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CH2M HILL Mound, Inc.
1075 Mound Road
P.O. Box 750
Miamisburg, OH 45343-0750

CH2MHILL

SMO-199/06
March 22, 2006

Mr. Don Pfister, Director
Miamisburg Closure Project
U. S. Department of Energy
175 Tri-County Parkway
Springdale, OH 45246

ATTENTION: Paul Lucas

SUBJECT: **Contract No. DE-AC24-03OH20152:** Deliverable #36 Building Data Package; Section C.2.1.2 Facility Transfer; Final Status Report T Building Survey Units # 2C-08, 1C-13, 1S-03, 1C-06, and SYS-PRS 226, Final

Dear Mr. Pfister:

Attached is the following Final document for your records:

- Final Status Report, T Building Survey Units # 2C-08, 1C-13, 1S-03, 1C-06, and SYS-PRS 226, Final

If you or members of your staff have any questions regarding the document, or if additional support is needed, please contact Dave Rakel at 937-865-4203.

Sincerely,

Michael D. Ebben
Site Manager

ME/jg

Enclosures

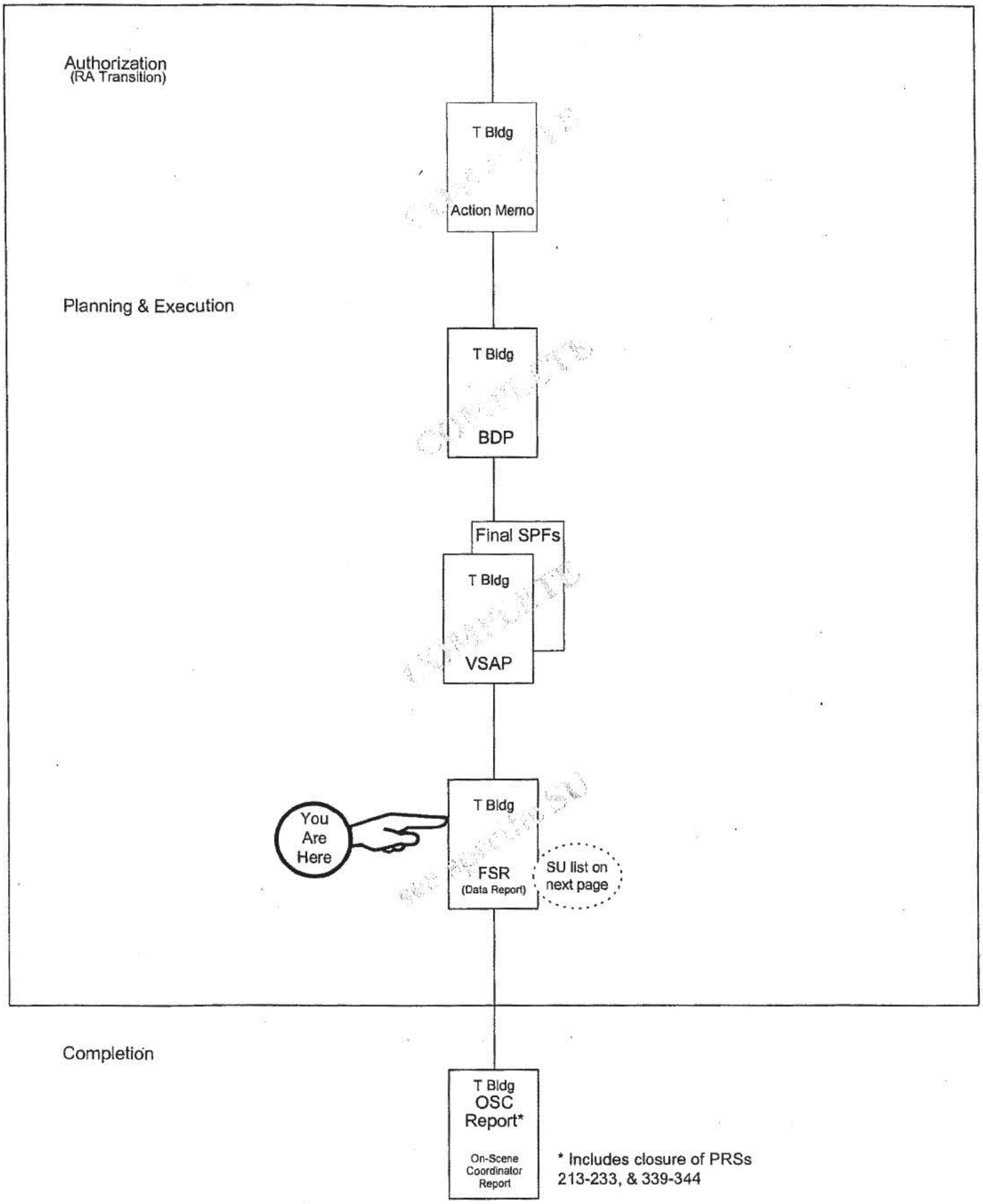
cc: T. Fischer, USEPA, (1) w/attachments
B. Nickel, OEPA, (1) w/attachments
R. Vandergrift, ODH, (1) w/attachments
J. Webb, ODH, (1) w/attachments
M. Wojciechowski, Tetra Tech, (1) w/attachs
G. Gorsuch, DOE/MCP, (1) w/attachments
G. Desai, DOE/HQ, (1) w/attachments
M. Sizemore, CH2M Hill, (1) w/attachments
ER Records, CH2M Hill, (1) w/attachments
DCC (1) w/attachments
M. Ebben, CH2M Hill, w/o attachments
K. Armstrong, CH2M Hill, w/o attachments
D. Rakel, CH2M Hill, w/o attachments
D. Kramer, CH2M Hill, w/o attachments
C. Kline, CH2M Hill, w/o attachments
R. Coblentz, CH2M Hill, w/o attachments
MOAT Coordinator, CH2M Hill, w/o attachs
S. Barr, CH2M Hill, w/o attachments
M. McDougal, CH2M Hill, w/o attachments
file, CH2M Hill, w/o attachments

Final Status Survey Report - Final
T Building

Survey Unit #'s 2C-08, 1C-13, 1S-03, 1C-06, and SYS-PRS 226

Prepared by:	Mary Sizemore / Mary Sizemore	Date:	3-17-06
Reviewed by:	Robert Coblentz/ RM Coblentz	Date:	3-17-06
Approved by:	Ken Armstrong / K.P. Armstrong	Date:	3/20/06

T Building & PRSs 213-233, & 339-344



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T Building, Final Status Report, Survey Unit - You Are Here

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Attachment B – Direct and Removable Activity Graphs
Attachment C - Retrospective Power Curves
Attachment D - Data Analysis Worksheets
Attachment E - Survey Plan Forms T-01 and T-02
Attachment F - Summary of Attached Radiological Survey Data Sheets

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1.0 Historical Overview

T Building is a heavily reinforced subterranean concrete structure. Construction was completed in 1948. The two main floors are compartmentalized into three general areas (bays) by two 30-inch thick reinforced concrete firewalls. T Building contains more than 200 rooms and 20 corridors. The Core Team authorized the Removal Action via the T Building Action Memorandum (Reference 1) due to radiological contamination from various missions and projects in the building. A complete list of contaminants of concern (COCs) is provided in Attachment A.

Associated building structures include two exhaust airshafts, which each historically were attached to a two-hundred-foot tall brick and mortar exhaust stack. The exhaust stacks have been demolished. The building has three towers along the north wall, one at each end and one at the center. The end towers contain stairways, passenger elevators, airshafts for intake ventilation air, and pedestrian entrances at grade level. The middle tower was used for providing intake ventilation air.

T Building was designed with interstitial spaces above the two primary floors (1st and 2nd). These interstitial spaces are referred to as "Crawlspaces".

1.1 Survey Unit Overview

SU# 2C-08 (Corridors 24 and center of Corridor 22) is located in the Center Bay on the 2nd floor of T-Building. SU# 1C-13 (East end of Corridor 1) is located in the Center Bay on the 1st floor of T-Building. SU# 1S-03 (Corridor 9 and Room 8) is located in the South Bay on the 1st floor of T-Building. SU# 1C-06 (Corridor 39) is located in the Center Bay on the 1st floor of T-Building. SYS-PRS 226 (Sump 3) was a floor drain sump located in Corridor 9 on the 1st floor of T-Building. Corridors 1, 9, 22, 24, and 39 primary use was as an access and egress routes. The initial use of Room 8 was maintenance area and was later used as an equipment storage area. The primary use of SYS-PRS 226 was as a floor drain sump.

Survey unit classifications are based on historical records, a survey report entitled Mound Site Radionuclides by Location (Reference 2), the T Building White Paper (Reference 3), interviews with past and present building managers, and previous and past radiological data. A table listing contaminants of concern is given in Attachment A.

SYS-PRS 226 (Sump 3) was a floor drain sump. The sump was taken out of service, went through D&D operations and was back filled with rubble. SYS-PRS 226 (Sump 3) was emptied of fill material, and then the sump was removed along with the steel liner and disposed of as radioactive waste. The building surfaces were free of dirt, insulation, and loose paint at the time of survey. Subsequent to the survey of these rooms and corridors, doors were locked and/or barricades were installed to prevent access of the area. Subsequent to the survey of the Room 8, the floor was covered with heavy plastic paper to prevent cross contamination from re-use of these areas and or barricades were installed to prevent access. This Final Status Survey Report (FSSR) documents completion of the survey and evaluation of the survey data.

2.0 Survey Objectives

The objective of the T Building Verification Sampling and Analysis Plan (VSAP) (Reference 4) was to determine whether or not the residual radioactivity on the building surfaces in T Building meets the surface release criteria. This was to be accomplished by measuring the fixed and removable contamination on building surfaces and systems. Residual radioactivity levels were evaluated versus established surface release criteria provided in Attachment A and stated in the Work Plan for Environmental Restoration of the DOE Mound Site, The Mound 2000 Approach (hereafter referred to as 'Mound 2000', Reference 5). The survey data were compared to the release criteria of Mound 2000, using methods defined in Reference 6. The surface release criteria stated as the allowable total residual surface contamination in the Mound 2000 are the Derived Concentration Guidelines (DCGL's) for building release. The specific survey objectives were outlined on the Survey Plan Form (SPF) located in Attachment E.

2.1 Survey Design

The Type I error denoted by alpha (α) was set at 0.05 and the Type II error denoted by beta (β) was set at 0.01. The number of data points was determined by calculating the relative shift, denoted by delta/sigma (Δ/σ), from the Derived Concentration Guideline Limit (DCGL) value, the lower bound of the gray region (LBGR), and the standard deviation denoted by sigma (σ) of the contaminant in the survey unit (Δ/σ = DCGL-LBGR/σ). For this survey plan, the LBGR was set at 50% of the $DCGL_w$ (average concentration over a wide area). The standard deviation was determined to be 17-dpm/100cm^2 based on previous surveys and the relative shift was calculated was 2.94. The required number of data points (N = 20) per survey unit was obtained from Table 5.5 Reference 6.

The SU sample locations within T Building were named based on which floor elevation and bay they occupied. The designated SUs on each floor were sub-categorized into 'north', 'central', and 'south' areas, corresponding to the three bays split by the firewalls within the building. The general naming convention follows: XY-ZZ-#

where:

X	=	building floor elevation
Y	=	bay
ZZ	=	SU number
#	=	floor/lower wall (1) or upper wall/ceiling (2) designator

followed by a letter designator

D	=	Drain
V	=	Vent
U	=	Utility
J	=	Judgmental
S	=	Static

For example:

1C-01-1S = 1st floor, center bay, SU# 1, floor & lower wall survey unit, static

2N-05-2V = 2nd floor, north bay, SU# 5, upper wall & ceiling survey unit, vent

The numerical indices restart in each bay of each floor.

Systems within T Building were named based on the PRS number associated with them or were assigned a unique ID number. Examples are: SYS-PRS 215 (for PRS 215) and SYS-10 (Breathing Air System).

Statistical survey data point locations were selected within the survey unit using a triangular grid pattern with a randomly selected starting point. The Visual Sample Plan (VSP) computer program (Reference 7) was used for this purpose. (For any areas designated as Class 3, only judgmental survey data point locations are required.)

Professional judgment (biased) surveys were performed to supplement the statistical survey data, but were not combined with the statistical data. Judgmental survey data were compared directly to the release criteria.

2.2 Survey Data

The gross alpha and beta fixed-point measurements were compared to their respective guideline values. Graphical representations of the average and maximum direct and removable activity for alpha, beta, and tritium are shown in Attachment B. Retrospective power curves for direct and removable activity measurements provided in Attachment C show that the survey design had sufficient power (probability) to meet DQO's for this survey plan.

Direct alpha and beta scans were performed on 100% of the floors. Walls and ceilings were scanned in accordance with the SPF T-01 and SPF T-02 (Attachment E).

The sump was removed. Gamma scans were performed on 100% of the area previously occupied by the sump.

Direct alpha and beta measurements are taken on drains, vents, and utilities. The drains associated with Class 1 sumps are removed. The sump was removed even though it was not a Class 1 sump. Gamma scans were performed on 100% of the area previously occupied by the sump. Drains associated with Class 2 sumps are surveyed at each accessible location. This survey consists of removing any drain covers and debris to fully expose the interior of the pipes and direct measurements for gross alpha and beta activity and smears for removable alpha, beta, and tritium contamination.

The ventilation systems are separate survey units, however as part the room surveys, vent covers are surveyed. Direct measurements and smears are taken directly on the vent cover. If activity on the vent cover appears to be elevated, the vent cover is removed and disposed of as radioactive waste and the interior of the immediate ventilation system is then surveyed as far as can be reached from the open vent. This survey consists of direct measurements for gross alpha and beta activity and smears for removable alpha, beta, and tritium contamination.

The utility systems are separate survey units, however as part the room surveys, utility drops and utility systems are surveyed. The survey for utility drops consists of removing any utility drop covers to expose the interior of the utility line. This survey consists of direct measurements for alpha and beta and smears for alpha, beta, and tritium. The survey for utility systems in rooms, such as fire water systems, is performed by taking direct

measurements for gross alpha and beta activity and smears for removable alpha, beta, and tritium contamination on the exterior surfaces of the utility system.

The instruments selected for this survey were gas flow proportional detectors. Alpha/beta fixed point measurements were made using the Ludlum 2350-1 data logger with a 43-68 hand-held probe. This instrument was also used for scanning walls and small areas. Large area scanning was performed using the Ludlum 2350-1 with 43-37 floor probe and/or the SHONKA Surface Contamination Monitor (SCM). The scanning instruments were set to alarm at 75% of the applicable guideline values, $DCGL_{EMC}$, (elevated measurement comparison) for the most restrictive alpha emitter and most difficult to detect beta emitter. Instrument calibration and source check data were documented in accordance with Mound procedures.

Loose surface contamination was measured by smearing an area of 100 cm^2 at each data point. Smears were counted for gross alpha/beta activity. Removable tritium contamination was measured by liquid scintillation counting of the smears. Smear results were not combined with the statistical data but compared directly to the removable surface release criteria.

General area exposure rate measurements were performed using a Micro Rem meter to ensure that the average level of gamma radiation did not exceed the background level by more than 20 micro-R/hr.

Survey data were documented on the Radiological Survey Data Sheets (RSDS) provided in Attachment F. The RSDS maps are not engineered drawings and may not be to scale. These maps were used for general information purposes only. The dxf. file maps that were imported into VSP were engineered drawings.

2.3 Quality Control

Quality Control (QC) measurements will be taken in accordance with Mound procedures (Reference 8) and results evaluated and documented in the T Building Final Status Survey Report.

2.4 Conclusion

The objective of the survey plan was to determine whether or not the residual radioactivity of the surfaces of building materials associated with T Building satisfy the surface release criteria established by Mound 2000 (Reference 5) and documented in the T Building VSAP (Reference 4). This is accomplished by comparing the survey data to the surface release criteria in accordance with MARSSIM (Reference 6).

All the DQO's have been met and no further measurements are required. Subsequent to the survey of these rooms and corridors, doors were locked and/or barricades were installed to prevent access of the area. Subsequent to the survey of the Room 8, the floor was covered with heavy plastic paper to prevent cross contamination from re-use of these areas and or barricades were installed to prevent access. The building's HVAC design minimizes the potential for cross contamination via air exchange by utilizing single pass air. Any remediation in nearby SUs would be performed using standard practices for contamination control and containment, to prevent migration to other areas.

SU#'s 2C-08, 1C-13, 1S-03, 1C-06, and SYS-PRS 226 meet the surface release criteria. The average and maximum residual activity is less than the $DCGL_w$ and the survey is accepted as the Final Status Survey in accordance with the T Building VSAP (Reference 4). The tables in Attachment D show the maximum direct and removable activity on surfaces.

3.0 References

1. Action Memorandum T Building Removal Action, Final CH2M Hill Mound, June 2003.
2. MD-22153, Mound Site Radionuclides by Location, March 2001.
3. CH2M Hill Mound Inc. White Paper: T Building, Structural History and Process History Summary Background Document, November 2002.
4. T Building Verification Sampling and Analysis Plan, Final, October 2004.
5. Work Plan for Environmental Restoration of the DOE Mound Site, The Mound 2000 Approach, BWXT of Ohio, February 1999.
6. NUREG 1575, Rev. 1, August 2000, Multi-Agency Radiation Survey and Site Investigation Manual, (MARSSIM).
7. Visual Sample Plan, Pacific Northwest Laboratory.
8. MARSSIM Implementing Procedures, Field Quality Control for Building Contamination Surveys, MD-80046, Op. 402.

Attachment A

T Building Contaminants of Concern

and

Surface Release Criteria

Attachment A
T Building Contaminants of Concern

Radionuclide	Name	Half Life	Principal Decay Emissions
H-3	Tritium	12.3 yr	β_{max} (0.0185 MeV)
Co-60	Cobalt-60	5.3 yr	β_{max} (0.318 MeV) γ (1.332, 1.173 MeV)
Sr/Y-90	Strontium-90 Yttrium-90	28.8 yr 2.67d	β_{max} (0.546 MeV) β_{max} (2.281 MeV)
Ag-108m	Silver-108m (metastable)	127 yr	γ (0.434, 0.614, 0.723 MeV)
Cs-137	Cesium-137	30.07 yr	β_{max} (0.514 MeV) γ (0.662 MeV) from Ba-137m
Bi-207	Bismuth-207	33.7 yr	γ (0.569, 1.063 MeV)
Bi-210m	Bismuth-210m	3.0E6 yr	α (4.910, 4.949 MeV) γ (0.266, 0.305 MeV)
Po-209	Polonium-209	103 yr	α (4.866 MeV)
Ra-226	Radium-226	1599 yr	α (4.784, 4.602 MeV) γ (0.1862 MeV)
Ac-227	Actinium-227	21.7 yr	α (several from progeny) β_{max} (0.043 MeV)
Th-230	Thorium-230	7.7E4 yr	α (4.621, 4.688 MeV)
U-234	Uranium- 234	2.47E5 yr	α (4.77, 4.72 MeV)
U-235	Uranium-235	7.04E8 yr	α (4.364, 4.396 MeV) γ (0.144, 0.184 MeV)
U-238	Uranium-238	4.47E9 yr	α (4.197, 4.147 MeV)
Pu-238	Plutonium-238	87.75 yr	α (5.456, 5.499 MeV)
Pu-239	Plutonium-239	2.41E4 yr	α (4.858 MeV)
Pu-240	Plutonium-240	6.58E3 yr	α (5.17, 5.12 MeV)
Pu-241	Plutonium-241	13.2 yr	β_{max} (0.021 MeV)
Pu-242	Plutonium-242	3.79E5 yr	α (4.90, 4.86 MeV)
Am-241	Americium-241	432.7 yr	α (5.486, 5.443 MeV) γ (0.0595 MeV)

Attachment A

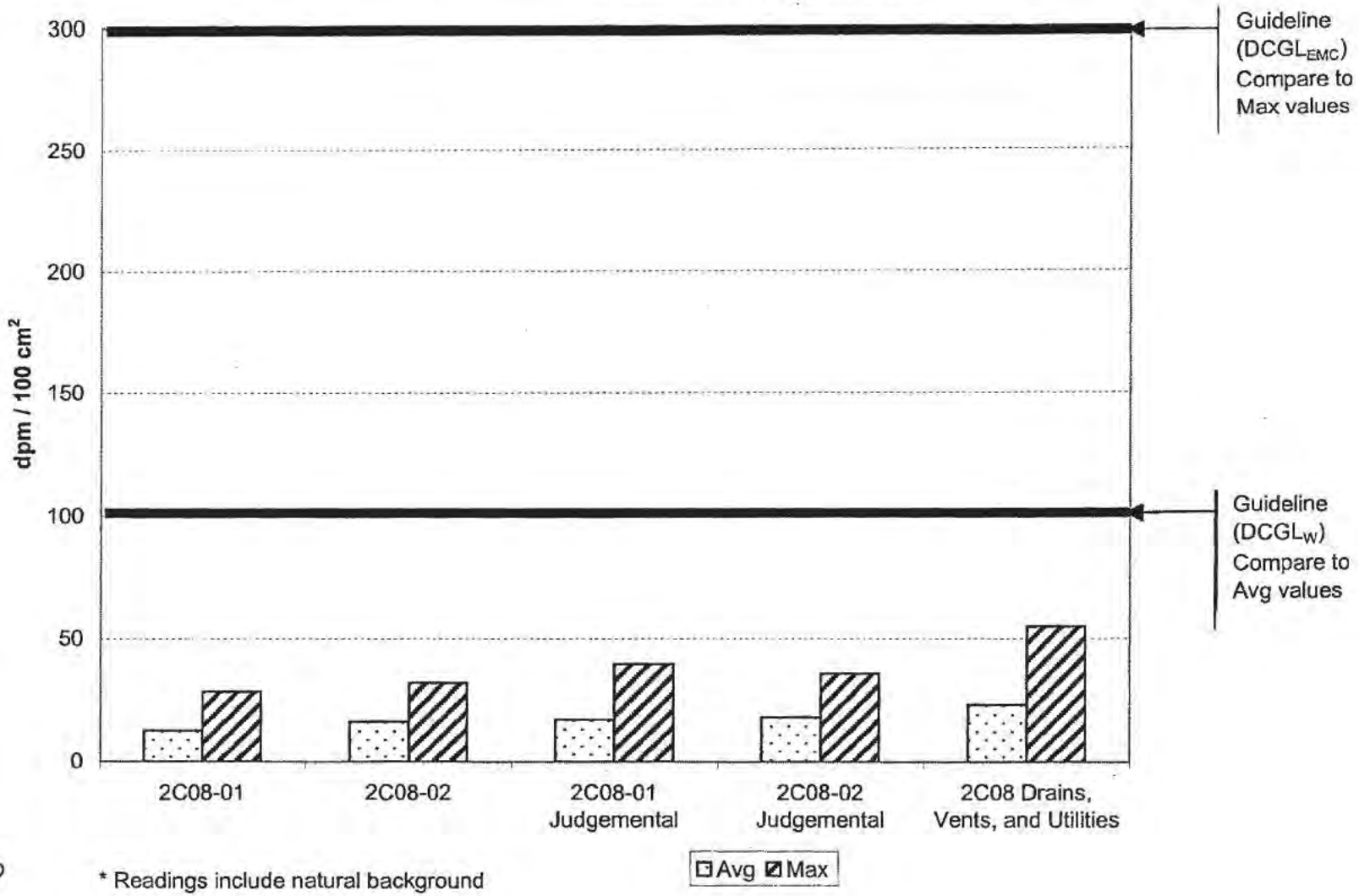
Surface Release Criteria

Allowable Total Residual Surface Contamination (dpm/100 cm^2)[1]			
Radionuclides[2]	**Average**[3,4] **($DCGL_w$)**	**Maximum**[5,6] **($DCGL_{EMC}$)**	**Removable**[6]
Group 1: Transuranics, Ra-226, Ra-228, Th-230, Th-228, Pa-231, Ac-227, I-125, I-129	100	300	20
Group 2: Th-natural, Th-232, Sr-90, Ra-223, Ra-224, U-232, I-126, I-131, I-133	1,000	3,000	200
Group 3: U-Natural, U235, U238 and associated decay products, alpha emitters	5,000	15,000	1,000
Group 4: Beta-gamma emitters (nuclides with decay modes other than alpha emission or spontaneous[7] fission) except Sr-90 and others listed above. Includes mixed fission products containing Sr-90.	5,000	15,000	1,000
Tritium	N/A	N/A	10,000

Note: Refer to Work Plan for Environmental Restoration of the DOE Mound Site, The Mound 2000 Approach, Table 1, "Surface Contamination Guidelines", page A-3 for specific information on surface contamination guidelines and additional notes (Reference 5).

Attachment B
Direct and Removable Activity Graphs

Attachment B
Mound - T Building Final Status Survey
Alpha Activity* (direct)



* Readings include natural background

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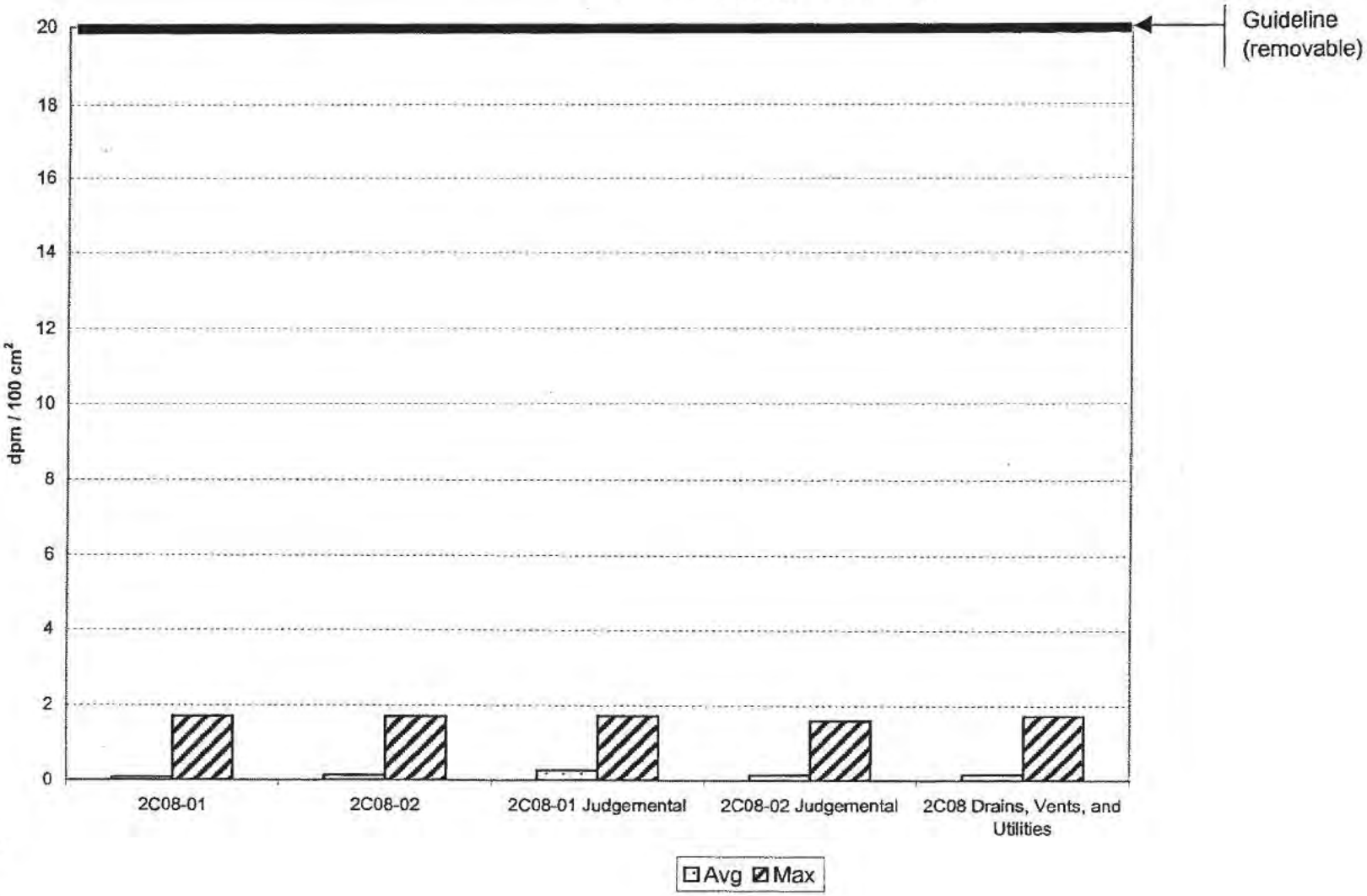
Attachment B
Mound - T Building Final Status Survey
Alpha Activity (removable)



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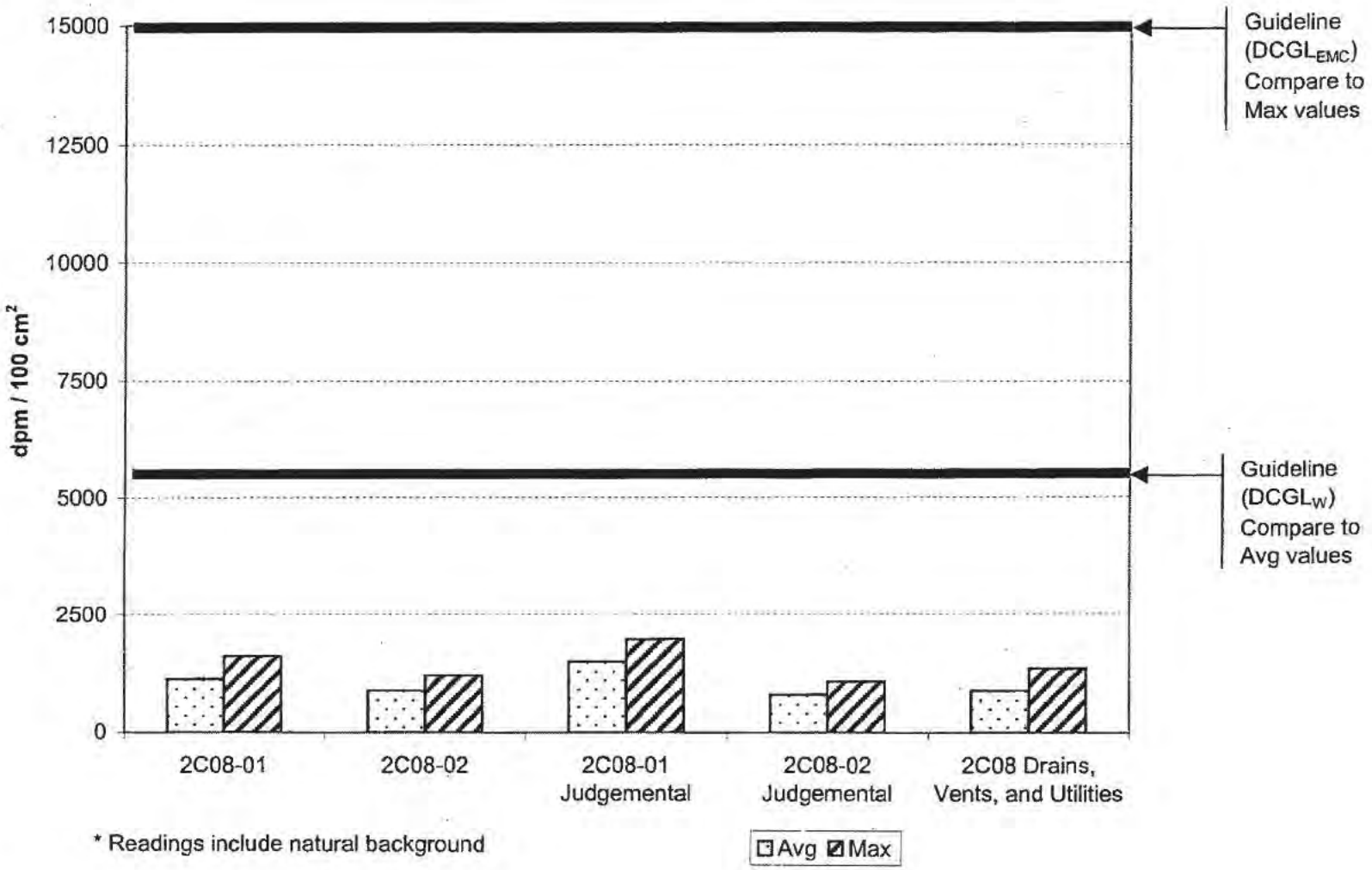
Attachment B
Mound - T Building Final Status Survey
Beta Activity* (direct)



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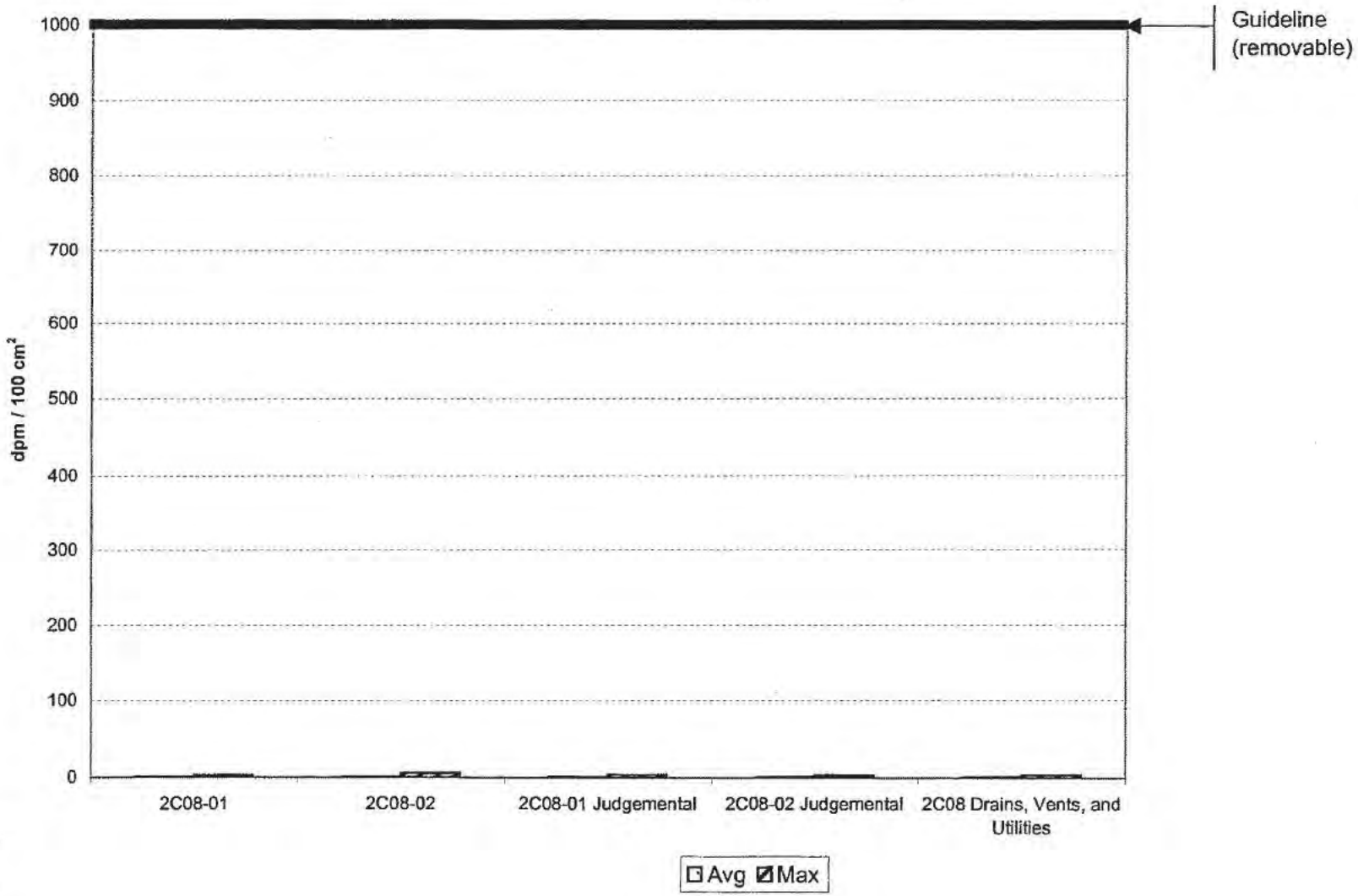
Attachment B
Mound - T Building Final Status Survey
Beta Activity (removable)



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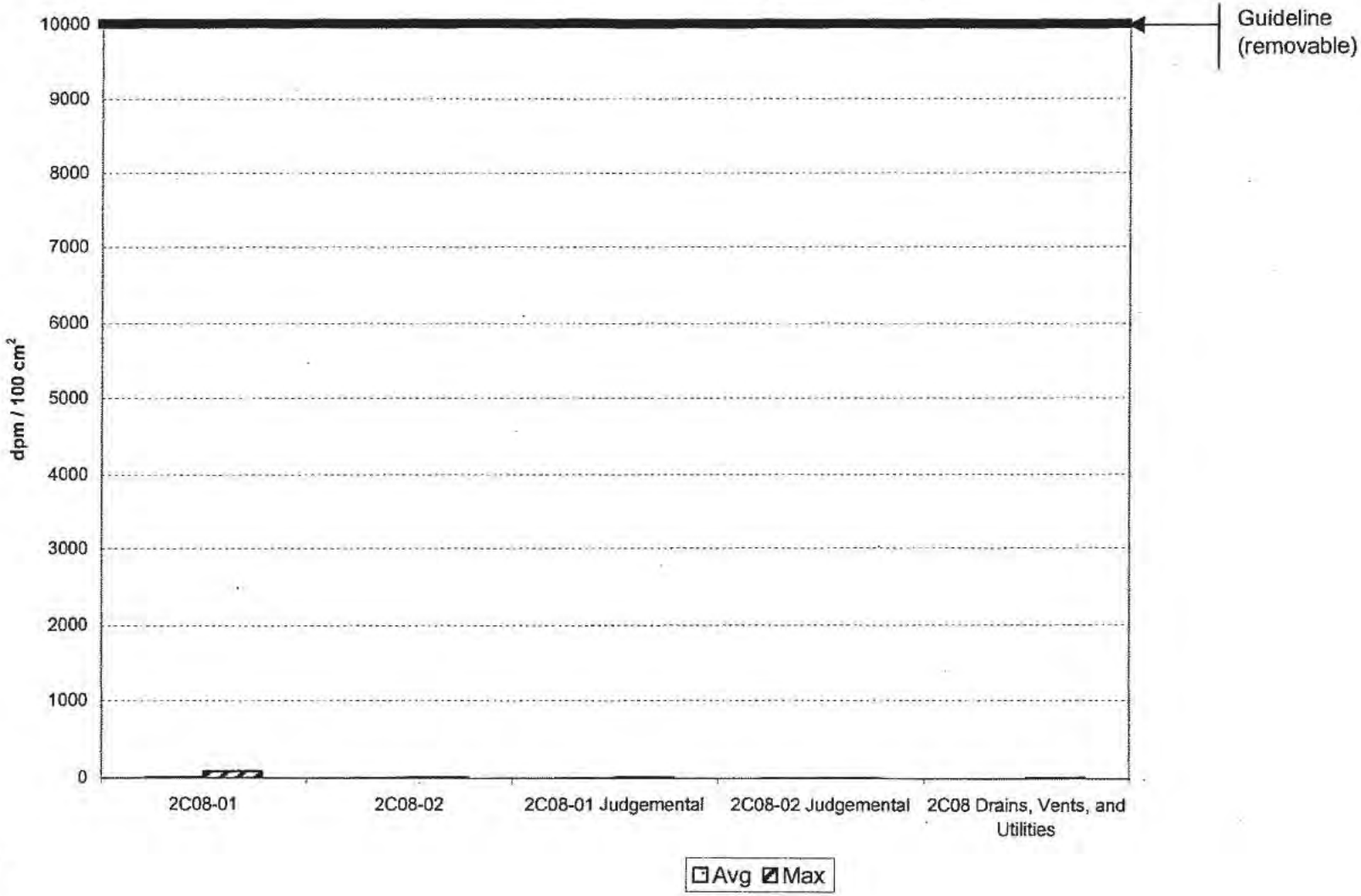
Attachment B
Mound - T Building Final Status Survey
Tritium Activity (removable)



Attachment B
Mound - T Building Final Status Survey
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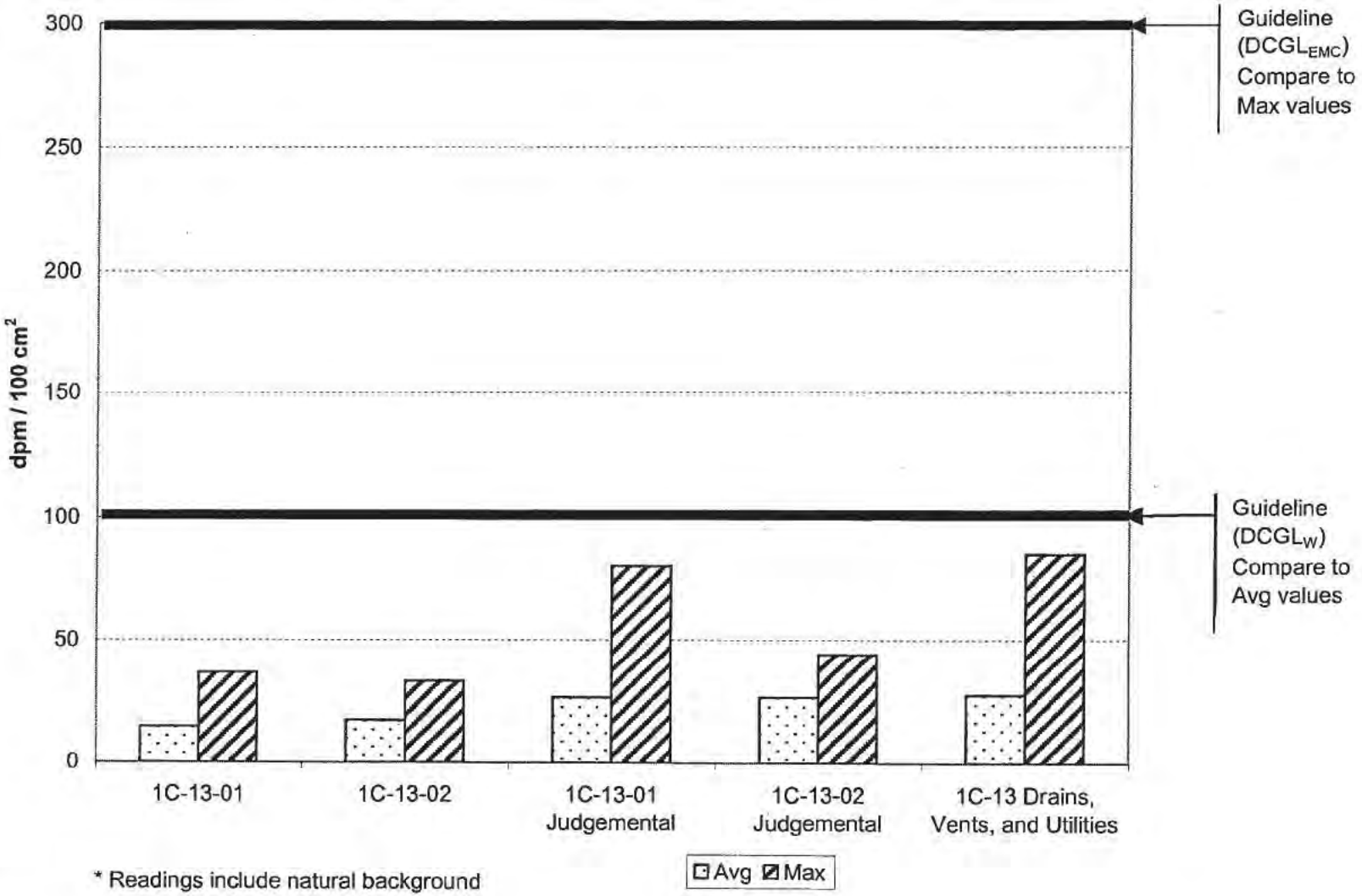

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Attachment B
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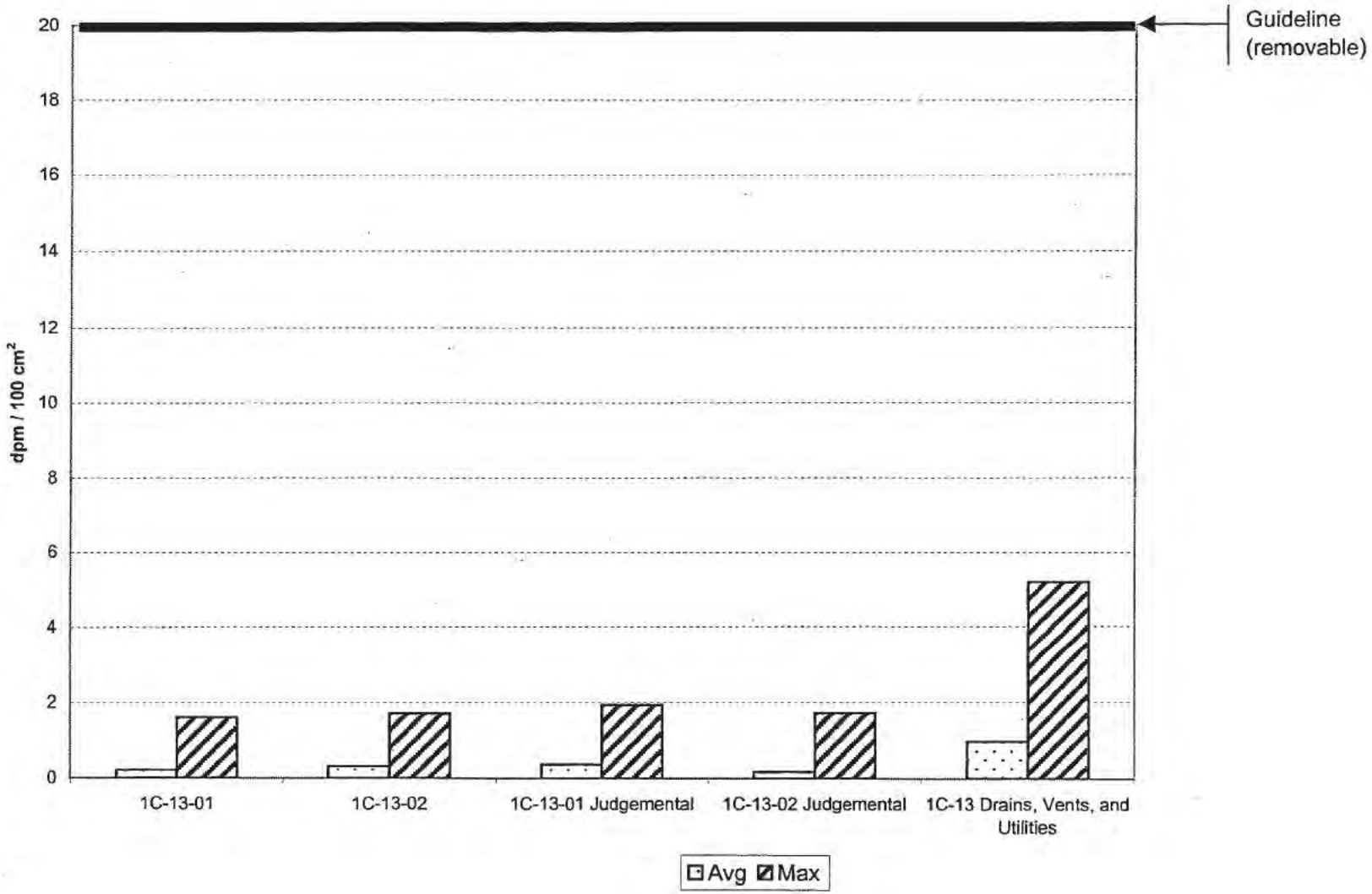
Alpha Activity (removable)



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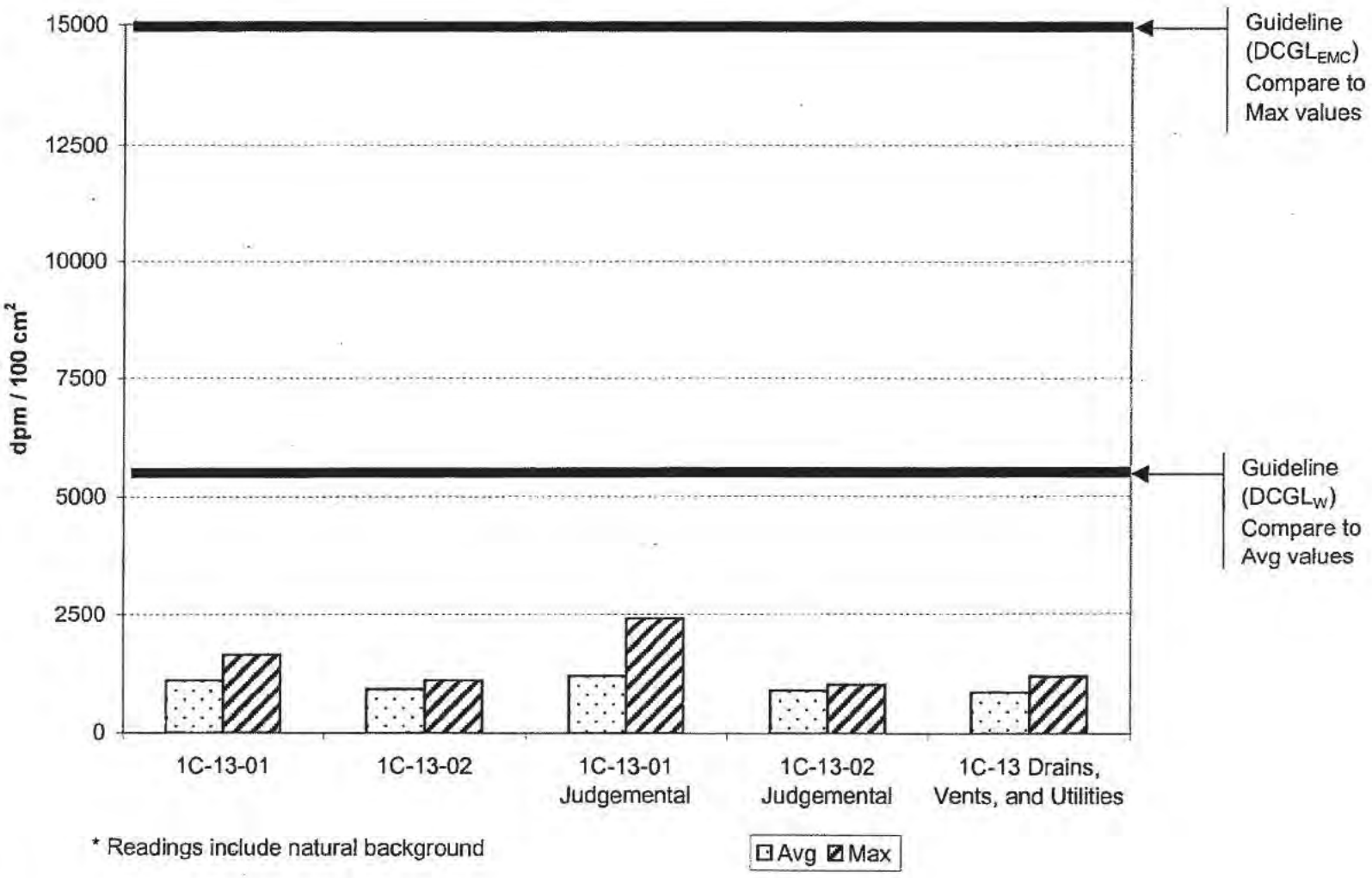
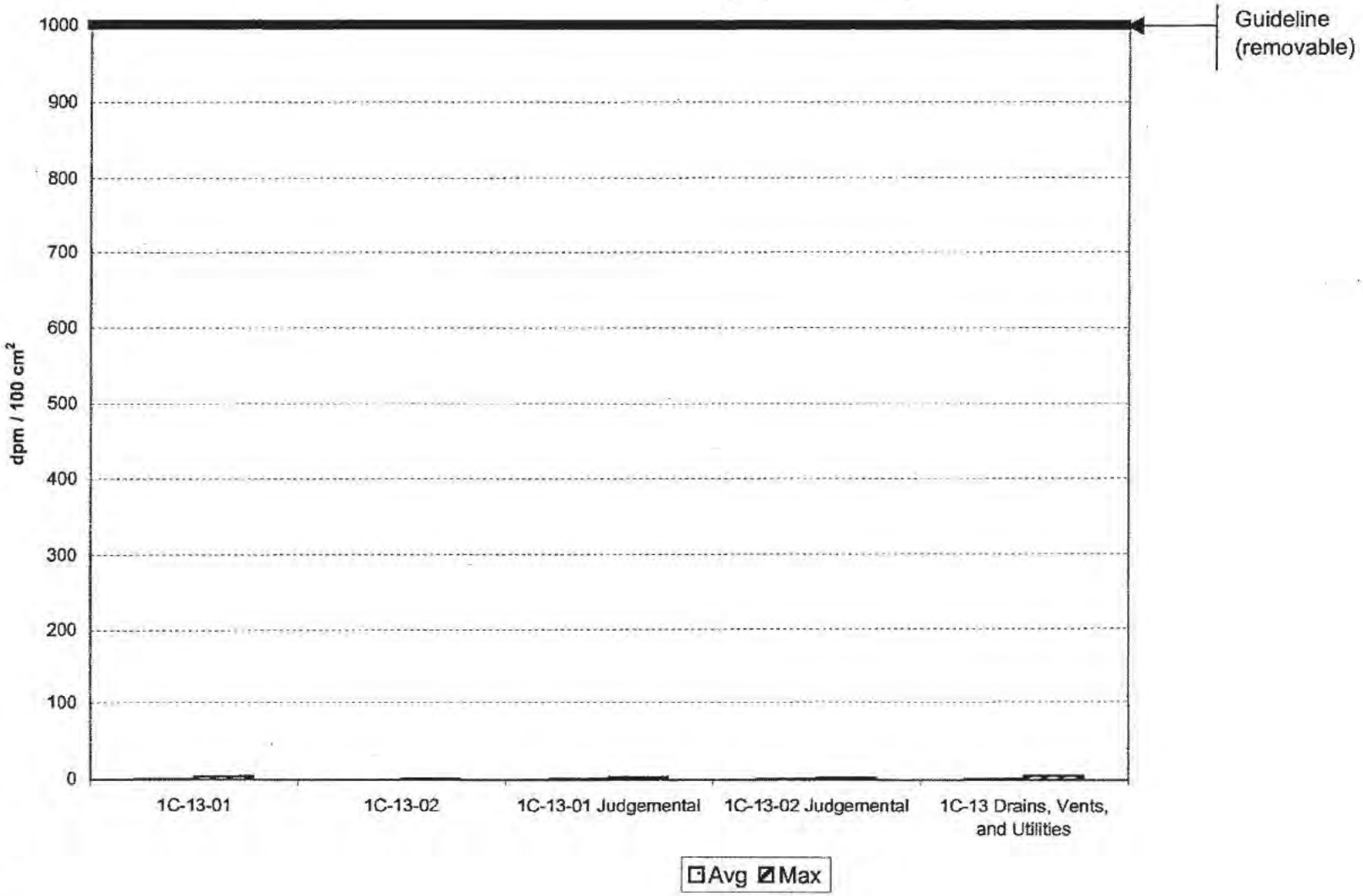
Attachment B
Mound - T Building Final Status Survey
Beta Activity* (direct)



* Readings include natural background

B8/20

Attachment B
Mound - T Building Final Status Survey
Beta Activity (removable)



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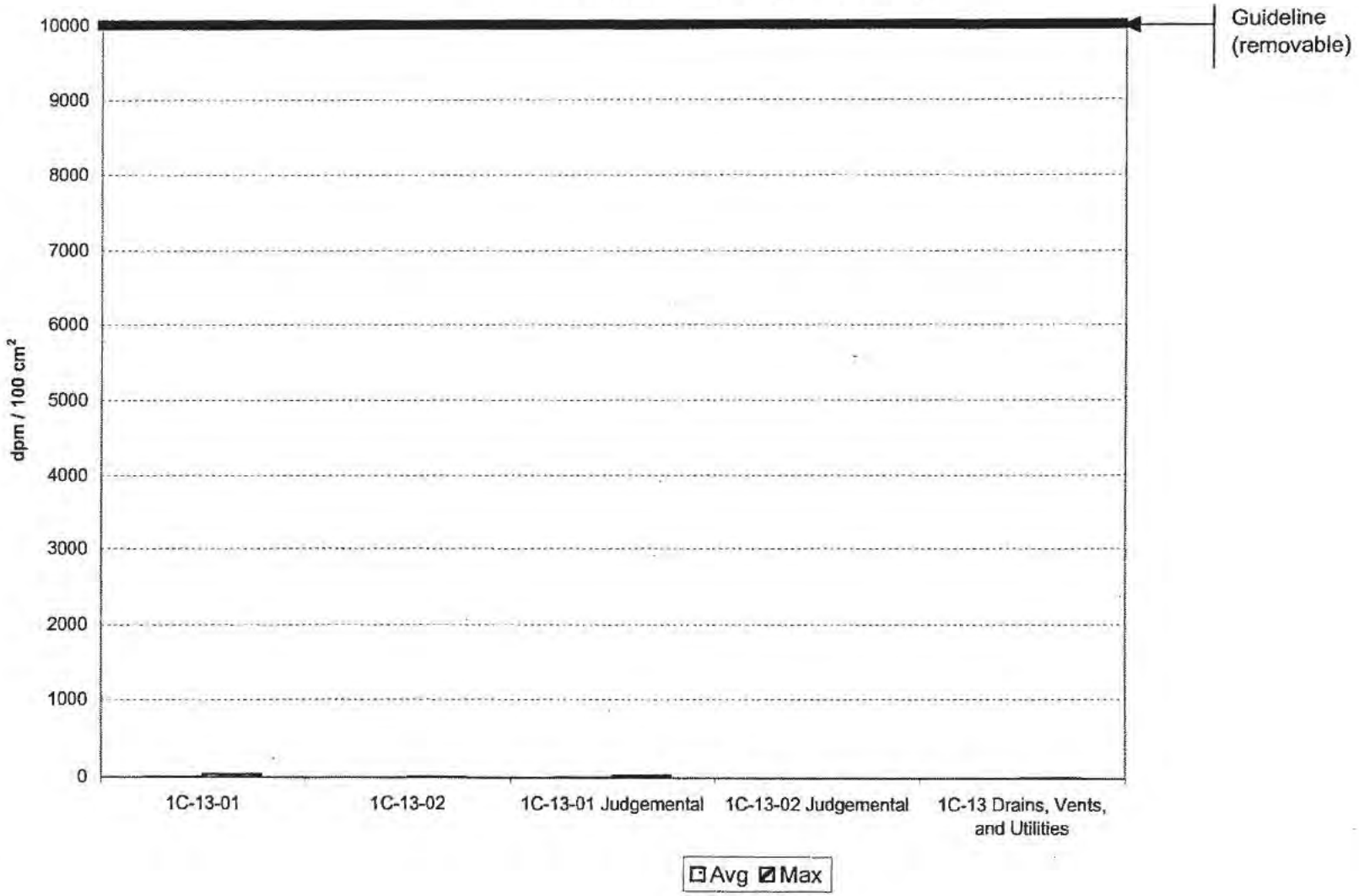
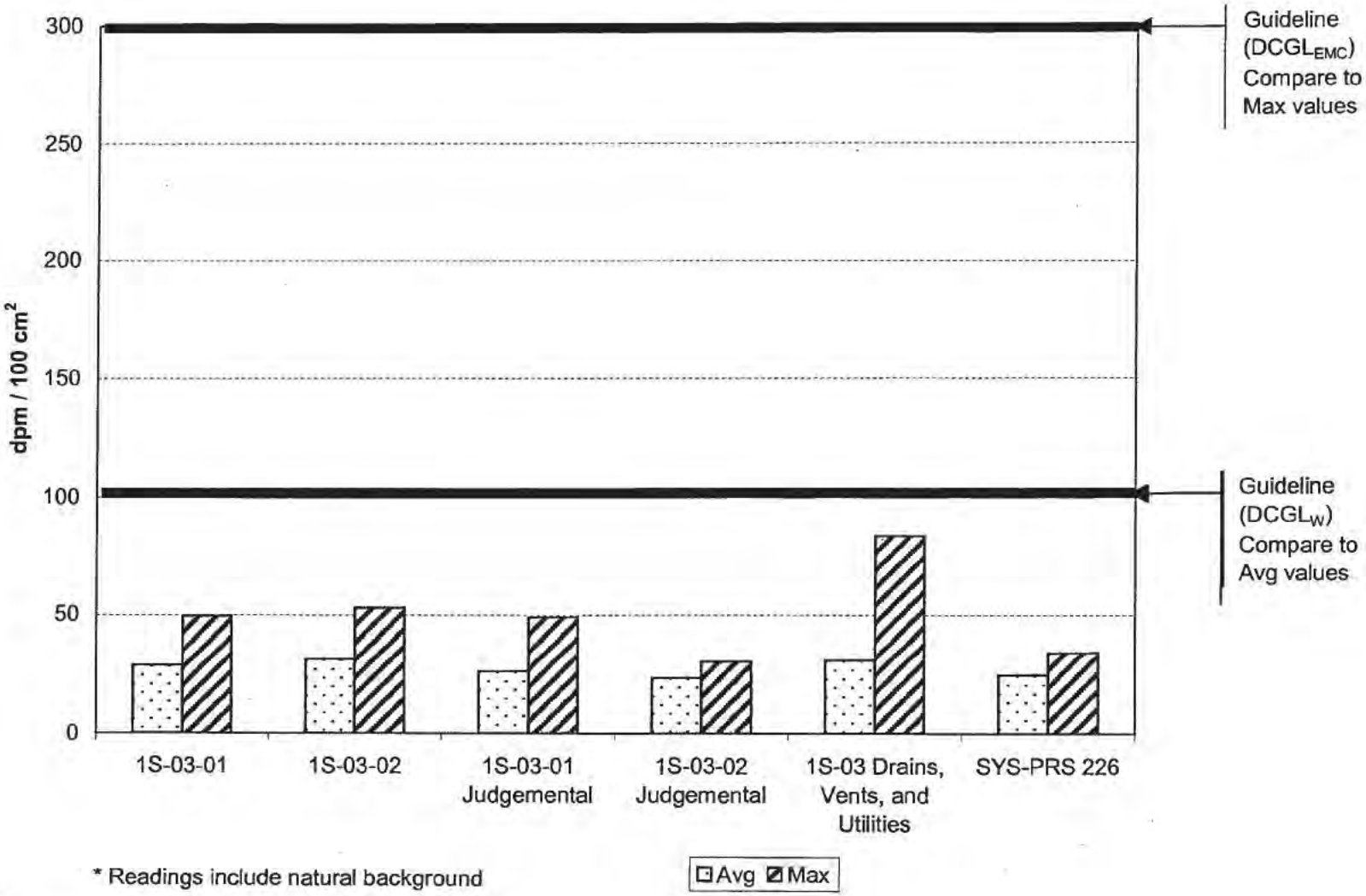
Attachment B
Mound - T Building Final Status Survey
Tritium Activity (removable)



Page 5 of 5

Attachment B
Mound - T Building Final Status Survey
Alpha Activity* (direct)



* Readings include natural background

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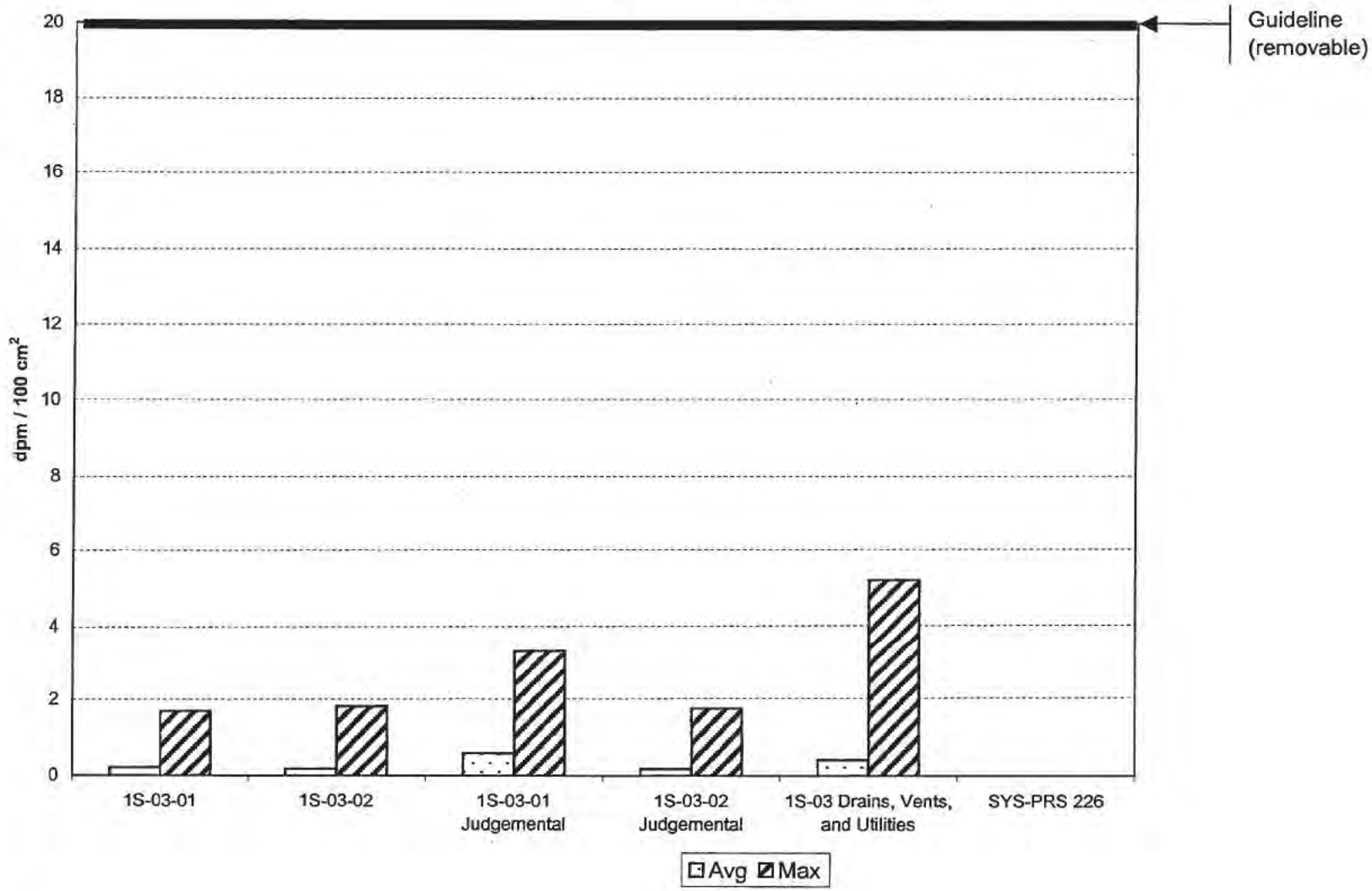
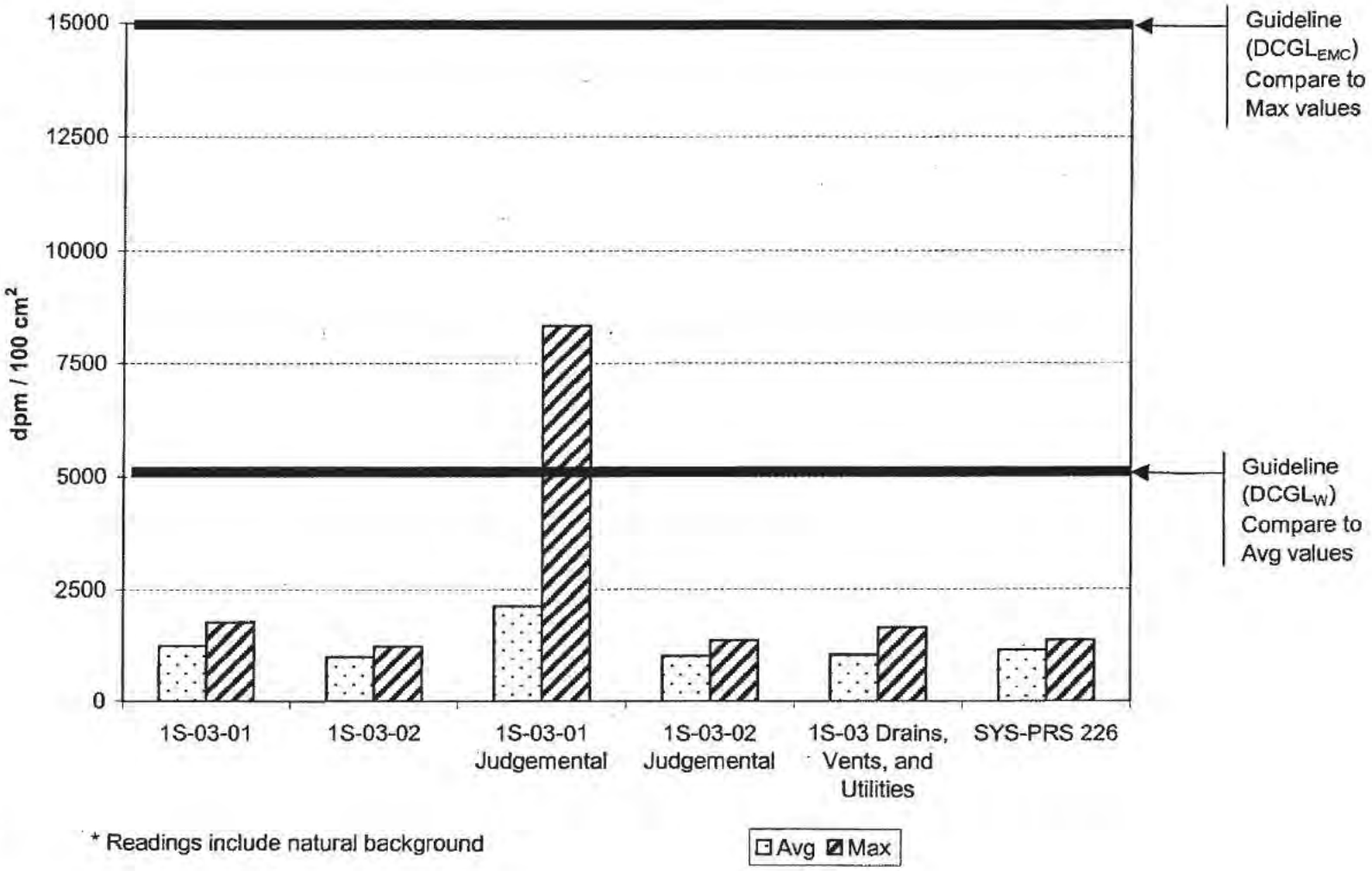
Attachment B
Mound - T Building Final Status Survey
Alpha Activity (removable)



B 2 of 3

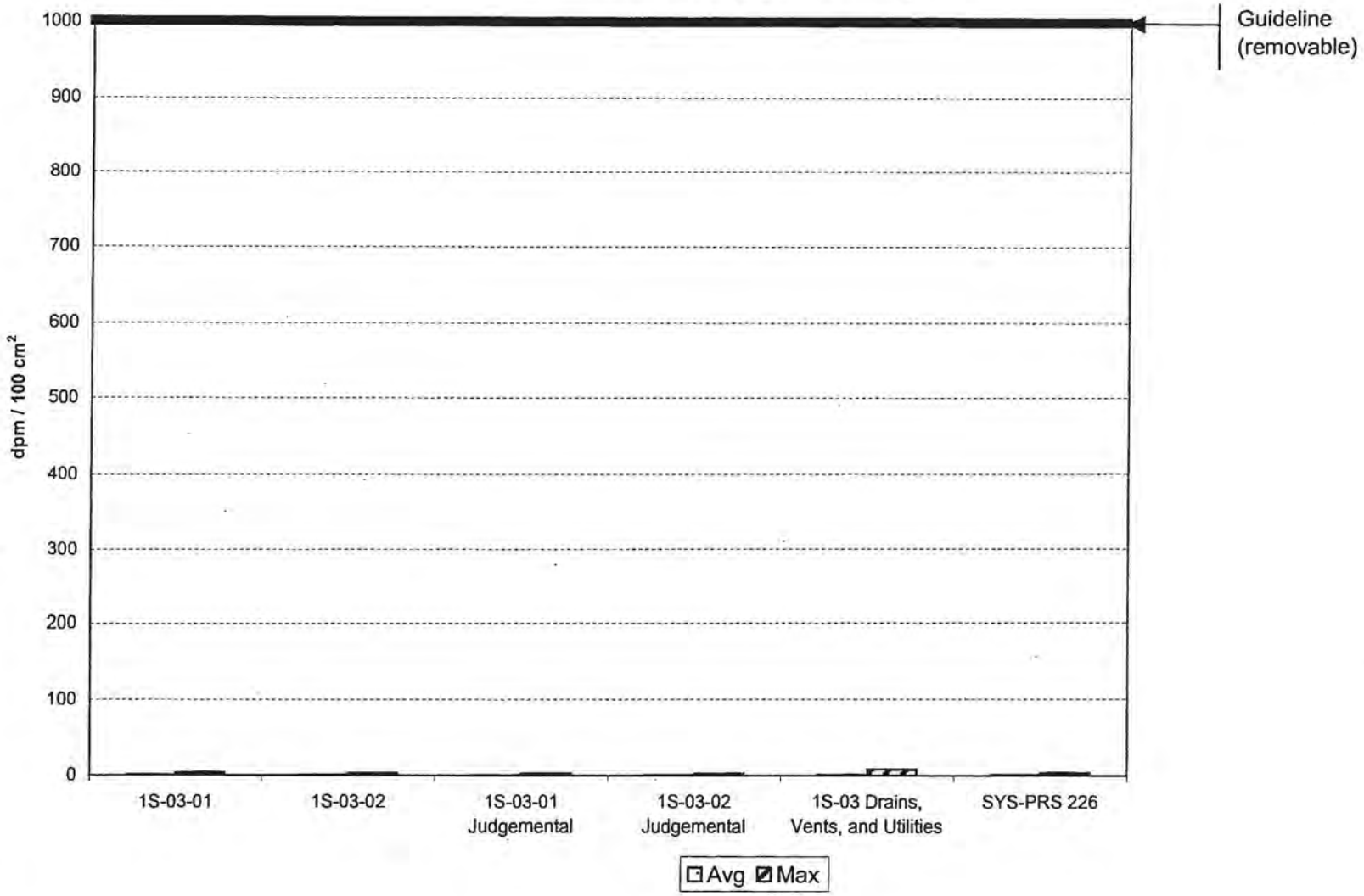
Attachment B
Mound - T Building Final Status Survey
Beta Activity* (direct)



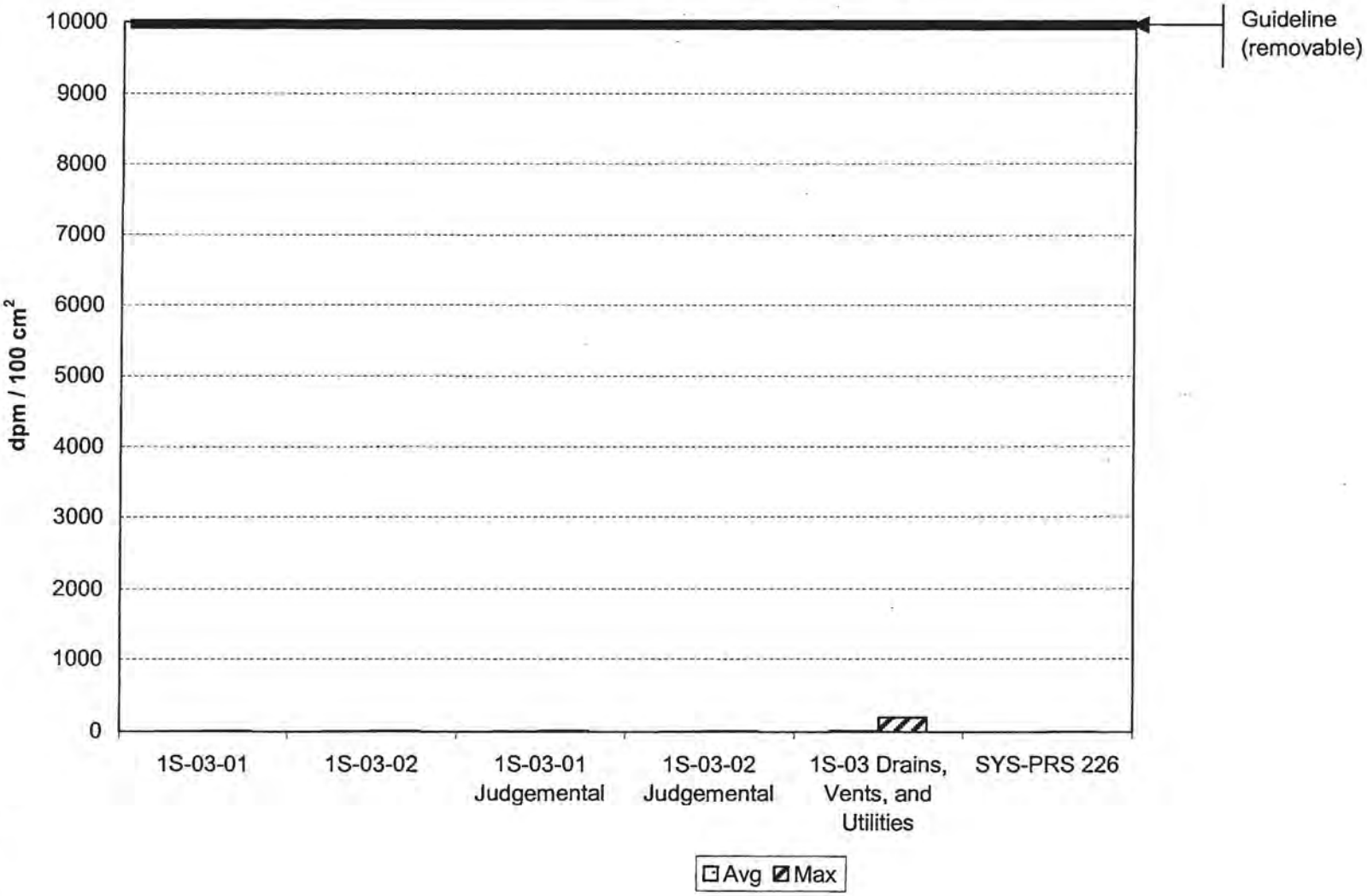
* Readings include natural background

B3/30

Attachment B
Mound - T Building Final Status Survey
Beta Activity (removable)

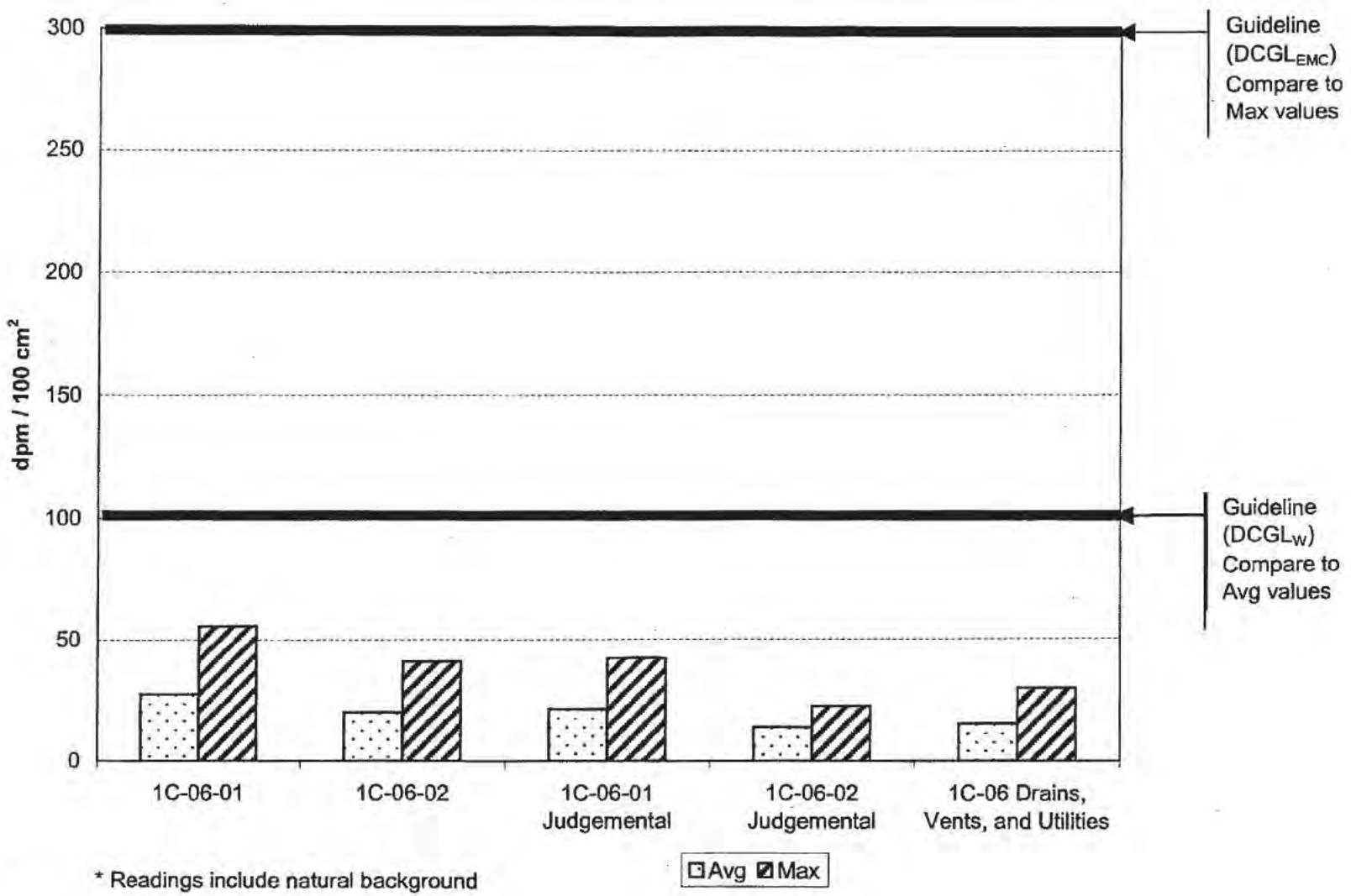


Attachment B
Mound - T Building Final Status Survey
Tritium Activity (removable)



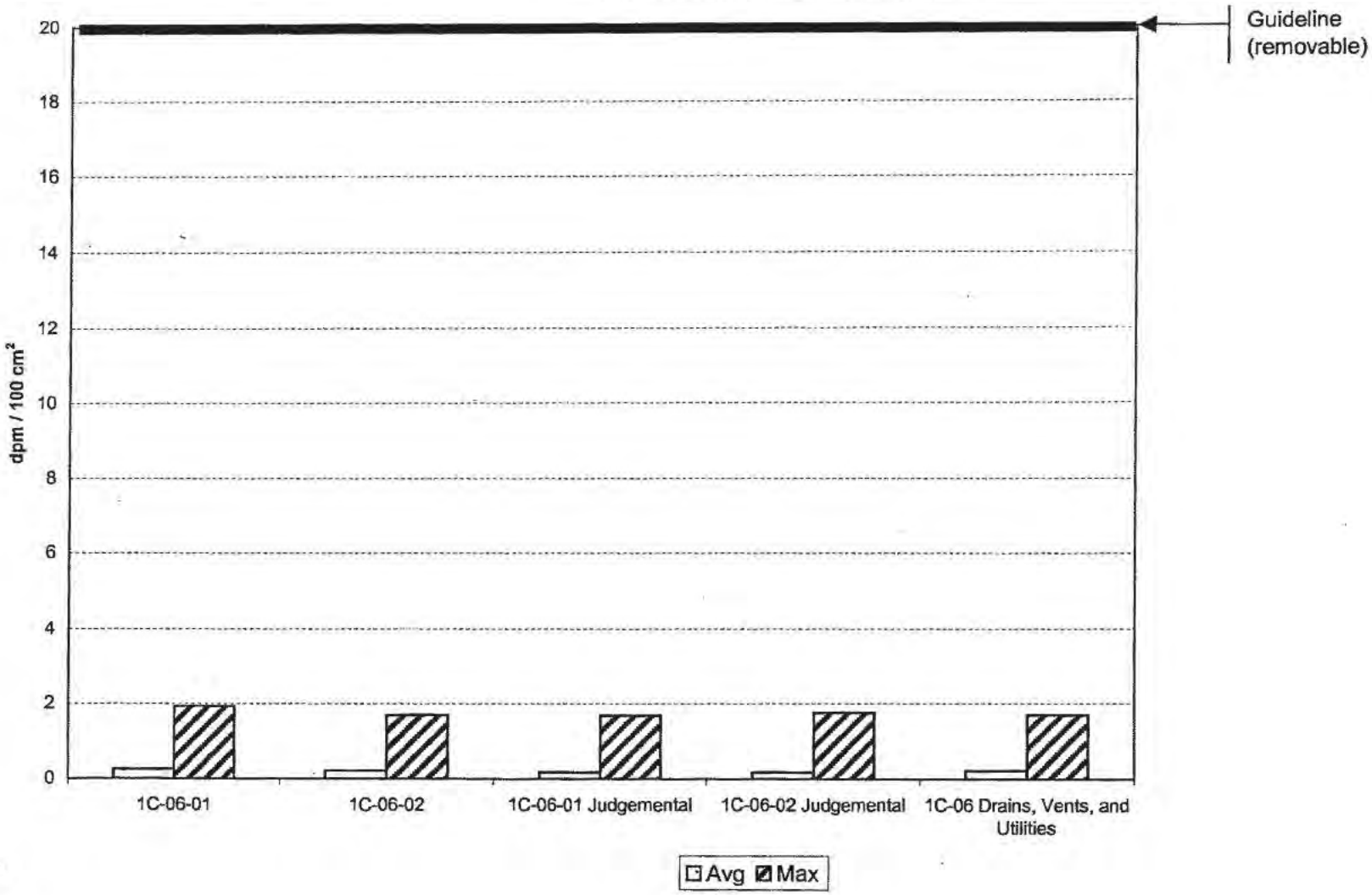
B15/30

Attachment B
Mound - T Building Final Status Survey
Alpha Activity* (direct)



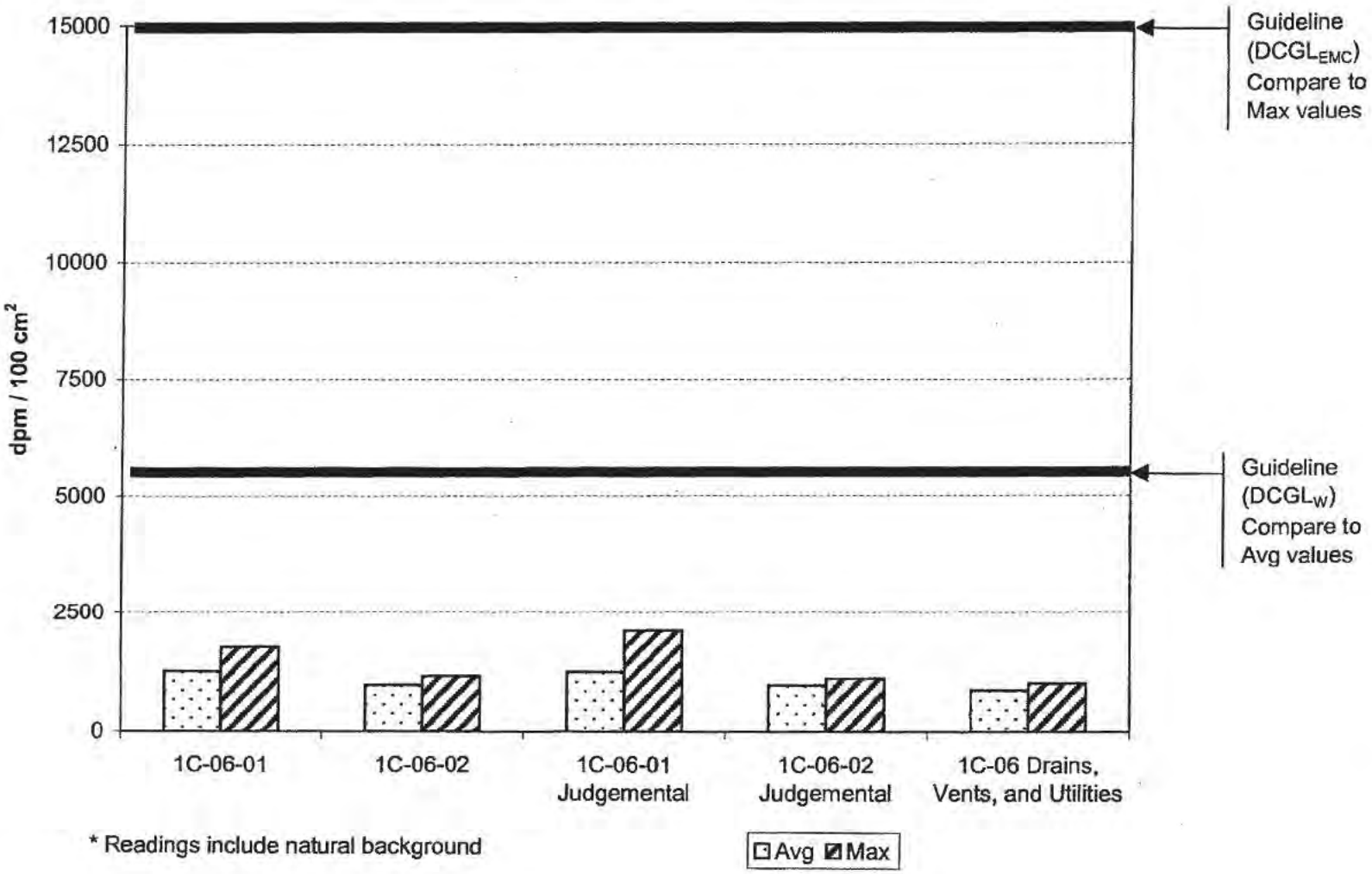
* Readings include natural background

Attachment B
Mound - T Building Final Status Survey
Alpha Activity (removable)



B7p.

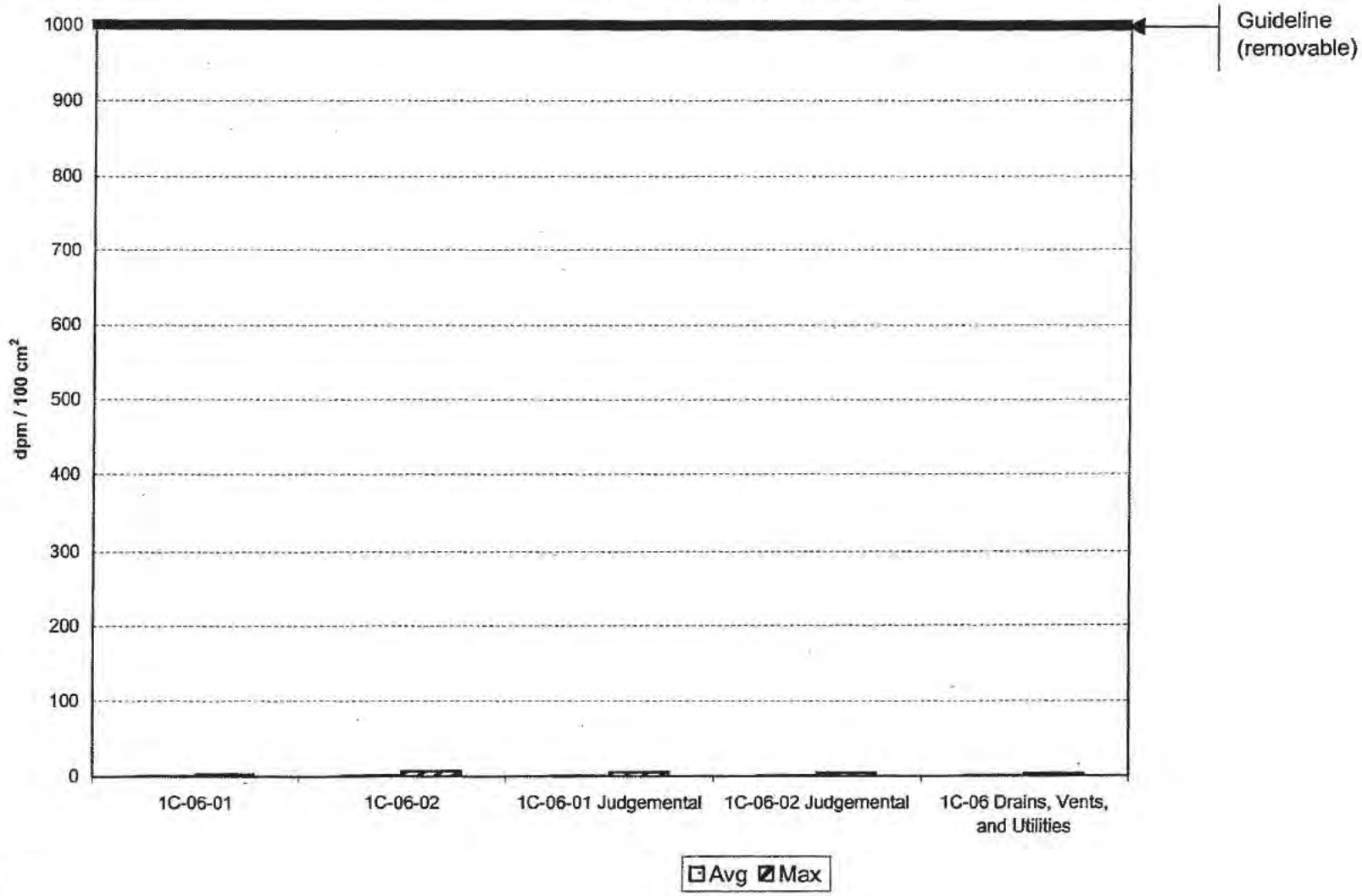
Attachment B
Mound - T Building Final Status Survey
Beta Activity* (direct)



* Readings include natural background

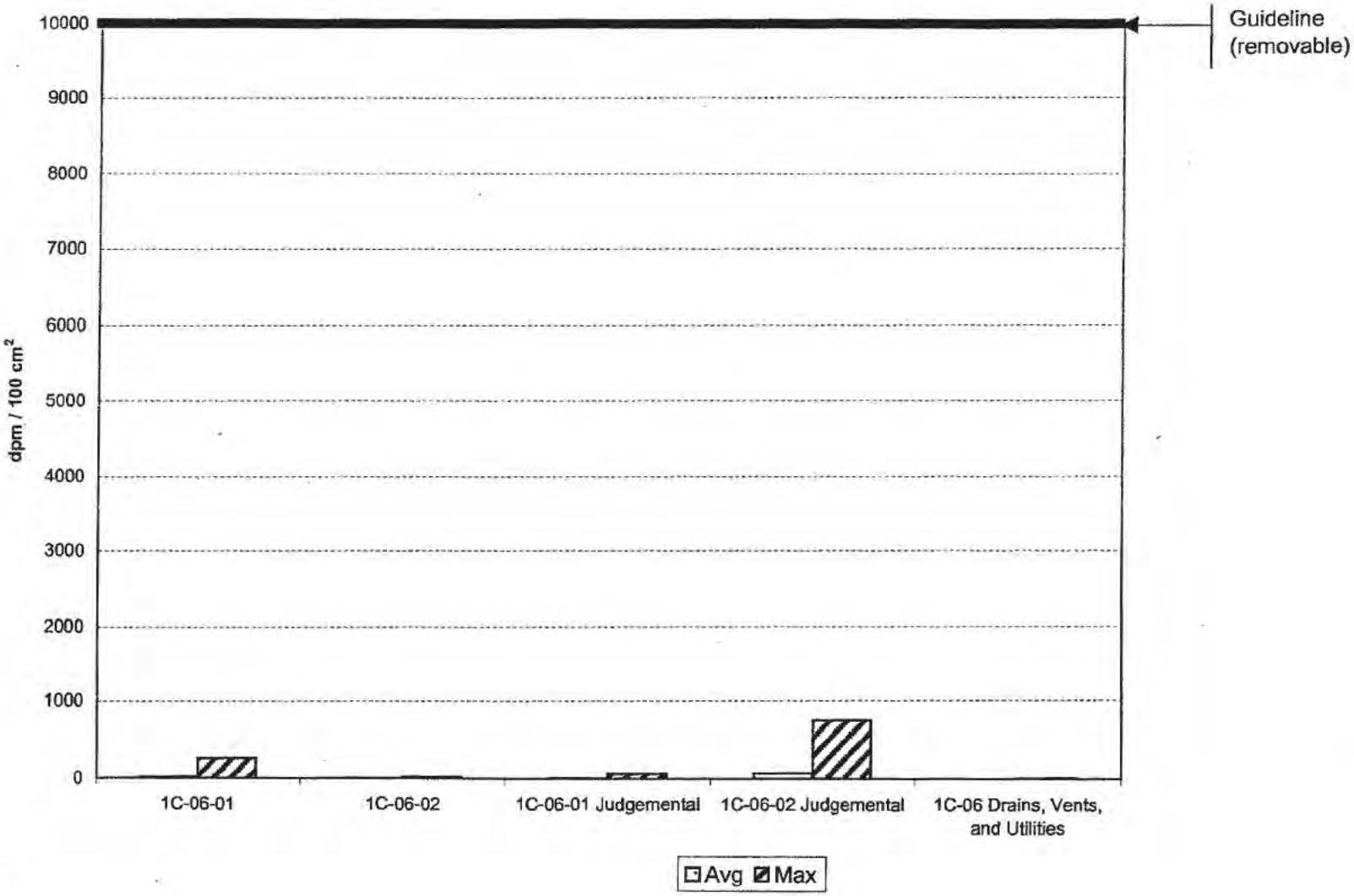
B/8/20

Attachment B
Mound - T Building Final Status Survey
Beta Activity (removable)



B19/20

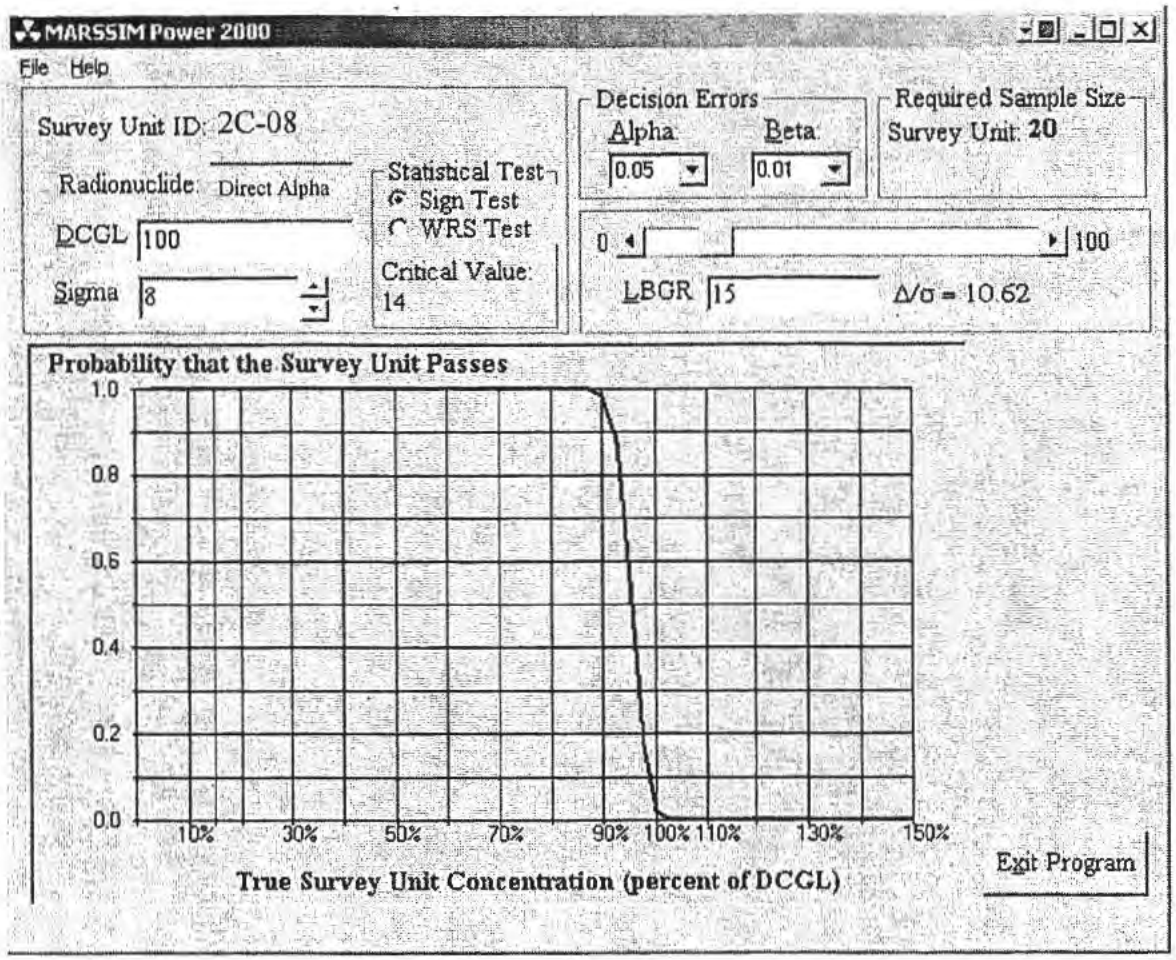
Attachment B
Mound - T Building Final Status Survey
Tritium Activity (removable)



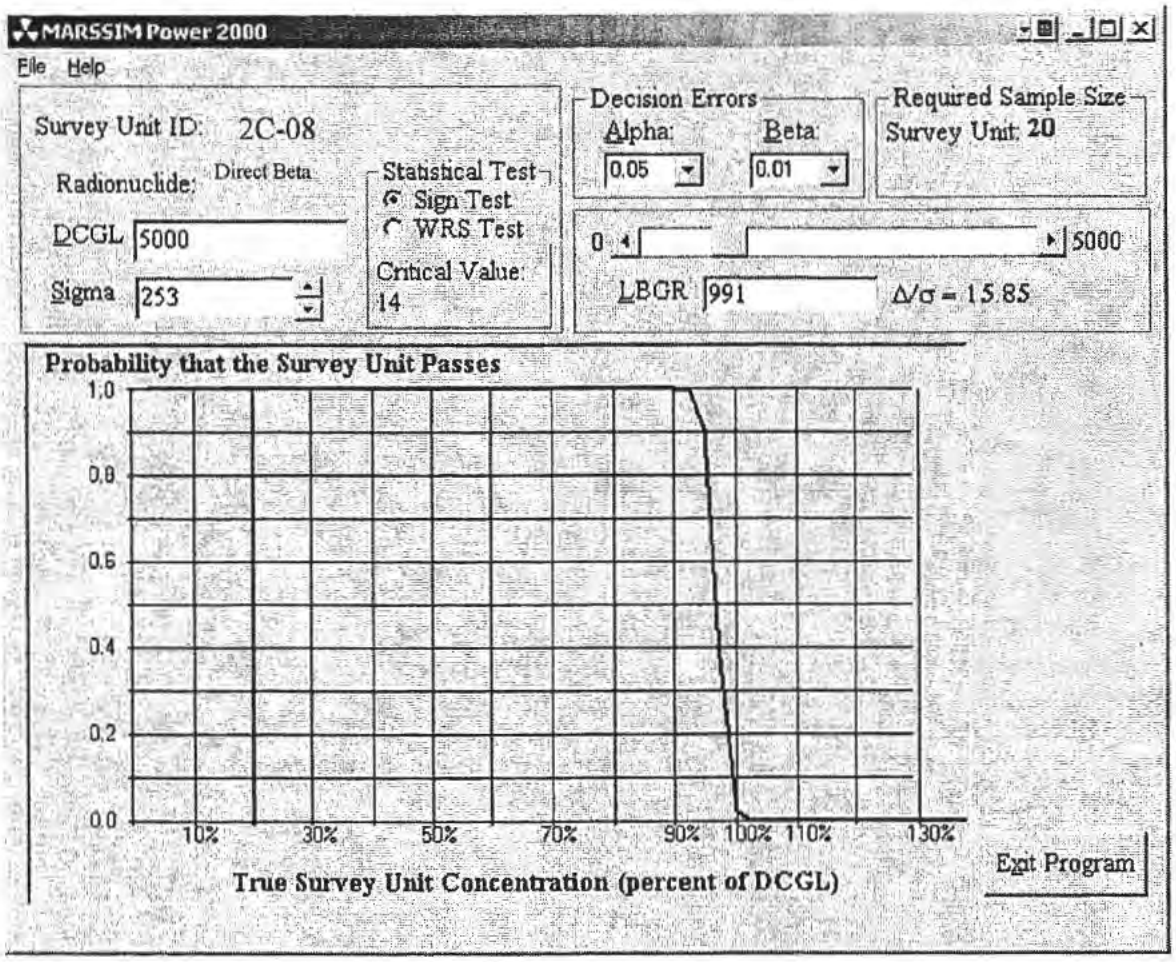
B30/30

Attachment C
Retrospective Power Curves

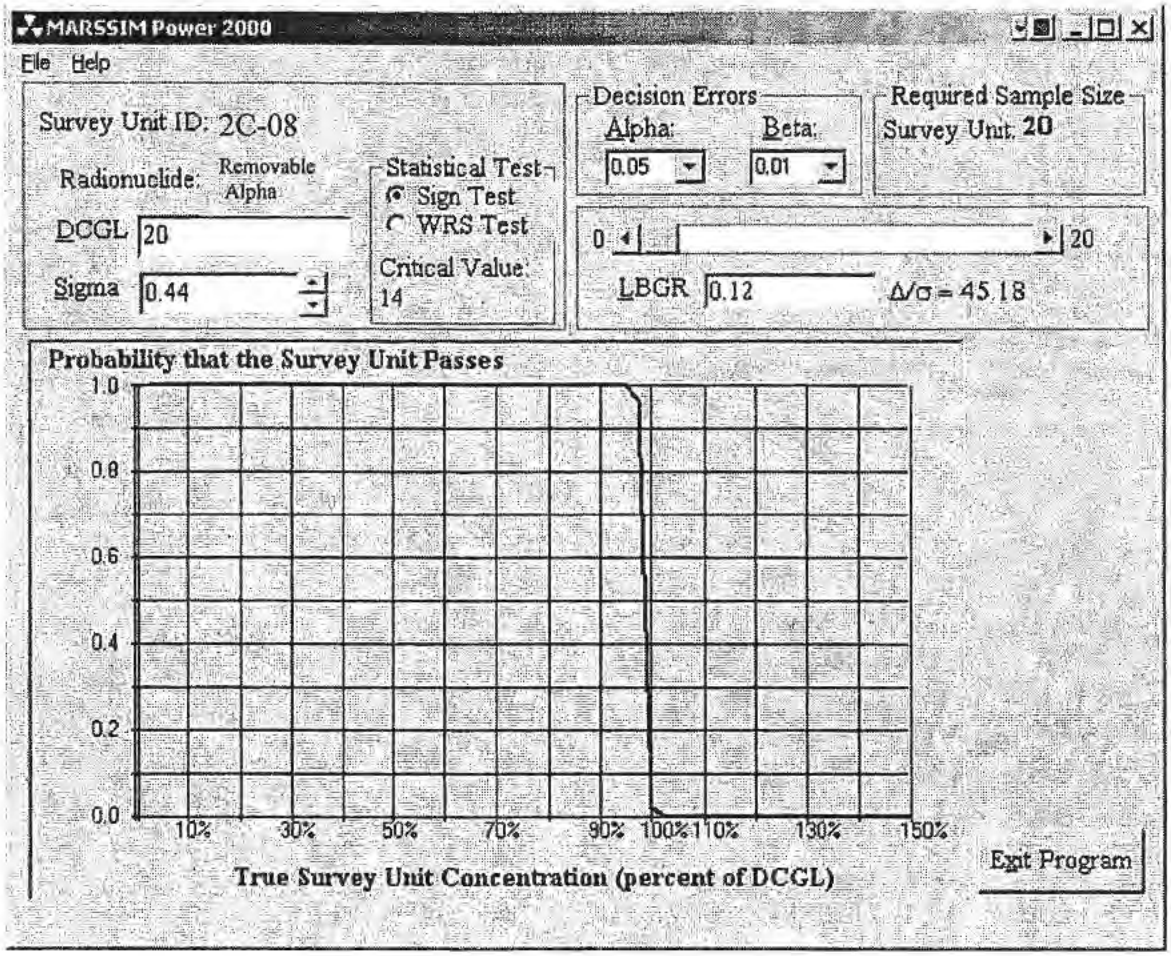
Attachment C
Retrospective Power Curve
Direct Alpha



Attachment C
Retrospective Power Curve
Direct Beta

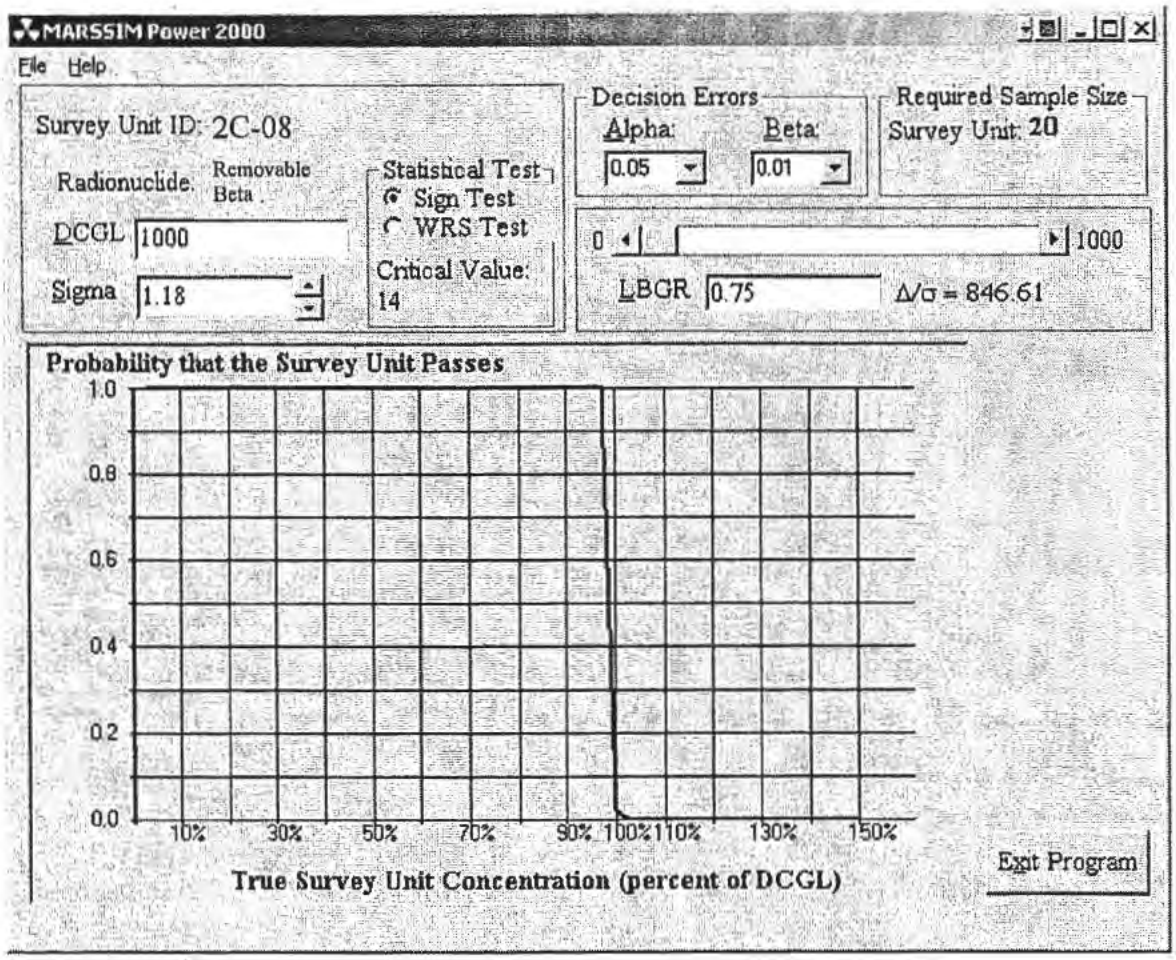


Attachment C
Retrospective Power Curve
Removable Alpha

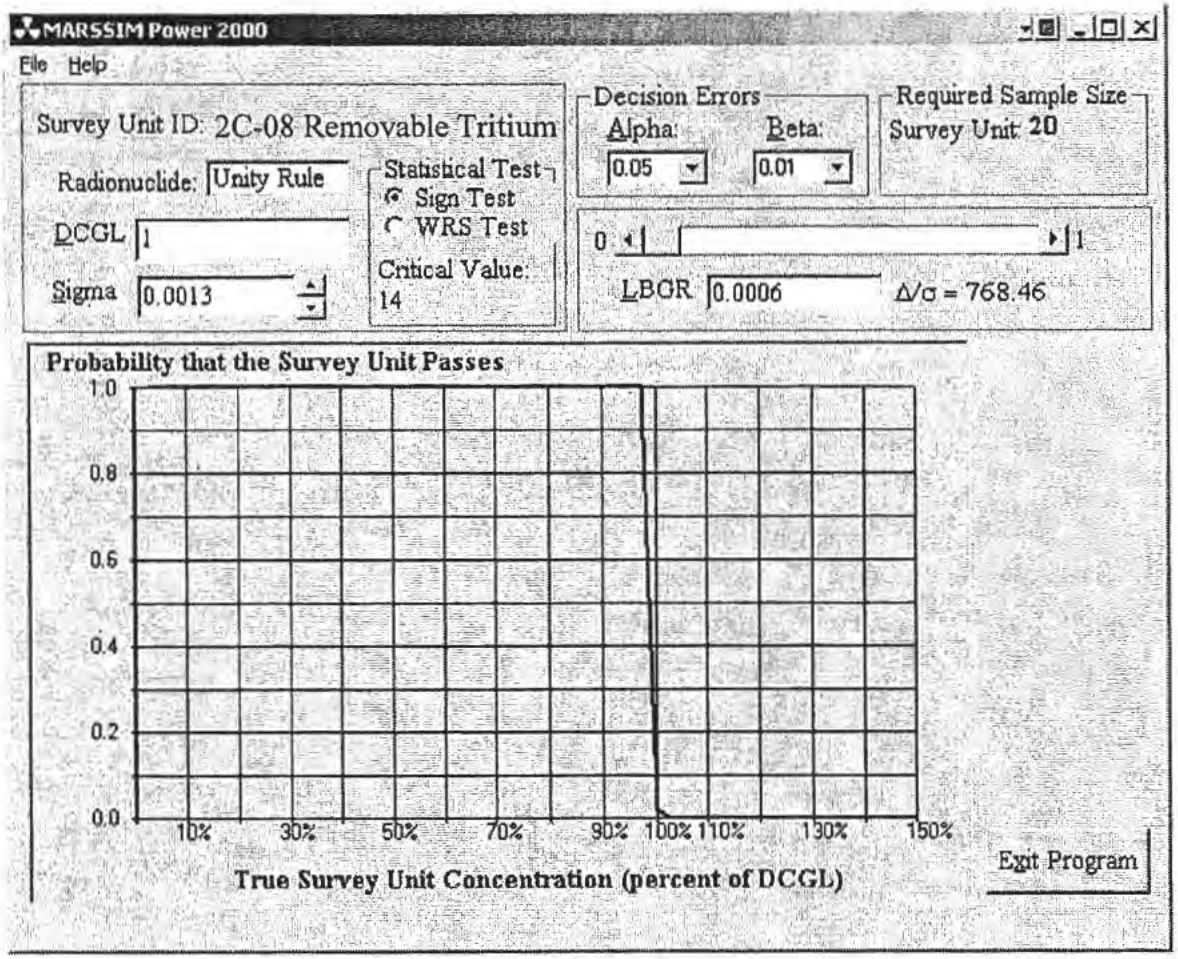


C3/20

Attachment C
Retrospective Power Curve
Removable Beta

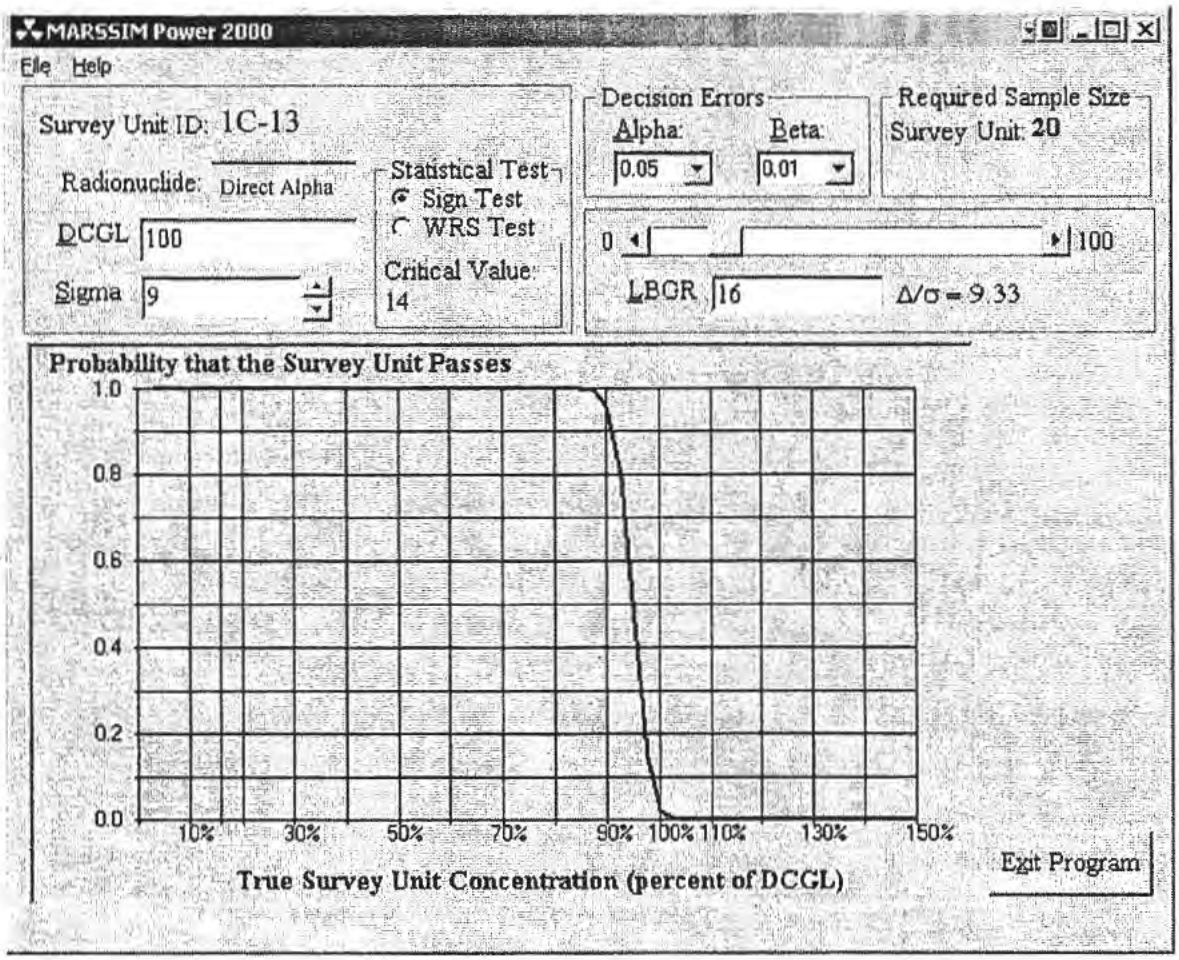


Attachment C
Retrospective Power Curve
Removable Tritium

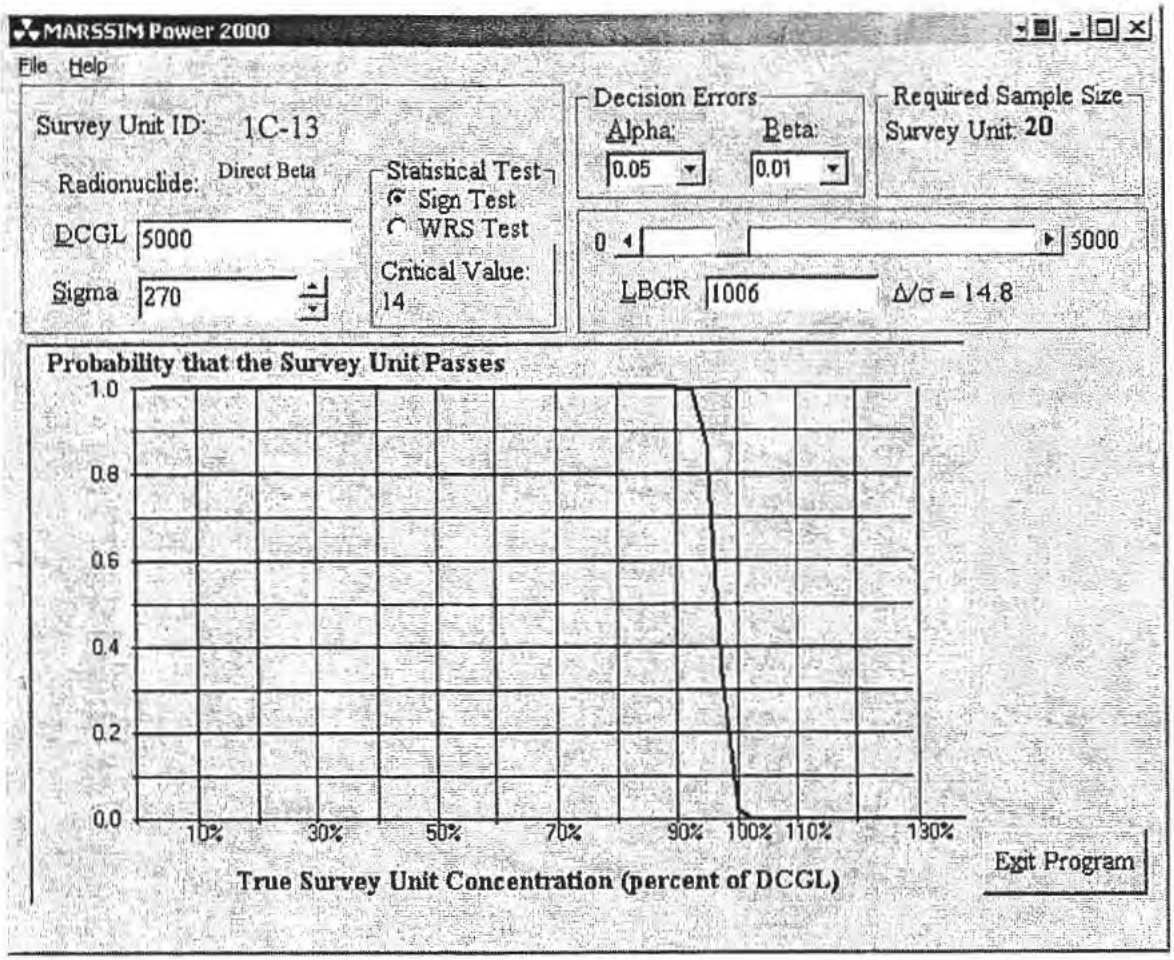


Note: The software program used to generate these power curves (MARSSIM Power 2000) fails to produce a legible curve when a large value, such as 10,000 is input as the DCGL. The curve depicted was generated by normalizing the LBGR and standard deviation (sigma) to the DCGL.

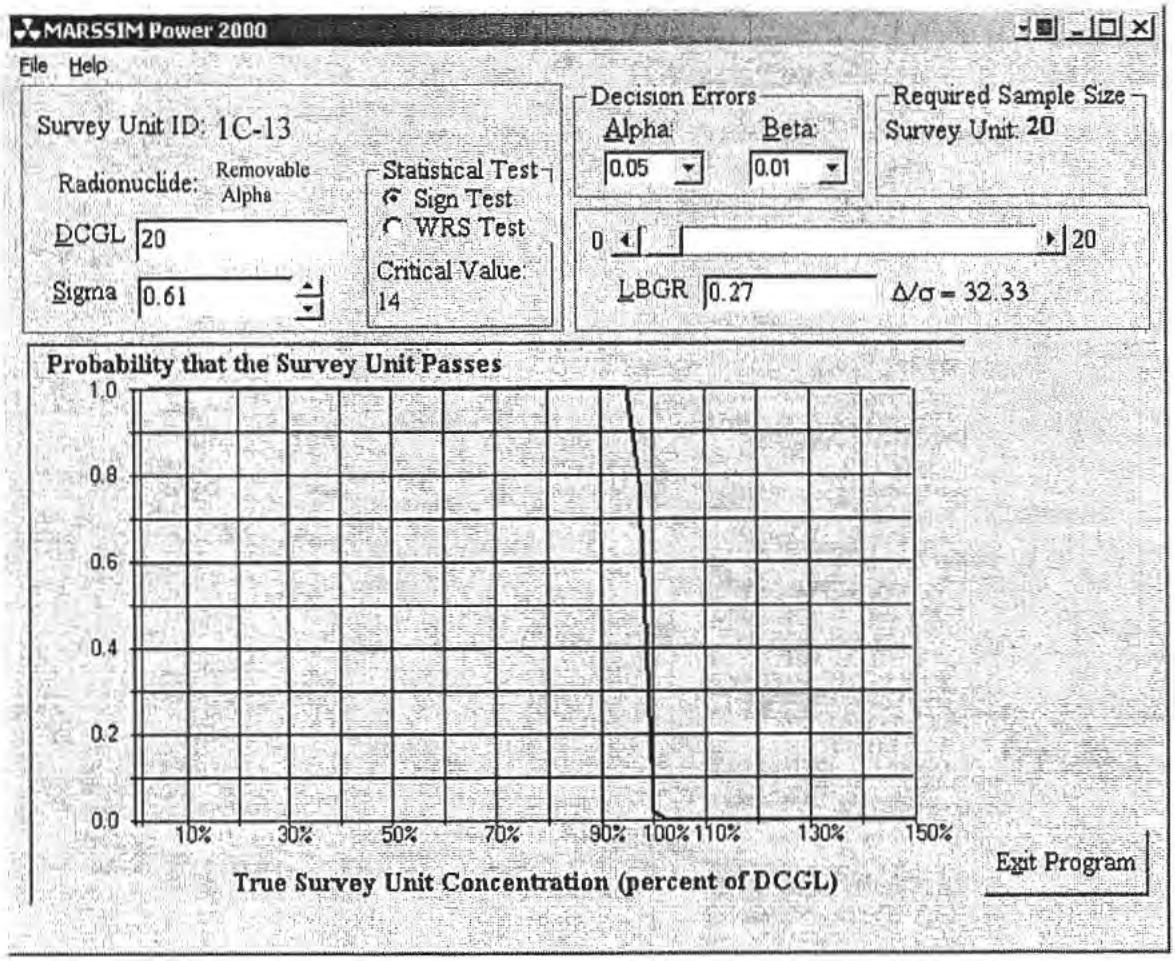
Attachment C
Retrospective Power Curve
Direct Alpha



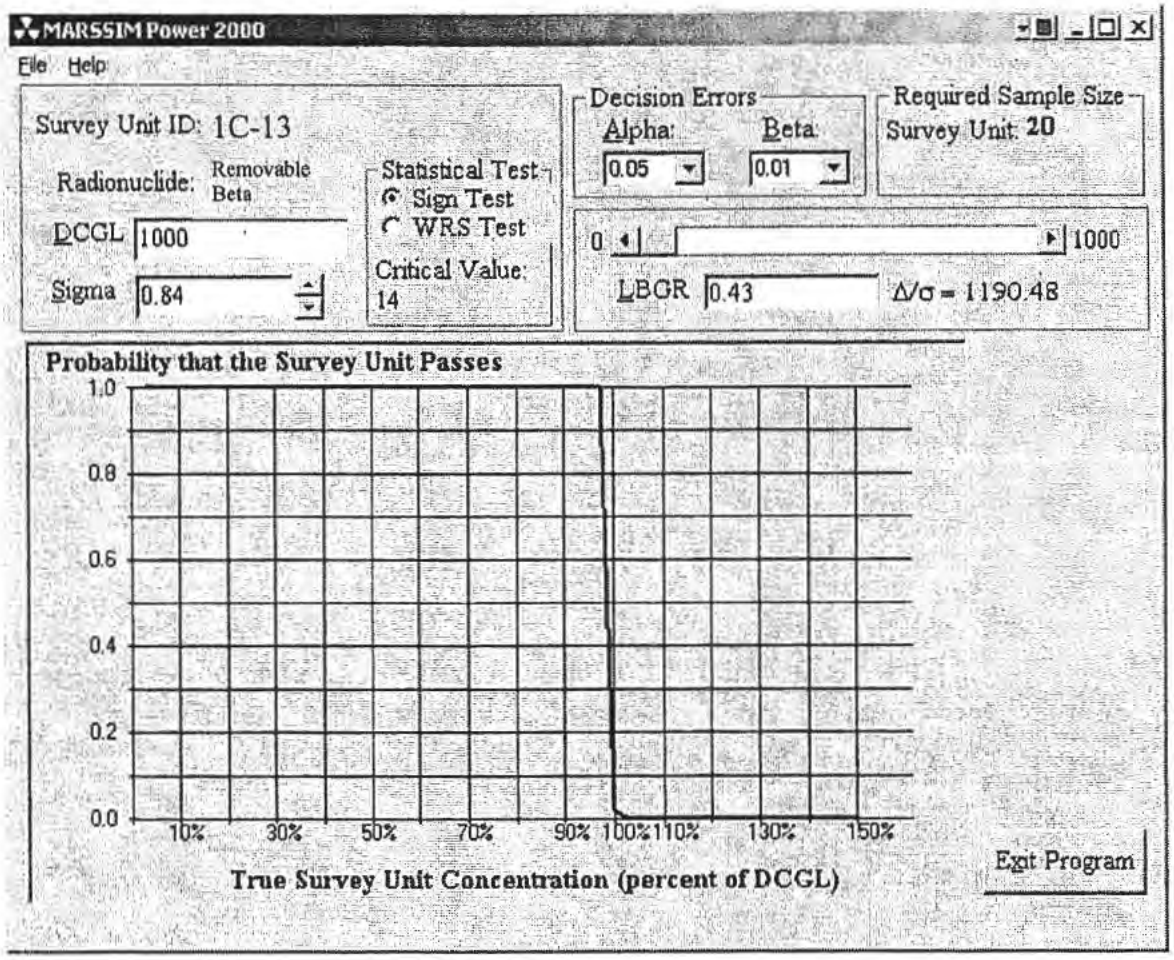
Attachment C
Retrospective Power Curve
Direct Beta



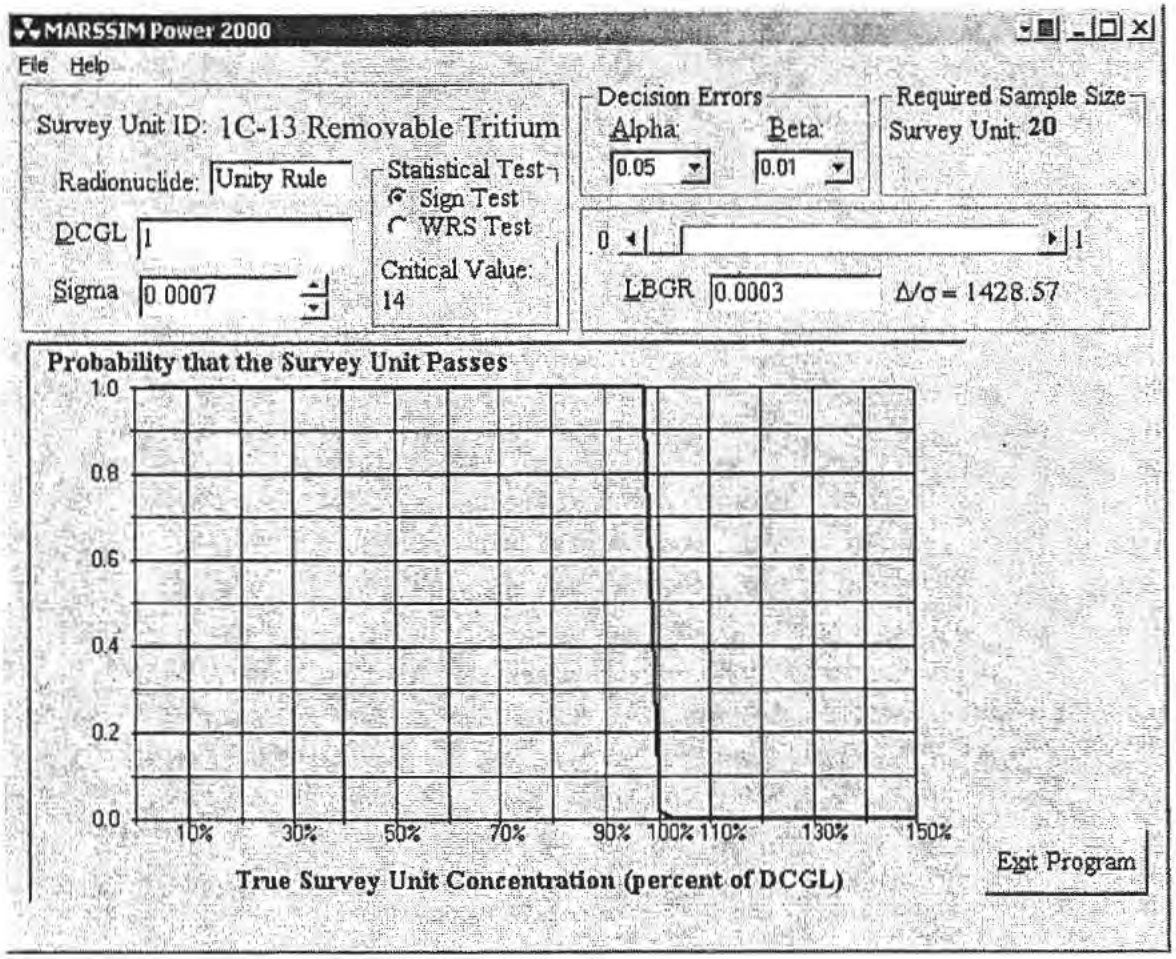
Attachment C
Retrospective Power Curve
Removable Alpha



Attachment C
Retrospective Power Curve
Removable Beta



Attachment C
Retrospective Power Curve
Removable Tritium



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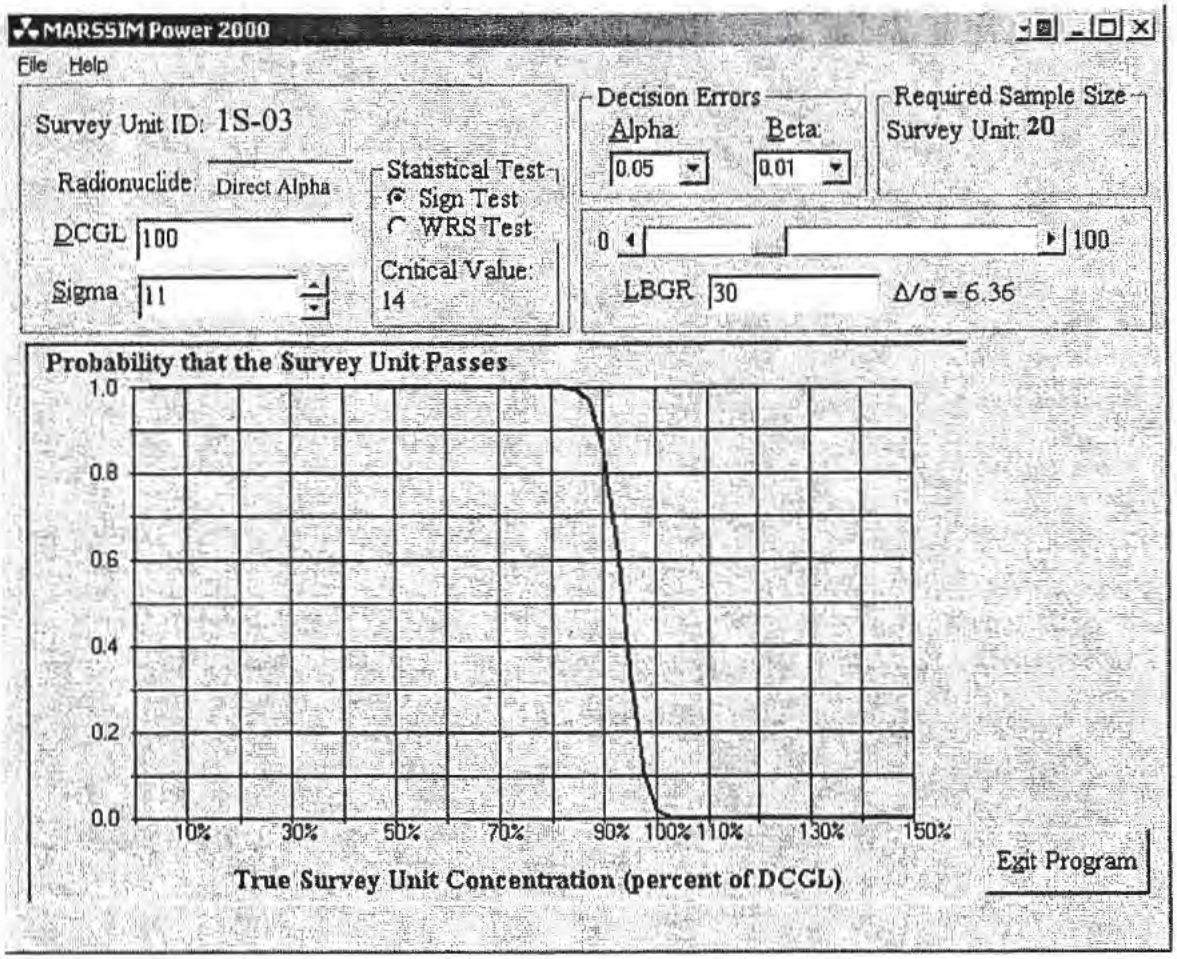
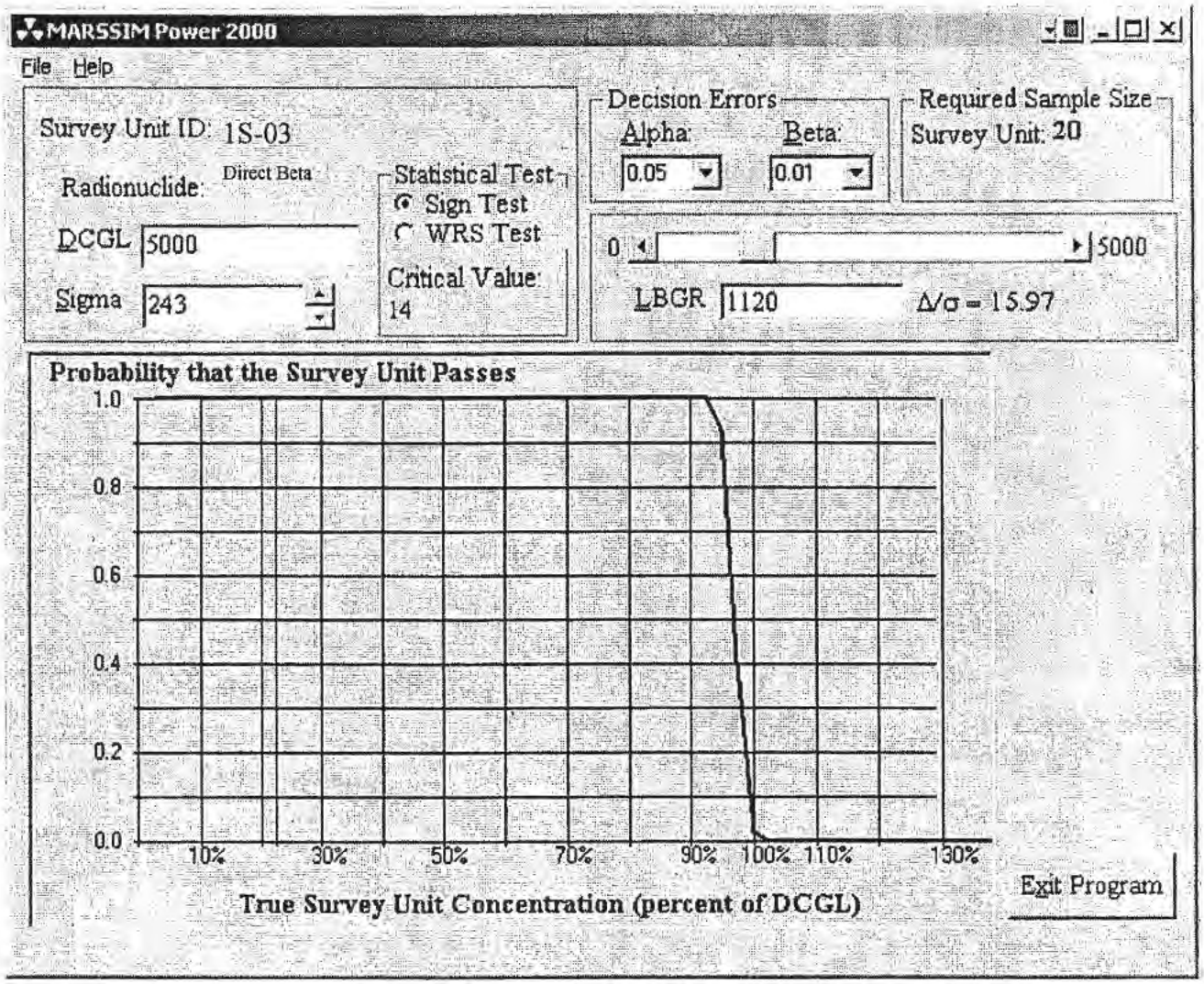
Attachment C
Retrospective Power Curve
Direct Alpha

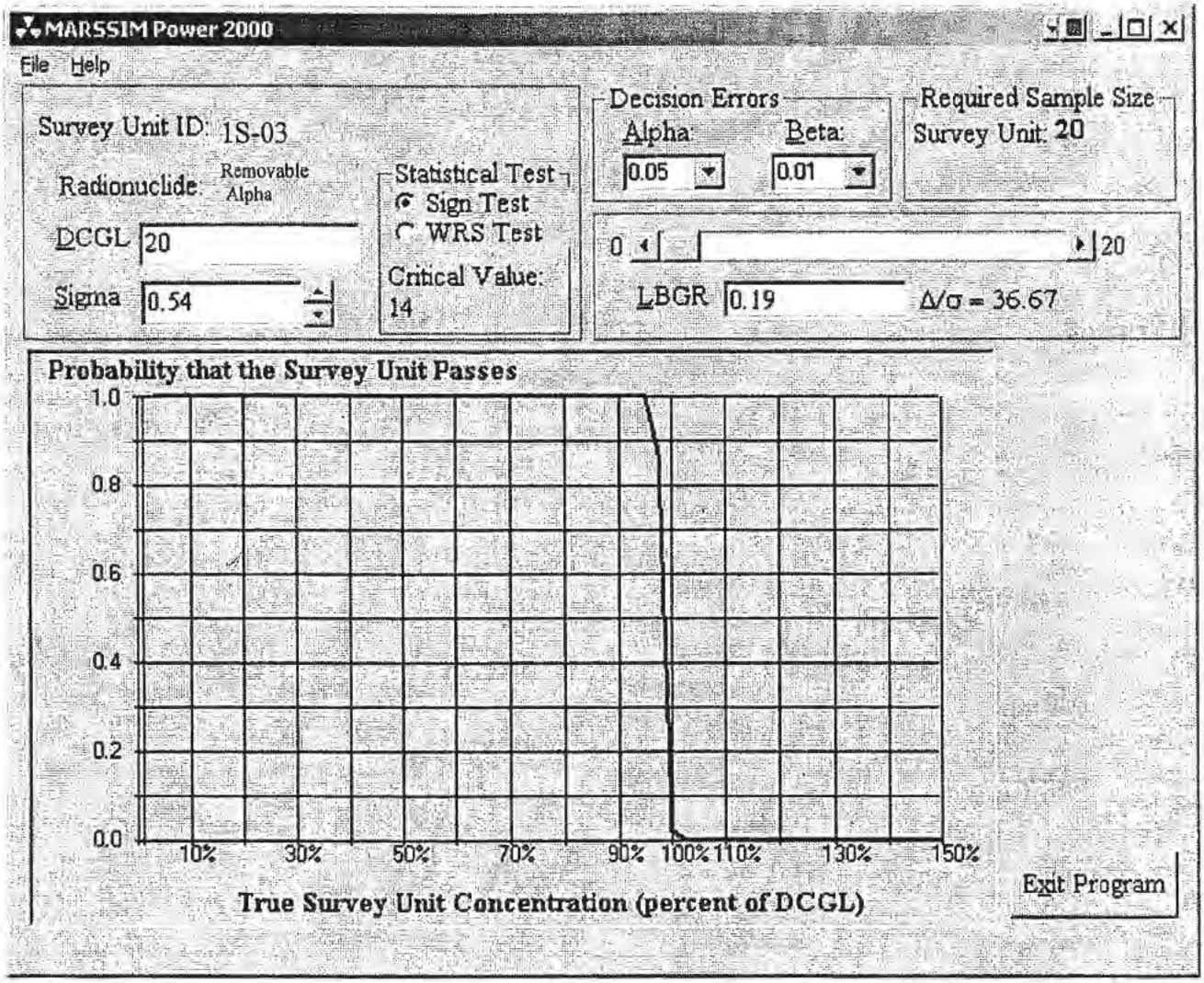


Attachment C
Retrospective Power Curve
Direct Beta

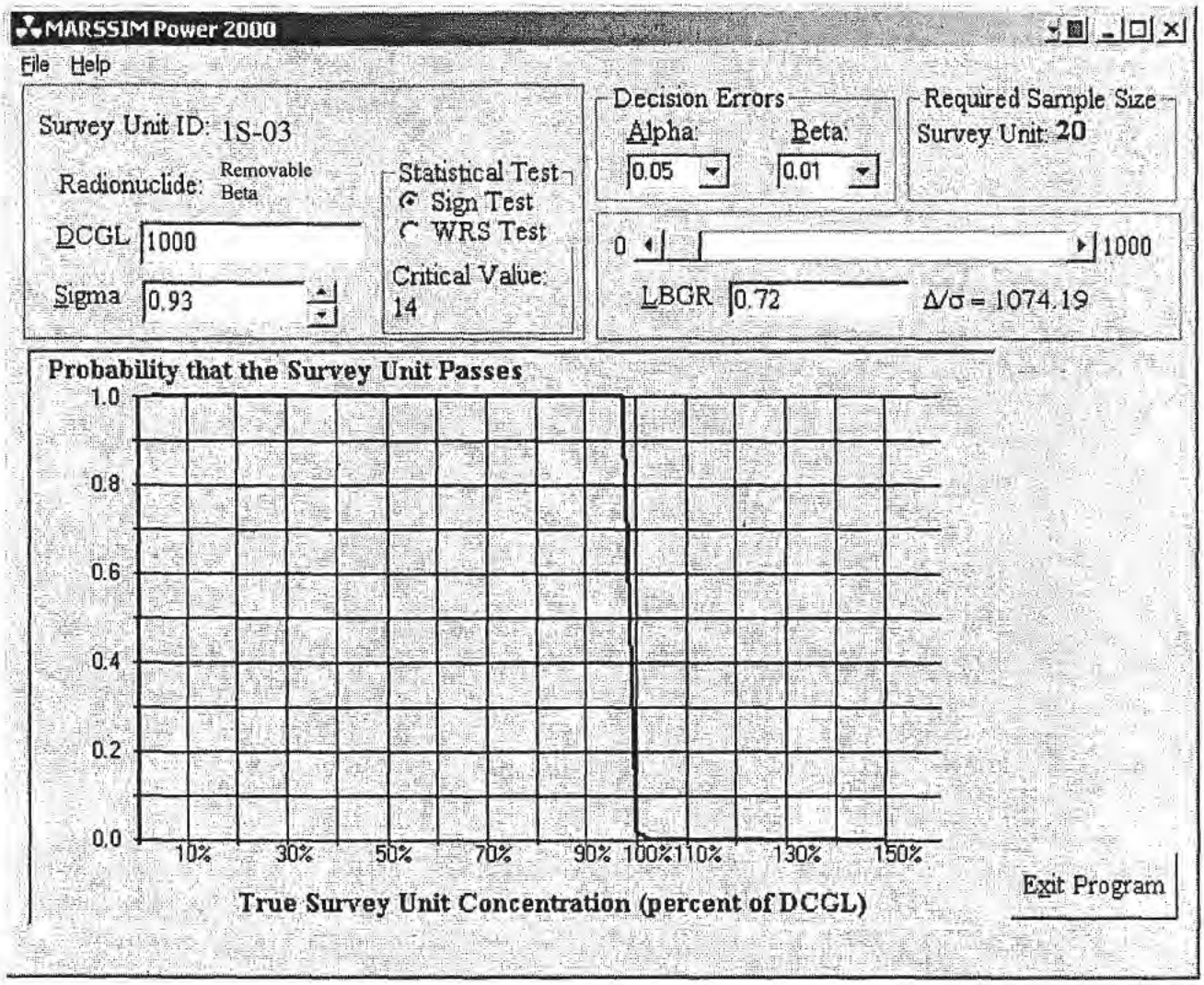


C/1/20

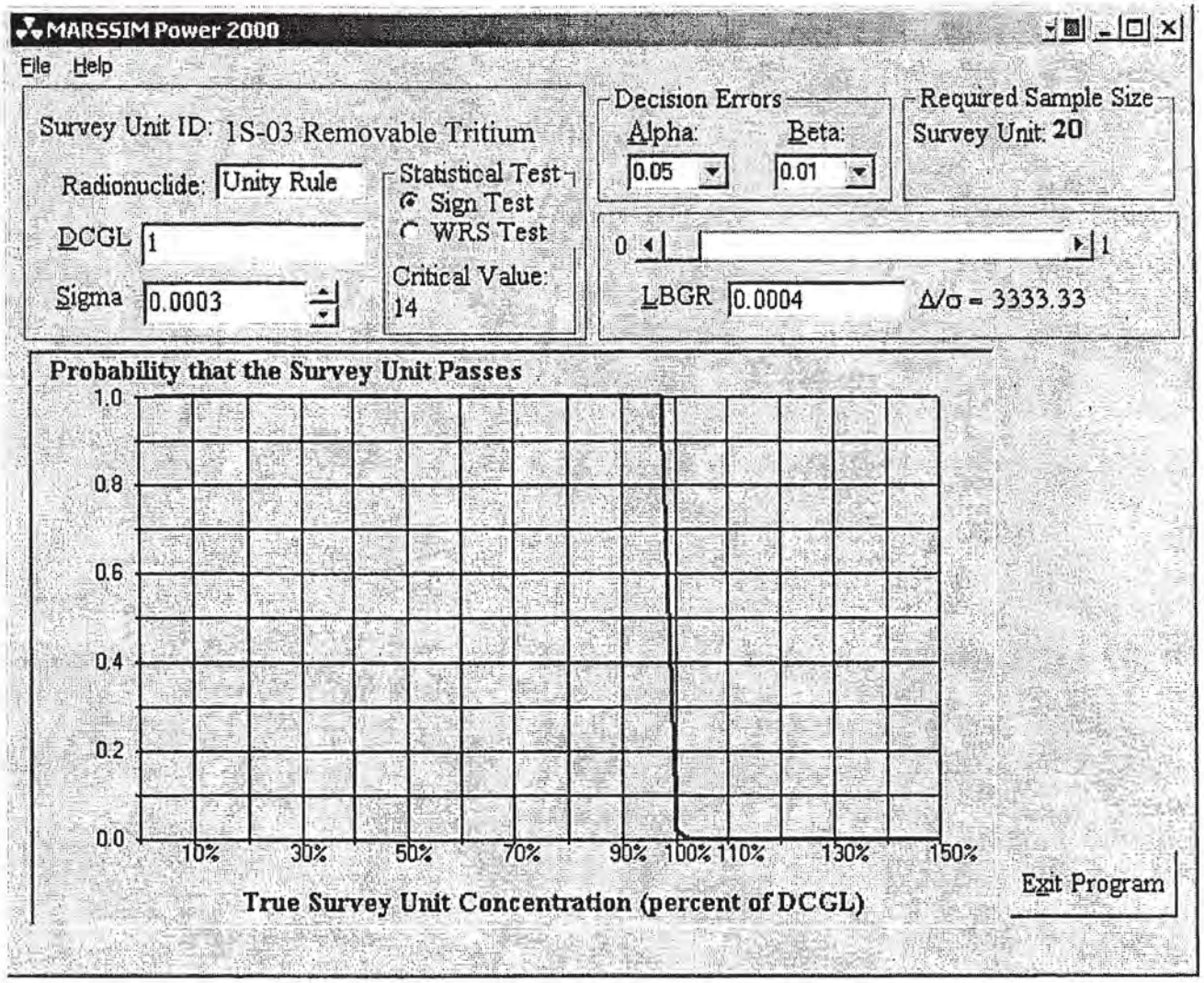
Attachment C
Retrospective Power Curve
Removable Alpha



Attachment C
Retrospective Power Curve
Removable Beta

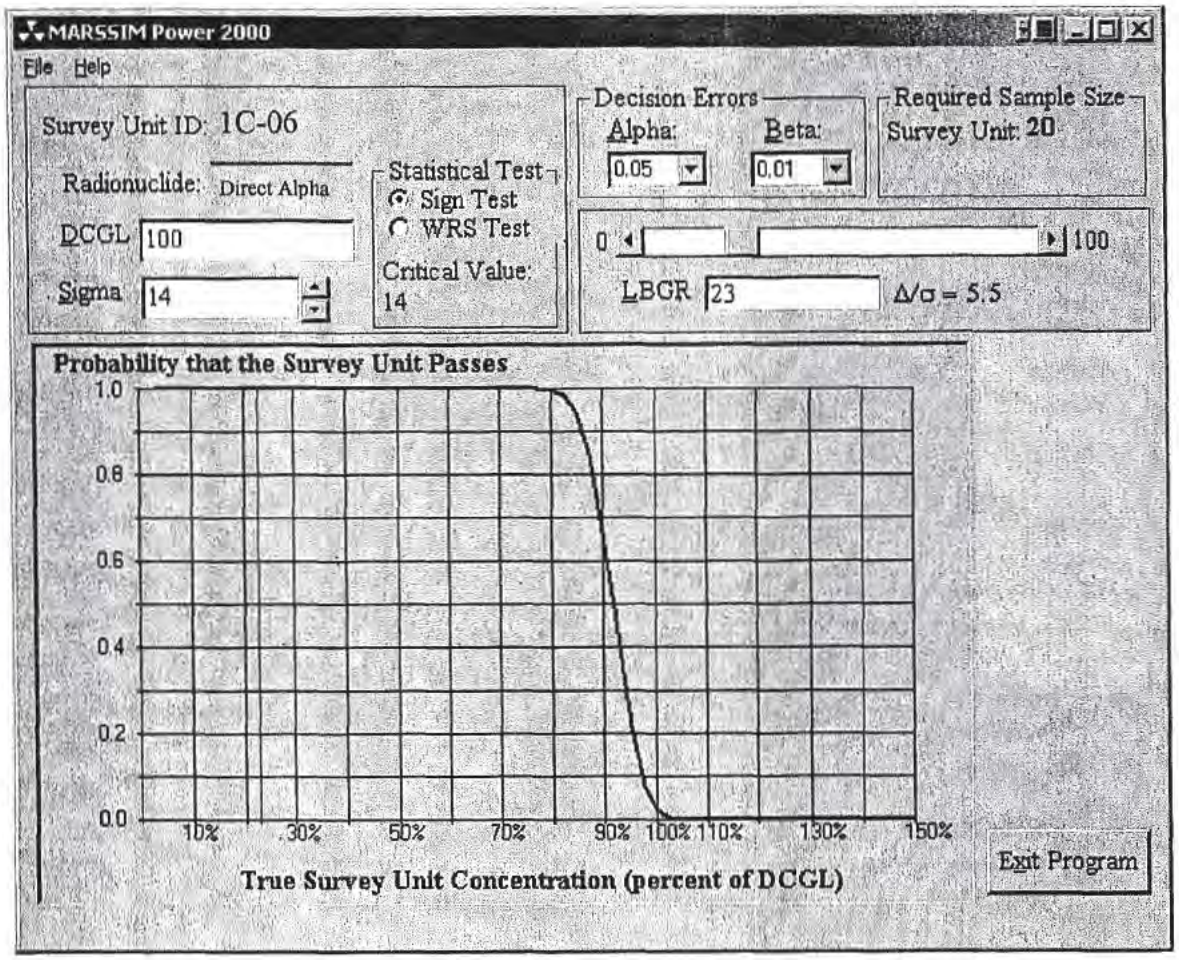


Attachment C
Retrospective Power Curve
Removable Tritium

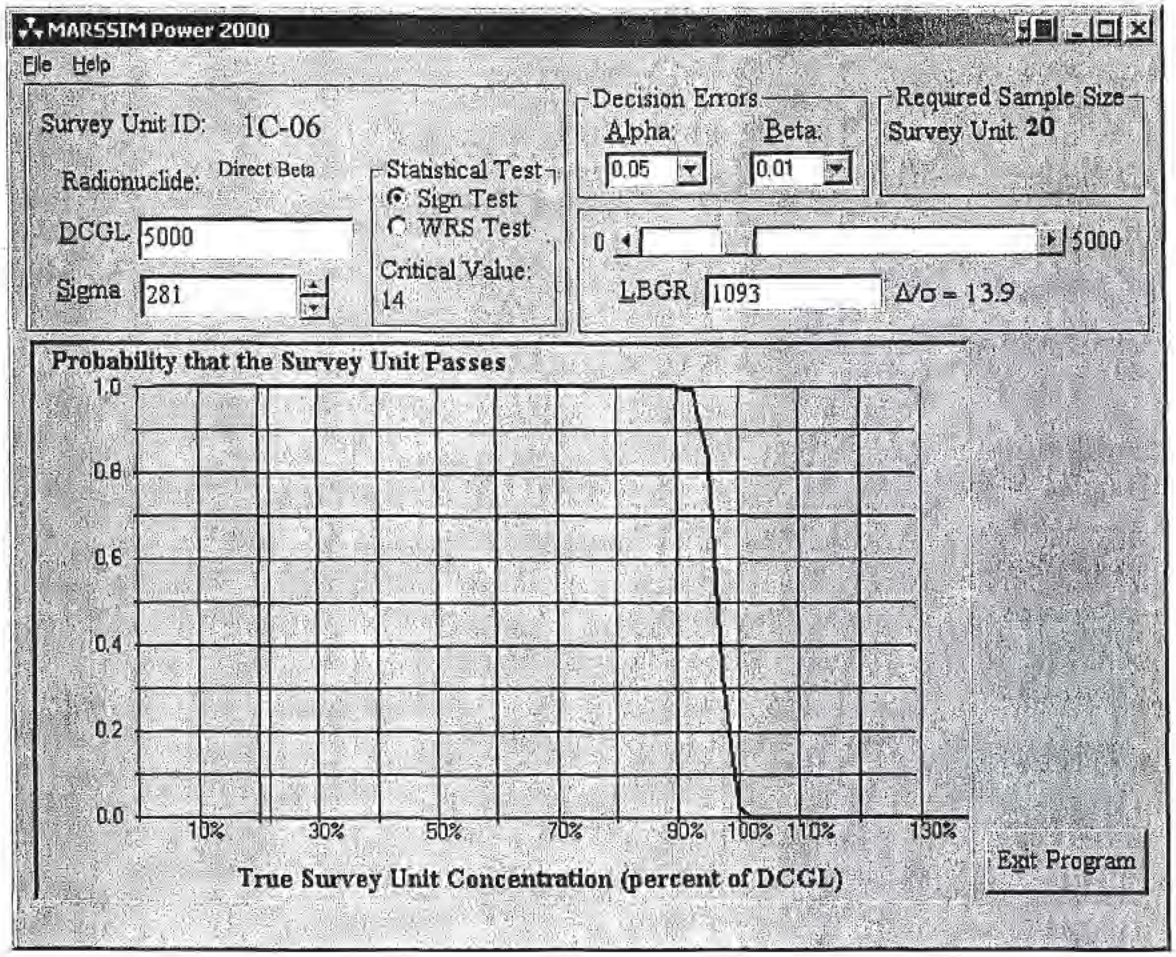


Note: The software program used to generate these power curves (MARSSIM Power 2000) fails to produce a legible curve when a large value, such as 10,000 is input as the DCGL. The curve depicted was generated by normalizing the LBGR and standard deviation (sigma) to the DCGL.

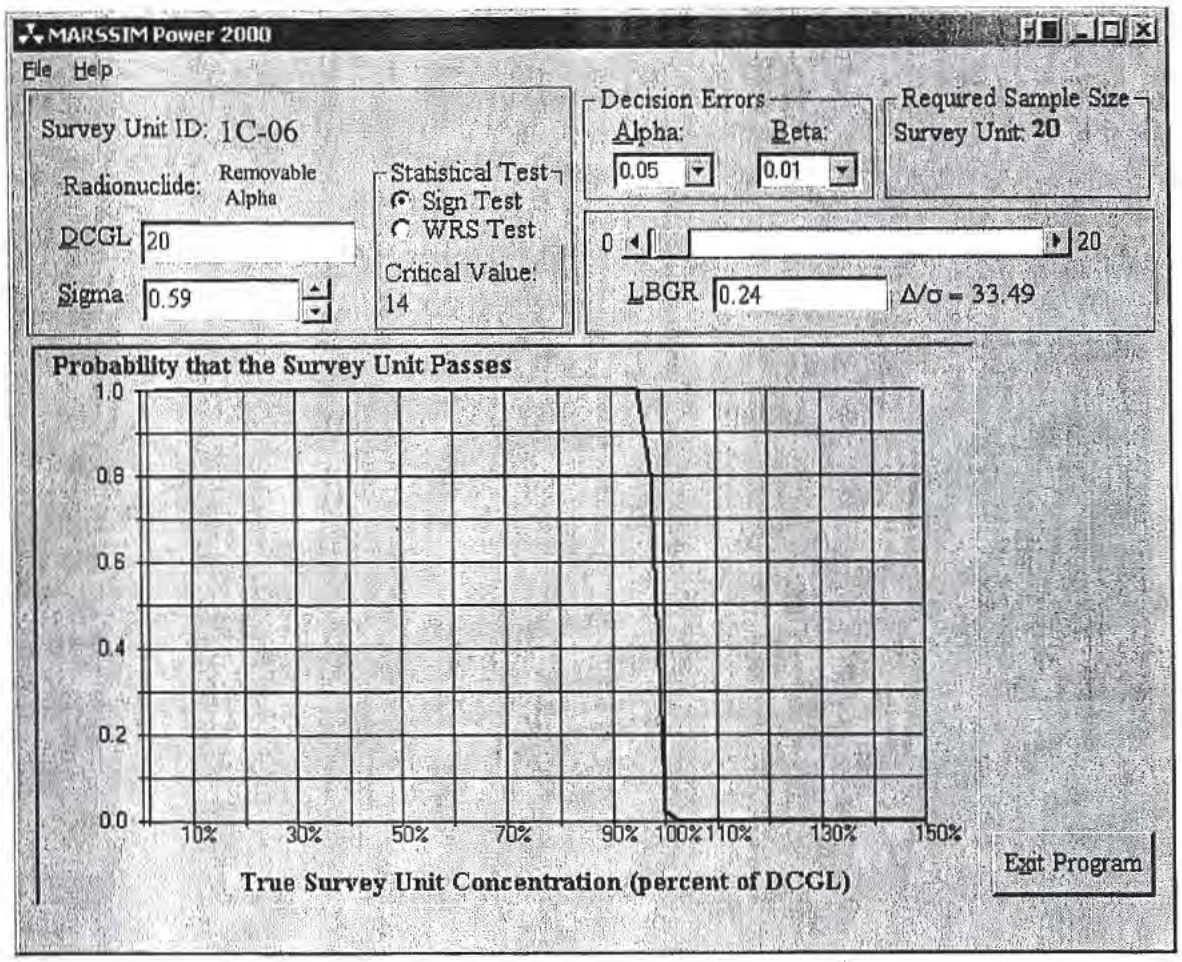
Attachment C
Retrospective Power Curve
Direct Alpha



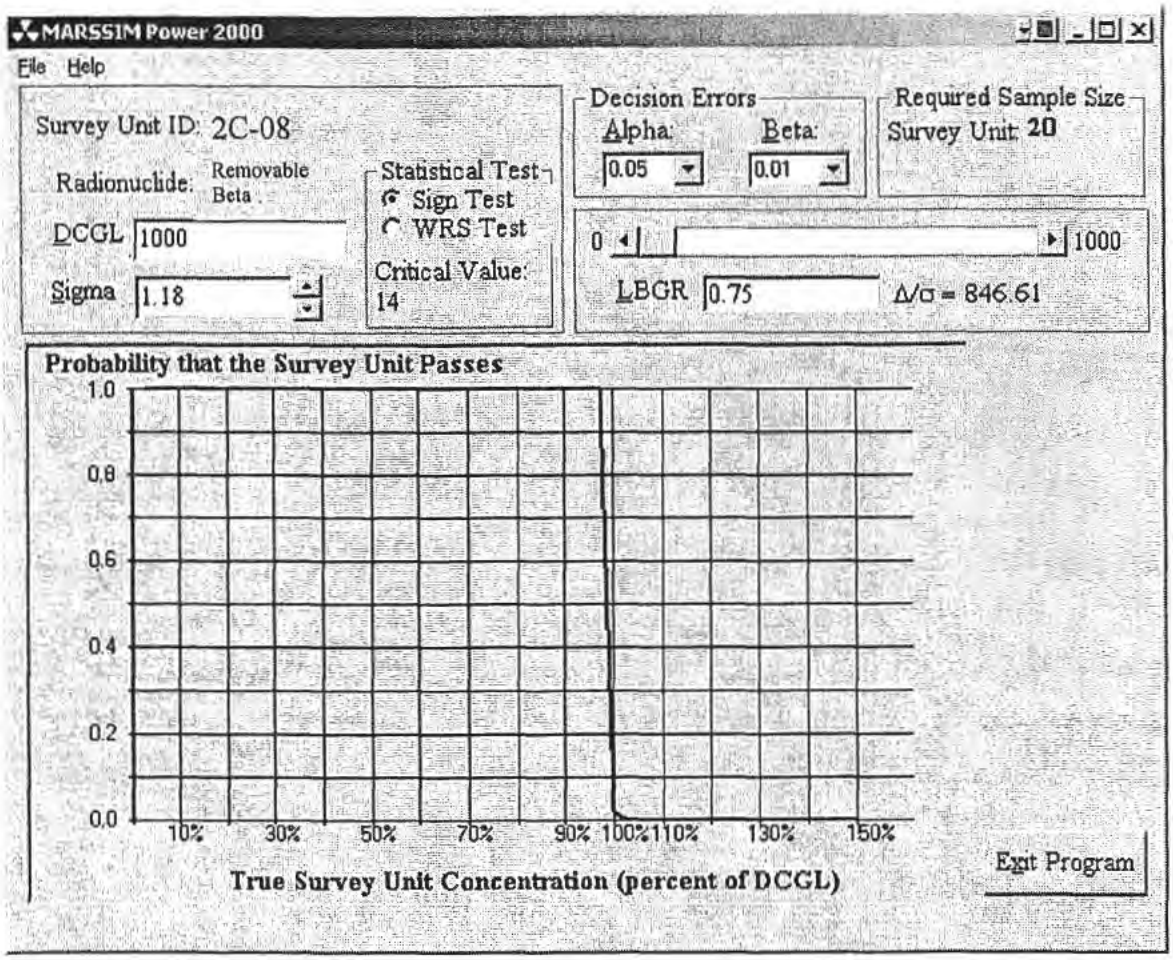
Attachment C
Retrospective Power Curve
Direct Beta



Attachment C
Retrospective Power Curve
Removable Alpha

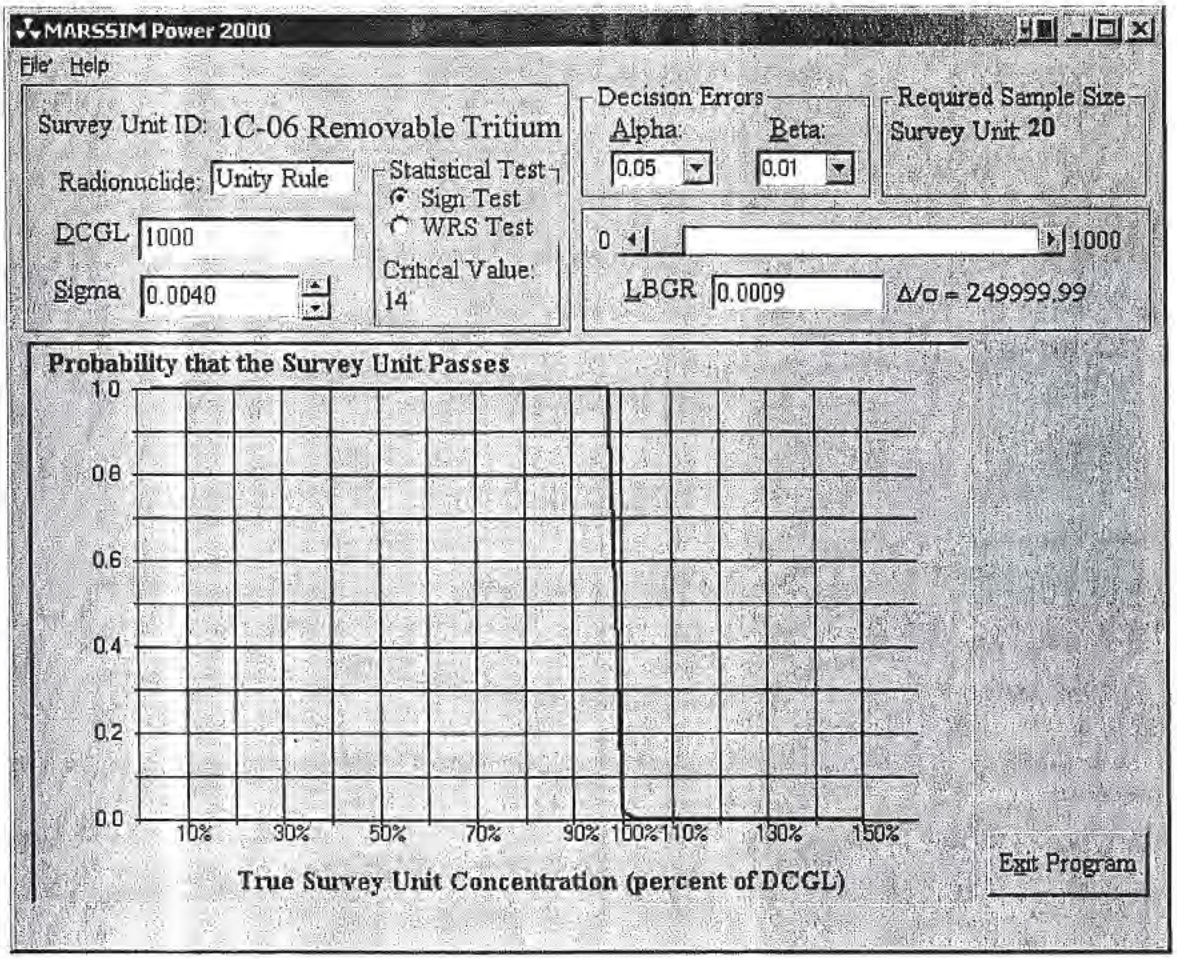


Attachment C
Retrospective Power Curve
Removable Beta



C4/20

Attachment C
Retrospective Power Curve
Removable Tritium



Note: The software program used to generate these power curves (MARSSIM Power 2000) fails to produce a legible curve when a large value, such as 10,000 is input as the DCGL. The curve depicted was generated by normalizing the LBGR and standard deviation (sigma) to the DCGL.

Attachment D
Data Analysis Worksheets

T Building rooms	Center of Corridor 22 and Corridor 24
MARSSIM classification	Class 1
Historical use	These corridors were used as access and egress routes.

Survey description summary

alpha and beta scan: floor – 100%

walls below 2 meters - 100%

walls above 2 meters – 25%

ceiling - approx. 1 meter area scanned around each static measurement

static measurements: 20 each static locations measurements on floor and walls below 2 meters

23 each static location measurements on ceiling and walls above 2 meters

30 each judgmental location measurements on floor and walls below 2 meters

10 each judgmental location measurements on ceiling and walls above 2 meters

24 each judgmental location measurements on drains, vents, and utilities

* Judgmental measurements are biased measurements in locations where, in the professional judgment of the surveyor, the potential for residual contamination exists.

removable contamination measurements: smears were taken at each static measurement location and each was assayed for gross alpha, gross beta, and tritium

exposure rate measurement: taken from 1 meter above floor in center of room

Survey results summary

alpha and beta scan: Areas above alarm set points** were identified. See discussion below.

static measurements: all readings below alarm set points**

** Instruments are set to alarm at 75% of the applicable guideline values for the most restrictive alpha emitter and most difficult to detect beta emitter.

removable contamination measurements: all smears were below applicable guideline values

exposure rate measurement: less than 20 μR/hr above natural background

Treatment of elevated*** measurements

During the initial scan of corridor 22 one elevated alpha area was identified. This area was remediated by cutting out the floor cap (top 2 inches of concrete) and disposing as radioactive waste. In post-remediation survey of area (MT-05-558), twenty measurements were taken in the remediated area. The maximum alpha readings were 40 dpm/100cm^2. Since the measurements were all below 100-dpm/100 cm^2 alpha, no further action is required.

*** defined as direct gross alpha measurement exceeding 100 dpm/100 cm^2, direct beta measurement exceeding 5000 dpm/100 cm^2, removable gross alpha exceeding 20 dpm/100 cm^2, removable gross beta exceeding 1000 dpm/100 cm^2, or removable tritium exceeding 10,000 dpm/100 cm^2.

Conclusion Survey unit meets the release criteria

Attachment D
Mound - T Building **Survey Unit 2C-08**
Data Analysis Worksheet

2C08-01 (20 samples each)					
	Removable			Direct*	
	α (dpm/100 cm^2)	β (dpm/100 cm^2)	^{3}H (dpm/100 cm^2)	α (dpm/100 cm^2)	β (dpm/100 cm^2)
Average	0.09	0.76	9	13	1119
StDev	0.38	0.95	19	8	286
Max	1.72	3.08	86	29	1606

2C08-02 (23 samples each)					
	Removable			Direct*	
	α (dpm/100 cm^2)	β (dpm/100 cm^2)	^{3}H (dpm/100 cm^2)	α (dpm/100 cm^2)	β (dpm/100 cm^2)
Average	0.15	0.74	4	17	880
StDev	0.49	1.37	5	8	153
Max	1.72	6.05	15	32	1190

2C08-01 Judgemental (30 samples each)					
	Removable			Direct*	
	α (dpm/100 cm^2)	β (dpm/100 cm^2)	^{3}H (dpm/100 cm^2)	α (dpm/100 cm^2)	β (dpm/100 cm^2)
Average	0.28	0.86	3	18	1480
StDev	0.64	1.21	4	8	411
Max	1.74	3.99	15	40	1961

2C08-02 Judgemental (10 samples each)					
	Removable			Direct*	
	α (dpm/100 cm^2)	β (dpm/100 cm^2)	^{3}H (dpm/100 cm^2)	α (dpm/100 cm^2)	β (dpm/100 cm^2)
Average	0.16	1.09	5	19	786
StDev	0.51	1.52	4	7	148
Max	1.61	3.77	12	36	1058

2C08 Drains, Vents, and Utilities (24 samples each)					
	Removable			Direct*	
	α (dpm/100 cm^2)	β (dpm/100 cm^2)	^{3}H (dpm/100 cm^2)	α (dpm/100 cm^2)	β (dpm/100 cm^2)
Average	0.14	1.49	5	24	822
StDev	0.48	1.40	13	9	201
Max	1.74	4.38	49	55	1326

2C08 Statistical Data Points (43 samples)					
	Removable			Direct*	
	α (dpm/100 cm^2)	β (dpm/100 cm^2)	^{3}H (dpm/100 cm^2)	α (dpm/100 cm^2)	β (dpm/100 cm^2)
Number	43	43	43	43	43
Average	0.12	0.75	6	15	991
StDev	0.44	1.18	13	8	253
Max	1.72	6.05	86	32	1606

Attachment D
Mound T - Building
Survey Unit 2C-08
Data Analysis Worksheet

	Location	RSDS	Removable (dpm/100cm^2)			Direct (dpm/100cm^2)	
			a	b	H	a	b
2C08-01 (20 samples each)	2C080101S	1272	**1.72**	1.60	11	**29**	1323
	2C080102S	1272	0.00	2.67	13	22	**1606**
	2C080103S	1272	0.00	0.00	0	7	1502
	2C080104S	1272	0.00	0.48	**86**	7	1342
	2C080105S	1272	0.00	1.23	4	7	1502
	2C080106S	1272	0.00	0.21	4	7	1493
	2C080107S	1272	0.00	0.00	17	29	1276
	2C080108S	1272	0.00	0.00	11	4	1427
	2C080109S	1272	0.00	0.26	6	14	813
	2C080110S	1272	0.00	0.47	0	22	822
	2C080111S	1272	0.00	0.00	11	11	1143
	2C080112S	1272	0.00	1.74	1	11	916
	2C080113S	1272	0.00	0.00	7	4	775
	2C080114S	1272	0.00	1.58	3	14	765
	2C080115S	1272	0.00	1.42	0	18	973
	2C080116S	1272	0.00	0.20	6	18	879
	2C080117S	1272	0.00	**3.08**	4	22	879
	2C080118S	1272	0.00	0.34	2	11	1030
	2C080119S	1272	0.00	0.00	0	0	916
	2C080120S	1272	0.00	0.00	0	4	992
2C08-02 (23 samples each)	2C080201S	807	**1.72**	0.29	1	25	992
	2C080202S	807	0.00	0.34	1	11	1011
	2C080203S	807	0.00	0.41	0	14	907
	2C080204S	807	0.00	0.00	1	25	954
	2C080105S	807	0.00	0.00	3	11	1162
	2C080206S	807	0.00	0.00	7	7	718
	2C080207S	807	1.66	0.00	0	25	983
	2C080208S	807	0.00	0.40	0	18	803
	2C080209S	807	0.00	0.26	0	18	765
	2C080210S	807	0.00	1.59	0	**32**	718
	2C080211S	807	0.00	0.00	5	18	709
	2C080212S	807	0.00	0.62	5	18	756
	2C080213S	807	0.00	0.00	0	25	690
	2C080114S	807	0.00	0.00	0	7	822
	2C080215S	807	0.00	0.18	0	14	699
	2C080216S	807	0.00	**6.05**	6	11	765
	2C080217S	807	0.00	0.47	0	14	831
	2C080218S	807	0.00	1.51	8	4	860
	2C080219S	807	0.00	1.67	**15**	18	803
	2C080220S	807	0.00	2.89	10	4	945
	2C080221S	807	0.00	0.04	0	22	**1190**
	2C080222S	807	0.00	0.00	10	22	1124
	2C080223S	807	0.00	0.20	13	18	1020

D4/22

Attachment D
Mound T - Building
Survey Unit 2C-08
Data Analysis Worksheet

	Location	RSDS	Removable (dpm/100cm^2)			Direct (dpm/100cm^2)	
			a	b	H	a	b
2C08-01 Judgemental (30 samples each)	2C080101J	1296	0.00	3.92	1	11	746
	2C080102J	1296	0.00	**3.99**	9	14	1181
	2C080103J	1296	0.00	0.00	1	11	690
	2C080104J	1296	0.00	0.39	3	11	1172
	2C080105J	1296	1.72	0.00	0	7	1304
	2C080106J	1296	0.00	1.37	5	25	926
	2C080107J	1296	0.00	0.00	3	7	728
	2C080108J	1296	0.00	0.00	0	14	945
	2C080109J	1296	0.00	1.67	1	22	954
	2C080110J	1296	0.00	0.00	8	14	822
	2C080101	558/593	**1.74**	0.00	1	18	**1961**
	2C080102	558/593	0.00	1.59	6	18	1585
	2C080103	558/593	0.00	0.72	0	11	1677
	2C080104	558/593	0.00	0.00	10	22	1714
	2C080105	558/593	0.00	0.00	0	29	1677
	2C080106	558/593	0.00	1.02	4	29	1769
	2C080107	558/593	0.00	1.63	3	18	1677
	2C080108	558/593	0.00	1.56	0	18	1778
	2C080109	558/593	0.00	3.94	9	7	1925
	2C080109	558/593	0.00	0.47	0	11	1815
	2C080111	558/593	0.00	0.27	0	29	1842
	2C080112	558/593	1.68	0.00	0	11	1760
	2C080113	558/593	0.00	0.29	0	**40**	1769
	2C080114	558/593	0.00	1.58	2	15	1659
	2C080115	558/593	0.00	0.00	9	11	1796
	2C080116	558/593	1.54	0.00	**15**	26	1897
	2C080117	558/593	0.00	0.99	0	11	1659
	2C080118	558/593	0.00	0.42	3	15	1723
	2C080119	558/593	0.00	0.00	0	22	1512
	2C080120	558/593	1.71	0.00	3	29	1732
2C08-02 Judgemental (10 samples each)	2C080201J	1296	0.00	3.08	0	18	576
	2C080202J	1296	0.00	2.67	**12**	18	879
	2C080203J	1296	0.00	0.00	0	**36**	**1058**
	2C080204J	1296	0.00	0.00	7	14	879
	2C080205J	1296	0.00	0.04	7	14	624
	2C080206J	1296	0.00	1.32	7	22	860
	2C080207J	1296	0.00	0.00	8	11	680
	2C080208J	1296	**1.61**	**3.77**	4	18	661
	2C080209J	1296	0.00	0.00	4	18	822
	2C080210J	1296	0.00	0.00	4	18	822

Attachment D
Mound T - Building
Survey Unit 2C-08
Data Analysis Worksheet

	Location	RSDS	Removable (dpm/100cm^2)			Direct (dpm/100cm^2)	
			a	b	H	a	b
2C08 Drains, Vents, and Utilities (24 samples each)	2C080101U	515	**1.74**	0.81	14	18	756
	2C080102U	515	0.00	2.75	0	**55**	**1326**
	2C080103U	515	0.00	0.00	2	37	943
	2C080104U	515	0.00	2.73	4	22	1167
	2C080105U	515	0.00	1.73	6	18	962
	2C080106U	515	0.00	1.02	0	29	682
	2C080107V	515	0.00	0.31	0	15	859
	2C080201U	515	0.00	0.00	0	22	719
	2C080202U	515	0.00	3.94	0	15	803
	2C080203U	515	0.00	0.00	0	15	1120
	2C080204U	515	0.00	3.92	0	18	1036
	2C080205U	515	1.68	0.00	0	22	999
	2C080206U	515	0.00	0.29	0	26	710
	2C080207U	515	0.00	0.39	0	26	747
	2C080208U	515	0.00	1.42	1	18	784
	2C080209U	515	0.00	1.37	0	26	710
	2C080210U	515	0.00	0.99	0	15	859
	2C080211U	515	0.00	0.00	0	37	682
	2C080212U	515	0.00	1.98	0	18	719
	2C080213U	515	0.00	0.32	0	22	672
	2C080108U	06-0029	0.00	**4.38**	**49**	15	654
	2C080208V	06-0029	0.00	1.51	39	18	495
	2C080209V	06-0029	0.00	2.92	1	33	803
	2C080210V	06-0029	0.00	2.89	1	26	514

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T Building rooms	East End of Corridor 1
MARSSIM classification	Class 1
Historical use	Corridor 1 was used as access and egress routes.

Survey description summary

alpha and beta scan: floor – 100%

walls below 2 meters - 100%

walls above 2 meters – 25%

ceiling - approx. 1 meter area scanned around each static measurement

static measurements: 21 each static locations measurements on floor and walls below 2 meters

20 each static location measurements on ceiling and walls above 2 meters

27 each judgmental location measurements on floor and walls below 2 meters

10 each judgmental location measurements on ceiling and walls above 2 meters

13 each judgmental location measurements on drains, vents, and utilities

* Judgmental measurements are biased measurements in locations where, in the professional judgment of the surveyor, the potential for residual contamination exists.

removable contamination measurements: smears were taken at each static measurement location and each was assayed for gross alpha, gross beta, and tritium

exposure rate measurement: taken from 1 meter above floor in center of room

D7/22

Survey results summary

alpha and beta scan: Areas above alarm set points** were identified. See discussion below.

static measurements: Areas above alarm set points** were identified. See discussion below.

** Instruments are set to alarm at 75% of the applicable guideline values for the most restrictive alpha emitter and most difficult to detect beta emitter.

removable contamination measurements: all smears were below applicable guideline values

exposure rate measurement: less than 20 μR/hr above natural background

Treatment of elevated*** measurements

During the initial scan (MT-05-1008) of corridor 1 one elevated area (1C13E3 at 1391 dpm/100cm^2 alpha) was identified. This area was remediated by cutting out the floor cap (top 2 inches of concrete) and disposing as radioactive waste. In post-remediation survey of area (MT-05-1070), the maximum alpha reading was 4 dpm/100cm^2. Since the measurements were all below 100-dpm/100 cm^2 alpha, no further action is required.

*** defined as direct gross alpha measurement exceeding 100 dpm/100 cm^2, direct beta measurement exceeding 5000 dpm/100 cm^2, removable gross alpha exceeding 20 dpm/100 cm^2, removable gross beta exceeding 1000 dpm/100 cm^2, or removable tritium exceeding 10,000 dpm/100 cm^2.

Conclusion Survey unit meets the release criteria

D8/22

Attachment D
Mound - T Building **Survey Unit 1C-13**
Data Analysis Worksheet

1C-13-01 (21 samples each)					
	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.23	0.67	5	15	1093
StDev	0.57	1.08	10	10	335
Max	1.61	4.16	41	37	1629

1C-13-02 (20 samples each)					
	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.32	0.18	1	17	914
StDev	0.66	0.37	2	7	134
Max	1.72	1.52	6	33	1096

1C-13-01 Judgemental (27 samples each)					
	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.37	0.94	4	27	1188
StDev	0.70	1.11	6	21	495
Max	1.93	3.54	27	80	2400

1C-13-02 Judgemental (10 samples each)					
	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.17	0.97	0	27	881
StDev	0.54	1.18	0	10	69
Max	1.72	2.71	0	44	1002

1C-13 Drains, Vents, and Utilities (13 samples each)					
	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.98	1.52	1	28	840
StDev	1.74	1.52	2	21	142
Max	5.19	5.33	7	85	1172

1C-13 Statistical Data Points (41 samples)					
	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Number	41	41	41	41	41
Average	0.27	0.43	3	16	1006
StDev	0.61	0.84	7	9	270
Max	1.72	4.16	41	37	1629

Attachment D
Mound T - Bldg SU# 1C-13
Data Analysis Worksheet

	Location	RSDS	Removable(dpm/100cm^2)			Direct (dpm/100cm^2)	
			a	b	H	a	b
1C-13-01 (21 samples each)	1C130101S	1312	0.00	0.00	10	26	1589
	1C130102S	1312	**1.61**	0.00	4	4	1491
	1C130103S	1312	0.00	0.00	**41**	30	**1629**
	1C130104S	1312	0.00	0.00	2	7	1431
	1C130105S	1312	0.00	1.23	0	33	1520
	1C130106S	1312	0.00	2.43	0	22	1510
	1C130107S	1312	0.00	0.00	21	**37**	1560
	1C130108S	1312	0.00	0.00	2	7	711
	1C130109S	1312	0.00	1.49	0	4	888
	1C130110S	1312	0.00	0.47	0	15	948
	1C130111S	1312	0.00	0.00	3	7	849
	1C130112S	1312	0.00	0.62	0	11	652
	1C130113S	1312	0.00	0.00	4	11	1056
	1C130114S	1312	0.00	1.51	0	15	819
	1C130115S	1312	0.00	1.67	3	11	839
	1C130116S	1312	0.00	0.00	0	11	898
	1C130117S	1312	1.52	0.00	2	15	1036
	1C130118S	1312	0.00	0.21	0	4	898
	1C130119S	1312	0.00	**4.16**	0	7	760
	1C130120S	1312	1.61	0.00	4	18	1056
	1C130121S	1312	0.00	0.26	1	15	819
1C-13-02 (20 samples each)	1C130201S	1312	0.00	0.00	0	18	987
	1C130202S	1312	0.00	0.27	0	22	1056
	1C130203S	1312	0.00	0.62	0	15	967
	1C130204S	1312	**1.72**	0.29	0	18	967
	1C130205S	1312	1.61	0.00	5	15	750
	1C130206S	1312	0.00	0.41	0	**33**	819
	1C130207S	1312	0.00	0.00	1	22	1027
	1C130208S	1312	1.52	0.00	5	26	1046
	1C130209S	1312	0.00	0.00	0	4	750
	1C130210S	1312	0.00	**1.52**	**6**	18	1036
	1C130211S	1312	1.61	0.00	4	7	671
	1C130212S	1312	0.00	0.00	0	26	711
	1C130213S	1312	0.00	0.00	0	26	730
	1C130214S	1312	0.00	0.00	3	18	859
	1C130215S	1312	0.00	0.00	0	22	869
	1C130216S	1312	0.00	0.00	0	7	958
	1C130217S	1312	0.00	0.00	0	11	1007
	1C130218S	1312	0.00	0.41	0	15	918
	1C130219S	1312	0.00	0.00	0	11	**1096**
	1C130220S	1312	0.00	0.00	0	11	1056

Attachment D
Mound T - Bldg SU# 1C-13
Data Analysis Worksheet

	Location	RSDS	Removable(dpm/100cm^2)			Direct (dpm/100cm^2)	
			a	b	H	a	b
1C-13-01 Judgemental (27 samples each)	1C130101J	1300	0.00	0.00	0	11	1427
	1C130102J	1300	0.00	0.00	5	11	869
	1C130103J	1300	**1.93**	2.74	0	33	1313
	1C130104J	1300	1.81	1.53	3	22	954
	1C130105J	1300	1.52	2.20	1	11	728
	1C130106J	1300	0.00	**3.54**	0	70	869
	1C130107J	1300	0.00	1.52	0	15	831
	1C130108J	1300	0.00	1.60	0	15	907
	1C130109J	1300	0.00	0.26	5	18	718
	1C130110J	1300	0.00	0.00	2	22	775
	1C13E1	1008	0.00	0.99	7	46	1868
	1C13E2	1008	0.00	0.00	5	**80**	**2400**
	1C13E4	1008	0.00	2.73	9	34	1732
	1C13E5	1008	0.00	0.54	3	31	1945
	1C13E6	1008	0.00	0.00	5	76	1781
	1C13E7	1008	0.00	0.00	0	34	2042
	1C13E8	1008	1.28	0.00	1	34	1694
	1C130101Y	1070	0.00	0.00	2	4	1139
	1C130101X	1063	0.00	1.49	**27**	22	710
	1C130102X	1063	1.41	0.31	0	11	794
	1C130103X	1063	0.00	1.49	8	11	915
	1C130104X	1063	0.00	0.00	4	11	728
	1C130105X	1063	0.00	2.79	18	7	1317
	1C130106X	1063	0.00	0.39	5	22	868
	1C130107X	1063	1.72	0.02	1	11	691
	1C130108X	1063	0.00	0.20	0	37	943
	1C130109X	1063	n/a	n/a	n/a	18	1128
1C-13-02 Judgemental (10 samples each)	1C130201J	1300	0.00	0.27	**0**	37	813
	1C130202J	1300	0.00	0.62	0	26	850
	1C130203J	1300	0.00	0.00	0	26	841
	1C130204J	1300	0.00	0.39	0	41	916
	1C130205J	1300	**1.72**	0.00	0	22	964
	1C130206J	1300	0.00	2.54	0	18	916
	1C130207J	1300	0.00	**2.71**	0	18	831
	1C130208J	1300	0.00	0.47	0	**44**	784
	1C130209J	1300	0.00	2.70	0	18	**1002**
	1C130210J	1300	0.00	0.00	0	15	888
1C-13 Drains, Vents, and Utilities (13 samples each)	1C130201V	1295	3.88	**5.33**	0	**85**	**1172**
	1C130202V	1295	0.00	2.67	5	18	775
	1C130203V	1295	1.93	0.23	**7**	41	869
	1C130204V	1295	0.00	1.69	0	48	709
	1C130101U	1295	0.00	2.41	0	15	1087
	1C130201U	1295	**5.19**	1.83	2	18	803
	1C130202U	1295	0.00	0.20	0	33	822
	1C130203U	1295	0.00	0.40	0	37	690
	1C130102U	1295	0.00	0.26	0	11	803
	1C130103U	1295	0.00	0.00	0	11	907
	1C130104U	1295	0.00	2.70	0	18	775
	1C130105U	1295	1.68	0.47	0	7	756
	1C130204U	1295	0.00	1.54	1	15	756

D 11/22

T Building rooms	Corridor 9 and Rooms 4B, 4C, and 8
MARSSIM classification	Class 2
Historical use	Room 8 was originally used for maintenance area and later as an equipment storage area. Rooms 4B and 4C are restroom facilities. Corridor 9 was used as an access and egress route.

Survey description summary

gamma scan: sump - 100%

alpha and beta scan: floor – 100%

walls below 2 meters - 50%

walls above 2 meters – 25%

ceiling - approx. 1 meter area scanned around each static measurement

static measurements: 23 each static locations measurements on floor and walls below 2 meters

20 each static location measurements on ceiling and walls above 2 meters

28 each judgmental location measurements on floor and walls below 2 meters

10 each judgmental location measurements on ceiling and walls above 2 meters

26 each judgmental location measurements on drains, vents, and utilities

5 each judgmental location measurements in the hole that previously held the sump and it's steel liner

* Judgmental measurements are biased measurements in locations where, in the professional judgment of the surveyor, the potential for residual contamination exists.

removable contamination measurements: smears were taken at each static measurement location and each was assayed for gross alpha, gross beta, and tritium

D12/22

exposure rate measurement: taken from 1 meter above floor in center of room

Survey results summary

gamma scan: no activity significantly above natural background detected

alpha and beta scan: Areas above alarm set points** were identified. See discussion below.

static measurements: Areas above alarm set points** were identified. See discussion below.

** Instruments are set to alarm at 75% of the applicable guideline values for the most restrictive alpha emitter and most difficult to detect beta emitter.

removable contamination measurements: all smears were below applicable guideline values

exposure rate measurement: less than 20 μR/hr above natural background

Treatment of elevated* measurements**

A gross beta measurement on the floor in Corridor 9 was 7065 dpm/100 cm^2 (RSDS MT-05-979). A follow-up survey (RSDS MT-05-1093) was conducted that included the original spot along with 9 additional static measurements within a contiguous $1m^2$ area. None of the measurements were above 15,000 dpm/$100cm^2$. The highest being 8347 dpm/$100cm^2$.The average of these 10 measurements was 3450-dpm/$100cm^2$, which meets the release criteria. No further action is required.

*** defined as direct gross alpha measurement exceeding 100 dpm/100 cm^2, direct beta measurement exceeding 5000 dpm/100 cm^2, removable gross alpha exceeding 20 dpm/100 cm^2, removable gross beta exceeding 1000 dpm/100 cm^2, or removable tritium exceeding 10,000 dpm/100 cm^2.

Conclusion Survey unit meets the release criteria

D13/22

Attachment D
Mound - T Building **Survey Unit 1S-03**
Data Analysis Worksheet

1S-03-01 (23 samples each)	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.21	0.69	4	29	1235
StDev	0.55	0.90	3	9	260
Max	1.68	3.60	12	50	1760

1S-03-02 (20 samples each)	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.18	0.76	3	31	988
StDev	0.54	1.00	3	12	135
Max	1.81	2.79	10	53	1215

1S-03-01 Judgemental (28 samples each)	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.58	0.54	3	26	2132
StDev	0.98	0.95	4	12	1716
Max	3.30	2.79	15	49	8347

1S-03-02 Judgemental (10 samples each)	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.17	0.55	4	23	1000
StDev	0.55	0.88	4	6	187
Max	1.74	2.70	12	30	1342

1S-03 Drains, Vents, and Utilities (25 samples each)	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.43	1.28	14	31	1020
StDev	1.27	1.82	41	21	283
Max	5.19	7.86	205	83	1624

1S-03 Statistical Data Points (43 samples)	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Number	43	43	43	43	43
Average	0.19	0.72	4	30	1120
StDev	0.54	0.93	3	11	243
Max	1.81	3.60	12	53	1760

SYS-PRS 226 (5 samples each)	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.00	1.08	1	24	1122
StDev	0.00	1.61	2	8	167
Max	0.00	3.60	4	34	1342

Attachment D
Mound T - Building
Survey Unit 1S-03
Data Analysis Worksheet

	Location	RSDS	Removable(dpm/100cm^2)			Direct (dpm/100cm^2)	
			a	b	H	a	b
1S-03-01 (23 samples each)	1S030101S	1291	0.00	1.78	2	38	**1760**
	1S030102S	1291	0.00	0.34	2	**50**	1692
	1S030103S	1291	0.00	0.41	7	31	1138
	1S030104S	1291	0.00	0.48	0	38	1478
	1S030105S	1291	0.00	1.23	**12**	27	963
	1S030106S	1291	0.00	0.21	1	31	953
	1S030107S	1291	0.00	0.00	5	31	1294
	1S030108S	1291	0.00	0.40	7	38	1167
	1S030109S	1291	0.00	0.00	6	42	875
	1S030110S	1291	0.00	1.59	10	34	1469
	1S030111S	1291	0.00	1.49	7	23	1274
	1S030112S	1291	**1.68**	0.47	2	34	1109
	1S030113S	1291	0.00	0.00	0	27	856
	1S030114S	1291	0.00	1.58	0	19	934
	1S030115S	1291	0.00	0.00	4	23	1556
	1S030116S	1291	1.54	0.06	4	27	1381
	1S030117S	1291	0.00	**3.60**	2	31	1556
	1S030118S	1291	1.54	0.00	4	11	1216
	1S030119S	1291	0.00	0.20	7	19	963
	1S030120S	1291	0.00	1.60	0	23	1099
	1S030121S	1291	0.00	0.00	9	15	1284
	1S030122S	1291	0.00	0.47	5	19	1274
	1S030123S	1291	0.00	0.00	4	31	1119
1S-03-02 (20 samples each)	1S030201S	1298	1.72	0.29	2	26	980
	1S030202S	1298	0.00	2.67	3	26	1188
	1S030203S	1298	0.00	0.41	0	49	971
	1S030204S	1298	**1.81**	1.53	5	38	1125
	1S030205S	1298	0.00	0.00	4	42	816
	1S030206S	1298	0.00	0.00	8	30	807
	1S030207S	1298	0.00	0.20	0	**53**	907
	1S030208S	1298	0.00	1.60	0	19	662
	1S030209S	1298	0.00	0.26	5	34	1052
	1S030210S	1298	0.00	0.00	1	23	916
	1S030211S	1298	0.00	0.00	0	42	1025
	1S030212S	1298	0.00	0.00	4	34	1098
	1S030213S	1298	0.00	**2.79**	5	23	925
	1S030214S	1298	0.00	0.39	1	45	916
	1S030215S	1298	0.00	0.00	0	8	1088
	1S030216S	1298	0.00	0.20	4	11	934
	1S030217S	1298	0.00	0.00	**10**	42	1052
	1S030218S	1298	0.00	1.59	7	26	1088
	1S030219S	1298	0.00	2.70	3	34	**1215**
	1S030220S	1298	0.00	0.62	0	19	998

Attachment D
Mound T - Building
Survey Unit 1S-03
Data Analysis Worksheet

	Location	RSDS	Removable(dpm/100cm^2)			Direct (dpm/100cm^2)	
			a	b	H	a	b
1S-03-01 Judgemental (28 samples each)	1S030101E	979	1.68	2.56	2	31	7065
	1S030102I	979	0.00	0.47	0	31	1616
	1S030101E	1093	1.74	0.00	0	25	**8347**
	1S030101G	1093	n/a	n/a	n/a	11	2213
	1S030101H	1093	n/a	n/a	n/a	18	2372
	1S030101I	1093	n/a	n/a	n/a	18	1961
	1S030102A	1093	n/a	n/a	n/a	25	3016
	1S030102B	1093	n/a	n/a	n/a	18	2428
	1S030102C	1093	n/a	n/a	n/a	18	2997
	1S030102D	1093	n/a	n/a	n/a	11	2633
	1S030102F	1093	n/a	n/a	n/a	4	3305
	1S030101X	1165	0.00	0.00	2	11	1084
	1S030101X	1240	0.00	0.00	0	29	1307
	1S030102X	1240	0.00	0.34	0	26	1438
	1S030103X	1240	0.00	0.00	0	18	1373
	1S030104X	1240	0.00	1.69	0	40	1214
	1S030105X	1273	0.00	0.00	9	23	1361
	1S030106X	1273	**3.30**	0.16	**15**	34	1433
	1S030101J	1303	1.72	0.00	5	26	1397
	1S030102J	1303	0.00	0.00	3	45	1315
	1S030103J	1303	0.00	0.00	4	**49**	1261
	1S030104J	1303	0.00	0.48	0	26	1488
	1S030105J	1303	0.00	0.00	0	15	1215
	1S030106J	1303	1.54	2.23	1	45	1424
	1S030107J	1303	1.66	0.00	1	38	1506
	1S030108J	1303	0.00	**2.79**	5	42	1016
	1S030109J	1303	0.00	0.00	0	34	961
	1S030110J	1303	0.00	0.00	5	23	952
1S-03-02 Judgemental (10 samples each)	1S030201J	1303	0.00	**2.70**	0	23	753
	1S030202J	1303	0.00	0.62	**12**	23	871
	1S030203J	1303	0.00	0.00	0	23	1143
	1S030204J	1303	**1.74**	0.24	4	11	1070
	1S030205J	1303	0.00	0.18	4	23	916
	1S030206J	1303	0.00	0.00	2	19	**1342**
	1S030207J	1303	0.00	1.49	2	26	952
	1S030208J	1303	0.00	0.00	10	**30**	1061
	1S030209J	1303	0.00	0.27	1	30	753
	1S030210J	1303	0.00	0.00	3	26	1143

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Attachment D
Mound T - Building
Survey Unit 1S-03
Data Analysis Worksheet

	Location	RSDS	Removable(dpm/100cm^2)			Direct (dpm/100cm^2)	
			a	b	H	a	b
1S-03 Drains, Vents, and Utilities (25 samples each)	1S030101D	1242	0.00	0.21	2	15	1478
	1S030102D	1242	0.00	1.52	2	23	1197
	1S030103D	1242	0.00	0.40	0	23	1206
	1S030104D	1242	0.00	0.00	3	38	1152
	1S030105D	1242	0.00	2.71	1	15	1098
	1S030201U	1242	0.00	0.00	1	23	771
	1S030201V	1242	0.00	1.78	5	64	1297
	1S030202U	1242	0.00	0.00	0	8	1116
	1S030202V	1242	3.59	2.34	1	57	1007
	1S030203U	1242	0.00	1.54	3	19	880
	1S030203V	1242	1.93	0.23	**205**	60	**1624**
	1S030204U	1242	0.00	0.00	12	8	1161
	1S030204V	1242	0.00	0.48	28	30	971
	1S030205U	1242	0.00	2.66	0	8	1179
	1S030205V	1242	0.00	1.23	0	19	717
	1S030206U	1242	0.00	3.71	46	42	961
	1S030206V	1260	0.00	1.59	26	**83**	1551
	1S030206V	1292	0.00	3.60	17	19	924
	1S030207V	1292	0.00	0.00	0	19	943
	1S030208V	1292	0.00	0.20	0	31	671
	1S030209V	1292	0.00	0.00	0	8	817
	1S030210V	1292	0.00	0.00	0	34	729
	1S030211V	1292	**5.19**	**7.86**	0	19	496
	1S030212V	1292	0.00	0.00	0	57	729
	1S030213V	1292	0.00	0.00	2	50	817
SYS-PRS 226 (5 samples each)	1S030101J	06-0033	**0.00**	1.78	0	**34**	**1342**
	1S030102J	06-0033	0.00	0.00	0	27	1196
	1S030103J	06-0033	0.00	0.00	**4**	11	992
	1S030104J	06-0033	0.00	0.00	1	27	924
	1S030105J	06-0033	0.00	**3.60**	2	23	1157

T Building rooms	Corridor 39
MARSSIM classification	Class 1
Historical use	Corridor 39 was used as an access and egress route.

Survey description summary

alpha and beta scan: floor – 100%

walls below 2 meters - 100%

walls above 2 meters – 25%

ceiling - approx. 1 meter area scanned around each static measurement

static measurements: 20 each static locations measurements on floor and walls below 2 meters

22 each static location measurements on ceiling and walls above 2 meters

24 each judgmental location measurements on floor and walls below 2 meters

10 each judgmental location measurements on ceiling and walls above 2 meters

15 each judgmental location measurements on drains, vents, and utilities

* Judgmental measurements are biased measurements in locations where, in the professional judgment of the surveyor, the potential for residual contamination exists.

removable contamination measurements: smears were taken at each static measurement location and each was assayed for gross alpha, gross beta, and tritium

exposure rate measurement: taken from 1 meter above floor in center of room

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Survey results summary

alpha and beta scan: all readings below alarm set points**

static measurements: all readings below alarm set points**
**
Instruments are set to alarm at 75% of the applicable guideline values for the most restrictive alpha emitter and most difficult to detect beta emitter.

removable contamination measurements: all smears were below applicable guideline values

exposure rate measurement: less than 20 μR/hr above natural background

Treatment of elevated*** measurements

None were identified.

*** defined as direct gross alpha measurement exceeding 100 dpm/100 cm^2, direct beta measurement exceeding 5000 dpm/100 cm^2, removable gross alpha exceeding 20 dpm/100 cm^2, removable gross beta exceeding 1000 dpm/100 cm^2, or removable tritium exceeding 10,000 dpm/100 cm^2.

Conclusion Survey unit meets the release criteria

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Attachment D

Mound - T Building **Survey Unit 1C-06**

Data Analysis Worksheet

1C-06-01 (20 samples each)	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.26	0.60	15	27	1245
StDev	0.63	0.94	57	15	329
Max	1.93	2.89	258	55	1748

1C-06-02 (22 samples each)	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.22	0.92	3	20	955
StDev	0.56	1.54	4	12	118
Max	1.69	6.53	18	41	1143

1C-06-01 Judgemental (24 samples each)	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.17	0.66	4	21	1228
StDev	0.49	1.11	13	12	414
Max	1.68	4.99	64	42	2091

1C-06-02 Judgemental (10 samples each)	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.18	0.89	75	14	947
StDev	0.55	1.38	235	8	124
Max	1.75	3.96	745	22	1087

1C-06 Drains, Vents, and Utilities (15 samples each)	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Average	0.22	0.83	1	15	845
StDev	0.58	1.04	2	8	108
Max	1.69	2.87	8	30	983

1C-06 Statistical Data Points (42 samples)	Removable			Direct*	
	α (dpm/100 cm²)	β (dpm/100 cm²)	^3H (dpm/100 cm²)	α (dpm/100 cm²)	β (dpm/100 cm²)
Number	42	42	42	42	42
Average	0.24	0.77	9	23	1093
StDev	0.59	1.28	40	14	281
Max	1.93	6.53	258	55	1748

Attachment D
Mound T - Bldg SU# 1C-06
Data Analysis Worksheet

	Location	RSDS	Removable (dpm/100cm^2)			Direct (dpm/100cm^2)	
			a	b	H	a	b
1C-06-01 (20 samples each)	1C060101S	1330	0.00	0.00	2	26	1172
	1C060102S	1330	0.00	0.00	0	44	1105
	1C060103S	1330	0.00	0.00	0	33	**1748**
	1C060104S	1330	0.00	0.48	0	52	1332
	1C060105S	1330	1.52	1.02	3	22	1663
	1C060106S	1330	0.00	1.32	6	22	1701
	1C060107S	1330	0.00	0.00	0	**55**	1342
	1C060108S	1330	0.00	0.00	10	44	1738
	1C060109S	1330	1.69	0.00	0	30	1559
	1C060110S	1330	0.00	2.71	0	37	1521
	1C060111S	1330	0.00	0.00	5	22	1077
	1C060112S	1330	0.00	1.74	8	44	1002
	1C060113S	1330	0.00	0.00	**258**	11	1058
	1C060114S	1330	0.00	0.00	0	7	1238
	1C060115S	1330	0.00	0.18	3	11	1049
	1C060116S	1330	0.00	0.00	3	15	935
	1C060117S	1330	0.00	0.00	0	11	1162
	1C060118S	1330	0.00	1.51	0	22	661
	1C060119S	1330	**1.93**	0.23	0	11	1181
	1C060120S	1330	0.00	**2.89**	0	26	652
1C-06-02 (22 samples each)	1C060201S	1330	1.52	1.02	2	26	831
	1C060202S	1330	0.00	1.32	2	41	1039
	1C060203S	1330	0.00	2.84	6	26	784
	1C060204S	1330	0.00	0.00	2	**41**	945
	1C060205S	1330	0.00	0.00	0	7	916
	1C060206S	1330	0.00	2.71	0	33	841
	1C060207S	1330	0.00	0.00	6	11	831
	1C060208S	1330	0.00	0.00	3	30	1087
	1C060209S	1330	0.00	**6.53**	2	15	718
	1C060210S	1330	0.00	1.58	4	18	879
	1C060211S	1330	0.00	0.00	0	33	907
	1C060212S	1330	0.00	1.37	5	22	860
	1C060213S	1330	0.00	0.47	0	15	1049
	1C060214S	1330	1.61	0.18	**18**	30	1002
	1C060215S	1330	0.00	0.00	0	30	1077
	1C060216S	1330	0.00	0.00	1	4	1134
	1C060217S	1330	0.00	0.00	0	4	926
	1C060218S	1330	0.00	0.00	1	15	1105
	1C060219S	1330	0.00	0.20	9	7	983
	1C060220S	1330	0.00	1.60	0	4	1011
	1C060221S	1330	**1.69**	0.00	0	22	**1143**
	1C060222S	1330	0.00	0.47	9	4	945

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Attachment D
Mound T - Bldg SU# 1C-06
Data Analysis Worksheet

	Location	RSDS	Removable (dpm/100cm^2)			Direct (dpm/100cm^2)	
			a	b	H	a	b
1C-06-01 Judgemental (24 samples each)	1C060101X	1162	0.00	0.00	2	8	1684
	1C060102X	1162	0.00	0.00	0	34	1374
	1C060103X	1162	0.00	0.00	2	8	765
	1C060104X	1162	0.00	0.00	0	15	1858
	1C060105X	1162	0.00	1.49	1	19	1665
	1C060106X	1162	0.00	0.00	0	23	1820
	1C060107X	1162	0.00	0.27	1	**42**	1461
	1C060108X	1162	**1.68**	0.47	0	15	1403
	1C060109X	1162	0.77	0.33	0	42	**2091**
	1C060110X	1162	0.00	0.00	7	34	1713
	1C060111X	1162	0.00	1.63	0	31	1413
	1C060101X	1336	0.00	0.47	0	18	803
	1C060102X	1336	0.00	**4.99**	3	33	700
	1C060103X	1338	0.00	0.00	2	11	551
	1C060101J	1325	0.00	0.00	5	18	898
	1C060102J	1325	0.00	0.34	0	30	926
	1C060103J	1325	0.00	0.41	**64**	4	907
	1C060104J	1325	0.00	1.69	2	30	1020
	1C060105J	1325	0.00	0.00	0	18	1087
	1C060106J	1325	0.00	0.21	3	4	1058
	1C060107J	1325	1.66	0.00	0	18	1200
	1C060108J	1325	0.00	1.60	5	30	1087
	1C060109J	1325	0.00	1.49	0	4	907
	1C060110J	1325	0.00	0.47	0	18	1087
1C-06-02 Judgemental (10 samples each)	1C060201J	1325	0.00	0.27	4	**22**	728
	1C060202J	1325	0.00	0.00	0	15	888
	1C060203J	1325	**1.75**	0.15	**745**	15	983
	1C060204J	1325	0.00	**3.96**	1	18	**1087**
	1C060205J	1325	0.00	0.00	1	4	1077
	1C060206J	1325	0.00	1.37	3	0	973
	1C060207J	1325	0.00	2.71	0	7	746
	1C060208J	1325	0.00	0.47	0	22	973
	1C060209J	1325	0.00	0.00	0	22	1002
	1C060210J	1325	0.00	0.00	0	11	1011
1C-06 Drains, Vents, and Utilities (15 samples each)	1C060101D	1321	0.00	0.47	0	26	935
	1C060102D	1321	1.61	1.34	0	11	888
	1C060103D	1321	0.00	0.41	0	0	**983**
	1C060104D	1321	0.00	0.00	0	7	888
	1C060105D	1321	0.00	1.23	0	7	813
	1C060201V	1321	0.00	2.43	4	18	633
	1C060202V	1321	0.00	0.20	3	**30**	605
	1C060201U	1321	0.00	0.40	0	26	869
	1C060101U	1321	**1.69**	0.00	0	18	898
	1C060102U	1321	0.00	2.71	2	11	813
	1C060103U	1321	0.00	0.00	0	7	879
	1C060104U	1321	0.00	**2.87**	0	15	775
	1C060202U	1321	0.00	0.00	4	15	898
	1C060105U	1321	0.00	0.39	0	18	973
	1C060106U	1321	0.00	0.00	**8**	15	822

Attachment E
Survey Plan Forms
#T-01 (Revised 7-30-05)

SURVEY PLAN FORM			
SP NUMBER	T-01	**DATE OF REQUEST**	
TYPE OF SP	☒ FSS ☐ CHARACTERIZATION ☐ REFERENCE ☐ OTHER:		
AREA/LOCATION	T Building		
PURPOSE	The purpose of this SPF is to perform a final status survey in Class 1 floors and lower walls and Class 2 ceilings and upper walls in T Building to support decisions on final disposition and free release of the building.		
SURVEY UNIT # 1	See Attachment 1	**SURVEY UNIT # 4**	
SURVEY UNIT # 2		**SURVEY UNIT # 5**	
SURVEY UNIT # 3		**SURVEY UNIT # 6**	

SURVEY TYPE					
SURFACE SCAN	☒ BETA ☐ GAMMA ☒ ALPHA	**INST. TYPE**	Shonka PSPC	**SCAN RATE & DETECTOR DISTANCE FROM SURFACE**	Refer to SHONKA Surface Contamination Monitor (SCM) operating procedures.
		PROBE TYPE	2 ft, 4ft, or 6 ft		
SURFACE SCAN	☒ BETA ☐ GAMMA ☒ ALPHA	**INST. TYPE**	L-2350	**SCAN RATE & DETECTOR DISTANCE FROM SURFACE**	Scan surface at a rate of ½" per second at a distance of not more than ¼" from the surface
		PROBE TYPE	43-37 Floor Probe or 43-68 Hand Probe		
SURFACE SCAN	☒ BETA ☐ GAMMA ☒ ALPHA	**INST. TYPE**	L-2360	**SCAN RATE & DETECTOR DISTANCE FROM SURFACE**	Refer to MD-80036, Op 30030, Operation of Ludlum 2360 Scaler/ratemeter with Ludlum 43-89 alpha/beta scintillator
		PROBE TYPE	43-89 hand probe		
STATIC MEASUREMENT	☒ BETA ☐ GAMMA ☒ ALPHA	**INST. TYPE**	L-2350	**COUNT TIME & DETECTOR DISTANCE FROM SURFACE**	Perform 2 minute counts (α) and 1 minute count (β) at specified locations not more than ¼" from the surface for hand probe (30 seconds (α) and (β) counts if using floor probe).
		PROBE TYPE	43-68 Hand Probe (or 43-37 Floor)		
STATIC MEASUREMENT	☒ BETA ☐ GAMMA ☒ ALPHA	**INST. TYPE**	L-2360	**COUNT TIME & DETECTOR DISTANCE FROM SURFACE**	Refer to MD-80036, Op 30030, Operation of Ludlum 2360 Scaler/ratemeter with Ludlum 43-89 alpha/beta scintillator
		PROBE TYPE	43-89 hand probe		
GENERAL AREA EXPOSURE RATE MEASUREMENT	☐ BETA ☒ GAMMA ☐ ALPHA	**INST. TYPE**	Micro Rem meter	**DETECTOR DISTANCE FROM SURFACE**	Perform general area exposure rate measurements 1 meter (m) from the surface.
		PROBE TYPE			

COMMENTS AND GENERAL REQUIREMENTS	All surveys shall be performed and documented in accordance with Mound Radiological Control procedures. Perform scan surveys prior to fixed-point surveys. Ensure building surfaces are clean and free of loose debris, dirt, and obstructions prior to performing surveys. Rad Con shall document all discrepancies from the above sampling and surveying instructions on the RSDS. **Continued next page**

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Specific Sampling and Survey Instructions Continued

Safety Considerations

1. Obtain assistance from the responsible building custodian for access to upper walls, ceilings, roof, etc.
2. Exercise extreme caution when performing surveys from ladders, lifts, or scaffolds.
3. Follow appropriate site safety procedures when accessing areas requiring fall protection measures.
4. Ensure ventilation units are de-energized prior to attempting to collect a sample from them.
5. Obtain approval and assistance from the responsible building custodian to dismantle any equipment for sample collection.
6. Use L2360 if locations are not safely accessible using the L2350 (e.g. close tight spaces, on top roofs, etc).

Scanning using Ludlum 2350-1 with 43-37 (floor) and 43-68 (hand) probes

1. Verify that the rate meters are set to alarm at or below 225 dpm/100 cm^2 alpha and 11250 dpm/100 cm^2 beta. (The RPOC or Rad Engineer will provide cpm values for alarm set points).
2. Scan at a rate of ½ inch per sec at a distance of not more than ¼ " from the surface.
3. Perform a static measurement at every location where an indication of elevated activity is observed.
4. Record the locations and document the results of the area scanned on the RSDS.

Scanning using Ludlum 2360 with 43-89 probe

1. Scan in accordance with instrument procedures at a rate of ½ inch per sec at a distance of not more than ¼ " from the surface.
2. Perform a static measurement at every location where an indication of elevated activity is observed.
3. Record the locations and document the results of the area scanned on the RSDS.

Scanning using SHONKA Position Sensitive Proportional Counter (PSPC) with 2',4' and 6' probes

1. Scan in accordance with instrument procedures at a rate of 0.4 inch per sec for alpha and 4.0 inch per sec for beta, at a distance of not more than ¼ " from the surface.
2. Perform a static measurement at every location where an indication of elevated activity is observed.
3. Record the locations and document the results of the area scanned on the RSDS.

Continued next page

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Specific Sampling and Survey Instructions Continued

Scanning in Class 1 areas

1.Scan 100% of the floor and walls up to 2 meters

Scanning in Class 2 areas

1. Scan at least 25% of walls above 2 meters using a serpentine pattern with scan paths spaced three probe widths apart.
2. On ceilings and in crawlspaces, scan an area of approximately 1 m^2 around each static measurement location.

Static measurements

1. When using hand probes, the count time is 2 min for alpha measurements and 1 min for beta measurements. When using the floor probe, the count time for alpha and beta measurements is 30 sec.
2. Perform integrated counts at all pre-designated sample location and at any elevated locations identified by scanning.
3. Perform at least 10 measurements on beams, supports, or other horizontal structural surfaces in each survey unit where, in the judgment of the surveyor, a potential exists for residual contamination.
4. Record the location and document the results on the RSDS in accordance with Mound Rad Con procedures.
5. Document the gross activity for each location (no "<" or ">" values).

Data Point Location

1. Locate the data points in each survey unit.
2. Mark each data point with tape or other non-permanent marking.
3. Document locations on the appropriate RSDS.

General Area Exposure Rate Measurements

1. Perform general area exposure rate measurement using Micro Rem survey meter in each room in the survey unit at a distance of 1 meter (m) from the floor.
2. Record reading results (microRem/hr) including background on RSDS in accordance with Mound Rad Con procedures (no "<" or ">" values).

Loose Surface Contamination

1. Obtain a smear of 100cm^2 at each pre-designated static measurement location.
2. Count each smear for alpha, beta, and ^3H.
3. Record location and attach results on the RSDS in accordance with Mound Rad Con procedures (no "<" or ">" values).

Continued next page

Specific Sampling and Survey Instructions Continued

Quality Control

1. Check Configuration Index (CI) for latest revision of procedures.
2. Daily source checks will be performed at the beginning and end of each day in accordance with Mound Rad Con procedures.
3. 16 fixed measurement data points will be selected for resurvey from the pool of Class 1 areas. Data points selected for resurvey should include the highest and lowest measurement from the data pool.
4. 16 smears will be randomly selected for recount from the pool of Class 1 areas.
5. 5% of the scan measurements taken in Class 1 areas will randomly be selected for replicate scan surveys.
6. Follow Rad Con procedures for Chain of Custody requirements.
7. Ensure alpha and beta smear results are obtained before performing ^{3}H analysis.
8. Record location and results on the RSDS in accordance with Mound Rad Con procedures.

APPROVAL SIGNATURES			
Project Engineer	Mary Siemons	DATE	7-30-05
Radiological Engineer	[illegible]	DATE	7/30/05
Manager	For [illegible]	DATE	8/1/05
SP CLOSE-OUT SIGNATURES			
Project Engineer		DATE	
Radiological Engineer		DATE	
Manager		DATE	

COMMENTS

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ATTACHMENT 1: SPF T-01

Floors and walls < 2m

1C-01-1	2C-01-1
1C-02-1	2C-02-1
1C-03-1	2C-03-1
1C-04-1	2C-04-1
1C-05-1	2C-05-1
1C-06-1	2C-06-1
1C-07-1	2C-07-1
1C-08-1	2C-08-1
1C-09-1	2C-09-1
1C-10-1	2C-10-1
1C-11-1	2C-11-1
1C-12-1	2C-12-1
1C-13-1	2C-13-1
1C-14-1	2C-14-1
1C-15-1	2C-15-1
1C-16-1	2C-16-1
1C-17-1	2C-17-1
1C-18-1	2C-18-1
1N-01-1	2C-19-1
1N-04-1	2N-06-1
1N-07-1	2N-07-1
1N-08-1	2N-08-1
1S-05-1	2S-06-1
1S-06-1	2S-07-1
1S-07-1	2S-08-1
1S-09-1	2S-09-1
1S-10-1	2S-10-1
1S-11-1	2S-12-1
1S-12-1	2S-13-1
1C-19-1	2S-14-1
1C-20-1	2S-15-1

ES/11

ATTACHMENT 1 continued: SPF T-01

Ceilings and walls > 2m

1C-01-2	2C-01-2
1C-02-2	2C-02-2
1C-03-2	2C-03-2
1C-04-2	2C-04-2
1C-05-2	2C-05-2
1C-06-2	2C-06-2
1C-07-2	2C-07-2
1C-08-2	2C-08-2
1C-09-2	2C-09-2
1C-10-2	2C-10-2
1C-11-2	2C-11-2
1C-12-2	2C-12-2
1C-13-2	2C-13-2
1C-14-2	2C-14-2
1C-15-2	2C-15-2
1C-16-2	2C-16-2
1C-17-2	2C-17-2
1C-18-2	2C-18-2
1N-01-2	2C-19-2
1N-04-2	2N-06-2
1N-07-2	2N-07-2
1N-08-2	2N-08-2
1S-05-2	2S-06-2
1S-06-2	2S-07-2
1S-07-2	2S-08-2
1S-09-2	2S-09-2
1S-10-2	2S-10-2
1S-11-2	2S-12-2
1S-12-2	2S-13-2
1C-19-2	2S-14-2
1C-20-2	2S-15-2

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SURVEY PLAN FORM			
SP NUMBER	T-02	**DATE OF REQUEST**	
TYPE OF SP	☒ FSS ☐ CHARACTERIZATION ☐ REFERENCE ☐ OTHER:		
AREA/LOCATION	T Building		
PURPOSE	The purpose of this SPF is to perform a final status survey in Class 2 floors and lower walls and Class 3 ceilings and upper walls in T Building to support decisions on final disposition and free release of the building.		
SURVEY UNIT # 1	See Attachment 1	**SURVEY UNIT # 4**	
SURVEY UNIT # 2		**SURVEY UNIT # 5**	
SURVEY UNIT # 3		**SURVEY UNIT # 6**	

SURVEY TYPE					
SURFACE SCAN	☒ BETA ☐ GAMMA ☒ ALPHA	**INST. TYPE**	Shonka PSPC	**SCAN RATE & DETECTOR DISTANCE FROM SURFACE**	Refer to SHONKA Surface Contamination Monitor (SCM) operating procedures.
		PROBE TYPE	2 ft, 4ft, or 6 ft		
SURFACE SCAN	☒ BETA ☐ GAMMA ☒ ALPHA	**INST. TYPE**	L-2350	**SCAN RATE & DETECTOR DISTANCE FROM SURFACE**	Scan surface at a rate of ½" per second at a distance of not more than ¼" from the surface
		PROBE TYPE	43-37 Floor Probe or 43-68 Hand Probe		
SURFACE SCAN	☒ BETA ☐ GAMMA ☒ ALPHA	**INST. TYPE**	L-2360	**SCAN RATE & DETECTOR DISTANCE FROM SURFACE**	Refer to MD-80036, Op 30030, Operation of Ludlum 2360 Scaler/ratemeter with Ludlum 43-89 alpha/beta scintillator
		PROBE TYPE	43-89 hand probe		
STATIC MEASUREMENT	☒ BETA ☐ GAMMA ☒ ALPHA	**INST. TYPE**	L-2350	**COUNT TIME & DETECTOR DISTANCE FROM SURFACE**	Perform 2 minute counts (α) and 1 minute count (β) at specified locations not more than ¼" from the surface for hand probe (30 seconds (α) and (β) counts if using floor probe).
		PROBE TYPE	43-68 Hand Probe (or 43-37 Floor)		
STATIC MEASUREMENT	☒ BETA ☐ GAMMA ☒ ALPHA	**INST. TYPE**	L-2360	**COUNT TIME & DETECTOR DISTANCE FROM SURFACE**	Refer to MD-80036, Op 30030, Operation of Ludlum 2360 Scaler/ratemeter with Ludlum 43-89 alpha/beta scintillator
		PROBE TYPE	43-89 hand probe		
GENERAL AREA EXPOSURE RATE MEASUREMENT	☐ BETA ☒ GAMMA ☐ ALPHA	**INST. TYPE**	Micro Rem meter	**DETECTOR DISTANCE FROM SURFACE**	Perform general area exposure rate measurements 1 meter (m) from the surface.
		PROBE TYPE			

COMMENTS AND GENERAL REQUIREMENTS

All surveys shall be performed and documented in accordance with Mound Radiological Control procedures.

Perform scan surveys prior to fixed-point surveys.

Ensure building surfaces are clean and free of loose debris, dirt, and obstructions prior to performing surveys.

Rad Con shall document all discrepancies from the above sampling and surveying instructions on the RSDS.

Continued next page

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Specific Sampling and Survey Instructions Continued

Safety Considerations

1. Obtain assistance from the responsible building custodian for access to upper walls, ceilings, roof, etc.
2. Exercise extreme caution when performing surveys from ladders, lifts, or scaffolds.
3. Follow appropriate site safety procedures when accessing areas requiring fall protection measures.
4. Ensure ventilation units are de-energized prior to attempting to collect a sample from them.
5. Obtain approval and assistance from the responsible building custodian to dismantle any equipment for sample collection.
6. Use L2360 if locations are not safely accessible using the L2350 (e.g. close tight spaces, on top roofs, etc).

Scanning using Ludlum 2350-1 with 43-37 (floor) and 43-68 (hand) probes

1. Verify that the rate meters are set to alarm at or below 225 dpm/100 cm^2 alpha and 11250 dpm/100 cm^2 beta. (The RPOC or Rad Engineer will provide cpm values for alarm set points).
2. Scan at a rate of ½ inch per sec at a distance of not more than ¼ " from the surface.
3. Perform a static measurement at every location where an indication of elevated activity is observed.
4. Record the locations and document the results of the area scanned on the RSDS.

Scanning using Ludlum 2360 with 43-89 probe

1. Scan in accordance with instrument procedures at a rate of ½ inch per sec at a distance of not more than ¼ " from the surface.
2. Perform a static measurement at every location where an indication of elevated activity is observed.
3. Record the locations and document the results of the area scanned on the RSDS.

Scanning using SHONKA Position Sensitive Proportional Counter (PSPC) with 2',4' and 6' probes

1. Scan in accordance with instrument procedures at a rate of 0.4 inch per sec for alpha and 4.0 inch per sec for beta, at a distance of not more than ¼ " from the surface.
2. Perform a static measurement at every location where an indication of elevated activity is observed.
3. Record the locations and document the results of the area scanned on the RSDS.

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Continued next page

Specific Sampling and Survey Instructions Continued

Scanning in Class 2 areas

1.Scan 100% of the floor and 50% of the walls up to 2 meters using a serpertine pattern with scan paths spaced one probe width apart.

Scanning in Class 3 areas

1. Scan at least 25% of walls above 2 meters using a serpentine pattern with scan paths spaced three probe widths apart.
2. On ceilings and in crawlspaces, scan an area of approximately 1 m^2 around each static measurement location.

Static measurements

1. When using hand probes, the count time is 2 min for alpha measurements and 1 min for beta measurements. When using the floor probe, the count time for alpha and beta measurements is 30 sec.
2. Perform integrated counts at all pre-designated sample location and at any elevated locations identified by scanning.
3. Perform at least 10 measurements on beams, supports, or other horizontal structural surfaces in each survey unit where, in the judgment of the surveyor, a potential exists for residual contamination.
4. Record the location and document the results on the RSDS in accordance with Mound Rad Con procedures.
5. Document the gross activity for each location (no "<" or ">" values).

Data Point Location

1. Locate the data points in each survey unit.
2. Mark each data point with tape or other non-permanent marking.
3. Document locations on the appropriate RSDS.

General Area Exposure Rate Measurements

1. Perform general area exposure rate measurement using Micro Rem survey meter in each room in the survey unit at a distance of 1 meter (m) from the floor.
2. Record reading results (microRem/hr) including background on RSDS in accordance with Mound Rad Con procedures (no "<" or ">" values).

Loose Surface Contamination

1. Obtain a smear of 100cm^2 at each pre-designated static measurement location.
2. Count each smear for alpha, beta, and ^3H.
3. Record location and attach results on the RSDS in accordance with Mound Rad Con procedures (no "<" or ">" values).

Eg/11

Continued next page

Specific Sampling and Survey Instructions Continued

Quality Control

1. Check Configuration Index (CI) for latest revision of procedures.
2. Daily source checks will be performed at the beginning and end of each day in accordance with Mound Rad Con procedures.
3. 16 fixed measurement data points will be selected for resurvey from the pool of Class 1 areas. Data points selected for resurvey should include the highest and lowest measurement from the data pool.
4. 16 smears will be randomly selected for recount from the pool of Class 1 areas.
5. 5% of the scan measurements taken in Class 1 areas will randomly be selected for replicate scan surveys.
6. Follow Rad Con procedures for Chain of Custody requirements.
7. Ensure alpha and beta smear results are obtained before performing ^{3}H analysis.
8. Record location and results on the RSDS in accordance with Mound Rad Con procedures.

APPROVAL SIGNATURES			
Project Engineer	Mary E Agenor	DATE	7/30/05
Radiological Engineer	[illegible]	DATE	7/30/05
Manager	Bo [illegible]	DATE	8/1/05
SP CLOSE-OUT SIGNATURES			
Project Engineer		DATE	
Radiological Engineer		DATE	
Manager		DATE	
COMMENTS			

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ATTACHMENT 1: SPF T-02

Floors and walls < 2m	Ceilings and walls > 2m
1N-02-1	1N-02-2
1N-06-1	1N-06-2
1S-01-1	1S-01-2
1S-02-1	1S-02-2
1S-03-1	1S-03-2
1S-04-1	1S-04-2
1S-08-1	1S-08-2
2N-02-1	2N-02-2
2N-03-1	2N-03-2
2N-04-1	2N-04-2
2N-05-1	2N-05-2
2S-01-1	2S-01-2
2S-02-1	2S-02-2
2S-03-1	2S-03-2
2S-04-1	2S-04-2
2S-05-1	2S-05-2
2S-11-1	2S-11-2

Eu/11

Attachment F
Summary of Attached
Radiological Survey Data Sheets

RSDS	date	su	Content
MT-05-0515	21-Jul-05	2C08	DVU (corridor 24)
MT-05-0558	29-Jul-05	2C08	post remediation directs
MT-05-0593	04-Aug-05	2C08	post remediation smears
MT-05-0807	10-Sep-05	2C08	static
MT-05-1272	06-Dec-05	2C08	judgmental
MT-05-1296	08-Dec-05	2C08	judgmental and dose
MT-06-0029	10-Jan-06	2C08	DVU (corridor 22)

RSDS	date	su	Content
MT-05-0979	11-Oct-05	1S03	judgmental
MT-05-1079	25-Oct-05	1S03	Elevated Measurement
MT-05-1093	26-Oct-05	1S03	Elevated Measurement
MT-05-1165	09-Nov-05	1S03	Elevated Measurement
MT-05-1240	29-Nov-05	1S03	Elevated Measurement
MT-05-1242	30-Nov-05	1S03	DVU (corridor 9)
MT-05-1260	02-Dec-05	1S03	DVU (4c)
MT-05-1273	06-Dec-05	1S03	Elevated Measurement
MT-05-1291	08-Dec-05	1S03	static, dose
MT-05-1292	08-Dec-05	1S03	DVU
MT-05-1294	08-Dec-05	1S03	scan
MT-05-1298	09-Dec-05	1S03	static
MT-05-1303	09-Dec-05	1S03	judgmental
MT-06-0005	04-Jan-06	1S03	Elevated Measurement
MT-06-0033	10-Jan-06	1S03	SYS-PRS 226

Attachment F - continued
Summary of Attached
Radiological Survey Data Sheets

RSDS	date	su	Content
MT-05-1008	14-Oct-05	1C13	Elevated Measurement and scans
MT-05-1063	24-Oct-05	1C13	Elevated Measurement
MT-05-1070	24-Oct-05	1C13	Elevated Measurement
MT-05-1295	08-Dec-05	1C13	DVU (corridor 1)
MT-05-1300	09-Dec-05	1C13	judgmental
MT-05-1312	12-Dec-05	1C13	static (corridor 1)

RSDS	date	su	Content
MT-05-1162	08-Nov-05	1C06	Elevated Measurement and scans
MT-05-1321	14-Dec-05	1C06	DVU (corridor 39)
MT-05-1325	14-Dec-05	1C06	judgmental
MT-05-1330	16-Dec-05	1C06	static
MT-05-1336	17-Dec-05	1C06	Elevated Measurement
MT-05-1338	19-Dec-05	1C06	Elevated Measurement

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T-BLDG CORRIDOR 24 2C08	SURVEY NO. MT-05-0515
PURPOSE: DRAINS, VENTS, UTILITIES (MARSSIM FINAL STATUS SURVEY)	RWP NO. N/A
	DATE: 7-21-05
	TIME: 1100

MAP / DRAWING

See attached printout

No 2.K 12.14-05 (NOTE: 2 ADDITIONAL FLOOR DRAINS WERE IN CORRIDOR 24A)

Note: ~~No~~ 2 floor drains were located in corridor 24 RMH 7/27/05

COPY

LEGEND:

= mrem/hr (γ) whole body

#E = mrem/hr (β+η+γ) extremity on contact

K = factor of 1000

— · — · · = radiological boundary

△# = mrem/hr neutron

(#) = swipe number

[#] = air sample number

(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5895 w/5896	2-5-06
N/A	N/A	N/A
↓	↓	↓
↓	↓	↓

Completed by: (Signature) J. Kley / R Harper		Date: 7/21/05
Completed by: (Print Name) J. Kley / R HARPER		
Counted by: (Signature) See Attachments	HP# N/A	Date: N/A
Counted by: (Print Name) See Attachments		
Reviewed/Approved by: (Signature)		Date: 12/14/05
Reviewed/Approved by: (Print Name) Jess Griffin		

F1/273 RMC

Survey No. MT-05-515

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β / γ	Alpha	Tritium	Comments
1	See Attached Sheets			2C08 0101U
2				2C08 0102U
3				2C08 0103U
4				2C08 0104U
5				2C08 0105U
6				2C08 0106U
7				2C08 0107U
8				2C08 0201U
9				2C08 0202U
10				2C08 0203U
11				2C08 0204U
12				2C08 0205U
13				2C08 0206U
14				2C08 0207U
15				2C08 0208U
16				2C08 0209U
17				2C08 0210U
18				2C08 0211U
19				2C08 0212U
20				2C08 0213U
		N/A		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β / γ	Alpha	Tritium	Comments
	See Attached Sheets			
			N/A	

COPY

COMMENTS: N/A

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.

2. To request RO Count Room analysis for β / γ, alpha, or tritium, leave column blank. Mark column N/A if not needed. If count room results are attached, write " see attached " in column.

3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

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MT.05-515

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_2\20050721_1431.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-0515.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_2.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

DLH

MARSSIM Smear Data

JH
12-14-05
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B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
7/21/05	2:31:56 PM	-1	10.00	10	10	9	7	620.00	0	20.1	B	2
7/21/05	2:42:45 PM	0	2.00	610	569	1	0	575.52	1152	5.8		2
7/21/05	2:45:29 PM	1	2.00	7	6	4	9	552.50	14	86.5		2
7/21/05	2:48:11 PM	2	2.00	0	0	5	11	543.34	0	0.0		2
7/21/05	2:50:52 PM	3	2.00	1	0	0	5	583.02	2	452.7		2
7/21/05	2:53:34 PM	4	2.00	2	1	3	8	589.53	4	248.8		2
7/21/05	2:56:16 PM	5	2.00	3	3	0	4	569.85	6	175.1		2
7/21/05	2:58:59 PM	6	2.00	0	0	1	5	603.27	0	*****		2
7/21/05	3:01:41 PM	7	2.00	0	0	1	6	580.75	0	0.0		2
7/21/05	3:04:23 PM	8	2.00	0	0	0	6	622.76	0	0.0		2
7/21/05	3:07:06 PM	9	2.00	0	0	0	13	577.82	0	0.0		2
7/21/05	3:09:48 PM	10	2.00	0	0	0	6	578.08	0	0.0		2
7/21/05	3:12:31 PM	11	2.00	0	0	1	6	625.27	0	0.0		2
7/21/05	3:15:13 PM	12	2.00	0	0	0	13	588.12	0	0.0		2
7/21/05	3:17:55 PM	13	2.00	0	0	2	5	603.11	0	0.0		2
7/21/05	3:20:38 PM	14	2.00	0	0	0	36	408.85	0	0.0		2
7/21/05	3:23:20 PM	15	2.00	1	1	0	10	551.91	1	798.8		2
7/21/05	3:26:02 PM	16	2.00	0	0	0	6	571.52	0	0.0		2
7/21/05	3:28:49 PM	17	2.00	0	0	1	6	592.96	0	0.0		2
7/21/05	3:31:31 PM	18	2.00	0	0	0	0	555.32	0	0.0		2
7/21/05	3:34:13 PM	19	2.00	0	0	0	6	625.57	0	0.0		2
7/21/05	3:36:54 PM	20	2.00	0	0	4	6	581.69	0	0.0		2

JH

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_028
Batch Ended: 7/21/05 14:04
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: MT-05-0515 [20] GWD

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	1.74	2.22		0.81	2.27	
A2	2	0.00	2.05		2.75	2.33	
A3	3	0.00	2.27		0.00	1.27	
A4	4	0.00	2.15		2.73	2.42	
B1	5	0.00	1.92		1.73	2.07	
B2	6	0.00	1.89		1.02	1.94	
B3	7	0.00	2.20		0.31	1.88	
B4	8	0.00	1.96		0.00	1.21	
C1	9	0.00	2.10		3.94	2.75	
C2	10	0.00	1.91		0.00	1.13	
C3	11	0.00	2.11		3.92	2.73	
C4	12	1.68	1.95		0.00	1.13	
D1	13	0.00	2.06		0.29	1.77	
D2	14	0.00	2.17		0.39	1.68	
D3	15	0.00	2.11		1.42	2.15	
D4	16	0.00	2.06		1.37	2.03	
A1	17	0.00	2.22		0.99	2.27	
A2	18	0.00	2.00		0.00	1.18	
A3	19	0.00	2.30		1.98	2.18	
A4	20	0.00	2.12		0.32	1.71	

J.K J.K

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 J.K 10.14.05

GWD

F 5/273

T BLDG. COR. 24 DRAINS, VENTS, UTILITIES

RSDS# __MT-05-515_____ *RCT:* _____ *RCT:* _____

Alpha	43-68 BKG:	0	EFF:	0.2166	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.17	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	Item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	2C080101U	5895		5896	1	1	7/21/05	8:20	5	120	18
ALPHA	2C080102U	5895		5896	1	2	7/21/05	8:26	15	120	55
ALPHA	2C080103U	5895		5896	1	3	7/21/05	8:33	10	120	37
ALPHA	2C080104U	5895		5896	1	4	7/21/05	8:39	6	120	22
ALPHA	2C080105U	5895		5896	1	5	7/21/05	8:45	5	120	18
ALPHA	2C080106U	5895		5896	1	6	7/21/05	8:52	8	120	29
ALPHA	2C080107U	5895		5896	1	7	7/21/05	9:23	4	120	15
ALPHA	2C080201U	5895		5896	1	8	7/21/05	9:38	6	120	22
ALPHA	2C080202U	5895		5896	1	9	7/21/05	9:44	4	120	15
ALPHA	2C080203U	5895		5896	1	10	7/21/05	9:49	4	120	15
ALPHA	2C080204U	5895		5896	1	11	7/21/05	9:54	5	120	18
ALPHA	2C080205U	5895		5896	1	12	7/21/05	9:59	6	120	22
ALPHA	2C080206U	5895		5896	1	13	7/21/05	10:04	7	120	26
ALPHA	2C080207V	5895		5896	1	14	7/21/05	10:08	7	120	26
ALPHA	2C080208U	5895		5896	1	15	7/21/05	10:13	5	120	18
ALPHA	2C080209U	5895		5896	1	16	7/21/05	10:18	7	120	26
ALPHA	2C080210U	5895		5896	1	17	7/21/05	10:22	4	120	15
ALPHA	2C080211U	5895		5896	1	18	7/21/05	10:27	10	120	37
ALPHA	2C080212U	5895		5896	1	19	7/21/05	10:32	5	120	18
ALPHA	2C080213U	5895		5896	1	20	7/21/05	10:36	6	120	22
BETA	2C080101U	5895		5896	2	1	7/21/05	8:21	81	60	756
BETA	2C080102U	5895		5896	2	2	7/21/05	8:27	142	60	1326
BETA	2C080103U	5895		5896	2	3	7/21/05	8:34	101	60	943
BETA	2C080104U	5895		5896	2	4	7/21/05	8:41	125	60	1167
BETA	2C080105U	5895		5896	2	5	7/21/05	8:46	103	60	962
BETA	2C080106U	5895		5896	2	6	7/21/05	8:53	73	60	682
BETA	2C080107U	5895		5896	2	7	7/21/05	9:24	92	60	859
BETA	2C080201U	5895		5896	2	8	7/21/05	9:39	77	60	719
BETA	2C080202U	5895		5896	2	9	7/21/05	9:45	86	60	803
BETA	2C080203U	5895		5896	2	10	7/21/05	9:50	120	60	1120
BETA	2C080204U	5895		5896	2	11	7/21/05	9:55	111	60	1036
BETA	2C080205U	5895		5896	2	12	7/21/05	10:00	107	60	999
BETA	2C080206U	5895		5896	2	13	7/21/05	10:05	76	60	710
BETA	2C080207V	5895		5896	2	14	7/21/05	10:09	80	60	747
BETA	2C080208U	5895		5896	2	15	7/21/05	10:14	84	60	784
BETA	2C080209U	5895		5896	2	16	7/21/05	10:19	76	60	710
BETA	2C080210U	5895		5896	2	17	7/21/05	10:23	92	60	859
BETA	2C080211U	5895		5896	2	18	7/21/05	10:28	73	60	682
BETA	2C080212U	5895		5896	2	19	7/21/05	10:33	77	60	719
BETA	2C080213U	5895		5896	2	20	7/21/05	10:38	72	60	672

DCK 1-16-06

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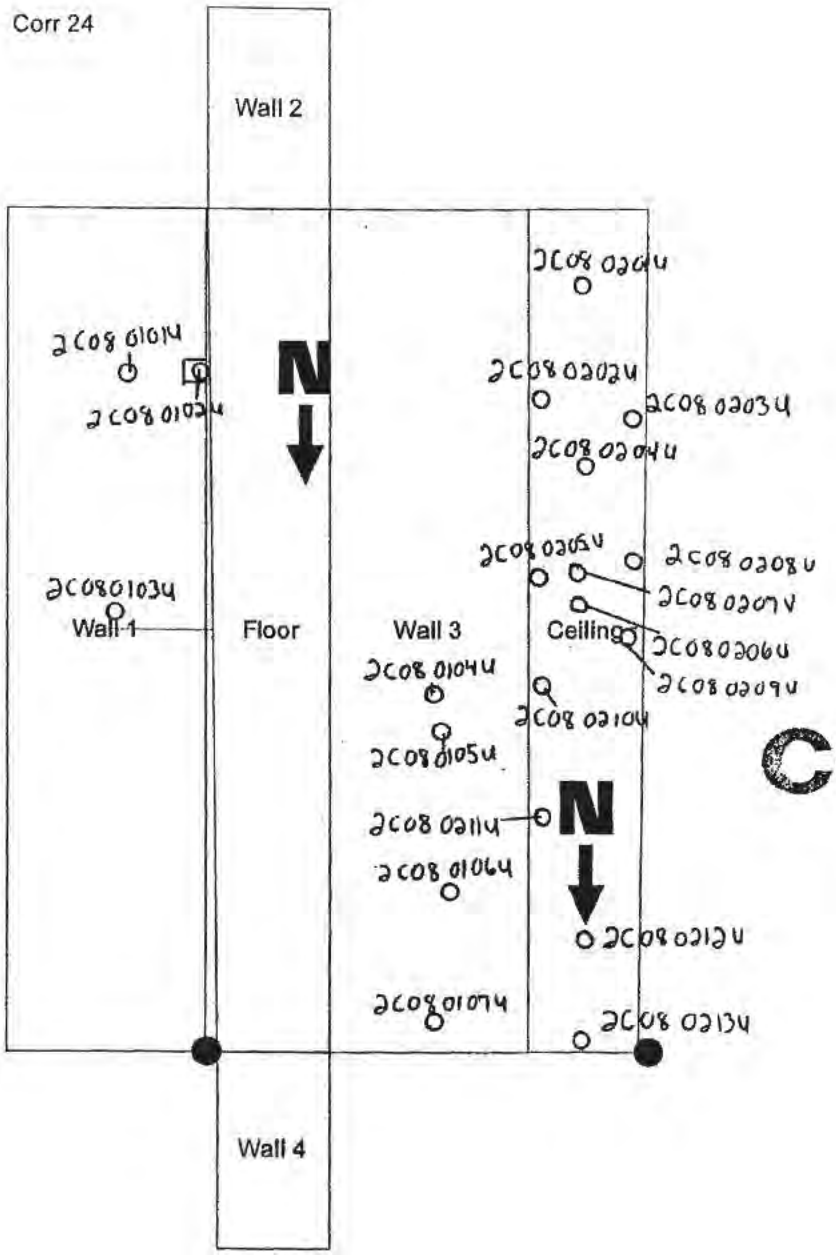
F6/2 3

M9-05-515

2C-08 **100 % scan of floor and walls up to 2 meters**
Class 1 **25% scan of walls above 2 meters**



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Survey Unit Number: 2C08

(Supplemental sheet for biased measurements.)

RSDS # MT 05-515

RCT INT/HP 2K / [redacted]

Label	Room	Surface	LX	LY
2C08 0101 U	Corridor 24	Wall 1	N/A	N/A
2C08 0102 U				
2C08 0103 U				
2C08 0104 U		Wall 3		
2C08 0105 U				
2C08 0106 U				
2C08 0107 U		Wall 5		
2C08 0201 U		Ceiling		
2C08 0202 U				
2C08 0203 U				
2C08 0204 U				
2C08 0205 U				
2C08 0206 U				
2C08 0207 U				
2C08 0208 U				
2C08 0209 U				
2C08 0210 U				
2C08 0211 U				
2C08 0212 U				
2C08 0213 U				
N/A	N/A	N/A		

J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventalation system.
U-designator represents measurement on a utility drop.

COPY

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) J BLDG / 2C08 / CORRIDOR 22	SURVEY NO. MT-05-558
PURPOSE: POST "HOT SPOT" CONCRETE REMOVAL VERIFICATION SURVEY.	RWP NO. N/A
	DATE: 7/29/05
	TIME: 1505

MAP/DRAWING

SEE ATTACHED SHEETS FOR SURVEY RESULTS + LOCATIONS.

NO ELEVATED α OR β⁻ CONTAMINATION

* REFER TO RSDS MT-05-593 FOR SMEAR RESULTS *

* REFER TO RSDS MT-05-1272 FOR SCM SUMMARY *

5	10	15	20
4	9	14	19
3	8	13	18
2	7	12	17
1	6	11	16

N ↓

COPY

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact

△# = mrem/hr neutron

[#] = air sample number

(#) = swipe number

(#/α) or/β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350-1	5889 / 5890	1/13/06
	N	
		A

Completed by: (Signature)		DATE: 7/29/05
Completed by: (Print Name) RICHARD V. BURKE		
Counted by: (Signature) SEE ATTACHED SHEET	HI'#	DATE:
Counted by: (Print Name) SEE ATTACHED SHEET		
Reviewed/Approved by: (Signature)		DATE: 1-9-06
Reviewed/Approved by: (Print Name) Jerry L. Taylor		

ML-9620 (2-98)

F9/273

Survey No. MT-05-558

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	
1	SEE	ATTACHED	SHEET	2C08-0101
2				2C08-0102
3				2C08-0103
4				2C08-0104
5				2C08-0105
6				2C08-0106
7				2C08-0107
8				2C08-0108
9				2C08-0109
10				2C08-0110
11				2C08-0111
12				2C08-0112
13				2C08-0113
14				2C08-0114
15				2C08-0115
16				2C08-0116
17				2C08-0117
18				2C08-0118
19				2C08-0119
20				2C08-0120
21	Smears	RESULTS ON	MT-05	-593
22				
23				
24				
25		N		
26				
27				
28				
29			A	
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46		N		
47				
48				
49				
50				
51				
52				
53				
54				A
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COPY

COMMENTS: N A

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-0620 (4-98)

F10/273

T-Building Verification Survey (Corridor 22) 2C-08

RSDS# MT-05-558 ***RCT:*** [redacted] ***RCT:*** N/A

Alpha	43-68 BKG:	0	EFF:	0.2177	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector #: 1
Beta	43-68 BKG:	0	EFF:	0.1732	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector #: 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector #: 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector #: 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	Item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	2C080101	5889	[redacted]	5890	1	1	7/29/05	10:01	5	120	18
ALPHA	2C080102	5889	[redacted]	5890	1	2	7/29/05	10:05	5	120	18
ALPHA	2C080103	5889	[redacted]	5890	1	3	7/29/05	10:09	3	120	11
ALPHA	2C080104	5889	[redacted]	5890	1	4	7/29/05	10:13	6	120	22
ALPHA	2C080105	5889	[redacted]	5890	1	5	7/29/05	10:17	8	120	29
ALPHA	2C080106	5889	[redacted]	5890	1	6	7/29/05	10:21	8	120	29
ALPHA	2C080107	5889	[redacted]	5890	1	7	7/29/05	10:24	5	120	18
ALPHA	2C080108	5889	[redacted]	5890	1	8	7/29/05	10:28	5	120	18
ALPHA	2C080109	5889	[redacted]	5890	1	9	7/29/05	10:32	2	120	7
ALPHA	2C080109	5889	[redacted]	5890	1	10	7/29/05	10:37	3	120	11
ALPHA	2C080111	5889	[redacted]	5890	1	11	7/29/05	10:42	8	120	29
ALPHA	2C080112	5889	[redacted]	5890	1	12	7/29/05	10:46	3	120	11
ALPHA	2C080113	5889	[redacted]	5890	1	13	7/29/05	12:14	11	120	40
ALPHA	2C080114	5889	[redacted]	5890	1	14	7/29/05	12:18	4	120	15
ALPHA	2C080115	5889	[redacted]	5890	1	15	7/29/05	12:21	3	120	11
ALPHA	2C080116	5889	[redacted]	5890	1	16	7/29/05	12:25	7	120	26
ALPHA	2C080117	5889	[redacted]	5890	1	17	7/29/05	12:29	3	120	11
ALPHA	2C080118	5889	[redacted]	5890	1	18	7/29/05	12:32	4	120	15
ALPHA	2C080119	5889	[redacted]	5890	1	19	7/29/05	12:36	6	120	22
ALPHA	2C080120	5889	[redacted]	5890	1	20	7/29/05	12:40	8	120	29 ✓
BETA	2C080101	5889	[redacted]	5890	2	1	7/29/05	10:02	214	60	1961
BETA	2C080102	5889	[redacted]	5890	2	2	7/29/05	10:06	173	60	1585
BETA	2C080103	5889	[redacted]	5890	2	3	7/29/05	10:10	183	60	1677
BETA	2C080104	5889	[redacted]	5890	2	4	7/29/05	10:14	187	60	1714
BETA	2C080105	5889	[redacted]	5890	2	5	7/29/05	10:18	183	60	1677
BETA	2C080106	5889	[redacted]	5890	2	6	7/29/05	10:22	193	60	1769
BETA	2C080107	5889	[redacted]	5890	2	7	7/29/05	10:25	183	60	1677
BETA	2C080108	5889	[redacted]	5890	2	8	7/29/05	10:29	194	60	1778
BETA	2C080109	5889	[redacted]	5890	2	9	7/29/05	10:33	210	60	1925
BETA	2C080109	5889	[redacted]	5890	2	10	7/29/05	10:38	198	60	1815
BETA	2C080111	5889	[redacted]	5890	2	11	7/29/05	10:43	201	60	1842
BETA	2C080112	5889	[redacted]	5890	2	12	7/29/05	10:47	192	60	1760
BETA	2C080113	5889	[redacted]	5890	2	13	7/29/05	12:15	193	60	1769
BETA	2C080114	5889	[redacted]	5890	2	14	7/29/05	12:19	181	60	1659
BETA	2C080115	5889	[redacted]	5890	2	15	7/29/05	12:22	196	60	1796
BETA	2C080116	5889	[redacted]	5890	2	16	7/29/05	12:26	207	60	1897
BETA	2C080117	5889	[redacted]	5890	2	17	7/29/05	12:30	181	60	1659
BETA	2C080118	5889	[redacted]	5890	2	18	7/29/05	12:33	188	60	1723
BETA	2C080119	5889	[redacted]	5890	2	19	7/29/05	12:37	165	60	1512
BETA	2C080120	5889	[redacted]	5890	2	20	7/29/05	12:41	189	60	1732 ✓

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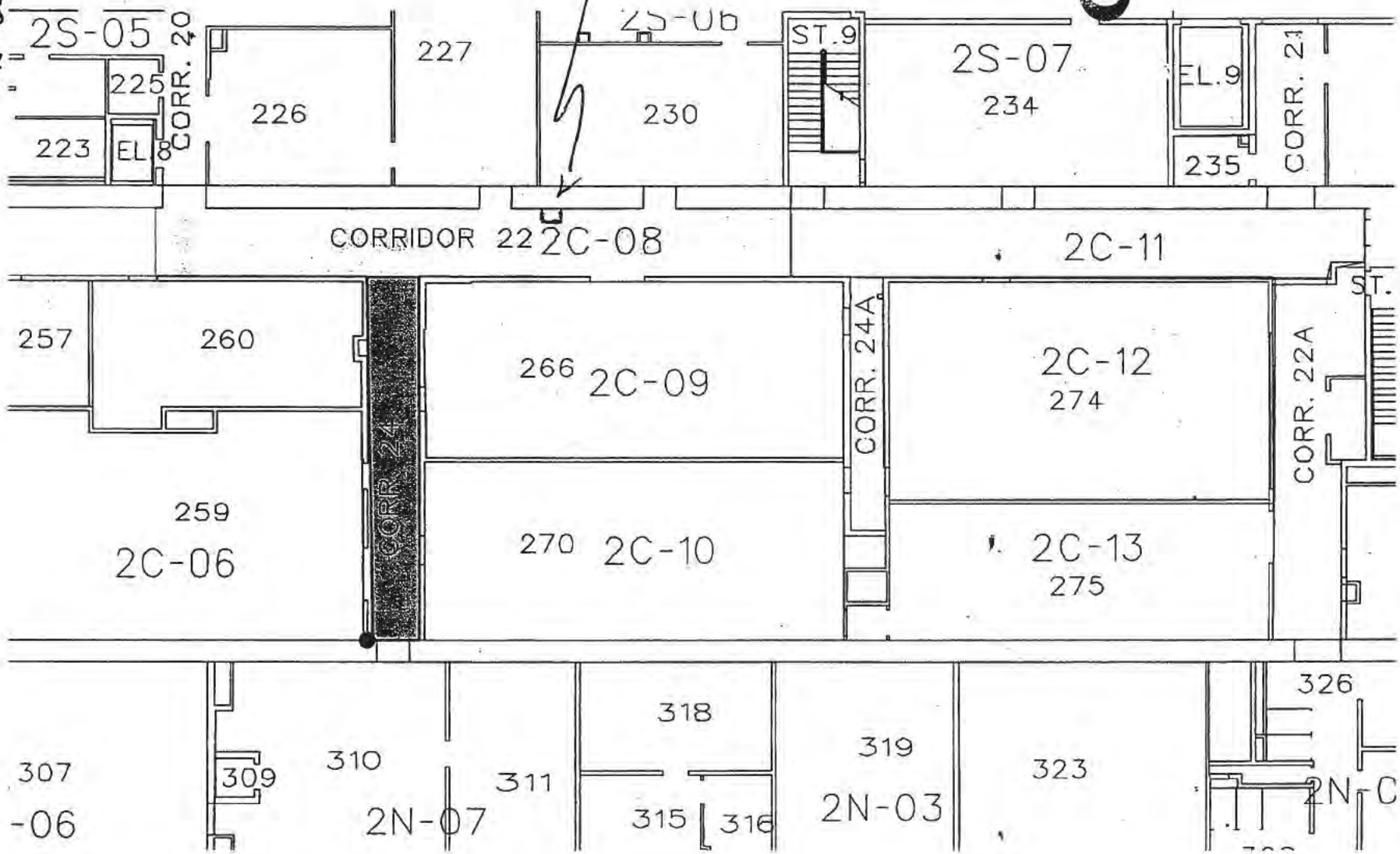
MT-05-558

2C-08 Class 1

AREA SURVEYED

COPY



F12/27

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T BLDG / 2C08 / CORRIDOR 22	SURVEY NO. MT-05-593
PURPOSE: POST "HOT SPOT" CONCRETE REMOVAL VERIFICATION SURVEY. SMEAR RESULTS	RWP NO. N/A
	DATE: 7/29/05
	TIME: 1505

MAP/DRAWING

SEE ATTACHED FOR SMEAR RESULTS. & LOCATION.

* REFER TO RSDS MT-05-558 FOR DIRECT READINGS. *

COPY

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or/β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350-1	5989/5880	1/13/06
	N	
	A	

Completed by: (Signature)		DATE: 7/29/05
Completed by: (Print Name) RICARDO V. BURKE		
Counted by: (Signature) SEE ATTACHED SHEET	HP #	DATE:
Counted by: (Print Name) SEE ATTACHED SHEET		
Reviewed/Approved by: (Signature)		DATE: 1-9-06
Reviewed/Approved by: (Print Name) Jerry Taylor		

ML-9620 (2-98)

F 13/273 RAC

Survey No. MT-05-593

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	
1	SEE	ATTACHED	SHEET	2008-0101
2				2008-0102
3				2008-0103
4				2008-0104
5				2008-0105
6				2008-0106
7				2008-0107
8				2008-0108
9				2008-0109
10				2008-0110
11				2008-0111
12				2008-0112
13				2008-0113
14				2008-0114
15				2008-0115
16				2008-0116
17				2008-0117
18				2008-0118
19				2008-0119
20				2008-0120
21				
22				
23				
24				
25		N		
26				
27				
28				
29			A	
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46		N		
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				A
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COMMENTS: N A

NOTES:
1. See MD-80036.10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, Alpha or Tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-0620 (4-08)

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_1\20050804_1503.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-0593.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_1.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

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MARSSIM Smear Data

PAGE 4 of 5
MT-05-593

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
8/4/05	3:03:44 PM	-1	10.00	8	7	10	2	619.08	0	22.1	B	1
8/4/05	3:14:31 PM	0	2.00	618	585	3	0	555.48	1186	5.7		1
8/4/05	3:17:13 PM	1	2.00	1	0	3	6	609.11	1	576.6		1
8/4/05	3:19:55 PM	2	2.00	3	3	2	9	608.34	6	155.8		1
8/4/05	3:22:36 PM	3	2.00	0	0	1	13	609.89	0	0.0		1
8/4/05	3:25:18 PM	4	2.00	5	5	0	4	580.91	10	103.4		1
8/4/05	3:27:59 PM	5	2.00	0	0	4	19	578.95	0	0.0		1
8/4/05	3:30:41 PM	6	2.00	2	2	0	5	618.38	4	247.9		1
8/4/05	3:33:22 PM	7	2.00	2	3	0	10	601.92	3	268.1		1
8/4/05	3:36:04 PM	8	2.00	0	0	4	7	596.70	0	0.0		1
8/4/05	3:38:46 PM	9	2.00	4	5	2	12	526.17	9	121.0		1
8/4/05	3:41:28 PM	10	2.00	0	0	0	13	575.62	0	0.0		1
8/4/05	3:44:10 PM	11	2.00	0	0	1	7	591.45	0	0.0		1
8/4/05	3:46:52 PM	12	2.00	0	0	2	6	590.11	0	0.0		1
8/4/05	3:49:33 PM	13	2.00	0	0	3	6	558.69	0	0.0		1
8/4/05	3:52:15 PM	14	2.00	1	1	2	5	594.69	2	363.1		1
8/4/05	3:54:57 PM	15	2.00	5	4	0	4	593.27	9	112.7		1
8/4/05	3:57:39 PM	16	2.00	8	4	3	16	540.27	15	76.1		1
8/4/05	4:00:42 PM	17	2.00	0	1	3	6	592.64	0	*****		1
8/4/05	4:03:23 PM	18	2.00	2	2	6	5	588.22	3	268.1		1
8/4/05	4:06:07 PM	19	2.00	0	0	2	9	542.29	0	0.0		1
8/4/05	4:08:48 PM	20	2.00	1	1	0	16	542.51	3	363.1		1

RJB

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12/22/15

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_021
Batch Ended: 8/4/05 14:21
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: MT-05-0593 BURKE (20) 08/04/05 TAS

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	1.74	2.19		0.00	1.33	
A2	2	0.00	2.03		1.59	2.02	
A3	3	0.00	2.28		0.72	1.78	
A4	4	0.00	2.10		0.00	1.22	
B1	5	0.00	1.88		0.00	1.20	
B2	6	0.00	1.89		1.02	1.94	
B3	7	0.00	2.22		1.63	2.30	
B4	8	0.00	2.01		1.56	2.08	
C1	9	0.00	2.10		3.94	2.75	
C2	10	0.00	1.92		0.47	1.59	
C3	11	0.00	2.07		0.27	1.72	
C4	12	1.68	1.95		0.00	1.12	
D1	13	0.00	2.06		0.29	1.77	
D2	14	0.00	2.18		1.58	2.06	
D3	15	0.00	2.09		0.00	1.24	
D4	16	1.54	2.04		0.00	1.18	
A1	17	0.00	2.22		0.99	2.27	
A2	18	0.00	2.02		0.42	1.65	
A3	19	0.00	2.27		0.00	1.27	
A4	20	1.71	2.10		0.00	1.22	

RB RB

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~~Page 1 of 1~~ RB 12/22/05

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RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) T BLDG / 2C08 / CORRIDORS 22/24	SURVEY NO. MT-05-0807
PURPOSE: UPPER STATIC SURVEY	RWP NO. N/A
	DATE: 12/7/05
	TIME: 1500

MAP/DRAWING

SEE ATTACHED FOR SURVEY LOCATION.

SEE ATTACHED FOR SURVEY RESULTS.

A SCAN OF THE AREA 1 m^2 AROUND EACH SURVEY POINT (CEILING) SHOWED NO ELEVATED α OR β^- CONTAMINATION

COPY

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
#/α or β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350-1	5928/5927	5/24/06
	N	
	A	

Completed by: (Signature)		DATE: 12/7/05
Completed by: (Print Name) RICARDO V. BURKE / K. ABERCROMBIE		
Counted by: (Signature) SEE ATTACHED SHEET	HI #	DATE:
Counted by: (Print Name) SEE ATTACHED SHEET		
Reviewed/Approved by: (Signature)		DATE: 12/14/05
Reviewed/Approved by: (Print Name) JESS Griffin		

ML-9620 (2-88)

F18/273

Survey No. MT-05-0807

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED	SHEET	2008-0201S
2				2008-0202S
3				2008-0203S
4				2008-0204S
5				2008-0205S
6				2008-0206S
7				2008-0207S
8				2008-0208S
9				2008-0209S
10				2008-0210S
11				2008-0211S
12				2008-0212S
13				2008-0213S
14				2008-0214S
15				2008-0215S
16				2008-0216S
17				2008-0217S
18				2008-0218S
19				2008-0219S
20				2008-0220S
21				2008-0221S
22				2008-0222S
23				2008-0223S
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
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63				
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65				
66				
67				
68				
69				
70				

N/A

COMMENTS: N/A

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-0620 (4-96)

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_2\20051207_1506.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-0807.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_2.lsa

COPY

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

F20/243

MT-05-0807

MARSSIM Smear Data

COPY

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/7/05	3:07:14 PM	-1	10.00	8	7	12	16	605.54	0	22.8	B	2
12/7/05	3:18:03 PM	0	2.00	494	469	0	1	576.97	932	6.4		2
12/7/05	3:20:45 PM	1	2.00	0	0	0	13	621.46	1	1401.7		2
12/7/05	3:23:28 PM	2	2.00	0	1	0	6	623.57	1	1401.7		2
12/7/05	3:26:10 PM	3	2.00	0	0	0	8	577.07	0	0.0		2
12/7/05	3:28:52 PM	4	2.00	1	1	0	0	608.31	1	559.4		2
12/7/05	3:31:33 PM	5	2.00	2	2	0	0	630.91	3	277.6		2
12/7/05	3:34:15 PM	6	2.00	4	5	0	0	629.89	7	134.0		2
12/7/05	3:36:58 PM	7	2.00	0	0	0	0	583.09	0	0.0		2
12/7/05	3:39:42 PM	8	2.00	0	0	0	7	583.76	0	0.0		2
12/7/05	3:42:25 PM	9	2.00	0	0	0	7	545.51	0	0.0		2
12/7/05	3:45:07 PM	10	2.00	0	0	0	7	587.33	0	0.0		2
12/7/05	3:47:51 PM	11	2.00	3	1	1	10	484.91	5	190.7		2
12/7/05	3:50:34 PM	12	2.00	3	2	0	5	607.50	5	174.5		2
12/7/05	3:53:15 PM	13	2.00	0	0	0	0	630.88	0	0.0		2
12/7/05	3:55:57 PM	14	2.00	0	0	0	8	603.33	0	0.0		2
12/7/05	3:58:40 PM	15	2.00	0	0	0	15	515.59	0	0.0		2
12/7/05	4:01:23 PM	16	2.00	3	3	0	0	589.11	6	158.2		2
12/7/05	4:04:29 PM	17	2.00	0	0	0	7	590.32	0	0.0		2
12/7/05	4:07:13 PM	18	2.00	4	4	0	4	574.27	8	120.7		2
12/7/05	4:09:55 PM	19	2.00	8	7	0	3	531.15	15	74.7		2
12/7/05	4:12:38 PM	20	2.00	5	5	0	0	578.52	10	101.5		2
12/7/05	4:15:21 PM	21	2.00	0	0	0	8	505.36	0	0.0		2
12/7/05	4:18:04 PM	22	2.00	5	4	0	0	572.60	10	101.5		2
12/7/05	4:20:48 PM	23	2.00	7	6	0	3	565.98	13	85.3		2

KA

F21/273

TAS

PAGE 5 OF 9

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_022
Batch Ended: 12/7/05 13:51
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-0807 RICK BURKE (23) AG

COPY

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	1.72	2.20		0.29	1.84	
A2	2	0.00	2.01		0.34	1.64	
A3	3	0.00	2.28		0.41	1.78	
A4	4	0.00	2.10		0.00	1.21	
B1	5	0.00	1.87		0.00	1.19	
B2	6	0.00	1.85		0.00	1.12	
B3	7	1.66	2.18		0.00	1.33	
B4	8	0.00	1.97		0.40	1.69	
C1	9	0.00	2.06		0.26	1.74	
C2	10	0.00	1.93		1.59	1.95	
C3	11	0.00	2.06		0.00	1.22	
C4	12	0.00	1.96		0.62	1.59	
D1	13	0.00	2.05		0.00	1.25	
D2	14	0.00	2.15		0.00	1.19	
D3	15	0.00	2.10		0.18	1.75	
D4	16	0.00	2.11		6.05	3.11	
A1	17	0.00	2.20		0.47	1.84	
A2	18	0.00	2.03		1.51	2.01	
A3	19	0.00	2.30		1.67	2.18	
A4	20	0.00	2.14		2.89	2.41	
B1	21	0.00	1.89		0.04	1.68	
B2	22	0.00	1.85		0.00	1.12	
B3	23	0.00	2.20		0.20	1.87	

KA KA

~~Page 1 of 1~~ RB 12/12/05

F22/24

T-Building Upper Static Survey (2C08) Corridors 22/24

RSDS# MT-05-0807 *RCT:* [redacted] *RCT:* [redacted]

Alpha	43-68 BKG:	0	EFF:	0.22	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.168	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	Item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	2C080201S	5928	[redacted]	5927	1	1	12/07/05	7:57	7	120	25
ALPHA	2C080202S	5928	[redacted]	5927	1	2	12/07/05	8:06	3	120	11
ALPHA	2C080203S	5928	[redacted]	5927	1	3	12/07/05	8:14	4	120	14
ALPHA	2C080204S	5928	[redacted]	5927	1	4	12/07/05	8:23	7	120	25
ALPHA	2C080105S	5928	[redacted]	5927	1	5	12/07/05	8:32	3	120	11
ALPHA	2C080206S	5928	[redacted]	5927	1	6	12/07/05	8:49	2	120	7
ALPHA	2C080207S	5928	[redacted]	5927	1	7	12/07/05	9:42	7	120	25
ALPHA	2C080208S	5928	[redacted]	5927	1	8	12/07/05	9:51	5	120	18
ALPHA	2C080209S	5928	[redacted]	5927	1	9	12/07/05	10:09	5	120	18
ALPHA	2C080210S	5928	[redacted]	5927	1	10	12/07/05	10:15	9	120	32
ALPHA	2C080211S	5928	[redacted]	5927	1	11	12/07/05	10:21	5	120	18
ALPHA	2C080212S	5928	[redacted]	5927	1	12	12/07/05	10:28	5	120	18
ALPHA	2C080213S	5928	[redacted]	5927	1	13	12/07/05	10:35	7	120	25
ALPHA	2C080114S	5928	[redacted]	5927	1	14	12/07/05	10:41	2	120	7
ALPHA	2C080215S	5928	[redacted]	5927	1	15	12/07/05	12:15	4	120	14
ALPHA	2C080216S	5928	[redacted]	5927	1	16	12/07/05	12:23	3	120	11
ALPHA	2C080217S	5928	[redacted]	5927	1	17	12/07/05	12:42	4	120	14
ALPHA	2C080218S	5928	[redacted]	5927	1	18	12/07/05	12:51	1	120	4
ALPHA	2C080219S	5928	[redacted]	5927	1	19	12/07/05	12:59	5	120	18
ALPHA	2C080220S	5928	[redacted]	5927	1	20	12/07/05	13:04	1	120	4
ALPHA	2C080221S	5928	[redacted]	5927	1	21	12/07/05	13:10	6	120	22
ALPHA	2C080222S	5928	[redacted]	5927	1	22	12/07/05	13:17	6	120	22
ALPHA	2C080223S	5928	[redacted]	5927	1	23	12/07/05	13:29	5	120	18
BETA	2C080201S	5928	[redacted]	5927	2	1	12/07/05	7:58	105	60	992
BETA	2C080202S	5928	[redacted]	5927	2	2	12/07/05	8:07	107	60	1011
BETA	2C080203S	5928	[redacted]	5927	2	3	12/07/05	8:16	96	60	907
BETA	2C080204S	5928	[redacted]	5927	2	4	12/07/05	8:24	101	60	954
BETA	2C080105S	5928	[redacted]	5927	2	5	12/07/05	8:33	123	60	1162
BETA	2C080206S	5928	[redacted]	5927	2	6	12/07/05	8:50	76	60	718
BETA	2C080207S	5928	[redacted]	5927	2	7	12/07/05	9:43	104	60	983
BETA	2C080208S	5928	[redacted]	5927	2	8	12/07/05	9:52	85	60	803
BETA	2C080209S	5928	[redacted]	5927	2	9	12/07/05	10:10	81	60	765
BETA	2C080210S	5928	[redacted]	5927	2	10	12/07/05	10:16	76	60	718
BETA	2C080211S	5928	[redacted]	5927	2	11	12/07/05	10:22	75	60	709
BETA	2C080212S	5928	[redacted]	5927	2	12	12/07/05	10:29	80	60	756
BETA	2C080213S	5928	[redacted]	5927	2	13	12/07/05	10:37	73	60	690
BETA	2C080114S	5928	[redacted]	5927	2	14	12/07/05	10:43	87	60	822
BETA	2C080215S	5928	[redacted]	5927	2	15	12/07/05	12:16	74	60	699
BETA	2C080216S	5928	[redacted]	5927	2	16	12/07/05	12:24	81	60	765
BETA	2C080217S	5928	[redacted]	5927	2	17	12/07/05	12:43	88	60	831
BETA	2C080218S	5928	[redacted]	5927	2	18	12/07/05	12:52	91	60	860
BETA	2C080219S	5928	[redacted]	5927	2	19	12/07/05	13:00	85	60	803

F23/223

T-Building Upper Static Survey (2C08) Corridors 22/24

RSDS# MT-05-0807 ***RCT:*** [redacted] ***RCT:*** [redacted]

Alpha	43-68 BKG:	0	EFF:	0.22	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.168	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
BETA	2C080220S	5928	[redacted]	5927	2	20	12/07/05	13:06	100	60	945
BETA	2C080221S	5928	[redacted]	5927	2	21	12/07/05	13:11	126	60	1190
BETA	2C080222S	5928	[redacted]	5927	2	22	12/07/05	13:18	119	60	1124
BETA	2C080223S	5928	[redacted]	5927	2	23	12/07/05	13:30	108	60	1020

COPY

F-24/223

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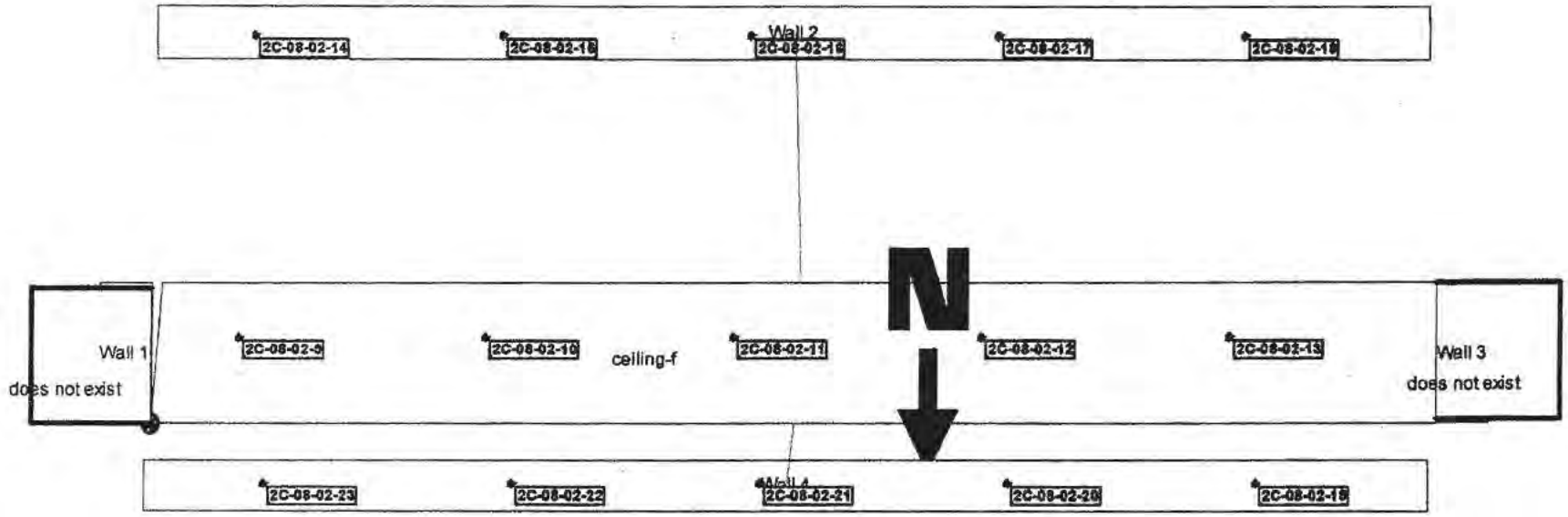
MT-05-0807

2C-08-02
ceiling and upper wall static measurement locations
scan an area of approximately 1m2 around each ceiling location

Center Corridor 22

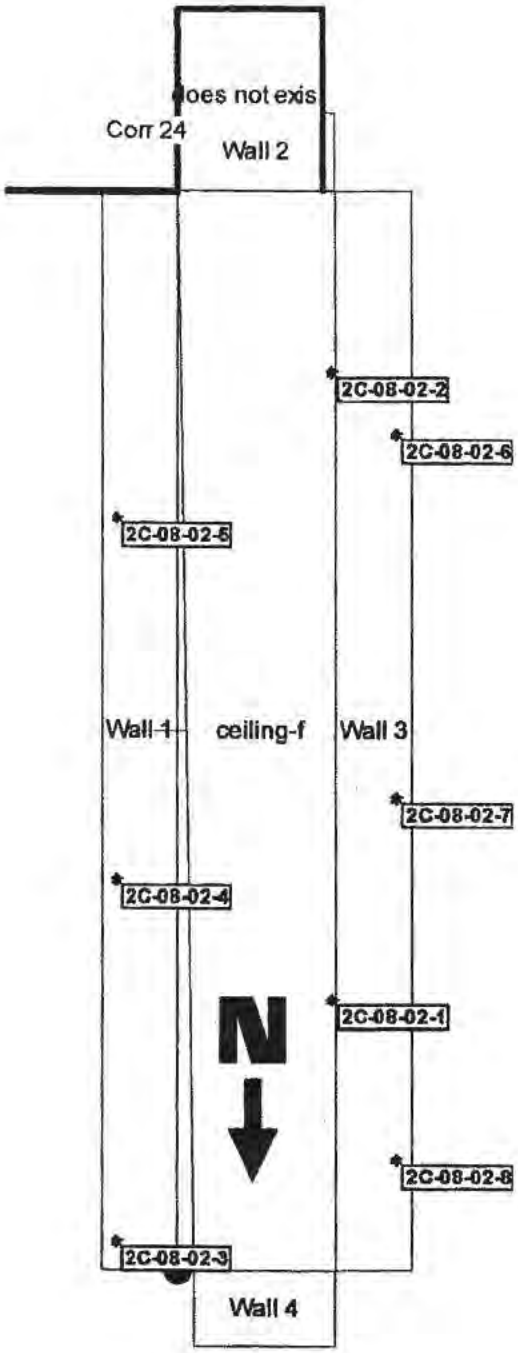
COPY



5/24/06
5926/5927
ABERCROMBIE
2360-1
SURKE

E365/273

2C-08-02
ceiling and upper wall static measurement locations
scan an area of approximately 1m2 around each ceiling location



COPY

2350-1 5928/5927 5/24/06
BURKE [redacted] ABERCROMBIE [redacted]

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) 1 BLDG / 2C08 / CORRIDORS 22/24	SURVEY NO. MT-05-1272
PURPOSE: LOWER STATIC SURVEY SCAN OF REMAINING FLOOR AREA NOT PERFORMED BY SHONKA, and SCM Survey	RWP NO. N/A
	DATE: 12/6/05
	TIME: 1630

MAP/DRAWING

- SEE ATTACHED FOR SURVEY LOCATIONS.
- SEE ATTACHED FOR SURVEY RESULTS. MAS 1-11-06
- A SCAN OF THE FLOOR / LOWER ~~AND UPPER~~ 9/a 1-9-06 AND UPPER WALL AREA NOT SURVEYED BY SHONKA SHOWED NO ELEVATED α OR β CONTAMINATION.
- ~~A SCAN OF THE 1 M² AREA AROUND EACH CEILING POINT SHOWED NO ELEVATED α OR β CONTAMINATION.~~ RB 1/5/06

Scm summary attached.

Reference RSDS MT-05-558 for post remediation of area found by SCM survey.

COPY

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+γ+γ) extremity on contact
△# = mrem/hr neutron
(#) = swipe number
[#] = air sample number
(#/α) or/β = direct cont. measurement in dpm/100cm²

SCM 23	R180 / C180	6/1/06

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350-1	5928/5927	5/24/06
	N	
	A	

Completed by: (Signature) K. Abercrombie		DATE 12/6/05
Completed by: (Print Name) KEARON V. PURKE / K. Abercrombie		
Counted by: (Signature) SEE ATTACHED SHEET	HI/#	DATE:
Counted by: (Print Name) SEE ATTACHED SHEET		
Reviewed/Approved by: (Signature)		DATE: 12/6/05
Reviewed/Approved by: (Print Name) Jess Griffin		F27/2.23

ML-0620 (2-98)

Amc

pw 12/14/05

Survey No. MT-05-1272

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED	SHEET	2C08-0101S
2				2C08-0102S
3				2C08-0103S
4				2C08-0104S
5				2C08-0105S
6				2C08-0106S
7				2C08-0107S
8				2C08-0108S
9				2C08-0109S
10				2C08-0110S
11				2C08-0111S
12				2C08-0112S
13				2C08-0113S
14				2C08-0114S
15				2C08-0115S
16				2C08-0116S
17				2C08-0117S
18				2C08-0118S
19				2C08-0119S
20				2C08-0120S
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
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68				
69				
70				

COPY

COMMENTS:

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

F 28/23

MT-05-1272

MARSSIM Smear Data

COPY

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\~~Results\5801\MARSSIM~~_Smear_1\20051207_0702.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1272.001
Assay File Name: C:\Packard\TriCarb\Assays\~~MARSSIM~~_Smear_1.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

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MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/7/05	7:03:28 AM	-1	10.00	7	7	11	3	631.45	0	23.1	B	1
12/7/05	7:14:12 AM	0	2.00	464	440	3	0	550.86	895	6.6		1
12/7/05	7:16:54 AM	1	2.00	6	3	0	19	598.60	11	90.9		1
12/7/05	7:19:36 AM	2	2.00	7	4	0	34	576.14	13	80.5		1
12/7/05	7:22:20 AM	3	2.00	0	0	0	15	565.86	0	0.0		1
12/7/05	7:25:01 AM	4	2.00	45	40	0	3	555.50	86	23.1		1
12/7/05	7:27:50 AM	5	2.00	2	1	0	10	585.85	4	220.7		1
12/7/05	7:30:32 AM	6	2.00	2	2	0	10	542.75	4	206.1		1
12/7/05	7:33:14 AM	7	2.00	9	8	0	9	552.38	17	66.5		1
12/7/05	7:35:57 AM	8	2.00	6	4	0	15	501.85	11	97.5		1
12/7/05	7:38:40 AM	9	2.00	3	2	0	10	578.43	6	162.6		1
12/7/05	7:41:23 AM	10	2.00	0	0	0	8	625.14	0	0.0		1
12/7/05	7:44:05 AM	11	2.00	6	5	0	4	605.93	11	90.9		1
12/7/05	7:46:47 AM	12	2.00	1	0	0	0	615.90	1	581.7		1
12/7/05	7:49:31 AM	13	2.00	4	4	0	9	584.78	7	141.9		1
12/7/05	7:52:14 AM	14	2.00	1	0	0	0	621.99	3	311.9		1
12/7/05	7:54:56 AM	15	2.00	0	0	2	7	566.82	0	0.0		1
12/7/05	7:57:38 AM	16	2.00	3	2	3	10	608.24	6	162.6		1
12/7/05	8:00:26 AM	17	2.00	2	2	0	10	595.45	4	206.8		1
12/7/05	8:03:09 AM	18	2.00	1	1	0	12	604.49	2	436.7		1
12/7/05	8:05:50 AM	19	2.00	0	0	0	7	612.98	0	0.0		1
12/7/05	8:08:34 AM	20	2.00	0	0	0	23	569.26	0	0.0		1

COPY

RB

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: MAR_008
Batch Ended: 12/6/05 16:25
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1272 BURKE [20] GWD

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	1.72	2.21		1.60	2.26	
A2	2	0.00	2.04		2.67	2.33	
A3	3	0.00	2.26		0.00	1.26	
A4	4	0.00	2.11		0.48	1.70	
B1	5	0.00	1.91		1.23	2.06	
B2	6	0.00	1.87		0.21	1.58	
B3	7	0.00	2.18		0.00	1.33	
B4	8	0.00	1.95		0.00	1.20	
C1	9	0.00	2.06		0.26	1.74	
C2	10	0.00	1.92		0.47	1.59	
C3	11	0.00	2.06		0.00	1.22	
C4	12	0.00	1.98		1.74	1.95	
D1	13	0.00	2.05		0.00	1.25	
D2	14	0.00	2.18		1.58	2.06	
D3	15	0.00	2.11		1.42	2.15	
D4	16	0.00	2.05		0.20	1.66	
A1	17	0.00	2.23		3.08	2.61	
A2	18	0.00	2.01		0.34	1.64	
A3	19	0.00	2.26		0.00	1.26	
A4	20	0.00	2.10		0.00	1.21	

RB RB

COPY

 RB 12/7/05

Fig 3 / 273

T-Building Lower Static Survey (2C08) Corridors 22/24

COPY

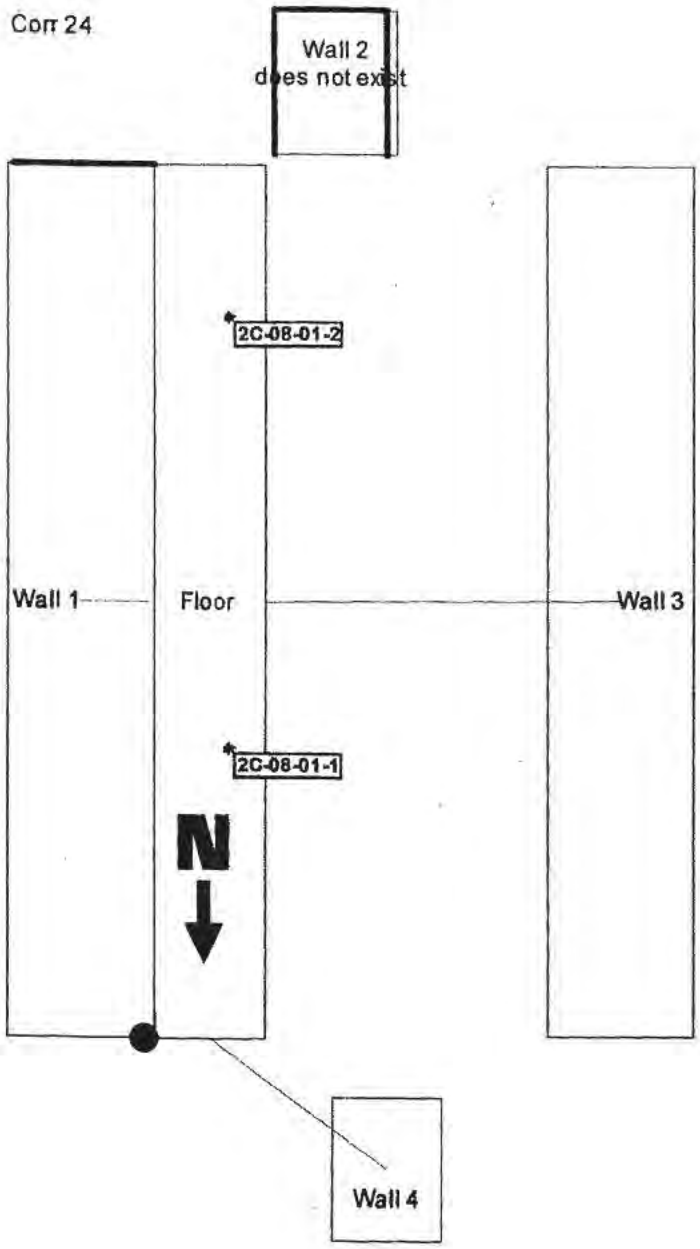
RSDS# MT-05-1272 *RCT:* [redacted] *RCT:* [redacted]

Alpha	43-68 BKG:	0	EFF:	0.22	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector #: 1
Beta	43-68 BKG:	0	EFF:	0.168	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector #: 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector #: 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector #: 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	2C080101S	5928	[redacted]	5927	1	1	12/06/05	8:32	8	120	29
ALPHA	2C080102S	5928	[redacted]	5927	1	2	12/06/05	8:45	6	120	22
ALPHA	2C080103S	5928	[redacted]	5927	1	3	12/06/05	8:49	2	120	7
ALPHA	2C080104S	5928	[redacted]	5927	1	4	12/06/05	8:53	2	120	7
ALPHA	2C080105S	5928	[redacted]	5927	1	5	12/06/05	9:46	2	120	7
ALPHA	2C080106S	5928	[redacted]	5927	1	6	12/06/05	9:51	2	120	7
ALPHA	2C080107S	5928	[redacted]	5927	1	7	12/06/05	9:55	8	120	29
ALPHA	2C080108S	5928	[redacted]	5927	1	8	12/06/05	10:01	1	120	4
ALPHA	2C080109S	5928	[redacted]	5927	1	9	12/06/05	10:05	4	120	14
ALPHA	2C080110S	5928	[redacted]	5927	1	10	12/06/05	10:12	6	120	22
ALPHA	2C080111S	5928	[redacted]	5927	1	11	12/06/05	10:17	3	120	11
ALPHA	2C080112S	5928	[redacted]	5927	1	12	12/06/05	10:23	3	120	11
ALPHA	2C080113S	5928	[redacted]	5927	1	13	12/06/05	10:36	1	120	4
ALPHA	2C080114S	5928	[redacted]	5927	1	14	12/06/05	10:40	4	120	14
ALPHA	2C080115S	5928	[redacted]	5927	1	15	12/06/05	12:18	5	120	18
ALPHA	2C080116S	5928	[redacted]	5927	1	16	12/06/05	12:30	5	120	18
ALPHA	2C080117S	5928	[redacted]	5927	1	17	12/06/05	12:42	6	120	22
ALPHA	2C080118S	5928	[redacted]	5927	1	18	12/06/05	12:51	3	120	11
ALPHA	2C080119S	5928	[redacted]	5927	1	19	12/06/05	12:58	0	120	0
ALPHA	2C080120S	5928	[redacted]	5927	1	20	12/06/05	13:05	1	120	4
BETA	2C080101S	5928	[redacted]	5927	2	1	12/06/05	8:33	140	60	1323
BETA	2C080102S	5928	[redacted]	5927	2	2	12/06/05	8:47	170	60	1606
BETA	2C080103S	5928	[redacted]	5927	2	3	12/06/05	8:50	159	60	1502
BETA	2C080104S	5928	[redacted]	5927	2	4	12/06/05	8:54	142	60	1342
BETA	2C080105S	5928	[redacted]	5927	2	5	12/06/05	9:47	159	60	1502
BETA	2C080106S	5928	[redacted]	5927	2	6	12/06/05	9:53	158	60	1493
BETA	2C080107S	5928	[redacted]	5927	2	7	12/06/05	9:56	135	60	1276
BETA	2C080108S	5928	[redacted]	5927	2	8	12/06/05	10:02	151	60	1427
BETA	2C080109S	5928	[redacted]	5927	2	9	12/06/05	10:06	86	60	813
BETA	2C080110S	5928	[redacted]	5927	2	10	12/06/05	10:13	87	60	822
BETA	2C080111S	5928	[redacted]	5927	2	11	12/06/05	10:18	121	60	1143
BETA	2C080112S	5928	[redacted]	5927	2	12	12/06/05	10:24	97	60	916
BETA	2C080113S	5928	[redacted]	5927	2	13	12/06/05	10:37	82	60	775
BETA	2C080114S	5928	[redacted]	5927	2	14	12/06/05	10:41	81	60	765
BETA	2C080115S	5928	[redacted]	5927	2	15	12/06/05	12:19	103	60	973
BETA	2C080116S	5928	[redacted]	5927	2	16	12/06/05	12:31	93	60	879
BETA	2C080117S	5928	[redacted]	5927	2	17	12/06/05	12:43	93	60	879
BETA	2C080118S	5928	[redacted]	5927	2	18	12/06/05	12:53	109	60	1030
BETA	2C080119S	5928	[redacted]	5927	2	19	12/06/05	12:59	97	60	916
BETA	2C080120S	5928	[redacted]	5927	2	20	12/06/05	13:06	105	60	992

F32/223

INLET 7 OF 10 to 11
MT-05-1272 Stu 14/4/05

2C-08-01 Floor and lower walls static measurement locations



COPY

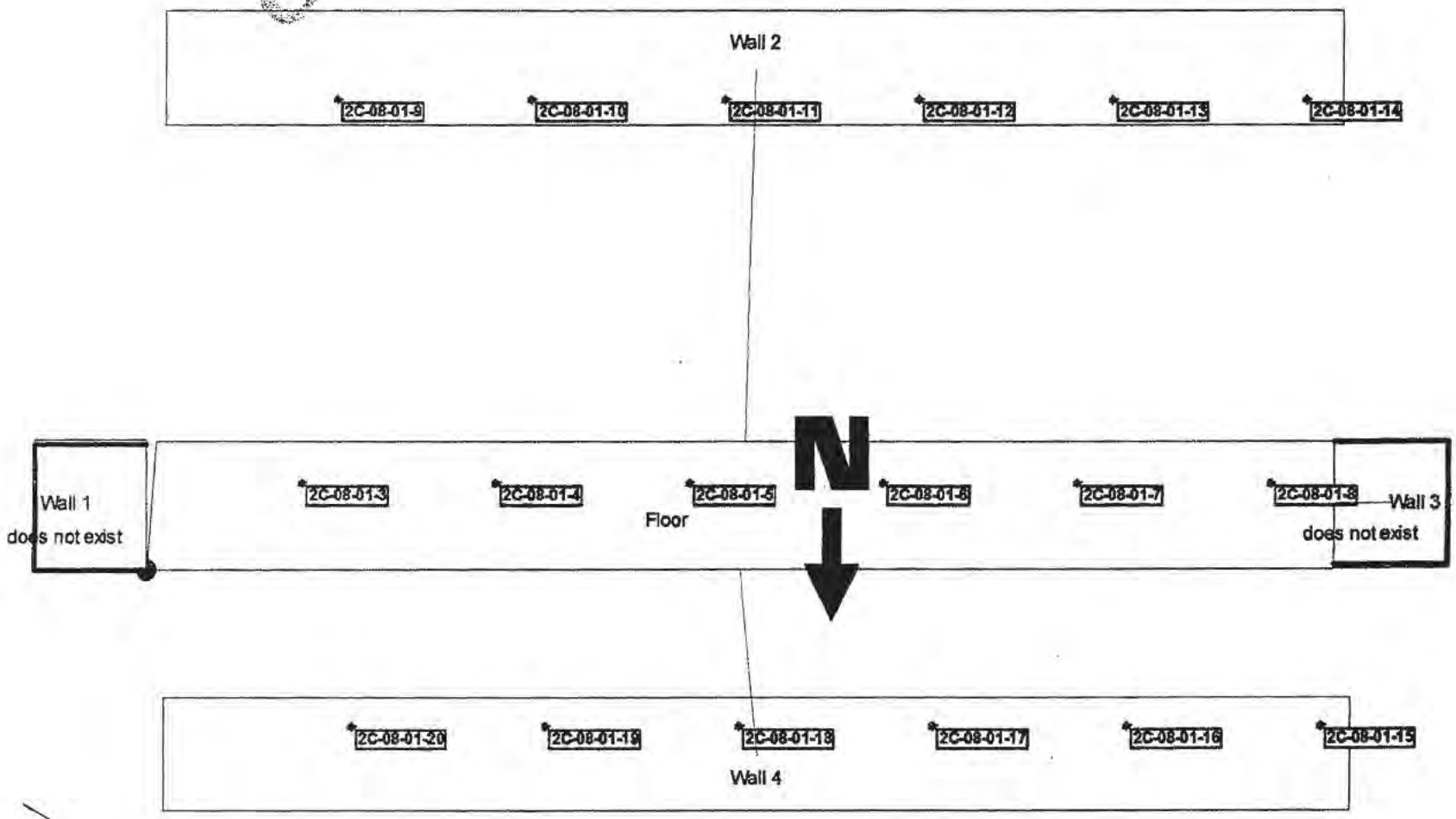
:350-1 5928/5927 5/24/06
RKE [redacted] ABERCROMBIE [redacted]

F 33/273

MT-05-1272 Exhibit

2C-08-01 Floors and lower walls < 2m (7ft)

Center Corridor 22



Copy

5/24/06

5928/5927

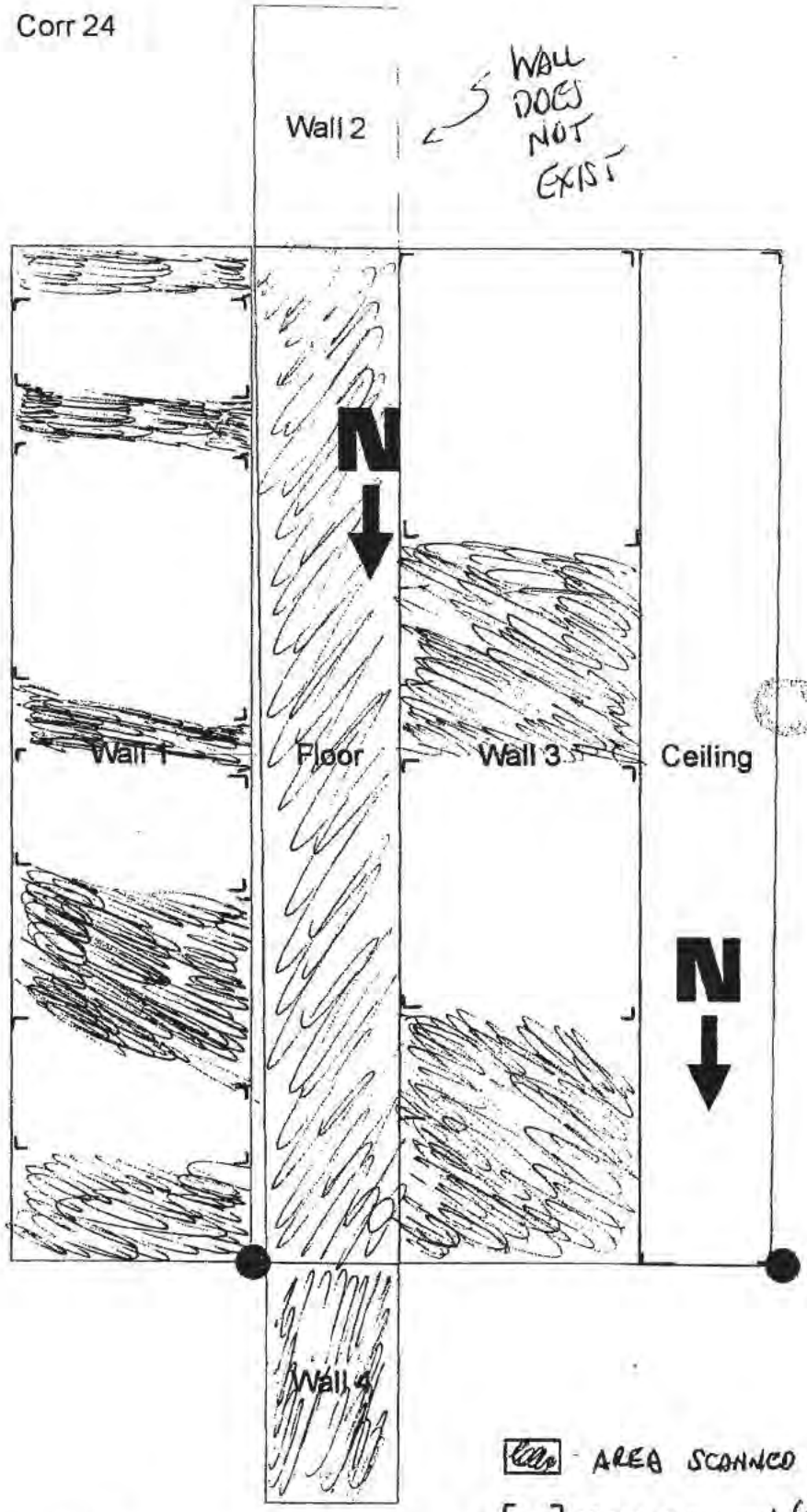
ARCLC COMBIE

2360:1

DURLE

F-34/273

2C-08 100 % scan of floor and walls up to 2 meters
Class 1 25% scan of walls above 2 meters



COPY

AREA SCANNED

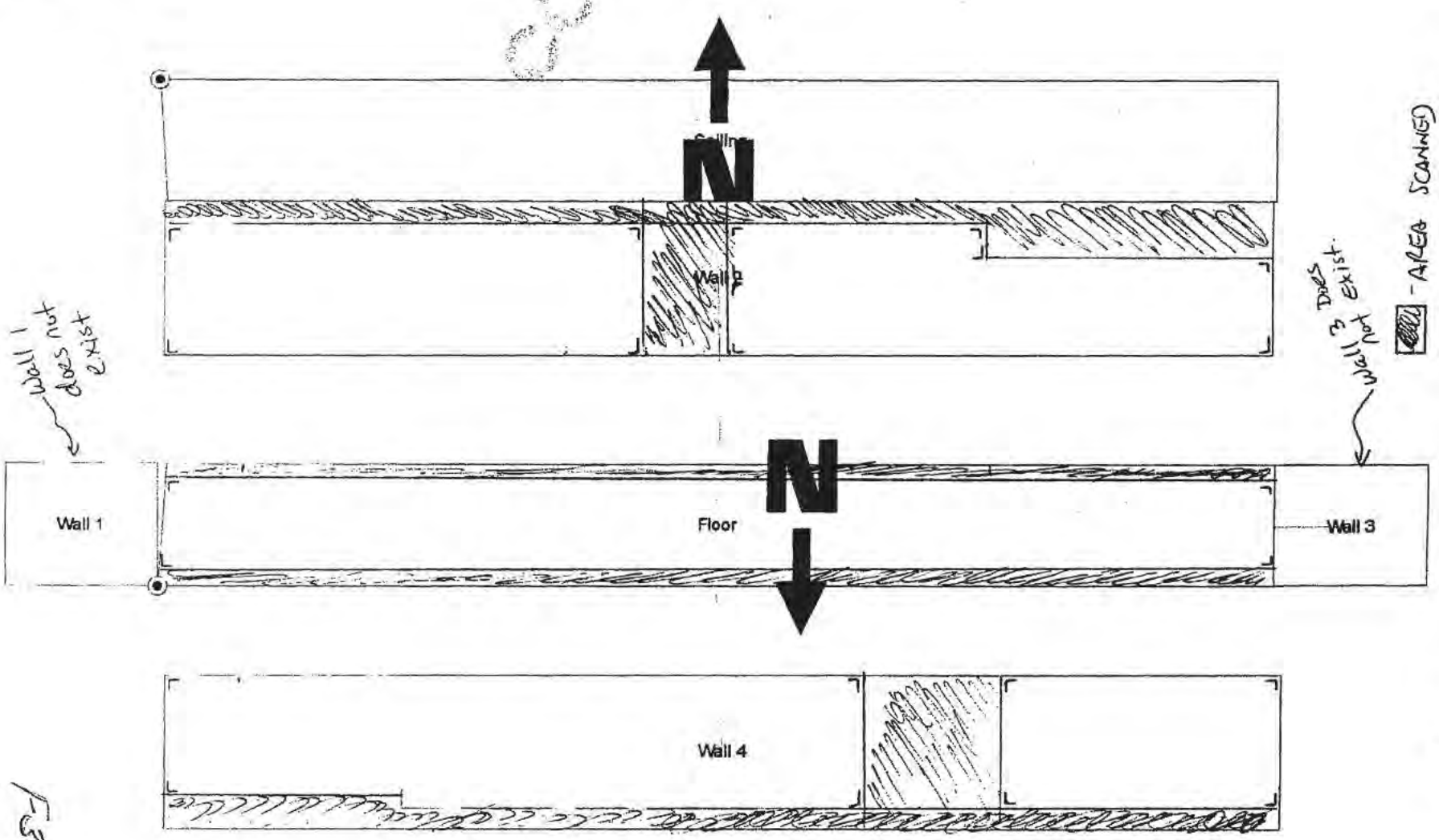
SCM surveyed (Walls)

2350-1 5928/5927 5/24/06
[redacted] ABERCROMBIE [redacted]

NT-05-1272 page 10 of 10

2C-08 100 % scan of floor and walls up to 2 meters
Class 1 25% scan of walls above 2 meters

Center Corridor 22



- AREA SCANNED
SCAN Surveyed (Floors and walls)

2350-1 S928 / S927 5/24/06
BURKE ABERCROMBIE

F-36/273

Surface Contamination Monitor Survey Investigation Summary

Survey Unit	2C-08
SCM ID (Circle One)	SCM 53 (SCM 23)
Calibration Due Date	06-01-06

Room	Surface	Investigations
Corridor 22	Floor	1
"	Walls	0
Corridor 24	Floor	0
"	Walls	0

(for 1 spot)

COPY

Name Sherry Oran

Signature Sherry Oran

Date 12-14-05

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) T BLDG / 2C08 / CORRIDORS 22/24	SURVEY NO. MT-05-1296
PURPOSE: JUDGEMENTAL & GENERAL AREA DOSE RATE SURVEY.	RWP NO. N/A
	DATE: 12/9/05
	TIME: 1000

MAP/DRAWING

SEE ATTACHED SHEET FOR SURVEY LOCATION.

SEE ATTACHED SHEET FOR SURVEY RESULTS.

COPY

GENERAL AREA DOSE RATES - 5 μREM/HR

BACKGROUND DOSE RATES - 5 μREM/HR

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
#/α = α/β = direct cont. measurement in dpm/100cm².

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350-1	5928/5927	5/24/06
MICRO-REM	3980	5/18/06
	N	
	A	

Completed by: (Signature) K. Abercrombie		DATE: 12/9/05
Completed by: (Print Name) RICARDO V. BURKE / K. Abercrombie		
Counted by: (Signature) SEE ATTACHED SHEET	HI #	DATE:
Counted by: (Print Name) SEE ATTACHED SHEET		
Reviewed/Approved by: (Signature)		DATE: 12/13/05
Reviewed/Approved by: (Print Name) Jess Griffin		F38/223

ML-0620 (2-98)

Survey No. MT-05-1296

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED SHEET			2C08-0201J
2				2C08-0202J
3				2C08-0203J
4				2C08-0204J
5				2C08-0205J
6				2C08-0206J
7				2C08-0207J
8				2C08-0208J
9				2C08-0209J
10				2C08-0210J
11				2C08-0101J
12				2C08-0102J
13				2C08-0103J
14				2C08-0104J
15				2C08-0105J
16				2C08-0106J
17				2C08-0107J
18				2C08-0108J
19				2C08-0109J
20				2C08-0110J
21				
22				
23				
24				
25		N		
26				
27				
28				
29			A	
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50		N		
51				
52				
53				
54				
55				
56				
57				A
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COMMENTS: N A

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

F59/223

ML-0620 (4-06)

KA 12/12/05

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_3\20051212_1832.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1296.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_3.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

140223

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/12/05	6:33:10 PM	-1	10.00	9	8	9	7	614.38	0	21.1	B	3
12/12/05	6:43:58 PM	0	2.00	179	170	1	3	527.02	353	10.9		3
12/12/05	6:46:40 PM	1	2.00	0	0	0	23	532.81	0	0.0		3
12/12/05	6:49:22 PM	2	2.00	7	5	0	6	590.21	12	89.8		3
12/12/05	6:52:04 PM	3	2.00	0	1	0	11	584.67	0	*****		3
12/12/05	6:54:45 PM	4	2.00	4	3	0	4	597.28	7	150.8		3
12/12/05	6:57:26 PM	5	2.00	4	4	0	4	626.56	7	134.5		3
12/12/05	7:00:09 PM	6	2.00	4	4	3	4	501.94	7	150.8		3
12/12/05	7:02:50 PM	7	2.00	4	4	1	7	567.43	8	126.4		3
12/12/05	7:05:31 PM	8	2.00	2	1	3	9	591.86	4	247.3		3
12/12/05	7:08:13 PM	9	2.00	2	1	1	5	626.51	4	247.3		3
12/12/05	7:10:55 PM	10	2.00	2	3	2	9	503.69	4	251.8		3
12/12/05	7:13:36 PM	11	2.00	1	0	0	5	592.99	1	871.9		3
12/12/05	7:16:19 PM	12	2.00	4	4	4	15	418.13	9	140.9		3
12/12/05	7:19:00 PM	13	2.00	1	0	0	11	556.58	1	871.9		3
12/12/05	7:21:43 PM	14	2.00	1	2	2	10	380.83	3	406.6		3
12/12/05	7:24:27 PM	15	2.00	0	0	0	13	440.92	0	0.0		3
12/12/05	7:27:10 PM	16	2.00	3	3	2	4	595.14	5	202.6		3
12/12/05	7:29:57 PM	17	2.00	2	2	0	10	634.73	3	320.9		3
12/12/05	7:32:38 PM	18	2.00	0	0	0	13	637.54	0	0.0		3
12/12/05	7:35:19 PM	19	2.00	1	0	3	5	609.69	1	853.1		3
12/12/05	7:38:02 PM	20	2.00	5	5	0	4	603.96	8	121.7		3

KA

TAE

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_045
Batch Ended: 12/12/05 11:06
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1296 BURKE [20] GWD

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.23		3.08	2.61	
A2	2	0.00	2.04		2.67	2.33	
A3	3	0.00	2.26		0.00	1.26	
A4	4	0.00	2.10		0.00	1.21	
B1	5	0.00	1.89		0.04	1.68	
B2	6	0.00	1.89		1.32	1.93	
B3	7	0.00	2.18		0.00	1.33	
B4	8	1.61	2.03		3.77	2.67	
C1	9	0.00	2.05		0.00	1.23	
C2	10	0.00	1.91		0.00	1.13	
C3	11	0.00	2.11		3.92	2.73	
C4	12	0.00	2.00		3.99	2.52	
D1	13	0.00	2.05		0.00	1.25	
D2	14	0.00	2.17		0.39	1.68	
D3	15	1.72	2.09		0.00	1.24	
D4	16	0.00	2.06		1.37	2.03	
A1	17	0.00	2.18		0.00	1.31	
A2	18	0.00	2.00		0.00	1.16	
A3	19	0.00	2.30		1.67	2.18	
A4	20	0.00	2.10		0.00	1.21	

KA KA

KA 12/13/05

GWD

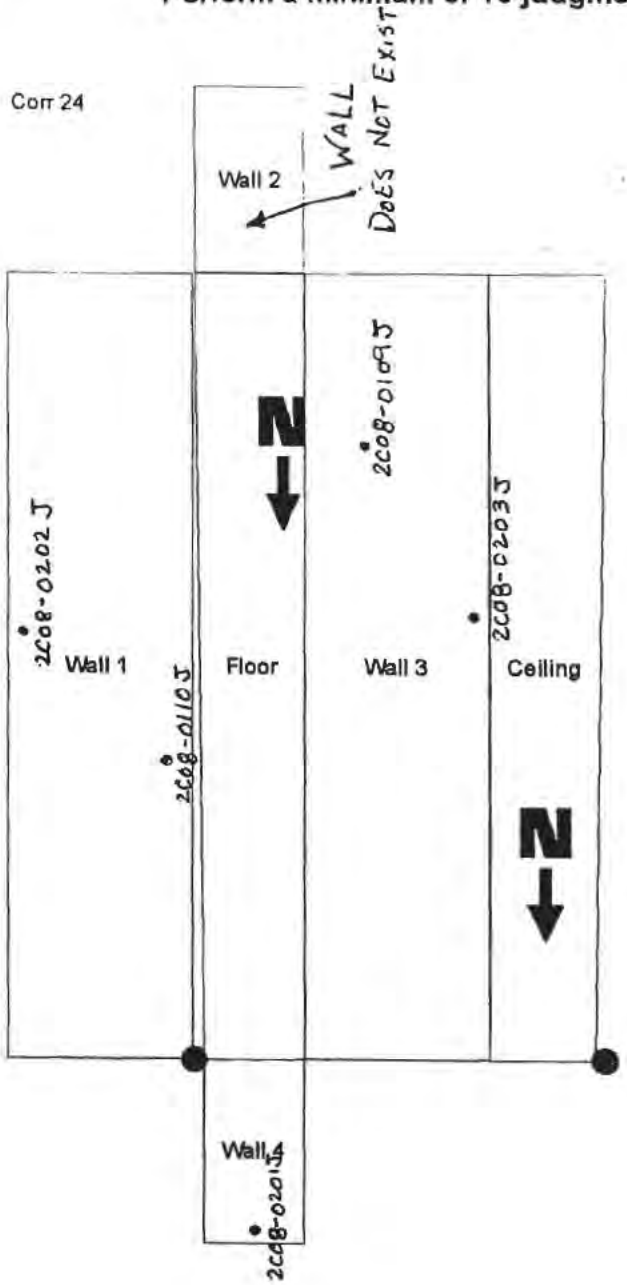
T-Building JUDGEMENTAL Survey (2C08) CORRIDORS 22/24

RSDS# MT-05-1296 *RCT:* [redacted] *RCT:* [redacted]

COPY

Alpha	43-68 BKG:	0	EFF:	0.22	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.168	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	2C080201J	5928	[redacted]	5927	1	1	12/08/05	12:40	5	120	18
ALPHA	2C080202J	5928	[redacted]	5927	1	2	12/08/05	12:45	5	120	18
ALPHA	2C080203J	5928	[redacted]	5927	1	3	12/08/05	13:08	10	120	36
ALPHA	2C080204J	5928	[redacted]	5927	1	4	12/08/05	13:12	4	120	14
ALPHA	2C080205J	5928	[redacted]	5927	1	5	12/08/05	13:18	4	120	14
ALPHA	2C080206J	5928	[redacted]	5927	1	6	12/08/05	13:24	6	120	22
ALPHA	2C080207J	5928	[redacted]	5927	1	7	12/08/05	13:29	3	120	11
ALPHA	2C080208J	5928	[redacted]	5927	1	8	12/08/05	13:34	5	120	18
ALPHA	2C080209J	5928	[redacted]	5927	1	9	12/08/05	13:38	5	120	18
ALPHA	2C080210J	5928	[redacted]	5927	1	10	12/08/05	13:44	5	120	18
ALPHA	2C080101J	5928	[redacted]	5927	1	11	12/08/05	15:05	3	120	11
ALPHA	2C080102J	5928	[redacted]	5927	1	12	12/08/05	15:09	4	120	14
ALPHA	2C080103J	5928	[redacted]	5927	1	13	12/08/05	15:13	3	120	11
ALPHA	2C080104J	5928	[redacted]	5927	1	14	12/08/05	15:19	3	120	11
ALPHA	2C080105J	5928	[redacted]	5927	1	15	12/08/05	15:23	2	120	7
ALPHA	2C080106J	5928	[redacted]	5927	1	16	12/09/05	8:08	7	120	25
ALPHA	2C080107J	5928	[redacted]	5927	1	17	12/09/05	8:12	2	120	7
ALPHA	2C080108J	5928	[redacted]	5927	1	18	12/09/05	8:16	4	120	14
ALPHA	2C080109J	5928	[redacted]	5927	1	19	12/09/05	8:20	6	120	22
ALPHA	2C080110J	5928	[redacted]	5927	1	20	12/09/05	8:23	4	120	14
BETA	2C080201J	5928	[redacted]	5927	2	1	12/08/05	12:41	61	60	576
BETA	2C080202J	5928	[redacted]	5927	2	2	12/08/05	12:46	93	60	879
BETA	2C080203J	5928	[redacted]	5927	2	3	12/08/05	13:09	112	60	1058
BETA	2C080204J	5928	[redacted]	5927	2	4	12/08/05	13:14	93	60	879
BETA	2C080205J	5928	[redacted]	5927	2	5	12/08/05	13:19	66	60	624
BETA	2C080206J	5928	[redacted]	5927	2	6	12/08/05	13:25	91	60	860
BETA	2C080207J	5928	[redacted]	5927	2	7	12/08/05	13:30	72	60	680
BETA	2C080208J	5928	[redacted]	5927	2	8	12/08/05	13:35	70	60	661
BETA	2C080209J	5928	[redacted]	5927	2	9	12/08/05	13:39	87	60	822
BETA	2C080210J	5928	[redacted]	5927	2	10	12/08/05	13:45	87	60	822
BETA	2C080101J	5928	[redacted]	5927	2	11	12/08/05	15:06	79	60	746
BETA	2C080102J	5928	[redacted]	5927	2	12	12/08/05	15:10	125	60	1181
BETA	2C080103J	5928	[redacted]	5927	2	13	12/08/05	15:14	73	60	690
BETA	2C080104J	5928	[redacted]	5927	2	14	12/08/05	15:20	124	60	1172
BETA	2C080105J	5928	[redacted]	5927	2	15	12/08/05	15:24	138	60	1304
BETA	2C080106J	5928	[redacted]	5927	2	16	12/09/05	8:09	98	60	926
BETA	2C080107J	5928	[redacted]	5927	2	17	12/09/05	8:13	77	60	728
BETA	2C080108J	5928	[redacted]	5927	2	18	12/09/05	8:17	100	60	945
BETA	2C080109J	5928	[redacted]	5927	2	19	12/09/05	8:21	101	60	954
BETA	2C080110J	5928	[redacted]	5927	2	20	12/09/05	8:25	87	60	822

2C-07 **Perform a minimum of 10 judgmentals on floor and lower walls**
Perform a minimum of 10 judgmentals on ceiling and upper walls

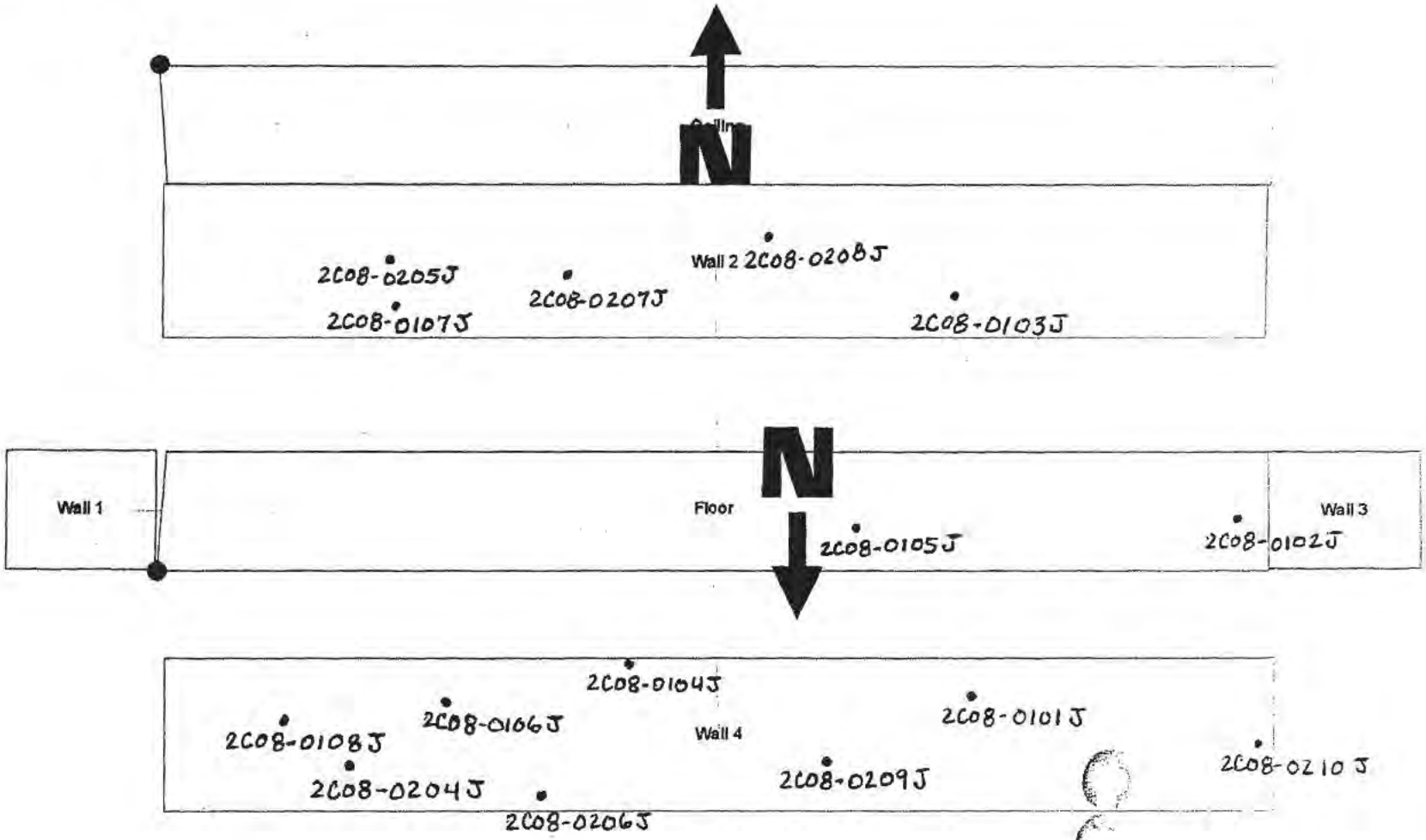


COPY

2350-1 5928/5929 5/24/06
BURKE [redacted] ABERCROMBIE [redacted]

2C-08 **Perform a minimum of 10 judgmentals on floor and lower walls**
Perform a minimum of 10 judgmentals on ceiling and upper walls

Center Corridor 22



.350-1
BURKE
5928/5927 5/24/06
ABBECLOMBIG

Survey Unit Number: 2C-08-01 10 minimum

2C-08-02 10 minimum

(Supplemental sheet for biased measurements.)

RSDS # MT-05-1246

RCT INT/HP [redacted]

ISA [redacted]

Label	Room	Surface	LX	LY
2C08-0201J	Corridor 24	Wall 4	3	1
2C08-0202J	Corridor 24	Wall 1	23	1
2C08-0203J	Corridor 24	Wall 3	19	1
2C08-0204J	Corridor 22	Wall 4	50	1
2C08-0205J	Corridor 22	Wall 2	26	1
2C08-0206J	Corridor 22	Wall 4	29	3
2C08-0207J	Corridor 22	Wall 2	36	0
2C08-0208J	Corridor 22	Wall 2	49	2
2C08-0209J	Corridor 22	Wall 4	14	1
2C08-0210J	Corridor 22	Wall 4	0	0
2C08-0101J	Corridor 22	Wall 4	10	5
2C08-0102J	Corridor 22	Floor	70	3
2C08-0103J	Corridor 22	Wall 2	61	5
2C08-0104J	Corridor 22	Wall 4	31	0
2C08-0105J	Corridor 22	Floor	26	2
2C08-0106J	Corridor 22	Wall 4	42	6
2C08-0107J	Corridor 22	Wall 2	26	3
2C08-0108J	Corridor 22	Wall 4	56	4
2C08-0109J	Corridor 24	Wall 3	5	5
2C08-0110J	Corridor 24	Wall 1	21	6

J- designator represents measurement as judgmental location

E-designator represents measurement as potentially elevated activity.

D-designator represents measurement at a drain.

V-designator represents measurement on ventilation system.

U-designator represents measurement on a utility drop.

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T- BLDG Corridor 22 (2C08)	SURVEY NO. MT-06-0029
PURPOSE: Vents and Utilities Note: No Drains in Corridor 22 in Survey Unit 2C08	RWP NO. N/A
	DATE: 1-10-06
	TIME: 1000

MAP / DRAWING

- No elevated α/β readings detected during scanning.
- See Attachments
- Scanning of vents performed for an area of 1 m² around the locations of the direct frisks

Surveyor's Note: The survey location numbers designated in this survey are based on the continuation of the numbers used in for the survey of Corridor 24 (also part of 2C08) (See Survey # MT-05-0515).

COPY

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
—·—·— = radiological boundary
△# = mrem/hr neutron
(#) = swipe number
[#] = air sample number
(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5895 w 5896	2-5-06
N/A	N/A	N/A
↓	↓	↓
↓	↓	↓

Completed by: (Signature) J. King			Date: 1-10-06
Completed by: (Print Name) T. King			
Counted by: (Signature) See Attachments		HP#	Date:
Counted by: (Print Name) See Attachments			
Reviewed/Approved by: (Signature) Jerry Taylor			Date: 1/11/06
Reviewed/Approved by: (Print Name) Jerry Taylor			

F47/2734

Survey No. MT-06-0029

Page 2 of 8

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See	Attached	Sheets	2008 0108V
2	↓	↓	↓	2008 0208V
3				2008 0209V
4				2008 0210V

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS:

NOTES:
1. See MD-80036-10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620A (4-98)

COPY

F-48/223

MARSSIM Smear Data

3.

2H 1-10-06

Assay Definition-

Assay Description:
MARSSIM Smear Data

MT-06-0029

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_4\20060110_1115.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-06-0029.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_4.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

2/3

Bkg

MARSSIM Smear Data

J.H 1-10-06

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

MT-06-0029

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
1/10/06	11:16:11 AM	-1	10.00	7	7	12	8	618.81	0	23.1	B	4
1/10/06	11:27:00 AM	0	2.00	238	226	0	1	549.77	459	9.3		4
1/10/06	11:29:44 AM	1	2.00	24	22	0	8	501.18	49	33.5		4
1/10/06	11:32:27 AM	2	2.00	21	20	5	0	600.14	39	36.8		4
1/10/06	11:35:11 AM	3	2.00	1	1	0	19	429.78	1	838.8		4
1/10/06	11:37:55 AM	4	2.00	0	1	2	38	384.04	1	1752.4		4

NON

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_015
Batch Ended: 1/10/06 10:49
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-06-0029 KING (4) AG

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.24		4.38	2.92	
A2	2	0.00	2.03		1.51	2.01	
A3	3	0.00	2.31		2.92	2.52	
A4	4	0.00	2.14		2.89	2.41	

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F51/215

J.M
1-10-06

A6

T-Building Corridor 22;2C08; Vents & Utilities (No Drains)

RSDS# MT-06-0029 *RCT:* [redacted] *RCT:* N/A

Alpha	43-68 BKG:	0	EFF:	0.2166 ✓	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.17 ✓	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4

TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	2C080108U	5895	[redacted]	5896	1	1	1/10/06	8:36	4	120	15
ALPHA	2C080208V	5895	[redacted]	5896	1	2	1/10/06	8:52	5	120	18
ALPHA	2C080209V	5895	[redacted]	5896	1	3	1/10/06	9:28	9	120	33
ALPHA	2C080210V	5895	[redacted]	5896	1	4	1/10/06	9:45	7	120	26 ✓
BETA	2C080108U	5895	[redacted]	5896	2	1	1/10/06	8:37	70	60	654
BETA	2C080208V	5895	[redacted]	5896	2	2	1/10/06	8:53	53	60	495
BETA	2C080209V	5895	[redacted]	5896	2	3	1/10/06	9:29	86	60	803
BETA	2C080210V	5895	[redacted]	5896	2	4	1/10/06	9:46	55	60	514 ✓

N

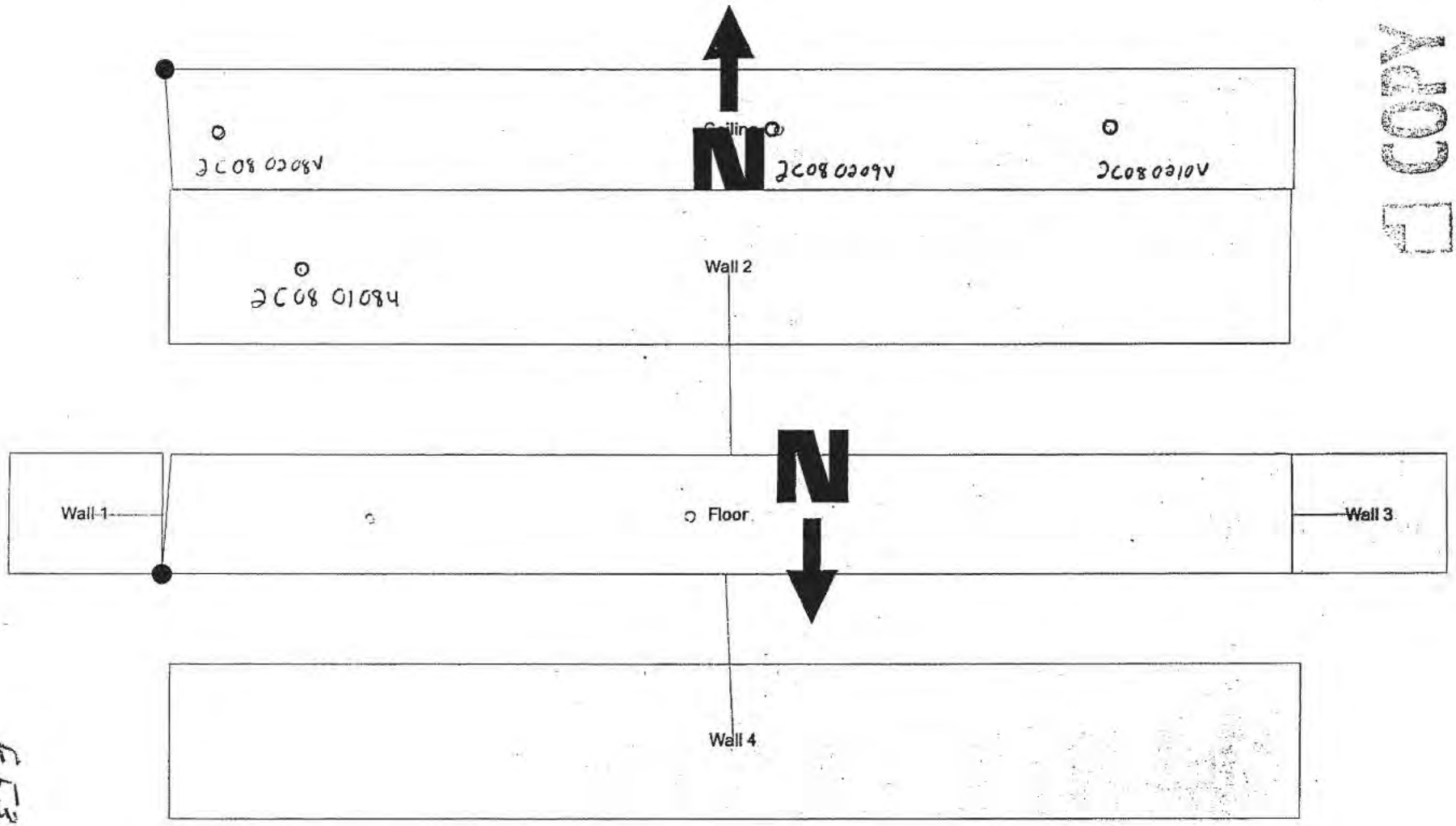
A

COPY

Pg 2 of 8
MT-06-002

2C-08 Drains, vents and utilities

Center Corridor 22



FG3/223

COPY

Survey Unit Number: 2C08

(Supplemental sheet for biased measurements.)

RSDS # MT-06-0029
RCT INT/HP 2K/[redacted]

Label	Room	Surface	LX	LY
2C08 01084	Corridor 22	North Wall	N/A	N/A
2C08 0208V	↓	Ceiling	↓	↓
2C08 0209V	↓	Ceiling	↓	↓
2C08 0210V	↓	Ceiling	↓	↓
N/A	N/A	N/A	↓	↓
↓	↓	↓	↓	↓

J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventalation system.
U-designator represents measurement on a utility drop.

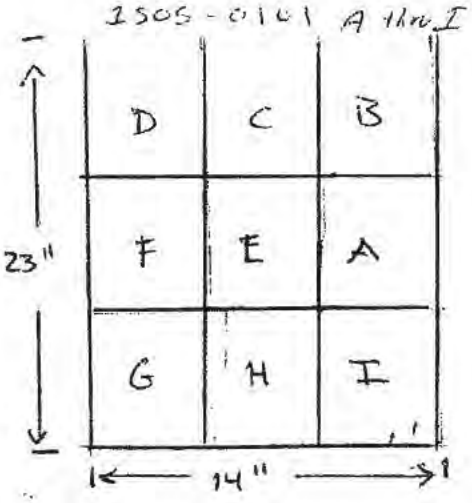
F 54/273

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T-BLDG Corridor 9/Room 8	SURVEY NO. MT-05-0979
PURPOSE: Investigation reading of SCM-23 I503-0101 & 0102 SCM 23 Scan of Corridor 9 and room 8	RWP NO. NA
	DATE: 11-10-05
	TIME: 0900

MAP/DRAWING

See attached



Surface and direct power scan taken on floor circled in yellow designated I503-0101

Ref MT-05-1093 for follow-up survey.

COPY

Note: 0101E elevated β reading

SCM Scan summary attached. Refer to RSDS MT-05-1294 for scan of areas not covered by SCM.
This RSDS covers 2 spots identified by SCM for further investigation. See RSDS MT-05-1165, MT-05-1240, and MT-05-1273 for the remainder of the investigations.

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
#/α or/β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350-1	5857/5855	10-4-06

Completed by: (Signature)		DATE: 10/11/05
Completed by: (Print Name) Joseph Kozyra		
Counted by: (Signature) See	HP# N/A	DATE: N/A
Counted by: (Print Name) attachments		
Reviewed/Approved by: (Signature)		DATE: 11-17-05
Reviewed/Approved by: (Print Name) Jerry Taylor		

ML-9620 (2-98)

F55/273

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	N/A
1	SEE	Attached		0101E
2	↓	↓	↓	0102I
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18		N		A
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52		N		A
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COPY

COMMENTS: N/A

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

F56/273

MARSSIM Smear Data

~~Pg 3 of 7~~ OPW 12/06/05
MT-05-0979

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Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_1\20051011_1226.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-0979.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_1.lsa

COPY

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

F-53/293

MARSSIM Smear Data

B
C

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MT-05-0979

COPY

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
10/11/05	12:27:09 PM	-1	10.00	9	8	9	2	618.33	0	21.3	B	1
10/11/05	12:37:54 PM	0	2.00	561	526	3	0	554.71	1079	6.0		1
10/11/05	12:40:37 PM	1	2.00	1	1	0	0	560.93	2	415.2		1
10/11/05	12:43:18 PM	√2	2.00	0	0	1	6	538.47	0	0.0		1

JK

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~~Pg 547~~ 12/15/05
MT-05-0479

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_056
Batch Ended: 10/11/05 10:11
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: MT-05-979-[2] JK 10-11-05 RLH

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
C1	1	1.68	2.09		2.56	2.46	
C2	2	0.00	1.92		0.47	1.59	
		JK			JK		

~~Page 1 of 1~~ JK 12OCT05

RLH

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Corridor 9 Shonka Readings Investigation Unit 1S03

RSDS# MT05-0979 *RCT:* [redacted] *RCT:* n/a

Alpha	43-68 BKG:	0	EFF:	0.205	PROBE AREA:	126	cm²	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.184	PROBE AREA:	126	cm²	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm²	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm²	Surface Eff:		0.5	Detector # : 4
TYPE	**LOCATION**	**2350#**	**RCT ID**	**PROBE**	**DET #**	**Item**	**DATE**	**TIME**	**CNTS**	**CT TIME**	**dpm/100cm2**
ALPHA	1S030101E	5857	[redacted]	5859	1	1	10/11/05	22:44	8	120	31
ALPHA	1S030102I	5857	[redacted]	5859	1	2	10/11/05	23:04	8	120	31
BETA	1S030101E	5857	[redacted]	5859	2	1	10/11/05	22:45	730	60	7065
BETA	1S030102I	5857	[redacted]	5859	2	2	10/11/05	23:05	167	60	1616

N A

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F 60/273

Survey Unit Number: 1503

Page 7 of ~~7~~ 10 [illegible]

(Supplemental sheet for biased measurements.)

RSDS # MT-05-0979

RCT INT/HP JK [redacted]

Label	Room	Surface	LX	LY
15030101E	CORR 9	Floor		
15030102I	CORR 9	Floor		
	N/A		N/A	

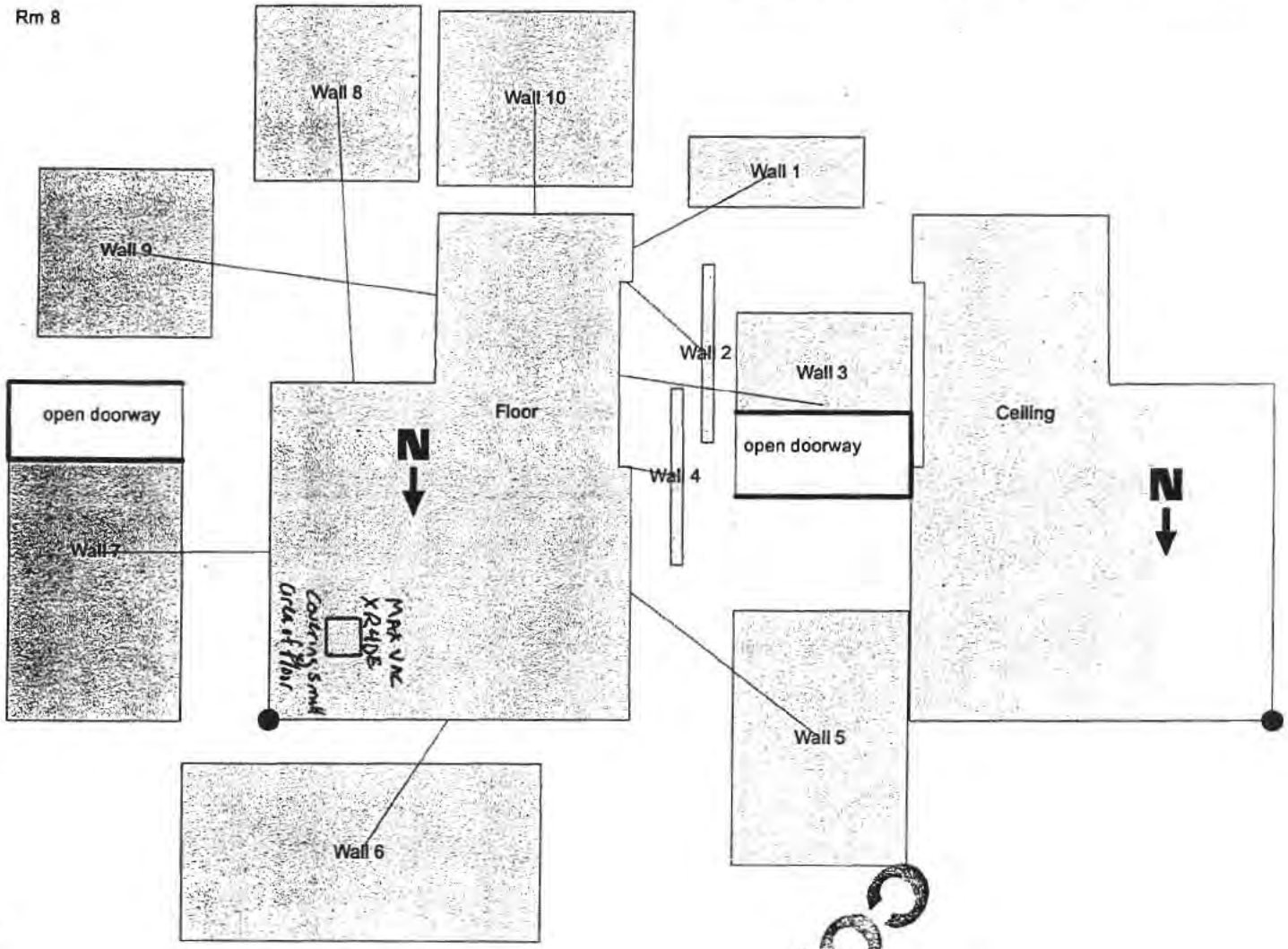
J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventilation system.
U-designator represents measurement on a utility drop.

COPY

F61/273

1S-03 **Room 8**
Class 2

100 % scan of the floor
50% scan of the lower walls up to 2 meters
25% scan of wall above 2m
Scan an area of approximately 1m2 around each static measurement on the ceiling



100% of floor scanned by SCA23 (Calibrate date 6/1/00) except small area covered by Max VAC noted on map
50% of lower walls scanned by SCA23.
25% of upper walls scanned by SCA23.

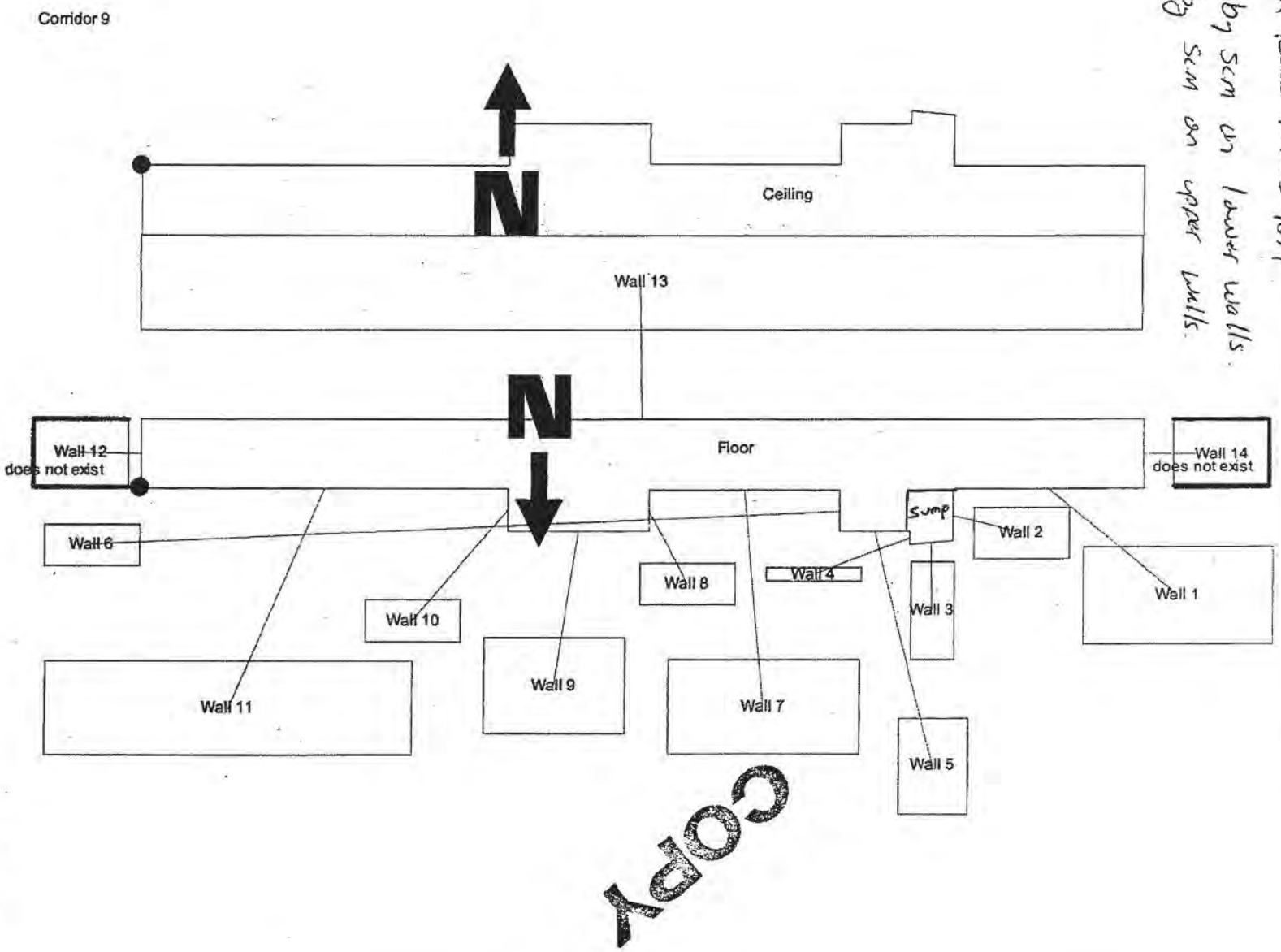
Page 8 of 10
MT-05-0979

COPY

F62/223

1S-03 **Corridor 9** **100 % scan of the floor**
Class 2 **50% scan of the lower walls up to 2 meters**
25% scan of wall above 2m
Scan an area of approximately 1m2 around each static measurement on the ceiling

100% of floor scanned by Scan 23, cal. due date 6/1/06, except areas noted on RSDS MT-05-1094
50% Scanned by Scan on lower walls.
25% Scanned by Scan on upper walls



COPY

Page 9 of 10
MT-05-0979

F 6-2/2-73

Surface Contamination Monitor Survey Investigation Summary

Survey Unit	1J-03
SCM ID (Circle One)	SCM 53 SCM 23
Calibration Due Date	06-01-06

Room	Surface	Investigations	
Corridor 9	Floor	2	(for 2 spots) RSDS MT-05-979
"	Walls	1	(for 1 spot) RSDS MT-05-1165
* Room 8	Floor	6	(for 6 spots) RSDS MT-05-1240 RSDS MT-05-1073
"	Walls	Ø	

COPY

Name Sherry Oran

Signature Sherry Oran

Date 12-13-05

* Summary does not include area on floor underneath vacuum. That area will be surveyed after vacuum is removed. Summary can be revised after that survey is complete.

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) 1503 Corridor 9	SURVEY NO. MT-05-1079
PURPOSE: Follow up survey on 1503010l survey verification	RWP NO. NA
	DATE: 10/25/05
	TIME: 1500

MAP / DRAWING

VOID

COPY

LEGEND:

= mrem/hr (γ) whole body

#E = mrem/hr (β+η+γ) extremity on contact

K = factor of 1000

— · — · — = radiological boundary

△# = mrem/hr neutron

(#) = swipe number

[#] = air sample number

(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
	N	
	A	

Completed by: (Signature)		Date: 10/25/05
Completed by: (Print Name) Joe Kizyra		
Counted by: (Signature)	HP#	Date:
Counted by: (Print Name) N/A		
Reviewed/Approved by: (Signature)		Date: 12/6/05
Reviewed/Approved by: (Print Name) Jess Griffin		

F65/273

Survey No. MT-05-1079

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N/A		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N/A		

COMMENTS:

NOTES:
1. See MD-80036-10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620A (4-98)

F66/273

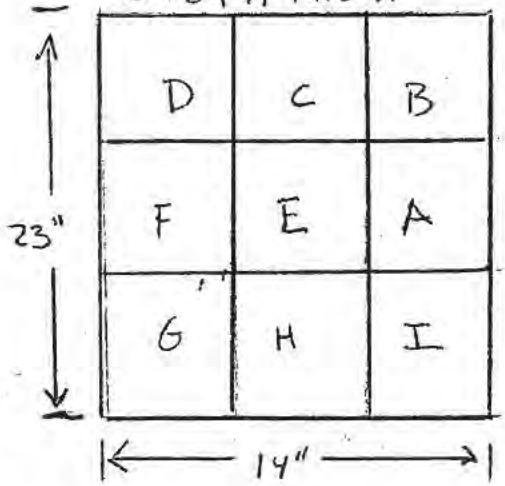
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T-Bldg Corridor 9	SURVEY NO. MT-05-1093
PURPOSE: Marssim Follow up survey UNIT 1503 Elevated reading E-0101	RWP NO. NA
	DATE: 10-26-05
	TIME: 1319

MAP/DRAWING

Reference MT-05-~~1093~~ 0979 for initial survey results
JK 27OCT05

0101 A thru H



COPY

Average of 0101 A. thru I B⁻ readings ~~3,821~~ 3,252 dpm/100cm²
11/17/05 JK

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or/β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350-1	5892/5893	1-31-06

Completed by: (Signature)		DATE: 10-26-05
Completed by: (Print Name) Joseph Kuzmia		
Counted by: (Signature) See	HP# N/A	DATE: N/A
Counted by: (Print Name) Attachments		
Reviewed/Approved by: (Signature)		DATE: 11-17-05
Reviewed/Approved by: (Print Name) Jerry Taylor		

ML-0620 (2-96)

F67/273

Survey No. MT-05-1093

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	
1	See	Attached		OIOIE
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18		N		
19				A
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53		N		
54				
55				
56				
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61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COPY

COMMENTS: N/A

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of result are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

F 68/273

ML-0620 (4-98)

111705 ~~Page # 1~~
Pg 376

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_4\20051026_1830.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1093.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_4.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

COPY

F 68/273

RLH

111705 Page # 2

MT-05-1093
Pg 4 of 6

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

COPY

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
10/26/05	6:31:07 PM	-1	10.00	10	9	11	5	621.85	0	20.0	B	4
10/26/05	6:41:57 PM	0	2.00	346	329	3	0	550.34	669	7.7		4
10/26/05	6:44:39 PM	1	2.00	0	0	0	11	436.75	0	0.0		4

F 23/23

Pg 5 of 6

Smear Analysis

COPY

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_153
Batch Ended: 10/26/05 14:12
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: MT-05-1093 [1] JK 10-26-05 RLH

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	1.74	2.20		0.00	1.86	

111705

RLH

5/11/23

T-BLDG Unit 1S03 Follw-up 0101I

RSDS# MT-05-1093 ***RCT:*** [redacted] ***RCT:*** NA

Alpha	43-68 BKG:	0	EFF:	0.2213	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.17	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	**LOCATION**	**2350#**	**RCT ID**	**PROBE**	**DET #**	**item**	**DATE**	**TIME**	**CNTS**	**CT TIME**	**dpm/100cm2**
ALPHA	1S030101E	5892	[redacted]	5893	1	1	10/26/05	12:47	7	120	25
ALPHA	1S030102A	5892	[redacted]	5893	1	2	10/26/05	12:51	7	120	25
ALPHA	1S030102B	5892	[redacted]	5893	1	3	10/26/05	12:55	5	120	18
ALPHA	1S030102C	5892	[redacted]	5893	1	4	10/26/05	12:59	5	120	18
ALPHA	1S030102D	5892	[redacted]	5893	1	5	10/26/05	13:03	3	120	11
ALPHA	1S030102F	5892	[redacted]	5893	1	6	10/26/05	13:07	1	120	4
ALPHA	1S030101G	5892	[redacted]	5893	1	7	10/26/05	13:11	3	120	11
ALPHA	1S030101H	5892	[redacted]	5893	1	8	10/26/05	13:14	5	120	18
ALPHA	1S030101I	5892	[redacted]	5893	1	9	10/26/05	13:18	5	120	18 ✓
BETA	1S030101E	5892	[redacted]	5893	2	1	10/26/05	12:48	894	60	8347
BETA	1S030102A	5892	[redacted]	5893	2	2	10/26/05	12:52	323	60	3016
BETA	1S030102B	5892	[redacted]	5893	2	3	10/26/05	12:56	260	60	2428
BETA	1S030102C	5892	[redacted]	5893	2	4	10/26/05	13:00	321	60	2997
BETA	1S030102D	5892	[redacted]	5893	2	5	10/26/05	13:04	282	60	2633
BETA	1S030102F	5892	[redacted]	5893	2	6	10/26/05	13:08	354	60	3305
BETA	1S030101G	5892	[redacted]	5893	2	7	10/26/05	13:12	237	60	2213
BETA	1S030101H	5892	[redacted]	5893	2	8	10/26/05	13:16	254	60	2372
BETA	1S030101I	5892	[redacted]	5893	2	9	10/26/05	13:19	210	60	1961 ✓

Avg 3552

N/A

COPY

F72/273

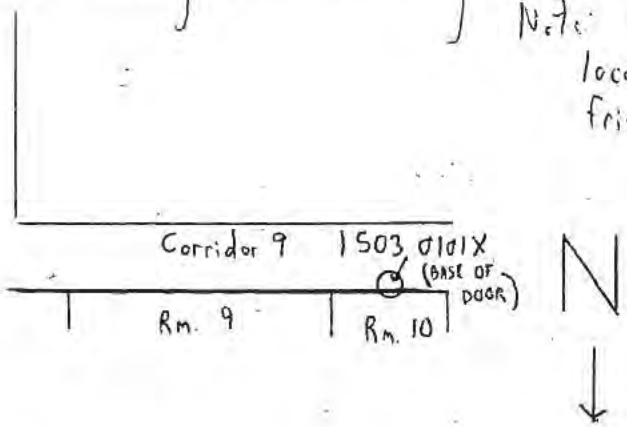
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T-BLDG Corridor 9 (1503)	SURVEY NO. MT-05-1165
PURPOSE: Investigational Survey of Suspected Elevated Spot.	RWP NO. N/A
	DATE: 11-9-05
	TIME: 1030

MAP/DRAWING

No elevated α/β readings detected during scan See Attachments

Note: Area around the location of the direct frisk also scanned.



COPY

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5857 w 5859	10-4-06
N/A	N/A	N/A
↓	↓	↓
↓	↓	↓

Completed by: (Signature) J. King			Date: 11-9-05
Completed by: (Print Name) T. King			
Counted by: (Signature) See Attachments		HP#	Date:
Counted by: (Print Name) See Attachments			
Reviewed/Approved by: (Signature) Jerry Taylor			Date: 11-14-05
Reviewed/Approved by: (Print Name) Jerry Taylor			

ML-9620 (2-98)

F 73/273 AMC

Survey No. MT-05-1165

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See	Attached	Sheets	1503 0101X
		N		
		A		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N		
		A		

COPY

COMMENTS: N/A

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

ML-9620A (4-98)

F 74/22

MARSSIM Smear Data

P.K
11-11-05

MT-05-1165

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_4\20051109_1813.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1165.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_4.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

COPY

F 95/223

Protocol# 4 - MARSSIM_Smear_4.lsa User: 5801

MARSSIM Smear Data

MT-05-1165

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
11/9/05	6:13:49 PM	-1	10.00	8	8	10	4	623.65	0	22.2	B	4
11/9/05	6:24:39 PM	0	2.00	329	315	4	0	551.03	635	7.9		4
11/9/05	6:27:22 PM	1	2.00	1	0	0	26	456.99	2	425.4		4

COPY

F 76/273

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_040
Batch Ended: 11/9/05 14:45
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: MT-05-1165 KING (1) 11/09/05 TAS

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.20		0.00	1.86	

COPY

11/11/05

JK 11-11-05

F 77/223

T-Building Corridor 9;Survey of Suspected Elevated Spot;1S03

RSDS# MT-05-1165 *RCT:* [redacted] *RCT:* N/A

Alpha	43-68 BKG:	0	EFF:	0.208	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.164	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	Item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1S030101X	5857	[redacted]	5859	1	1	11/9/05	10:01	3	120	11
BETA	1S030101X	5857	[redacted]	5859	2	1	11/9/05	10:02	112	60	1084

N

A

F 72/223

Survey Unit Number: 1503

(Supplemental sheet for biased measurements.)

RSDS # MT-05-1165

RCT INT/HP TX [redacted]

Label	Room	Surface	LX	LY
1503 0101 X	CORR 9	BASE OF DOOR		
	N			N
	A			A

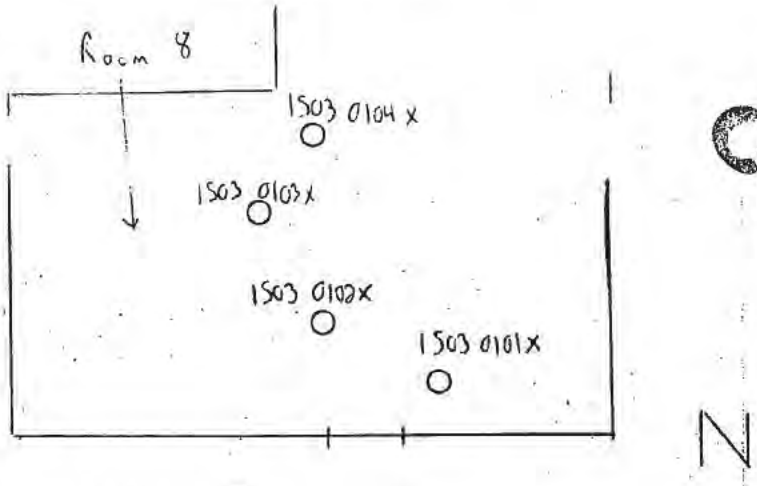
J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventilation system.
U-designator represents measurement on a utility drop.

F 79/273

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T-BLDG Room 8 (1503) ~~(2 NO~~ JK 11-29-05	SURVEY NO. MT-05-1240
PURPOSE: Investigative Survey of Suspected Elevated Spots	RWP NO. N/A
	DATE: 11-29-05
	TIME: 1330

MAP/DRAWING



COPY

No elevated α/β readings detected during scan
See Attachments
Areas around locations of direct frisks also scanned

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
#/α or/β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5895 w 5896	2-5-06
N/A	N/A	N/A
↓	↓	↓

Completed by: (Signature) T. King		DATE: 11-29-05
Completed by: (Print Name) T. King		
Counted by: (Signature) See Attachments	HI #:	DATE:
Counted by: (Print Name) See Attachments		
Reviewed/Approved by: (Signature)		DATE: 12/14/05
Reviewed/Approved by: (Print Name) Joss Griffin		

ML-9620 (2-98)

Survey No. MT-05-1240

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See	Attached	Sheets	1503 0101X
2	↓	↓	↓	1503 0102X
3				1503 0103X
4	↓	↓	↓	1503 0104X
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15		N		
16				
17				
18		A		
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33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49			N	
50			A	
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70				

COPY

COMMENTS:

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

F81/23

ML-0620 (4-98)

JH
11-29-05

MARSSIM Smear Data

MT-05-1240

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_2\20051130_0536.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1240.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_2.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

F 92/22

JM
11-29-05

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

MY-05-1240

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
11/30/05	5:36:58 AM	-1	10.00	9	9	12	5	609.31	0	21.0	B	2
11/30/05	5:47:48 AM	0	2.00	525	496	0	0	578.19	900	6.2		2
11/30/05	5:50:30 AM	1	2.00	0	0	0	8	432.27	0	0.0		2
11/30/05	5:53:12 AM	2	2.00	0	0	0	8	523.04	0	0.0		2
11/30/05	5:55:54 AM	3	2.00	0	0	0	0	463.52	0	0.0		2
11/30/05	5:58:37 AM	4	2.00	0	0	0	6	346.73	0	0.0		2

JM

FB 2/23

Smear Analysis

COPY

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_100
Batch Ended: 11/29/05 15:11
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1240 KING (4) AG

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.18		0.00	1.31	
A2	2	0.00	2.01		0.34	1.64	
A3	3	0.00	2.26		0.00	1.26	
A4	4	0.00	2.13		1.69	2.09	

J.K. J.K.

J.K.
11-29-05

F84/23

TAS

T-Building Room 8; 1S03; Survey of Suspected Elevated Spots

RSDS# MT-05-1240 *RCT:* [redacted] *RCT:* N/A

Alpha	43-68 BKG:	0	EFF:	0.2166	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.17	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1S030101X	5895	[redacted]	5896	1	1	11/29/05	12:35	8	120	29
ALPHA	1S030102X	5895	[redacted]	5896	1	2	11/29/05	12:46	7	120	26
ALPHA	1S030103X	5895	[redacted]	5896	1	3	11/29/05	12:58	5	120	18
ALPHA	1S030104X	5895	[redacted]	5896	1	4	11/29/05	13:09	11	120	40
BETA	1S030101X	5895	[redacted]	5896	2	1	11/29/05	12:36	140	60	1307
BETA	1S030102X	5895	[redacted]	5896	2	2	11/29/05	12:47	154	60	1438
BETA	1S030103X	5895	[redacted]	5896	2	3	11/29/05	12:59	147	60	1373
BETA	1S030104X	5895	[redacted]	5896	2	4	11/29/05	13:10	130	60	1214

N/A

F85/273

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T-BLDG RM. COLC 9 RM 8 RM 48	SURVEY NO. MT-05-1242
PURPOSE: D.V.U.	RWP NO. N/A
	DATE: 12/2/05
1503	TIME: 0700

MAP/DRAWING

SEE ATTACHMENTS

COPY

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
#/α or/β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5904/5905	2/22/06

Completed by: (Signature)	[redacted]	DATE: 12/2/05
Completed by: (Print Name) S. Richardson George Wasilas		
Counted by: (Signature) SEE ATTACHED	HI #	DATE:
Counted by: (Print Name) Sheets		
Reviewed/Approved by: (Signature)	[redacted]	DATE: 12/14/05
Reviewed/Approved by: (Print Name) Jess Griffin		

ML-9620 (2-98)

Survey No. MT-05-1242

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED			0201V
2				0202V
3				0203V
4				0204V
5				0205V
6				0101D
7				0102D
8				0103D
9				0104D
10				0105D
11				0201U
12				0202U
13				0203U
14				0204U
15				0205U
16	SEE ATTACHED.			0206U
17				
18				
19				
20				
21				
22				
23				
24			N/A	
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53			N/A	
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COPY

COMMENTS: N/A

NOTES:

1. See MD-60036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

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ML-6620 (4-96)

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_4\20051130_1138.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1242.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_4.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

COPY

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MT-05-1242

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MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
11/30/05	11:39:33 AM	-1	10.00	8	7	12	3	620.20	0	22.6	B	4
11/30/05	11:50:23 AM	0	2.00	305	288	2	0	546.54	590	8.2		4
11/30/05	11:53:06 AM	1	2.00	3	2	0	5	559.25	5	181.9		4
11/30/05	11:55:50 AM	2	2.00	1	0	0	12	421.84	1	807.6		4
11/30/05	11:58:34 AM	3	2.00	89	87	6	1	391.29	205	15.8		4
11/30/05	12:01:18 PM	4	2.00	13	11	0	2	444.08	28	51.7		4
11/30/05	12:04:01 PM	5	2.00	0	0	2	8	526.12	0	0.0		4
11/30/05	12:06:44 PM	6	2.00	1	2	0	6	605.32	2	383.0		4
11/30/05	12:09:28 PM	7	2.00	1	2	0	0	613.73	2	360.2		4
11/30/05	12:12:10 PM	8	2.00	0	0	0	10	452.91	0	0.0		4
11/30/05	12:14:52 PM	9	2.00	1	2	0	5	574.14	3	321.5		4
11/30/05	12:17:35 PM	10	2.00	1	1	0	6	518.64	1	653.1		4
11/30/05	12:20:18 PM	11	2.00	1	1	0	0	535.19	1	640.8		4
11/30/05	12:23:02 PM	12	2.00	0	0	0	7	629.09	0	0.0		4
11/30/05	12:25:43 PM	13	2.00	2	2	0	5	626.91	3	276.7		4
11/30/05	12:28:25 PM	14	2.00	7	6	7	3	613.82	12	83.8		4
11/30/05	12:31:08 PM	15	2.00	0	0	0	0	621.20	0	0.0		4
11/30/05	12:33:52 PM	16	2.00	25	22	0	2	596.91	46	33.2		4

SH

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_102
Batch Ended: 11/30/05 11:02
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1242 RICHARDSON (16) AG

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.21		1.78	2.26	
A2	2	3.59	2.85		2.34	2.33	
A3	3	1.93	2.28		0.23	1.78	
A4	4	0.00	2.11		0.48	1.70	
B1	5	0.00	1.91		1.23	2.06	
B2	6	0.00	1.87		0.21	1.58	
B3	7	0.00	2.22		1.52	2.29	
B4	8	0.00	1.97		0.40	1.69	
C1	9	0.00	2.05		0.00	1.23	
C2	10	0.00	1.95		2.71	2.25	
C3	11	0.00	2.06		0.00	1.22	
C4	12	0.00	1.95		0.00	1.12	
D1	13	0.00	2.07		1.54	2.16	
D2	14	0.00	2.15		0.00	1.19	
D3	15	0.00	2.13		2.66	2.48	
D4	16	0.00	2.09		3.71	2.63	

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T-Building 1S03 CORRIDOR 9 DRAINS,VENTS, UTILITIES

RSDS# MT-05-1242 *RCT:* [redacted] *RCT:* [redacted]

Alpha	43-68 BKG:	0	EFF:	0.21	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.175	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	Item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1S030201V	5904	[redacted]	5905	1	1	11/30/05	8:13	17	120	64
ALPHA	1S030202V	5904	[redacted]	5905	1	2	11/30/05	8:17	15	120	57
ALPHA	1S030203V	5904	[redacted]	5905	1	3	11/30/05	8:22	16	120	60
ALPHA	1S030204V	5904	[redacted]	5905	1	4	11/30/05	8:25	8	120	30
ALPHA	1S030205V	5904	[redacted]	5905	1	5	11/30/05	8:30	5	120	19
ALPHA	1S030101D	5904	[redacted]	5905	1	6	11/30/05	8:39	4	120	15
ALPHA	1S030102D	5904	[redacted]	5905	1	7	11/30/05	8:43	6	120	23
ALPHA	1S030103D	5904	[redacted]	5905	1	8	11/30/05	8:47	6	120	23
ALPHA	1S030104D	5904	[redacted]	5905	1	9	11/30/05	9:39	10	120	38
ALPHA	1S030105D	5904	[redacted]	5905	1	10	11/30/05	9:43	4	120	15
ALPHA	1S030201U	5904	[redacted]	5905	1	11	11/30/05	9:49	6	120	23
ALPHA	1S030202U	5904	[redacted]	5905	1	12	11/30/05	9:53	2	120	8
ALPHA	1S030203U	5904	[redacted]	5905	1	13	11/30/05	9:56	5	120	19
ALPHA	1S030204U	5904	[redacted]	5905	1	14	11/30/05	10:00	2	120	8
ALPHA	1S030205U	5904	[redacted]	5905	1	15	11/30/05	10:03	2	120	8
ALPHA	1S030206U	5904	[redacted]	5905	1	16	11/30/05	10:07	11	120	42
BETA	1S030201V	5904	[redacted]	5905	2	1	11/30/05	8:15	143	60	1297
BETA	1S030202V	5904	[redacted]	5905	2	2	11/30/05	8:19	111	60	1007
BETA	1S030203V	5904	[redacted]	5905	2	3	11/30/05	8:23	179	60	1624
BETA	1S030204V	5904	[redacted]	5905	2	4	11/30/05	8:27	107	60	971
BETA	1S030205V	5904	[redacted]	5905	2	5	11/30/05	8:31	79	60	717
BETA	1S030101D	5904	[redacted]	5905	2	6	11/30/05	8:40	163	60	1478
BETA	1S030102D	5904	[redacted]	5905	2	7	11/30/05	8:44	132	60	1197
BETA	1S030103D	5904	[redacted]	5905	2	8	11/30/05	8:48	133	60	1206
BETA	1S030104D	5904	[redacted]	5905	2	9	11/30/05	9:40	127	60	1152
BETA	1S030105D	5904	[redacted]	5905	2	10	11/30/05	9:44	121	60	1098
BETA	1S030201U	5904	[redacted]	5905	2	11	11/30/05	9:50	85	60	771
BETA	1S030202U	5904	[redacted]	5905	2	12	11/30/05	9:54	123	60	1116
BETA	1S030204U	5904	[redacted]	5905	2	13	11/30/05	9:57	97	60	880
BETA	1S030204U	5904	[redacted]	5905	2	14	11/30/05	10:01	128	60	1161
BETA	1S030205U	5904	[redacted]	5905	2	15	11/30/05	10:04	130	60	1179
BETA	1S030206U	5904	[redacted]	5905	2	16	11/30/05	10:08	106	60	961

NA

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Survey Unit Number: 15-03

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(Supplemental sheet for biased measurements.)

RSDS # MT-05-1242

RCT INT/HP [redacted] G.W. SPR

Label	Room	Surface	LX	LY
0201V	Rm8, Rm9	VENT	SEE MAP	
0202V	Rm8, Rm9	VENT		
0203V Rm4B	~~Rm8, Rm9~~	VENT		
0204V meas. ob	Rm8, Rm9	VENT		
0205V	Rm8, Rm9	VENT		
0101D	Rm8, Rm9	DRAIN		
0102D	Rm8, Rm9	DRAIN		
0103D	Rm8, Rm9	DRAIN		
0104D	Rm8, Rm9	DRAIN		
0105D	Rm8, Rm9	DRAIN		
0201U	Rm8, Rm9	Pipe		
0202U	Rm8, Rm9	Pipe		
0203U	Rm8, Rm9	Pipe		
0204U	Rm8, Rm9	Pipe		
0205U	Rm8, Rm9	Pipe		
0206U	Rm8, Rm9	Pipe	SEE MAP	

COPY

J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventalation system.
U-designator represents measurement on a utility drop.

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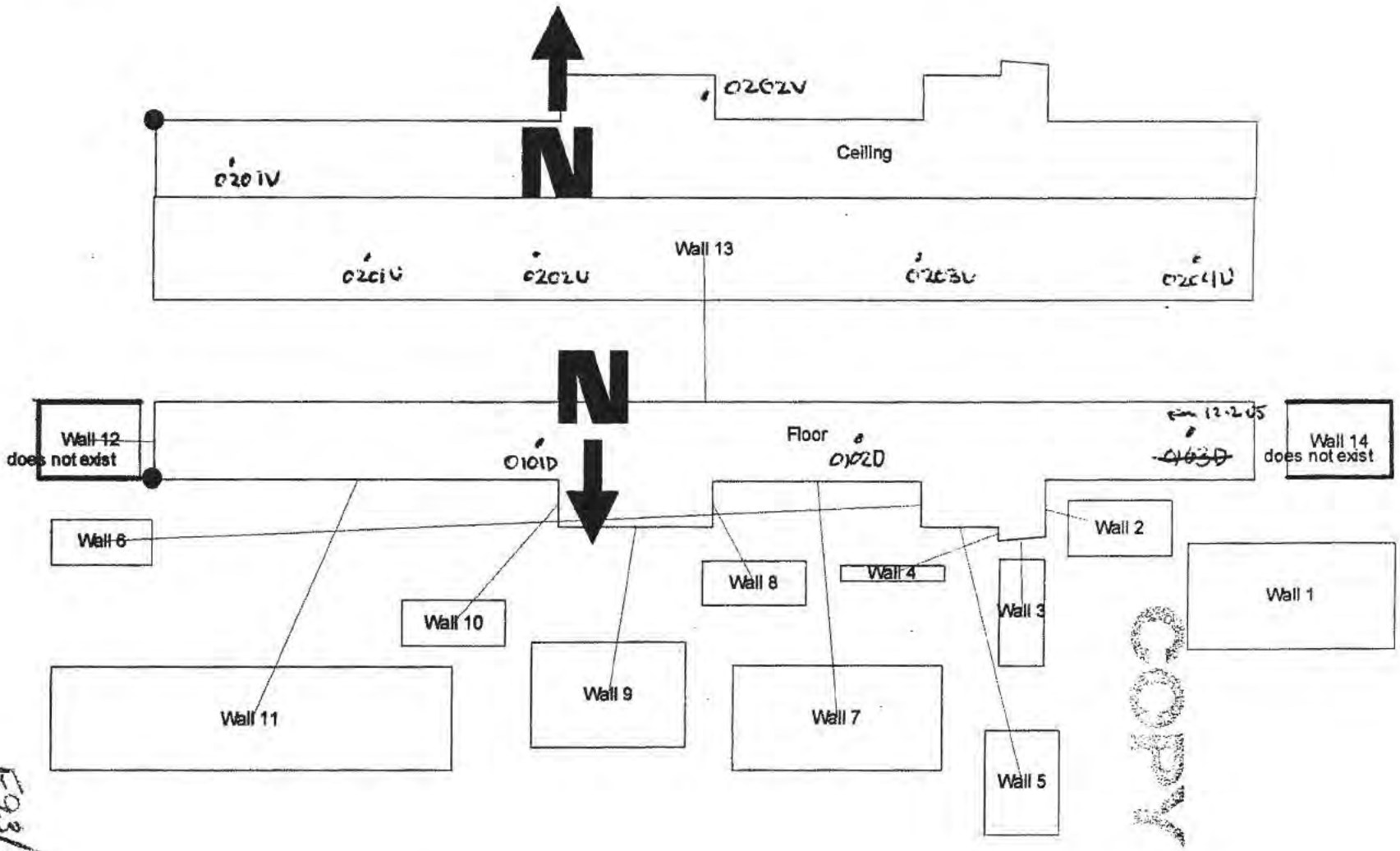
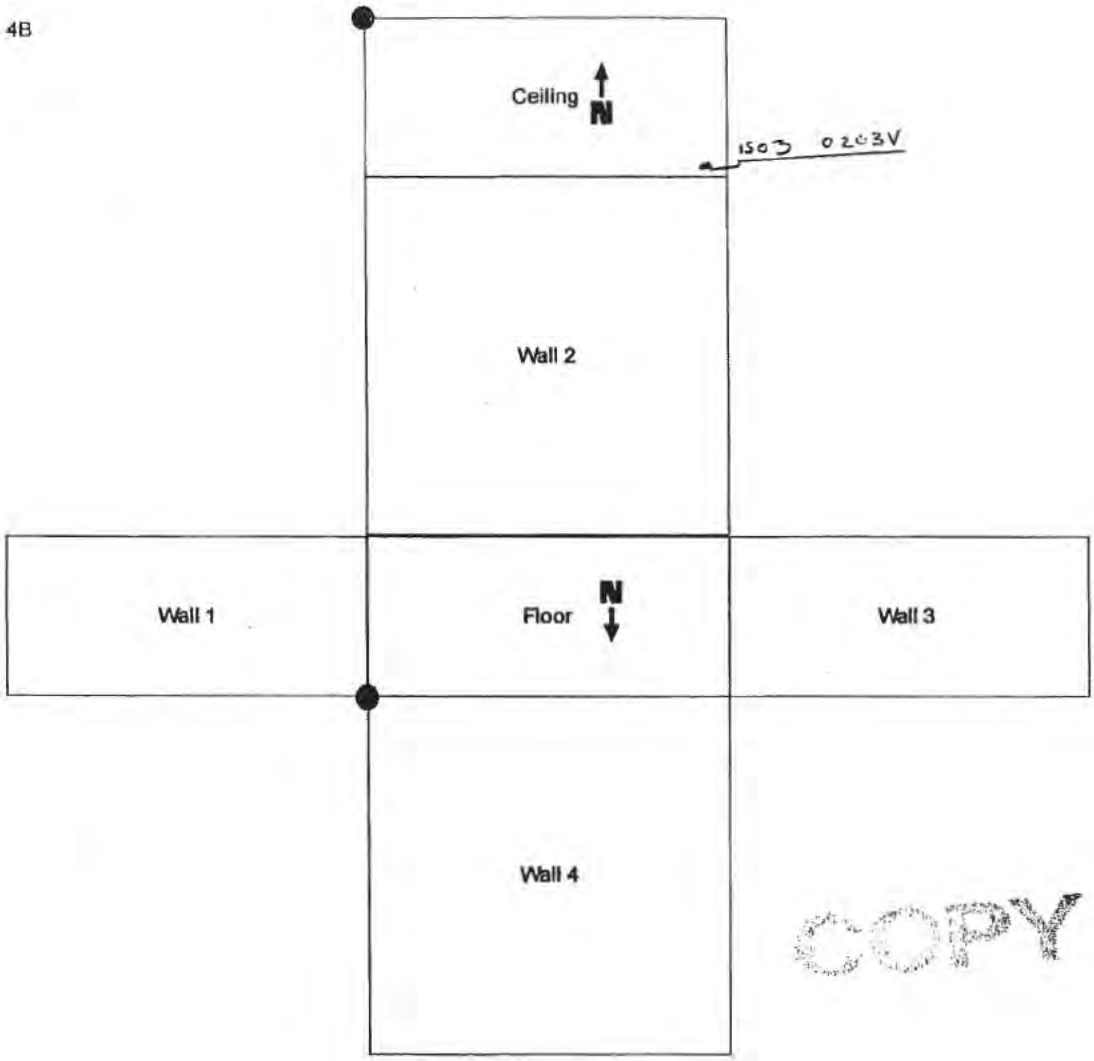
1S-03 **Corridor 9**
Class 2 **Drains, vents, and utility drops**

Corridor 9



1S-03 **Room 4B**
Class 2 **Drains, vents, and utility drops**

4B

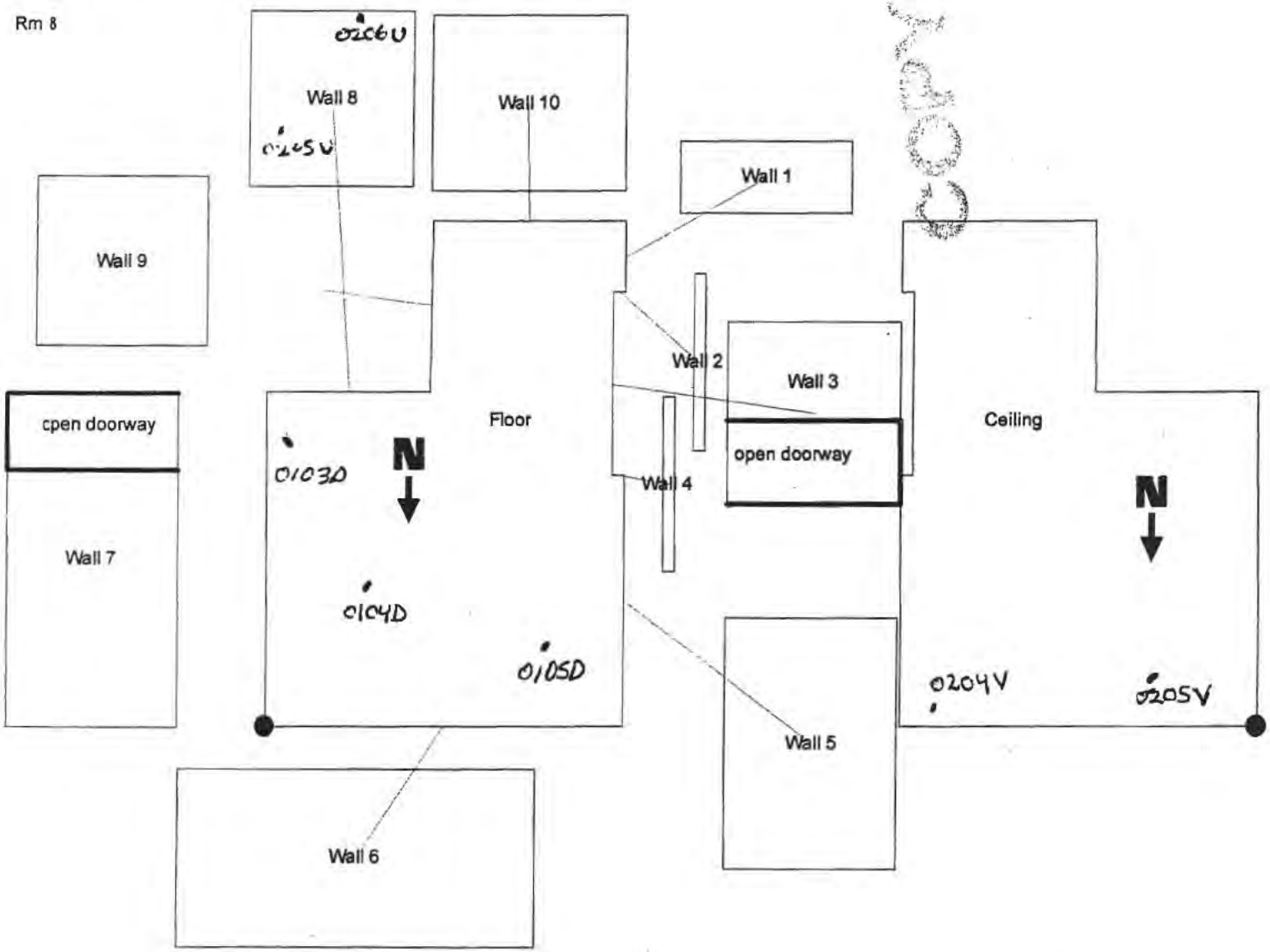


COPY

1S-03
Class 2

Rm 8

Room 8
Drains, vents, and utility drops



F95/223

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T-BLDG rm 4C	SURVEY NO. MT-05-1260
PURPOSE: 1503 VENTS	RWP NO. N/A
	DATE: 12/2/05
	TIME: 1410

MAP/DRAWING

SEE ATTACHED
SCANNED INSIDE OF VENT. NO ELEVATED LEVELS DETECTED

COPY

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) = or/β = direct cont. measurement in dpm/100cm².

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	59104/5915	2/22/06
	N/A	

ML-9620 (2-98)

Completed by: (Signature)	[redacted]	DATE: 12/2/05
Completed by: (Print Name) Georgia Wassenburg		
Counted by: (Signature) SEE ATTACHED	HI #	DATE:
Counted by: (Print Name) SHEETS		
Reviewed/Approved by: (Signature)	[redacted]	DATE: 12/14/05
Reviewed/Approved by: (Print Name) JESS GRAW		

F96/273

Survey No. MT 05 1260

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1				0206U
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				

N/A

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
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58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

N/A

COPY

COMMENTS: N/A

NOTES:
1. See MJ-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-0620 (4-98)

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_4\20051205_0901.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1260.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_4.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

COPY

F 9/8/05

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/5/05	9:01:57 AM	-1	10.00	9	9	10	4	624.37	0	20.7	B	4
12/5/05	9:12:46 AM	0	2.00	298	276	2	0	551.76	574	8.3		4
12/5/05	9:15:30 AM	1	2.00	11	10	0	0	376.13	26	61.8		4

COPY

F 40/223

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_115
Batch Ended: 12/5/05 7:49
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1260 [1] WEISSENBURGER 12-5-05 RLH

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
C2	1	0.00	1.93		1.59	1.95	

CW 12-5-05

CW 12-5-05

12-05-05

RLH

T-Building vents 1S03 rm 4C

RSDS# MT-05-1260 **RCT:** [redacted] **RCT:** [redacted]

Alpha	43-68 BKG:	0	EFF:	0.21	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.175	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	**LOCATION**	**2350#**	**RCT ID**	**PROBE**	**DET #**	**item**	**DATE**	**TIME**	**CNTS**	**CT TIME**	**dpm/100cm2**
ALPHA	1S030206V	5904	[redacted]	5905	1	1	12/2/05	13:28	22	120	83
BETA	1S030206V	5904	[redacted]	5905	2	1	12/2/05	13:29	171	60	1551

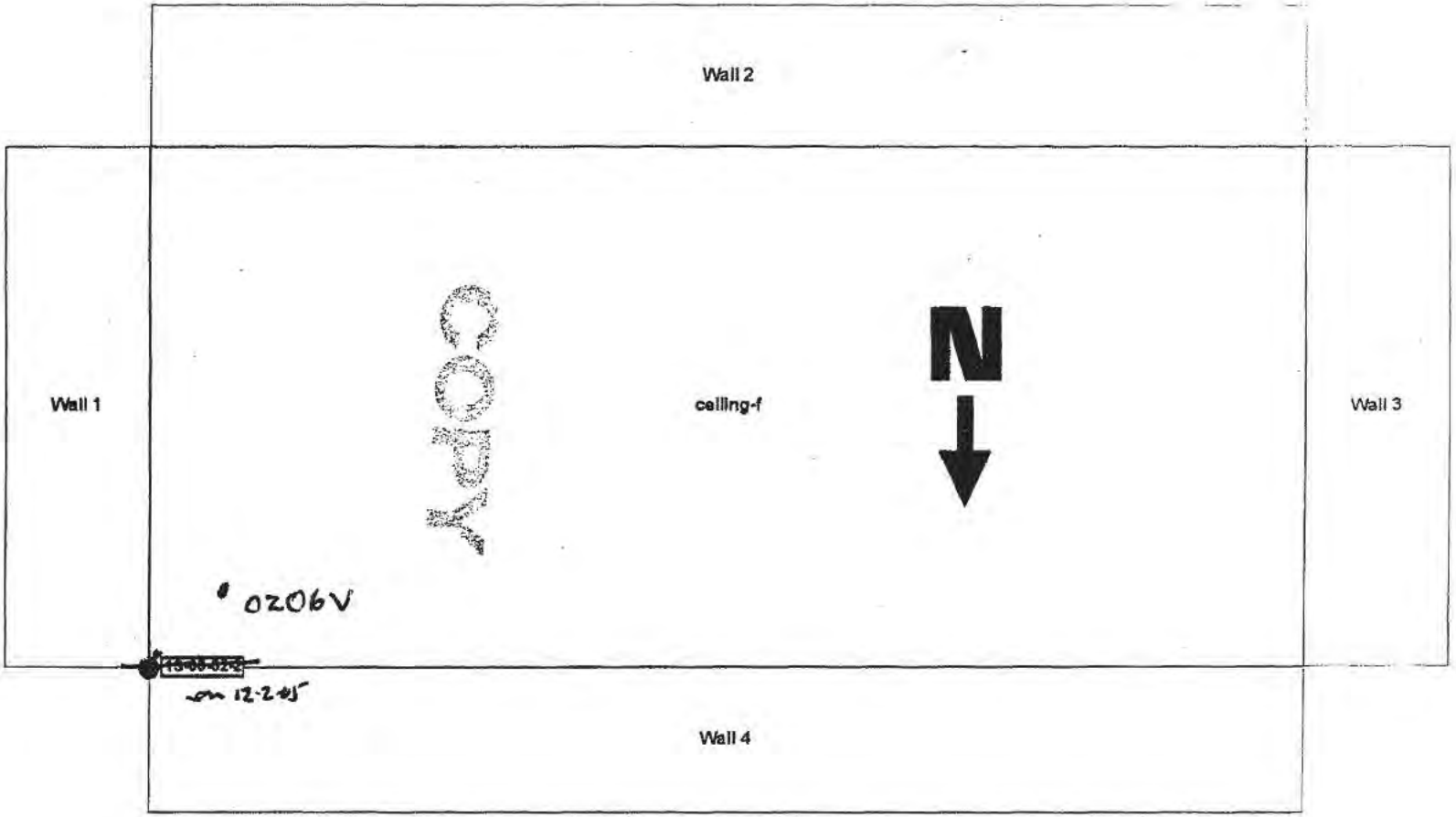
N/A

COPY

F 101/273

1S-03-02 Room 4C

4C



pg 7 of 8.
MT-05-1260

F-104273

Survey Unit Number:

(Supplemental sheet for biased measurements.)

RSDS # MT 05-1260
RCT INT/HP [redacted] [redacted]

Label	Room	Surface	LX	LY
0206V	4C	VENT	SEE MAP	
		N/A		

J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventalation system.
U-designator represents measurement on a utility drop.

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T-BLDG RM 8	SURVEY NO. MT-05-1273
PURPOSE: INVESTIGATE SHONKA SCAN 1503	RWP NO. N/A
	DATE: 12/6/05
	TIME: 0800

MAP/DRAWING

SCANNED AROUND AREA
IDENTIFIED BY SHONKA
NO ELEVATED READINGS
DETECTED α/β

SEE ATTACHED SHEETS

COPY

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) = α/β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350 4368	5904 5905	2-22-06

Completed by: (Signature)	[redacted]	DATE: 12/6/05
Completed by: (Print Name) SKILLMASTER George Weissenburger		
Counted by: (Signature) SEE ATTACHED	HI #	DATE:
Counted by: (Print Name) SHEETS		
Reviewed/Approved by: (Signature)	[redacted]	DATE: 12/14/05
Reviewed/Approved by: (Print Name) Jess Griffin		

MI-9620 (2-98)

F104/273

Survey No. MT-05-1273

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		15030105X
2		sheets		15030106X
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13			N/A	
14				
15				
16				
17				
18				
19				
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22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50			N/A	
51				
52				
53				
54				
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56				
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63				
64				
65				
66				
67				
68				
69				
70				

COPY

COMMENTS: N/A

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

F105/123

SAR 12-7-05

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_1\20051206_1314.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1273.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_1.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

Pg 3 of 1

F 106/273

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/6/05	1:15:14 PM	-1	10.00	8	7	12	5	621.70	0	22.6	B	1
12/6/05	1:26:03 PM	0	2.00	464	437	0	1	546.94	898	6.6		1
12/6/05	1:28:45 PM	1	2.00	4	4	0	21	456.97	9	124.0		1
12/6/05	1:31:28 PM	2	2.00	7	6	0	27	482.90	15	79.9		1

SM

Pg 4 of 7
MT-05-1273

TB

F 1371/273

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_007
Batch Ended: 12/6/05 12:49
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1273 [2] RICHARDSON 12-6-05 RLH

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
C1	1	0.00	2.05		0.00	1.23	
C2	2	3.30	2.70		0.16	1.59	

12-7-05

T-Building RM# 8 1S03 SHONKA INVESTIGATION

RSDS# MT-05-1273 *RCT:* [redacted] *RCT:* [redacted]

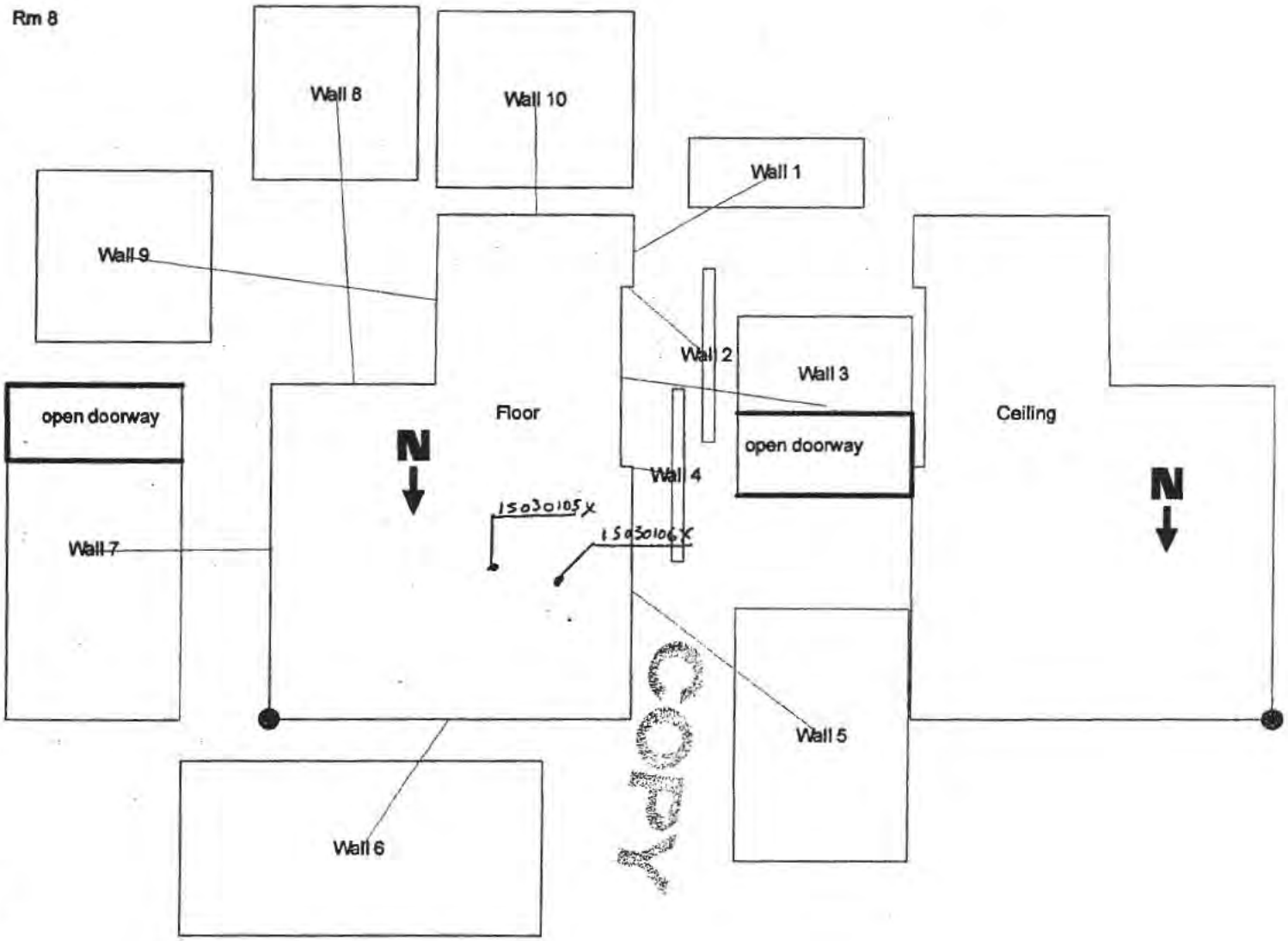
Alpha	43-68 BKG:	0	EFF:	0.21	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.175	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1S030105X	5904	[redacted]	5905	1	1	12/06/05	9:49	6	120	23
ALPHA	1S030106X	5904	[redacted]	5905	1	2	12/06/05	9:52	9	120	34
BETA	1S030105X	5904	[redacted]	5905	2	1	12/06/05	9:50	150	60	1361
BETA	1S030106X	5904	[redacted]	5905	2	2	12/06/05	9:54	158	60	1433

N A

COPY

F 109/273

1S-03 **Room 8**
Class 2



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MT-05-1273

F 110/173

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T-BLD6 Corr 9 Rm 8 4C,4B	SURVEY NO. MT-05-1291
PURPOSE: Lower STATICS + DOSE RATES 1503	RWP NO. N/A
	DATE: 12/8/05
	TIME: 1100

MAP/DRAWING

SEE ATTACHED SHEETS

COPY

BACKGROUND DOSE RATE: 5mrem/hr
MAXIMUM DOSE RATE: 5mrem/hr

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
or β = direct cont. measurement in dpm/100cm².

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5673 / 5862	8/4/06
microrem	4129	3/17/06
	N/A	

Completed by: (Signature)		DATE: 12/8/05
Completed by: (Print Name) S. Richardson George Weissenburger		
Counted by: (Signature) SEE ATTACHED	HI #	DATE:
Counted by: (Print Name) Sheets		
Reviewed/Approved by: (Signature)		DATE: 12/14/05
Reviewed/Approved by: (Print Name) Jess Gritton		

ML-9620 (2-93)

F 111/273

Survey No. MT-OS-1291

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		01015
2				01025
3				01035
4				01045
5				01055
6				01065
7				01075
8				01085
9				01095
10				01105
11				01115
12				01125
13				01135
14				01145
15				01155
16				01165
17				01175
18				01185
19				01195
20				01205
21				01215
22				01225
23	SEE	ATTACHED		01235
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
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66				
67				
68				
69				
70				

N/A

COPY

COMMENTS: N/A

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-0620 (4-95)

F 112/272

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_3\20051208_0958.results
Comma-Delimited File ~~Name: D:\MARSSIM_LSC\MT-05-1291.001~~
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_3.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

COPY

pg 3 of 12

Fig 2/23

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/8/05	9:59:28 AM	-1	10.00	7	7	10	1	616.49	0	23.4	B	3
12/8/05	10:10:12 AM	0	2.00	191	181	0	2	534.48	373	10.5		3
12/8/05	10:12:55 AM	1	2.00	1	1	0	6	635.63	2	371.9		3
12/8/05	10:15:38 AM	2	2.00	1	1	0	18	587.73	2	371.9		3
12/8/05	10:18:21 AM	3	2.00	4	2	0	17	560.18	7	129.5		3
12/8/05	10:21:06 AM	4	2.00	0	0	0	29	562.92	0	0.0		3
12/8/05	10:23:47 AM	5	2.00	6	6	0	7	596.98	12	85.0		3
12/8/05	10:26:29 AM	6	2.00	1	0	0	6	611.89	1	621.4		3
12/8/05	10:29:13 AM	7	2.00	3	2	0	0	578.26	5	167.0		3
12/8/05	10:31:56 AM	8	2.00	4	1	3	5	610.03	7	134.9		3
12/8/05	10:34:40 AM	9	2.00	3	2	0	0	607.58	6	152.8		3
12/8/05	10:37:22 AM	10	2.00	6	5	0	0	616.90	10	94.3		3
12/8/05	10:40:05 AM	11	2.00	4	3	0	0	569.42	7	134.9		3
12/8/05	10:42:48 AM	12	2.00	1	1	0	0	602.07	2	409.6		3
12/8/05	10:45:32 AM	13	2.00	0	0	0	0	626.13	0	0.0		3
12/8/05	10:48:13 AM	14	2.00	0	0	0	0	594.24	0	0.0		3
12/8/05	10:50:55 AM	15	2.00	2	3	0	5	576.11	4	212.8		3
12/8/05	10:53:37 AM	16	2.00	2	2	0	0	612.14	4	212.8		3
12/8/05	10:56:42 AM	17	2.00	1	0	0	6	569.43	2	371.9		3
12/8/05	10:59:23 AM	18	2.00	2	3	0	0	621.59	4	195.9		3
12/8/05	11:02:05 AM	19	2.00	4	4	0	5	604.55	7	134.9		3
12/8/05	11:04:48 AM	20	2.00	0	0	0	0	621.78	0	0.0		3
12/8/05	11:07:31 AM	21	2.00	5	5	0	0	588.63	9	110.4		3
12/8/05	11:10:14 AM	22	2.00	3	3	1	0	619.54	5	177.3		3
12/8/05	11:12:57 AM	23	2.00	2	2	0	0	605.01	4	212.8		3

pg 4 of 12
MT.05.1291

Fig 2/22

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_030
Batch Ended: 12/8/05 9:12
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1291 [23] RICHARDSON 12-8-05 RLH

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.21		1.78	2.26	
A2	2	0.00	2.01		0.34	1.64	
A3	3	0.00	2.28		0.41	1.78	
A4	4	0.00	2.11		0.48	1.70	
B1	5	0.00	1.91		1.23	2.06	
B2	6	0.00	1.87		0.21	1.58	
B3	7	0.00	2.18		0.00	1.33	
B4	8	0.00	1.97		0.40	1.69	
C1	9	0.00	2.05		0.00	1.23	
C2	10	0.00	1.93		1.59	1.95	
C3	11	0.00	2.08		1.49	2.11	
C4	12	1.68	1.96		0.47	1.59	
D1	13	0.00	2.05		0.00	1.25	
D2	14	0.00	2.18		1.58	2.06	
D3	15	0.00	2.09		0.00	1.25	
D4	16	1.54	2.05		0.06	1.66	
B1	17	0.00	1.95		3.60	2.66	
B2	18	1.54	1.85		0.00	1.12	
B3	19	0.00	2.20		0.20	1.87	
B4	20	0.00	1.99		1.60	2.07	
C1	21	0.00	2.05		0.00	1.23	
C2	22	0.00	1.92		0.47	1.59	
C3	23	0.00	2.06		0.00	1.22	

12-9-05

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T-Building 1S03 LOWER STATICS

RSDS MT05-1291 ***HP*** ***HP#***

Alpha	43-68 BKG:	0	EFF:	0.209	PROBE AREA:	120	cm^2	Surface Eff:	0.5	Detector # :	1
Beta	43-68 BKG:	0	EFF:	0.1632	PROBE AREA:	120	cm^2	Surface Eff:	0.5	Detector # :	2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:	0.5	Detector # :	3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:	0.5	Detector # :	4

TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1S030101S	5673		5862	1	1	12/8/05	7:11	10	120	38
ALPHA	1S030102S	5673		5862	1	2	12/8/05	7:14	13	120	50
ALPHA	1S030103S	5673		5862	1	3	12/8/05	7:18	8	120	31
ALPHA	1S030104S	5673		5862	1	4	12/8/05	7:21	10	120	38
ALPHA	1S030105S	5673		5862	1	5	12/8/05	7:25	7	120	27
ALPHA	1S030106S	5673		5862	1	6	12/8/05	7:27	8	120	31
ALPHA	1S030107S	5673		5862	1	7	12/8/05	7:40	8	120	31
ALPHA	1S030108S	5673		5862	1	8	12/8/05	7:44	10	120	38
ALPHA	1S030109S	5673		5862	1	9	12/8/05	7:48	11	120	42
ALPHA	1S030110S	5673		5862	1	10	12/8/05	7:52	9	120	34
ALPHA	1S030111S	5673		5862	1	11	12/8/05	7:55	6	120	23
ALPHA	1S030112S	5673		5862	1	12	12/8/05	7:59	9	120	34
ALPHA	1S030113S	5673		5862	1	13	12/8/05	8:02	7	120	27
ALPHA	1S030114S	5673		5862	1	14	12/8/05	8:06	5	120	19
ALPHA	1S030115S	5673		5862	1	15	12/8/05	8:09	6	120	23
ALPHA	1S030116S	5673		5862	1	16	12/8/05	8:17	7	120	27
ALPHA	1S030117S	5673		5862	1	17	12/8/05	8:20	8	120	31
ALPHA	1S030118S	5673		5862	1	18	12/8/05	8:33	3	120	11
ALPHA	1S030119S	5673		5862	1	19	12/8/05	8:36	5	120	19
ALPHA	1S030120S	5673		5862	1	20	12/8/05	8:40	6	120	23
ALPHA	1S030121S	5673		5862	1	21	12/8/05	8:43	4	120	15
ALPHA	1S030122S	5673		5862	1	22	12/8/05	8:47	5	120	19
ALPHA	1S030123S	5673		5862	1	23	12/8/05	8:50	8	120	31
BETA	1S030101S	5673		5862	2	1	12/8/05	7:12	181	60	1760
BETA	1S030102S	5673		5862	2	2	12/8/05	7:15	174	60	1692
BETA	1S030103S	5673		5862	2	3	12/8/05	7:19	117	60	1138
BETA	1S030104S	5673		5862	2	4	12/8/05	7:22	152	60	1478
BETA	1S030106S	5673		5862	2	5	12/8/05	7:29	98	60	953
BETA	1S030107S	5673		5862	2	6	12/8/05	7:41	133	60	1294
BETA	1S030108S	5673		5862	2	7	12/8/05	7:45	120	60	1167
BETA	1S030109S	5673		5862	2	8	12/8/05	7:49	90	60	875
BETA	1S030110S	5673		5862	2	9	12/8/05	7:53	151	60	1469
BETA	1S030111S	5673		5862	2	10	12/8/05	7:56	131	60	1274
BETA	1S030112S	5673		5862	2	11	12/8/05	8:00	114	60	1109
BETA	1S030113S	5673		5862	2	12	12/8/05	8:03	88	60	856
BETA	1S030114S	5673		5862	2	13	12/8/05	8:07	96	60	934
BETA	1S030115S	5673		5862	2	14	12/8/05	8:11	160	60	1556
BETA	1S030116S	5673		5862	2	15	12/8/05	8:18	142	60	1381
BETA	1S030117S	5673		5862	2	16	12/8/05	8:21	160	60	1556
BETA	1S030118S	5673		5862	2	17	12/8/05	8:34	125	60	1216
BETA	1S030119S	5673		5862	2	18	12/8/05	8:37	99	60	963
BETA	1S030120S	5673		5862	2	19	12/8/05	8:41	113	60	1099

F 116/272

T-Building 1S03 LOWER STATICS

RSDS MT05-1291 ***HP*** [redacted] ***HP*** [redacted]

Alpha	43-68 BKG:	0	EFF:	0.208	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.1632	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	**LOCATION**	**2350#**	**RCT ID**	**PROBE**	**DET #**	**Item**	**DATE**	**TIME**	**CNTS**	**CT TIME**	**dpm/100cm2**
BETA	1S030121S	5673	[redacted]	5862	2	20	12/8/05	8:44	132	60	1284
BETA	1S030122S	5673	[redacted]	5862	2	21	12/8/05	8:48	131	60	1274
BETA	1S030123S	5673	[redacted]	5862	2	22	12/8/05	8:51	115	60	1119
BETA	1S030105S	5673	[redacted]	5862	2	23	12/8/05	7:24	99	60	963

N A

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F-117/22

1S-03-01
floor and lower wall static measurements

Area: 4B				
Label	Type	Surface	LX	LY
1S-03-01-1	Systematic	Wall 4	1	4

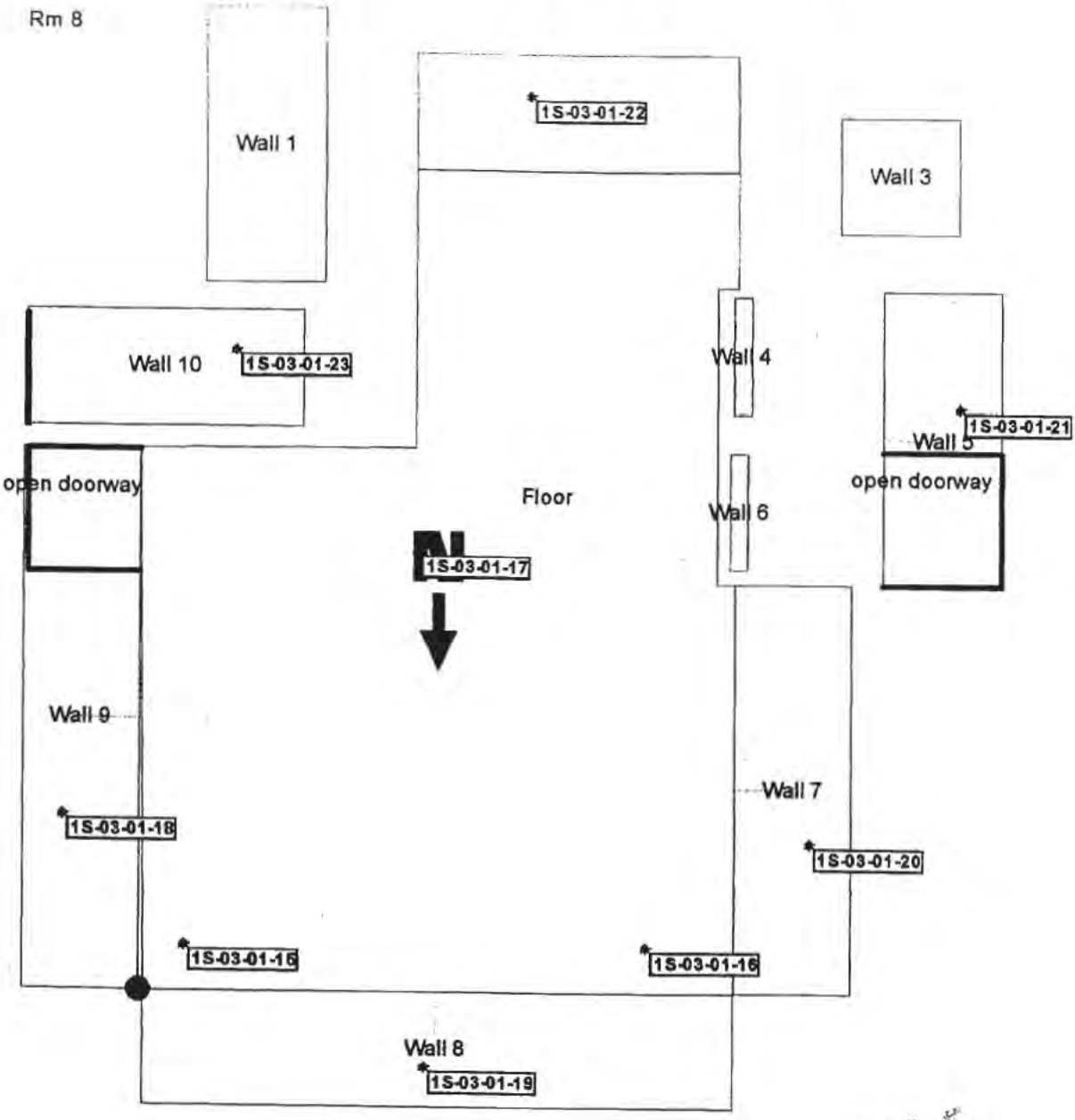
Area: 4C				
Label	Type	Surface	LX	LY

Area: Corridor 9				
Label	Type	Surface	LX	LY
1S-03-01-2	Systematic	Floor	15	7
1S-03-01-3	Systematic	Floor	42	7
1S-03-01-4	Systematic	Floor	69	7
1S-03-01-5	Systematic	Floor	96	7
1S-03-01-6	Systematic	Wall 13	87	1
1S-03-01-7	Systematic	Wall 13	60	1
1S-03-01-8	Systematic	Wall 13	32	1
1S-03-01-9	Systematic	Wall 13	5	1
1S-03-01-10	Systematic	Wall 11	24	1
1S-03-01-11	Systematic	Wall 10	1	1
1S-03-01-12	Systematic	Wall 7	13	1
1S-03-01-13	Systematic	Wall 3	3	1
1S-03-01-14	Systematic	Wall 1	1	1

Area: Rm 8				
Label	Type	Surface	LX	LY
1S-03-01-15	Systematic	Floor	3	3
1S-03-01-16	Systematic	Floor	30	3
1S-03-01-17	Systematic	Floor	16	26
1S-03-01-18	Systematic	Wall 9	10	5
1S-03-01-19	Systematic	Wall 8	18	5
1S-03-01-20	Systematic	Wall 7	15	5
1S-03-01-21	Systematic	Wall 5	7	5
1S-03-01-22	Systematic	Wall 2	7	5
1S-03-01-23	Systematic	Wall 10	12	5

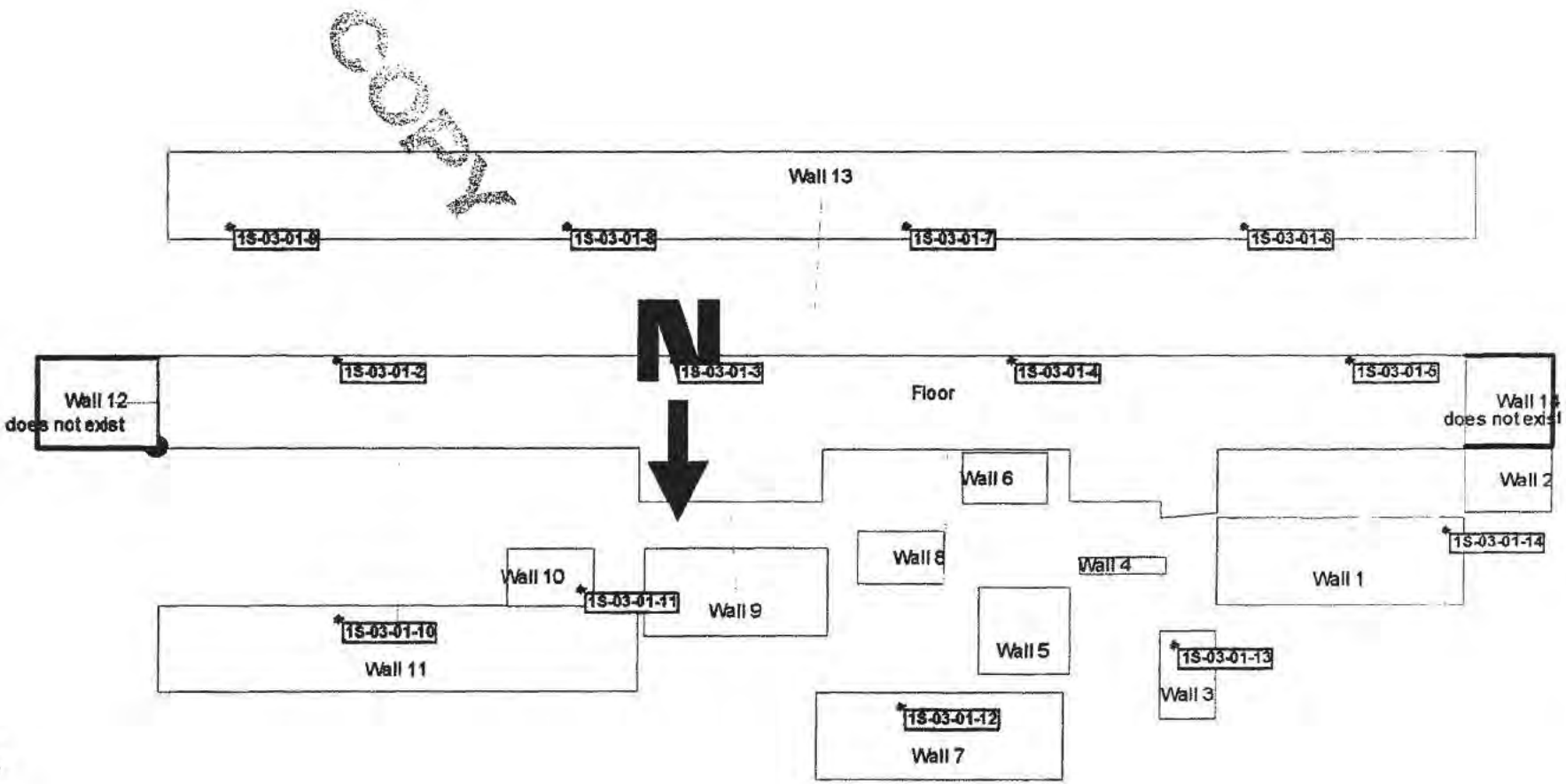
COPY

1S-03-01
floor and lower wall static measurements



1S-03-01 **Corridor 9**
floor and lower wall static measurements

Corridor 9



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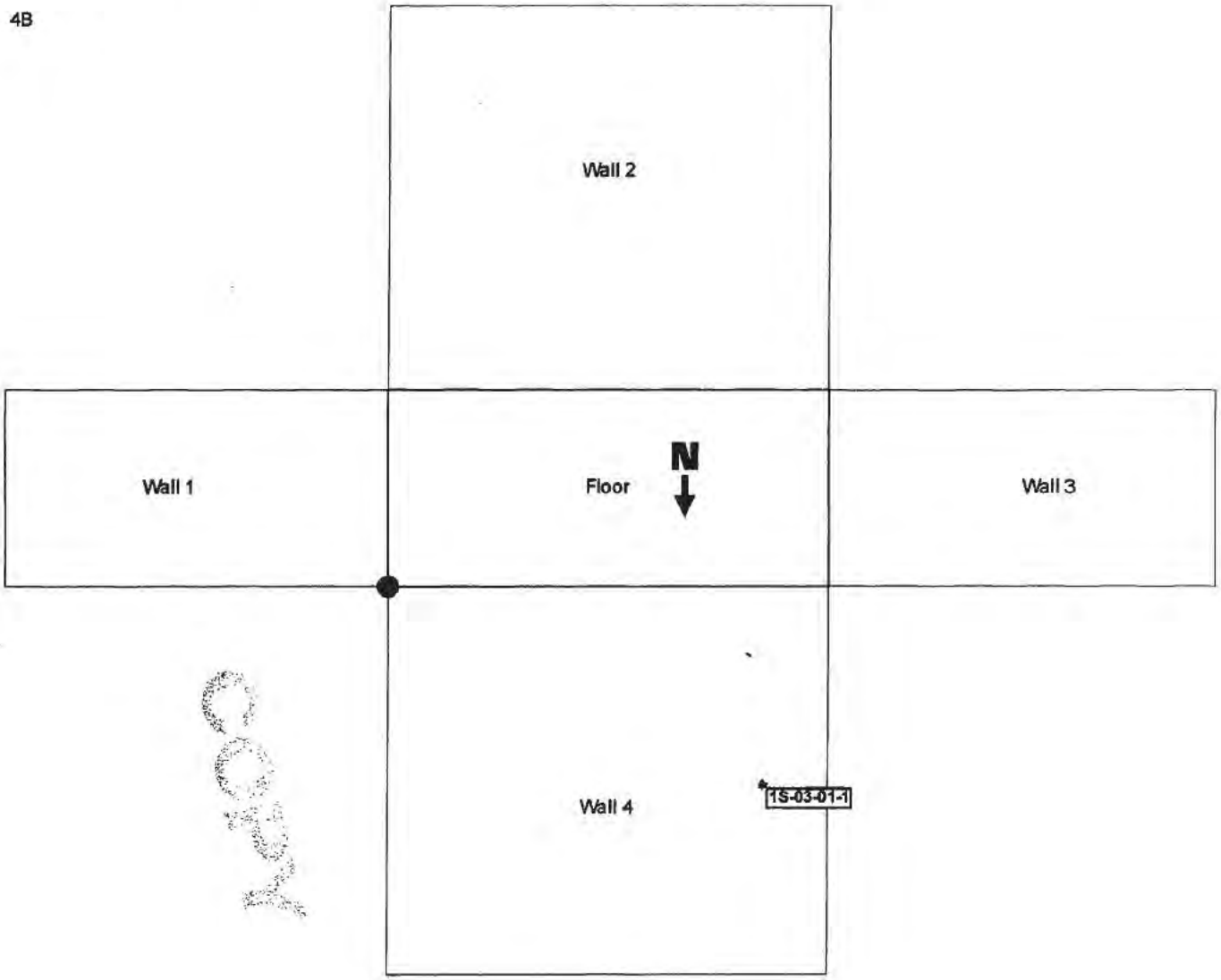
MT-05.1291

F 12/023

1S-03-01 Room 4B
floor and lower wall static measurements

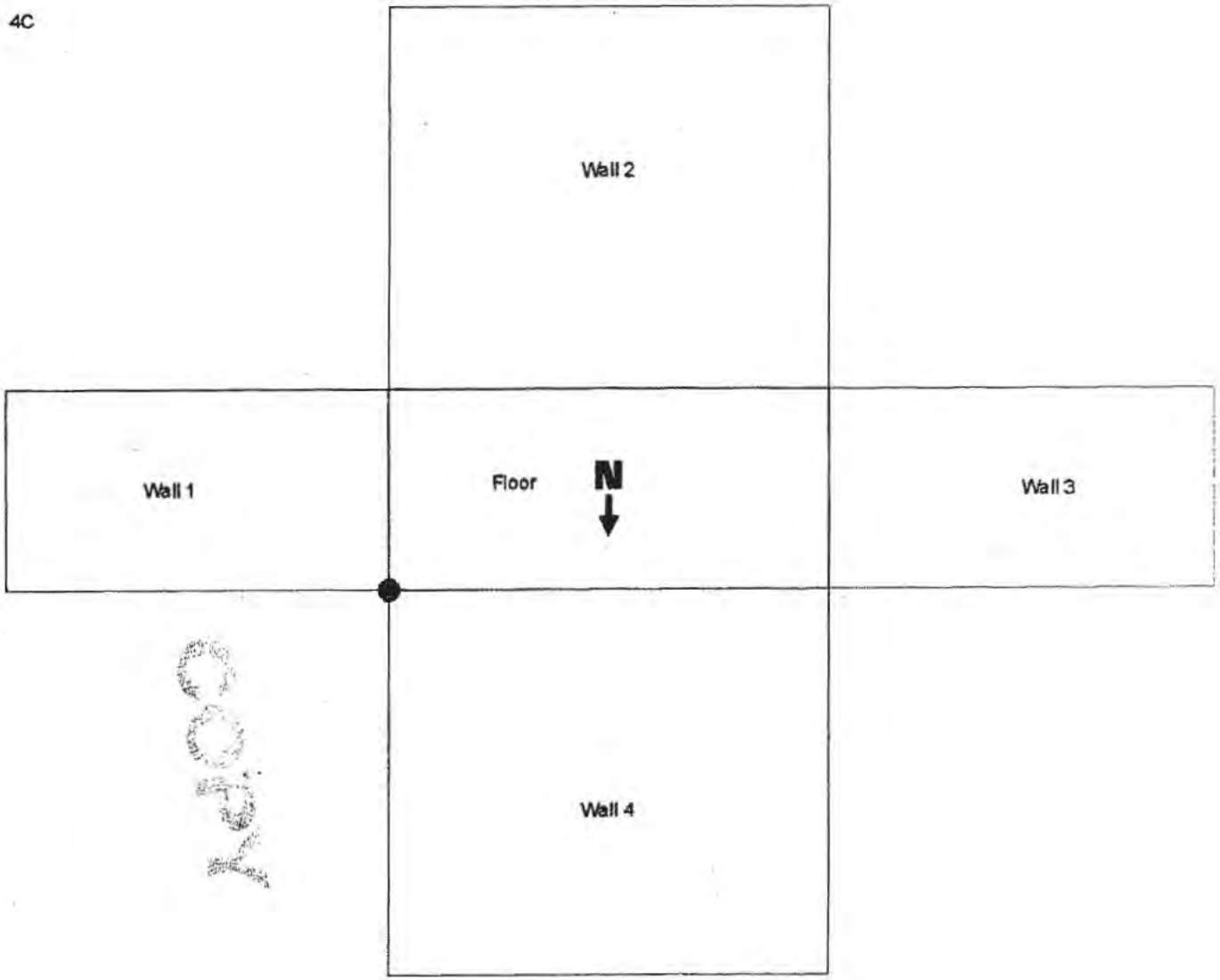
4B



F121/28

1S-03-01 **Room 4C**
floor and lower wall static measurements

4C



pg 12 of 12
MT-05-1291

F 122/27

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T-BLDG corr 9, rm 8 ~~48,46~~ MES 1-7-06	SURVEY NO. MT-05-1292
PURPOSE: D.V.U.J 1503	RWP NO. N/A
	DATE: 12/8/05
	TIME: 1430

MAP/DRAWING

SEE ATTACHED

COPY

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
α/β = direct cont. measurement in dpm/100cm².

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5673 / 5862	8/4/06
	N	
	A	

Completed by: (Signature) [redacted] DATE: 12/8/05
Completed by: (Print Name) Richardson George Weissenburger
Counted by: (Signature) SEE ATTACHED HI # DATE:
Counted by: (Print Name) Sheets
Reviewed/Approved by: (Signature) [redacted] DATE: 12/14/05
Reviewed/Approved by: (Print Name) Jess Griffin

ML-0620 (2-98)

F123/223

Survey No. MT-05-1292

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		0206V
2				0207V
3				0208V
4				0209V
5				0211V
6				0210V
7				0212V
8	SEE	ATTACHED		0213V
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21			N/A	
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53			N/A	
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COPY

COMMENTS: N/A

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

F124/223

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_3\20051212_1042.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1292.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_3.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

COPY

F 12/22/05

RLH

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/12/05	10:43:05 AM	-1	10.00	9	9	14	3	618.15	0	20.7	B	3
12/12/05	10:53:50 AM	0	2.00	181	172	0	2	532.00	355	10.8		3
12/12/05	10:56:32 AM	1	2.00	7	7	0	3	380.23	17	84.5		3
12/12/05	10:59:14 AM	2	2.00	0	0	0	6	622.23	0	0.0		3
12/12/05	11:01:56 AM	3	2.00	0	0	0	6	617.47	0	0.0		3
12/12/05	11:04:39 AM	4	2.00	0	0	0	0	634.23	0	0.0		3
12/12/05	11:07:21 AM	5	2.00	0	0	0	6	623.14	0	0.0		3
12/12/05	11:10:03 AM	6	2.00	0	0	0	6	355.00	0	0.0		3
12/12/05	11:12:46 AM	7	2.00	0	0	0	6	498.44	0	0.0		3
12/12/05	11:15:28 AM	8	2.00	1	1	0	10	475.81	2	527.6		3

GW
12-12-05

F 126/223

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_034
Batch Ended: 12/12/05 9:05
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1292 [8] RICHARDSON 12-12-05 RLH

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B1	1	0.00	1.95		3.60	2.66	
B2	2	0.00	1.85		0.00	1.12	
B3	3	0.00	2.20		0.20	1.87	
B4	4	0.00	1.95		0.00	1.19	
C1	5	0.00	2.05		0.00	1.23	
C2	6	5.19	3.36		7.86	3.39	
C3	7	0.00	2.06		0.00	1.22	
C4	8	0.00	1.95		0.00	1.13	

CW 12-12-05

12-12-05

CW

1-12/23

Rev

T-Building 1S03 VENTS

RSDS# MT-05-1292 ***RCT:*** [redacted] ***RCT:*** [redacted]

Alpha	43-68 BKG:	0	EFF:	0.208	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.1632	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	**LOCATION**	**2350#**	**RCT ID**	**PROBE**	**DET #**	**item**	**DATE**	**TIME**	**CNTS**	**CT TIME**	**dpm/100cm2**
ALPHA	1S030206V	5673	[redacted]	5862	1	1	12/8/05	13:18	5	120	19
ALPHA	1S030207V	5673	[redacted]	5862	1	2	12/8/05	13:23	5	120	19
ALPHA	1S030208V	5673	[redacted]	5862	1	3	12/8/05	13:27	8	120	31
ALPHA	1S030209V	5673	[redacted]	5862	1	4	12/8/05	13:32	2	120	8
ALPHA	1S030211V	5673	[redacted]	5862	1	5	12/8/05	13:39	5	120	19
ALPHA	1S030210V	5673	[redacted]	5862	1	6	12/8/05	13:43	9	120	34
ALPHA	1S030212V	5673	[redacted]	5862	1	7	12/8/05	13:46	15	120	57
ALPHA	1S030213V	5673	[redacted]	5862	1	8	12/8/05	13:50	13	120	50
BETA	1S030206V	5673	[redacted]	5862	2	1	12/8/05	13:19	95	60	924
BETA	1S030207V	5673	[redacted]	5862	2	2	12/8/05	13:24	97	60	943
BETA	1S030208V	5673	[redacted]	5862	2	3	12/8/05	13:28	69	60	671
BETA	1S030209V	5673	[redacted]	5862	2	4	12/8/05	13:34	84	60	817
BETA	1S030211V	5673	[redacted]	5862	2	5	12/8/05	13:40	51	60	496
BETA	1S030210V	5673	[redacted]	5862	2	6	12/8/05	13:44	75	60	729
BETA	1S030212V	5673	[redacted]	5862	2	7	12/8/05	13:47	75	60	729
BETA	1S030213V	5673	[redacted]	5862	2	8	12/8/05	13:50	84	60	817

N A

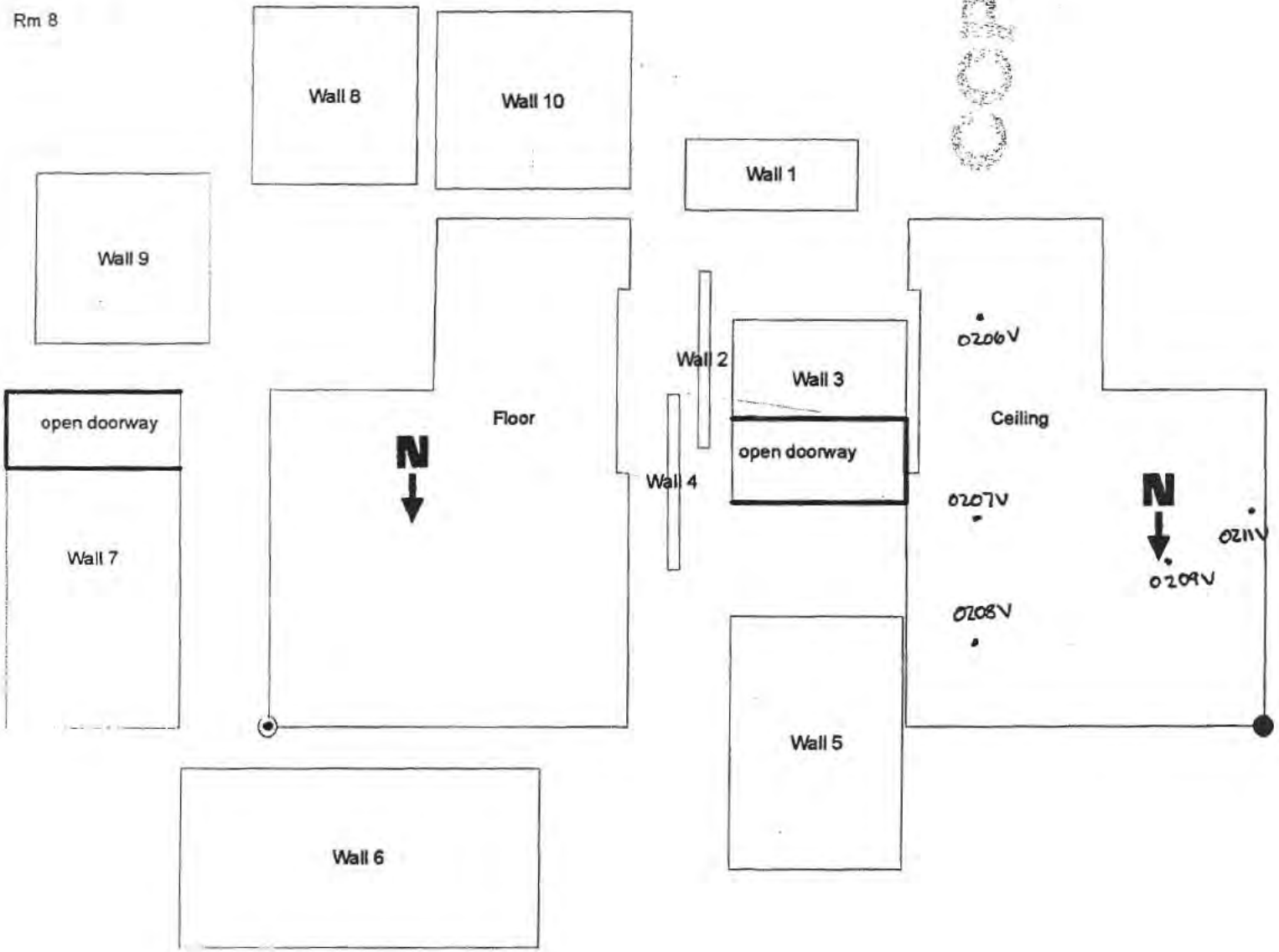
COPY

F-128/227

1S-03
Class 2

Rm 8

Room 8
Drains, vents, and utility drops



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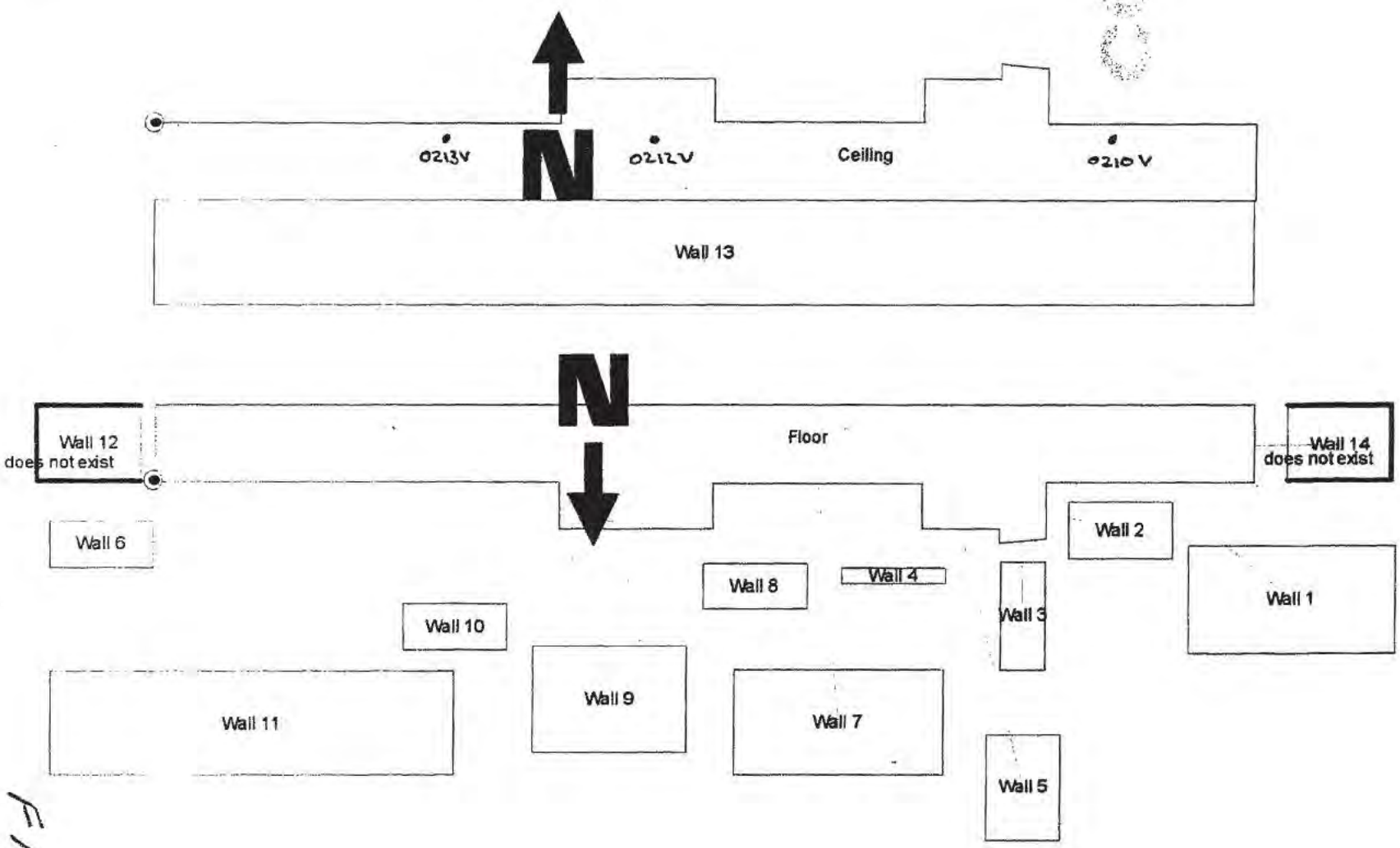
MT.05.1292

F 1/24/23

1S-03 **Corridor 9**
Class 2 **Drains, vents, and utility drops**

Corridor 9



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pg 8 of 9
MT.05.1292

Survey Unit Number:

(Supplemental sheet for biased measurements.)

RSDS # MT-05-1292
RCT INT/HP SR [redacted] /GW. [redacted]

Label	Room	Surface	LX	LY
0206 V	Rm 8	VENT	SEE MAPS	
0207 V	Rm 8	VENT		
0208 V	Rm 8	VENT		
0209 V	Rm 8	VENT		
0211 V	Rm 8	VENT		
0210 V	corr 9	VENT		
0212 V	corr 9	VENT		
0213 V	corr 9	VENT	SEE MAPS	
		N A		

J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventalation system.
U-designator represents measurement on a utility drop.

F 13/273

RADIOLOGICAL SURVEY DATA SHEET

Page 1 of 0

LOCATION: (BLDG/AREA/ROOM) T-6406 Rm 8 corr 9 4B, 4C	SURVEY NO. MT-05-1294
PURPOSE: SCAN	RWP NO. N/A
	DATE: 12/8/05
1503	TIME: 1600

MAP/DRAWING

COPY

SEE MAPS.

RM 4B, 4C WERE SCANNED ON 12/10/05

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or/β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5873 / 5862	8/04/06
2350	5889 / 5890	1/04/06
	N/A	

Completed by: (Signature) [redacted]		DATE: 12/8/05
Completed by: (Print Name) S. KARRSEN George Weissenburg		
Counted by: (Signature) N/A	HI #	DATE:
Counted by: (Print Name) N/A		
Reviewed/Approved by: (Signature) [redacted]		DATE: 12/15/05
Reviewed/Approved by: (Print Name) Ken Griffin		

ML-0620 (2-98)

F132/273

Survey No. MT 05-1294

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18		N/A		
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53		N/A		
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COMMENTS:

N/A

NOTES:

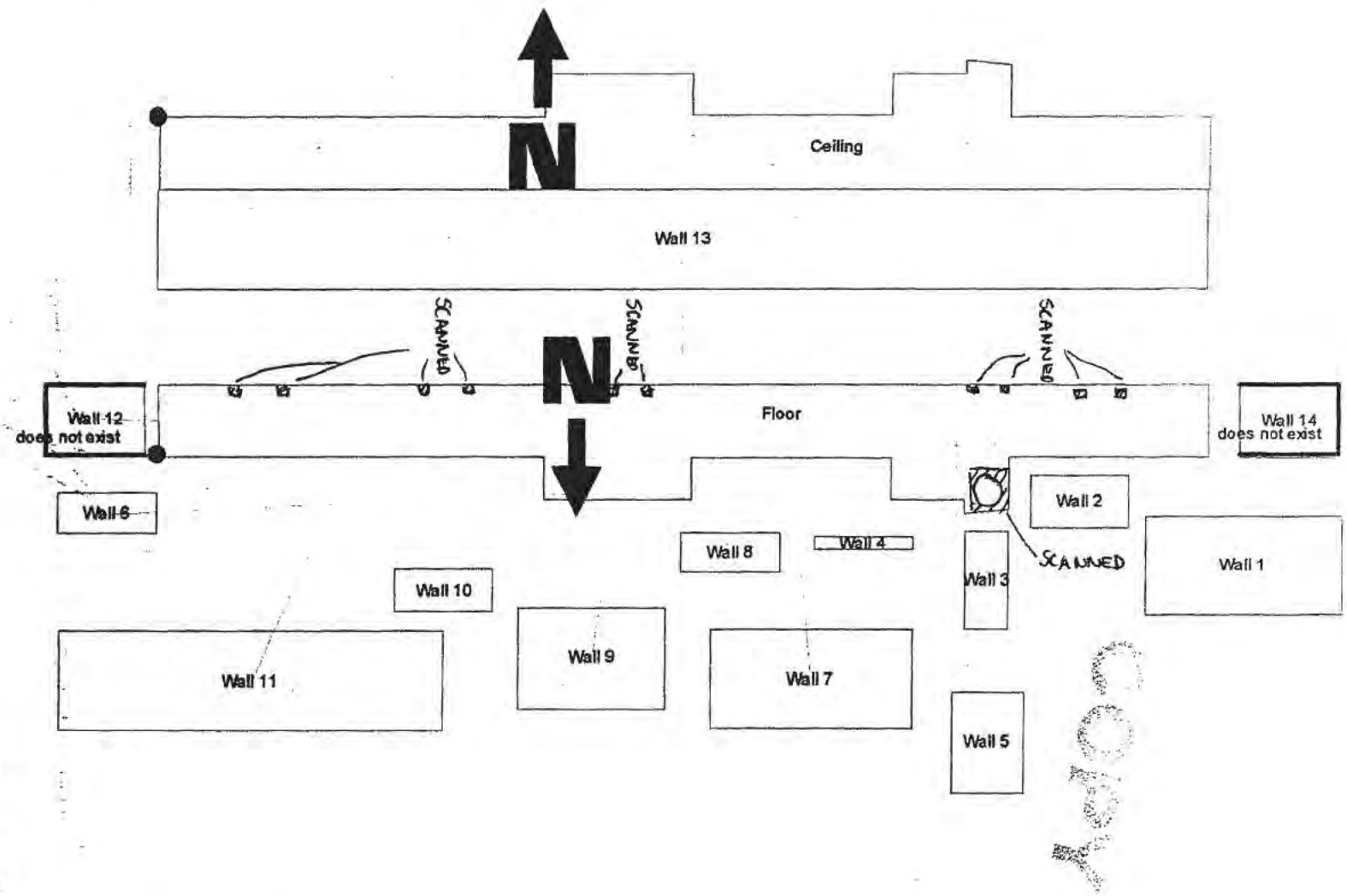
1. See MD-50036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-0620 (4-96)

F 133/23

1S-03 **Corridor 9** **100 % scan of the floor**
Class 2 **50% scan of the lower walls up to 2 meters**
25% scan of wall above 2m
Scan an area of approximately 1m2 around each static measurement on the ceiling

Corridor 9



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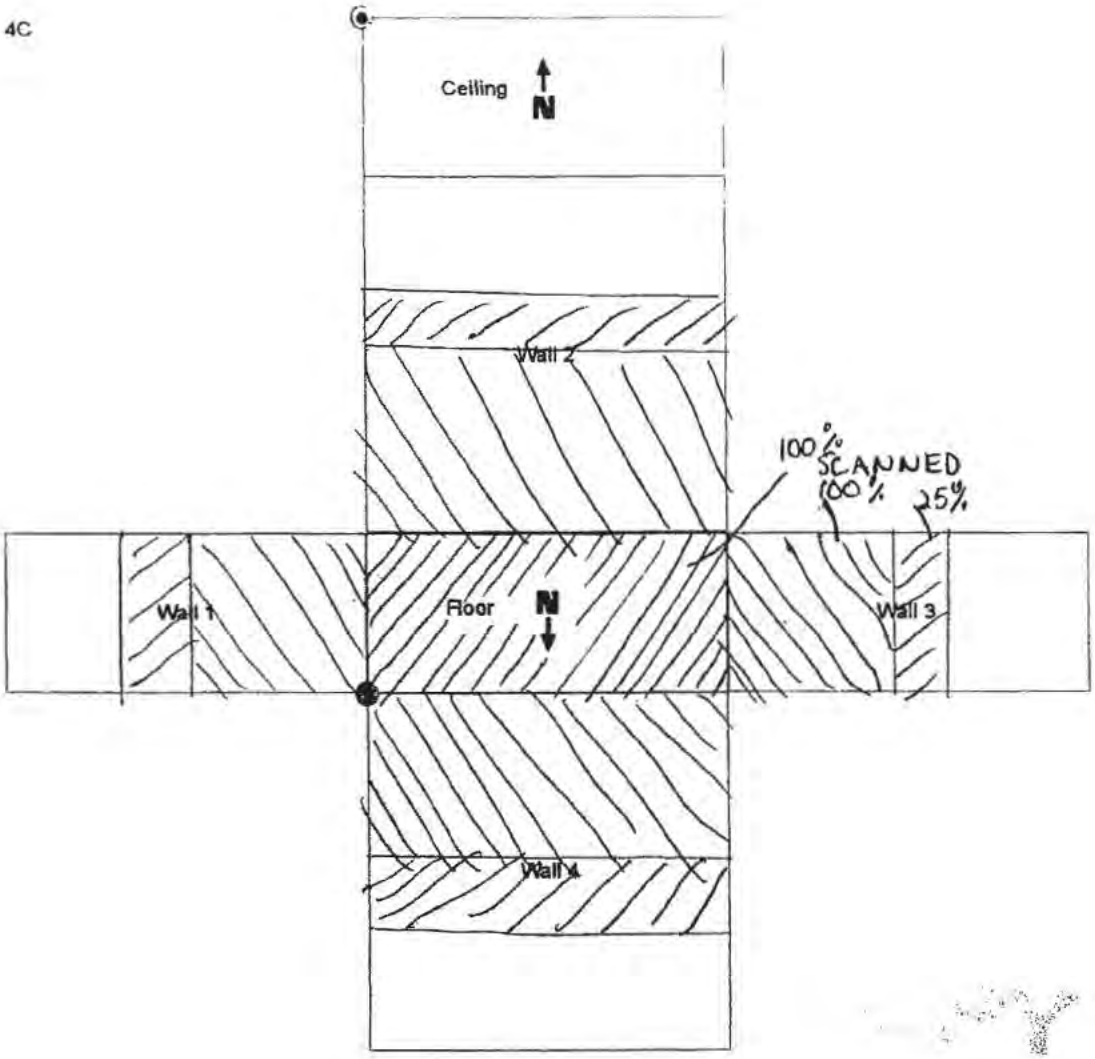
MT.05.1294

F 13412

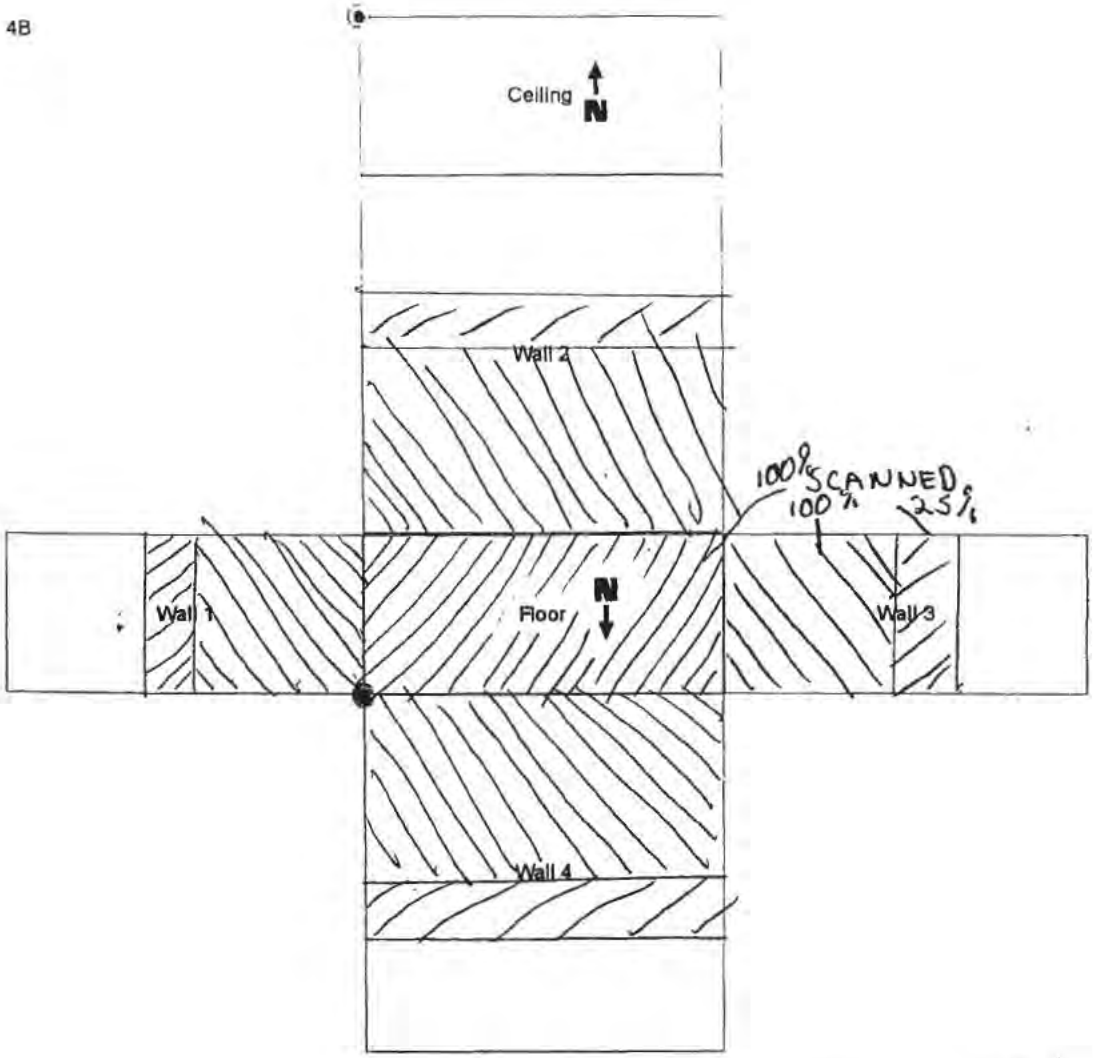
1S-03 **Room 4C** **100 % scan of the floor**
Class 2 **50% scan of the lower walls up to 2 meters**
25% scan of wall above 2m
Scan an area of approximately 1m2 around each static measurement on the ceiling

4C



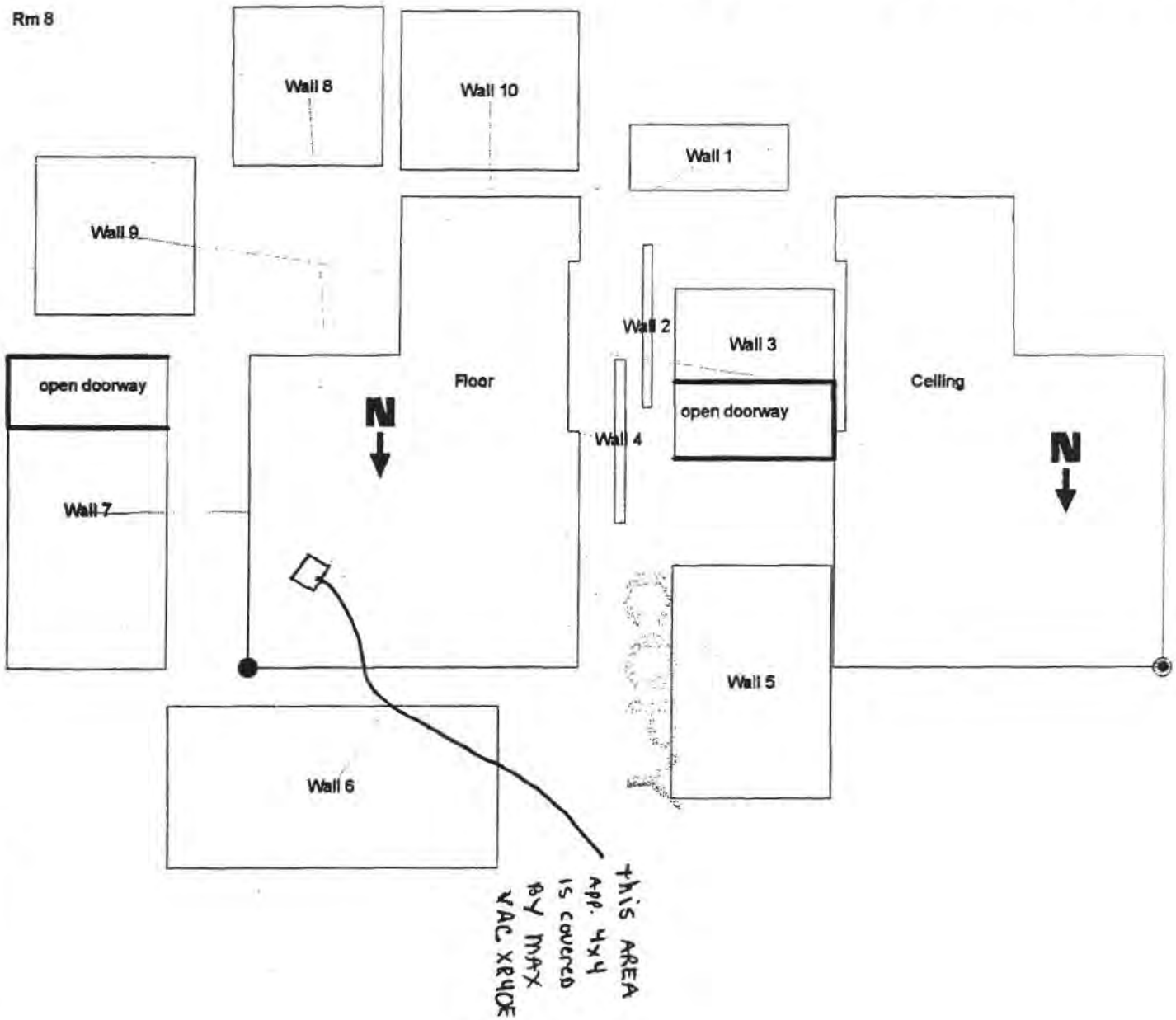
1S-03 **Room 4B** **100 % scan of the floor**
Class 2 **50% scan of the lower walls up to 2 meters**
25% scan of wall above 2m
Scan an area of approximately 1m2 around each static measurement on the ceiling

4B



1S-03 **Room 8**
Class 2

100 % scan of the floor
50% scan of the lower walls up to 2 meters
25% scan of wall above 2m
Scan an area of approximately 1m2 around each static measurement on the ceiling



pg 6 of 6
MT-05-1294

Figure 1/pg 3

RADIOLOGICAL SURVEY DATA SHEET

Page 1 of 1 (12-14-05)

LOCATION: (BLDG/AREA/ROOM) T-BLD6 Rm 8 conc 9 4B, 4C	SURVEY NO. MT-05-1298
PURPOSE: STATICS upper	RWP NO. N/A
	DATE: 12/9/05
1503	TIME: 1430

MAP/DRAWING

COPY

EACH CEILING STATIC AREA LOCATION WAS SCANNED 1 m^2 AROUND α/β NO ELEVATED LEVELS DETECTED.

SEE ATTACHED sheets.

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
α or β = direct cont. measurement in dpm/100cm².

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5904/5905	2/22/06
	N	
	A	

ML-0620 (2-98)

Completed by: (Signature) S Richardson	[redacted]	DATE: 12/9/05
Completed by: (Print Name) S. RICHARDSON George Weissenberger		
Counted by: (Signature) SEE ATTACHED	HI #	DATE:
Counted by: (Print Name) sheets		
Reviewed/Approved by: (Signature)	[redacted]	DATE: 12/14/05
Reviewed/Approved by: (Print Name) Jess Griffin		

F138/273

Survey No. MT 05-1298

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		0201S
2				0202S
3				0203S
4				0204S
5				0205S
6				0206S
7				0207S
8				0208S
9				0209S
10				0210S
11				0211S
12				0212S
13				0213S
14				0214S
15				0215S
16				0216S
17				0217S
18				0218S
19				0219S
20	SEE	ATTACHED		0220S
21				
22				
23				
24				
25				
26			N/A	
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
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58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COPY

COMMENTS: N/A

NOTES:

1. See MI-60036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_4\20051212_1507.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1298.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_4.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

MARSSIM Smear Data

Pg 4 of 11
MT-05-1298

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/12/05	3:08:30 PM	-1	10.00	9	8	10	13	622.59	0	21.2	B	4
12/12/05	3:19:19 PM	0	2.00	266	251	3	1	548.27	513	8.9		4
12/12/05	3:22:01 PM	1	2.00	1	2	0	15	578.25	2	447.4		4
12/12/05	3:24:43 PM	2	2.00	2	3	0	9	502.75	3	320.9		4
12/12/05	3:27:25 PM	3	2.00	0	0	0	12	639.53	0	0.0		4
12/12/05	3:30:07 PM	4	2.00	3	3	0	4	613.47	5	186.9		4
12/12/05	3:32:48 PM	5	2.00	2	3	2	5	636.12	4	240.7		4
12/12/05	3:35:29 PM	6	2.00	5	5	1	7	618.99	8	120.2		4
12/12/05	3:38:10 PM	7	2.00	0	0	0	33	634.25	0	0.0		4
12/12/05	3:40:51 PM	8	2.00	0	0	1	13	630.51	0	0.0		4
12/12/05	3:43:32 PM	9	2.00	3	1	0	22	649.08	5	198.2		4
12/12/05	3:46:12 PM	10	2.00	1	1	2	5	632.09	1	791.6		4
12/12/05	3:48:54 PM	11	2.00	0	0	2	17	575.17	0	*****		4
12/12/05	3:51:35 PM	12	2.00	2	2	0	14	578.19	4	240.7		4
12/12/05	3:54:16 PM	13	2.00	3	3	0	8	600.69	5	176.5		4
12/12/05	3:56:58 PM	14	2.00	1	1	0	11	614.31	1	791.6		4
12/12/05	3:59:41 PM	15	2.00	0	0	0	13	613.11	0	0.0		4
12/12/05	4:02:22 PM	16	2.00	2	3	0	9	603.49	4	250.9		4
12/12/05	4:05:24 PM	17	2.00	5	6	0	7	617.07	10	107.7		4
12/12/05	4:08:06 PM	18	2.00	4	3	3	15	599.55	7	142.2		4
12/12/05	4:10:47 PM	19	2.00	2	0	3	10	567.94	3	309.7		4
12/12/05	4:13:29 PM	20	2.00	0	0	3	18	573.35	0	0.0		4

1/14/2026

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12-14-05

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_043
Batch Ended: 12/12/05 10:42
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1298 [20] RICHARDSON 12-12-05 RLH

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	1.72	2.20		0.29	1.84	
A2	2	0.00	2.04		2.67	2.33	
A3	3	0.00	2.28		0.41	1.78	
A4	4	1.81	2.13		1.53	2.09	
B1	5	0.00	1.87		0.00	1.19	
B2	6	0.00	1.85		0.00	1.12	
B3	7	0.00	2.20		0.20	1.87	
B4	8	0.00	1.99		1.60	2.07	
C1	9	0.00	2.06		0.26	1.74	
C2	10	0.00	1.91		0.00	1.12	
C3	11	0.00	2.06		0.00	1.22	
C4	12	0.00	1.95		0.00	1.13	
D1	13	0.00	2.08		2.79	2.50	
D2	14	0.00	2.17		0.39	1.68	
D3	15	0.00	2.09		0.00	1.24	
D4	16	0.00	2.05		0.20	1.66	
C1	17	0.00	2.05		0.00	1.23	
C2	18	0.00	1.93		1.59	1.95	
C3	19	0.00	2.10		2.70	2.43	
C4	20	0.00	1.96		0.62	1.59	

12-13-05 12-13-05

COPY

~~Page 1 of 1~~
12-13-05

RLH

T-Building 1S03 UPPER STATICS

RSDS# MT-05-1298 *RCT:* [redacted] *RCT:* [redacted]

Alpha	43-68 BKG:	0	EFF:	0.21	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.175	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1S030201S	5904	[redacted]	5905	1	1	12/09/05	7:24	7	120	26
ALPHA	1S030202S	5904	[redacted]	5905	1	2	12/09/05	7:28	7	120	26
ALPHA	1S030203S	5904	[redacted]	5905	1	3	12/09/05	7:42	13	120	49
ALPHA	1S030204S	5904	[redacted]	5905	1	4	12/09/05	7:48	10	120	38
ALPHA	1S030205S	5904	[redacted]	5905	1	5	12/09/05	7:53	11	120	42
ALPHA	1S030206S	5904	[redacted]	5905	1	6	12/09/05	7:58	8	120	30
ALPHA	1S030207S	5904	[redacted]	5905	1	7	12/09/05	8:01	14	120	53
ALPHA	1S030208S	5904	[redacted]	5905	1	8	12/09/05	8:06	5	120	19
ALPHA	1S030209S	5904	[redacted]	5905	1	9	12/09/05	8:10	9	120	34
ALPHA	1S030210S	5904	[redacted]	5905	1	10	12/09/05	8:15	6	120	23
ALPHA	1S030211S	5904	[redacted]	5905	1	11	12/09/05	8:20	11	120	42
ALPHA	1S030212S	5904	[redacted]	5905	1	12	12/09/05	8:24	9	120	34
ALPHA	1S030213S	5904	[redacted]	5905	1	13	12/09/05	8:27	6	120	23
ALPHA	1S030214S	5904	[redacted]	5905	1	14	12/09/05	8:31	12	120	45
ALPHA	1S030215S	5904	[redacted]	5905	1	15	12/09/05	8:35	2	120	8
ALPHA	1S030216S	5904	[redacted]	5905	1	16	12/09/05	8:38	3	120	11
ALPHA	1S030217S	5904	[redacted]	5905	1	17	12/09/05	8:42	11	120	42
ALPHA	1S030218S	5904	[redacted]	5905	1	18	12/09/05	8:46	7	120	26
ALPHA	1S030219S	5904	[redacted]	5905	1	19	12/09/05	8:50	9	120	34
ALPHA	1S030220S	5904	[redacted]	5905	1	20	12/09/05	8:53	5	120	19
BETA	1S030201S	5904	[redacted]	5905	2	1	12/09/05	7:25	108	60	980
BETA	1S030202S	5904	[redacted]	5905	2	2	12/09/05	7:29	131	60	1188
BETA	1S030203S	5904	[redacted]	5905	2	3	12/09/05	7:43	107	60	971
BETA	1S030204S	5904	[redacted]	5905	2	4	12/09/05	7:49	124	60	1125
BETA	1S030205S	5904	[redacted]	5905	2	5	12/09/05	7:54	90	60	816
BETA	1S030206S	5904	[redacted]	5905	2	6	12/09/05	7:59	89	60	807
BETA	1S030207S	5904	[redacted]	5905	2	7	12/09/05	8:03	100	60	907
BETA	1S030208S	5904	[redacted]	5905	2	8	12/09/05	8:07	73	60	662
BETA	1S030209S	5904	[redacted]	5905	2	9	12/09/05	8:11	116	60	1052
BETA	1S030210S	5904	[redacted]	5905	2	10	12/09/05	8:16	101	60	916
BETA	1S030211S	5904	[redacted]	5905	2	11	12/09/05	8:21	113	60	1025
BETA	1S030212S	5904	[redacted]	5905	2	12	12/09/05	8:25	121	60	1098
BETA	1S030213S	5904	[redacted]	5905	2	13	12/09/05	8:29	102	60	925
BETA	1S030214S	5904	[redacted]	5905	2	14	12/09/05	8:32	101	60	916
BETA	1S030215S	5904	[redacted]	5905	2	15	12/09/05	8:36	120	60	1088
BETA	1S030216S	5904	[redacted]	5905	2	16	12/09/05	8:40	103	60	934
BETA	1S030217S	5904	[redacted]	5905	2	17	12/09/05	8:43	116	60	1052
BETA	1S030218S	5904	[redacted]	5905	2	18	12/09/05	8:47	120	60	1088
BETA	1S030219S	5904	[redacted]	5905	2	19	12/09/05	8:51	134	60	1215
BETA	1S030220S	5904	[redacted]	5905	2	20	12/09/05	8:54	110	60	998
						N					

MT-05-1298

1S-03-02
ceiling and upper wall static measurements
Scan an area of approximately 1m2 around each static measurement

Area: 4B				
Label	Type	Surface	LX	LY
1S-03-02-1	Systematic	ceiling-f	2	1

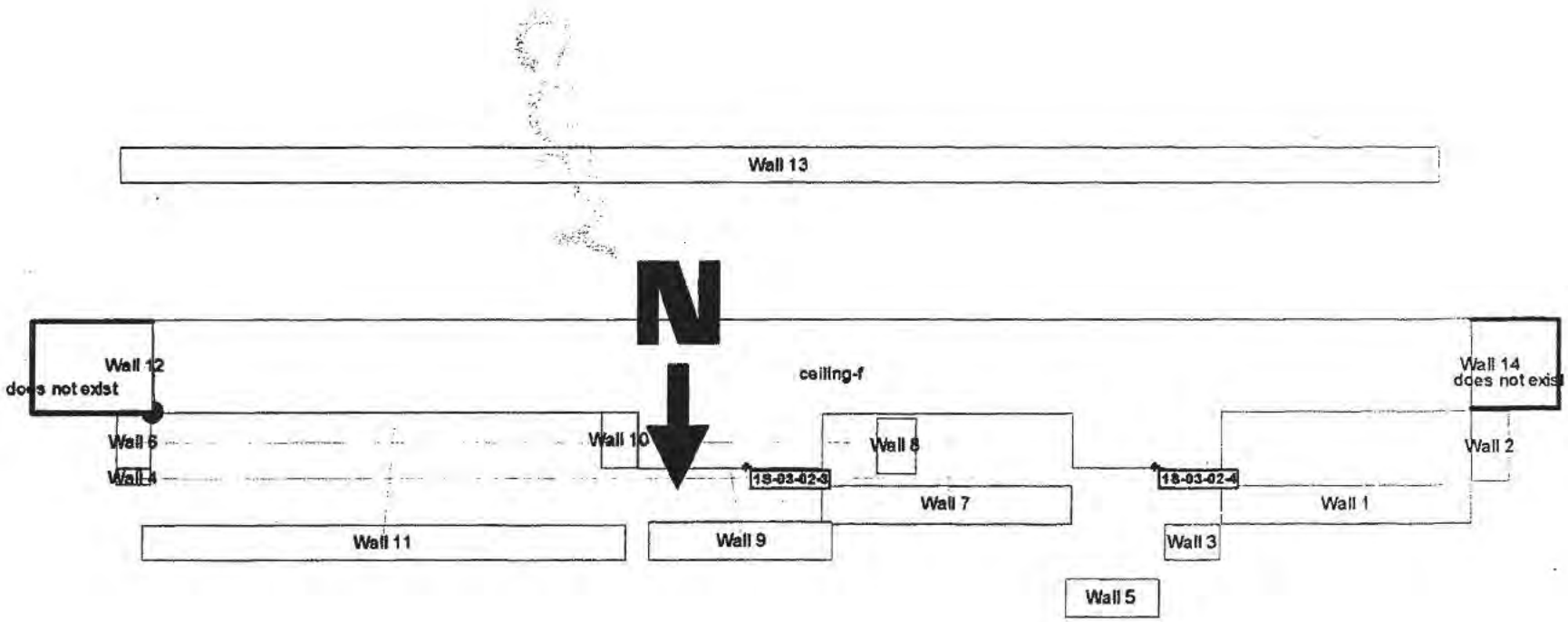
Area: 4C				
Label	Type	Surface	LX	LY
1S-03-02-2	Systematic	ceiling-f	0	0

Area: Corridor 9				
Label	Type	Surface	LX	LY
1S-03-02-3	Systematic	ceiling-f	48	-4
1S-03-02-4	Systematic	ceiling-f	80	-4

Area: Rm 8				
Label	Type	Surface	LX	LY
1S-03-02-5	Systematic	ceiling-f	10	8
1S-03-02-6	Systematic	ceiling-f	26	8
1S-03-02-7	Systematic	ceiling-f	2	22
1S-03-02-8	Systematic	ceiling-f	18	22
1S-03-02-9	Systematic	ceiling-f	34	22
1S-03-02-10	Systematic	ceiling-f	26	36
1S-03-02-11	Systematic	Wall 9	24	4
1S-03-02-12	Systematic	Wall 9	8	4
1S-03-02-13	Systematic	Wall 8	27	4
1S-03-02-14	Systematic	Wall 8	10	4
1S-03-02-15	Systematic	Wall 7	19	4
1S-03-02-16	Systematic	Wall 7	2	4
1S-03-02-17	Systematic	Wall 5	5	4
1S-03-02-18	Systematic	Wall 2	15	4
1S-03-02-19	Systematic	Wall 1	16	4
1S-03-02-20	Systematic	Wall 10	16	4

1S-03-02
ceiling and upper wall static measurements
Scan an area of approximately 1m2 around each static measurement on ceiling

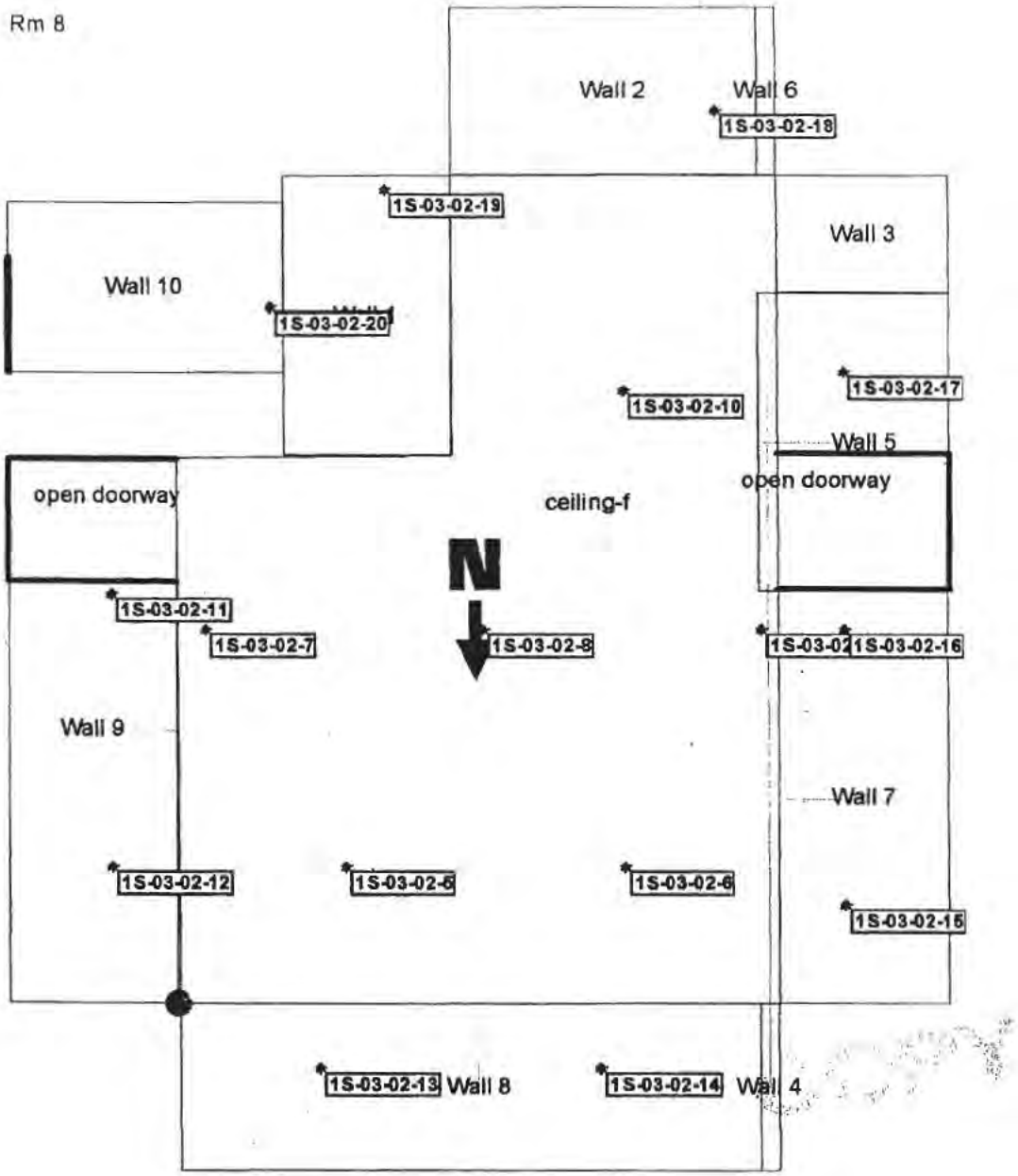
Corridor 9



1S-03-02

ceiling and upper wall static measurements

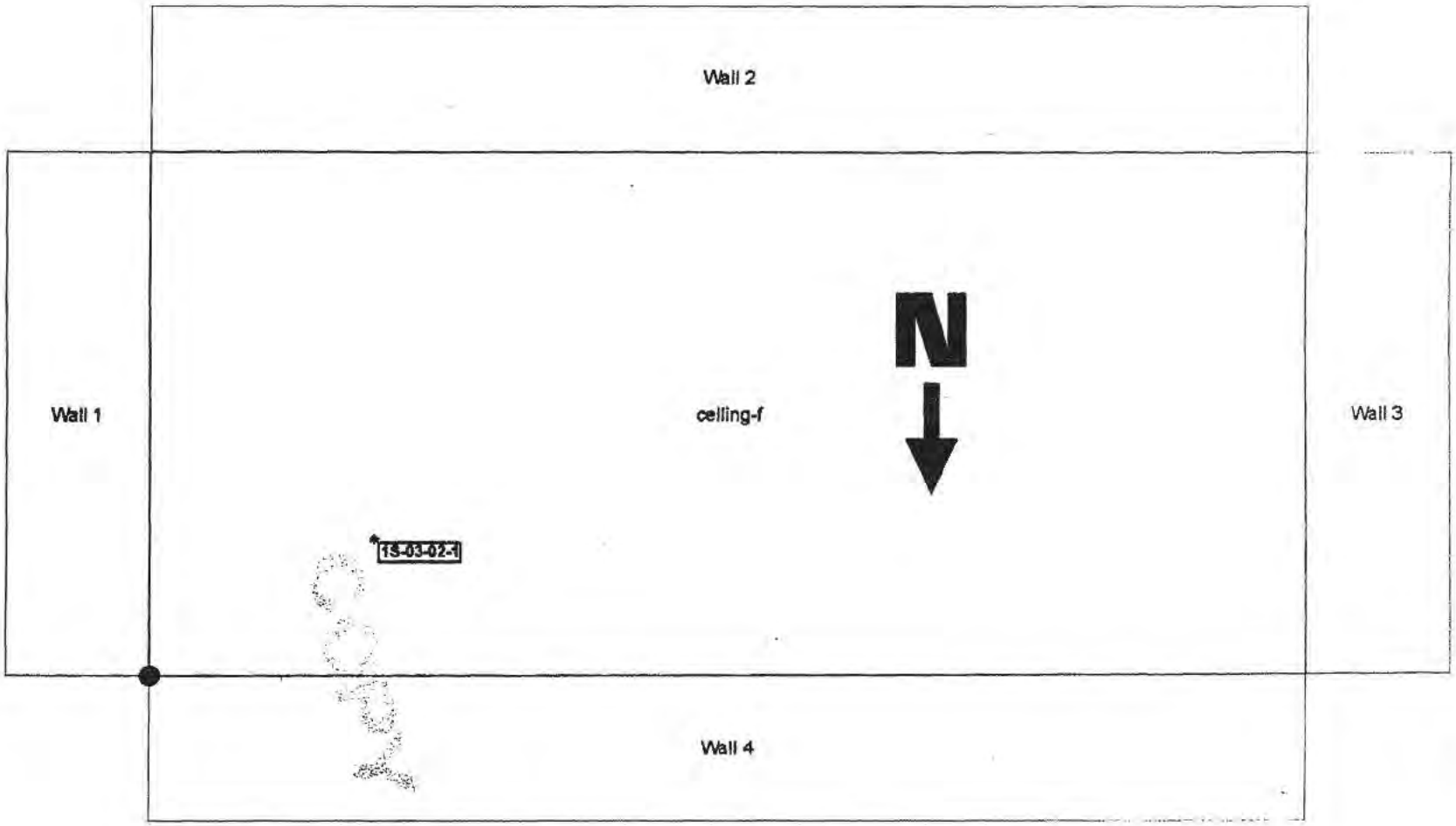
Scan an area of approximately 1m2 around each static measurement on ceiling



F.46/223

1S-03-02 Room 4B
ceiling and upper wall static measurements
Scan an area of approximately 1m2 around each static measurement on ceiling

4B



F 14/2/03

1S-03-02 Room 4C
ceiling and upper wall static measurements
Scan an area of approximately 1m2 around each static measurement on ceiling

4C

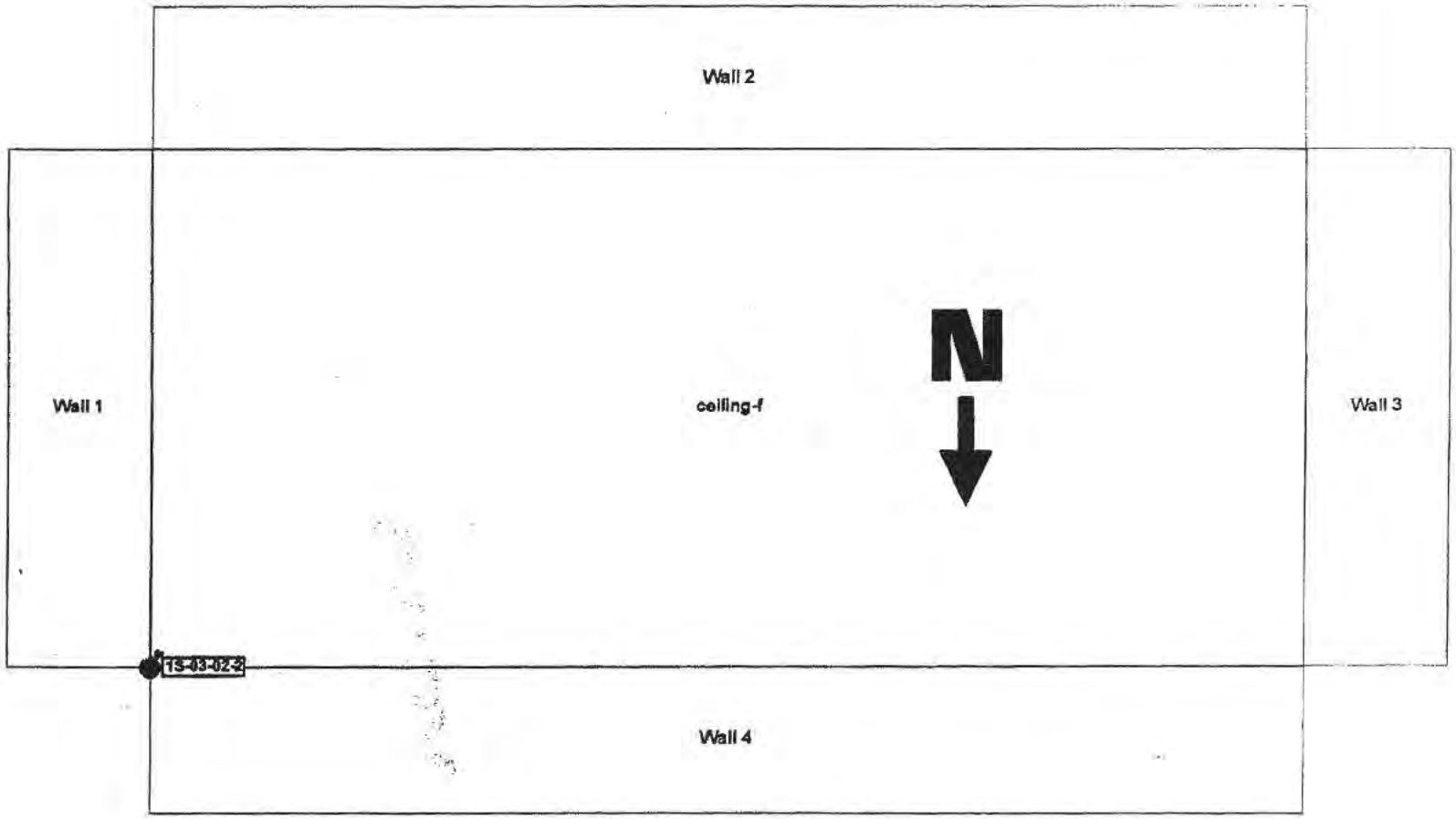


Exhibit 23

RADIOLOGICAL SURVEY DATA SHEET

Page 1 of 11

LOCATION: (BLDG/AREA/ROOM) T-BLDG Rm 8 corr 9 4C,4B	SURVEY NO. MT-05-1303
PURPOSE: JUDGEMENTALS 1503	RWP NO. N/A
	DATE: 12/9/05
	TIME: 1400

MAP/DRAWING

COPY

ALL CEILING JUDGEMENTALS
SCANNED 1m² AROUND
α/β⁻ NO ELEVATED LEVELS
DETECTED.

SEE ATTACHED SHEETS

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+n+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) = α/β = direct cont. measurement in dpm/100cm².

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5904/5905	2/22/06
	NA	

Completed by: (Signature)		DATE: 12/9/05
Completed by: (Print Name) S. Richardson / George Weissenburger		
Counted by: (Signature) SEE ATTACHED	HI #	DATE:
Counted by: (Print Name) Sheets		
Reviewed/Approved by: (Signature)		DATE: 12/14/05
Reviewed/Approved by: (Print Name)		

ML-9620 (2-98)

F 149/273

Survey No.
MT-05-1303

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		0101J
2				0102J
3				0103J
4				0104J
5				0105J
6				0106J
7				0107J
8				0108J
9				0109J
10				0110J
11				0201J
12				0202J
13				0203J
14				0204J
15				0205J
16				0206J
17				0207J
18				0208J
19				0209J
20	SEE	ATTACHED		0210J
21				
22				
23				
24				
25				
26				
27			N/A	
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51			N/A	
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COPY

COMMENTS: N/A

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-0620 (4-96)

F15/223

MARSSIM Smear Data

Pg 3 of 4

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_1\20051212_1615.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1303.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_1.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

12/12/05

MARSSIM Smear Data

Pg 4 of 11

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/12/05	4:16:49 PM	-1	10.00	8	7	12	7	622.90	0	22.4	B	1
12/12/05	4:27:38 PM	0	2.00	472	449	0	1	549.66	911	6.6		1
12/12/05	4:30:19 PM	1	2.00	2	2	0	14	531.63	5	203.1		1
12/12/05	4:33:01 PM	2	2.00	2	1	0	20	503.28	3	274.4		1
12/12/05	4:35:44 PM	3	2.00	2	2	2	15	474.67	4	240.1		1
12/12/05	4:38:27 PM	4	2.00	0	0	0	36	410.27	0	0.0		1
12/12/05	4:41:09 PM	5	2.00	0	0	0	7	629.74	0	0.0		1
12/12/05	4:43:50 PM	6	2.00	0	0	0	35	469.45	1	1802.8		1
12/12/05	4:46:32 PM	7	2.00	1	0	0	12	626.08	1	888.8		1
12/12/05	4:49:15 PM	8	2.00	3	2	0	29	441.87	5	196.3		1
12/12/05	4:51:57 PM	9	2.00	0	0	0	33	561.59	0	0.0		1
12/12/05	4:54:39 PM	10	2.00	2	2	1	14	547.85	5	199.9		1
12/12/05	4:57:21 PM	11	2.00	0	0	0	18	588.93	0	2621.8		1
12/12/05	5:00:03 PM	12	2.00	6	5	0	11	543.29	12	93.0		1
12/12/05	5:02:46 PM	13	2.00	0	0	0	20	524.06	0	0.0		1
12/12/05	5:05:27 PM	14	2.00	2	1	0	9	617.92	4	199.6		1
12/12/05	5:08:09 PM	15	2.00	2	2	0	10	598.34	4	240.1		1
12/12/05	5:10:52 PM	16	2.00	1	1	0	11	499.83	2	377.6		1
12/12/05	5:13:55 PM	17	2.00	1	1	0	17	547.33	2	457.8		1
12/12/05	5:16:37 PM	18	2.00	5	5	0	12	504.40	10	107.9		1
12/12/05	5:19:18 PM	19	2.00	1	1	0	24	483.47	1	888.8		1
12/12/05	5:22:00 PM	20	2.00	2	2	0	15	589.80	3	282.1		1

GW 12-13-05

F 152/293

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_042
Batch Ended: 12/12/05 10:10
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1303 [20] RICHARDSON 12-12-05 RLH

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	1.72	2.18		0.00	1.31	
A2	2	0.00	2.00		0.00	1.17	
A3	3	0.00	2.26		0.00	1.26	
A4	4	0.00	2.11		0.48	1.70	
B1	5	0.00	1.87		0.00	1.19	
B2	6	1.54	1.91		2.23	2.23	
B3	7	1.66	2.20		0.00	1.87	
B4	8	0.00	2.01		2.79	2.39	
C1	9	0.00	2.05		0.00	1.23	
C2	10	0.00	1.91		0.00	1.12	
C3	11	0.00	2.10		2.70	2.43	
C4	12	0.00	1.96		0.62	1.59	
D1	13	0.00	2.05		0.00	1.25	
D2	14	1.74	2.17		0.24	1.68	
D3	15	0.00	2.10		0.18	1.75	
D4	16	0.00	2.04		0.00	1.17	
C1	17	0.00	2.07		1.49	2.13	
C2	18	0.00	1.91		0.00	1.12	
C3	19	0.00	2.07		0.27	1.72	
C4	20	0.00	1.95		0.00	1.12	

GW 12-13-05

GW 12-13-05

~~Page 1 of 1~~
GW 12-13-05

F 153/273

T-Building 1S03 UPPER AND LOWER JUDGEMENTALS

RSDS# MT-05-1303 *RCT:* [redacted] *RCT:* [redacted]

Alpha	43-68 BKG:	0	EFF:	0.21	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.175	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1S030101J	5904	[redacted]	5905	1	1	12/9/05	10:14	7	120	26
ALPHA	1S030102J	5904	[redacted]	5905	1	2	12/9/05	10:17	12	120	45
ALPHA	1S030103J	5904	[redacted]	5905	1	3	12/9/05	10:21	13	120	49
ALPHA	1S030104J	5904	[redacted]	5905	1	4	12/9/05	10:24	7	120	26
ALPHA	1S030105J	5904	[redacted]	5905	1	5	12/9/05	10:27	4	120	15
ALPHA	1S030106J	5904	[redacted]	5905	1	6	12/9/05	10:31	12	120	45
ALPHA	1S030107J	5904	[redacted]	5905	1	7	12/9/05	10:34	10	120	38
ALPHA	1S030108J	5904	[redacted]	5905	1	8	12/9/05	10:38	11	120	42
ALPHA	1S030109J	5904	[redacted]	5905	1	9	12/9/05	10:41	9	120	34
ALPHA	1S030110J	5904	[redacted]	5905	1	10	12/9/05	10:44	6	120	23
ALPHA	1S030201J	5904	[redacted]	5905	1	11	12/9/05	12:20	6	120	23
ALPHA	1S030202J	5904	[redacted]	5905	1	12	12/9/05	12:24	6	120	23
ALPHA	1S030203J	5904	[redacted]	5905	1	13	12/9/05	12:27	6	120	23
ALPHA	1S030204J	5904	[redacted]	5905	1	14	12/9/05	12:31	3	120	11
ALPHA	1S030205J	5904	[redacted]	5905	1	15	12/9/05	12:34	6	120	23
ALPHA	1S030206J	5904	[redacted]	5905	1	16	12/9/05	12:38	5	120	19
ALPHA	1S030207J	5904	[redacted]	5905	1	17	12/9/05	12:41	7	120	26
ALPHA	1S030208J	5904	[redacted]	5905	1	18	12/9/05	12:46	8	120	30
ALPHA	1S030209J	5904	[redacted]	5905	1	19	12/9/05	12:52	8	120	30
ALPHA	1S030210J	5904	[redacted]	5905	1	20	12/9/05	12:55	7	120	26
BETA	1S030101J	5904	[redacted]	5905	2	21	12/9/05	10:15	154	60	1397
BETA	1S030102J	5904	[redacted]	5905	2	22	12/9/05	10:19	145	60	1315
BETA	1S030103J	5904	[redacted]	5905	2	23	12/9/05	10:22	139	60	1261
BETA	1S030104J	5904	[redacted]	5905	2	24	12/9/05	10:25	164	60	1488
BETA	1S030105J	5904	[redacted]	5905	2	25	12/9/05	10:29	134	60	1215
BETA	1S030106J	5904	[redacted]	5905	2	26	12/9/05	10:32	157	60	1424
BETA	1S030107J	5904	[redacted]	5905	2	27	12/9/05	10:35	166	60	1506
BETA	1S030108J	5904	[redacted]	5905	2	28	12/9/05	10:39	112	60	1016
BETA	1S030109J	5904	[redacted]	5905	2	29	12/9/05	10:42	106	60	961
BETA	1S030110J	5904	[redacted]	5905	2	30	12/9/05	10:46	105	60	952
BETA	1S030201J	5904	[redacted]	5905	2	31	12/9/05	12:21	83	60	753
BETA	1S030202J	5904	[redacted]	5905	2	32	12/9/05	12:25	96	60	871
BETA	1S030203J	5904	[redacted]	5905	2	33	12/9/05	12:29	126	60	1143
BETA	1S030204J	5904	[redacted]	5905	2	34	12/9/05	12:32	118	60	1070
BETA	1S030205J	5904	[redacted]	5905	2	35	12/9/05	12:35	101	60	916
BETA	1S030206J	5904	[redacted]	5905	2	36	12/9/05	12:39	148	60	1342
BETA	1S030207J	5904	[redacted]	5905	2	37	12/9/05	12:43	105	60	952
BETA	1S030208J	5904	[redacted]	5905	2	38	12/9/05	12:47	117	60	1061
BETA	1S030209J	5904	[redacted]	5905	2	39	12/9/05	12:53	83	60	753
BETA	1S030210J	5904	[redacted]	5905	2	40	12/9/05	12:56	126	60	1143

F 154/273

Survey Unit Number:

(Supplemental sheet for biased measurements.)

RSDS # MT-05-1303
RCT INT/HP GW

Label	Room	Surface	LX	LY
0101J	Rm 8	wall	See map	See map
0102J	Rm 8	Wall		
0103J	Rm 8	Wall		
0104J	Rm 8	Wall		
0105J	Rm 8	wall		
0106J	Corridor 9	Floor		
0107J	Rm 4B	wall		
0108J	Corridor 9	Wall		
0109J	Corridor 9	Floor		
0110J	Corridor 9	Wall		
0201J	Rm 8	Wall		
0202J	Rm 8	Wall		
0203J	Rm 8	wall		
0204J	Rm 8	Wall		
0205J	Rm 8	Wall		
0206J	Corridor 9	Wall		
0207J	Corridor 9	wall		
0208J	Corridor 9	wall		
0209J	Corridor 9	Wall		
0210J	Corridor 9	Wall		

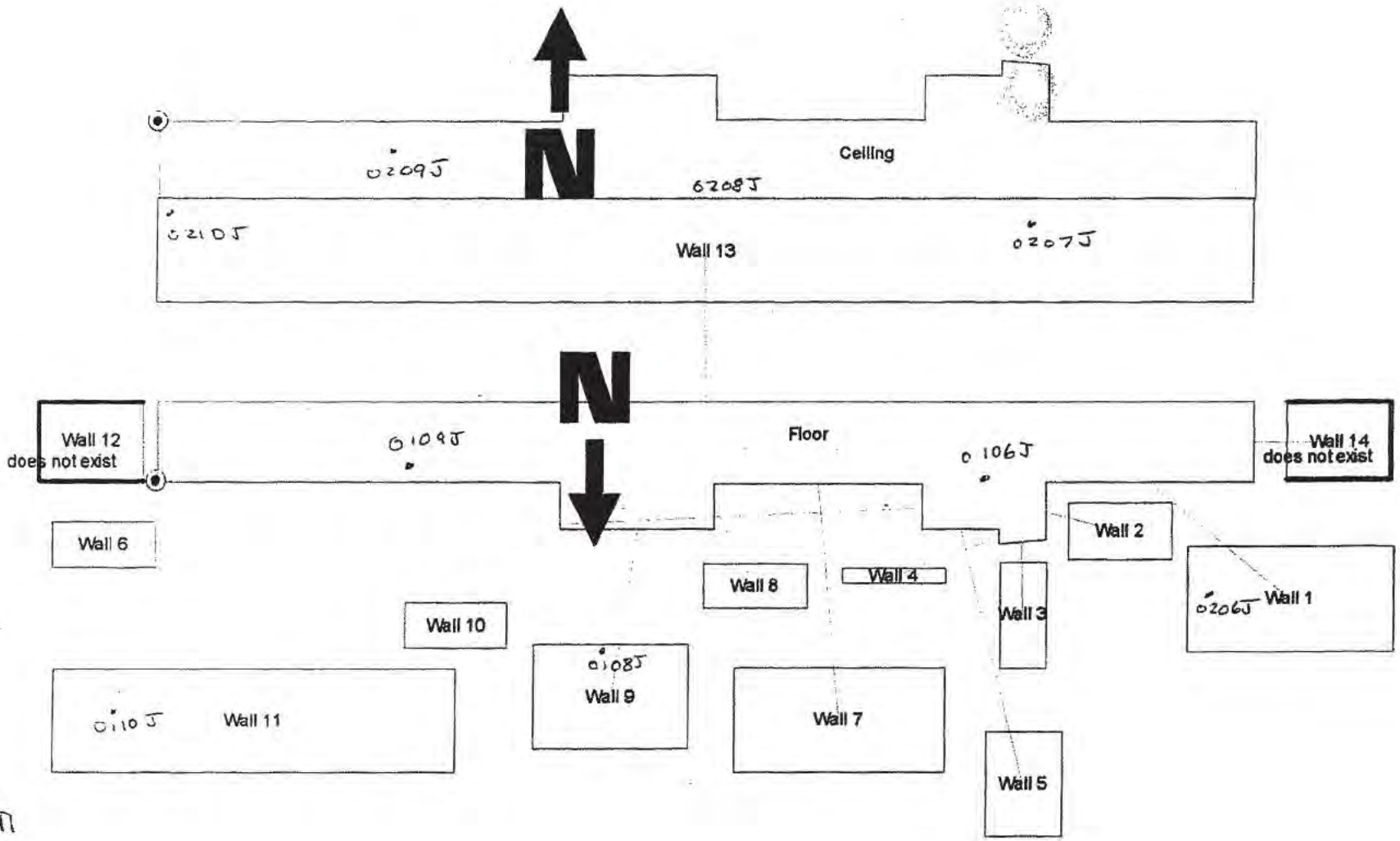
J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventalation system.
U-designator represents measurement on a utility drop.

MT-051303

1S-03
Class 2

Corridor 9
Judgmentals

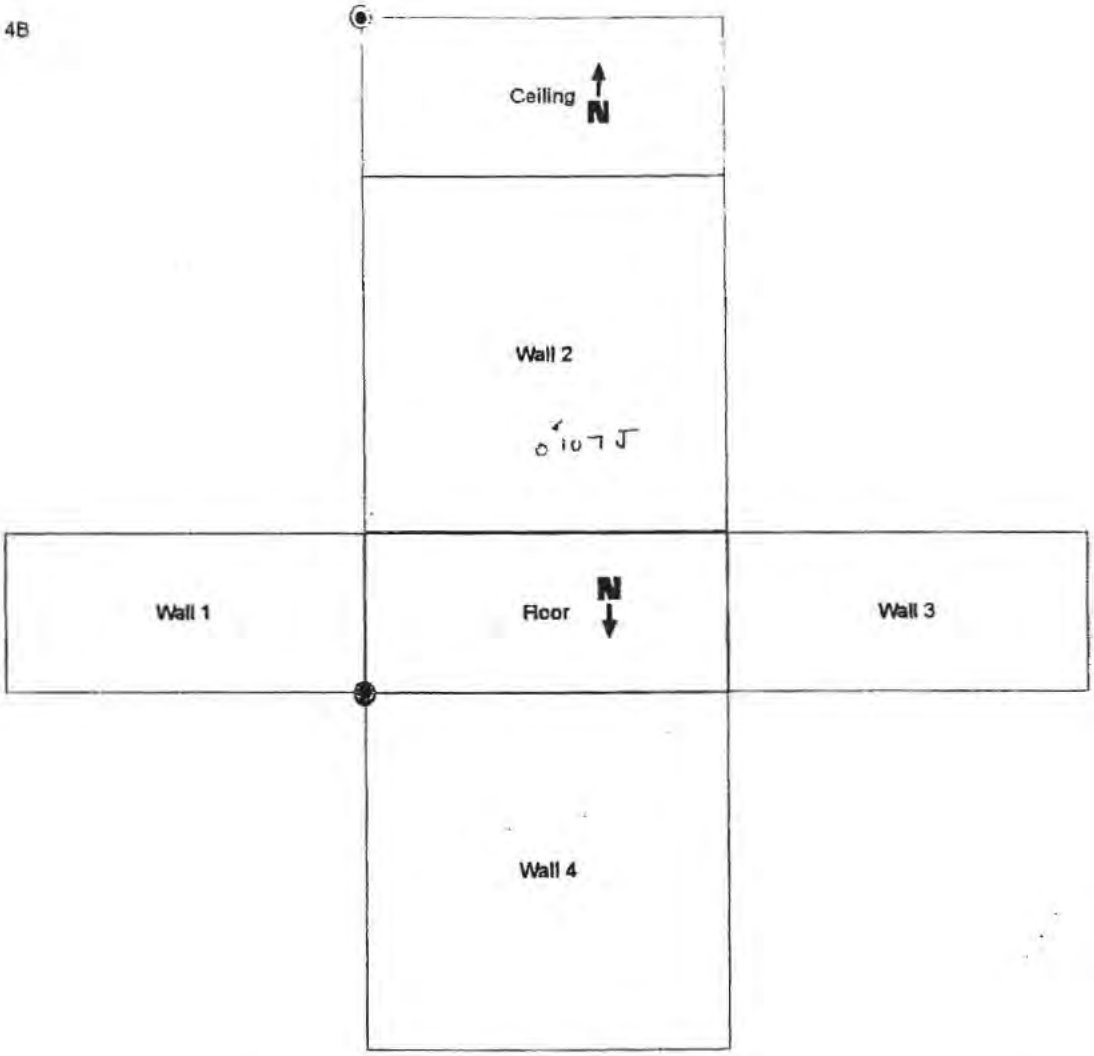
Corridor 9



F 15 of 13

1S-03 **Room 4B**
Class 2 **Judgmentals**

4B



mT-5-13D3

Pg 9 of 11

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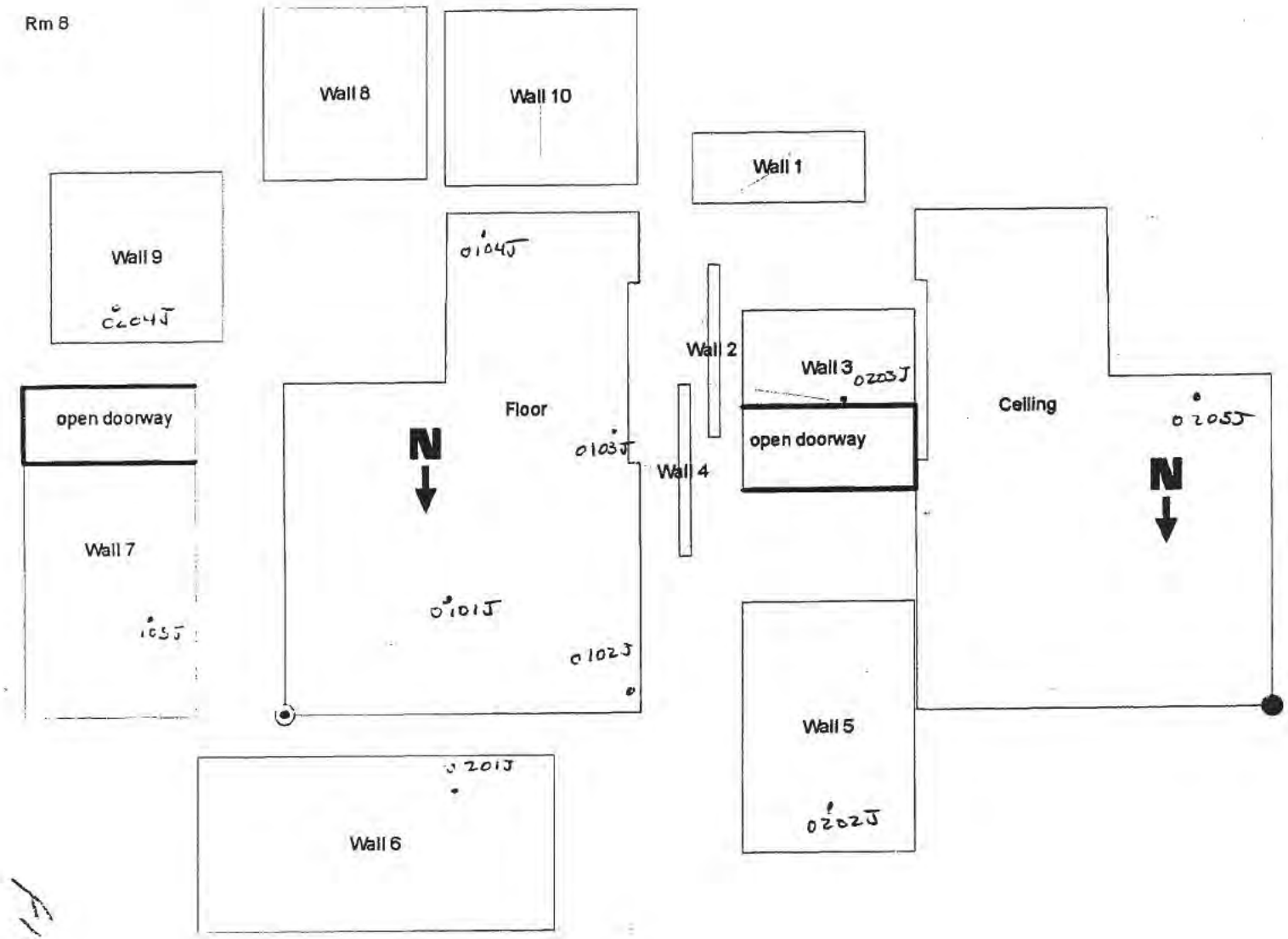
1S-03
Class 2

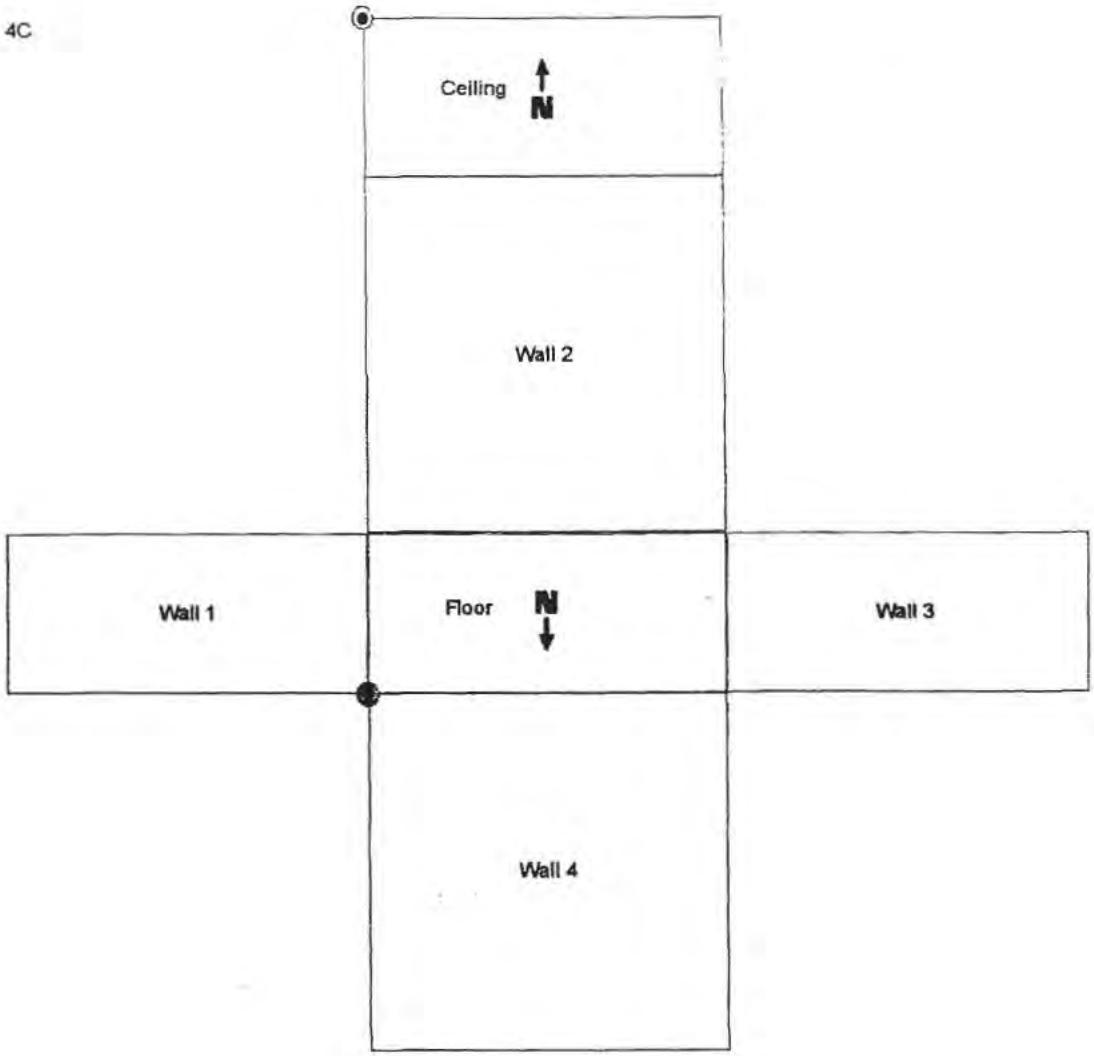
Room 8
Judgmentals



1S-03
Class 2

Room 4C
Judgmentals

4C

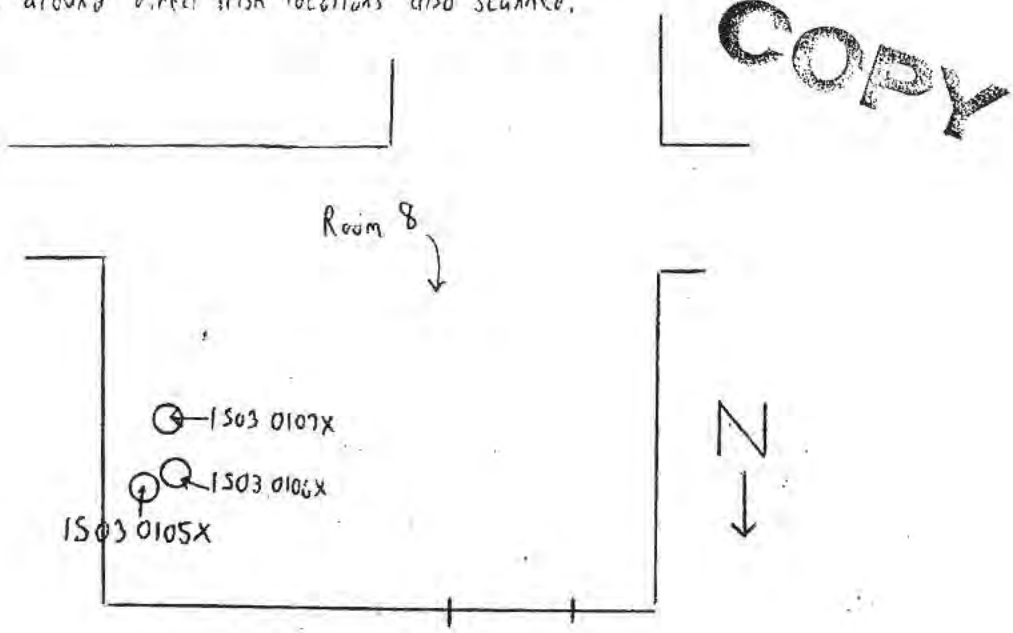


RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T-BLDG Room 8 (1503)	SURVEY NO. MT-~~05~~ 06-0005
PURPOSE: Investigative Survey of Suspected Elevated Spots	RWP NO. N/A
	DATE: 1-4-06
	TIME: 0815

MAP / DRAWING

- No elevated α/β readings detected during scanning
- See Attachments
- Areas around direct frisk locations also scanned.



LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — = radiological boundary
△# = mrem/hr neutron
(#) = swipe number
[#] = air sample number
(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5895 w 5896	2-5-06
N/A	N/A	N/A
↓	↓	↓
↓	↓	↓

Completed by: (Signature) J. Kling			Date: 1-4-06
Completed by: (Print Name) T. Kilg			
Counted by: (Signature) See Attachments	HP#		Date:
Counted by: (Print Name) See Attachments			
Reviewed/Approved by: (Signature)			Date: 1/12/06
Reviewed/Approved by: (Print Name) Russ Griffith			

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Survey No. MT-06-0005

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See	Attached	Sheet	1503 0105 x
2	↓	↓	↓	1503 0106 x
3	↓	↓	↓	1503 0107 x
		N		
		A		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
			N	
			A	
			C	

COMMENTS:

NOTES:
1. See MD-60035.10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-0620A (4-98)

COPY

F 161/273

JH
1-5-06

MARSSIM Smear Data

MT-06-0005

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_2\20060104_1215.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-06-0005.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_2.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

COPY

F162/223

Protocol# 2 - MARSSIM_Smear_2.lsa

User: 5801
J.H.
1-5-06

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

COPY

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
1/4/06	12:16:28 PM	-1	10.00	9	8	11	5	607.10	0	21.6	B	2
1/4/06	12:27:19 PM	0	2.00	475	448	2	0	572.71	899	6.6		2
1/4/06	12:30:02 PM	1	2.00	0	0	0	18	498.41	0	0.0		2
1/4/06	12:32:44 PM	2	2.00	2	2	0	14	447.62	5	226.6		2
1/4/06	12:35:28 PM	3	2.00	0	0	1	27	381.00	0	0.0		2

J.H.

163/273

TAB

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_111
Batch Ended: 1/4/06 10:44
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-06-0005 KING (3) 01/04/06 TAS

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.24		4.38	2.92	
A2	2	0.00	2.00		0.00	1.16	
A3	3	0.00	2.35		5.43	3.09	

JK JK

COPY

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~~Page 1 of 1~~

JK
1-5-06

TKB

T-Building Room 8;1S03;Survey of Suspected Elevated Spots

RSDS# MT-06-0005 *RCT:* [redacted] *RCT:* N/A

Alpha	43-68 BKG:	0	EFF:	0.2166	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # :	1
Beta	43-68 BKG:	0	EFF:	0.17	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # :	2
Alpha Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # :	3
Beta Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # :	4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2	
ALPHA	1S030105X	5895	[redacted]	5896	1	1	01/04/06	7:33	24	120	88	
ALPHA	1S030106X	5895	[redacted]	5896	1	2	01/04/06	7:42	5	120	18	
ALPHA	1S030107X	5895	[redacted]	5896	1	3	01/04/06	7:51	6	120	22	
BETA	1S030105X	5895	[redacted]	5896	2	1	01/04/06	7:35	140	60	1307	
BETA	1S030106X	5895	[redacted]	5896	2	2	01/04/06	7:43	143	60	1335	
BETA	1S030107X	5895	[redacted]	5896	2	3	01/04/06	7:52	114	60	1064	

N
A

COPY

F-105/223

Survey Unit Number:

(Supplemental sheet for biased measurements.)

RSDS # MT-06-0005

RCT INT/HP 8k [redacted]

Label	Room	Surface	LX	LY
1503 0105x	8	Floor	N/A	N/A
1503 0106x	↓	↓	↓	↓
1503 0107x	↓	↓	↓	↓
N/A	N/A	N/A	↓	↓
↓	↓	↓	↓	↓

J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventalation system.
U-designator represents measurement on a utility drop.

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RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T-SYS-PRS 226 1503	SURVEY NO. MT-06-0033
PURPOSE: Judgementals and Scan on Sump Pump #3	RWP NO. N/A
	DATE: 1-10-06
	TIME: 1400

MAP / DRAWING

SEE ATTACHED FOR SMEAR AND STATIC COUNT RESULTS, AND MAPS.

FIDLER BACKGROUND WAS 200 CPM. FIDLER SCAN AND DIRECT COUNTS AT SMEAR LOCATIONS WERE LESS THAN BACKGROUND.

COPY

LEGEND:

= mrem/hr (γ) whole body

#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
—·—·— = radiological boundary

△# = mrem/hr neutron

(#) = swipe number

[#] = air sample number

(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5673/5862	8-4-06
30-30	5825	4-13-06
FIDLER	5871/3975	5-18-06
N/A	N/A	N/A

Completed by: (Signature) [redacted]		Date: 1-10-06
Completed by: (Print Name) NEAL REYNOLDS B.J. ROE		
Counted by: (Signature) SEE	HP# N/A	Date:
Counted by: (Print Name) ATTACHED		
Reviewed/Approved by: (Signature) [redacted]		Date: 1/12/06
Reviewed/Approved by: (Print Name) Jose Gutierrez		

F167/12

BJR

Survey No. MT-06-0033

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1				15030101 J
2				15030102 J
3		SEE ATTACHED		15030103 J
4				15030104 J
5				15030105 J
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22		N		
23			A	
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54		N		
55			A	
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COMMENTS: N/A

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

F168/273

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_2\20060110_1751.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-06-0033.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_2.1sa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

Page 3 of 9
MT-06-0033
GWD

F169/23

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
1/10/06	5:52:14 PM	-1	10.00	8	8	11	7	622.63	0	22.2	B	2
1/10/06	6:03:04 PM	0	2.00	397	371	0	0	548.04	767	7.2		2
1/10/06	6:05:47 PM	1	2.00	0	0	0	0	457.68	0	0.0		2
1/10/06	6:08:30 PM	2	2.00	0	0	0	0	374.64	0	0.0		2
1/10/06	6:11:13 PM	3	2.00	2	1	0	5	487.19	4	264.7		2
1/10/06	6:13:56 PM	4	2.00	0	1	0	6	568.66	1	1246.0		2
1/10/06	6:16:38 PM	5	2.00	1	1	5	0	614.50	2	443.5		2

√nR

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MT-06-0033

F 172/273

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_019
Batch Ended: 1/10/06 15:44
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-06-0033 REYNOLDS [5] GWD

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.21		1.78	2.26	
A2	2	0.00	2.00		0.00	1.17	
A3	3	0.00	2.26		0.00	1.26	
A4	4	0.00	2.10		0.00	1.21	
B1	5	0.00	1.95		3.60	2.66	

Vna Vnr

Page 5 of 9
MT-06-0033

T-Building SYS-PRS-226 Sump Judgementals 1S03

RSDS# MT-06-0033 *RCT:* [redacted] *RCT:* [redacted]

Alpha	43-68 BKG:	0	EFF:	0.208	PROBE AREA:	[illegible]	cm^2	Surface Eff:		Detector # :	1
Beta	43-68 BKG:	0	EFF:	0.1632	PROBE AREA:	[illegible]	cm^2	Surface Eff:		Detector # :	2
Alpha Scan	43-37 BKG:	[illegible]	EFF:	[illegible]	PROBE AREA:	[illegible]	cm^2	Surface Eff:		Detector # :	3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	564	cm^2	Surface Eff:		Detector # :	4

TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1S030101J	5673	[redacted]	5862	1	1	1/10/06	14:52	9	120	34
ALPHA	1S030102J	5673	[redacted]	5862	1	2	1/10/06	14:56	7	120	27
ALPHA	1S030103J	5673	[redacted]	5862	1	3	1/10/06	15:02	3	120	11
ALPHA	1S030104J	5673	[redacted]	5862	1	4	1/10/06	15:07	7	120	27
ALPHA	1S030105J	5673	[redacted]	5862	1	5	1/10/06	15:11	6	120	23
BETA	1S030101J	5673	[redacted]	5862	2	1	1/10/06	14:53	138	60	1342
BETA	1S030102J	5673	[redacted]	5862	2	2	1/10/06	14:58	123	60	1196
BETA	1S030103J	5673	[redacted]	5862	2	3	1/10/06	15:03	102	60	992
BETA	1S030104J	5673	[redacted]	5862	2	4	1/10/06	15:08	95	60	924
BETA	1S030105J	5673	[redacted]	5862	2	5	1/10/06	15:13	119	60	1157

N A

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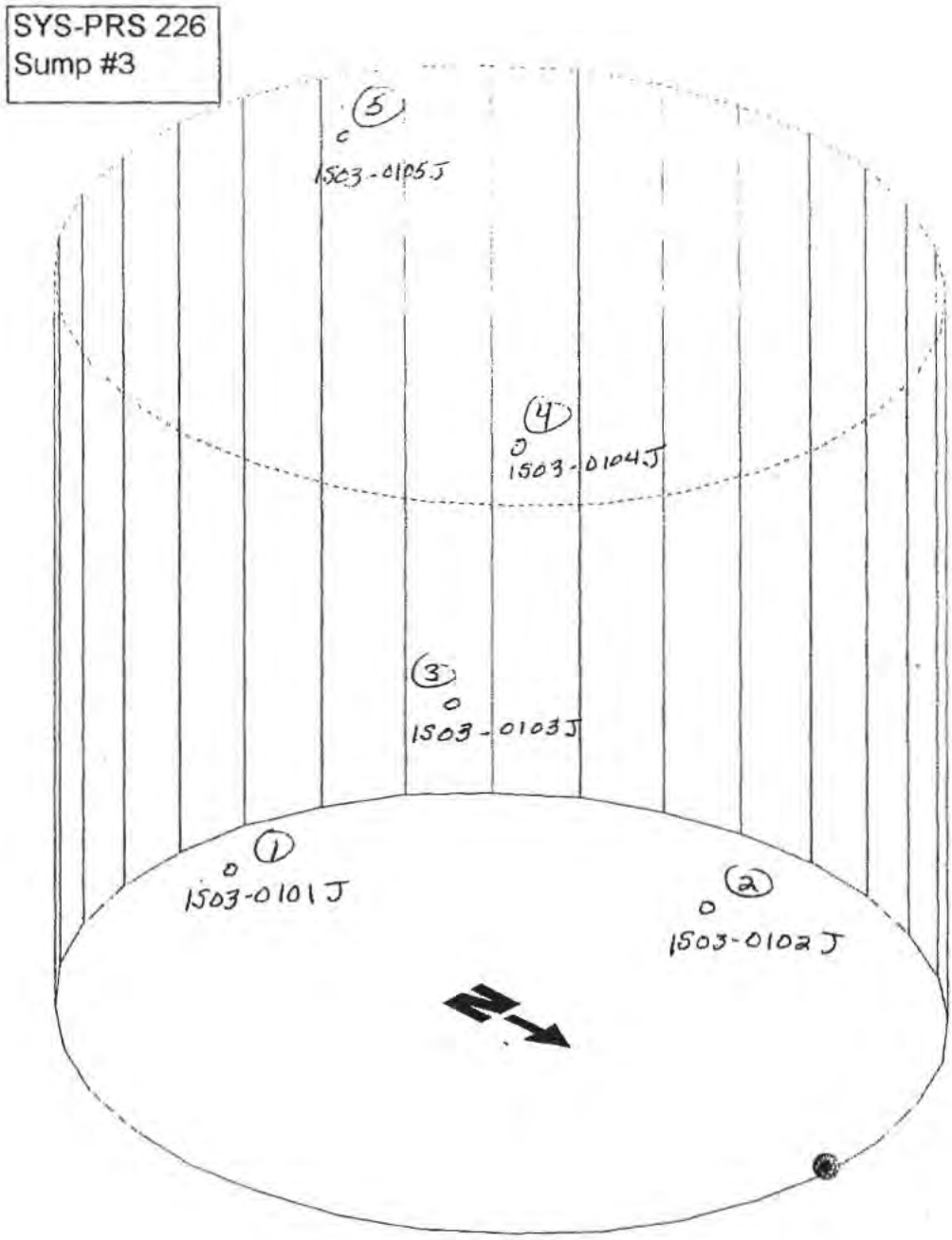
SYS-PRS 226 5 measurements
Corridor 9



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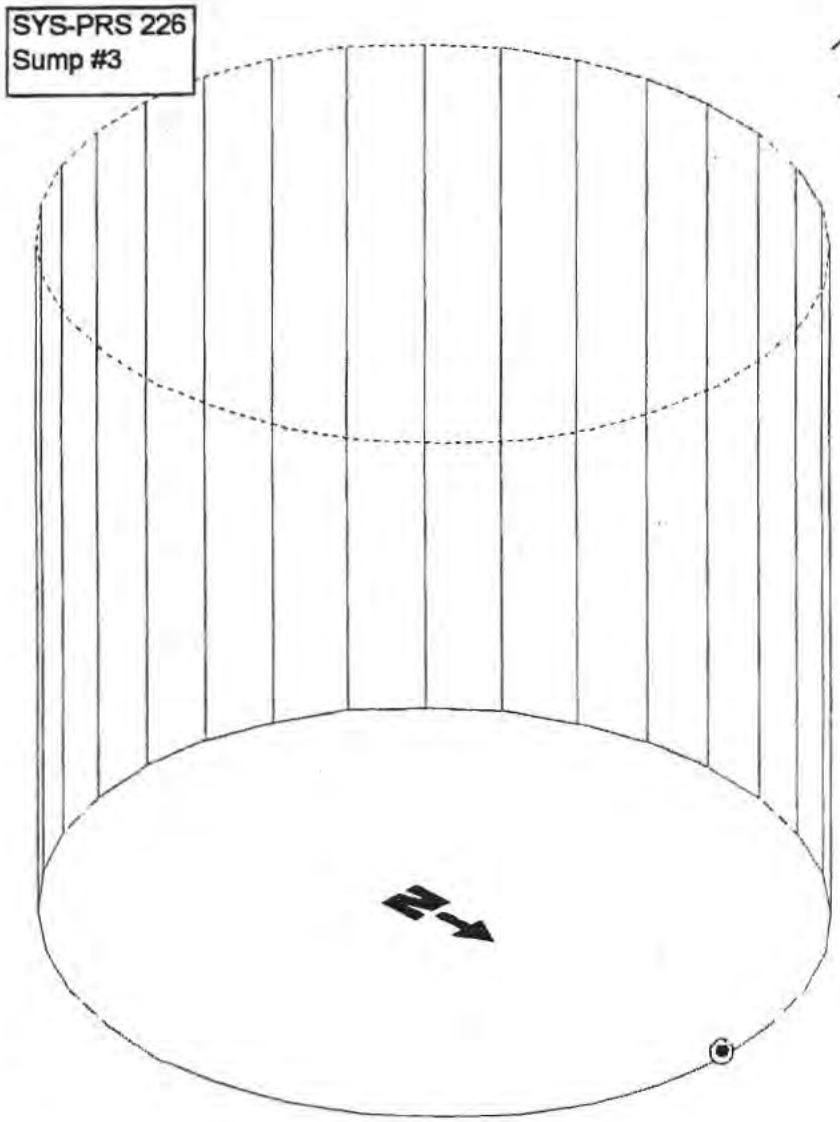
FITS/273

FIDLER BACKGROUND WAS 200 CPM.
FIDLER SCAN AND DIRECT COUNTS AT SMEAR LOCATIONS WERE ALL LESS THAN BACKGROUND

SYS-PRS 226 Floor Drain Sump
Scan 100 % of sump surface
Corr 9



α, β- SCAN PERFORMED WITH 2350 #5673/5862 NO DETECTABLE ACTIVITY ABOVE ALARM SETPOINTS FOUND.

F 174/22

Survey Unit Number: SYS-PRS 226

(Supplemental sheet for biased measurements.)

RSDS # MT-06-0033

RCT INT/HP DK/ [redacted] BR/ [redacted]

Label	Room	Surface	LX	LY
SYS-PRS 226-01	SURVEY UNIT 1503	FLOOR		
SYS-PRS 226-02		FLOOR		
SYS-PRS 226-03		WALL		
SYS-PRS 226-04		WALL		
SYS-PRS 226-05		WALL		
			N	A
	N	A		

J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventilation system.
U-designator represents measurement on a utility drop.

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RADIOLOGICAL SURVEY DATA SHEET

 JW 12/19/05

LOCATION: (BLDG./AREA/ROOM) T-CORRIDOR 1 IC13	SURVEY NO. MT-05-1008
PURPOSE: FOLLOW UP SURVEY TO SHONKA SUSPECT AREAS & SCM SUMMARY	RWP NO. N/A
	DATE: 10-14-05
	TIME: 1000

MAP/DRAWING

COPY

1 m² α, β SCAN PERFORMED AT EACH SUSPECT AREA. NO ELEVATED ACTIVITY DETECTED ABOVE ALARM SETPOINTS, EXCEPT LOCATION #3E

FOR SMEAR AND DIRECT COUNT RESULTS, SEE ATTACHED.

LOCATIONS #1E AND #2E SCANNED AGAIN WITH 5855/5921 ON 10-15-05 AFTER PAINT REMOVED, NO ELEVATED ACTIVITY DETECTED ABOVE ALARM SETPOINTS.

Follow up survey after remediation MT-05-1070 (IC130101Y) FOR (IC130103E) MT-06-1008

SCM23 Summary Attached for this survey unit RSOS and MT-05-1013

LEGEND: # = mrem/hr (γ) whole body; # E = mrem/hr (β+n+γ) extremity on contact; ⚠# = mrem/hr neutron; [#] = air sample number; (#) = swipe number; (#/α) or /β = direct cont. measurement in dpm/100cm²

SCM23	C180 / R180	6/1/06

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5857/5859	10-4-06
2350	5855/5921	6-9-06
	N	
	A	

Completed by: (Signature) Neal Reynolds / T. King	[redacted]	Date: 10-14-05
Completed by: (Print Name) NEAL REYNOLDS / T. KING		
Counted by: (Signature) SEE	HP# N	Date: A
Counted by: (Print Name) ATTACHED		
Reviewed/Approved by: (Signature)	[redacted]	Date: 10-24-05
Reviewed/Approved by: (Print Name) Jerry Taylor		

ML-0620 (2-05)

Survey No.
MT- 05- 1008

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1				1C13011E
2				012E2
3		SEE		013E3
4				014E4
5		ATTACHED		015E5
6				016E6
7				017E7
8				018E8
		N	A	

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N	A	

COPY

COMMENTS: N/A

NOTES:
1. See MD-60036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

F177/223

ML-0620A (4-06)

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_3\20051017_1135.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1008.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_3.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

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MT-05-1008

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
10/17/05	11:36:40 AM	-1	10.00	9	8	12	1	618.73	0	21.4	B	3
10/17/05	11:47:23 AM	0	2.00	278	263	0	1	529.04	546	8.6		3
10/17/05	11:50:05 AM	1	2.00	3	3	0	0	581.02	7	151.2		3
10/17/05	11:52:46 AM	2	2.00	3	3	0	4	574.08	5	183.8		3
10/17/05	11:55:28 AM	3	2.00	0	0	0	12	508.04	0	0.0		3
10/17/05	11:58:09 AM	4	2.00	5	3	0	4	565.20	9	120.0		3
10/17/05	12:00:50 PM	5	2.00	2	2	0	5	569.33	3	274.9		3
10/17/05	12:03:32 PM	6	2.00	2	1	0	18	465.12	5	219.5		3
10/17/05	12:06:13 PM	7	2.00	0	0	3	12	510.05	0	0.0		3
10/17/05	12:08:55 PM	8	2.00	0	0	0	11	453.73	1	1544.9		3

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MT-05-1008

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_083
Batch Ended: 10/17/05 9:14
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: MT-05-1008 REYNOLDS (8) 10/17/05 TAS

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.22		0.99	2.27	
A2	2	0.00	2.00		0.00	1.18	
A3	3	0.00	2.30		1.98	2.18	
A4	4	0.00	2.15		2.73	2.42	
B1	5	0.00	1.90		0.54	1.69	
B2	6	0.00	1.87		0.00	1.59	
B3	7	0.00	2.18		0.00	1.34	
B4	8	1.28	2.75		0.00	1.21	

✓ NR ✓ NR

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~~Page 1 of 1~~
NR 10-17-05

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MT-05-1008

F 180/273

T-Corridor 1 follow up to Shonka suspect areas

RSDS# _MT-05-1008_____ RCT: [redacted] _____ RCT: __N/A_____

Alpha	43-68 BKG:	0	EFF:	0.208	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.164	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1C13E1	5857	[redacted]	5859	1	1	10/14/05	0:04	12	120	46
ALPHA	1C13E2	5857	[redacted]	5859	1	2	10/14/05	1:12	21	120	80
ALPHA	1C13E3	5857	[redacted]	5859	1	3	10/14/05	1:23	362	120	1381
ALPHA	1C13E4	5857	[redacted]	5859	1	4	10/14/05	1:36	9	120	34
ALPHA	1C13E5	5857	[redacted]	5859	1	5	10/14/05	1:47	8	120	31
ALPHA	1C13E6	5857	[redacted]	5859	1	6	10/14/05	1:57	20	120	76
ALPHA	1C13E7	5857	[redacted]	5859	1	7	10/14/05	2:02	9	120	34
ALPHA	1C13E8	5857	[redacted]	5859	1	8	10/14/05	2:09	9	120	34
BETA	1C13E1	5857	[redacted]	5859	2	1	10/14/05	0:05	193	60	1868
BETA	1C13E2	5857	[redacted]	5859	2	2	10/14/05	1:13	248	60	2400
BETA	1C13E3	5857	[redacted]	5859	2	3	10/14/05	1:24	239	60	2313
BETA	1C13E4	5857	[redacted]	5859	2	4	10/14/05	1:37	179	60	1732
BETA	1C13E5	5857	[redacted]	5859	2	5	10/14/05	1:48	201	60	1945
BETA	1C13E6	5857	[redacted]	5859	2	6	10/14/05	1:58	184	60	1781
BETA	1C13E7	5857	[redacted]	5859	2	7	10/14/05	2:03	211	60	2042
BETA	1C13E8	5857	[redacted]	5859	2	8	10/14/05	2:10	175	60	1694

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MT-05-1008

Surface Contamination Monitor Survey Investigation Summary

Survey Unit	1C-13
SCM ID (Circle One)	SCM 53 (SCM 23)
Calibration Due Date	06-01-06

Room	Surface	Investigations	
Corridor 1	Floor	8	(for 8 spots) MT-05-1008
"	Walls	10	(for 10 spots) MT-05-1062

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Name Sherry Oran

Signature Sherry Oran

Date 12-16-05

RADIOLOGICAL SURVEY DATA SHEET

Page 1 of 1 (IC) 1/9/05

LOCATION: (BLDG./AREA/ROOM) T Bldg Common 1	SURVEY NO. MT-05-1063
PURPOSE: Massive survey (Survey Unit IC 13)	RWP NO. N/A
	DATE: 10-24-05
	TIME: 0530

MAP/DRAWING

Massive survey of scan elevated locations east end of common 1

1 square meter scan & direct reading taken at each location. No elevated readings (α β) detected

See attached MSO & survey results.

Note: Location IC13 0105X consists of cluster of 2 painted circles

REF. Note: For smear result data for location IC13 0109X, see smear # 3 results on Survey # MT-05-1045 Listed as IC140103X

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LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+n+γ) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5855/5896.	2-5-06
N		

Completed by: (Signature)		Date: 10-24-05
Completed by: (Print Name) Tom Hines / Joe Worley		
Counted by: (Signature) See attached sheets	HP# N/A	Date: N/A
Counted by: (Print Name)		
Reviewed/Approved by: (Signature)		Date: 10-25-05
Reviewed/Approved by: (Print Name) J. Hollabaugh		

F183/273

ML-0620 (2-08)

Survey No. MF-05-1063

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See MM	Sheet		0101X
2				0102X
3				0103X
4				0104X
5				0105X
6				0106X
7				0107X
8				0108X
9				0109X

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments

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COMMENTS: N/A

NOTES:
1. See MD-80038 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Write in special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

F184/273

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_4\20051024_1411.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1063.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_4.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

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Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

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MT-05-1063

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
10/24/05	2:11:45 PM	-1	10.00	8	7	13	7	624.84	0	22.2	B	4
10/24/05	2:22:33 PM	0	2.00	365	345	5	0	551.85	703	7.5		4
10/24/05	2:25:15 PM	1	2.00	13	12	0	5	495.17	27	50.6		4
10/24/05	2:27:56 PM	2	2.00	0	0	0	8	588.52	0	0.0		4
10/24/05	2:30:40 PM	3	2.00	5	3	0	7	582.90	8	118.4		4
10/24/05	2:33:21 PM	4	2.00	2	2	0	5	544.89	4	255.8		4
10/24/05	2:36:03 PM	5	2.00	9	9	0	6	521.31	18	68.7		4
10/24/05	2:38:44 PM	6	2.00	2	2	0	14	549.40	5	206.4		4
10/24/05	2:41:25 PM	7	2.00	0	0	0	12	563.13	1	1168.4		4
10/24/05	2:44:05 PM	8	2.00	0	0	0	13	517.29	0	0.0		4

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F18/223

Fig 4-F/16
MT-05-1063

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_131
Batch Ended: 10/24/05 12:11
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: MT-05-1063 [8] WORLEY 10-24-05 RLH

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
C1	1	0.00	2.07		1.49	2.13	
C2	2	1.41	1.92		0.31	1.59	
C3	3	0.00	2.08		1.49	2.11	
C4	4	0.00	1.95		0.00	1.13	
D1	5	0.00	2.08		2.79	2.50	
D2	6	0.00	2.17		0.39	1.68	
D3	7	1.72	2.10		0.02	1.75	
D4	8	0.00	2.05		0.20	1.66	

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1/9/06

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MT-05-1063

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC 1/13/06
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_3\20051020_1914.results
Comma-Delimited File Name: D:\MARSSIM_LSC~~MT-05-1045.001~~ (#3) REFERS TO SMEAR Results for MT-05-1063
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_3.lsa → 0103X IC130109X

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

COPY

Pg 6 of 10
MT-05-1063

F188/273

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
10/20/05	7:14:37 PM	-1	10.00	10	9	11	3	613.31	0	20.1	B	3
10/20/05	7:25:24 PM	0	2.00	262	250	1	1	523.60	517	8.9		3
10/20/05	7:28:07 PM	1	2.00	16	14	0	12	457.32	33	47.6		3
10/20/05	7:30:49 PM	2	2.00	7	8	0	17	427.66	16	84.6		3
10/20/05	7:33:30 PM	* 3	2.00	0	0	0	23	535.18	0	0.0		3

C130109

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Pg 7 of 10
MT-05-1043

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_117
Batch Ended: 10/20/05 16:53
Cal. Due Date: 11/17/05
Serial Number: 26966-3

~~Batch ID: MT-05-1045 WORLEY (3) AG~~ 1/13/06

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B1	1	0.00	1.88		0.00	1.20	
B2	2	3.16	2.64		0.62	1.94	
B3 *	3	0.00	2.22		1.63	2.30	

1C130109X

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~~Page 1 of 1~~ 1/5/06

F190/273

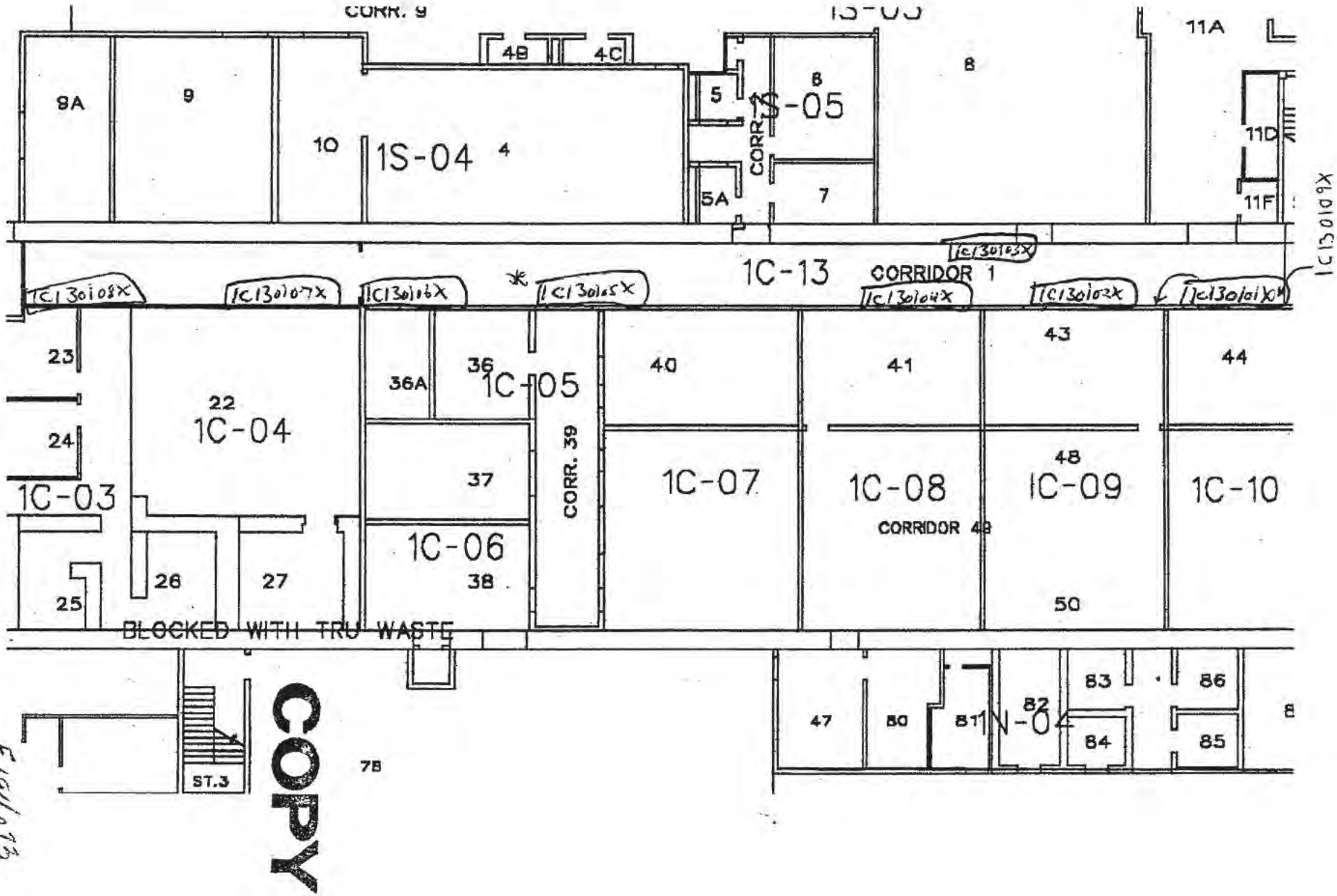
Pg 8 of 19
MT-05-1045

1C-13
Class 1

* Consist of Cluster of 2 Painted Circles

Rsds
MT-05-1063

Meter used
2350 5895/5896 10-24-05



COPY

Page 9 of 10
MT-05-1063

Figure 13

T-Building Corridor 1;Survey of Suspected Elevateds; 1C13

RSDS# MT-05-1063 *RCT:* [redacted] *RCT:* [redacted]

Alpha	43-68 BKG:	0	EFF:	0.2165	PROBE AREA:	100	cm²	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.17	PROBE AREA:	100	cm²	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm²	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm²	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	Item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1C130101X	5895	[redacted]	5896	1	1	10/24/05	7:10	6	120	22
ALPHA	1C130102X	5895	[redacted]	5896	1	2	10/24/05	7:19	3	120	11
ALPHA	1C130103X	5895	[redacted]	5896	1	3	10/24/05	7:30	3	120	11
ALPHA	1C130104X	5895	[redacted]	5896	1	4	10/24/05	7:38	3	120	11
ALPHA	1C130105X	5895	[redacted]	5896	1	5	10/24/05	7:50	2	120	7
ALPHA	1C130106X	5895	[redacted]	5896	1	6	10/24/05	7:59	6	120	22
ALPHA	1C130107X	5895	[redacted]	5896	1	7	10/24/05	8:08	3	120	11
ALPHA	1C130108X	5895	[redacted]	5896	1	8	10/24/05	8:17	10	120	37
ALPHA	1C130109X	5883	[redacted]	5885	1	9	10/20/05	12:55	5	120	18 ✓
BETA	1C130101X	5895	[redacted]	5896	2	1	10/24/05	7:11	76	60	710
BETA	1C130102X	5895	[redacted]	5896	2	2	10/24/05	7:20	85	60	794
BETA	1C130103X	5895	[redacted]	5896	2	3	10/24/05	7:31	98	60	915
BETA	1C130104X	5895	[redacted]	5896	2	4	10/24/05	7:39	78	60	728
BETA	1C130105X	5895	[redacted]	5896	2	5	10/24/05	7:51	141	60	1317
BETA	1C130106X	5895	[redacted]	5896	2	6	10/24/05	8:00	93	60	868
BETA	1C130107X	5895	[redacted]	5896	2	7	10/24/05	8:09	74	60	691
BETA	1C130108X	5895	[redacted]	5896	2	8	10/24/05	8:18	101	60	943
BETA	1C130109X	5895	[redacted]	5896	2	9	10/20/05	12:56	120	60	1128 ✓

F 192/273

COPY

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) TBldg Corral West end	SURVEY NO. MT-05-1070
PURPOSE: MASSIM SURVEY (SURVEYUNIT 1C13)	RWP NO. N/A
	DATE: 10-24-05
	TIME: 1315

MAP/DRAWING

MASSIM Survey of Location after concrete Removed For Remediation. Scan & direct Reading. No elevated readings (α β) detected

Reference MT-05-1008 Location 1C13 0103e

COPY

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
#/α or/β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5855/5856	2-5-06

ML-9620 (2-98)

Completed by: (Signature) Tom Riley Joe Worley		DATE: 10-24-05
Completed by: (Print Name) Tom Riley & Joe Worley		
Counted by: (Signature) See attached sheets	HP # N/A	DATE: N/A
Counted by: (Print Name)		
Reviewed/Approved by: (Signature) Jared Hollad		DATE: 10-25-05
Reviewed/Approved by: (Print Name) J. Hollabaugh		

F 195/223

Survey No. MJ-05-1070

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	
1	See attached sheets			only
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24	N/A			
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				
62	N/A			
63				
64				
65				
66				
67				
68				
69				
70				

COPY

COMMENTS:

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

F 194/223

36
10-24-05

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\~~5801\MARSSIM_Smear_2~~\20051024_1503.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1070.001
Assay File Name: C:\Packard\TriCarb\Assays\~~MARSSIM_Smear~~_2.lsa

MT-05-1070

COPY

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

F 195/273

MARSSIM Smear Data MT-05-1070

COPY

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
10/24/05	3:03:35 PM	-1	10.00	11	10	13	9	617.34	0	19.3	B	2
10/24/05	3:14:23 PM	0	2.00	540	508	0	0	582.88	1015	6.2		2
10/24/05	3:17:05 PM	1	2.00	1	2	0	4	627.85	2	413.4		2

F 196/273

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_134
Batch Ended: 10/24/05 13:33
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: MT-05-1070 KING [1] GWD

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B2	1	0.00	1.87		0	1.59	

QW 10-24-05

QW 10-24-05

COPY

5 of 7 QW 10-24-05

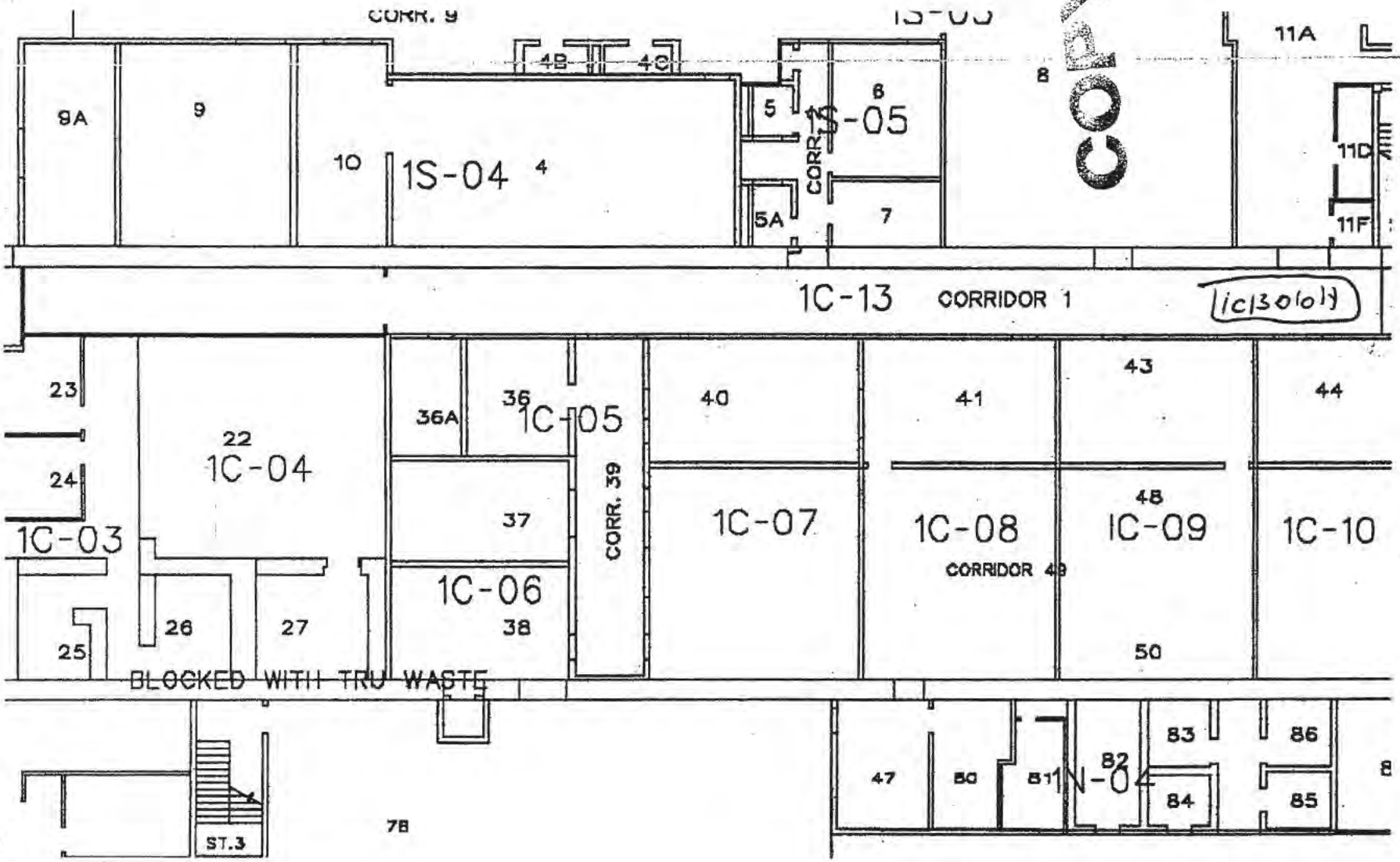
F 197/223

MJ-05-1070

meter used

2350 5855/5856 10-24-05

1C-13
Class 1



COPY

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F19 8/23

T-Building Corr. 1; Survey of Removed Spot; 1C13

RSDS# MT-05-1070 *RCT:* [redacted] *RCT:* [redacted]

Alpha	**43-68 BKG:**	**0**	**EFF:**	**0.2166**	**PROBE AREA:**	**126**	**cm^2**	**Surface Eff:**		**0.5**	**Detector # :**	**1**
Beta	**43-68 BKG:**	**0**	**EFF:**	**0.17**	**PROBE AREA:**	**126**	**cm^2**	**Surface Eff:**		**0.5**	**Detector # :**	**2**
Alpha Scan	**43-37 BKG:**	**0**	**EFF:**	**N/A**	**PROBE AREA:**	**584**	**cm^2**	**Surface Eff:**		**0.5**	**Detector # :**	**3**
Beta Scan	**43-37 BKG:**	**0**	**EFF:**	**N/A**	**PROBE AREA:**	**584**	**cm^2**	**Surface Eff:**		**0.5**	**Detector # :**	**4**
TYPE	**LOCATION**	**2350#**	**RCT ID**	**PROBE**	**DET #**	**Item**	**DATE**	**TIME**	**CNTS**	**CT TIME**	**dpm/100cm2**	
ALPHA	1C130101Y	5895	[redacted]	5896	1	1	10/24/05	13:33	1	120	4	
BETA	1C130101Y	5895	[redacted]	5896	2	1	10/24/05	13:34	122	60	1139	

COPY

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) 1 Bldg East End of Corridor 1	SURVEY NO. MT-05-1295
PURPOSE: Drains, Vents, & Utilities	RWP NO. N/A
	DATE: 12-12-05
1C13	TIME: 0900

MAP/DRAWING

See Attached

COPY

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
#/α = α/β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5883/5885	1-7-06
	A	
	N	

ML-0620 (2-98)

Completed by: (Signature) BJ Roe	[redacted]	DATE: 12/12/05
Completed by: (Print Name) BJ Roe		
Counted by: (Signature) See Attached	HP #	DATE:
Counted by: (Print Name) See Attached		
Reviewed/Approved by: (Signature)	[redacted]	DATE: 12/16/05
Reviewed/Approved by: (Print Name) Jess Griffin		

F200/273

Survey No. MT-05-1295

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See attached			1C13-0201V
2				1C13-0202V
3				1C13-0203V
4				1C13-0204V
5				1C13-0101U
6				1C13-0201U
7				1C13-0202U
8				1C13-0203U
9				1C13-0102U
10				1C13-0103U
11				1C13-0104U
12				1C13-0105U
13				1C13-0204U
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25			N/A	
26		N/A		
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54		N/A		
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COPY

COMMENTS: N/A

NOTES:

1. See MI-60036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

F 201/273

ML-0620 (4-96)

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_1\20051212_1230.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1295\001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_1.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

COPY

F 222/223

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/12/05	12:30:40 PM	-1	10.00	8	7	11	10	623.21	0	22.0	B	1
12/12/05	12:41:30 PM	0	2.00	451	424	0	1	551.02	870	6.7		1
12/12/05	12:44:13 PM	1	2.00	0	0	0	17	411.20	0	0.0		1
12/12/05	12:46:56 PM	2	2.00	3	3	0	9	601.21	5	182.5		1
12/12/05	12:49:38 PM	3	2.00	3	3	0	4	408.73	7	157.5		1
12/12/05	12:52:21 PM	4	2.00	0	0	0	10	481.96	0	0.0		1
12/12/05	12:55:02 PM	5	2.00	0	0	0	6	563.60	0	0.0		1
12/12/05	12:57:44 PM	6	2.00	1	2	0	11	512.51	2	456.9		1
12/12/05	1:00:27 PM	7	2.00	0	0	0	8	555.82	0	0.0		1
12/12/05	1:03:09 PM	8	2.00	0	0	0	0	624.42	0	1764.1		1
12/12/05	1:05:51 PM	9	2.00	0	0	0	6	628.45	0	0.0		1
12/12/05	1:08:34 PM	10	2.00	0	0	0	8	615.05	0	0.0		1
12/12/05	1:11:16 PM	11	2.00	0	0	0	0	595.62	0	0.0		1
12/12/05	1:13:58 PM	12	2.00	0	0	0	7	589.20	0	0.0		1
12/12/05	1:16:39 PM	13	2.00	1	1	0	0	554.49	1	610.9		1

BR

Pg 4 of 7 MT-05-1345 12-12-05 BR

P 2.23/223

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_037
Batch Ended: 12/12/05 9:27
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1295 [13] ROE 12-12-05 RLH

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	3.88	3.14		5.33	3.20	
A2	2	0.00	2.04		2.67	2.33	
A3	3	1.93	2.28		0.23	1.78	
A4	4	0.00	2.13		1.69	2.09	
B1	5	0.00	1.93		2.41	2.38	
B2	6	5.19	3.22		1.83	2.23	
B3	7	0.00	2.20		0.20	1.87	
B4	8	0.00	1.97		0.40	1.69	
C1	9	0.00	2.06		0.26	1.74	
C2	10	0.00	1.91		0.00	1.13	
C3	11	0.00	2.10		2.70	2.43	
C4	12	1.68	1.96		0.47	1.59	
D1	13	0.00	2.07		1.54	2.16	

✓ BR ✓ BR

COPY

MT-05-1247 Lab Log 12-12-05

F 2041 023

~~Page 1 of 1~~ BR 12-12-05

RLH

T-Building Drains, Vents, & Utilities - Continued

COPY

RSDS# MT-05-1295 *RCT:* [redacted] *RCT:* N/A

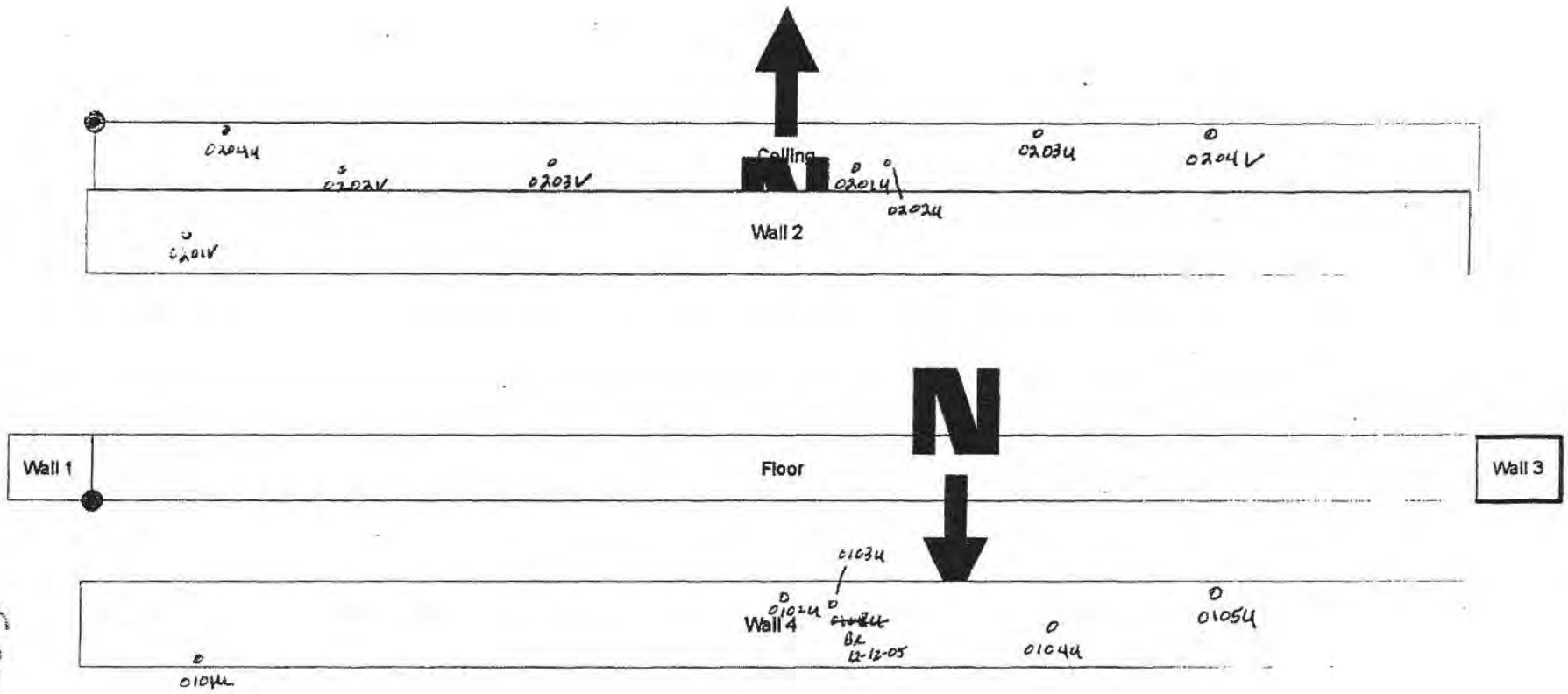
Alpha	43-68 BKG:	0	EFF:	0.215	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.168	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1C130201V	5883	[redacted]	5885	1	1	12/8/05	10:07	23	120	85
ALPHA	1C130202V	5883	[redacted]	5885	1	2	12/8/05	10:38	5	120	18
ALPHA	1C130203V	5883	[redacted]	5885	1	3	12/8/05	10:50	11	120	41
ALPHA	1C130204V	5883	[redacted]	5885	1	4	12/8/05	12:07	13	120	48
ALPHA	1C130101U	5883	[redacted]	5885	1	5	12/8/05	12:28	4	120	15
ALPHA	1C130201U	5883	[redacted]	5885	1	6	12/8/05	12:41	5	120	18
ALPHA	1C130202U	5883	[redacted]	5885	1	7	12/8/05	12:45	9	120	33
ALPHA	1C130203U	5883	[redacted]	5885	1	8	12/8/05	12:56	10	120	37
ALPHA	1C130102U	5883	[redacted]	5885	1	9	12/8/05	13:08	3	120	11
ALPHA	1C130103U	5883	[redacted]	5885	1	10	12/8/05	13:11	3	120	11
ALPHA	1C130104U	5883	[redacted]	5885	1	11	12/8/05	13:18	5	120	18
ALPHA	1C130105U	5883	[redacted]	5885	1	12	12/8/05	13:28	2	120	7
ALPHA	1C130204U	5883	[redacted]	5885	1	13	12/8/05	13:41	4	120	15
BETA	1C130201V	5883	[redacted]	5885	2	1	12/8/05	10:08	124	60	1172
BETA	1C130202V	5883	[redacted]	5885	2	2	12/8/05	10:39	82	60	775
BETA	1C130203V	5883	[redacted]	5885	2	3	12/8/05	10:51	92	60	869
BETA	1C130204V	5883	[redacted]	5885	2	4	12/8/05	12:08	75	60	709
BETA	1C130101U	5883	[redacted]	5885	2	5	12/8/05	12:29	115	60	1087
BETA	1C130201U	5883	[redacted]	5885	2	6	12/8/05	12:42	85	60	803
BETA	1C130202U	5883	[redacted]	5885	2	7	12/8/05	12:46	87	60	822
BETA	1C130203U	5883	[redacted]	5885	2	8	12/8/05	12:57	73	60	690
BETA	1C130102U	5883	[redacted]	5885	2	9	12/8/05	13:09	85	60	803
BETA	1C130103U	5883	[redacted]	5885	2	10	12/8/05	13:12	96	60	907
BETA	1C130104U	5883	[redacted]	5885	2	11	12/8/05	13:20	82	60	775
BETA	1C130105U	5883	[redacted]	5885	2	12	12/8/05	13:29	80	60	756
BETA	1C130204U	5883	[redacted]	5885	2	13	12/8/05	13:42	80	60	756

F205/223

MT-05-1245
Pg. 7 of 7

1C-13 East End of corridor 1
Class 1 Drains, vents, and utilities

East End of Corridor 1



Exp/Pg

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) 1 Bldg East End of Corridor 1	SURVEY NO. MT-05-1300
PURPOSE: Fragmentals - Upper & Lower	RWP NO. N/A
	DATE: 12-12-05
IC13	TIME: 1030

MAP/DRAWING

See Attached
Micro Rem Readings
Bkg. Actual
5 Urem/hr 5 Urem/hr

COPY

LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
#/α or/β = direct cont. measurement in dpm/100cm².

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5883/5885	1-7-06
MicroRem	3980	5-13-06

Completed by: (Signature) BJ Roe		DATE: 12-12-05
Completed by: (Print Name) BJ Roe		
Counted by: (Signature) See Attached	HI #	DATE:
Counted by: (Print Name) See Attached		
Reviewed/Approved by: (Signature)		DATE: 12/16/05
Reviewed/Approved by: (Print Name) Jess Griffin		

ML-9620 (2-98)

F 207/223

Survey No. MT-05-1300

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See Attached			IC13-0101J
2				IC13-0102J
3				IC13-0103J
4				IC13-0104J
5				IC13-0105J
6				IC13-0106J
7				IC13-0107J
8				IC13-0108J
9				IC13-0109J
10				IC13-0110J
11				IC13-0201J
12				IC13-0202J
13				IC13-0203J
14				IC13-0204J
15				IC13-0205J
16				IC13-0206J
17				IC13-0207J
18				IC13-0208J
19				IC13-0209J
20	↓	↓	↓	IC13-0210J
21				
22				
23				
24				
25				
26				
27				
28			A	
29			N	
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53		A		
54				
55		N		
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COPY

COMMENTS: N/A ↓

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-0620 (4-98)

F-208/225

pg. 3 of 8

MARSSIM Smear Data

COPY

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_2\20051212_1724.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1300.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_2.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

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MARSSIM Smear Data

COPY

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/12/05	5:25:19 PM	-1	10.00	12	10	12	14	602.50	0	18.6	B	2
12/12/05	5:36:08 PM	0	2.00	500	474	5	1	571.50	949	6.4		2
12/12/05	5:38:51 PM	1	2.00	0	0	0	19	540.37	0	0.0		2
12/12/05	5:41:33 PM	2	2.00	3	1	0	41	623.28	5	212.0		2
12/12/05	5:44:15 PM	3	2.00	0	0	0	44	475.95	0	0.0		2
12/12/05	5:46:56 PM	4	2.00	1	1	1	15	627.33	3	376.0		2
12/12/05	5:49:38 PM	5	2.00	0	0	1	13	600.35	1	1134.1		2
12/12/05	5:52:20 PM	6	2.00	0	0	0	46	472.20	0	0.0		2
12/12/05	5:55:00 PM	7	2.00	0	0	0	17	615.99	0	0.0		2
12/12/05	5:57:41 PM	8	2.00	0	0	0	17	610.00	0	0.0		2
12/12/05	6:00:23 PM	9	2.00	3	2	0	7	623.54	5	195.1		2
12/12/05	6:03:04 PM	10	2.00	1	0	0	12	615.45	2	477.6		2
12/12/05	6:05:47 PM	11	2.00	0	0	0	16	615.20	0	0.0		2
12/12/05	6:08:29 PM	12	2.00	0	0	1	11	613.55	0	0.0		2
12/12/05	6:11:11 PM	13	2.00	0	0	0	20	590.42	0	0.0		2
12/12/05	6:13:52 PM	14	2.00	0	0	0	11	612.92	0	0.0		2
12/12/05	6:16:33 PM	15	2.00	0	0	0	6	617.94	0	0.0		2
12/12/05	6:19:14 PM	16	2.00	0	0	0	18	615.68	0	0.0		2
12/12/05	6:22:00 PM	17	2.00	0	0	0	21	639.83	0	0.0		2
12/12/05	6:24:42 PM	18	2.00	0	0	0	13	622.07	0	0.0		2
12/12/05	6:27:23 PM	19	2.00	0	0	0	15	606.77	0	0.0		2
12/12/05	6:30:05 PM	20	2.00	0	0	0	9	577.18	0	0.0		2

BL

TAS

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_044
Batch Ended: 12/12/05 10:50
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1300 [20] ROE 12-12-05 RLH

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.18		0.00	1.31	
A2	2	0.00	2.00		0.00	1.16	
A3	3	1.93	2.32		2.74	2.51	
A4	4	1.81	2.13		1.53	2.09	
B1	5	1.52	1.93		2.20	2.38	
B2	6	0.00	1.93		3.54	2.50	
B3	7	0.00	2.22		1.52	2.29	
B4	8	0.00	1.99		1.60	2.07	
C1	9	0.00	2.06		0.26	1.74	
C2	10	0.00	1.91		0.00	1.12	
C3	11	0.00	2.07		0.27	1.72	
C4	12	0.00	1.96		0.62	1.59	
D1	13	0.00	2.05		0.00	1.25	
D2	14	0.00	2.17		0.39	1.68	
D3	15	1.72	2.09		0.00	1.25	
D4	16	0.00	2.08		2.54	2.35	
C1	17	0.00	2.09		2.71	2.46	
C2	18	0.00	1.92		0.47	1.59	
C3	19	0.00	2.10		2.70	2.43	
C4	20	0.00	1.95		0.00	1.13	

✓ BR ✓ BR

COPY

T-Building Judgementals East End of Corridor 1

COPY

RSDS# MT-05-1300 RCT: [redacted] RCT: N/A

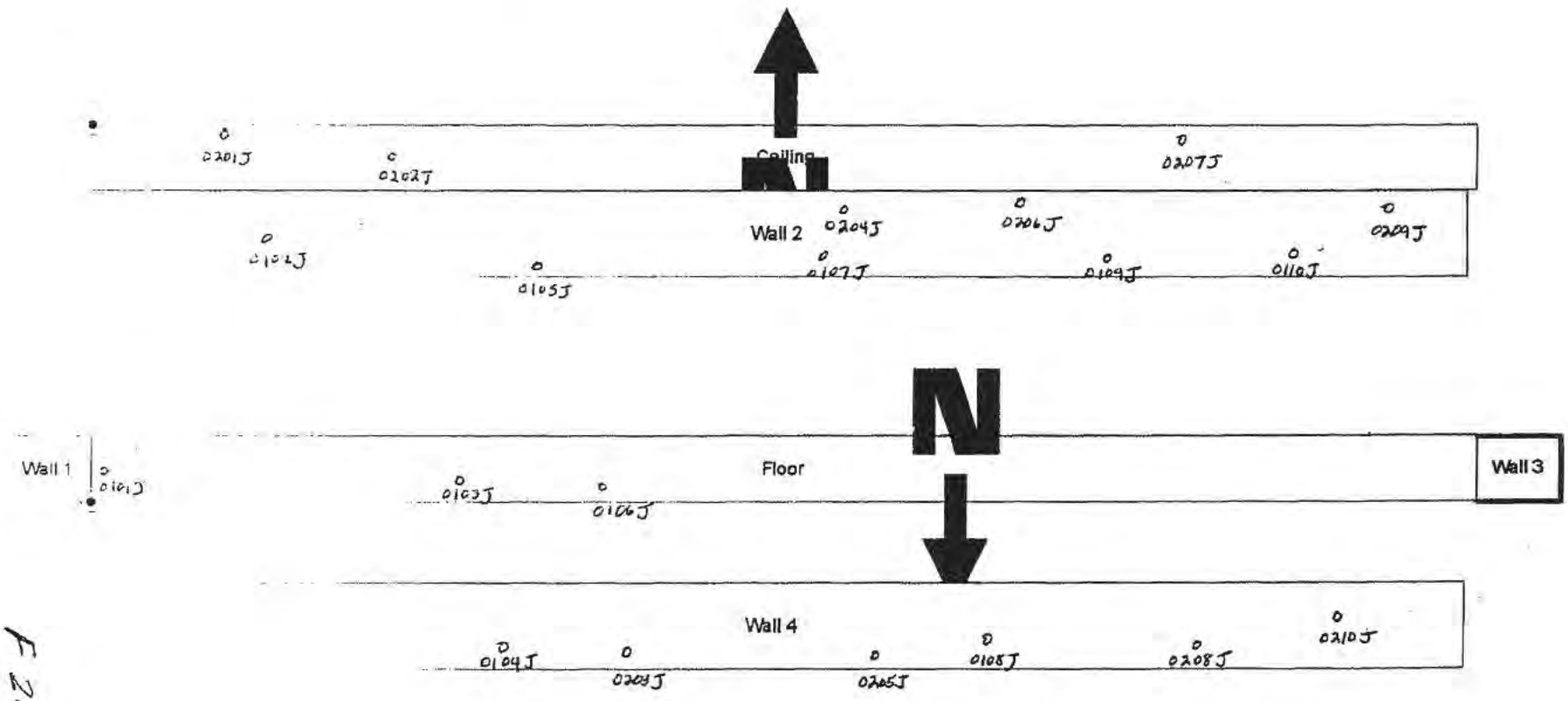
Alpha	43-68 BKG:	0	EFF:	0.215	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.168	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1C130101J	5883	[redacted]	5885	1	1	12/09/05	8:09	3	120	11
ALPHA	1C130102J	5883	[redacted]	5885	1	2	12/09/05	8:13	3	120	11
ALPHA	1C130103J	5883	[redacted]	5885	1	3	12/09/05	8:18	9	120	33
ALPHA	1C130104J	5883	[redacted]	5885	1	4	12/09/05	8:22	6	120	22
ALPHA	1C130105J	5883	[redacted]	5885	1	5	12/09/05	8:26	3	120	11
ALPHA	1C130106J	5883	[redacted]	5885	1	6	12/09/05	8:36	19	120	70
ALPHA	1C130107J	5883	[redacted]	5885	1	7	12/09/05	8:39	4	120	15
ALPHA	1C130108J	5883	[redacted]	5885	1	8	12/09/05	8:48	4	120	15
ALPHA	1C130109J	5883	[redacted]	5885	1	9	12/09/05	9:22	5	120	18
ALPHA	1C130110J	5883	[redacted]	5885	1	10	12/09/05	9:27	6	120	22
ALPHA	1C130201J	5883	[redacted]	5885	1	11	12/09/05	9:36	10	120	37
ALPHA	1C130202J	5883	[redacted]	5885	1	12	12/09/05	9:43	7	120	26
ALPHA	1C130203J	5883	[redacted]	5885	1	13	12/09/05	9:48	7	120	26
ALPHA	1C130204J	5883	[redacted]	5885	1	14	12/09/05	9:53	11	120	41
ALPHA	1C130205J	5883	[redacted]	5885	1	15	12/09/05	9:58	6	120	22
ALPHA	1C130206J	5883	[redacted]	5885	1	16	12/09/05	10:03	5	120	18
ALPHA	1C130207J	5883	[redacted]	5885	1	17	12/09/05	10:09	5	120	18
ALPHA	1C130208J	5883	[redacted]	5885	1	18	12/09/05	10:12	12	120	44
ALPHA	1C130209J	5883	[redacted]	5885	1	19	12/09/05	10:19	5	120	18
ALPHA	1C130210J	5883	[redacted]	5885	1	20	12/09/05	10:23	4	120	15
BETA	1C130101J	5883	[redacted]	5885	2	1	12/09/05	8:10	151	60	1427
BETA	1C130102J	5883	[redacted]	5885	2	2	12/09/05	8:14	92	60	869
BETA	1C130103J	5883	[redacted]	5885	2	3	12/09/05	8:19	139	60	1313
BETA	1C130104J	5883	[redacted]	5885	2	4	12/09/05	8:23	101	60	954
BETA	1C130105J	5883	[redacted]	5885	2	5	12/09/05	8:27	77	60	728
BETA	1C130106J	5883	[redacted]	5885	2	6	12/09/05	8:37	92	60	869
BETA	1C130107J	5883	[redacted]	5885	2	7	12/09/05	8:41	88	60	831
BETA	1C130108J	5883	[redacted]	5885	2	8	12/09/05	8:50	96	60	907
BETA	1C130109J	5883	[redacted]	5885	2	9	12/09/05	9:24	76	60	718
BETA	1C130110J	5883	[redacted]	5885	2	10	12/09/05	9:28	82	60	775
BETA	1C130201J	5883	[redacted]	5885	2	11	12/09/05	9:37	86	60	813
BETA	1C130202J	5883	[redacted]	5885	2	12	12/09/05	9:44	90	60	850
BETA	1C130203J	5883	[redacted]	5885	2	13	12/09/05	9:49	89	60	841
BETA	1C130204J	5883	[redacted]	5885	2	14	12/09/05	9:54	97	60	916
BETA	1C130205J	5883	[redacted]	5885	2	15	12/09/05	9:59	102	60	964
BETA	1C130206J	5883	[redacted]	5885	2	16	12/09/05	10:04	97	60	916
BETA	1C130208J	5883	[redacted]	5885	2	17	12/09/05	10:13	83	60	784
BETA	1C130209J	5883	[redacted]	5885	2	18	12/09/05	10:20	106	60	1002
BETA	1C130210J	5883	[redacted]	5885	2	19	12/09/05	10:24	94	60	888
BETA	1C130207J	5883	[redacted]	5885	2	20	12/09/05	10:26	88	60	831

MT-05-1040
Pg. 7 of 8
12-12-05

1C-13 **Judgmentals**

East End of Corridor 1

COPY



F 213/273

Survey Unit Number:
1C-13-01 minimum of 10
1C-13-02 minimum of 10
(Supplemental sheet for biased measurements.)

RSDS # MT-05-1300
RCT INT/HP BR/[redacted]

Label	Room	Surface	LX	LY
1C13-0101 J	E. Corridor 1	Floor		
1C13-0102 J		Wall		
1C13-0103 J		Floor		
1C13-0104 J		Wall		
1C13-0105 J		Wall		
1C13-0106 J		Floor		
1C13-0107 J		Wall		
1C13-0108 J		Wall		
1C13-0109 J		Wall		
1C13-0110 J		Wall		
1C13-0201 J		Ceiling		
1C13-0202 J		Ceiling		
1C13-0203 J		Wall		
1C13-0204 J		Wall		
1C13-0205 J		Wall		
1C13-0206 J		Wall		
1C13-0207 J		Ceiling		
1C13-0208 J		Wall		
1C13-0209 J		Wall		
1C13-0210 J		Wall		

A
N

A
N

COPY

J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventilation system.
U-designator represents measurement on a utility drop.

F214/273

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T-BLDG Corridor 1 (1C13)	SURVEY NO. MT-05-1312
PURPOSE: STATICS	RWP NO. N/A
	DATE: 12-12-05
	TIME: 1600

MAP/DRAWING

No elevated α/β readings detected during scanning
See Attachments

COPY

LEGEND; # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(#/α) = α/β = direct cont. measurement in dpm/100cm².

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5883 - 5885	1-7-06
N/A	N/A	N/A
↓	↓	↓

Completed by: (Signature) B.J. Roe / T. King	[redacted]		DATE: 12-12-05
Completed by: (Print Name) B.J. Roe T. King			
Counted by: (Signature) See Attachments	HI #		DATE:
Counted by: (Print Name) See Attachments			
Reviewed/Approved by: (Signature)	[redacted]		DATE: 12/16/05
Reviewed/Approved by: (Print Name) Jess Griffin			

ML-9620 (2-98)

F 215/223

Survey No. M7-05-1312

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See	Attached	Sheets	IC13 0101S
2	↓	↓	↓	IC13 0102S
3	↓	↓	↓	IC13 0103S
4	↓	↓	↓	IC13 0104S
5	↓	↓	↓	IC13 0105S
6	↓	↓	↓	IC13 0106S
7	↓	↓	↓	IC13 0107S
8	↓	↓	↓	IC13 0108S
9	↓	↓	↓	IC13 0109S
10	↓	↓	↓	IC13 0110S
11	↓	↓	↓	IC13 0111S
12	↓	↓	↓	IC13 0112S
13	↓	↓	↓	IC13 0113S
14	↓	↓	↓	IC13 0114S
15	↓	↓	↓	IC13 0115S
16	↓	↓	↓	IC13 0116S
17	↓	↓	↓	IC13 0117S
18	↓	↓	↓	IC13 0118S
19	↓	↓	↓	IC13 0119S
20	↓	↓	↓	IC13 0120S
21	↓	↓	↓	IC13 0121S
22	↓	↓	↓	IC13 0201S
23	↓	↓	↓	IC13 0202S
24	↓	↓	↓	IC13 0203S
25	↓	↓	↓	IC13 0204S
26	↓	↓	↓	IC13 0205S
27	↓	↓	↓	IC13 0206S
28	↓	↓	↓	IC13 0207S
29	↓	↓	↓	IC13 0208S
30	↓	↓	↓	IC13 0209S
31	↓	↓	↓	IC13 0210S
32	↓	↓	↓	IC13 0211S
33	↓	↓	↓	IC13 0212S
34	↓	↓	↓	IC13 0213S
35	↓	↓	↓	IC13 0214S

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36	See	Attached	Sheets	IC13 0215S
37	↓	↓	↓	IC13 0216S
38	↓	↓	↓	IC13 0217S
39	↓	↓	↓	IC13 0218S
40	↓	↓	↓	IC13 0219S
41	↓	↓	↓	IC13 0220S
42				
43				
44				
45				
2K 46				
13-05 47				
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52				
53		N		
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55		N		
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COPY

COMMENTS:

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

F 216/273

ML-0620 (4-98)

MARSSIM Smear Data

COPY

MT-05-1312

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_2\20051213_0922.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1312.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_2.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

F 117/223

Protocol# 2 - MARSSIM_Smear_2.lsa

JK
12-14-05

MARSSIM Smear Data

COPY

MT-05-1312

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/13/05	9:23:10 AM	-1	10.00	9	8	12	9	607.93	0	20.8	B	2
12/13/05	9:33:58 AM	0	2.00	524	501	0	0	576.23	989	6.2		2
12/13/05	9:36:41 AM	1	2.00	5	4	0	14	579.77	10	109.8		2
12/13/05	9:39:22 AM	2	2.00	2	3	1	4	567.58	4	223.6		2
12/13/05	9:42:04 AM	3	2.00	19	17	19	11	449.40	41	40.9		2
12/13/05	9:44:46 AM	4	2.00	1	1	0	14	502.29	2	410.7		2
12/13/05	9:47:29 AM	5	2.00	0	0	0	18	517.28	0	0.0		2
12/13/05	9:50:11 AM	6	2.00	0	0	0	11	605.27	0	2263.6		2
12/13/05	9:52:54 AM	7	2.00	10	10	0	3	498.72	21	64.0		2
12/13/05	9:55:37 AM	8	2.00	1	1	0	5	605.59	2	410.7		2
12/13/05	9:58:19 AM	9	2.00	0	0	0	0	621.57	0	0.0		2
12/13/05	10:01:02 AM	10	2.00	0	0	0	6	593.08	0	0.0		2
12/13/05	10:03:43 AM	11	2.00	2	0	0	4	611.86	3	288.8		2
12/13/05	10:06:25 AM	12	2.00	0	0	0	0	618.58	0	0.0		2
12/13/05	10:09:07 AM	13	2.00	2	3	1	0	616.78	4	221.7		2
12/13/05	10:11:49 AM	14	2.00	0	0	0	6	612.35	0	0.0		2
12/13/05	10:14:31 AM	15	2.00	2	2	2	0	650.44	3	296.5		2
12/13/05	10:17:13 AM	16	2.00	0	0	0	0	617.19	0	0.0		2
12/13/05	10:20:00 AM	17	2.00	1	2	0	0	625.90	2	410.7		2
12/13/05	10:22:42 AM	18	2.00	0	0	0	0	625.13	0	0.0		2
12/13/05	10:25:24 AM	19	2.00	0	0	0	0	636.02	0	0.0		2
12/13/05	10:28:07 AM	20	2.00	2	3	0	0	625.52	4	233.8		2
12/13/05	10:30:49 AM	21	2.00	1	1	0	0	613.12	1	685.4		2
12/13/05	10:33:31 AM	22	2.00	0	0	0	0	624.59	0	0.0		2
12/13/05	10:36:12 AM	23	2.00	0	1	0	0	613.13	0	0.0		2
12/13/05	10:38:55 AM	24	2.00	0	0	0	0	634.69	0	0.0		2
12/13/05	10:41:36 AM	25	2.00	0	0	0	0	628.53	0	0.0		2
12/13/05	10:44:19 AM	26	2.00	3	3	0	0	647.49	5	194.2		2
12/13/05	10:47:01 AM	27	2.00	0	0	0	0	647.46	0	2263.6		2
12/13/05	10:49:44 AM	28	2.00	1	1	0	0	642.55	1	627.0		2
12/13/05	10:52:26 AM	29	2.00	3	4	1	0	656.59	5	194.2		2
12/13/05	10:55:09 AM	30	2.00	0	0	0	0	612.48	0	0.0		2
12/13/05	10:57:52 AM	31	2.00	3	4	0	0	622.15	6	157.3		2

F 218/73

J.K.

MARSSIM Smear Data

MT-05-1312

J.K 12-14-05

12/13/05	11:00:35 AM	32	2.00	2	1	0	0	605.60	4	233.8	2
12/13/05	11:03:17 AM	33	2.00	0	0	0	0	648.72	0	0.0	2
12/13/05	11:06:00 AM	34	2.00	0	0	0	0	618.74	0	0.0	2
12/13/05	11:09:21 AM	35	2.00	2	2	0	0	609.28	3	296.5	2
12/13/05	11:12:03 AM	36	2.00	0	0	0	7	611.69	0	0.0	2
12/13/05	11:14:54 AM	37	2.00	0	0	0	0	641.78	0	0.0	2
12/13/05	11:17:36 AM	38	2.00	0	0	0	9	613.63	0	0.0	2
12/13/05	11:20:18 AM	39	2.00	0	0	0	0	605.10	0	0.0	2
12/13/05	11:23:02 AM	40	2.00	0	0	0	0	617.58	0	0.0	2
12/13/05	11:25:44 AM	41	2.00	0	0	0	7	62[illegible]0	0	0.0	2

J.K

COPY

F216/223

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_049
Batch Ended: 12/13/05 8:30
Cal. Due Date: 11/17/06
Serial Number: 26966-3

COPY

Batch ID: MT-05-1312 KING (41) 12/13/05 TAS

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.18		0.00	1.31	
A2	2	1.61	2.00		0.00	1.16	
A3	3	0.00	2.26		0.00	1.26	
A4	4	0.00	2.10		0.00	1.21	
B1	5	0.00	1.91		1.23	2.06	
B2	6	0.00	1.91		2.43	2.23	
B3	7	0.00	2.18		0.00	1.33	
B4	8	0.00	1.95		0.00	1.20	
C1	9	0.00	2.07		1.49	2.13	
C2	10	0.00	1.92		0.47	1.59	
C3	11	0.00	2.06		0.00	1.22	
C4	12	0.00	1.96		0.62	1.59	
A1	13	0.00	2.18		0.00	1.31	
A2	14	0.00	2.03		1.51	2.01	
A3	15	0.00	2.30		1.67	2.18	
A4	16	0.00	2.10		0.00	1.21	
B1	17	1.52	1.87		0.00	1.19	
B2	18	0.00	1.87		0.21	1.58	
B3	19	0.00	2.26		4.16	2.97	
B4	20	1.61	1.95		0.00	1.20	
C1	21	0.00	2.06		0.26	1.74	
C2	22	0.00	1.91		0.00	1.13	
C3	23	0.00	2.07		0.27	1.72	
C4	24	0.00	1.96		0.62	1.59	
A1	25	1.72	2.20		0.29	1.84	
A2	26	1.61	2.00		0.00	1.16	
A3	27	0.00	2.28		0.41	1.78	

J.K J.K

6 of 11

J.K
12-14-05

T220/223

Smear Analysis

COPY

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_049
Batch Ended: 12/13/05 8:30
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1312 KING (41) 12/13/05 TAS

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A4	28	0.00	2.10		0.00	1.21	
B1	29	1.52	1.87		0.00	1.19	
B2	30	0.00	1.85		0.00	1.12	
B3	31	0.00	2.22		1.52	2.29	
B4	32	1.61	1.95		0.00	1.20	
C1	33	0.00	2.05		0.00	1.23	
C2	34	0.00	1.91		0.00	1.12	
C3	35	0.00	2.06		0.00	1.22	
C4	36	0.00	1.95		0.00	1.12	
A1	37	0.00	2.18		0.00	1.31	
A2	38	0.00	2.00		0.00	1.17	
A3	39	0.00	2.28		0.41	1.78	
A4	40	0.00	2.10		0.00	1.21	
B1	41	0.00	1.87		0.00	1.19	

J.K. J.K.

E 22/273

J.K.
12-14-05

TAS

T-BuildingCorr. 1:1C13 Statics

RSDS# MT-05-1312 RCT: [redacted] RCT: [redacted]

COPY

Alpha	43-68 BKG:	0	EFF:	0.215	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.1608	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1C130101S	5883	[redacted]	5885	1	1	12/12/05	10:24	7	120	26
ALPHA	1C130102S	5883	[redacted]	5885	1	2	12/12/05	10:28	1	120	4
ALPHA	1C130103S	5883	[redacted]	5885	1	3	12/12/05	10:32	8	120	30
ALPHA	1C130104S	5883	[redacted]	5885	1	4	12/12/05	10:36	2	120	7
ALPHA	1C130105S	5883	[redacted]	5885	1	5	12/12/05	10:39	9	120	33
ALPHA	1C130106S	5883	[redacted]	5885	1	6	12/12/05	10:43	6	120	22
ALPHA	1C130107S	5883	[redacted]	5885	1	7	12/12/05	10:47	10	120	37
ALPHA	1C130108S	5883	[redacted]	5885	1	8	12/12/05	12:16	2	120	7
ALPHA	1C130109S	5883	[redacted]	5885	1	9	12/12/05	12:20	1	120	4
ALPHA	1C130110S	5883	[redacted]	5885	1	10	12/12/05	12:24	4	120	15
ALPHA	1C130111S	5883	[redacted]	5885	1	11	12/12/05	12:28	2	120	7
ALPHA	1C130112S	5883	[redacted]	5885	1	12	12/12/05	12:32	3	120	11
ALPHA	1C130113S	5883	[redacted]	5885	1	13	12/12/05	12:36	3	120	11
ALPHA	1C130114S	5883	[redacted]	5885	1	14	12/12/05	12:40	4	120	15
ALPHA	1C130115S	5883	[redacted]	5885	1	15	12/12/05	12:44	3	120	11
ALPHA	1C130116S	5883	[redacted]	5885	1	16	12/12/05	12:50	3	120	11
ALPHA	1C130117S	5883	[redacted]	5885	1	17	12/12/05	12:54	4	120	15
ALPHA	1C130118S	5883	[redacted]	5885	1	18	12/12/05	12:59	1	120	4
ALPHA	1C130119S	5883	[redacted]	5885	1	19	12/12/05	13:05	2	120	7
ALPHA	1C130120S	5883	[redacted]	5885	1	20	12/12/05	13:09	5	120	18
ALPHA	1C130121S	5883	[redacted]	5885	1	21	12/12/05	13:31	4	120	15
ALPHA	1C130201S	5883	[redacted]	5885	1	22	12/12/05	13:37	5	120	18
ALPHA	1C130202S	5883	[redacted]	5885	1	23	12/12/05	13:41	6	120	22
ALPHA	1C130203S	5883	[redacted]	5885	1	24	12/12/05	13:45	4	120	15
ALPHA	1C130204S	5883	[redacted]	5885	1	25	12/12/05	13:50	5	120	18
ALPHA	1C130205S	5883	[redacted]	5885	1	26	12/12/05	13:54	4	120	15
ALPHA	1C130206S	5883	[redacted]	5885	1	27	12/12/05	14:02	9	120	33
ALPHA	1C130207S	5883	[redacted]	5885	1	28	12/12/05	14:21	6	120	22
ALPHA	1C130208S	5883	[redacted]	5885	1	29	12/12/05	14:27	7	120	26
ALPHA	1C130209S	5883	[redacted]	5885	1	30	12/12/05	14:33	1	120	4
ALPHA	1C130210S	5883	[redacted]	5885	1	31	12/12/05	14:38	5	120	18
ALPHA	1C130211S	5883	[redacted]	5885	1	32	12/12/05	14:42	2	120	7
ALPHA	1C130212S	5883	[redacted]	5885	1	33	12/12/05	14:47	7	120	26
ALPHA	1C130213S	5883	[redacted]	5885	1	34	12/12/05	14:52	7	120	26
ALPHA	1C130214S	5883	[redacted]	5885	1	35	12/12/05	14:57	5	120	18
ALPHA	1C130215S	5883	[redacted]	5885	1	36	12/12/05	15:01	6	120	22
ALPHA	1C130216S	5883	[redacted]	5885	1	37	12/12/05	15:06	2	120	7
ALPHA	1C130217S	5883	[redacted]	5885	1	38	12/12/05	15:11	3	120	11
ALPHA	1C130218S	5883	[redacted]	5885	1	39	12/12/05	15:16	4	120	15
ALPHA	1C130219S	5883	[redacted]	5885	1	40	12/12/05	15:21	3	120	11
ALPHA	1C130220S	5883	[redacted]	5885	1	41	12/12/05	15:26	3	120	11
BETA	1C130101S	5883	[redacted]	5885	2	1	12/12/05	10:25	161	60	1589

F-222/273

T-BuildingCorr. 1;1C13 Statics

RSDS# MT-05-1312 *RCT:* [redacted] *RCT.* _____

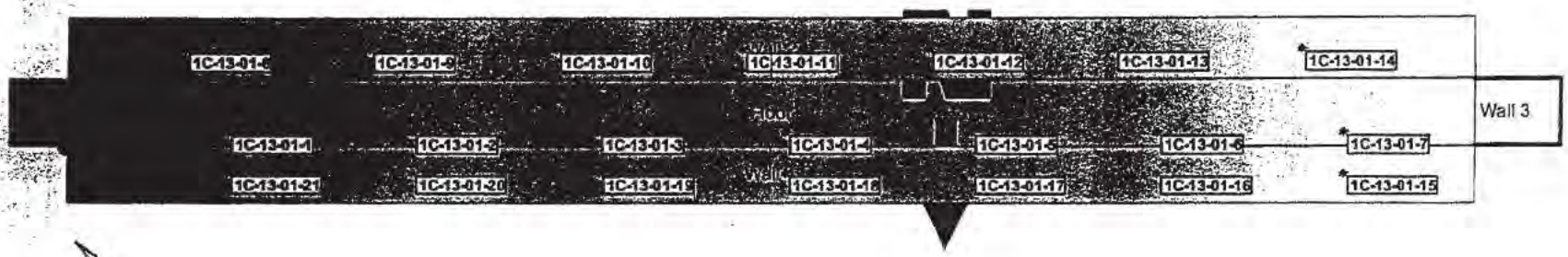
COPY

Alpha	43-68 BKG:	0	EFF:	0.215	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.1608	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
BETA	1C130102S	5883	[redacted]	5885	2	2	12/12/05	10:29	151	60	1491
BETA	1C130103S	5883	[redacted]	5885	2	3	12/12/05	10:33	165	60	1629
BETA	1C130104S	5883	[redacted]	5885	2	4	12/12/05	10:37	145	60	1431
BETA	1C130105S	5883	[redacted]	5885	2	5	12/12/05	10:40	154	60	1520
BETA	1C130106S	5883	[redacted]	5885	2	6	12/12/05	10:44	153	60	1510
BETA	1C130107S	5883	[redacted]	5885	2	7	12/12/05	10:48	158	60	1560
BETA	1C130108S	5883	[redacted]	5885	2	8	12/12/05	12:17	72	60	711
BETA	1C130109S	5883	[redacted]	5885	2	9	12/12/05	12:21	90	60	888
BETA	1C130110S	5883	[redacted]	5885	2	10	12/12/05	12:25	96	60	948
BETA	1C130111S	5883	[redacted]	5885	2	11	12/12/05	12:29	86	60	849
BETA	1C130112S	5883	[redacted]	5885	2	12	12/12/05	12:33	66	60	652
BETA	1C130113S	5883	[redacted]	5885	2	13	12/12/05	12:37	107	60	1056
BETA	1C130114S	5883	[redacted]	5885	2	14	12/12/05	12:41	83	60	819
BETA	1C130115S	5883	[redacted]	5885	2	15	12/12/05	12:45	85	60	839
BETA	1C130116S	5883	[redacted]	5885	2	16	12/12/05	12:51	91	60	898
BETA	1C130117S	5883	[redacted]	5885	2	17	12/12/05	12:55	105	60	1036
BETA	1C130118S	5883	[redacted]	5885	2	18	12/12/05	13:00	91	60	898
BETA	1C130119S	5883	[redacted]	5885	2	19	12/12/05	13:06	77	60	760
BETA	1C130120S	5883	[redacted]	5885	2	20	12/12/05	13:10	107	60	1056
BETA	1C130121S	5883	[redacted]	5885	2	21	12/12/05	13:32	83	60	819
BETA	1C130201S	5883	[redacted]	5885	2	22	12/12/05	13:38	100	60	987
BETA	1C130202S	5883	[redacted]	5885	2	23	12/12/05	13:42	107	60	1056
BETA	1C130203S	5883	[redacted]	5885	2	24	12/12/05	13:46	98	60	967
BETA	1C130204S	5883	[redacted]	5885	2	25	12/12/05	13:51	98	60	967
BETA	1C130205S	5883	[redacted]	5885	2	26	12/12/05	13:55	76	60	750
BETA	1C130206S	5883	[redacted]	5885	2	27	12/12/05	14:03	83	60	819
BETA	1C130207S	5883	[redacted]	5885	2	28	12/12/05	14:22	104	60	1027
BETA	1C130208S	5883	[redacted]	5885	2	29	12/12/05	14:28	106	60	1046
BETA	1C130209S	5883	[redacted]	5885	2	30	12/12/05	14:34	76	60	750
BETA	1C130210S	5883	[redacted]	5885	2	31	12/12/05	14:39	105	60	1036
BETA	1C130211S	5883	[redacted]	5885	2	32	12/12/05	14:43	68	60	671
BETA	1C130212S	5883	[redacted]	5885	2	33	12/12/05	14:48	72	60	711
BETA	1C130213S	5883	[redacted]	5885	2	34	12/12/05	14:53	74	60	730
BETA	1C130214S	5883	[redacted]	5885	2	35	12/12/05	14:58	87	60	859
BETA	1C130215S	5883	[redacted]	5885	2	36	12/12/05	15:02	88	60	869
BETA	1C130216S	5883	[redacted]	5885	2	37	12/12/05	15:07	97	60	958
BETA	1C130217S	5883	[redacted]	5885	2	38	12/12/05	15:12	102	60	1007
BETA	1C130218S	5883	[redacted]	5885	2	39	12/12/05	15:17	93	60	918
BETA	1C130219S	5883	[redacted]	5885	2	40	12/12/05	15:22	111	60	1096
BETA	1C130220S	5883	[redacted]	5885	2	41	12/12/05	15:27	107	60	1056
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓

F223/223

1C-13-01
floor and lower wall static measurement locations

East End of Corridor 1



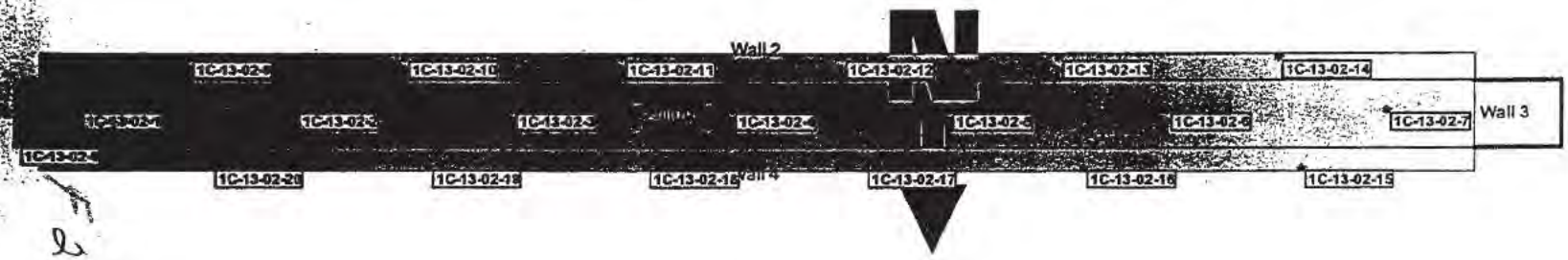
MT-05-1313

Pg. 10 of 11

F2 24/374

1C-13-02
ceiling and upper wall static measurement locations
scan 1m^2 area around each ceiling location

East End of Corridor 1



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MT-05-1312

RADIOLOGICAL SURVEY DATA SHEET

Page 1 of 7

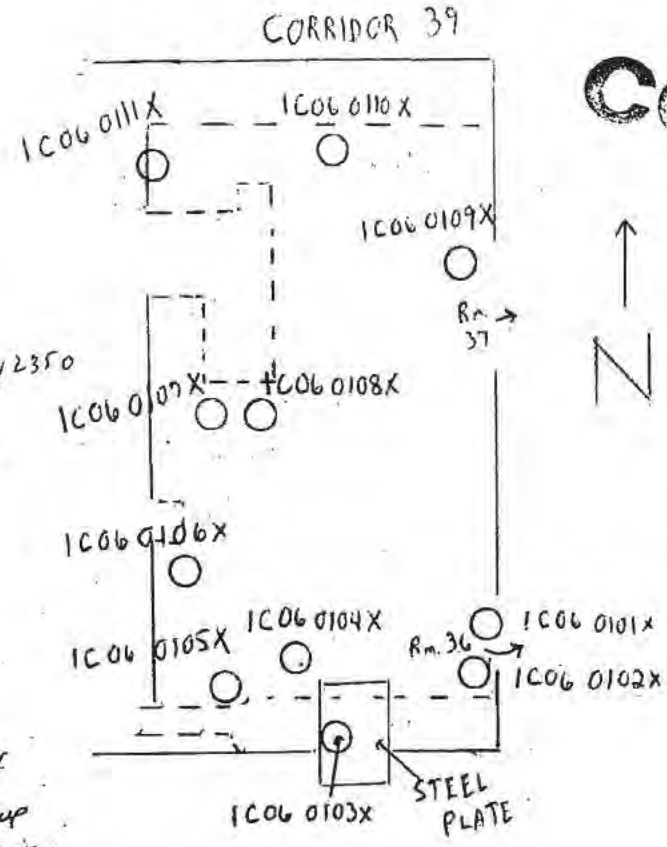
LOCATION: (BLDG./AREA/ROOM) T-BLDG Corridor 39 (1C06)	SURVEY NO. MT-05-1162
PURPOSE: Investigative Survey of Suspected Elevated Spots by Skanza and SCM23 survey of floor and walls.	RWP NO. N/A
	DATE: 11-8-05
	TIME: 1600

MAP/DRAWING

No elevated α/β readings detected during scan.

See Attachments

Note Areas around the locations of the direct frisks also scanned by 2350



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SCM 23 surveyed 100% of floor and 100% of walls up to 7 feet for all accessible areas. SCM 23 surveyed upper walls from 7 feet to ceiling at 25%.

All areas identified as suspect by SCM 23 are note on this RSDS (MT-05-1162) and on RSDS MT-05-1336 and RSDS MT-05-1338

LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
(#) = swipe number
(#/α) or /β = direct cont. measurement in dpm/100cm²

SCM 23	R80 / C180	6/1/06

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5857, 5859	10-4-06
N/A	N/A	N/A

Completed by: (Signature) J. King			Date: 11-8-05
Completed by: (Print Name) T. King			
Counted by: (Signature) See Attachments	HP# N/A		Date: N/A
Counted by: (Print Name) See Attachments			
Reviewed/Approved by: (Signature) Jerry Taylor			Date: 11-10-05
Reviewed/Approved by: (Print Name) Jerry Taylor			

ML-9620 (2-98)

Survey No. MT-05-1162

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RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See	Attached	Sheets	1C06 0101X
2				1C06 0102X
3				1C06 0103X
4				1C06 0104X
5				1C06 0105X
6				1C06 0106X
7				1C06 0107X
8				1C06 0108X
9				1C06 0109X
10				1C06 0110X
11				1C06 0111X
		N		
		A		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N		
		A		

COPY

COMMENTS: N A

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

F227/273

ML-9620A (4-98)

3 of 8 11/18/05

J.K 11-14-05

MARSSIM Smear Data

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MT-05-1162

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_1\20051109_1032.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1162.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_1.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

22 8/22

Protocol# 1 - MARSSIM_Smear_1.lsa User: 5801

MARSSIM Smear Data

MT-05-1162

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

COPY

MT-05-1162

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
11/9/05	10:33:05 AM	-1	10.00	9	8	12	2	623.15	0	21.3	B	1
11/9/05	10:43:50 AM	0	2.00	475	448	3	0	547.69	918	6.6		1
11/9/05	10:46:32 AM	1	2.00	1	0	0	20	496.73	2	514.3		1
11/9/05	10:49:15 AM	2	2.00	0	0	0	38	399.62	0	0.0		1
11/9/05	10:51:58 AM	3	2.00	1	1	0	0	531.63	2	527.5		1
11/9/05	10:54:41 AM	4	2.00	0	1	0	6	548.21	0	2274.3		1
11/9/05	10:57:24 AM	5	2.00	0	0	0	5	553.54	1	1696.1		1
11/9/05	11:00:07 AM	6	2.00	0	1	0	6	438.02	0	2274.3		1
11/9/05	11:02:50 AM	7	2.00	1	0	0	5	534.45	1	674.1		1
11/9/05	11:05:33 AM	8	2.00	0	0	0	9	495.37	0	0.0		1
11/9/05	11:08:16 AM	9	2.00	0	0	0	11	460.05	0	2274.3		1
11/9/05	11:10:59 AM	10	2.00	3	4	0	0	504.98	7	153.0		1
11/9/05	11:13:42 AM	11	2.00	0	0	0	6	481.52	0	0.0		1

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_039
Batch Ended: 11/9/05 8:07
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: MT-05-1162 KING (11) AG ✓

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
B1	1	0.00	1.88		0.00	1.21	
B2	2	0.00	1.87		0.00	1.59	
B3	3	0.00	2.18		0.00	1.34	
B4	4	0.00	1.97		0.00	1.21	
C1	5	0.00	2.07		1.49	2.13	
C2	6	0.00	1.91		0.00	1.13	
C3	7	0.00	2.07		0.27	1.72	
C4	8	1.68	1.96		0.47	1.59	
B1	9	0.77	1.90		0.33	1.69	
B2	10	0.00	1.85		0.00	1.14	
B3 ✓	11	0.00	2.22		1.63	2.30	

J.K. J.K.

MT-05-1162
5 of ~~6~~ 7 8
11/8/05 11/16/05
J.K. 11-10-05

Page ~~1 of 1~~

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T-Building Corridor 39; Survey of Suspected Elevateds; 1C06

RSDS# MT-05-1162 RCT: [redacted] RCT: N/A

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Alpha	43-68 BKG:	0	EFF:	0.208	PROBE AREA:	126	cm²	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.164	PROBE AREA:	126	cm²	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	564	cm²	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	564	cm²	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1C060101X	5857	[redacted]	5859	1	1	11/8/05	13:18	2	120	8
ALPHA	1C060102X	5857	[redacted]	5859	1	2	11/8/05	13:29	9	120	34
ALPHA	1C060103X	5857	[redacted]	5859	1	3	11/8/05	13:41	2	120	8
ALPHA	1C060104X	5857	[redacted]	5859	1	4	11/8/05	13:50	4	120	15
ALPHA	1C060105X	5857	[redacted]	5859	1	5	11/8/05	14:35	5	120	19
ALPHA	1C060106X	5857	[redacted]	5859	1	6	11/8/05	14:44	6	120	23
ALPHA	1C060107X	5857	[redacted]	5859	1	7	11/8/05	14:54	11	120	42
ALPHA	1C060108X	5857	[redacted]	5859	1	8	11/8/05	15:04	4	120	15
ALPHA	1C060109X	5857	[redacted]	5859	1	9	11/8/05	15:13	11	120	42
ALPHA	1C060110X	5857	[redacted]	5859	1	10	11/8/05	15:22	9	120	34
ALPHA	1C060111X	5857	[redacted]	5859	1	11	11/8/05	15:30	8	120	31 ✓
BETA	1C060101X	5857	[redacted]	5859	2	1	11/8/05	13:19	174	60	1684
BETA	1C060102X	5857	[redacted]	5859	2	2	11/8/05	13:31	142	60	1374
BETA	1C060103X	5857	[redacted]	5859	2	3	11/8/05	13:42	79	60	765
BETA	1C060104X	5857	[redacted]	5859	2	4	11/8/05	13:51	192	60	1858
BETA	1C060105X	5857	[redacted]	5859	2	5	11/8/05	14:36	172	60	1665
BETA	1C060106X	5857	[redacted]	5859	2	6	11/8/05	14:45	188	60	1820
BETA	1C060107X	5857	[redacted]	5859	2	7	11/8/05	14:55	151	60	1461
BETA	1C060108X	5857	[redacted]	5859	2	8	11/8/05	15:05	145	60	1403
BETA	1C060109X	5857	[redacted]	5859	2	9	11/8/05	15:15	216	60	2091
BETA	1C060110X	5857	[redacted]	5859	2	10	11/8/05	15:23	177	60	1713
BETA	1C060111X	5857	[redacted]	5859	2	11	11/8/05	15:31	146	60	1413 ✓

N A

Survey Unit Number: 1C06

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(Supplemental sheet for biased measurements.)

RSDS # 1MT-05-1112

RCT INT/HP TK [redacted]

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Label	Room	Surface	LX	LY
1C060101X	Corr 39	Floor		
1C060102X	Corr 39	Floor		
1C060103X	Corr 39	steel plate		
1C060104X	Corr 39	Floor		
1C060105X	Corr 39	Floor		
1C060106X	Corr 39	Floor		
1C060107X	Corr 39	Floor		
1C060108X	Corr 39	Floor		
1C060109X	Corr 39	Floor		
1C060110X	Corr 39	Floor		
1C060111X	Corr 39	Floor/wall		
				N
				A
	N			
	A			

J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventilation system.

F 232/273

Surface Contamination Monitor Survey Investigation Summary

Survey Unit: 1C-06	SCM Survey Unit: 1C-05
SCM ID (Circle One)	SCM 53 SCM 23
Calibration Due Date	06-01-06

COPY

Room	Surface	Investigations
Corridor 39	Floor	11
"	Walls	0
From Survey Unit		
1C07	Floors	2
(From east floor and	Walls	1
wall of 1C07 Survey)		

Note: The 2 floor and 1 wall spots were identified while performing survey 1C07 and are located in the North end of Corridor 39.

Name Sherry Oran

Signature Sherry Oran

Date 1-4-06

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) Inside Corridor 39	SURVEY NO. MT-05-1321
PURPOSE: Drains, Vents, + Utilities	RWP NO. N/A
	DATE: 12/14/05
1C06	TIME: 1530

MAP/DRAWING

See attached

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LEGEND: # = mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
#/α = α/β = direct cont. measurement in dpm/100cm².

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5883/5885	1-7-06

Completed by: (Signature) BJ Roe	[redacted]	DATE: 12/14/05
Completed by: (Print Name) BJ Roe		
Counted by: (Signature) See Attached	HP #	DATE:
Counted by: (Print Name) See Attached		
Reviewed/Approved by: (Signature) Jared Holley	[redacted]	DATE: 12-16-05
Reviewed/Approved by: (Print Name) J. HollABAUgh		

ML-0620 (2-98)

F232b/2 3

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Survey No. MT-05-1321

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1				1C06-0101D
2				1C06-0102D
3				1C06-0103D
4				1C06-0104D
5				1C06-0105D
6				1C06-0201V
7				1C06-0202V
8				1C06-0201U
9				1C06-0101U
10				1C06-0102U
11				1C06-0103U
12				1C06-0104U
13				1C06-0202U
14				1C06-0105U
15				1C06-0106U
16				
17				
18				
19				
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21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
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64				
65				
66				
67				
68				
69				
70				

N/A

COPY

COMMENTS: N/A

NOTES:

1. See MD-60036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-0620 (4-06)

F 232c/273

BR 12-14-05

MT-05-1321 Page 8 of 23

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_2\20051214_1118.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1321\001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_2.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

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F 233/273

MARSSIM Smear Data

COPY

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/14/05	11:18:42 AM	-1	10.00	10	9	11	10	607.58	0	20.1	B	2
12/14/05	11:29:30 AM	0	2.00	483	458	0	1	575.94	913	6.5		2
12/14/05	11:32:13 AM	1	2.00	0	0	0	5	586.14	0	4289.5		2
12/14/05	11:34:56 AM	2	2.00	0	0	3	9	431.11	0	0.0		2
12/14/05	11:37:40 AM	3	2.00	0	0	0	0	572.87	0	0.0		2
12/14/05	11:40:22 AM	4	2.00	0	0	0	6	588.03	0	0.0		2
12/14/05	11:43:04 AM	5	2.00	0	0	0	7	562.46	0	0.0		2
12/14/05	11:45:46 AM	6	2.00	2	2	0	4	610.19	4	247.8		2
12/14/05	11:48:28 AM	7	2.00	2	2	0	4	578.67	3	325.0		2
12/14/05	11:51:11 AM	8	2.00	0	0	0	7	585.49	0	0.0		2
12/14/05	11:53:54 AM	9	2.00	0	1	0	15	614.68	0	4289.5		2
12/14/05	11:56:36 AM	10	2.00	1	1	0	9	583.51	2	457.3		2
12/14/05	11:59:18 AM	11	2.00	0	0	1	6	611.34	0	0.0		2
12/14/05	12:02:09 PM	12	2.00	0	0	0	6	620.28	0	0.0		2
12/14/05	12:04:52 PM	13	2.00	2	2	0	4	591.63	4	250.1		2
12/14/05	12:07:34 PM	14	2.00	0	1	0	10	613.91	0	4289.5		2
12/14/05	12:10:17 PM	15	2.00	5	3	2	7	608.80	8	124.4		2

BR

8 pH 5d
12-14-05 MW

F234/273

MT-05-1321
Pg. 5 of 8

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_056
Batch Ended: 12/14/05 10:08
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1321 ROE(15) AG

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.20		0.47	1.84	
A2	2	1.61	2.03		1.34	2.01	
A3	3	0.00	2.28		0.41	1.78	
A4	4	0.00	2.10		0.00	1.21	
B1	5	0.00	1.91		1.23	2.06	
B2	6	0.00	1.91		2.43	2.23	
B3	7	0.00	2.20		0.20	1.87	
B4	8	0.00	1.97		0.40	1.69	
C1	9	1.69	2.05		0.00	1.23	
C2	10	0.00	1.95		2.71	2.25	
C3	11	0.00	2.06		0.00	1.22	
C4	12	0.00	1.99		2.87	2.25	
D1	13	0.00	2.05		0.00	1.25	
D2	14	0.00	2.17		0.39	1.68	
D3	15	0.00	2.09		0.00	1.25	

BR BR

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F 235/273

~~Page 1 of 1~~ BR
12-14-05

T-Building Drains, Vents, and Utilities - Corridor 39

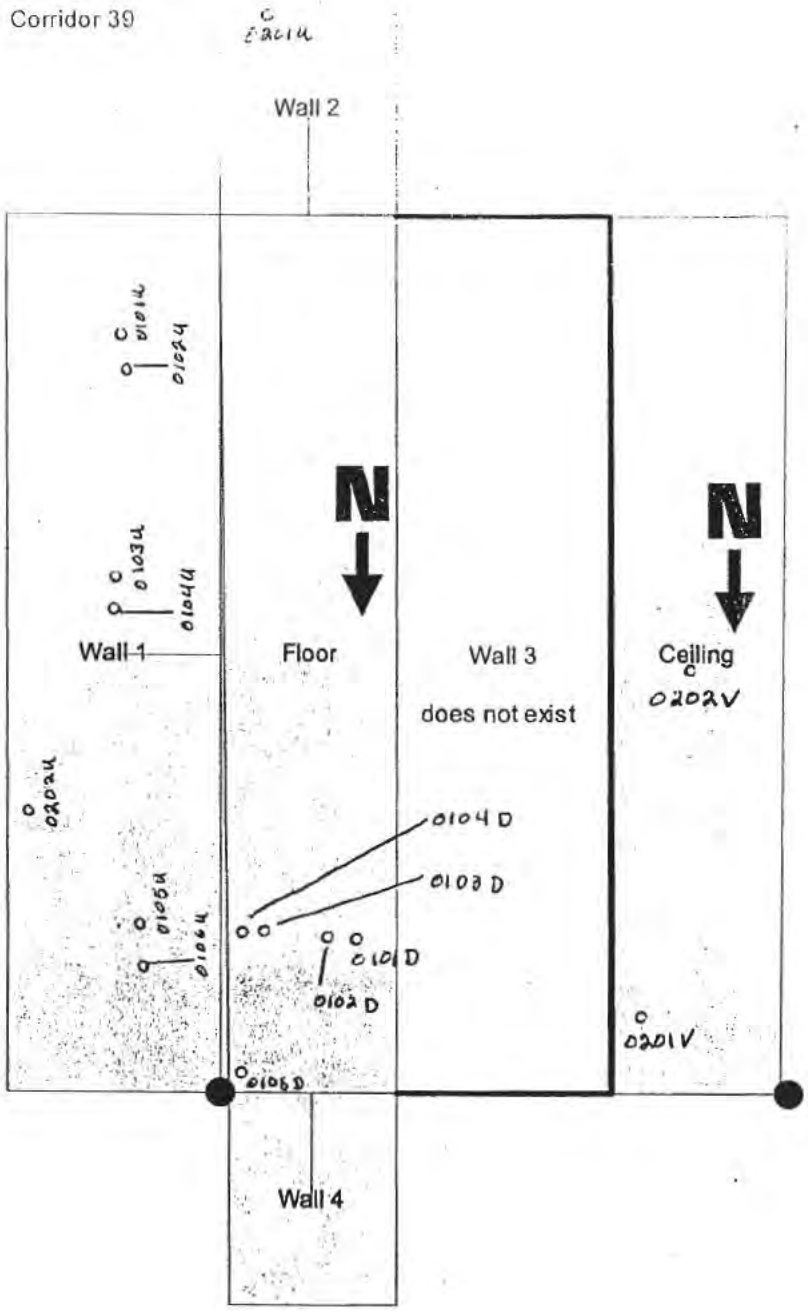
RSDS# MT-05-1321 *RCT:* [redacted] *RCT:* N/A

Alpha	43-68 BKG:	0	EFF:	0.215	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.168	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	**LOCATION**	**2350#**	**RCT ID**	**PROBE**	**DET #**	**item**	**DATE**	**TIME**	**CNTS**	**CT TIME**	**dpm/100cm2**
ALPHA	1C060101D	5883	[redacted]	5885	1	1	12/13/05	14:27	7	120	26
ALPHA	1C060102D	5883	[redacted]	5885	1	2	12/13/05	14:39	3	120	11
ALPHA	1C060103D	5883	[redacted]	5885	1	3	12/13/05	14:45	0	120	0
ALPHA	1C060104D	5883	[redacted]	5885	1	4	12/13/05	14:49	2	120	7
ALPHA	1C060105D	5883	[redacted]	5885	1	5	12/13/05	15:04	2	120	7
ALPHA	1C060201V	5883	[redacted]	5885	1	6	12/13/05	15:15	5	120	18
ALPHA	1C060202V	5883	[redacted]	5885	1	7	12/13/05	15:26	8	120	30
ALPHA	1C060201U	5883	[redacted]	5885	1	8	12/14/05	7:01	7	120	26
ALPHA	1C060101U	5883	[redacted]	5885	1	9	12/14/05	7:09	5	120	18
ALPHA	1C060102U	5883	[redacted]	5885	1	10	12/14/05	7:15	3	120	11
ALPHA	1C060103U	5883	[redacted]	5885	1	11	12/14/05	7:24	2	120	7
ALPHA	1C060104U	5883	[redacted]	5885	1	12	12/14/05	7:29	4	120	15
ALPHA	1C060202U	5883	[redacted]	5885	1	13	12/14/05	7:37	4	120	15
ALPHA	1C060105U	5883	[redacted]	5885	1	14	12/14/05	7:46	5	120	18
ALPHA	1C060106U	5883	[redacted]	5885	1	15	12/14/05	7:50	4	120	15
BETA	1C060101D	5883	[redacted]	5885	2	1	12/13/05	14:28	99	60	935
BETA	1C060102D	5883	[redacted]	5885	2	2	12/13/05	14:40	94	60	888
BETA	1C060103D	5883	[redacted]	5885	2	3	12/13/05	14:46	104	60	983
BETA	1C060104D	5883	[redacted]	5885	2	4	12/13/05	14:50	94	60	888
BETA	1C060105D	5883	[redacted]	5885	2	5	12/13/05	15:05	86	60	813
BETA	1C060201V	5883	[redacted]	5885	2	6	12/13/05	15:17	67	60	633
BETA	1C060202V	5883	[redacted]	5885	2	7	12/13/05	15:27	64	60	605
BETA	1C060201U	5883	[redacted]	5885	2	8	12/14/05	7:02	92	60	869
BETA	1C060101U	5883	[redacted]	5885	2	9	12/14/05	7:11	95	60	898
BETA	1C060102U	5883	[redacted]	5885	2	10	12/14/05	7:16	86	60	813
BETA	1C060103U	5883	[redacted]	5885	2	11	12/14/05	7:25	93	60	879
BETA	1C060104U	5883	[redacted]	5885	2	12	12/14/05	7:30	82	60	775
BETA	1C060202U	5883	[redacted]	5885	2	13	12/14/05	7:38	95	60	898
BETA	1C060105U	5883	[redacted]	5885	2	14	12/14/05	7:47	103	60	973
BETA	1C060106U	5883	[redacted]	5885	2	15	12/14/05	7:51	87	60	822

COPY

MT-05-1321
pg 7 of 8

1C-06 Drains, vents, and utilities
Class 1



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F 237/273

Survey Unit Number: 1C06

(Supplemental sheet for biased measurements.)

RSDS # MT-05-1321
RCT INT/HP [redacted] BR

Label	Room	Surface	LX	LY
1C06-0101D	Corridor 39	Floor		
1C06-0102D		Floor		
1C06-0103D		Floor		
1C06-0104D		Floor		
1C06-0105D		Floor		
1C06-0201V		Ceiling		
1C06-0202V		Ceiling		
1C06-0201U		Wall 2		
1C06-0101U		Wall 1		
1C06-0102U		Wall 1		
1C06-0103U		Wall 1		
1C06-0104U		Wall 1		
1C06-0202U		Wall 1		
1C06-0105U		Wall 1		
1C06-0106U		Wall 1		
	N/A			

J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventalation system.
U-designator represents measurement on a utility drop.

COPY

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) 1-Bldg Corridor 39	SURVEY NO. IT-05-1325
PURPOSE: Lower + Upper Fulgementals	RWP NO. N/A
	DATE: 12/14/05
1C06	TIME: 1300

MAP / DRAWING

See attached

Scanned 1m² around point on ceiling. No elevated readings detected.

COPY

LEGEND:

= mrem/hr (γ) whole body

#E = mrem/hr (β+η+γ) extremity on contact

K = factor of 1000

—·—·— = radiological boundary

△# = mrem/hr neutron

(#) = swipe number

[#] = air sample number

(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5883/5885	1-7-06

Completed by: (Signature) BJ Roe		Date:
Completed by: (Print Name) BJ Roe		
Counted by: (Signature) See Attached	HP#	Date:
Counted by: (Print Name) See Attached		
Reviewed/Approved by: (Signature) David Hall		Date: 12-16-05
Reviewed/Approved by: (Print Name) J. Hollabaugh		

F 239/273

Survey No. MT-05-1325

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1				1C06-0101J
2				1C06-0102J
3				1C06-0103J
4				1C06-0104J
5				1C06-0105J
6				1C06-0106J
7				1C06-0107J
8				1C06-0108J
9				1C06-0109J
10				1C06-0110J
11				1C06-0201J
12				1C06-0202J
13				1C06-0203J
14				1C06-0204J
15				1C06-0205J
16				1C06-0206J
17				1C06-0207J
18				1C06-0208J
19				1C06-0209J
20				1C06-0210J
			N/A	

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N/A		

COPY

COMMENTS: N/A

NOTES:
1. See MD-600.36 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620A (4-98)

F 240/273

BC 12-14-05

MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_2\20051214_1616.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1325\001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_2.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL-Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/14/05	4:17:38 PM	-1	10.00	10	9	10	13	606.85	0	20.3	B	2
12/14/05	4:28:36 PM	0	2.00	490	458	0	0	575.67	925	6.5		2
12/14/05	4:31:19 PM	1	2.00	3	2	0	8	602.89	5	191.4		2
12/14/05	4:34:01 PM	2	2.00	0	0	1	6	613.79	0	0.0		2
12/14/05	4:36:43 PM	3	2.00	35	32	0	2	606.77	64	27.7		2
12/14/05	4:39:33 PM	4	2.00	1	1	0	9	607.99	2	389.2		2
12/14/05	4:42:15 PM	5	2.00	0	0	0	16	606.44	0	0.0		2
12/14/05	4:44:58 PM	6	2.00	2	0	2	17	591.89	3	286.9		2
12/14/05	4:47:40 PM	7	2.00	0	0	0	11	521.16	0	0.0		2
12/14/05	4:50:24 PM	8	2.00	2	2	1	13	487.31	5	228.8		2
12/14/05	4:53:07 PM	9	2.00	0	0	0	13	619.42	0	0.0		2
12/14/05	4:55:50 PM	10	2.00	0	0	0	5	597.11	0	0.0		2
12/14/05	4:58:33 PM	11	2.00	2	2	6	4	598.06	4	247.1		2
12/14/05	5:01:16 PM	12	2.00	0	0	2	40	597.68	0	0.0		2
12/14/05	5:03:59 PM	13	2.00	398	168	1	100	588.16	745	7.2		2
12/14/05	5:06:48 PM	14	2.00	0	0	0	10	589.23	1	1590.8		2
12/14/05	5:09:31 PM	15	2.00	0	0	2	10	560.83	1	985.8		2
12/14/05	5:12:14 PM	16	2.00	2	2	1	9	591.19	3	286.9		2
12/14/05	5:15:02 PM	17	2.00	0	0	0	11	612.46	0	0.0		2
12/14/05	5:17:45 PM	18	2.00	0	0	0	6	627.21	0	0.0		2
12/14/05	5:20:28 PM	19	2.00	0	0	0	6	598.76	0	0.0		2
12/14/05	5:23:10 PM	20	2.00	0	0	0	0	605.90	0	0.0		2

BR

MT-05-1325
8 of 8
12-14-05

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_062
Batch Ended: 12/14/05 15:45
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1325 [20] ROE 12-14-05 RLH

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.18		0.00	1.31	
A2	2	0.00	2.01		0.34	1.64	
A3	3	0.00	2.28		0.41	1.78	
A4	4	0.00	2.13		1.69	2.09	
B1	5	0.00	1.87		0.00	1.19	
B2	6	0.00	1.87		0.21	1.58	
B3	7	1.66	2.18		0.00	1.33	
B4	8	0.00	1.99		1.60	2.07	
C1	9	0.00	2.07		1.49	2.13	
C2	10	0.00	1.92		0.47	1.59	
C3	11	0.00	2.07		0.27	1.72	
C4	12	0.00	1.95		0.00	1.13	
D1	13	1.75	2.06		0.15	1.77	
D2	14	0.00	2.21		3.96	2.67	
D3	15	0.00	2.09		0.00	1.24	
D4	16	0.00	2.06		1.37	2.03	
C1	17	0.00	2.09		2.71	2.46	
C2	18	0.00	1.92		0.47	1.59	
C3	19	0.00	2.06		0.00	1.22	
C4	20	0.00	1.95		0.00	1.12	

BR BR

RLH

T-Building Corridor 39 Judgementals Upper and Lower

RSDS# MT-05-1325 *RCT:* [redacted] *RCT:* N/A

Alpha	43-68 BKG:	[illegible]	EFF:	[illegible]	PROBE AREA:	[illegible]	cm^2	Surface Eff:	[illegible]	Detector #: [illegible]
Beta	43-68 BKG:	[illegible]	EFF:	[illegible]	PROBE AREA:	[illegible]	cm^2	Surface Eff:	[illegible]	Detector #: [illegible]
Alpha Scan	43-37 BKG:	[illegible]	EFF:	[illegible]	PROBE AREA:	[illegible]	cm^2	Surface Eff:	[illegible]	Detector #: 3
Beta Scan	43-37 BKG:	[illegible]	EFF:	0.22	PROBE AREA:	[illegible]	cm^2	Surface Eff:	[illegible]	Detector #: 4

TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1C060101J	5883	[redacted]	5885	1	1	12/14/05	10:39	5	120	18
ALPHA	1C060102J	5883	[redacted]	5885	1	2	12/14/05	10:46	8	120	30
ALPHA	1C060103J	5883	[redacted]	5885	1	3	12/14/05	12:28	1	120	4
ALPHA	1C060104J	5883	[redacted]	5885	1	4	12/14/05	12:32	8	120	30
ALPHA	1C060105J	5883	[redacted]	5885	1	5	12/14/05	12:39	5	120	18
ALPHA	1C060106J	5883	[redacted]	5885	1	6	12/14/05	12:50	1	120	4
ALPHA	1C060107J	5883	[redacted]	5885	1	7	12/14/05	12:55	5	120	18
ALPHA	1C060108J	5883	[redacted]	5885	1	8	12/14/05	12:58	8	120	30
ALPHA	1C060109J	5883	[redacted]	5885	1	9	12/14/05	13:02	1	120	4
ALPHA	1C060110J	5883	[redacted]	5885	1	10	12/14/05	13:06	5	120	18
ALPHA	1C060201J	5883	[redacted]	5885	1	11	12/14/05	13:14	6	120	22
ALPHA	1C060202J	5883	[redacted]	5885	1	12	12/14/05	13:20	4	120	15
ALPHA	1C060203J	5883	[redacted]	5885	1	13	12/14/05	13:26	4	120	15
ALPHA	1C060204J	5883	[redacted]	5885	1	14	12/14/05	13:35	5	120	18
ALPHA	1C060205J	5883	[redacted]	5885	1	15	12/14/05	13:40	1	120	4
ALPHA	1C060206J	5883	[redacted]	5885	1	16	12/14/05	14:19	0	120	0
ALPHA	1C060207J	5883	[redacted]	5885	1	17	12/14/05	14:25	2	120	7
ALPHA	1C060208J	5883	[redacted]	5885	1	18	12/14/05	14:32	6	120	22
ALPHA	1C060209J	5883	[redacted]	5885	1	19	12/14/05	14:36	6	120	22
ALPHA	1C060210J	5883	[redacted]	5885	1	20	12/14/05	14:40	3	120	11
BETA	1C060101J	5883	[redacted]	5885	2	1	12/14/05	10:40	95	60	898
BETA	1C060102J	5883	[redacted]	5885	2	2	12/14/05	10:48	98	60	926
BETA	1C060103J	5883	[redacted]	5885	2	3	12/14/05	12:29	96	60	907
BETA	1C060104J	5883	[redacted]	5885	2	4	12/14/05	12:33	108	60	1020
BETA	1C060105J	5883	[redacted]	5885	2	5	12/14/05	12:40	115	60	1087
BETA	1C060106J	5883	[redacted]	5885	2	6	12/14/05	12:51	112	60	1058
BETA	1C060107J	5883	[redacted]	5885	2	7	12/14/05	12:56	127	60	1200
BETA	1C060108J	5883	[redacted]	5885	2	8	12/14/05	13:00	115	60	1087
BETA	1C060109J	5883	[redacted]	5885	2	9	12/14/05	13:03	96	60	907
BETA	1C060110J	5883	[redacted]	5885	2	10	12/14/05	13:07	115	60	1087
BETA	1C060201J	5883	[redacted]	5885	2	11	12/14/05	13:15	77	60	728
BETA	1C060202J	5883	[redacted]	5885	2	12	12/14/05	13:21	94	60	888
BETA	1C060203J	5883	[redacted]	5885	2	13	12/14/05	13:27	104	60	983
BETA	1C060204J	5883	[redacted]	5885	2	14	12/14/05	13:36	115	60	1087
BETA	1C060205J	5883	[redacted]	5885	2	15	12/14/05	13:41	114	60	1077
BETA	1C060206J	5883	[redacted]	5885	2	16	12/14/05	14:20	103	60	973
BETA	1C060207J	5883	[redacted]	5885	2	17	12/14/05	14:26	79	60	746
BETA	1C060208J	5883	[redacted]	5885	2	18	12/14/05	14:33	103	60	973
BETA	1C060209J	5883	[redacted]	5885	2	19	12/14/05	14:37	106	60	1002
BETA	1C060210J	5883	[redacted]	5885	2	20	12/14/05	14:41	107	60	1011

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pg ~~6 of 8~~ 12-14-05
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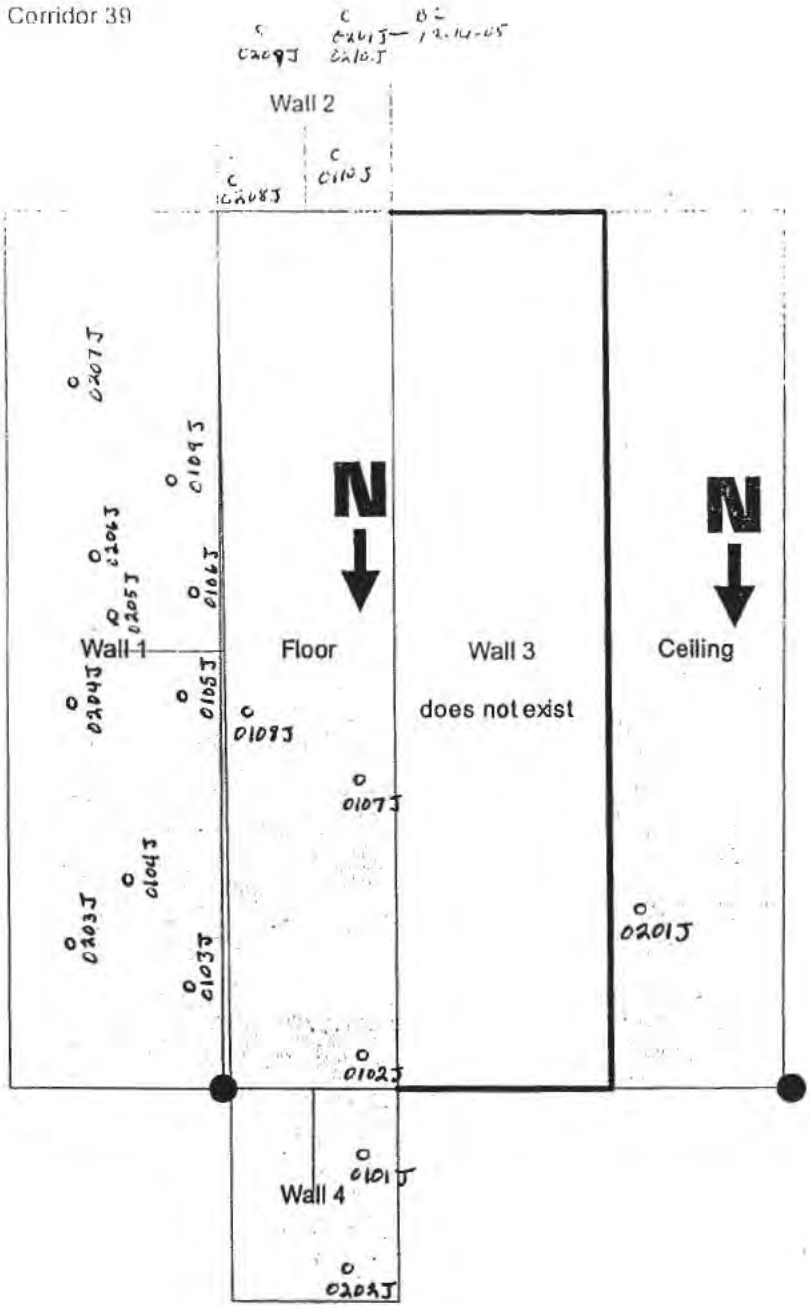
1C-06 Judgmentals
Class 1

Corridor 39



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F 245/273

Survey Unit Number: 1C-06-01 10 minimum
1C-06-02 10 minimum

(Supplemental sheet for biased measurements.)

RSDS # MT-05-1325
RCT INT/HP BR / [redacted]

Label	Room	Surface	LX	LY
1C06 - 0101 J	Corridor 39	Wall 4		
1C06 - 0102 J		Floor		
1C06 - 0103 J		Wall 1		
1C06 - 0104 J		Wall 1		
1C06 - 0105 J		Wall 1		
1C06 - 0106 J		Wall 1		
1C06 - 0107 J		Floor		
1C06 - 0108 J		Floor		
1C06 - 0109 J		Wall 1		
1C06 - 0110 J		Wall 2		
1C06 - 0201 J		Ceiling		
1C06 - 0202 J		Wall 4		
1C06 - 0203 J		Wall 1		
1C06 - 0204 J		Wall 1		A
1C06 - 0205 J		Wall 1	N	
1C06 - 0206 J		Wall 1		
1C06 - 0207 J		Wall 1		
1C06 - 0208 J		Wall 2		
1C06 - 0209 J		Wall 2		
1C06 - 0210 J		Wall 2		
	A			
N				

COPY

J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventilation system.
U-designator represents measurement on a utility drop.

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) J-Bldg. Corridor 39	SURVEY NO. MT-05-1330
PURPOSE: Lower & Upper Station	RWP NO. N/A
	DATE: 12-19-05
1C06	TIME: 1530

MAP / DRAWING

See Attached
Micro Rem Readings
Bkg. Actual
5 μrem/hr 5 μrem/hr

Scanned 1m² around each point on ceiling. No elevated readings detected

COPY

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
—·—·— = radiological boundary
△# = mrem/hr neutron
(#) = swipe number
[#] = air sample number
(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5883/5885	1-7-06
Micro Rem	3979	4-7-06

Completed by: (Signature) BJ Roe			Date: 12-19-05
Completed by: (Print Name) BJ Roe			
Counted by: (Signature) See Attached		HP#	Date:
Counted by: (Print Name) See Attached			
Reviewed/Approved by: (Signature)			Date: 1/4/06
Reviewed/Approved by: (Print Name) Jess G. Kin			

F247/223

Survey No. MT-05-133C

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See	attached		1C06-0101S
2				1C06-0102S
3				1C06-0103S
4				1C06-0104S
5				1C06-0105S
6				1C06-0106S
7				1C06-0107S
8				1C06-0108S
9				1C06-0109S
10				1C06-0110S
11				1C06-0111S
12				1C06-0112S
13				1C06-0113S
14				1C06-0114S
15				1C06-0115S
16				1C06-0116S
17				1C06-0117S
18				1C06-0118S
19				1C06-0119S
20				1C06-0120S
21				1C06-0201S
22				1C06-0202S
23				1C06-0203S
24				1C06-0204S
25				1C06-0205S
26				1C06-0206S
27				1C06-0207S
28				1C06-0208S
29				1C06-0209S
30				1C06-0210S
31				1C06-0211S
32				1C06-0212S
33				1C06-0213S
34				1C06-0214S
35				1C06-0215S

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36	See	attached		1C06-0216S
37				1C06-0217S
38				1C06-0218S
39				1C06-0219S
40				1C06-0220S
41				1C06-0221S
42				1C06-0222S

COMMENTS: N/A

NOTES:
1. See MD-80036.10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9520A (4-98)

F 246/273

BR 12-19-05

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MARSSIM Smear Data

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_3\20051219_1841.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1330 001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_3.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

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MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/19/05	6:42:05 PM	-1	10.00	9	8	10	5	615.87	0	21.3	B	3
12/19/05	6:52:54 PM	0	2.00	154	145	1	3	530.91	302	11.8		3
12/19/05	6:55:36 PM	1	2.00	1	0	0	5	525.67	2	605.7		3
12/19/05	6:58:18 PM	2	2.00	0	0	1	12	589.49	0	0.0		3
12/19/05	7:00:59 PM	3	2.00	0	0	0	0	601.81	0	0.0		3
12/19/05	7:03:42 PM	4	2.00	0	0	1	6	379.11	0	0.0		3
12/19/05	7:06:25 PM	5	2.00	1	1	2	9	434.89	3	367.6		3
12/19/05	7:09:06 PM	6	2.00	3	1	2	4	513.28	6	169.7		3
12/19/05	7:11:50 PM	7	2.00	0	0	0	13	484.80	0	0.0		3
12/19/05	7:14:31 PM	8	2.00	5	5	0	7	503.20	10	113.3		3
12/19/05	7:17:13 PM	9	2.00	0	0	0	18	542.63	0	0.0		3
12/19/05	7:19:55 PM	10	2.00	0	0	1	40	377.01	0	0.0		3
12/19/05	7:22:37 PM	11	2.00	3	3	0	4	612.83	5	191.9		3
12/19/05	7:25:18 PM	12	2.00	5	5	0	4	602.01	8	120.6		3
12/19/05	7:28:01 PM	13	2.00	138	111	0	1	589.59	258	12.5		3
12/19/05	7:30:44 PM	14	2.00	0	0	0	8	618.26	0	0.0		3
12/19/05	7:33:26 PM	15	2.00	2	1	0	10	604.46	3	294.2		3
12/19/05	7:36:08 PM	16	2.00	2	1	0	5	597.40	3	294.2		3
12/19/05	7:38:54 PM	17	2.00	0	0	0	7	615.27	0	0.0		3
12/19/05	7:41:36 PM	18	2.00	0	0	0	8	617.56	0	0.0		3
12/19/05	7:44:19 PM	19	2.00	0	0	1	0	630.43	0	0.0		3
12/19/05	7:47:00 PM	20	2.00	0	0	5	13	603.50	0	0.0		3
12/19/05	7:49:41 PM	21	2.00	1	1	3	10	625.89	2	409.9		3
12/19/05	7:52:23 PM	22	2.00	1	2	0	5	635.82	2	409.9		3
12/19/05	7:55:13 PM	23	2.00	3	3	0	4	626.76	6	164.8		3
12/19/05	7:57:56 PM	24	2.00	1	1	0	5	646.45	2	370.2		3
12/19/05	8:00:38 PM	25	2.00	0	0	0	18	620.80	0	0.0		3
12/19/05	8:03:20 PM	26	2.00	0	0	0	8	626.49	0	0.0		3
12/19/05	8:06:04 PM	27	2.00	3	4	0	4	607.09	6	164.8		3
12/19/05	8:08:46 PM	28	2.00	2	1	0	9	598.43	3	299.9		3
12/19/05	8:11:27 PM	29	2.00	1	2	0	5	635.77	2	409.9		3
12/19/05	8:14:10 PM	30	2.00	2	2	1	5	638.04	4	231.4		3
12/19/05	8:16:51 PM	31	2.00	0	0	0	0	642.72	0	0.0		3

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MARSSIM Smear Data

12/19/05	8:19:32 PM	32	2.00	3	2	0	4	630.43	5	178.5	3
12/19/05	8:22:14 PM	33	2.00	0	0	0	7	619.14	0	0.0	3
12/19/05	8:24:56 PM	34	2.00	10	8	0	3	605.29	18	65.7	3
12/19/05	8:27:43 PM	35	2.00	0	0	1	8	608.80	0	0.0	3
12/19/05	8:30:25 PM	36	2.00	1	1	1	5	615.17	1	694.7	3
12/19/05	8:33:06 PM	37	2.00	0	0	2	0	620.18	0	0.0	3
12/19/05	8:35:49 PM	38	2.00	0	1	0	0	617.81	1	1403.5	3
12/19/05	8:38:31 PM	39	2.00	5	4	0	4	618.70	9	114.6	3
12/19/05	8:41:13 PM	40	2.00	0	0	1	6	621.48	0	0.0	3
12/19/05	8:43:55 PM	41	2.00	0	0	0	6	631.58	0	0.0	3
12/19/05	8:46:37 PM	42	2.00	5	4	0	4	615.88	9	115.5	3

BR

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_077
Batch Ended: 12/19/05 10:28
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1330 ROE [42] GWD

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.18		0.00	1.31	
A2	2	0.00	2.00		0.00	1.16	
A3	3	0.00	2.26		0.00	1.26	
A4	4	0.00	2.11		0.48	1.70	
B1	5	1.52	1.91		1.02	2.06	
B2	6	0.00	1.89		1.32	1.93	
B3	7	0.00	2.18		0.00	1.33	
B4	8	0.00	1.95		0.00	1.20	
C1	9	1.69	2.05		0.00	1.23	
C2	10	0.00	1.95		2.71	2.25	
C3	11	0.00	2.06		0.00	1.22	
C4	12	0.00	1.98		1.74	1.95	
D1	13	0.00	2.05		0.00	1.25	
D2	14	0.00	2.15		0.00	1.19	
D3	15	0.00	2.10		0.18	1.75	
D4	16	0.00	2.04		0.00	1.18	
A1	17	0.00	2.18		0.00	1.31	
A2	18	0.00	2.03		1.51	2.01	
A3	19	1.93	2.28		0.23	1.78	
A4	20	0.00	2.14		2.89	2.41	
B1	21	1.52	1.91		1.02	2.06	
B2	22	0.00	1.89		1.32	1.93	
B3	23	0.00	2.24		2.84	2.65	
B4	24	0.00	1.95		0.00	1.19	
C1	25	0.00	2.05		0.00	1.23	
C2	26	0.00	1.95		2.71	2.25	
C3	27	0.00	2.06		0.00	1.22	

BL BL

~~Page 4 of 2~~ BL 12-19-05

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_077
Batch Ended: 12/19/05 10:28
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1330 ROE [42] GWD

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
C4	28	0.00	1.95		0.00	1.13	
D1	29	0.00	2.12		6.53	3.32	
D2	30	0.00	2.18		1.58	2.06	
D3	31	0.00	2.09		0.00	1.24	
D4	32	0.00	2.06		1.37	2.03	
A1	33	0.00	2.20		0.47	1.84	
A2	34	1.61	2.02		0.18	1.64	
A3	35	0.00	2.26		0.00	1.26	
A4	36	0.00	2.10		0.00	1.21	
B1	37	0.00	1.87		0.00	1.19	
B2	38	0.00	1.85		0.00	1.12	
B3	39	0.00	2.20		0.20	1.87	
B4	40	0.00	1.99		1.60	2.07	
C1	41	1.69	2.05		0.00	1.23	
C2	42	0.00	1.92		0.47	1.59	

BR BR

T-Building Lower & Upper Statics In Corridor 9

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RSDS# MT-05-1330 RCT: [redacted] RCT: N/A

Alpha	43-68 BKG:	0	EFF:	0.215	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.168	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1C060101S	5883		5885	1	1	12/15/05	13:11	7	120	26
ALPHA	1C060102S	5883		5885	1	2	12/15/05	13:15	12	120	44
ALPHA	1C060103S	5883		5885	1	3	12/15/05	13:19	9	120	33
ALPHA	1C060104S	5883		5885	1	4	12/15/05	13:23	14	120	52
ALPHA	1C060105S	5883		5885	1	5	12/15/05	13:27	6	120	22
ALPHA	1C060106S	5883		5885	1	6	12/15/05	13:31	6	120	22
ALPHA	1C060107S	5883		5885	1	7	12/15/05	13:34	15	120	55
ALPHA	1C060108S	5883		5885	1	8	12/15/05	13:38	12	120	44
ALPHA	1C060109S	5883		5885	1	9	12/15/05	13:42	8	120	30
ALPHA	1C060110S	5883		5885	1	10	12/15/05	13:48	10	120	37
ALPHA	1C060111S	5883		5885	1	11	12/15/05	14:26	6	120	22
ALPHA	1C060112S	5883		5885	1	12	12/15/05	14:30	12	120	44
ALPHA	1C060113S	5883		5885	1	13	12/15/05	14:34	3	120	11
ALPHA	1C060114S	5883		5885	1	14	12/15/05	14:38	2	120	7
ALPHA	1C060115S	5883		5885	1	15	12/15/05	14:42	3	120	11
ALPHA	1C060116S	5883		5885	1	16	12/15/05	14:46	4	120	15
ALPHA	1C060117S	5883		5885	1	17	12/15/05	14:50	3	120	11
ALPHA	1C060118S	5883		5885	1	18	12/15/05	14:54	6	120	22
ALPHA	1C060119S	5883		5885	1	19	12/15/05	14:57	3	120	11
ALPHA	1C060120S	5883		5885	1	20	12/15/05	15:02	7	120	26
ALPHA	1C060201S	5883		5885	1	21	12/16/05	7:09	7	120	26
ALPHA	1C060202S	5883		5885	1	22	12/16/05	7:19	11	120	41
ALPHA	1C060203S	5883		5885	1	23	12/16/05	7:58	7	120	26
ALPHA	1C060204S	5883		5885	1	24	12/16/05	8:08	11	120	41
ALPHA	1C060205S	5883		5885	1	25	12/16/05	8:13	2	120	7
ALPHA	1C060206S	5883		5885	1	26	12/16/05	8:24	9	120	33
ALPHA	1C060207S	5883		5885	1	27	12/16/05	8:35	3	120	11
ALPHA	1C060208S	5883		5885	1	28	12/16/05	8:39	8	120	30
ALPHA	1C060209S	5883		5885	1	29	12/16/05	8:45	4	120	15
ALPHA	1C060210S	5883		5885	1	30	12/16/05	10:00	5	120	18
ALPHA	1C060211S	5883		5885	1	31	12/16/05	10:05	9	120	33
ALPHA	1C060212S	5883		5885	1	32	12/16/05	10:09	6	120	22
ALPHA	1C060213S	5883		5885	1	33	12/16/05	10:15	4	120	15
ALPHA	1C060214S	5883		5885	1	34	12/16/05	10:19	8	120	30
ALPHA	1C060215S	5883		5885	1	35	12/16/05	10:24	8	120	30
ALPHA	1C060216S	5883		5885	1	36	12/16/05	11:50	1	120	4
ALPHA	1C060217S	5883		5885	1	37	12/16/05	11:57	1	120	4
ALPHA	1C060218S	5883		5885	1	38	12/16/05	12:01	4	120	15
ALPHA	1C060219S	5883		5885	1	39	12/16/05	12:05	2	120	7
ALPHA	1C060220S	5883		5885	1	40	12/16/05	12:09	1	120	4
ALPHA	1C060221S	5883		5885	1	41	12/16/05	12:13	6	120	22
ALPHA	1C060222S	5883		5885	1	42	12/16/05	12:17	1	120	4
BETA	1C060101S	5883		5885	2	1	12/15/05	13:13	124	60	1172
BETA	1C060102S	5883		5885	2	2	12/15/05	13:16	117	60	1105
BETA	1C060103S	5883		5885	2	3	12/15/05	13:20	185	60	1748
BETA	1C060104S	5883		5885	2	4	12/15/05	13:24	141	60	1332
BETA	1C060105S	5883		5885	2	5	12/15/05	13:28	176	60	1663
BETA	1C060106S	5883		5885	2	6	12/15/05	13:32	180	60	1701

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T-Building Lower & Upper Statics In Corri COPY

RSDS# MT-05-1330 RCT: [redacted] RCT: N/A

Alpha	43-68 BKG:	0	EFF:	0.215	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 1
Beta	43-68 BKG:	0	EFF:	0.168	PROBE AREA:	126	cm^2	Surface Eff:		0.5	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	0.22	PROBE AREA:	584	cm^2	Surface Eff:		0.5	Detector # : 4
TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
BETA	1C060107S	5883	[redacted]	5885	2	7	12/15/05	13:36	142	60	1342
BETA	1C060108S	5883	[redacted]	5885	2	8	12/15/05	13:39	184	60	1738
BETA	1C060109S	5883	[redacted]	5885	2	9	12/15/05	13:43	165	60	1559
BETA	1C060110S	5883	[redacted]	5885	2	10	12/15/05	13:49	161	60	1521
BETA	1C060111S	5883	[redacted]	5885	2	11	12/15/05	14:27	114	60	1077
BETA	1C060112S	5883	[redacted]	5885	2	12	12/15/05	14:31	106	60	1002
BETA	1C060113S	5883	[redacted]	5885	2	13	12/15/05	14:35	112	60	1058
BETA	1C060114S	5883	[redacted]	5885	2	14	12/15/05	14:39	131	60	1238
BETA	1C060115S	5883	[redacted]	5885	2	15	12/15/05	14:43	111	60	1049
BETA	1C060116S	5883	[redacted]	5885	2	16	12/15/05	14:47	99	60	935
BETA	1C060117S	5883	[redacted]	5885	2	17	12/15/05	14:51	123	60	1162
BETA	1C060118S	5883	[redacted]	5885	2	18	12/15/05	14:55	70	60	661
BETA	1C060119S	5883	[redacted]	5885	2	19	12/15/05	14:59	125	60	1181
BETA	1C060120S	5883	[redacted]	5885	2	20	12/15/05	15:03	69	60	652
BETA	1C060201S	5883	[redacted]	5885	2	21	12/16/05	7:10	88	60	831
BETA	1C060202S	5883	[redacted]	5885	2	22	12/16/05	7:20	110	60	1039
BETA	1C060203S	5883	[redacted]	5885	2	23	12/16/05	7:59	83	60	784
BETA	1C060204S	5883	[redacted]	5885	2	24	12/16/05	8:09	100	60	945
BETA	1C060205S	5883	[redacted]	5885	2	25	12/16/05	8:14	97	60	916
BETA	1C060206S	5883	[redacted]	5885	2	26	12/16/05	8:25	89	60	841
BETA	1C060207S	5883	[redacted]	5885	2	27	12/16/05	8:36	88	60	831
BETA	1C060208S	5883	[redacted]	5885	2	28	12/16/05	8:41	115	60	1087
BETA	1C060209S	5883	[redacted]	5885	2	29	12/16/05	8:46	76	60	718
BETA	1C060210S	5883	[redacted]	5885	2	30	12/16/05	10:01	93	60	879
BETA	1C060211S	5883	[redacted]	5885	2	31	12/16/05	10:06	96	60	907
BETA	1C060212S	5883	[redacted]	5885	2	32	12/16/05	10:10	91	60	860
BETA	1C060213S	5883	[redacted]	5885	2	33	12/16/05	10:16	111	60	1049
BETA	1C060214S	5883	[redacted]	5885	2	34	12/16/05	10:20	106	60	1002
BETA	1C060215S	5883	[redacted]	5885	2	35	12/16/05	10:25	114	60	1077
BETA	1C060216S	5883	[redacted]	5885	2	36	12/16/05	11:51	120	60	1134
BETA	1C060217S	5883	[redacted]	5885	2	37	12/16/05	11:58	98	60	926
BETA	1C060218S	5883	[redacted]	5885	2	38	12/16/05	12:02	117	60	1105
BETA	1C060219S	5883	[redacted]	5885	2	39	12/16/05	12:06	104	60	983
BETA	1C060220S	5883	[redacted]	5885	2	40	12/16/05	12:10	107	60	1011
BETA	1C060221S	5883	[redacted]	5885	2	41	12/16/05	12:14	121	60	1143
BETA	1C060222S	5883	[redacted]	5885	2	42	12/16/05	12:18	100	60	945

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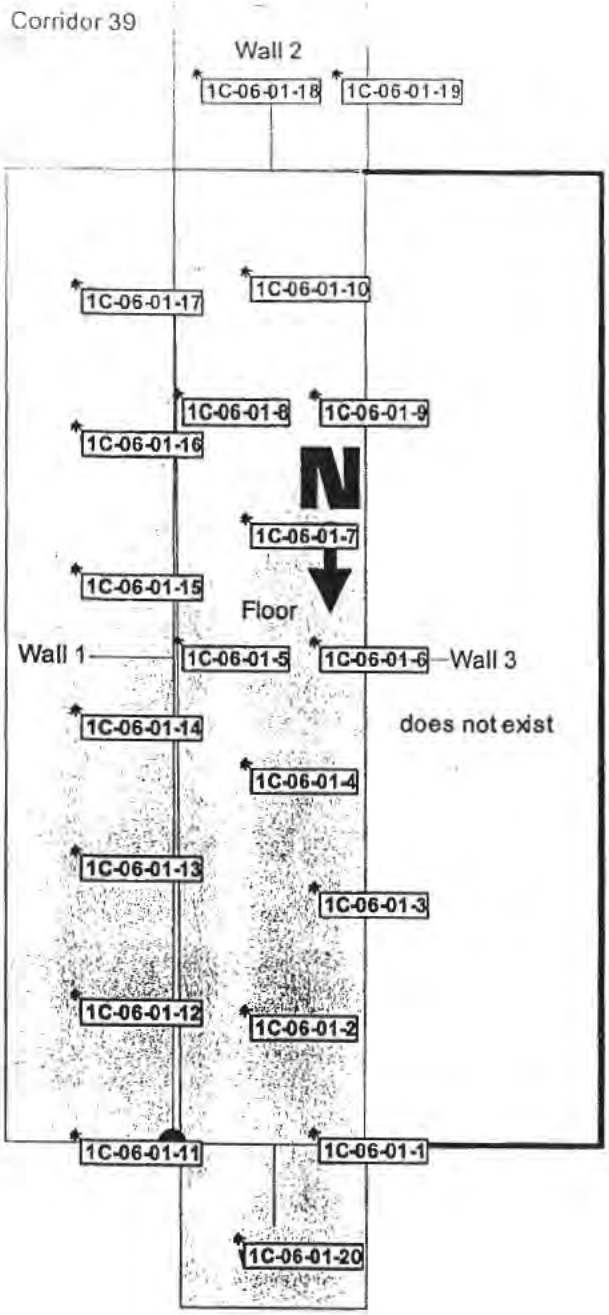
~~Pg. 12 of 13~~ 8/12 12-13
Pg. 10 of 13

1C-06-01
floor and lower wall static measurement locations

Area: Corridor 39				
Label	Type	Surface	LX	LY
1C-06-01-1	Systematic	Floor	6	1
1C-06-01-2	Systematic	Floor	3	6
1C-06-01-3	Systematic	Floor	6	11
1C-06-01-4	Systematic	Floor	3	16
1C-06-01-5	Systematic	Floor	0	21
1C-06-01-6	Systematic	Floor	6	21
1C-06-01-7	Systematic	Floor	3	26
1C-06-01-8	Systematic	Floor	0	32
1C-06-01-9	Systematic	Floor	6	32
1C-06-01-10	Systematic	Floor	3	37
1C-06-01-11	Systematic	Wall 1	0	4
1C-06-01-12	Systematic	Wall 1	6	4
1C-06-01-13	Systematic	Wall 1	12	4
1C-06-01-14	Systematic	Wall 1	18	4
1C-06-01-15	Systematic	Wall 1	24	4
1C-06-01-16	Systematic	Wall 1	30	4
1C-06-01-17	Systematic	Wall 1	36	4
1C-06-01-18	Systematic	Wall 2	1	4
1C-06-01-19	Systematic	Wall 2	7	4
1C-06-01-20	Systematic	Wall 4	5	4

1C-06-01
floor and lower wall static measurement locations

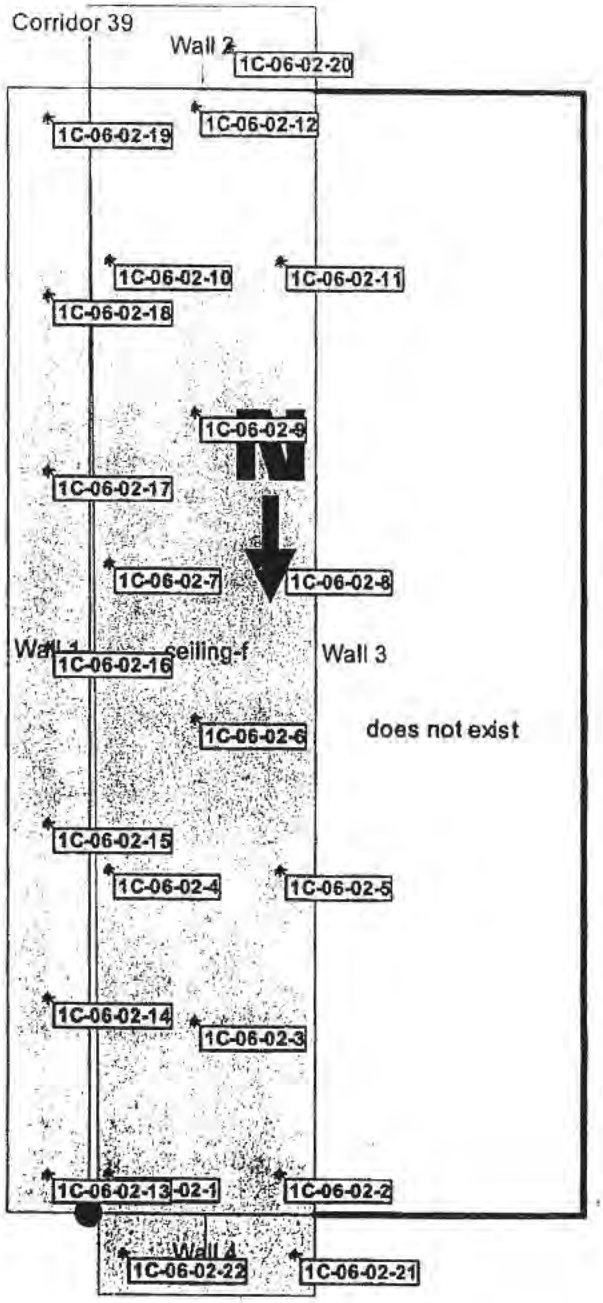


COPY

1C-06-02
ceiling and upper wall static measurement locations
scan an area of approximately 1m2 around each ceiling location

Area: Corridor 39				
Label	Type	Surface	LX	LY
1C-06-02-1	Systematic	ceiling-f	1	2
1C-06-02-2	Systematic	ceiling-f	7	2
1C-06-02-3	Systematic	ceiling-f	4	7
1C-06-02-4	Systematic	ceiling-f	1	13
1C-06-02-5	Systematic	ceiling-f	7	13
1C-06-02-6	Systematic	ceiling-f	4	18
1C-06-02-7	Systematic	ceiling-f	1	24
1C-06-02-8	Systematic	ceiling-f	7	24
1C-06-02-9	Systematic	ceiling-f	4	29
1C-06-02-10	Systematic	ceiling-f	1	35
1C-06-02-11	Systematic	ceiling-f	7	35
1C-06-02-12	Systematic	ceiling-f	4	40
1C-06-02-13	Systematic	Wall 1	1	1
1C-06-02-14	Systematic	Wall 1	8	1
1C-06-02-15	Systematic	Wall 1	14	1
1C-06-02-16	Systematic	Wall 1	21	1
1C-06-02-17	Systematic	Wall 1	27	1
1C-06-02-18	Systematic	Wall 1	33	1
1C-06-02-19	Systematic	Wall 1	40	1
1C-06-02-20	Systematic	Wall 2	5	1
1C-06-02-21	Systematic	Wall 4	1	1
1C-06-02-22	Systematic	Wall 4	7	1

1C-06-02
ceiling and upper wall static measurement locations
scan an area of approximately 1m2 around each ceiling location

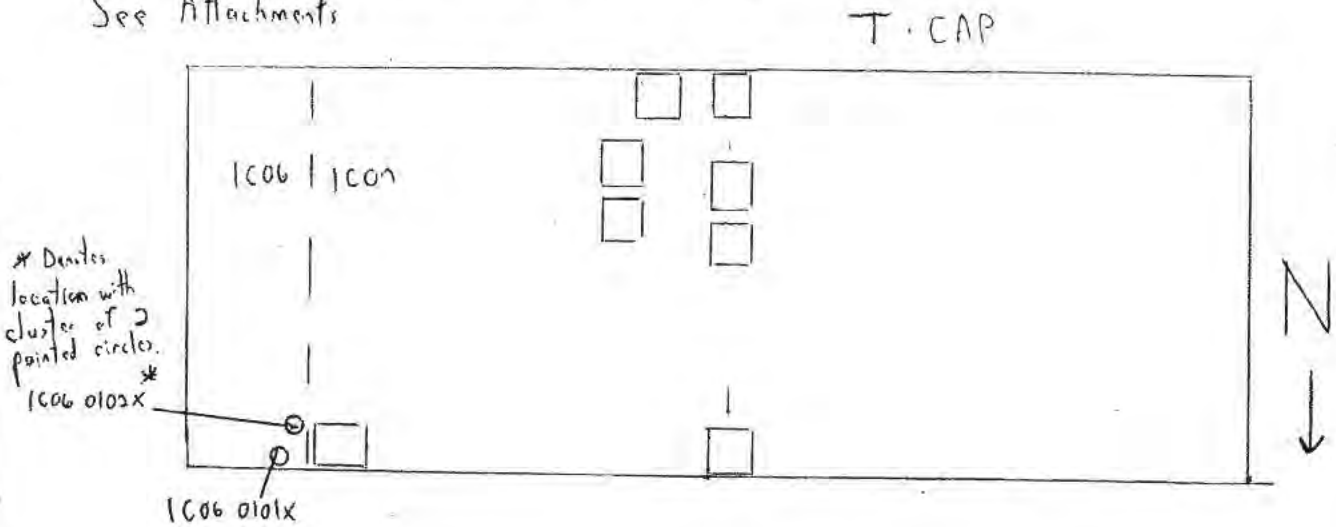


RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) T. BLDG 1C06 CORRIDOR 39	SURVEY NO. MT-05-1336
PURPOSE: Survey of Suspected Elevated Spots	RWP NO. N/A
	DATE: 12-17-05
	TIME: 1330

MAP / DRAWING

No elevated α /β readings detected during scanning
Areas around direct frisk locations also scanned.
See Attachments



See RSDS MT-05-1162 for original survey and SCM23 Summary.

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — = radiological boundary
△# = mrem/hr neutron
(#) = swipe number
[#] = air sample number
(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5895 w 5896	2-5-06
N/A	N/A	N/A
↓	↓	↓
↓	↓	↓

Completed by: (Signature) T. King		Date: 12-17-05
Completed by: (Print Name) T. King		
Counted by: (Signature) See Attachments	HP# N/A	Date: N/A
Counted by: (Print Name) See Attachments		
Reviewed/Approved by: (Signature) Jerry Taylor		Date: 12-21-05
Reviewed/Approved by: (Print Name) Jerry Taylor		

F 260/273

Survey No. M7-05-1336

Page 2 of 6 7

JH 12-21-05

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See	Attached	Sheets	1C06 0101X
2	↓	↓	↓	1C06 0102X

N/A

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments

N/A

COPY

COMMENTS: N/A

NOTES:

1. See MD-80036-10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620A (4-98)

F 261/223

Protocol# 3 - MARSSIM_Smear_3.lsa User: 5801

PM
12-20-05

MARSSIM Smear Data

MT-05-1336

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_3\20051219_1142.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1336.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_3.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				

F-62
273

4 of 6 /
2K
12-20-05

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

MT-05-1336

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/19/05	11:43:09 AM	-1	10.00	8	8	11	2	617.32	0	21.9	B	3
12/19/05	11:53:52 AM	0	2.00	173	167	0	1	533.19	339	11.0		3
12/19/05	11:56:35 AM	1	2.00	0	0	0	0	600.48	0	0.0		3
12/19/05	11:59:16 AM	2	2.00	2	2	0	0	600.80	3	313.1		3

2K

F 263/273

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_066
Batch Ended: 12/19/05 8:28
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1336 KING [2] GWD ✓

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.20		0.47	1.84	
A2	2	0.00	2.08		4.99	2.86	

JK JK

5 of 6 7

Page ~~1 of 1~~

JK
12-20-05

Page 223

(OW)

T-Building T-CAP Corridor (1C06);Survey of Suspected Elevated Spots

RSDS# MT-05-1336 *RCT:* [redacted] *RCT:* N/A

Alpha	43-68 BKG:	0	EFF:	0.2158 ✓	PROBE AREA:	126	cm²	Surface Eff:		[illegible]	Detector # : 1
Beta	43-68 BKG:	0	EFF:	[illegible] ✓	PROBE AREA:	126	cm²	Surface Eff:		[illegible]	Detector # : 2
Alpha Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm²	Surface Eff:		0.5	Detector # : 3
Beta Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm²	Surface Eff:		[illegible]	Detector # : 4

TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1C060101X	5895	[redacted]	5896	1	1	12/17/05	13:06	5	120	18
ALPHA	1C060102X	5895	[redacted]	5896	1	2	12/17/05	13:18	9	120	33 ✓
BETA	1C060101X	5895	[redacted]	5896	2	1	12/17/05	13:07	86	60	803
BETA	1C060102X	5895	[redacted]	5896	2	2	12/17/05	13:19	75	60	700 ✓

N

A

COPY

J.H 12-21-05

Survey Unit Number: 1C06

(Supplemental sheet for biased measurements.)

RSDS # MT-05-1336
RCT INT/HP J.K/[redacted]

Label	Room	Surface	LX	LY
1C06 0101X	T-CAR (1C06)	Floor	N/A	N/A
1C06 0103X	T-CAR (1C06)	Floor		
N/A	N/A	N/A		

J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventalation system.
U-designator represents measurement on a utility drop.

RADIOLOGICAL SURVEY DATA SHEET

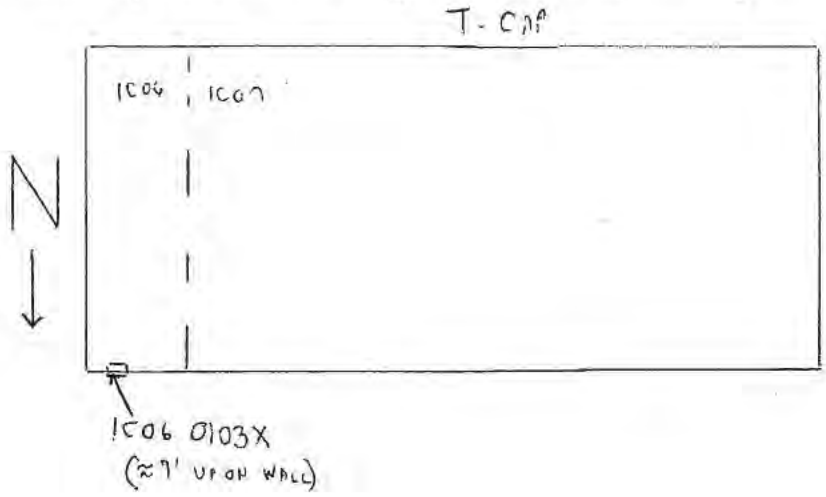
Page 1 of 6 7 34 12 21 05

LOCATION: (BLDG./AREA/ROOM)	T-BLDG 1006 CORRIDOR 39	SURVEY NO.	MT-05-1333
PURPOSE:	Investigative Survey of Suspected Elevated Spot on Wall	RWP NO.	N/A
		DATE:	12 19 05
		TIME:	0900

MAP / DRAWING

No elevated α/β readings detected during scanning
Area around direct frisk location also scanned.

See Attachments



COPY

See RSDS MT-05-1162 for original survey and SCM 23 Summary.

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · · = radiological boundary
(#) = mrem/hr neutron
(#) = swipe number
[#] = air sample number
(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2350	5895, 5896	2-5-06
N/A	N/A	N/A
↓	↓	↓
↓	↓	↓

Completed by: (Signature)	J. King		Date: 12-20-05
Completed by: (Print Name)	T. King		
Counted by: (Signature)	See Attachments	HP# N/A	Date: N/A
Counted by: (Print Name)	See Attachments		
Reviewed/Approved by: (Signature)			Date: 12-21-05
Reviewed/Approved by: (Print Name)	Jerry Taylor		

F 207/223

Survey No. M7-05-1338

Page 2 of 6 7 JH 12-21-05

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See	Attached	Sheets	1006 0103 x
		N		
		A		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		N		
		A		

COMMENTS: N/A

NOTES:
1. See MD-80036.10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If co/M room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620A (4-98)

F 268/2.73

3 of 7

JH 12-21-05

MARSSIM Smear Data

MT-05-1338

Assay Definition-

Assay Description:
MARSSIM Smear Data

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: D:\MARSSIM_LSC
Raw Results Path: C:\Packard\Tricarb\Results\5801\MARSSIM_Smear_1\20051219_1106.results
Comma-Delimited File Name: D:\MARSSIM_LSC\MT-05-1338.001
Assay File Name: C:\Packard\TriCarb\Assays\MARSSIM_Smear_1.lsa

Count Conditions-

Nuclide: H-3 Mound
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: H-3 Smear
Count Time (min): 2.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.5	18.6	1st Vial
B	2.0	18.6	1st Vial
C	40.0	2000.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Region	Half Life	Units	Reference Date	Reference Time
A				

423

12/19/05 11:23:16 AM QuantaSmart (TM) - 1.31 - Serial# 423022 Page # 2

Protocol# 1 - MARSSIM_Smear_1.lsa User: 5801

JM 12-21-05

MT-05-1338

MARSSIM Smear Data

B
C

Instrument Block Data
Machine=Tri-Carb 2900TR
Version=2.06
423022
MODEL=Tri-Carb 2900TR
VERSION=2.06
SERIAL=423022

Cycle 1 Results

DATE	TIME	S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES	P#
12/19/05	11:07:14 AM	-1	10.00	8	8	10	2	625.62	0	21.7	B	1
12/19/05	11:17:59 AM	0	2.00	428	409	2	0	552.29	824	6.9		1
12/19/05	11:20:43 AM	1	2.00	1	0	0	5	610.90	2	459.0		1

JM

F 2/13/06

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: Mar_075
Batch Ended: 12/19/05 10:15
Cal. Due Date: 11/17/06
Serial Number: 26966-3

Batch ID: MT-05-1338 KING [1] GWD ✓

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.18		0.00	1.31	

2.H 2.H

5 of 6 7

2.H 12-21-05

GWD

F 91/92

T-Building T-CAP (1C06);Survey of Suspected Elevayed Spot

RSDS# MT-05-1338 *RCT:* [redacted] *RCT:* N/A

Alpha	43-68 BKG:	0	EFF:	0.2166 ✓	PROBE AREA:	126	cm^2	Surface Eff:		Detector # :	1
Beta	43-68 BKG:	0	EFF:	0.17 ✓	PROBE AREA:	126	cm^2	Surface Eff:		Detector # :	2
Alpha Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		Detector # :	3
Beta Scan	43-37 BKG:	0	EFF:	N/A	PROBE AREA:	584	cm^2	Surface Eff:		Detector # :	4

TYPE	LOCATION	2350#	RCT ID	PROBE	DET #	Item	DATE	TIME	CNTS	CT TIME	dpm/100cm2
ALPHA	1C060103X	5895	[redacted]	5896	1	1	12/19/05	8:37	3	120	11 ✓
BETA	1C060103X	5895	[redacted]	5896	2	1	12/19/05	8:38	59	60	551 ✓

N

A

PM 12-21-05

Survey Unit Number: 1C06

(Supplemental sheet for biased measurements.)

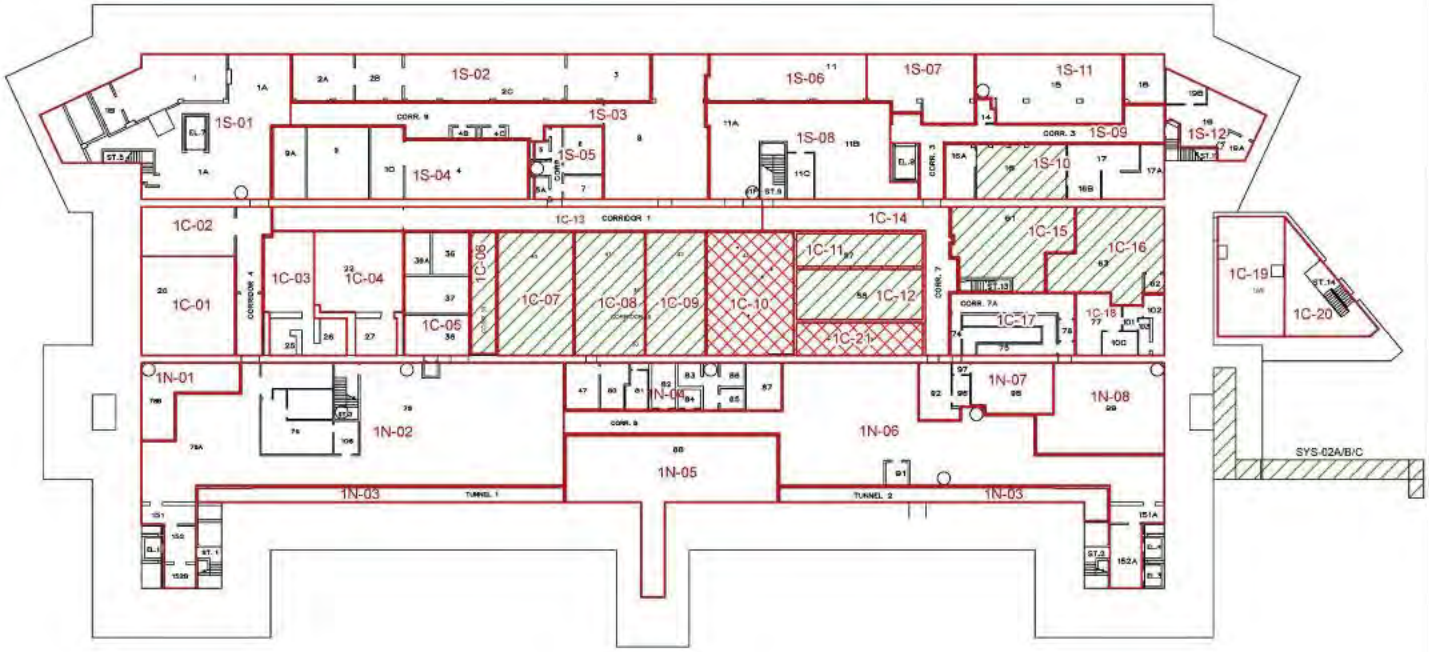
RSDS # M7-05-1335

RCT INT/HP JH / [redacted]

Label	Room	Surface	LX	LY
1C06 0103X	7-CAP (1C06)	North Wall	N/A	N/A
N/A	N/A	N/A		
↓	↓	↓	↓	↓

COPY

J- designator represents measurement as judgmental location
E-designator represents measurement as potentially elevated activity.
D-designator represents measurement at a drain.
V-designator represents measurement on ventalation system.
U-designator represents measurement on a utility drop.



T - BLDG. FIRST FLOOR

Legend

Controlled Area

- Removal Prohibition
- Penetration Prohibition

SCALE IN FEET

0 25 50 100

N

U.S. DEPARTMENT OF ENERGY GRAND JUNCTION, COLORADO	Work Performed by **S.M. Stoller Corporation** Under DOE Contract No. DE-AM01-07LM00000
Mound Site T Building Controlled Areas	
DATE PREPARED May 30, 2013	FILENAME S0914100

M:\LTS\111\0061\20\000\S09141\S0914100.mxd brownc 05/30/2013 12:01:05 PM