Survey SA0602F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0602F ranged from 42 to 522 dpm/pixel. 100 cm^2 data ranged from 42 to 1,740 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

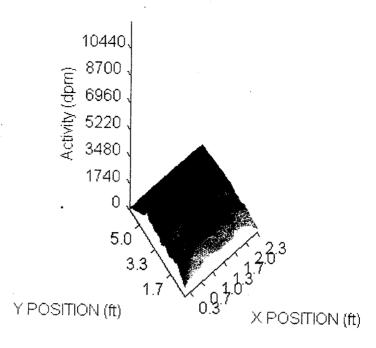


Figure 1 Image plot of surface activity in dpm/25cm²

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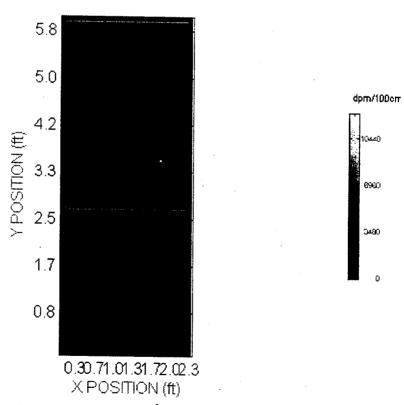


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-06-1999 Time: 13:59:12

SA0602F-2

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X	Y	Mean	Max	Min	STD	Pixels
1	2	1,134	1,740	221	425.8	280
1	1	1,332	1,739	571	242.7	224

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (1,1) and Grids (1,1) - (1,2) are not one square meter. Bold text denotes grids which exceed release limits

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 1058 dpm/100 cm^2 to the survey criteria.

Criteria

1000 dpm/100 $\overline{\text{cm}^2}$, averaged over 1m^2 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

2058 dpm/100 cm², averaged over $1m^2$ 4058 dpm/100 cm², maximum in 100 cm²

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

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

Survey SA0603E was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 66%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm^2 sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered.

Total measured activity for SA0603E ranged from 35 to 360 dpm/pixel. 100 cm^2 data ranged from 49 to 1,094 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

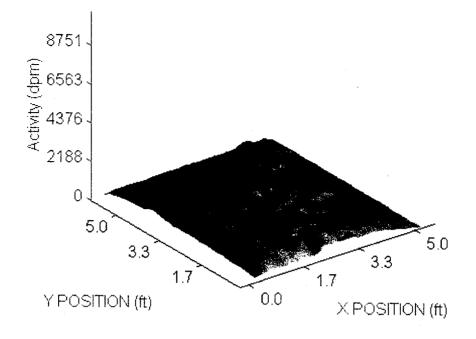


Figure 1 Image plot of surface activity in dpm/25cm²

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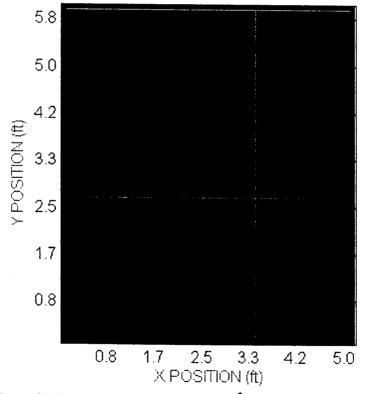


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 16:38:59 SA0603E-2

X	Y	Mean	Max	Min	STD	Pixels
1	2	720	1,069	278	139.6	400
2	2	698	1,006	236	167.0	220
1	1	736	1,093	288	147.4	320
2	1	624	940	179	182.3	176

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (2,1) and Grids (2,1) - (2,2) are not one square meter. Bold text denotes grids which exceed release limits

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

<u>Total Activity Limits</u> 1554 dpm/100 cm², averaged over 1m² $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0603F was conducted on January 21, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0603F ranged from 33 to 346 dpm/pixel. 100 cm^2 data ranged from 33 to 1,014 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

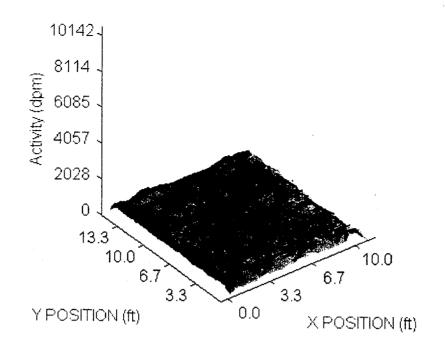


Figure 1 Image plot of surface activity in dpm/25cm²

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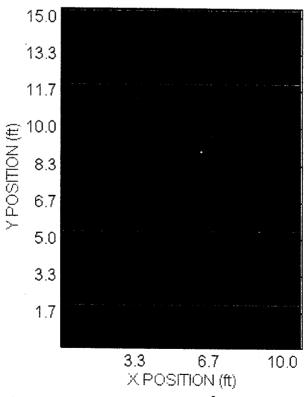


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 16:39:28

SA0603F-2

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X	Y	Mean	Max	Min	STD	Pixels
1	5	590	801	284	97.8	400
2	5	584	889	223	119.6	400
3	5	575	756	214	109.9	400
4	5	473	810	172	141.4	100
1	4	642	793	360	79.2	400
2	4	622	763	500	57.2	400
3	4	708	946	493	67.2	400
4	4	525	770	319	107.5	100
1	3	577	753	391	58.3	400
2	3	620	748	492	55.4	400
3	3	684	978	528	77.7	400
4	3	438	739	262	116.9	100
1	2	605	754	374	69.2	400
2	2	639	794	505	54.1	400
3	2	615	878	441	70.0	400
4	2	446	600	265	90.9	100
1	1	570	727	236	102.5	240
2	1	634	1,014	374	101.0	240
3	1	632	836	371	89.9	240
4	1	522	744	299	111.4	60

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (4,1) and Grids (4,1) - (4,5) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date: 02-04-1999 Time: 16:39:28 SA

SA0603F-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0603S was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 66%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0603S ranged from 54 to 404 dpm/pixel. 100 cm^2 data ranged from 58 to 1,254 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

SA0603S-1

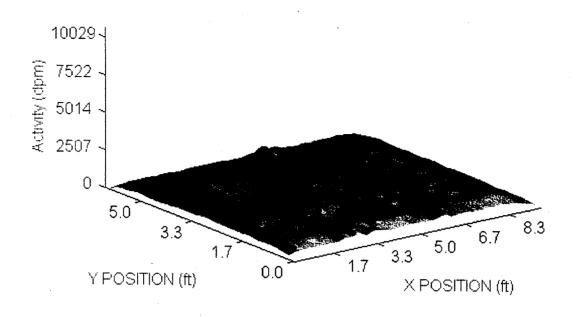


Figure 1 Image plot of surface activity in dpm/25cm²

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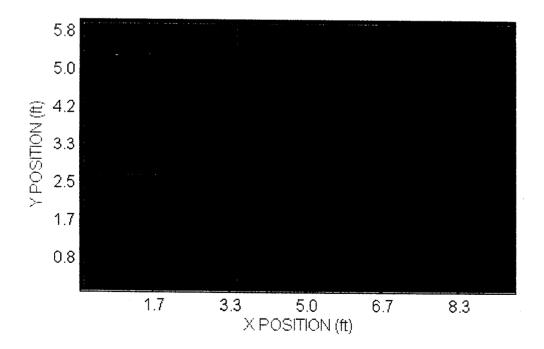


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 16:40:09 SA0603S-2

X	Y	Mean	Max	Min	STD	Pixels
1	2	800	1,253	313	182.9	400
2	2	756	1,091	401	102.9	400
3	2	742	960	298	143.0	340
1	1	701	994	330	114.8	320
2	1	736	949	487	79.0	320
3	1	720	939	264	140.3	272

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (3,1) and Grids (3,1) - (3,2) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date: 02-04-1999 Time: 16:40:09

SA0603S-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

1000 dpm/100 cm^2 , averaged over 1m^2 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0604E was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 66%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm^2 sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0604E ranged from 176 to 848 dpm/pixel. 100 cm^2 data ranged from 176 to 2,972 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

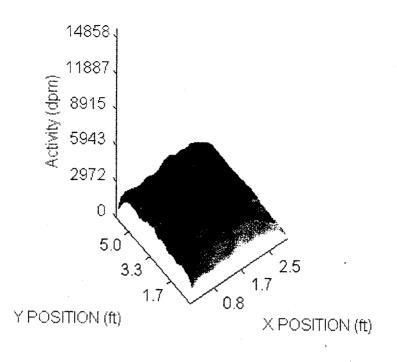


Figure 1 Image plot of surface activity in dpm/25cm²

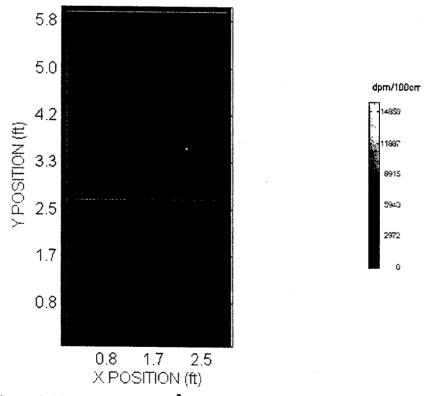


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-06-1999 Time: 14:00:37 SA0604E-2

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X	Y	Mean	Max	Min	STD	Pixels
1	2	2,373	2,925	1,248	346.6	360
1	1	2,365	2,971	1,137	429.2	288

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

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 2208 dpm/100 cm^2 to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

 $3208 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $5208 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

SA0604E-4

Survey SA0604F was conducted on January 21, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm^2 sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0604F ranged from 0 to 481 dpm/pixel. 100 cm^2 data ranged from 0 to 1,439 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

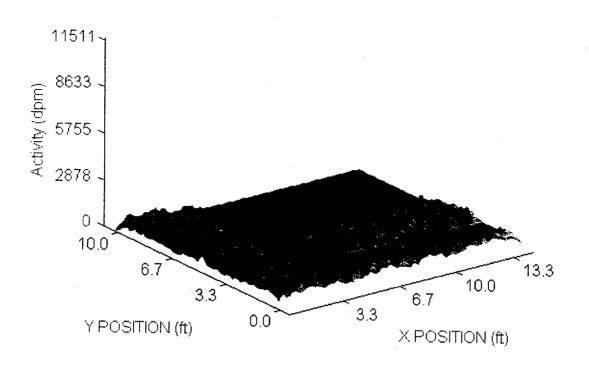


Figure 1 Image plot of surface activity in dpm/25cm²

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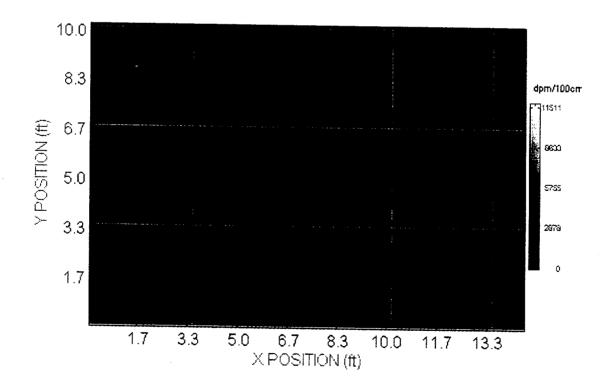


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 18:30:59 SA0604F-2

X	Y	Mean	Max	Min	STD	Pixels
1	4	875	1,400	304	194.4	400
2	4	484	1,117	0	307.6	180
3	4	0	0	0	.0	0
4	4	0	0	0	.0	0
5	4	0	0	0	.0	0
1	3	867	1,256	406	124.8	400
2	3	580	1,107	0	305.8	345
3	3	668	1,152	0	410.7	300
4	3	657	1,438	0	410.0	300
5	3	586	1,061	0	367.4	105
1	2	873	1,096	525	106.6	400
2	2	776	1,197	484	100.4	400
3	2	840	1,059	598	76.0	400
4	2	866	1,194	592	75.7	400
5	2	793	1,234	449	150.6	140
1	1	0	0	0	.0	20
2	1	0	0	0	.0	20
3	1	0	0	0	.0	20
4	1	0	0	0	.0	20
5	1	0	0	0	.0	7

Table 1 $dpm/100cm^2$ averaged over one square meter. Grids (1,1) - (5,1) and Grids (5,1) - (5,4) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date: 02-04-1999 Time: 18:30:59 SA0604F-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 894 dpm/100 cm² to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \overline{\text{cm}^2}$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

<u>Total Activity Limits</u> 1894 dpm/100 cm², averaged over 1m² $3894 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0604S was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 66%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0604S ranged from 154 to 937 dpm/pixel. 100 cm^2 data ranged from 216 to 3,120 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

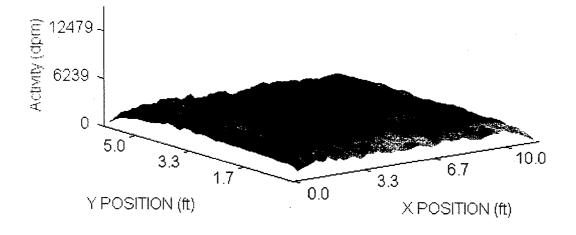


Figure 1 Image plot of surface activity in dpm/25cm²

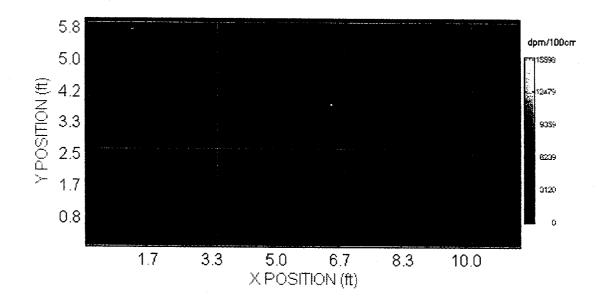


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-05-1999 Time: 17:21:46 SA0604S-2

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X	Y	Mean	Max	Min	STD	Pixels
1	2	2,618	2,963	1,177	264.6	400
2	2	2,555	3,087	1,571	219.3	400
3	2	2,633	3,119	1,721	197.8	400
4	2	2,256	2,854	1,123	394.8	160
1	1	2,523	2,911	1,308	277.7	320
2	1	2,585	2,942	1,601	274.8	320
3	1	2,498	2,788	1,444	219.4	320
4	1	2,162	2,699	956	424.9	128

Table 1 dpm/100cm² averaged over one square meter. Grids $(1,1) \cdot (4,1)$ and Grids $(4,1) \cdot (4,2)$ are not one square meter. Bold text denotes grids which exceed release limits

SA0604S-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 2208 dpm/100 cm^2 to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

 $3208 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $5208 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0604W was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 66%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0604W ranged from 110 to 1,116 dpm/pixel. 100 cm^2 data ranged from 110 to 3,225 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

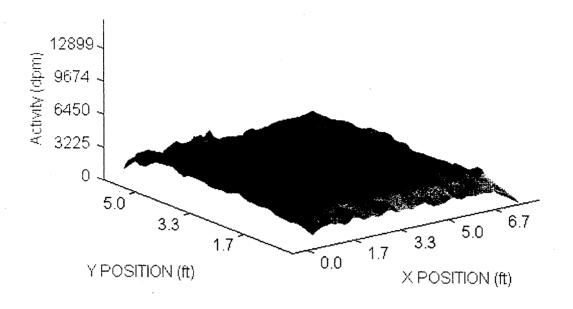


Figure 1 Image plot of surface activity in dpm/25cm²

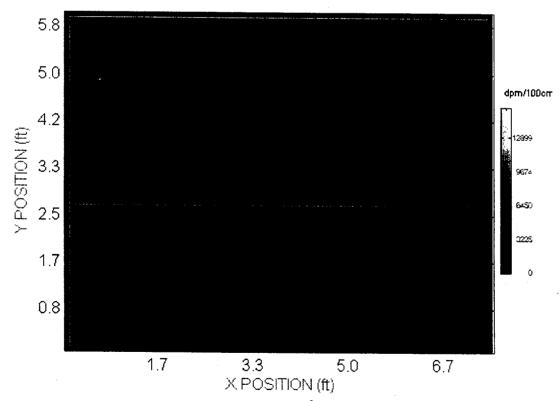


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-05-1999 Time: 17:20:21 SA0604W-2

X	Y	Mean	Max	Min	STD	Pixels
1	2	2,675	3,224	1,512	282.3	400 ···
2	2	2,662	3,010	1,514	232.7	400
3	2	1,890	2,541	607	502.4	100
1	1	2,543	2,851	1,422	276.4	320
2	1	2,575	2,891	1,611	263.8	320
3	1	1,893	3,014	720	528.0	80

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (3,1) and Grids (3,1) - (3,2) are not one square meter. Bold text denotes grids which exceed release limits

SA0604W-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 2208 dpm/100 cm^2 to the survey criteria.

Criteria

1000 dpm/100 cm², averaged over $1m^2$ 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

 $3208 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $5208 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

(Filtered) (Primary) Date: 02-05-1999 Time: 17:20:21 SA0604W-4

Survey SA0605F was conducted on January 23, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm^2 sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0605F ranged from 0 to 506 dpm/pixel. 100 cm^2 data ranged from 0 to 1,042 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

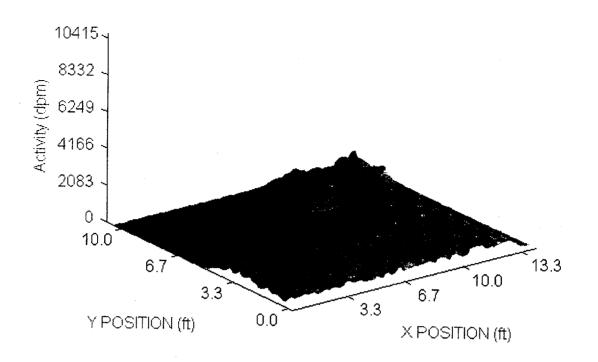


Figure 1 Image plot of surface activity in dpm/25cm²

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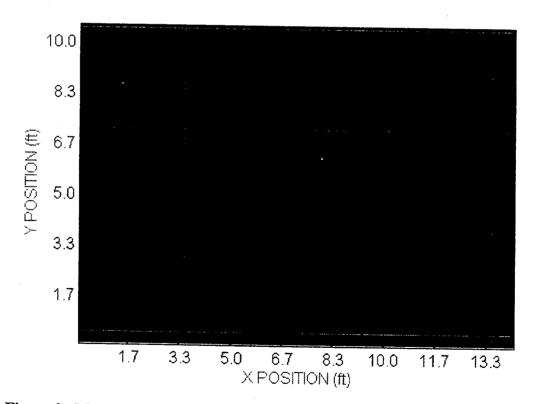


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 16:40:39 SA0605F-2

7-1

X	Y	Mean	Max	Min	STD	Pixels
1	4	0	0	0	.0	0
2	4	0	0	0	.0	0
3	4	330	672	0	207.8	187
4	4	537	957	0	153.3	391
5	4	459	1,017	40	259.2	97
1	3	247	596	0	166.2	180
2	3	231	671	0	160.1	180
3	3	226	717	0	156.2	180
4	3	413	742	0	185.5	366
5	3	175	365	26	88.4	80
1	2	503	1,021	343	88.3	400
2	2	525	892	296	115.3	400
3	2	546	1,041	281	122.6	400
4	2	542	924	265	108.1	400
5	2	160	344	24	85.1	80
1	1	421	573	300	63.2	60
2	1	407	733	194	106.7	60
3	1	480	643	349	70.7	60
4	1	540	994	313	155.5	60
5	1	165	321	28	106.5	12

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (5,1) and Grids (5,1) - (5,4) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date: 02-04-1999 Time: 16:40:39

SA0605F-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0701F was conducted on January 19, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm^2 sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0701F ranged from 0 to 404 dpm/pixel. 100 cm^2 data ranged from 0 to 1,097 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

7

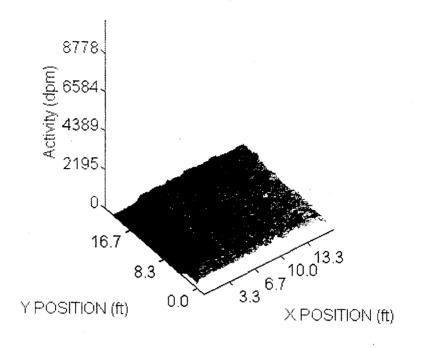


Figure 1 Image plot of surface activity in dpm/25cm²

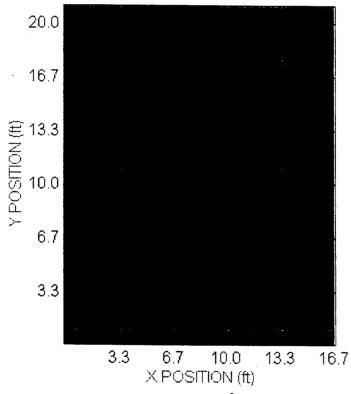


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 16:42:17

SA0701F-2

X	Y	Mean	Max	Min	STD	Pixels
1	7	145	277	0	66.7	80
2	7	516	760	274	92.9	400
3	7	550	821	265	93.2	400
4	7	554	772	303	71.5	400
5	7	530	808	157	124.7	400
1	6	133	241	. 0	59.8	80
2	6	589	899	329	103.8	400
3	6	594	835	413	71.3	400
4	6	639	1,097	419	106.8	400
5	. 6	607	906	215	92.6	400
1	5	140	221	0	61.8	80
2	5	578	979	293	82.1	400
3	5	603	1,044	362	80.9	400
4	5	583	895	460	76.5	400
5	5	587	822	246	111.9	400
1	4	143	251	0	64.3	80
2	4	594	900	372	89.2	400
3	4	594	930	439	77.5	400
4	4	576	756	448	39.2	400
5	4	559	865	227	120.5	400
1	3	140	238	0	63.5	80
2	3	591	914	339	88.6	400
3	3	594	1,001	371	95.9	400
4	3	581	853	432	61.2	400
5	3	571	852	236	95.2	400
1	2	430	732	19	179.6	400
2	2	553	724	332	52.2	400
3	· 2	568	849	405	57.9	400
4	2	586	757	411	61.0	400
5	2	568	776	250	94.7	400
1	1	480	581	247	75.7	120
2	1	464	617	349	57.3	120
3	1	529	725	348	83.2	120
4	1	563	933	323	118.3	120
5	1	455	628	203	96.7	120

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (5,1) and Grids (5,1) - (5,7) are not one square meter. Bold text denotes grids which exceed release limits

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

<u>Criteria</u>

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

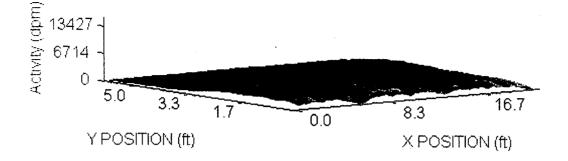
Survey SA0701N was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 66%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

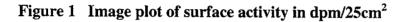
Surface Activity Levels

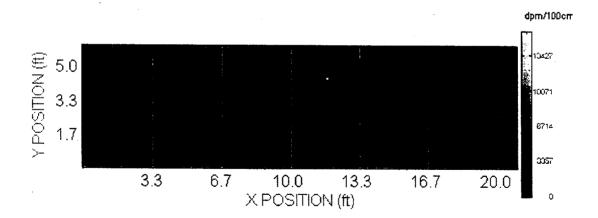
The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

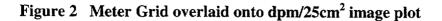
Total measured activity for SA0701N ranged from 26 to 961 dpm/pixel. 100 cm^2 data ranged from 40 to 3,357 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data









(Filtered) (Primary) Date: 02-05-1999 Time: 17:29:14 SA0701N-2

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X	Y	Mean	Max	Min	STD	Pixels
1	2	1,299	2,780	166	784.7	400
2	2	1,444	2,731	120	819.5	400
3	2	2,005	2,879	336	732.4	400
. 4	2	1,689	2,578	384	656.6	400
5	2	929	1,855	287	424.5	400
6	2	1,492	2,679	296	751.8	400
7	2	1,420	2,534	203	696.4	120
1	1	2,257	2,812	1,339	277.3	320
2	1	1,822	2,717	482	772.3	320
3	1	2,380	3,356	1,477	267.1	320
4	1	2,054	2,548	977	432.5	320
5	1	1,894	2,831	774	441.0	320
6	1	2,166	2,604	1,271	261.3	320
7	1	1,582	2,149	610	412.6	96

Table 1 dpm/100cm² averaged over one square meter. Grids $(1,1) \cdot (7,1)$ and Grids $(7,1) \cdot (7,2)$ are not one square meter. Bold text denotes grids which exceed release limits

SA0701N-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 2208 dpm/100 cm^2 to the survey criteria.

$\frac{Criteria}{1000 \text{ dpm}/100 \text{ cm}^2, \text{ averaged over } 1\text{m}^2}$ 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

 $3208 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $5208 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0701S was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 66%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm^2 sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0701S ranged from 0 to 478 dpm/pixel. 100 cm^2 data ranged from 0 to 1,309 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

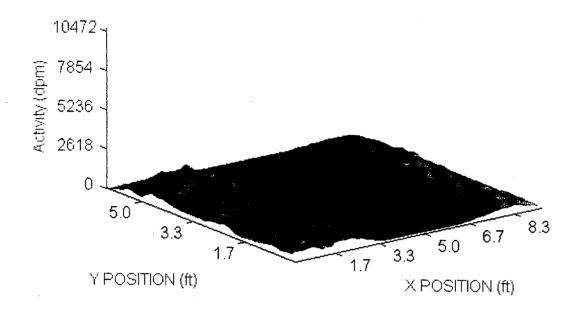


Figure 1 Image plot of surface activity in dpm/25cm²

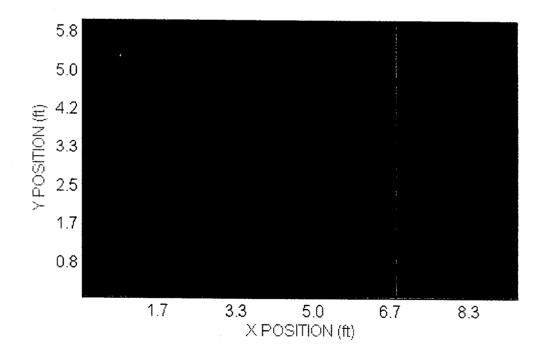


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 16:43:19

SA0701S-2

X	Y	Mean	Max	Min	STD	Pixels
1	2	583	1,309	179	156.5	400
2	2	80	128	0	27.0	40
3	2	414	768	33	172.8	320
1	1	605	1,015	247	144.2	320
2	1	74	121	0	25.2	32
3	1	416	869	60	174.2	256

Table 1 dpm/100cm² averaged over one square meter. Grids $(1,1) \cdot (3,1)$ and Grids $(3,1) \cdot (3,2)$ are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date: 02-04-1999 Time: 16:43:19 SA0701S-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

<u>Criteria</u>

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0701W was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 66%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm^2 sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0701W ranged from 48 to 607 dpm/pixel. 100 cm^2 data ranged from 90 to 1,596 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

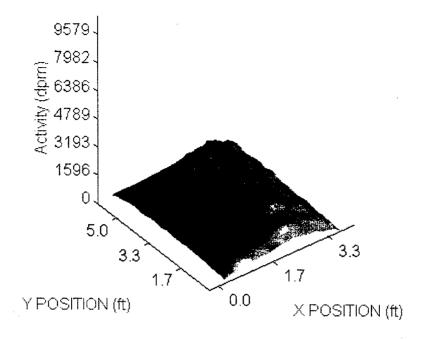
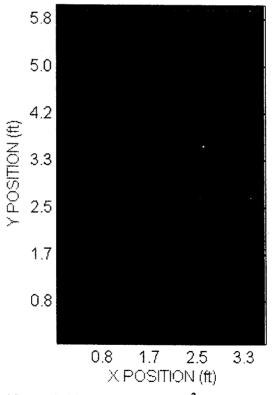
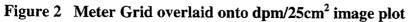


Figure 1 Image plot of surface activity in dpm/25cm²





(Filtered) (Primary) Date: 02-04-1999 Time: 16:43:49

SA0701W-2

1-1

X	Y	Mean	Max	Min	STD	Pixels
1	2	867	1,596	239	254.2	400
2	2	753	0	0	114.3	40
1	1	799	1,302	272	233.3	320
2	1	534	0	0	98.1	32

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (2,1) and Grids (2,1) - (2,2) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date: 02-04-1999 Time: 16:43:49

SA0701W-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0702F was conducted on January 19, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

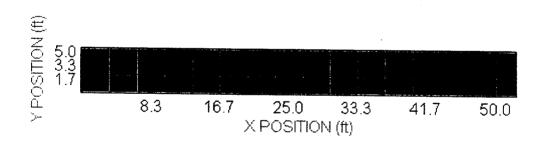
Total measured activity for SA0702F ranged from 0 to 445 dpm/pixel. 100 cm^2 data ranged from 0 to 1,010 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data



Figure 1 Image plot of surface activity in dpm/25cm²

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(Filtered) (Primary) Date: 02-04-1999 Time: 16:44:20 SA0702F-2

Χ	Y	Mean	Max	Min	STD	Pixels
1	2	622	977	317	106.7	400
2	2	598	919	331	82.5	400
3	2	594	868	309	92.3	400
4	2	589	854	230	113.9	400
5	2	577	869	286	95.6	400
6	2	475	971	0	196.5	355
7	2	508	881	0	207.0	340
8	2	487	705	0	208.6	340
9	2	494	887	0	226.9	340
10	2	497	919	0	222.4	364
11	2	639	943	330	97.9	400
12	2	613	783	288	98.5	400
13	2	611	990	324	90.1	400
14	2	584	795	241	91.2	400
15	2	620	847	287	78.1	400
16	2	508	630	196	98.7	300
1	1	567	791	276	88.3	260
2	1	605	789	366	71.5	260
3	1	619	879	358	63.4	260
4	1	625	783	333	83.5	260
5	1	563	670	301	76.4	260
6	1	150	317	0	79.6	63
7	1	0	0	0	.0	0
8	1	0	0	0	.0	0
9	1	0	0	0	.0	0 ·
10	1	242	511	0	146.1	104
11	1	641	1,009	343	123.2	260
12	1	633	1,000	399	93.7	260
13	1	600	851	328	99.6	260
14	1	525	752	316	65.1	260
15	1	566	904	363	88.1	260
16	1	558	687	228	100.0	195

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (16,1) and Grids (16,1) - (16,2) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date: 02-04-1999 Time: 16:44:20

SA0702F-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

1554 dpm/100 cm², averaged over $1m^2$ 3554 dpm/100 cm², maximum in 100 cm²

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

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

(Filtered) (Primary) Date: 02-04-1999 Time: 16:44:20

SA0702F-4

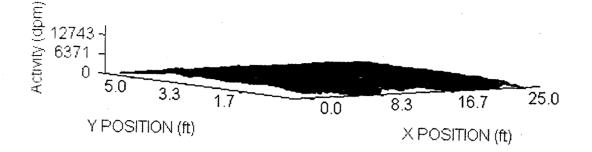
Survey SA0702N was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 66%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

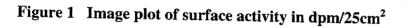
Surface Activity Levels

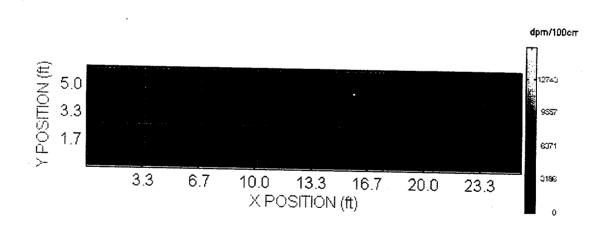
The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

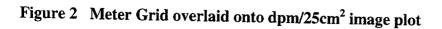
Total measured activity for SA0702N ranged from 0 to 1,117 dpm/pixel. 100 cm^2 data ranged from 0 to 3,186 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data









(Filtered) (Primary) Date: 02-05-1999 Time: 17:18:56 SA0702N-2

1-1

X	Y	Mean	Max	Min	STD	Pixels
• 1	2	1,931	3,108	336	735.7	400
2	2	1,625	2,850	0	1040.9	300
3	2	1,296	3,006	0	932.7	220
4	2	1,674	2,855	433	633.2	400
5	2	1,589	2,522	74	756.6	400
6	2	0	0	0	.0	0
7	2	612	1,702	0	397.8	140
8	2	1,363	2,412	128	696.8	280
1	1	2,295	2,780	1,180	291.0	320
2	1	1,924	3,185	0	1095.1	240
3	1	1,490	2,730	0	992.0	176
4	1	1,870	2,815	842	418.1	320
5	1	1,769	2,558	261	577.0	320
6	1	0	0	0	.0	0
7	1	837	2,068	0	541.2	112
8	1	1,638	2,846	240	696.9	224

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

SA0702N-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 2208 dpm/100 cm^2 to the survey criteria.

<u>Criteria</u>

1000 dpm/100 $\overline{\text{cm}^2}$, averaged over 1m^2 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

 $3208 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $5208 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

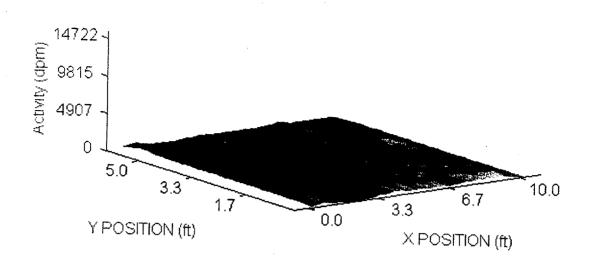
Survey SA0702S was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 66%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

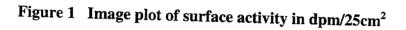
Surface Activity Levels

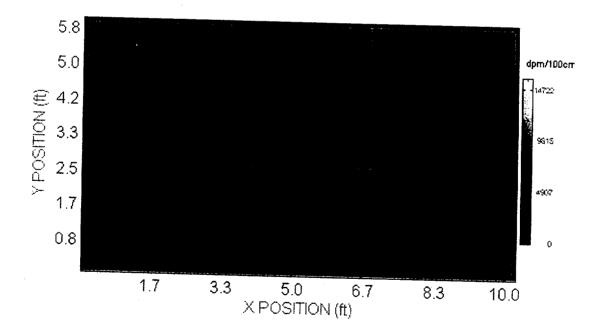
The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

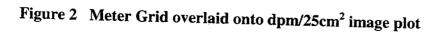
Total measured activity for SA0702S ranged from 0 to 391 dpm/pixel. 100 cm^2 data ranged from 0 to 981 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data









(Filtered) (Primary) Date: 02-05-1999 Time: 17:12:41 SA0702S-2

X	Y	Mean	Max	Min	STD	Pixels
1	2	386	981	0	239.0	360
2	2	610	886	327	112.6	400
3	2	608	976	225	126.1	400
4	2	0	0	0	.0	20
1	1	391	946	0	240.1	288
2	1	583	906	342	87.1	320
3	1	612	833	314	94.6	320
4	1	0	0	0	.0	16

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (4,1) and Grids (4,1) - (4,2) are not one square meter. Bold text denotes grids which exceed release limits

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 2208 dpm/100 cm^2 to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

 $3208 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $5208 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

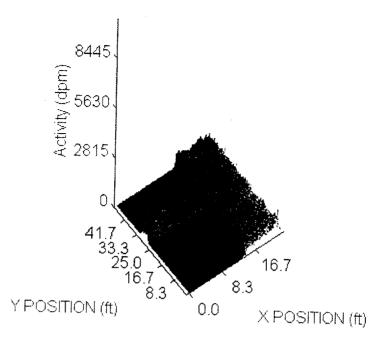
Survey SA0703F was conducted on January 19, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

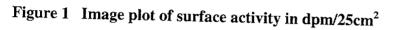
Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0703F ranged from 0 to 597 dpm/pixel. 100 cm^2 data ranged from 0 to 1,407 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data





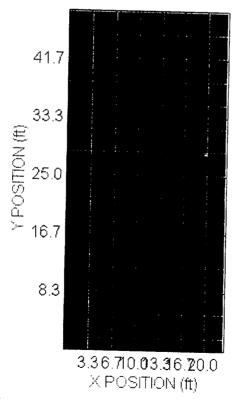


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 16:45:28

SA0703F-2

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X	Y	Mean	Max	Min	STD	Pixels
1	15	0	0	0	.0	0
2	15	0	0	0	.0	0
3	15	0	0	0	.0	0
4	15	0	0	0	.0	0
5	15	533	1,174	0	278.3	360
6	15	600	1,012	271	131.6	400
7	15	628	1,023	230	136.6	340
1	14	0	0	0	.0	0
2	14	0	0	0	.0	0
3	14	0	0	0	.0	0
4	14	0	0	0	.0	0
5	14	557	1,034	0	284.0	360
6	14	618	1,092	305	128.6	400
7	14	648	996	277	121.2	340
1	13	0	0	0	.0	0
2	13	0	0	0	.0	0
3	13	0	0	0	.0	0
4	13	0	0	0	.0	0
5	13	577	1,407	0	319.7	360
6	13	688	1,177	292	141.7	400
7	13	659	1,228	330	137.3	340
1	12	0	0	0	.0	0
2	12	0	0	0	.0	0
3	12	0	0	0	.0	0
4	12	0	0	0	.0	0
5	12	549	1,164	0	289.0	360
6	12	647	1,128	277	137.3	400
7	12	653	1,271	238	158.9	340
1	11	385	1,157	0	284.1	220
2	11	391	1,044	0	278.5	220
3	11	389	896	0	271.9	220
4	11	396	936	0	278.6	220
5	11	538	1,121	0	234.0	382
6	11	640	1,192	310	143.9	400
7	11	624	908	255	102.1	340
1	10	607	988	258	126.0	400
2	10	614	910	236	114.2	400
3	10	613	1,083	289	128.1	400
4	10	686	1,331	329	155.9	400
5	10	641	1,108	281	129.6	400
6	10	628	1,170	196	165.1	400
7	10	655	1,114	241	130.7	340
1	9	137	175	0	43.8	60
2	9	147	179	0	48.2	60
3	9	145	169	0	46.7	60

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4	9	134	158	0	42.1	60
5	9	559	1,310	0	289.9	366
6	9	663	1,139	307	161.8	400
7	9	<u> </u>	945	371	99.3	340
1	8	0	0	0	.0	0 1
2	8	0	0	0	.0	0
3	8	0	0	0	.0	0
4	8	0	0	0	.0	0
5	8	532	1,072	0	267.6	360
6	8	634	1,072	327	125.2	400
7	8	609	923	264	102.4	340
1		009	0	0	.0	0
2	7	0	0	0	.0	0,
3	7	0	0	0	.0	0
	7	0	0	0	.0	
4 5	7	523	1,206	0	.0 268.7	360 1
6	7	<u> </u>	1,130	284	129.8	400
7	7	602	978	303	109.0	340
1	6	002	0	0	.0	0
	6	0	0	0	.0	
2	6	0	0	0	.0	0
4	6	0	0	0	.0	0
5	6	490	954	0	.0	360
6	6	627	1,089	318	124.9	400
7	6	568	993	311	108.0	340
1	5	0	0	0	.0	0
2	5	0	0	0	.0	0
3	5	0	0	0	.0	0
4	5	0	0	0	.0	0
5	5	502	1,188	0	251.9	360
6	5	620	1,169	234	131.0	400
7	5	593	810	256	100.2	340
1	4	0	0	0	.0	0
2	4	0	0	0	.0	0
3	4	0	0	0	.0	0
4	4	0	0	0	.0	0
5	4	563	1,247	0	287.2	360
6	4	644	1,252	259	148.2	400
7	4	642	1,134	372	116.9	340
1	3	0	0	0	.0	0
2	3	0	0	0	.0	0
3	3	0	0	0	.0	0
4	3	0	. 0	0	.0	0
5	3	560	1,151	0	300.2	362
6	3	661	1,156	314	135.9	400
7	3	625	926	279	107.2	340
1	2	0	0	0	.0	0
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SA0703F-4

2	2	0	0	0	.0	θ
3	2	0	0	0	.0	0 O
4	2	% O	0	0	.0	0 🧠
5	2	567	1,015	46	249.3	400
6	2	640	1,249	348	115.4	400
7	2	647	1,248	320	157.0	340
1 .	1	0	0	0	.0	0
2	1	0	0	0	.0	0
3	1	0	0	0	.0	0
4	1	0	0	0	.0	0
5	1	466	985	41	207.4	220
6	1	619	1,082	288	147.9	220
7	1	720	1,364	325	200.7	187

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (7,1) and Grids (7,1) - (7,15) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date: 02-04-1999 Time: 16:45:28 SA

SA0703F-5

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \overline{\text{cm}^2}$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

 $\frac{\text{Total Activity Limits}}{1554 \text{ dpm}/100 \text{ cm}^2, \text{ averaged over } 1\text{m}^2}$ 3554 dpm/100 cm², maximum in 100 cm²

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

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

SA0703F-6

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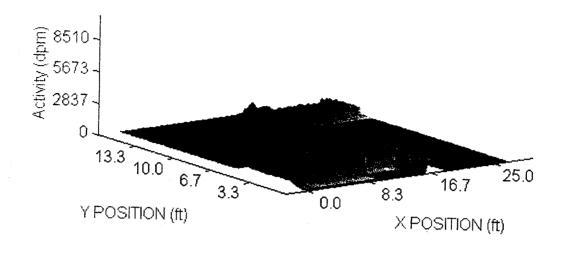
Survey SA0704F was conducted on January 19, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

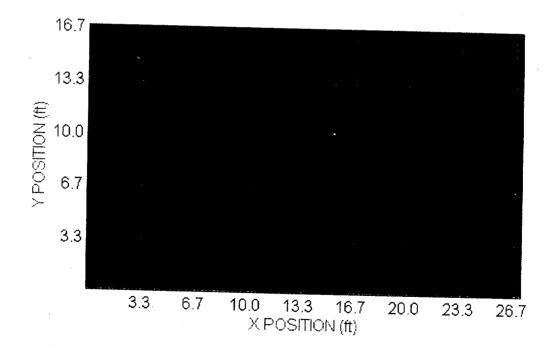
Total measured activity for SA0704F ranged from 0 to 626 dpm/pixel. 100 cm^2 data ranged from 0 to 1,418 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

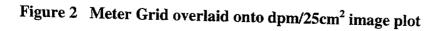
Square Meter Data





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(Filtered) (Primary) Date: 02-04-1999 Time: 17:36:59 SA0704F-2

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X	Y	Mean	Max	Min	STD	Pixels
1	5	0	0	0	.0	0
2	5	0	0	0	.0	0
3	5	0	0	0	.0	0
4	5	0	0	0	.0	0
5	5	238	1,100	0	180.1	120
6	5	618	1,044	0	244.9	385
7	5	534	1,103	0	321.3	340
8	5	549	1,114	0	323.2	340
9	5	483	853	0	295.7	51
1	4	0	0	0	.0	0
2	4	0	0	0	.0	0
3	4	0	0	0	.0	0
4	4	0	0	0	<u>.0</u> 158.5	120
5	4	224	1,159	0	318.8	320
6	4	530	<u>1,418</u> 553	0	90.4	80
7 8	4	193	<u> </u>	0	90.4	80
<u> </u>	4	194	430	0	93.0	12
9	3	0	0	0	.0	20
2	3	0	0	0	.0	20
3	3	0	0	0	.0	20
4	3	0	0	0	.0	6
5	3	249	1,206	0	190.7	120
6	3	580	1,153	0	345.6	300
7	3	0	0	0	.0	0
8	3	0	0	0	.0	0
9	3	0	0	0	.0	0
1	· 2	710	1,150	69	281.2	400
2	2	715	1,231	67	259.8	400
3	2	668	1,104	69	250.4	400
. 4	2	545	1,152	0	371.8	316
5	2	534	1,164	0	359.4	316
6	2	619	1,179	0	364.4	300
7	2	0	0	0	.0	0
8	2	0	0	0	.0	0
9	2	0	0	0	.0	0
1	1	659	1,374	0	410.0	280
2	1	694	1,409	0	415.9	280
3	1	632	1,206	0	373.1	280
4	1	361	1,141	0	259.9	168
5	1	413	1,050	0	317.1	244
6	1	508	1,092	0	324.5	274
7	1	0	0	0	.0	0
8	1	0	0	0	.0	0
9	- 1	0	0	0	.0	0

(Filtered) (Primary) Date: 02-04-1999 Time: 17:36:59

SA0704F-3

Table 1 $dpm/100cm^2$ averaged over one square meter. Grids (1,1) - (9,1) and Grids (9,1) - (9,5) are not one square meter. Bold text denotes grids which exceed release limits

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(Filtered) (Primary) Date: 02-04-1999 Time: 17:36:59 SA0704F-4

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm^2 to the survey criteria.

 $\frac{Criteria}{1000 \text{ dpm}/100 \text{ cm}^2, \text{ averaged over } 1\text{m}^2}$ $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

SA0704F-5

Survey SA0705F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0705F ranged from 0 to 452 dpm/pixel. 100 cm^2 data ranged from 0 to 1,195 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

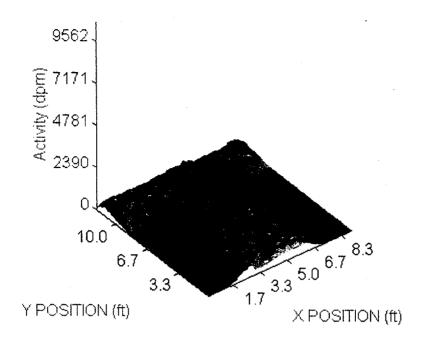


Figure 1 Image plot of surface activity in dpm/25cm²

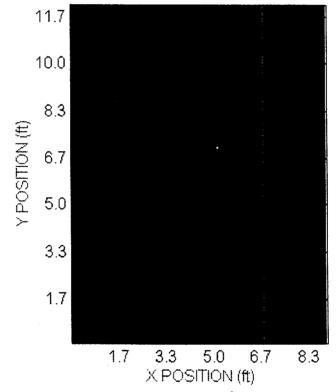


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 16:47:40

SA0705F-2

X	Y	Mean	Max	Min	STD	Pixels
1	4	538	968	0	212.6	376
2	4	614	843	345	82.5	400
3	4	487	795	0	215.9	247
1	3	457	1,142	0	294.8	240
2	3	661	1,195	271	129.6	400
3	3	113	170	0	50.0	60
1	2	446	903	0	279.2	240
2	2	581	832	293	99.8	400
3	2	104	172	0	47.7	60
1	1	395	687	0	244.1	144
2	1	550	735	261	77.0	240
3	1	122	193	0	55.6	36

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (3,1) and Grids (3,1) - (3,4) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date: 02-04-1999 Time: 16:47:40

SA0705F-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

<u>Criteria</u>

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0706F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0706F ranged from 15 to 373 dpm/pixel. 100 cm^2 data ranged from 17 to 981 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

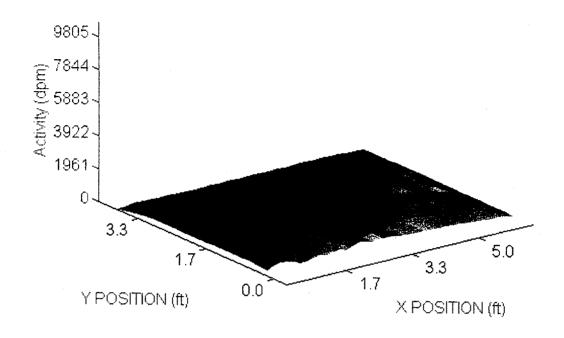


Figure 1 Image plot of surface activity in dpm/25cm²

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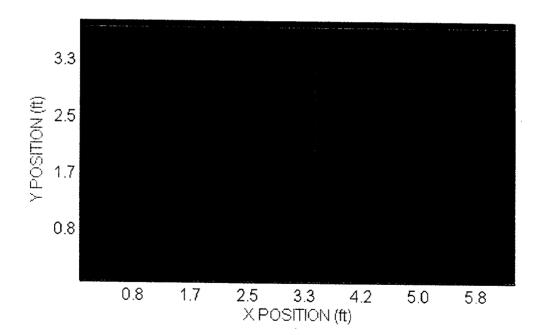


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 16:48:14 SA0706F-2

X	Y	Mean	Max	Min	STD	Pixels
1	2	596	980	218	131.8	400
2	2	544	8 81	97	152.0	360
1	1	560	773	330	102.5	60
2	1	349	560	101	127.6	54
	1100 2			0 11 (1 1)	(0,1)	1.

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

(Filtered) (Primary) Date: 02-04-1999 Time: 16:48:14

SA0706F-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

1000 dpm/100 cm², averaged over $1m^2$ 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

(Filtered) (Primary) Date: 02-04-1999 Time: 16:48:14

SA0706F-4

Survey SA0707F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0707F ranged from 0 to 319 dpm/pixel. 100 cm^2 data ranged from 0 to 932 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

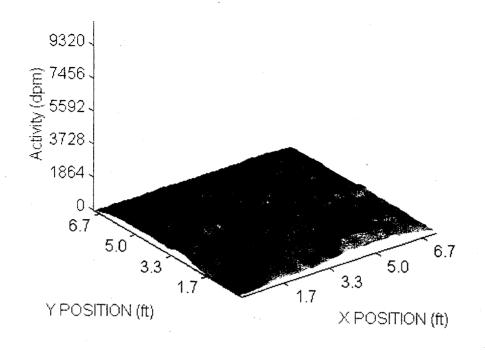


Figure 1 Image plot of surface activity in dpm/25cm²

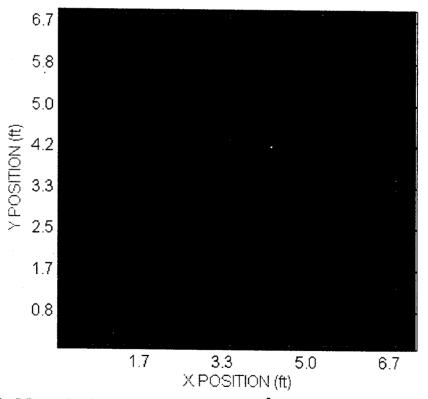


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 16:48:42 SA0707F-2

7-1

X	Y	Mean	Max	Min	STD	Pixels
1	3	559	720	174	125.3	400
2	3	506	734	219	98.4	400
3	3	309	435	121	71.9	60
1	2	470	844	0	215.6	370
2	2	614	932	369	73.6	400
3	2	442	696	239	104.6	60
1	1	0	0	0	.0	17
2	1	0	0	0	.0	20
3.	. 1	0	0	0	.0	3

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

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

1554 dpm/100 cm², averaged over $1m^2$ 3554 dpm/100 cm², maximum in 100 cm²

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

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

Survey SA0708F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0708F ranged from 0 to 483 dpm/pixel. 100 cm^2 data ranged from 0 to 1,170 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

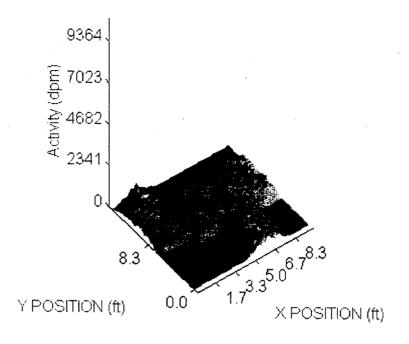


Figure 1 Image plot of surface activity in dpm/25cm²

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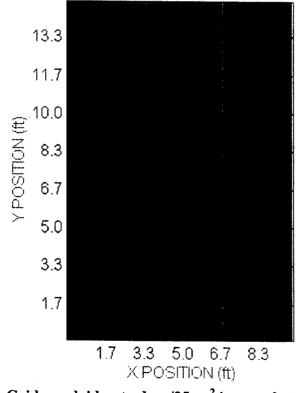


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 16:49:13

SA0708F-2

X	Y	Mean	Max	Min	STD	Pixels
1	5	575	1,042	128	137.1	400
2	5	264	836	0	207.7	220
3	5	271	1,061	0	198.0	152
1	4	579	973	335	94.2	400
2	4	589	1,067	346	135.4	400
3	4	580	1,026	268	112.0	380
1	3	316	795	0	211.2	200
2	3	526	899	0	210.5	368
3	3	505	938	0	221.9	340
1	2	0	0	0	.0	0
2	2	407	816	0	266.3	240
3	2	393	899	0	250.4	180
1	1	0	0	0	.0	0
2	1	400	895	0	265.8	108
3	1	337	698	0	215.7	81

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (3,1) and Grids (3,1) - (3,5) are not one square meter. Bold text denotes grids which exceed release limits

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SA0708F-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

<u>Criteria</u>

1000 dpm/100 $\overline{\text{cm}^2}$, averaged over 1m² 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

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SA0708F-4

Survey SA0709F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0709F ranged from 0 to 360 dpm/pixel. 100 cm^2 data ranged from 0 to 920 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

(Filtered) (Primary) Date: 02-04-1999 Time: 16:49:52 SA0709F-1

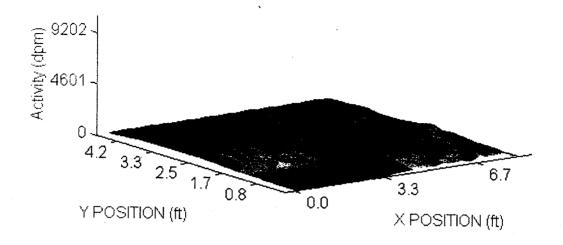
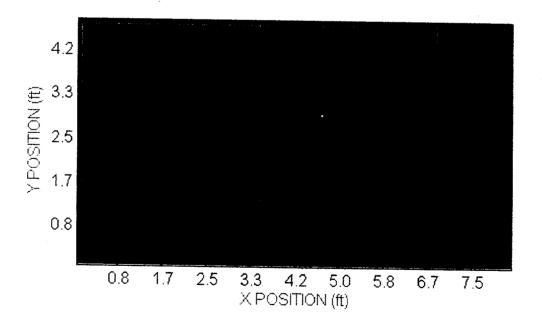
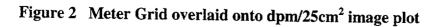


Figure 1 Image plot of surface activity in dpm/25cm²





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X	Y	Mean	Max	Min	STD	Pixels
1	2	424	793	25	178.1	362
2	2	515	920	161	118.8	400
3	2	521	837	215	131.0	180
· 1	1	34	36	0	7.4	8
2	1	453	741	130	141.8	160
3	1	490	663	199	117.8	72

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

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

1000 dpm/100 cm², averaged over $1m^2$ 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0710F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0710F ranged from 0 to 815 dpm/pixel. 100 cm^2 data ranged from 0 to 2,249 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

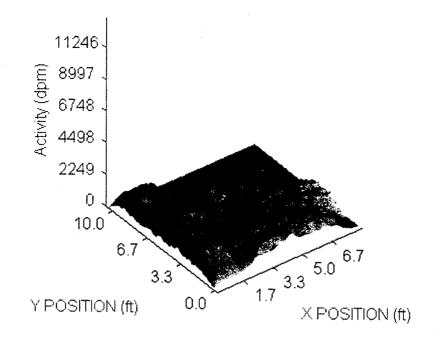


Figure 1 Image plot of surface activity in dpm/25cm²

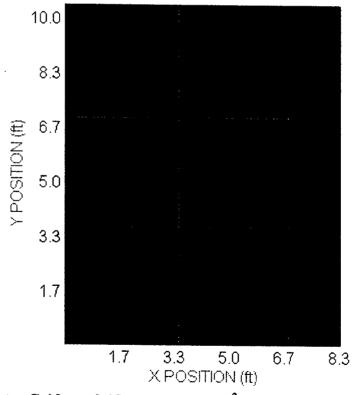


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

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Χ	Y	Mean	Max	Min	STD	Pixels
1	4	1,002	1,525	0	452.2	372
2	4	399	1,342	0	263.4	120
3	4	177	996	0	104.7	30
1	3	1,225	1,716	589	208.2	400
2	3	1,097	1,930	399	311.6	400
3	3	644	1,732	0	478.3	145
1	2	1,174	1,769	316	273.2	400
2	2	1,409	2,249	1,114	144.4	400
3	2	951	1,515	0	442.7	184
1	1	507	0	0	314.8	40
2	1	1,098	0	0	200.2	40
3	1	510	0	0	318.1	16

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (3,1) and Grids (3,1) - (3,4) are not one square meter. Bold text denotes grids which exceed release limits

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 1450 dpm/100 cm² to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

 $\frac{\text{Total Activity Limits}}{2450 \text{ dpm}/100 \text{ cm}^2, \text{ averaged over } 1\text{m}^2}$ 4450 dpm/100 cm², maximum in 100 cm²

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

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

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Survey SA0711E was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 65%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0711E ranged from 131 to 861 dpm/pixel. 100 cm^2 data ranged from 131 to 2,646 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

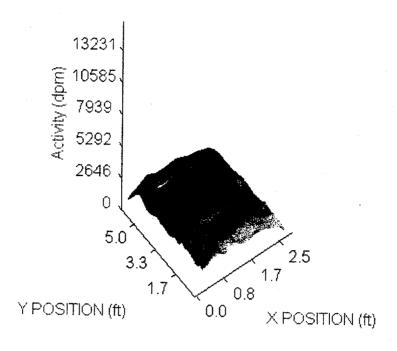
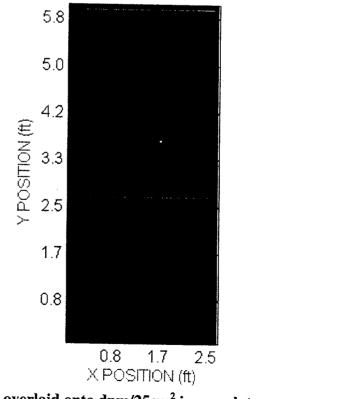
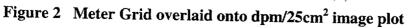


Figure 1 Image plot of surface activity in dpm/25cm²

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dpm/100cm

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X	Y	Mean	Max	Min	STD	Pixels
1	2	1,903	2,517	706	373.3	320
1	1	2,205	2,646	1,190	316.4	256

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (1,1) and Grids (1,1) - (1,2) are not one square meter. Bold text denotes grids which exceed release limits

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 2208 dpm/100 cm^2 to the survey criteria.

Criteria

1000 dpm/100 cm², averaged over $1m^2$ 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

3208 dpm/100 cm², averaged over $1m^2$ 5208 dpm/100 cm², maximum in 100 cm²

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

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

Survey SA0711F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0711F ranged from 0 to 718 dpm/pixel. 100 cm^2 data ranged from 0 to 2,091 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

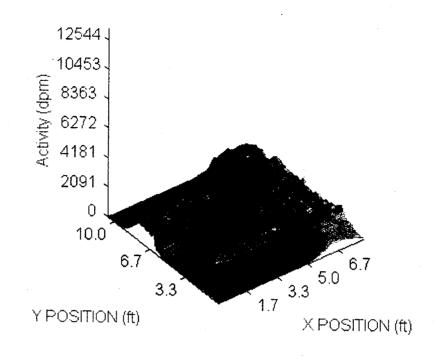


Figure 1 Image plot of surface activity in dpm/25cm²

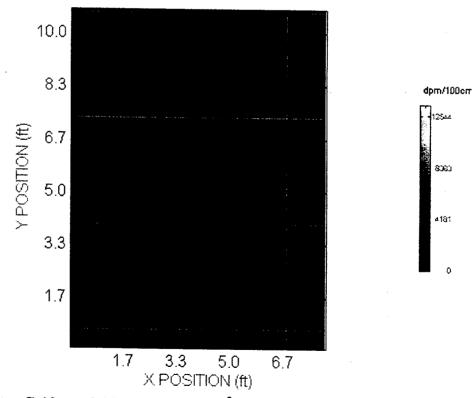


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-06-1999 Time: 13:56:59

SA0711F-2

X	Y	Mean	Max	Min	STD	Pixels
1	4	823	1,546	0	565.1	240
2	4	770	1,940	0	567.1	320
3	4	1,211	1,904	522	253.7	160
1	3	940	1,656	0	538.6	301
2	3	1,198	1,937	178	357.4	400
3	3	1,208	2,006	681	198.8	160
1	2	266	439	0	72.4	33
2	2	776	1,745	0	531.1	230
3	2	1,251	1,549	526	206.7	160
1	1	0	0	0	.0	0
2	1	429	896	0	280.3	40
3	1	575	897	251	185.7	32

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (3,1) and Grids (3,1) - (3,4) are not one square meter. Bold text denotes grids which exceed release limits

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 1450 dpm/100 cm² to the survey criteria.

$\frac{Criteria}{1000 \text{ dpm}/100 \text{ cm}^2, \text{ averaged over } 1\text{m}^2}$ 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

2450 dpm/100 cm², averaged over $1m^2$ 4450 dpm/100 cm², maximum in 100 cm²

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

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

SA0711F-4

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Survey SA0711W was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 66%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0711W ranged from 104 to 821 dpm/pixel. 100 cm^2 data ranged from 104 to 2,630 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

SA0711W-1

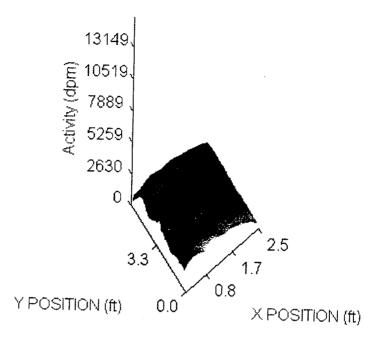
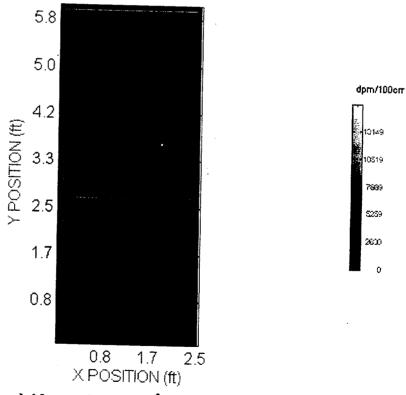
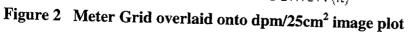


Figure 1 Image plot of surface activity in dpm/25cm²

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SA0711W-2

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X	Y	Mean	Max	Min	STD	Pixels
1	2	1,805	2,629	556	457.8	300
1	1	1,839	2,478	749	400.4	240

Table 1 dpm/100cm² averaged over one square meter. Grids $(1,1) \cdot (1,1)$ and Grids $(1,1) \cdot (1,2)$ are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date: 02-05-1999 Time: 16:44:14

SA0711W-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 2208 dpm/100 cm^2 to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

 $3208 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $5208 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0712F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0712F ranged from 0 to 534 dpm/pixel. 100 cm^2 data ranged from 0 to 1,442 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

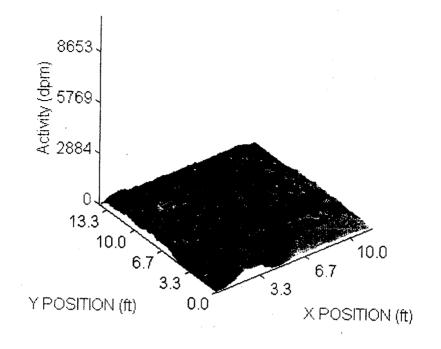


Figure 1 Image plot of surface activity in dpm/25cm²

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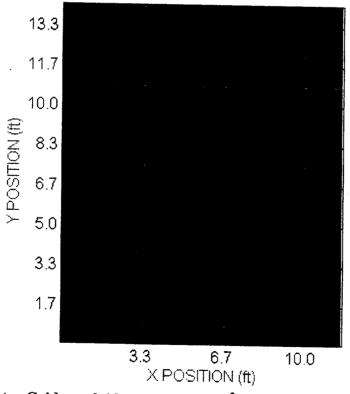


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 16:50:20

SA0712F-2

X	Y	Mean	Max	Min	STD	Pixels
1	5	571	740	188	93.9	400
2	5	579	909	264	112.5	400
3	5	572	806	244	124.3	400
4	5	335	731	8	200.3	180
1	4	609	778	393	63.5	400
2	4	661	1,156	445	83.6	400
3	4	660	907	467	68.4	400
4	4	496	774	33	182.0	197
1	3	557	843	0	139.4	392
2	3	641	1,025	486	70.7	400
3	3	658	877	460	81.3	400
4	3	549	810	269	111.8	200
1	2	543	1,442	0	321.6	310
2	2	479	861	0	229.8	370
3	2	723	98 1	540	56.3	400
4	2	543	774	218	145.4	200
1	1	440	779	0	257.6	65
2	1	226	516	0	153.3	76
3	1	328	490	110	105.0	80
4	1	245	361	38	95.7	40

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (4,1) and Grids (4,1) - (4,5) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date: 02-04-1999 Time: 16:50:20

SA0712F-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

<u>Criteria</u>

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0713F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0713F ranged from 0 to 1,306 dpm/pixel. 100 cm^2 data ranged from 0 to 3,223 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

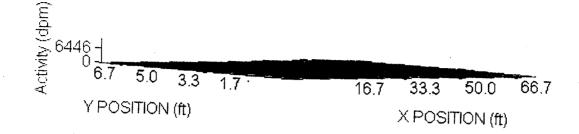
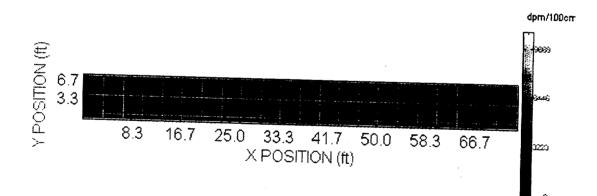
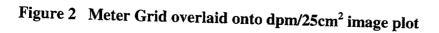


Figure 1 Image plot of surface activity in dpm/25cm²

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SA0713F-2

X	Y	Mean	Max	Min	STD	Pixels
1	3	351	907	0	251.2	200
2	3	358	876	0	240.1	200
3	3	330	728	0	222.9	200
4	3	360	742	0	239.4	200
5	3	337	769	0	232.7	200
6	3	427	1,007	0	289.5	200
7	3	360	824	0	248.2	200
8	3	392	900	0	272.2	200
9	3	350	914	0	242.5	200
10	3	353	778	0	240.4	200
11	3	339	784	0	233.2	200
12	3	331	689	0	222.5	200
13	3	350	823	0	234.4	200
14	3	439	744	0	253.2	320
15	3	625	1,002	372	91.7	400
16	3	618	1,173	266	107.5	400
17	3	631	896	305	101.8	400
18	3	693	1,050	377	111.6	400
19	3	661	1,021	288	129.5	400
20	3	662	1,074	327	108.9	400
21	3	642	902	274	102.0	400
22	3	576	957	183	142.7	400
23	3	322	0	0	79.6	40
1	2	651	970	339	90.6	400
2	2	683	1,134	485	86.4	400
3	2	681	994	440	64.0	400
4	2	675	951	455	73.2	400
5	2	698	920	524	49.9	400
6	2	698	894	519	46.6	400
7	2	634	921	420	49.8	400
8	2	623	742	518	39.2	400
9	2	654	993	393	83.0	400
10	2	628	844	510	55.7	400
11	2	672	974	518	67.9	400
12	2	627	938	520	62.5	400
13	2	644	990	508	55.5	400
14	2	657	897	536	47.5	400
15	2	655	905	512	76.1	400
16	2	641	778	500	43.3	400
10	2	679	949	534	55.3	400
18	2	707	1,175	567	83.0	400
10	2	717	1,109	524	79.9	400
20	2	713	1,034	537	84.1	400
20	2	658	811	516	53.8	400
22	2	684	954	467	65.3	400
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SA0713F-3

23	2	436	0	0	62.0	40
1	1	543	726	288	111.0	120
2	1	688	909	474	98.5	120
3	1	674	999	379	108.4	120
4	1	648	887	440	102.1	120
5	1	649	870	408	96.0	120
6	1	643	766	362	91.1	120
7	1	579	817	393	84.4	120
8	1	635	756	447	61.9	120
9	1	650	954	350	118.0	120
10	1	544	776	348	92.0	120
11	1	636	1,305	324	147.8	120
12	1	792	3,222	393	485.9	120
13	1	665	966	410	108.7	120
14	1	631	927	404	109.2	120
15	1	650	820	387	104.0	120
16	1	533	687	347	77.4	120
17	1	631	1,266	316	149.3	120
18	1	661	870	385	103.3	120
19	1	636	854	426	88.8	120
20	1	604	734	423	78.0	120
21	1	618	829	353	92.8	120
- 22	1	621	815	308	117.6	120
23	1	278	0	0	41.0	12

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (23,1) and Grids (23,1) - (23,3) are not one square meter. Bold text denotes grids which exceed release limits

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The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

1000 dpm/100 $\overline{\text{cm}^2}$, averaged over 1m^2 3000 dpm/100 cm^2 , maximum in 100 cm^2

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

SA0713F-5

Survey SA0713S was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 66%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

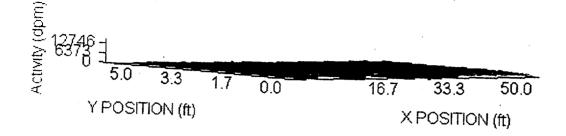
The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

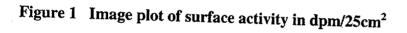
Total measured activity for SA0713S ranged from 0 to 1,054 dpm/pixel. 100 cm^2 data ranged from 0 to 3,187 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

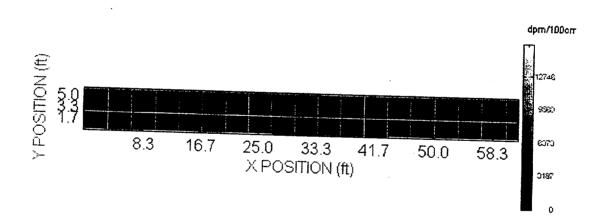
Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

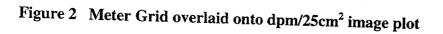
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SA0713S-2

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X	Y	Mean	Max	Min	STD	Pixels
1	2	1,790	2,880	237	710.9	400
2	2	243	433	0	97.8	60
3	2	1,529	2,968	0	1067.3	300
4	2	1,353	2,584	322	732.4	400
5	2	1,344	2.972	79	728.7	400
6	2	168	293	0	55.4	400
7	2	1,723	2,796	156	759.2	40
8	2	1,867	2,921	229	711.4	400
9	2	423	1,281	0	238.8	80
10	2	0	0	0	.0	0
11	2	0	0	0	.0	0
12	2	0	0	0	.0	0
13	2	222	337	0	.0	
14	2	1,868	2,979	195	732.9	60
15	2	1,987	3,162	308	732.9	400
16	2	1,944	2,829	320	the second s	400
17	2	1,882	3,022	320	719.3	400
18	2	1,994	2,931	456	700.3	400
19	2	1,809	2,612		665.7	400
1	1	2,202	2,707	258	667.3	220
2	1	267	409	1,271	306.7	320
3	1	1,789		0	102.0	48
4	1	2,345	2,693	0	1084.6	240
5	1	2,065	3,185	1,415	238.0	320
6	1	194	2,923	239	715.1	320
7	1		282	0	61.7	32
8	1	2,164	2,857	323	550.3	320
9	1	2,271	3,131	1,348	230.8	320
10	1	475	1,211	0	259.9	64
10	1	0	0	0	.0	0
11	1	0	0	0	.0	0
12		0	0	0	.0	0
13	1	227	318	0	85.0	48
14	1	2,305	3,096	1,119	332.3	320
15	1	2,313	2,901	1,366	256.8	320
10	1	2,300	2,839	1,000	248.2	320
17	1	2,307	3,186	1,341	277.7	320
18	1	2,446	3,021	1,478	246.3	320
Toble 1 day	1	2,273	2,902	1,190	318.7	176

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Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (19,1) and Grids (19,1) - (19,2) are not one square meter. Bold text denotes grids which exceed release limits

SA0713S-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 2208 dpm/100 cm² to the survey criteria.

Criteria

1000 dpm/100 $\overline{\text{cm}^2}$, averaged over 1m^2 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

 $3208 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $5208 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Survey SA0714E was conducted on January 22, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 65%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

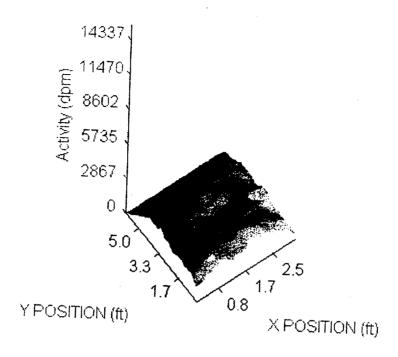
Surface Activity Levels

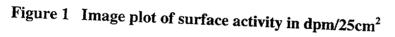
The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0714E ranged from 49 to 794 dpm/pixel. 100 cm^2 data ranged from 49 to 2,867 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

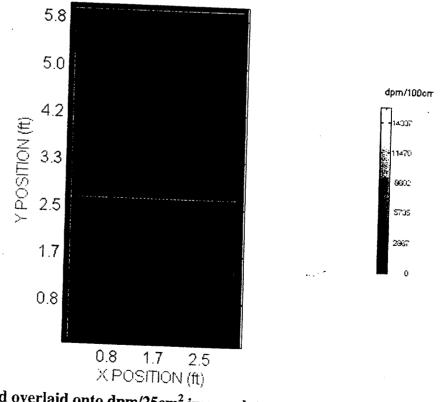
Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

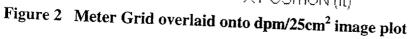




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SA0714E-2

X	Y	Mean	Max	Min	STD	Pixels
1	2	1,746	2,867	254	753.0	380
1	1	2,097	2,626	985	326.1	304

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (1,1) and Grids (1,1) - (1,2) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date: 02-05-1999 Time: 17:04:08

SA0714E-3

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 2208 dpm/100 cm^2 to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

3208 dpm/100 cm², averaged over $1m^2$ 5208 dpm/100 cm², maximum in 100 cm²

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

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

SA0714E-4

Survey SA0714F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

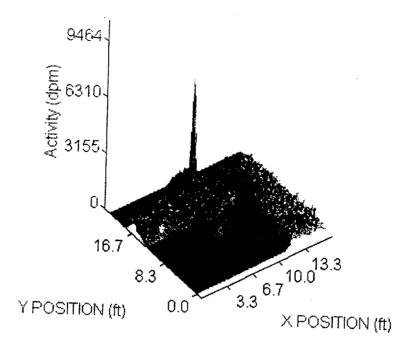
Surface Activity Levels

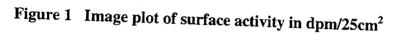
The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0714F ranged from 0 to 2,336 dpm/pixel. 100 cm^2 data ranged from 0 to 6,310 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.





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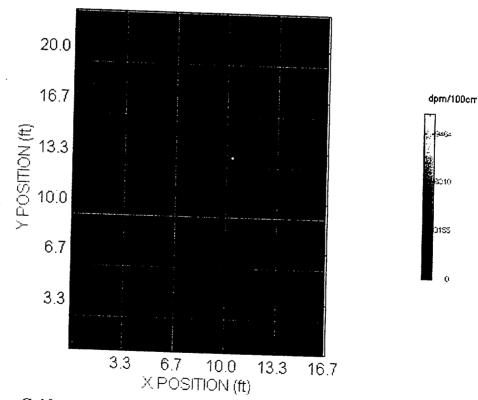


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

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SA0714F-2

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X	Y	Mean	Max	Min	STD	Pixels
1	7	0	0	0	.0	0
2	7	94	399	0	60.9	100
3	7	579	6,309	0	650.3	355
4	7	218	1,057	0	189.2	259
5	7	367	818	0	250.8	298
1	6	452	780	0	253.0	340
2	6	536	863	72	119.0	400
3	6	581	998	273	117.8	400
4	6	577	1,001	359	85.6	400
5	6	578	1,006	266	130.9	400
1	5	456	774	0	235.7	300
2	5	443	907	0	232.2	325
3	5	500	1,177	0	197.0	380
4	5	505	1,194	0	237.9	355
5	5	631	1,315	242	147.9	400
1	4	0	0	0	.0	0
2	4	143	516	0	79.3	100
3	4	455	1,349	0	293.6	320
4	4	470	1,196	0	317.6	220
5	4	582	984	253	129.7	400
1	3	0	0	0	.0	0
2	3	41	71	0	6.2	10
3	3	98	147	0	25.8	32
4	3	473	1,122	0 '	316.0	220
5	3	607	1,084	239	142.0	400
1	2	0	0	0	.0	0
2	2	0	0	0	.0	0
3	2	0	0	0	.0	0
4	2	437	988	0	285.6	220
5	2	572	1,042	316	116.4	400
1	1	0	0	0	.0	0
2	1	0	0	0	.0	0
3	1	0	0	0	.0	0
4	1	376	854	0	245.9	154
5 Table 1 day	$\frac{1}{100 - 2}$	564	954	171	166.4	280

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (5,1) and Grids (5,1) - (5,7) are not one square meter. Bold text denotes grids which exceed release limits

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

<u>Criteria</u>

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

1554 dpm/100 cm², averaged over $1m^2$ 3554 dpm/100 cm², maximum in 100 cm²

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

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

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SA0714F-4

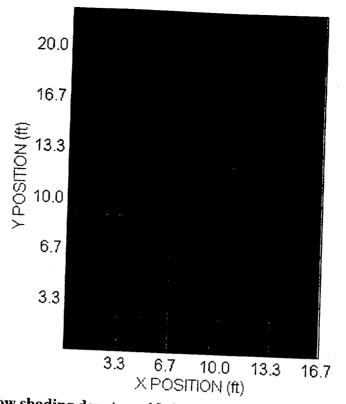


Figure 3 Yellow shading denotes grids in excess of the average limit, while red pixels correspond to the upper left coordinate of a 100cm² area exceeding the

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SA0714F-5

Survey SA0715F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0715F ranged from 0 to 496 dpm/pixel. 100 cm^2 data ranged from 0 to 1,557 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

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SA0715F-1

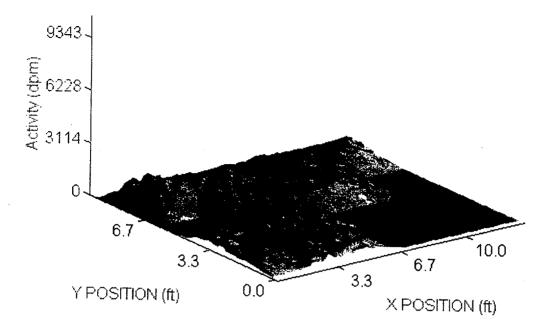


Figure 1 Image plot of surface activity in dpm/25cm²

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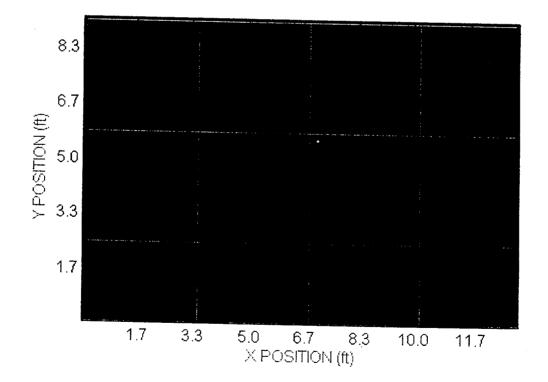


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

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X	Y	Mean	Max	Min	STD	Pixels
1	3	568	1,557	0	398.4	318
2	3	521	829	173	113.6	400
3	3	533	1,092	202	140.0	400
4	3	442	815	14	186.5	336
1	2	371	713	0	200.4	344
2	2	527	912	237	90.5	400
3	2	375	716	0	234.8	230
4	2	183	531	0	89.5	60
1	1	423	739	63	142.2	291
2	1	480	675	182	80.8	300
3	1	101	180	0	41.3	45
4	1	0	0	0	.0	0

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (4,1) and Grids (4,1) - (4,3) are not one square meter. Bold text denotes grids which exceed release limits

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

1000 dpm/100 $\overline{\text{cm}^2}$, averaged over 1m^2 3000 dpm/100 cm^2 , maximum in 100 cm^2

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

SA0715F-4

Survey SA0716F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm^2 sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0716F ranged from 0 to 2,218 dpm/pixel. 100 cm^2 data ranged from 0 to 5,228 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

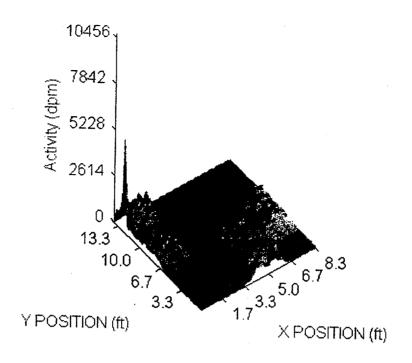
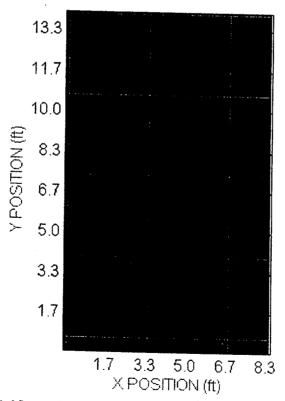
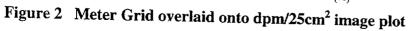


Figure 1 Image plot of surface activity in dpm/25cm²

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SA0716F-2

X	Y	Mean	Max	Min	STD	Pixels
1	5	663	5,227	0	536.3	340
2	5	0	0	0	.0	0
3	5	0	0	0	.0	0
1	4	489	1,197	0	253.9	342
2	4	149	628	0	111.2	124
3	4	409	716	0	239.8	176
1	3	286	1,145	0	211.0	156
2	3	435	878	38	178.2	400
3	3	551	934	260	117.0	220
1	C 1	26	37	0	5.7	20
2	2	381	877	90	162.2	400
3	2	221	478	0	106.4	55
1	1	30	34	0	6.7	4
2	1	404	723	79	170.6	80
3	1	0	0	0	.0	0

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (3,1) and Grids (3,1) - (3,5) are not one square meter. Bold text denotes grids which exceed release limits

(Filtered) (Primary) Date: 02-04-1999 Time: 17:38:52 SA0716F-3

The varivey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

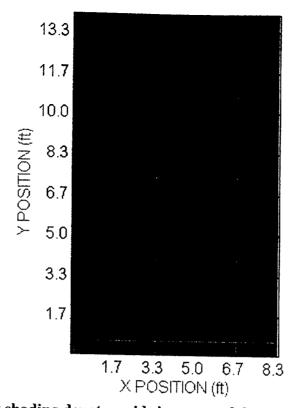
1000 dpm/100 $\overline{\text{cm}^2}$, averaged over 1m² 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

1554 dpm/100 cm², averaged over $1m^2$ 3554 dpm/100 cm², maximum in 100 cm²

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

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



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Figure 3 Yellow shading denotes grids in excess of the average limit, while red pixels correspond to the upper left coordinate of a 100cm² area exceeding the maximum limit.

SA0716F-5

Survey SA0717F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

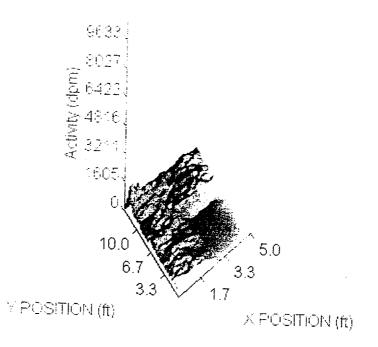
Surface Activity Levels

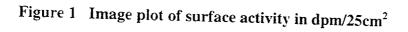
The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria. consecutive 100 cm^2 sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm^2 combinations of the data are considered.

Total measured activity for SA0717F ranged from 0 to 644 dpm/pixel. 100 cm^2 data ranged from 0 to 1,605 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.





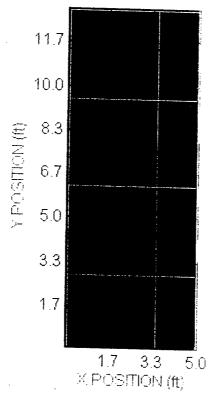


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 17:39:32

SA0717F-2

X	Y	Mean	Max	Min	STD	Pixels
1	4	664	1,605	195	198.7	400
2	4	434	761	48	178.6	200
1	3	548	1,001	0	167.1	388
2	3	408	758	0	208.4	160
1	2	425	724	0	205.7	340
2	2	0	0	0	.0	0
1	1	409	674	0	204.0	289
2	1	0	0	0	.0	0

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (2,1) and Grids (2,1) - (2,4) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

 $1000 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3000 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

Total Activity Limits

1554 dpm/100 cm², averaged over $1m^2$ 3554 dpm/100 cm², maximum in 100 cm²

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

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

Introduction

Survey SA0718F was conducted on January 20, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 71%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

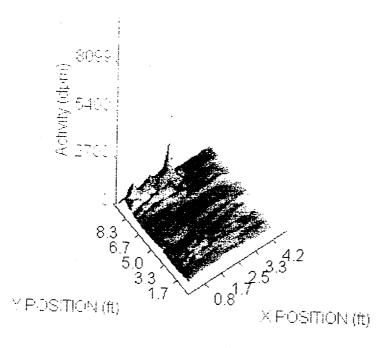
Surface Activity Levels

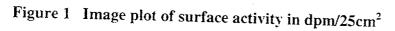
The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0718F ranged from 0 to 845 dpm/pixel. 100 cm^2 data ranged from 0 to 2,700 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.





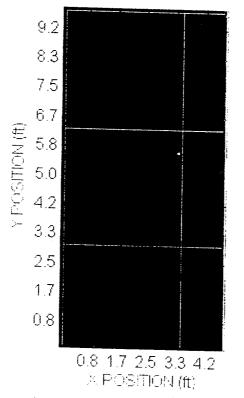


Figure 2 Meter Grid overlaid onto dpm/25cm² image plot

(Filtered) (Primary) Date: 02-04-1999 Time: 17:40:01

SA0718F-2

X	Y	Mean	Max	Min	STD	Pixels
1	3	638	2,699	0	320.8	397
2	3	350	585	0	188.8	152
1	2	522	623	328	56.9	400
2	2	415	594	189	109.8	160
1	1	521	790	299	89.4	360
2	1	358	477	180	81.8	144

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (2,1) and Grids (2,1) - (2,3) are not one square meter. Bold text denotes grids which exceed release limits

SA0718F-3

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 554 dpm/100 cm² to the survey criteria.

Criteria

1000 dpm/100 cm², averaged over $1m^2$ 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

 $1554 \text{ dpm}/100 \text{ cm}^2$, averaged over 1m^2 $3554 \text{ dpm}/100 \text{ cm}^2$, maximum in 100 cm^2

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

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

Introduction

Survey SA0801F was conducted on January 21, 1999 by TODD_CHETE as part of the STALBANS survey. Data was gathered using SRA Surface Contamination Monitor, SCM2. The Position Sensitive Proportional Counter was operating with an efficiency of 62%. The SRA Survey Information Management System was used to provide visual imaging and analysis of the survey data and to generate this report.

Surface Activity Levels

The SCM measures and records activity in 25 cm² areas called pixels. Each square meter contains 400 individual pixels. These pixels can be summed into 100 cm² areas for comparison to release criteria. To evaluate the measured activity levels versus release criteria, consecutive 100 cm² sums are offset by 25 cm² pixels, thus ensuring that all possible 100 cm² combinations of the data are considered.

Total measured activity for SA0801F ranged from 0 to 896 dpm/pixel. 100 cm^2 data ranged from 0 to 2,508 dpm/100 cm². An interpolated surface plot of the data is provided in Figure 1. A light source is simulated to add definition via shadows to the artifacts in the image.

Square Meter Data

Conventional statistics are provided by SIMS. The survey is divided into meter grids. For each grid the 100 cm^2 data is analyzed for mean, min, max, and standard deviation. The number of pixels containing data is also reported for each grid. Figure 2 shows the grid pattern, while Table 1 details the statistical data for each grid. Bold text denotes grids which exceed release limits.

(Filtered) (Primary) Date: 02-06-1999 Time: 13:47:54

SA0801F-1

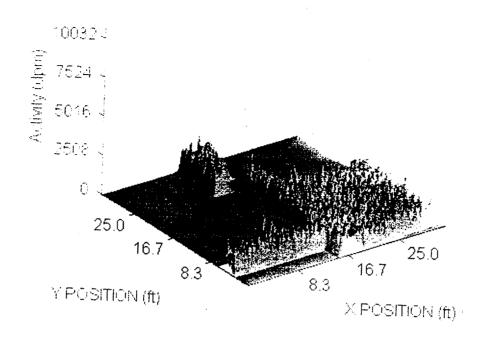
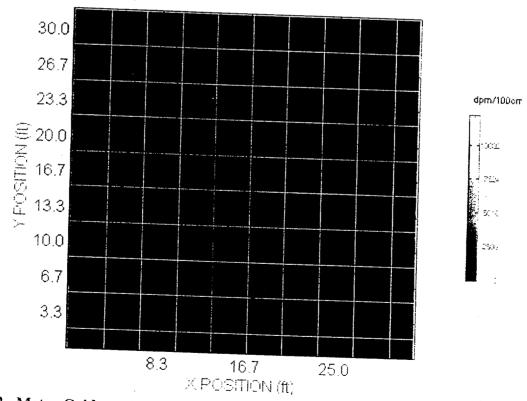
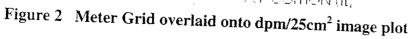


Figure 1 Image plot of surface activity in dpm/25cm²





(Filtered) (Primary) Date: 02-06-1999 Time: 13:47:54

X	Y	Mean	Max	Min	STD	Pixels
1	10	0	0	0	.0	0
2	10	0	0	0	.0	0
3	10	0	0	0	.0	0
4	10	549	1,606	0	396.5	160
5	10	1,149	2,035	542	242.4	400
6	10	546	1,899	0	377.5	120
7	10	0	0	0	.0	0
8	10	0	0	0	.0	0
9	10	0	0	0	.0	0
10	10	0	0	0	.0	0
!	9	0	0	0	.0	0
2	9	0	0	0	.0	0
3	9	0	0	0	.0	0
4	9	539	1,359	0	370.2	160
5	9	1,021	1,893	0	497.2	353
6	9	260	1,015	0	176.0	97
7	9	0	0	0	.0	0
8	9	0	0	0	.0	0
9	9	0	0	0	.0	0
10	9	0	0	0	.0	0
1	8	0	0	0	.0	0
2	8	· 0	0	0	.0	0
3	8	0	0	0	.0	0
4	8	445	1,657	0	260.2	80
5	8	508	1,518	0	393.9	170
6	8	745	2,348	6	467.5	380
7	8	0	0	0	.0	0
8	8	0	0	0	.0	0
9	8	0	0	0	.0	0
10	8	0	0	0	.0	0
1	7	0	0	0	.0	0
2	7	0	0	0	.0	0
3	7	0	0	0	.0	0
4	7	0	0	0	.0	0
5	7	94	150	0	30.2	40
6	7	822	1,674	38	410.4	383
7	7	40	109	0	16.8	36
8	7	0	0	0	.0	0
9	7	. 0	0	0	.0	0
10	7	0	0	0	.0	0
1	6	0	0	0	.0	0
2	6	0	0	0	.0	0
3	6	0	0	0	.0	0
4	6	0	0	0	.0	0
5	6	99	144	0	31.3	40

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SA0801F-3

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6	6	1,051	2,026	150	329.0	400
7	6	1,039	2,220	0	504.4	376
8	6	671	1,635	0	490.5	275
9	6	764	1,586	0	521.1	310
10	6	905	1,654	0	453.4	266
1	5	0	0	0	.0	0
2	5	0	0	0	.0	0.
3	5	0	0	0	.0	0
4	5	0	0	0	.0	0
5	5	104	156	0	33.7	40
6	5	987	1,864	170	318.1	400
7	5	1,144	2,033	71Q	271.4	400
8	5	1,114	1,985	7	269.4	400
9	5	1,082	1,615	504	180.7	400
10	5	1,028	1,806	311	207.5	280
1	4	0	0	0	.0	0
2	4	0	0	0	.0	0
3	4	520	1,338	0	379.3	176
4	4	529	1,580	0	378.1	160
5	4	550	2,507	0	457.1	173
6	4	1,045	1,649	198	205.1	400
7	4	961	1,634	544	178.9	400
8	4	1,043	1,672	605	188.3	400
9	4	1,005	1,772	563	203.9	400
10	4	1,008	1,892	252	265.4	280
11	3	555	1,557	0	420.5	180
2	3	550	1,595	0	425.0	180
3	3	722	1,920	0	511.8	301
4	3	650	1,547	0	446.5	290
5	3	599	1,611	0	451.7	279
6	3	1,050	1,653	602	178.2	400
7	3	1,093	1,752	598	192.8	400
8	3	1,072	1,789	593	241.2	400
9	3	988	1,734	541	174.7	400
10	3	1.050	2,050	234	269.9	280
1	2	840	1,583	0	515.8	240
2	2	866	1,641	0	524.6	240
3	2	813	1,839	0	498.0	240
4	2	918	1,794	0	575.1	240
5	2	816	1,898	0	492.0	312
6	2	1,049	1,693	580	178.4	400
7	2	1,055	1,943	413	250.8	400
8	2	1,028	1,472	571	159.9	400
9	2	1,083	1,658	640	167.0	400
10	2	1,022	1,617	428	230.9	280
1	1	0	0	0	.0	0
2	1	0	0	0	.0	0

(Filtered) (Primary) Date: 02-06-1999 Time: 13:47:54 SA0801F-4

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3	1	0	0	0	0	0
4	1	0	0	0	.0	0
5	1	631	2,079	0	476.5	108
6	1	1,054	2,057	153	298.7	239
7	1	764	1,547	38	424.4	211
8	1	558	1,296	0	401.1	159
9	1	383	1,154	0	245.5	100
10	1	282	736	0	162.1	59

Table 1 dpm/100cm² averaged over one square meter. Grids (1,1) - (10,1) and Grids (10,1) - (10,10) are not one square meter. Bold text denotes grids which exceed release limits

COMPARISON OF RESULTS WITH GUIDELINES

The survey data provided by the SRA Surface Contamination Monitor, serial number SCM2, was compared to the following criteria. The limits for total activity were calculated by adding an observed background of 1058 dpm/100 cm² to the survey criteria.

<u>Criteria</u>

1000 dpm/100 cm², averaged over $1m^2$ 3000 dpm/100 cm², maximum in 100 cm²

Total Activity Limits

2058 dpm/100 cm², averaged over $1m^2$ 4058 dpm/100 cm², maximum in 100 cm²

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

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

APPENDIX C

ANALYTICAL LABORATORY RESULTS

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Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
Rad Lab 99-01194-04	1-1	1/24/99	1/27/99	2/2/00	0004404						
99-01194-05	1-1 QC	1/24/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906 0 Modified	38,14	35.37	57,62	dpm/100cm ²
99 01194-06	1.2	1/24/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906.0 Modified	93.93	43.53	64.27	dpm/100cm ²
99-01194-07	1.3	1/24/99		2/2/99	9901194	Carbon-14	EPA 906.0 Modified	17.69	30,74	45.83	dpm/100cm ²
99-01194-08	1-3		1/27/99	2/2/99	9901194	Carbon-14	EPA 906.0 Modified	47.49	31.35	49.20	dpm/100cm ²
99-01194-09		1/24/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906.0 Modified	1126 37	68.52	48.41	dpm/100cm ²
99-01194-09 99-01194-10	1-5	1/24/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906.0 Modified	63 70	28.66	43,58	dpm/100cm ²
99-01194-10 99-01194-11	1-5 QC	1/25/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906.0 Modified	207,40	35.40	40.00	dpm/100cm ²
	1-6	1/24/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906.0 Modified	125.21	37.53	46.81	dpm/100cm ²
9-01194-12	1-7	1/24/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906.0 Modified	72.73	32.88	45.47	dpm/100cm ²
99-01194-13	1-8	1/24/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906.0 Modified	-2.28	24.61	41.39	dpm/100cm ²
99-01194-14	1-8 QC	1/25/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906 0 Modified	107.33	31.51	41.85	dpm/100cm ²
9 01194-15	1-9	1/24/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906 0 Modified	-16 57	20 22	35 34	dpm/100cm ²
9.01194-16	1.10	1/24/99	1/27/99	2/2/99	9901194	Carbon 14	EPA 906 0 Modified	-1.12	28.15	40.67	dpm/100cm ²
9/01194-17	1 1 1	1/24/99	1/27/99	2/2/00	0001104	Carbon-14	EPA 906 C Middled	10.50	23 76	42.20	dpm/100cm
0.01104-18	1-12	1/24/99	1/27/99	2/2/00	9º01194	Carbon-14	EPA 906 0 Modified	26 26	24 53	38 09	dpm/100cm
9 01194-19	1/13	1/24/99	1/27/99	2/2/90	9901194	Carbon-14	EPA 906 0 Modified	3544 19	154 91	101 52	dpm/100cm
201194-20	1-13 QC	1/25/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906 0 Modified	5000 56	196 55	135.42	dpm/100cm ²
a 01195.04	1-14	1/24/99	1/27/99	2/4/00	9901195	Carbon-14	EPA 905 0 Modified	58.80	23.52	32 21	dpm/100cm
01195-05	1-15	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906 0 Modified	24 35	29 52	43 36	dpm/100cm ²
9 01195 06	1-16	1/24/99	1/27/99	2/4/00	9901195	Carbon-14	EPA 906 0 Modified	28.51	19 79	29 87	dpm/100cm ²
0.01195-07	1.17	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906 0 Modified	75 10	22 01	27 86	dpm/100cm ²
9-01195-08	1-18	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906 0 Modified	153 48	27 73	33 74	dpm/100cm ²
01195-09	1.19	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906 0 Modified	51.72	16 37	21 41	dpm/100cm ²
01195-10	1-20	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906 0 Modified	1 46	16.71	26.04	dpm/100cm ²
01195-11	1-21	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906 0 Modified	-3.52	15.30	25 06	dpm/100cm ²
9-01195-12	1-22	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906 0 Modified	3 75	16.72	26.74	dpm/100cm ²
9-01195-13	1-23	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906.0 Modified	0 70	14.85	24.95	dpm/100cm ²
-01195-14	1-24	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906.0 Modified	6 18	17.26	27.50	dpm/100cm ²
01195-15	1-25	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906 0 Modified	-2.17	18.62	25.80	dpm/100cm ²
01195-16	1-26	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906.0 Modified	157.61	32.52	41 57	dpm/100cm ²
0.01195-17	1.27	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906.0 Modified	149 24	28 78	38.23	dpm/100cm ²
9-01195-18	1-27 QC	1/25/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906.0 Modified	110.35	28.37	38.53	dpm/100cm ²
01195-19	1-28	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906.0 Modified	7.12	16.68	25.35	dpm/100cm ²
01195-20	1-29	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906.0 Modified	-1.38	14.85		dpm/100cm ²
-01196-04	1-30	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906.0 Modified	1.50	14 65		dpm/100cm ²
							avg	321.81	10,04	24.91	opin/100cm
							min	-16.57			
							max	5000.56			

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Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
ector Pit											
9-01196-05	2-1	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906.0 Modified	16.61	19.31	30.65	dpm/100cm ²
9-01196-06	2-2	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906.0 Modified	5.66	16.71	26.88	dpm/100cm ²
-01196-07	2-3	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906.0 Modified	5.79	17.55	27.50	dpm/100cm ²
01196-08	2-4	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906.0 Modified	3.77	15.05	25.02	dpm/100cm ²
01196-09	2-5	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906.0 Modified	1.46	13.91	24.19	dpm/100cm ²
01196-10	2-6	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906.0 Modified	41.70	69.12	115.44	dpm/100cm ²
01196-11	2-7	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906.0 Modified	4.25	13.94	23.52	dpm/100cm ²
)1196-12	2-8	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906.0 Modified	-6.52	19.42	30.97	dpm/100cm ²
196-13	2-9	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906.0 Modified	0.00	15.66	25.20	dpm/100cm ²
196-14	2-10	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906.0 Modified	-11.37	19.01	29 05	dpm/100cm ²
196-15	2-11	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906.0 Modified	-4.46	15.68	24 68	dpm/100cm²
196-16	2-12	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906 0 Modified	-0 75	15 28	24 92	dpm/100cm²
196-17	2-13	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	FPA 906 0 Modified	-1 50	15.48	24.90	dpm/100cm ²
1196-18	2-13 00	1/20/00	1/27/04	2/4/99	9901196	Carbon 14	EPA 906-0 Modified	6.81	15.63	25.14	dpm/100cm ²
195-19	2.14	1/24/99	1/27/99	2/4/99	9901196	Carbon 14	EPA 906.0 Modified	-1.48	16-70	24 54	dpm/100cm ²
196-20	2-14 QC	1/26/00	1/27/99	2/4/99	9901196	Carbon 14	EPA 906 0 Modified	-5.98	14.94	24 83	dpm/100cm ²
1.0.20	2						avg	3 37			
							min	-11 37			
							məx	41 70			
oom											
97-04	3.1	1/25/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	173.67	309.44	495.95	dpm/100cm ²
97-05	3-2	1/25/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906 0 Modified	-8.03	34 92	55.05	dpm/100cm ²
97-06	3-2 QC	1/25/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	34 75	54 20	91,60	dpm/100cm ²
97-07	3-3	1/25/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	1.47	30 36	50 39	dpm/100cm ²
97-08	3-3 QC	1/25/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	-7,73	34.00	52.96	dpm/100cm ²
97-09	3-4	1/25/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	22.12	29.31	47.37	dpm/100cm ²
97-10	3-5	1/25/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906 0 Modified	46.08	37.09	60.73	dpm/100cm ²
197-11	3-6	1/25/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	-10.32	21.87	35.35	dpm/100cm ²
							a∨g	31.50			
							min max	-10.32 173.67			
Room							EDA 008 0 Madia	1110	35.49	55.08	dpm/100cm ²
197-12	4-1	1/24/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	14.46	35.49 34.66	53.35	dpm/100cm ²
197-13	4-2	1/24/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	15.57	34.66 39.75	53.35 54.44	
97-14	4-3	1/24/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	12.71 35.60	38.06	60.99	
197-15	4-4	1/24/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	35.60 15.29	38.08	58.21	dpm/100cm ²
97-16	4-5	1/24/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	9,73	32.42	55.58	
197.17	4-6	1/24/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	•1.70	38.13	58.24	
97-18	4.7	1/24/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	36.68	37,83	57.13	· ·
197-19	4-8	1/24/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906.0 Modified	7.29	37.63		dpm/100cm
197-20	4-9	1/24/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906 0 Modified	-3.33	36.62	56.46	
198-04	4-10	1/24/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906.0 Modified EPA 906.0 Modified	-3.33 20.83	32.35		dpm/100cm
198-05	4-11	1/24/99	1/27/99	2/6/99	9901198	Carbon-14		-10.54	32.35		dpm/100cm
1198-06	4-12	1/24/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906.0 Modified avg	12.72	01.24	51.10	
							min	-10.54			
								36.68			

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Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
Tunnel											
99-01198-07	5-1	1/23/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906 0 Modified	13 77	36.02	58.38	dpm/100cm ²
99-01198-08	5-2	1/23/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906.0 Modified	-4.72	32.36	53.40	dpm/100cm ²
9.01198-09	5-2 QC	1/26/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906.0 Modified	-6.69	36.38	56.77	dpm/100cm ²
99-01198-10	5-3	1/23/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906.0 Modified	5.73	41.71	64.82	dpm/100cm ²
9.01198-11	5-4	1/23/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906.0 Modified	-29.37	38.00	58.60	dpm/100cm ²
99-01198-12	5-4 QC	1/26/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906.0 Modified	-22.55	41.18	63.76	dpm/100cm ²
9 01198-13	5-5	1/23/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906.0 Modified	7.56	38.47	64.08	dpm/100cm ²
9-01198-14	5.6	1/23/99	1 <i>1</i> 27 <i>1</i> 99	2/6/99	9901198	Carbon-14	EPA 906.0 Modified	-13.06	28.71	49.21	dpm/100cm ²
9-01198-15	5-7	1/23/99	1 <i>1</i> 27/99	2/6/99	9901198	Carbon-14	EPA 906.0 Modified	•3.22	33.35	54.54	dpm/100cm ²
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5-18 QC

5-13 QC

5.10 QC

5-8 QC

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-3 50

8 19

-6.41

-16.31

-28 28

14 86

-15 20

-21.06

•7.98

36,20

41 46

38.01

37 13

34.43

34.14

34 88

29.27

41.19

40.51

31 11

25.63

59.73 dpm/100cm²

66.62 dpm/100cm²

60.30 dpm/100cm²

55.56 dpm/390cmi

57.10 dpm/100cm

45.77 dem/100cm

66-14 dpm/100cm'

65 57 dpm/100cm²

56 97 dpm/100cm²

41.66 dpm/100cm²

dpm/100cm

dpni/100cm*

dpm/100cm

dpm/100cm²

dpm/100cm²

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59.41

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9901199 Carbon-14 EPA 905 0 Modified 0.00 37.21 9901199 Carbon-14 FPA 906.0 Modified -9 21 9901199 Carbon-14 EPA 906 0 Modified -25 60 36 16 9901199 Carbon-14 EPA 906 0 Modified -11 04 34 42 9901199 Carbon-14 FPA 906 0 Modified

EPA 906 0 Modified

EPA 906 0 Modified

EPA 905 0 Modified

FFA 900 0 Modified

7 FA 909 6 Modified

+ FA 905 0 Modified

FPA 9200 Modified

EPA 906 0 Modified

EPA 906 0 Medilind

EPA 906 0 Modified

avg

min	-29 37
max	14 86

Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
West Basemen	t						incurou	Result	Ellor	WUA	Units
99-01199-14	6-1	1/23/99	1/27/99	2/8/99	9901199	Carbon-14	EPA 906.0 Modified	-4 66	33,19	55.28	dom/100cm ²
99-01199-15	6-2	1/23/99	1/27/99	2/8/99	9901199	Carbon-14	EPA 906 0 Modified	-27 73	39.61	61.72	dpm/100cm ²
99-01199-16	6-3	1/23/99	1/27/99	2/8/99	9901199	Carbon-14	EPA 906 0 Modified	-10 16	36.65	60,28	dpm/100cm ²
99-01199-17	6-4	1/23/99	1/27/99	2/8/99	9901199	Carbon-14	EPA 906 0 Modified	-21 61	29,35	51.31	dpm/100cm ³
99-01199-18	6-5	1/23/99	1/27/99	2/8/99	9901199	Carbon-14	EPA 906.0 Modified	-5 14	36.16	61.00	dpm/100cm ²
99-01199-19	6-6	1/23/99	1/27/99	2/8/99	9901199	Carbon-14	EPA 906 0 Modified	-24 52	37.87	67.15	dpm/100cm ²
99-01199-20	6-7	1/23/99	1/27/99	2/8/99	9901199	Carbon-14	EPA 906.0 Modified	-24 16	37.51	61.45	dpm/100cm ²
99-01200-04	6-8	1/23/99	1/27/99	2/11/99	9901200	Carbon-14	EPA 906 0 Modified	-53 15	33.68	58.85	dpm/100cm ²
99-01200-05	6-9	1/23/99	1/27/99	2/11/99	9901200	Carbon-14	EPA 906 0 Modified	-30 30	33.73	58.71	dpm/100cm ²
99-01200-06	6-10	1/23/99	1/27/99	2/11/99	9901200	Carbon-14	EPA 906 0 Modified	-21,96	32 97	56 74	dpm/100cm ²
99-01200-07	6-11	1/23/99	1/27/99	2/11/99	9901200	Carbon-14	EPA 906 0 Modified	-10.86	35 20	60.11	dpm/100cm ²
9.01200-08	6-12	1/23/99	1/27/99	2/11/99	9901200	Carbon 14	EPA 906 0 Modified	-31 82	33 60	58 72	dpm/100cm ²
89.01200.09	6-12 QC	1/26/00	1/27/09	2/11/09	9901200	Curbon 14	EPA 909 0 Modified	27.02	36.77	61 22	dpm/100cm
19-01200-10	6-13	17,29,50	1/.27/09	2/11/09	9901200	Carbon 14	EPA 906 C Modified	24.17	13.63	58 53	dpm/100cm ²
n 01200-11	6-14	1/21/00	172,780	2/11/99	9901200	Carbon 14	FPA 905 0 Modified	-41-17	37.51	56 03 60 35	dpm/100cm
9 01200-12	6-15	1/23/99	1/27/99	2/11/99	9901200	Carbon 14	EPA 906 0 Modified	15.07	34 31	58 39	dpm/100cm ²
9-01200-13	6-16	1/23/99	1/27/99	2/11/99	9901200	Carbon-14	EPA 906 0 Modified	16 47	40.90	70 92	dpm/100cm ²
9-01200-14	6-17	1/23/99	1/27/99	2/11/99	9901200	Carbon-14	EPA 906 0 Modified	-12.65	34 24	61 28	dpm/100cm ²
9-01200-15	6-18	1/23/99	1/27/99	2/11/99	9901200	Carbon-14	EPA 906 0 Modified	-1.54	33 44	59.61	dpm/100cm ²
9-01200-16	6-19	1/23/99	1/27/99	2/11/99	9901200	Carbon 14	FPA 906 0 Modified	-31.72	35 57	61 45	dpm/100cm ²
9.01200-17	6-20	1/23/99	1/27/99	2/11/99	9901200	Carbon-14	EPA 906 0 Modified	-17,47	35 91	61 56	dpm/100cm ²
9-01200-18	6-21	1/23/99	1/27/99	2/11/99	9901200	Carbon 14	EPA 906 0 Modified	36.99	34.04	59 72	dpm/100cm ²
9-01200-19	6-22	1/23/99	1/27/99	2/11/99	9901200	Carbon-14	EPA 906 0 Modified	-37 54	35,19	63 25	dpm/100cm ²
9-01200-20	6-23	1/23/99	1/27/99	2/11/99	9901200	Carbon-14	EPA 906 0 Modified	-28 88	37 20	62.16	dpm/100cm ²
9-01201-04	6-24	1/23/99	1/27/99	2/11/99	9901201	Carbon-14	EPA 906 0 Modified	-15 05	31 36	50.00	dpm/100cm ²
9-01201-05	6-25	1/23/99	1/27/99	2/11/99	9901201	Carbon 14	EPA 906.0 Modified	2 85	31,98	47.36	dpm/100cm ²
							avg min max	-22.46 -53.15 2.85			

Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
Main Corridor								nesu		MDA	Units
99-01201-06	7-1	1/23/99	1/27/99	2/11/99	9901201	Carbon-14	EPA 906.0 Modified	-19,13	31.60	48.89	dpm/100cm ²
9.01201-07	7-2	1/23/99	1/27/99	2/11/99	9901201	Carbon-14	EPA 906.0 Modified	9.05	32.40	50.13	dpm/100cm ²
9 01201-08	7-3	1/23/99	1 <i>1</i> 27 <i>1</i> 99	2/11/99	9901201	Carbon-14	EPA 906 0 Modified	-11,49	29.66	47.72	dpm/100cm ²
9-01201-09	7-4	1/23/99	1 <i>1</i> 27 <i>1</i> 99	2/11/99	9901201	Carbon-14	EPA 906 0 Modified	-1.41	30.34	46,95	dpm/100cm ²
9-01201-10	7-5	1/23/99	1 <i>1</i> 27 <i>1</i> 99	2/11/99	9901201	Carbon-14	EPA 906.0 Modified	-4.14	28.46	45.79	dpm/100cm ²
9-01201-11	7-6	1/23/99	1/27/99	2/11/99	9901201	Carbon-14	EPA 906.0 Modified	-2.82	28.46	46.85	dpm/100cm ²
9 01201 12	7.7	1/23/99	1/27/99	2/11/99	9901201	Carbon-14	EPA 906.0 Modified	-8.93	29.59	49.43	dpm/100cm ²
01201-13	7-8	1/23/99	1/27/99	2/11/99	9901201	Carbon-14	EPA 906 0 Modified	14.35	33 66	52.97	dpm/100cm ²
01201-14	7-9	1/23/99	1/27/99	2/11/99	9901201	Carbon-14	EPA 906.0 Modified	-18.79	33.35	52.03	dpm/100cm ²
01201-15	7-10	1/23/99	1/27/99	2/11/99	9901201	Carbon-14	EPA 906 0 Modified	0.00	32 54	51.21	dpm/100cm ²
01201-16	7-11	1/23/99	1/27/99	2/11/99	9901201	Carbon-14	EPA 906 0 Modified	0.00	34:45	53 53	dpm/100cm ²
1201 17	7-12	1/23/99	1/27/99	2/11/00	9901201	Carbon-14	EPA 906 0 Modified	8.58	31.45	47 49	dpm/100cm ²
1201-13	7-13	1/23/99	1/27/99	2/11/99	9901201	Carbon-14	EPA 996 C Modified	10.69	28.33	44 40	dpm/100cm ²
0261-19	7.14	1/23/99	1/27/99	2/11/90	6901201	Carbon 14	EPA 906.0 Modified	1.47	29.55	44.49	dpm/100cm
1201-20	7-15	1/23/99	1/27/99	2/11/05	9901201	Carbon-14	EPA 206 C Modified	1.47 4.40	29-15 31-19	48.67	dpm/100cm ²
1202-04	7-16	1/23/99	1/27/99	2/11/90	9901202	Carbon-14	EPA 906 0 Modified				dpm/100cm ²
1202 05	7.17	1/23/99	1/27/99	2/11/99	9901202	Carbon-14		-13.49	15 18	25 29	
1202-06	7-18	1/23/99	1/27/99	2/11/99	9901202	Carbon-14	EPA 906 0 Modified EPA 906 0 Modified	-1 86	13 77	22 11	dpm/100cm ²
1202-07	7-19	1/23/99	1/27/99	2/11/99	9901202	Carbon-14		-11.79	15 80	24 70	
01202-08	7.20	1/23/99	1/27/99	2/11/99	9901202		EPA 906.0 Modified EPA 906.0 Modified	+1.90 8.40	14 00	22.58	dpm/100cm ²
01202-00	7-21	1/23/99				Carbon-14		-8 40	13 93	23 00	dpm/100cm
01202-09			1/27/99	2/11/99	9901202	Carbon-14	EPA 906 0 Modified	-5 76	13.63	22 80	dpm/100cm*
	7.22	1/23/99	1/27/99	2/11/99	9901202	Carbon-14	EPA 906 0 Modified	3.77	14 14	22 35	dpm/100cm
01202-11	7.23	1/23/99	1/27/99	2/11/99	9901202	Carbon-14	EPA 906 0 Modified	-3.22	14 65	22.91	dpm/100cm
01202-12	7.24	1/23/99	1/27/99	2/11/99	9901202	Carbon 14	EPA 906 0 Modified	-7,16	13 73	23 17	dpm/100cm ²
01202-13	7-25	1/23/99	1/27/99	2/11/99	9901202	Carbon-14	EPA 906.0 Modified	-7.98	13 08	21 87	dpm/100cm ²
01202-14	7-26	1/23/99	1/27/99	2/11/99	9901202	Carbon-14	EPA 906 0 Modified	-0 63	14 01	22 33	dpm/100cm'
01202-15	7-27	1/23/99	1/27/99	2/11/99	9901202	Carbon-14	EPA 906.0 Modified	-2.60	15.01	23.13	dpm/100cm ²
1202-16	7-28	1/23/99	1/27/99	2/11/99	9901202	Carbon-14	EPA 906.0 Modified	-1.89	13.15	22.48	dpm/100cm ²
1202-17	7-29	1/23/99	1/27/99	2/11/99	9901202	Carbon-14	EPA 906.0 Modified	-5.72	13.25	22.64	dpm/100cm ²
1202-18	7-30	1/23/99	1/27/99	2/11/99	9901202	Carbon-14	EPA 906.0 Modified	-1.82	12.76	21.61	dpm/100cm ²
1202-19	7-31	1/23/99	1/27/99	2/11/99	9901202	Carbon-14	EPA 906.0 Modified	2.53	14.05	22.56	dpm/100cm ²
1202-20	7.32	1/23/99	1/27/99	2/11/99	9901202	Carbon-14	EPA 906.0 Modified	-2.59	13.07	23.06	dpm/100cm ²
1203-04	7-33	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	-18.74	33.25	56.63	dpm/100cm ²
1203-05	7-34	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	-6.33	33.10	57.38	dpm/100cm ²
01203-06	7-35	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	3.14	32,97	56.88	dpm/100cm ²
1203-07	7-36	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906 0 Modified	-13.65	32.43	54.99	dpm/100cm ²
01203-08	7-37	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	6.29	33.88	56.99	dpm/100cm ²
01203-09	7-38	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	-34.46	34.34	59.50	dpm/100cm ²
01203-10	7-39	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	-9.53	34.93	57,57	dpm/100cm ²
-01203-11	7-40	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	-33.32	41.38	71.08	dpm/100cm ²
01203-12	7-41	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	-29.37	35,72	56.05	dpm/100cm ²
01203-13	7-42	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	-38,70	30.94	56.13	dpm/100cm ²
01203-14	7-43	1/23/99	1 <i>1</i> 27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	-7,77	33.92	56.36	dpm/100cm ²
01203-15	7-44	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	-29.56	33.45	59.54	dpm/100cm ²
01203-16	7-45	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	-28.33	35.58	57.08	dpm/100cm ²
01203-17	7-46	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	8.94	28.32	46.31	dpm/100cm ²
-01203-18	7-47	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	-5.13	35.28	61.95	dpm/100cm ²

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Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units .
99-01203-19	7-48	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	-9.8 '	35.34	59.43	dpm/100cm ²
99-01203-20	7-49	1/23/99	1/27/99	2/14/99	9901203	Carbon-14	EPA 906.0 Modified	-9.00	35.38	60.00	dpm/100cm ²
99-01204-04	7-50	1/23/99	1/27/99	2/14/99	9901204	Carbon-14	EPA 906.0 Modified	0.00	31.61	54.52	dpm/100cm ²
							a∨g	-7.31			
							min	38.70			
							max	14.35			
Upstairs											
99-01204-05	8-1	1/23/99	1/27/99	2/14/99	9901204	Carbon-14	EPA 906.0 Modified	9,71	36.30	57.62	dpm/100cm ²
99-01204-06	8-2	1/23/99	1/27/99	2/14/99	9901204	Carbon-14	EPA 906 0 Modified	-13 17	37.48	58.61	dpm/100cm ²
99-01204-07	8-3	1/23/99	1/27/99	2/14/99	9901204	Carbon-14	EPA 906.0 Modified	-15 34	37.48	54.62	dpm/100cm ²
99-01204-08	8-4	1/23/99	1/27/99	2/14/99	9901204	Carbon-14	EPA 906 0 Modified	-4.61	32.43	54.62	dpm/100cm ²
99-01204-09	8-5	1/23/99	1/27/99	2/14/99	9901204	Carbon-14	EPA 906 0 Modified	-28 57	· 36.37	63.58	dpm/100cm ²
99 01204-10	8.6	1/23/00	1/27/99	2/14/99	9901204	Carbon-14	EPA 906 0 Modified	20.57	29.45	51.97	dpm/100cm
99-01204-11	8.7	1/23/99	1/27/99	2/14/99	9901204	Carbon 14	EPA 906 0 Modified	12.80	34.35	56 97	dpm/100cm
99.01204-12	8.8	17,1999	1/27/00	2/14/99	9901204	Carbon 14	EPA 905 0 Modified	18.77	32 88	59 15	dem/100cm
99.01204.13	8.9	1723/00	1/27/99	2/14/99	9901204	Carbon 14	EPA 906 0 Modified	11.19	35 17	56 92	dpm/100cm
99 01204-14	8 10	1/2/9/99	1/27/99	2/14/99	9901204	Carbon-14	EPA 906.0 Modified	11.30	36 36	57 50	dpm/100cm ²
99-01204-15	8-11	1/23/99	1/27/99	2/14/99	9901204	Carbon 14	EPA 906 0 Modified	-18-15	32.06	53 85	dpm/100cm
99-01204-16	8-12	1/23/00	1/27/99	2/14/99	9901204	Carbon-14	EPA 906 0 Modified	-14 55	34 57	57 57	dpm/100cm ²
9-01204-17	8.13	1/23/99	1/27/99	2/14/99	9901204	Carbon 14	EPA 906 0 Modified	15 79	43 93	70 27	dpm/100cm
99-01204-18	8.14	1/23/99	1/27/99	2/14/99	9901204	Carbon 14	EPA 906 0 Modified	-6 54	48 15	77 63	dpm/100cm
9 01204-19	8-15	1/23/99	1/27/99	2/14/99	9901204	Carbon-14	EPA 906.0 Modified	-24 24	45 32	71.94	dpm/100cm ²
99-01204-20	8-16	1/23/99	1/27/99	2/14/99	9901204	Carbon 14	EPA 906.0 Modified	-8 87	36 97	63,18	dpm/100cm ²
9-01205-04	8-17	1/23/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906 0 Modified	-14 54	44 96	73 95	dpm/100cm ²
99-01205-07	8-20	1/23/99	1/27/99	2/11/99	9901205	Carbon 14	EPA 906.0 Modified	-20.77	36.05	61.62	dpm/100cm ²
99-01205-08	8-21	1/23/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906.0 Modified	-10.98	32.98	55.87	dpm/100cm ²
99-01205-09	8-22	1/23/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906.0 Modified	-38.65	34.01	55.05	dpm/100cm ²
99-01205-10	8-23	1/23/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906.0 Modified	-21,24	36.52	58.19	dpm/100cm ²
9-01205-11	8-24	1/23/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906.0 Modified	-12.75	36.42	58.74	dpm/100cm ²
99-01205-12	8-25	1/23/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906.0 Modified	-13.87	31.82	54.87	dpm/100cm ²
9-01207-10	8-28	1/26/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906.0 Modified	-1.56	35.07	57.18	dpm/100cm ²
9-01207-11	8-26 QC	1/26/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906.0 Modified	-21.39	33.48	55.90	dpm/100cm ²
9-01207-12	8-27	1/26/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906.0 Modified	-17.77	32.97	54.18	dpm/100cm ²
9-01207-13	8-27 QC	1/26/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906.0 Modified	-29,59	34.53	56,96	dpm/100cm ²
							avg	-15.51			
							min	-38.65			
							max	9,71			

Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
Incinerator									2.1.01		011103
99-01205-13	9-1	1/25/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906.0 Modified	1.71	37,26	61.05	dpm/100cm ²
99-01205-14	9-1 QC	1/26/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906.0 Modified	-6,71	47.62	79.65	dpm/100cm ²
99-01205-15	9-2	1/25/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906.0 Modified	-19.96	47.22	78.98	dpm/100cm ²
99-01205-16	9-2 QC	1/28/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906.0 Modified	-24.51	68.20	109.09	dpm/100cm
9-01205-17	9.3	1/25/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906.0 Modified	-16.61	32.72	59.15	dpm/100cm ²
9-01205-18	9.4	1/25/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906.0 Modified	0.00	36.61	58,11	dpm/100cm ²
9-01205-19	9-5	1/25/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906.0 Modified	-6.55	35.73	58.29	dpm/100cm ²
9-01205-20	9-6	1/25/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906 0 Modified	-1.62	34 23	57.75	dpm/100cm ²
9 01206-04	9-7	1/25/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906 0 Modified	-28.83	36.47	61,58	dpm/100cm ²
9-01206-05	9-8	1/25/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906 0 Modified	-36.57	42.10	70 30	dpm/100cm ²
9-01206-06	9-9	1/25/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906.0 Modified	-52 34	50.00	91 46	dpm/100cm ²
0.01206-07	9.10	1/25/99	1/27/99	2/13/99	9901206	Carbon 14	EPA 906 0 Modified	-16 45	26 36	48 64	dpm/100cm ³
9/11206-08	9-10 QC	1/26/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906 0 Modified	55.60	40 12	71.25	dpm/100cm
9.01206-09	9-11	1/25/99	1/27/99	2/13/09	0901203	Garbon-14	FPA 906 0 Modified	-10 35	38.99	66.32	dpm/100cm ²
9.01205-10	9.12	1/25/99	1/27/99	2/13/00	9901208	Carbon-14	EPA 906 0 Modified	-13 26	43 62	72.83	dpm/100cm/
9 01206-11	9-13	1/25/99	1/27/99	2/13/99	9901206	Carbon 14	EPA 905.0 Modified	-18.81	46 R7	80 34	dpni/100cm
9 01206-12	9-14	1/25/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 905 0 Modified	15 76	36 43	60.61	dpm/100cm
9 01206-13	9.15	1/25/99	1/27/99	2/13/99	9901206	Carbon 14	EPA 906.0 Modified	-30 88	33 42	59 36	dpm/100cm
9/01206-14	9-16	1/25/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906 0 Modified	-31.71	36,91	60 97	dpm/100cm ²
9 01206-15	9.17	1/25/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906 0 Modified	-12.62	36 57	60 63	dpm/100cm ²
9 01205-16	9.18	1/25/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 905.0 Modified	-32.44	39.60	65 65	dpm/100cm ²
9 01206-17	9-19	1/25/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906 0 Modified	-28.00	34,92	63 32	dpm/100cm ²
9 01206-18	9-20	1/25/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906 0 Modified	-32.30	34,97	62 10	dpm/100cm ²
01205-05	9-18	1/23/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906 0 Modified	-5 07	57 34	90 33	dpm/100cm ²
9.01205.06	9.19	1/23/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906 0 Modified	-2 96	60.06	105 49	dpm/100cm ²
9 01206-19	9-21	1/25/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906.0 Modified	-20.29	37.21	65.02	dpm/100cm ²
9-01206-20	9-21 QC	1/26/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906 0 Modified	-31.16	39.43	66.56	dpm/100cm ²
9-01207-04	9-22	1/25/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906.0 Modified	-43.35	82.28	132.17	dpm/100cm ²
9-01207-05	9-22 QC	1/26/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906.0 Modified	-16.22	39.64	65,91	dpm/100cm ²
9-01207-06	9-23	1/25/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906.0 Modified	-11.42	40.18	69.63	dpm/100cm ²
9-01207-07	9-24	1/25/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906.0 Modified	-23.19	40.02	. 65.26	dpm/100cm ²
-01207-08	9-24 QC	1/26/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906.0 Modified	-18.80	40.53	68.76	dpm/100cm ²
01207-09	9-25	1/25/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906.0 Modified	-26.18	143.45	239.48	dpm/100cm ²
							avg	-20.87			
							min	-55.60			
							max	1.71			

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Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
Rad Lab											
99-01194-04	1-1	1/24/99	1/27/99	2/2/99	9901194	Tritium	EPA 906.0 Modified	•9.04	30.42	56.68	dpm/100cm
99-01194-05	1-1 QC	1/25/99	1/27/99	2/2/99	9901194	Tritium	EPA 906.0 Modified	6.73	35.50	63,23	dpm/100cm
99-01194-06	1-2	1/24/99	1/27/99	2/2/99	9901194	Tritium	EPA 906.0 Modified	-4.80	24.42	45.09	dpm/100cm
99-01194-07	1-3	1/24/99	1/27/99	2/2/99	9901194	Tritium	EPA 906.0 Modified	18.02	28.32	48,41	dpm/100cm
99-01194-08	1-4	1/24/99	1/27/99	2/2/99	9901194	Tritium	EPA 906.0 Modified	312.11	45.72	45.67	dpm/100cm
99-01194-09	1-5	1/24/99	1/27/99	2/2/99	9901194	Tritium	EPA 906 0 Modified	14.82	24.99	42.87	dpm/100cm
99-01194-10	1-5 QC	1/25/99	1/27/99	2/2/99	9901194	Tritium	EPA 906.0 Modified	26.17	24.01	39.38	dpm/100cm
99-01194-11	1-6	1/24/99	1/27/99	2/2/99	9901194	Tritium	EPA 906 0 Modified	102.88	33.61	46.05	dpm/100cm
99-01194-12	1.7	1/24/99	1/27/99	2/2/99	9901194	Tritium	EPA 906.0 Modified	8,33	25.44	44 74	dpm/100cm
99-01194-13	1-8	1/24/99	1/27/99	2/2/99	9901194	Tritium	EPA 906.0 Modified	-11,91	21.33	40.71	dpm/100cm
99-01194-14	1-8 QC	1/25/99	1/27/99	2/2/99	9901194	Tritium	EPA 906.0 Modified	14,24	24.00	41 18	dpm/100cm
99-01194-15	1-9	1/24/00	1/27/99	2/2/99	9901194	Tritean	EPA 906 0 Modified	4 62	19 60	34 77	dpm/100cm
99-01194-16	1-10	1/24/59	1/27/99	2/2/99	9901194	Tritium	EPA 906 0 Modified	. 851	21 27	40.01	dpm/100cm
99-01194-17	1-11	1/24/99	1/27/99	2/2/99	9901194	Triturn	EPA 906.0 Modified	74 14	29 02	41 61	dpm/100cm
99.01194-18	1-12	1/24/99	1/27/99	2/2/99	9901194	Fritiani	EPA 906 0 Modified	3.99	21 04	37 48	dpm/100cm
9-01194-19	1-13	1/24/90	1/27/99	2/2/99	9901194	Tratium	EPA 906 0 Modified	1038 58	116 76	99 88	dpm/100cm
0.01104.20	1-13 QC	1/25/00	1/27/99	2/2/99	9901194	Tatium	EPA 906 0 Modified	1743 08	170 66	133.22	dpm/100cm
9-01195-04	1-14	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906 0 Modified	5 44	20 56	36 25	dpm/100cm
9-01195-05	1.15	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906 0 Modified	20,73	28 78	48 79	dpm/100cm
9-01195-06	1-16	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906 0 Modified	-5 04	18 18	33 61	dpm/100cm
9-01195-07	1-17	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906 0 Modified	4 70	17 78	31,35	dpm/100cm
9-01195-08	1-18	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906 0 Modified	40.80	24 32	37 96	dpm/100cm
9-01195-09	1.19	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906.0 Modified	5 42	13 82	24 10	dpm/100cm
9-01195-10	1-20	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906 0 Modified	-12 45	15 12	29 30	dpm/100cm
9-01195-11	1-21	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906.0 Modified	-2 11	15 45	28.20	dpm/100cm
9-01195-12	1-22	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906.0 Modified	-1.50	16 55	30 09	dpm/100cm
9-01195-13	1-23	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906.0 Modified	-12.63	14.42	28.07	dpm/100cm
9-01195-14	1-24	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906.0 Modified	-22.43	15.09	30.95	dpm/100cm
9-01195-15	1-25	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906.0 Modified	-7.26	15.45	29.03	dpm/100cm
9-01195-16	1-26	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906.0 Modified	38,59	29.08	46.78	dpm/100cm
9-01195-17	1-27	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906.0 Modified	23.66	25.81	43.03	dpm/100cm
9-01195-18	1-27 QC	1/25/99	1/27/99	2/4/99	9901195	Tritium	EPA 906.0 Modified	20,59	25.75	43.35	dpm/100cm
9-01195-19	1-28	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906.0 Modified	-10.69	14.85	28.52	dpm/100cm
9-01195-20	1-29	1/24/99	1/27/99	2/4/99	9901195	Tritium	EPA 906.0 Modified	-7.59	14.63	27.61	dpm/100cm
9-01196-04	1-30	1/24/99	1/27/99	2/4/99	9901196	Tritium	EPA 906.0 Modified	9.01	15.15	26.04	dpm/100cm
							avg	97.73			
							min	-22 43			
							max	1743.08			

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Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	F		
Ejector Pit							Method	Result	Error	MDA	Units
99-01196-05	2-1	1/24/99	1/27/99	2/4/99	9901196	Tritium	EPA 906.0 Modified	-0 92	17.46	32.04	dpm/100cm ²
99-01196-06	2-2	1/24/99	1/27/99	2/4/99	9901196	Tritium	EPA 906 0 Modified	-6.48	14.73	28.10	dpm/100cm ²
99-01196-07	2-3	1/24/99	1/27/99	2/4/99	9901196	Tritium	EPA 906.0 Modified	52.23	20,36	28.75	dpm/100cm ²
99-01196-08	2-4	1/24/99	1/27/99	2/4/99	9901196	Tritium	EPA 906 0 Modified	-2.26	14.10	26.15	dpm/100cm ²
99-01196-09	2-5	1/24/99	1/27/99	2/4/99	9901196	Tritium	EPA 906.0 Modified	10.94	14.92	25.28	dpm/100cm ²
99-01196-10	2-6	1/24/99	1/27/99	2/4/99	9901196	Tritium	EPA 906.0 Modified	59.16	71.86	120.68	dpm/100cm ²
99-01196-11	2-7	1/24/99	1/27/99	2/4/99	9901196	Tritium	EPA 906 0 Modified	5 67	14.03	24.59	dpm/100cm ²
99-01196-12	2-8	1/24/99	1/27/99	2/4/99	9901196	Tritium	EPA 906.0 Modified	3.73	18.11		
99-01196-13	2-9	1/24/99	1/27/99	2/4/99	9901196	Tritium	EPA 906.0 Modified	3.04	14.74	32.37	dpm/100cm ²
99-01196-14	2-10	1/24/99	1/27/99	2/4/99	9901196	Tritium	EPA 906 0 Modified	1 75	16.82	26.34	dpm/100cm ²
9 01196-15	2-11	1/24/99	1/27/99	2/4/99	9901196	Tritium	EPA 906 0 Modified	11,16	15.82	30 37	dpm/100cm ²
01106-16	2 12	1/24/99	1/27/99	2/4/00	0001196	Tritium	EPA 906 0 Modified	15.03		25 80	dpm/100cm'
0.01106-17	2.13	1/24/00	1/27/99	2/4/20	aant196	Tritium	EPA 205 (1 Medified		15 72	26.06	4pm/100cm ²
0.01106.18	2-13 QC	1/26/99	1/27/00	0.4/69	0001100	Letum	EPA 006 0 Modified	-1 50	14 11	25.03	dpm/100cm ²
e 01165-19	2.14	1/24/99	1/27/99	2747-0	96-11165	Tuturn	FEA 905 0 Modified	4.55	13.04	26.28	lpm(100cm)
++ 01195-20	2 14 QC	1/26/99	1/27/99	2/4/00	0001106	Tritum	EPA 906 0 Modified	5.92	14.64	25.65	dom/100cm
							avg	5 24 9 88	14 74	25.96	dpm/100cm*
							min	-6 48			
							max	59.16			
lens' Room											
9-01197-04	3-1	1/25/99	1/27/99	2/6/99	9901197	Tritium					
01197-05	3.2	1/25/99	1/27/99	2/6/99	9901197	Tritium	EPA 906 0 Modified	25413 91	1233 02	584 25	dpm/100cm
01197-06	3-2 QC	1/25/99	1/27/99	2/6/99	9901197	Tritium	EPA 906 0 Modified	296.09	55 89	64 85	dpm/100cm ²
01197-07	3.3	1/25/99	1/27/99	2/6/99	9901197	Tritium	EPA 906 0 Modified	1898.50	152 02	107 91	dpm/100cm ²
-01197-08	3-3 QC	1/25/99	1/27/99	2/6/99	9901197	Tritium	EPA 906 0 Modified	-13.26	31.76	59.36	dpm/100cm ²
9-01197-09	3.4	1/25/99	1/27/99	2/6/99	9901197		EPA 906.0 Modified	-43.34	30.64	62 39	dpm/100cm ²
9-01197-10	3.5	1/25/99	1/27/99	2/6/99	9901197	Tritium	EPA 906 0 Modified	73.39	36.72	55 81	dpm/100cm ²
0-01197-11	3-6	1/25/99	1/27/99	2/6/99 2/6/99		Tritium	EPA 906 0 Modified	381.70	64 63	71.55	dpm/100cm ²
			1121133	20133	9901197	Tritium	EPA 906.0 Modified	-7.23	22.46	41.65	dpm/100cm ²
							avg min	3499.97 -43.34		-	
							max	25413.91			
dies' Room											
-01197-12	4-1	1/24/99	10700	0/0/00	0004407						
-01197-13	4-2	1/24/99	1/27/99	2/6/99	9901197	Tritium	EPA 906.0 Modified	159.37	47.75	64.87	dpm/100cm ²
-01197-14	4-2	1/24/99	1/27/99	2/6/99	9901197	Tritium	EPA 908.0 Modified	3.12	35.13	62 86	dpm/100cm ²
-01197-15	4-5	1/24/99	1/27/99	2/6/99	9901197	Tritium	EPA 906.0 Modified	-25.46	33.30	64.14	dpm/100cm ²
-01197-16	4-4		1/27/99	2/6/99	9901197	Tritium	EPA 906.0 Modified	-12.48	38.76	71.86	dpm/100cm ⁷
		1/24/99	1/27/99	2/6/99	9901197	Tritium	EPA 906.0 Modified	-3.40	37.74	68.58	dpm/100cm ²
01197-17	4-6	1/24/99	1/27/99	2/6/99	9901197	Tritium	EPA 906.0 Modified	40.62	39.65	65.48	dpm/100cm ²
01197-18	4.7	1/24/99	1/27/99	2/6/99	9901197	Tritium	EPA 906.0 Modified	49.38	42.08	68 62	dpm/100cm ²
01197-19	4-8	1/24/99	1/27/99	2/6/99	9901197	Tritium	EPA 906.0 Modified	18.37	38.87	67.31	dpm/100cm ²
01197-20	4-9	1/24/99	1/27/99	2/6/99	9901197	Tritium	EPA 906.0 Modified	746.45	83.05	73.55	dpm/100cm ²
01198-04		1/24/99	1/27/99		9901198	Tritium	EPA 906.0 Modified	146,74	46.68	63,73	dpm/100cm²
01198-05		1/24/99	1/27/99		9901198	Tritium	EPA 906.0 Modified	-10.44	30.51	56,98	dpm/100cm ²
01198-06	4.12	1/24/99	1/27/99	2/6/99	9901198	Tritium	EPA 906.0 Modified	30.18	34.49	57.67	dpm/100cm ²
							avg	95.20			
		•					min	-25.46			
							max	746.45			

Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
Tunnel											
99-01198-07	5-1	1/23/99	1/27/99	2/6/99	9901198	Tritium	EPA 906 0 Modified	-17.24	34,80	65.91	dpm/100cm ²
99-01198-08	5-2	1/23/99	1/27/99	2/6/99	9901198	Tritium	EPA 906 0 Modified	20 51	35.11	60.29	dpm/100cm ²
99-01198-09	5-2 QC	1/26/99	1/27/99	2/6/99	9901198	Tritium	EPA 906.0 Modified	28.50	37.89	64.06	dpm/100cm ²
99-01198-10	5-3	1/23/99	1/27/99	2/6/99	9901198	Tritium	EPA 906.0 Modified	-3.83	40.07	73.18	dpm/100cm ²
99-01198-11	5-4	1/23/99	1/27/99	2/6/99	9901198	Tritium	EPA 906.0 Modified	-24.23	34.26	66,15	dpm/100cm ²
99-01198-12	5-4 QC	1/26/99	1/27/99	2/6/99	9901198	Tritium	EPA 906.0 Modified	65.88	45.34	71.94	dpm/100cm ²
99-01198-13	5-5	1/23/99	1/27/99	2/6/99	9901198	Tritium	EPA 906.0 Modified	18 93	41,64	72.34	dpm/100cm ²
9-01198-14	5-6	1/23/99	1/27/99	2/6/99	9901198	Tritium	EPA 906 0 Modified	10 17	31 60	55.55	dpm/100cm ²
99-01198-15	5.7	1/23/99	1/27/99	2/6/99	9901198	Tritium	EPA 906 0 Modified	-4.83	33.56	61.57	dpm/100cm ²
9-01198-16	5-8	1/23/99	1/27/99	2/6/99	9901198	Tritium	EPA 906 0 Modified	-8.82	36.43	67,43	dpm/100cm ²
9 01198-17	5-8 QC	1/26/99	1/27/99	2/6/99	9901198	Tritium	EPA 906 0 Modified	-45 24	37.18	75 17	dpm/100cm ²
9 ()1198 18	5.0	1/23/99	1/27/99	2/6/99	9901198	Totum	EPA 906 0 Modified	267 17	56.94	68 07	dpm/100cm ²
o ()1198-19	5-10	1/23/59	1/27/99	2/6/00	9901198	Entern	FPA 905.0 Madded	47 38	41.13	67 07	dpm/100cm ²
0011/8/20	5-10 QC	17,16/204	1/27/92	2/6/90	9901198	Interne	EVA 966 0 Redificat	. 1943 - 1945	32.15	62 70	dpm/100cm
9.91199.04	5 11	17:3/90	17,27/99	2/8/99	9901199	Intern	EEA 966 0 Modilieri	4 3.2	31.97	57.74	dpm/100cm
101100.05	5-10	1/23/99	1/27/91	2/8/99	9901199	Intern	EPA 906 0 Medilied	21.25	34 07	58 34	dpm/100cm [°]
0.01199.06	5.13	1/23/99	1/27/99	2/8/99	9901199	Tritium	EPA 906 0 Modified	55-40	30 20	45 97	dpm/100cm
0.01109-07	5-13 QC	1/26/99	1/27/99	2/8/99	9901199	Tutum	EPA 906 0 Modified	-3 72	36 11	66 40	dpm/100cm ²
9-01199-08	5.14	1/23/99	1/27/99	2/8/99	9901199	Trilium	EPA 906 0 Modified	5.07	33 59	60 25	dpm/100cm
<u>9 01199.09</u>	5-15	1/23/90	1/27/99	2/8/99	9901199	Untern	FPA 906 0 Modified	22.15	38 28	65 85	dpm/100cm ⁷
9-01199-10	5 16	1/24/99	1/27/99	2/8/99	9901199	Fritum	EPA 906 0 Modified	4.81	31.89	57.20	dpm/100cm ¹
9-01199-11	5.17	1/24/99	1/27/99	2/8/99	9901199	Tritium	EPA 906.0 Modified	-6 32	30 35	56 39	dpm/100cm ²
9-01199-12	5.18	1/24/99	1/27/99	2/8/99	9901199	Tritium	EPA 906 0 Modified	-9.14	28 95	54 37	dpm/100cm ²
9-01199-13	5-18 QC	1/26/99	1/27/99	2/8/99	9901199	Tritium	EPA 906 0 Modified	-4 69	22 51	41 82	dpm/100cm ²
							avģ	17 40			
							min	-45 24			
							max	267,17			

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Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
Baseme											
199-14	6-1	1/23/99	1/27/99	2/8/99	9901199	Tritium	EPA 906 0 Modified	0.00	30,50	55.52	dpm/100cm ²
01199-15	6-2	1/23/99	1/27/99	2/8/99	9901199	Tritium	EPA 906.0 Modified	12.16	35.22	61.98	dpm/100cm ²
)1199-16	6-3	1/23/99	1/27/99	2/8/99	9901199	Tritium	EPA 906 0 Modified	13.57	34.56	60 54	dpm/100cm ²
199-17	6-4	1/23/99	1/27/99	2/8/99	9901199	Tritium	EPA 906 0 Modified	-4.33	27.88	51,53	dpm/100cm ²
)1199-18	6-5	1/23/99	1/27/99	2/8/99	9901199	Tritium	EPA 906 0 Modified	13.74	34.97	61.27	dpm/100cm ²
01199-19	6-6	1/23/99	1/27/99	2/8/99	9901199	Tritium	EPA 906 0 Modified	-22.68	34.75	67.44	dpm/100cm ²
01199-20	6-7	1/23/99	1/27/99	2/8/99	9901199	Tritium	EPA 906 0 Modified	41.51	37.75	61 72	dpm/100cm ²
1200-04	6-8	1/23/99	1/27/99	2/11/99	9901200	Tritium	EPA 906 0 Modified	0.00	30,15	54.84	dpm/100cm ²
200-05	6-9	1/23/99	1/27/99	2/11/99	9901200	Tritium	EPA 906 0 Modified	19.75	31 93	54 71	dpm/100cm ²
200-06	6-10	1/23/99	1/27/99	2/11/99	9901200	Tritium	EPA 905 0 Modified	-8.81	28 20	52 87	dpm/100cm ²
200-07	6-11	1/23/99	1/27/99	2/11/09	9901200	Tritium	EPA 906 0 Modified	-4 67	30 34	56 01	dpm/100cm ²
200-08	6-12	1/23/09	1/27/00	2911/22	0001200	Tatean	EPA 998 0 Medified	3.04	79.78	5472	dpm/100cm
200.09	6.12.00	1/26/90	1/27/99	2714-20	9901200	intern	EPA 969 9 Godified	1.58	31,21	57.05	-lpm/100cm
(222) 10	6.10	101000	1/27/00	0411-00	0001000	Totium	EPA 404 D Modified	0 (i) - 1 26	29.01	14 (3) 14 (3)	dpm/100rm
01200-11	6.14	1/2/3/99	1/27/99	2711-00	2021/20	Lation	EPA 995 0 Modified	0.00	30.92	99.24	dpm/100cm
01200-12	6.15	1/23/99	1/27/99	241100	9901200	Tritium	EPA 996-0 Modified	9.07	30.78	54.41	dpm/100cm
01200-13	6 16	1/23/99	1/27/00	2/11/20	9901200	Totium	EPA 999-0 Modified	-11.01	35 2%	06.09	dpm/100em ³
01200-13	6.17	1/23/99	1/27/99	2/11/29	9901200	Tribum	EPA 995-0 Modified	-7.93	30 61	611	dpm/100cm
01200-15	6.18	1/23/99	1/27/99	2/11/03	9901200	Tritium	EPA 905 0 Modified	16.97	32 14	51,55	dpm/100cm ²
01200-15	6-19	1/23/99	1/27/99	2/11/20	9901200	Totum	EPA 905 0 Modified	159	31 63	57.26	dpm/100cm ²
01200-10	6.20	1/23/99	1/27/99	2/11/00	9991200	Totum	EPA 906.0 Modified	19.12	29.62	57.36	dpm/100cm/
01200-18	6-21	1/23/99	1/27/99	2/11/99	9901200	Tritium	EPA 906 0 Modified	20.09	32 48	55 65	dpm/100cm ²
1200-19	6-22	1/23/99	1/27/99	2/11/99	9901200	Tritium	EPA 906.0 Modified	245 51	50 93	58.94	dpm/100cm ²
	6-22 6-23	1/23/99	1/27/99	2/11/99	9901200	Tritium	EPA 905 0 Modified	243.51	34 10	57 93	dpm/100cm ²
)1200-20)1201-04	6-23 6-24	1/23/99	1/27/99	2/11/99	9901200	Tritium	EPA 905 0 Modified	3.02	25 10	45 73	dpm/100cm ²
							EPA 906 0 Modified		23 10	43 73	dpm/100cm ²
1201.05	6-25	1/23/99	1/27/99	2/11/99	9901201	Tritium	avg	2.86 12.76	2577	43.31	upin/1000m
							min	-22.68			
							max	245.51			
Corridor											·
201-06	7.1	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	11.81	25.55	44.71	dpm/100cm ²
201-07	7-2	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	7.57	25.68	45.85	dpm/100cm ²
201-08	7-3	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	28.81	26.78	43.64	dpm/100cm ²
201-09	7-4	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	-2.83	22.90	42.94	dpm/100cm ²
201-10	7-5	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	15.20	24.38	41.88	dpm/100cm ⁴
1201-11	7-6	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	8.49	24.17	42.85	dpm/100cm ²
1201-12	7-7	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	19,40	26.64	45.20	dpm/100cm ²
1201-13	7-8	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	166.27	41.34	48,44	dpm/100cm ²
1201-14	7.9	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	9.42	26.84	47.59	dpm/100cm ²
1201-15	7-10	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	6.18	26.06	46.83	dpm/100cm ²
01201-16	7-11	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	29.08	29.71	48.95	dpm/100cm ²
01201-17	7-12	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	18.64	25.60	43.44	dpm/100cm ²
01201-18	7-13	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	18.76	24.07	40.61	dpm/100cm ²
-01201-19	7-14	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	29.40	27.33	44,54	dpm/100cm²
- ·	7-15	1/23/99	1/27/99	2/11/99	9901201	Tritium	EPA 906.0 Modified	27.91	27.17	44.51	dpm/100cm ²
01201-20	1-15										

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Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Enor	MDA	Units
99-01202-05	7-17	1/23/99	1/27/99	2/11/99	9901202	Tritium	EPA 906 0 Modified	2.49	11,45	20 50	dpm/100cm ²
99-01202-06	7-18	1/23/99	1/27/99	2/11/99	9901202	Tritium	EPA 906 0 Modified	5 57	13 08	22.91	dpm/100cm ²
99-01202-07	7-19	1/23/99	1/27/99	2/11/99	9901202	Tritium	EPA 906 0 Modified	7 63	12.21	20.93	dpm/100cm ²
99-01202-08	7-20	1/23/99	1 <i>1</i> 27 <i>1</i> 99	2/11/99	9901202	Tritium	EPA 906 0 Modified	5.18	12.18	21.33	dpm/100cm ²
99-01202-09	7-21	1/23/99	1/27/99	2/11/99	9901202	Tritium	EPA 906.0 Modified	7.06	12.26	21.14	dpm/100cm ²
99-01202-10	7-22	1/23/99	1/27/99	2/11/99	9901202	Tritium	EPA 906.0 Modified	-3 15	10 97	20.73	dpm/100cm ²
99-01202-11	7-23	1/23/99	1/27/99	2/11/99	9901202	Tritium	EPA 906 0 Modified	-2.58	11.31	21.24	dpm/100cm ²
99-01202-12	7-24	1/23/99	1/27/99	2/11/99	9901202	Tritium	EPA 906 0 Modified	5.87	12.33	21.48	dpm/100cm ²
99-01202-13	7.25	1/23/99	1/27/99	2/11/99	9901202	Tritium	EPA 906 0 Modified	-4.31	10.59	20 28	dpm/100cm ²
9-01202-14	7-26	1/23/99	1/27/99	2/11/99	9901202	Tritium	EPA 906 0 Modified	7.55	12 07	20.70	dpm/100cm ²
99-01202-15	7.27	1/23/99	1/27/99	2/11/99	9901202	Tritium	EPA 906 0 Modified	7 16	12.44	21.45	dpm/100cm ²
9 01202 16	7-28	1/23/99	1/27/99	2/11/99	9901202	Intum	EPA 906 0 Modified	-1 90	11 17	20.85	dpm/100cm ²
9.01202-17	7	1/23/00	1/27/99	2/11/99	9901202	f katalatas	EPA 906.0 Modified	7.01	12 18	21.00	dpm/100cm
01002-18	7-39	17:37-19	17,27799	2/11/00	9901202	Entern	CPA 905 0 Rodderf	0.61	11.00	20.04	dpm/100cm*
49.0120 <u>0 19</u>	2.31	10,5259	1/27/99	2/11/99	9904202	Entrans	FPA 905 0 Globbed	3.18	11.07	20.45	dpm/10(mm
99-01202 VO	2.12	12 909	1/27/99	2/11/99	9901202	Lation	EPA 996 0 Modified	6 84	12 27	21.38	dpm/100cm
9-01203-04	7-30	1/23/99	1/27/99	2/14/99	9901203	Entropy	EPA 909 0 Modified	7.83	28 31	50 46	dpm/100cm
99-01203:05	7/34	1723799	1/27/99	2/14/99	9901203	Intern	EPA 995 0 Modified	28.56	30 79	51 10	dpm/100cm
9-01203-06	7-35	1/23/99	1/27/99	2/14/99	9901203	Lation	EPA 906-0 Modified	7.87	28 44	50 68	dpm/100cm
9-01203-07	7-36	1/23/99	1/27/99	2/14/99	9901203	Trituno	EPA 905 0 Modified	45.65	31.28	49 00	dpm/100cm
9-01203-08	7.37	1/23/09	1/27/99	2/14/99	9901203	Tritium	EPA 906.0 Modified	6.31	26 94	50 78	dpm/100cm
9-01203-09	7-38	1/23/99	1/27/99	2/14/99	9901203	Tritium	EPA 906.0 Modified	14.82	30 44	53.01	dpm/100cm ²
9-01203-10	7-39	1/23/99	1/27/99	2/14/99	9901203	Littum	EPA 906 0 Modified	4 78	28.44	51 29	dpm/100cm ²
9-01203-11	7-40	1/23/99	1/27/99	2/14/99	9901203	Tritium	EPA 906 0 Modified	13 77	35 95	63 33	dpm/100cm ²
9-01203-12	7-41	1/23/99	1/27/99	2/14/99	9901203	Tritium	EPA 906 0 Modified	9 30	28 19	49.94	dpm/100cm'
9-01203-13	7.42	1/23/99	1/27/99	2/14/99	9901203	Tritium	EPA 906 0 Modified	21 74	29 51	50.01	dpm/100cm'
99-01203-14	7-43	1/23/99	1/27/99	2/14/99	9901203	Tritium	EPA 906 0 Modified	20.27	29.47	50.22	dpm/100cm ²
9-01203-15	7-44	1/23/99	1/27/99	2/14/99	9901203	Tritium	EPA 906 0 Modified	56.01	34.48	53.05	dpm/100cm ²
99-01203-16	7-45	1/23/99	1/27/99	2/14/99	9901203	Tritium	EPA 906.0 Modified	3.16	28.03	50.86	dpm/100cm ²
99-01203-17	7-46	1/23/99	1/27/99	2/14/99	9901203	Tritium	EPA 906.0 Modified	12.81	23 82	41.26	dpm/100cm ²
99-01203-18	7-47	1/23/99	1/27/99	2/14/99	9901203	Tritium	EPA 906.0 Modified	6.86	30.79	55.20	dpm/100cm ²
99-01203-19	7-48	1/23/99	1/27/99	2/14/99	9901203	Tritium	EPA 906.0 Modified	14.80	30.40	52.95	dpm/100cm ²
99-01203-20	7-49	1/23/99	1/27/99	2/14/99	9901203	Tritium	EPA 906.0 Modified	54.78	34.59	53.46	dpm/100cm ²
99-01204-04	7-50	1/23/99	1/27/99	2/14/99	9901204	Tritium	EPA 906.0 Modified	64.51	35,11	53.26	dpm/100cm ²
*							avg	16.46			
							min	-6 31			
							max	166.27			

Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Enor	MDA	14-14-
Jpstairs							method	Result	Enor	MUA	Units
9.01204.05	8-1	1/23/99	1/27/99	2/14/99	9901204	Tritium	EPA 906 0 Modified	0.00	30,85	56 29	dpm/100cm ²
99-01204-06	8-2	1/23/99	1/27/99	2/14/99	9901204	Tritium	EPA 906 0 Modified	26.42	33.94	57.26	dpm/100cm ²
99-01204-07	8-3	1/23/99	1/27/99	2/14/99	9901204	Tritium	EPA 906 0 Modified	3.08	29 55	53 36	dpm/100cm ²
99-01204-08	8-4	1/23/99	1/27/99	2/14/99	9901204	Tritium	EPA 906 0 Modified	27.74	29 33 31 97	53.45	dpm/100cm ²
99-01204-09	8-5	1/23/99	1/27/99	2/14/99	9901204	Tritium	EPA 906 0 Modified	-1.79	33,86	62.11	dpm/100cm ²
99-01204-10	8-6	1/23/99	1/27/99	2/14/99	9901204	Tritium	EPA 906 0 Modified	-13 18	26 46	50.77	dpm/100cm ²
9.01204.11	8-7	1/23/99	1/27/99	2/14/99	9901204	Tritium	EPA 906.0 Modified	-1.60	30 34	55.66	dpm/100cm ²
9-01204-12	8-8	1/23/99	1/27/99	2/14/99	9901204	Tritium	EPA 906 0 Modified	-1.67	31.50	57,79	dpm/100cm ²
9-01204-13	8-9	1/23/99	1/27/99	2/14/99	9901204	Tritium	EPA 906 0 Modified	8 02	31.28	55 61	dpm/100cm ²
9-01204-14	8-10	1/23/99	1/27/99	2/14/99	9901204	Tritium	EPA 906.0 Modified	0 00	30.78	56 18	dpm/100cm ²
9-01204-15	8-11	1/23/99	1/27/99	2/14/99	9901204	Tritium	EPA 906 0 Modified	-4.55	28.36	52 61	dpm/100cm ²
0.01204-10	8.12	1,01,000	1/27/00	2/14/00	0001204	Tuteum	EPA 996 0 Modified	-3.74	.30,40	545.25	. dens/100cm
9 01204 17	8.13	16,3960	W2720	(n da nev	1001204	Entrom	FPA 906 0 Begined	19.80		61,65	dpo/100cm
0.042604.42	8-14	Witers	62.766	44.54	Cert. 04	Inform	EPA 909 013 a blied	2.19	41 / 5	25 A.	
0.04204.10	3-15	17.53/05	1 (1 Mars		o	Interne	EPA 969 0 Medition	190.51	6.1.40s		dpm/190cm
9 01204 20	8 16	1/23/99	1/27/09	2/14/09	9991204	Totern	EPA 906 0 Modified	-21.35	34,60	11 Jun 04 70	dpm/100cm
9 01205-04	8.17	1/23/99	1/27/99	2011/20	0901200	Intern	EPA 909 0 Modified	10 41	35.07	61.73 62.80	dpm/100cm
9-01205-07	8-20	1/23/99	1/27/99	2/11/296	9901205	Triturn	EPA 906.0 Modified	26.03	33.50	56.51	dpm/100cm ²
9 01205-08	8.21	1/23/99	1/27/99	2/11/90	9901205	Tritium	EPA 906 0 Modified	7 87	28.76	50.54	dpm/100cm ²
9 01205-09	8.22	1/23/99	1/27/99	2/11/90	9001205	Tritum	EPA 905.0 Modified	3 10	27.17	50 A9	dpm/100cm
9-01205-10	8.23	1/23/99	1/27/99	2/11/09	9901205	Foteum	EPA 906 0 Modified	19.66	31.14	53.36	dpm/100cm ²
9-01205-11	8-24	1/23/99	1/27/99	2/11/99	9901205	Tritium	EPA 906 0 Modified	25 57	31.00	52.04	dpm/100cm ²
9-01205-12	8-25	1/23/99	1/27/99	2/11/99	9901205	Trilium	EPA 906 0 Modified	20 09	29.52	52 04	dpm/100cm ²
9-01207-10	8-26	1/26/99	1/27/99	2/13/99	9901207	Tritium	EPA 906 0 Modified	-6 27	34 48	63 16	dpm/100cm ²
-01207-11	8-26 QC	1/26/99	1/27/99	2/13/99	9901207	Tritium	EPA 906.0 Modified	7 66	34 89	61.74	dpm/100cm ²
01207-12	8-27	1/26/99	1/27/99	2/13/99	9901207	Tritium	EPA 906 0 Modified	-11 88	32 15	59.84	dpm/100cm ²
-01207-13	8-27 QC	1/26/99	1/27/99	2/13/99	9901207	Tritium	EPA 906 0 Modified	-32.79	32 13 31 95	59 84 62 92	dpm/100cm ²
							avg	9.41	01.80	02 92	upmi i oocm.
							min	-32.79			
							max	190.51			

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Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
Incinerator											
99-01205-05	9-18	1/23/99	1/27/99	2/11/99	9901205	Tritium	EPA 906.0 Modified	-27.98	42.01	82.85	dpm/100cm
99-01205-06	9-19	1/23/99	1/27/99	2/11/99	9901205	Tritium	EPA 906.0 Modified	-8 91	51.75	96.75	dpm/100cm
99-01205-13	9-1	1/25/99	1/27/99	2/11/99	9901205	Tritium	EPA 906.0 Modified	18.90	32.48	55,97	dpm/100cm
99-01205-14	9-1 QC	1/26/99	1/27/99	2/11/99	9901205	Tritium	EPA 906.0 Modified	11 21	40 99	73.03	dpm/100cm
99-01205-15	9-2	1/25/99	1/27/99	2/11/99	9901205	Tritium	EPA 906.0 Modified	15 56	41.11	72.42	dpm/100cm
99-01205-16	9-2 QC	1/26/99	1/27/99	2/11/99	9901205	Tritium	EPA 906 0 Modified	39 92	58.67	100.02	dpm/100cm
99-01205-17	9.3	1/25/99	1/27/99	2/11/99	9901205	Tritium	EPA 906 0 Modified	9,99	30.62	54.23	dpm/100cm
99-01205-18	9-4	1/25/99	1/27/99	2/11/99	9901205	Tritium	EPA 906 0 Modified	21 27	31.25	53.28	dpm/100cm
99-01205-19	9.5	1/25/99	1/27/99	2/11/99	9901205	Tritium	EPA 906 0 Modified	32.82	32 48	53 44	dpm/100cm ²
99-01205-20	9-6	1/25/99	1/27/99	2/11/99	9901205	Tritium	EPA 906.0 Modified	13 01	30.23	52.94	dpm/100cm ²
99-01206-04	9-7	1/25/99	1/27/99	2/13/99	9901206	Tritium	EPA 905 0 Modified	-168 64	55 69	112.58	dpm/100cm ²
ie 01206.05	9.8	1/26/99	1/27/99	2/13/99	9901206	Unterro	EPA 906 0 Modified	308 04	56 82	128.53	dpm/100cm
0.61500.03	0 <u>0</u>	1/21/301	1/27/00	2/13/99	eno1208	Intern	104 PPE 0 Modified	357.87	76.54	167 22	dpm/100cm
9-01215-02	<u>ö 10</u>	17,50,500	17,57/04	2/10/99	9901.005	Totopi,	EP - the talktendered	206.04	39.71	88.94	dpm/100cm
9 91,293 C8	9-16-520	17^{-1} in G_{1}	1/27/09	2/13/99	0001000	but on	112 GPC 0 Maddined	293.63	58.73	120.27	dpm/100cm
9 01206 09	9.11	1/24/05	1/27/99	2/13/99	9901206	Intern	ELIA 40% 0 Modified	278 48	54 35	171 25	dpin/100cm
01206-10	9-12	1/25/99	1/27/99	2/13/99	9901206	Indues	FLA 906 0 Modified	317.23	58.99	133 16	dpm/100cm
9-01206-11	9-13	1/25/00	1/27/99	2/13/99	9901206	Tritium	FFA 906 0 Modified	-362 40	64 28	145 88	dpm/100cm
9.01206-12	9-14	1/25/00	1/27/99	2/13/99	9901206	Fotum	EPA 909 0 Modified	226.04	51.38	110 81	dpm/100cm
9.01206-13	9.15	1/25/99	1/27/99	2/13/99	9901206	Tritium	EINA 906 0 Modified	-263 20	47 79	108 53	dpm/100cm ²
9-01206-14	9-16	1/25/99	1/27/99	2/13/99	9901206	Fritium	E PA 906 0 Modified	-240 11	50.93	111 47	dpm/100cm ²
9 01206-15	9.17	1/25/99	1/27/99	2/13/99	9901206	Tritium	EPA 906 0 Modified	-259 35	49 40	110 85	dpm/100cm ²
9 01206-16	9.18	1/25/99	1/27/99	2/13/99	9901206	Tritioen	EPA 906 0 Modified	273.95	53 91	120.03	dpm/100cm ²
9-01206-17	9-19	1/25/99	1/27/99	2/13/99	9901206	Tutum	EPA 906 0 Modified	-262.59	52 09	115 77	dpm/100cm ²
9-01206-18	9-20	1/25/99	1/27/99	2/13/99	9901206	Tritium	EPA 906.0 Modified	-259 14	50 99	113.53	dpm/100cm ²
9-01206-19	9-21	1/25/99	1/27/99	2/13/99	9901206	Tritium	EPA 906 0 Modified	-273.03	53.29	118.88	dpm/100cm ²
9-01206-20	9-21 QC	1/26/99	1/27/99	2/13/99	9901206	Tritium	FPA 906 0 Modified	-236 07	57,13	121.68	dpm/100cm ²
9-01207-04	9-22	1/25/99	1/27/99	2/13/99	9901207	Tritium	EPA 906.0 Modified	2916.03	217,10	145.98	dpm/100cm ²
9-01207-05	9-22 QC	1/26/99	1/27/99	2/13/99	9901207	Tritium	EPA 906 0 Modified	-9 03	39 59	72.81	dpm/100cm ²
9-01207-06	9-23	1/25/99	1/27/99	2/13/99	9901207	Tritium	EPA 906 0 Modified	-21.00	40.81	76.92	dpm/100cm ²
9-01207-07	9-24	1/25/99	1/27/99	2/13/99	9901207	Tritium	EPA 906.0 Modified	-42.93	36.09	72.08	dpm/100cm ²
9-01207-08	9-24 QC	1/26/99	1/27/99	2/13/99	9901207	Tritium	EPA 906.0 Modified	-28.27	39.62	75.96	dpm/100cm ²
9-01207-09	9-25	1/25/99	1/27/99	2/13/99	9901207	Tritium	EPA 906.0 Modified	-124.70	135.53	264,51	dpm/100cm ²
		•					avg	-53.66	100.00	204.91	apine roocini
							min	-362.49			
							max	2916.03			

Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
Solids								- result	210	MOA	Units
99-01188-01 K	KNOWN	1/27/99	1/27/99	2/4/99	9901188	Total Strontium	ElChroM SRW01 Modified	22 42	0.47		PCI/G
99-01188-01 S	SPIKE	1/27/99	1/27/99	2/4/99	9901188	Total Strontium		19.95	1.27	0.82	PCI/G
99-01188-02 B	BLANK	1/27/99	1/27/99	2/4/99	9901188	_		-0 22	0.29	0.81	PCI/G
99-01188-03 D	SU009-1	1/25/99	1/27/99	2/4/99	9901188	Total Strontium	ElChroM SRW01 Modified	0 48	0.34	0.74	PCI/G
99-01188-04	SU009-1	1/25/99	1/27/99	2/4/99	9901188	Total Strontium	ElChroM SRW01 Modified	-0 02	0 26	0.66	PCI/G
99-01188-05	SU005-1	1/25/99	1/27/99	2/4/99	9901188	Total Strontium	-	0 23	0 31	0 72	PCI/G
99-01188-06	SU005-2	1/25/99	1/27/99	2/4/99	9901188	Total Strontium	ElChroM SRW01 Modified	-0.43	0.19	0.62	PCI/G
99-01188-07	SU001-1	1/25/99	1/27/99	2/4/99	9901188	Total Strontium	ElChroM SRW01 Modified	2054 26	17.09	1.52	PCI/G
99-01188-08	SU001-2	1/25/99	1/27/99	2/4/99	9901188	Total Strontium	ElChroM SRW01 Modified	157 98	4.98	1.85	PCI/G
99-01188-09	SU005-3	1/25/99	1/27/99	2/4/99	9901188	Total Strontium	ElChroM SRW01 Modified	2.85	4.53 0.54	0.76	PCI/G

APPENDIX D

DRAIN CLEANOUT SURVEY RESULTS

ATTACHMENT 2 TOTAL/MAXIMUM BETA CONTAMINATION SURVEY FORM

Locatio	on: SU005/SU006 Cleanouts		naracterization			Date:	1/20/99 & 1/22	2/99
	Based upon Millennium Survey	BETA CONT	AMINATION	SURVEY INF	ORMATION			
		Probe Model	#: 44-116 Se	erial #: 13132	1			
		Meter Model	#: 2221 Serial	#:108846 E	fficiency (E): 0	.3 (1/20) .29	(1/22) cpm/dp	m
		Isotope:SY90	Background	(B) 339 cpm ((1/20), 441 (1/	22)	<u></u>	
#	SURVEY ITEM/DESCRIPTION	Gross cpm	Net cpm(1)	dpm/	Max cpm	Max Net	Max dpm/	Smear
				100cm ² (2)		cpm	100cm2	Req'd (3
	E-35 File Room Door at Threshold	385	46	153.33	NA	NA	NA -	N
	E-35 File Room Door 1st Cleanout	453	114	380.00	NA	NA	NA	
and the second se	E-35 File Room Door 2nd Cleanout	2452	2113	7043.33	NA	NA	NA	Y
	Outside Control Room (Inset) and Crack	2809	2470	8233.33	NA	NA	NA	· ·
	Outside Control Room (Stickup)	729	390	1300.00	NA	NA	NA	Y Y
G-6	Janitor Closet E-37 Sink	334	-5	-16.67	NA	NA	NA	N
G-7	Janitor Closet E-37 Drain	427	88	293.33	NA	NA	NA	Y
	E-25 Floor Cleanout	362	23	76.67	NA	NA	NA	N
	Corridor Outside E-23 (Radiator)	384	45	150.00	NA	NA	NA	N
G-10	Corridor Across from Ramp (Radiator)	390	51	170.00	NA	NA	NA	N
G-11	Janitor's Closet Floor Drain	409	70	233.33	NA	NA	NA	
G-12	Machine Room Drain	356	17	56.67	NA	NA	NA	N
1) Net	cpm is calculated as Gross cpm - Background	l cpm		······································				
2) dpn	n/100 cm ² is calculated as Net cpm/E (cpm/dpi	m)*PF Note: F	PF for Ludlum	44-116 PF=1				
3) If to	tal dpm/100 cm ² is >200 then smear is require	d						
Surveyo	pr's Remarks:							

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ATTACHMENT 2 REMOVABLE BETA CONTAMINATION SURVEY FORM

_ocatio	on: Cleanouts SU005/SU006	Purpose: Characterizati		Date: 1/20/99 & 1/21/99	
	Based upon Millennium Survey	REMOVABLE BETA CO	NTAMINATION SURVE	Y INFORMATION	
		Counter Model #: 43-10-1	Serial #: <u>141392</u>		
		Meter Model #: 2929 Se	erial #: 137620		
		Efficiency (E): 0.46 cpm/	dpm Isotope: SY90		
		Background:(B) <u>43 (1/20</u>	<u>) and 47 (1/22)</u> cpm C	ount Time (t) <u>1</u> min	
¥	SURVEY ITEM/DESCRIPTION	Total Counts	Net cpm(1)	dpm/ 100cm ² (2)	Exceeds
	· · · · ·				Release?
					(3)
	E-35 File Room Door at Threshold	50	7	15.22	N
	E-35 File Room Door 1st Cleanout	44	1	2.17	N.
	E-35 File Room Door 2nd Cleanout	51	8	17.39	N
G-4	Outside Control Room (Inset) and Crack	45	2	4.35	N
G-5	Outside Control Room (Stickup)	52	9	19.57	N
G-6	Janitor Closet E-37 Sink	49	6	13.04	N
G-7	Janitor Closet E-37 Drain	54	11	23.91	N
G-8	E-25 Floor Cleanout	50	7	15.22	· N
G-9	Corridor Outside E-23 (Radiator)	52	9	19.57	N
G-10	Corridor Across from Ramp (Radiator)	50	7	15.22	N
G-11	Janitor's Closet Floor Drain	40	-3	-6.52	N
G-12	Machine Room Drain	54	7	15.22	N
	et cpm is calculated as (Gross counts/count tim	e) - Background cpm			•
	m/100 cm^2 is calculated as Net cpm/E	, 0 ,			
cpm/c					
3) If t	otal dpm/100 cm ² is >200 then item is not acce	eptable for release			
	yor's Remarks:	· · · · · · · · · · · · · · · · · · ·			
Jarvey	yor o Homana.				

APPENDIX E

DISCRETE LOCATION SURVEY RESULTS

ATTACHMENT 2 TOTAL/MAXIMUM BETA CONTAMINATION SURVEY FORM

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Location: SU001	Purpose:		·····			Date: 1/2	4/99	.
	BETA CONT	AMINATIO	N SURVEY	INFORMA	TION			
	Probe Model	#: <u>44-116</u>	Serial #: 1	31321				
	Meter Model	#: 2221 S	erial #: 108	846				
	Efficiency (E				Backgrou	nd (B) vari	es (see bott	om) com
						(-/		<u></u>
		Gross	Net	dpm/100		Max Net	Max dpm/	Smear
# SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	cm ² (2)	Max cpm	cpm	100cm2	Req'd (3)
1-1 Counting Lab Fume Hood		17200	16875	56250		[Γ	Y
1-2 Low Level Lab		24400	24075	80250				Ŷ
1-3 High Level Lab - Fume Hood		21900	21575	71917				Y
1-4 Isotope Storage Area		870000	869675	2898917			 	Ŷ
1-5 Plaster wall betw Count and LL Lab		450	160	533		****	1	Ŷ
1-6 Wood Wall in LL Lab		8100	7720	25733				<u>'</u> Y
1-7 Wood Wall in LL Lab		2100	1720	5733				<u>·</u> Y
1-8 Plaster Wall West side HL Lab		1900	1610	5367				Ý
1-9 Plaster Wall HL Lab		800	510	1700				Ŷ
1-10 Cinder Block Wall I.S.A - East		5000	4525	15083		·····		Ŷ
1-11 Cinder Block Wall I.S.A - South		700	225	750				Ý
1-12 Side of Cabinet - Counting Lab		600	275	917				Ý
1-13 Sink - LL Lab		5200	4875	16250				<u>'</u>
1-14 HL Lab under hood		700	375	1250				Ŷ
1-15 HL Lab under hood		400	75	250				Ŷ
1-16 Counting Lab under hood		700	375	1250				Ŷ
1-17 Vent LL Lab under hood		4500	4175	13917				Ŷ
1-18 Shelving - counting lab		840	515	1717				Ý
1-19 LL Lab under hood		250	-75	-250				N
1-20 Vent - LL lab		2250	1925	6417				Ŷ
1-21 LL Lab - West Wall		500	210	700				Ŷ
1-22 LL Lab - West Wall	-	450	160	533				Ŷ
1-23 LL Lab - West Wall		400	1,10	367				Ý
1-24 Metal above former hood - LL Lab		800	475	1583				Ŷ
1-25 Hood - HL Lab		500	175	583				Ý
1-26 Shelf - HL Lab		900	575	1917				Ý
1-27 Top Oven High Level Lab		1200	875	2917		<u></u>		Ŷ
1-28 Plywood Wall - ISA		350	-30	-100				Ň
1-29 Cinder Block Wall ISA	1	510	35	117				N
1-30 Cleanout - Counting Room		1900	1575	5250				Y
 Net cpm is calculated as Gross cpm - Background c 	pm				l			
(2) dpm/100 cm ² is calculated as Net cpm/E (cpm/dpm)		PF for Lud	um 44-116	PF=1				

(2) dpm/100 cm² is calculated as Net cpm/E (cpm/dpm)²
 (3) If total dpm/100 cm² is >200 then smear is required
 Surveyor's Remarks:

Backgrounds: metals 325, Plaster 290, Cinder Block 475, Wood 380

Su001t.xls

ATTACHMENT 2 REMOVABLE BETA CONTAMINATION SURVEY FORM

Location: SU001		Purpose: Date: 1/23/99								
		REMOVABL	E BETA CONTA	MINATION SL	JRVEY INFOR	MATION				
		Counter Mod	el #: <u>43-10-1</u> Se	erial #: <u>141392</u>	2					
	Meter Model #: <u>2929</u> Serial #: <u>137620</u>									
					' 90					
		Efficiency (E): <u>0.46</u> cpm/dpm								
	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Not onm(1)	$100 \text{ cm}^2(2)$	Maxianm	Exceeds Release? (3)			
#		Coordinate	100	53	115	T	Nelease? (3)			
1-1	Counting Lab Fume Hood		80	33	72		N			
	Low Level Lab		165	118	257		Y			
	High Level Lab - Fume Hood				2746		Y			
1-4	Isotope Storage Area		1310	1263	and the second sec		and the second se			
	Plaster wall betw Count and LL Lab		90	43	93		N			
	Wood Wall in LL Lab		300	253	550	ļ	Y			
	Wood Wall in LL Lab		120	73	159	 	N			
	Plaster Wall West side HL Lab		105	58	126	ļ	N			
	Plaster Wall HL Lab		60	13	28		N			
	Cinder Block Wall I.S.A - East		95	48	104		N			
1-11	Cinder Block Wall I.S.A - South		55	8	17		<u>N</u>			
1-12	Side of Cabinet - Counting Lab		90	43	93	<u> </u>	N			
1-13	Sink - LL Lab		680	633	1376		Y			
1-14	HL Lab under hood		180	133	289		Y			
1-15	HL Lab under hood		90	43	93		N			
1-16	Counting Lab under hood		105	58	126		N			
	Vent LL Lab under hood		215	168	365		Y			
1-18	Shelving - counting lab		255	208	452		Y			
1-19	LL Lab under hood		85	38	83		N			
1-20	Vent - LL lab		85	38	83	1	N			
	LL Lab - West Wall		75	28	61	1	N			
	LL Lab - West Wall		70	23	50		N			
	LL Lab - West Wall		45	-2	-4		N			
1.24	Metal above former hood - LL Lab		50	3	7		N			
	Hood - HL Lab		80	33	72		N			
	Shelf - HL Lab		110	63	137		N			
	Top Oven High Level Lab		190	143	311		Y			
	Plywood Wall - ISA		55	8	17	1	N			
	Cinder Block Wall ISA		60	13	28		N			
			55	8	17		N			
1-30	Cleanout - Counting Room			1	I <i>′</i>					
(1) N	let cpm is calculated as (Gross counts/count time) - Backgro	unu opm								
(2) dpm/100 cm ² is calculated as Net cpm/E (cpm/dpm)										
(3) l ⁱ	f total dpm/100 cm ² is >200 then item is not acceptable for re	elease								
Surveyor's Remarks:										
	du sta									
uuu	1r.xls									

ATTACHMENT 2 REMOVABLE BETA CONTAMINATION SURVEY FORM

Location: Ramp to Rad Lab		Purpose:			Date: 1/23/99				
		REMOVABLE BETA CONTAMINATION SURVEY INFORMATION							
		Counter Model #: <u>43-10-1</u> Serial #: <u>141392</u>							
Meter Model #: <u>2929</u> Serial #: <u>137620</u>									
		Efficiency (E): 0.46 cpm/dpm Isotope: <u>SY90</u> Background:(B) <u>46.6</u> cpm Count Time (t) <u>1</u> min							
					dpm/	Exceeds Release?			
#	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	$100 \text{ cm}^2(2)$	(3)			
and the second sec	At door to lab from ramp		68	21.4	46.52	N N			
J-2	1' out		71	24.4	53.04	N			
J-3	1' out		96	49.4	107.39	N			
J-4	1' out		69	22.4	48.70	N			
J-5	1' out		73	.26.4	57.39	N			
J-6	1' out		82	35.4	76.96	N			
J-7	1' out		54	7.4	16.09	N			
J-8	At entrance to Ramp		51	4.4	9.57	N			
	· · · · · · · · · · · · · · · · · · ·								
			·····						
	· · · · · · · · · · · · · · · · · · ·								
(4) -									
	et cpm is calculated as (Gross counts/count time) - Backgro	ound cpm							
	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)	•							
	total dpm/100 cm ² is >200 then item is not acceptable for r	elease				•			
Surve	eyor's Remarks:								

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Location: SU002	Purpose:			••••••••••••••••••••••••••••••••••••••		Date: 1/24	/00	
			N SURVEY	INFORMATIO		Dute. 172-	100	
	Probe Model	#: 44-116	Serial #: 1	31321				
				846 Bkg 475	5 where r	nt specifie	- diff	
	Efficiency (E)): 0.30 cpm	/dom_lsoto	pe: <u>SY90</u> Back	around (F	R) motal 32	5 plastor 20)Ocom
		<u>, e.e.</u> opm		po. <u>0100</u> Dack	Ground (i.		J, plaster Z:	
		Gross	Net	dpm/100		Max Not	Max dpm/	Smear
# SURVEY ITEM/DESCRIPTION	Coordinate	cpin	cpm(1)		Max cpm	cpm	100cm2	Req'd (3)
2-1 North Wall		2599	2124	7080		••••••••••••••••••••••••••••••••••••••		<u>Y</u>
2-2 East Lower Wall - Orange Layer		2730	2255	7517				Ý
2-3 South Lower Wall		2617	2142	7140		· · · · · · · · · · · · · · · · · · ·		Y
2-4 1.5 to 3' interval		2057	1582	5273				<u>'</u>
2-5 1.5 to 3' interval - south wall		2039	1564	5213				Ý
2-6 Mid Floor Tank Pit		2150	1675	5583		, <u></u> ,		<u>'</u> Y
2-7 North lower Wall - 3-4.5'		550	75	250				 Y
2-8 Off ejector		1063	588	1960				· · · · · · · · · · · · · · · · · · ·
2-9 West Tank Pit Wall - Ejector Pump		1295	820	2733				Ŷ
2-10 Tank Bottom		350	25	83				N
2-11 North Upper Wall		426	136	453		**************** ********************		<u> </u>
2-12 South Upper Wall		460	170	567				Y
2-13 North Upper Wall		310	20	67				N
2-14 Above Door		318	28	93				<u> </u>
Maren				I	i			
(1) Net cpm is calculated as Gross cpm - Background	cpm			f				
(2) dpm/100 cm ² is calculated as Net cpm/E (cpm/dpr		PE for Ludle	ım 44-116 F	PF=1				
(3) If total dpm/100 cm ² is >200 then smear is require			10 T	1 - 1				
(3) in total upfin/100 cm is >200 then shear is require. Surveyor's Remarks:	<u>u</u>		· · · · · · · · · · · · · · · · · · ·					· · · · · · · · · · · · · · · · · · ·
Surveyors remains.								
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Local	lion: SU002	Purpose:			Date: 1/24/99)	
			E BETA CONTA	and the second se			
			el #:43-10-1 Se				
			#: 2929 Serial		-		
): 0.46 cpm/dpm		(90		
			(B) <u>40</u> cpm C				
				:	dpm/		Exceeds
#	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	100cm ² (2)	Max cpm	Release? (3)
	North Wall		55	15	33	Ī	N
	East Lower Wall - Orange Layer		55	15	33		N
2-3	South Lower Wall		50	10	22		N
2-4	1.5 to 3' interval		50	10	22		N
2-5	1.5 to 3' interval - south wall		45	5	11		N
2-6	Mid Floor Tank Pit		45	5	11		N
2-7	North lower Wall - 3-4.5'		65	25	54		N
	Off ejector		70	30	65		N
2-9	West Tank Pit Wall - Ejector Pump		60	20	43		N
2-10	Tank Bottom		45	5	11		N
	North Upper Wall		60	20	43		N
	South Upper Wall		55	15	33		N
	North Upper Wall		60	20	43		· N
2-14	Above Door		75	35	76		N
						ļ	
						ļ	
ļ							
	·					ļ	
				L	L	<u></u>	I
	let cpm is calculated as (Gross counts/count time) - Backgrou	ina cpm					
	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)						
N. /	total dpm/100 cm ² is >200 then item is not acceptable for re	lease					
Surve	eyor's Remarks:						

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Loca	lion: SU003	Purpose:					Date: 01/2	25/99	
		BETA CONT	AMINATIO	N SURVEY	/ INFORMA	TION			
		Probe Model							
		Meter Model							
		Efficiency (E)				Backgrou	nd (B) varie	es (see belo	w) com
		<u> </u>					<u> </u>		<u></u> +p
			Gross	Net	dpm/100		Max Net	Max dpm/	Smear
#	SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	cm ² (2)	Max cpm	cpm	100cm2	Req'd (3)
3-1	Stall Floor 16" from S. Wall - Small Tile		800	240	800	•		T	Y
3-2	Stall Floor Middle of North End - Small Tile		760	200	667		· · · · · · · · · · · · · · · · · · ·		Y
3-3	Stall Floor - Center (small Tile)		820	260	867				Y
3-4	Floor under sink (small tile)		800	240	800				Y
3-5	Wall tile At floor inside Door		750	190	633				Y
3-6	Plaster upper wall behind door		375	85	283				Y
							<u></u>		
							· · · · · · · · · · · · · · · · · · ·		·····
	·								······································
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	· · · · · · · · · · · · · · · · · · ·								
							<u> </u>		
(1) N	et cpm is calculated as Gross cpm - Background cpr	n			II			l	
	om/100 cm ² is calculated as Net cpm/E (cpm/dpm)*F		PF for Ludlu	ım 44-116 F	PF=1				
	total dpm/100 cm ² is >200 then smear is required				4 I				
	eyor's Remarks:								w
	grounds: Plaster 290, Tiles 560								
Баск	JIUUIIUS. FIASIEI 200, TIIES 300								
						· ··			

	TERRIDOSE.			Date. 1/25/99		
ocation: SU003	Purpose:	E BETA CONTA				
		el #: <u>43-10-1</u> Se				
		#: <u>2929</u> Serial		2		
): <u>0.46</u> cpm/d		SVOO		
	Background:	(B) <u>50</u> cpm Co	pini isotope. Sunt Time (t)	1 min		
	Buokground.			dpm/		Exceeds
# SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net com(1)	100cm ² (2)	Max onm	Release? (3)
1 Stall Floor 16" from S. Wall - Small Tile		35	-15	-33		N
2 Stall Floor Middle of North End - Small Tile		30	-20	-43		N N
3 Stall Floor - Center (small Tile)		60	10	22		N
4 Floor under sink (small tile)		40	-10	-22		N
5 Wall tile At floor inside Door		35	-15	-33		N
6 Plaster upper wall behind door		55	5	11		N
				• • • • • • • • • • • • • • • • • • •		
				······································		
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······································						*********
						
Net cpm is calculated as (Gross counts/count time) - Backgr	ound cpm		······································		• • • • • • • • • • • • • • • • • • • •	L
dpm/100 cm ² is calculated as Net cpm/E (cpm/dpm)						
) If total dpm/100 cm ² is >200 then item is not acceptable for i	release					
irveyor's Remarks:						
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Loca	tion: SU004	Purpose:	· · · · · · · · · · · · · · · · · · ·				Date: 1/24	1/99	
			AMINATIO	N SURVEY	INFORMATIC	DN ·			
		Probe Model							
	· .	Meter Model				Backgroun	nd (B)		
		Efficiency (E			•			50, tile 850c	nm
						,			9
			Gross	Net	dpm/100		Max Net	Max dpm/	Smear
#	SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	cm ² (2)	Max cpm	cpm	100cm2	Req'd (3)
4-1	Entryway Floor		4575		12417				Y
4-2	Bathroom Doorway (Floor)		3530	2680	8933				Y
	Under Bench (floor)		36000	35150	117167				Y
4-4	Entrance to Shower (Floor)		16100	15250	50833				Y
4-5	Entrance to Toilet (floor)		44500	43650	145500				Y
4-6	Center of Bathroom (Floor)		8700	7850	26167				Y
4-7	Shower Floor (Floor)		850	0	0			1	N
	Center of Toilet (Floor)		1075	225	750			1	Y
	West Toilet Wall (lower)		690	340	1133				Y
	West Entryway Wall (lower)		830	-20	-67				N
	East Entryway upper wall		440	150	500				Y
4-12	West Bathroom upper wall		620	330	1100				Y
		•							
								1	
								· · ·	

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					-				
(1) N	let cpm is calculated as Gross cpm - Background cpr	n					L	ıi	
	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)*F		F for Ludlu	ım 44-116 P	F=1				
	total dpm/100 cm ² is >200 then smear is required								
	eyor's Remarks:		· · · · · · · · · · · · · · · · · · ·			• 	·····		
Suive	yor's Remarks.								
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Loca	tion: SU004	Purpose:			Date: 1/24/99		
			E BETA CONTA				
			lel #: <u>43-10-1</u> Se				
			#: 2929 Serial		1		
): 0.46 cpm/dpr		Y90		
		Background:	(B) <u>47</u> cpm	Count Time () 0.2 min		
				<u></u>	dpm/		Exceeds
#	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net com(1)	100cm ² (2)	Max cpm	
4-1	Entryway Floor		55		17		N
4-2	Bathroom Doorway (Floor)		70	23	50	······	N
4-3	Under Bench (floor)		70	23	50		N
4-4	Entrance to Shower (Floor)		70	23	50	•	N
4-5	Entrance to Toilet (floor)		70	23	50		N
4-6	Center of Bathroom (Floor)		70	23	50		N
4-7	Shower Floor (Floor)		85	38	83		N
4-8	Center of Toilet (Floor)		55	8	17		N
4-9	West Toilet Wall (lower)		65	18	39		N
	West Entryway Wall (lower)		50	3	7		N
	East Entryway upper wall		45	-2	-4		N
4-12	West Bathroom upper wall		60	13	28		N
L							
L							
	let cpm is calculated as (Gross counts/count time) - Backgrou	ind cpm					
	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)						
(3) li	total dpm/100 cm ² is >200 then item is not acceptable for rel	ease					
Surv	eyor's Remarks:	•					
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Locat	ion: SU005	Purpose:		·			Date: 1/2:	3/00	
		BETA CONT	AMINATIO	VSURVEY	INFORMA			5/33	
		Probe Model							
		Meter Model							
		Efficiency (E				– Backorow	ud (R) varie	s, see botto	m com
					P	Cuongrom		<u>3, 300 DOMO</u>	
			Gross	Net	dpm/100		Max Net	Max dpm/	Smear
#	SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	cm ² (2)	Max cpm	cpm	100cm2	Req'd (3)
5-1	Tunnel Northmost Cleanout (Vinyl)	Γ	553	83	277	indix opin	opini		Y
5-2	Tunnel - Next Cleanout (Vinyl)		2833	2363	7877				Y
	Threshold - Mid Tunnel (Vinyl)		695	225	750				
	Threshold to Control Rm. (west) (Vinyl)		1774	1304	4347				Y
	Threshold to Control Rm. (east) (Vinyl)		7131	6661	22203	····			Y
	3' from Threshold (east) (Painted Concrete)		7038	6373	21243				Y
	2' outside door to RT-4-B (Painted Concrete)		2131	1466	4887		······································		Y
5-8	NW corner @ Control Room Window (Painted Cond	crete)	3615	2950	9833				Y
5-9	Center of Floor outside Control Room (Painted Con	crete)	11858	11193	37310				 Y
5-10	Crack adj. to Cleanout by Control Room (Painted C	oncrete)	22472	21807	72690				· · · · · · · · · · · · · · · · · · ·
5-11	Treatment Room (south) (VAT)		2225	1790	5967				Ý
	Treatment Room (North) (VAT)		1057	622	2073				Ý
5-13	Fresh Air Room - North End (Concrete)		3995	3505	11683				<u>'</u>
5-14	Fresh Air Room - Adjacent to Stairs (Concrete)		1443	953	3177		· ··		Ý
5-15	General Waiting Area (no hot spot) (by Op's Door) (Vinyl)	344	-41	-137				<u>,</u>
	Upper Wall outside Control Room (Plaster)		429	666	2220				Y
	Upper Wall in Treatment Room (Tile)		956	-44	-147				N
5-18	Ceiling Outside Lab (Plaster)		385	95	317				N
					· · · · · · · · · · · · · · · · · · ·				
									·····
					1				····
(1) Ne	et cpm is calculated as Gross cpm - Background cpr	n			······			I	
(2) dp	m/100 cm ² is calculated as Net cpm/E (cpm/dpm)*F	PF Note: P	F for Ludiur	m 44-116 P	F=1				
	total dpm/100 cm ² is >200 then smear is required				·				
	yor's Remarks: Survey concentrated on Hot Spots a	as located by I	Millennium					······································	
	rounds: Vinyl Tile 470, Painted Concrete 665, Gree			Plaster 20		s 1000			
	** Backgrounds revised from original daata based u				o, wan inc	5 1000			
Su005			-y monnau					·····	

Loca	tion: SU005	Purpose:			Date: 1/23/99	······	•
			E BETA CONTA				
			el #: <u>43-10-1</u> Se				
			#: 2929 Serial		=		
			#: <u>2925</u> Certal): <u>0.46</u> cpm/dpi				
			(B) <u>40</u> cpm (
		Duckground	(<u>b) 40</u> cpm (dpm/		
#	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Not ppm(1)	•		Exceeds
5-1	Tunnel Northmost Cleanout (Vinyl)		50		100cm ² (2)	Max cpm	<u></u>
5-2	Tunnel - Next Cleanout (Vinyl)		60	10	22		<u>N</u>
5-3	Threshold - Mid Tunnel (Vinyl)		45	<u>20</u> 5	43		<u>N</u>
5-4	Threshold to Control Rm. (west) (Vinyl)		45		11		<u>N</u>
5-5	Threshold to Control Rm. (west) (Vinyl)		55	0 15	0		N
	3' from Threshold (east) (Painted Concrete)	· · · · · · · · · · · · · · · · · · ·	<u>55</u>	15	33		N
	2' outside door to RT-4-B (Painted Concrete)		55	15	33	_	N
	NW corner @ Control Room Window (Painted Concrete)		40	0	33		<u>N</u>
	Center of Floor outside Control Room (Painted Concrete)		55	15			<u>N</u>
	Crack adj. to Cleanout by Control Room (Painted Concrete)		65	25	<u>33</u> 54		N
	Treatment Room (south) (VAT)		65	25	54		N
	Treatment Room (North) (VAT)		60	20	43		N
	Fresh Air Room - North End (Concrete)		60	20	43		<u>N</u>
	Fresh Air Room - Adjacent to Stairs (Concrete)		50	10	22		N N
	General Waiting Area (no hot spot) (by Op's Door) (Vinyl)		60	20	43		N N
	Upper Wall outside Control Room (Plaster)		50	10	22		N N
	Upper Wall in Treatment Room (Tile)		65	25	54		N
	Ceiling Outside Lab (Plaster)		40	0	0		N
			<u> </u>		0		IN
<u> </u>	· · · · · · · · · · · · · · · · · · ·				· .		· · · · · · · · · · · · · · · · · · ·
[
(1) N	et cpm is calculated as (Gross counts/count time) - Backgrou	nd com		l	·····	I	
	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)	na opin					
	total dpm/100 cm ² is >200 then item is not acceptable for rel						
				······································	**************************************		
Surve	eyor's Remarks: Survey concentrated on Hot Spots as located	u by Millenniu	m.				
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Location: SU006	Purpose:					Date: 1/23	/99	
	BETA CONT	AMINATIO	N SURVEY	INFORMA				
	Probe Model							
	Meter Model							
	Efficiency (E)				Backgrou	nd (B) varie	es (see belo	w) com
		- minimum I		·····	Lucigiou	<u> (2) run</u>	1000 1,010	<u></u>
		Gross	Net	dpm/100		Max Net	Max dpm/	Smear
# SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	cm ² (2)	Max cpm	cpm	100cm2	Req'd (3)
S-1 Janitor's Closet - small tiles		610	25	83			1	N
6-2 Janitor's Closet - small tiles		550	-35	-117			1	N
6-3 Corridor - vinyl tiles		470	95	317				Ŷ
6-4 Corridor - vinyl tiles		430	55	183				N
6-5 Corridor - vinyl tiles		510	135	450				Y
6-6 Corridor inside cage - vinyl tiles		470	95	317				Y
6-7 Corridor inside cage - vinyl tiles		460	85	283				Y
6-8 Corridor - vinyl tiles		490	115	383				Y
5-9 E-47 - Vinyl Tiles		400	25	83				N
0-10 E-47 - Vinyl Tiles		400	25	83				N
5-11 E-47 - Vinyl Tiles		340	-35	-117				N
5-12 E-47 Toilet - Small Tiles		760	175	583				Y
5-13 E-47 - Vinyl Tiles		370	-5	-17				N
S-14 E-47 - Closet - Concrete		550	25	83				N
-15 E-45 Toilet - Small Tiles		900	315	1050				Y
5-16 E-45 - Vinyl Tiles	•	370	-5	-17				N
5-17 Threshold to Stairwell - Orig. Black tile		6500	6125	20417				Y
6-18 Stairwell - Original Black Tile		540	165	550				Y
5-19 Stairwell - Original Black Tile		570	195	650				Y
5-20 Stairwell Landing - Original Black Tile		530	155	517				Y
5-21 E-47 Wall - Plaster over Cinder		490	165	550				Y
8-22 Corridor Wall - Plaster over Cinder		520	195	650				Y
5-23 Corridor Wall - Plaster over Cinder		480	155	517				Y
5-24 Stairwell Wall - Glazed Tile		890	-35	-117				N
6-25 Corridor Wall - Plaster over Cinder		540	215	717				Y
1) Net cpm is calculated as Gross cpm - Background c	pm			• · · · · · • · • · · · · · · · · · · ·		••••••		
2) dpm/100 cm ² is calculated as Net cpm/E (cpm/dpm)		PF for Ludio	um 44-116 l	PF=1				
 a) If total dpm/100 cm² is >200 then smear is required 				-				
Surveyor's Remarks:		<u></u>						
Backgrounds: Small tiles 585, Vinyl 375, concrete 525,	plaster 325, gla	zed tile 92	5					
	Francis and Ala		-					

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Location:	SU006	Purpose:			Date: 1/23/99)	~ // !
			E BETA CONTA				
			el #: <u>43-10-1</u> Se				
İ			#: 2929 Serial		_		
): <u>.46</u> cpm/dpm		an		
			(B) <u>40</u> cpm C				
				·	dpm/		
#	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	100cm ² (2)	Max com	Exceeds Release? (3)
6-1 Jani	tor's Closet - small tiles	1	55	15	33		N
6-2 Jani	tor's Closet - small tiles	1	40	0	0		N
6-3 Corr	ridor - vinyl tiles		85	45	98	<u> </u>	N
	ridor - vinyl tiles		40	0	0		N
6-5 Corr	ridor - vinyl tiles		50	10	22		N
6-6 Corr	ridor inside cage - vinyl tiles		45	5	11	·····	N
6-7 Corr	idor inside cage - vinyl tiles		30	-10	-22		N
6-8 Corri	ridor - vinyl tiles		45	5	11		N
6-9 E-47	7 - Vinyl Tiles		55	15	33		N
6-10 E-47	7 - Vinyl Tiles		30	-10	-22		N
6-11 E-47	7 - Vinyl Tiles		35	-5	-11		N
	7 Toilet - Small Tiles		75	35	76		N
6-13 E-47	7 - Vinyl Tiles		35	-5	-11		N
6-14 E-47	7 - Closet - Concrete		80	40	87		N
6-15 E-45	5 Toilet - Small Tiles		45	5	11		N
6-16 E-45	5 - Vinyl Tiles		50	10	22		N
	eshold to Stairwell - Orig. Black tile		50	10	22		N
6-18 Stair	rwell - Original Black Tile		55	15	33		N
	rwell - Original Black Tile		55	15	33		N
	well Landing - Original Black Tile		75	35	76		N
	7 Wall - Plaster over Cinder		55	15	33		N
6-22 Corri	idor Wall - Plaster over Cinder		40	0	0		N
6-23 Corri	idor Wall - Plaster over Cinder		34	-6	-13		N
6-24 Stair	well Wall - Glazed Tile		40	0	0		N
6-25 Corri	idor Wall - Plaster over Cinder		65	25	54		N
(1) Net cp	m is calculated as (Gross counts/count time) - Backgrou	ind cpm				·	
(2) dpm/1(00 cm ² is calculated as Net cpm/E (cpm/dpm)	-					
	dpm/100 cm ² is >200 then item is not acceptable for rel	ease					
Surveyor's							

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Loca	tion: SU007	Purpose:					Date: 1/23	3/99	
		BETA CONT	AMINATION	SURVEY	INFORMA	TION			
		Probe Model	#: <u>44-116</u>	Serial #: <u>14</u>	2893				
		Meter Model							
		Efficiency (E)	: <u>0.28</u> cpm/	dpm Isoto	ope: <u>SY90</u>	Backgrou	nd (B) <u>vari</u>	es (see belo	w) cpm
			Gross	Net	dpm/100		Max Net	Max dpm/	Smear
#	SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	cm ² (2)	Max cpm	cpm	100cm2	Req'd (3
7-1	at E73 Door (red tile)		424	49	175				N
	at E69 Door (red tile)		430	55	196				N
	at SW Corner by E-1 (red/black tile)		410	35	125			1	N
7-4	at threshold (LHS) by E-5 (old tile)		413	38	136				N
7-5	Outside E-15 (RHS) old tile		367	-8	-29				N
7-6	7' in RHS from E-5 - old tile		394	19	68				N
7-7	Threshold - womens toilet RHS (blk /cer tile		485	110	393				Y
	Across from E-19@ tile color change (red)		435	60	214				Y
	Threshold of E-23 (green/black tile)		499	124	443				Y
	Carpenter Shop E-23 - green tile		453	103	368				Y
	Lower Wall cove base E-23		424	49	175				N
7-12	Lower Wall under radiator (tile) E-9		346	-29	-104				N
	Lower Wall E-13 (plaster)		341	16	57				N
7-14	Lower Wall across from E-21 (cove base)		462	87	311				Y
	Middle Wall across from E21 (tiled)		915	-10	-36				N
7-16	E25 Threshold (RHS) Black Tile		474	99	354				Y
'-17	E25 Inside (Black Tile/Grey Tile)		423	48	171				N
'-18	Threshold E25A (black tile)		352	-23	-82				N
'-19	Threshold at Rollup Door LHS (blk/wh tile)		436	61	218				Y
'-20	Mid Wall (tile)		894	-31	-111				N
'-21	Threshold (beige/Black tile)		422	47	168				Ν
-22	Green Tile Floor		359	9	32				N
-23	Mid Wall (plaster)		265	-60	-214				N
7-24	Inside Room (Blk tile)		2345	1970	7036				Y
-25	Outside at black tile edge		1206	831	2968				Y
1) N	let cpm is calculated as Gross cpm - Background c	pm		· · ·					
	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)		PF for Ludlu	m 44-116 P	°F=1				
	total dpm/100 cm ² is >200 then smear is required							•	
	eyor's Remarks:	· · · · · · · · · · · · · · · · · · ·							·
	grounds: red tile 375, plaster 325, vat 375, cinder b	lock 475, wall til	le 925. aree	n tile 350 o	concrete 52	5			
1000	grounder for the ever place of the ever of onder p		, 9.00			-			

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Location: SU007	Purpose:			· · · · · · · · · · · · · · · · · · ·		Date: 1/23	3/99	
		AMINATIO	N SURVEY	INFORMATIO	N			
	Probe Model	#: <u>44-116</u>	Serial #: <u>1</u> 4	42893				
	Meter Model	#: 2221 Se	erial #: 1499	38				
	Efficiency (E)): <u>0.28</u> cpm	/dpm Isot	ope:SY90 Ba	ckground (B) varies (s	ee below) c	om
			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·				<u>F</u>
		Gross	Net	dpm/100		Max Net	Max dpm/	Smear
# SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	cm ² (2)	Max cpm	cpm	100cm2	Req'd (3)
7-26 Hallway - Black Tile Edge		387	12	43				N
7-27 Hallway - Black Tile Edge		411	36	129				N
7-28 E57 Black/Beige Tile		465	90	321				Y
7-29 E57 Black/Beige Tile		499	124	443				Y
7-30 E57 Plaster Wall		314	-11	-39				N
7-31 Plaster Wall (in Room)		259	-66	-236		·······		N
7-32 E29 Threshold (LHS) (Black/reen Tile)		1546	1171	4182				Y
7-33 E23 Threshold (Black/Green Tile)		3176	2801	10004				Y
7-34 E27 Threshold (Blakck/Green Tile)		348	-27	-96				N
7-35 E21 Threshold (black/Beige Tiel)		511	136	486				Y
7-36 E21 Floor (Green Tile)		342	-33	-118				N
7-37 E21 Door Frame (Plaster)		371	46	164				N
7-38 Tall west of E-31 (black/beige tile)		468	93	332				Y
7-39 Tile inside cage (red/beige) across E31		395	20	71				N
7-40 Wall (base cove) LHS Between 25/27		487	112	400				Y
7-41 Wall Tile LHS Between 25/27		876	-49	-175				N
7-42 E73 Floor Drain (Painted Concrete)		422	-103	-368				N
7-43 E73 Closet Concrete Floor		402	-123	-439				N
7-44 E73 Wall Cinder Block		494	19	68				N
7-45 E73 Cleanouts Concrete Floor		349	-176	-629				Ν
7-46 E73 Painted Concrete Floor		420	-55	-196				N
7-47 E73 Painted Cinder block Wall		413	-62	-221				N
7-48 South of Elevator Wall Tile		922	-3	-11				N
7-49 Men's Room RHS Threshold Blk/Small Blue tile	•	582	207	739				Y
7-50 Ladies Room RHS Wall Tiles		878	-47	-168				N
1) Net cpm is calculated as Gross cpm - Background cp								
 dpm/100 cm² is calculated as Net cpm/E (cpm/dpm)* 	PF Note: F	PF for Ludlu	ım 44-116 F	°F=1				
3) If total dpm/100 cm ² is >200 then smear is required								
Surveyor's Remarks:				· · · · · · · · · · · · · · · · · · ·	***********			*
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Locat	ion: SU007	Purpose:		1	Date: 1/23/99	}	· · · · · · · · · · · · · · · · · · ·
		REMOVABL	E BETA CONTA	MINATION SL	JRVEY INFOR	RMATION	
		Counter Mod	el #: <u>43-10-1</u> Sei	rial #: 141392			
			#: 2929 Serial				
			: <u>0.46</u> cpm/d		SY90		
			B) <u>40</u> cpm				
		<u>v</u>		<u>``</u>	dpm/		Exceeds
#	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	100cm ² (2)	Max cpm	Release? (3)
7-1	at E73 Door (red tile)		46	6	13		N
7-2	at E69 Door (red tile)		47	7	15		N
7-3	at SW Corner by E-1 (red/black tile)		40	0	0		N
7-4	at threshold (LHS) by E-5 (old tile)		43	3	7		N
7-5	Outside E-15 (RHS) old tile		38	2	-4		N
	7' in RHS from E-5 - old tile		43	3	7		N
7-7	Threshold - womens toilet RHS (blk /cer tile		44	4	9		N
7-8	Across from E-19@ tile color change (red)		40	0	0		N
7-9	Threshold of E-23 (green/black tile)		50	10	22		N
	Carpenter Shop E-23 - green tile		42	2	4		N
7-11	Lower Wall cove base E-23		45	5	11		N
7-12	Lower Wall under radiator (tile) E-9		38	-2	-4	Law and the second s	N
	Lower Wall E-13 (plaster)		44	4	9		N
	Lower Wall across from E-21 (cove base)		39	-1	-2		N
7-15	Middle Wall across from E21 (tiled)		40	0	0	L	N
	E25 Threshold (RHS) Black Tile		46	6	13		N
	E25 Inside (Black Tile/Grey Tile)		55	15	33	Lange and the second se	<u>N</u>
	Threshold E25A (black tile)		50	10	22		N
7-19	Threshold at Rollup Door LHS (blk/wh tile)		34	-6	-13	A second s	N
	Mid Wall (tile)		52	12	26		N
7-21	Threshold (beige/Black tile)		46	6	13		N
7-22	Green Tile Floor		49	9	20		N
7-23	Mid Wall (plaster)		33	-7	-15	and the second sec	N
7-24	Inside Room (Blk tile)		35	-5	-11	1	N
7-25	Outside at black tile edge		37	-3	-7		N
(1) N	et cpm is calculated as (Gross counts/count time) - Backgrou	ind cpm					
	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)						
	total dpm/100 cm^2 is >200 then item is not acceptable for re	lease					
	eyor's Remarks:			<u>, , , , , , , , , , , , , , , , , , , </u>			****
	yor o rionanto.						
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Location: SU007	Purpose:		1	Purpose: Date: 1/23/99							
		E BETA CONTAI	MINATION SU	JRVEY INFOR	MATION						
	Counter Mod	el #: <u>43-10-1</u> Ser	ial #: <u>141392</u>		•						
		#: 2929 Serial									
	Efficiency (E)		pm Isotope:	SY90							
		(B) <u>40</u> cpm									
	<u>`</u>		· · · · · · · · · · · · · · · · · · ·	dpm/		Exceeds					
# SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	100cm ² (2)	Max cpm	Release? (3)					
7-26 Hallway - Black Tile Edge		40	0	0		N					
7-27 Hallway - Black Tile Edge		45	5	11		N					
7-28 E57 Black/Beige Tile		35	-5	-11		N					
7-29 E57 Black/Beige Tile		55	15	33		N					
7-30 E57 Plaster Wall		45	5	11		N					
7-31 Plaster Wall (in Room)		30	-10	-22		N					
7-32 E29 Threshold (LHS) (Black/reen Tile)		75	35	76		N					
7-33 E23 Threshold (Black/Green Tile)		50	10	22		N					
7-34 E27 Threshold (Blakck/Green Tile)		30	-10	-22		N					
7-35 E21 Threshold (black/Beige Tiel)		60	20	43		N					
7-36 E21 Floor (Green Tile)		35	-5	-11		N					
7-37 E21 Door Frame (Plaster)	· ·	35	-5	-11		N					
7-38 Tall west of E-31 (black/beige tile)		45	5	11		N					
7-39 Tile inside cage (red/beige) across E31		55	15	33		N					
7-40 Wall (base cove) LHS Between 25/27		40	0	0		N					
7-41 Wall Tile LHS Between 25/27		60	20	43		N					
7-42 E73 Floor Drain (Painted Concrete)		60	20	43		N					
7-43 E73 Closet Concrete Floor		55	15	33		N					
7-44 E73 Wall Cinder Block		35	-5	-11		N					
7-45 E73 Cleanouts Concrete Floor		35	-5	-11		N					
7-46 E73 Painted Concrete Floor		50	10	22		<u>N</u>					
7-47 E73 Painted Cinder block Wall		35	-5	-11		N					
7-48 South of Elevator Wall Tile		50	10	22		N					
7-49 Men's Room RHS Threshold Blk/Small Blue tile		40	0	0		N					
7-50 Ladies Room RHS Wall Tiles		40	0	0		N					
(1) Net cpm is calculated as (Gross counts/count time) - Backgrou	und cpm										
(2) $dpm/100 \text{ cm}^2$ is calculated as Net cpm/E (cpm/dpm)	·										
(3) If total dpm/100 cm ² is >200 then item is not acceptable for re	elease										
Surveyor's Remarks:		<u></u>			<u></u>						

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Loca	tion: SU008	Purpose:		·······			Date: 1/23	/99	·····
		BETA CONT.	AMINATIO	N SURVEY	INFORMAT	ION			
		Probe Model							
		Meter Model							
		Efficiency (E)				Background	I (B) varies	(see below)	com
	·				<u> </u>	Duonground			opm
			Gross	Net	dpm/100		May Not	Max dpm/	Smear
#	SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	cm ² (2)	Max cpm	cpm	100cm2	Req'd (3)
8-1	machine Room Crack	Π	568	43	154	max opin	••••		N N
8-2	machine Room Crack		478	-47	-168				N
8-3	machine Room Hole		420	-105	-375				N
8-4	machine Room Corner Crevice		499	-26	-93				N
8-5	machine Room on crack behind round wall		486	-39	-139				N
8-6	machine Room near door on round wall		463	-62	-221				N
8-7	machine Room adjacent to ladder		499	-26	-93				N
8-8	machine Room - adjacent to conduits	· ·	514	-11	-39				N
	machine Room - adjacent to electrical junction box		521	-4	-14				N
	Corner crack in open area		503	-22	-79				N
	Landing at closet		456	81	289				Y
	Floor landing crack by machine room door		393	18	64				N
	unassigned Space - at door from SW		409	-116	-414	•			N
	unassigned Space - floor crack		413	-112	-400				N
	unassigned Space - floor		422	-103	-368				N
	unassigned Space - at mastic groove		390	-135	-482				N
	unassigned Space - at mastic groove		354	-171	-611				N
	unassigned Space - at mastic groove		405	-120	-429				N
	unassigned Space - at mastic crack/groove		488	-37	-132				N
	unassigned Space - at broken concrete		456	-69	-246				N
	unassigned Space - cinder block		460	-15	-54				N
	Plaster Wall - landing		460	135	482				Y
	Machine Room Cinder Block wall		530	55	196				N
	Machine Room Cinder Block wall		600	75	268				Y
8-25	unassigned Space - Cinder Block Wall		450	-75	-268				N
	Three Roof Vents **		100	50	172				N
	Air Handler on Roof **	·	110	60	207				Y
(1) N	et cpm is calculated as Gross cpm - Background cpm) :							
(2) d	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)*F	PF Note: PI	F for Ludlun	n 44-116 PI	⁼ =1				
(3) If	total dpm/100 cm^2 is >200 then smear is required								
	yor's Remarks:	· · · · · · · · · · · · · · · · · · ·							
	<u>s:</u> conrete 525, plaster 325, cinder block 475 vinyl tiles	s 375							
	ken with Ratemeter 102839 and probe 112967, Bkgd								
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Loca	tion: SU008	Purpose:			Date: 1/23/9		
		REMOVABL	E BETA CONTA	MINATION SU	JRVEY INFOR	RMATION	
		Counter Mod	el #: <u>43-10-1</u> Ser	ial #: <u>141392</u>			
			#: 2929 Serial				
): <u>0.46</u> cpm/dpm		'90		
			(B) <u>40</u> cpm				
		Y	· · · · · · · · · · · · · · · · · · ·		dpm/		Exceeds
'#	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	$100 \mathrm{cm}^2(2)$	Max cpm	Release? (3)
8-1	machine Room Crack		29	-11	-24		N
8-2	machine Room Crack		48	8	17		N
8-3	machine Room Hole		47	7	15		N
8-4	machine Room Corner Crevice		54	14	30		N
	machine Room on crack behind round wall		55	15	33		N
8-6	machine Room near door on round wall		37	-3	-7		N
8-7	machine Room adjacent to ladder		45	5	11	(N
	machine Room - adjacent to conduits		51	11	24		N
8-9	machine Room - adjacent to electrical junction box		43	3	7		N
	Corner crack in open area		50	10	22		N
	Landing at closet		46	6	13		N
	Floor landing crack by machine room door		45	5	11		N
	unassigned Space - at door from SW		47	7	15		N
	unassigned Space - floor crack		46	6	13		N
	unassigned Space - floor		46	6	13		N
	unassigned Space - at mastic groove		43	3	7		N
	unassigned Space - at mastic groove		41	1	2		· N
	unassigned Space - at mastic groove		51	11	24		N
8-19	unassigned Space - at mastic crack/groove		37	-3	-7		N
8-20	unassigned Space - at broken concrete		57	17	37		N
	unassigned Space - cinder block		43	3	7		N
8-22	Plaster Wall - landing		36	-4	-9	1	N
	Machine Room Cinder Block wall		42	2	4	A company of the second s	N
	Machine Room Cinder Block wall		58	18	39		N
	unassigned Space - Cinder Block Wall		. 36	-4	-9		N
8-26	Three Roof Vents **		75	35	76		N
8-27	Air Handler on Roof **		50	10	22		N
(1) 1	Net cpm is calculated as (Gross counts/count time) - Backgrou	nd cpm					
(2)	lpm/100 cm ² is calculated as Net cpm/E (cpm/dpm)	·					
(2)	f total dpm/100 cm ² is >200 then item is not acceptable for rele	ease					
	eyor's Remarks:		· · · · · · · · · · · · · · · · · · ·				
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Loca	tion: SU009 - Incinerator	Purpose:					Date: 1/2	5/99	
		BETA CONT				TION	•	*******	
		Probe Model							
		Meter Model	#: <u>2221</u> Se	erial #: <u>1088</u>	846				
		Efficiency (E): <u>0.28 </u> cpm	/dpm Isot	tope: <u>SY90</u>	Backgrou	nd (B) varie	s (see belov	v) cpm
	,		Gross	Net	dpm/100		Max Net	Max dpm/	Smear
#	SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	cm ² (2)	Max cpm	cpm	100cm2	Req'd (3)
9-1	Left Ash Bin		850	540	1929				Ý
	Right Ash Bin		790	480	1714				Y
	Floor		505	105	375			1	Y
9-4	Drain Head		350	40	143				N
9-5	Back Floor		325	-75	-268				N
9-6	Stairs		475	75	268			1	Y
	Air Handler		500	190	679				Y
	Upper Floor		600	200	714				Ý
9-9	Inside Scrubber		375	65	232				Y
	Floor By Bags		400	0	0				N
	Lower Wall		400	0	0				N
	Floor Behind Scrubber		530	130	464				Y
	Floor Under Scrubber		540	140	500				Y
	Back Floor		340	-60	-214				N
	Back Doorway Floor		340	-60	-214				N
	Back Wall - Brick		620	70	250				Y
9-17	Wall behind Scrubber (Brick)		465	-95	-339				N
	Floor behind Coal Storage		530	130	464		· · · · · · · · · · · · · · · · · · ·		Y
	Concrete Floor (Middle)		530	130	464				Y
9-20	Brick Wall behind Coal Storage		600	50	179				N
	Top Of Incinerator		450	140	500		· · · · · · · · · · · · · · · · · · ·		Y
9-22	Upper Wall behind Incinerator		300	10	36				N
9-23	Pump Stand to Scrubber		430	120	429				Y
9-24	Upper Scrubber		340	30	107				N
	Upper Coal Storage		460	150	536				Y
(1) N	et cpm is calculated as Gross cpm - Background cr	>m						Ll	· · · · · · · · · · · · · · · · · · ·
	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)		PF for Ludiu	ım 44-116 F	PF=1				
	total dpm/100 cm ² is >200 then smear is required								
	evor's Remarks:	······································						*******	····
	grounds: Plaster 290, Concrete 400, Metals 310, Ci	inder Block 475							
Dack	grounds. Flaster 250, Concrete 400, Metals 510, Cl)						

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Locat	ion: SU009 - Incinerator	Purpose:			Date: 1/25/9		
		REMOVABL	E BETA CONTA	MINATION SU	JRVEY INFOR	RMATION	
		Counter Mod	el #: <u>43-10-1</u> Se	rial #: <u>141392</u>	2		
			#: 2929 Serial				
): 0.46 cpm/dpr		Y90		
		Background:	(B) <u>50</u> cpm (Count Time (t)	<u>1</u> min		
		<u> </u>		:	dpm/		Exceeds
#	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	100cm ² (2)	Max cpm	Release? (3)
	Left Ash Bin		50	0	0		N
	Right Ash Bin		50 ·	0	0		N
	Floor		65	15	33		N
	Drain Head		60	10	22		N
	Back Floor		60	. 10	22		N
	Stairs		60	10	22		N
	Air Handler		40	-10	-22		N
-	Upper Floor		45	-5	-11		N
	Inside Scrubber		55	5	11		N
	Floor By Bags		55	5	11		N
	Lower Wall		70	20	43		N
9-12	Floor Behind Scrubber		50	0	0		N
	Floor Under Scrubber		60	10	22		N
9-14	Back Floor		55	5	11		<u>N</u>
9-15	Back Doorway Floor		55	5	11		N
9-16	Back Wall - Brick		55	5	11		N
9-17	Wall behind Scrubber (Brick)		50	0	0		<u>N</u>
9-18	Floor behind Coal Storage		50	0	0		N
9-19	Concrete Floor (Middle)		50	0	0		N
	Brick Wall behind Coal Storage		45	-5	-11		N
9-21	Top Of Incinerator		70	20	43		N N
9-22	Upper Wall behind Incinerator		60	10	22		N
9-23	Pump Stand to Scrubber		70	20	43		N
9-24	Upper Scrubber		60	10.	22		N N
0.25	Upper Coal Storage		45	-5	-11		N
(1) 1	Net cpm is calculated as (Gross counts/count time) - Backg	round cpm					
(2) c	Ipm/100 cm ² is calculated as Net cpm/E (cpm/dpm)						
	f total dpm/100 cm ² is >200 then item is not acceptable for	release					
Sun	eyor's Remarks:						
	Cyor 5 Fromation						

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Loca	lion: Ejector Pit	Purpose:					Date: 1/18	3/99	
		BETA CONT	AMINATION	SURVEY	INFORMAT	TION			·
		Probe Model	#: <u>44-116</u>	Serial #: <u>13</u>	<u>31321</u>				
		Meter Model	#: <u>2221</u> Se	rial #: <u>1088</u>	46				
		Efficiency (E)	: <u>0.34</u> cpm/	dpm Isoto	ope: <u>SY90</u>	Backgrou	nd (B) <u>427</u>	cpm	
			-		1				
#			Gross	Net	dpm/100		Max Net	Max dpm/	Smear
 G-1	SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	(2)	Max cpm	cpm	100cm2	Req'd (3)
	Gate Edge		900	473	1391				Y
	Floor Discolored Wall	2000 to	3000	2573	7568				Y
	Outflow Line - Vitreous		5000	4573	13450				Y
6-4		l	4000	3573	10509				Y
									······································
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	· · · · · · · · · · · · · · · · · · ·								
(1) N	et cpm is calculated as Gross cpm - Background cpr	n.		l					
	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)*f		E for Ludio	- 44 440 -	F 4				
(2) up	total dam (100 cm ² is > 200 then cm and its (cpm/dpm) ⁻¹		F for Ludlur	n 44-116 P	r=1				
	total dpm/100 cm ² is >200 then smear is required								
Surve	yor's Remarks:								
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Locati	on: Rad Lab	Purpose: Ba	seline for RWP		Date: 1/17/99		
Loodd		REMOVABL	E BETA CONTA	MINATION SL	JRVEY INFOR	MATION	
		Counter Mod	el #: <u>43-10-1</u> Ser	rial #: <u>141392</u>			
		Meter Model	#: 2929 Serial	#: <u>137620</u>			
		Efficiency (E): <u>0.46</u> cpm/d	pm Isotope:	<u>SY90</u>		
		Background:	(B) <u>43</u> cpm	Count Time (t) <u>1</u> min		
				;	dpm/		Exceeds
#	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	100cm ² (2)	Max cpm	Release? (3)
	Doorway Ramp to Counting Room		109	and the second sec	143		**
	Mid Floor Counting Room		191	148	322		FOR
	Door Count to LL Lab		82	39	85		RWP
	Foot Pedal Under Sink LL Lab		820		1689		PREP
	Floor under Pipe LL Lab		374	a second s	720		ONLY
	Floor under Pipe 2 LL Lab		1600		3385		
	Nozzle LL Lab		122	79	172	ļ	
	Walkway at LL Lab		-99		122		
E-9	Under Fume Hood HL Lab		161	118	257	ļ	
E-10	Floor ISA		1233		2587		
E-11	Corner ISA		3949	3906	8491		
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			<u> </u>				
	Desker		L	1		_l,	1
(1) N	let cpm is calculated as (Gross counts/count time) - Backgro	ouna opin					
(2) d	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)						
(3)	total dpm/100 cm ² is >200 then item is not acceptable for r	release					
Surv	eyor's Remarks:						
	No Alpha detected						

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Loca	iion: Rad Lab	Purpose: Ba					Date: 1/17	7/99	
		BETA CONT	AMINATIO	N SURVEY		ION		· · · · ·	
		Probe Model	#: <u>44-116</u>	Serial #: 14	2893				
		Meter Model							
		Efficiency (E)				Background	1 (B) 377cp	m	
						······································			
			Gross	Net	dpm/100		Max Net	Max dpm/	Smear
#	SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	cm ² (2)	Max cpm	cpm	100cm2	Req'd (3)
E-1	Doorway Hall to Counting Room		1600	1223					**
E-2	Mid Floor Counting Room		1700	1323	4410				FOR
E-3	Door Count to LL Lab		7000	6623	22077	·······			RWP
E-4	Foot Pedal Under Sink LL Lab		11000	10623	35410				PREP
E-5	Floor under Pipe LL Lab	50000 to	110000	109623	365410				ONLY
E-6	Floor under Pipe 2 LL Lab	50000 to	110000	109623	365410				
	Nozzle LL Lab	50000 to	110000	109623	365410				
	Walkway at LL Lab		4000	3623	12077				
	Under Fume Hood HL Lab	15000 to	18000	17623	58743				
	Floor ISA	5000 to	18000	17623	58743				
E-11	Corner ISA		300000	299623	998743		·····		······
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	et cpm is calculated as Gross cpm - Background cpr								
(2) d	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)*F	PF Note: F	F for Ludiu	im 44-116 P	?F=1				
(3) If	total dpm/100 cm^2 is >200 then smear is required		•						
	eyor's Remarks:							·····	
	int vis								

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Locatio	on: St Albans VA	Purpose: Ba	ickground	1	Date: 1/14/9	9	<u> </u>
		Counter Mod	lel #: <u>43-10-1</u> Se	rial #: <u>138</u> 385	j		
		Meter Model	#: 2929 Serial	#: 123806	-		
		Efficiency (E): 0.40 cpm/d	pm Isotope:	SY90		
		Background:	(B) <u>72</u> cpm C	A CONTAMINATION SURVEY INFORMATION 3-10-1 Serial #: <u>138385</u> 29 Serial #: <u>123806</u> 2 cpm/dpm Isotope: <u>SY90</u> <u>cpm Count Time (t) _1 min</u> dpm/			
		······································		:	dpm/		Exceeds
#	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	100cm ² (2)	Max cpm	Release? (3)
And the second s	Vork Area Doorway		436	364	910		
	Radiator Floor		563	491	1228		·····
	Vork Area Wall		479	407	1018		
	Bathroom under Mirror		696	624	1560		
	Bdesktop		381	309	773		
	Bathroom ledge			442	1105		
	Bathroom floor (sm tile)		and the second se		1710		
	athroom clkay wall tile		and the second se	and the second sec			
	athroom block wall						
10 b							
	Recount			-29	and the second		
	Recount						
	Retest Work Area Wall #3			and the state of the second			
12 R	Retest Work Area Doorway #1		64	-8	-20		
	·						
 							
 							
 							
							
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ļ		<u> </u>					
	t cpm is calculated as (Gross counts/count time) - Backgrou	ina cpm					
	n/100 cm ² is calculated as Net cpm/E (cpm/dpm)						
	otal dpm/100 cm ² is >200 then item is not acceptable for rel	lease					
Survey	or's Remarks:						

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Locat	ion: St. Albans VA	Purpose: Bac	kgrounds	·····			Date: 1/14	/99	
		BETA CONT	AMINATIO	N SURVEY	INFORMA	TION			
		Probe Model	#: <u>44-116</u>	Serial #: 14	42893				
		Meter Model	#: <u>12</u> Seria	I #: <u>149938</u>	}				
		Efficiency (E)): <u>0.28</u> cpm/	dpm Isot	ope: <u>SY90</u>	Backgrou	ind (B) <u>341</u>	cpm	
	•						<u>}//</u> _		
			Gross	Net	dpm/100		Max Net	Max dpm/	Smear
#	SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	cm ² (2)	Max cpm	cpm	100cm2	Req'd (3)
	Work Area Doorway		436	95	339		[I	Y
	Radiator Floor		563	222	793				Y
	Work Area Wall		479	138	493				Y .
	Bathroom under Mirror		696	355	1268				Y
	Bdesktop		381	40	143				N
	Bathroom ledge		514	173	618				Y
	Bathroom floor (sm tile)		756	415	1482				Y
	bathroom clkay wall tile		911	570	2036				Y
	bathroom block wall		623	282	1007				Y
10	blank		-	-	-				
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	·								
		-							
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(1) No	et cpm is calculated as Gross cpm - Background cp)m							
	m/100 cm ² is calculated as Net cpm/E (cpm/dpm) ⁴	PF Note: P	F for Ludiu	m 44-116 P	'F=1				
(3) If	total dpm/100 cm^2 is >200 then smear is required							. •	
	yor's Remarks:	·····							· · · · · · · · · · · · · · ·
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EFFICIENCY SUMMARY

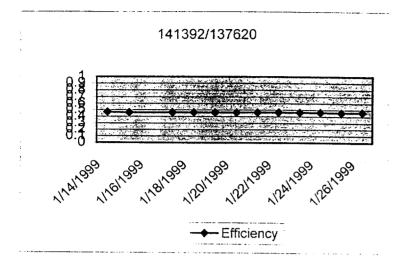
Analyzed By:Analyzed By:M. CluneDate:1/14/1999Source:SY90Source:SY90 (92SR320), 134, 200 DPM, corrected for time elapsed to 114816

				Source	Function	Efficiency	MDC
			Background	Activity	Count	CPM	DPM
Date	Probe	Meter	(CPM)	(DPM)	(CPM)	DPM	100CM
1/14/1999	138385	123806	72	114816	53914	0.4689416	90.59
	kV	0.6	time		time		
	AC		1		1		
1/15/1999	141392	137620	57	114816	53061	0.461643	82.59
	kV	0.6	time		time		
	AC		1		1		
1/17/1999	141392	137620	43	114816	53196	0.4629407	72.39
	kV	0.6	time		time		
	AC		1		1		
1/18/1999	141392	137620	48	114816	53145	0.462453	76.19
	kV	0.6	time		time		
	AC		1		1		
1/19/1999	141392	137620	470	114816	53641	0.4630975	69.53
	kV	0.6	time		time		1
	AC		10		10		
1/20/1999	141392	137620	432	114816	532450	0.4633657	66.65
	. kV	0.6	time		time		
	AC		· 10		10		-
1/21/1999	141392	137620	308	114816	533442	0.4643377	56.26
	kV	0.6	time		time		
	AC	•	10		10		
1/22/1999	141392	137620	466	114816	533742	0.4644614	69.03
	kV	0.6	time		time		
	AC		10		10		
1/23/1999	141392	137620	476	114816	532799	0.4636314	69.88
	kV	0.6	time		time		
	AC		10		10		
1/24/1999	141392	137620	478	114816	532496	0.4633657	70.07
	kV	0.6	time		time		
	AC		10		10		
1/25/1999	141392	137620	50	114816	52635	0.4579937	78.39
	kV	0.6	time		time		
	AC		1		1		
1/26/1999	141392	137620	400	114816	53560	0.4630017	207.46
	kV	0.6	time		time		
	AC		1		1		

Approval Signature:

Date:_____

EFFICIENCY SUMMARY



Date		Efficiency
1	1/14/1999	0.4689416
1	1/15/1999	0.461643
- 1	1/17/1999	0.4629407
1	1/18/1999	0.462453
1	1/19/1999	0.4630975
1	1/20/1999	0.4633657
1	1/21/1999	0.4643377
1	/22/1999	0.4644614
1	/23/1999	0.4636314
1	/24/1999	0.4633657
1	/25/1999	0.4579937
1	/26/1999	0.4630017

Location: Hot Spots	Purpose:					Date: 1/20	/99 & 1/21/9	99
Based upon Millennium Survey	BETA CONT					•		
	Probe Model #: <u>44-116</u> Serial #: <u>131321</u>							
	Meter Model							
	Efficiency (E): <u>0.30 c</u> pm	/dpm Iso	tope:SY90	Backgrour	nd (B) 339 (com (1/20, 4	28 (1/21)
			··· · · · · · · · · · · · · · · · · ·		×			(
		Gross	Net	dpm/		Max Net	Max dpm/	Smear
# SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	100cm ² (2)	Max cpm	cpm	100cm2	Req'd (3)
HS-1 E-29 LHS Threshold		1333	994	3313.33	NA	NA	NA	Y
HS-2 E-23 RHS Threshold		2422	2083	6943.33	NA	NA	NA	Y
HS-3 Stair H Door RHS approx 8" from RHS		7277	6938	23126.67	NA	NA	NA	Y
HS-4 E-51 LHS inside threshold		2469	2130	7100.00	NA	NA	NA	Y
HS-5 E-51 Middle Outside Threshold		1645	1306	4353.33	NA	NA	NA	Y
HS-6 Treatment Room SW Corner (5'x5' out of corner)		2185	1757	5856.67	NA	NA	NA	Y
HS-7 Fresh Air Room North		2448	2020	6733.33	NA	NA	NA	Y
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			·····					
	ļ							
(1) Net cpm is calculated as Gross cpm - Background cp								
(2) dpm/100 cm ² is calculated as Net cpm/E (cpm/dpm)*	PF Note: F	PF for Ludlu	m 44-116 l	PF=1				
(3) If total dpm/100 cm ² is >200 then smear is required					· · · · · · · · · · · · · · · · · · ·			
Surveyor's Remarks:								
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ocation: Hot Spots	Purpose:			Date: 1/20/99	& 1/21/00
Based upon Millennium Survey		E BETA CONTA	MINATION S	URVEY INFO	RMATION
	Counter Mod	el #: <u>43-10-1</u> S	erial #: 14139	2	
	Meter Model	#: 2929 Serial	#: 137620		
	Efficiency (E)): 0.46 cpm/dpn	n isotope: S	Y90	
· · · · · · · · · · · · · · · · · · ·	Background:	(B) <u>43 (1/20) an</u>	d 41 (1/21) cr	m Count Ti	me (f) 1 min
				oount H	nic (<u>y</u> nin
				dpm/	Exceeds Release?
# SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	100cm ² (2)	(3)
IS-1 E-29 LHS Threshold		45	2	4.35	(3) T N
IS-2 E-23 RHS Threshold		49	6	13.04	N
IS-3 Stair H Door RHS approx 8" from RHS		50	7	15.22	N N
IS-4 E-51 LHS inside threshold		48	5	10.87	N
IS-5 E-51 Middle Outside Threshold		55	12	26.09	N
IS-6 Treatment Room SW Corner (5'x5' out of corner)		36	-7	-15.22	N
IS-7 Fresh Air Room North		55	12	26.09	N
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				······································	
					······································
) Net cpm is calculated as (Gross counts/count time) - Back	ground cpm		A		
b) dpm/100 cm ² is calculated as Net cpm/E (cpm/dpm)					
) If total dpm/100 cm ² is >200 then item is not acceptable fo	r release				
urveyor's Remarks:					

Locat	ion: Hot Spots	Purpose:	·····				Date: 1/15	/99	
		BETA CONT.	AMINATIO	N SURVEY	INFORMA	TION			· · · · · · · · · · · · · · · · · · ·
		Probe Model							
		Meter Model							
		Efficiency (E)				Backgrour	nd (B) 391	com	
				····					
			Gross	Net	dpm/		May Net	Max dpm/	Smear
#	SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	$100 \text{ cm}^2(2)$	Max com	cpm	100cm2	Req'd (3)
	Hallway to Mach Rm/Control Rm Threshold (RHS)		1939	1548	6450.00	NA	NA	NA	<u>Y</u>
	Hallway to Mach Rm/Control Rm Threshold (LHS)	· · · · · · · · · · · · · · · · · · ·	6153	5762	24008.33	NA	NA	NA	<u>'</u> Y
	Floor Drain/Adj. Crack back of hall		16363	15972	66550.00	NA	NA	NA	<u>'</u> Y
	Floor Drain back of hall (further North)		4354	3963	16512.50	NA	NA	NA	Y
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(1) N	et cpm is calculated as Gross cpm - Background cpr	ևե n			L			L	··· · · · · · · · · · · · · · · · · ·
(2) di	om/100 cm ² is calculated as Net cpm/E (cpm/dpm)*F	PF Note F	PE for Ludlu	ım 44-116 F	DF=1				
	total dpm/100 cm ² is >200 then smear is required	1 140(0.1		111 44-110 1	-11				
Surve	yor's Remarks:								
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Loca	ation: Hot Spots	Purpose:			Data: 1/15/00	
			E BETA CONTA	MINIATION	Date: 1/15/99	
		Counter Moc	lel #: <u>43-10-1</u> So	avinna i Uni S		RMATION
		Motor Model	#: 2020 Seriel	=11a1 #: <u>14139</u>	<u>12</u>	
	· · · · ·		#: <u>2929</u> Serial	#: <u>137620</u>		
		Enciency (E): <u>0.39</u> cpm/dpn	n Isotope: <u>S</u>	<u>Y90</u>	
		Background:	(B) <u>57</u> cpm (Count Time (t)	<u> 1 min </u>	
				:	•	
#	SUBVEY ITEM/DECODIDITION		· .		dpm/	Exceeds Release?
D-1	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	100cm ² (2)	. (3)
	Hallway to Mach Rm/Control Rm Threshold (RHS)		46	-11	-23.91	N
D-2	Hallway to Mach Rm/Control Rm Threshold (LHS)		43	-14	-30.43	N
	Floor Drain/Adj. Crack back of hall		37	-20	-43.48	N
D-4	Floor Drain back of hall (further North)		43	-14	-30.43	N
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(1) N	et cpm is calculated as (Gross counts/count time) - Backgrou	und cpm				
(2) d	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)					
(3) If	total dpm/100 cm ² is >200 then item is not acceptable for re	lease				
Surve	eyor's Remarks:					

Locat	ion: Fresh Air Room	Purpose:				·····	Date: 1/22	/99	
		BETA CONT				TION			
		Probe Model							
		Meter Model							
		Efficiency (E)): <u>0.24_</u> cpm	/dpm Isot	tope: <u>SY90</u>	Backgrou	nd (B) <u>40</u> c	pm	
		,							
			Gross	Net	dpm/			Max dpm/	Smear
#	SURVEY ITEM/DESCRIPTION	Coordinate	cpm	cpm(1)	100cm ² (2)		cpm	100cm2	Req'd (3)
	Fresh Air Room - North Under Pipe		120	80	333.33	NA	NA	NA	Y
	Fresh Air Room - North at Pipe End		50	10	41.67	NA	NA	NA	N
1-3	Fresh Air Room - Sump Edge		50	10	41.67	NA	NA	NA	N
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(1) N	let cpm is calculated as Gross cpm - Background c	pm	L	1	· · · ·		•••••••••••••••		<u> </u>
(2) d	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)	*PF Note: I	PF for Ludl	um 44-116	PF=1				
(2) 1	total dpm/100 cm ² is >200 then smear is required								
	eyor's Remarks:								· · · · · · · · · · · · · · · · · · ·
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Location: Fresh Air Room Purpose: Date: 1/22/99						
			E BETA CONTA	MINATIONS	LIDVEN INFOI	
		Counter Mod	el #: <u>43-10-1</u> Se			KWATION
		Meter Model	#: <u>2929</u> Seria	11d1 #. <u>14139</u>	2	
		Efficiency (E)	#. <u>2929</u> Selia	#. <u>137620</u>		
): 0.46 cpm/dpr	n isotope: S	<u>Y90</u>	
		Баскугочно:	(B) <u>46.6</u> cpm	Count Time (t) <u>1 min</u>	
				:		
#		.			dpm/	Exceeds Release?
1-1	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	100cm ² (2)	(3)
1-2	Fresh Air Room - North Under Pipe		36	-10.6	-23.04	N
	Fresh Air Room - North at Pipe End		42	-4.6	-10.00	N
1-3	Fresh Air Room - Sump Edge		52	5.4	11.74	N
			····			
	•		·····			

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			······································			
(1) N	et cpm is calculated as (Gross counts/count time) - Backgrou				<u>.</u>	
		nu cpm				
(2) d	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)					
	total dpm/100 cm ² is >200 then item is not acceptable for rel	ease				
Surve	eyor's Remarks:					

	REMOVABL		and the second					
		E BETA CONTA	MINATION S	URVEY INFOR	RMATION			
Counter Model #: <u>143-10-1</u> Serial #: <u>141392</u>								
	Meter Model	#: <u>2929</u> Serial	#: 137620					
): 0.46 cpm/dpm		Y90				
	Background:	(B) <u>50</u> cpm C	ount Time (t)	0.2 min				
			:					
				dpm/	Exceeds Release?			
# SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	100cm ² (2)	(3)			
1 Pump		50	3.4	7.39	N			
2 2929 Scaler 137620		80	33.4	72.61	N			
3 143-10-1 Counter 141392		50	3.4	7.39	N			
4 Ratemeter 102829		45	-1.6	-3.48	N			
5 Probe 112967		65	18.4	40.00	N			
6 2221 Meter 108846		45	-1.6	-3.48	N			
7 44-116 Probe 131321		45	-1.6	-3.48	N			
8 2221 Meter 149938		40	-6.6	-14.35	N			
9 44-116 Probe 142893		55	8.4	18.26	N			
10 microR Meter 111333		60	13.4	29.13	N			
11 Elf Pump		40	-6.6	-14.35	N			
12 MSA Charger		70	23.4	50.87	N			
·								
) Net cpm is calculated as (Gross counts/count time) - Backgr	ound cpm							
) dpm/100 cm ² is calculated as Net cpm/E (cpm/dpm)								
) If total dpm/100 cm ² is >200 then item is not acceptable for 1	release							
urveyor's Remarks:								
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Locat	ion: Cleanouts SU005/SU006		haracterization		Date: 1/20/99	
	Based upon Millennium Survey		E BETA CONTA			RMATION
			el #: <u>43-10-1</u> So		2	
		Meter Model	#: 2929 Serial	#: <u>137620</u>		
		Efficiency (E): 0.46 cpm/dpn	n Isotope: S	Y90	
		Background:	(B) <u>43 (1/20) an</u>	<u>d 47 (1/22)</u> cp	m Count Ti	me (t) <u>1</u> min
.,		• • • •			dpm/	Exceeds Release?
#	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	100cm ² (2)	(3)
	E-35 File Room Door at Threshold		50	7	15.22	N
	E-35 File Room Door 1st Cleanout		44	1	2.17	N
	E-35 File Room Door 2nd Cleanout		51	8	17.39	N
A REAL PROPERTY OF	Outside Control Room (Inset) and Crack		45	2	4.35	N
	Outside Control Room (Stickup)		52	9	19.57	N
	Janitor Closet E-37 Sink		49	6	13.04	N
	Janitor Closet E-37 Drain		54	11	23.91	N
	E-25 Floor Cleanout		50	7	15.22	N
	Corridor Outside E-23 (Radiator)		52	9	19.57	N
	Corridor Across from Ramp (Radiator)		50	7	15.22	N
G-11	Janitor's Closet Floor Drain		40	-3	-6.52	N
G-12	Machine Room Drain		54	7	15.22	N
			· · · · · · · · · · · · · · · · · · ·			
			·····			
					······	
				· · · · · · · · · · · · · · · · · · ·		·
					•	· · ·
(1) N	et cpm is calculated as (Gross counts/count time) - Backg	round com		L I		l
	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)					
	total dpm/100 cm ² is >200 then item is not acceptable for	rologoo				
<u>` ''</u>		1016926				
Surve	eyor's Remarks:					

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Based upon Millennium Survey BETA CONTAMINATION SURVEY INFORMATION Probe Model #: 44-116 Serial #: 131321 Meter Model #: 2221 Serial #: 108846 Efficiency (E): 0.3 (1/20) Isotope:SY90 Background(B) 339 cpm (1/20), 441 (1/22)	et Max dpm/ 100cm2 NA NA NA NA NA NA NA	pm/dpm
Meter Model #: 2221 Serial #: 108846Efficiency (E): 0.3 (1/20) Isotope:SY90#SURVEY ITEM/DESCRIPTIONCoordinateGross cpmNetdpm/ cpm(1)Max Net cpmG-1E-35 File Room Door at Threshold38546153.33NANAG-2E-35 File Room Door 1st Cleanout453114380.00NANAG-3E-35 File Room Door 2nd Cleanout245221137043.33NANAG-4Outside Control Room (Inset) and Crack280924708233.33NANAG-5Outside Control Room (Stickup)7293901300.00NANAG-6Janitor Closet E-37 Sink334-5-16.67NANAG-7Janitor Closet E-37 Drain42788293.33NANA	et Max dpm/ 100cm2 NA NA NA NA NA NA NA	/ Smear Req'd (3) N Y Y Y
Isotope:SY90 Background(B) 339 cpm (1/20), 441 (1/22)#SURVEY ITEM/DESCRIPTIONCoordinatecpmcpm(1)100cm²(2)Max cpmcpmG-1E-35 File Room Door at Threshold38546153.33NANAG-2E-35 File Room Door 1st Cleanout453114380.00NANAG-3E-35 File Room Door 2nd Cleanout245221137043.33NANAG-4Outside Control Room (Inset) and Crack280924708233.33NANAG-5Outside Control Room (Stickup)7293901300.00NANAG-6Janitor Closet E-37 Sink334-5-16.67NANAG-7Janitor Closet E-37 Drain42788293.33NANA	et Max dpm/ 100cm2 NA NA NA NA NA NA NA	/ Smear Req'd (3) N Y Y Y
Isotope:SY90 Background(B) 339 cpm (1/20), 441 (1/22)#SURVEY ITEM/DESCRIPTIONCoordinateGross cpmNetdpm/ cpm(1)Max NetG-1E-35 File Room Door at Threshold38546153.33NANAG-2E-35 File Room Door 1st Cleanout453114380.00NANAG-3E-35 File Room Door 2nd Cleanout245221137043.33NANAG-4Outside Control Room (Inset) and Crack280924708233.33NANAG-5Outside Control Room (Stickup)7293901300.00NANAG-6Janitor Closet E-37 Sink334-5-16.67NANAG-7Janitor Closet E-37 Drain42788293.33NANA	et Max dpm/ 100cm2 NA NA NA NA NA NA NA	/ Smear Req'd (3) N Y Y Y
# SURVEY ITEM/DESCRIPTION Coordinate cpm cpm(1) 100cm²(2) Max cpm cpm G-1 E-35 File Room Door at Threshold 385 46 153.33 NA NA G-2 E-35 File Room Door 1st Cleanout 453 114 380.00 NA NA G-3 E-35 File Room Door 2nd Cleanout 2452 2113 7043.33 NA NA G-4 Outside Control Room (Inset) and Crack 2809 2470 8233.33 NA NA G-5 Outside Control Room (Stickup) 729 390 1300.00 NA NA G-6 Janitor Closet E-37 Sink 334 -5 -16.67 NA NA G-7 Janitor Closet E-37 Drain 427 88 293.33 NA NA	100cm2 NA NA NA NA NA NA NA	Req'd (3) N Y Y Y
# SURVEY ITEM/DESCRIPTION Coordinate cpm cpm(1) 100cm²(2) Max cpm cpm G-1 E-35 File Room Door at Threshold 385 46 153.33 NA NA G-2 E-35 File Room Door 1st Cleanout 453 114 380.00 NA NA G-3 E-35 File Room Door 2nd Cleanout 2452 2113 7043.33 NA NA G-4 Outside Control Room (Inset) and Crack 2809 2470 8233.33 NA NA G-5 Outside Control Room (Stickup) 729 390 1300.00 NA NA G-6 Janitor Closet E-37 Sink 334 -5 -16.67 NA NA G-7 Janitor Closet E-37 Drain 427 88 293.33 NA NA	100cm2 NA NA NA NA NA NA NA	Req'd (3) N Y Y Y
# SURVEY ITEM/DESCRIPTION Coordinate cpm cpm(1) 100cm ² (2) Max cpm cpm G-1 E-35 File Room Door at Threshold 385 46 153.33 NA NA G-2 E-35 File Room Door 1st Cleanout 453 114 380.00 NA NA G-3 E-35 File Room Door 2nd Cleanout 2452 2113 7043.33 NA NA G-4 Outside Control Room (Inset) and Crack 2809 2470 8233.33 NA NA G-5 Outside Control Room (Stickup) 729 390 1300.00 NA NA G-6 Janitor Closet E-37 Sink 334 -5 -16.67 NA NA G-7 Janitor Closet E-37 Drain 427 88 293.33 NA NA	100cm2 NA NA NA NA NA NA NA	Req'd (3) N Y Y Y
G-1 E-35 File Room Door at Threshold 385 46 153.33 NA NA G-2 E-35 File Room Door 1st Cleanout 453 114 380.00 NA NA G-3 E-35 File Room Door 2nd Cleanout 2452 2113 7043.33 NA NA G-4 Outside Control Room (Inset) and Crack 2809 2470 8233.33 NA NA G-5 Outside Control Room (Stickup) 729 390 1300.00 NA NA G-6 Janitor Closet E-37 Sink 334 -5 -16.67 NA NA G-7 Janitor Closet E-37 Drain 427 88 293.33 NA NA	NA NA NA NA NA NA NA	N Y Y Y
G-3 E-35 File Room Door 2nd Cleanout 2452 2113 7043.33 NA NA G-4 Outside Control Room (Inset) and Crack 2809 2470 8233.33 NA NA G-5 Outside Control Room (Stickup) 729 390 1300.00 NA NA G-6 Janitor Closet E-37 Sink 334 -5 -16.67 NA NA G-7 Janitor Closet E-37 Drain 427 88 293.33 NA NA	NA NA NA NA NA	Y Y Y
G-4 Outside Control Room (Inset) and Crack 2809 2470 8233.33 NA NA G-5 Outside Control Room (Stickup) 729 390 1300.00 NA NA G-6 Janitor Closet E-37 Sink 334 -5 -16.67 NA NA G-7 Janitor Closet E-37 Drain 427 88 293.33 NA NA	NA NA NA NA NA	Y
G-5 Outside Control Room (Stickup) 729 390 1300.00 NA NA G-6 Janitor Closet E-37 Sink 334 -5 -16.67 NA NA G-7 Janitor Closet E-37 Drain 427 88 293.33 NA NA	NA NA NA	
G-6 Janitor Closet E-37 Sink 334 -5 -16.67 NA NA G-7 Janitor Closet E-37 Drain 427 88 293.33 NA NA	NA NA	Y
G-7 Janitor Closet E-37 Drain 427 88 293.33 NA NA	NA	
		N
G-8 E-25 Elear Cleanout 362 23 76.67 NA NA		Y
	NA	N
G-9 Corridor Outside E-23 (Radiator) 384 45 150.00 NA NA	NA	N
G-10 Corridor Across from Ramp (Radiator) 390 51 170.00 NA NA	NA	N
G-11 Janitor's Closet Floor Drain 409 70 233.33 NA NA	NA	Y
G-12 Machine Room Drain 356 17 56.67 NA NA	NA	N
(1) Net cpm is calculated as Gross cpm - Background cpm		
(2) dpm/100 cm ² is calculated as Net cpm/E (cpm/dpm)*PF Note: PF for Ludium 44-116 PF=1		
(3) If total dpm/100 cm ² is >200 then smear is required		
Surveyor's Remarks:		
Clean120.xls		

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Loca	lion: Ejector Pit	Purpose:		T	Date: 1/18/99	9	
		REMOVABL	E BETA CONTA	MINATION SU	JRVEY INFOR	RMATION	····
		Counter Mod	lel #: <u>43-10-1</u> Se	rial #: 141392			
			#: 2929 Serial		-		
		Efficiency (E): 0.46 cpm/dpm	Isotope: S	Y90		
			(B) <u>48</u> cpm C				
		· ·			dpm/		Exceeds
#	SURVEY ITEM/DESCRIPTION	Coordinate	Total Counts	Net cpm(1)	100cm ² (2)	Max cpm	
G-1	Gate Edge		69	21	46		N
	Floor		88	40	87		N
G-3	Discolored Wall		57	9	20		N
G-4	Outflow Line - Vitreous		63	15	33		N
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					· ·		
(1) N	I let cpm is calculated as (Gross counts/count time) - Backg	round com	L			L	L
(1) (2)	pm/100 cm ² is calculated as Net cpm/E (cpm/dpm)						
(2) u	total dpm/100 cm ² is >200 then item is not acceptable for	rologgo					
	eyor's Remarks:	1010436					
Surve	eyul s relliains.						

APPENDIX F

CONCRETE CORE/SOIL SAMPLING RESULTS

ST ALBANS VA ECC CONCRETE CORING

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	Sample Number	Location	Details/Coordinates	Approx. Depth	Reading (Top) (gross cpm)	Top (net cpm)	cpm/ 100cm	Reading (Bottom)	Bottom (net cpm)	cpm/ 100cm	Lab Results (pCi/g)	Lab Error
Core 1	C1-1A	Isotope	Measure Hot Spot -	0-3"	200	130	590	100	30	136	0.16	0.31
	C1-1A	Storage	Location was as	()-3"	200	130	590	100	30	136	1.18	0.38
	(dup)	Area	close as possible to									
	C1-1B	-	hot spot with	3-6"	. 100	30	136	100	30	136	N/A	N/A
	C1-1C		drilling equipment	6-8"	120	50	227	-			N/A	N/A
	C1-1D			8-10"	80	10	45	-			N/A	N/A
	C1-1E			soil 0-6"	100	30	136				0.24	0.25
	C1-1F			soil 6-12"	80	10	45				-0.17	0.24
Core 2	C1-2A	-	Measure Hot Spot -	0-2"	1200	1130	5136	80	10	45	14.96	1.06
	C1-2B (dup)	Lab	in front of fume hood	2-3"	80	10	45				6.66	0.72
	(uup) C1-2B	, ,		2-3"	80	10	45				1.56	0.43
	C1-2C			3-5"	80	10	45				0	0.43
	C1-2D			5-8"	70	0					<u> </u>	0.33 N/A
	C1-2E			8-10"	80	10	45				N/A	N/A N/A
	C1-2F			soil 0-6"	60	-10	-45				-0.17	0.28
	C1-2G			soil 6-12"	80	10	45		·		-0.21	0.28
	C1-2G			soil 6-12"	80	10	45				-0.02	0.31
	(dup)						15				0.02	0.27
Core 3	C2-1A	Ejector Pit	Floor	0-3.5"	150	80	363	80	10	45	10.49	0.89
	C2-1B			3.5-5"	100	30	136	100	30	136	0.31	0.26
	C2-1C			5-5.5"	50	-20	-91	50	-20	91	N/A	N/A
	C2-1D			5.5-7"	100	30	136	50	-20	91	N/A	Ν/Λ
	C2-1E			7-8.5"	60	-10	-45	60	-10	-45	N/A	N/A
	C2-1F			8.5-10"	60	-10	45	60	-10	45	N/A	N/A
Core 4	C2-2A	Ejector Pit	18" from floor	0-1"	80	10	45				6.05	0.72
	C2-2B			1-4"	60	-10	-45				15.76	0.99

	Sample Number	Location	Details/Coordinates	Approx. Depth	Reading (Top) (gross cpm)	Top (net cpm)	cpm/ 100cm	Reading (Bottom)	Bottom (net cpm)	cpm/ 100cm	Lab Results (pCi/g)	Lab Error
	C2-2C			4-8"	50	-20	-91				-0.04	0.27
Core 5	C5-1A	South	Measure Hot Spot	0-3"	280	210	955	60	-10	-45	34.27	1.60
	C5-1B	Corridor	(10 m from N wall,	3-3.5	40	-30	-136	40	-30	-136	-0.20	0.34
	C5-1C		2.5m from W. wall)-	3.5-5	85	15	68	-			N/A	N/A
	C5-1D			soil 0-6"	40	-30	-136				N/A	N/A N/A
	C5-1E			soil 6-12"	20	-50	91				N/A	N/A
Core 6	C5-2A	Fresh Air	Measure Hot Spot	0-2.5"	4()()	330	1500	50	-20	-91	11.21	1.20
	C5-2B	Room	(2.1m from W wall,	2.5-4"	40	-30	-136	40	-30	-136	0.21	0.28
	C5-2C		.6m from N wall)	4-4.5	30	-40	182	30	-40	-182	N/A	N/A
	C5-2D		-	5-bottom	80	10	45				N/A	N/A
	C5-2E			soil 0-6"	100	30	136				0.29	0.28
	C5-2F			soil 6-12"	50	-20	91				-0.33	0.22

N/A = Not Analyzed

APPENDIX G

QUALITY CONTROL SAMPLES

		Sample	Receipt	Analysis							
Lab ID	Client ID	Date	Date	Date	Batch I()	Analyte	Method	Result	Error	MDA	Units
Rad Lab											
99-01194-04	1-1	1/24/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906 0 Modified	38 14	35 37	57 62	dpm/100cm²
99-01194-05	1-1 QC	1/25/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906 0 Modified	93 93	43 53	64.27	dpm/100cm ²
99-01194-09	1.5	1/24/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906 0 Modified	63,70	28 66	43.58	dpm/100cm ²
99-01194-10	1-5 QC	1/25/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906 0 Modified	207.40	35.40	40 00	dpm/100cm ²
99-01194-13	1-8	1/24/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906 0 Modified	-2 28	24.61	41 39	dpm/100cm ²
99-01194-14	1-8 OC	1/25/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906 0 Modified	107 33	31 51	41 85	dpm/100cm ²
99-01194-19	1-13	1/24/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906 0 Modified	3544 19	154 91	101 52	dpm/100cm ²
99-01194-20	1-13 QC	1/25/99	1/27/99	2/2/99	9901194	Carbon-14	EPA 906 0 Modified	5000 56	196 55	135 42	dpm/100cm ²
99-01195-17	1.27	1/24/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906 0 Modified	149 24	28.78	38.23	dpm/100cm ⁻
99-01195-18	1-27 QC	1/25/99	1/27/99	2/4/99	9901195	Carbon-14	EPA 906 0 Modified	110.35	28 37	38.53	dpm/100cm ²

Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
Ejector Pit								Hoodin		ino/	Onits
99-01196-17	2.13	1/24/99 .	1/27/99	2/4/99	9901196	Carbon-14	EPA 906.0 Modified	-1.50	15 48	24.90	dom/100cm
99-01196-18	2-13 QC	1/26/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906 0 Modified	6.81	15 63	25 14	dpm/100cm
99-01196-19	2-14	1/24/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906 0 Modified	1 48	16,70	24 54	dpm/100cm
99-01196-20	2-14 QC	1/26/99	1/27/99	2/4/99	9901196	Carbon-14	EPA 906 0 Modified	-5 98	14.94	24 83	dpm/100cm
Mens' Room											
99-01197-05	3-2	1/25/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906 0 Modified	-8 03	34.92	55.05	dpm/100cm
99-01197-06	3-2 QC	1/25/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906 0 Modified	34 75	54.20	91 60	dpm/100cm
99-01197-07	3-3	1/25/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906 0 Modified	1.47	30.36	50.39	dpm/100cm
99-01197-08	3-3 OC	1/25/99	1/27/99	2/6/99	9901197	Carbon-14	EPA 906 0 Modified	-7 73	34 00	52,96	dpm/100cm

Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
funnel	·										
99 01198-08	5-2	1/23/99	1/27/99	2/6/99	9901198	Carbon 14	FPA 906 0 Modified	-4.72	32 36	53 40	dpm/100cm ²
9-01198-09	5-2 QC	1/26/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906 0 Modified	-6 69	36 38	56 77	dpm/100cm ²
99-01198-11	5.4	1/23/99	1/27/99	2/6/99	9901198	Carbon 14	EPA 906 0 Modified	-29 37	38.00	58 60	dpm/100cm ²
99-01198-12	5-4 QC	1/26/99	1/27/99	2/6/99	9901198	Carbon-14	FPA 906 0 Modified	-22 55	41 18	63 76	dpm/100cm ²
9 01198-16	5-8	1/23/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906 0 Modified	-1 76	36 20	59 73	.dpm/100cm ²
9.01198.17	5-8 QC	1/26/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906 0 Modified	25 53	41 46	66 62	dpm/100cm ²
99-01198-19	5-10	1/23/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906 0 Modified	-3 50	37,13	59.41	dpm/100cm ²
99-01198-20	5-10 QC	1/26/99	1/27/99	2/6/99	9901198	Carbon-14	EPA 906 0 Modified	8 19	34 43	55 56	dpm/100cm ²
99-01199-06	5-13	1/23/99	1/27/99	2/8/99	9901199	Carbon-14	EPA 906 0 Modified	-28 28	29 27	45 77	dpm/100cm ²
09-01199-07	5-13 QC	1/26/99	1/27/99	2/8/99	9901199	Carbon-14	FPA 906 0 Modified	14 86	41,19	66 14	dpm/100cm ²
9.01199.12	5-18	1/24/99	1/27/99	2/8/99	9901199	Carbon-14	EPA 906 0 Modified	15 20	31 11	54 14	dpm/100cm ⁱ
49.01199.13	5-18 QC	1/26/99	1/27/99	2/8/99	9901199	Carbon-14	FTA 906 0 Modified	-21 06	25 63	41 66	dpm/100cm ²

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Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
Vest Basement										110/1	Oths
9-01200-08	6-12	1/23/99	1/27/99	2/11/99	9901200	Carbon-14	EPA 906 0 Modified	-31 82	33.60	58 72	dpm/100cm ²
9-01200-09	6-12 QC	1/26/99	1/27/99	2/11/99	9901200	Carbon-14	EPA 906 0 Modified	-37 92	36 77	61 22	dpm/100cm ²
ostairs											
9-01207-10	8-26	1/26/99	1/27/99	2/13/99	9901207	Carbon-14	FPA 906 0 Modified	-1 56	35 07	57 18	dpm/100cm ²
01207-11	8 26 QC	1/26/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906 0 Modified	-21 39	33 48	55.90	dpm/100cm ²
01207-12	8-27	1/26/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906 0 Modified	-17 77	32.97	54.18	dpm/100cm ²
01207-13	8-27 QC	1/26/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906 0 Modified	-29 59	34.53	56.96	dpm/100cm ²

Lab ID	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	Error	MDA	Units
Incinerator											
99-01205-13	9.1	1/25/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906 0 Modified	1 71	37 26	61 05	dpm/100cm ²
99-01205-14	9-1 QC	1/26/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906 0 Modified	-6 71	47 62	79 65	dpm/100cm ²
99-01205-15	9-2	1/25/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906 0 Modified	19.96	47.22	78 98	dpm/100cm ²
09-01205-16	9-2 QC	1/26/99	1/27/99	2/11/99	9901205	Carbon-14	EPA 906 0 Modified	-24 51	68 20	109 09	dpm/100cm ²
99 01206-07	9.10	1/25/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906 0 Modified	-16 45	26.36	48.64	dpm/100cm ²
99 01206-08	9-10 QC	1/26/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906 0 Modified	-55 60	40 12	71.25	dpm/100cm ²
99 01206-19	9-21	1/25/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906 0 Modified	.20 29	37 21	65 02	dpm/100cm ²
99-01206-20	9-21 QC	1/26/99	1/27/99	2/13/99	9901206	Carbon-14	EPA 906 0 Modified	-31 16	39 43	66 56	dpm/100cm ²
99-01207-04	9-22	1/25/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906 0 Modified	-43 35	82 28	132 17	dpm/100cm ²
99-01207-05	9-22 QC	1/26/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906 0 Modified	-16.22	39 64	65.91	dpm/100cm ²
99-01207-07	9-24	1/25/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906 0 Modified	-23 19	40 02	65 26	dpm/100cm ²
99-01207-08	9-24 QC	1/26/99	1/27/99	2/13/99	9901207	Carbon-14	EPA 906 0 Modified	-18 80	40 53	68 76	dpm/100cm ²

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July 7, 2000

Mr. Randy Godfrey Engineering Manager U.S. Department of the Army New England District, Corps of Engineers 696 Virginia Road Concord, MA 01742-2751

 Re: Contract No. DACA31-96-D-0006
 St. Albans Veterans Administration Extended Care Facility, Queens, New York DCN: VAHOSP-070700-AACL
 WESTON W.O. No.: 10971-219-201-0002
 Final Decommissioning Plan

Dear Mr. Godfrey:

Roy F. Weston, Inc. (WESTON) is pleased to provide to you four (4) copies of the Final Decommissioning Plan (DP) for the St. Albans Veterans Administration Extended Care Center in Queens, New York. Please do not hesitate to contact me at (516) 873-3814 or Mike Madonia at (847) 918-4087 if you have any questions or comments on this document.

Very truly yours,

ROY F. WESTON, INC.

John Rhyner, P.G.

Project Manager

Enc.

cc: H. Honerlah, USACE M. Madonia, WESTON DCN Files



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Click to WESTON On The Web http://www.rfweston.com



U.S. Army Corps of Engineers

New England District Concord, Massachusetts

TECHNICAL SUPPORT SERVICES ST. ALBANS VETERANS ADMINISTRATION EXTENDED CARE CENTER QUEENS, NEW YORK

Contract No. DACA31-D-0006

FINAL DECOMMISSIONING PLAN

Task Order No. 19 DCN: VAHOSP-070700-AACL

7 July 2000



98P-0892

FINAL DECOMMISSIONING PLAN ST. ALBANS VETERANS ADMINISTRATION EXTENDED CARE CENTER QUEENS, NEW YORK

Contract No. DACA31-96-D-0006 Task Order No. 19 DCN: VAHOSP-070700-AACL

Prepared for:

U.S. ARMY CORPS OF ENGINEERS NORTH ATLANTIC DIVISION NEW ENGLAND DISTRICT

696 Virginia Road Concord, Massachusetts 01742-2751

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Marianne Glune, Lead Author ine

Date

<u>2000</u>

Date

July 1,2000

Date 2000

6 July 2000

W.O. No. 10971-219-201-0002

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1.0 BACKGROUND INFORMATION

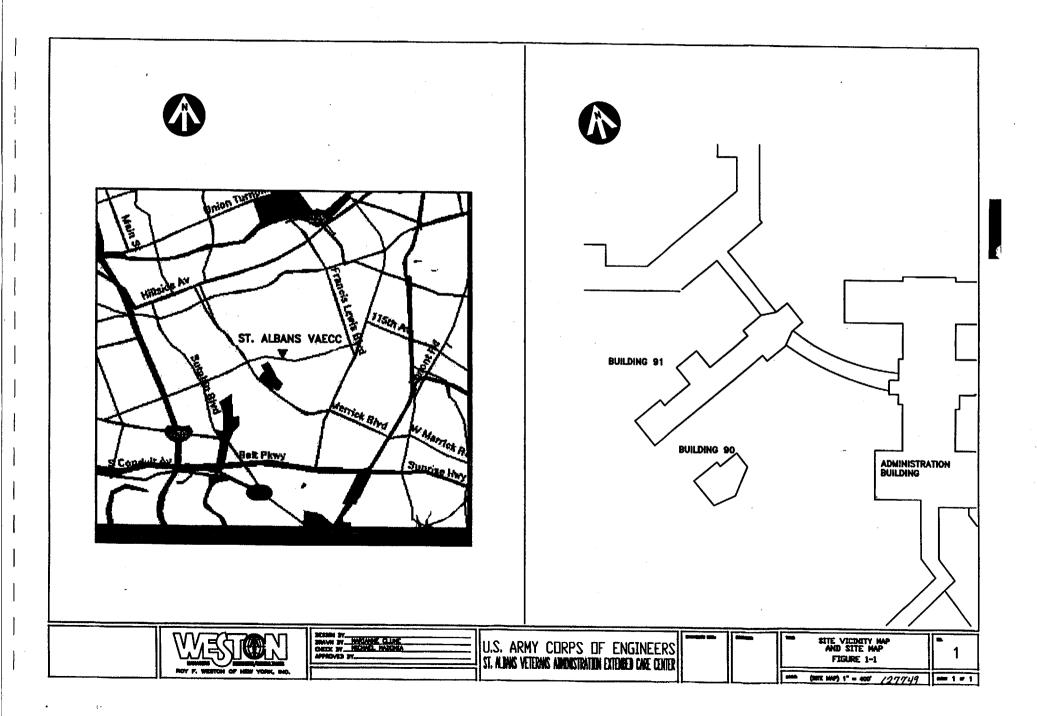
Roy F. Weston, Inc. (WESTON_®) has prepared, on behalf of the U.S. Army Corps of Engineers (USACE) North Atlantic Division, New England District (CENAE), this Final Decommissioning Plan (DP) for the St. Albans Veterans Administration Extended Care Center (VAECC), in Queens, New York under contract DACA31-96-D-0006. The U.S. Veterans Administration (VA) currently maintains a U.S. Nuclear Regulatory Commission (NRC) "Possession Only" Byproduct Materials License No. 31-02892-06, Docket 030-34751, Control. No.125705. The license was issued in July 1998 for residual strontium-90 (Sr-90) contamination resulting from laboratory research performed in the early 1960s. Conditions of the license require that several areas of the VAECC be secured from routine access and placed under radiological control due to elevated levels of Sr-90 surface contamination and bulk material concentration. This DP provides a framework to proceed with the license requirement for decontamination and decommissioning (D&D) of the facility.

1.1 <u>Site Description</u>

The VAECC is located on 55 acres at 179^{th} Street and Linden Boulevard, in Queens, New York. The VAECC consists of 15 buildings encompassing approximately 700,000 square feet (ft^2) of the property. The facility employs approximately 500 employees whose work locations are spread throughout the 15 buildings. The facility currently performs extended care services, outpatient services, and a consolidated laundry service. The regional site location is shown in Figure 1-1.

Survey units have been assigned to portions of Buildings 64, 90, and 91 at the VAECC. Building 64 serves as the facility boiler plant, and also houses an inactive incinerator. Building 90 consists of two levels, ground and basement, that have historically housed the majority of the nuclear medicine-related operations at the facility. The basement level of Building 90 was formerly used (until recently) for file storage (uncontrolled access areas only), and includes restricted access areas consisting of a former nuclear medicine laboratory, ejector pit, and bathrooms. The basement level of Building 91 contains the speech pathology department, audiology department, waiting rooms, and a variety of maintenance shops that are currently used by the VAECC. Figure 1-1 also presents the relative locations of Buildings 90 and 91 at the VAECC site.

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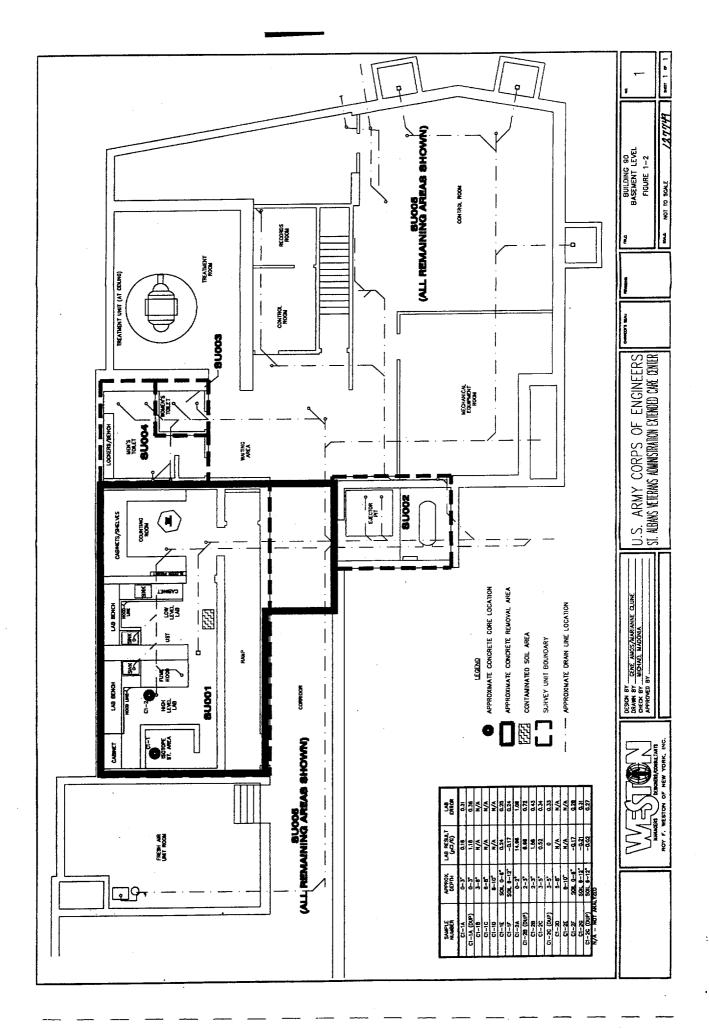
1.2 Survey Unit Descriptions

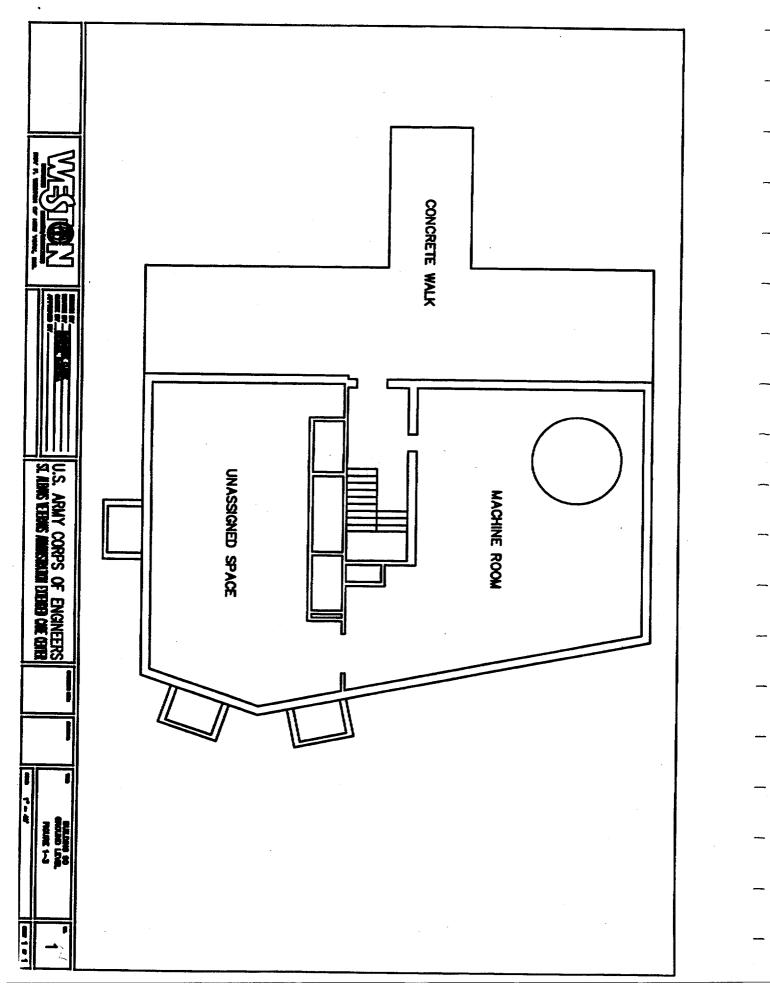
A total of nine survey units have been assigned to portions of the buildings as previously described. Figure 1-2 illustrates the relative location of survey units (SU) 001 through 005 at the basement level of Building 90, while Figure 1-3 shows SU 008 located at the ground level of Building 90. Figure 1-4 illustrates the relationship of the Building 91 basement level SU 006 and SU 007 to those contained in the adjacent Building 90. SU 009 and Building 64 are not pictured.

Periodic characterization and decontamination efforts have been performed from 1992 to the present and have added significant knowledge as to the nature and extent of contamination. In some cases, enough data has been collected to support the requirements of a final status survey (FSS) as described in the *Multi-Agency Radiological Site Survey Implementation Manual (MARSSIM)* – NUREG 1575 (NRC 1997). The processing of survey unit data to FSS format is included as a subtask under preparation of a final report following D&D. Radiological survey data for survey units 003, 005, 006, 007, 008 and 009 have been processed to final status survey format WESTON (1999c). A draft FSS report for these six units will be provided to the Remedial Action Contractor (RAC). The RAC may use this as a template for the final NRC submittal at the close of decontamination activities for all survey units. Survey units 001, 002, and 004 contain extensive contamination that will require remediation followed by a comprehensive FSS. The remedial action contractor (RAC) responsible for D&D in and around these three survey units will be responsible for processing the survey unit data for FSS format.

Per WESTON (1999), decontamination operations will be restricted to the contents and surfaces of SU 001 and SU 004. The contents of SU 002 (ejector pit), which include feed piping, hold-up tank and pressurizer, also shall be removed and disposed as radioactive waste. Based on previous characterization efforts, supplemental tritium surveys and small-scale decontamination activities, data demonstrate that SU's 003, 005, 006, 007, 008 and 009 meet the derived concentration guidelines (DCGLs) and requirements for FSS. Table 1-1 presents the status of each survey unit.

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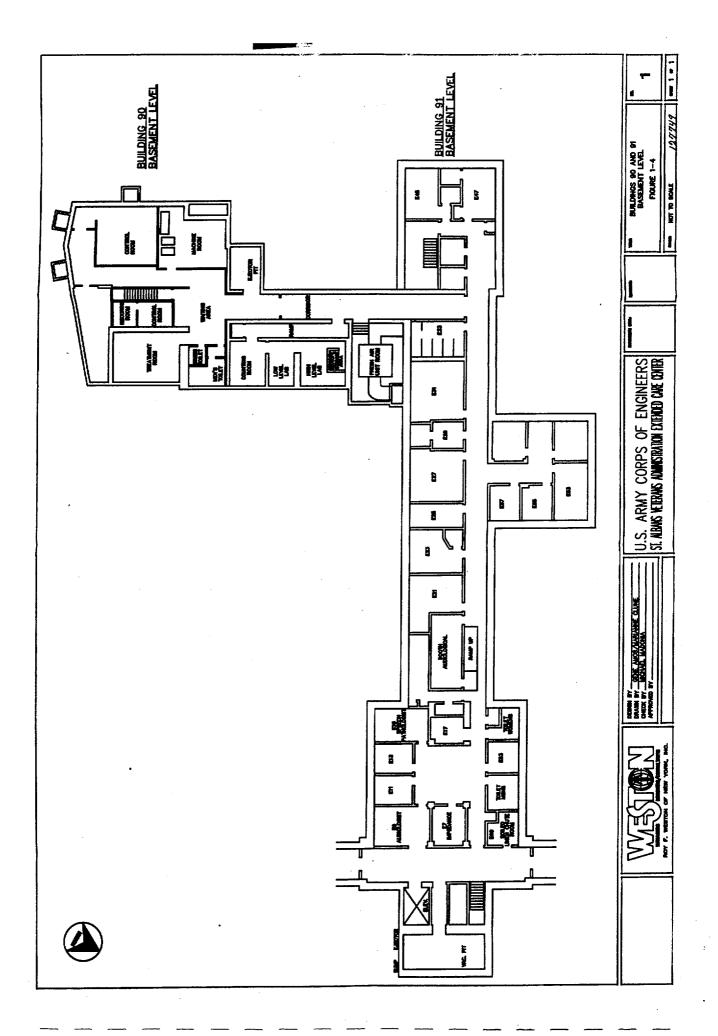


Table 1-1 Current Survey Unit Status and Decontamination Requirements

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Survey Unit #	Level of Decontamination Effort	Final Status Survey Required?	Comments
001 – Nuclear Medicine Labs	Major	Yes – following decontamination	
002 – Ejector Pit	Moderate	Yes – following removal of internals	
003 – Women's Toilet	None	Supplemental tritium sampling completed	Data formatted to final status survey report
004 – Men's Toilet	Moderate	Yes – following decontamination	
005 – Lower Level Building 90	None	No – area has been subject to test decontamination	Data formatted to final status survey report
006 – Building 91 Basement: Maintenance Areas	None	No – area has been subject to test decontamination	Data formatted to final status survey report
007 – Building 91 Basement: Laboratory and Maintenance Areas	None	No – area has been subject to test decontamination	Data formatted to final status survey report
008 – Building 90 Ground Level	None	No	Data formatted to final status survey report
009 – Incinerator	None	Supplemental tritium sampling completed	Data formatted to final status survey report

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2.0 DESCRIPTION OF PLANNED DECOMMISSIONING ACTIVITIES

2.1 Decommissioning Objective, Activities, Tasks, and Schedules

2.1.1 Decommissioning Objective

The decommissioning objectives for activities at the VAECC are to ensure that all cleanup criteria or DCGLs are achieved and that exposures to occupational workers and the public are maintained as low as reasonably achievable (ALARA). The future use of the areas within Building 90 of the VAECC is uncertain. Upon successful remediation, the areas will be restored to a structural stability ensuring physical safety to all workers that must enter or be adjacent to the decontaminated areas.

2.1.2 Description of Activities and Tasks

Activities to be conducted as part of the radiological remediation of the designated survey units at the VAECC will consist of five primary tasks. These tasks include creation of planning documentation, field mobilization, facility D&D, final status survey and demobilization, and final report preparation.

Task 1 - Planning Documentation

Primary planning documentation which will be generated prior to commencement of any field remediation activities will include a Quality Assurance Program Plan (QAPP), Health and Safety Plan (HASP), and Radiological Protection Program (RPP). Descriptions of the planning documents are discussed below. The contents of the RPP are described in detail in Section 3.3 of this DP.

The QAPP will be included as a section of the Work Plan and will include quality assurance and quality control objectives associated with data collection for the project. Specific information that will be included in the QAPP will be; sampling procedures, laboratory and field analytical

-8-

P VACOEVA/D&DPLAN/Final D&D Plan/Dptan121399V2 DOC 07/07/00 procedures, calibration procedures, sample custody, internal QC checks and corrective action plans.

The HASP will contain descriptions of safety risks associated with each of the tasks that will be performed as part of the remediation at the St. Albans facility. These descriptions will include the roles and responsibilities of each individual working on specific tasks with respect to safety. Personal protective equipment required, decontamination procedures, air monitoring, work zone delineation, and engineering controls for tasks will also be established in the HASP. Possible incident contingencies will be evaluated and responses outlined in the HASP as well.

Task 2 - Mobilization

The first phase of activity that will be conducted at the facility will involve mobilization activities and will include the following tasks:

- Establish a method of removal of contaminated materials from the basement. Two suggested methods are as follows.
 - Radioactive waste removed from the controlled zone is containerized at the buffer zone. Containers are sealed and a surface contamination survey is performed before release to non-controlled areas. Containers would need to be small which may not be as efficient for waste disposal.
 - Another approach would be to construct a lift or similar transfer system to raise materials through the 1,000 kVp Treatment Room that is open above to the ground floor. This area would need to be covered in polyethylene sheeting to prevent extensive spread of contamination during removal operations. This method of removal of contaminated materials is suggested because it avoids the transfer of waste through continuously occupied spaces. It should be noted that any pathway used for contaminated material removal will require re-survey following completion of removal activities, regardless of results of previous surveys.

\\FSCPL01\PROJECTS\ACOEVA\D&DPLAN\Final D&D Plan\Dplan121399V2.DOC -9-07/05/00 Establish a grade-level location where materials being removed from the basement can be surveyed and segregated. This would involve establishing a radiological control zone on the ground floor level and covering all surfaces with polyethylene sheeting to prevent the spread of contamination. Additionally this area would need to be protected from the elements. Temporary buildings are available which would suit this purpose and could be assembled in the building courtyard. Contaminated items can be placed directly in larger shipping containers to provide efficient waste disposal.

Establish a decontamination line for remediation workers to doff personal protective equipment, screen themselves for contamination and decontaminate themselves as necessary to prevent the spread of contamination outside of existing areas.

Task 3 – Facility D&D

Each contaminated unit at the site will require several D&D tasks to achieve project objectives. Primary objective of the removal activities will be: minimizing the spread of contamination to other areas, minimizing the volume of contaminated waste to be disposed of, minimizing the exposure to workers, and minimizing the amount of residual radioactive materials left in place at the site.

Following completion of the mobilization activities described above, remedial activities would commence. These activities will include the following tasks. A final status survey is performed by the RAC after the completion of the tasks and before demobilization.

- SU 004 Remedial Activities
 - 1. Remove all internal contents from SU 004. SU 004 contains materials such as toilet partitions that can be easily disassembled and removed.

NFSCPL01VPROJECTSVACOEVA\D&DPLAMFinal D&D Plan\Dplan121399V2.DOC -10-07/05/00 2. Remove contaminated tile from SU 004. Following removal of internal contents of SU 004, the floor tile will be removed from the floor and placed into sealable containers. This activity will be done in a manner that minimizes the breaking of tiles and generation of airborne particulates to avoid spread of contamination.

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- 3. Remove contaminated concrete from SU 004. It is anticipated that surface contamination may be present on the concrete under the floor tile in some locations of SU 004. Removal of this contamination will be accomplished using scarification or similar methods. Dust generation will be controlled using a vacuum and HEPA filtration system.
- SU 001 and SU 002 Remedial Activities
 - 1. Remove loose debris from SU 001. Some loose equipment, glassware, chairs, miscellaneous debris, and two drums of tiles from the nuclear medicine laboratories are still present in SU 001. These materials will be removed prior to further work being conducted in this area in order to clear space for other removal activities.
 - 2. Assess the hazard potential of residual floor tile mastic in nuclear medicine laboratories. Asbestos-containing floor tiles have been removed in this area exposing the underlying mastic. This material should be analyzed and appropriate abatement actions should be taken if the mastic is found to be an asbestos-containing material (ACM).
 - 3. Apply a fixative to the floors of SU 001. Previous attempts at removing contamination on concrete surfaces in this area by scarification have produced large amounts of contaminated dust in laboratory areas. A fixing compound will be applied to these dusts to prevent them from causing an airborne contamination hazard and to prevent them from causing spread of contamination to other areas during remediation activities.

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- 4. Remove contaminated appliances and furniture from the laboratory and counting rooms of SU 001. Items such as laboratory benches, shelves and fume hoods will be disassembled to the extent practicable and removed via the previously established route. After removal to the surface level structure, all surfaces of the removed items will be surveyed and materials will be segregated accordingly.
- 5. Remove remaining ductwork in SU 001. Most of the ductwork servicing SU 001 has previously been removed; however, some smaller sections are still present in the walls. This ductwork will be removed, screened and decontaminated or disposed of, as necessary.
- Remove interior, non-load bearing walls from SU 001. Many of the walls in SU 001 are not load bearing and may be sectioned and removed for screening and decontamination or disposal, as necessary.
- 7. Cut floor slab in radiation therapy rooms. Contamination has penetrated up to two inches into the floor in this area making decontamination techniques such as scarification impractical. Therefore, the floor slab will need to be removed. This will be done by sectioning the slab with a concrete saw or similar method, and drilling holes where anchor bolts could be attached to individual sections for lifting. A HEPA filtration system can be used to control airborne dust hazards.
- 8. Remove hardware from SU 002. SU 002 contains a 50-100 gallon holdup tank, pressurizer and feed lines to and from the ejector pit. This hardware will be disconnected, removed, screened and decontaminated or disposed of, as appropriate.

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- Remove sections of concrete floor slab from nuclear medicine laboratory.
 Sections of the floor will be removed and lifted from attached anchor bolts to the survey area by the previously established route.
- 10. Remove drain lines in nuclear medicine laboratory in SU 001. With the floor slab removed, the drain lines for the nuclear medicine laboratory can be accessed. Drain lines will be sectioned, capped, and moved to the above ground screening area, where detailed examination of contamination deposition can be performed. Attempts should be made to section the drain line so that more extensively contaminated sections such as elbows, unions, and cleanouts can be segregated from less contaminated sections, to minimize contaminated waste volumes generated.
- 11. Remove tile from ramp of SU 001. The tile on the ramp in SU 001 is suspected to be asbestos-containing and should be handled and disposed of according to prescribed methods for ACM and radioactive materials. Tile removal operations may be combined with other asbestos removal and handling operations.
- 12. Perform surface scarification of exposed concrete of ramp in SU 001. Some surface contamination may be present on the underlying concrete of the SU 001 ramp. Surface scarification techniques will be employed to remove any areas of surface contamination identified on the concrete.
- 13. Remove drain lines under ramp in SU 001 and under tunnel in SU 005 (note these lines lead to the ejector pit SU 002). Characterize drain line under restroom floor in SU 004 after removal of floor and remove line if appropriate. Determine whether drain line in SU 003 needs to be characterized and removed. Access to underlying soil will be created by cutting the floor slabs above drains lines with a concrete saw or similar technique. With the floor slab removed, the drain lines from the nuclear medicine laboratory to the ejector pit can be accessed. Drain lines will be

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sectioned, capped, and immediately placed in waste containers or moved to the above ground screening area, where detailed examination of contamination deposition can be performed. As in the case of other drain lines, attempts should be made to section the drain line so that more extensively contaminated sections such as elbows, unions, and cleanouts can be segregated from less contaminated sections to minimize contaminated waste volumes generated.

- 14. Backfill removed drain line trenches. Following completion of the final status survey, clean fill material will be placed in the trenches and compacted to engineered design specifications, and the floor slabs replaced.
- 15. Backfill nuclear medicine laboratory. Following completion of the final status survey, the void space created by the removal of the nuclear medicine laboratory will be backfilled and compacted to engineered design specifications, and the finish ground level brought to specifications as provided.

Task 4 - Final Status Survey and Demobilization

A final status survey is performed (see section 4.0) before demobilization to ensure all areas are adequately remediated. Demobilization is anticipated to occur after the completion of all remediation and include removal of heavy equipment and support facilities. Prior to release, all equipment that has been used in radiological control areas (RCA) will be surveyed and decontaminated as necessary to demonstrate compliance with the surface contamination criteria shown in Table 2-1.

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Task 5 - Final Report

The final report will contain detailed descriptions of the site condition prior to D&D operations, all activities performed as part of the removal and decontamination operations, major deviations from the work plan that were necessary to complete the work, and conditions at the site following remediation activities. A final status survey report is performed by the RAC to include the draft final status survey report performed by WESTON for survey units 003 and 005 through 009. The final status survey report is presented as an attachment to the final report.

2.1.3 <u>Cleanup Levels</u>

WESTON (1999a) and its addendum WESTON (1999b) presented the rationale for modified DCGLs for building surfaces and soils, and recommended that the tritium and strontium-90 generic screening levels as presented in NRC (1998a) be applied as surface contamination DCGLs for building surfaces left in place at the VAECC. Concrete and other building surfaces are subject to the building surface contamination DCGL of 8700 dpm/100 cm² for Sr-90. Investigations of the presence and extent of tritium contamination (WESTON 1999) indicated that little or no tritium contamination is present in VAECC survey units and that tritium surface contamination levels do not approach the acceptable DCGL of 1.2 x 10^8 dpm/100 cm². A tritium survey for FSS is not necessary unless unidentified tritium sources are encountered during D&D.

Based on pathway analyses performed, a strontium-90 soil DCGL of 11 pCi/g will be applied (WESTON 2000). Volumetric contamination is not expected to exist in other bulk material. Equipment and material released from an RCA will be subject to the traditional surface contamination requirements of NRC (1998b). In all cases, D&D efforts will be performed to reduce surface contamination levels as well as soil and concrete concentration to as low as reasonably achievable (ALARA). Table 2-1 summarizes all DCGLs for the D&D operations.

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Isotope	Equipment and Material Release DCGL Total (dpm/100cm ²)	Equipment and Material Release DCGL Removable (dpm/100cm ²)	Equipment and Material Release DCGL Maximum (dpm/100cm ²)	Building Surface Contamination DCGL ¹ (dpm/100cm ²)	Soil and Concrete Contamination Limit (pCi/g)
Tritium		1000		1.2 x 10 ⁸	
Sr-90	1000	200	3000	8.7 x 10 ³	11

¹ Removable contamination levels not to exceed 10% of value.

Application of these DCGLs indicate that significant D&D activities will be required in Survey Units 001 and 004. Limited D&D is anticipated in Survey Unit 002.

2.1.4 Procedures

Standard operating procedures will be utilized for radiological survey and protection, construction safety, and occupational health and safety. Radiological survey and protection procedures are included in the Radiological Protection Program described in Section 3.3.

2.1.5 Schedules

The proposed D&D project schedule is shown in Figure 2-1. Five tasks including planning, mobilization, remediation, final status survey and demobilization, and final report preparation are shown with a start date of 15 May 2000 and a completion date of 31 October 2000.

2.2 <u>Decommissioning Organization and Responsibilities</u>

D&D operations will be administered and managed through the U.S. Army Corps of Engineers North Atlantic Division, New York District (CENAN) and its RAC. The CENAN Project Manager (PM) will facilitate communication with the designated NRC PM, manage the preparation of all planning documents, and facilitate the D&D operation. Compliance with this DP and the VAECC license will be managed by the VA Radiation Safety Officer (RSO), who may designate a qualified field RSO from the RAC to oversee field operations. An organization chart for D&D operations is shown in Figure 2-2.

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2000 Task May June July August September October Task 1 (Planning) Task 2 (Mobilization) Task 3 (D&D) Task 4 (Demobilization) Task 5 (Final Report)

Figure 2-1 Proposed VAECC Decommissioning Project Schedule

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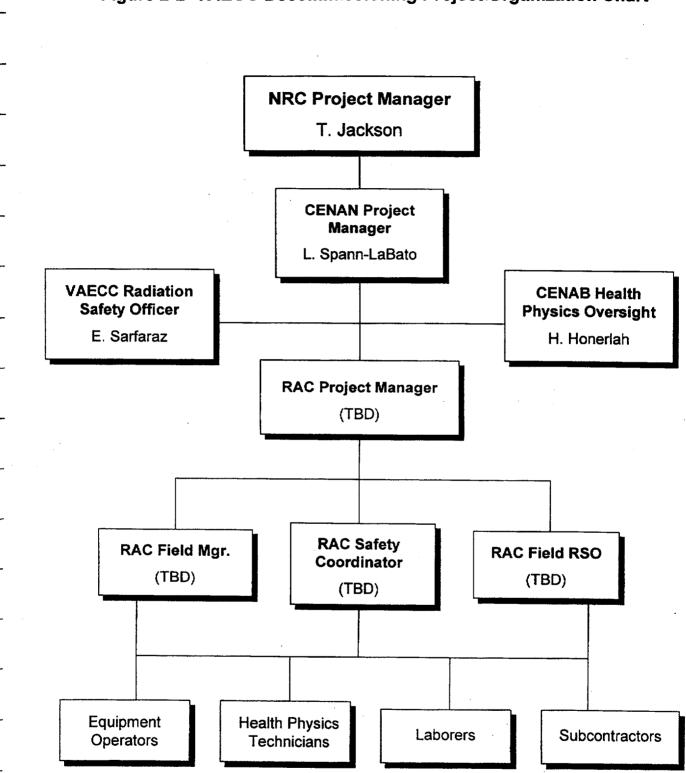


Figure 2-2 VAECC Decommissioning Project Organization Chart

2.3 Training

All occupational workers (including contractors and vendors) performing remediation activities will receive a training course in the fundamentals of radiation and radiation protection, and sitespecific radiological hazards. Site specific topics for personnel entering an RCA will include site description and background, contaminant characterization, action levels and instrumentation, personal protective equipment (PPE) selection, radiation work permit implementation, dosimetry, personnel and equipment exit from an RCA, decontamination of workers and equipment, respiratory protection, pregnant workers, ALARA policy and emergency procedures. Occupational worker training for Veterans Hospital staff will be provided by USACE. The RAC shall provide trained workers. Training documentation will be maintained by the RAC for all personnel.

Prior to participating in site activities, occupational workers will obtain medical clearance per 29 CFR 1910.120 and 10 CFR 20.1703.

2.4 **Contractor Assistance**

The CENAN RAC, Stone & Webster, will manage all D&D operations. In the execution of D&D operations, the RAC may utilize a variety of subcontractors for specialty tasks such as construction/demolition, health physics, and waste transportation and processing. The actions of all RAC subcontractors will be managed to be consistent with the requirements of this DP and related documents.

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3.0 DESCRIPTION OF METHODS USED FOR PROTECTION OF OCCUPATIONAL AND PUBLIC HEALTH AND SAFETY

3.1 Facility Radiological History Information

The VAECC was operated as a Naval Hospital prior to its acquisition by the VA in 1976. The Naval Hospital provided nuclear medicine services under several NRC licenses. NRC-licensed activities ended with the termination of NRC License #31-0007606 on 31 December 1973. In 1976 St. Albans VAECC was transferred from the Navy to the VA. The VA did not hold a radioactive materials license at St. Albans VAECC. In May 1992, the USACE performed a review of former U.S. Department of Defense (DOD) sites that had handled radioactive materials. While performing follow-on field surveys, the USACE and its contractors identified areas of elevated radiological contamination. In August 1992, Teledyne Isotopes partially remediated the VAECC and recommended an expanded survey and decontamination of other rooms. In September 1997, Ogden Environmental and Energy Services, Inc. (Ogden) surveyed the nuclear medicine labs and ejector pit located adjacent to tunnel 45 and identified radioactive contamination in excess of NRC release criteria (Ogden/NAE 1998). The Ogden report concluded that the scope of the survey needed to be expanded.

WESTON performed a supplemental radiological characterization at the VAECC from January-February 1999. The characterization survey focused on areas adjacent to the nuclear medicine laboratories and ejector pits, with the intent to gather data adequate to support a final status survey (FSS) where possible. Several isolated hot spots of up to 20,000 dpm/100 cm² (fixed contamination only) were noted in SU 005, 006 and 007. These spots appeared to be the result of foot transfer from the laboratories and were later decontaminated using physical methods. A final surface contamination survey was performed on the areas after decontamination. The objective of this activity was to limit future decontamination to SU 001, 002 and 004. Table 3-1 presents the range of and average Sr-90 surface contamination levels of survey units requiring remediation or supplemental sampling as presented in WESTON (1999).

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		Total Beta-	Gamma	Removable Beta-Gamma		
Survey		Range	Average	Range	Average	
Unit	Description	(dpm/100	(cm^2)	$(dpm/100 \text{ cm}^2)$		
001	Nuclear Medicine Lab	-250 to 2.8 E6	1.1 E5	-4 to 2.7 E3	2.7E2	
002	Ejector Pit	67 to 7.5 E3	3.2 E3	11 to 76	36	
004	Men's Toilet	-67 to 1.5 E5	3.0 E4	-4 to 83	36	

Table 3-1. Sr-90 Surface Contamination Levels in Survey Units Requiring Remediation

A concrete slab and underlying soil sampling program was instituted in SU 001 and 002. Sampling results indicated Sr-90 contamination exceeding the DCGLs at depths up to two inches in the concrete slab of SU 001. The only soil contamination levels exceeding the DCGL were noted in the vicinity of the cleanouts/floor drain system serving SU 001. Soil concentrations as high as 2,054 picoCuries per gram (pCi/g) were noted.

3.2 <u>Ensuring that Occupation Radiation Exposures Are As Low As Reasonably</u> <u>Achievable (ALARA)</u>

The intent of the Radiation Safety Program is to ensure that occupational radiation exposures are maintained to ALARA. Implementation will be facilitated through USACE/CENAN/VAECC interaction with the site RSO. USACE utilizes a three-tiered approach for its projects in accordance with USACE ER 385-1-80. The program includes a written VAECC policy, qualified personnel, periodic audits, radiation protection training and appropriate monitoring equipment, and adequate supplies and manpower for radiation protection. During D&D operations, the RSO shall facilitate a meeting of the ALARA committee at a minimum of once per month or in emergency situations. The ALARA Committee shall consist of the RSO, the CENAN PM, the USACE HP and the RAC PM. Site specific dose limits will be established by the ALARA committee. The purpose of the meeting is to identify improved means to reduce worker and public exposures to ALARA and ensure dose limits are not approached or exceeded. Meeting minutes will be documented and retained in the project files.

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3.3 **Radiation Protection Program**

All site activities will be performed to the requirements of a Radiation Protection Program (RPP) administered by the site RSO and/or their designee. The RPP shall contain specifications to ensure that exposures to workers and the public are maintained ALARA. These specifications include environmental monitoring requirements, access control and posting, PPE requirements, radiological release and personnel monitoring, respiratory protection, decontamination, and emergency response. These RPP elements will be implemented through the use of SOPs that must be reviewed and understood by all personnel participating in D&D activities. Base procedures include, but are not limited to:

Environmental Monitoring – Describes the set up and use of particulate air samplers at the locations designated in Section 3.6. Also describes the use of portable/lapel sampling equipment when necessary. The procedure specifies the types of particulate air samplers, which may include Eberline RAS-1, MSA lapel, Staplex High Volume, or reasonable equivalents, and will provide a means to calculate the airborne Sr-90 concentration, uncertainty and measurement lower limit of detection (LLD).

Site Access Control and Posting – All RCAs will be posted per the requirements of 10 CFR 20.1902. Boundaries will be clearly marked and where feasible, physical barriers will be used to restrict inadvertent access. Changes in boundaries will occur at the discretion of the RSO and will be based on current radiological survey data. It is anticipated that all work areas in survey units 001, 002 and 004 will receive posting as contaminated areas. No "radiation area" postings are anticipated. Workers entering an RCA will be required to sign an access control log upon entry and exit. Appropriate contamination monitoring equipment will be maintained at each RAC access control location. All notices to workers as required in 10 CFR 19 will be posted in a conspicuous work area.

Issuance of Radiation Work Permits (RWP) – All work in RCAs will be controlled through the use of RWPs. RWPs will be issued and/or approved by the RSO or their designee, and will include a description of radiological conditions such as gamma and beta exposure rates, surface contamination levels and airborne radionuclide concentrations. The RWP will specify the \\FSCPL01\PROJECTS\ACOEVA\D&DPLAN\Final D&D Plan\Dplan121399V2.DOC -22-07/05/00

necessary personnel dosimetry and PPE required to enter the RCA, and work restrictions as applicable. Decontamination, release survey protocol, and emergency notification procedures to include estimates of internal committed effective dose equivalent (CEDE) and ALARA dose limit analysis also will be presented in the RWP.

Equipment Function Check and Maintenance – This procedure describes the daily preparation and troubleshooting of portable and laboratory counting equipment that may be used during D&D. Critical elements of the procedure include methods to perform background and efficiency checks, trend charting and chi-square distribution analyses, minimum detectable activity (MDA) calculation, and electronic adjustments. This procedure will be applicable to a wide variety of equipment including but not limited to gas-flow proportional detectors, Geiger-Mueller (GM) detectors, plastic scintillation detectors, phoswich smear counters, and ionization chambers. Table 3-2 illustrates equipment potentially used to support D&D activities. All equipment maintenance and use procedures will be consistent with the recommendations of the American National Standards Institute (ANSI) and American Society for Testing of Materials (ASTM) recommendations. Equipment application will be consistent with the methods described in "Minimum Detectable Concentrations with Typical Radiation Survey Instruments for Various Contaminants and Field Conditions", Draft NUREG-1507 (NRC 1995). Radioactive check sources will be of activity consistent with the measurements to be performed. All sources will be NIST-traceable and maintained in a secure area.

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Table 3-2. Example Radiological Survey Equipment to be Used to Support D&D Activities

Manufacturer	Model	Purpose	Estimated Sensitivity	Limitations
Ludlum	44- 116/2221	Recordable Surface Contamination Measurements (beta-gamma)	500-1200 dpm/100 cm ²	Fragility
Ludlum	44-9/12	Informational Surface Contamination Measurements, Surface beta dose rates	3000-4000 dpm/100 cm ²	Poor sensitivity
Ludlum	44-68/2221 or 2350	Recordable Surface Contamination Measurements (beta-gamma)	500-1200 dpm/100 cm ²	Fragility, gas supply
Ludlum	19	Area Gamma Exposure Rates	N/A	Mode of calibration
Ludlum	43-10-1 / 2929	Removable Contamination Measurements/Gross Beta- Gamma Particulate Air Samples	100-200 dpm/100 cm ² (smear) 10 ⁻¹³ uCi/ml (air sample)	

Routine Radiological Surveys of Work and Support Areas – Work and support areas will be surveyed at a minimum frequency of once per week or more often based on changing radiological conditions. Surveys will be performed for total and removable contamination levels and beta/gamma dose rates, and documented on SOP forms/diagrams.

Respiratory Protection Program – A respiratory protection program will be implemented if airborne radionuclide concentrations exceed 10% of the Derived Air Concentration (DAC) for Sr-90 (assumed to be Class W – 2 E-9 uCi/ml). The respiratory protection program will be consistent with the requirements of 10 CFR 20, Subpart H and include a cleaning, testing, survey and maintenance component. Prior to initiation of the program, all participating workers will be subject to baseline bioassay analyses for Sr-90. Routine bioassay samples will be utilized in conjunction with the air sampling program to assess internal dose commitments. Should routine contamination surveys of respirators indicate contamination, the RSO may initiate nasal smear analyses for potentially exposed workers.

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Internal and External Dose Recording Program – Each occupational worker will have their radiation doses recorded in accordance with 10 CFR 20, Subpart C. Where necessary, internal committed effective dose equivalent (CEDE) will be calculated based on air sample, bioassay, and work area stay time data. Committed dose equivalents (CDE) to target organs also will be calculated where necessary. External doses will be monitored through the use of thermoluminescent dosimeters (TLDs), and may include reporting components of total penetrating gamma (effective dose equivalent – EDE), penetrating beta, and beta skin dose. A final report will be issued to workers containing a summary total effective dose equivalent (TEDE) that is comprised of the CEDE and EDE components.

Personnel Decontamination – The implementation of RWP, access control and contamination reduction procedures will limit the potential for contamination of personnel leaving RCAs. In the event that detectable contamination is noted on personnel leaving the RCA, basic decontamination procedures using soap and water will be applied only under supervision of a person qualified in personnel decontamination procedures. All decontamination fluid and media will be retained and subject to appropriate disposition. Following decontamination, individuals will be subject to repeat surveys to ensure that the contamination has been removed. Repeated contamination events will be reviewed as a potential system failure, with appropriate corrective actions taken.

Emergency Procedure – The nature of contamination is such that limited doses would be expected even under the most severe emergency conditions. In all cases, workers will immediately be treated with regard to physical injuries after basic decontamination. The requirements for medical emergencies will be described in detail in the HASP.

3.4 Contractor Personnel

Contractor personnel participating in decommissioning activities will report to USACE/CENAN/VAECC management and will be subject to the conditions of NRC License No. 31-02892-06 and this decommissioning plan.

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3.5 Radioactive Waste Management

Handling/Processing

Radioactive wastes generated from D&D at the VAECC are expected to include concrete, plywood, laboratory fixtures, drain lines, soil and other building materials. The estimated volume of radioactive waste requiring disposal is estimated at 1600 ft³. Treatment methods are directed at reducing the volume of material necessary for disposal and include abrasion, scarification, physical segregation and separation, and application of non-hazardous cleaning solutions. Materials that do not meet the applicable DCGLs for unrestricted release will be prepared for transportation and disposal at a licensed facility.

In an effort to reduce cross-contamination and the generation of additional radioactive waste, non-essential tools and machinery will not be allowed into an RCA. Likewise, removable contamination areas will be treated with fixing agents prior to major demolition activities.

Transportation

Based on the projected volume of radioactive waste, truck shipment of waste containers including B-25 boxes and 55-gallon type H drums or other appropriate, certified shipping containers will be utilized. The transportation program will be implemented in accordance with U.S. Department of Transportation (DOT) requirements for manifesting, labeling, contamination and radiation levels, and transport. Exclusive use vehicles will be employed.

Disposal

All radioactive waste will be shipped to a USACE-approved disposal facility. All waste profile and acceptance criteria will be ensured through sampling, processing and required documentation.

\\FSCPL01\PROJECTS\ACOEVA\D&DPLAN\Final D&D Plan\Dplan121399V2.DOC -26-07/05/00 The primary effluents that are postulated from decommissioning activities include airborne particulates and decontamination liquids/solutions generated from dust suppression and cooling activities.

Airborne Effluents

Airborne effluents may be generated during construction/demolition activities. The highest potential for release is noted within SU 001. Prior to demolition activities in this survey unit, a fixative will be applied to the concrete floors to retain Sr-90-containing dusts. Particulates generated during concrete cutting and dismantlement will be controlled through the use of negative pressure containment when working in contaminated areas of SU 001 and SU 004. Ambient air will be filtered through two-stage HEPA filtration units. The excavation of soil underlying the SU 001 concrete slabs poses some minor potential for the resuspension of soil particulates. Where necessary, small quantities of water may be applied as a dust suppression measure.

Airborne radionuclide concentrations will be monitored at multiple locations about the VAECC. Locations will include the immediate work area, adjacent areas occupied by non-radiological worker VAECC staff, and the work area boundary at ground level outside of Building 90. Background stations may be placed indoors and outdoors at locations not impacted by D&D operations. The typical means of sampling will be gross-beta sampling of particulate air filters. All activity will conservatively be attributed to Sr-90. Samples will be archived and made available for radiochemical laboratory analyses as necessary. An administrative limit of 2 E-10 uCi/ml (10% of Derived Air Concentration of 2 E-9 uCi/ml) will be utilized as an action level for occupational workers to upgrade to respiratory protection.

Airborne effluent concentrations in unrestricted areas of the VAECC will be limited to less than 6 E-12 uCi/ml. The aforementioned sampling network will be used to assess airborne Sr-90 concentrations in unrestricted areas.

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Liquid Effluents

Potentially contaminated liquids may be developed from the use of water-cooled concrete cutting equipment and decontamination washes. Liquid effluents will be retained in hold-up tanks and allowed to separate phases. The liquid phase will be sampled and analyzed for Sr-90 content prior to discharge to waterways or sewers per the concentration limits specified in 10 CFR 20, Appendix B Tables 2 and 3, respectively (5 E-7 and 5 E-6 uCi/ml). The sludge phase of any fluids will be solidified and disposed as radioactive waste as necessary.

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FINAL STATUS SURVEYS

It is anticipated that an FSS will be performed in areas that have undergone remediation and/or have the potential to have been impacted by D&D operations.

4.1 **Survey Areas Description**

Survey areas fall into two categories: no remediation required and adequate data exist to support FSS; and substantial remediation to be followed by FSS. These designations are shown in Table 1-1.

Prior to the characterization summarized in WESTON (1999), all survey units were assigned a MARSSIM survey classification I, II, or III in S&W (1998). A survey classification was applied to floors and lower walls (<6') and upper walls and ceilings. Based on the classification, each survey received the following scanning percentage:

Class I - 100% for lower walls and floors; 25% for upper walls and ceilings, Class II - 50% for lower walls and floors; 25% for upper walls and ceilings, and Class III - 25-50% for all floor, wall and ceiling components in survey unit.

4.2 Survey Design

Category 1 – No Remediation Required and Adequate Data Exist to Support FSS

Category 1 includes SU 003, SU 005, SU 006, SU 007, SU 008, and SU 009. As part of the characterization described in WESTON (1999), these areas were subject to large-area surface contamination surveys performed with the SCM-SIMSTM and discrete total, maximum and removable contamination measurements. Under the original MARSSIM classification assigned in S&W (1998), all survey units were Class III, with the exception of SU 003 and SU 005, which had received a Class I assignment. Survey results identified several isolated "hot spots" in SU 005, SU 006 and SU 007. These hot spots were mostly restricted to doorway thresholds, and

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were decontaminated using physical removal methods. Decontaminated areas were then resurveyed to demonstrate compliance with DCGLs. No hot spots were noted in SU 008.

Based on the measurement saturation obtained with the SCM-SIMS system in these six survey units, and the thorough follow-up survey performed following spot decontamination, it is anticipated that the data may be combined to create a FSS report demonstrating compliance with the surface contamination DCGLs. This activity will be undertaken independent of field D&D and survey activities. It should be noted that, due to the nature of the hot spots (door thresholds), the Class III areas were not reclassified. This action was taken because, in most cases, the Class III areas received far more survey coverage than required (approaching 100% of lower walls and floors).

Category 2 – Substantial Remediation Followed by FSS

SU 001, SU 002 and SU 004 are expected to require substantial D&D operations that will alter the existing building material configuration and radiological characteristics. Activities in SU 001 are expected to leave bare soil where the floor previously was located, and bare structural walls that have had all internal plywood covering removed. Core sampling indicates that any soil contamination will be localized to areas where floor drain systems have been routed. As all building surfaces and soils will have been remediated to substantially less than the DCGLs (after ALARA provisions have been incorporated), the anticipated standard deviation of the survey unit Sr-90 surface contamination levels and soil concentrations is anticipated to be extremely low in comparison to the DCGL and the lower bound of the gray region (LBGR).

In developing the LBGR and subsequent delta (between the DCGL and LBGR) as discussed in MARSSIM, it is evident that these parameters are large with respect to the anticipated sample population standard deviation for Sr-90. Using MARSSIM methods to calculate the required number of survey unit tritium smear samples will result in a Δ/σ (delta/standard deviation) value of much greater than 3 and a Sign p value of 1. Using formula 5-2 from NRC (1997) with type I and II error rates set at 0.05, the calculated number of samples for the sign test is 11 discrete samples from the exposed soil parcel and the wall and ceiling surfaces.

\\FSCPL01\PR0JECTS\ACOEVA\D&DPLAN\Final D&D Plan\Dplan121399V2.DOC -30-07/05/00 It should be noted that all building and soil surfaces in SU 001 will be subject to a 100% scan using gas-flow proportional counting equipment (or equivalent) and beta scintillators, respectively. The soil requirement is anticipated to be overly restrictive given the nonhomogeneous nature of the excavated soil contamination and given the relatively small exposed soil surface area (300-400 ft²). It is recommended that three discrete soil samples be collected in SU 001 at the approximate location of the floor drain penetration in each laboratory room or locations of the highest measurement as determined by surface scanning the soil with beta scintillation detectors. Additionally, three random soil samples will be collected from the exposed soils of SU 001 and submitted for Sr-90 analyses. Some soil areas may be exposed in SU 005 while removing drain line sections. Should these soils appear to have been impacted, similar sampling protocol will be incorporated.

The surface survey protocol of 100% scan Class I and 11 discrete measurements will be applied to the surfaces of SU 002 and SU 004.

4.2.1 Survey Layout

The survey layout will be placed using a standard grid system following D&D activities. Grid lines will be placed with appropriate survey and marking equipment.

4.2.2 <u>Radiological Monitoring Techniques</u>

Surface Contamination Monitoring

Total surface contamination monitoring will be performed with gas-flow proportional counting or plastic scintillation-based detectors (or equivalent systems as appropriate) as described in Table 3-2. Removable contamination smears will be analyzed with similar systems that are configured for smear analyses.

Portable detectors will be utilized in either scanning or discrete measurement mode. The primary variable (that may be controlled) impacting the portable detector sensitivity during measurement of residual Sr-90 on surfaces is the scanning speed. A separate scanning speed will be established for the final survey of building surfaces versus the unrestricted release of items WFSCPLOINFROJECTSVACOEVAUD&DPLANNFinal D&D PlanUDplan121399V2.DOC -31-07/05/00 from an RCA. The target detection sensitivity for scanning of building surfaces is 700-800 dpm/100 cm², while the target detection sensitivity for release of material from an RCA is 200-300 dpm/100 cm². Detector sensitivities will be calculated using the methods described in NRC (1995) and will incorporate detector background and efficiency at the time of survey. Given the removable contamination DCGLs for building surfaces and unrestricted release of items shown in Table 2-1, attainment of detection sensitivities of 870 dpm/100 cm² and 200 dpm/100 cm², respectively for these types of measurements will eliminate the requirement for removable contamination measurements. Where such measurements are required, the detection sensitivity will be controlled primarily through variation of counting time.

All raw and calculated surface contamination levels will be recorded electronically or on data forms associated with standard operating procedures.

Soil Parcel Survey and Sampling/Concrete Material Analyses

Section 5.5.2.4 of the MARSSIM describes methods for addressing survey/sampling of small, elevated areas of contamination. This discussion is applicable primarily to pure soil sampling efforts. The implementation of continuous recycle field surveys for total beta and/or gamma radiation over a survey unit will reduce or eliminate the need for special sampling patterns, as verification samples may be collected from biased areas of elevated count rate.

A Utah-certified analytical laboratory will perform Sr-90 analyses of soil and concrete. The analytical technique will be U.S. Environmental Protection Agency (EPA) 901.0 and the required detection sensitivity will be 7 pCi/g or approximately 65% of the DCGL. All samples will be logged, packaged and shipped according to QA/QC protocol. Note that the concrete must also pass surface release criteria.

4.2.3 Final Status Survey Reporting

Upon completion of field remediation activities, a final decommissioning report will be prepared. The report completion is dependent upon receipt of final laboratory data and disposal verification. Upon receipt of this information, a final report discussing the following topical areas will be prepared:

- Survey Procedures.
- Instrumentation Used.
- Coordinate Systems.
- Findings Residual Contamination/Hazardous Material.
- Results.
- Suggestions.
- QA/QC practices.

The final report will be prepared under the direction of the RAC Project Manager, and will be completed and submitted within 30 working days of receipt of all laboratory results and disposal certifications. The FSS package for all site survey units will be included as an attachment or appendix to the final decommissioning report. Variances from the prescribed DCGLs will be documented and compared to hot spot analysis criteria described in Section 5.3 of MARSSIM.

4.3 **Quality Assurance and Control**

Quality assurance and control will be ensured through adherence to data quality objectives (DQOs), standard operating procedures, and all requirements specified in the QAPP. Additional QA/QC requirements will include the collection of 20% duplicate discrete survey measurements for remediated survey units, and the collection of one duplicate bulk material sample (to be analyzed for Sr-90) for soil and concrete and each survey unit. The quality of radiological scan surveys performed in remediated survey units will be ensured through the calculation and recording of all parameters affecting the detection sensitivity. These parameters include detector background, scanning speed, and efficiency. Based on equipment preparation/function check procedures, variations of these parameters in excess of +/-20% will be investigated.

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5.0 **FUNDING**

Remediation activities will be funded through the Defense Environmental Restoration - Formerly Utilized Defense Sites (DERFUDS) Program. Administration will be facilitated through the USACE New York District.

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6.0 PHYSICAL SECURITY PLAN AND MATERIAL CONTROL AND ACCOUNTING PLAN PROVISIONS IN PLACE DURING DECOMMISSIONING

All radioactive waste generated during D&D operations will be packaged for transport and disposal. These wastes will be stored in a locked, fenced area prior to shipment, and assigned tracking numbers as part of the waste manifest preparation procedure. Radioactive check sources will be logged and stored in locked containers at a designated equipment storage/maintenance area. The VAECC is a fenced facility with 24-hour security. As part of the security and accountability program, VAECC security personnel will routinely inspect the integrity of the waste storage area. Any theft or vandalism will be reported immediately to the RAC Project Manager and VAECC RSO.

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7.0 <u>REFERENCES</u>

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8.0 ABBREVIATIONS

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Δ/σ	delta/standard deviation
ALARA	as low as reasonably achievable
ANSI	American National Standards Institute
ASTM	American Society for Testing of Materials
CDE	committed dose equivalent
CEDE	committed effective dose equivalent
CENAE	North Atlantic Division, New England District
CENAN	North Atlantic Division, New York District
CFR	Code of Federal Regulations
D&D	decontamination and decommissioning
DAC	Derived Air Concentration
DCGLs	derived concentration guidelines
DERFUDS	Defense Environmental Restoration Formerly Utilized Defense Sites
DOD	Department of Defense
DOT	U.S. Department of Transportation
DP	Decommissioning Plan
$dpm/100cm^2$	disintegrations per minute per 100 square centimeters
DQO	data quality objectives
EDE	effective dose equivalent
EPA	United States Environmental Protection Agency
FSS	final status survey
ft ²	square feet
ft ³	cubic feet
GM	Geiger-Mueller (detector)
HASP	Health and Safety Plan
HEPA	High Efficiency Particulate Air
LBGR	lower bound of the gray region
LLD	lower limit of detection
MARSSIM	Multi-Agency Radiological Site Survey Implementation Manual
MDA	minimum detectable activity
NRC	U.S. Nuclear Regulatory Commission
pCi/g	picoCuries per gram
·РМ	Project Manager
PPE	personnel protective equipment
QAPP	Quality Assurance Program Plan
QC	Quality Control
RAC	Remedial Action Contractor
RCA	radiological control areas
RPP	Radiological Protection Program
RSO	Radiation Safety Officer
RWP	Radiation Work Permits
SOPs	Standard Operating Practices
TEDE	total effective dose equivalent
TLD	thermoluminescent dosimeters

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uCi/ml	microCuries/milliliter
SCM-SIMS™	Surface Contamination Monitor/Survey Information Management System
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
Sr-90	strontium-90
SU	survey unit
USACE	U.S. Army Corps of Engineers
VAECC	St. Albans Veterans Administration Extended Care Center
VA	U.S. Veterans Administration

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