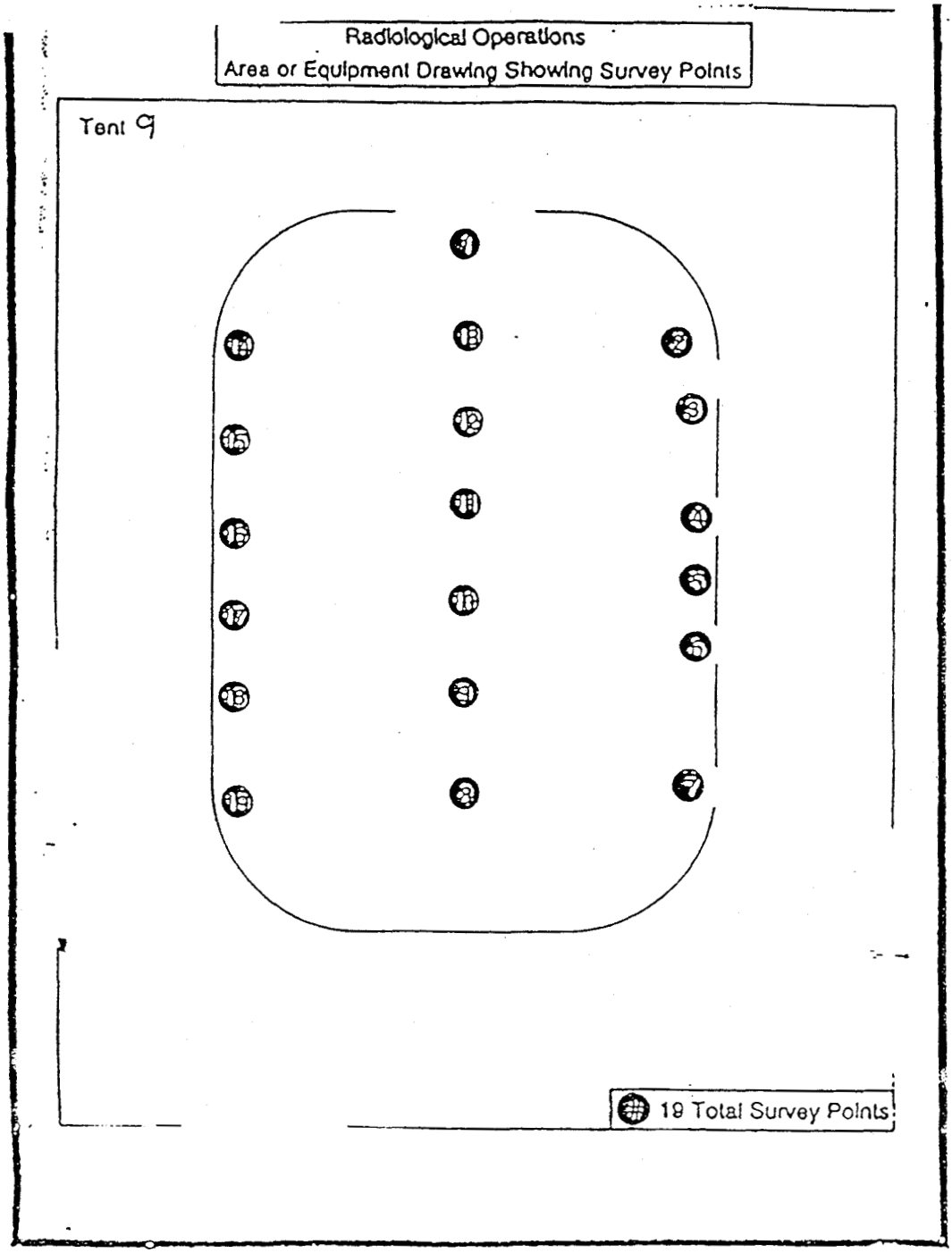
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

8/13/98

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 795	Serial # 824	Serial # BC704
Cal Due 9/13/98	Cal Due 9/24/98	Cal Due 12/11/98
Bkg. 0.0	Bkg. 0.0	Bkg. 36
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20	MDA <20	MDA <200
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC702	Serial #	Serial #
Cal Due 12/15/98	Cal Due	Cal Due
Bkg. 38	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

RWP #: NA

Date: 8/13/98 Time: 10

RCT: [redacted] / [redacted]
Print name Signature

RCT: / /
Print name Signature Emp. #

PRL #: NA

Comments: INFORMATION ONLY

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
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		
13.	<20	<200		
14.	<20	<200		
15.	<20	<200		
16.	<20	<200		
17.	<20	<200		
18.	<20	<200		
19.	<20	<200		
20.				
21.				
22.	8/13/98			
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39.				
40.				
41.				
42.				
43.				
44.				

8/13/98

8/13/98

Date Reviewed: 8/26/98 RS Supervision: R Sample / [redacted]
Print Name Signature

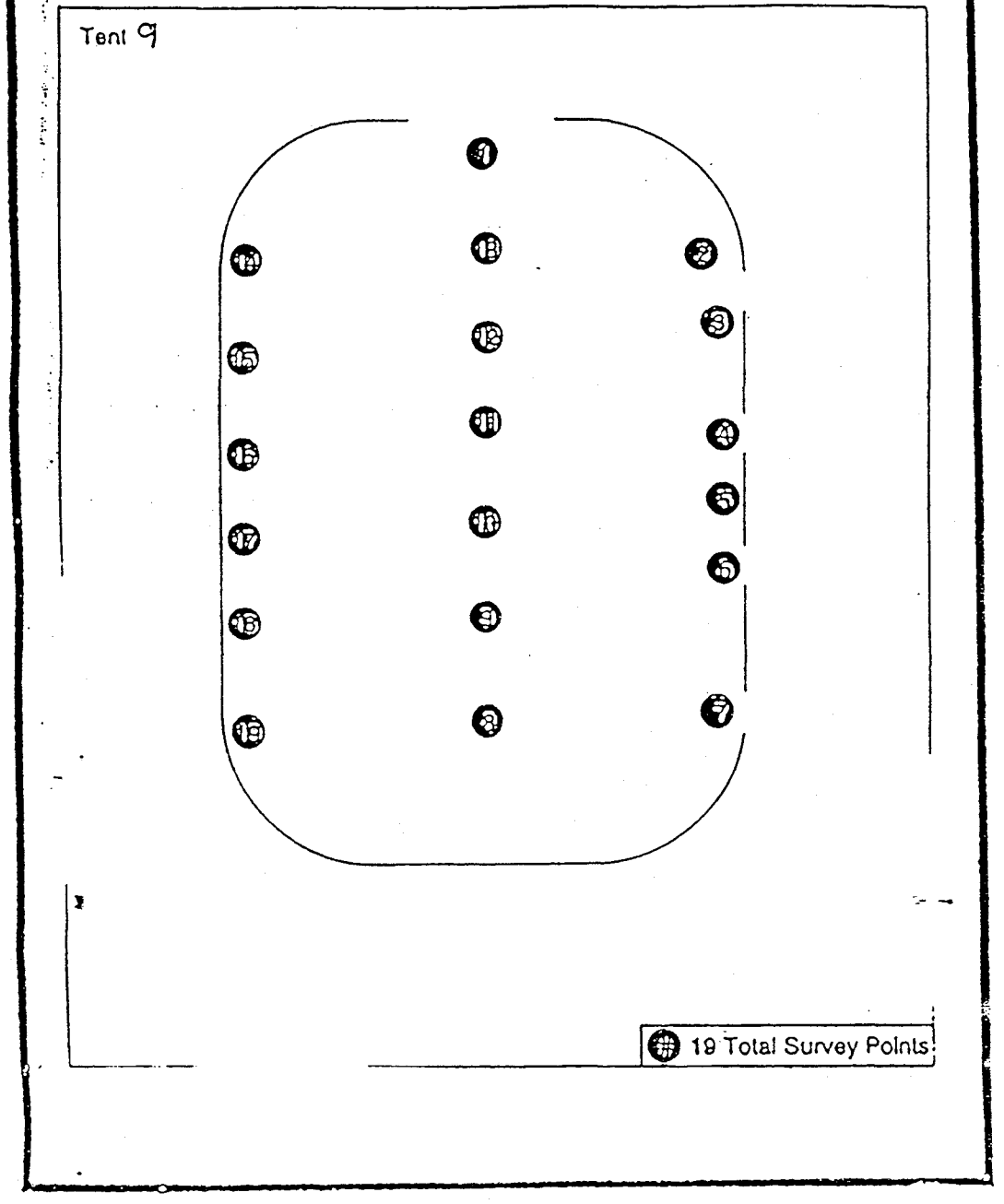
344

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC4
Serial # 795	Serial # 824	Serial # BC204
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.0	Bkg. 0.2	Bkg. 41
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20dpm	MDA <20dpm	MDA <200dpm
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC202	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 38	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200dpm	MDA	MDA

8-19-98 8-19-98

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

RWP #: [illegible] 8-19-98

Date: 8-19-98 Time: 0900

RCT: Munoz [signature] [redacted]
Print name Signature

RCT: [illegible] 8-19-98
Print name Signature Emp. #

PRL # : [illegible] 8-19-98

Comments:

INFORMATION ONLY

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.	<20	<200			33.				
12.	<20	<200			34.				
13.	<20	<200			35.				
14.	<20	<200			36.				
15.	<20	<200			37.				
16.	<20	<200			38.				
17.	<20	<200			39.				
18.	<20	<200			40.				
19.	<20	<200			41.				
20.					42.				
21.					43.				
22.					44.				

[illegible] 8-19-98 [illegible] 8-19-98

Date Reviewed: 9/3/98 RS Supervision: K. Garland [signature] [redacted]
Print Name Signature

346

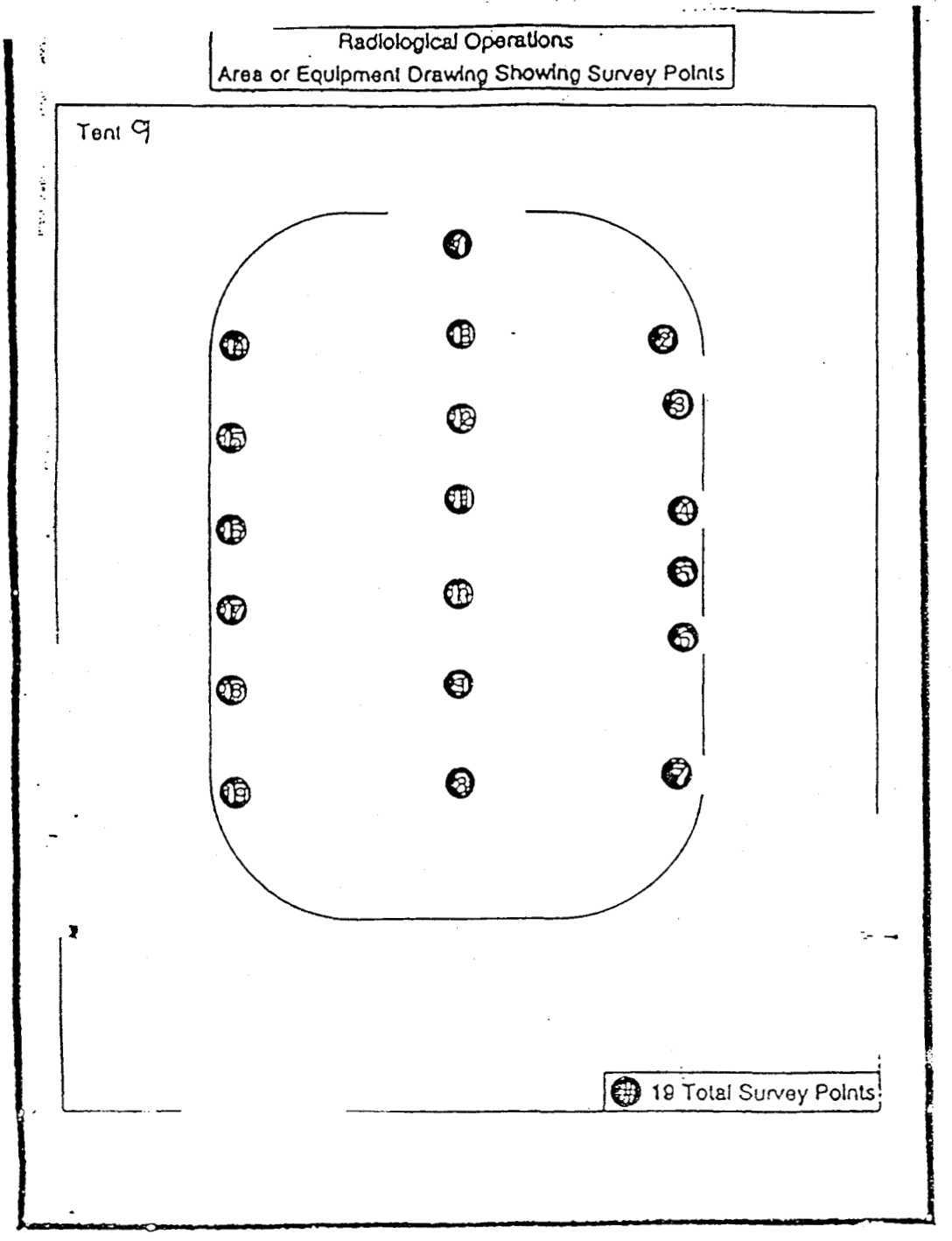
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE (BC-4)
Model SAC-4	Model SAC-4	Model SAC-4
Serial # 795	Serial # 824	Serial # BC204
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.0	Bkg. 0.2	Bkg. 36
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20dpm	MDA 20dpm	MDA 200dpm

Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC202	Serial #	Serial #
Cal Due 12-15-98	Cal Due 8-27-98	Cal Due 8-27-98
Bkg. 36	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

RWP #: am 8-27-98

Date: 8-27-98 Time: 1000

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

RCT: am 8-27-98 / /
Print name Signature Emp. #

PRL # : am 8-27-98

Comments: INFORMATION ONLY

See page 2 of 2 for survey map

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
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		
13.	<20	<200		
14.	<20	<200		
15.	<20	<200		
16.	<20	<200		
17.	<20	<200		
18.	<20	<200		
19.	<20	<200		
20.				
21.				
22.				
23.				
24.				
25.				
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27.				
28.				
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30.				
31.				
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36.				
37.				
38.				
39.				
40.				
41.				
42.				
43.				
44.				

8-27-98

8-27-98

Date Reviewed: 9/3/98 RS Supervision: K. Gamboa [redacted]
Print Name Signature

3418

RS FORMS 07.02-01

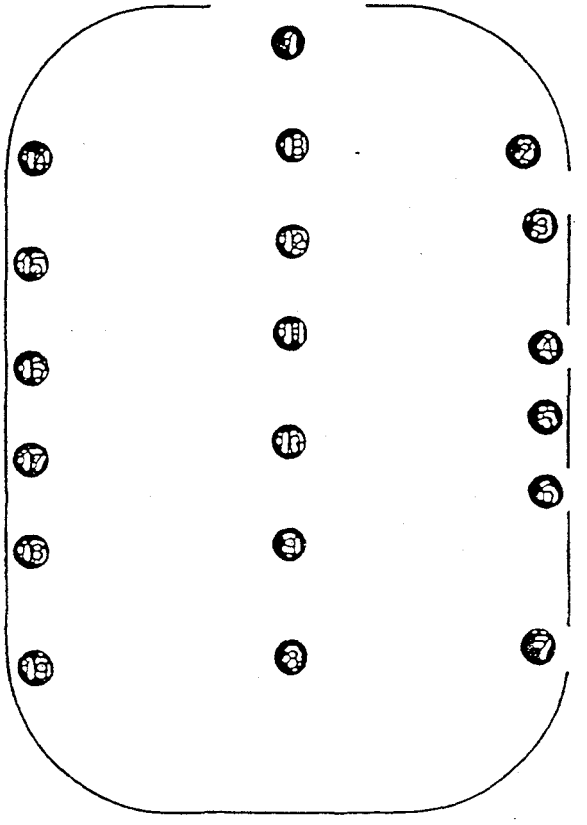
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



18 Total Survey Points

349

Page ___ of ___ **INFORMATION ONLY** RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 795	Serial # 824	Serial # 704
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 12-11-98
Bkg. 0.3	Bkg. 0.1	Bkg. 37
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20dpm	MDA 20dpm	MDA 200dpm
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 39	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

RWP #:

Date: 9-2-98 Time: 1040

RCT: M.E. VAUGHN / M.E. V [redacted]
Print name Signature

RCT: / /
Print name Signature Emp. #

PRL # :

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<205			23.				
2.					24.				
3.					25.				
4.					26.				
5.					27.				
6.					28.				
7.					29.				
8.					30.				
9.					31.				
10.					32.				
11.					33.				
12.					34.				
13.					35.				
14.					36.				
15.					37.				
16.					38.				
17.					39.				
18.					40.				
19.					41.				
20.					42.				
21.					43.				
22.					44.				

9-2-98

9-2-98

Date Reviewed: 9/3/98 RS Supervision: K. Gaulhard / K E Gaulhard / [redacted]
Print Name Signature

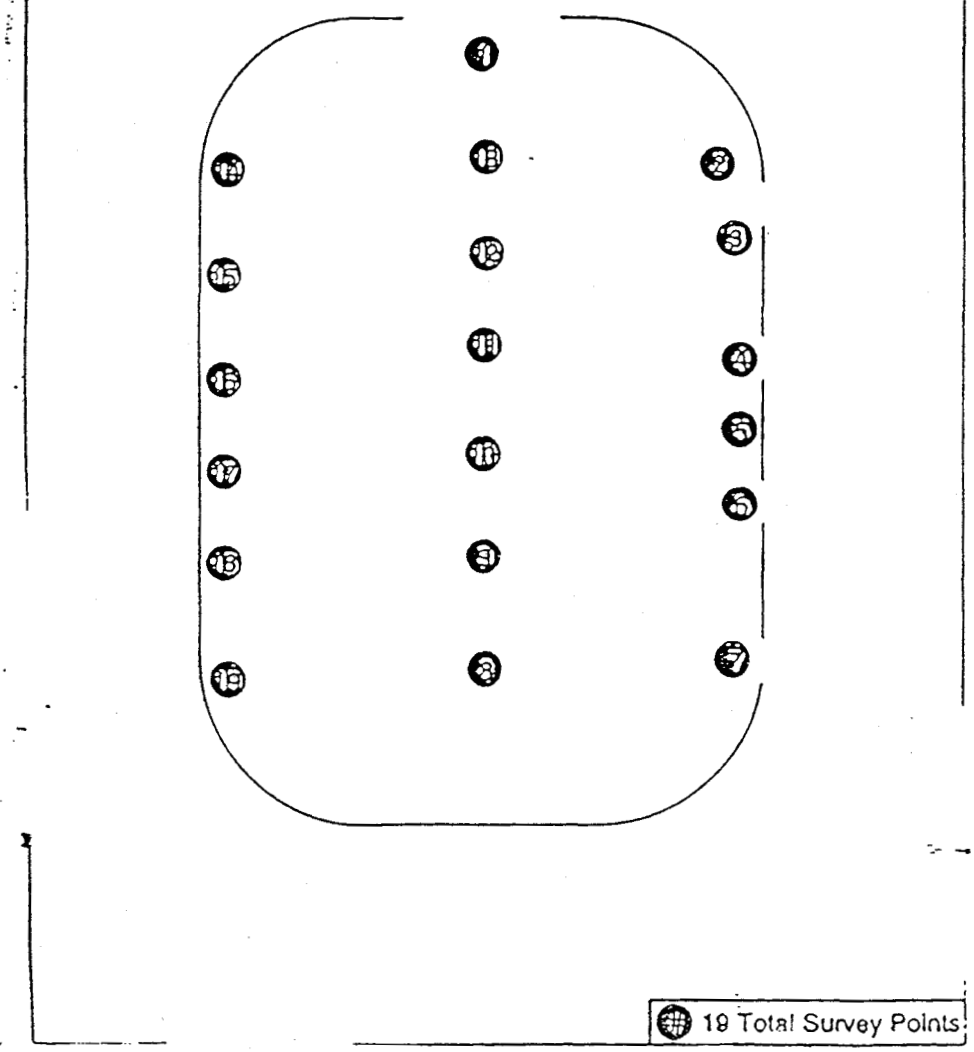
350

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



INFORMATION ONLY

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE BC-4
Model SAC-4	Model SAC-4	Model ~~SAC-4~~
Serial # 795	Serial # 824	Serial # BC838
Cal Due 9-13-98	Cal Due 9-24-98	Cal Due 1-9-99
Bkg. 0.1	Bkg. 0.0	Bkg. 39
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm

Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC202	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 44	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION
Building: 904
Location: TENT 9
Purpose: WEEKLY SURVEY

am 9-9-98
RWP #:

Date: 9-9-98 Time: 1000

RCT: MUNOZ [redacted]
Print name Signature Emp. #

am 9-9-98
RCT: / /
Print name Signature Emp. #

am 9-9-98
PRL #:

Comments: See Survey Map for Survey points

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.			
2.	<20	<200			24.			
3.	<20	<200			25.			
4.	<20	<200			26.			
5.	<20	<200			27.			
6.	<20	<200			28.			
7.	<20	<200			29.			
8.	<20	<200			30.			
9.	<20	<200			31.			
10.	<20	<200			32.			
11.	<20	<200			33.			
12.	<20	<200			34.			
13.	<20	<200			35.			
14.	<20	<200			36.			
15.	<20	<200			37.			
16.	<20	<200			38.			
17.	<20	<200			39.			
18.	<20	<200			40.			
19.	<20	<200			41.			
20.					42.			
21.					43.			
22.					44.			

Date Reviewed: 9/15/98 RS Supervision: J. Ewell / J. Ewell
Print Name Signature

[redacted]

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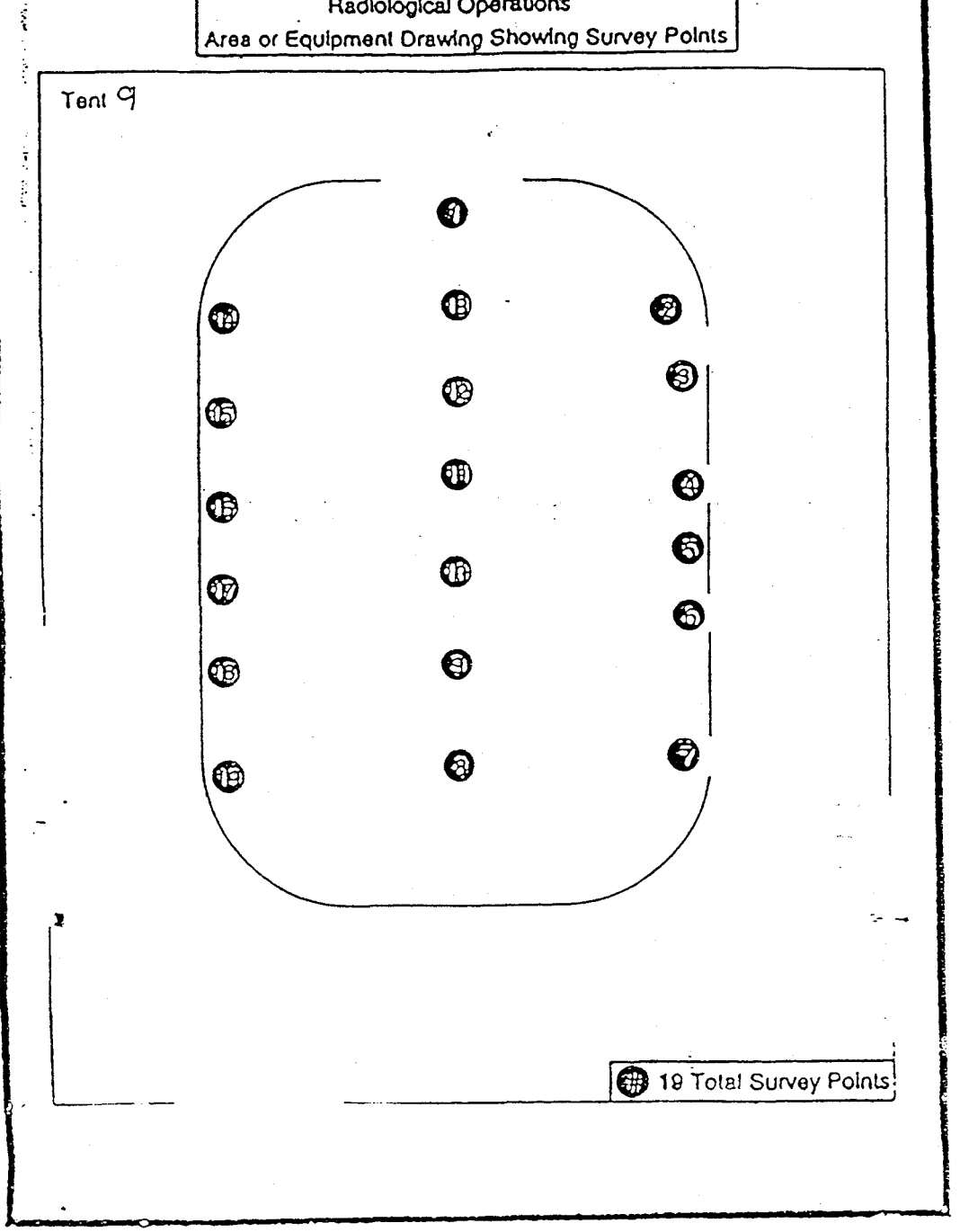
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



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INFORMATION ONLY

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model BE SAC-4
Serial # 767	Serial # 824	Serial # 838
Cal Due 10-14-98	Cal Due 9-24-98	Cal Due 1-9-98
Bkg. 0.0	Bkg. 0.1	Bkg. 40
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20 dpm	MDA <20 dpm	MDA <200 dpm
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due 9-16-98	Cal Due 9-16-98
Bkg. 41	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

RWP #: ~~DH~~ 9-16-98

Date: 9-16-98 Time: 1240

RCT: Hankins DH [redacted]
Print name Signature

RCT: DH 9-16-98
Print name Signature Emp. #

PRL # : DH 9-16-98

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
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		
13.	<20	<200		
14.	<20	<200		
15.	<20	<200		
16.	<20	<200		
17.	<20	<200		
18.	<20	<200		
19.	<20	<200		
20.	DH			
21.	9-16			
22.	98			
23.				
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37.				
38.				
39.				
40.				
41.				
42.				
43.				
44.				

Date Reviewed: 9/22/98 RS Supervision: J. Ewell J. Ewell [redacted]
Print Name Signature Emp.

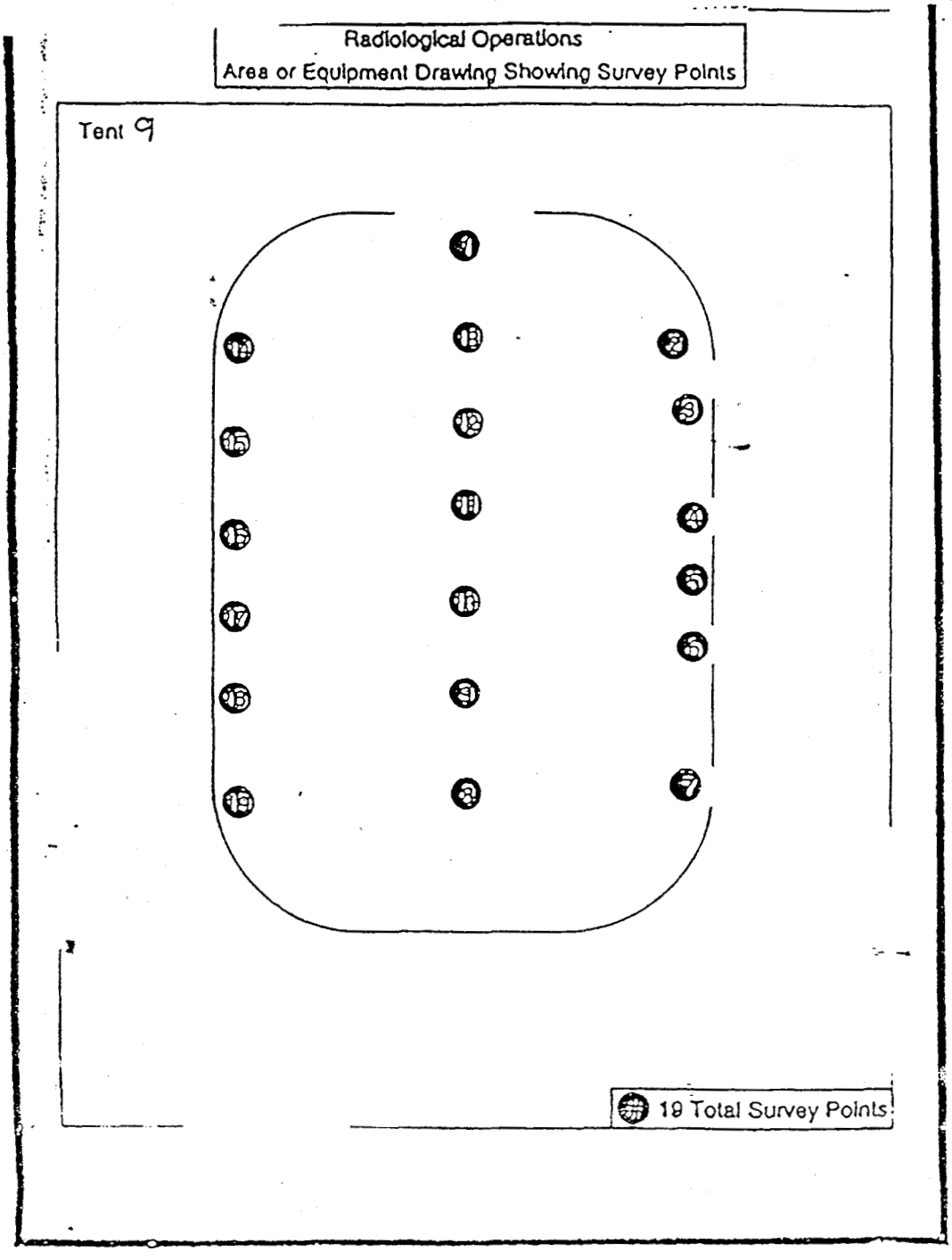
3564

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



INFORMATION ONLY

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 767	Serial # 795	Serial # BC838
Cal Due 10-14-98	Cal Due 3-16-99	Cal Due 1-9-99
Bkg. 0.1	Bkg. 0.2	Bkg. 39
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC702	Serial # ~~an 9-23-98~~	Serial # ~~an 9-23-98~~
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 38	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

an 9-23-98

RWP #:

Date: 9-23-98 Time: 0930

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

an 9-23-98

RCT: / / Emp. #
Print name Signature

an 9-23-98

PRL #:

Comments: See Map Page 2

SURVEY RESULTS

	REMOVABLE		DIRECT			REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA		ALPHA	BETA	ALPHA	BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.	<20	<200			33.				
12.	<20	<200			34.				
13.	<20	<200			35.				
14.	<20	<200			36.				
15.	<20	<200			37.				
16.	<20	<200			38.				
17.	<20	<200			39.				
18.	<20	<200			40.				
19.	<20	<200			41.				
20.					42.				
21.					43.				
22.					44.				

an 9-23-98

Date Reviewed: 10/5/98 RS Supervision: J. Fowell / [redacted]
Print Name Signature

215-6

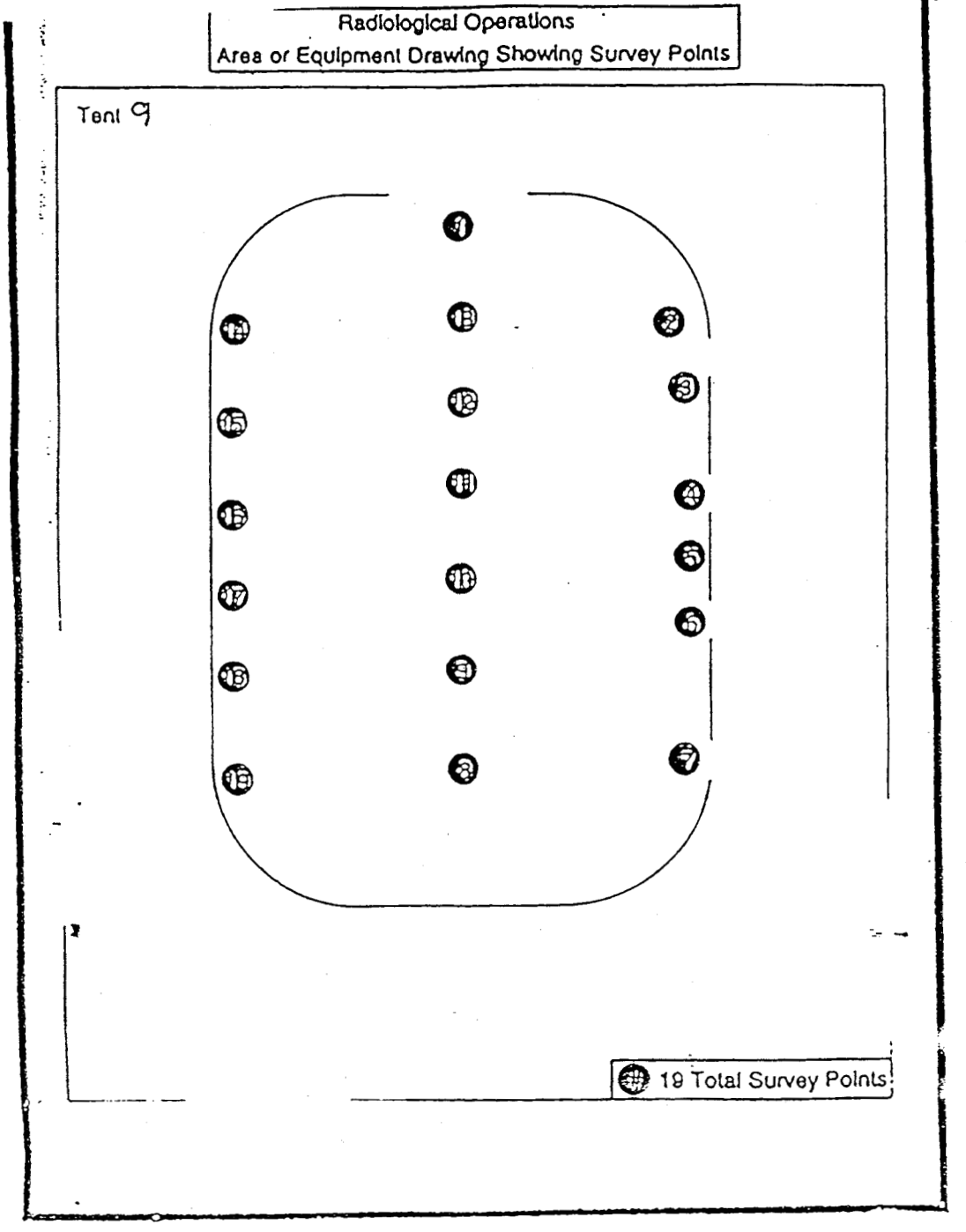
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



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INFORMATION ONLY

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model SAC-4
Serial # 767	Serial # 795	Serial # BC838
Cal Due 10-14-98	Cal Due 3-16-99	Cal Due 1-9-99
Bkg. 0.1	Bkg. 0.7	Bkg. 43
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # BC702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 36	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

am 9-30-98 (Mfg. NE.TECH)

am 9-30-98 (Mfg. NE.TECH)

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

am 9-30-98

RWP #:

Date: 9-30-98 Time: 0930

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

am 9-30-98

RCT: / /
Print name Signature Emp. #

am 9-30-98

PRL #:

Comments: See Survey Map Pg. 2

SURVEY RESULTS

	REMOVABLE		DIRECT		REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA	ALPHA	BETA	ALPHA	BETA
1.	<20	<200			23.			
2.	<20	<200			24.			
3.	<20	<200			25.			
4.	<20	<200			26.			
5.	<20	<200			27.			
6.	<20	<200			28.			
7.	<20	<200			29.			
8.	<20	<200			30.			
9.	<20	<200			31.			
10.	<20	<200			32.			
11.	<20	<200			33.			
12.	<20	<200			34.			
13.	<20	<200			35.			
14.	<20	<200			36.			
15.	<20	<200			37.			
16.	<20	<200			38.			
17.	<20	<200			39.			
18.	<20	<200			40.			
19.	<20	<268			41.			
20.					42.			
21.					43.			
22.					44.			

9-30-98

Date Reviewed: 10/5/98 RS Supervision: J. Ewell / J. Ewell / [redacted]
Print Name Signature

358

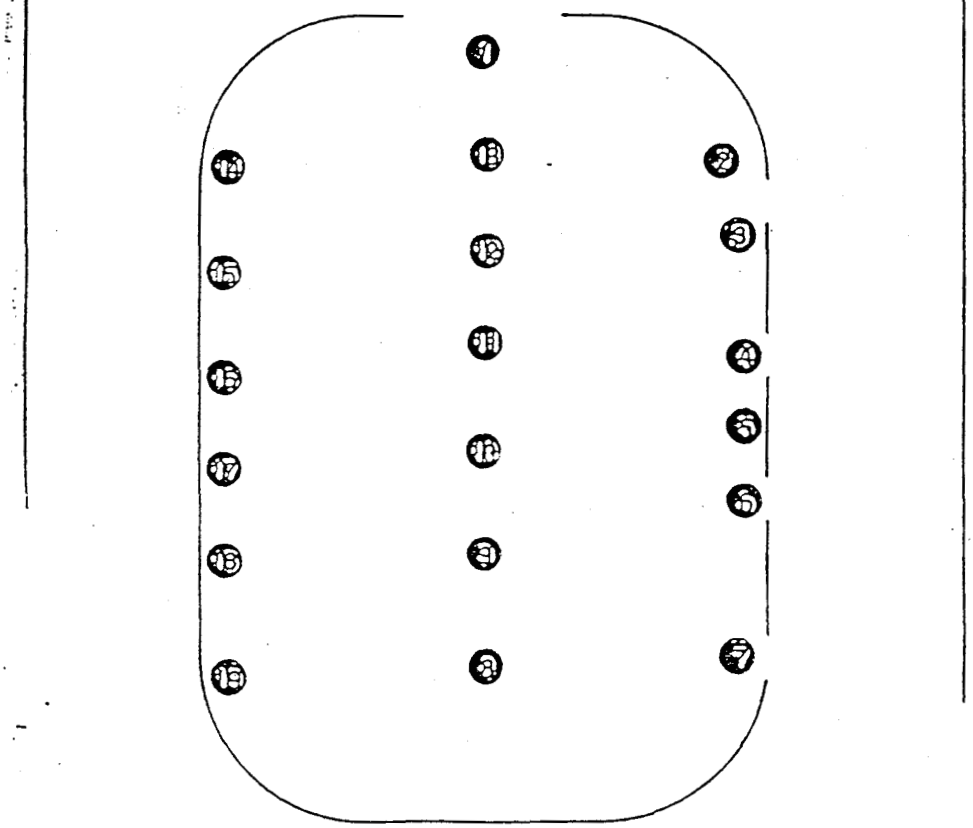
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



INFORMATION ONLY

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ 135
Serial # 1050	Serial # 1199	Serial # 914
Cal Due 2-26-99	Cal Due 2-14-99	Cal Due 2-4-99
Bkg. 0.0	Bkg. 0.6	Bkg. 43
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20 dpm	MDA <20 dpm	MDA <200 dpm

Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 706	Serial #	Serial # 10
Cal Due 12-22-98	Cal Due	Cal Due
Bkg. 38	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

~~RWP #:~~ JH, 10-7-98

Date: 10-7-98 Time: 1400

RCT: HANKINS L Hank [redacted]
Print name Sig

RCT: JH
Print name Signature Emp. #

PRL #:

Comments: 10-7-98

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
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		
13.	<20	<200		
14.	<20	<200		
15.	<20	<200		
16.	<20	<200		
17.	<20	<200		
18.	<20	<200		
19.	<20	<200		
20.	JH 10-7-98			
21.				
22.				
23.				
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37.				
38.				
39.				
40.				
41.				
42.				
43.				
44.				

Date Reviewed: 10/15/98 RS Supervision: S J. Ewell, J Ewell
Print Name Signature

[redacted]

R60

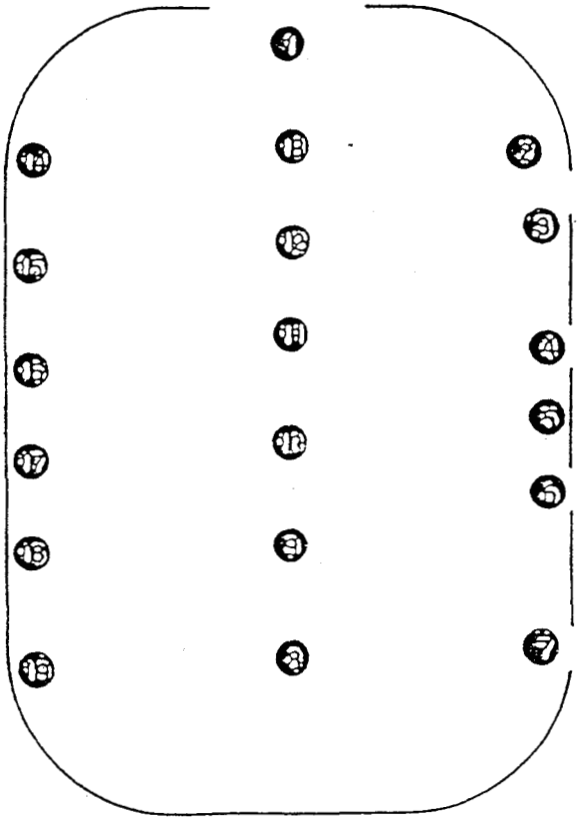
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



18 Total Survey Points

INFORMATION ONLY

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model SAC-4
Serial # 824	Serial # 795	Serial #
Cal Due 3/21/99	Cal Due 3-16-99	Cal Due
Bkg. 0.0 cpm	Bkg. 0.1 cpm	Bkg.
Efficiency .33	Efficiency .33	Efficiency
MDA 20 dpm	MDA 20 dpm	MDA
	EBERLINE 10.14.98 AJ	
Mfg. EBERLINE	Mfg. ~~NE-TECH~~ BC4	Mfg. NE-TECH
Model BC-4	Model ~~ELECTRA~~	Model ELECTRA
Serial # 838	Serial # 702	Serial #
Cal Due 1-9-99	Cal Due 12-15-98	Cal Due
Bkg. 40 cpm	Bkg. 42 cpm	Bkg.
Efficiency .25	Efficiency .25	Efficiency
MDA 200 dpm	MDA 200 dpm	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

RWP #:

Date: 10-14-98 Time: 1310

RCT: Jablonski [redacted]
Print name Signature Emp. #

RCT: / /
Print name Signature Emp. #

PRL # :

Comments:

SURVEY RESULTS

	REMOVABLE		DIRECT			REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA		ALPHA	BETA	ALPHA	BETA
1.	< 20	< 200			23.				
2.	< 20	< 200			24.				
3.	< 20	< 200			25.				
4.	< 20	< 200			26.				
5.	< 20	< 200			27.				
6.	< 20	< 200			28.				
7.	< 20	< 200			29.				
8.	< 20	< 200			30.				
9.	< 20	< 200			31.				
10.	< 20	< 200			32.				
11.	< 20	< 200			33.				
12.	< 20	< 200			34.				
13.	< 20	< 200			35.				
14.	< 20	< 200			36.				
15.	< 20	< 200			37.				
16.	< 20	< 200			38.				
17.	< 20	< 200			39.				
18.	< 20	< 200			40.				
19.	< 20	< 200			41.				
20.					42.				
21.					43.				
22.					44.				

Date Reviewed: 10/19/98 RS Supervision: [redacted]
Print Name Signature

362

RS FORMS 07.02-01

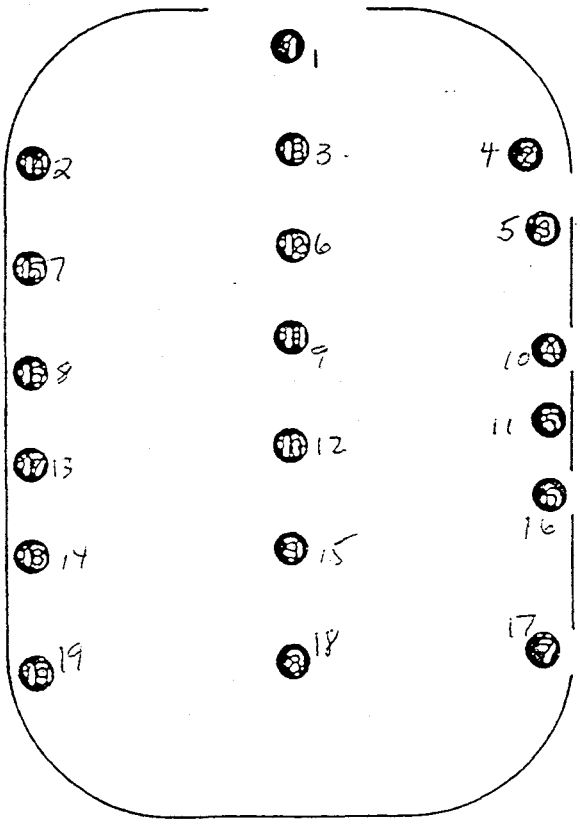
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

Page 1 of 2 **INFORMATION ONLY**

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

10-19-98

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 824	Serial # 745	Serial # 838
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 1-9-99
Bkg. 0.0 cpm	Bkg. 0.0 cpm	Bkg. 41 cpm
Efficiency .33	Efficiency .33	Efficiency .25
MDA 26 dpm	MDA 26 dpm	MDA 200 dpm
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 36 cpm	Bkg.	Bkg.
Efficiency .25	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

RWP #:

Date: 10-19-98 Time: 1340

RCT: Jaszkowski [redacted]
Print name Signature

RCT: / /
Print name Signature Emp. #

PRL # :

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	< 20	< 200			23.				
2.	< 20	< 200			24.				
3.	< 20	< 200			25.				
4.	< 20	< 200			26.				
5.	< 20	< 200			27.				
6.	< 20	< 200			28.				
7.	< 20	< 200			29.				
8.	< 20	< 200			30.				
9.	< 20	< 200			31.				
10.	< 20	< 200			32.				
11.	< 20	< 200			33.				
12.	< 20	< 200			34.				
13.	< 20	< 200			35.				
14.	< 20	< 200			36.				
15.	< 20	< 200			37.				
16.	< 20	< 200			38.				
17.	< 20	< 200			39.				
18.	< 20	< 200			40.				
19.	< 20	< 200			41.				
20.					42.				
21.	10-19-98				43.				
22.					44.				

Date Reviewed: 10/23/98 RS Supervision: J. Ewell / [redacted]
Print Name Signature

364

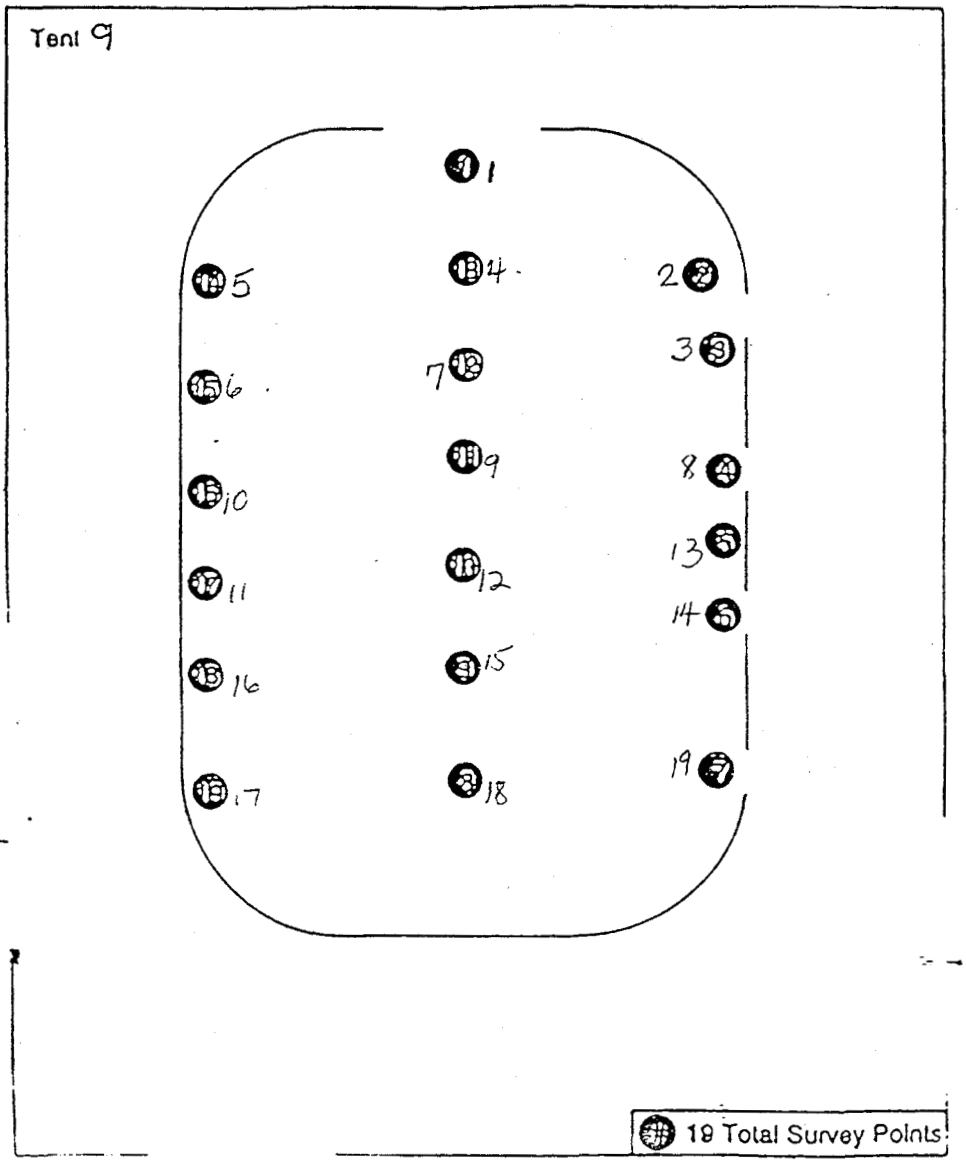
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



365

INFORMATION ONLY

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC~~ BC-4
Serial # 824	Serial # 795	Serial # 838
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 1-9-99
Bkg. 0.1	Bkg. 0.2	Bkg. 40
Efficiency .33	Efficiency .33	Efficiency .25
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 702	Serial #	Serial #
Cal Due 12-15-98	Cal Due	Cal Due
Bkg. 40	Bkg.	Bkg.
Efficiency .25	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

RWP #: N/A

Date: 10-29-98 Time: 0900

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

RCT: / /
Print name Signature Emp. #

PRL # :

Comments:

SURVEY RESULTS

	REMOVABLE		DIRECT			REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA		ALPHA	BETA	ALPHA	BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.	<20	<200			33.				
12.	<20	<200			34.				
13.	<20	<200			35.				
14.	<20	<200			36.				
15.	<20	<200			37.				
16.	<20	<200			38.				
17.	<20	<210			39.				
18.	<20	<200			40.				
19.	<20	<200			41.				
					42.				
21.	DUE 10-29-98				43.				
22.					44.				

Date Reviewed: RS Supervision: S
Print Name Signature Emp. #

366

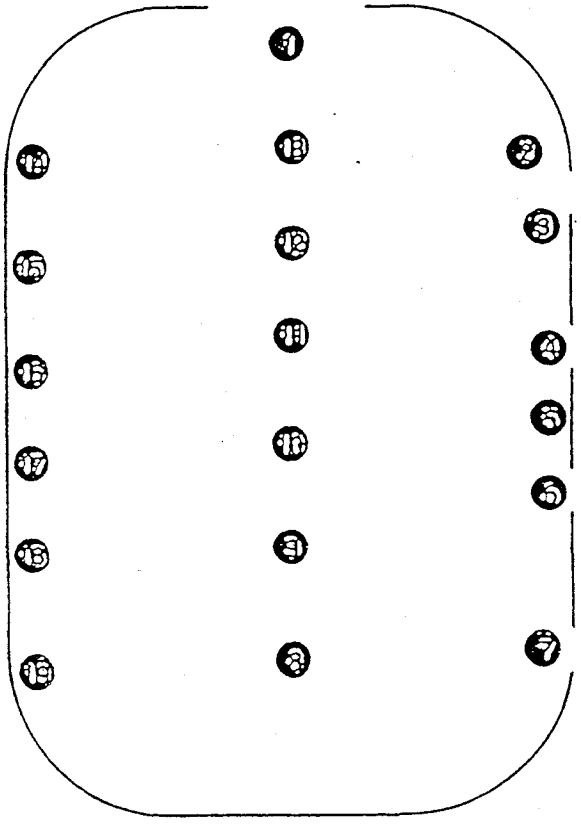
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

 INFORMATION ONLY RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4 RT 11-4-98
Serial # 824	Serial # 795	Serial # 916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.1	Bkg. 0.2	Bkg. 43
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA 20	MDA 20	MDA 200
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 36	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA 200	MDA	MDA

Survey Type: CONTAMINATION
Building: 904
Location: TENT 9
Purpose: WEEKLY SURVEY

RWP #:

Date: 11-4-98 Time: 1400

RCT: Rick Muller / Rick Muller [redacted]
Print name Signature

RCT: / /
Print name Signature Emp. #

PRL # :
Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	< 20	< 200			23.				
2.	< 20	< 200			24.				
3.	< 20	< 200			25.				
4.	< 20	< 200			26.				
5.	< 20	< 200			27.				
6.	< 20	< 200			28.				
7.	< 20	< 200			29.				
8.	< 20	< 200			30.				
9.	< 20	< 200			31.				
10.	< 20	< 200			32.				
11.	< 20	< 200			33.				
12.	< 20	< 200			34.				
13.	< 20	< 200			35.				
14.	< 20	< 200			36.				
15.	< 20	< 200			37.				
16.	< 20	< 200			38.				
17.	< 20	< 200			39.				
18.	< 20	< 200			40.				
19.	< 20	< 200			41.				
					42.				
21.					43.				
22.					44.				

RM 11-4-98

Date Reviewed: 11/17/98 RS Supervision: J. Ewell / J. Ewell [redacted]
Print Name Signature

368

RS FORMS 07.02-01

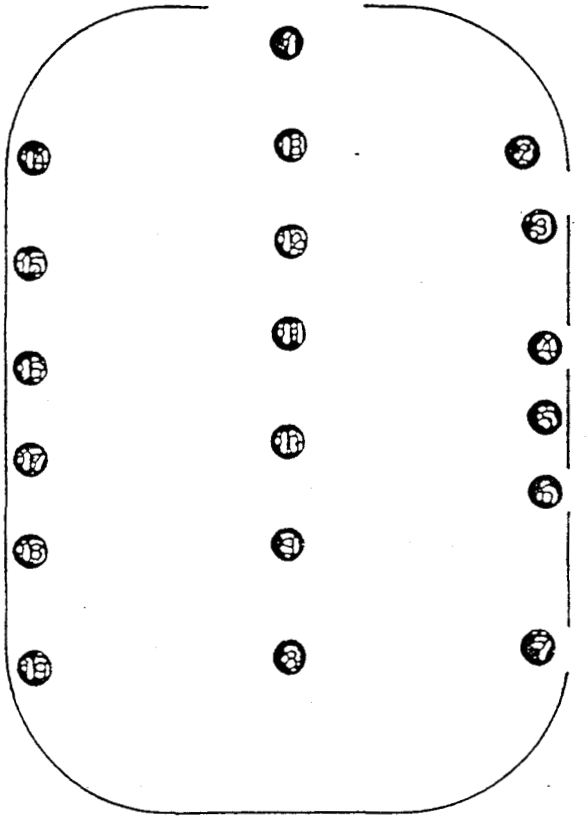
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points

Tent 9



19 Total Survey Points

 INFORMATION ONLY RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ BC-4
Serial # 824	Serial # 795	Serial # 916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.0	Bkg. 0.0	Bkg. 41
Efficiency .33	Efficiency .33	Efficiency .25
MDA 20 dpm	MDA 20 dpm	MDA 200 dpm
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 42	Bkg.	Bkg.
Efficiency .25	Efficiency	Efficiency
MDA 200 dpm	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

RWP #:

Date: 11-11-98 Time: 1500

RCT: P Evezich / P Evezich [redacted]

Print name Signature Emp. #

RCT: / /

Print name Signature Emp. #

PRL # :

Comments:

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.	<20	<200			33.				
12.	<20	<200			34.				
13.	<20	<200			35.				
14.	<20	<200			36.				
15.	<20	<200			37.				
16.	<20	<200			38.				
17.	<20	<200			39.				
18.	<20	<200			40.				
19.	<20	<200			41.				
					42.				
21.					43.				
22.					44.				

PWR 11-11-98

Date Reviewed: 11/17/98 RS Supervision: J. Ewell / J Ewell [redacted]

Print Name Signature

B70

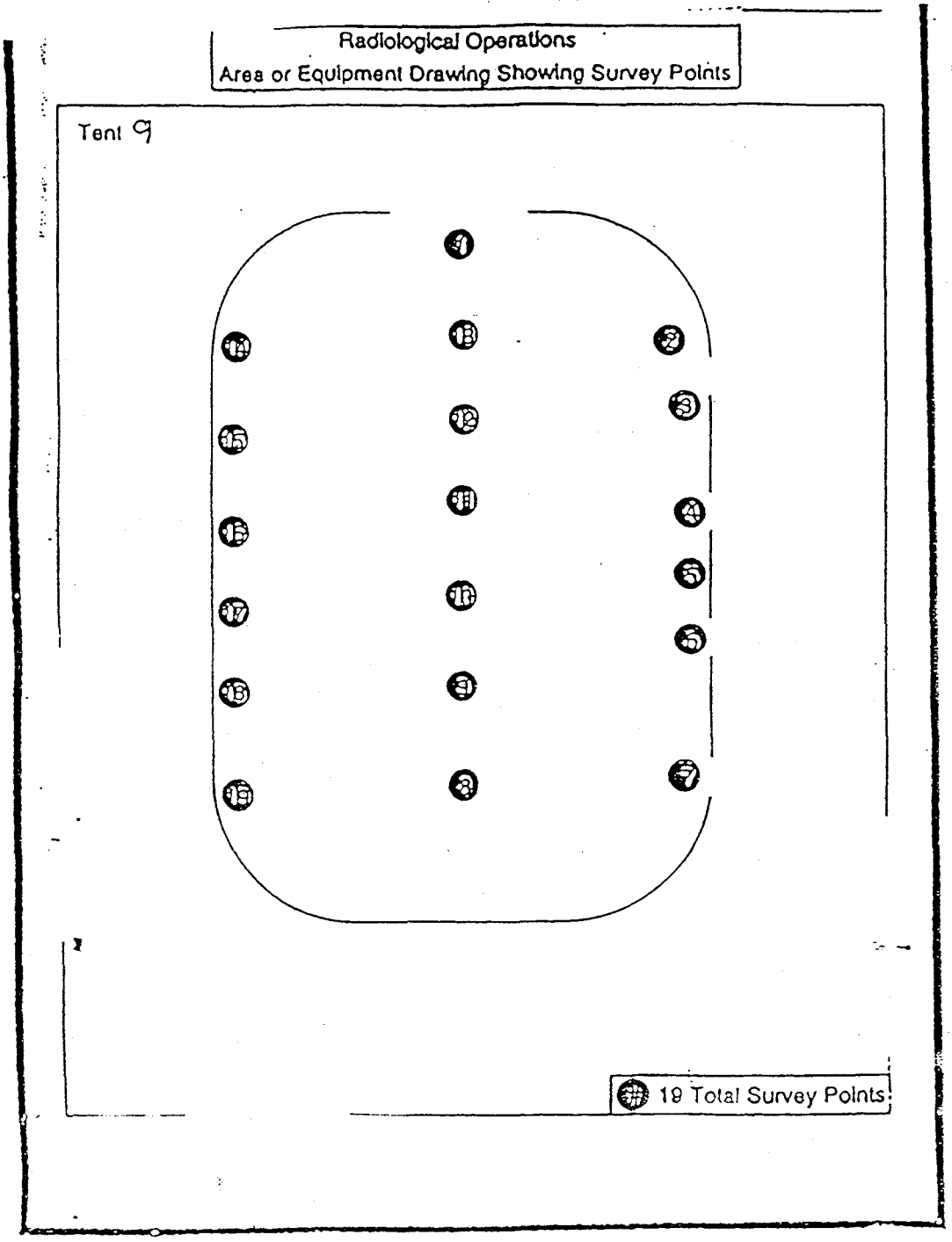
RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



RS FORMS 07.02-01

INFORMATION ONLY

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg.EBERLINE	Mfg.EBERLINE	Mfg.EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC~~ BC-4
Serial # 824	Serial # 795	Serial # 916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.0	Bkg. 0.0	Bkg. 43
Efficiency 33%	Efficiency 33%	Efficiency 25%
MDA <20	MDA <20	MDA <200
Mfg.EBERLINE	Mfg.NE.TECH	Mfg.NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 39	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200	MDA	MDA

JH 11-19-98

JH 11-19-98

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

RWP #: JH 11-19-98

Date: 11-19-98

RCT: Hankins L Ho[redacted]

Print name

RCT: JH 11-19-98

Print name Signature Emp. #

PRL #: JH

Comments: 11-19-98

SURVEY RESULTS

	REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA		REMOVABLE ALPHA	REMOVABLE BETA	DIRECT ALPHA	DIRECT BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.	<20	<200			33.				
12.	<20	<200			34.				
13.	<20	<200			35.				
14.	<20	<200			36.				
15.	<20	<200			37.				
16.	<20	<200			38.				
17.	<20	<200			39.				
18.	<20	<200			40.				
19.	<20	<200			41.				
20.					42.				
21.					43.				
22.					44.				

RM 11/19/98

RM 11/19/98

RM 11/19/98

Date Reviewed: 11/19/98 RS Supervision: J. Ewell (Print Name) J. Ewell (Signature) [redacted]

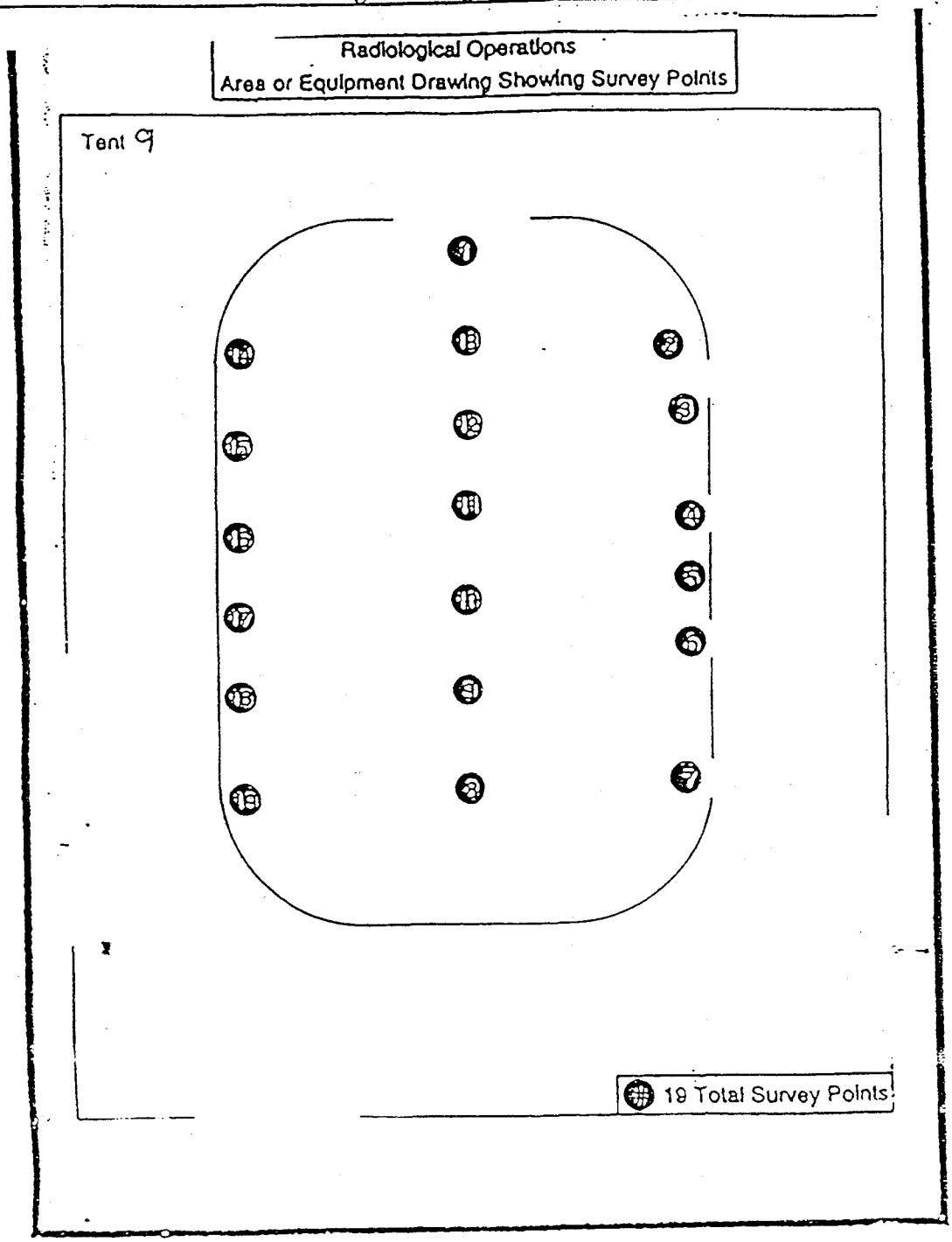
372

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



INFORMATION ONLY

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg. EBERLINE
Model SAC-4	Model SAC-4	Model ~~SAC-4~~ SE
Serial # 824	Serial # 795	Serial # 916
Cal Due 3-21-99	Cal Due 3-16-99	Cal Due 3-16-99
Bkg. 0.1	Bkg. 0.0	Bkg. 47
Efficiency 33%	Efficiency 33%	Efficiency ~~47%~~ 25%
MDA <20	MDA <20	MDA <200
Mfg. EBERLINE	Mfg. NE.TECH	Mfg. NE.TECH
Model BC-4	Model ELECTRA	Model ELECTRA
Serial # 838	Serial #	Serial #
Cal Due 1-9-99	Cal Due	Cal Due
Bkg. 37	Bkg.	Bkg.
Efficiency 25%	Efficiency	Efficiency
MDA <200	MDA	MDA

Survey Type: CONTAMINATION

Building: 904

Location: TENT 9

Purpose: WEEKLY SURVEY

RWP #:

Date: 11-23-98 Time: 1000

RCT: Munoz [redacted]
Print name Signature

RCT: _____
Print name Signature Emp. #

PRL # :

Comments:

SURVEY RESULTS

	REMOVABLE		DIRECT			REMOVABLE		DIRECT	
	ALPHA	BETA	ALPHA	BETA		ALPHA	BETA	ALPHA	BETA
1.	<20	<200			23.				
2.	<20	<200			24.				
3.	<20	<200			25.				
4.	<20	<200			26.				
5.	<20	<200			27.				
6.	<20	<200			28.				
7.	<20	<200			29.				
8.	<20	<200			30.				
9.	<20	<200			31.				
10.	<20	<200			32.				
11.	<20	<200			33.				
12.	<20	<200			34.				
13.	<20	<200			35.				
14.	<20	<200			36.				
15.	<20	<200			37.				
16.	<20	<200			38.				
17.	<20	<200			39.				
18.	<20	<200			40.				
19.	<20	<200			41.				
20.	see above				42.				
21.					43.				
22.					44.				

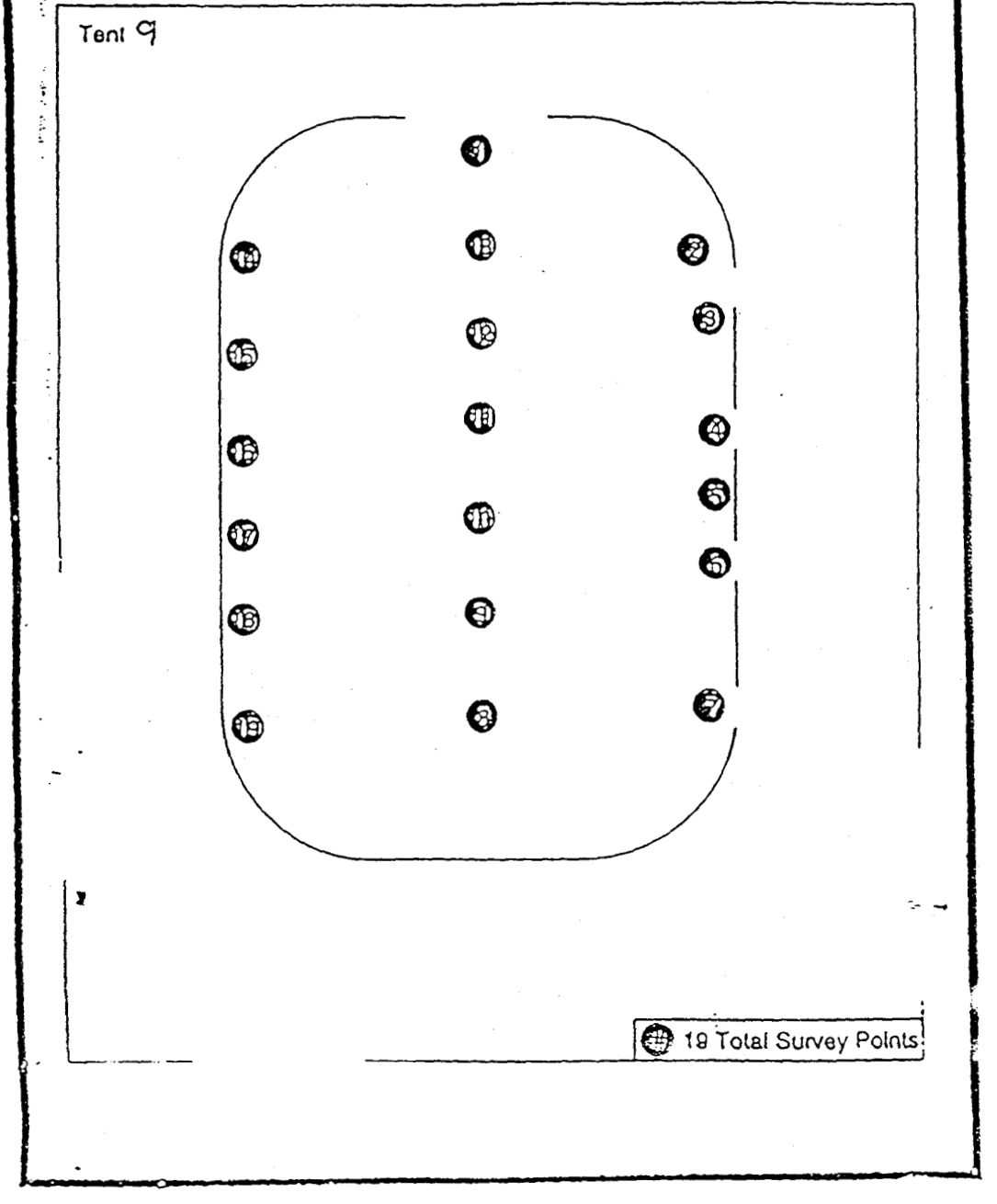
Date Reviewed: 11/24/98 RS Supervision: J. Kinell [redacted]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

Radiological Operations
Area or Equipment Drawing Showing Survey Points



C.2 RECONNAISSANCE LEVEL CHARACTERIZATION RADIOLOGICAL DATA

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 43	Bkg. 40	Bkg. 0.0
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 2343	Serial # 2343
Cal Due 6/16/99	Cal Due 8-12-99	Cal Due 8-12-99
Bkg. 0.0	Bkg. 9 4	Bkg. B 49
Efficiency 33%	Efficiency 22.0%	Efficiency 32.0%
MDA <20	MDA 55	MDA 317

Survey Type: Contamination Survey

Building: Tent # 9

Location: 904 Pad

Purpose: CHARACTERIZATION SURVEYS

RWP #: — NA —

Date: 03-31-99 Time: 1400

RCT: Rex Snyder / [redacted]
Print name Signature

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

PRL # : _____

Comments Exterior Survey

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct			Removable		Direct	
	Alpha	Beta	Alpha	Beta		Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 55	< 317	23.	< 20	< 200	< 55	< 317
2.	< 20	< 200	< 55	< 317	24.	< 20	< 200	< 55	< 317
3.	< 20	< 200	< 55	< 317	25.	< 20	< 200	< 55	< 317
4.	< 20	< 200	< 55	< 317	26.	< 20	< 200	< 55	< 317
5.	< 20	< 200	< 55	< 317	27.	< 20	< 200	< 55	< 317
6.	< 20	< 200	< 55	< 317	28.	< 20	< 200	< 55	< 317
7.	< 20	< 200	< 55	< 317	29.	< 20	< 200	66	< 317
8.	< 20	< 200	< 55	< 317	30.	< 20	< 200	< 55	< 317
9.	< 20	< 200	< 55	< 317	31.				
10.	< 20	< 200	< 55	< 317	32.				
11.	< 20	< 200	< 55	465	33.				
12.	< 20	< 200	< 55	< 317	34.				
13.	< 20	< 200	< 55	< 317	35.				
14.	< 20	< 200	< 55	< 317	36.			A	
15.	< 20	< 200	< 55	< 317	37.		N		
16.	< 20	< 200	< 55	< 317	38.				
17.	< 20	< 200	< 55	< 317	39.				
18.	< 20	< 200	< 55	< 317	40.				
19.	< 20	< 200	< 55	< 317	41.				
20.	< 20	< 200	66	< 317	42.				
21.	< 20	< 200	< 55	< 317	43.				
22.	< 20	< 200	< 55	< 317	44.				

Date 4/5/99 **RS Supervision:** K Sawyer / [redacted]
Print Name Signature

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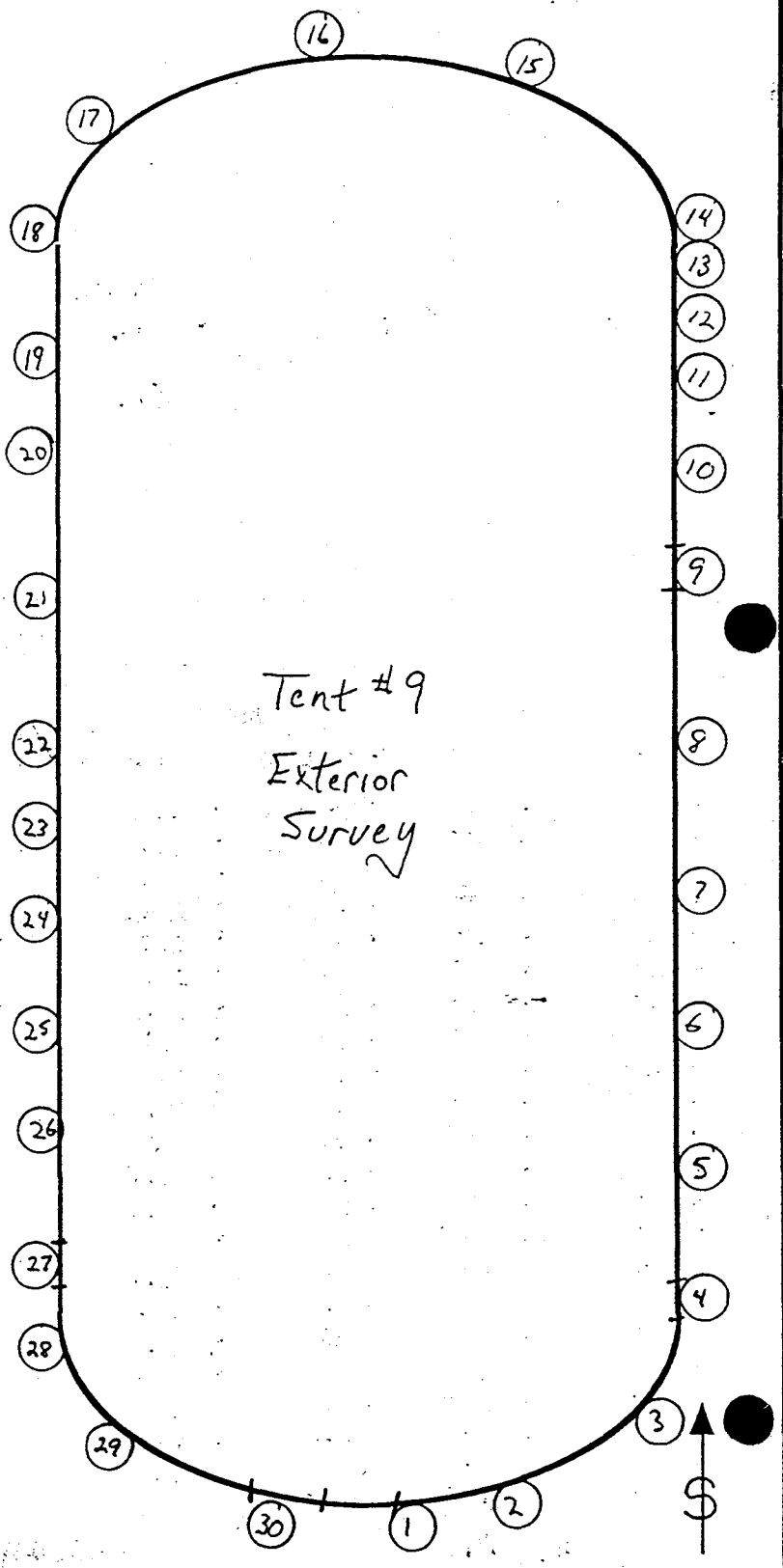
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SIT

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

	Location
1.	#27 - C - 5'
2.	# C - 6'
3.	# W19 - C - 4'
4.	# W19/W18 - C - 8' (above door)
5.	# W17 - 4'
6.	# W16/W15 - C - 10'
7.	# W14 - C - 5'
8.	# W13/W12 - C - 1'
9.	# W12/W11 - Door - 4'
10.	# W10 - 2'
11.	# W8/W7 - C - 10'
12.	# W5/W4 - C - 4'
13.	# W3/W2 - C - 3'
14.	# W1 - 5'
15.	# 25/26 - C - 5'
16.	# 27 - C - 1'
17.	# 28 - C - 8'
18.	# E1/E2 - C - 10'
19.	# E3 - 4'
20.	# E4/E5 - C - 3'
21.	# E8 - C - 8'
22.	# E10 - C - 2'
23.	# E11/E12 - Door - 3'
24.	# E14 - 4'
25.	# E16/E17 - C - 6'
26.	# E18 - C - 1'
27.	# E19/E18 - C - 8' (above door)
28.	# E20 - 4'
29.	# 21/22 - C - 1'
30.	Door - C - 4'
31.	
32.	
33.	
34.	
35.	
36.	
37.	
38.	
39.	
40.	
41.	
42.	
43.	
44.	

# = Support Location ID
C = Canvas
'(ft) = height from ground



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 43	Bkg. 40	Bkg. 0.0
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 2343	Serial # 2343
Cal Due 6/16/99	Cal Due 8-12-99	Cal Due 8-12-99
Bkg. 0.0	Bkg. NR 1.04	Bkg. 3 491
Efficiency 33%	Efficiency 22.0%	Efficiency 32.0%
MDA <20	MDA 55	MDA 317

Survey Type: Contamination Survey

Building: Tent # 9

Location: 904 Pad

Purpose: CHARACTERIZATION SURVEYS

RWP #: — NA

Date: 03-31-99 Time: 1600

RCT: Rex Sagoer / [redacted]
Print name Signature

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

PRL # : _____

Comments Interior Survey Fix Direct Scan 1m² at all points < 2 meter

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct			Removable		Direct	
	Alpha	Beta	Alpha	Beta		Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 55	606	23.	< 20	< 200	< 55	< 317
2.	< 20	< 200	< 55	660	24.	< 20	< 200	< 55	< 317
3.	< 20	< 200	< 55	807	25.	< 20	< 200	< 55	< 317
4.	< 20	< 200	< 55	870	26.	< 20	< 200	< 55	< 317
5.	< 20	< 200	< 55	729	27.	< 20	< 200	< 55	< 317
6.	< 20	< 200	< 55	696	28.	< 20	< 200	< 55	< 317
7.	< 20	< 200	< 55	933	29.	< 20	< 200	< 55	< 317
8.	< 20	< 200	< 55	843	30.	< 20	< 200	< 55	< 317
9.	< 20	< 200	< 55	1230	31.	< 20	< 200	< 55	< 317
10.	< 20	< 200	< 55	1044	32.	< 20	< 200	< 55	< 317
11.	< 20	< 200	< 55	912	33.	< 20	< 200	< 55	< 317
12.	< 20	< 200	< 55	990	34.	< 20	< 200	< 55	< 317
13.	< 20	< 200	< 55	891	35.	< 20	< 200	< 55	< 317
14.	< 20	< 200	< 55	915	36.	< 20	< 200	< 55	< 317
15.	< 20	< 200	< 55	825	37.	< 20	< 200	< 55	< 317
16.	< 20	< 200	< 55	708	38.	< 20	< 200	< 55	< 317
17.	< 20	< 200	< 55	744	39.	< 20	< 200	< 55	< 317
18.	< 20	< 200	< 55	837	40.	< 20	< 200	< 55	< 317
19.	< 20	< 200	< 55	816	41.				
20.	< 20	< 200	< 55	987	42.			A	
21.	< 20	< 200	< 55	< 317	43.				
22.	< 20	< 200	< 55	< 317	44.				

Date 4/5/99 **RS Supervision:** [redacted]
Print Name Signature

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SIT

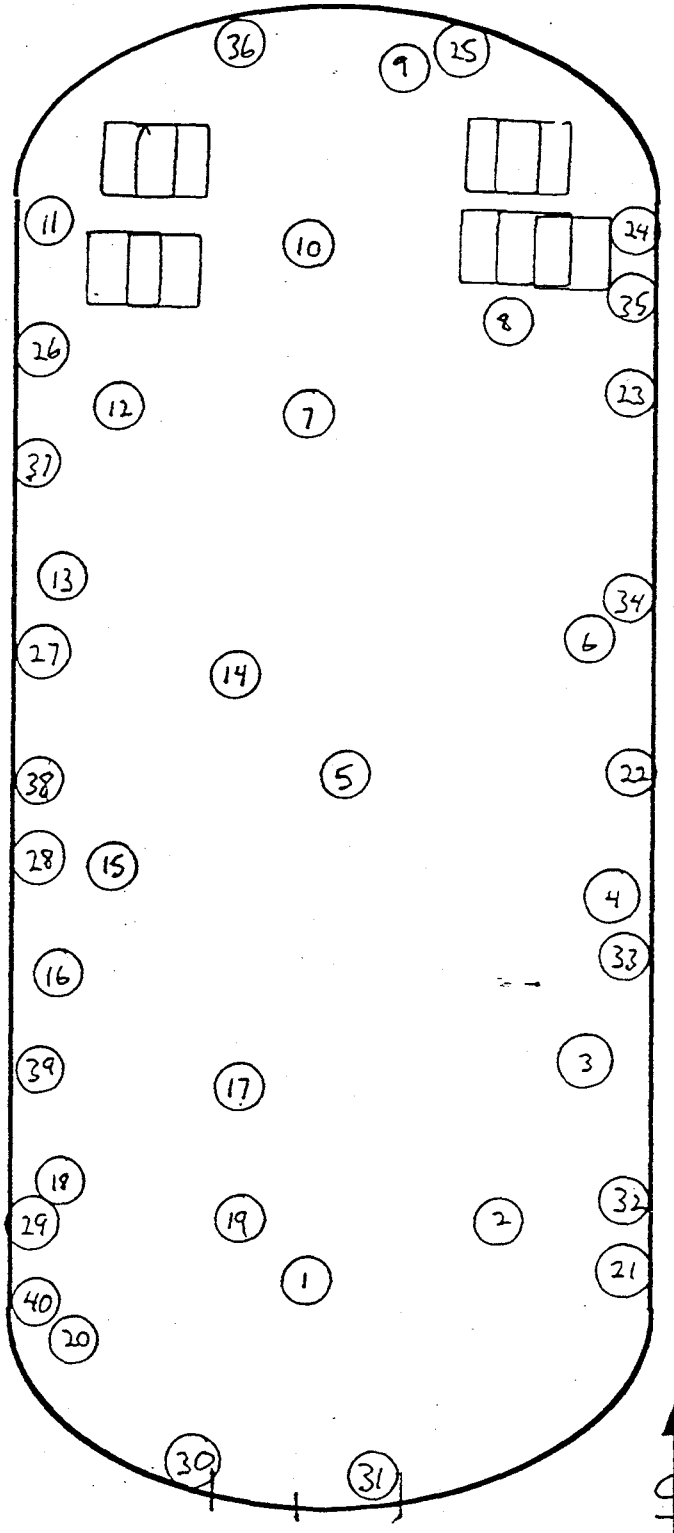
RADIOLOGICAL SAFETY

Drawing Showing Survey Points

	Location
1.	Door - F - 20'
2.	# W19 - F - 15'
3.	# W17 - F - 10'
4.	# W15 - F - 5'
5.	# W13 - F - 25'
6.	# W11 - F - 4'
7.	# W6 - F - 35'
8.	# W4 - F - 10'
9.	# W4/26 - F - 5'
10.	# 26/25 - F - 20'
11.	# E1 - F - 3'
12.	# E3 - F - 10'
13.	# E5 - F - 5'
14.	# E-7 - F - 25'
15.	# E-10 - F - 15'
16.	# E-12 - F - 5'
17.	# E14 - F - 20'
18.	# E16 - F - 5'
19.	# E18 - F - 30'
20.	# E-20 - F - 5'
21.	# W18 - W - 4'
22.	# W10 - W - 6'
23.	# W4 - W - 1'
24.	# W1 - W - 2'
25.	# 26 - W - 6'
26.	# E3 - W - 1'
27.	# E-9 - W - 4'
28.	# E-13 - W - 5'
29.	# E-18 - W - 2'
30.	# 22 - W - 1'
31.	# Door - HW - 8'
32.	# W19 - HW - 8'
33.	# W16/W15 - HW - 10'
34.	# W10 - HW - 8'
35.	# W1 - HW - 8'
36.	# 27 - HW - 8'
37.	# E7 - HW - 8'
38.	# E12 - HW - 8'
39.	# E16/E15 - HW - C - 10'
40.	# E20 - HW - 8'
41.	
42.	
43.	
44.	

F = Floor
W = W < 2 meter
# = Support ID

HW = above 2 meter
C = canvas
' (ft) = height or distance



Tent # 9

C.3 SITE HAZARD ASSESSMENT RADIOLOGICAL DATA

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 44	Bkg. 41	Bkg. 0.1
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 2343	Serial # 2343
Cal Due 6/16/99	Cal Due 8-12-99	Cal Due 8-12-99
Bkg. 0.1	Bkg. 2	Bkg. 496
Efficiency 33%	Efficiency 22.0%	Efficiency 32.0%
MDA <20	MDA 43	MDA 318

Survey Type: Contamination Survey
Building: TENT # 9
Location: 904 PAD
Purpose: CHARACTERIZATION SURVEYS
RWP #: NA
Date: 05-11-99 Time: 1500
RCT: Rex Snyder Print name / Signature / Emp. #
RCT: N I Print name / Signature / Emp. #

PRL #:
Comments: Survey Points on Canvas Panels + 10% Scan on Canvas up-to approx 8 ft.
Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct			Removable		Direct	
	Alpha	Beta	Alpha	Beta		Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 43	< 318	23.	< 20	< 200	< 43	< 318
2.	< 20	< 200	< 43	< 318	24.	< 20	< 200	< 43	< 318
3.	< 20	< 200	< 43	< 318	25.	< 20	< 200	144	732
4.	< 20	< 200	< 43	< 318	26.	< 20	< 200	216	936
5.	< 20	< 200	< 43	< 318	27.	< 20	< 200	< 43	< 318
6.	< 20	< 200	< 43	< 318	28.	< 20	< 200	< 43	< 318
7.	< 20	< 200	< 43	< 318	29.	< 20	< 200	< 43	< 318
8.	< 20	< 200	< 43	< 318	30.	< 20	< 200	< 43	< 318
9.	< 20	< 200	60	< 318	31.	< 20	< 200	< 43	642
10.	< 20	< 200	< 43	< 318	32.	< 20	< 200	< 43	< 318
11.	< 20	< 200	< 43	< 318	33.	< 20	< 200	< 43	< 318
12.	< 20	< 200	< 43	< 318	34.	< 20	< 200	< 43	< 318
13.	< 20	< 200	< 43	< 318	35.	< 20	< 200	< 43	< 318
14.	< 20	< 200	< 43	< 318	36.	< 20	< 200	< 43	< 318
15.	< 20	< 200	< 43	< 318	37.	< 20	< 200	< 43	< 318
16.	< 20	< 200	< 43	< 318	38.	< 20	< 200	66	861
17.	< 20	< 200	84	729	39.	< 20	< 200	< 43	696
18.	< 20	< 200	84	654	40.	< 20	< 200	< 43	< 318
19.	< 20	< 200	< 43	< 318	41.	< 20	< 200	< 43	615
20.	< 20	< 200	< 43	< 318	42.	< 20	< 200	< 43	600
21.	< 20	< 200	< 43	< 318	43.	< 20	< 200	< 43	< 318
22.	< 20	< 200	< 43	< 318	44.	< 20	< 200	< 43	< 318

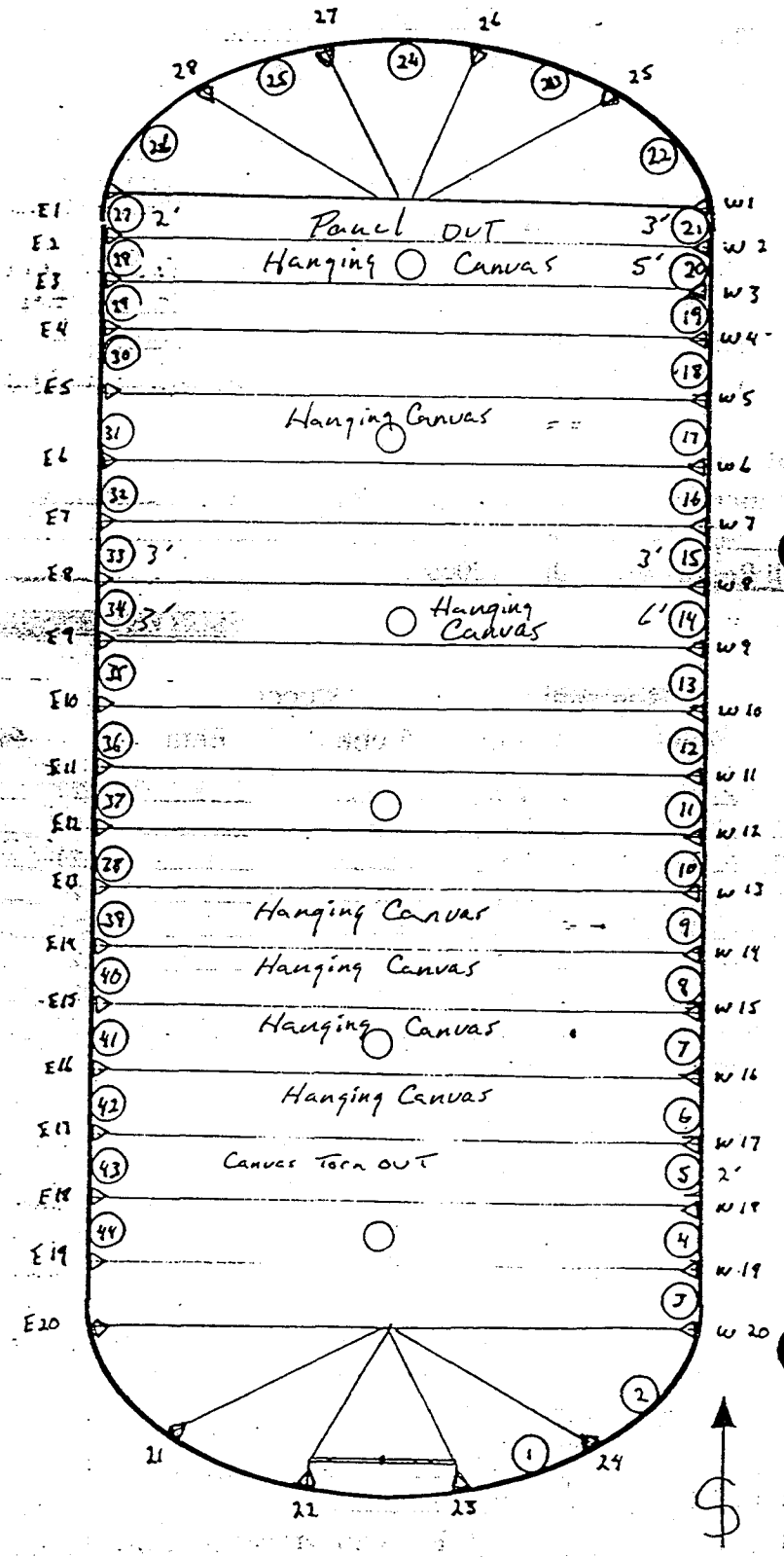
Date 282 5-13-99 RS Supervision: B Norris

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

	Location
1.	Canvas
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	
25.	
26.	
27.	
28.	
29.	
30.	
31.	
32.	
33.	
34.	
35.	
36.	
37.	
38.	
39.	
40.	
41.	
42.	
43.	
44.	Canvas



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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 44	Bkg. 41	Bkg. 0.1
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 1680	Serial # 1680
Cal Due 6/16/99	Cal Due 8-10-99	Cal Due 8-10-99
Bkg. 0.1	Bkg. 1	Bkg. 446
Efficiency 33%	Efficiency 22.9%	Efficiency 34.7%
MDA <20	MDA 33	MDA 302

Survey Type: Contamination Survey

Building: TENT # 9

Location: 904 PAD

Purpose: CHARACTERIZATION SURVEYS

RWP #: NA

Date: 05-07-99 Time: 1300

RCT: Rex Snyder [redacted] (Print name / Signature)

RCT: N I A I (Print name / Signature / Emp. #)

PRL #:

Comments: Survey Points (every fifth support) + Remaining Canvas Panels Plus 10% Direct Scan on Canvas Panels

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct			Removable		Direct	
	Alpha	Beta	Alpha	Beta		Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 33	< 302	23.				
2.	< 20	< 200	< 33	< 302	24.				
3.	< 20	< 200	< 33	< 302	25.				
4.	< 20	< 200	< 33	< 302	26.				
5.	< 20	< 200	< 33	< 302	27.				
6.	< 20	< 200	< 33	< 302	28.				
7.	< 20	< 200	< 33	< 302	29.				
8.	< 20	< 200	< 33	< 302	30.				
9.	< 20	< 200	< 33	< 302	31.				
10.	< 20	< 200	< 33	< 302	32.				
11.	< 20	< 200	< 33	< 302	33.				
12.	< 20	< 200	< 33	462	34.				
13.	< 20	< 200	< 33	< 302	35.				
14.	< 20	< 200	< 33	< 302	36.				
15.	< 20	< 200	< 33	< 302	37.				
16.	< 20	< 200	< 33	< 302	38.				
17.					39.				
18.					40.				
19.			A		41.				
20.		N			42.				
21.					43.				
22.					44.				

Date 5/10/99 RS Supervision: LN Cooper (Print Name) / [redacted] (Signature)

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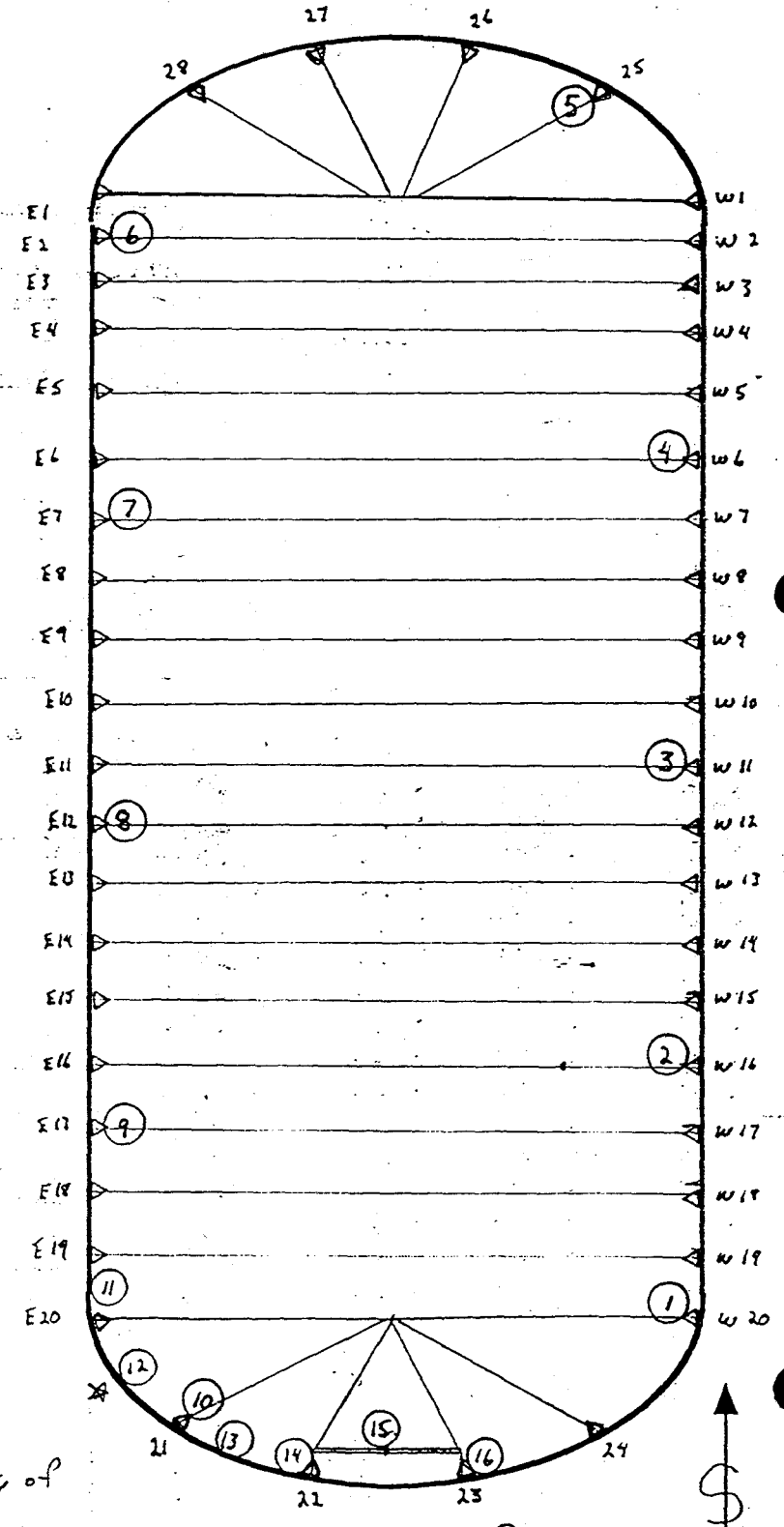
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SIT

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

	Location
1.	Support W 20
2.	W 16
3.	W 11
4.	W 6
5.	# 25
6.	E 2
7.	E 7
8.	E 12
9.	E 17
10.	Support # 21
11.	Canvas
12.	
13.	
14.	
15.	
16.	Canvas
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	
25.	
26.	
27.	
28.	
29.	
30.	
31.	
32.	
33.	
34.	
35.	
36.	
37.	
38.	
39.	
40.	
41.	
42.	
43.	
44.	



Tent # 9

* Panel is torn and the majority of it is on the floor

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 43	Bkg. 40	Bkg. 0.0
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 2343	Serial # 2343
Cal Due 6/16/99	Cal Due 8-12-99	Cal Due 8-12-99
Bkg. 0.0	Bkg. 9 4	Bkg. B 49
Efficiency 33%	Efficiency 22.0%	Efficiency 33.0%
MDA <20	MDA 55	MDA 317

Survey Type: Contamination Survey
Building: Tent # 9
Location: 904 Pad
Purpose: CHARACTERIZATION SURVEYS
RWP #: — NA —
Date: 03-31-99 Time: 1400
RCT: Rex Snyder / [redacted] [redacted]
Print name Signature Emp. #
RCT: N / A /
Print name Signature Emp. #

PRL # :
Comments Exterior Survey

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable Alpha	Removable Beta	Direct Alpha	Direct Beta
1.	< 20	< 200	< 55	< 317
2.	< 20	< 200	< 55	< 317
3.	< 20	< 200	< 55	< 317
4.	< 20	< 200	< 55	< 317
5.	< 20	< 200	< 55	< 317
6.	< 20	< 200	< 55	< 317
7.	< 20	< 200	< 55	< 317
8.	< 20	< 200	< 55	< 317
9.	< 20	< 200	< 55	< 317
10.	< 20	< 200	< 55	< 317
11.	< 20	< 200	< 55	465
12.	< 20	< 200	< 55	< 317
13.	< 20	< 200	< 55	< 317
14.	< 20	< 200	< 55	< 317
15.	< 20	< 200	< 55	< 317
16.	< 20	< 200	< 55	< 317
17.	< 20	< 200	< 55	< 317
18.	< 20	< 200	< 55	< 317
19.	< 20	< 200	< 55	< 317
20.	< 20	< 200	66	< 317
21.	< 20	< 200	< 55	< 317
22.	< 20	< 200	< 55	< 317

	Removable Alpha	Removable Beta	Direct Alpha	Direct Beta
23.	< 20	< 200	< 55	< 317
24.	< 20	< 200	< 55	< 317
25.	< 20	< 200	< 55	< 317
26.	< 20	< 200	< 55	< 317
27.	< 20	< 200	< 55	< 317
28.	< 20	< 200	< 55	< 317
29.	< 20	< 200	66	< 317
30.	< 20	< 200	< 55	< 317
31.				
32.				
33.				
34.				
35.				
36.			A	
37.		N		
38.				
39.				
40.				
41.				
42.				
43.				
44.				

Date 4/5/99 RS Supervision: [redacted] [redacted] [redacted]
Print Name Signature Emp. #

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SIT

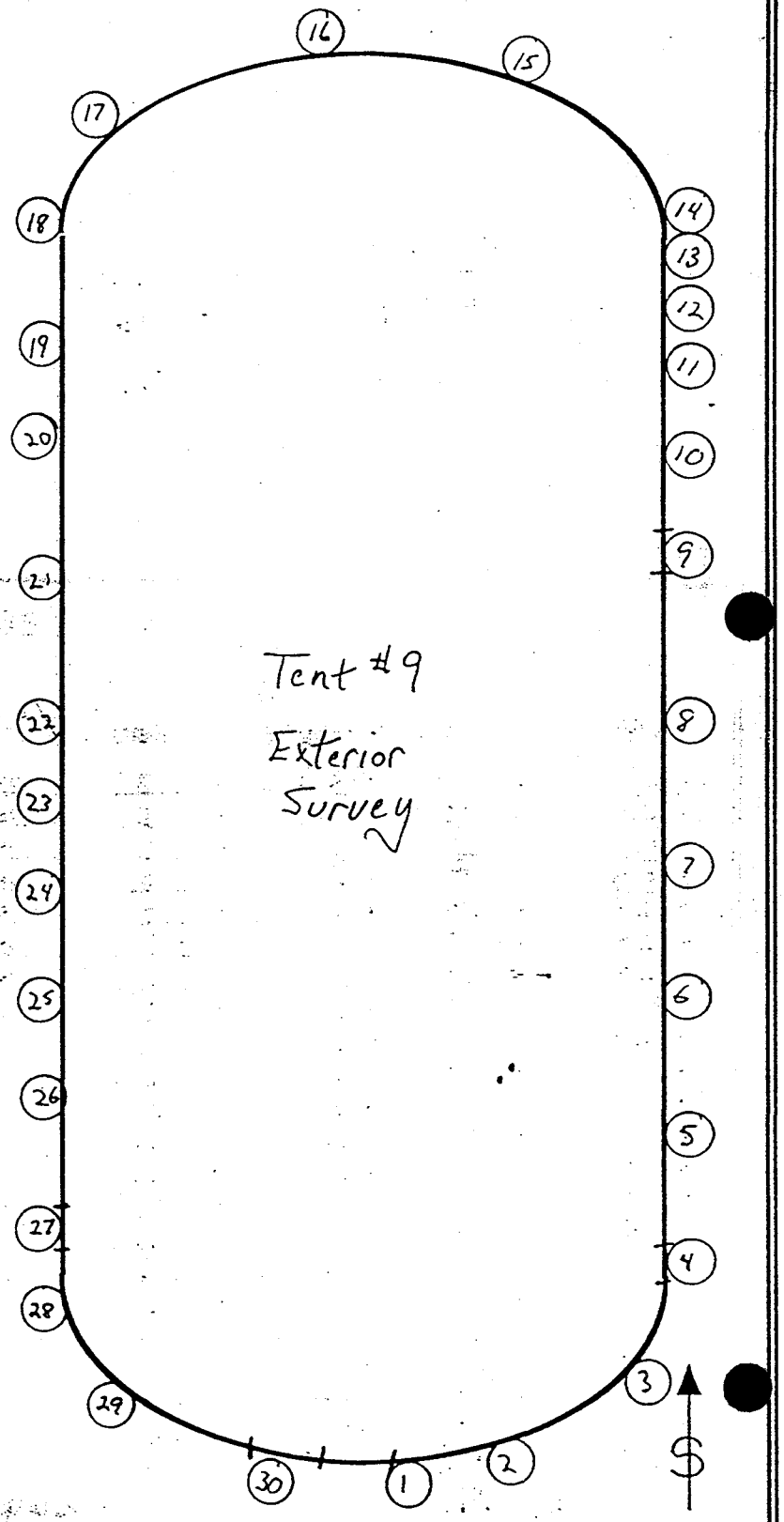
RADIOLOGICAL SAFETY

Drawing Showing Survey Points

	Location
1.	#23 - C - 5'
2.	#C - 6'
3.	#W19 - C - 4'
4.	#W19/W18 - C - 8' (above door)
5.	#W17 - 4'
6.	#W16/W15 - C - 10'
7.	#W14 - C - 5'
8.	#W13/W12 - C - 1'
9.	#W12/W11 - Door - 4'
10.	#W10 - 2'
11.	#W8/W7 - C - 10'
12.	#W5/W4 - C - 4'
13.	#W3/W2 - C - 3'
14.	#W1 - 5'
15.	#25/26 - C - 5'
16.	#27 - C - 1'
17.	#28 - C - 8'
18.	#E1/E2 - C - 10'
19.	#E3 - 4'
20.	#E4/E5 - C - 3'
21.	#E8 - C - 8'
22.	#E10 - C - 2'
23.	#E11/E12 - Door - 3'
24.	#E14 - 4'
25.	#E16/E17 - C - 6'
26.	#E18 - C - 1'
27.	#E19/E18 - C - 8' (above door)
28.	#E20 - 4'
29.	#21/22 - C - 1'
30.	Door - C - 4'
31.	
32.	
33.	
34.	
35.	
36.	
37.	
38.	
39.	
40.	
41.	
42.	
43.	
44.	

N A

# = Support location ID
C = Canvas
'(ft) = height from ground



ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg EBERLINE
Model BC-4	Model BC-4	Model SAC-4
Serial # 838	Serial # 874	Serial # 959
Cal Due 7/13/99	Cal Due 6/7/99	Cal Due 7/5/99
Bkg. 44	Bkg. 37	Bkg. 6.1
Efficiency 25%	Efficiency 25%	Efficiency 33%
MDA <200	MDA <200	MDA <20
Mfg. EBERLINE	Mfg. NE TECH	Mfg. NE TECH
Model SAC-4	Model ELECTRA	Model ELECTRA
Serial # 1188	Serial # 1425	Serial # 1425
Cal Due 6/16/99	Cal Due 8-25-99	Cal Due 8-25-99
Bkg. 0.1	Bkg. 7	Bkg. 480
Efficiency 33%	Efficiency 21.0%	Efficiency 31.6%
MDA <20	MDA 72	MDA 313

Survey Type: Contamination Survey
Building: TENT # 9
Location: 904 PAD
Purpose: CHARACTERIZATION SURVEYS
RWP #: NA
Date: 05-13-99 Time: 1100
RCT: Rex Snyder / [redacted] (Print name / Signature)
RCT: N / A / [redacted] (Print name / Signature / Emp. #)

PRL #:
Comments: TENT # 9 Overhead Survey Points + Vents

All Results Are In dpm/100cm2

SURVEY RESULTS

	Removable		Direct		Removable		Direct	
	Alpha	Beta	Alpha	Beta	Alpha	Beta	Alpha	Beta
1.	< 20	< 200	< 72	< 313	23.			
2.	< 20	< 200	< 72	< 313	24.			
3.	< 20	< 200	< 72	< 313	25.			
4.	< 20	< 200	< 72	< 313	26.			
5.	< 20	< 200	< 72	< 313	27.			
6.	< 20	< 200	< 72	< 313	28.			
7.	< 20	< 200	< 72	< 313	29.			
8.	< 20	< 200	< 72	< 313	30.			
9.	< 20	< 200	< 72	< 313	31.			
10.	< 20	< 200	< 72	< 313	32.			
11.	< 20	< 200	< 72	< 313	33.			
12.	< 20	< 200	< 72	< 313	34.			
13.	< 20	< 200	< 72	< 313	35.			
14.	< 20	< 200	< 72	< 313	36.			
15.	< 20	< 200	< 72	< 313	37.			
16.	< 20	< 200	< 72	< 313	38.			
17.	< 20	< 200	< 72	< 313	39.			
18.	< 20	< 200	< 72	< 313	40.			
19.					41.			
20.					42.			
21.					43.			
22.					44.			

Date 5-13-99 RS Supervision: [redacted]

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SIT

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

	Location
1.	Vent
2.	
3.	
4.	
5.	
6.	Vent
7.	Support 21
8.	Support 24
9.	Support 18
10.	Support 17
11.	Canvas 11/12
12.	Support 9
13.	Canvas 8/9
14.	Support W3
15.	Support E1
16.	Canvas 1/28
17.	Canvas 27/26
18.	Canvas 25/W1
19.	
20.	
21.	
22.	
23.	
24.	
25.	
26.	
27.	
28.	
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31.	
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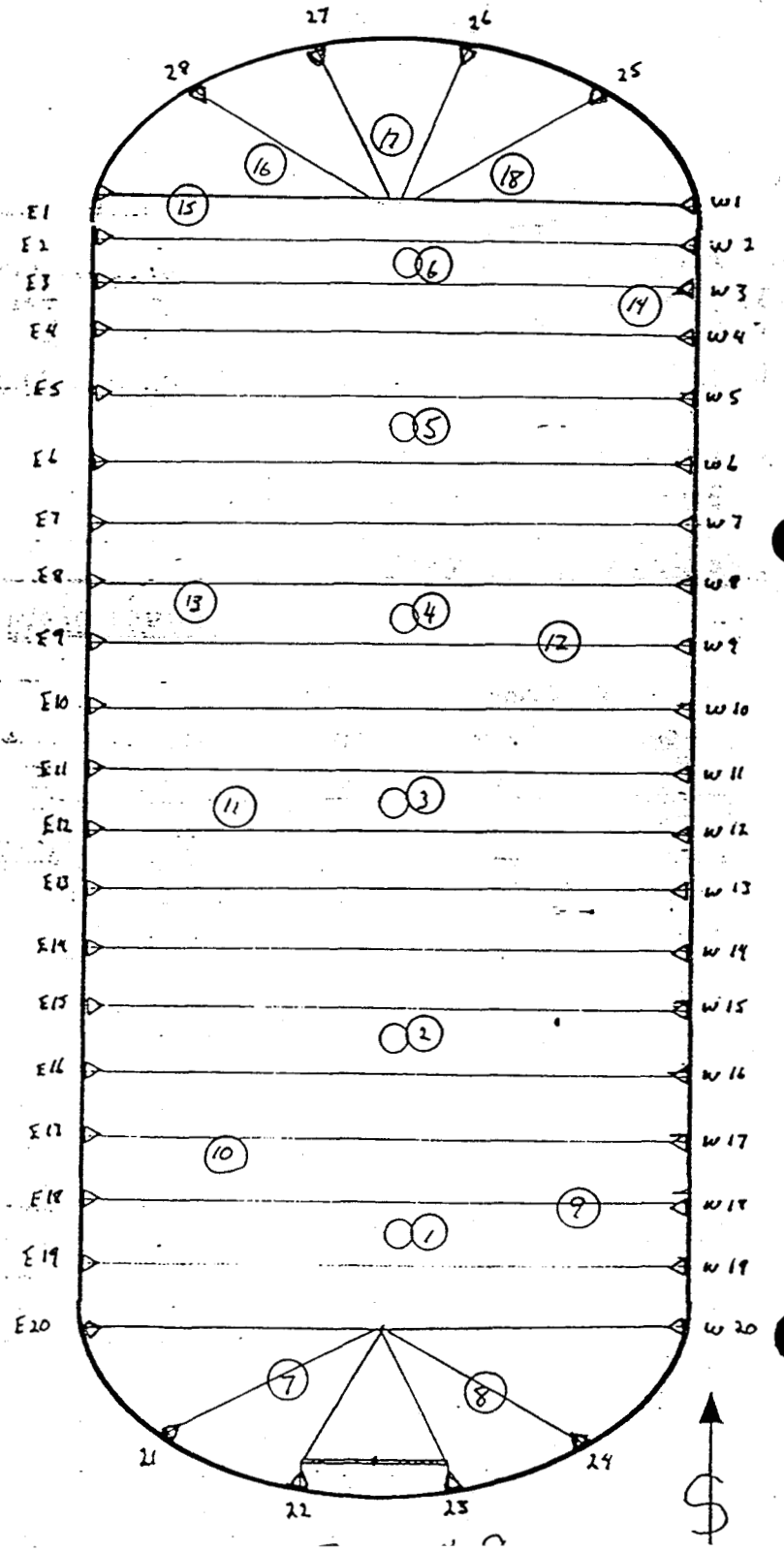
41.	
42.	
43.	
44.	



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RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSTRUMENT DATA

Mfg. NE		Mfg. Ludlum		Mfg.	
Model Electra		Model Ludlum 2929		Model	
Serial # 3100		Serial # 147744		Serial # N	
Cal Due 11-3-99		Cal Due 11-17-99		Cal Due A	
Bkg. 3	557	Bkg. 0.5	79.1	Bkg.	
Eff. 0.22	0.332	Eff. 0.347	0.413	Eff.	
MDA 49	337	MDA 18	205	MDA	

Mfg.		Mfg.		Mfg.	
Model		Model		Model	
Serial # N		Serial # N		Serial # N	
Cal Due A		Cal Due A		Cal Due A	
Bkg.		Bkg.		Bkg.	
Eff.		Eff.		Eff.	
MDA		MDA		MDA	

Survey Type: Contamination Page 1 of 2

Building: Tent # 9

Location: 904 PaD

Purpose: Characterization Survey

RWP #: -NA-

Date: 5-21-99 Time: 1330

RCT: Rex Snyder | [signature] [redacted]
Print Name Signature

RCT: N | N
Print Name Signature Emp. #

PRL #:

Comments: Resurvey of Tent panels that were previously well above MDA

SURVEY RESULTS

#	Description	REMOVABLE DPM/100 CM² ALPHA	REMOVABLE DPM/100 CM² BETA	DIRECT DPM/100 CM² ALPHA	DIRECT DPM/100 CM² BETA
1	Highest Rates on Lower Tent Panel	< 18	< 205	72	< 337
2	Highest Rates on Lower Tent Panel	< 18	< 205	66	< 337
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Post-it® Fax Note 7671

To Rick Roberts	Date 05/25/99 # of pages ▶ 2
Co./Dept.	From [signature]
Phone # 4869	Co.
Fax # 3029	Phone # 3125
	Fax # 4046

Date Reviewed: 5/24/99 RS Supervision: LN Cooper | [signature] | [redacted]
Print Name Signature

Rev. 05/98

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ROCKETDYNE/ENVIRONMENTAL TECHNOLOGY

RADIOLOGICAL SAFETY

Drawing Showing Survey Points

	Location
1.	Below Seam on Canvas
2.	Below Seam on Canvas
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	N/A
21.	
22.	
23.	
24.	
25.	
26.	
27.	
28.	
29.	
30.	
31.	
32.	
33.	
34.	
35.	
36.	
37.	
38.	
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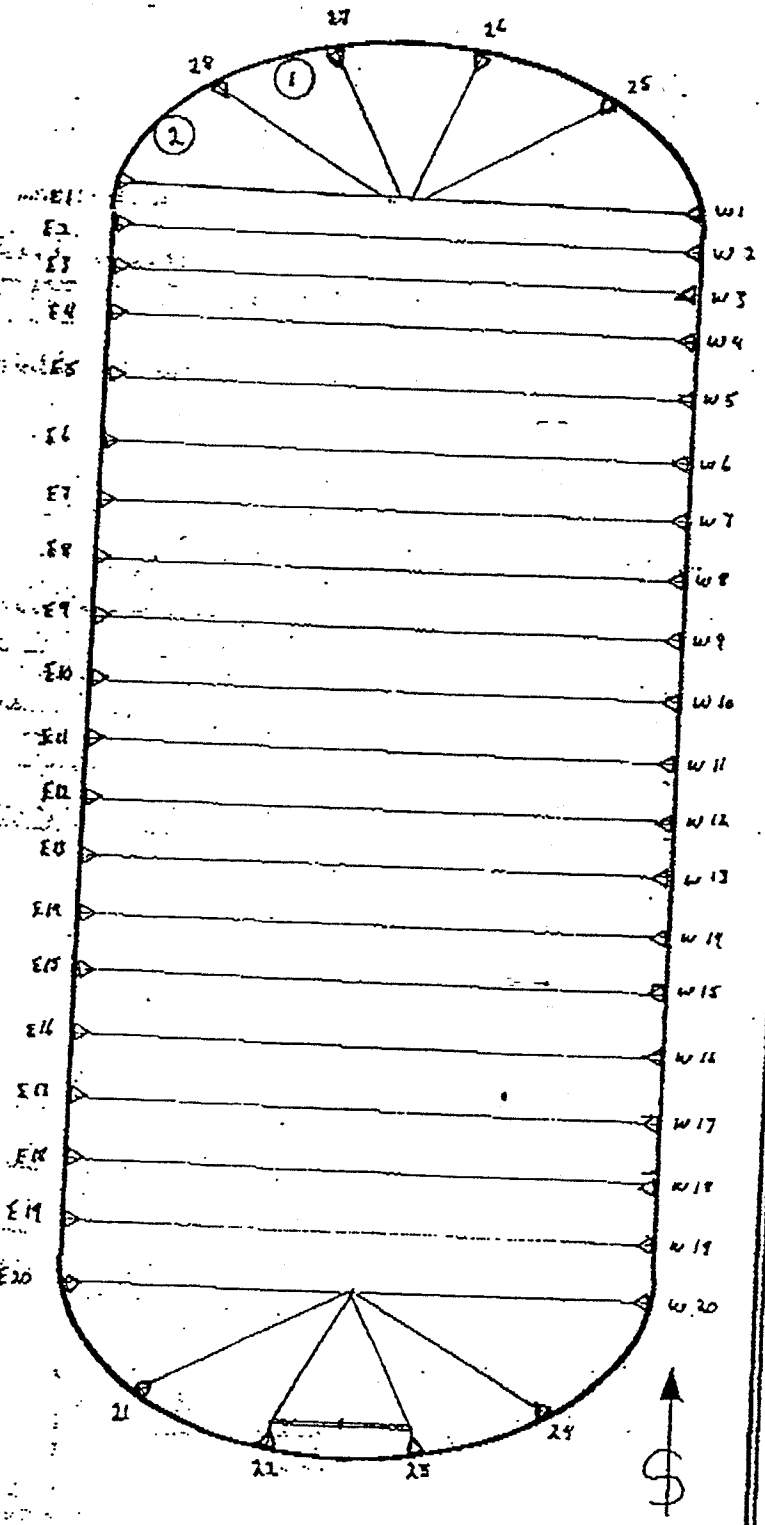
41.	
42.	
43.	
44.	



APPENDIX D
BERYLLIUM CONCENTRATIONS IN TENTS 7, 8 & 9

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	CONCENTRATION ON FILTER (µg)	µg/100cm²
904-04061999-35-001	904	Tent 7	1	Asphalt floor	L	0.1	0.1
904-04061999-35-002	904	Tent 7	2	Asphalt floor	L	0.1	0.1
904-04061999-35-003	904	Tent 7	3	Asphalt floor	L	0.1	0.1
904-04061999-35-004	904	Tent 7	4	Canvas bag	L	0.1	0.1
904-04061999-35-005	904	Tent 7	5	Asphalt floor	L	0.1	0.1
904-04061999-35-006	904	Tent 7	6	Drum top	L	0.1	0.1
904-04061999-35-007	904	Tent 7	6	Pallet	L	0.1	0.1
904-04061999-35-008	904	Tent 7	6	Drum top	L	0.1	0.1
904-04061999-35-009	904	Tent 7	6	Pallet	L	0.1	0.1
904-04061999-35-010	904	Tent 7	7	Asphalt floor	L	0.1	0.1
904-04061999-35-011	904	Tent 7	8	Drum	L	0.1	0.1
904-04061999-35-012	904	Tent 7	8	Pallet	L	0.1	0.1
904-04061999-35-013	904	Tent 7	8	Drum	L	0.1	0.1
904-04061999-35-014	904	Tent 7	8	Pallet	L	0.1	0.1
904-04061999-35-015	904	Tent 7	9	Asphalt floor	L	0.1	0.1
904-04061999-35-016	904	Tent 7	10	Asphalt floor	L	0.1	0.1
904-04061999-35-017	904	Tent 7	12	Asphalt floor	L	0.1	0.1
904-04061999-35-018	904	Tent 7	13	Asphalt floor	L	0.1	0.1
904-04061999-35-019	904	Tent 7	14	Drum	L	0.1	0.1
904-04061999-35-020	904	Tent 7	14	Pallet	L	0.1	0.1
904-04061999-35-021	904	Tent 7	14	Drum	L	0.1	0.1
904-04061999-35-022	904	Tent 7	14	Pallet	L	0.1	0.1
904-04061999-35-023	904	Tent 7	15	Asphalt floor	L	0.1	0.1
904-04061999-35-024	904	Tent 7	16	Asphalt floor	L	0.1	0.1
904-04061999-35-025	904	Tent 7	17	Drum	L	0.1	0.1
904-04061999-35-026	904	Tent 7	17	Pallet	L	0.1	0.1
904-04061999-35-027	904	Tent 7	17	Drum	L	0.1	0.1
904-04061999-35-028	904	Tent 7	17	Pallet	L	0.1	0.1
904-04061999-35-029	904	Tent 7	18	Table top	L	0.1	0.1
904-04061999-35-030	904	Tent 7	18	Asphalt floor	L	0.1	0.1
904-04061999-35-031	904	Tent 7	19	Asphalt floor	L	0.1	0.1
904-04061999-35-032	904	Tent 7	20	Asphalt floor	L	0.1	0.1

BERYLLIUM SAMPLE RESULTS-
904 PAD TENTS 7-9

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	CONCENTRATION ON FILTER (µg)	µg/100cm²
904-04061999-35-033	904	Tent 7	21	Pallet	L	0.1	0.1
904-04061999-35-034	904	Tent 7	21	Asphalt floor	L	0.1	0.1
904-04061999-35-035	904	Tent 7	22	Asphalt floor	L	0.1	0.1
904-04061999-35-036	904	Tent 7	23	Drum	L	0.1	0.1
904-04061999-35-037	904	Tent 7	23	Pallet	L	0.1	0.1
904-04061999-35-038	904	Tent 7	23	Drum	L	0.1	0.1
904-04061999-35-039	904	Tent 7	23	Pallet	L	0.1	0.1
904-04061999-35-040	904	Tent 7	24	Asphalt floor	L	0.1	0.1
904-04061999-35-041	904	Tent 7	25	Asphalt floor	L	0.1	0.1
904-04061999-35-042	904	Tent 7	27	Asphalt floor	L	0.1	0.1
904-04061999-35-043	904	Tent 7	29	Pallet	L	0.1	0.1
904-04061999-35-044	904	Tent 7	29	Refrigerator top	L	0.1	0.1
904-04061999-35-045	904	Tent 7	30	Portable scaffold	L	0.1	0.1
904-04061999-35-046	904	Tent 7	30	Portable scaffold	L	0.1	0.1
904-04061999-35-047	904	Tent 7	32	Asphalt floor	L	0.1	0.1
904-04061999-35-048	904	Tent 7	33	Asphalt floor	L	0.1	0.1
904-04061999-35-049	904	Tent 7	34	Crate	L	0.1	0.1
904-04061999-35-050	904	Tent 7	35	Drum	L	0.1	0.1
904-04061999-35-051	904	Tent 7	35	Pallet	L	0.1	0.1
904-04061999-35-052	904	Tent 7	35	Drum	L	0.1	0.1
904-04061999-35-053	904	Tent 7	35	Pallet	L	0.1	0.1
904-04061999-35-054	904	Tent 7	36	Asphalt floor	L	0.1	0.1
904-04061999-35-055	904	Tent 7	37	Canvas bag	L	0.1	0.1
904-04061999-35-056	904	Tent 7	38	Asphalt floor	L	0.1	0.1
904-04061999-35-057	904	Tent 7	39	Drum	L	0.1	0.1
904-04061999-35-058	904	Tent 7	39	Pallet	L	0.1	0.1
904-04061999-35-059	904	Tent 7	39	Drum	L	0.1	0.1
904-04061999-35-060	904	Tent 7	39	Pallet	L	0.1	0.1
904-04061999-35-061	904	Tent 7	40	Asphalt floor	L	0.1	0.1
904-04061999-35-062	904	Tent 7	41	Asphalt floor	L	0.1	0.1
904-04061999-35-063	904	Tent 7	42	Asphalt floor	L	0.1	0.1
904-04061999-35-064	904	Tent 7	43	Asphalt floor	L	0.1	0.1

904 PAD, TENTS 7-9

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	CONCENTRATION ON FILTER (µg)	µg/100cm²
904-04061999-35-065	904	Tent 7	44	Asphalt floor	L	0.1	0.1
904-04061999-35-066	904	Tent 7	45	Asphalt floor	L	0.1	0.1
904-04061999-35-067	904	Tent 7	46	Asphalt floor	L	0.1	0.1
904-04061999-35-068	904	Tent 7	47	Asphalt floor	L	0.1	0.1
904-04061999-35-069	Blank				L	0.1	0.1
904-04061999-35-070	Blank				L	0.1	0.1
904-04061999-35-071	Blank				L	0.1	0.1
904-04061999-35-072	Blank				L	0.1	0.1
904-04061999-35-073	Blank				L	0.1	0.1
904-04061999-35-074	Blank				L	0.1	0.1
904-04061999-35-075	Blank				L	0.1	0.1
904-03081999-35-001	904	Tent 8	1	Asphalt pad	L	0.1	0.1
904-03081999-35-002	904	Tent 8	2	Asphalt pad	L	0.1	0.1
904-03081999-35-003	904	Tent 8	3	Asphalt pad	L	0.1	0.1
904-03081999-35-004	904	Tent 8	4	Asphalt pad	L	0.1	0.1
904-03081999-35-005	904	Tent 8	5	Asphalt pad	L	0.1	0.1
904-03081999-35-006	904	Tent 8	6	Asphalt pad	L	0.1	0.1
904-03081999-35-007	904	Tent 8	7	Asphalt pad	L	0.1	0.1
904-03081999-35-008	904	Tent 8	8	Asphalt pad	L	0.1	0.1
904-03081999-35-009	904	Tent 8	9	Asphalt pad	L	0.1	0.1
904-03081999-35-010	904	Tent 8	10	Asphalt pad	L	0.1	0.1
904-03081999-35-011	904	Tent 8	11	Asphalt pad	L	0.1	0.1
904-03081999-35-012	904	Tent 8	12	Asphalt pad	L	0.1	0.1
904-03081999-35-013	904	Tent 8	13	Asphalt pad	L	0.1	0.1
904-03081999-35-014	904	Tent 8	14	Asphalt pad	L	0.1	0.1
904-03081999-35-015	904	Tent 8	15	Asphalt pad	L	0.1	0.1
904-03081999-35-016	904	Tent 8	16	Asphalt pad	L	0.1	0.1
904-03081999-35-017	904	Tent 8	17	Asphalt pad	L	0.1	0.1
904-03081999-35-018	904	Tent 8	18	Asphalt pad	L	0.1	0.1
904-03081999-35-019	904	Tent 8	19	Asphalt pad	L	0.1	0.1
904-03081999-35-020	904	Tent 8	20	Asphalt pad	L	0.1	0.1
904-03081999-35-021	904	Tent 8	21	Asphalt pad	L	0.1	0.1

904 PAD, TENTS 7-9

SAMPLE NUMBER	BLDG	RM	SAMPLE COORDINATE NUMBER	LOCATION/DESCRIPTION	L = LESS THAN DETECTABLE LIMIT	CONCENTRATION ON FILTER (µg)	µg/100cm²
904-03081999-35-022	904	Tent 8	22	Asphalt pad	L	0.1	0.1
904-03081999-35-023	904	Tent 8	23	Asphalt pad	L	0.1	0.1
904-03081999-35-024	904	Tent 8	24	Asphalt pad	L	0.1	0.1
904-03081999-35-025	904	Tent 8	25	File cabinet top	L	0.1	0.1
904-03081999-35-026	904	Tent 9	1	Crate	L	0.1	0.1
904-03081999-35-027	904	Tent 9	2	Crate	L	0.1	0.1
904-03081999-35-028	904	Tent 9	3	Asphalt pad	L	0.1	0.1
904-03081999-35-029	904	Tent 9	4	Asphalt pad	L	0.1	0.1
904-03081999-35-030	904	Tent 9	5	Crate	L	0.1	0.1
904-03081999-35-031	904	Tent 9	6	Crate	L	0.1	0.1
904-03081999-35-032	904	Tent 9	7	Crate	L	0.1	0.1
904-03081999-35-033	904	Tent 9	8	Crate	L	0.1	0.1
904-03081999-35-034	904	Tent 9	9	Crate	L	0.1	0.1
904-03081999-35-035	904	Tent 9	10	Crate	L	0.1	0.1
904-03081999-35-036	904	Tent 9	11	Asphalt pad	L	0.1	0.1
904-03081999-35-037	904	Tent 9	12	Crate	L	0.1	0.1
904-03081999-35-038	904	Tent 9	13	Crate	L	0.1	0.1
904-03081999-35-039	904	Tent 9	14	Asphalt pad	L	0.1	0.1
904-03081999-35-040	904	Tent 9	15	Crate	L	0.1	0.1
904-03081999-35-041	904	Tent 9	16	Crate	L	0.1	0.1
904-03081999-35-042	904	Tent 9	17	Crate	L	0.1	0.1
904-03081999-35-043	904	Tent 9	18	Crate	L	0.1	0.1
904-03081999-35-044	904	Tent 9	19	Crate	L	0.1	0.1
904-03081999-35-045	904	Tent 9	20	Asphalt pad	L	0.1	0.1
904-03081999-35-046	904	Tent 9	21	Asphalt pad	L	0.1	0.1
904-03081999-35-047	904	Tent 9	22	Asphalt pad	L	0.1	0.1
904-03081999-35-048	904	Tent 9	23	Asphalt pad	L	0.1	0.1
904-03081999-35-049	904	Tent 9	24	Asphalt pad	L	0.1	0.1
904-03081999-35-050	904	Tent 9	25	Asphalt pad	L	0.1	0.1

Beryllium Characterization Program

Coordinate Sheet Number: 94

Sample Locations Specification

Building Number: 904 Pad Room Number:: Tent 7 Room Dimensions: East/West: 140 ft. North/South: 60 ft.

Sample Number	Generated Random Numbers E/W	Generated Random Numbers N/S	Corresponding Random Sample Location Coordinates (East/West, North/South)
1	0.807	0.517	(113 , 2)
2	0.917	0.018	(128 , 1)
3	0.288	0.175	(12 , 11)
4	0.166	0.841	(23 , 50)
5	0.537	0.516	(75 , 31)
6	0.860	0.940	(120 , 56)
7	0.055	0.304	(8 , 18)
8	0.754	0.280	(106 , 17)
9	0.214	0.616	(30 , 37)
10	0.180	0.004	(25 , 24)
11	0.615	0.138	(86 , 8) inaccessable
12	0.589	0.817	(82 , 49)
13	0.429	0.590	(60 , 35)
14	0.436	0.275	(61 , 17)
15	0.999	0.359	(140 , 22)
16	0.261	0.383	(37 , 23)
17	0.794	0.706	(111 , 44)
18	0.038	0.699	(12 , 42)
19	0.598	0.366	(53 , 22)
20	0.580	0.987	(81 , 59)
21	0.304	0.759	(43 , 46)
22	0.427	0.046	(60 , 3)
23	0.938	0.203	(131 , 12)
24	0.629	0.611	(88 , 37)
25	0.000	0.890	(0 , 53)
26	0.399	0.431	(56 , 11) inaccessable
27	0.796	0.398	(111 , 24)
28	0.752	0.856	(105 , 51) inaccessable
29	0.443	0.922	(62 , 55)
30	0.097	0.162	(14 , 10)
31	0.530	0.179	(39 , 11) inaccessable
32	0.981	0.844	(137 , 43)
33	0.470	0.776	(46 , 47)
34	0.281	0.073	(39 , 4)
35	0.786	0.165	(110 , 10) inaccessable
36	0.690	0.744	(97 , 45)
37	0.143	0.698	(20 , 42)
38	0.310	0.500	(43 , 30)
39	0.641	0.280	(90 , 17)
40	0.959	0.519	(134 , 31)
41	0.157	0.989	(22 , 39)
42	0.187	0.431	(26 , 24)
43	0.697	0.361	(98 , 22)
44	0.886	0.611	(123 , 37)
45	0.296	0.680	(41 , 41)
46	0.023	0.203	(3 , 12)
47	0.593	0.035	(83 , 2)
48	0.766	0.624	(,)
49	0.403	0.723	(,)
50	0.436	0.143	(,)

Beryllium Characterization Program

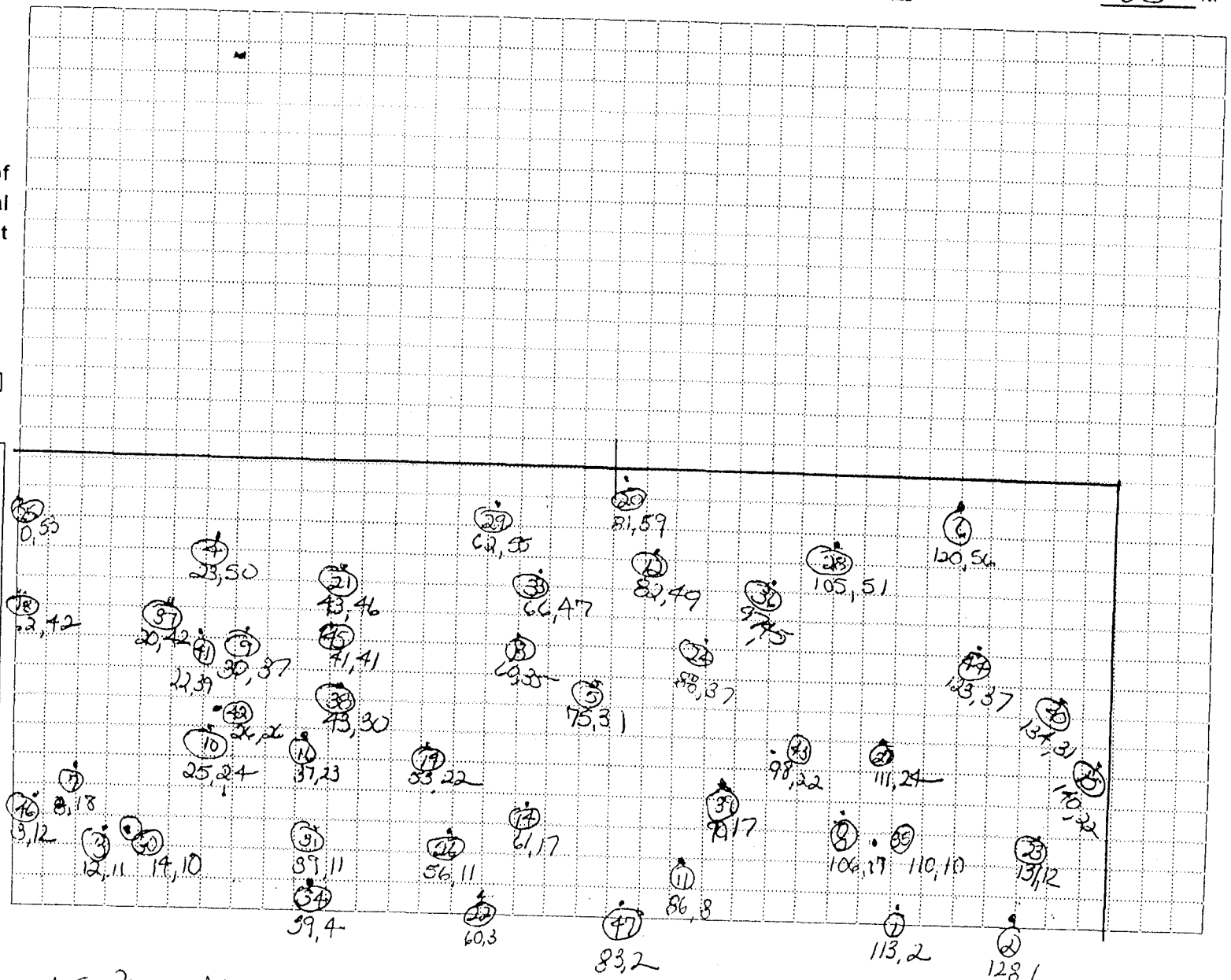
Sample Locations Specification

Building Number: 904 Pad Room Number:: Tent 7 Room Dimensions: East/West: 140 ft. North/South: 60 ft.

Using Coordinate Sheet Number: 94

Sketch of General Room Layout [Indicating coordinate origin, ● , point (0, 0), and approximate location of doors.]

Indicate approximate direction of North for sketch.



□ = approx 4ft² MAP NOT TO SCALE

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Beryllium Characterization Program

Coordinate Sheet Number: 111

Sample Locations Specification

Building Number: 104 Pad Room Number:: Tent 8 Room Dimensions: East/West: 60 ft. North/South: 325 ft.

Sample Number	Generated Random Numbers E/W	Generated Random Numbers N/S	Corresponding Random Sample Location Coordinates (East/West, North/South)
1	0.150	0.513	(9 , 167)
2	0.313	0.119	(19 , 39)
3	0.837	0.301	(50 , 98)
4	0.752	0.754	(45 , 245)
5	0.507	0.546	(30 , ~~165~~ 177)
6	0.241	0.911	(14 , 296)
7	0.420	0.362	(25 , 118)
8	0.627	0.089	(38 , 29)
9	0.928	0.647	(56 , 210)
10	0.361	0.811	(22 , 264)
11	0.065	0.313	(4 , 102)
12	0.915	0.031	(55 , 10)
13	0.952	0.939	(57 , 305)
14	0.314	0.566	(19 , 184)
15	0.018	0.153	(1 , 50)
16	0.570	0.397	(34 , 129)
17	0.737	0.552	(44 , 179)
18	0.119	0.794	(7 , 258)
19	0.196	0.263	(12 , 85)
20	0.946	0.484	(57 , 157)
21	0.515	0.920	(~~46~~ 47 , 299)
22	0.066	0.999	(14 , 325)
23	0.285	0.419	(17 , 25)
24	0.821	0.165	(49 , 54)
25	0.617	0.688	(37 , 224)

Sample Number	Generated Random Numbers E/W	Generated Random Numbers N/S	Corresponding Random Sample Location Coordinates (East/West, North/South)
26	0.125	0.587	(_____ , _____)
27	0.149	0.142	(_____ , _____)
28	0.738	0.382	(_____ , _____)
29	0.723	0.905	(_____ , _____)
30	0.431	0.629	(_____ , _____)
31	0.296	0.013	(_____ , _____)
32	0.590	0.315	(_____ , _____)
33	0.886	0.759	(_____ , _____)
34	0.026	0.826	(_____ , _____)
35	0.455	0.077	(_____ , _____)
36	0.973	0.337	(_____ , _____)
37	0.623	0.785	(_____ , _____)
38	0.207	0.774	(_____ , _____)
39	0.334	0.274	(_____ , _____)
40	0.689	0.186	(_____ , _____)
41	0.587	0.538	(_____ , _____)
42	0.098	0.725	(_____ , _____)
43	0.053	0.396	(_____ , _____)
44	0.741	0.494	(_____ , _____)
45	0.687	0.674	(_____ , _____)
46	0.480	0.649	(_____ , _____)
47	0.328	0.349	(_____ , _____)
48	0.600	0.028	(_____ , _____)
49	0.923	0.855	(_____ , _____)
50	0.182	0.543	(_____ , _____)

56X24

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Beryllium Characterization Program

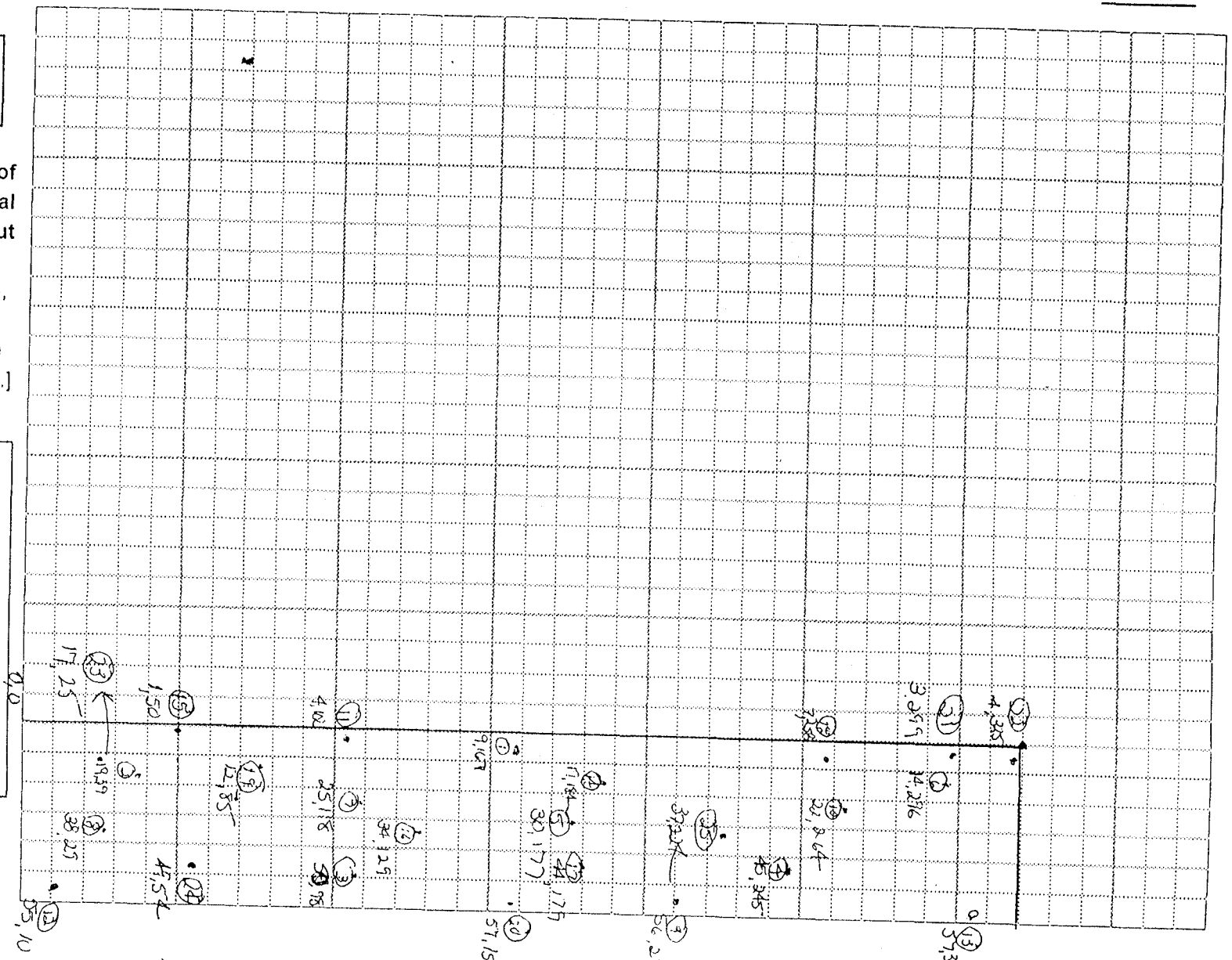
Sample Locations Specification

Building Number: 904 Pad Room Number:: Unit 8 Room Dimensions: East/West: 60 ft., North/South: 325 ft.

Using Coordinate Sheet Number: 111

Sketch of General Room Layout
[Indicating coordinate origin, ● , point (0, 0), and approximate location of doors.]

Indicate approximate direction of North for sketch.



□ = approx 10 ft²

Map Not To Scale

400

Beryllium Characterization Program

Coordinate Sheet Number: 112

Sample Locations Specification

Building Number: 904 Pad Room Number:: Tent 9 Room Dimensions: East/West: 60 ft. North/South: 325 ft.

Sample Number	Generated Random Numbers E/W	Generated Random Numbers N/S	Corresponding Random Sample Location Coordinates (East/West, North/South)	Sample Number	Generated Random Numbers E/W	Generated Random Numbers N/S	Corresponding Random Sample Location Coordinates (East/West, North/South)
1	0.934	0.516	(56 , 168)	26	0.722	0.766	(_____ , _____)
2	0.641	0.148	(38 , 48)	27	0.566	0.499	(_____ , _____)
3	0.108	0.313	(6 , 102)	28	0.162	0.433	(_____ , _____)
4	0.347	0.884	(21 , 287)	29	0.488	0.715	(_____ , _____)
5	0.476	0.539	(29 , 175)	30	0.818	0.600	(_____ , _____)
6	0.604	0.714	(36 , 232)	31	0.745	0.221	(_____ , _____)
7	0.833	0.239	(50 , 78)	32	0.399	0.146	(_____ , _____)
8	0.273	0.046	(16 , 15)	33	0.242	0.568	(_____ , _____)
9	0.114	0.742	(7 , 241)	34	0.646	0.992	(_____ , _____)
10	0.784	0.942	(47 , 306)	35	0.590	0.332	(_____ , _____)
11	0.679	0.377	(41 , 123)	36	0.291	0.418	(_____ , _____)
12	0.382	0.236	(23 , 77)	37	0.239	0.967	(_____ , _____)
13	0.085	0.940	(5 , 305)	38	0.711	0.521	(_____ , _____)
14	0.878	0.710	(53 , 231)	39	0.598	0.208	(_____ , _____)
15	0.930	0.002	(56 , ~~56~~ DUP 1)	40	0.194	0.198	(_____ , _____)
16	0.396	0.447	(24 , 145)	41	0.485	0.801	(_____ , _____)
17	0.276	0.711	(17 , 231)	42	0.692	0.918	(_____ , _____)
18	0.569	0.897	(34 , 291)	43	0.979	0.109	(_____ , _____)
19	0.776	0.476	(47 , 155)	44	0.356	0.078	(_____ , _____)
20	0.065	0.164	(4 , 53)	45	0.033	0.596	(_____ , _____)
21	0.108	0.554	(6 , 180)	46	0.772	0.686	(_____ , _____)
22	0.974	0.829	(58 , 269)	47	0.527	0.411	(_____ , _____)
23	0.765	0.099	(46 , 32)	48	0.037	0.353	(_____ , _____)
24	0.285	0.217	(17 , 70)	49	0.235	0.839	(_____ , _____)
25	0.014	0.788	(1 , 256)	50	0.190	0.271	(_____ , _____)

Beryllium Characterization Program

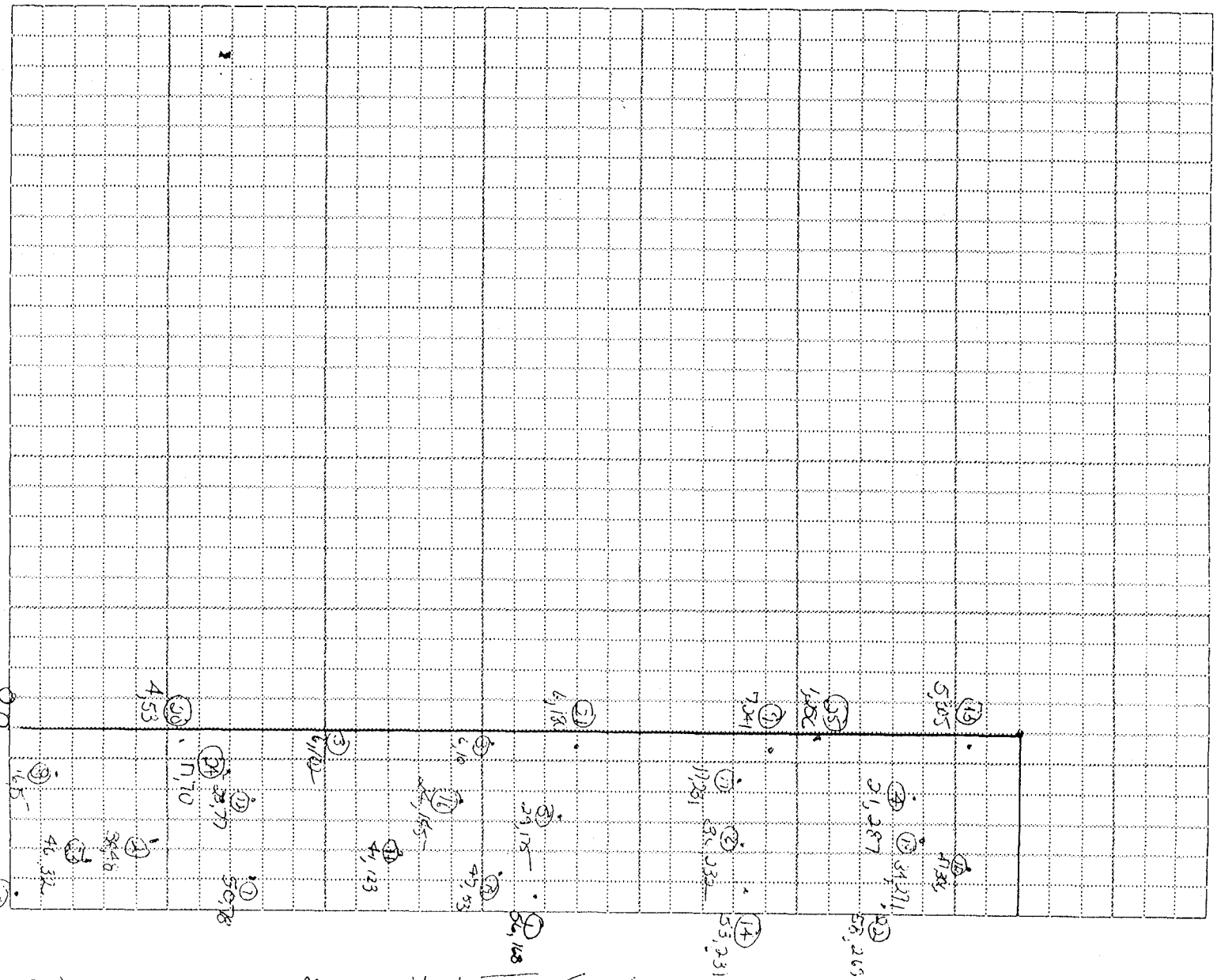
Sample Locations Specification

Building Number: 904 Pad Room Number:: Tent 9 Room Dimensions: East/West: 60 ft. North/South: 325 ft.

Using Coordinate Sheet Number: 112

Sketch of General Room Layout
[Indicating coordinate origin, ● , point (0, 0), and approximate location of doors.]

Indicate approximate direction of North for sketch.



□ = approx 10ft2

Map Not To Scale

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APPENDIX E
ASBESTOS INSPECTION DOCUMENTATION

ASBESTOS INSPECTION REPORT

BUILDING 709
BUILDING 662
BUILDING 551
BUILDING 910
904 PAD Tents

JUNE 30, 1999

Prepared for:

Rocky Mountain Remediation Services, L.L.C.

Prepared by:

FOOTHILLS ENVIRONMENTAL, INC.
2801 Youngfield Street, Suite 300
Golden, CO 80401
(303) 275-3470

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1. EXECUTIVE SUMMARY

Asbestos assessment surveys were conducted by Foothills Environmental, Inc. at the Rocky Flats Environmental Technology Site (RFETS) west of Denver, CO. The surveys were performed for Rocky Mountain Remediation Services (RMRS) during the months of April and May 1999. The intent of the surveys was to sample suspect asbestos containing materials (ACM) in specified locations of five different buildings/structures at the RFETS site. All samples were collected by Andre Gonzalez, a licensed Asbestos Inspector/Management Planner by the State of Colorado and the Environmental Protection Agency. A copy of the analytical results is provided in Appendix A for reference. Radiological survey maps are provided in Appendix B and depict sample locations.

The assessment surveys were performed in the following structures/buildings:

- Building 551 - Roof
- Building 910 - Roof
- Building 662 - Comprehensive survey
- Building 709 - Roof and associated pipe insulation
- 904 Pad – Black tar

2. SCOPE OF WORK

The scope of work for this assessment included the following:

1. Visual inspection of the specified areas to identify suspect ACM;
2. Collection of bulk samples of suspect materials in each specified area for analysis by Polarized Light Microscopy (PLM);
3. Describe sample results of all sampled materials;
4. Provide laboratory results from an accredited laboratory.

3. SAMPLING AND ANALYTICAL PROCEDURES

Suspect materials were identified based on a physical assessment of the target structures. Suspect building materials were grouped onto homogeneous areas based on their physical characteristics, color, texture, and application. Suspect materials were divided into one of three categories based on the following homogeneous area classification scheme recognized by regulatory agencies (e.g., EPA, Colorado Department of Public Health and Environment):

1. Thermal systems insulation (TSI); any type of pipe, boiler, tank or flue insulation.
2. Surfacing material: sprayed or troweled onto a structural building member.
3. Miscellaneous: all other suspect materials, including flooring, ceiling tiles, floor coverings, other insulations, finishing materials, etc.

Random bulk samples were collected according to the guidelines published as the Environmental Protection Agency's Final Rule: Title II of the Toxic Substances Control Act (TSCA), 15 USC,

Sections 2641 through 2654 and in compliance with 40 CFR, Part 763 and the Colorado Department of Public Health and Environment (CDPHE) Regulation #8. At least three samples of each suspect material were collected for analysis by an NVLAP-accredited laboratory. Core samples collected were placed in sealable bags for delivery to Building 881 for analysis by Reservoirs Environmental Services. Samples collected were given unique identification numbers assigned by the accredited Asbestos Inspector for tracking purposes. For the purposes of this report, Foothills Environmental has considered a material to be asbestos containing if any one of the samples in a sample set (i.e., homogeneous area sample sets) collected were found to contain greater than or equal to 1% asbestos.

All bulk samples collected were analyzed by Reservoirs Environmental utilizing the Environmental Protection Agency's Interim Method for the Detection of Asbestos in Bulk Insulation Samples (EPA 600/M4-82020, December 1982) and the McCrone Research Institute's The Asbestos Particle Atlas as method references. Reservoirs Environmental Inc. is accredited by NVLAP (#1896) and participates in the NVLAP and AIHA Bulk Asbestos Sample Quality Assurance Programs.

4. SURVEY RESULTS

4.1 Building 709

Building 709 is a cooling tower constructed primarily of wood. Fiberglass boarding was also used for specific components, but the majority of the structure is composed of wood. No suspect ACM was present on the Building 709 structure. Adjacent to the structure are several large insulated water lines and a pump station with insulated pipelines. Samples were collected from the insulation on the pipelines. Analytical results are as follows:

Sample Number	Material Sampled & Location	Analytical Results
709-99-05-24-05-01	TSI: Brown painted large water line on North side of B709	10% Chrysotile in brown resinous layer; None detected in other layers
709-99-05-24-05-02	TSI: 2" line exiting electrical shack on West end of B709	None Detected
709-99-05-24-05-03	TSI: Large water line on West end of B709	10% Chrysotile and a trace Amosite asbestos in brown resinous layer; None detected in other layers
709-99-05-24-05-04	TSI: 2" line from a pump generator into ground on West end of B709	None Detected
709-99-05-24-05-05	TSI: 2" line from a generator into a water basin on West end of B709	10% Chrysotile and a trace Amosite asbestos in the white fibrous plaster; None detected in other layers

All lines were wrapped in protective metal shrouds which made it difficult to differentiate homogeneous materials. For the purpose of this assessment, all materials were considered one homogeneous material. Three of the five samples had positive detections for asbestos. Based on the results, all thermal systems insulation (TSI) should be considered asbestos containing.

4.2 Building 910

The roof of Building 910 was sampled for asbestos containing materials. Three core samples were collected. The results are as follows:

Sample Number	Material Sampled & Location	Analytical Results
910-99-04-27-05-01	Roof Material: East end - Center	None Detected
910-99-04-27-05-02	Roof Material: Center of roof	None Detected
910-99-04-27-05-03	Roof Material: West end - Center	None Detected

The roof is flat with a slight pitch and is composed of an underlying base board covered by tar and gravel. No flashing material exists on the roof. Each layer was analyzed for asbestos content with no asbestos detected in any of the samples. The analytical results indicate the roofing material may be considered asbestos free.

4.3 Building 551

The roof of Building 551 is flat with drainage ports along the perimeter of the roof. The roof perimeter is built up approximately two feet with flashing along the entire length. Flashing is also present around all roof ventilation components, access hatches, and other roof structures. The roof is composed of an underlying base board covered by tar and gravel. Four samples of the roof system were collected and three samples of the flashing were collected. Analytical results are as follows:

Sample Number	Material Sampled & Location	Analytical Results
551-99-04-27-05-01	Core roof sample adjacent to access ladder on east side of roof	10% Chrysotile in the black tar layer
551-99-04-27-05-02	North end of roof - Center; 4 feet from east exhaust vent	None Detected
551-99-04-27-05-03	Southwest roof section; 6 feet from water drain	None Detected
551-99-04-27-05-04	South end of roof - Center; 8 feet east of round exhaust	None Detected
551-99-04-27-05-05	Roof flashing; northeast sky hatch	10% Chrysotile in black tar (painted silver)
551-99-04-27-05-06	Roof flashing; northwest section - second sky hatch from the north	10% Chrysotile in black tar (painted silver)
551-99-04-27-05-07	Roof flashing: northeast section - second sky hatch from the north	25% Chrysotile in black tar (painted silver)

Of the four roof samples one was positive for asbestos. Asbestos inspection rules require the roof be considered asbestos containing despite no asbestos detection in three of the four samples. All three of the roof flashing samples detected asbestos and must be considered asbestos containing.

4.4 Building 662

Building 662 is steel structure built on a concrete slab with sheet metal siding and metal roof panels. Three suspect asbestos containing materials were identified within the interior – floor tile, ceiling tile and drywall. The drywall did not have tape or joint compound on any seams and therefore was not sampled. Insulation was not present on any of the water lines or the heating system. Analytical results are as follows:

Sample Number	Material Sampled & Location	Analytical Results
662-99-05-13-05-01	1' x 1' floor tile with yellow mastic; Floor entering locker room	None Detected
662-99-05-13-05-02	1' x 1' floor tile (mastic not present on sample); Near south door	None Detected
662-99-05-13-05-03	1' x 1' floor tile with yellow mastic; Floor drain outside bathroom	None Detected
662-99-05-13-05-04	2' x 4' white ceiling tile; North end of central office	None Detected
662-99-05-13-05-05	2' x 4' white ceiling tile; Northeast end of central office	None Detected
662-99-05-13-05-06	2' x 4' white ceiling tile; Center of central office	None Detected
662-99-05-13-05-07	Drywall	None Detected
662-99-05-13-05-08	Drywall	None Detected
662-99-05-13-05-09	Drywall	None Detected

No asbestos was detected in any of the samples collected from suspect materials in Building 662. Building 662 may be considered asbestos free, based on the analytical results of the samples collected.

4.5 904 Pad

The 904 Pad consists of several fabricated tents consisting of metal frames with a high density covers. The tents are resting on an asphalt pad with black tar along the perimeters. The black tar acts as a caulking material between the tent and the asphalt pad and is considered part of the tent. The tent construction materials did not contain any suspect asbestos containing materials with the exception of the black tar. Fiberglass insulation was observed on some of the pipe, but it was clearly identified as fiberglass and was not sampled. Analytical results are as follows:

Sample Number	Material Sampled & Location	Analytical Results
904-99-06-17-05-01	904 Pad – Tent 8 – Northwest Corner	None Detected
904-99-06-17-05-02	904 Pad – Tent 9 – Northwest Corner	None Detected
904-99-06-17-05-03	904 Pad – Tent 10 – Northwest Corner	None Detected
904-99-06-17-05-04	904 Pad – Tent 11 – Northwest Corner	None Detected

Wojtaszek, Paul
From: Gonzalez, Andre
Sent: Thursday, July 22, 1999 10:40 AM
To: Wojtaszek, Paul
Subject: 904 pad

Paul,

Asphaltic tar samples were collected around tents 8, 9, 10, &11 at the 904 Pad. The asphaltic tar around tent 7 was not sampled because it is considered the same homogeneous material as around the other tents. For this reason, the asbestos results reported should include tent 7. If you have any questions, please do not hesitate to call me.

Thanks,

Andre

RESERVOIRS ENVIRONMENTAL SERVICES, INC.

NVLAP Accredited Laboratory #1898

TABLE I. PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME

RES Job Number: RES 61274-1
Client: Kaiser-Hill Company, LLC
Client Project: 9978273, On Site Sample Analysis, Andre Gonzalez
Date Samples Received: June 24, 1999
Analysis Type: PLM Short Report, Bulk
Turnaround: 24 Hour

Note: The US EPA requires use of stratified analysis for NESHAP and AHERA compliance. Composite results only apply for specific exceptions.

Client Sample Number	Lab ID Number	Layer	Physical Description	Portion of Total Sample (%)	ASBESTOS CONTENT BY LAYER Mineral	ASBESTOS CONTENT BY LAYER Visual Estimate (%)	Non-Asbestos Fibrous Components (%) CELL	GLASS	SYNTH	HAIR	WOLL	TALC	OTHER	Non-Fibrous Components (%)
904-99061705-01	EM 417879	A	Black tar	100		ND	0	0	0	0	0	0	0	100
904-99061705-02	EM 417880	A	Black tar	100		ND	0	0	0	0	0	0	0	100
904-99061705-03	EM 417881	A	Black tar	100		ND	0	0	0	0	0	0	0	100
904-99061705-04	EM 417882	A	Black tar	100		ND	0	0	0	0	0	0	0	100

ND = None Detected
TR = Trace, < 1% Visual Estimate
CELL = Cellulose
ORG = Organic
Tram-Act = Tremolite-Actinolite
WOLL = Wollastonite
BRUC = Brucite
GYP = Gypsum
SYNTH = Synthetic

Analyst: PDL

Data QA

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06/25/99 FRI 09:45 FAX 303 863 9196 RES. ENV. SERV. 003

RFP F 3791.32 (7/95)
Formerly RF-47530

Rocky Flats Environmental Technology Site

Golden, CO 80402-0464

Safety and Hygiene Chain of Custody Record and Analysis Request

RC861274

9928273

Name of Originator: A. Gonzalez Title: IH+S Bldg/Ext: 444/X6727 Date: 6/18/99 Page 1 of 1

SAMPLE NUMBER Bldg/Y/M/D/P#/S#	ANALYZE FOR	VOLUME liters	SAMPLE TIME/	MEDIA	PAB	Personal Area Bulk	REMARKS	Lab Number
904-99-06-17-05-01	~~Beryllium~~ Asbestos	NA	NA	NA	X		IH02B001	
904-99-06-17-05-02								
904-99-06-17-05-03								
904-99-06-17-05-04								

6/18/99

Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
[signature]	Roger S. Cichon	8:45 a.m. 6/18/99			
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
881 Asbestos Cabinet	Paul D. LaCarlo	1245P 6-24-99			
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date
Relinquished by	Received by	Time/Date	Relinquished by	Received by	Time/Date

Report and Billing Instruction

Kaiser-Hill	☐	Verbal To:	A. Gonzalez
RMRS	☒	Fax To:	5513
SSOC	☐	Report To:	KH
DynCorp	☐	Bill To:	KH
WSI	☐	P.O.#/Release:	
		Lab:	Reservoirs

Analysis Request

Industrial Hygiene Sample: ☐ Standard Service ☐ Rush ☐ Other

Asbestos Samples: ☒ Standard Service ☐ 24 Rush ☐ 2 Rush ☐ Other

Seal# (Release #)

Condition of Seal: ☐ Broken ☐ Unbroken

Signature:

Comments:

White - Return to Originator Yellow - Lab Copy Green - Sample Custodian Blue - Originator

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COPY

RS FORMS 07.02-01

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

INSRUMENT DATA

Mfg. EBERLINE	Mfg. EBERLINE	Mfg.
Model SAC-4	Model SAC-4	Model
Serial# 1042	Serial# 797	Serial#
Cal Due 11-15-99	Cal Due 10-26-99	Cal Due
Bkg. 0.0	Bkg. 0.2	Bkg.
Efficiency 53%	Efficiency 30%	Efficiency
MDA 20	MDA 20	MDA
Mfg. EBERLINE	Mfg. EBERLINE	Mfg. NE TEC
Model BC-4	Model BC-4	Model ELETRA
Serial# 922	Serial# 914	Serial# 1545
Cal Due 7-27-99	Cal Due 8-9-99	Cal Due 11-19-99
Bkg. 40	Bkg. 36	Bkg. α = 2 555
Efficiency 25%	Efficiency 25%	Efficiency α = 21.6 β = 33.1
MDA 200	MDA 200	MDA α = 56 β = 340

Survey Type: _____

Building: 904

Location: PAD

Purpose: SURVEY OF TAR AROUND TENTS

RWP #: N/A

Date: 6-17-99 Time: 14:06

RCT: CP Jepp / CP Jepp [redacted] Empl. #
Print name Signature

RCT: L Hankins / L Hankins [redacted] #
Print name Signature

PRL #: N/A

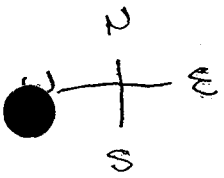
Comments: N/A

SURVEY RESULTS

Swipe #	Location/Description Results in DPM/100CM²	Removable Alpa	Removable Beta	Total Alpa	Total Beta
1	TENT 8	<20	<200	<56	<340
2	TENT 9	<20	<200	<56	<340
3	TENT 10	<20	<200	<56	<340
4	TENT 11	<20	<200	<56	<340
5					
6					
7					
8					
9					
10					
11					
12					
13					
15					

Swipe #	Location/Description Results in DPM/100CM²	Removable Alpa	Removable Beta	Total Alpa	Total Beta
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

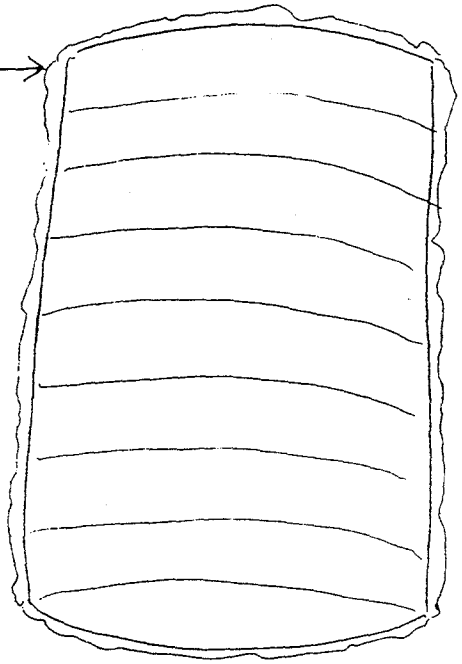
Date Reviewed: 6-17-99 RS Supervision: CN Cooper / L Hankins [redacted]
Print Name Signature



TENT TAR

NORTH WEST CORNER OF EVERY TEN

8, 9, 10, 11



413 | 413