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POST-REMEDIAL ACTION REPORT FOR THE SITE WATER TREATMENT PLANT WORK ZONE (WP-437/RU024)

WELDON SPRING SITE REMEDIAL ACTION PROJECT
WELDON SPRING, MISSOURI

JUNE 2002 **REV. 0**

RECORD

U.S. Department of Energy
Oak Ridge Operations Office
Weldon Spring Site Remedial Action Project

Prepared by MK-Ferguson Company and Jacobs Engineering Group

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APPROVALS

David S. [illegible] Environmental Safety and Health Manager	5-29-02 Date
John R. Thompson Data Administration Coordinator	5/29/02 Date
[illegible] Engineering Manager	6/1/02 Date
Gary F. Branch Project Quality Manager	6/3/02 Date
Steven D. Warner Project Director	6/3/02 Date

DOE/OR/21548-918

Weldon Spring Site Remedial Action Project

Post-Remedial Action Report for the Site Water Treatment Plant Work Zone (WP-437/RU024)

Revision 0

June 2002

Prepared by

MK-FERGUSON COMPANY
and
JACOBS ENGINEERING GROUP
7295 Highway 94 South
St. Charles, Missouri 63304

for the

U.S. DEPARTMENT OF ENERGY
Oak Ridge Operations Office
Under Contract DE-AC05-86OR21548

ABSTRACT

Work Package-437 (WP-437) has been divided into twelve work zones. This report details the confirmation field activities and analytical results for contaminated soil removal of the Site Water Treatment Plant (SWTP) work zone portion.

The SWTP work zone included areas that were deleted from WP-420 confirmation activities, in-situ soil areas, the Site Water Treatment Plant Facilities (Trains 1 and 2), Building 434, and a siltation basin. The area has been designated as Remedial Unit (RU) 24 and subdivided into nineteen confirmation units (CUs).

Remediation was designed to achieve surface ALARA goals, and confirmation of soil remediation was required to meet cleanup standards, as established in the *Record of Decision for Remedial Action at the Chemical Plant Area of the Weldon Spring Site*. Final confirmation data verify that the established goals and standards were achieved.

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1. INTRODUCTION

1.1 Purpose

Work Package-437 (WP-437) is divided into 12 work zones, 11 of which are identified in Figure 1-1. In addition, there is the Vicinity Property DA-6 work zone off site just west of the Ash Pond work zone. This report details the confirmation field activities and analytical results for contaminated soil removal of the Site Water Treatment Plant (SWTP) work zone portion of WP-437.

Soil characterization results and pre-excavation walkovers of the WP-437 work zones determined that the work zones contained contaminant concentrations that exceeded the As Low As Reasonably Achievable (ALARA) goals established in the *Record of Decision for Remedial Action at the Chemical Plant Area of the Weldon Spring Site* (ROD) (Ref. 1). Remediation was designed to achieve surface ALARA goals, and confirmation of soil remediation to the ROD cleanup standards was required.

The Site Water treatment Plant work zone was subdivided into nineteen confirmation units (CUs) that are collectively known as remedial unit (RU) 24 and are identified in Figure 1-2. Individual CU figures are presented in Section 4 of this report.

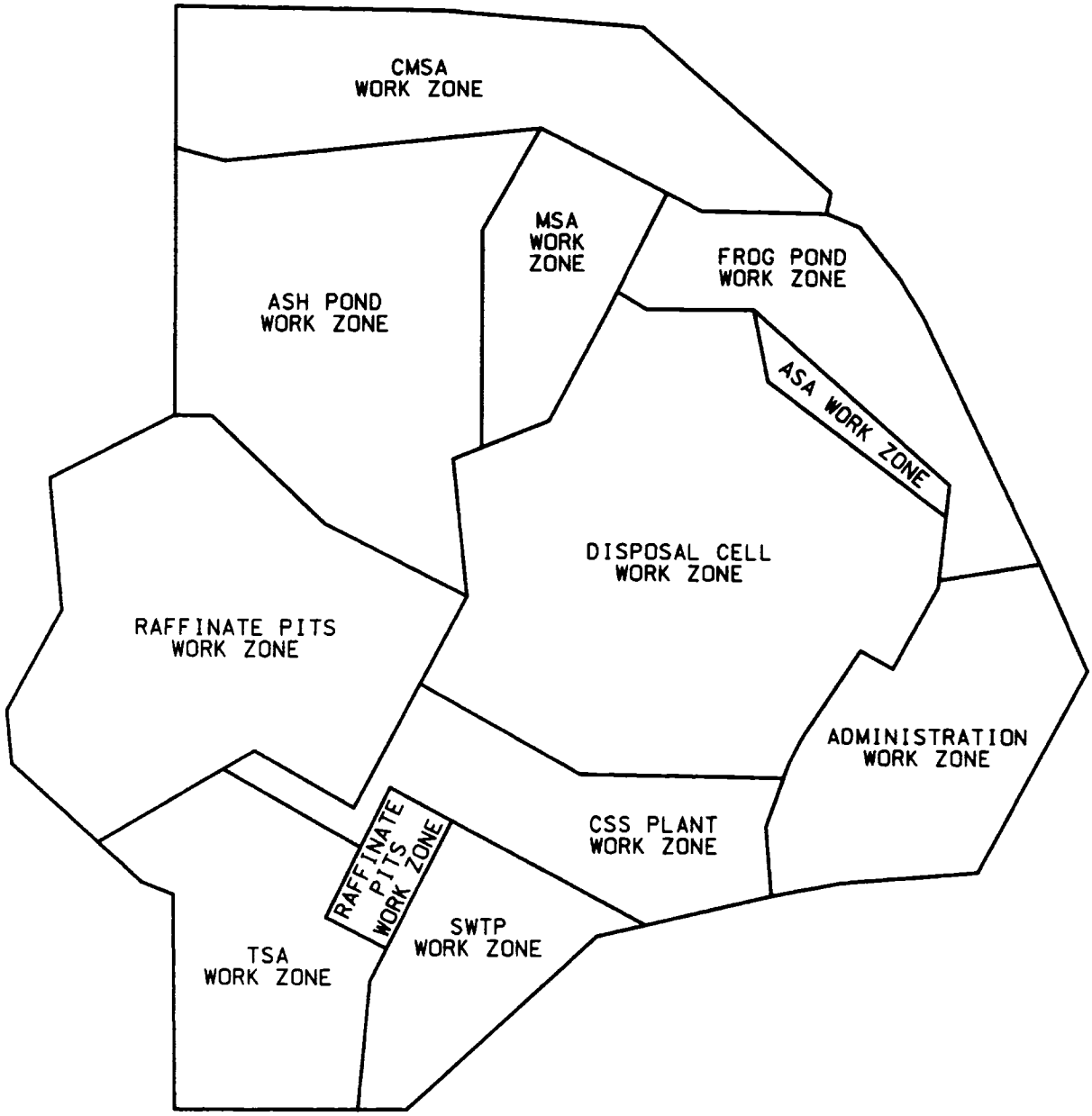
1.2 Scope

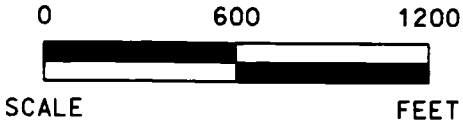
This report describes the remedial activities and confirmation surveying and sampling conducted on contaminated soils within RU024. Confirmation walkovers and soil sampling were conducted in accordance with the *Confirmation Sampling Plan Details for the Disposal Cell Facility (WP-437)* (Ref. 2). This plan was developed to ensure that the objectives identified in the *Chemical Plant Area Cleanup Attainment Confirmation Plan* (Ref. 3) were accomplished and the remediation requirements of the ROD were met.

1.3 Remediation and Confirmation Process

This report details the activities conducted to remediate the SWTP portion of WP-437 which consists of CUs 338 through 356. Remediation consisted of excavation of contaminated soils and underground utilities. Following remediation, walkovers were conducted where applicable, and confirmation samples were collected to ensure that contaminated materials had been remediated.

The entire remediation process included characterization sampling, historical data review, contaminants of concern (COC) identification, confirmation plan development, contaminated soil excavation, radiological walkover surveys, confirmation soil sampling, preliminary and final data review, completion of disposition forms, quality assurance/quality control (QA/QC) review, summary of findings and conclusions, and closure report preparation.





WP-437 WORK ZONE DESIGNATIONS

FIGURE 1-1

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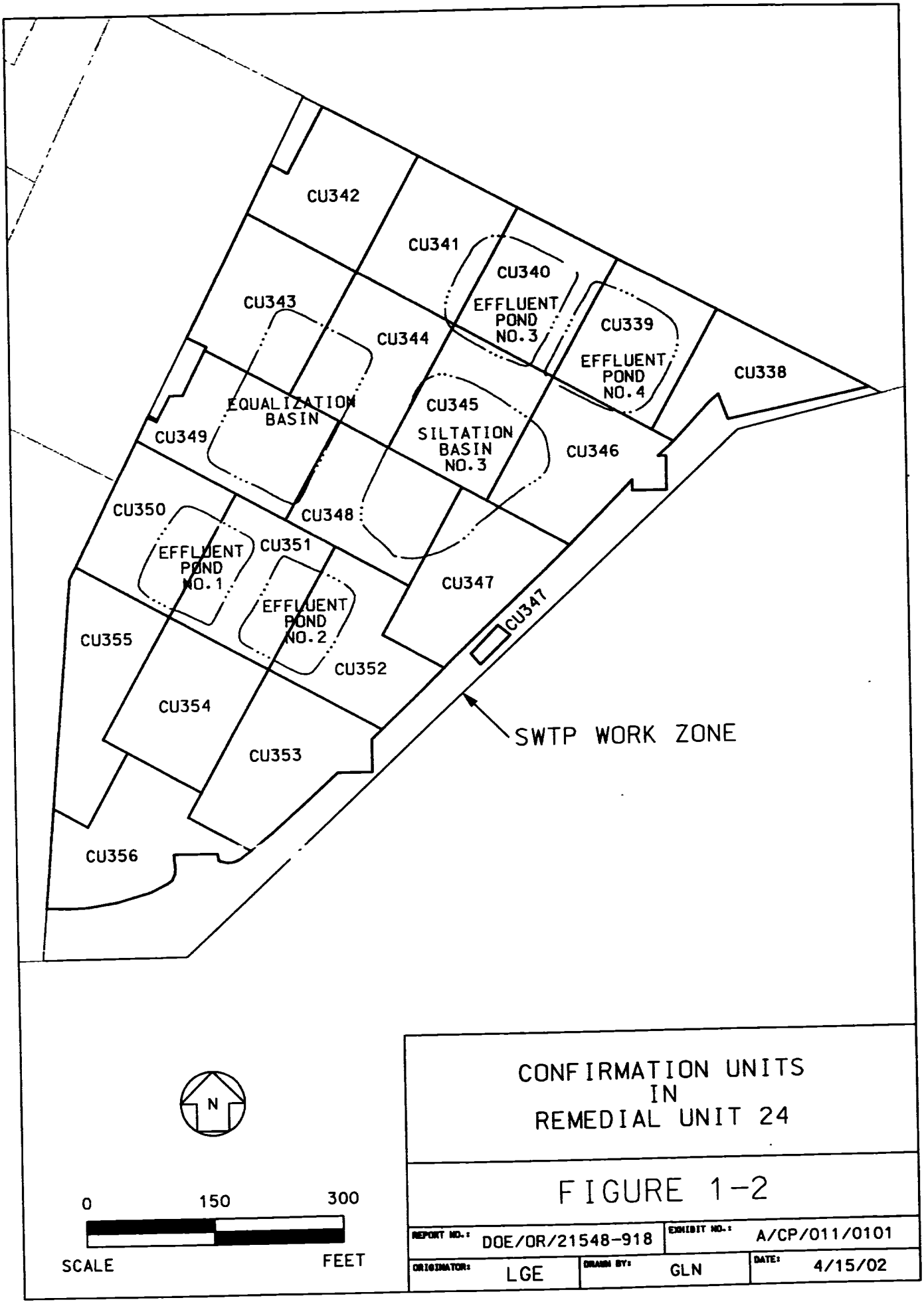


CONFIRMATION UNITS
IN
REMEDIAL UNIT 24

FIGURE 1-2

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO.: A/CP/011/0101	
ORIGINATOR: LGE	DRAWN BY: GLN	DATE: 4/15/02	

2. PRE-REMEDIATION ACTIVITIES

2.1 Determining Contaminants of Concern

Contaminants of concern (COCs) determination was dependant upon historical information, characterization results, and visual observation during field activities, and not all COCs were required for all sample locations. The full process for identifying COCs is detailed in the *Confirmation Sampling Plan Details for the Disposal Cell Facility (WP-437)* (Ref. 2). This plan identified COCs for RU024 as arsenic (As), chromium (Cr), lead (Pb), thallium (Tl), polynuclear aromatic hydrocarbon (PAH), polychlorinated biphenyl (PCB), radium-226 (Ra-226), radium-228 (Ra-228), thorium-230 (Th-230), thorium-232 (Th-232), uranium-238 (U-238), and trinitrotoluene (TNT).

2.2 Data Quality Objectives

Data Quality Objectives (DQOs) were identified to specify quality data and ensure that the data would be sufficient to support the decision making process throughout remedial activities, including the confirmation process. Confirmation DQOs were developed for sampling and analyzing soils during remediation and for the subsequent data evaluation. The DQOs were designed to make statistically defensible decisions regarding attainment of cleanup standards. Sampling and analytical programs for the WP-437 work zones were designed in accordance with DQOs stated in the *Chemical Plant Area Cleanup Attainment Confirmation Plan* (Ref. 3).

2.3 Cleanup Standards

The objective of the Department of Energy (DOE) ALARA process is to reduce exposures and risks associated with residual contamination. The ROD (Ref. 1) established two different sets of cleanup standards: risk-based cleanup criteria and As Low As Reasonably Achievable (ALARA) goals. Remedial activities for WP-437 were designed to remove soil where the COC concentrations were found by characterization or during remediation activities to exceed ALARA goals. Table 2-1 summarizes the cleanup criteria and ALARA goals established in the ROD that are applicable for COCs in the Site Water Treatment Plant work zone. Throughout the remedial activities at RU024, COC concentrations were evaluated with the ALARA process.

2.4 Cleanup Confirmation Process

The cleanup confirmation process is used to determine, under the remedial guidelines, if remediation activities have achieved the cleanup standards. Figure 2-1 shows the cleanup confirmation process for remedial activities conducted at the WP-437 area.

The decision-making process specifies how the data will be applied and evaluated within the cleanup confirmation process. The decision-making process includes provisions for any hot

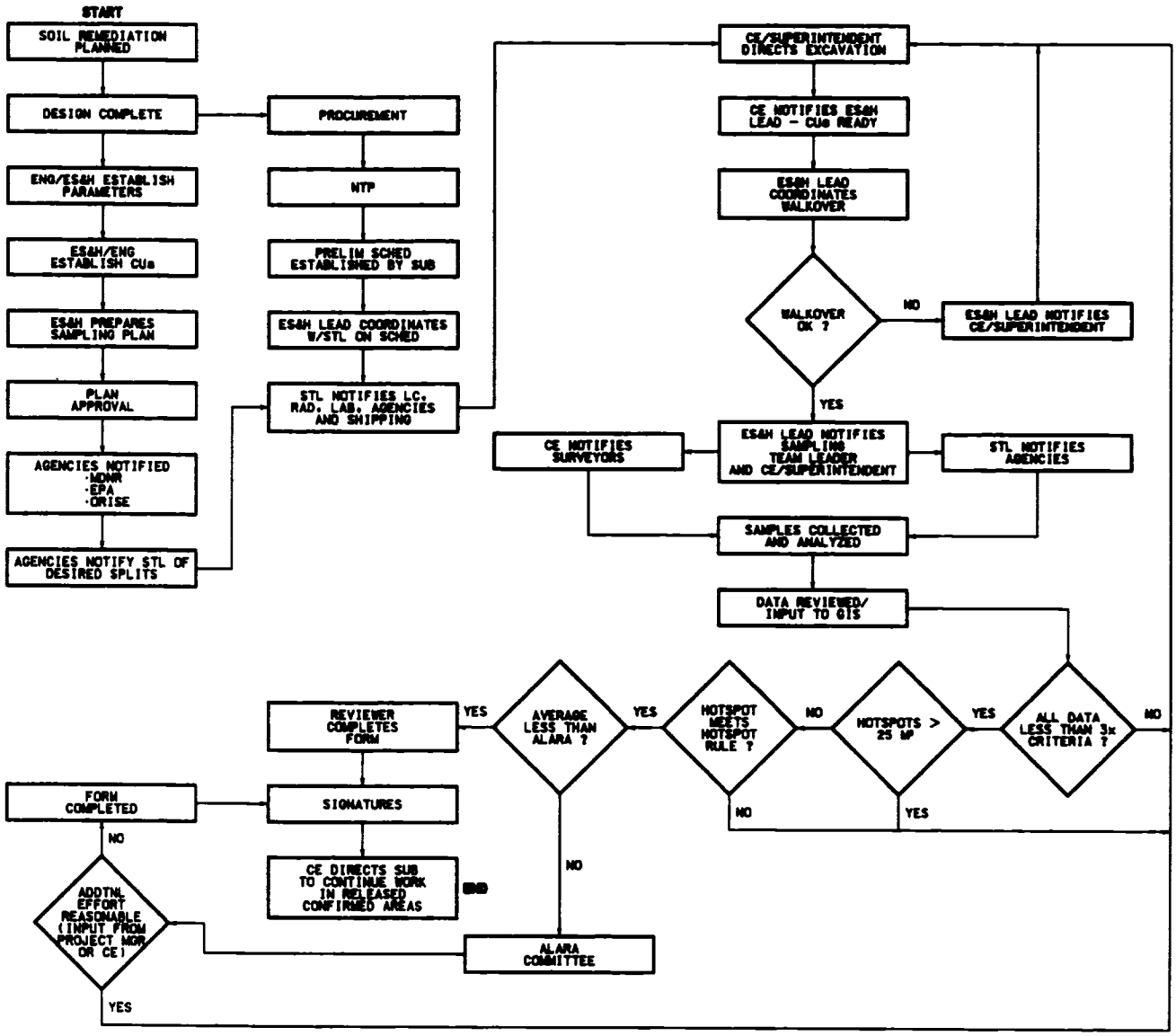
spots that may be encountered by applying a formula to determine the acceptable concentration for the COC.

Table 2-1 ROD Cleanup Standards for COCs within the WP-437 Site Water Treatment Plant Work Zone

	SURFACE [a]		SUBSURFACE [b]	
RADIONUCLIDE (pCi/g)	**ALARA**	**CRITERIA**	**ALARA**	**CRITERIA**
Ra-226	5.0	6.2	5.0	16.2
Ra-228	5.0	6.2	5.0	16.2
Total Radium	5.0	6.2	5.0	16.2
Th-230	5.0	6.2	5.0	16.2
Th-232	5.0	6.2	5.0	16.2
U-238	30.0	120	30.0	120.0
CHEMICAL (mg/kg)				
Arsenic	45	75	75	750
Chromium	90	110	110	1110
Lead	240	450	450	4500
Thallium	16	20	20	200
PAH	0.44	5.6	5.6	56
PCB	0.65	8	8	80
TNT	14	140	140	1400

(a) Values listed for surface soils apply to contamination within the upper 15 cm (6 in.) of the soil column.
(b) Values for subsurface apply to contamination in soils below 15 cm (6 in.).

Source: *Record of Decision for Remedial Action at the Chemical Plant Area of the Weldon Spring Site* (Ref. 1)



CLEANUP CONFIRMATION PROCESS

FIGURE 2-1

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ORIGINATOR: LGE	DRAWN BY: GLN	DATE: 3/28/02	

3. REMEDIAL ACTIVITIES

3.1 Field Activities

Contaminated soils were removed from the Site Water Treatment Plant (SWTP) work zone, and areas were excavated to design depths as detailed in the Site Water Treatment Plant work zone specifications (Ref. 4). After the initial excavation was complete, radiological walkover surveys were conducted where applicable to evaluate the need for additional excavation. When the surveys indicated no additional excavation was needed, confirmation soil samples were collected.

Confirmation results were then reviewed, and additional excavation and confirmation sampling was conducted in hot spot areas as necessary. After achieving cleanup standards, a disposition form was completed with preliminary analytical results. The form was reviewed and signed by authorized project personnel. The confirmation unit (CU) was then released back to the subcontractor for final grading.

Field activities completed during remediation, such as walkover surveys and soil sampling, were conducted in accordance with procedures specified in the *Confirmation Sampling Plan Details for the Disposal Cell Facility (WP-437)* (Ref. 2). Field activities were conducted to achieve and document sampling objectives specified in the *Chemical Plant Area Cleanup Attainment Confirmation Plan* (Ref. 3). All sampling and remedial action surveys were conducted and documented in accordance with Weldon Spring Site Remedial Action Project (WSSRAP) Environmental Safety and Health (ES&H) procedures.

3.1.1 Walkover Surveys

For contaminated soil excavations in the SWTP work zone, radiological walkover surveys were conducted after contaminated soil removal was completed to determine if confirmation sample collection could begin. The surveys were conducted using a 2 in. x 2 in. sodium iodide (NaI) scintillation detector. The survey readings were within an acceptable range (less than 1.5 times background) for all applicable CUs in this work zone. Background ranges for each of these CUs are listed in the CU Summary Forms in Section 4 of this report. Copies of Walkover Forms are presented in Appendix A.

3.1.2 Soil Sampling

Once the walkovers were completed, or it was determined that confirmation sample collection could begin, soil sampling was conducted as part of the confirmation process. The sampling locations for CUs in RU024 are shown in the figures in Section 4. Analytical suites for the CUs were dependant upon the COC list developed from historical information, characterization data, and visual identification in the field as discussed in Section 2.

One arsenic and chromium hotspot and four Th-230 hotspots were encountered during confirmation of RU024. All of these hotspot locations except one, SC-34218-C, were further remediated in accordance with the guidelines established in the *Chemical Plant Area Cleanup Attainment Confirmation Plan* (Ref. 3). Details can be found in the appropriate CU Summary Forms in Section 4 of this report.

The subsequent survey and confirmation sample results indicated that contaminants were below the applicable cleanup standards and the averages were less than the applicable ALARA goals; therefore, no further remediation was conducted for RU024. Disposition forms were completed following the receipt of preliminary analytical data for all CUs within the SWTP work zone.

3.2 Laboratory Activities

Radiological analyses for RU024 were conducted at on-site and off-site laboratories in accordance with the *Project Management Contractor Quality Assurance Program* (Ref. 5) and the *Environmental Quality Assurance Project Plan* (EQAPjP) (Ref. 6). CU releases were based on estimated Ra-226 results. In addition, the concentration of Th-232 was calculated based on the analytical results of Ra-228 and the calculated value was used for CU releases. Both of these calculations are explained in detail in Interoffice Correspondences (IOCs) in Appendix D.

Chemical analyses for RU024 were conducted at subcontracted off-site laboratories using Contract Laboratory Program (CLP) methodologies. Summaries of the analytical results for each CU can be found in Section 4 of this report. Analytical data were subjected to data evaluation and validation upon receipt from the laboratory.

3.3 Verification Activities

The Oak Ridge Institute for Science and Education (ORISE) was contracted by the U. S. Department of Energy (DOE) to verify confirmation soil sampling in the chemical plant area. Verification activities included independent walkover radiological surveys and collection and analysis of soil samples to verify proper disposition of CUs. Field verification activities were conducted in accordance with ORISE's final survey plan (Ref. 7).

ORISE visits to the Weldon Spring site to verify WP-437 work zones included two CUs in the SWTP work zone. The CUs were CU339 and CU340. Soil samples collected by ORISE are noted on the appropriate CU Summary Forms (Section 4). A final verification report will be prepared by ORISE. The ORISE report will contain verification of walkover surveys and soil sampling results and will affirm that the remedial action objectives were achieved.

4. CONFIRMATION UNITS RESULTS SUMMARY

This section summarizes the confirmation unit (CU) analytical results for the nineteen CUs in RU024. In total, 524 locations were sampled between March 7, 2000 and August 17, 2000. Preliminary results were below cleanup criteria with the exception of one remaining thorium-230 (Th-230) hotspot. Average contaminant of concern (COC) concentrations as indicated by preliminary data remained below ALARA goals. All 100 m^2 averages from final data are less than criteria.

After the preliminary data were reviewed, disposition forms were completed and signed by authorized reviewers. Based on the preliminary confirmation data, eighteen CUs in RU024 were fully released as complying with surface cleanup standards and one CU was fully released using subsurface cleanup standards.

Note that the preliminary data were the initial results available immediately from the laboratory and were used for releases. These preliminary results could vary from the final results based upon laboratory quality checks or Weldon Spring Site Remedial Action Project (WSSRAP) verification activities. Upon receipt of the data packages, the final data were reviewed and compared to the preliminary data. The final analytical results agreed with or were lower than the preliminary results in all CUs indicating that the remedial activities were completed in this work zone.

There were cases when additional utility samples were collected after release of the CU. In these cases, the CU was re-released based on inclusion of the additional sample data. Since walkover surveys were not required in the utility trenches prior to confirmation sampling, the release dates on some tables in this section will appear to show a delay between walkover survey dates and final CU release dates.

The final results meet the cleanup standards as detailed in the *Chemical Plant Area Cleanup Area Attainment Confirmation Plan* (Ref. 3) for all CUs in RU024. Tables 4-1 through 4-19 and associated figures provide the confirmation details for each CU, and all data presented is final data. Copies of the walkover survey information for each CU are presented in Appendix A. The final data are presented in Appendix B. A list of sample location coordinates is presented in Appendix C.

It should be noted that some locations in the Site Water Treatment Plant (SWTP) work zone were sampled for additional COCs in accordance with the Resource and Conservation Recovery Act (RCRA) closure requirements. Details can be found in the *RCRA Closure Document* (Ref. 8) and in Interoffice Correspondence (IOC) presented in Appendix D. These additional COCs and their concentrations are presented in the appropriate CU Summary forms in this section, but they will not be included in summary statistics as they are not part of confirmation sampling.

On the following tables in this section, the "Date Released For Unrestricted Use" refers to the date that confirmation activities were completed and the CU was released to the subcontractor to begin final backfilling and/or regrading. The phrase is not synonymous with DOE Order 5400.5 terminology that refers to release without radiological restrictions.

Table 4 - 1 Summary of CU338

CU 338 RU 24

COC				
	Ra-226	X	As	X
	Ra-228	X	Cr	X
	Th-230	X	Pb	X
	Th-232	X	Tl	X
	U-238	X	PAH	X
	DNT		PCB	X
Reference Figure:	4 - 1		TNT	

DATE RELEASED FOR UNRESTRICTED USE: 8 / 24 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m² < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the northeast corner of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,000 - 10,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *3/18/00 6/1/00 6/2/00 6/5/00 6/15/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *38*

TOTAL # OF UTILITY SAMPLES . *16*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *SC-33809-C was added to represent SWTP-3. (See IOC dated 2/8/00 in Appendix D for details.) The original design for this CU showed 9 sample locations in a roadway leading outside of the DOE property line. The design boundary of this CU was revised to truncate removal limits at the DOE property line, and the 9 locations lying ouside the property line no longer require confirmation. 3 of the 9 samples had been collected prior to this design change; SC-33815-S, SC-33816-S, and SC-33821-S. The data from the 3 samples will not be included in summary statistics. 16 utility samples were added upon removal of various underground pipelines; a 4" HDPE line along the north edge of Effluent Pond 4, an 8" line leading from a manhole identified as P4 and extending along the north edge of the work zone, and an 10" VC line along the east edge of this CU. All final results are below ALARA.*

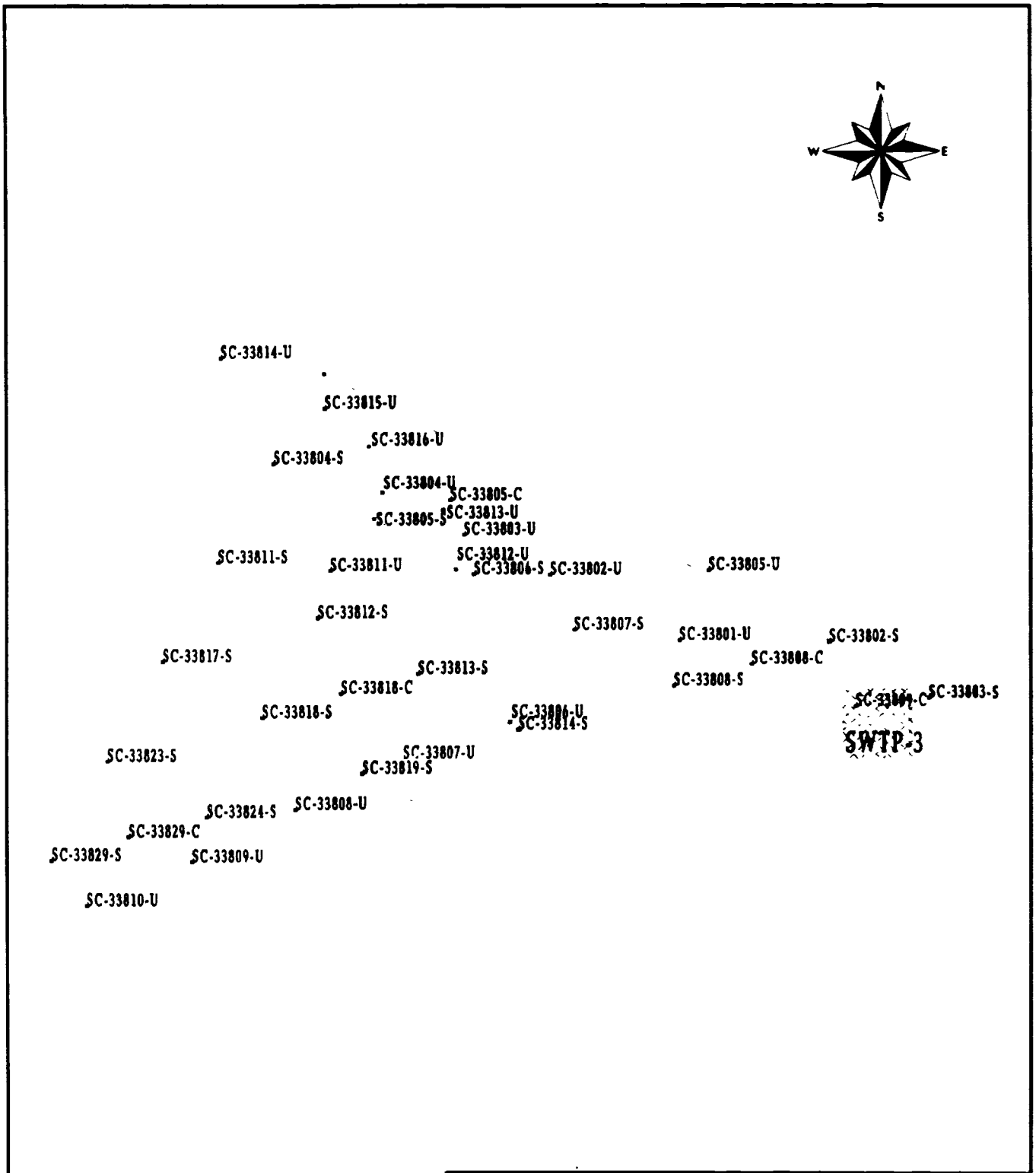
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

As	11	0.84 - 11.9	5.27	45	75	0	0
Cr	11	11 - 20.4	17.01	90	110	0	0
Pb	11	6.9 - 28.5	13.91	240	450	0	0
Tl	11	0.43 - 2	1.15	16	20	0	0
Ra-226	17	0.24 - 1.04	0.67	5	6.2	0	0
Ra-228	17	0.38 - 1.29	0.95	5	6.2	0	0
Total Radium	17	0.63 - 2.33	1.62	5	6.2	0	0
Th-230	31	0.71 - 3.66	1.17	5	6.2	0	0
Th-232	17	0.39 - 1.32	0.98	5	6.2	0	0
U-238	37	0.65 - 6.7	1.66	30	120	0	0
PAH	11	0 - 0.38	0.03	0.44	5.6	0	0
PCB	11	results < detection limit	N/A	0.65	8	0	0

NOTE: Radiological contaminants are listed in pCi/g. Chemical contaminants are listed in mg/kg.



Sample Locations in Remedial Unit RU024
Confirmation Unit CU338

Figure: 4-1

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO:	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE 04/03/02	

Table 4 - 2 Summary of CU339

CU 339 RU 24

COC				
	Ra-226	X	As	
	Ra-228	X	Cr	
	Th-230	X	Pb	
	Th-232	X	Tl	
	U-238	X	PAH	
			PCB	
			TNT	

Reference Figure: 4 - 2

DATE RELEASED FOR UNRESTRICTED USE: 8 / 24 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m^2 < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the northeast portion of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,000 - 10, 000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *3/18/00 6/1/00 6/2/00 7/10/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *38*

TOTAL # OF UTILITY SAMPLES *10*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *Ten utility samples were added upon removal of various underground pipelines; an 8" HDPE treated water line between Effluent Pond 3 and Effluent Pond 4, a 4" HDPE along the north edge of Effluent Pond 4, and an 8" line from Manhole P4 continuing along the north edge of the SWTP work zone. All final results are below ALARA*

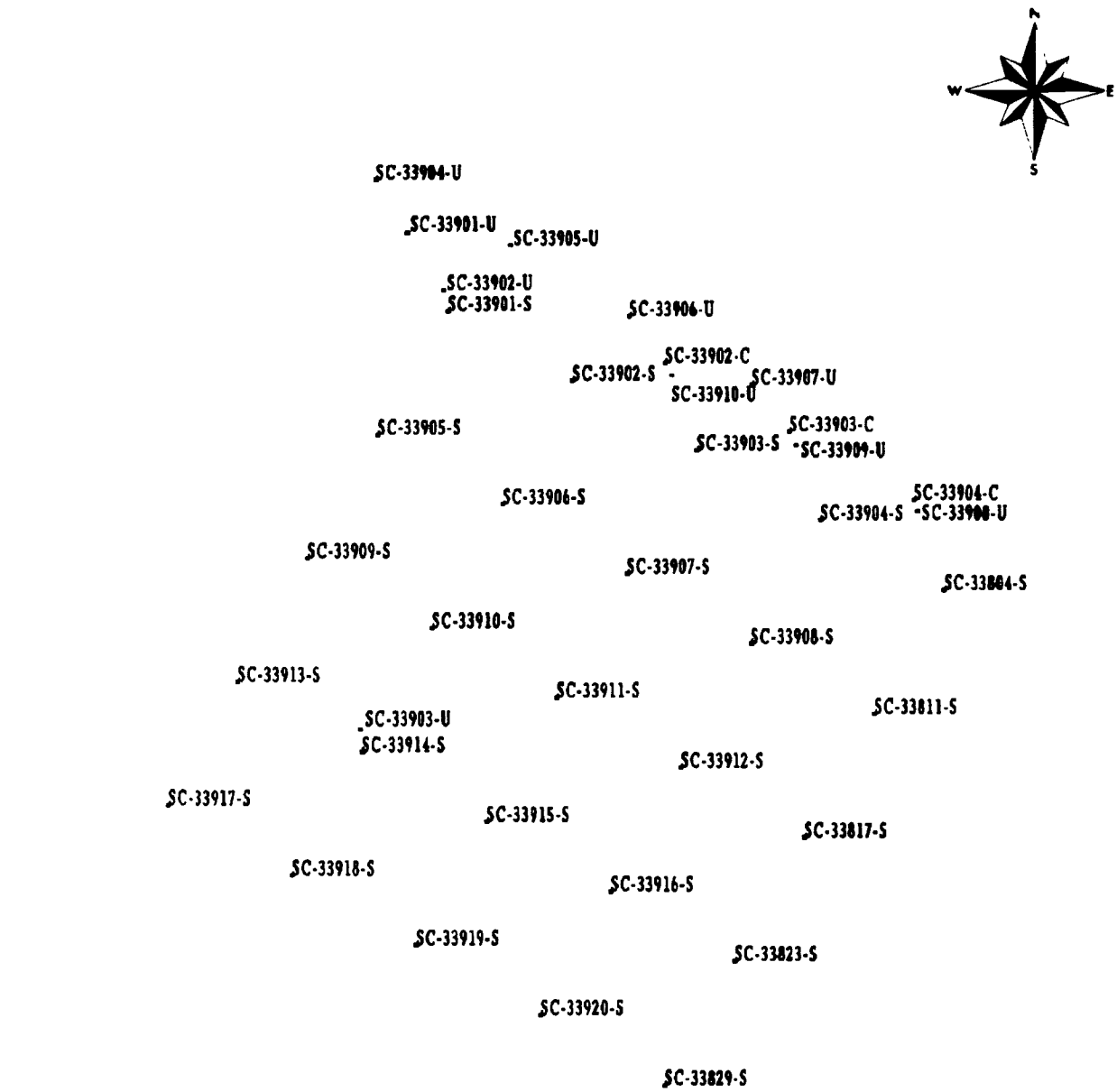
ORISE ACTION - *Three unbiased samples were collected by ORISE; one at approx. 20 ft. southeast of SC-33901-S, one at approx. 20 ft. southeast of SC-33908-S, and one at approx. 20 ft. southeast of SC-33915-S. All results are below ALARA.*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

Ra-226	34	0.22 - 1.19	0.71	5	6.2	0	0
Ra-228	34	0.33 - 1.3	0.86	5	6.2	0	0
Total Radium	34	0.61 - 2.47	1.57	5	6.2	0	0
Th-230	34	0.79 - 3.66	1.28	5	6.2	0	0
Th-232	34	0.33 - 1.33	0.88	5	6.2	0	0
U-238	38	0.95 - 5.16	1.51	30	120	0	0

NOTE: Radiological contaminants are listed in pCi/g.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU339

Figure: 4-2

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO:	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE 04/04/02	

Table 4 - 3 Summary of CU340

CU: 340 RU: 24

COC				
	Ra-226	X	As	
	Ra-228	X	Cr	
	Th-230	X	Pb	
	Th-232	X	Tl	
	U-238	X	PAH	
			PCB	
			TNT	

Reference Figure: 4 - 3

DATE RELEASED FOR UNRESTRICTED USE: 8 / 24 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m^2 < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located along the north edge of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,000 - 10,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *6/1/00 6/2/00 7/20/00 7/22/00 7/25/00 7/27/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *42*

TOTAL # OF UTILITY SAMPLES : *15*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *Fifteen utility samples were added upon removal of various underground pipelines; a 4" HDPE along the north edge of of Effluent Pond 3 and Effluent Pond 4, an 8" HDPE treated water line between Effluent Pond 3 and Effluent Pond 4, and a 3" HDPE along the north edge of Effluent Pond 3. All final results are below criteria.*

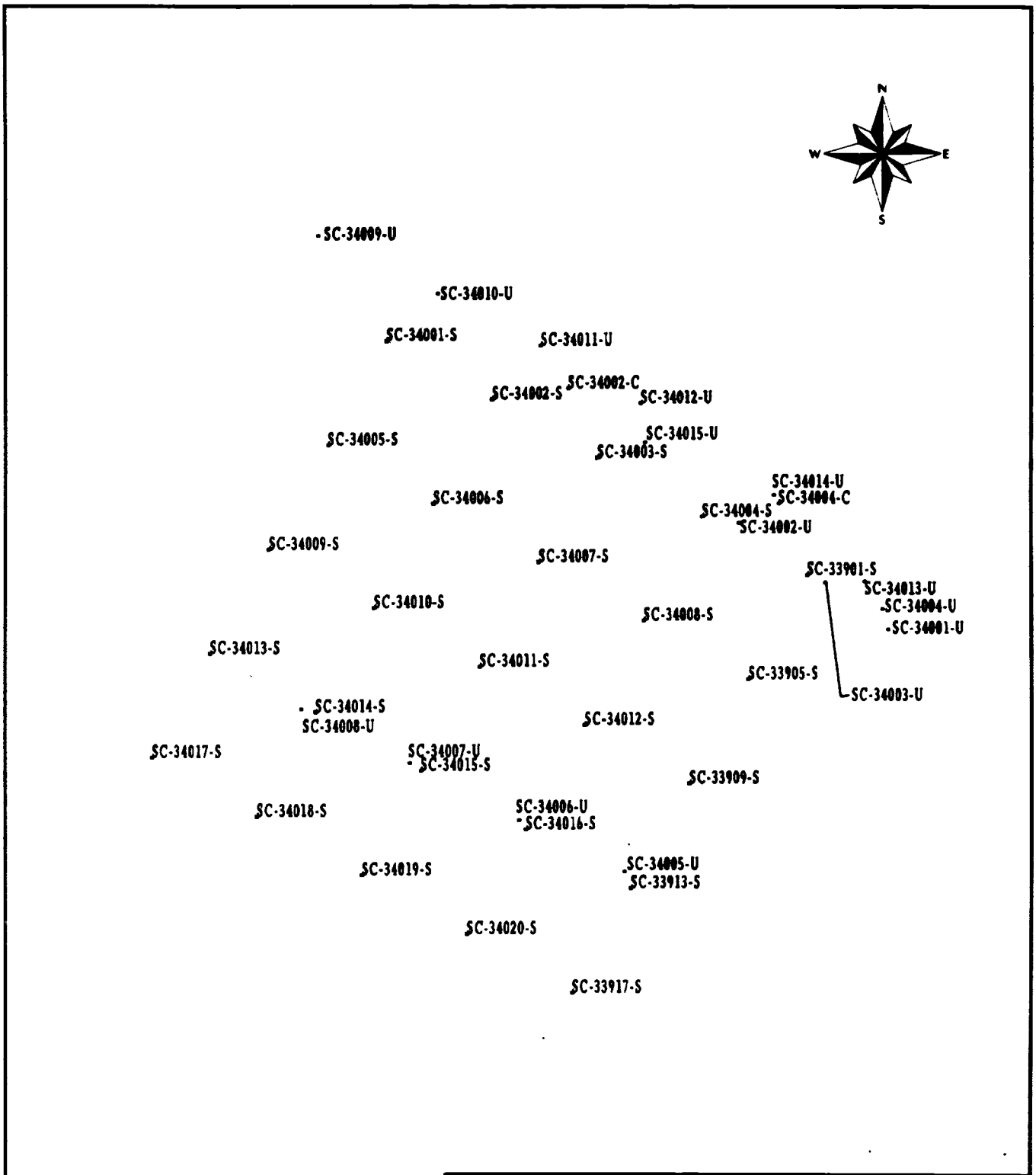
ORISE ACTION - *One unbiased sample was collected by ORISE at approx. 20 ft. southeast of SC-34012-S. All results are below ALARA.*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

Ra-226	42	0.23 - 1.04	0.61	5	6.2	0	0
Ra-228	42	0.33 - 1.35	0.77	5	6.2	0	0
Total Radium	42	0.62 - 2.28	1.38	5	6.2	0	0
Th-230	42	0.77 - 5.92	1.33	5	6.2	1	0
Th-232	42	0.33 - 1.3	0.79	5	6.2	0	0
U-238	42	0.70 - 14.6	1.62	30	120	0	0

NOTE: Radiological contaminants are listed in pCi/g.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU340

Figure: 4-3

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO :	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE 04/08/02	

Table 4 - 4 Summary of CU341

CU: 341 RU: 24

COC				
	Ra-226	X	As	
	Ra-228	X	Cr	
	Th-230	X	Pb	
	Th-232	X	Tl	
	U-238	X	PAH	
			PCB	
			TNT	

Reference Figure: 4 - 4

DATE RELEASED FOR UNRESTRICTED USE: 8 / 24 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m² < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the northwest portion of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *4,600 - 10,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *7/21/00 7/22/00 7/25/00 7/27/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *51*

TOTAL # OF UTILITY SAMPLES : *24*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *Twenty-four utility samples were added upon removal of various underground pipelines; an 8" HDPE treated water line between Effluent Pond 3 and Effluent Pond 4, a 4" HDPE along the north edge of Effluent Pond 3 and continuing along the west edge of Effluent Pond 3, a 4" HDPE along the west edge of Effluent Pond 3, a treated water pipeline terminating at the northwest corner of Effluent Pond 3, and a 4" standpipe at the northwest corner of Effluent Pond 3 All final results are below ALARA.*

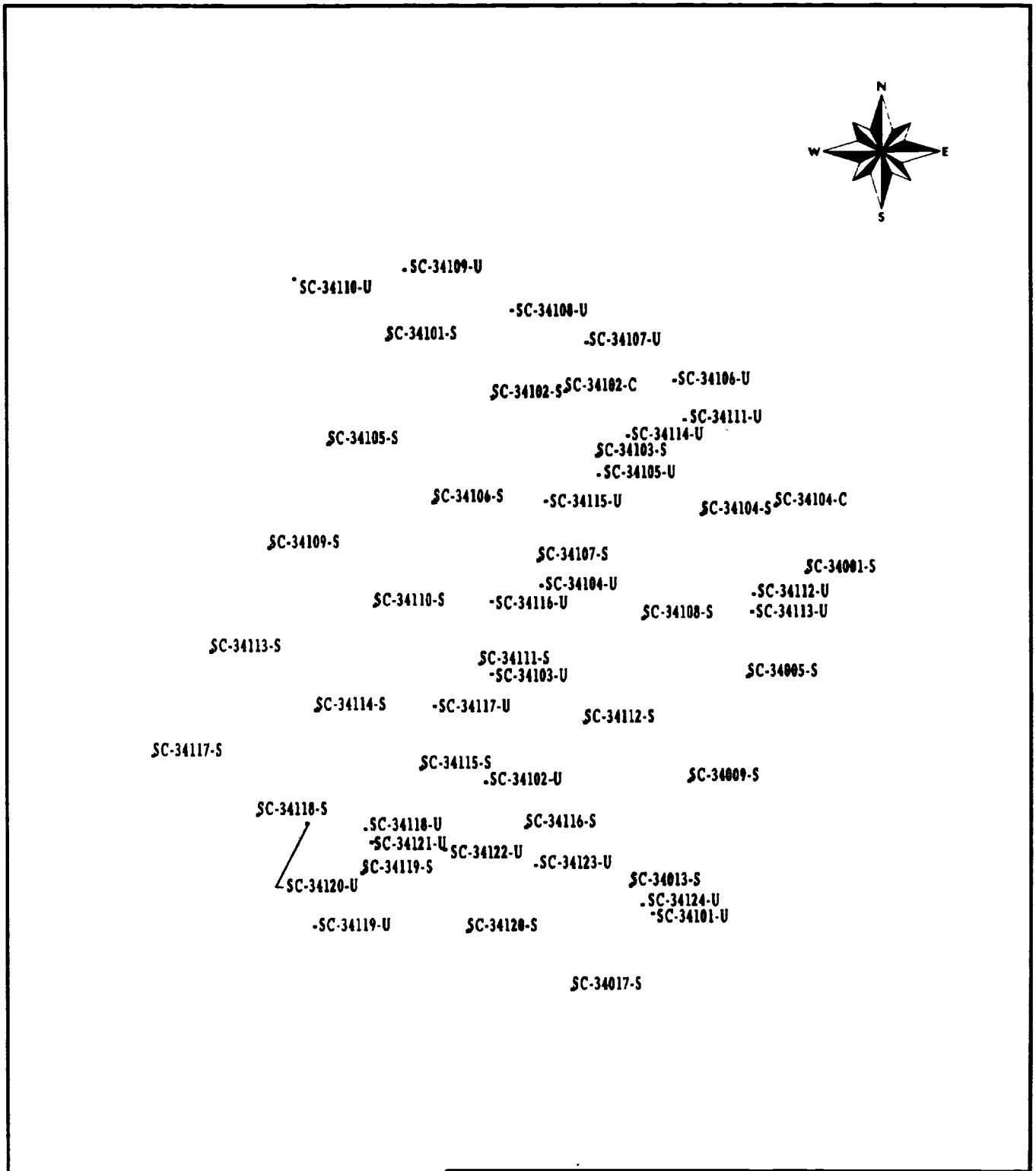
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

Ra-226	51	0.25 - 1.14	0.65	5	6.2	0	0
Ra-228	51	0.27 - 1.18	0.73	5	6.2	0	0
Total Radium	51	0.59 - 2.1	1.39	5	6.2	0	0
Th-230	51	0.77 - 3.02	1.2	5	6.2	0	0
Th-232	51	0.28 - 1.2	0.75	5	6.2	0	0
U-238	51	0.91 - 1.49	1.13	30	120	0	0

NOTE: Radiological contaminants are listed in pCi/g.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU341

Figure: 4-4

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO:	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE: 04/08/02	

Table 4 - 5 Summary of CU342

CU 342 RU 24

COC				
	Ra-226	X	As	
	Ra-228	X	Cr	
	Th-230	X	Pb	
	Th-232	X	Tl	
	U-238	X	PAH	
			PCB	
			TNT	

Reference Figure: 4 - 5

DATE RELEASED FOR UNRESTRICTED USE: 8 / 24 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m^2 < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the northwest corner of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *4,000 - 10,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *5/19/00 7/25/00 7/26/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS . 28

TOTAL # OF UTILITY SAMPLES : 1

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [X] YES [ ] NO

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *One utility sample was added upon removal of a 4" HDPE pipeline located along the north edge of Effluent Pond 3.*
A Th-230 hotspot was identified at SC-34218-C Area was sampled around to determine size.
Maximum concentration = criteria x (100/A)$^{1/2}$
6 60 = 6.2 x (100/A)$^{1/2}$
A = 88m^2 —> A = 25m^2 (largest hotspot that can remain)
Area meets hotspot rule (size < 25m^2) and will remain in place. All other final results are below criteria.

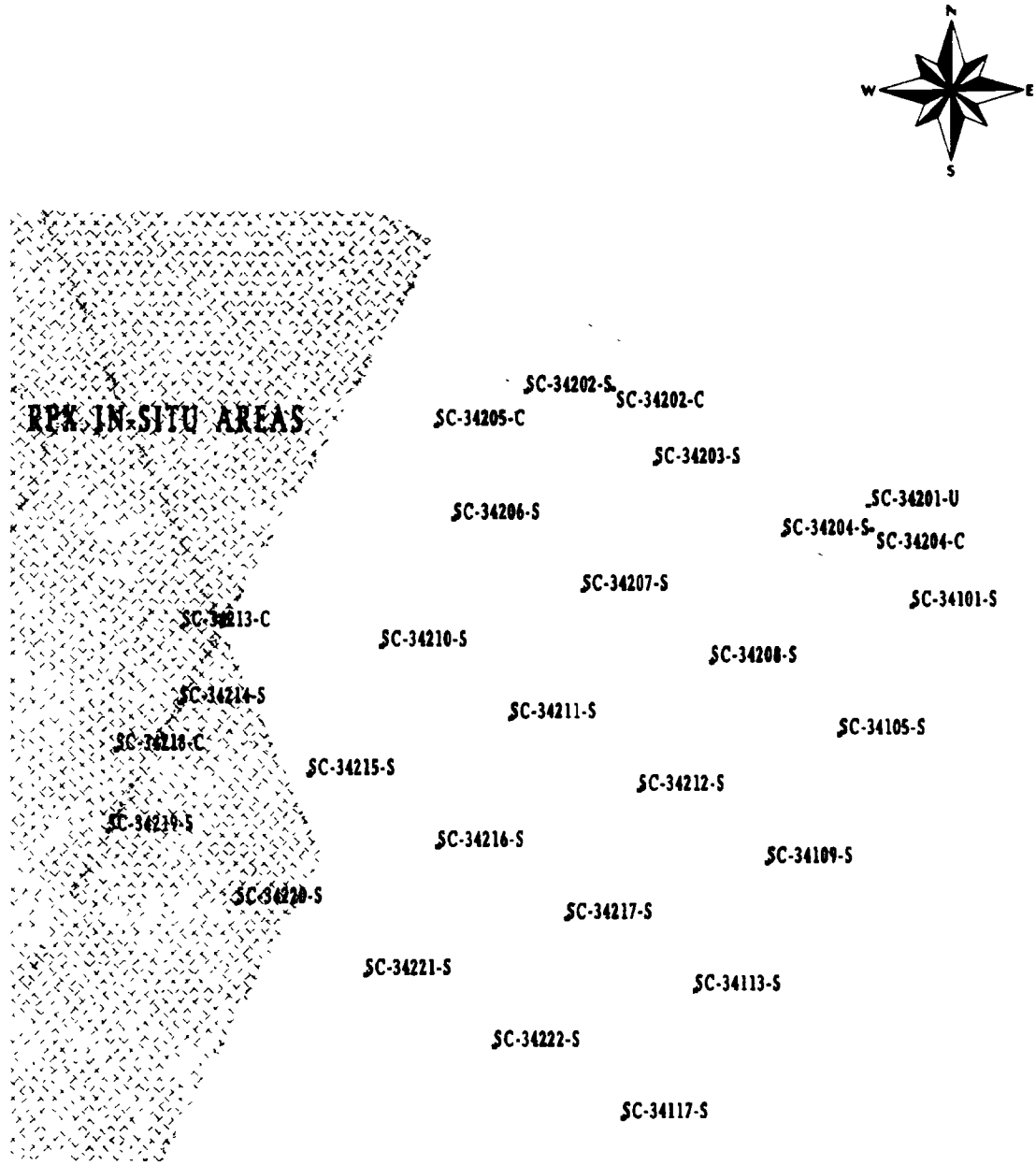
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

Ra-226	28	0.25 - 1.14	0.71	5	6.2	0	0
Ra-228	28	0.32 - 1.42	0.76	5	6.2	0	0
Total Radium	28	0.57 - 1.96	1.48	5	6.2	0	0
Th-230	28	0.92 - 6.6	1.89	5	6.2	2	1
Th-232	28	0.33 - 1.4	0.78	5	6.2	0	0
U-238	28	0.99 - 1.41	1.15	30	120	0	0
PAH	5	results < detection limit	N/A	0.44	5.6	0	0

NOTE: Radiological contaminants are listed in pCi/g. Chemical contaminants are listed in mg/kg.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU342

Figure: 4-5

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO:	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE 04/04/02	

Table 4 - 6 Summary of CU343

CU 343 RU 24

COC				
	Ra-226	X	As	X
	Ra-228	X	Ba	X
	Th-230	X	Cr	X
	Th-232	X	Pb	X
	U-238	X	Se	X
			PAH	X
			DNT	X

Reference Figure: 4 - 6

DATE RELEASED FOR UNRESTRICTED USE: 8 / 24 / 00

CLEANUP STANDARD [ ] SURFACE [X] SUBSURFACE

EACH 100m^2 < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the northwest portion of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *4,000 - 10,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *3/7/00 4/12/00 5/17/00 5/19/00 7/25/00 7/26/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *40*

TOTAL # OF UTILITY SAMPLES : *10*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

ADDITIONAL EXCAVATION REQUIRED? [X] YES [ ] NO

GENERAL COMMENTS - *Planned confirmation grid points represent TSA in-situ areas. Ten utility samples were added in the interceptor trench excavation along the north and west edges of the SWTP Equalization Basin. Sample SC-34410-U was actually located within this CU's limits rather than CU344's, therefore data will be included with statistics for this CU. One As and Cr hotspot was identified at SC-34320-S. One Th-230 hotspot was identified at SC-34413-S. Areas were further excavated and resampled. All final results are below subsurface criteria.*

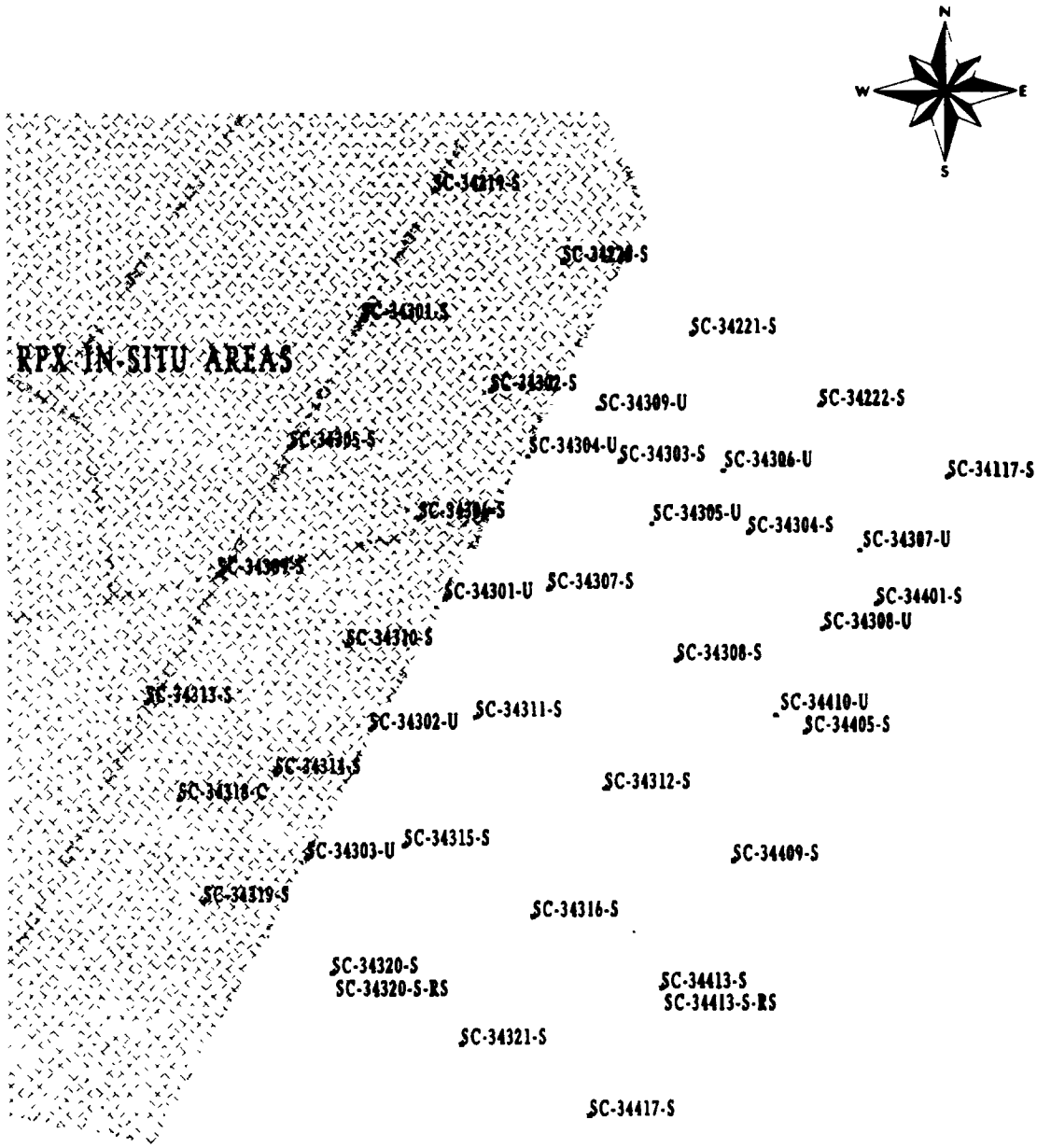
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

As	12	3.6 - 10.2	7.65	75	750	0	0
Ba *	12	115 - 1780	292	3,900	5,000	0	0
Cr	12	11.7 - 19.3	15.63	110	1,110	0	0
Pb	12	10 - 115	21.55	450	4,500	0	0
Ra-226	40	0.22 - 1.17	0.73	5	16.2	0	0
Ra-228	40	0.37 - 1.29	0.91	5	16.2	0	0
Total Radium	40	0.62 - 2.39	1.64	5	16.2	0	0
Th-230	40	0.77 - 7.63	1.56	5	16.2	1	0
Th-232	40	0.37 - 1.3	0.93	5	16.2	0	0
U-238	40	0.73 - 8.39	1.61	30	120	0	0
PAH	15	results < detection limit	N/A	5.6	56	0	0
Se *	12	0.41 - 1.5	0.54	280	350	0	0
DNT *	12	0.12 - 0.13	0.12	7.4	55	0	0

NOTE: Radiological contaminants are listed in pCi/g. Chemical contaminants are listed in mg/kg.
* Surface ALARA / criteria goals are listed since subsurface goals have not been established for these COCs.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU343

Figure: 4-6

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO :	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE: 04/04/02	

Table 4 - 7 Summary of CU344

CU 344 RU 24

COC				
	Ra-226	X	As	X
	Ra-228	X	Ba	X
	Th-230	X	Cr	X
	Th-232	X	Pb	X
	U-238	X	Se	X
			Tl	
			DNT	X

Reference Figure: 4 - 7

DATE RELEASED FOR UNRESTRICTED USE: 8 / 24 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m² < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the northwest portion of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *4,600 - 10,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *4/12/00 5/3/00 7/20/00 7/21/00 7/22/00 7/25/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *39*

TOTAL # OF UTILITY SAMPLES : *9*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

ADDITIONAL EXCAVATION REQUIRED? [X] YES [ ] NO

GENERAL COMMENTS - *Nine utility samples were added upon removal of a treated water pipeline along the east edge of the SWTP Equalization Basin. Sample SC-34410-U was actually located within the CU344 limits, therefore data associated with that sample will be included in statistics for that CU. One Th-230 hotspot was identified at SC-34413-S Area was further excavated and resampled. All final results are below ALARA.*

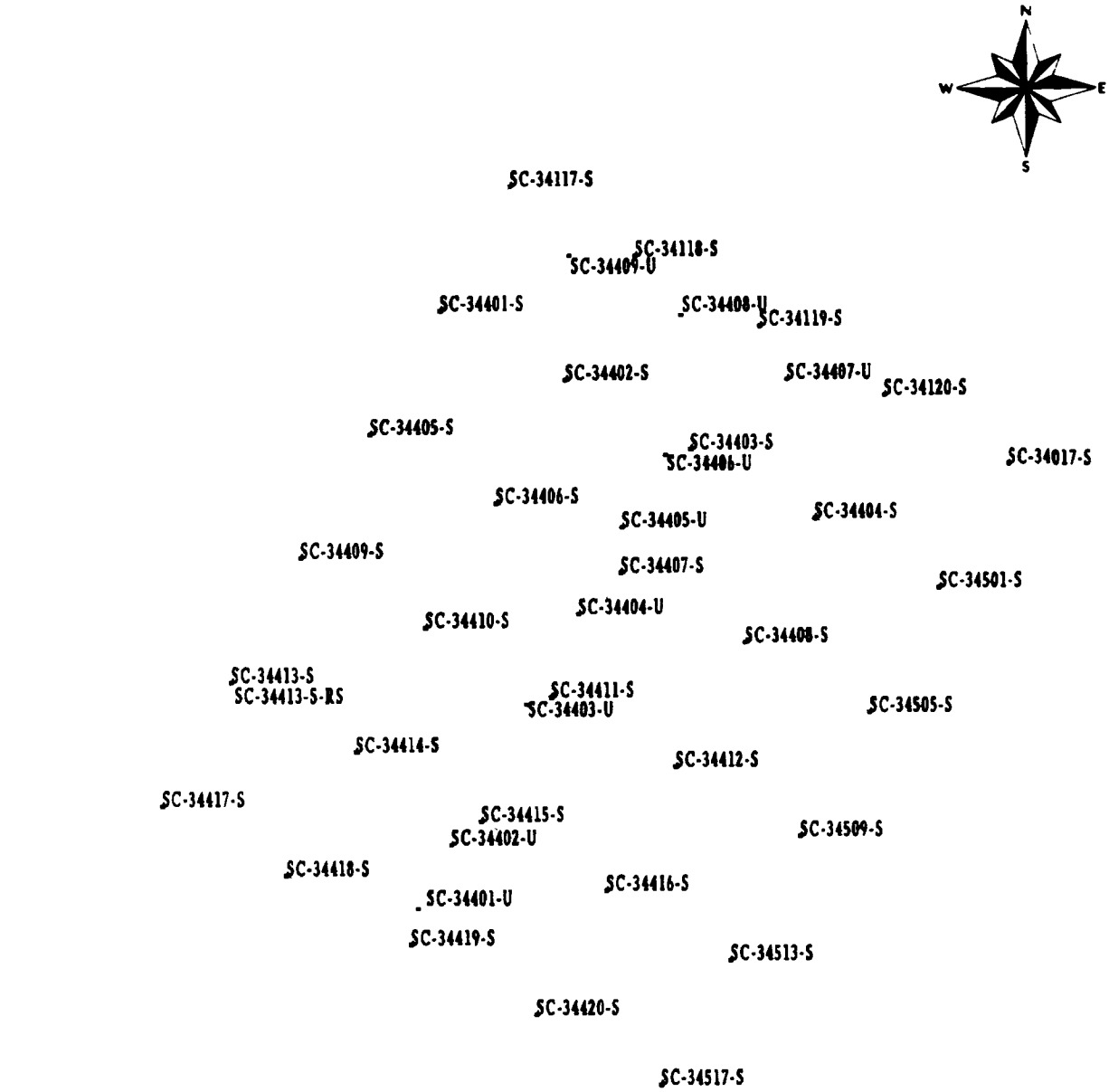
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

As	12	4.3 - 9.9	7.97	45	75	0	0
Ba	12	136 - 221	170	3,900	5,000	0	0
Cr	12	12.6 - 21.9	17.91	90	110	0	0
Pb	12	10 - 15.2	13.42	240	450	0	0
Ra-226	34	0.24 - 1.18	0.75	5	6.2	0	0
Ra-228	34	0.35 - 1.28	0.84	5	6.2	0	0
Total Radium	34	0.62 - 2.39	1.6	5	6.2	0	0
Th-230	34	0.73 - 4.2	1.28	5	6.2	0	0
Th-232	34	0.35 - 1.31	0.86	5	6.2	0	0
U-238	39	0.8 - 5.91	1.36	30	120	0	0
Se	12	0.37 - 0.52	0.45	280	350	0	0
DNT	12	0.12 - 0.13	0.12	7.4	55	0	0

NOTE: Radiological contaminants are listed in pCi/g. Chemical contaminants are listed in mg/kg.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU344

Figure: 4-7

REPORT NO.:	DOE/OR/21548-918	EXHIBIT NO ·			
ORIGINATOR·	MGL	DRAWN BY·	LGE	DATE	04/04/02

Table 4 - 8 Summary of CU345

CU 345 RU 24

COC				
	Ra-226	X	As	
	Ra-228	X	Cr	
	Th-230	X	Pb	
	Th-232	X	Tl	
	U-238	X	PAH	
			PCB	
			TNT	

Reference Figure: 4 - 8

DATE RELEASED FOR UNRESTRICTED USE: 8 / 17 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m^2 < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the northeast portion of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,000 - 10,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *5/3/00 6/2/00 7/20/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *18*

TOTAL # OF UTILITY SAMPLES : *0*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *CU345 encompassed a portion of Siltation Basin 3, which no longer requires confirmation As a result, the boundary of CU345 has been revised. Details can be found in Interoffice Correspondence dated 8/1/00 presented in Appendix D. All final results are below criteria.*

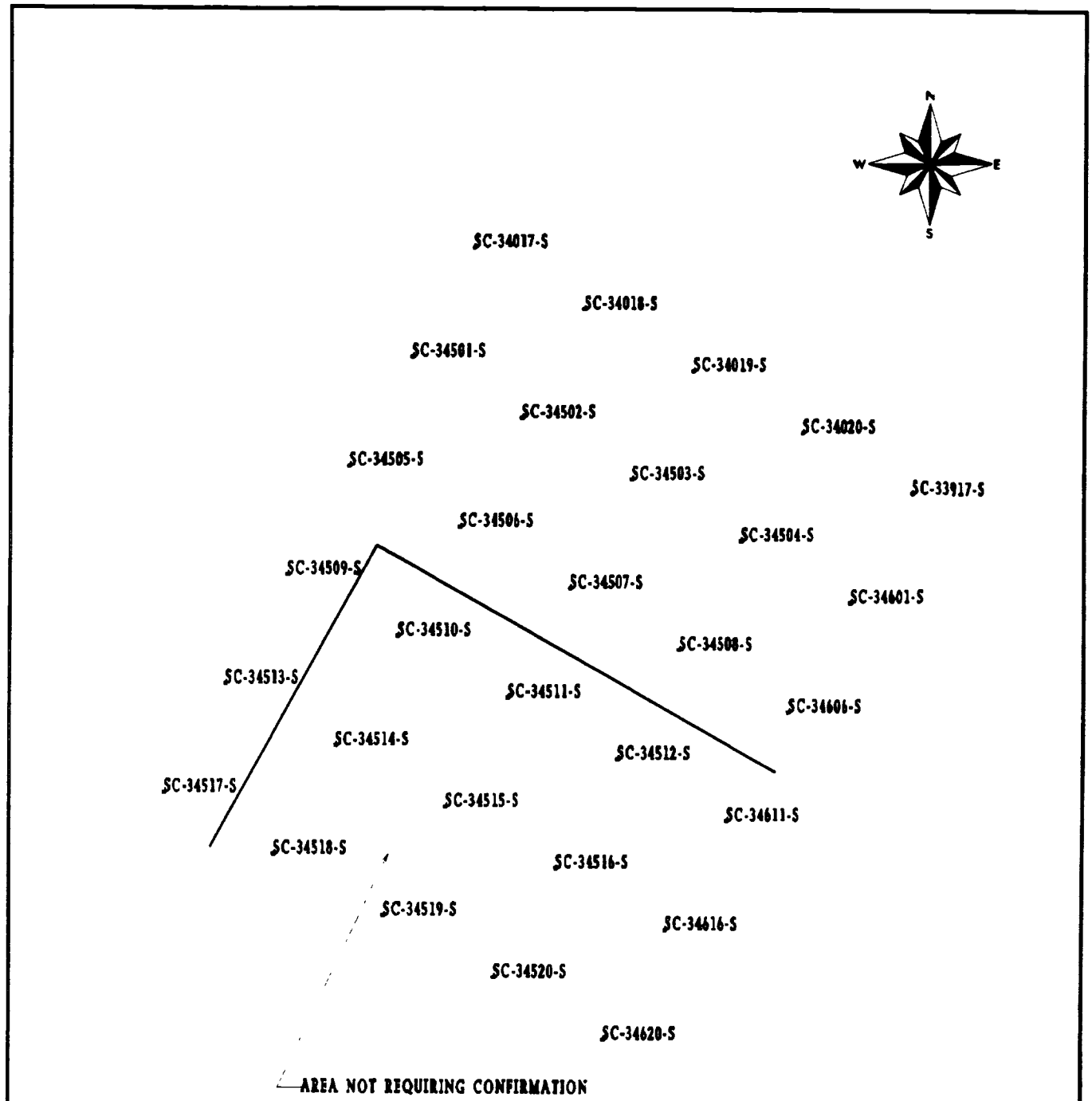
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

Ra-226	5	0.24 -0.89	0.60	5	6.2	0	0
Ra-228	5	0.35 - 1.01	0.61	5	6.2	0	0
Total Radium	5	0.62 - 1.82	1.20	5	6.2	0	0
Th-230	5	0.88 - 5.92	2.04	5	6.2	1	0
Th-232	5	0.35 - 1.0	0.62	5	6.2	0	0
U-238	18	0.8 - 1.26	1.09	30	120	0	0

NOTE: Radiological contaminants are listed in pCi/g.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU345

Figure: 4-8

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO :	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE 03/19/02	

Table 4 - 9 Summary of CU346

CU 346 RU 24

COC				
	Ra-226	X	As	X
	Ra-228	X	Cr	X
	Th-230	X	Pb	X
	Th-232	X	Se	X
	U-238	X	PAH	X
			PCB	X
			TNT	

Reference Figure: 4 - 9

DATE RELEASED FOR UNRESTRICTED USE: 8 / 17 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m² < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the northeast portion of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,000 - 10,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *3/18/00 5/3/00 6/1/00 6/2/00 6/20/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : 32

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

TOTAL # OF UTILITY SAMPLES : 4

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *Planned confirmation grid points represent in-situ area SWTP-2. Four utility samples were added upon removal of a 12" CMP perforated outlet structure associated with Siltation Basin 3. This CU encompassed a portion of Siltation Basin 3, which no longer requires confirmation. As a result, the boundary of CU346 has been revised. Details can be found in Interoffice Correspondence dated 8/1/00 presented in Appendix D. All final results are below ALARA.*

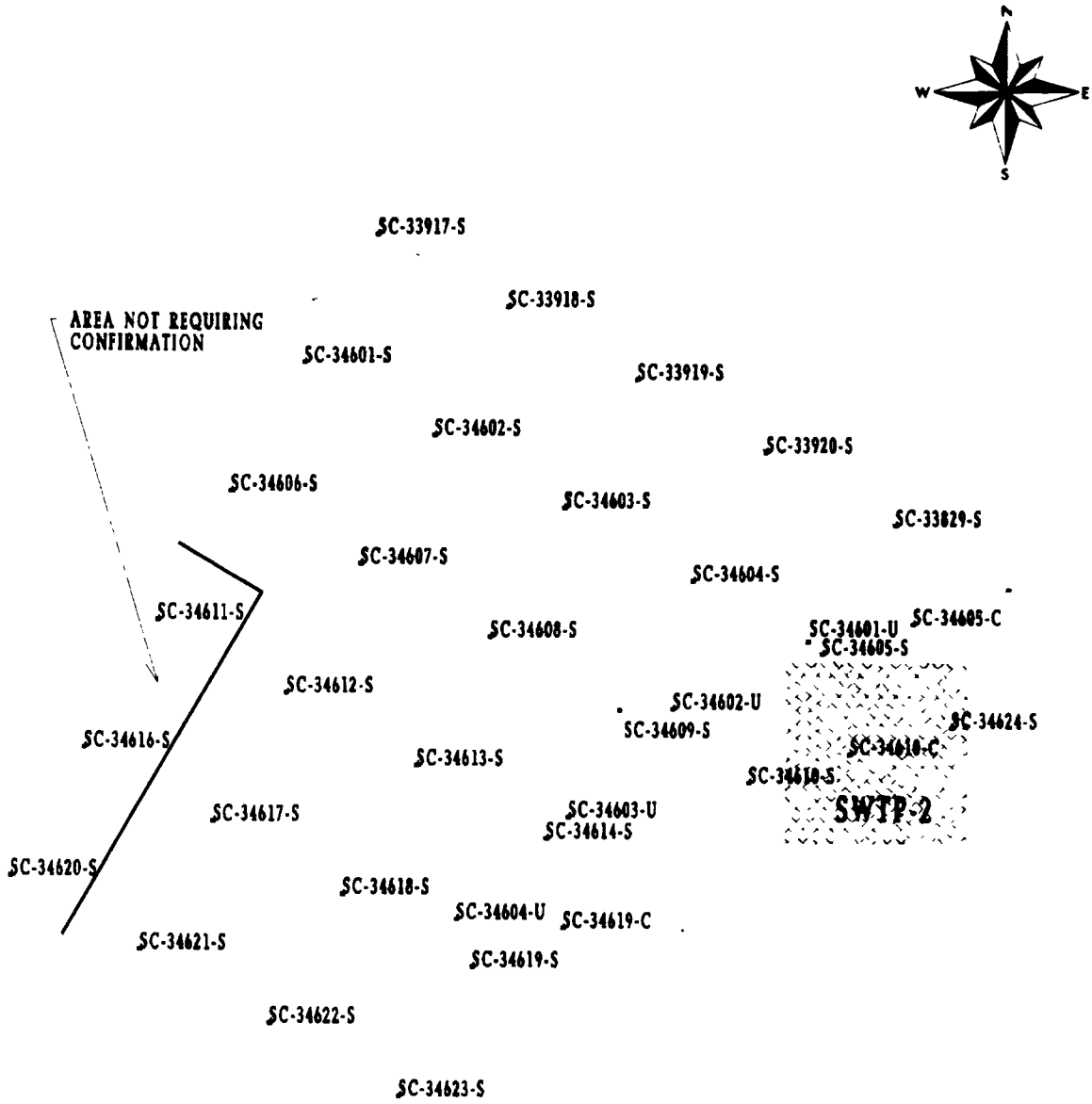
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

As	4	3.6 - 8.3	6.63	45	75	0	0
Cr	4	13.8 - 16.4	15.08	90	110	0	0
Pb	4	13 - 34.7	18.98	240	450	0	0
Se	4	0.41 - 1	0.56	280	350	0	0
Ra-226	8	0.22 - 0.81	0.58	5	6.2	0	0
Ra-228	10	0.37 - 1.19	0.93	5	6.2	0	0
Total Radium	8	0.59 - 1.95	1.46	5	6.2	0	0
Th-230	8	0.79 - 1.26	1.02	5	6.2	0	0
Th-232	8	0.37 - 1.22	0.91	5	6.2	0	0
U-238	29	0.98 - 6.52	1.39	30	120	0	0
PAH	4	results < detection limit	N/A	0.44	5.6	0	0
PCB	4	results < detection limit	N/A	0.65	8	0	0

NOTE: Radiological contaminants are listed in pCi/g. Chemical contaminants are listed in mg/kg.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU346

Figure: 4-9

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO :	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE 03/19/02	

Table 4 - 10 Summary of CU347

CU 347 RU 24

COC				
	Ra-226	X	As	
	Ra-228	X	Cr	
	Th-230		Pb	
	Th-232	X	Tl	
	U-238	X	PAH	
			PCB	X
			TNT	

Reference Figure: 4 - 10

DATE RELEASED FOR UNRESTRICTED USE: 8 / 17 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m^2 < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located along the east edge of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *3/18/00 5/3/00 5/5/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *26*

TOTAL # OF UTILITY SAMPLES : *0*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *SC-34722-C was added to represent in-situ area SWTP-4. CU347 encompassed a portion of Siltation Basin 3, which no longer requires confirmation. As a result, the boundary of CU347 has been revised. Details can be found in Interoffice Correspondence dated 8/1/00 presented in Appendix D. All final results are below ALARA.*

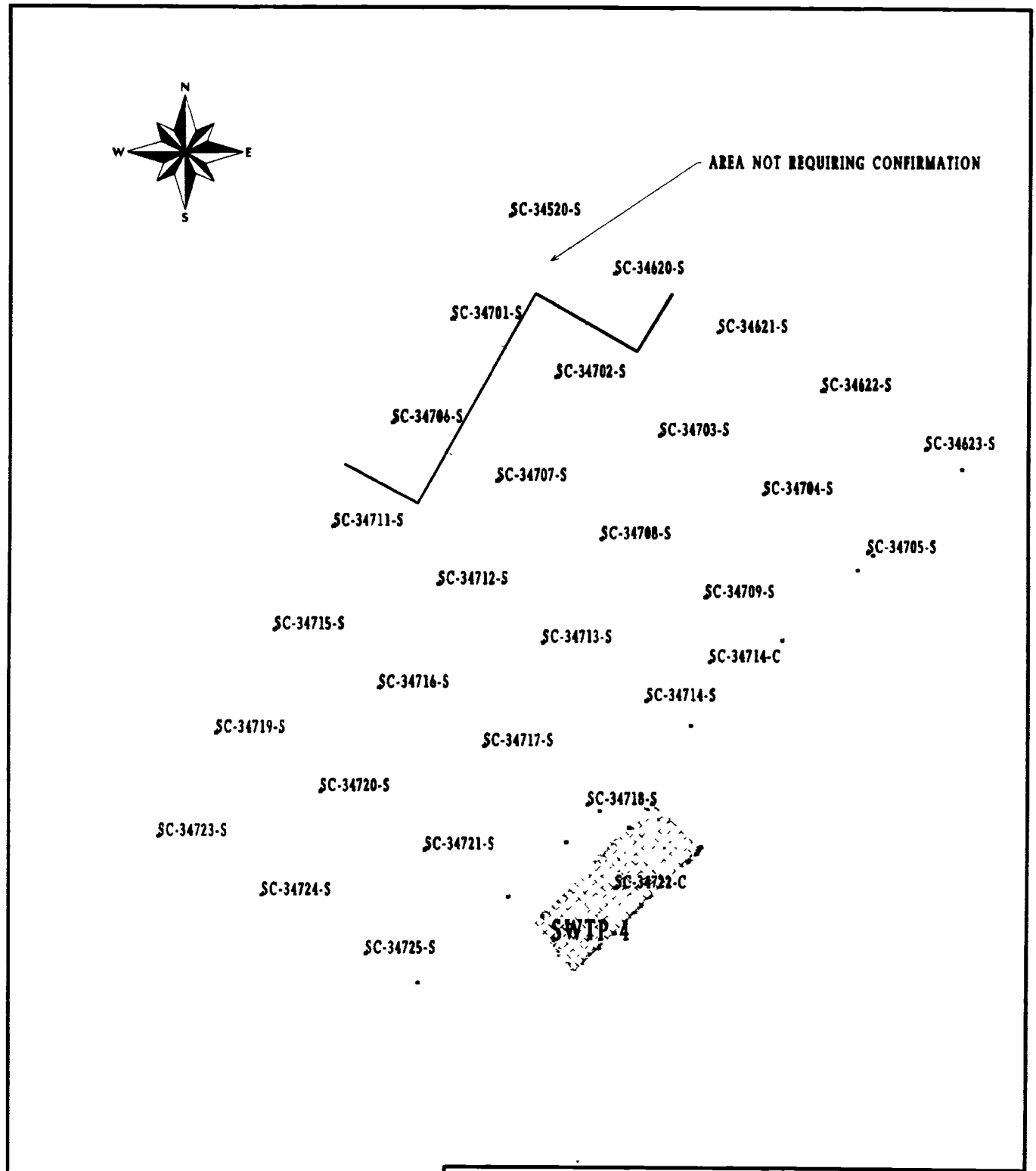
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

Ra-226	1	0.27	N/A	5	6.2	0	0
Ra-228	1	0.78	N/A	5	6.2	0	0
Total Radium	1	1.05	N/A	5	6.2	0	0
Th-232	1	0.80	N/A	5	6.2	0	0
U-238	25	1.45 - 3.46	2.14	30	120	0	0
PCB	1	0.04	N/A	0.65	8	0	0

NOTE: Radiological contaminants are listed in pCi/g. Chemical contaminants are listed in mg/kg.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU347

Figure: 4-10

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO ·	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE 03/19/02	

Table 4 - 11 Summary of CU348

CU 348 RU 24

COC				
	Ra-226	X	As	X
	Ra-228	X	Ba	X
	Th-230	X	Cr	X
	Th-232	X	Pb	X
	U-238	X	Se	X
			PCB	
			DNT	X

Reference Figure: 4 - 11

DATE RELEASED FOR UNRESTRICTED USE: 8 / 17 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m² < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the central portion of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,000 - 6,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *3/18/00 4/12/00 5/3/00 5/6/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *26*

TOTAL # OF UTILITY SAMPLES : *5*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *Five utility samples were added upon removal of a treated water pipeline between the SWTP Equalization Basin and Siltation Basin 3. CU348 encompassed a portion of Siltation Basin 3, which no longer requires confirmation. As a result, the boundary of CU348 has been revised. Details can be found in Interoffice Correspondence dated 8/1/00 presented in Appendix D. All final results are below ALARA.*

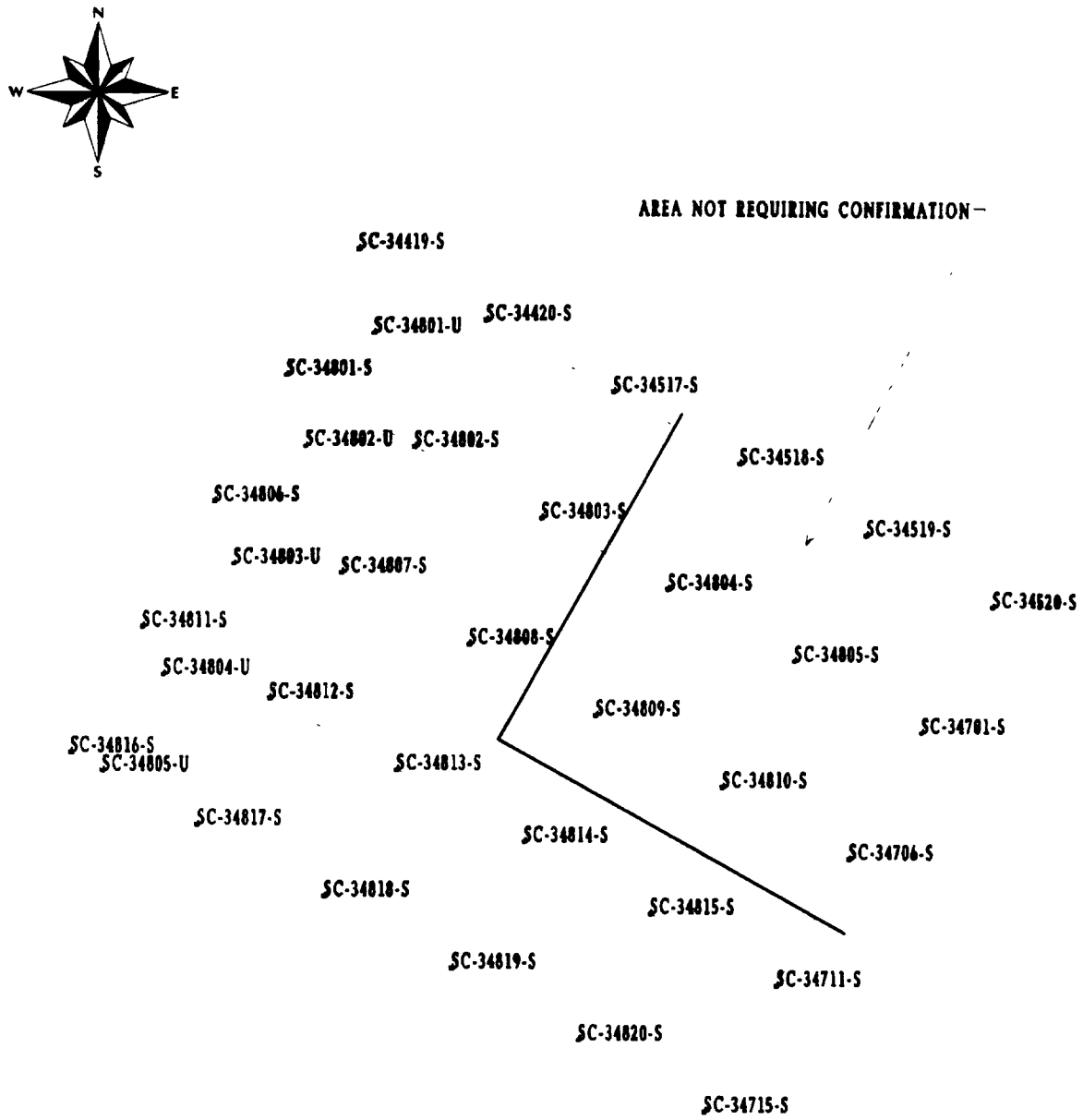
ORISE ACTION - *None*

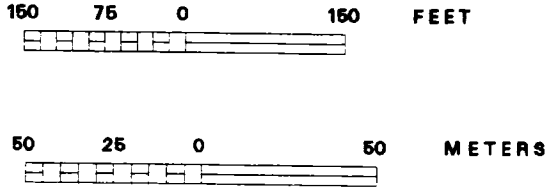
ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

As	4	8.3 - 10.3	9.12	45	75	0	0
Ba	4	160 - 201	178	3,900	5,000	0	0
Cr	4	16.4 - 19.8	17.8	90	110	0	0
Pb	4	14.2 - 21.3	17.18	240	450	0	0
Se	4	0.45 - 0.55	0.54	280	350	0	0
Ra-226	15	0.24 - 0.98	0.71	5	6.2	0	0
Ra-228	15	0.36 - 1.3	0.88	5	6.2	0	0
Total Radium	15	0.61 - 2.21	1.59	5	6.2	0	0
Th-230	15	0.8 - 1.53	1.00	5	6.2	0	0
Th-232	15	0.36 - 1.3	0.90	5	6.2	0	0
U-238	26	0.69 - 1.22	1.05	30	120	0	0
DNT	4	0.12 - 0.13	0.12	7.4	55	0	0

NOTE: Radiological contaminants are listed in pCi/g.





Sample Locations in Remedial Unit RU024 Confirmation Unit CU348

Figure: 4-11

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO :	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE: 03/19/02	

Table 4 - 12 Summary of CU349

CU 349 RU 24

COC				
	Ra-226	X	As	X
	Ra-228	X	Ba	X
	Th-230	X	Cr	X
	Th-232	X	Pb	X
	U-238	X	Se	X
	TNT / DNT	X	PAH	X
Reference Figure:		4 - 12	PCB	X

DATE RELEASED FOR UNRESTRICTED USE: 5 / 31 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m² < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION: *This CU is located along the west edge of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,300 - 10,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *3/7/00 3/28/00 4/12/00 4/16/00 5/1/00 5/3/00 5/6/00 5/17/00*

(Walkover survey information for SC-34922-S was not located.)

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *41*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

TOTAL # OF UTILITY SAMPLES . *9*

ADDITIONAL EXCAVATION REQUIRED? [X] YES [ ] NO

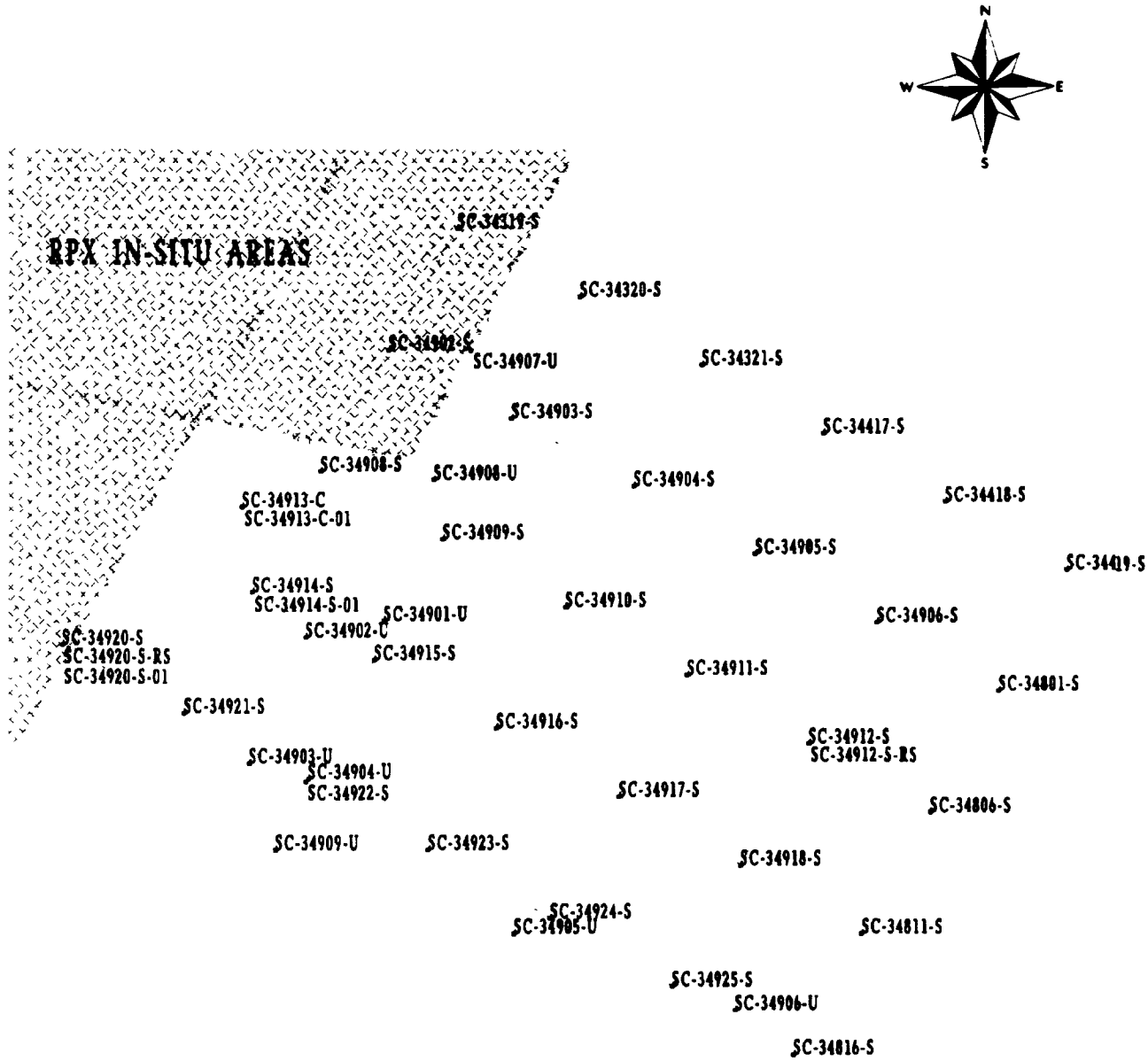
GENERAL COMMENTS - *Planned confirmation grid points represent TSA in-situ areas. Nine utility samples were added in the interceptor trench excavation along the east edges of Raffinate Pits 1 and 2, and continuing along the south edge of the SWTP Equalization Basin. Two Th-230 hotspots were identified at SC-34912-S and SC-34920-S. Areas were further excavated and resampled. A visible lens of contaminated soil was identified while excavating the interior side slope of Raffinate Pit 2's east berm, which is adjacent to the western edge of this CU. Sample locations that were already collected at the top of this berm were resampled after the lens was removed. Affected locations are SC-34913-S, SC-34914-S, and SC-34920-S, and the resamples were labeled using the suffix -01 in their IDs. All final results are below ALARA.*

ORISE ACTION - *None* ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

As	24	6.2 - 11.8	8.67	45	75	0	0
Ba	21	110 - 1780	242.43	3,900	5,000	0	0
Cr	24	12 - 22.1	17.23	90	110	0	0
Pb	24	12 - 115	18.87	240	450	0	0
Se	24	0.38 - 1.6	0.64	280	350	0	0
Ra-226	44	0.24 - 1.29	0.81	5	6.2	0	0
Ra-228	44	0.36 - 1.3	0.95	5	6.2	0	0
Total Radium	44	0.95 - 2.57	1.76	5	6.2	0	0
Th-230	44	0.64 - 4.23	1.22	5	6.2	0	0
Th-232	44	0.36 - 1.3	0.97	5	6.2	0	0
U-238	44	0.99 - 1.89	1.14	30	120	0	0
PAH	10	results < detection limit	N/A	0.44	5.6	0	0
PCB	3	results < detection limit	N/A	0.65	8	0	0
TNT	3	0.15 - 0.16	0.16	14	140	0	0
DNT	24	0.12 - 0.16	0.13	7.4	55	0	0

NOTE: Radiological contaminants are listed in pCi/g. Chemical contaminants are listed in mg/kg.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU349

Figure: 4-12

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO :	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE 04/04/02	

Table 4 - 13 Summary of CU350

CU: 350 RU: 24

COC				
	Ra-226	X	As	X
	Ra-228	X	Ba	X
	Th-230	X	Cr	X
	Th-232	X	Pb	X
	U-238	X	Se	X
	TNT / DNT	X	PAH	X
Reference Figure:	4 - 13		PCB	X

DATE RELEASED FOR UNRESTRICTED USE: 5 / 31 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m² < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located along the west edge of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,700 - 6,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *3/28/00 4/16/00 4/27/00*

(Walkover survey information for SC-34922-S, SC-35004-S, SC-35008-S, SC-35012-S, SC-35016-S, and SC-35020-S was not located.)

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *44*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

TOTAL # OF UTILITY SAMPLES : *16*

ADDITIONAL EXCAVATION REQUIRED? [X] YES [ ] NO

GENERAL COMMENTS - *Planned confirmation grid points represent TSA in-situ areas. Sixteen utility samples were added in the interceptor trench excavation along the east edge of Raffinate Pits 1 & 2. One Th-230 hotspot was identified at SC-34920-S. Area was further excavated and resampled. All final results are below ALARA*

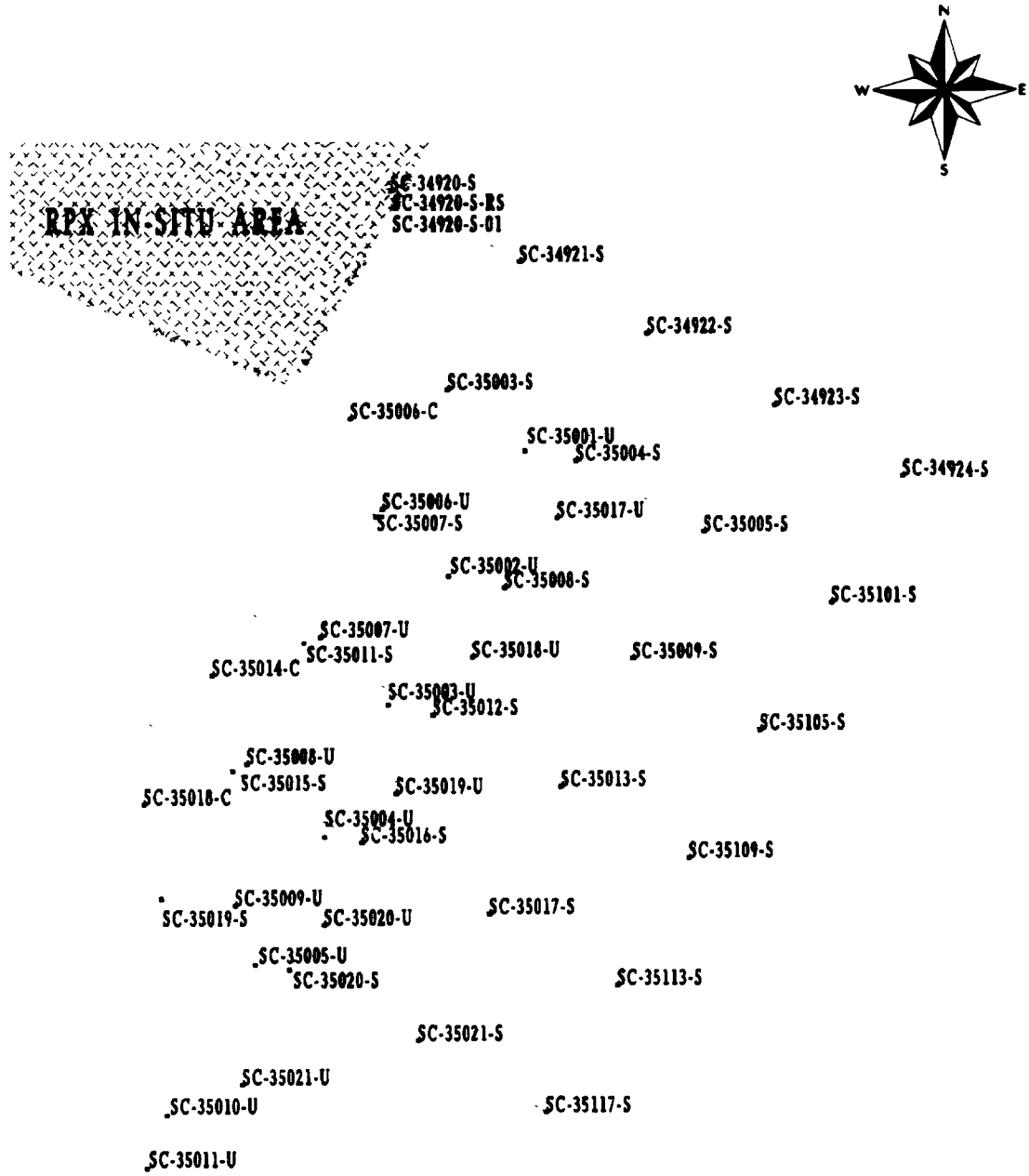
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

As	11	6.3 - 10.7	7.88	45	75	0	0
Ba	6	101 - 230	158.17	3,900	5,000	0	0
Cr	11	11 - 20.9	15.57	90	110	0	0
Pb	11	10 - 14	11.83	240	450	0	0
Se	11	0.42 - 1.2	0.82	280	350	0	0
Ra-226	45	0.22 - 1.09	0.72	5	6.2	0	0
Ra-228	45	0.35 - 1.26	0.88	5	6.2	0	0
Total Radium	45	0.60 - 2.28	1.60	5	6.2	0	0
Th-230	45	0.76 - 2.3	1.03	5	6.2	0	0
Th-232	45	0.36 - 1.29	0.90	5	6.2	0	0
U-238	45	0.78 - 1.36	1.11	30	120	0	0
PAH	16	0 - 0.11	0.01	0.44	5.6	0	0
PCB	5	results < detection limit	N/A	0.65	8	0	0
TNT	5	0.15 - 0.16	0.15	14	140	0	0
DNT	11	0.12 - 0.16	0.14	7.4	55	0	0

NOTE: Radiological contaminants are listed in pCi/g. Chemical contaminants are listed in mg/kg.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU350

Figure: 4-13

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO :	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE 04/08/02	

Table 4 - 14 Summary of CU351

CU 351 RU 24

COC				
	Ra-226	X	As	
	Ra-228	X	Cr	
	Th-230	X	Pb	
	Th-232	X	Tl	
	U-238	X	PAH	
			PCB	
			TNT	

Reference Figure: 4 - 14

DATE RELEASED FOR UNRESTRICTED USE: 6 / 13 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m^2 < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the south central portion of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,000 - 10,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *3/28/00 4/19/00 4/27/00 5/5/00 5/6/00 5/25/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *38*

TOTAL # OF UTILITY SAMPLES . *8*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *Planned confirmation grid points represent TSA in-situ areas. Eight utility samples were added upon removal of treated water pipelines between Effluent Pond 1 and Effluent Pond 2. All final results are below ALARA.*

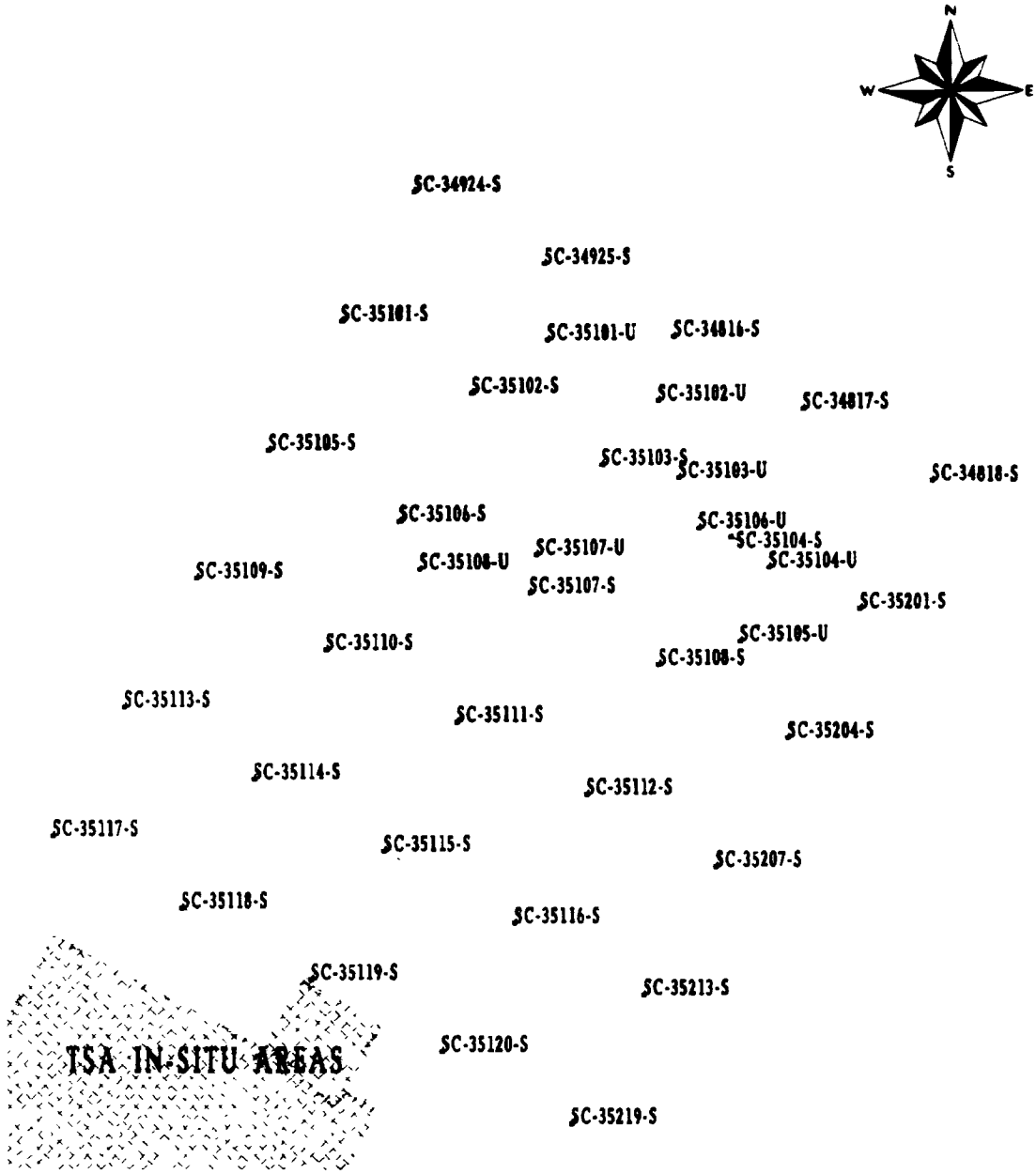
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

Ra-226	37	0.24 - 0.88	0.65	5	6.2	0	0
Ra-228	37	0.35 - 1.21	0.87	5	6.2	0	0
Total Radium	37	0.61 - 2.07	1.52	5	6.2	0	0
Th-230	37	0.71 - 1.53	1.01	5	6.2	0	0
Th-232	37	0.36 - 1.2	1.24	5	6.2	0	0
U-238	38	0.69 - 1.25	1.07	30	120	0	0

NOTE: Radiological contaminants are listed in pCi/g.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU351

Figure: 4-14

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO:	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE 03/19/02	

Table 4 - 15 Summary of CU352

CU 352 RU 24

COC				
	Ra-226	X	As	
	Ra-228	X	Cr	
	Th-230	X	Pb	
	Th-232	X	Tl	
	U-238	X	PAH	
			PCB	
			TNT	

Reference Figure: 4 - 15

DATE RELEASED FOR UNRESTRICTED USE: 6 / 8 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m^2 < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located along the east edge of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,000 - 10,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *4/2/00 5/4/00 5/5/00 5/26/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *30*

TOTAL # OF UTILITY SAMPLES : *0*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *All final results are below ALARA*

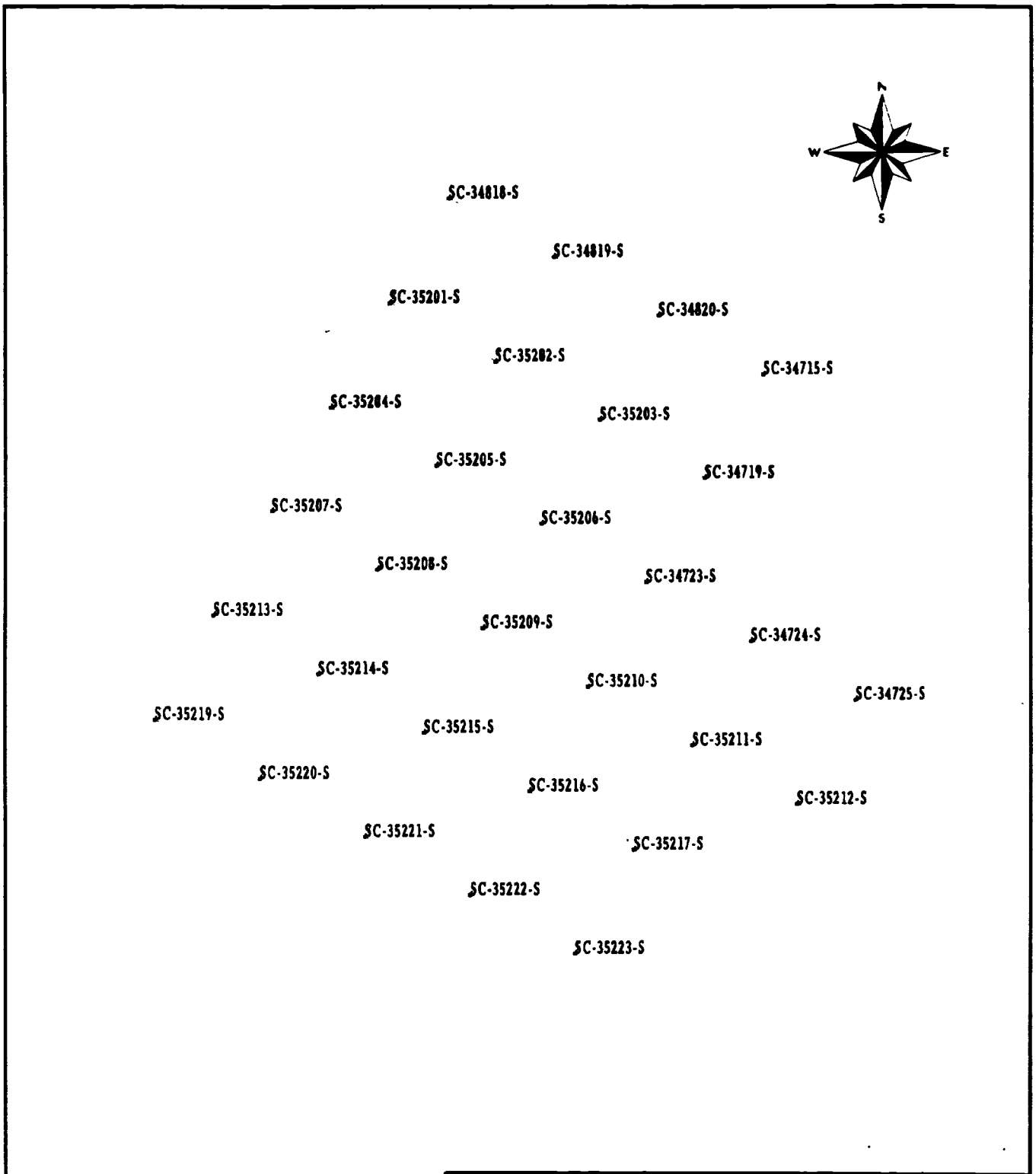
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

Ra-226	15	0.51 - 0.94	0.78	5	6.2	0	0
Ra-228	15	0.41 - 1.28	0.96	5	6.2	0	0
Total Radium	15	1.01 - 2.17	1.75	5	6.2	0	0
Th-230	15	0.8 - 1.14	0.96	5	6.2	0	0
Th-232	15	0.42 - 1.3	0.99	5	6.2	0	0
U-238	30	0.69 - 1.2	1.07	30	120	0	0

NOTE: Radiological contaminants are listed in pCi/g.



Sample Locations in Remedial Unit RU024 Confirmation Unit CU352

Figure: 4-15

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE 03/19/02	

Table 4 - 16 Summary of CU353

CU 353 RU 24

COC				
	Ra-226	X	As	
	Ra-228	X	Cr	
	Th-230	X	Pb	
	Th-232	X	Tl	
	U-238	X	PAH	X
			PCB	
			TNT	

Reference Figure: 4 - 16

DATE RELEASED FOR UNRESTRICTED USE: 6 / 22 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m^2 < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the southeast corner of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,000 - 10,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *3/8/00 5/5/00 6/15/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *33*

TOTAL # OF UTILITY SAMPLES : *0*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *SC-35310-C and SC-35310-S were added to represent in-situ area SWTP-1. All final results are below ALARA.*

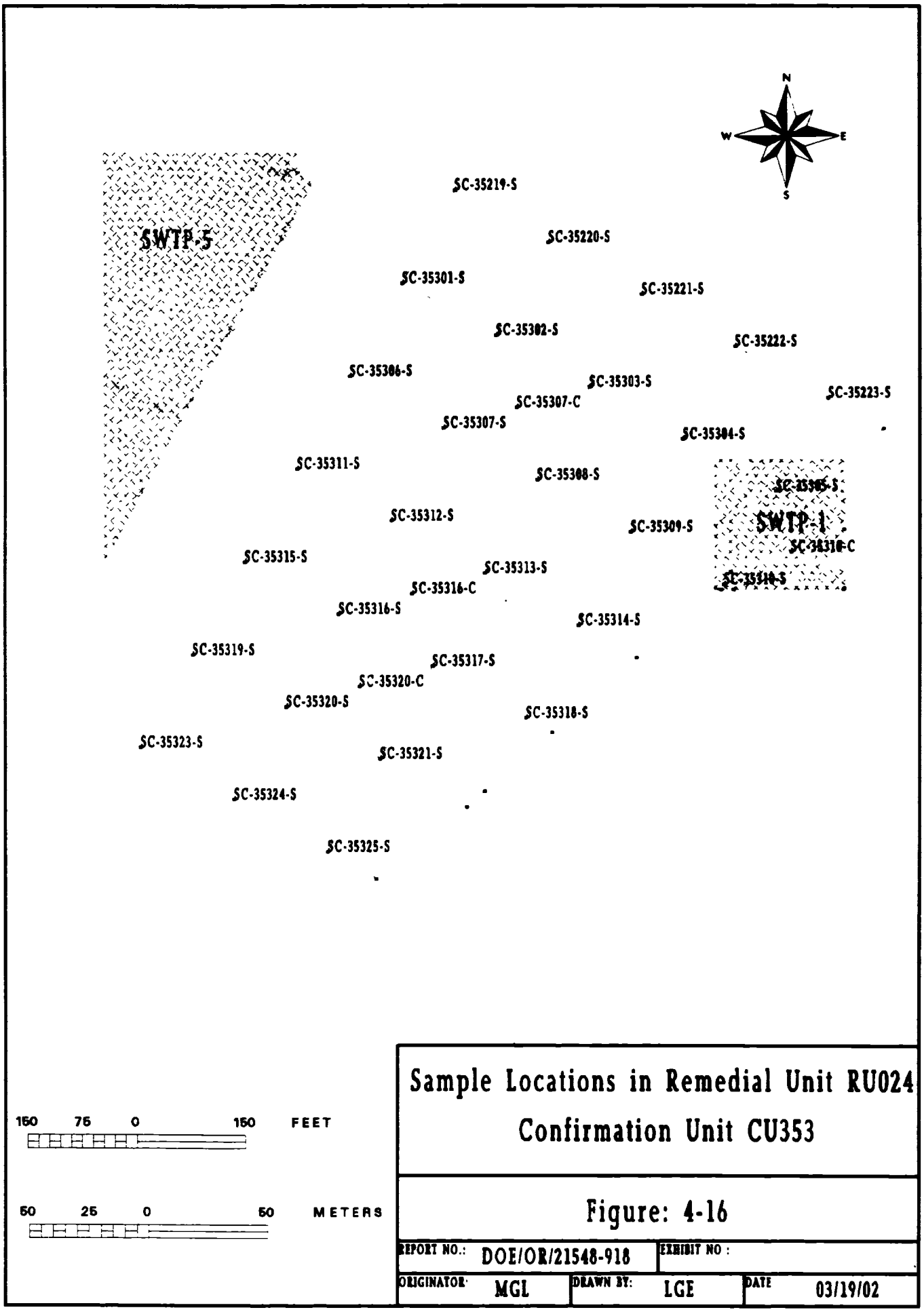
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

Ra-226	6	0.26 - 0.84	0.68	5	6.2	0	0
Ra-228	8	0.4 - 1.26	0.99	5	6.2	0	0
Total Radium	6	0.66 - 2.08	1.66	5	6.2	0	0
Th-230	8	0.91 - 1.61	1.14	5	6.2	0	0
Th-232	6	0.41 - 1.2	1.00	5	6.2	0	0
U-238	31	0.88 - 3.99	1.26	30	120	0	0
PAH	3	0.11 - 0.28	0.17	0.44	5.6	0	0

NOTE: Radiological contaminants are listed in pCi/g. Chemical contaminants are listed in mg/kg.



Sample Locations in Remedial Unit RU024 Confirmation Unit CU353

Figure: 4-16

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO :	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE 03/19/02	

Table 4 - 17 Summary of CU354

CU 354 RU 24

COC				
	Ra-226	X	As	
	Ra-228	X	Cr	
	Th-230	X	Pb	
	Th-232	X	Tl	
	U-238	X	PAH	X
			PCB	
			TNT	

Reference Figure: 4 - 17

DATE RELEASED FOR UNRESTRICTED USE: 5 / 19 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m^2 < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the southern portion of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,000 - 6,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *4/19/00 4/27/00 5/5/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *30*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

TOTAL # OF UTILITY SAMPLES : *0*

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *Planned confirmation grid points represent in-situ areas SWTP-5 and SWTP-6. All final results are below criteria.*

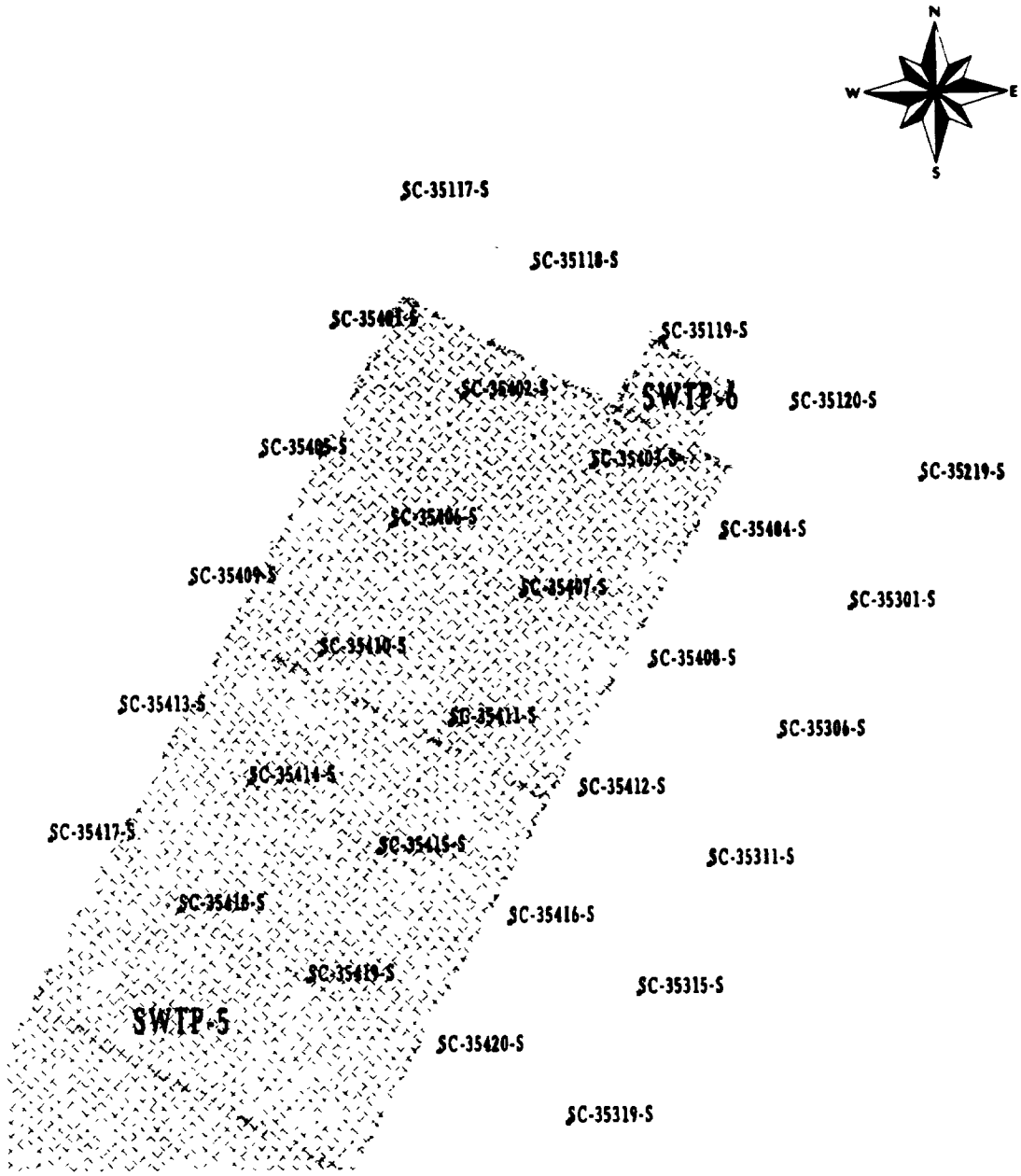
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

Ra-226	25	0.27 - 0.86	0.76	5	6.2	0	0
Ra-228	25	0.34 - 1.17	0.93	5	6.2	0	0
Total Radium	25	0.61 - 2.01	1.69	5	6.2	0	0
Th-230	25	0.8 - 2.46	1.13	5	6.2	0	0
Th-232	25	0.34 - 1.2	0.95	5	6.2	0	0
U-238	30	0.73 - 1.69	1.13	30	120	0	0
PAH	20	0.10 - 1.44	0.18	0.44	5.6	1	0

NOTE: Radiological contaminants are listed in pCi/g. Chemical contaminants are listed in mg/kg.



160 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024
Confirmation Unit CU354

Figure: 4-17

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO :	
ORIGINATOR MGL	DRAWN BY: LGE	DATE 03/19/02	

Table 4 - 18 Summary of CU355

CU	355	RU	24
COC	Ra-226 X	As	X
	Ra-228 X	Ba	X
	Th-230 X	Cr	X
	Th-232 X	Pb	X
	U-238 X	Se	X
	TNT / DNT X	PAH	X
Reference Figure:	4 - 18	PCB	X

DATE RELEASED FOR UNRESTRICTED USE: 5 / 24 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m² < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the southwest corner of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,700 - 6,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *4/19/00 4/27/00*
(Walkover survey information for SC-35020-S was not located.)

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *34*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

TOTAL # OF UTILITY SAMPLES : *5*

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *Planned confirmation grid points represent in-situ area SWTP-5. Five utility samples were added in the interceptor trench excavation along the east edge of Raffinate Pits 1 and 2 and continued south. All final results are below criteria.*

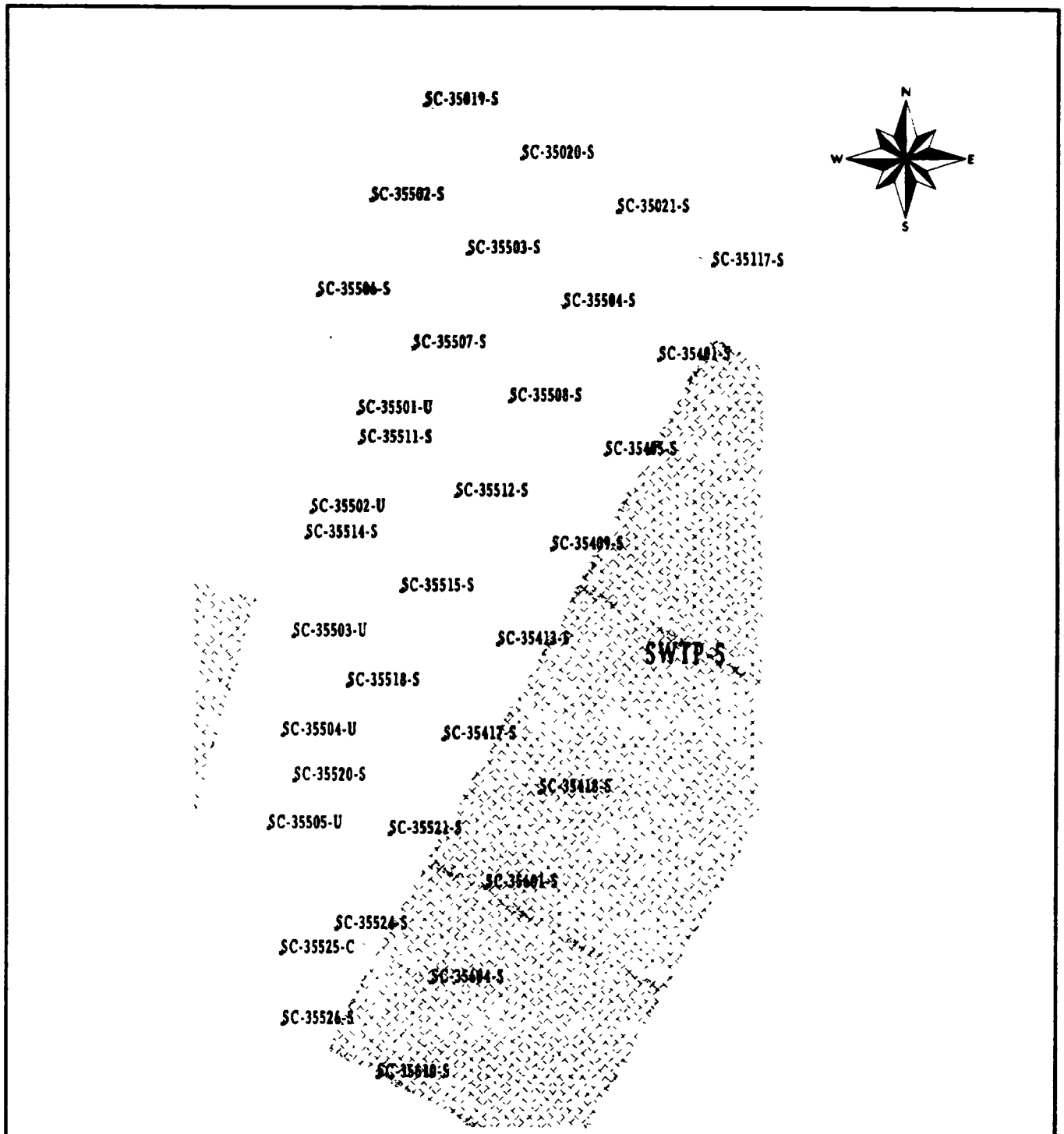
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

As	6	5.6 - 8	6.43	45	75	0	0
Ba	1	149	N/A	3,900	5,000	0	0
Cr	6	13.8 - 19.3	15.55	90	110	0	0
Pb	6	8.5 - 13	10.63	240	450	0	0
Se	6	0.21 - 0.45	0.25	280	350	0	0
Ra-226	17	0.27 - 0.9	0.74	5	6.2	0	0
Ra-228	17	0.34 - 1.23	0.91	5	6.2	0	0
Total Radium	17	0.61 - 2.11	1.64	5	6.2	0	0
Th-230	17	0.67 - 2.46	1.09	5	6.2	0	0
Th-232	17	0.34 - 1.2	0.93	5	6.2	0	0
U-238	34	0.92 - 1.83	1.12	30	120	0	0
PAH	13	0 - 1.44	0.17	0.44	5.6	1	0
PCB	5	results < detection limit	N/A	0.65	8	0	0
TNT	5	0.145 - 0.15	0.15	14	140	0	0
DNT	6	0.13 - 0.15	0.15	7.4	55	0	0

NOTE: Radiological contaminants are listed in pCi/g. Chemical contaminants are listed in mg/kg.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU355

Figure: 4-18

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO.:	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE: 03/19/02	

Table 4 - 19 Summary of CU356

CU 356 RU 24

COC				
	Ra-226	X	As	
	Ra-228	X	Cr	
	Th-230	X	Pb	
	Th-232	X	Tl	
	U-238	X	PAH	X
			PCB	
			TNT	

Reference Figure: 4 - 19

DATE RELEASED FOR UNRESTRICTED USE: 5 / 16 / 00

CLEANUP STANDARD [X] SURFACE [ ] SUBSURFACE

EACH 100m² < CRITERIA? [X] YES [ ] NO

LOCATION DESCRIPTION *This CU is located in the southern tip of the Site Water Treatment Plant work zone.*

WALKOVER SURVEY INFORMATION

BACKGROUND: *5,000 - 6,000* cpm
(shielding may have been used on a case-by-case basis)

FINAL SURVEY(S) BELOW 1.5 X BACKGROUND ? [X] YES [ ] NO

DATE(S) SCANNED: *3/18/00 4/19/00 5/5/00*

CONFIRMATION SAMPLING INFORMATION

TOTAL # OF SAMPLE LOCATIONS : *30*

TOTAL # OF UTILITY SAMPLES : *0*

AVERAGES < ALARA? [X] YES [ ] NO

HOTSPOTS REMAINING? [ ] YES [X] NO

ADDITIONAL EXCAVATION REQUIRED? [ ] YES [X] NO

GENERAL COMMENTS - *Planned confirmation gnd points represent in-situ area SWTP-5. All final results are below ALARA.*

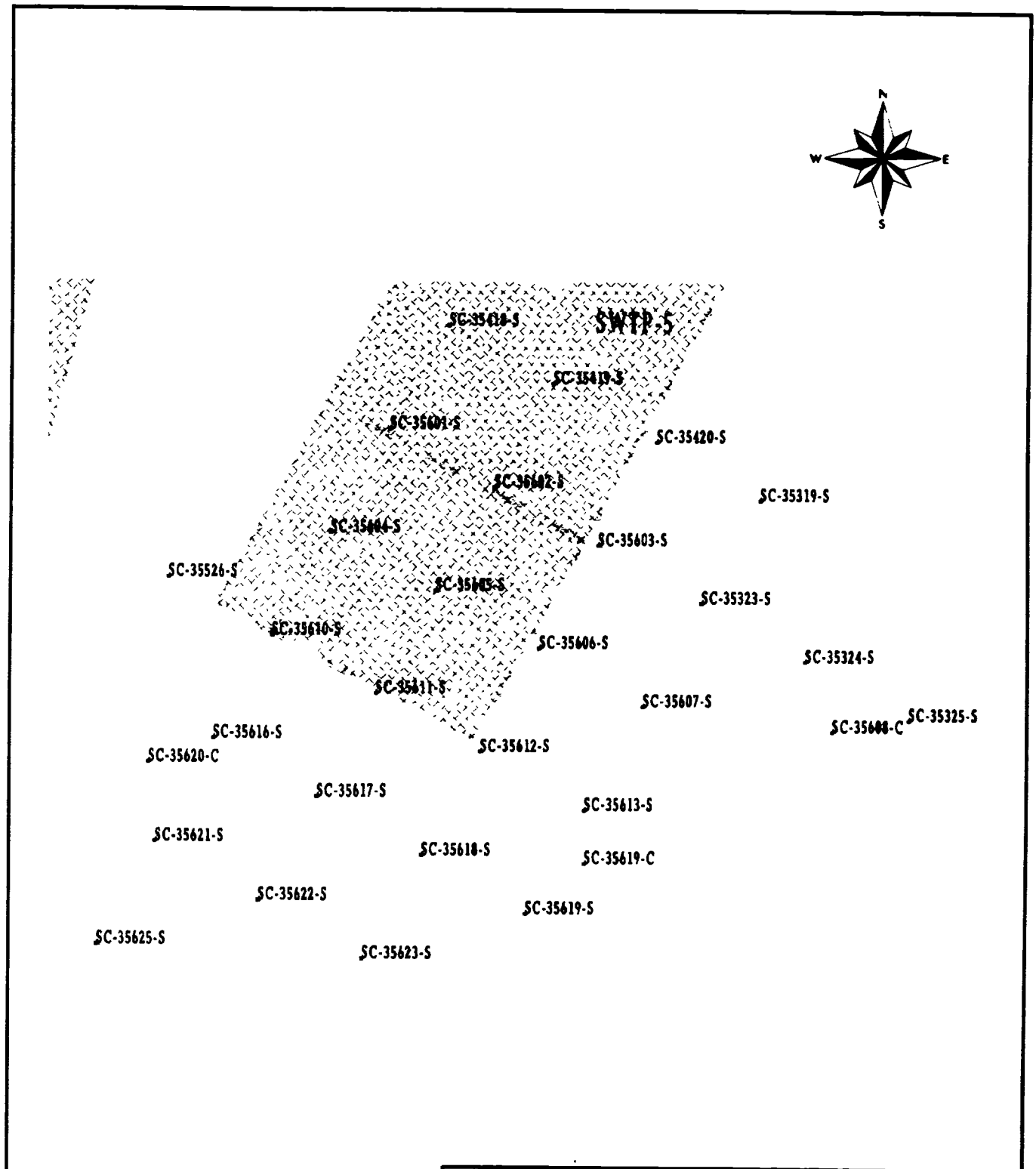
ORISE ACTION - *None*

ALARA COMMITTEE ACTION - *None*

CU SUMMARY DATA

Ra-226	12	0.27 - 0.86	0.72	5	6.2	0	0
Ra-228	12	0.37 - 1.29	0.96	5	6.2	0	0
Total Radium	12	0.67 - 2.15	1.68	5	6.2	0	0
Th-230	12	0.71 - 1.29	0.98	5	6.2	0	0
Th-232	12	0.37 - 1.3	0.98	5	6.2	0	0
U-238	30	0.73 - 1.83	1.12	30	120	0	0
PAH	12	0.106 - 0.114	0.108	0.44	5.6	0	0

NOTE: Radiological contaminants are listed in pCi/g. Chemical contaminants are listed in mg/kg.



150 75 0 150 FEET

50 25 0 50 METERS

Sample Locations in Remedial Unit RU024 Confirmation Unit CU356

Figure: 4-19

REPORT NO.: DOE/OR/21548-918		EXHIBIT NO ·	
ORIGINATOR: MGL	DRAWN BY: LGE	DATE 03/19/02	

5. DATA EVALUATION

Work Package-437 (WP-437) final analytical data were evaluated to determine whether data quality objectives developed for the Weldon Spring Site Remedial Action Project (WSSRAP) were met and to ensure that overall data quality results were generated from these remedial activities. The data were evaluated in accordance with the *Project Management Contractor Quality Assurance Program* (Ref. 5) and the *Environmental Quality Assurance Project Plan* (Ref. 6). The data evaluation process was completed by data verification, data review, data validation, and data management activities as stated in the *Chemical Plant Area Cleanup Area Attainment Confirmation Plan* (Ref. 3).

5.1 Data Verification

Data verification was conducted in accordance with ES&H 4.9.1, *Environmental Monitoring Data Verification*, to ensure that documentation and data were reported in compliance with established reporting requirements and standard operating procedures (SOPs), and to ensure that all analyses were performed. All analytical results received from the laboratory were reviewed to verify that samples were properly handled according to WSSRAP protocol. The following factors were reviewed and evaluated: sample identification, chain of custody, holding times, sample preservation requirements, sample analysis request forms, data reviews, laboratory tracking, data reporting requirements, and the database transfer.

5.2 Data Review

Data packages were reviewed to ensure that final data were properly identified, analyzed, reported, and that they met data quality requirements (DQRs). The data were also reviewed to check for inconsistencies with the field quality control (QC) samples. Final analytical results were also compared to the preliminary results to identify any changes in data.

During confirmation of WP-437 areas, which included RU024, soil samples were obtained in accordance with the details provided in the *Confirmation Sampling Plan Details for the Disposal Cell Facility (WP-437)* (Ref. 2). This plan indicates that quality control samples were to be taken at a frequency of 1 per 20 samples or 5%. The quality control samples collected included duplicates, field replicates, secondary duplicates, matrix spikes/matrix spike duplicates, and equipment blanks. Since the 5% requirement was based on all WP-437 confirmation sampling, the quality control data will be discussed in a separate report entitled *WP-437 Confirmation Quality Control Results Report.*

5.3 Data Validation

Data validation was performed on 10% of all analytical data generated from the confirmation sampling activities. Data validation was conducted in accordance with ES&H 4.9.2, *Environmental Monitoring Data Validation*. Note that the validation of 10% of the data is based upon all confirmation data collected for WP-437 and not 10% of each work zone. The percentage of confirmation validated will be discussed in the *WP-437 Confirmation Quality Control Results Report*.

6. SUMMARY OF CLOSURE REPORT FINDINGS

The Site Water treatment Plant (SWTP) work zone portion requiring confirmation under WP-437 consisted of the nineteen confirmation units within RU024. Summary information regarding the remedial activities is presented in Section 4 of this report.

6.1 Data Evaluation

Upon completion of remediation activities, preliminary results were used to complete disposition forms in accordance with ES&H 1.2.1, *Soil Remediation Disposition Process*. Based on the preliminary results, each CU was released when disposition forms were reviewed and signed by authorized project personnel.

6.2 Summary of WP-437 Confirmation Results

Table 6-1 provides a summary of the total number of samples collected and analyzed for each contaminant during remedial activities in RU024. The number of results and the minimum, maximum, and average concentrations are also provided for each contaminant. The table was generated using final data sets compiled from all samples that represented soils left in place.

Table 6-1 Summary Totals for RU024

CONTAMINANT	NO. OF SAMPLES	CONCENTRATION RANGE	AVERAGE CONCENTRATION	SURFACE ALARA	SURFACE CRITERIA	RESULTS > ALARA
As (mg/kg)	69	0.84 - 11.9	7.49	45	75	0
Cr (mg/kg)	69	11 - 22.1	16.63	90	110	0
Pb (mg/kg)	69	6.9 - 115	15.16	240	450	0
Tl (mg/kg)	15	0.41 - 2	0.99	16	20	0
PAH (mg/kg)	95	0 - 1.44	0.06	0.44	5.60	1
PCB (mg/kg)	29	0 - 0.26	0.01	0.65	8.00	0
TNT (mg/kg)	13	0.15 - 0.16	0.15	14	140	0
Ra-226 (pCi/g)	381	0.22 - 1.29	0.70	5.00	6.20	0
Ra-228 (pCi/g)	385	0.27 - 1.42	0.86	5.00	6.20	0
Total Radium* (pCi/g)	381	0.57 - 2.57	1.56	5.00	6.20	0
Th-230 (pCi/g)	403	0.64 - 7.63	1.22	5.00	6.20	4
Th-232 (pCi/g)	385	0.28 - 1.46	0.88	5.00	6.20	0
U-238 (pCi/g)	524	0.65 - 14.6	1.31	30.00	120.00	0

* Total Radium consists of Ra-226 values plus Ra-228 values.

Final analytical results generated from the remedial activities indicated that the RU024 average concentrations for each COC were below the ALARA goal. COC averages are also below ALARA for all CUs in this work zone. All 100 m^2 averages were less than criteria.

6.3 Summary of Chemical Plant Confirmation Results

To meet the requirements of the ROD, more than 50% of the results for each parameter had to be less than the ALARA goal. Table 6-2 summarizes the cumulative results to date.

Table 6-2 Summary Totals for Confirmation

CONTAMINANT	NO OF SAMPLES	MINIMUM CONCENTRATION	MAXIMUM CONCENTRATION	AVERAGE CONCENTRATION	RESULTS > ALARA
Arsenic (mg/kg)	2813	0.48	123	8 21	1
Chromium (mg/kg)	3121	1.4	76.2	17.37	0
Pb (mg/kg)	2721	1.8	817	18.18	8
Thallium (mg/kg)	1082	0.12	20.3	1.78	2
PAH (mg/kg)	2759	0	14.1	0.10	152
PCB (mg/kg)	3140	0	6 4	0 05	47
TNT (mg/kg)	1557	0.003	34	0 15	2
Ra-226 (pCi/g)	6895	0.13	9.43	1.04	5
Ra-228 (pCi/g)	6712	0.16	6.6	1.04	3
Th-230 (pCi/g)	6183	0.09	23.1	1.56	123
Th-232 (pCi/g)	6162	0.16	6.77	1.04	2
Toluene (mg/kg)	4	0.00	3.40	0.85	0
U-238 (pCi/g)	9160	0.21	228	2 90	78

NOTE: This table contains summary results from cumulative confirmation including WP-253, WP-399, WP-420, WP-458, WP-461, WP-471, WP-437 (RU015, RU016, RU017, RU018, RU019, RU020, RU021, RU022, RU023, RU024, and RU025), and WP-551/Task D (RU026)

6.4 Comparison of Standard Deviations

This section compares the estimated standard deviations calculated following U. S. Environmental Protection Agency (EPA) guidance with deviations calculated using confirmation results. Since there were no existing remediation data available to calculate the standard deviation (sigma), the *Chemical Plant Area Cleanup Area Attainment Confirmation Plan* (Ref. 3) estimated sigma using the range (assuming the average concentration remaining after remediation would not exceed cleanup criteria) divided by six. To determine whether the

specified level of precision was obtained, a comparison was made between the estimated sigma and the calculated sigma using the RU024 results.

The comparison indicated that the specified level of precision (a false positive = 0.05 and a false negative = 0.20) had been obtained. With the exception of the cumulative sigma for Th-230, all of the calculations were less than estimated sigmas, indicating that the minimum specified precision was met. Table 6-3 presents the estimated sigma and calculated sigmas for each COC.

The cumulative sigma for Th-230 exceeded the estimated sigma. This is a factor of hot spots left in place based upon subsurface criteria in previous CUs. The estimated standard deviation, recalculated for Th-230 using subsurface criteria, was 2.7. The cumulative sigma was less than the estimated subsurface sigma.

Table 6-3 Comparison of Standard Deviations

COC	Estimated Sigma(a)	RU024 Sigma (b)	Cumulative Sigma (c)
Arsenic (mg/kg)	12.5	2.25	4.14
Chromium (mg/kg)	18.3	2.75	4.88
Lead (mg/kg)	75	12.84	26.24
Thallium (mg/kg)	3.3	0.63	1.62
PAH (mg/kg)	0.93	0.16	0.46
PCB (mg/kg)	1.33	0.05	0.30
TNT (ug/g)	23.3	0.004	1.17
Ra-226 (pCi/g)	1.03	0.22	0.45
Ra-228 (pCi/g)	1.03	0.32	0.39
Th-230 (pCi/g)	1.03	0.71	1.16
Th-232 (pCi/g)	1.03	0.32	0.40
U-238 (pCi/g)	20	1.02	6.60

(a) Sigma estimated in the *Attainment Plan* (Ref. 3).
(b) Sigma calculated using only the WP437 (RU024) confirmation results.
(c) Sigma calculated using cumulative confirmation results (WP-253, WP-399, WP-458, WP-461, WP-471, WP-437 (RU015, RU016, RU017, RU018, RU019, RU020, RU021, RU022, RU023, RU024, and RU025), and WP-551/Task D (RU026).

7. REFERENCES

1. Department of Energy. *Record of Decision for Remedial Action at the Chemical Plant Area of the Weldon Spring Site.* DOE/OR/21548-376. Oak Ridge Field Office. St. Charles, MO. September 1993.

2. MK-Ferguson and Jacobs Engineering Group. *Confirmation Sampling Plan Details for the Disposal Cell Facility (WP-437)*, Rev 0. DOE/OR/21548-706. Prepared for the U.S. Department of Energy, Oak Ridge Field Office. St. Charles, MO. January 1998.

3. MK-Ferguson and Jacobs Engineering Group. *Chemical Plant Area Cleanup Attainment Confirmation Plan,* Rev. 3. DOE/OR/21548-491. Prepared for the U.S. Department of Energy, Oak Ridge Field Office. St. Charles, MO. December 1995.

4. MK-Ferguson Company. *Site Water Treatment Plant Work Zone Specifications*, Rev. 8. Specification Document No. 3840-7-437-02309. Prepared for the U.S. Department of Energy Weldon Spring Site Remedial Action Project. St. Charles, MO. August 1996.

5. MK-Ferguson Company and Jacobs Engineering Group. *Project Management Contractor Quality Assurance Program*, Rev. 3. DOE/OR/21548-506. Prepared for the U.S. Department of Energy, Oak Ridge Operations Office. St. Charles, MO. November 2000.

6. MK-Ferguson and Jacobs Engineering Group. *Environmental Quality Assurance Project Plan*, Rev. 5. DOE/OR/21548-352. Prepared for the U.S. Department of Energy, Oak Ridge Field Office. St. Charles, MO. November 2000.

7. Oak Ridge Institute for Science and Education. *Final Verification Survey Plan for the Chemical Plant Area Weldon Spring Site Remedial Action Project, Weldon Spring, Missouri.* Prepared by the Environmental Survey and Site Assessment Program, Energy/Environment Systems Division, for the U. S. Department of Energy. Weldon Spring, Missouri. December 7, 1995.

8. MK-Ferguson and Jacobs Engineering Group. *RCRA Closure Document*, Rev. 0. DOE/OR/21548-774. Prepared for the U.S. Department of Energy, Oak Ridge Field Office. St. Charles, MO. March 1999.

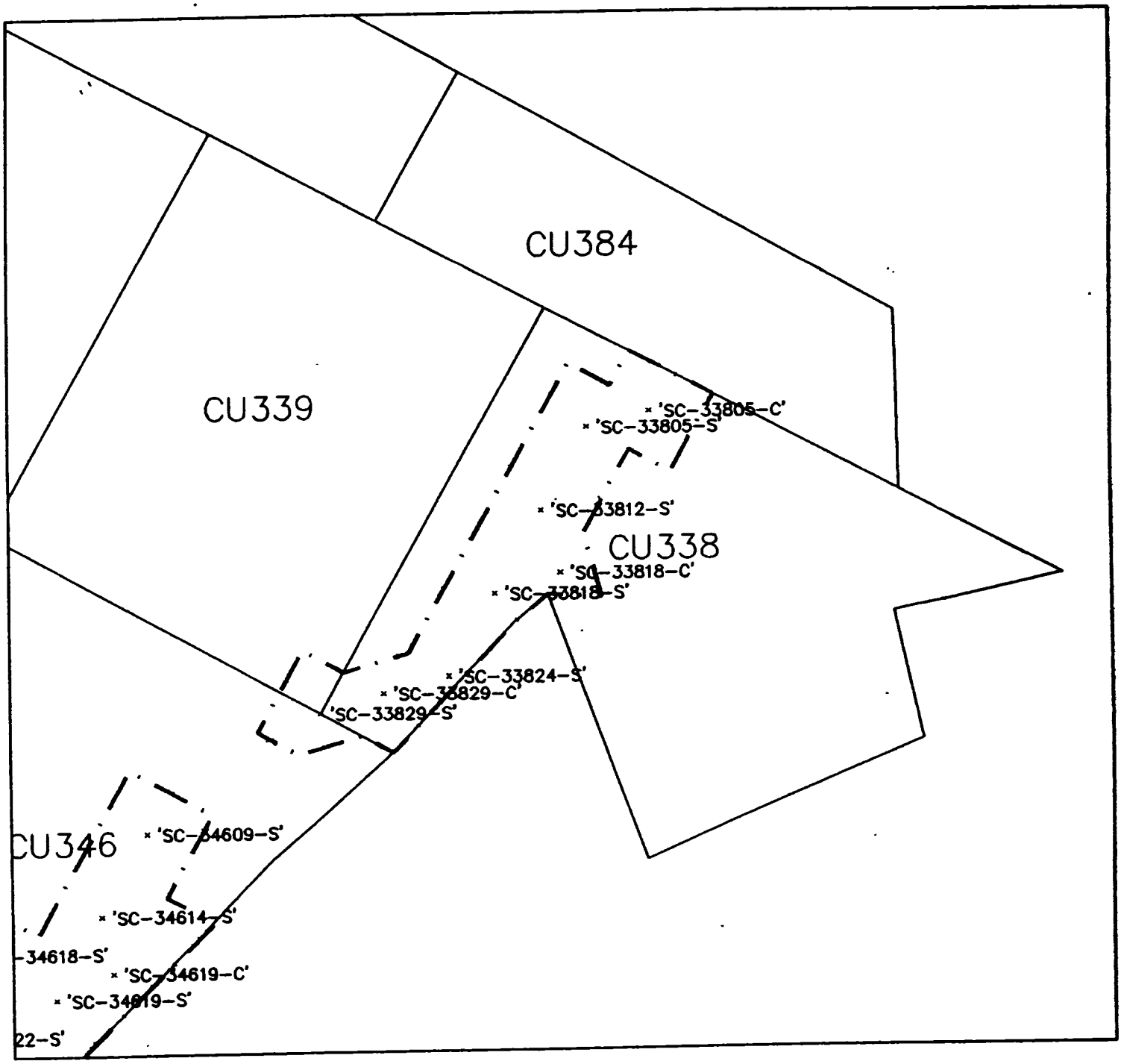
PROCEDURES

ES&H 1.2.1 *Soil Remediation Disposition Process*
ES&H 4.9.1 *Environmental Monitoring Data Verification*
ES&H 4.9.2 *Environmental Monitoring Data Validation*

ACRONYMS

ALARA	as low as reasonably achievable
CLP	Contract Laboratory Program
COC	contaminant of concern
CMP	corrugated metal pipe
CPM	counts per minute
CU	confirmation unit
DOE	Department of Energy
DQO	Data Quality Objectives
DQR	Data Quality Requirements
EPA	Environmental Protection Agency
EQAPjP	Environmental Quality Assurance Project Plan
ES&H	Environmental Safety and Health
HDPE	high density polyethylene
MDNR	Missouri Department of Natural Resources
NaI	sodium iodide
ORISE	Oak Ridge Institute for Science and Education
PMC	Project Management Contractor
QA	quality assurance
QC	quality control
RCRA	Resource and Conservation Recovery Act
RFS	Request for Survey
ROD	Record of Decision for Remedial Action at the Chemical Plant Area of the Weldon Spring Site
RU	remedial unit
SOP	standard operating procedure
TSA	Temporary Storage Area
VC	vitrous clay
WP	work package
WSSRAP	Weldon Spring Site Remedial Action Project

APPENDIX A
WP437 RU024 Final Walkover Forms



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

N

Radiation Survey Form WP 437, RU 24 CU 338

Date Plotted 4-21-00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
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Calibration Due:	10/13/00	Calibration Due:	9/24/00
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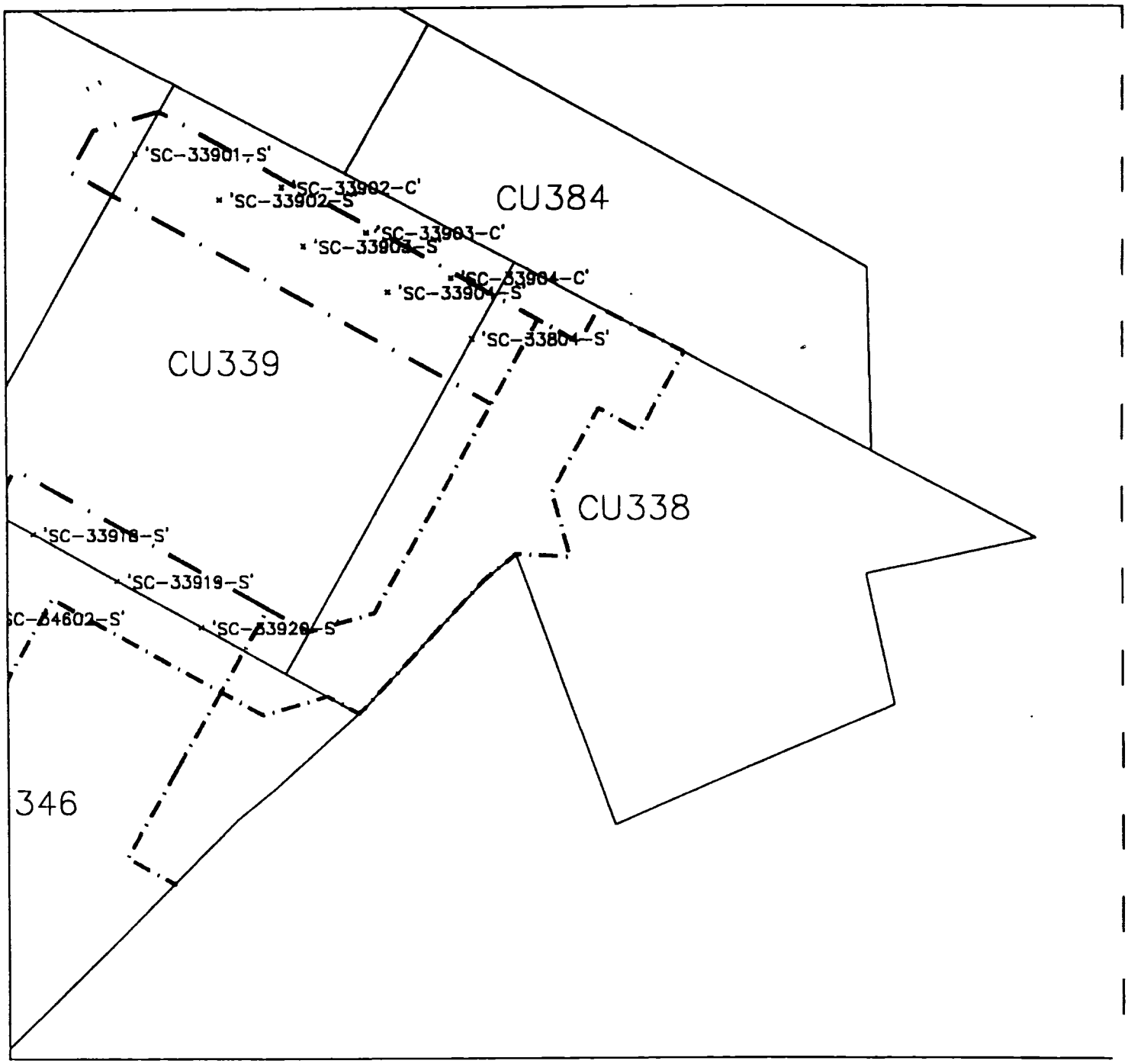
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

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Radiation Survey Form, WP 437, RU 24 CU 338

Date Plotted 06/01/00

DBO CAD

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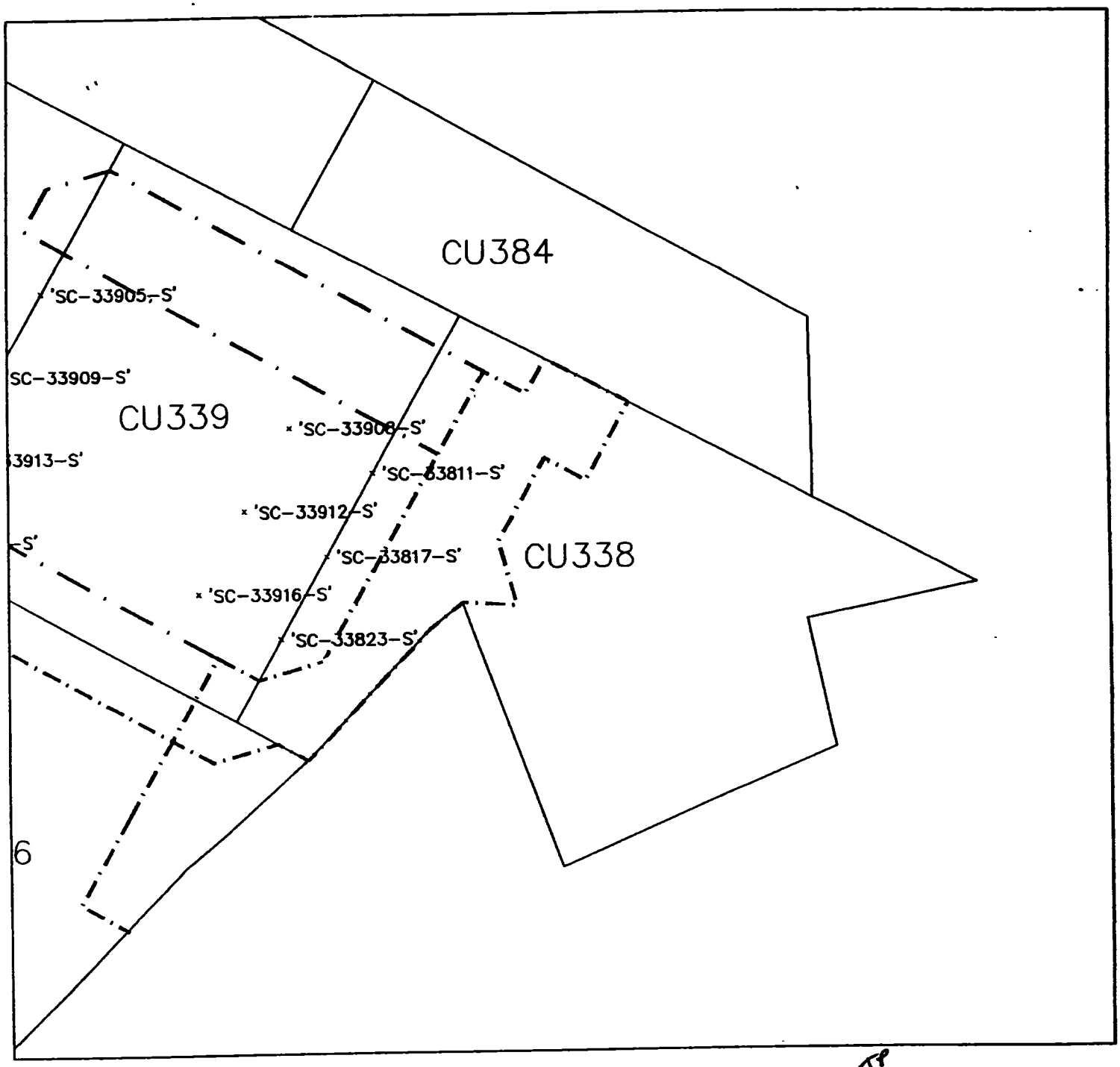
Surveyor(s):	T. Brower		
Comments:	All readings <1.5 Bkg		



LEGEND

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PINNING LIMITS

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Radiation Survey Form WP 437, RU 24 CU 338

Date Plotted 6/2/00

DBO CAD

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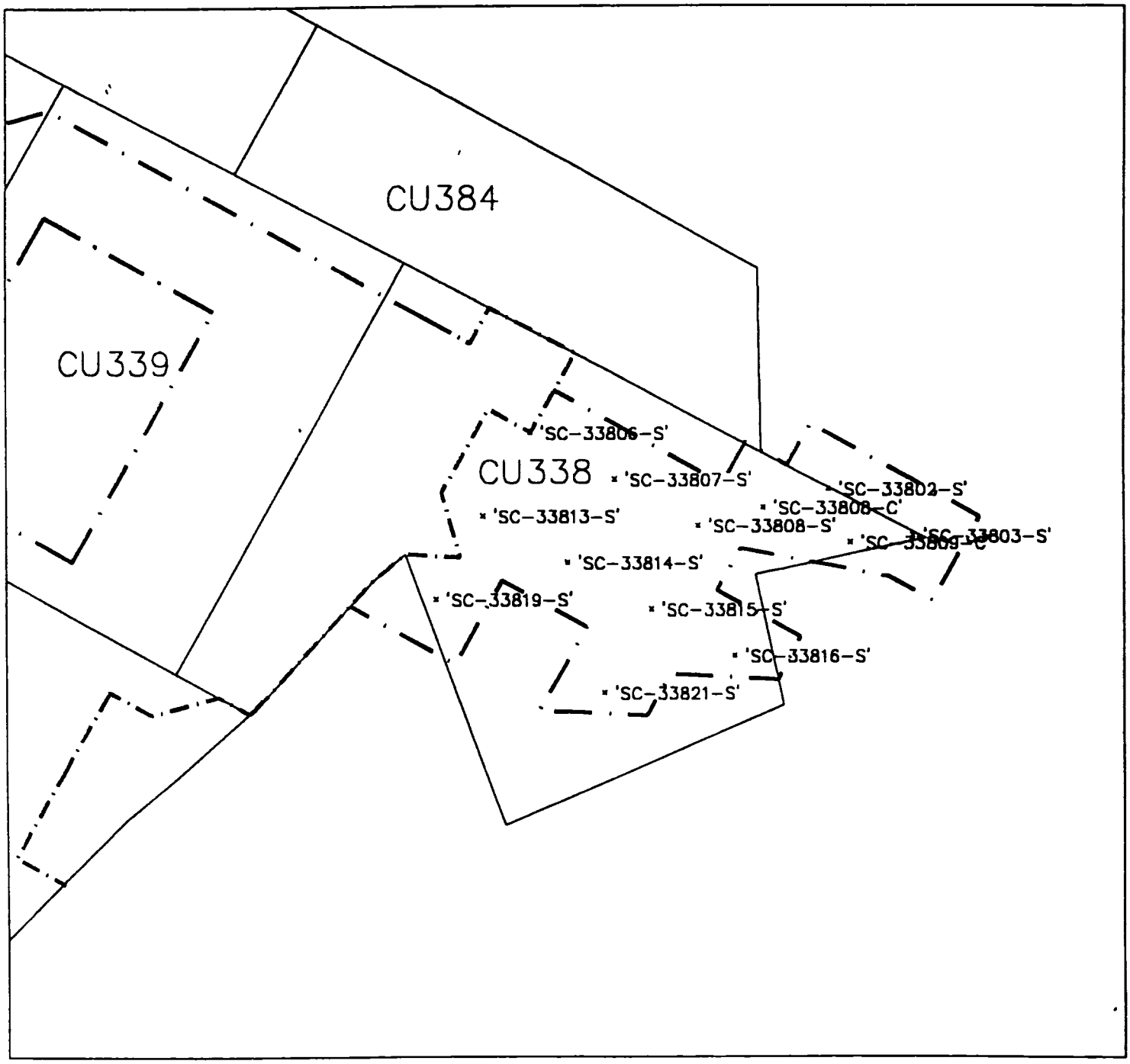
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

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PINNING LIMITS

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Radiation Survey Form WP 437, RU 24 CU 338

Date Plotted 6/5/00

DBD CAD

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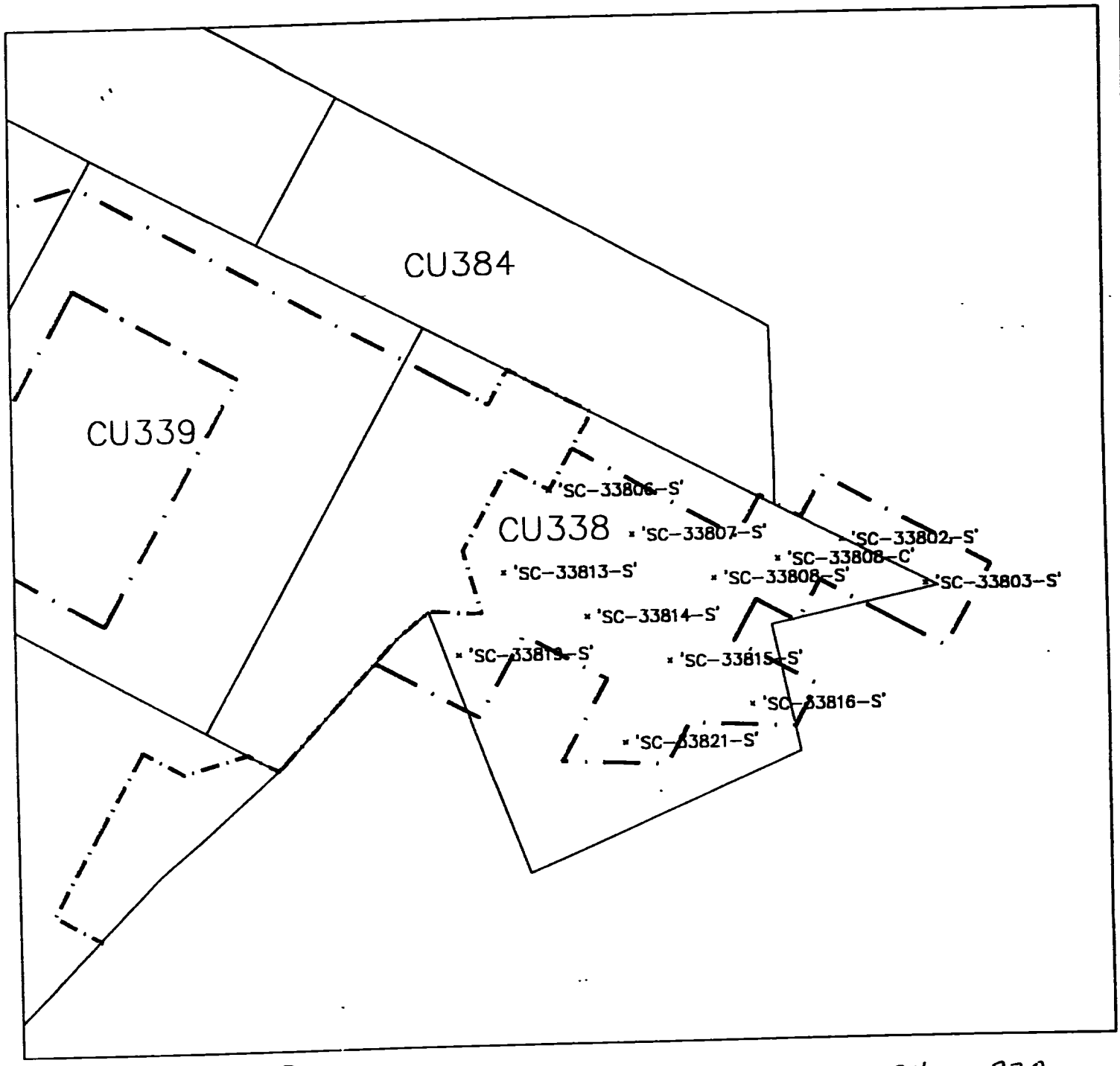
Surveyor(s):	C. Hamm		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

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— · — · — PINNING LIMITS

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Radiation Survey Form WP 437, RU 24 CU 338

Date Plotted 6/05/00

DBD CAD

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Surveyor(s):	C. Hamner		

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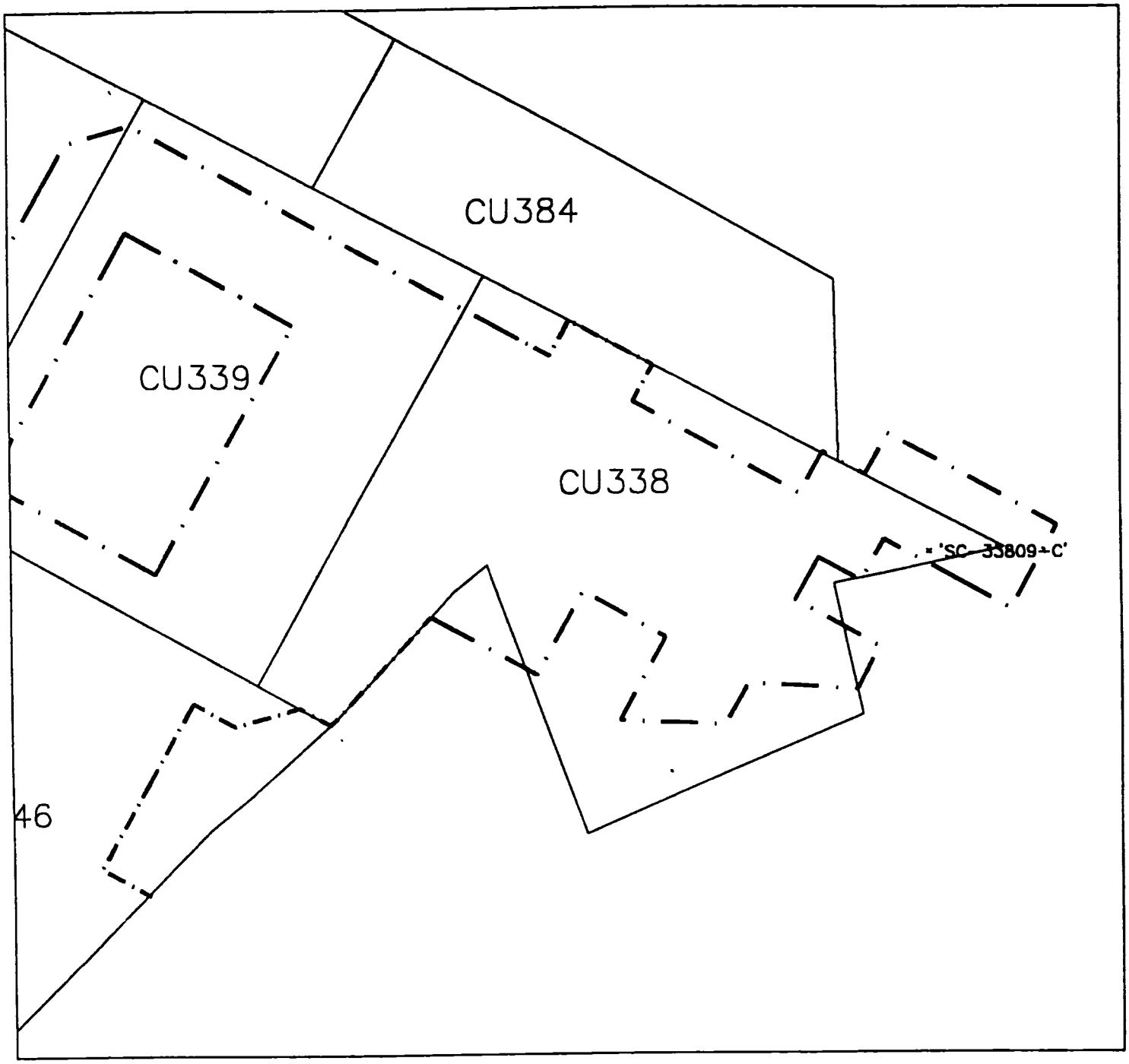

LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

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Date Plotted 6/16/00

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Calibration Date:	2/9/01	Calibration Date:	1/21/01
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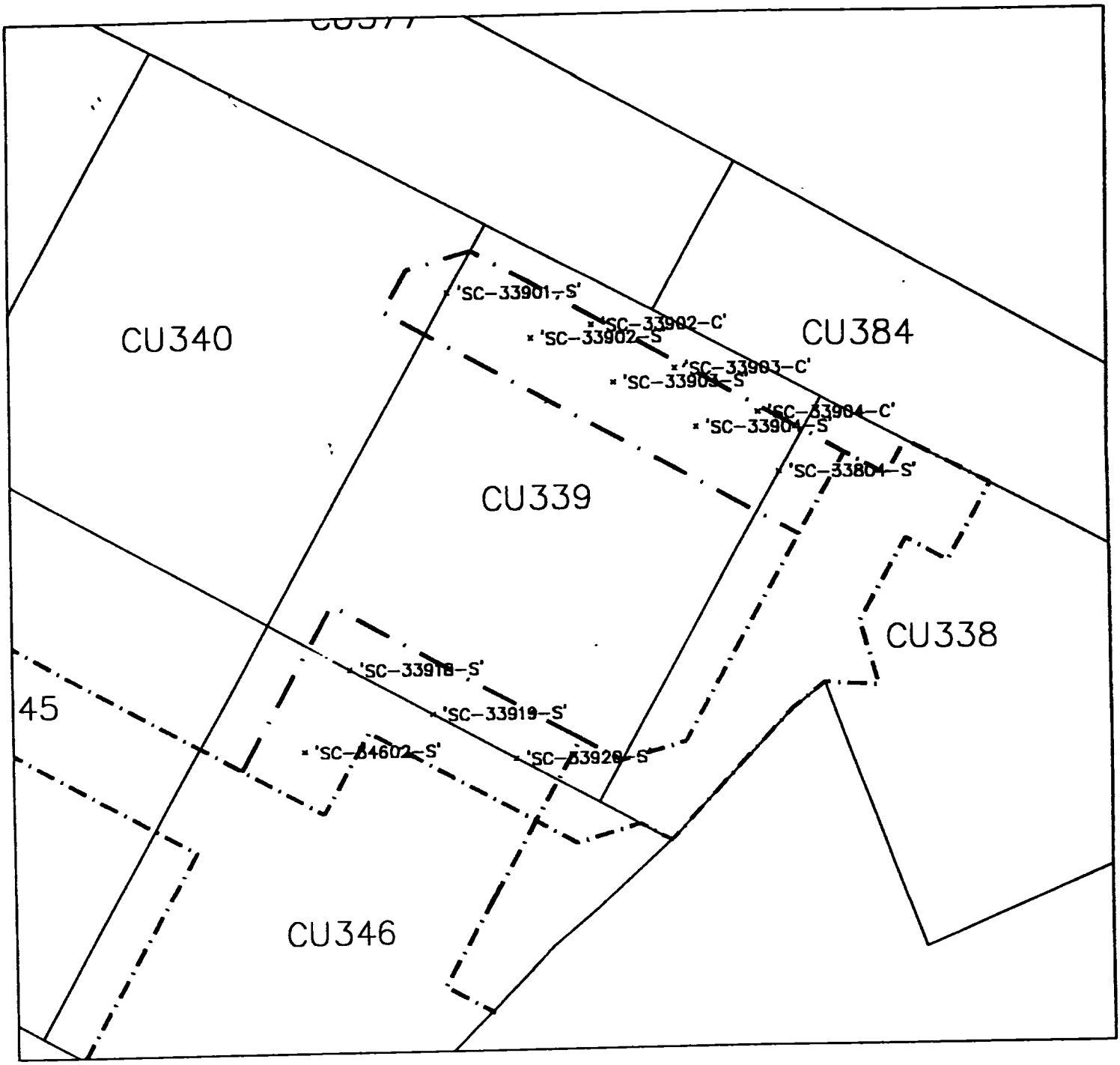
Surveyor(s):	T. Brower		
Comments:	All readings <1.5 Bkg		



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PINNING LIMITS

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Radiation Survey Form WP 437, RU 24 CU 339

Date Plotted 06/01/00

DBD CAD

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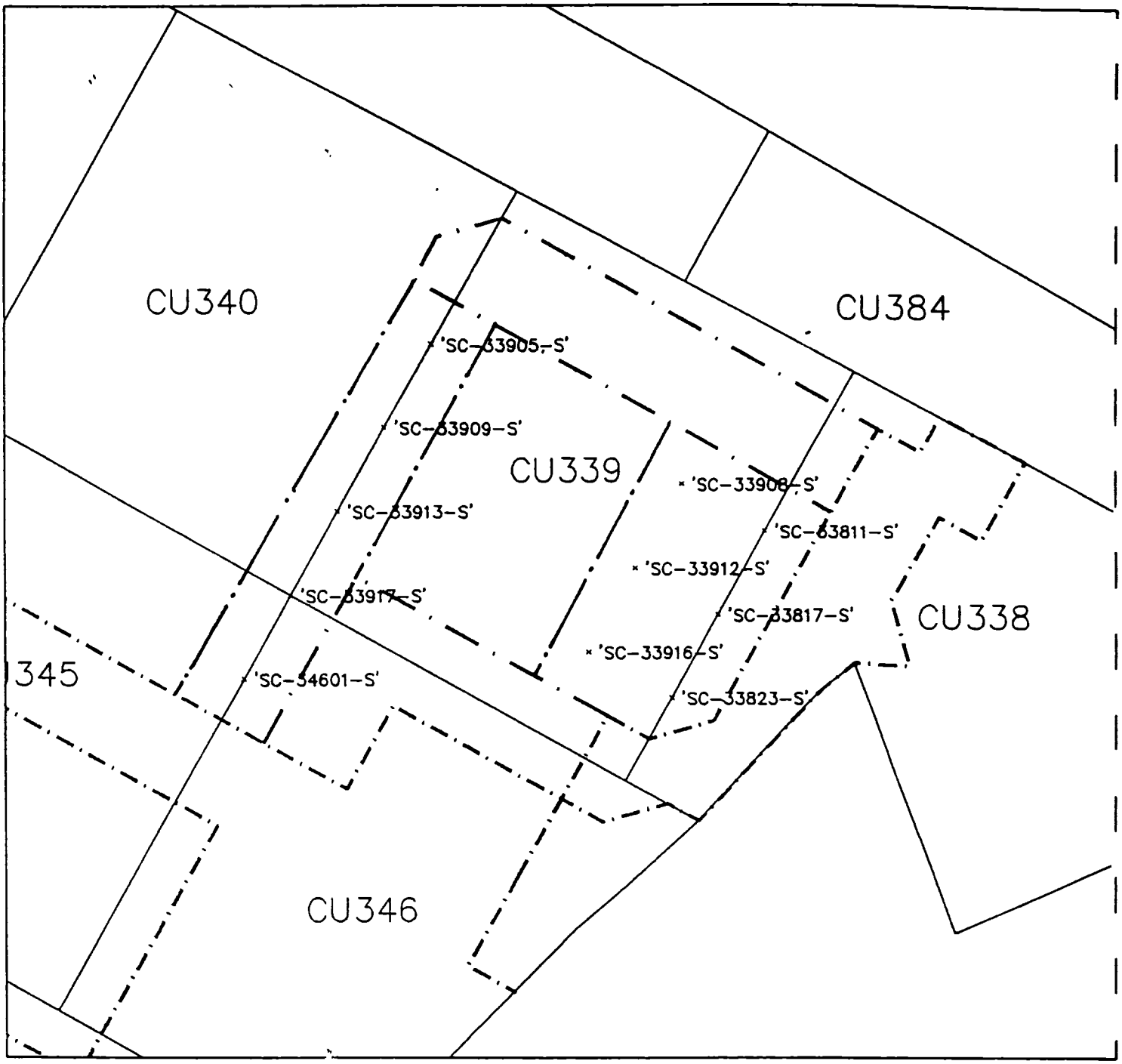
Comments:	All readings <1.5 Bkg		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

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Radiation Survey Form WP 437, RU 24 CU 339

Date Plotted 6/2/00

DBO CAD

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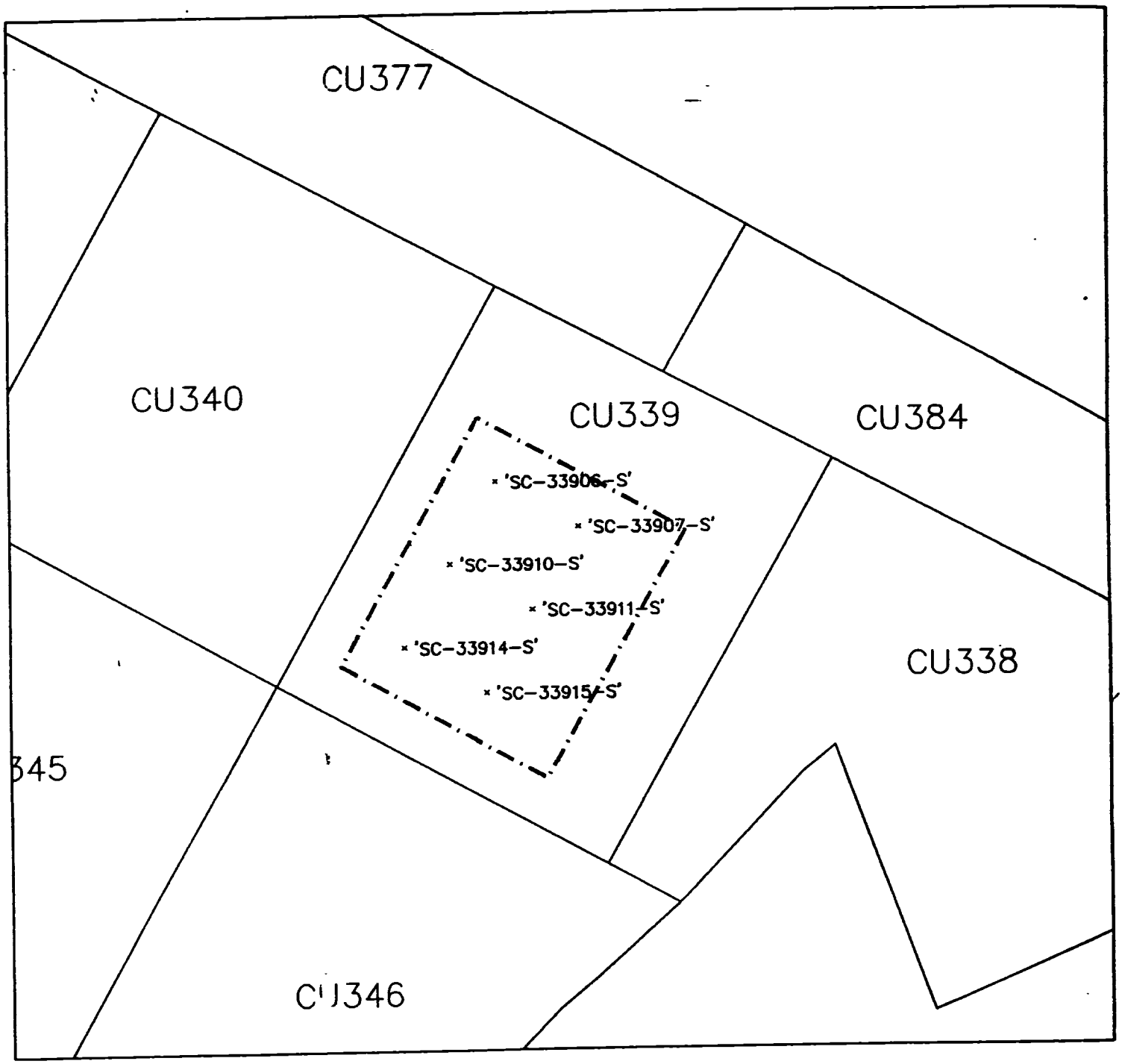
Surveyor(s):	C. Hamm		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

—·—·—·— PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU 339

Date Plotted 7/11/00

DHO CAD

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Surveyor(s):	T. Brower, B. Orr		
Comments:	All soil 1.5x Bkg		

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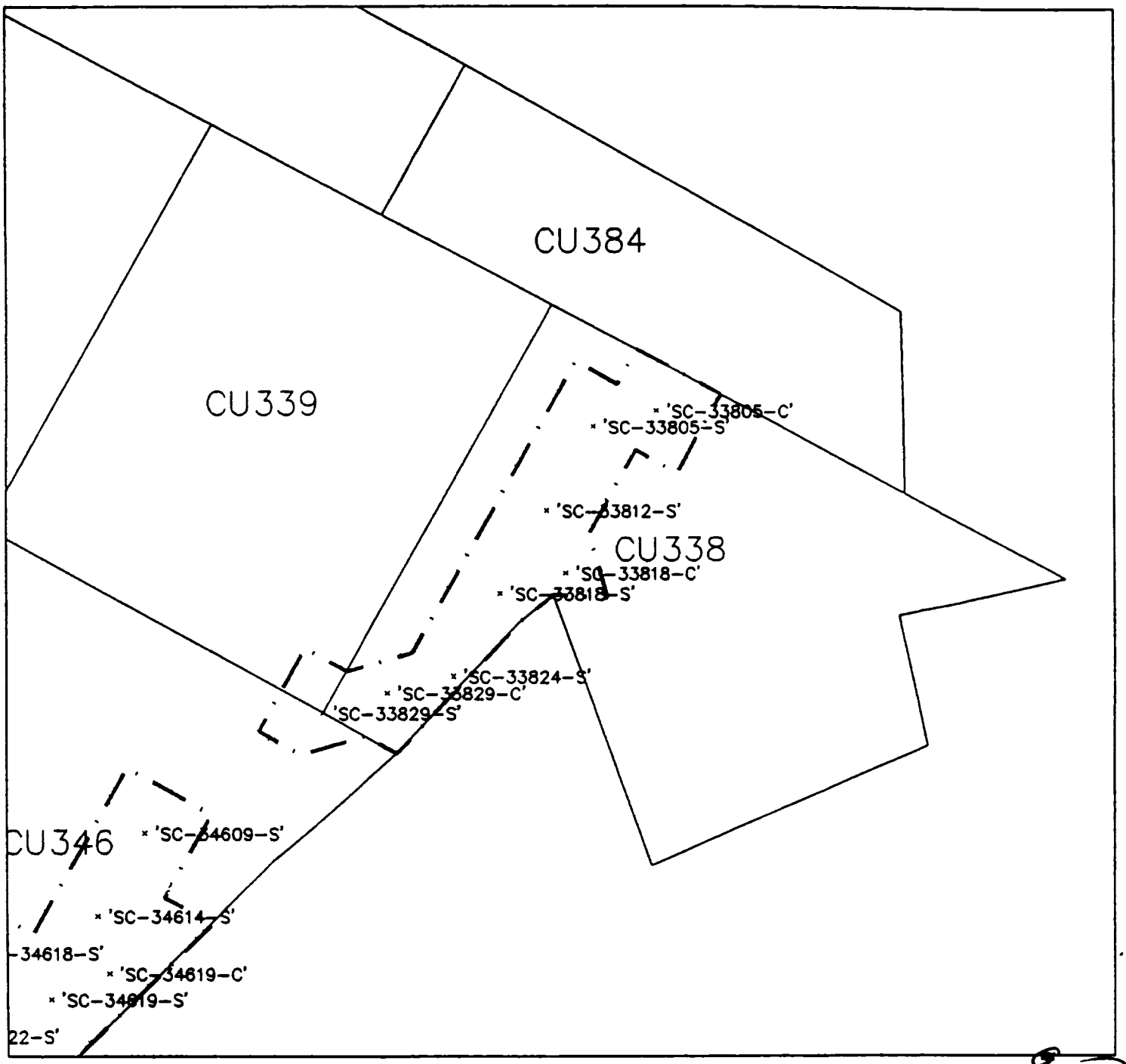

LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

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Radiation Survey Form WP 437, RU 24 CU 338 (DP)

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DEO CAD

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Surveyor(s):	C. Hanner		

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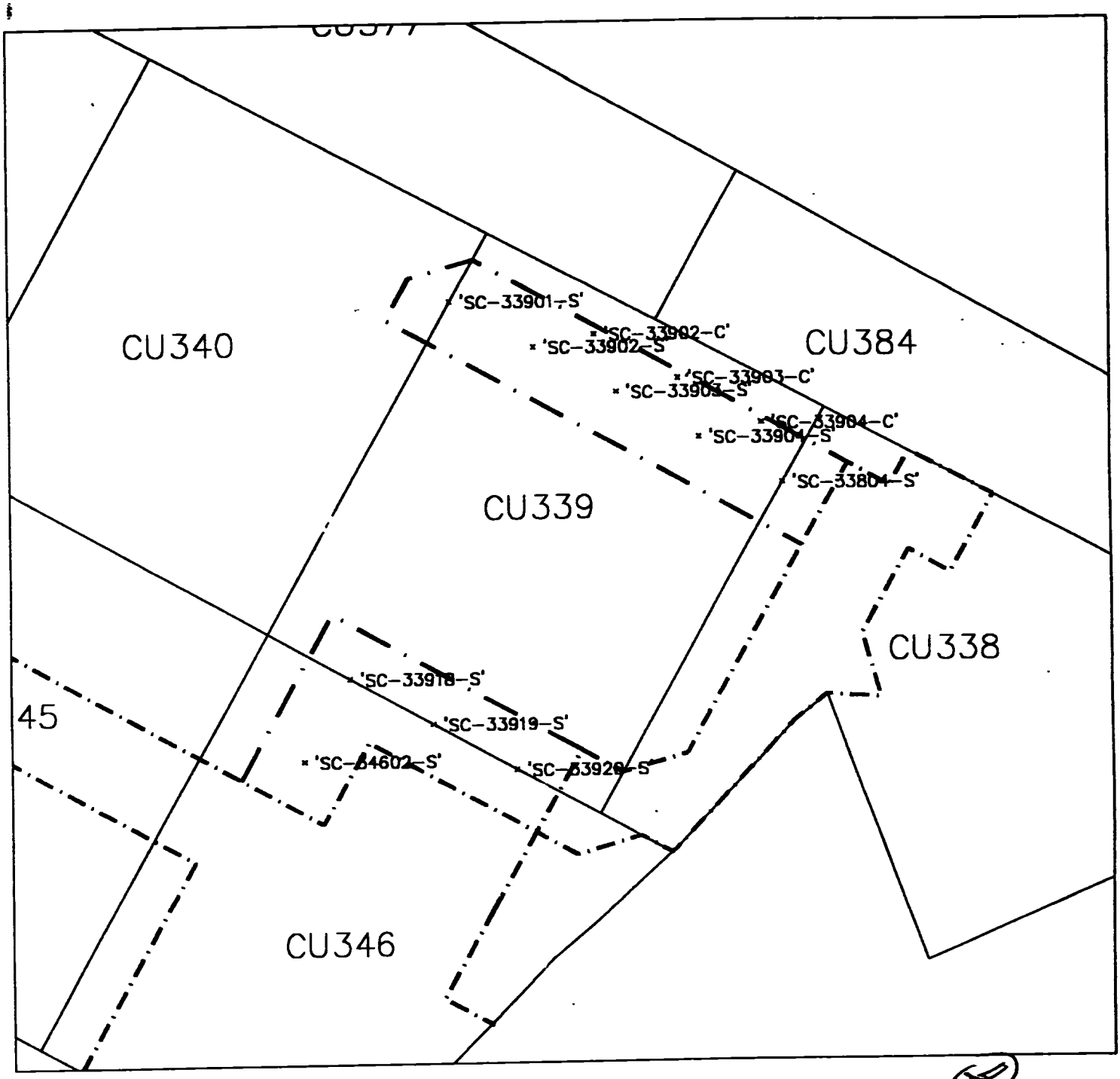

LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

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Radiation Survey Form WP 437, RU 24 CU ~~339~~ 340

Date Plotted 06/01/00

DEO CAD

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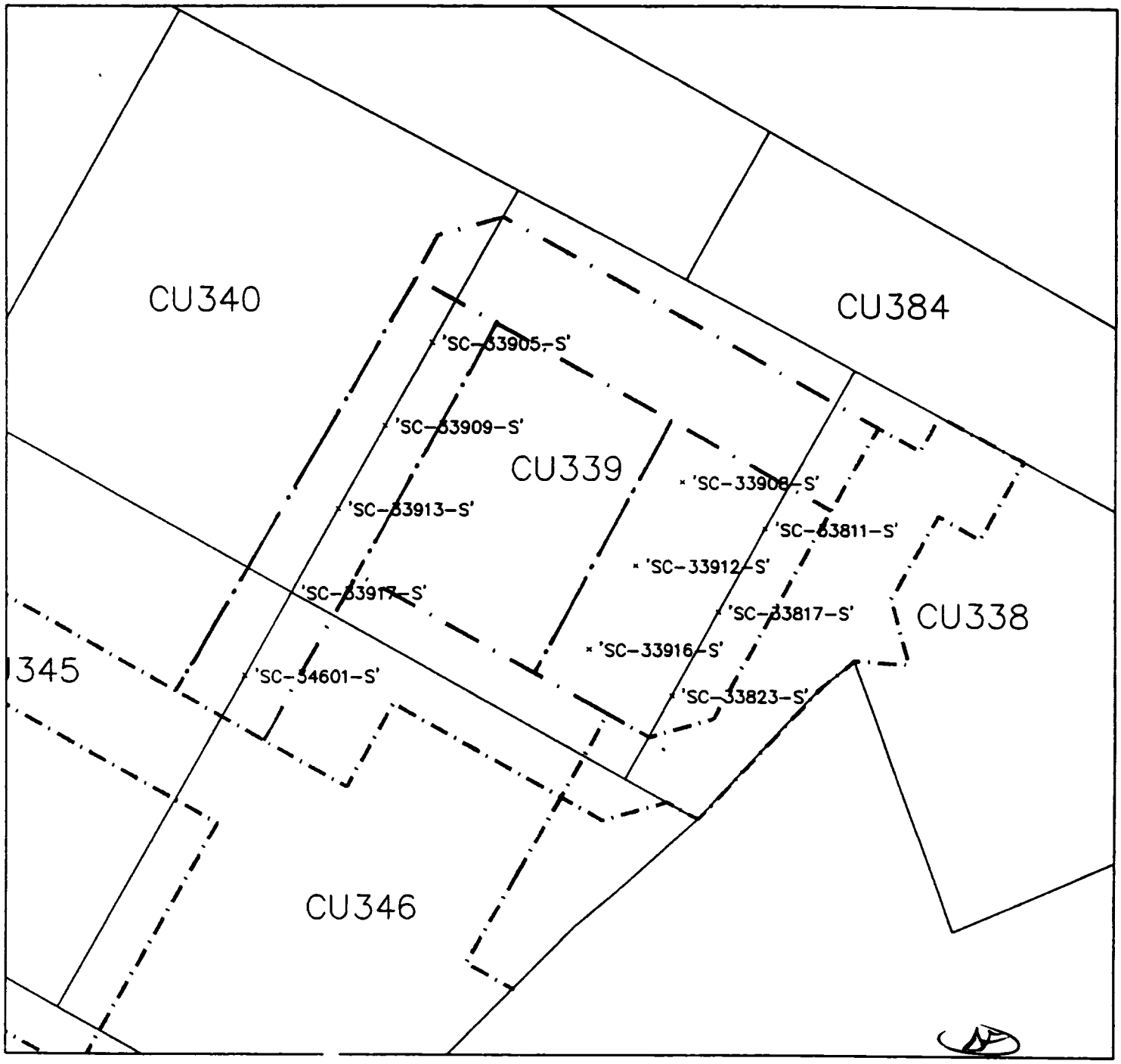
Surveyor(s):	T. Brower		
Comments:	All readings < 1.5 Bkg		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

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Radiation Survey Form WP 437, RU 24 CU ~~339~~ 340

Date Plotted 6/2/00

DEO CAD

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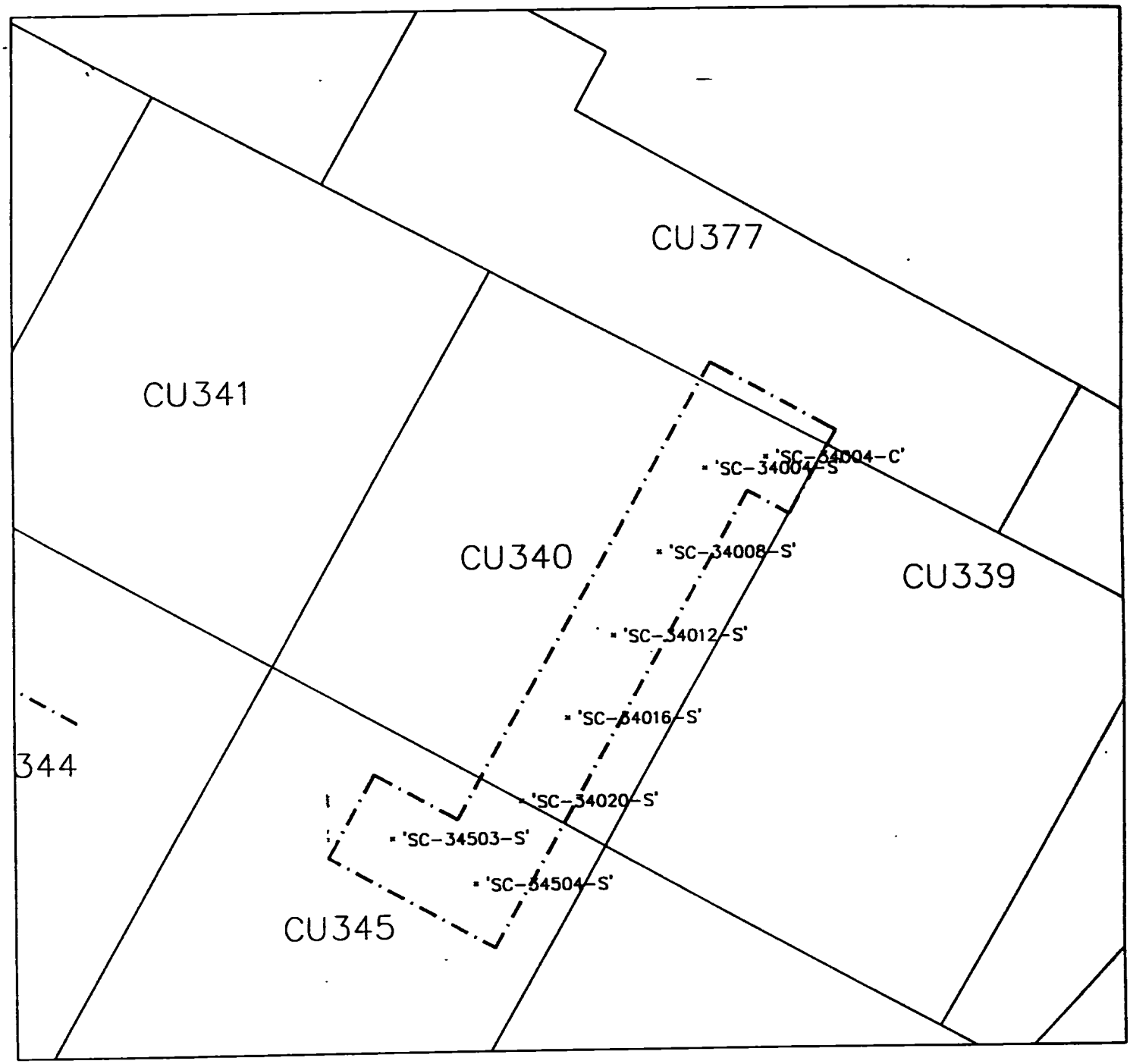
Surveyor(s):	C. Hamm		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

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GRAPHIC SCALE

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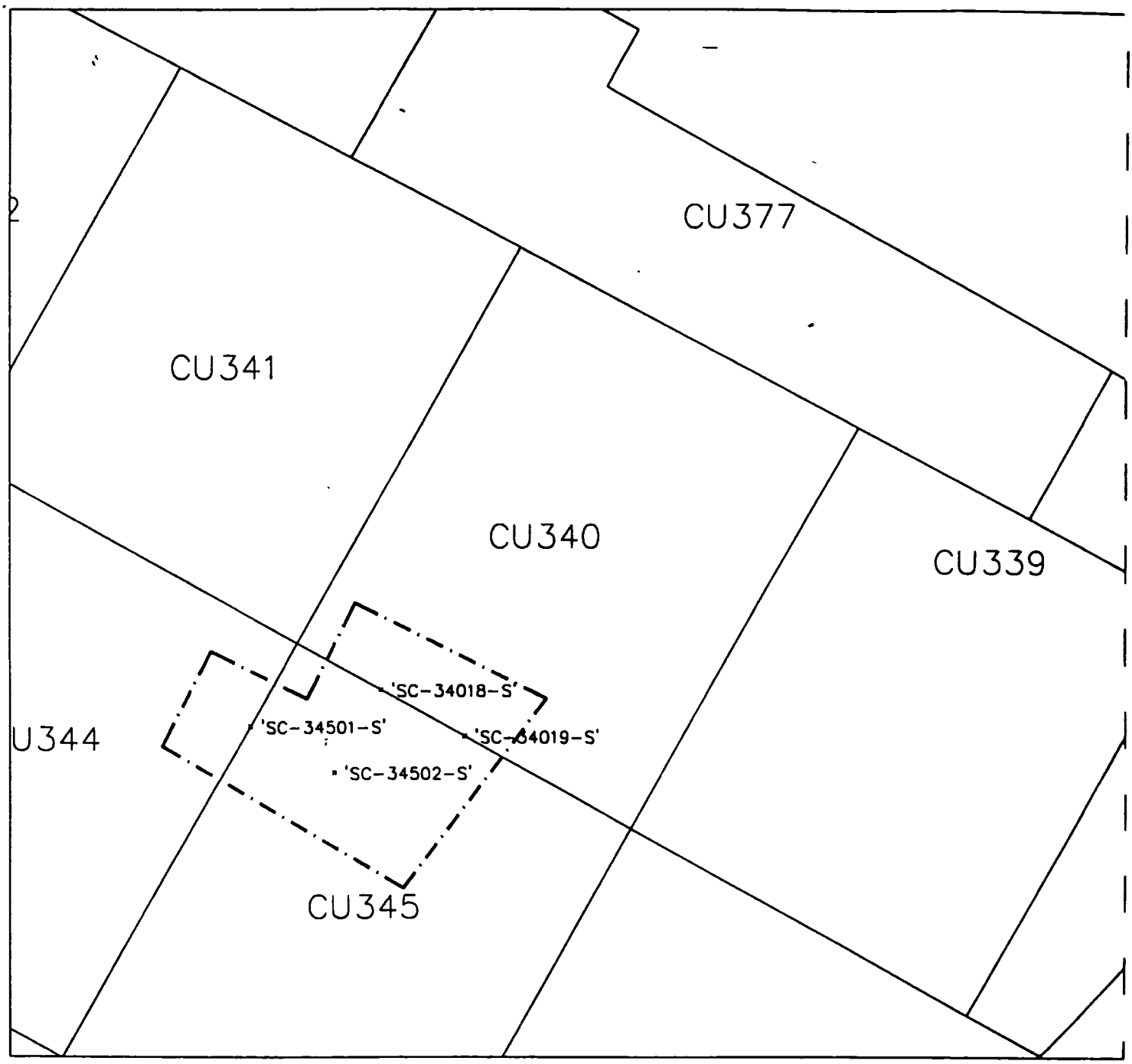
(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU 340

Date Plotted 7/20/00

DHO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	154199	Detector Serial #:	17606 (P)
Calibration Due:	2-9-01	Calibration Due:	1-21-01 (P)
Survey Date / Time:	7-20-00/1500	Field Bkg.:	10,000 cpm
Surveyor(s):	T BROWER		
Comments:	ALL RESULTS < 1.5 x BKG		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

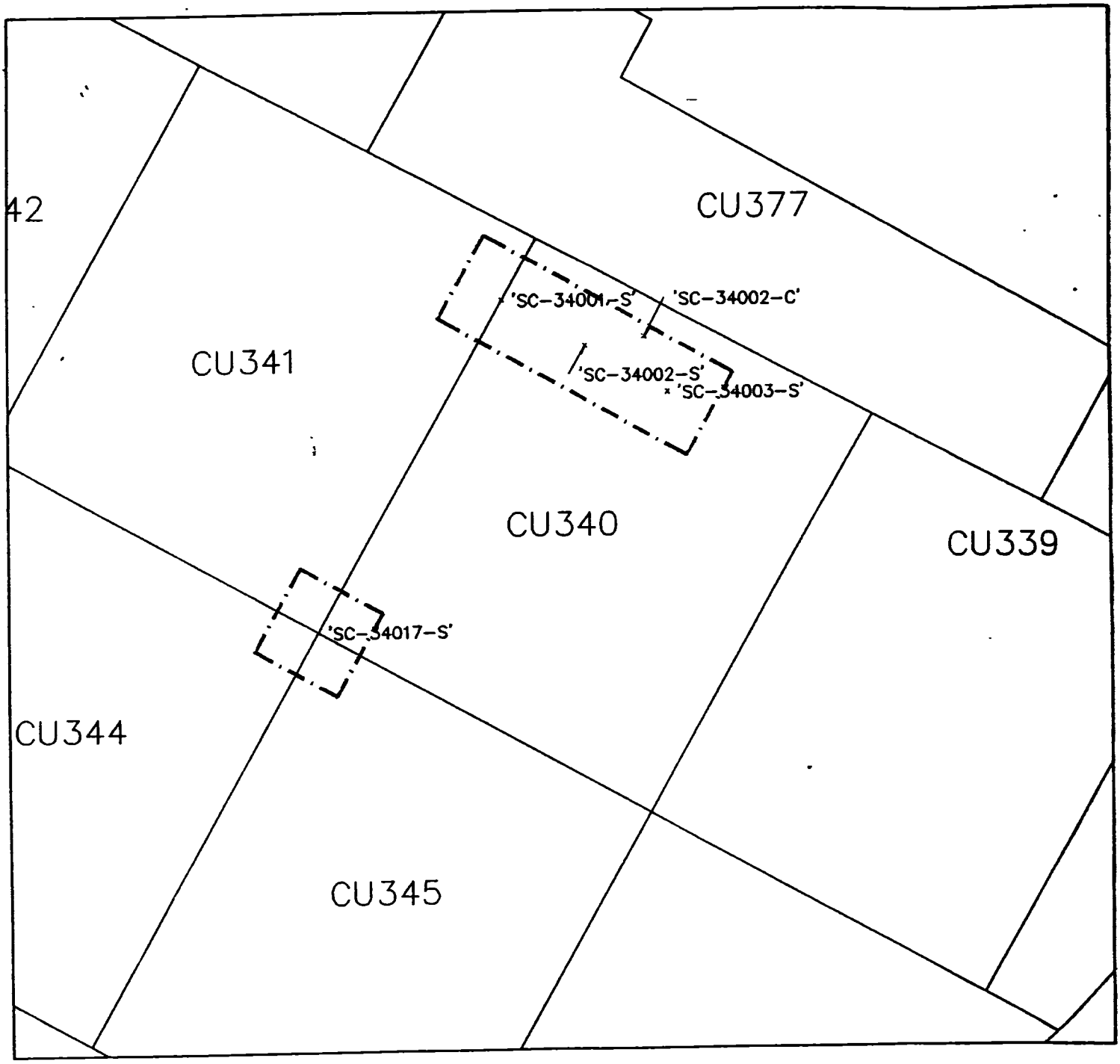
(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU 340

Date Plotted 7/21/00

DHO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	154199	Detector Serial #:	17606 (P)
Calibration Due:	2-9-01	Calibration Due:	1-21-01
Survey Date / Time:	7-20-00/1500	Field Bkg.:	10,000 cpm
Surveyor(s):	T. BROWER		
Comments:	ALL RESULTS < 1.5 x BKG		



LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

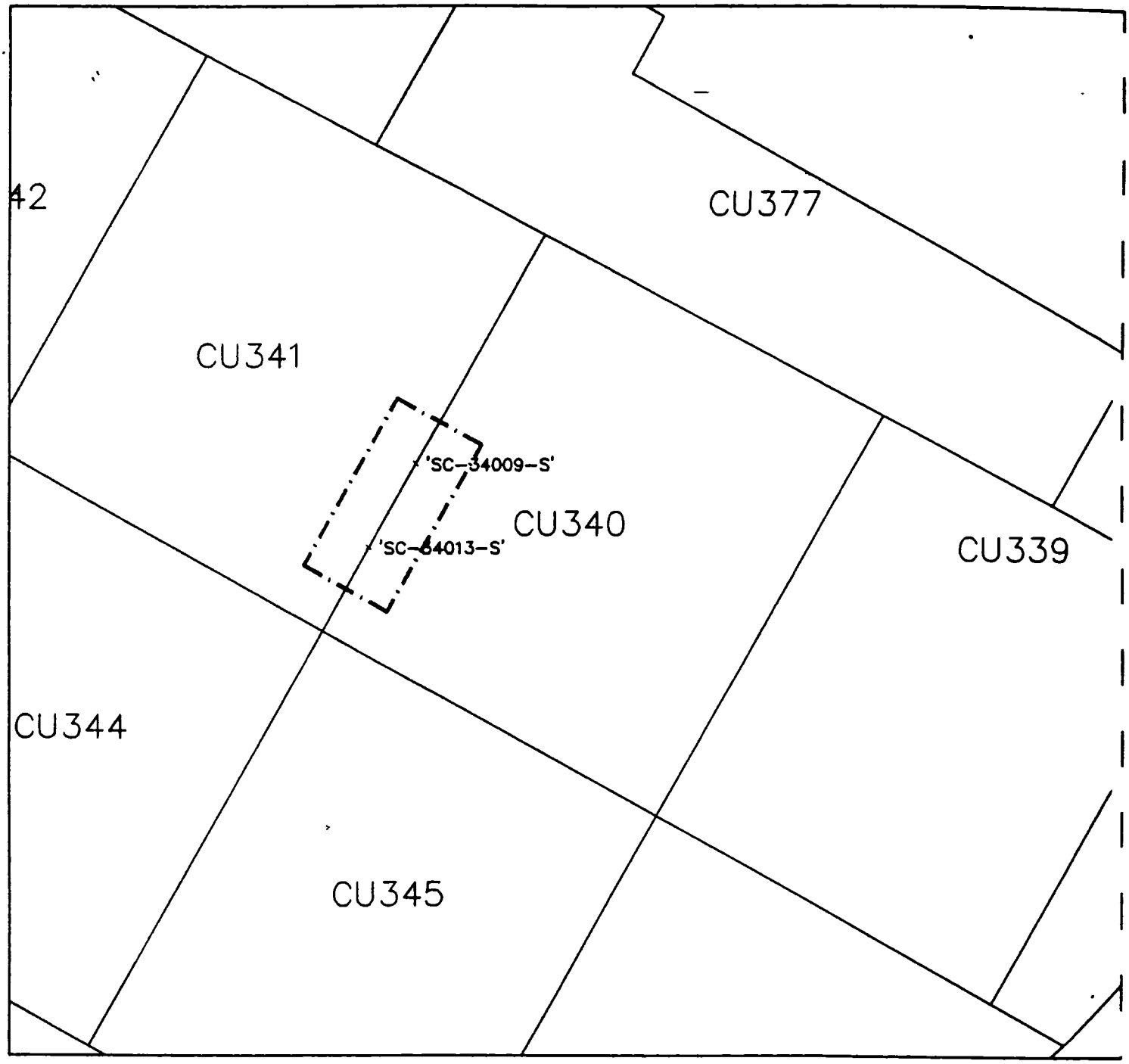
(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU 340

Date Plotted 7-22-00

DHD CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	154199	Detector Serial #:	17606 (P)
Calibration Due:	2-9-01	Calibration Due:	1-21-01
Survey Date / Time:	7-22-00/1530	Field Bkg.:	10,000 cpm
Surveyor(s):	T BROWER		
Comments:	ALL RESULTS <1.5 xBKG		



LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

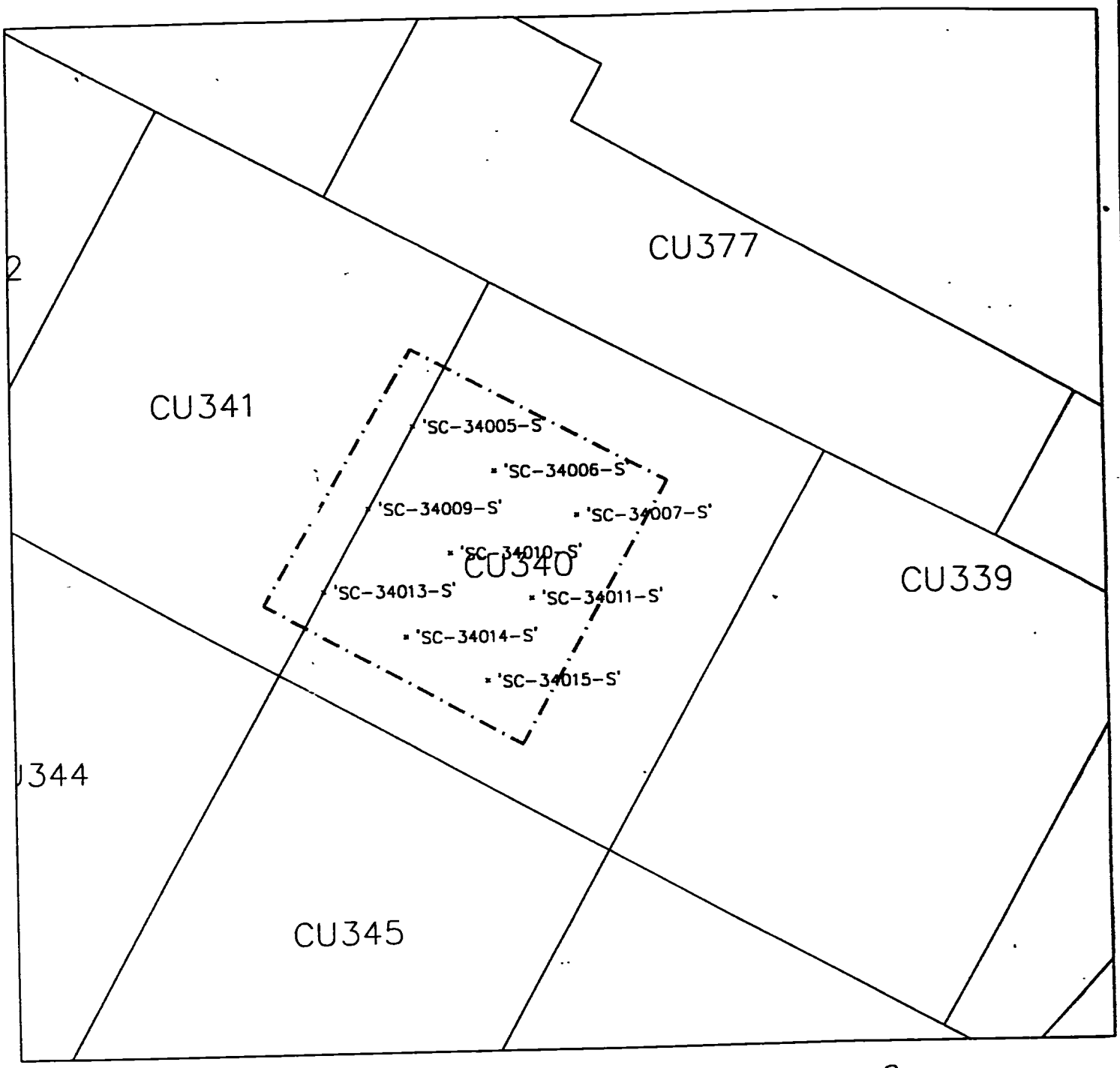
(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU 340

Date Plotted 7/25/00

DEO CAD

Meter Model #:	2221	Detector Model #:	2x2 "P"
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/9/01	Calibration Due:	1/21/01
Survey Date / Time:	7/25/00	Field Bkg.:	10,000CF
Surveyor(s):	T. Brown		
Comments:	All soil <1.5 Bkg		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

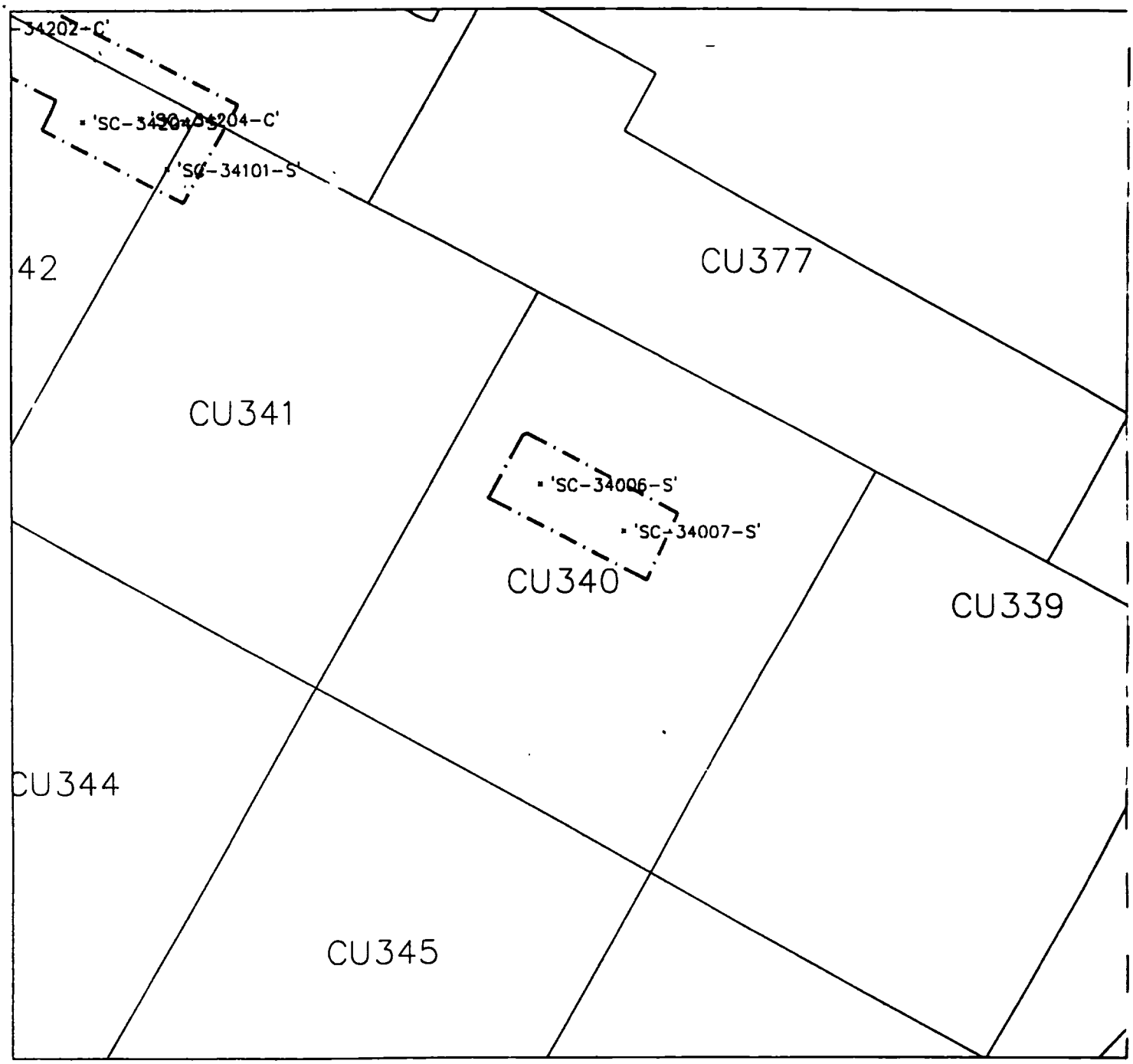
N

Radiation Survey Form WP 437, RU 24 CU 340

Date Plotted 7/28/00

DBO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/9/01	Calibration Due:	1/31/01
Survey Date / Time:	7/27/00	Field Bkg.:	10,000 cpm
Surveyor(s):	T. Brown		
Comments:	All col < 1.5 BKg		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

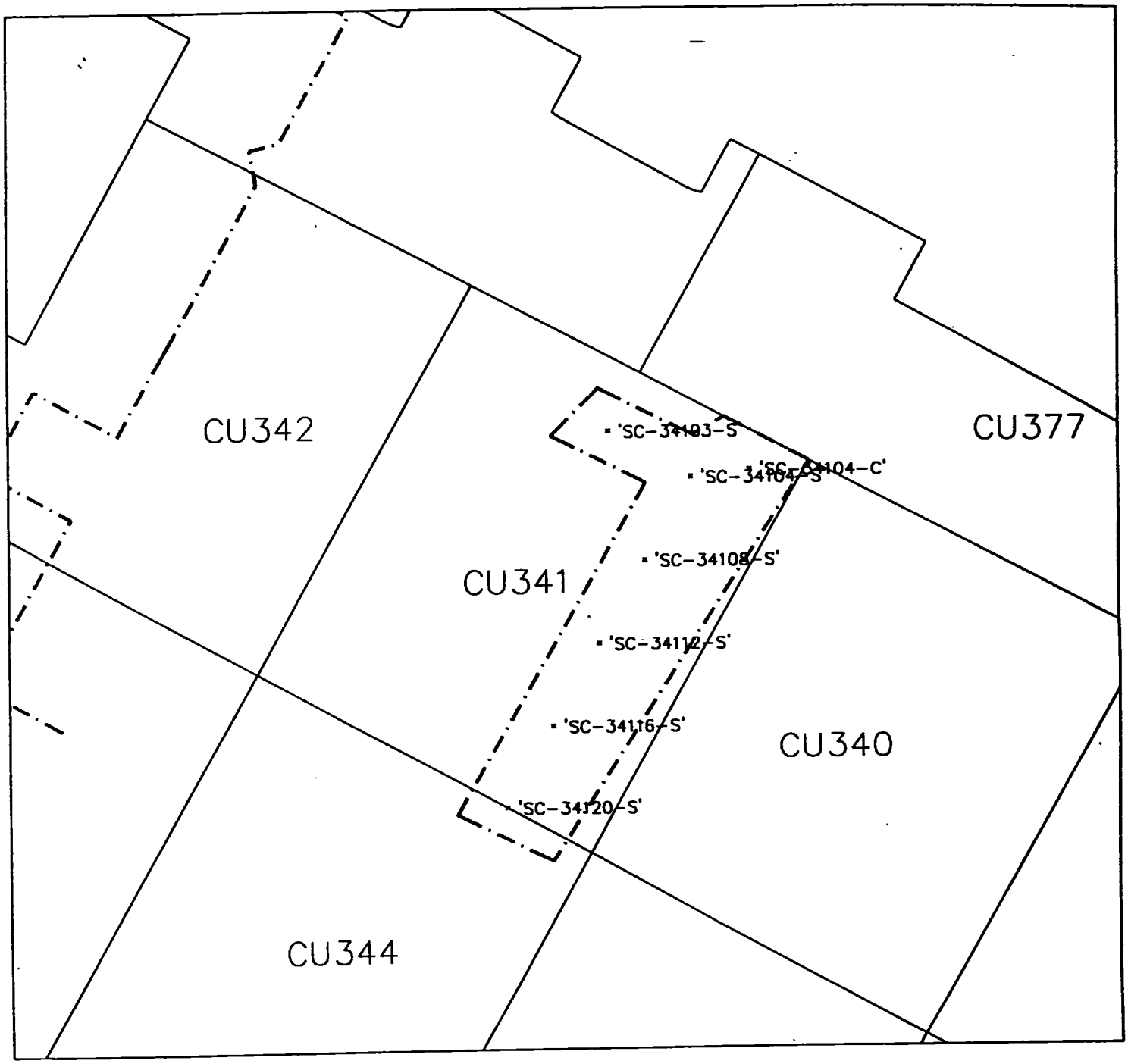
N

Radiation Survey Form WP 437, RU 24 CU 340

Date Plotted 7/26/00

DHO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	154199	Detector Serial #:	17606 (P)
Calibration Due:	2-9-01	Calibration Due:	1-21-01
Survey Date / Time:	7/27/00	Field Bkg.:	10,000 cpm
Surveyor(s):	T BROWER		
Comments:	ALL RESULTS < 1.5x BKG		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

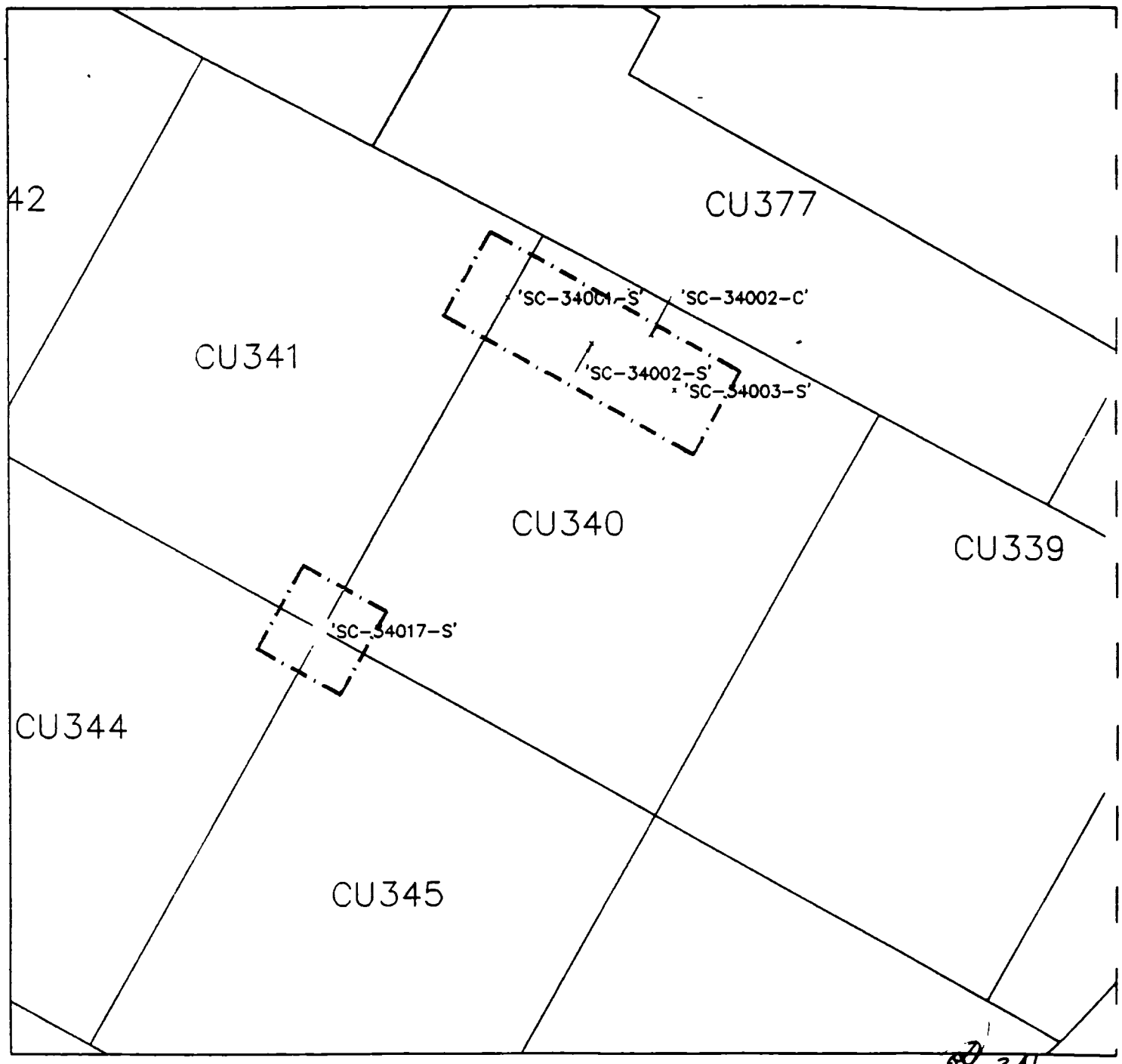
(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU 341

Date Plotted 7/21/00

DHO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	125434	Detector Serial #:	180763 (b)
Calibration Due:	11-12-00	Calibration Due:	9-24-00
Survey Date / Time:	7-21-00/1900	Field Bkg.:	4,600 cpm
Surveyor(s):	R. ORR		
Comments:	ALL RESULTS <1.5x BKG		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

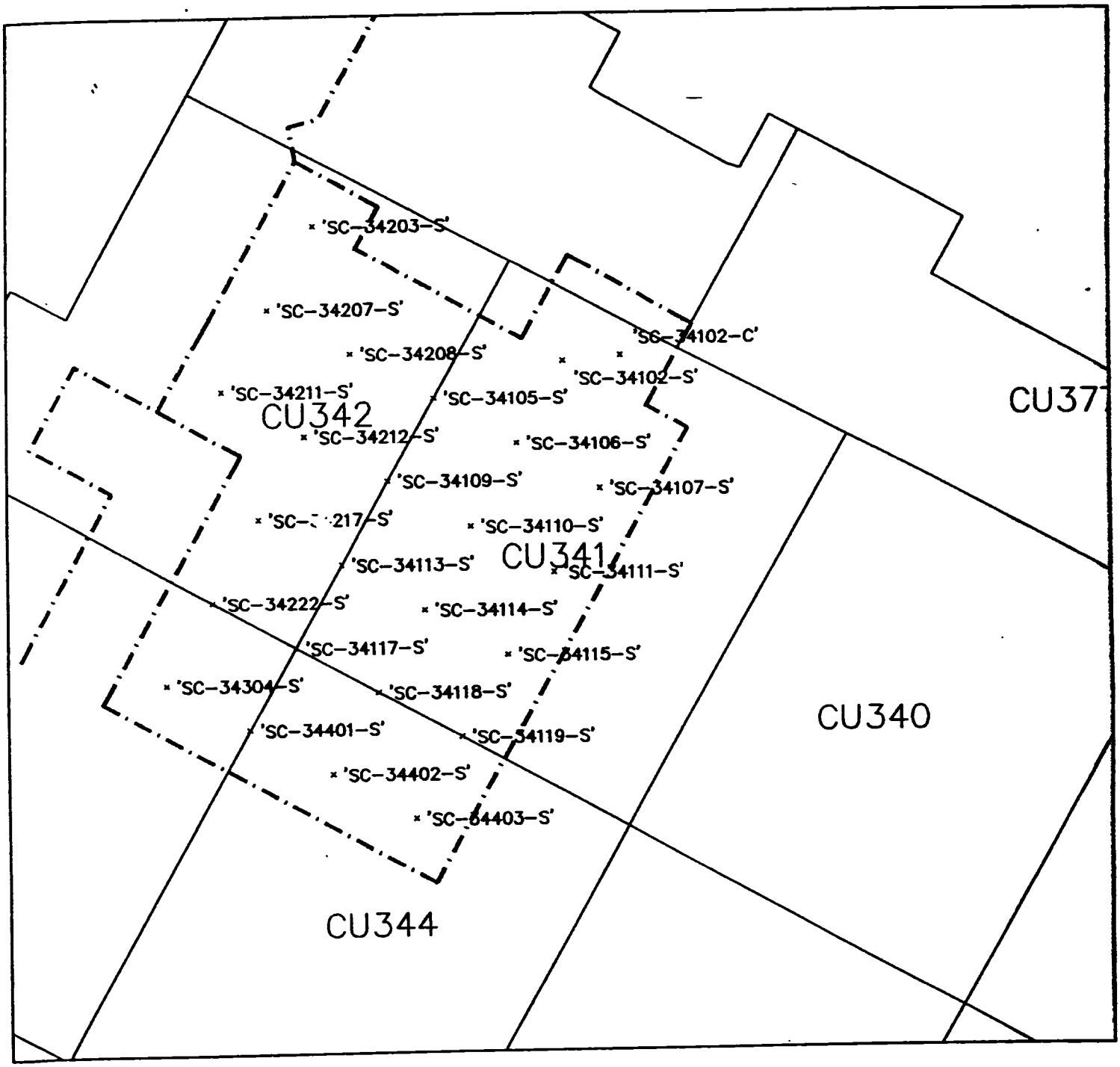
(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU ~~340~~ 341

Date Plotted 7-22-00

DBO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	154199	Detector Serial #:	17606 (P)
Calibration Due:	2-9-01	Calibration Due:	1-21-01
Survey Date / Time:	7-22-00/1530	Field Bkg.:	10,000 cpm
Surveyor(s):	T BROWER		
Comments:	ALL RESULTS <1.5 xBKG		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

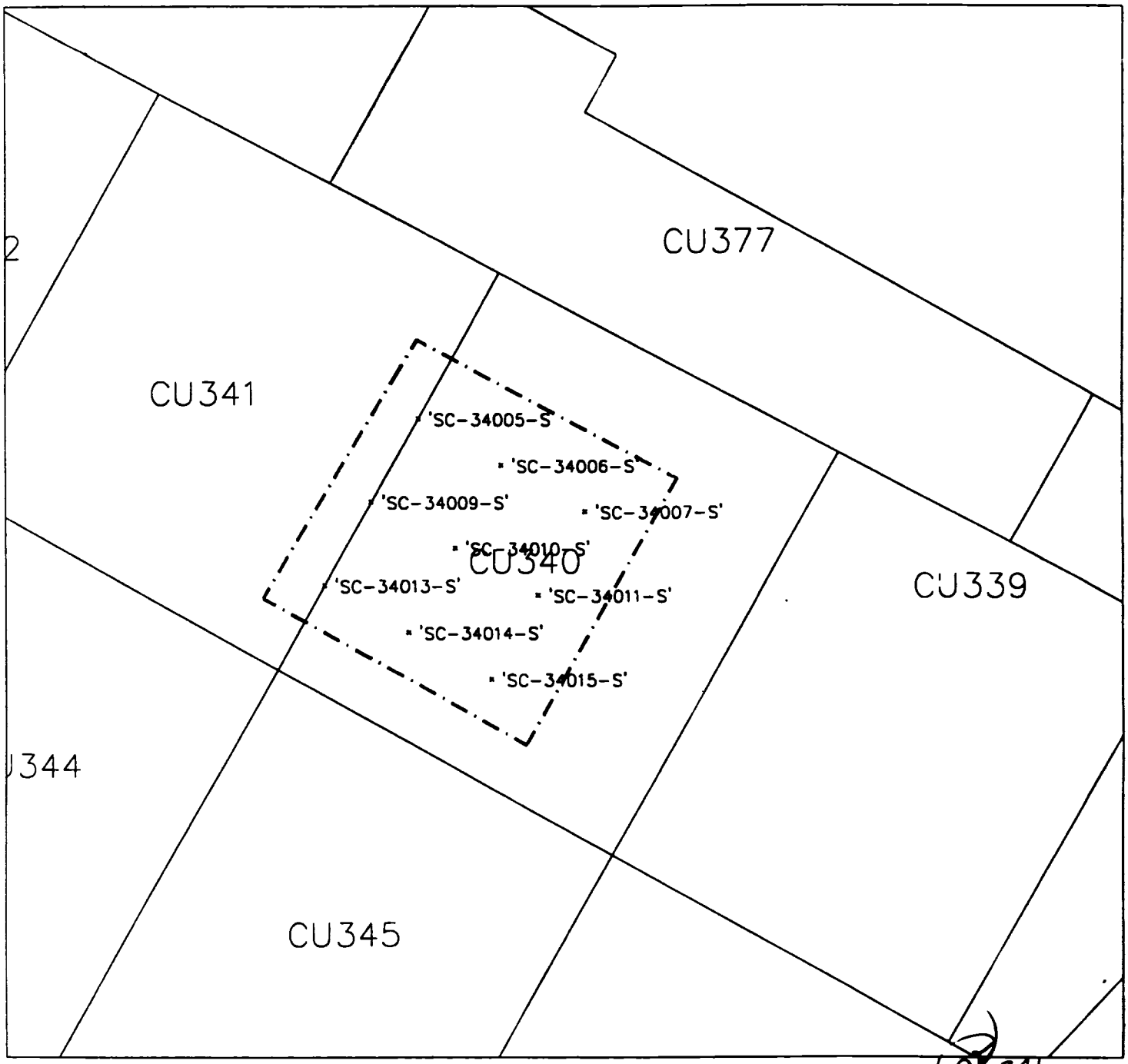
N

Radiation Survey Form WP 437, RU 24 CU 341

Date Plotted 7-25-00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2" p4
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/9/01	Calibration Due:	1/21/01
Survey Date / Time:	7/25/00	Field Bkg.:	10,000 CPM
Surveyor(s):	T. Brower		
Comments:	All soil 21.5 BKg		



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — · — PINNING LIMITS

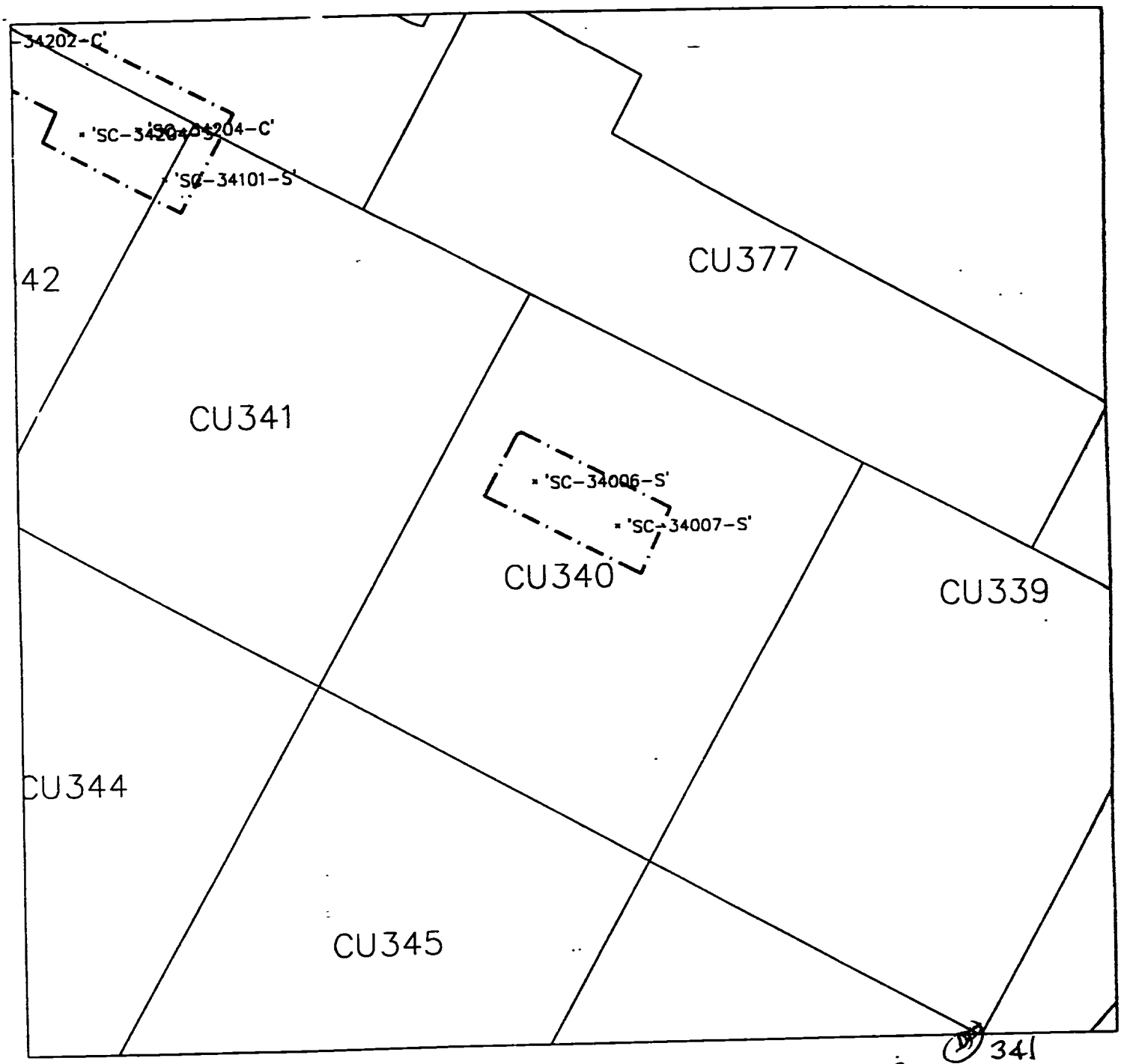
N

Radiation Survey Form WP 437, RU 24 CU ~~340~~

Date Plotted 7/28/00

DHO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/9/01	Calibration Due:	1/21/01
Survey Date / Time:	7/27/00	Field Bkg.:	10,000 CPM
Surveyor(s):	T. Brown		
Comments:	All soil <1.5 BKg		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

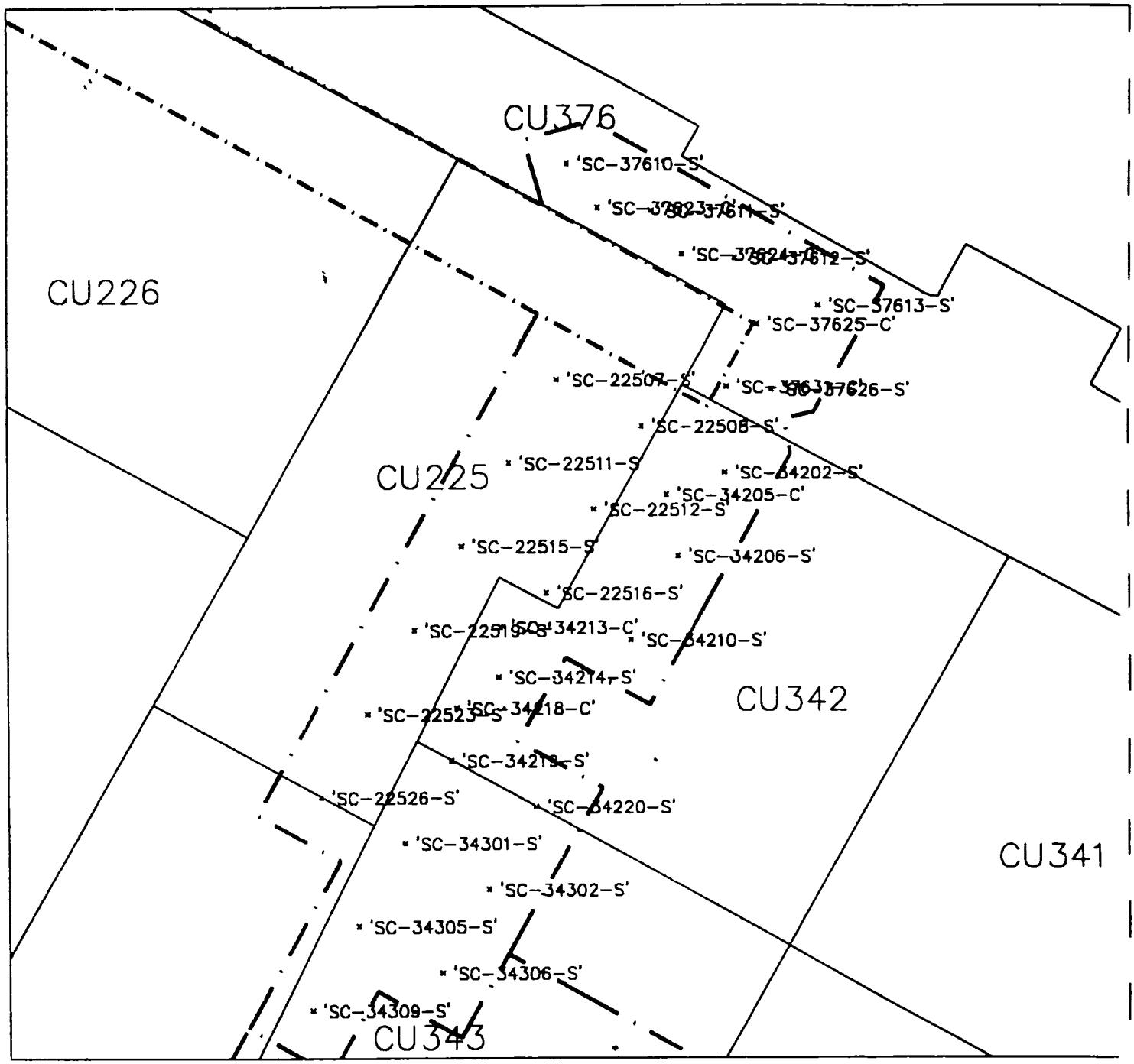
N

Radiation Survey Form WP 437, RU 24 CU 340 (341)

Date Plotted 7/26/00

DRO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	154199	Detector Serial #:	17606 (P)
Calibration Due:	2-9-01	Calibration Due:	1-21-01
Survey Date / Time:	7/27/00	Field Bkg.:	10,000 cpm
Surveyor(s):	T BROWDER		
Comments:	ALL RESULTS < 1.5x BKG		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

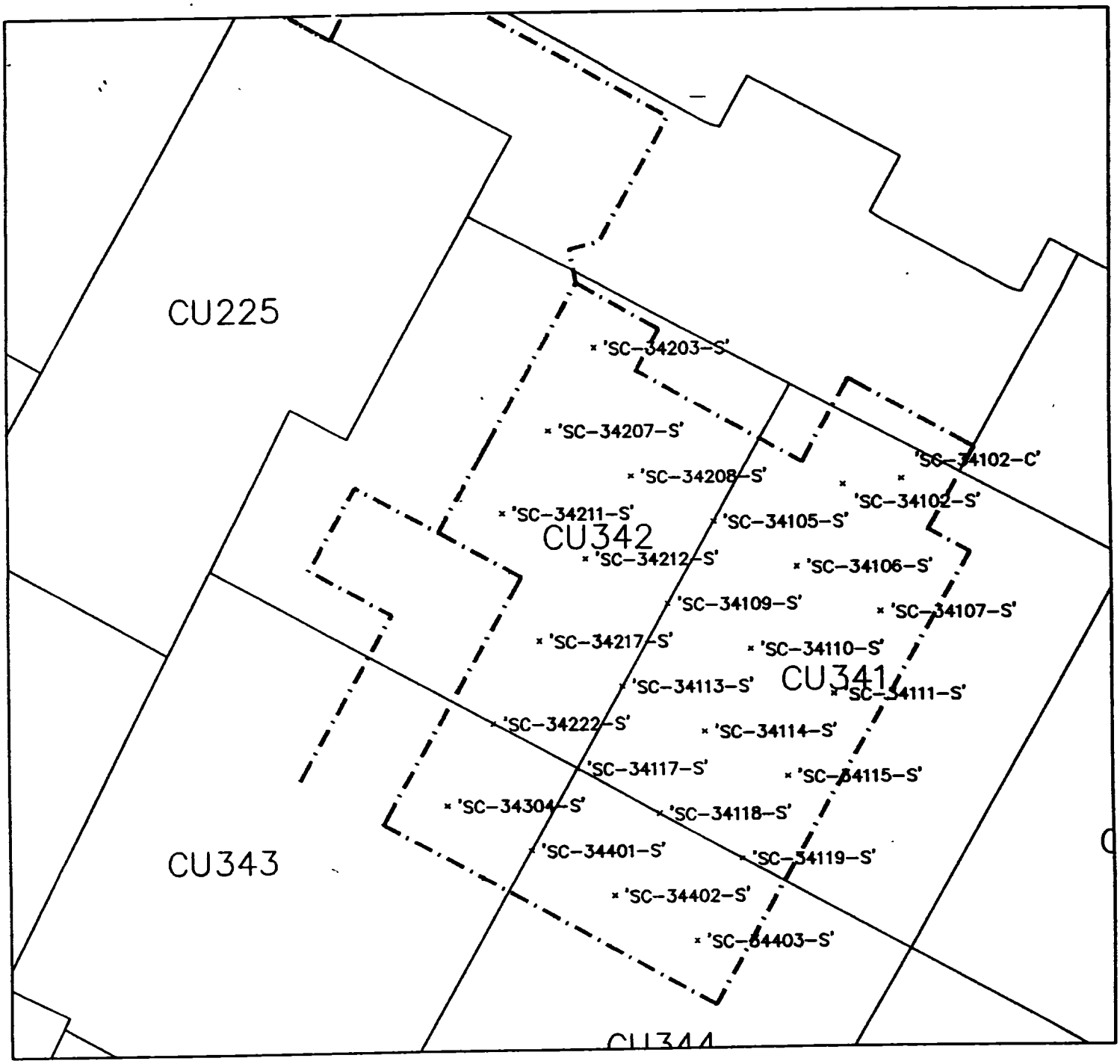
N

Radiation Survey Form WP 437, RU 24 CU 342

Date Plotted 5/20/00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 "F"
Meter Serial #:	99158	Detector Serial #:	12291
Calibration Date:	7/24/00	Calibration Date:	9/24/00
Survey Date / Time:	5/19/00	Field Bkg.:	4,000 CPM
Surveyor(s):	T. Brewer		
Comments:	All readings <1.5 Bkg		



LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

—·—·—·— PINNING LIMITS

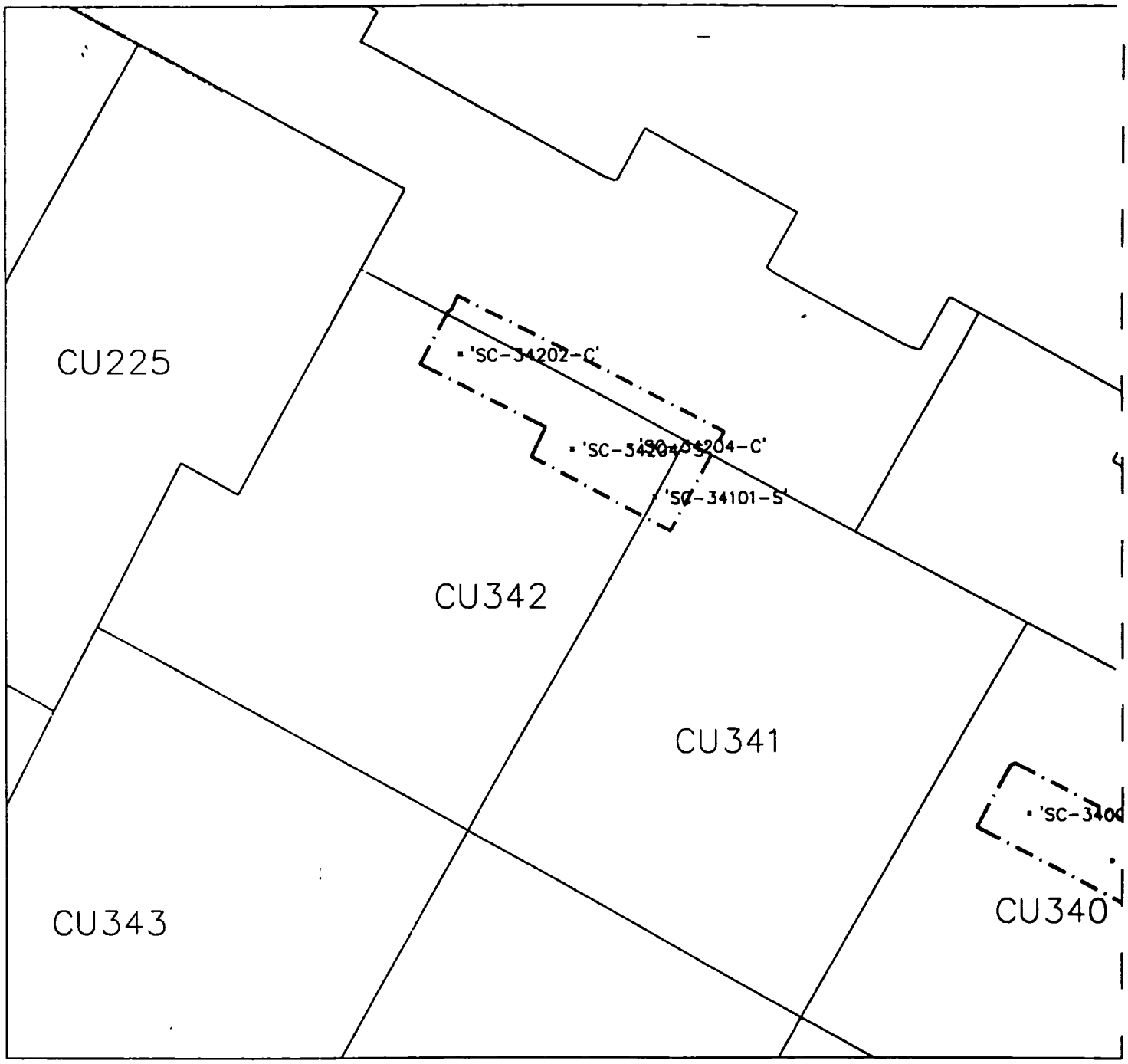
N

Radiation Survey Form WP 437, RU 24 CU 342

Date Plotted 7/25/00

DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 "pancake"
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/9/01	Calibration Due:	11/21/01
Survey Date / Time:	7/25/00	Field Bkg.:	10,000 CPM
Surveyor(s):	T. Brown		
Comments:	All readings <1.5 Bkg		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

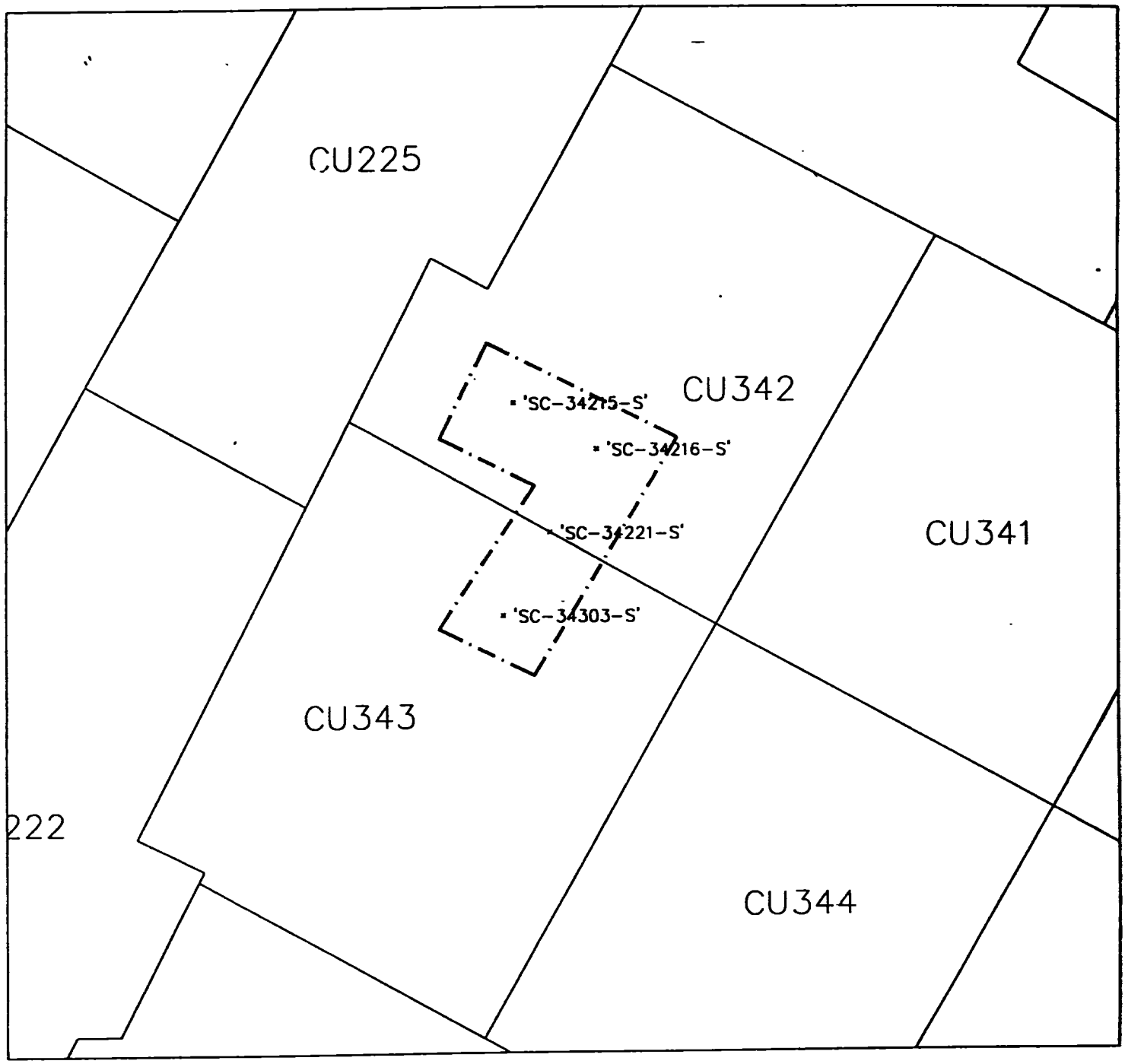
N

Radiation Survey Form WP 437, RU 24 CU 342

Date Plotted 7/26/00

DHO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	125434	Detector Serial #:	130763 (L)
Calibration Due:	11-12-00	Calibration Due:	9-24-00
Survey Date / Time:	7-25-00/1900	Field Bkg.:	4,600 cpm
Surveyor(s):	J BOCKHAP		
Comments:	ALL RESULTS < 1.5 x BKG		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

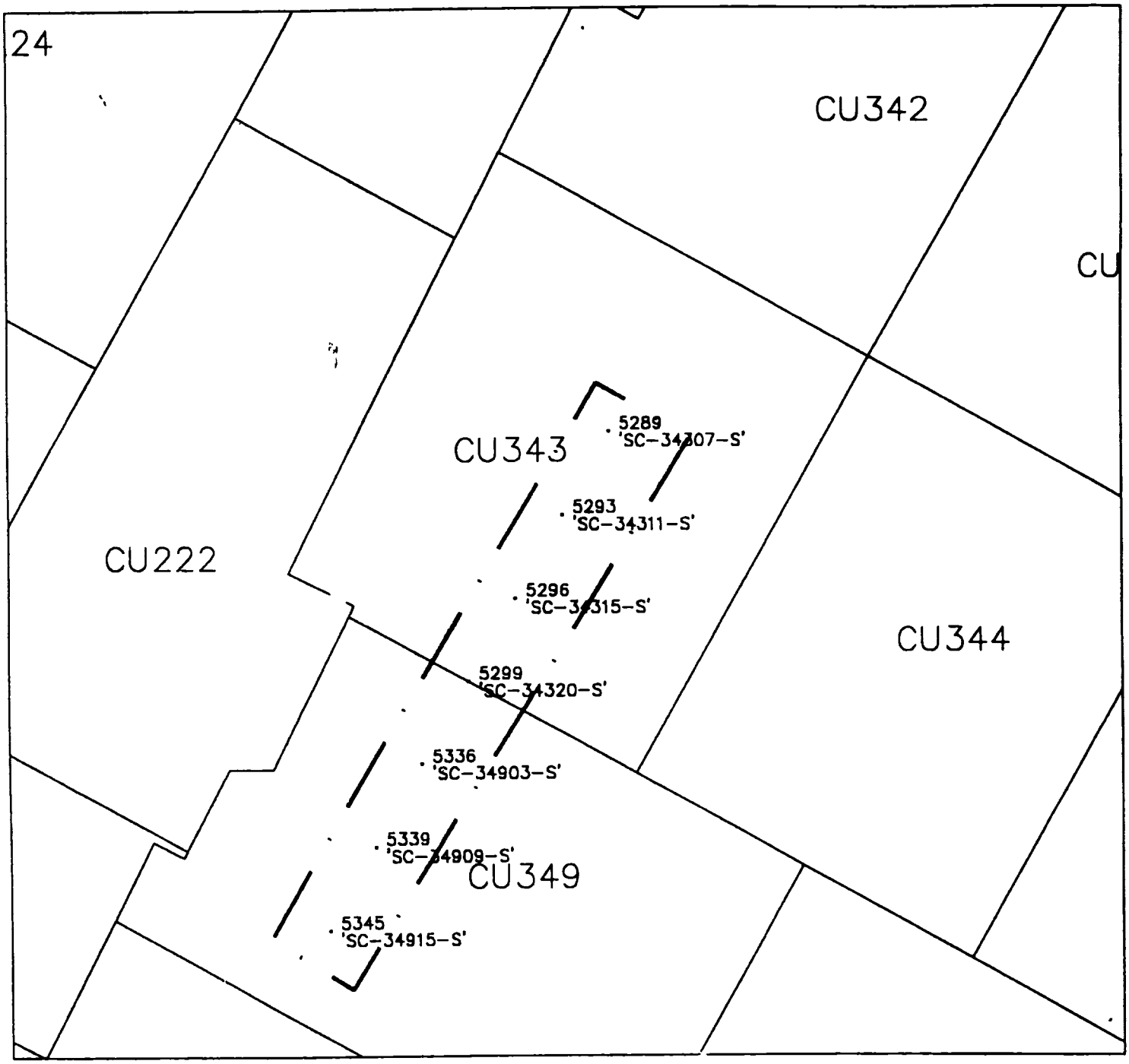
N

Radiation Survey Form WP 437, RU 24 CU 342

Date Plotted 7/27/00

DHO CAD

Meter Model #:	2221	Detector Model #:	202 P1
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/9/01	Calibration Due:	1/21/01
Survey Date / Time:	7/26/00	Field Bkg.:	10,000CPM
Surveyor(s):	T. Brewer		
Comments:	All soil <1.5 Bkg		



LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

N

GRAPHIC SCALE

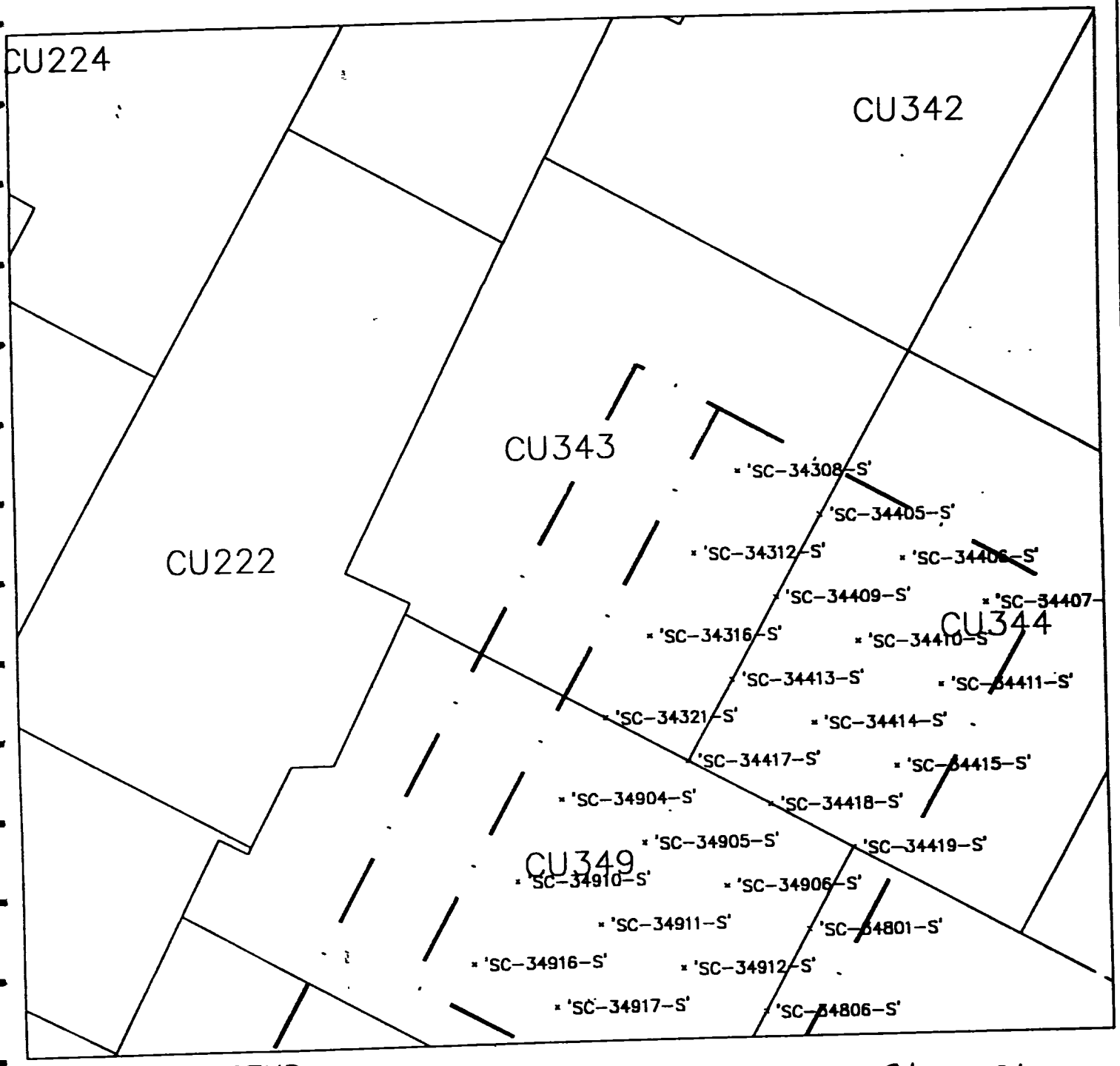
50 0 50 100

(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU 343

DEO CAD

Meter Model #:	2221	Detector Model #:	NaI "2-2"
Meter Serial #:	117617	Detector Serial #:	13D764
Calibration Due:	10-13-00	Calibration Due:	09-24-00
Survey Date / Time:	03-07-00	Field Bkg.:	6400 cpm
Surveyor(s):	J. Rankine		
Comments:	all areas < 1.5 BKgrnd.		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

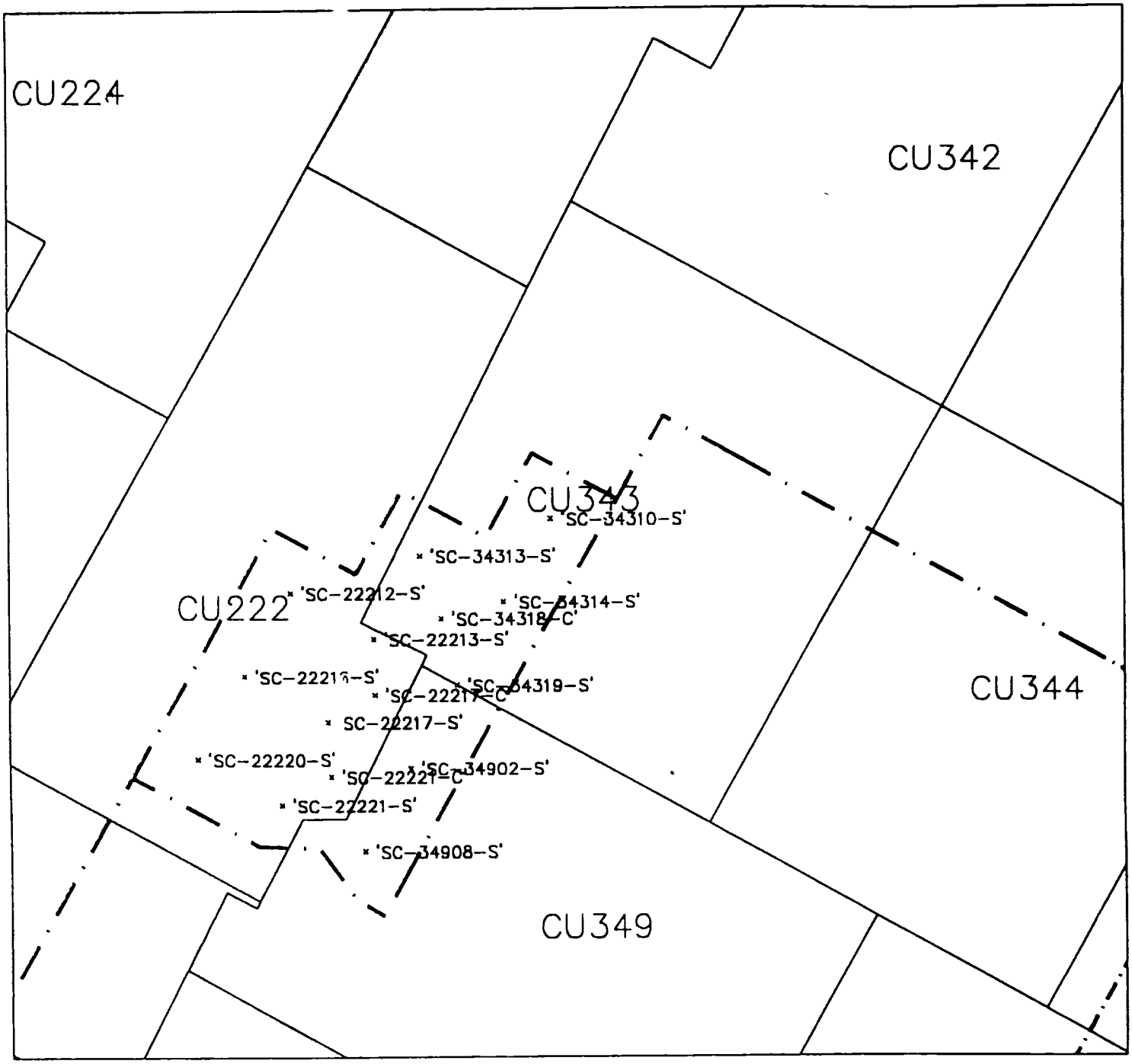
Radiation Survey Form WP 437, RU 24 **CU** 343

Date Plotted 4/13/00

DBD CAD

Meter Model #:	2221	**Detector Model #:**	2x2 NaI "M"
Meter Serial #:	117617	**Detector Serial #:**	130764
Calibration Due:	10/13/00	**Calibration Date:**	9/24/00
Survey Date / Time:	4/12/00	**Field Bkg.:**	6000 cpm
Surveyor(s):	C. Harner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

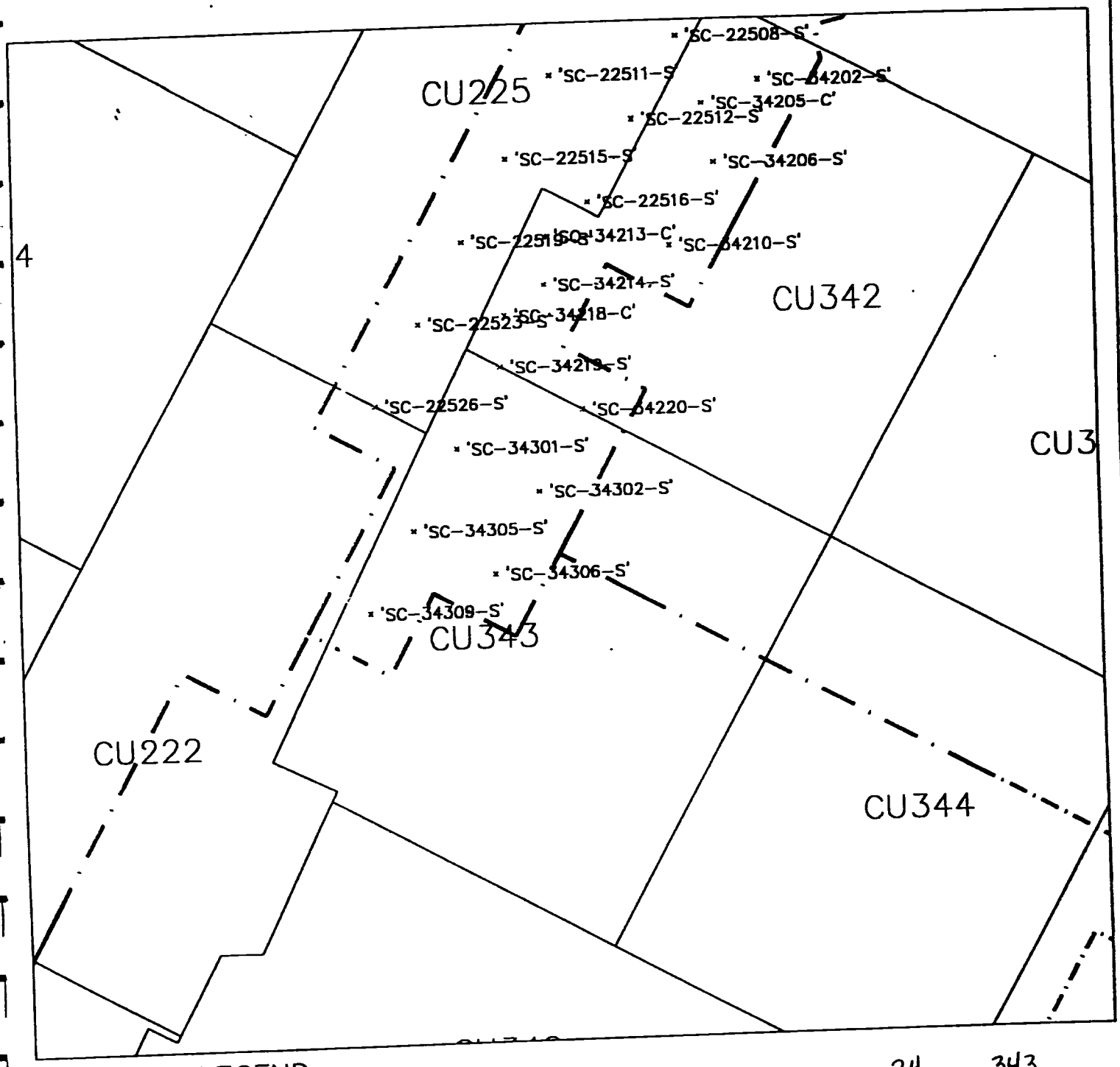
N

Radiation Survey Form WP 437, RU 24 CU 343

Date Plotted 5/18/00 DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "P"
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/09/01	Calibration Due:	1/21/01
Survey Date / Time:	5/17/00	Field Bkg.:	10,000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

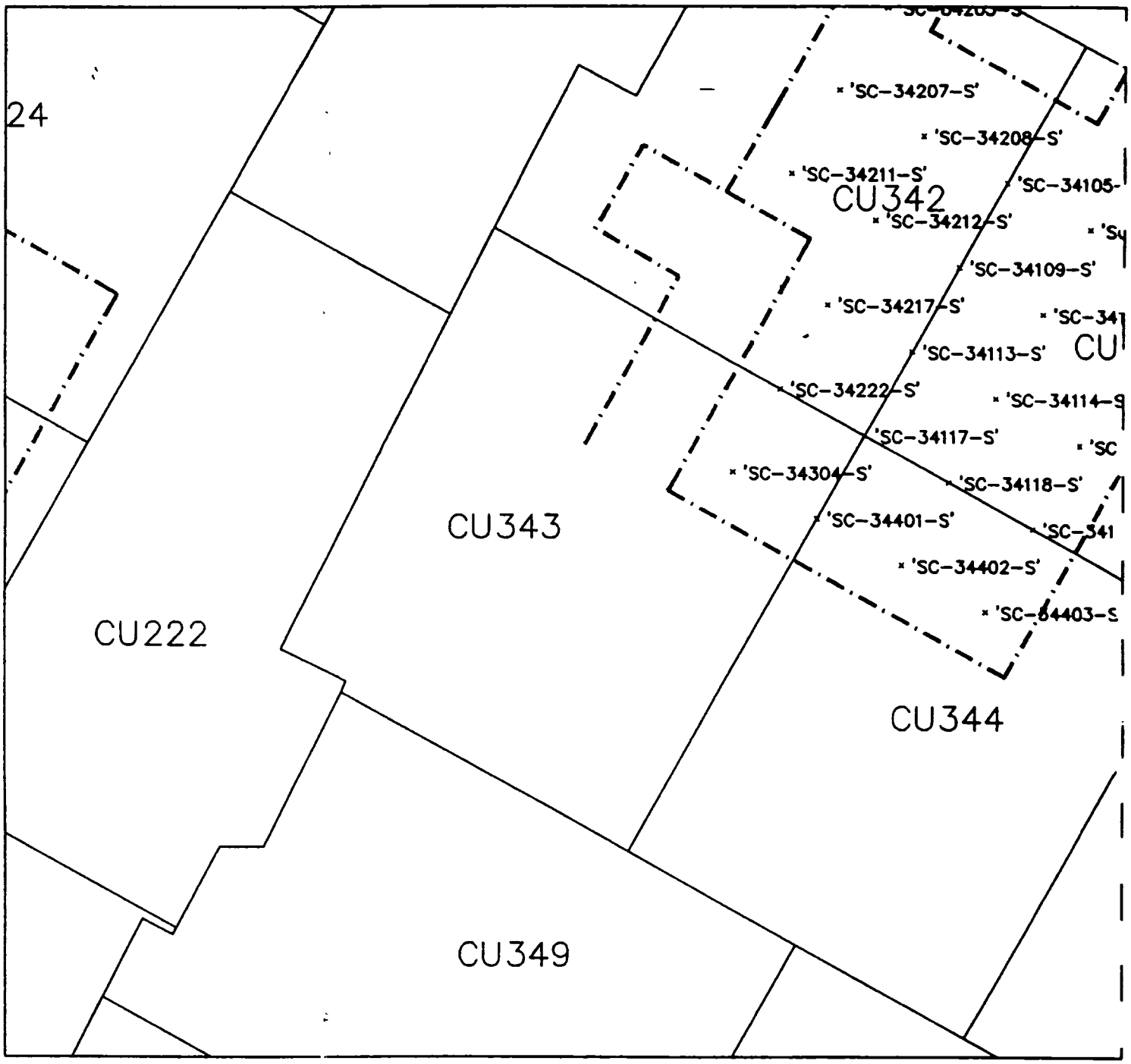
N

Radiation Survey Form WP 437, RU 24 CU 343

Date Plotted 5/20/00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 "F"
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Due:	7/24/00	Calibration Date:	9/24/00
Survey Date / Time:	5/19/00	Field Bkg.:	4,000 CPM
Surveyor(s):	T. Brower		
Comments:	All readings <1.5 Bkg		



LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

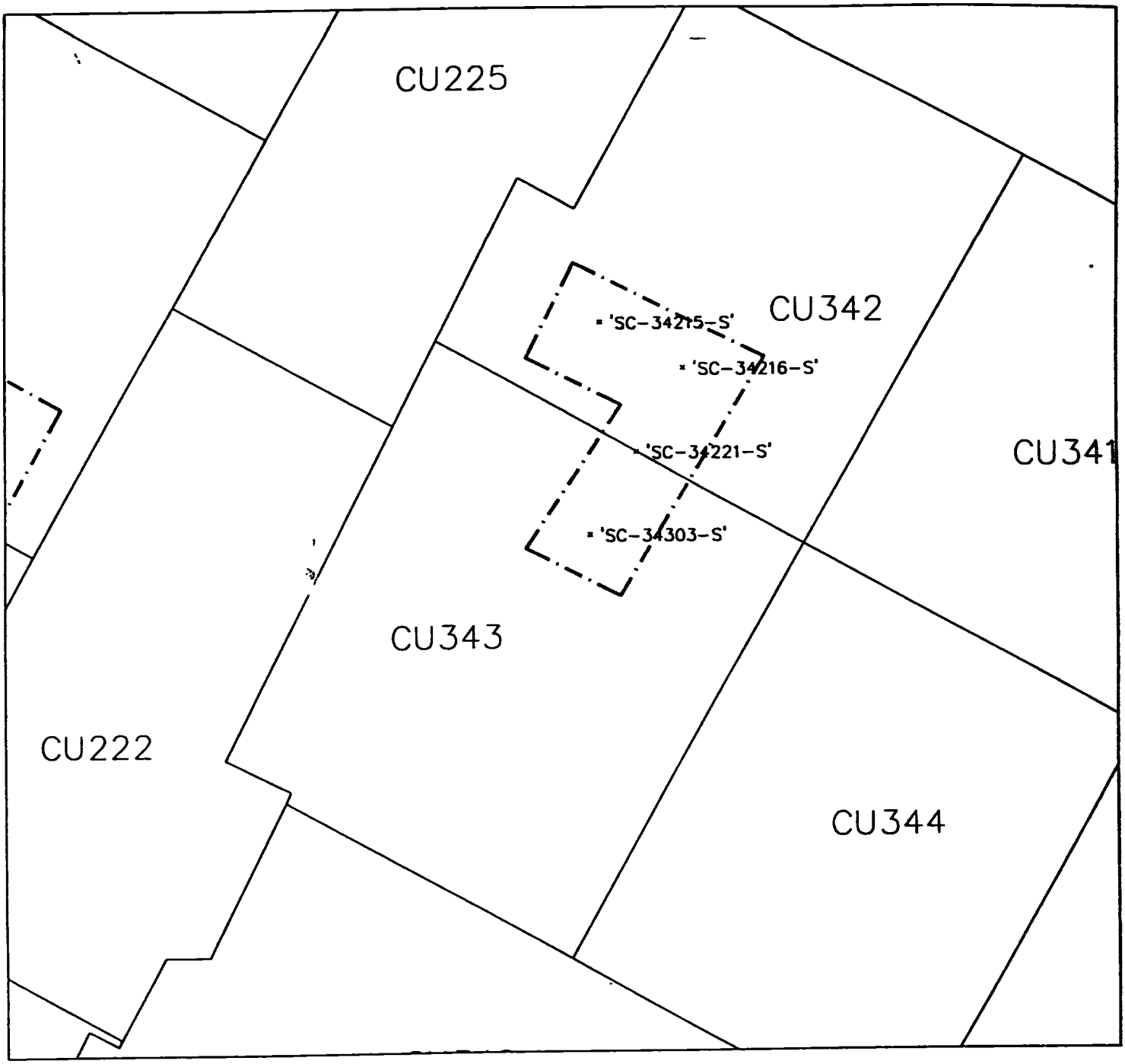
N

Radiation Survey Form WP 437, RU 24 CU 343

Date Plotted 7/25/00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 "p"
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Date:	2/9/01	Calibration Date:	1/2/01
Survey Date / Time:	7/25/00	Field Bkg.:	10,000 CPM
Surveyor(s):	T. Brower		
Comments:	All soil 21.5 Bkg		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

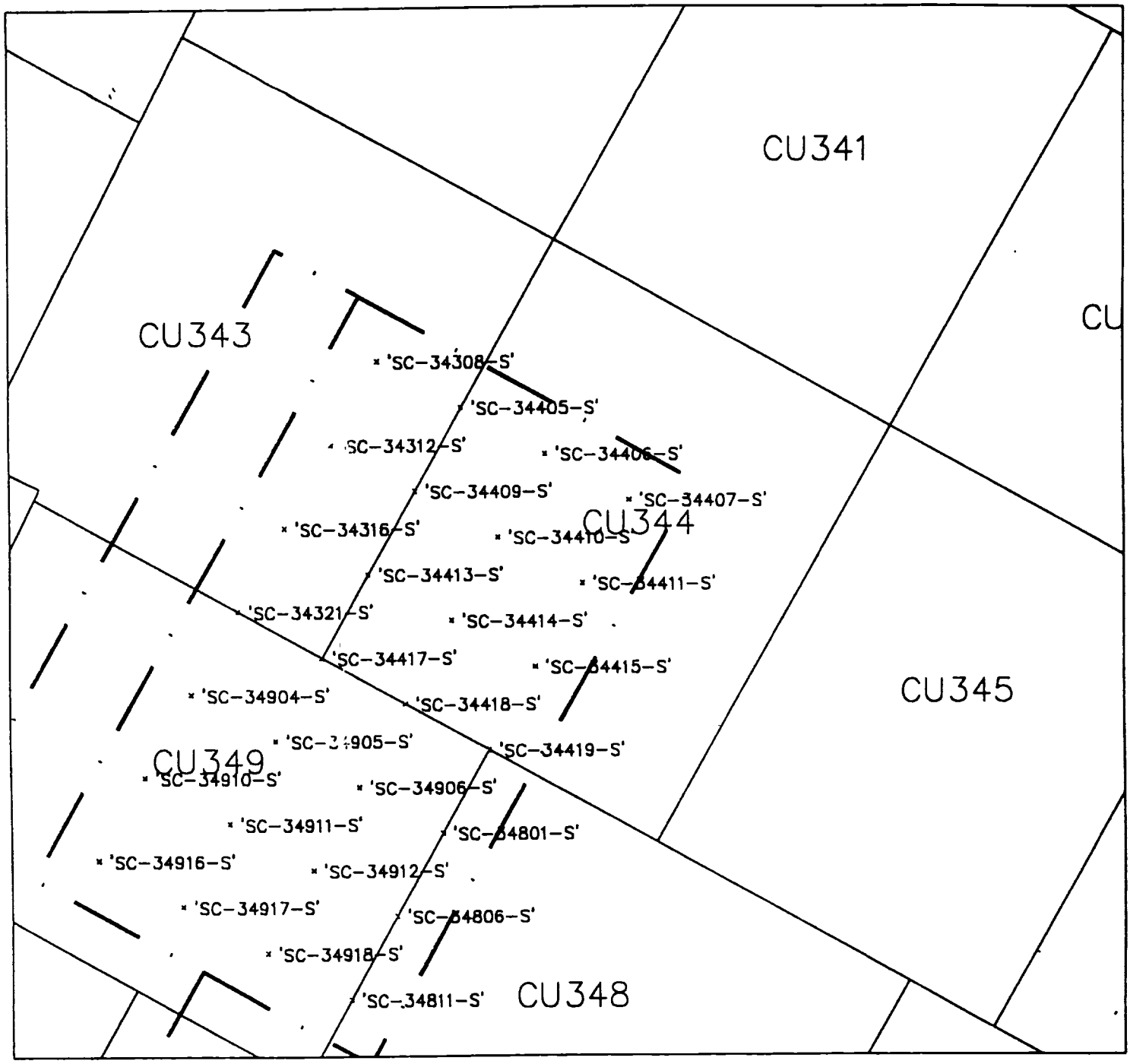
PINNING LIMITS

N

Radiation Survey Form WP 437, RU 24 CU 343

Date Plotted 7/27/00 DHO CAD

Meter Model #:	2221	Detector Model #:	2x2 'PI
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/9/01	Calibration Due:	1/21/01
Survey Date / Time:	7/26/00	Field Bkg.:	10,000CPM
Surveyor(s):	T. Brower		
Comments:	All soil <1.5 Bkg		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

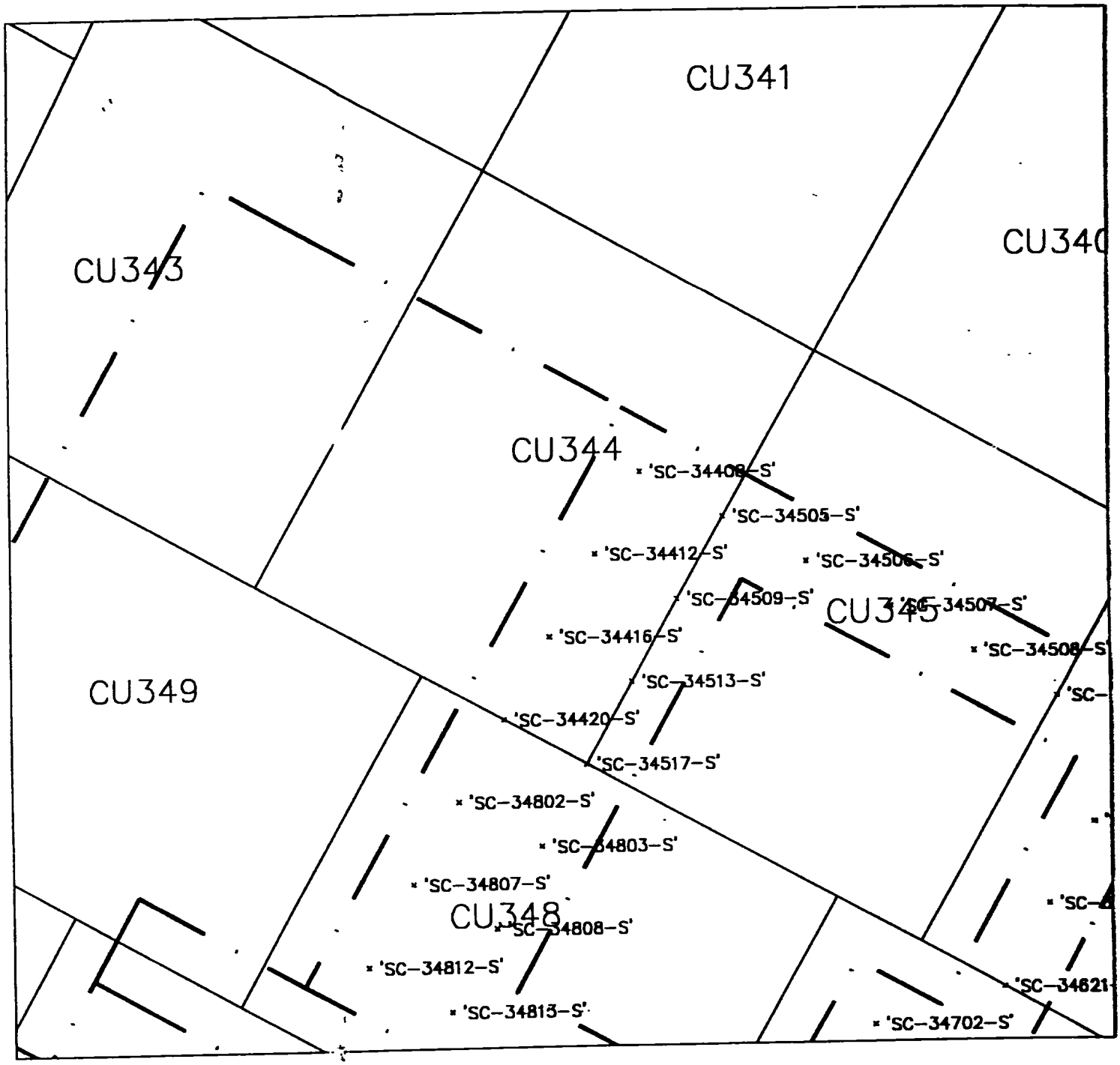
Radiation Survey Form WP 437, RU 24 CU 344

Date Plotted 4/13/00

DEID CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/4/00	Calibration Date:	9/24/00
Survey Date / Time:	4/12/00	Field Bkg.:	6000 cpm
Surveyor(s):	C Hopper		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

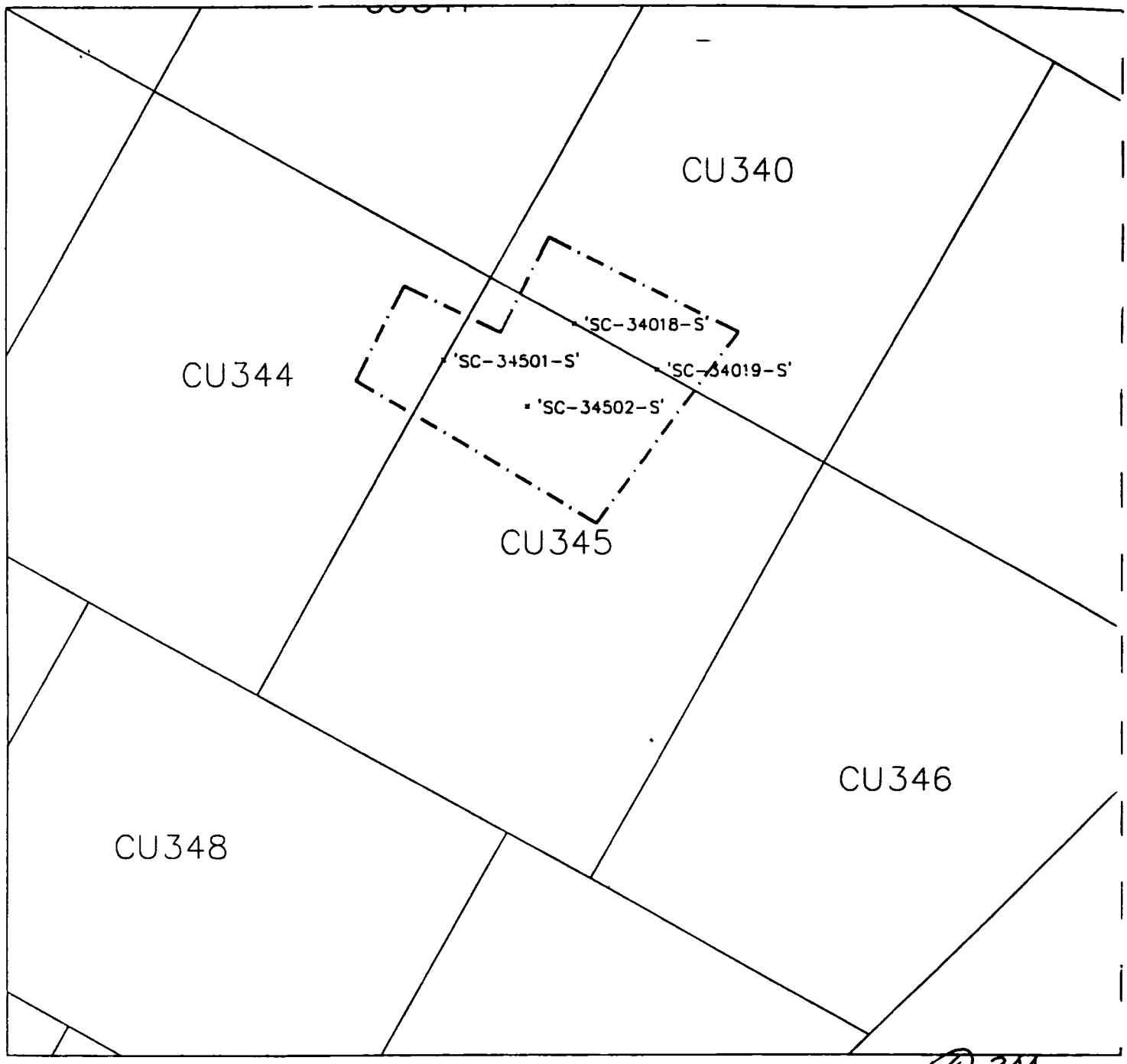
Radiation Survey Form WP 437, RU 24 CU 344

Date Plotted 5/04/00

DEED CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "F"
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Date:	7/24/00	Calibration Date:	9/29/00
Survey Date / Time:	5/3/00	Field Bkg.:	5000 cpm
Surveyor(s):	J. Bowhay		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

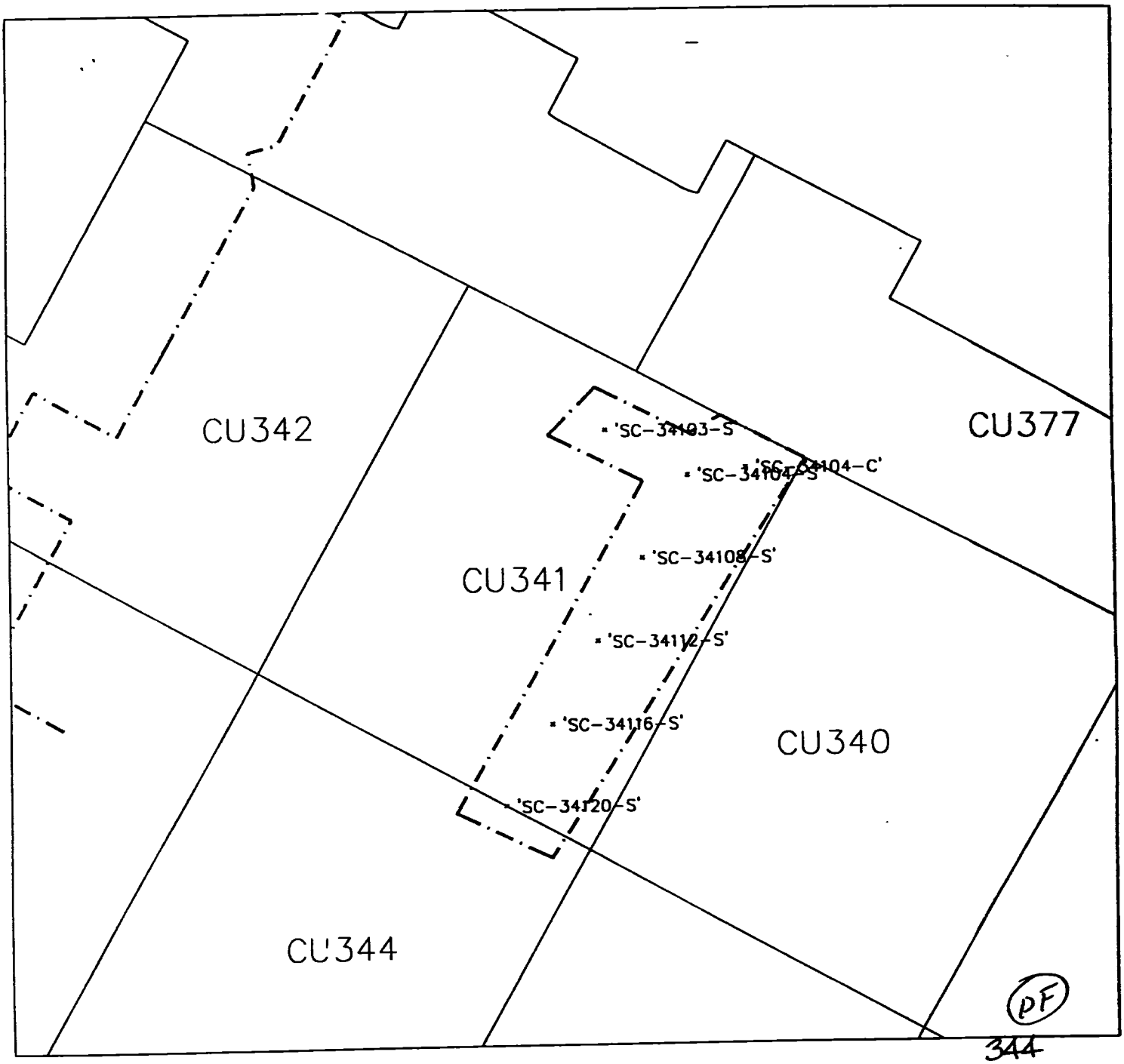
(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU ~~345~~ 344

Date Plotted 7/21/00

DHO CAD

Meter Model #	2221	Detector Model #:	44-10-2
Meter Serial #	154199	Detector Serial #:	17606 (P)
Calibration Due	~~7-~~ 2-9-01	Calibration Due:	1-21-01
Survey Date / Time	7-20-00/1500	Field Bkg.	10,000 cpm
Surveyor(s)	T. BROWN		
Comments	ALL RESULTS <1.5 X BKG		



PF

LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

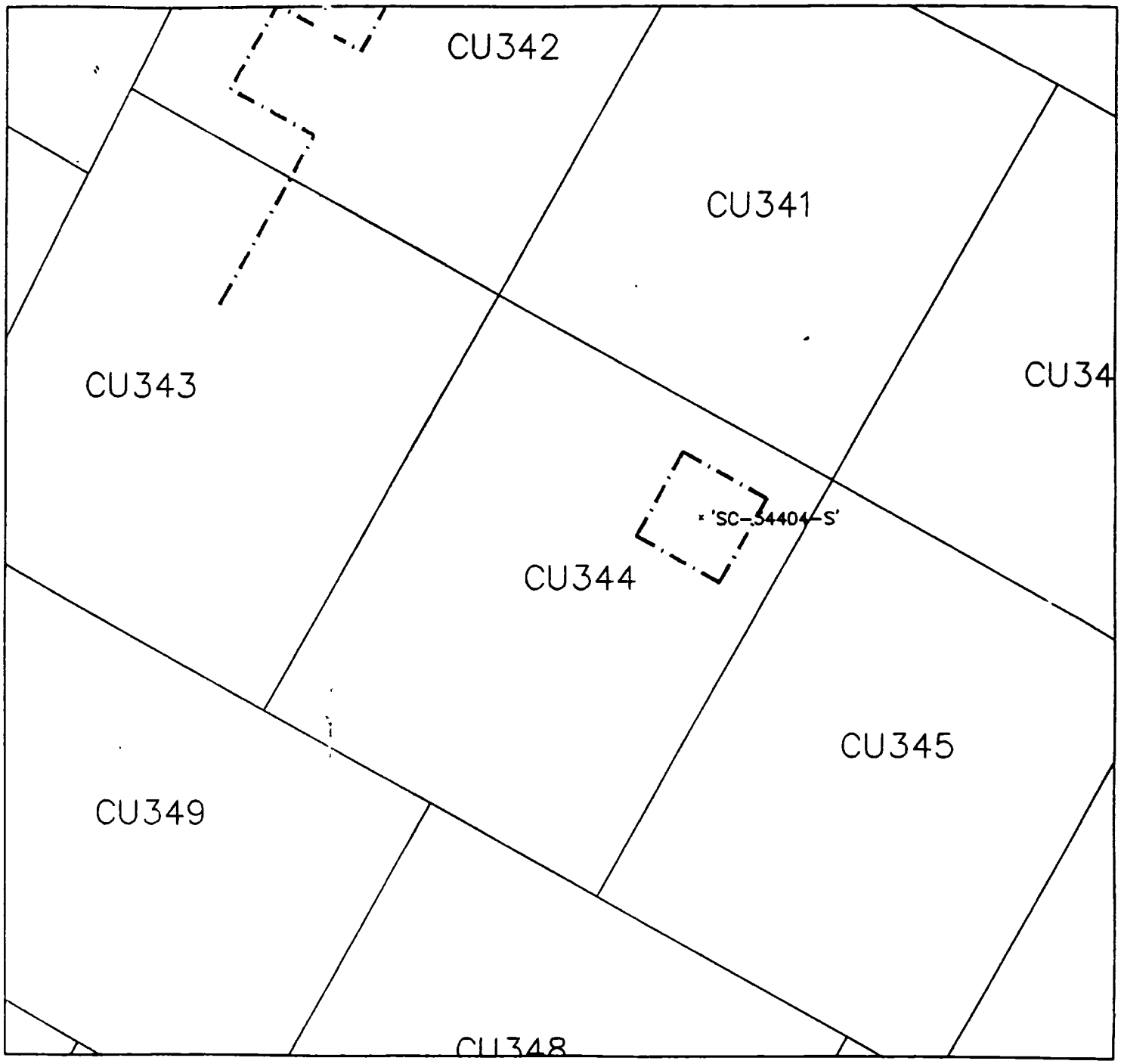
(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU ~~341~~ 344

Date Plotted 7/21/00

DHO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	125434	Detector Serial #:	180763 (L)
Calibration Due:	11-12-00	Calibration Due:	9-24-00
Survey Date / Time:	7-21-00/1900	Field Bkg.:	4,600 cpm
Surveyor(s):	B. ORR		
Comments:	ALL RESULTS <1.5 x BKG		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

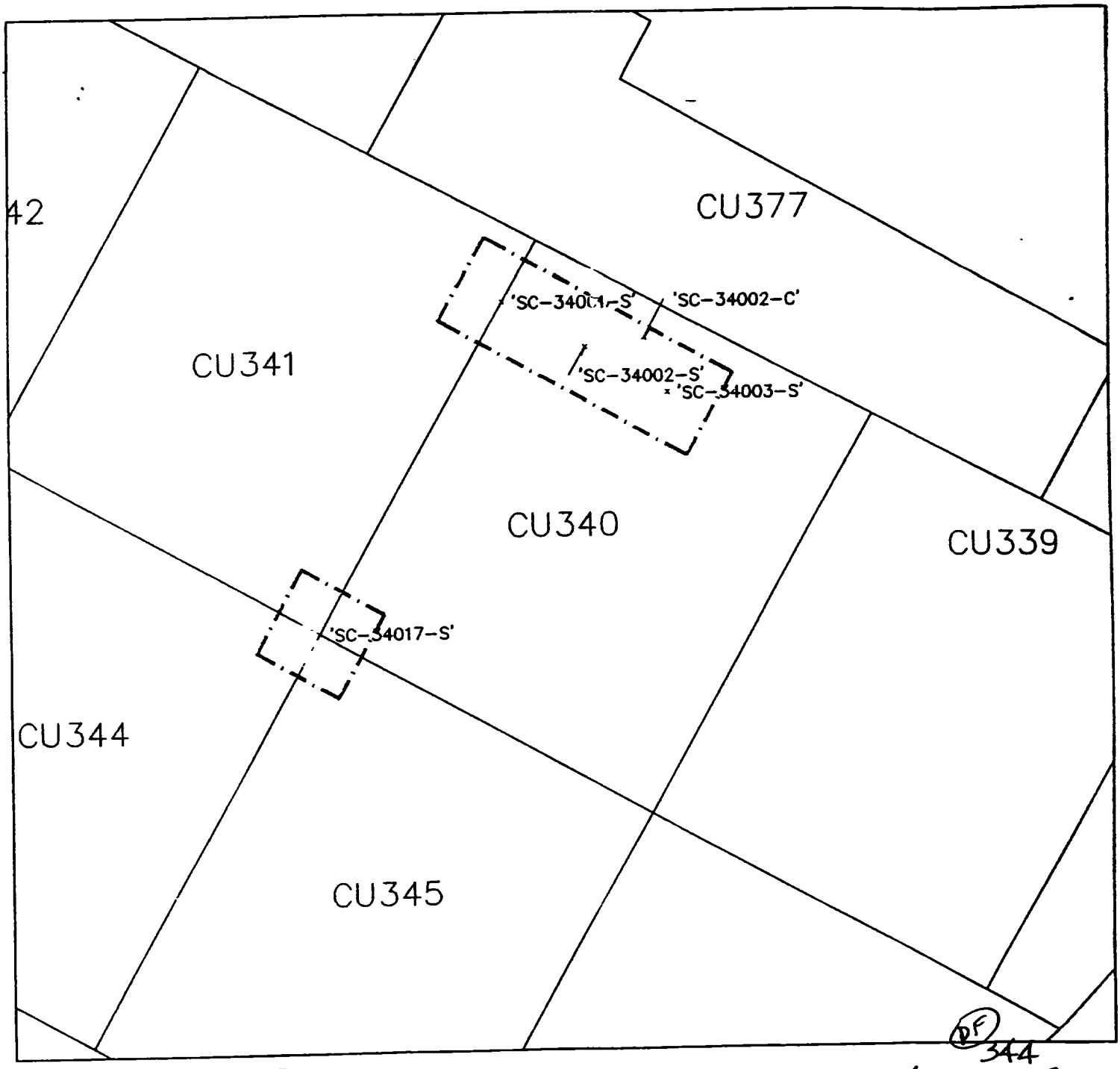
(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU 344

Date Plotted 7-22-00

DEO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	125434	Detector Serial #:	130763 (L)
Calibration Due:	11-12-00	Calibration Due:	9-24-00
Survey Date / Time:	7-21-00/1900	Field Bkg.:	4,600 cpm
Surveyor(s):	B. ORR		
Comments:	ALL RESULTS <1.5 x BKG		



LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

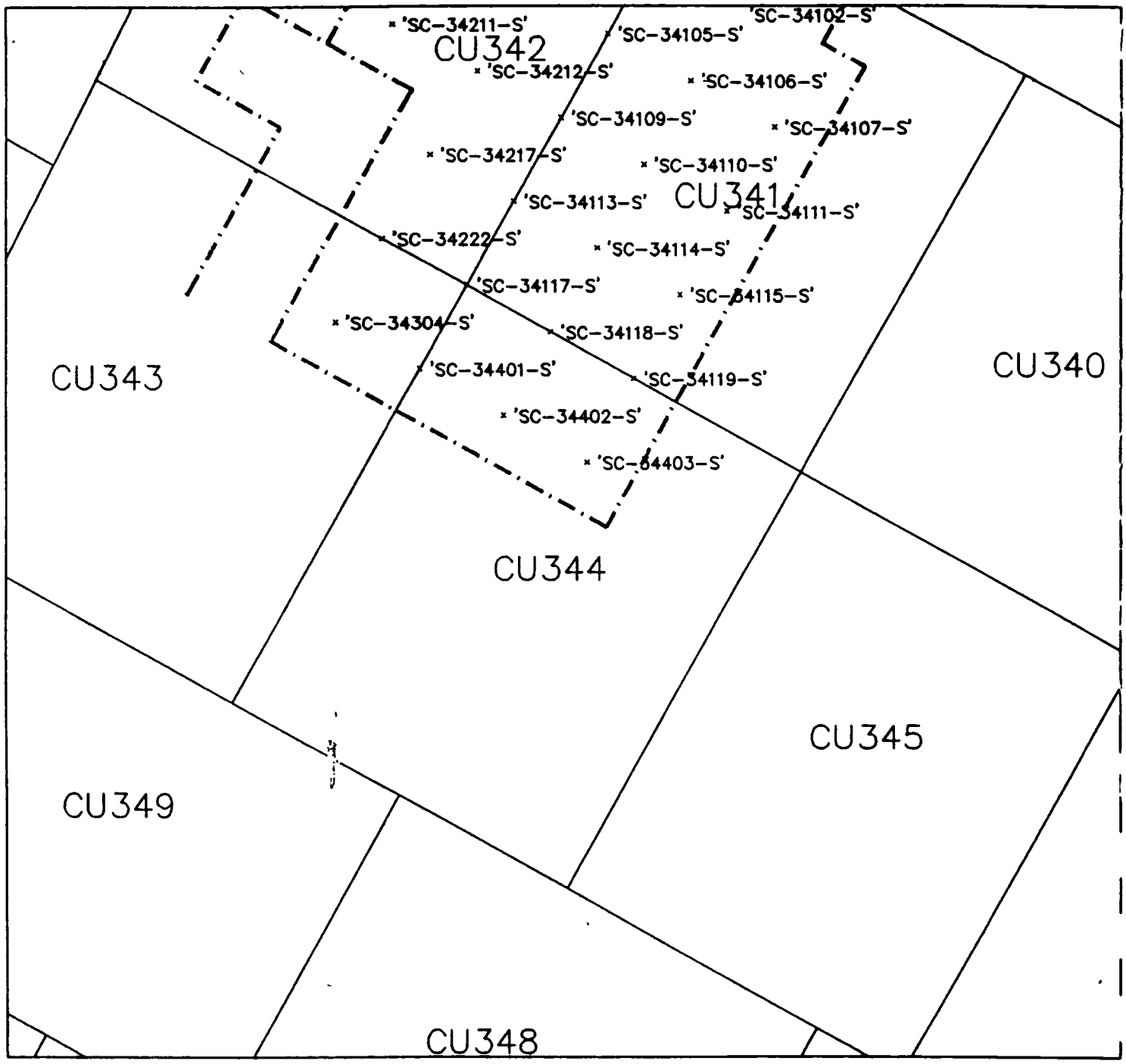
(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU ~~340~~ 344

Date Plotted 7-22-00

DBO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	154199	Detector Serial #:	17606 (P)
Calibration Due:	2-9-01	Calibration Due:	1-21-01
Survey Date / Time:	7-22-00/1530	Field Bkg.:	10,000 cpm
Surveyor(s):	T BROWER		
Comments:	ALL RESULTS <1.5 xBKG		



LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

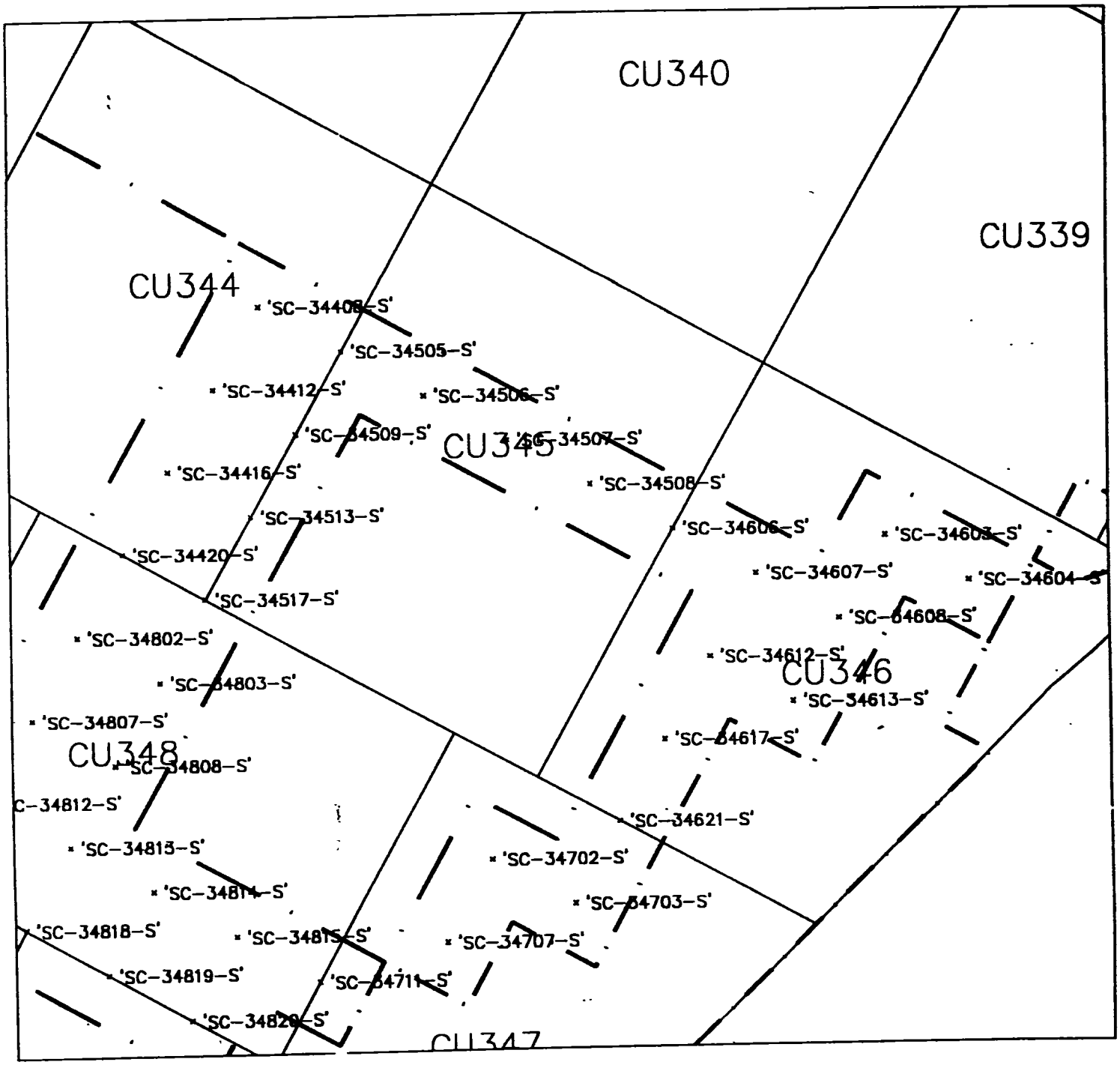
N

Radiation Survey Form WP 437, RU 24 CU 344

Date Plotted 7/25/00

DEO CAD

Meter Model #:	2221	Detector Model #:	2x2 "P"
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/9/01	Calibration Due:	1/21/01
Survey Date / Time:	7/25/00	Field Bkg.:	10,000 cpm
Surveyor(s):	T. Brower		
Comments:	All soil <1.5 BKg		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

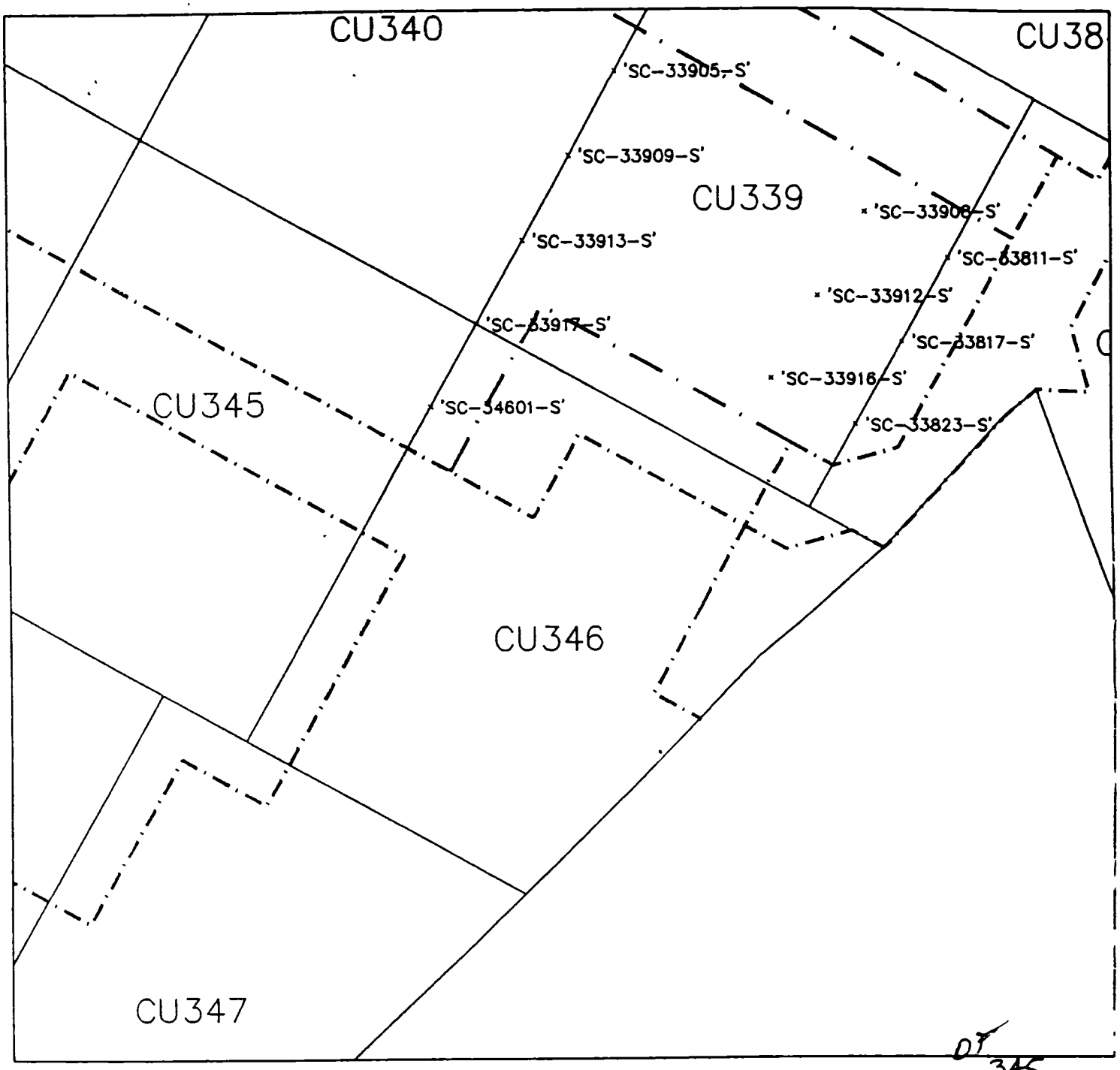
Radiation Survey Form WP 437, RU 24 CU 345

Date Plotted 5/04/00

DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "F"
Meter Serial #:	99159	Detector Serial #:	122191
Calibration Due:	7/24/00	Calibration Due:	9/24/00
Survey Date / Time:	5/3/00	Field Bkg.:	5000 cpm
Surveyor(s):	J. Bowling		

Comments: Area was scrapped and found to be less than 1.5 times background



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

N

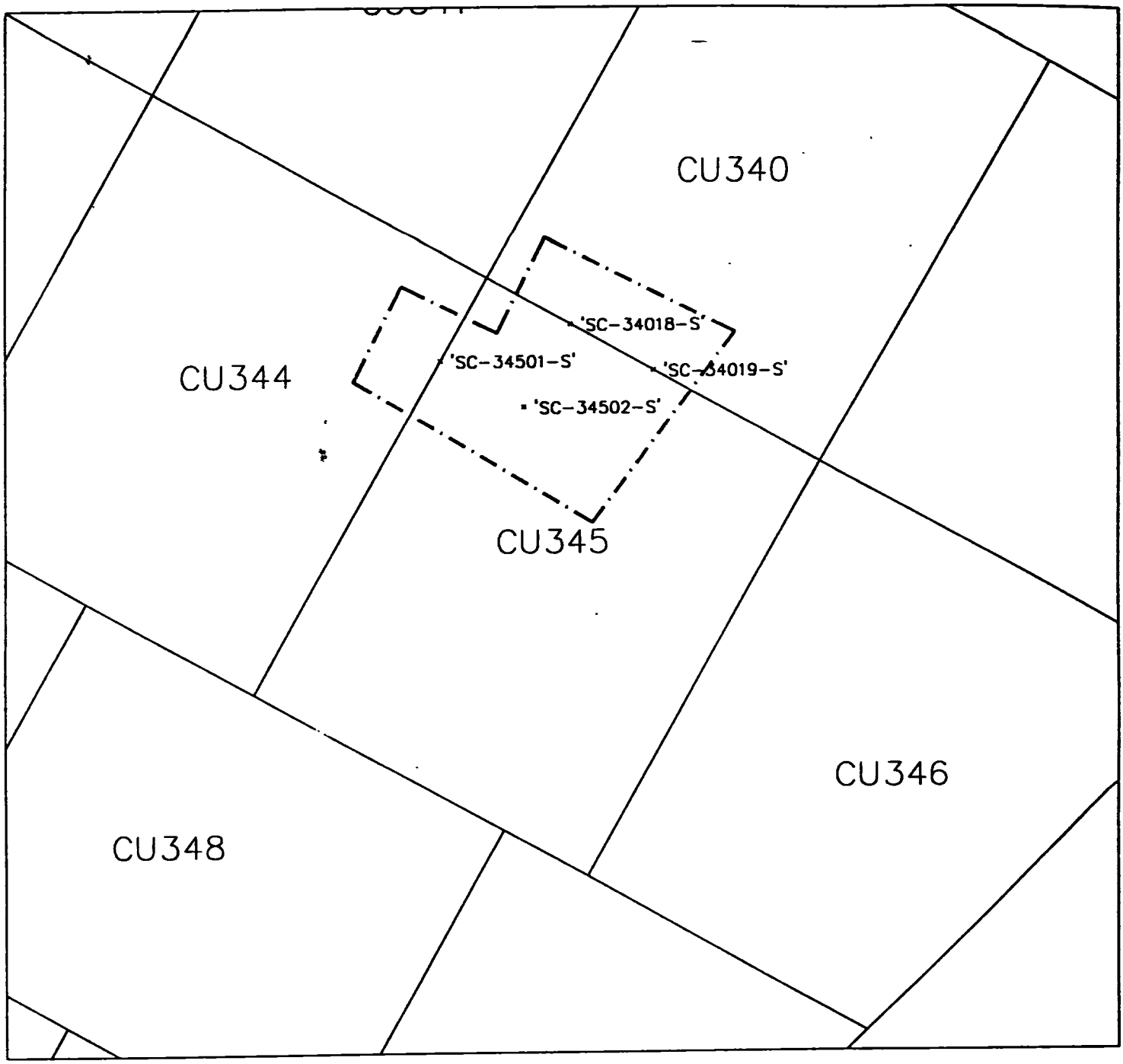
Radiation Survey Form WP 437, RU 24 CU ~~346~~ 345 OT

Date Plotted 6/2/00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "P"
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/09/01	Calibration Due:	1/21/01
Survey Date / Time:	6/2/00	Field Bkg.:	10,000 cpm
Surveyor(s):	C. Hamm		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

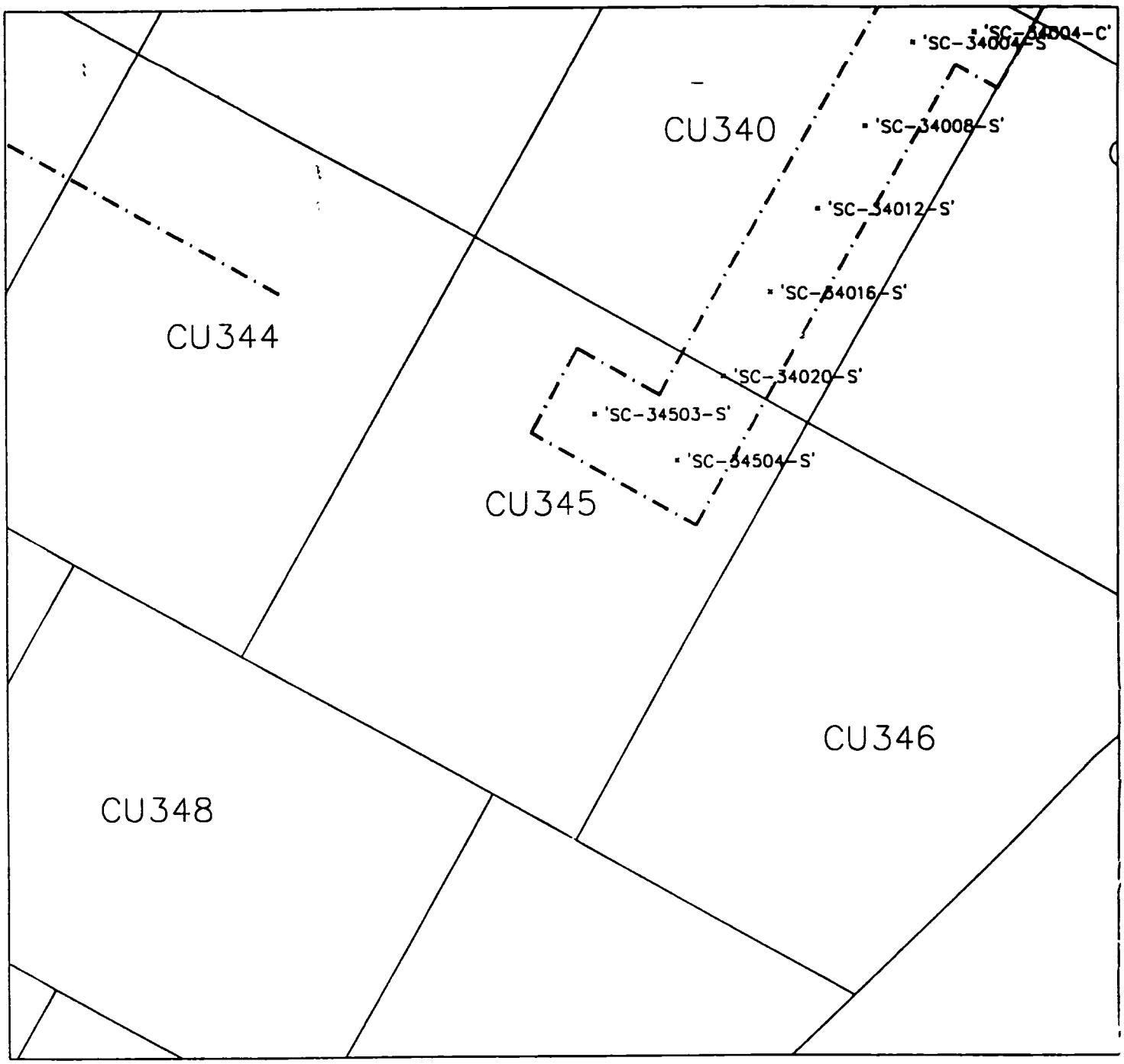
(IN FEET)

1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU 345

Date Plotted 7/21/00 DHO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	154199	Detector Serial #:	17606 (P)
Calibration Due:	~~7-20~~ 2-9-01	Calibration Due:	1-21-01
Survey Date / Time:	7-20-00/1500	Field Bkg.:	10,000 cpm
Surveyor(s):	T. BROWDER		
Comments:	ALL RESULTS <1.5 X BKG		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

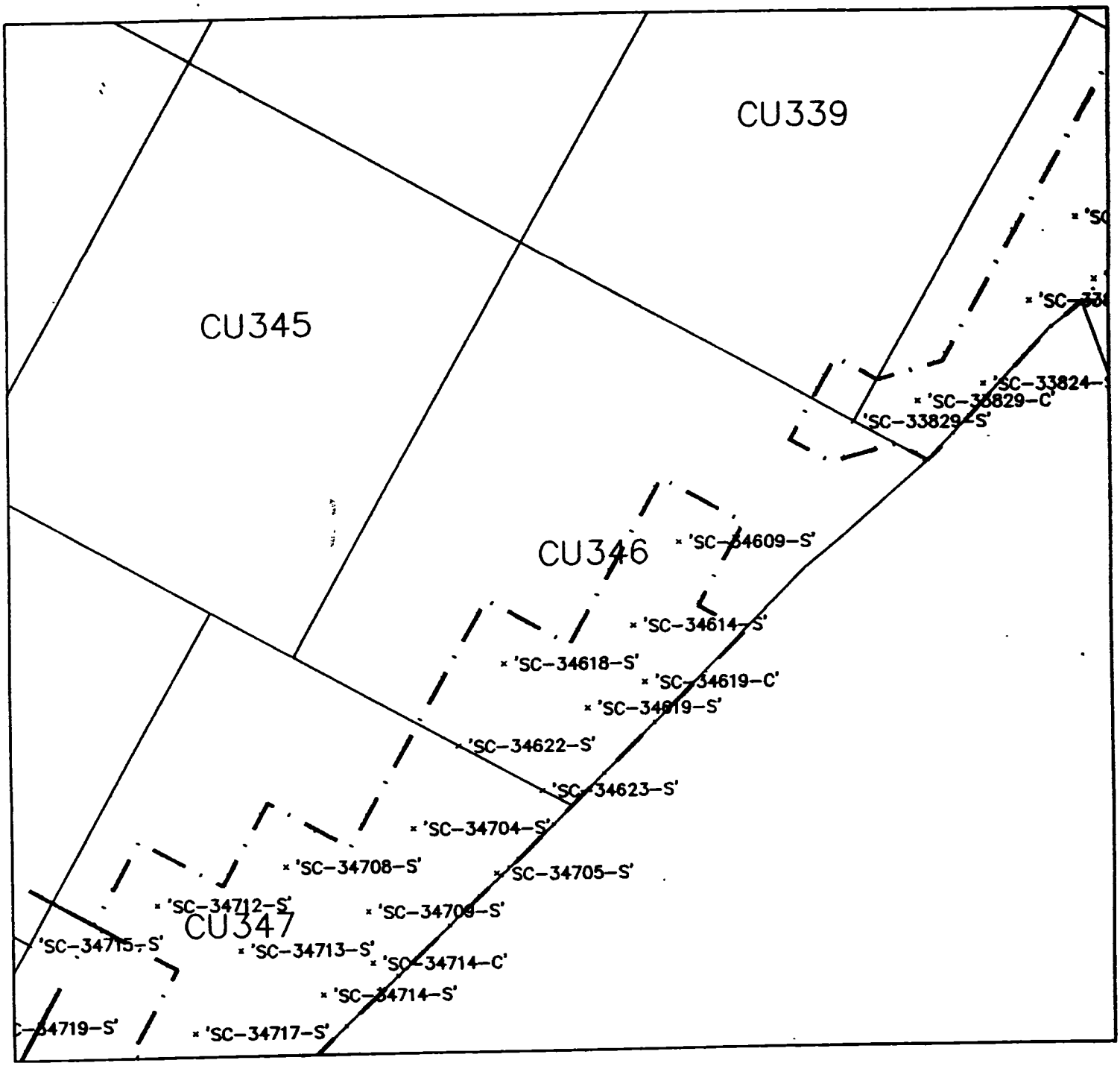
(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU 345

Date Plotted 7/20/00

DHO CAD

Meter Model #:	2221	Detector Model #:	44-10-2
Meter Serial #:	154199	Detector Serial #:	17606 (P)
Calibration Due:	2-9-01	Calibration Due:	1-21-01
Survey Date / Time:	7-20-00/1500	Field Bkg.:	10,000 cpm
Surveyor(s).	T BROWER		
Comments.	ALL RESULTS <1.5 x BKG		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

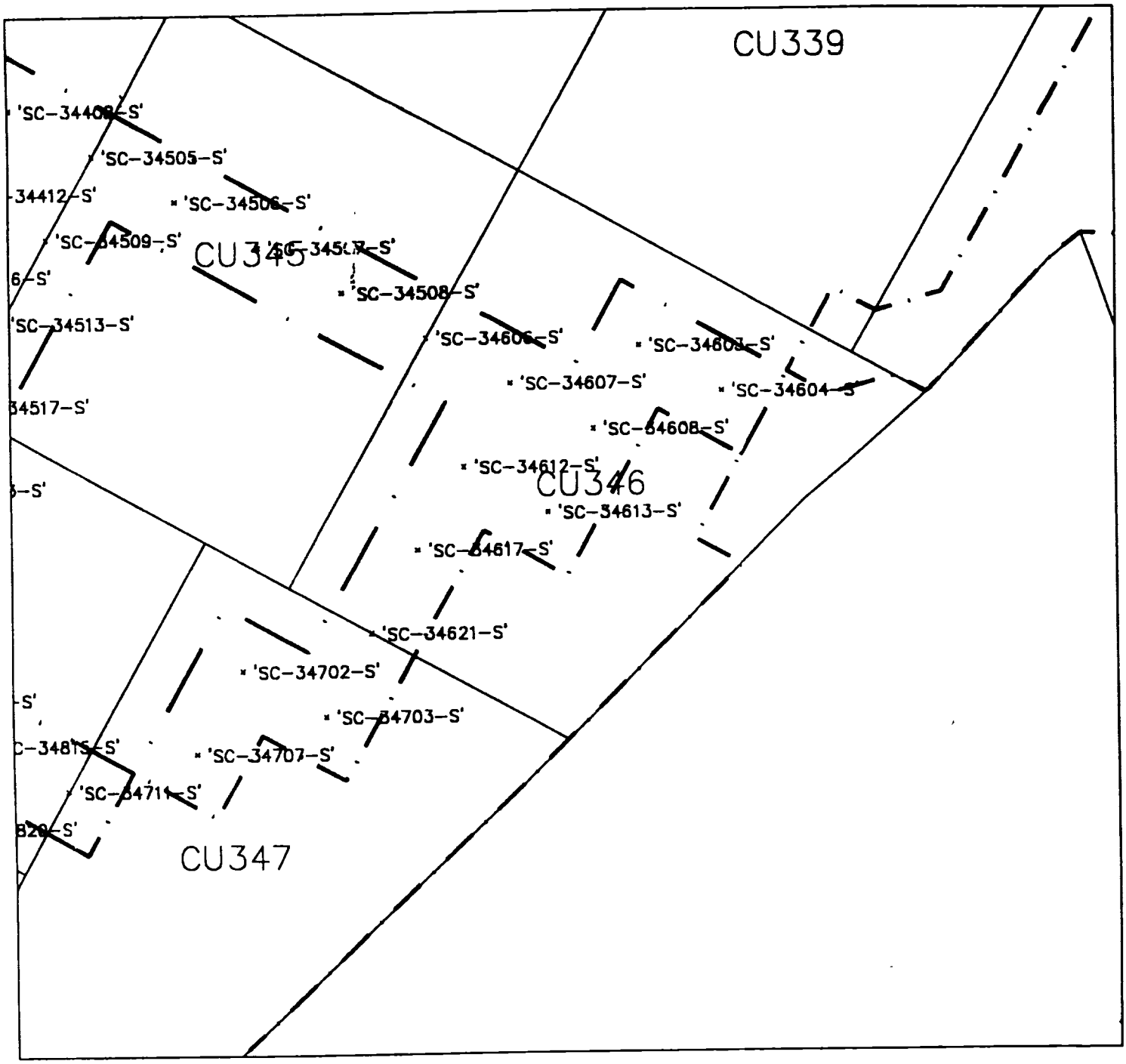
Radiation Survey Form WP 437, RU 24 CU 346

Date Plotted 4-21-00

DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/13/00	Calibration Due:	9/24/00
Survey Date / Time:	3/18/00	Field Bkg.:	5000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

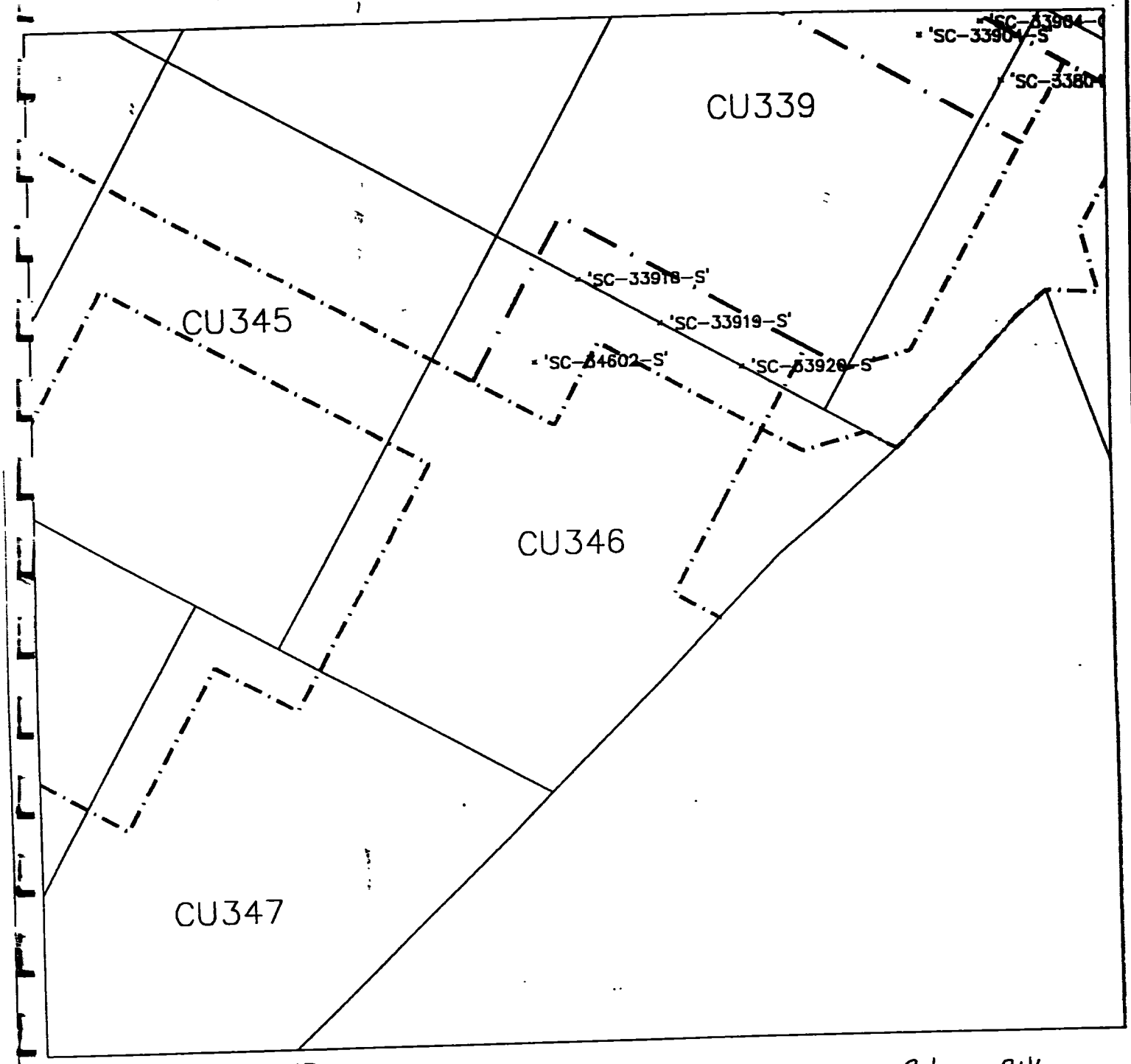
N

Radiation Survey Form WP 437, RU 24 CU 346

Date Plotted 5/04/00 DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "f"
Meter Serial #:	99158	Detector Serial #:	122181
Calibration Date:	7/24/00	Calibration Date:	9/24/00
Survey Date / Time:	5/3/00	Field Bkg.:	5000 cpm
Surveyor(s):	J. Bowhay		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

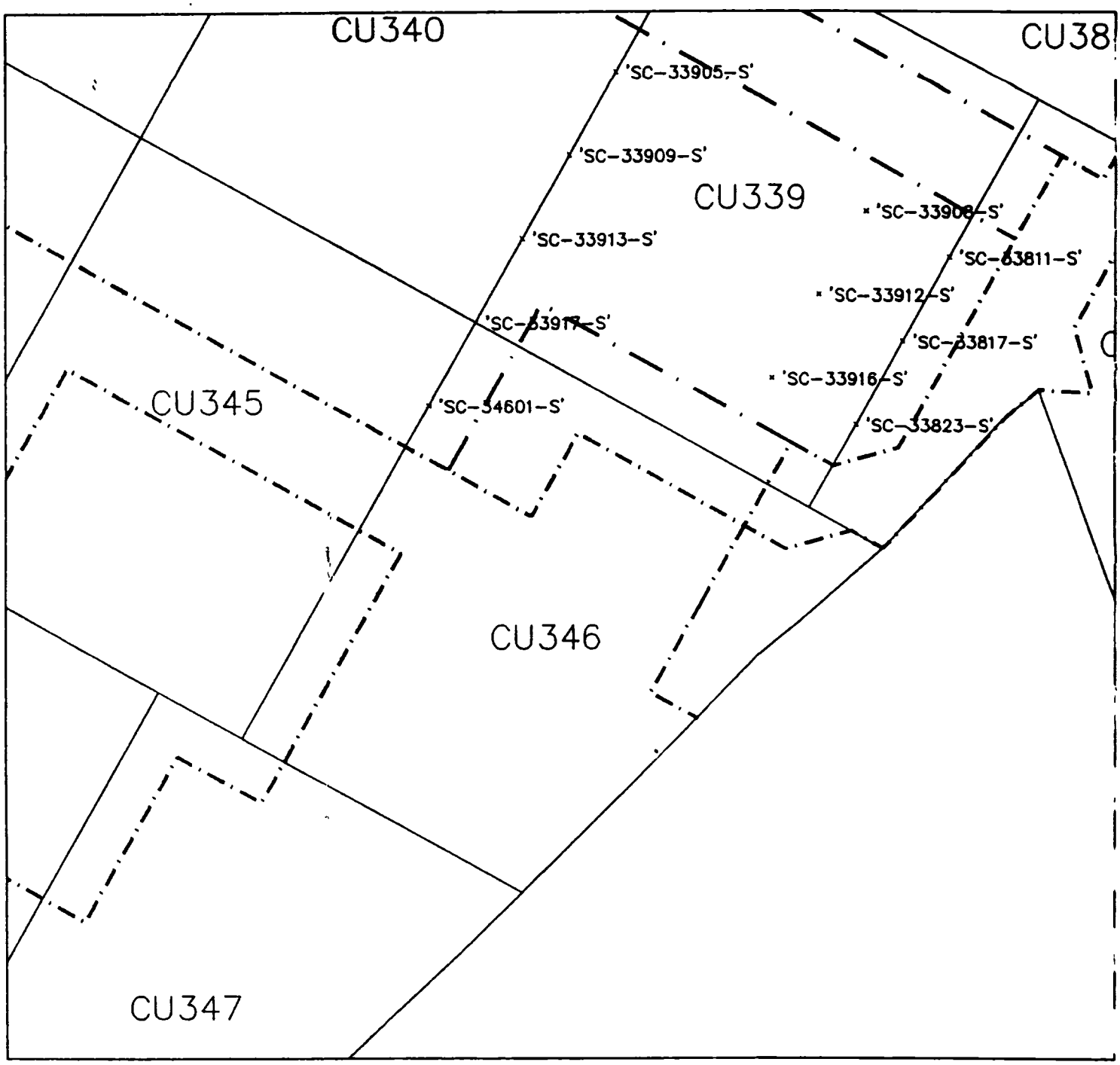
N

Radiation Survey Form WP 437, RU 24 CU 346

Date Plotted 06/01/00

DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 "F"
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Date:	7/24/00	Calibration Date:	9/24/00
Survey Date / Time:	6/1/00	Field Bkg.:	5,000 CPM
Surveyor(s):	T. Brower		
Comments:	All readings <1.5 Bkg		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

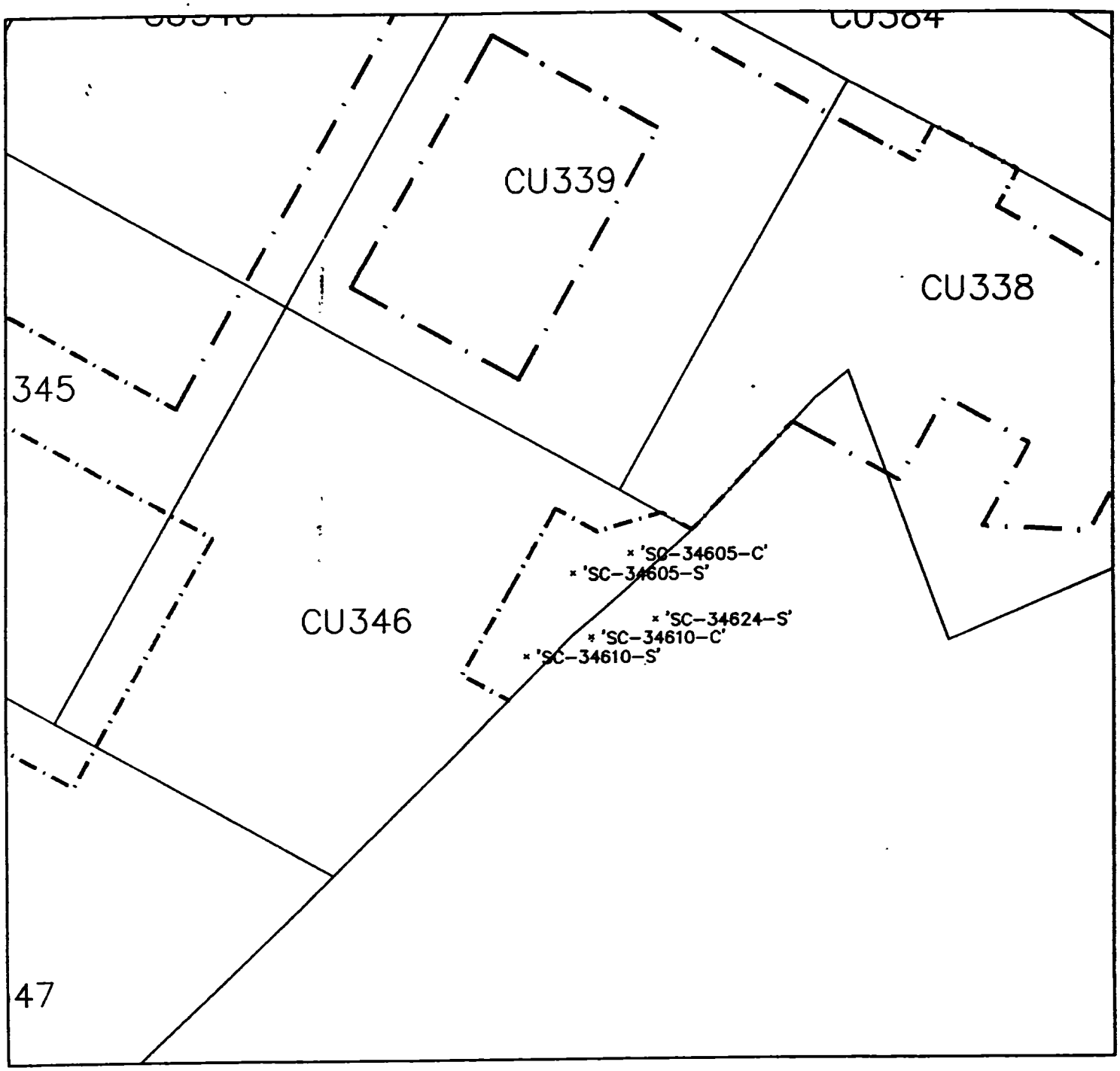
Radiation Survey Form WP 437, RU 24 CU 346

Date Plotted 6/2/00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "P"
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/09/01	Calibration Due:	1/21/01
Survey Date / Time:	6/2/00	Field Bkg.:	10,000 cpm
Surveyor(s):	C. Hamm		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

GRAPHIC SCALE

50 0 50 100

(IN FEET)

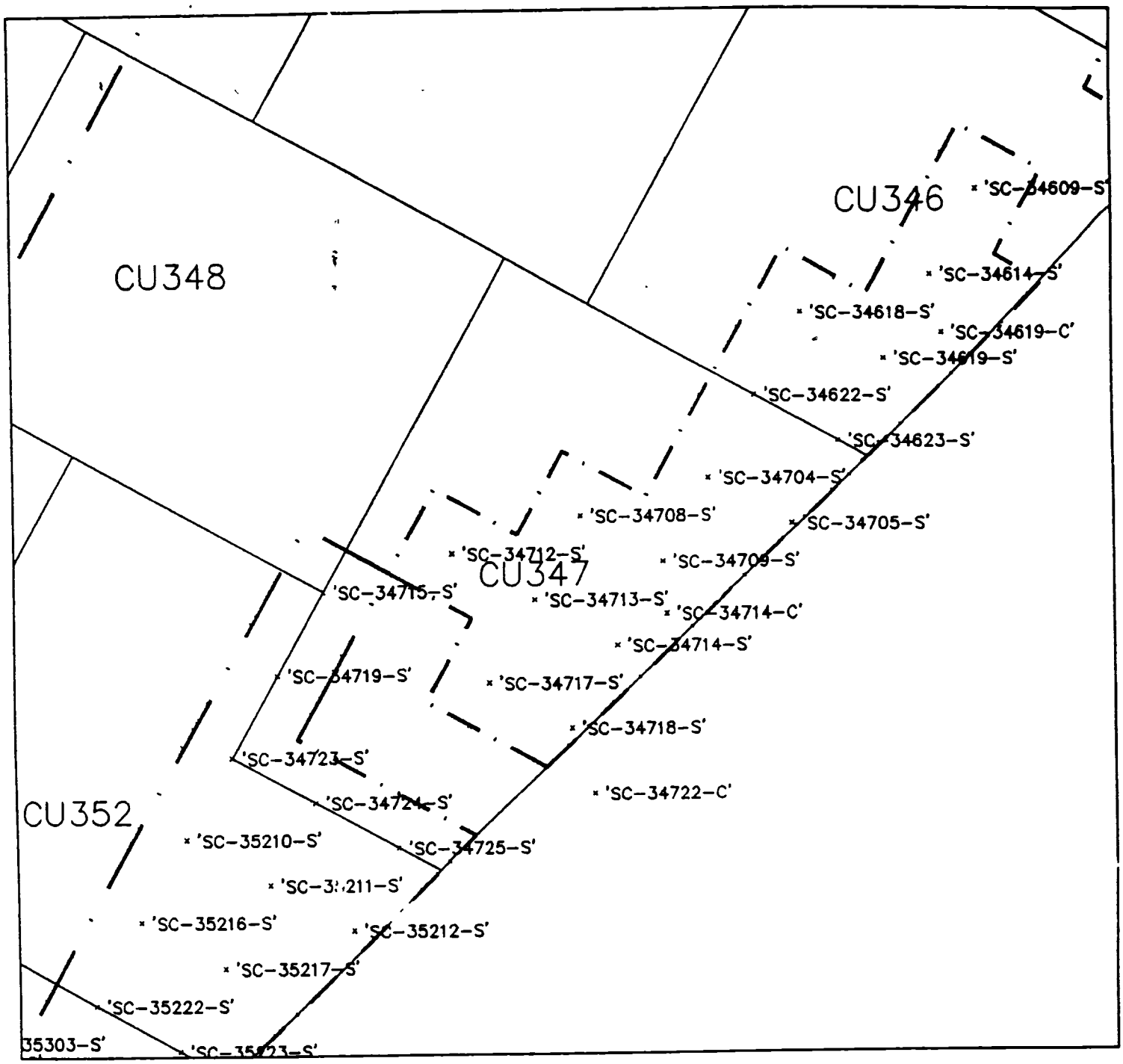
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU 346

Date Plotted 6/21/00

DEO CAD

Meter Model #:	2221	Detector Model #:	2x2P
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/9/01	Calibration Due:	1/21/01
Survey Date / Time:	6/20/00	Field Bkg.:	10,000 CPM
Surveyor(s):	T. Brown		
Comments:	All readings ≤ 1.5 Bkg		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

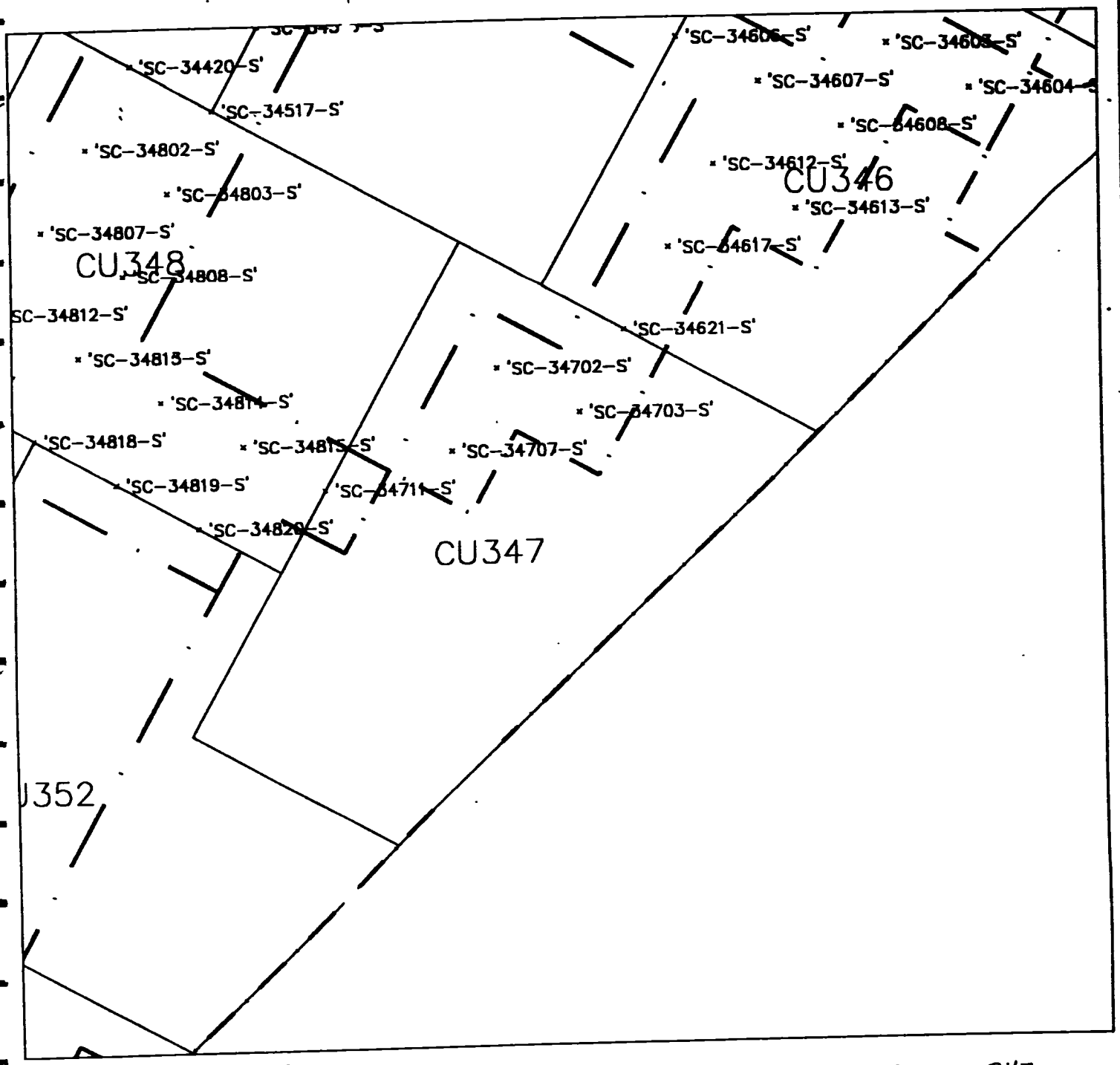
Radiation Survey Form WP 437, RU 24 CU 347

Date Plotted 4-21-00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/13/00	Calibration Date:	9/24/00
Survey Date / Time:	3/19/00	Field Bkg.:	5000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

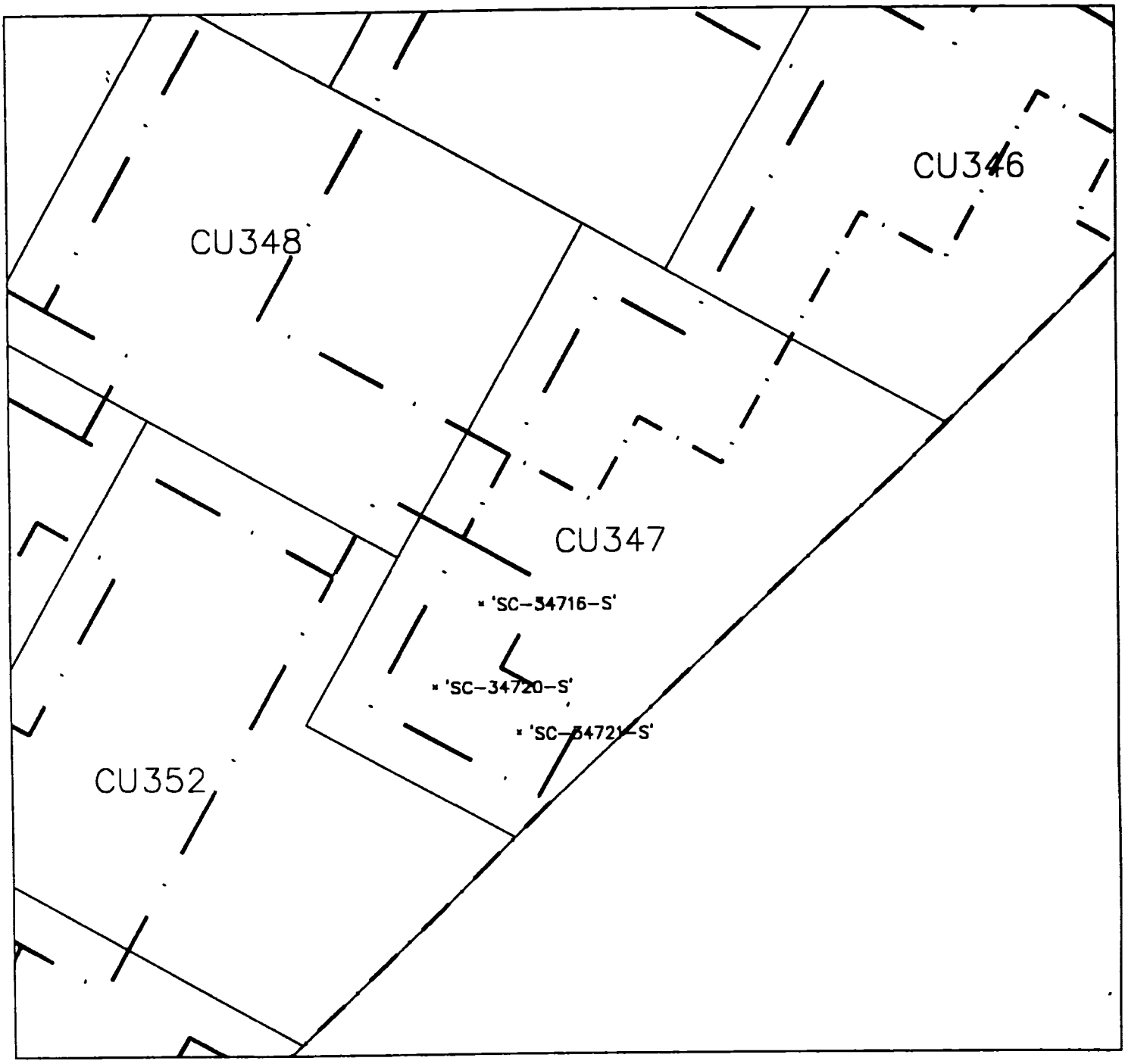
Radiation Survey Form WP 437, RU 24 CU 347

Date Plotted 5/04/00

DEO CAD

Meter Model #:	2221	Detector Model #:	2+2 NaI 6"
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Due:	7/24/00	Calibration Due:	9/24/00
Survey Date / Time:	5/3/00	Field Bkg.:	5000 cpm
Surveyor(s):	J. Bowling		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

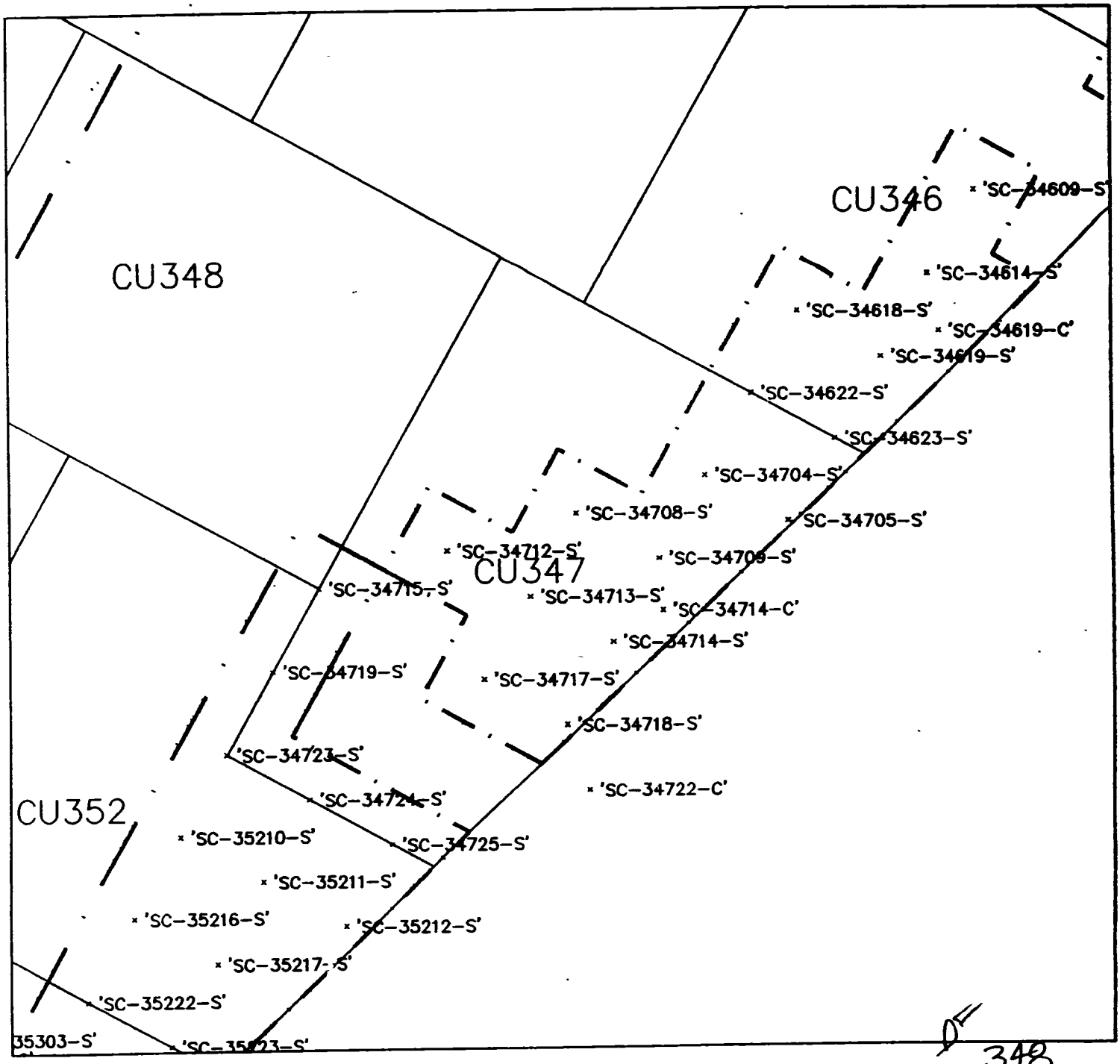
N

Radiation Survey Form WP 437, RU 24 CU 347

Date Plotted 5/05/00

DSD CAD

Meter Model #:	2221	Detector Model #:	2x2 'F'
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Due:	7/24/00	Calibration Due:	9/24/00
Survey Date / Time:	5/5/00	Field Bkg:	5,000 cpm
Surveyor(s):	T. Brown		
Comments:	All readings <1.5 BKg		



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

N

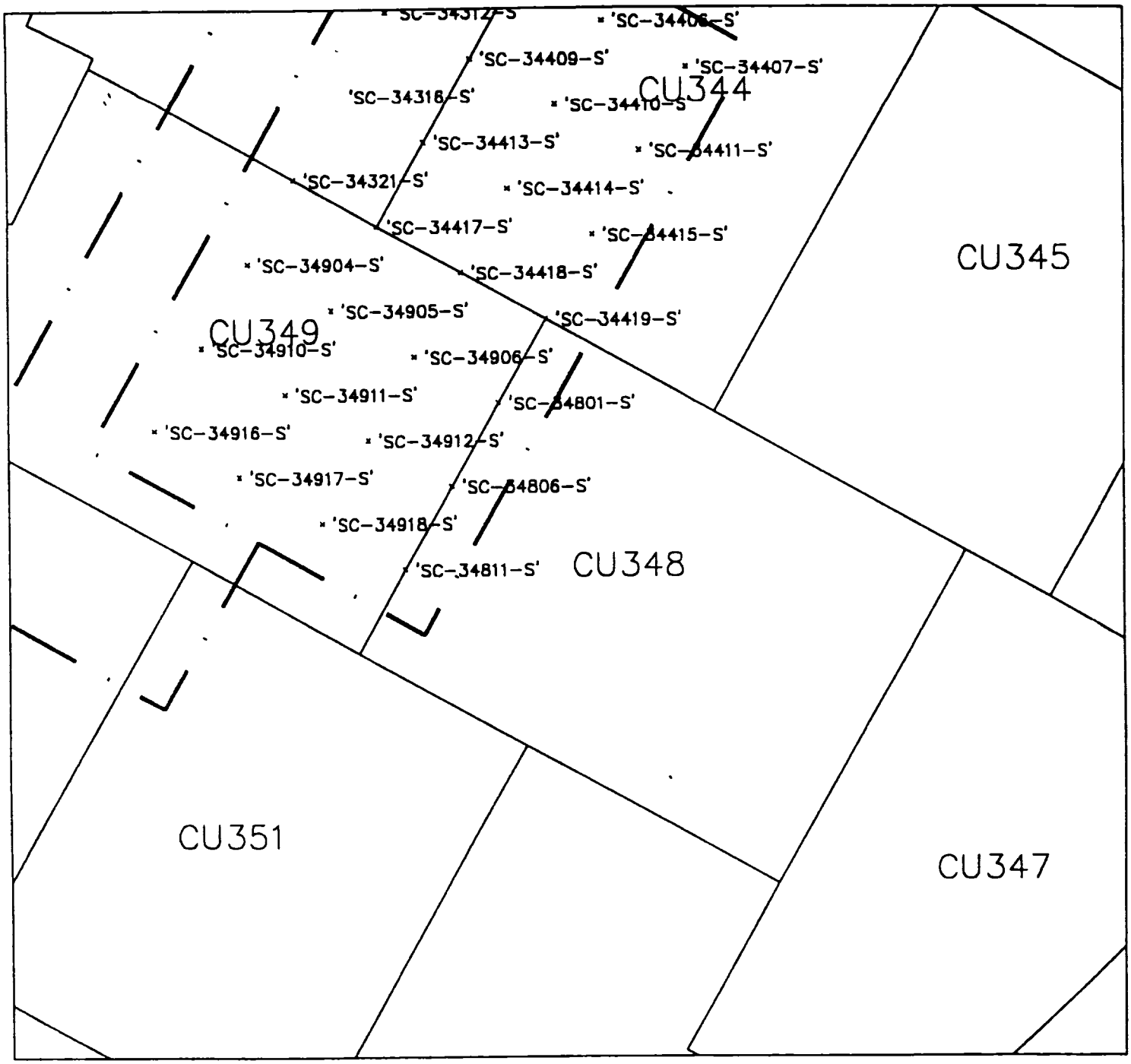
Radiation Survey Form WP 437, RU 24 CU 348 347

Date Plotted 4-21-00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130164
Calibration Due:	10/13/00	Calibration Due:	9/24/00
Survey Date / Time:	3/18/00	Field Bkg.:	5000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

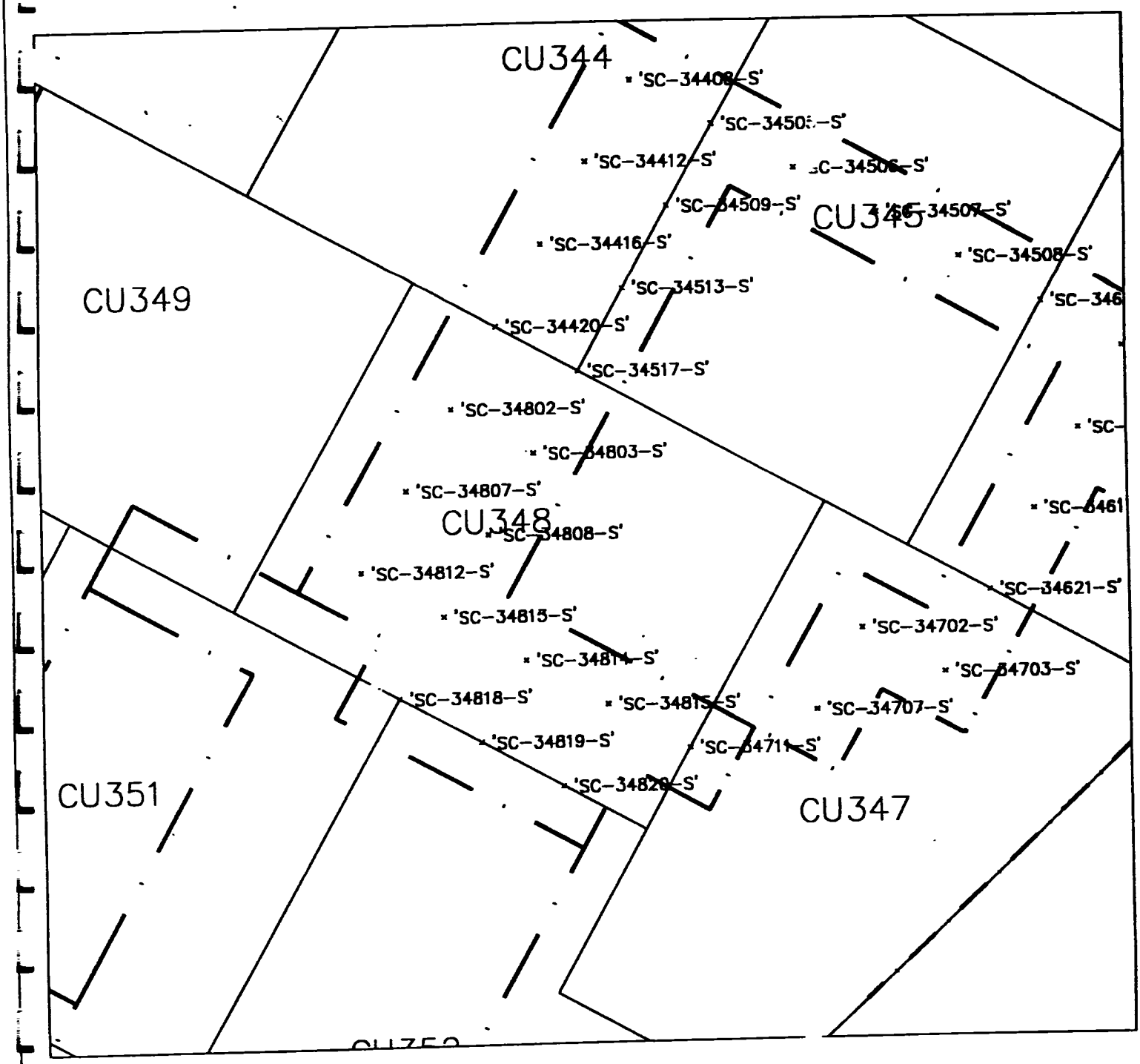
N

Radiation Survey Form WP 437, RU 24 CU 348

Date Plotted 4/13/00 DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/4/00	Calibration Due:	9/24/00
Survey Date / Time:	4/12/00	Field Bkg.:	6000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

Radiation Survey Form WP 437, RU 24 CU 348

Date Plotted 5/04/00

DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI 6"
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Date:	7/24/00	Calibration Date:	9/24/00
Survey Date / Time:	5/3/00	Field Bkg.:	5000 cpm
Surveyor(s):	J. Bowling		

Comments: Area was surveyed and found to be less than 1.5 times background

LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

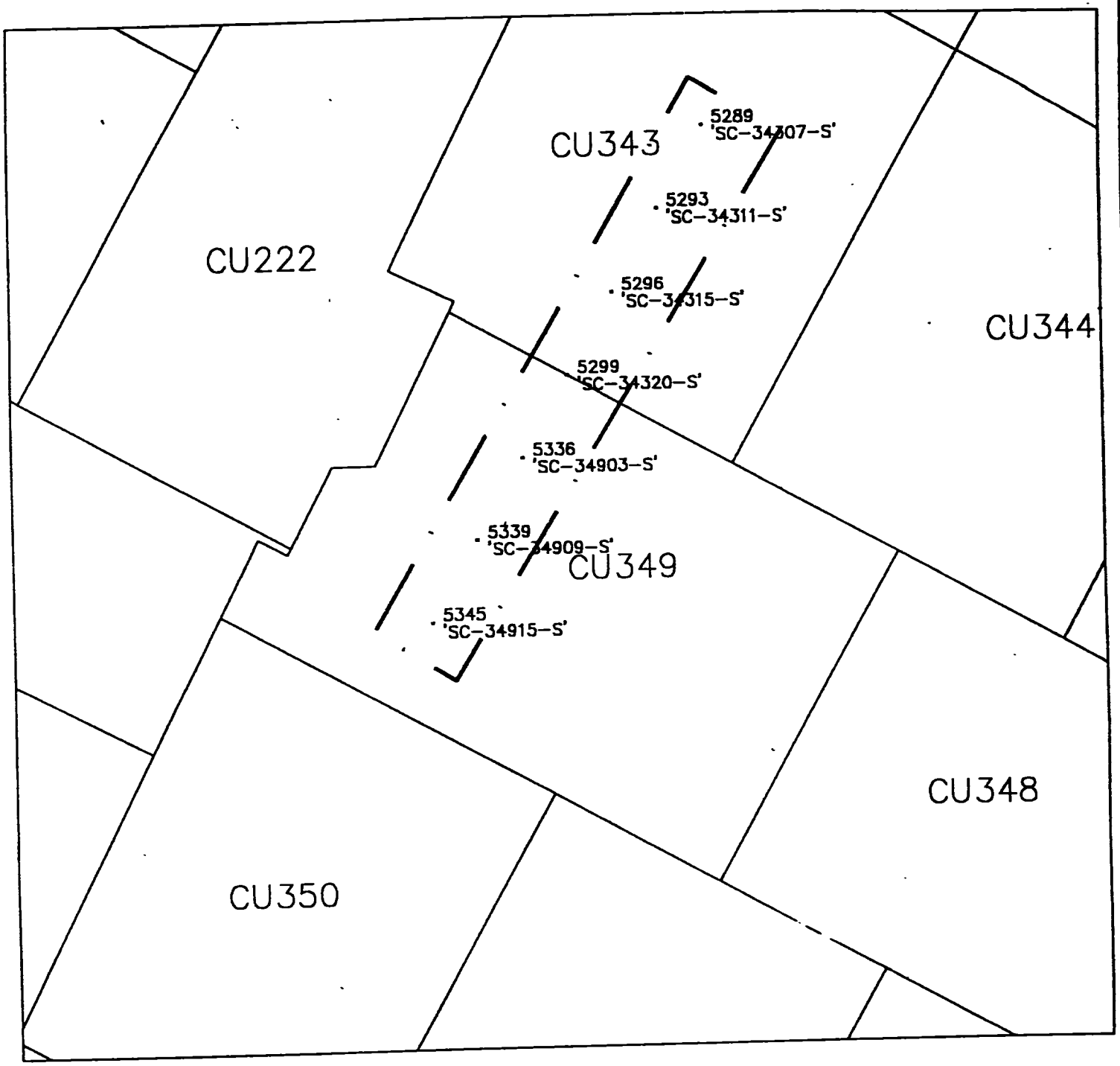
Radiation Survey Form WP 437, RU 24 CU 348

Date Plotted 5/8/00

DBO CAD

Meter Model #:	2221	Detector Model #:	E-82 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/12/00	Calibration Due:	9/24/00
Survey Date / Time:	5/6/00	Field Bkg.:	5300 cpm
Surveyor(s):	C. Hamer		

Comments: Area was re-surveyed and found to be less than 1.5 times background



LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

N

GRAPHIC SCALE

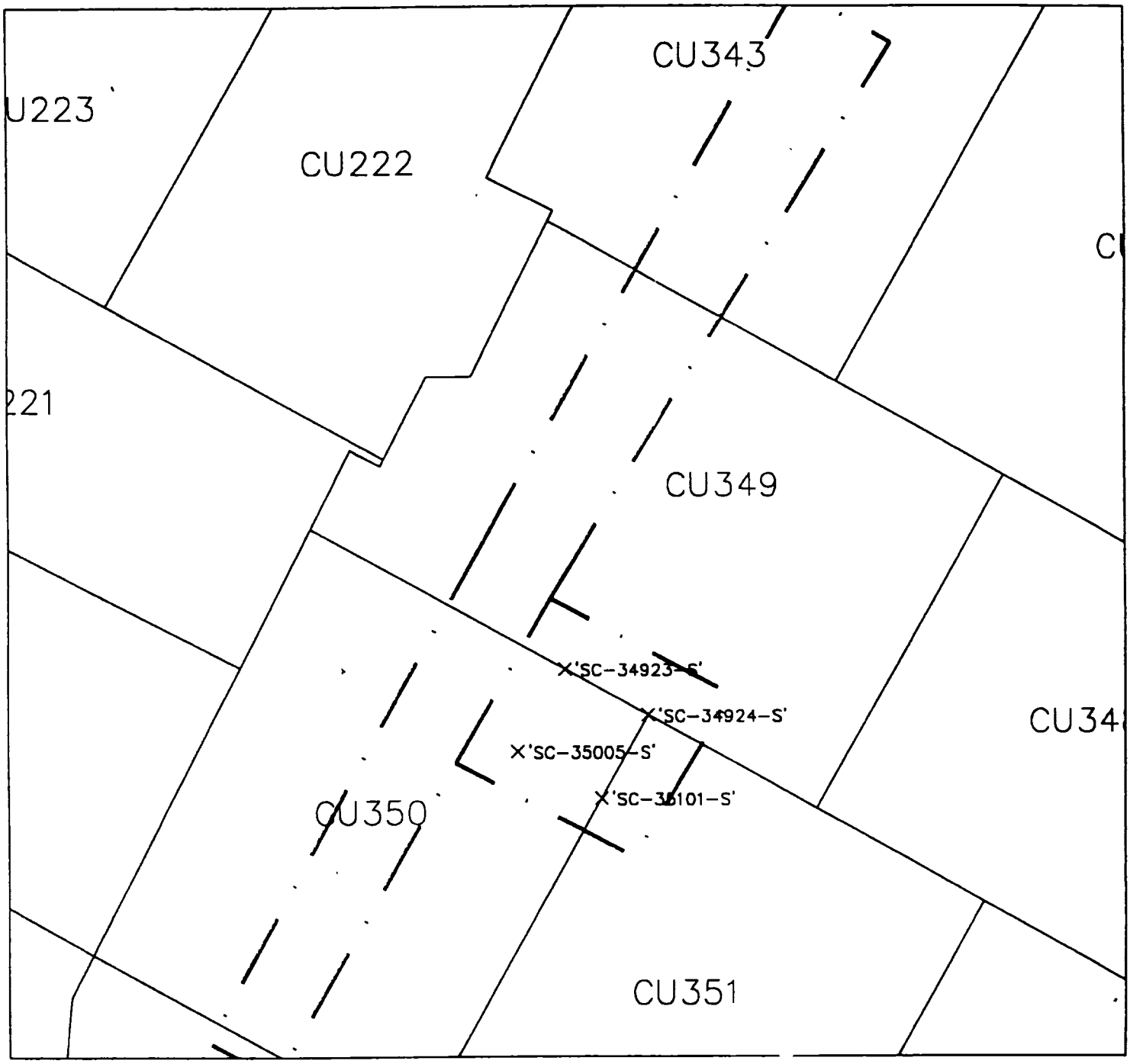
50 0 50 100

(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU 349

DEO CAD

Meter Model #:	2221	Detector Model #:	NaI "2x2"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10-13-00	Calibration Date:	09-24-00
Survey Date / Time:	03-07-00	Field Bkg.:	6,400 cpm
Surveyor(s):	J. Rankin		
Comments:	All areas <1.5 BKground.		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

(IN FEET)
1 inch = 50 ft.

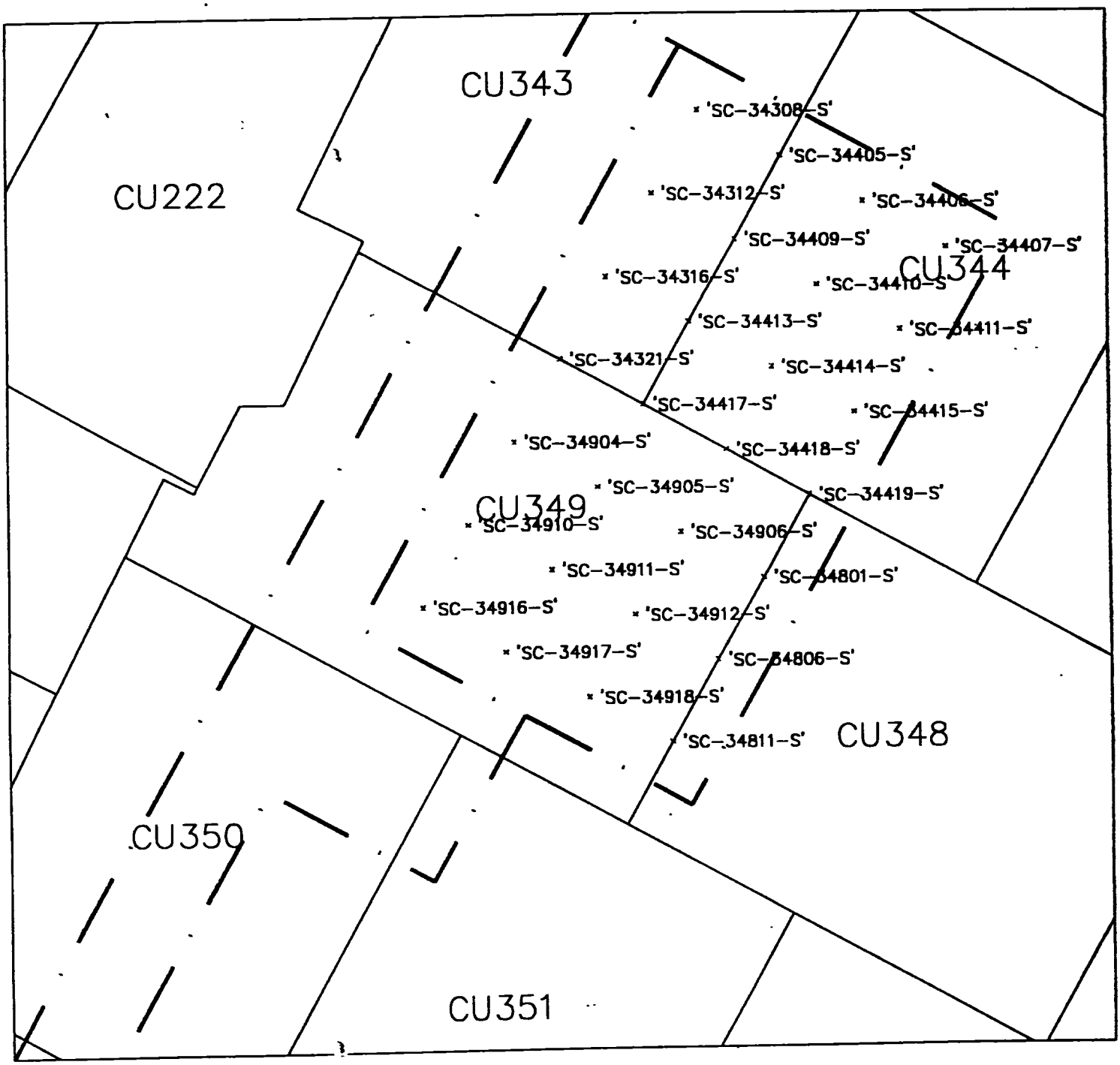
Radiation Survey Form WP 437, RU 24 CU 349

Date Plotted 3/29/00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/13/00	Calibration Due:	9/24/00
Survey Date / Time:	3/28/00	Field Bkg.:	6000 cpm
Surveyor(s):	T. Brewer		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

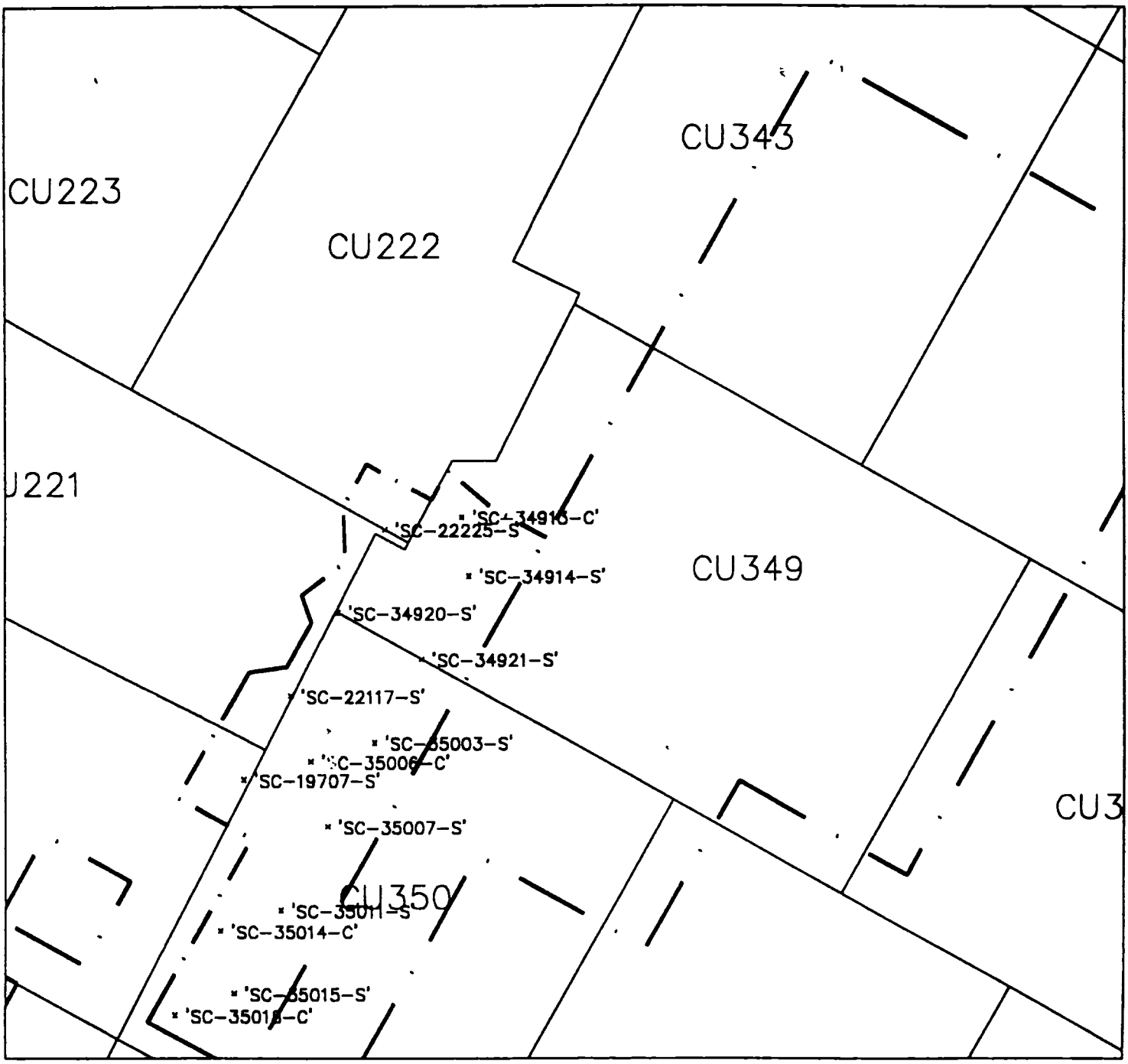
N

Radiation Survey Form WP 437, RU 24 CU 349

Date Plotted 4/13/00 DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI 6"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/13/00	Calibration Due:	9/24/00
Survey Date / Time:	4/12/00	Field Bkg.:	6000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

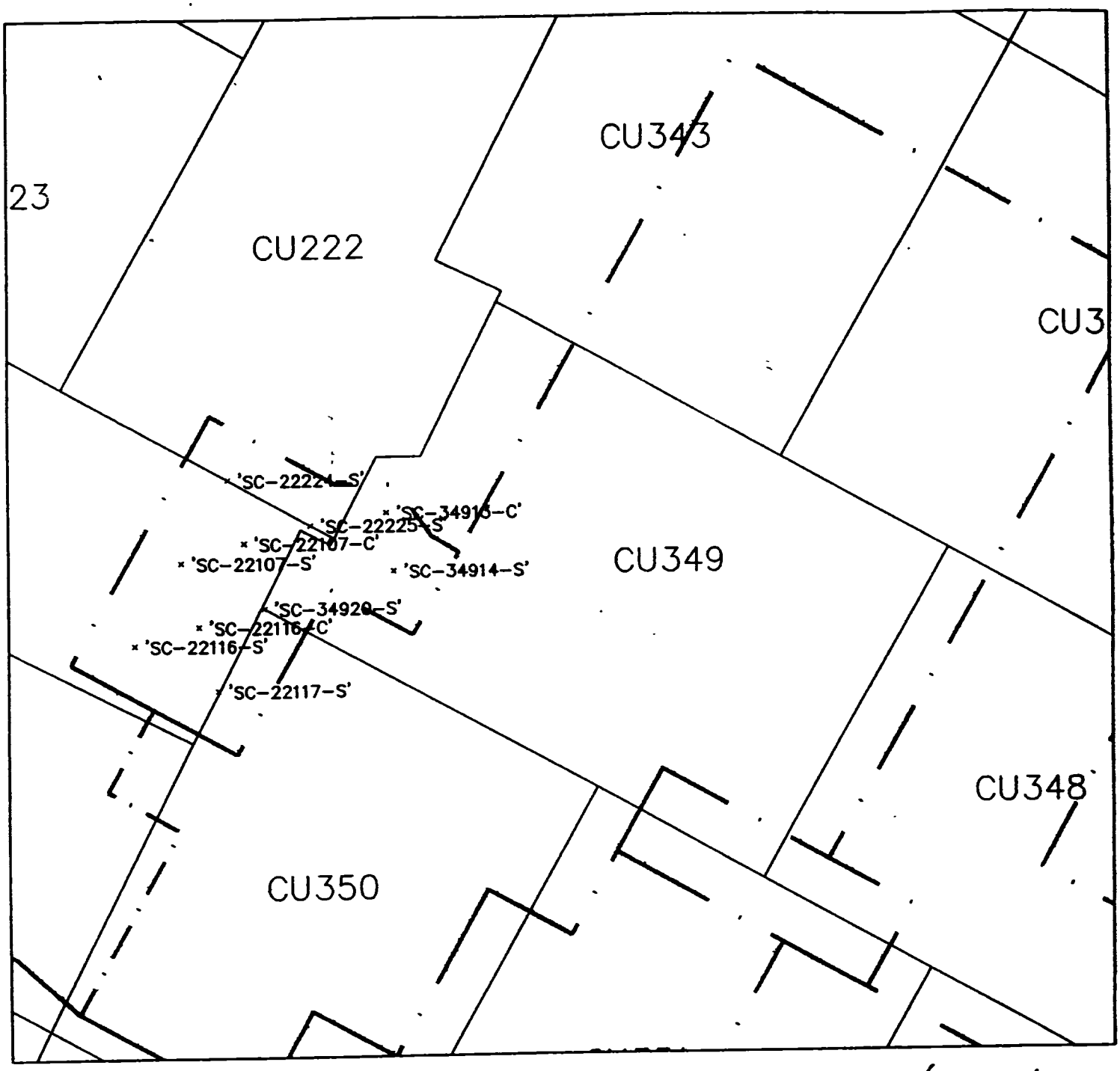
Radiation Survey Form WP 437, RU 24 CU 349

Date Plotted 4/17/00

DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/13/00	Calibration Date:	9/24/00
Survey Date / Time:	4/16/00	Field Bkg.:	6000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

N

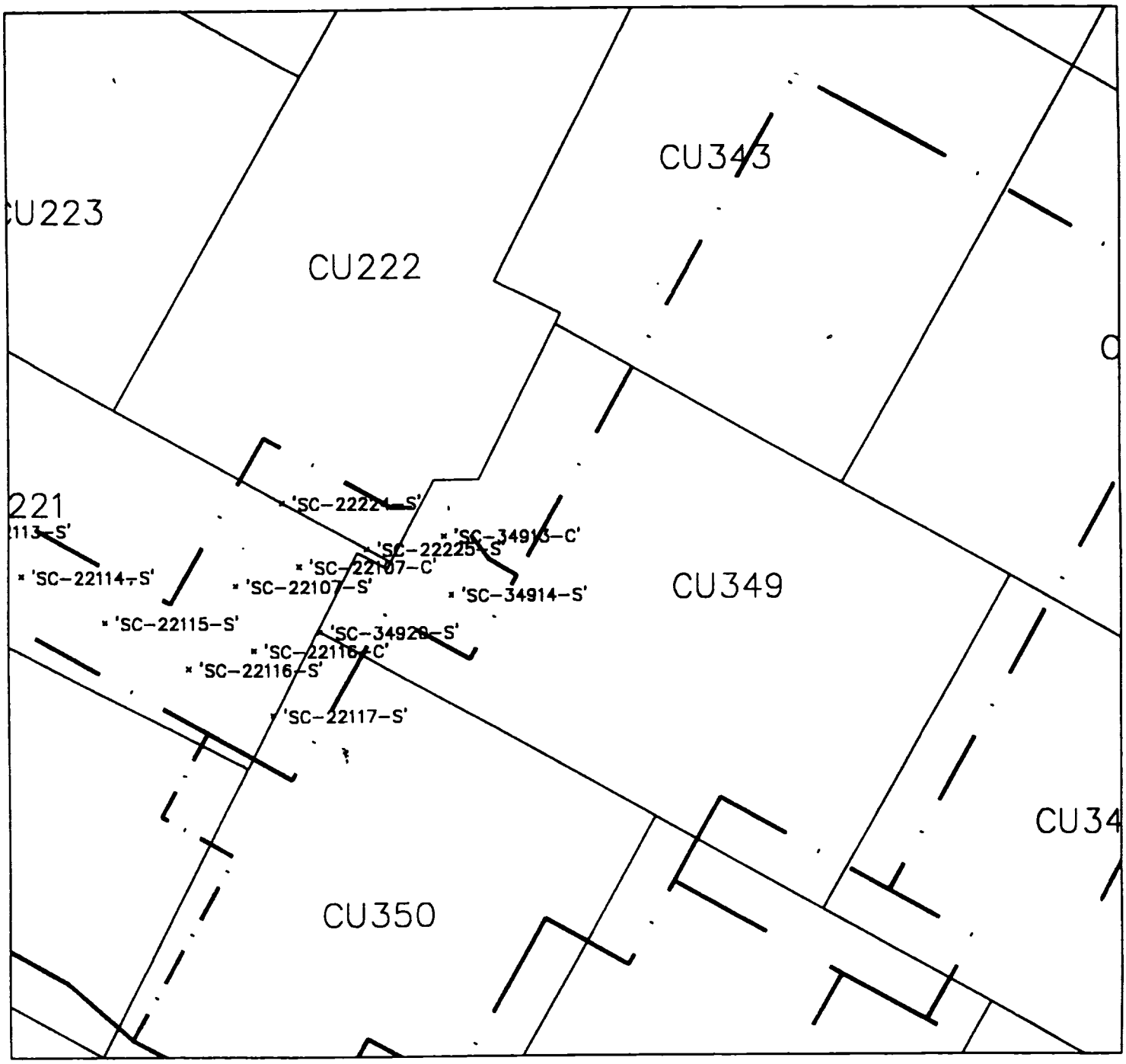
Radiation Survey Form WP 437, RU 24 CU 349

Date Plotted 5/6/00

DEO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/13/00	Calibration Due:	9/24/00
Survey Date / Time:	5/1/00	Field Bkg.:	5700 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

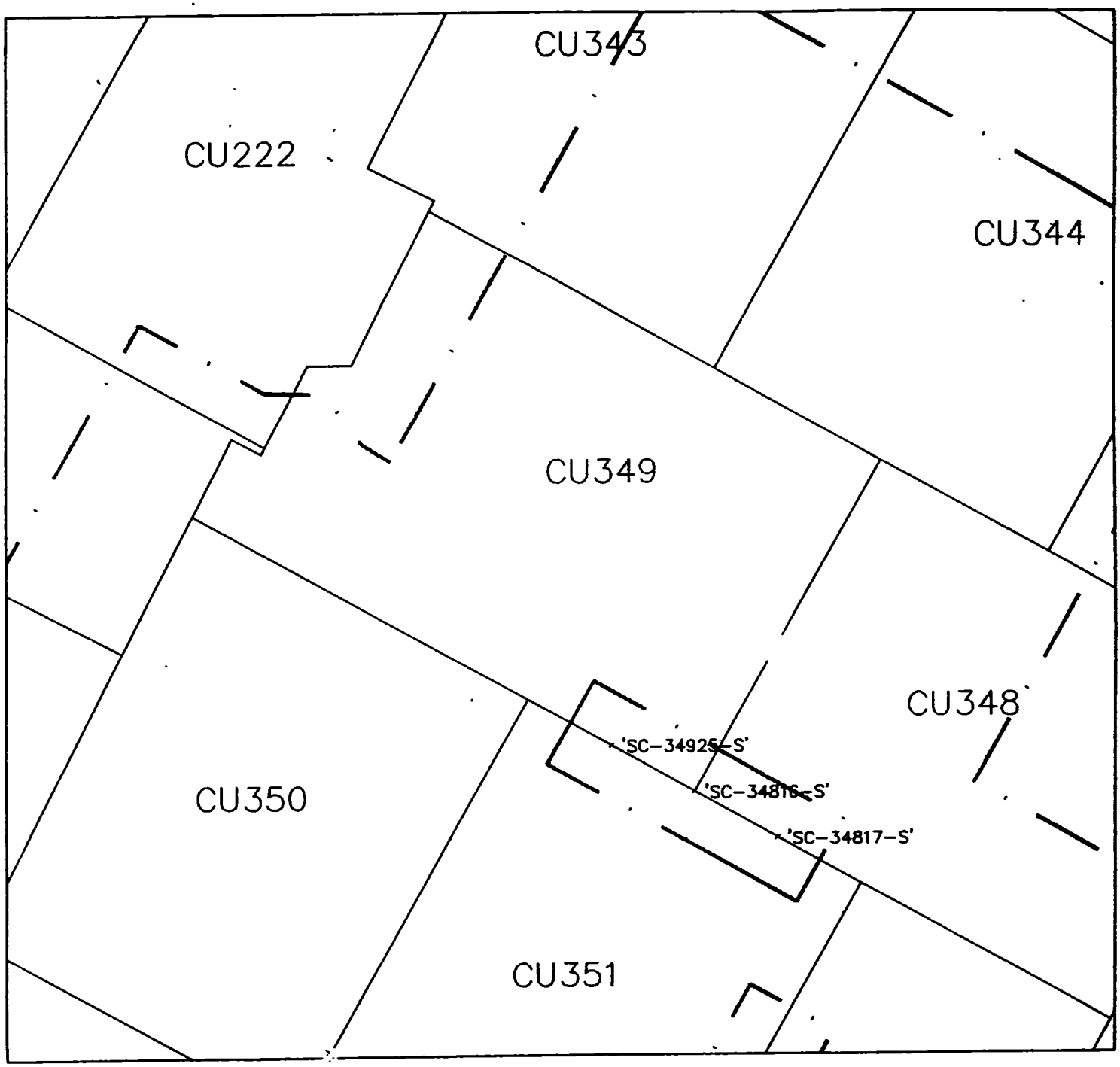
N

Radiation Survey Form WP 437, RU 24 CU 349

Date Plotted 5/05/00 DBD CAD

Meter Model #:	2221	Detector Model #:	2+2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/13/00	Calibration Date:	9/24/00
Survey Date / Time:	5/3/00	Field Bkg.:	5500 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

N

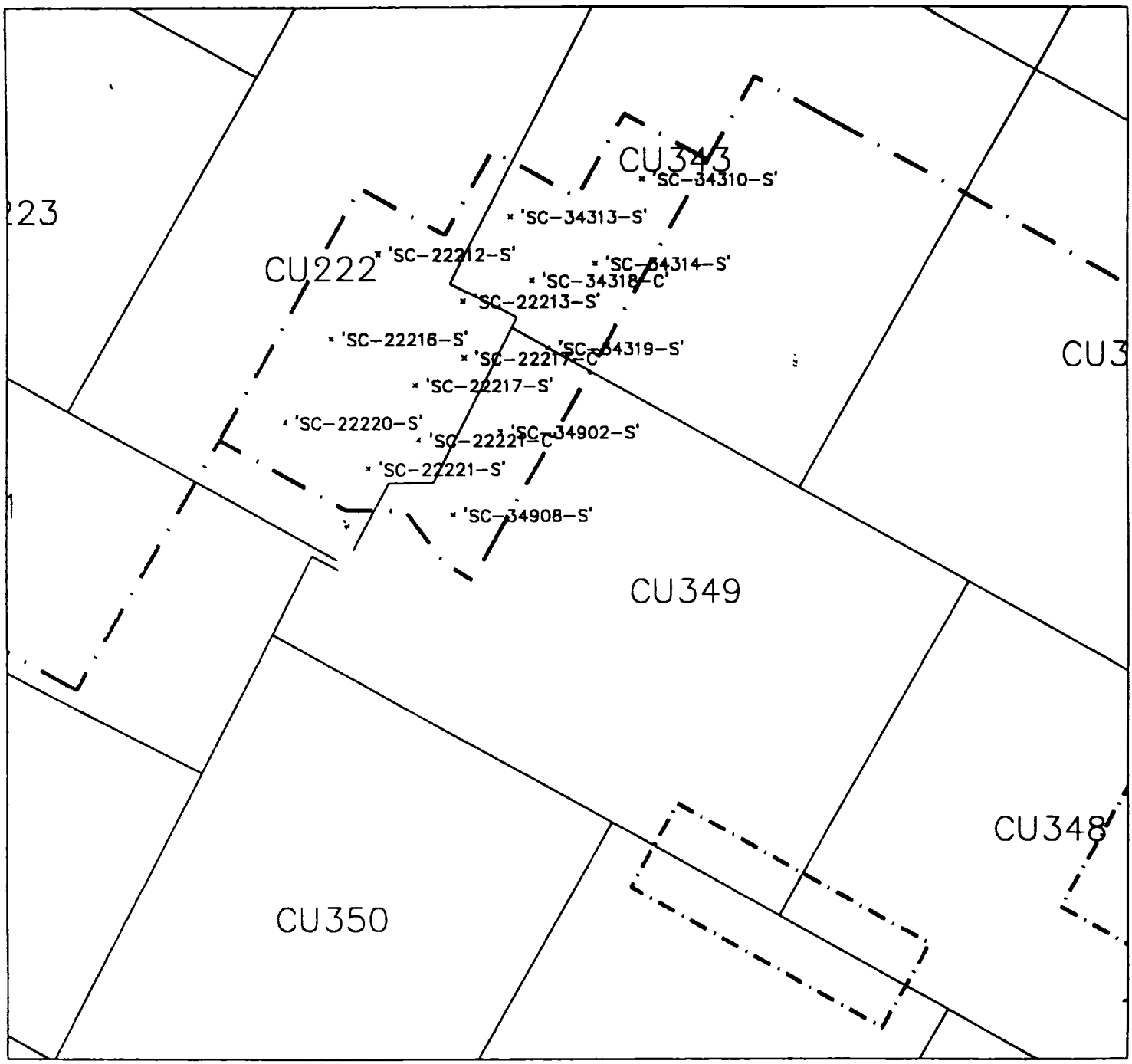
Radiation Survey Form WP 437, RU 24 CU 349

Date Plotted 5/8/00

DHO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/13/00	Calibration Due:	9/24/00
Survey Date / Time:	5/6/00	Field Bkg.:	5300 cpm
Surveyor(s):	C. Hanna		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

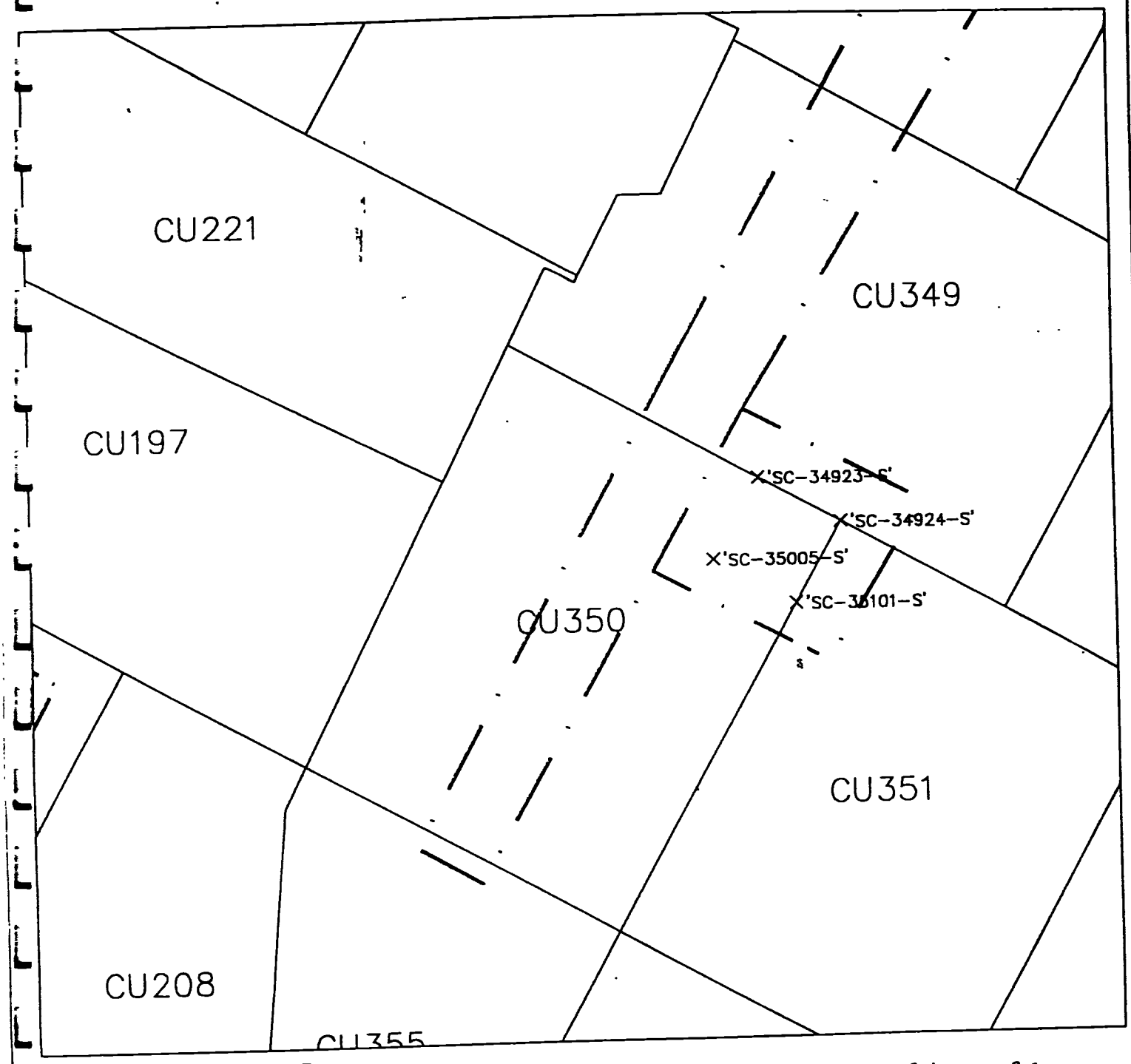
Radiation Survey Form WP 437, RU 24 CU 349

Date Plotted 5/18/00

DEO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI 4" p
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Date:	2/08/01	Calibration Date:	1/24/01
Survey Date / Time:	5/17/00	Field Bkg.:	10,000 cpm
Surveyor(s):	C. Henner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

(IN FEET)

1 inch = 50 ft.

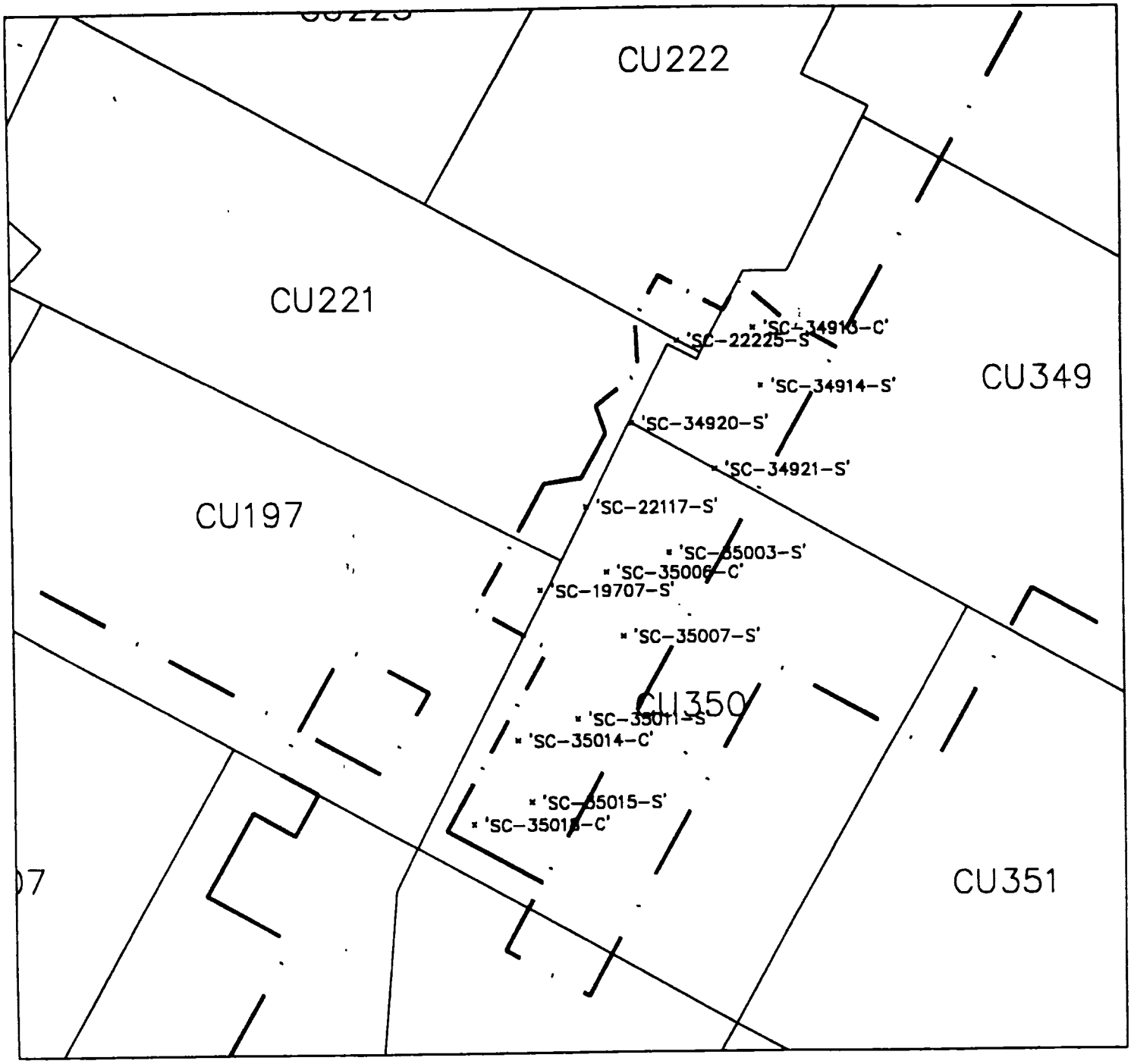
Radiation Survey Form WP 437, RU 24 CU 350

Date Plotted 3/29/00

DEIO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/13/00	Calibration Date:	9/24/00
Survey Date / Time:	3/29/00	Field Bkg.:	6000 cpm
Surveyor(s):	T. Brown		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

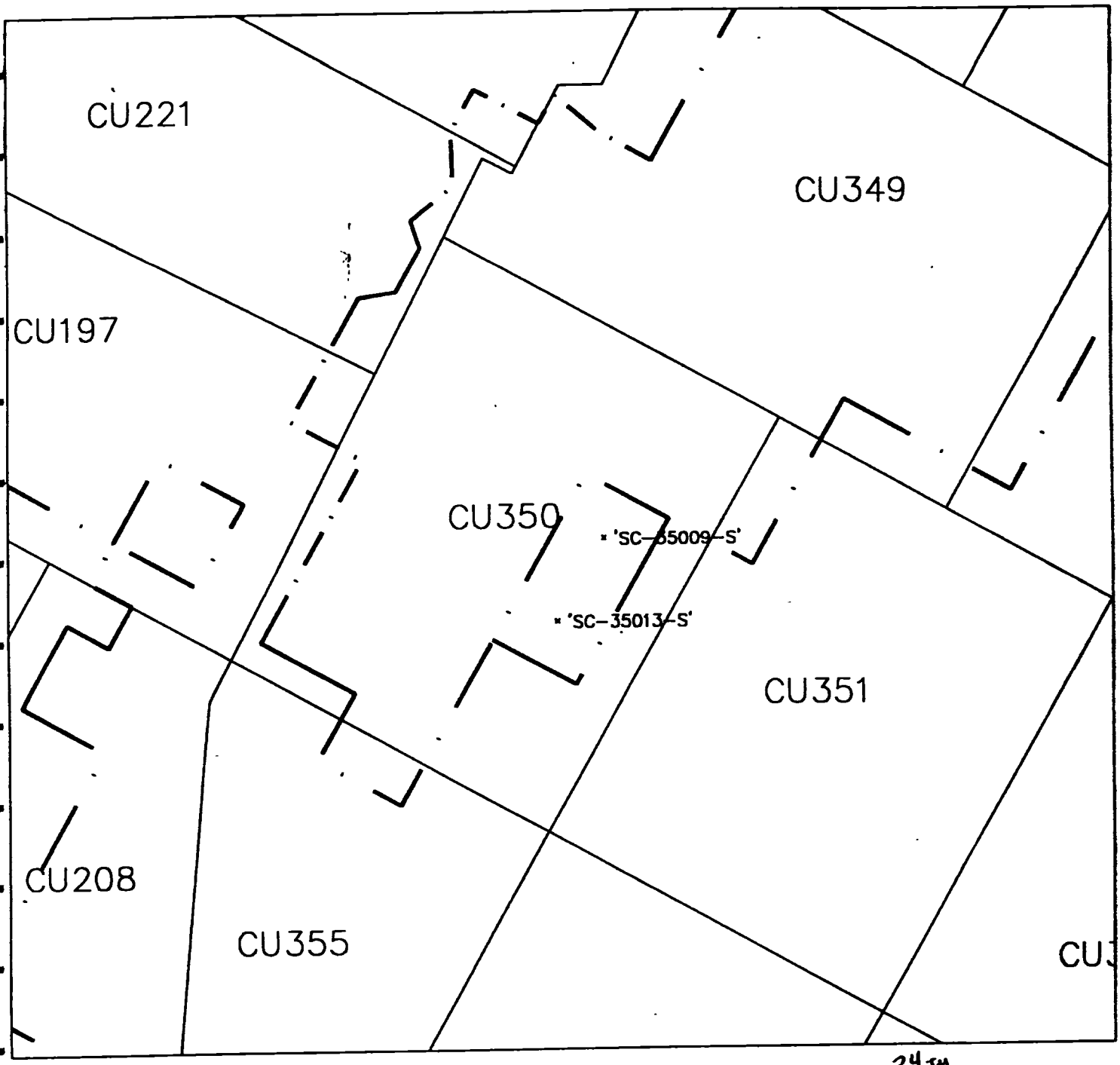
N

Radiation Survey Form WP 437, RU 24 **CU** 350

Date Plotted 4/17/00 **DEO CAD**

Meter Model #:	2221	**Detector Model #:**	2x2 NaI "M"
Meter Serial #:	117617	**Detector Serial #:**	130764
Calibration Due:	10/13/00	**Calibration Date:**	9/24/00
Survey Date / Time:	4/16/00	**Field Bkg.:**	6000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

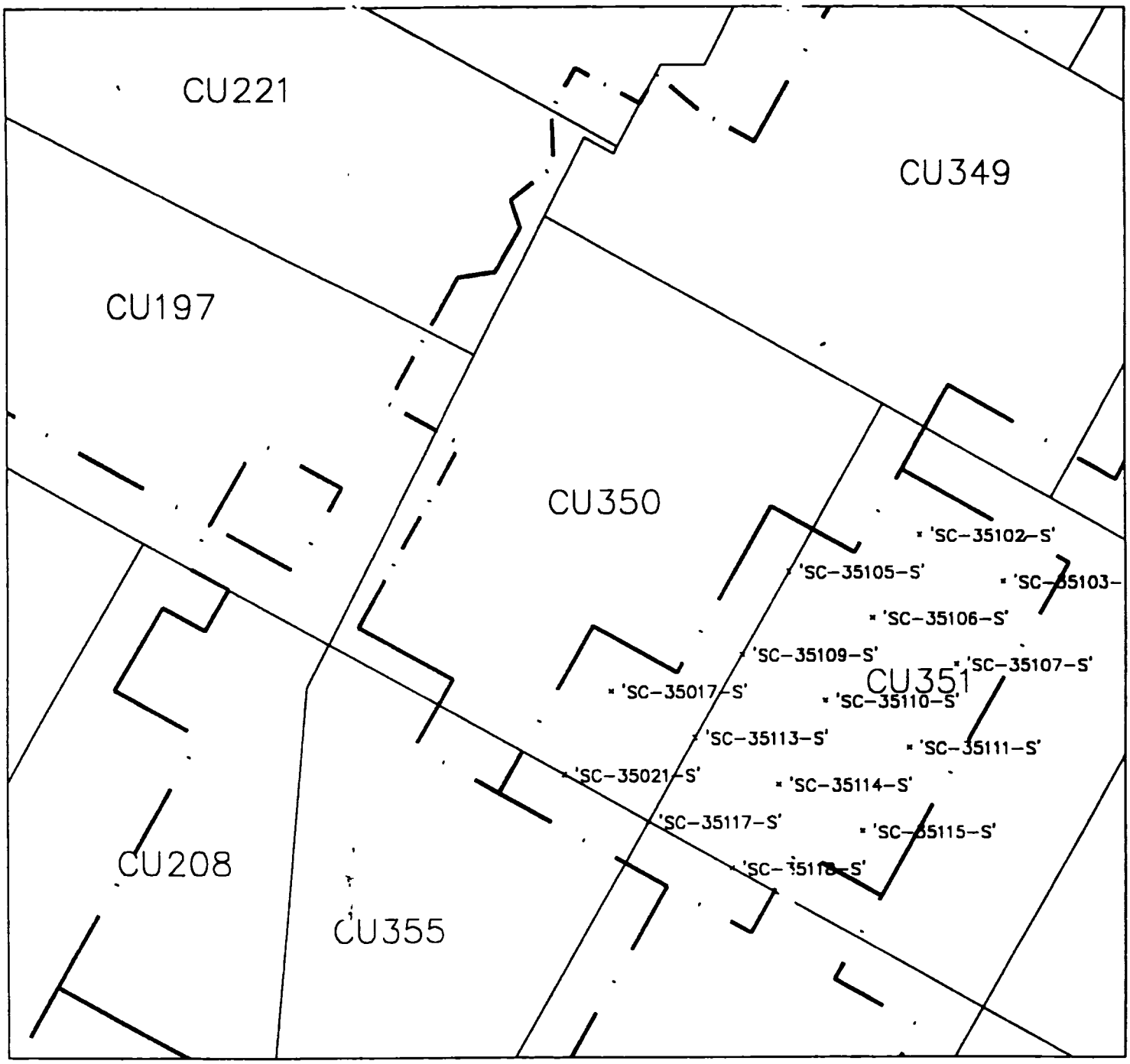
N

Radiation Survey Form WP 437, RU ~~20~~ 24 JM CU 350

Date Plotted _____ DEO CAD

Meter Model #:	2221	Detector Model #:	2+2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/13/00	Calibration Date:	9/29/00
Survey Date / Time:	4/16/00	Field Bkg.:	6000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

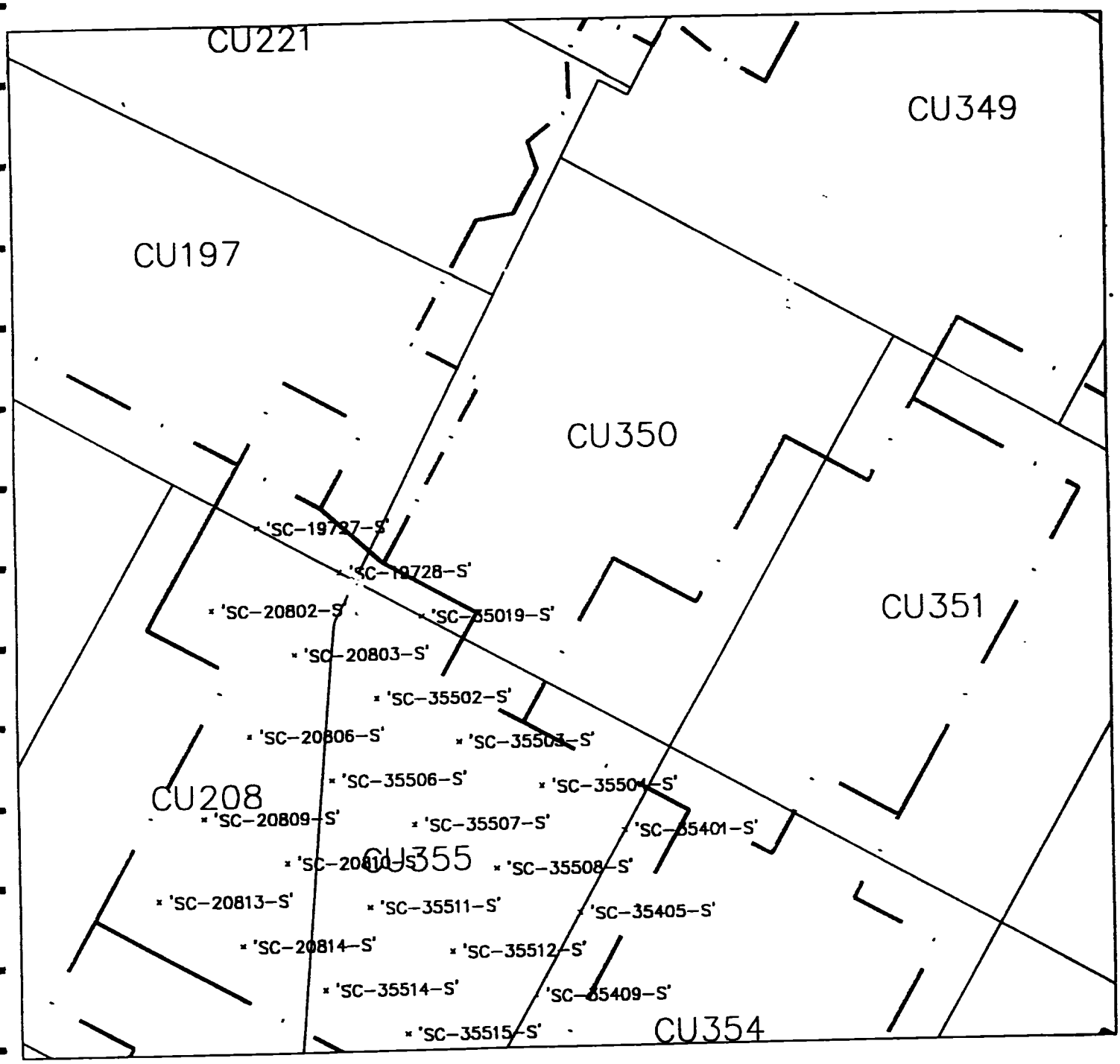
Radiation Survey Form WP 437, RU 24 CU 350

Date Plotted 4/28/00

DEID CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/8/00	Calibration Date:	9/29/00
Survey Date / Time:	4/27/00	Field Bkg.:	6000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

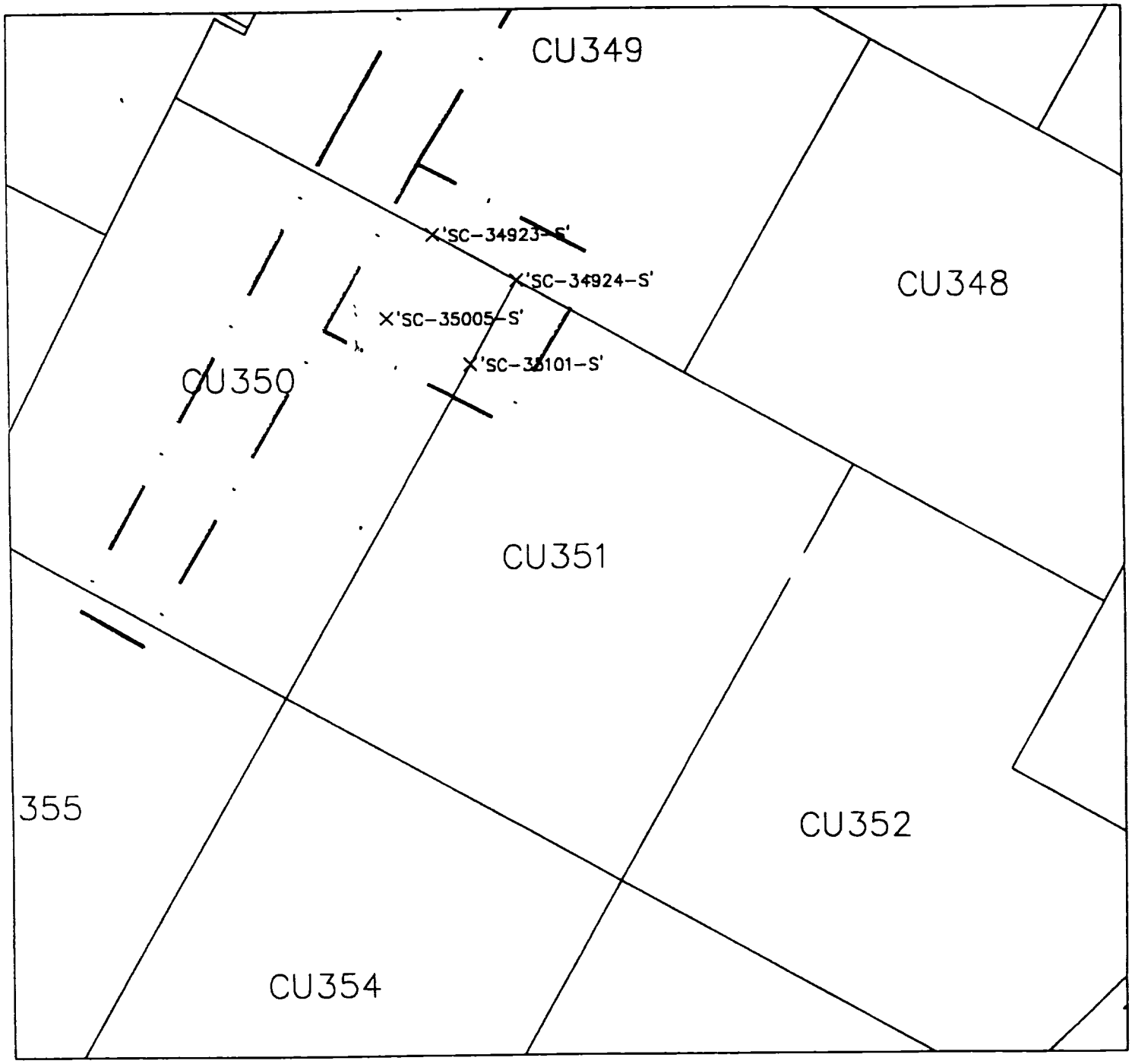
Radiation Survey Form WP 437, RU 24 CU 350

Date Plotted 4/28/00

DEO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI 4"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/13/00	Calibration Due:	7/24/00
Survey Date / Time:	4/27/00	Field Bkg.:	5700 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

GRAPHIC SCALE

50 0 50 100

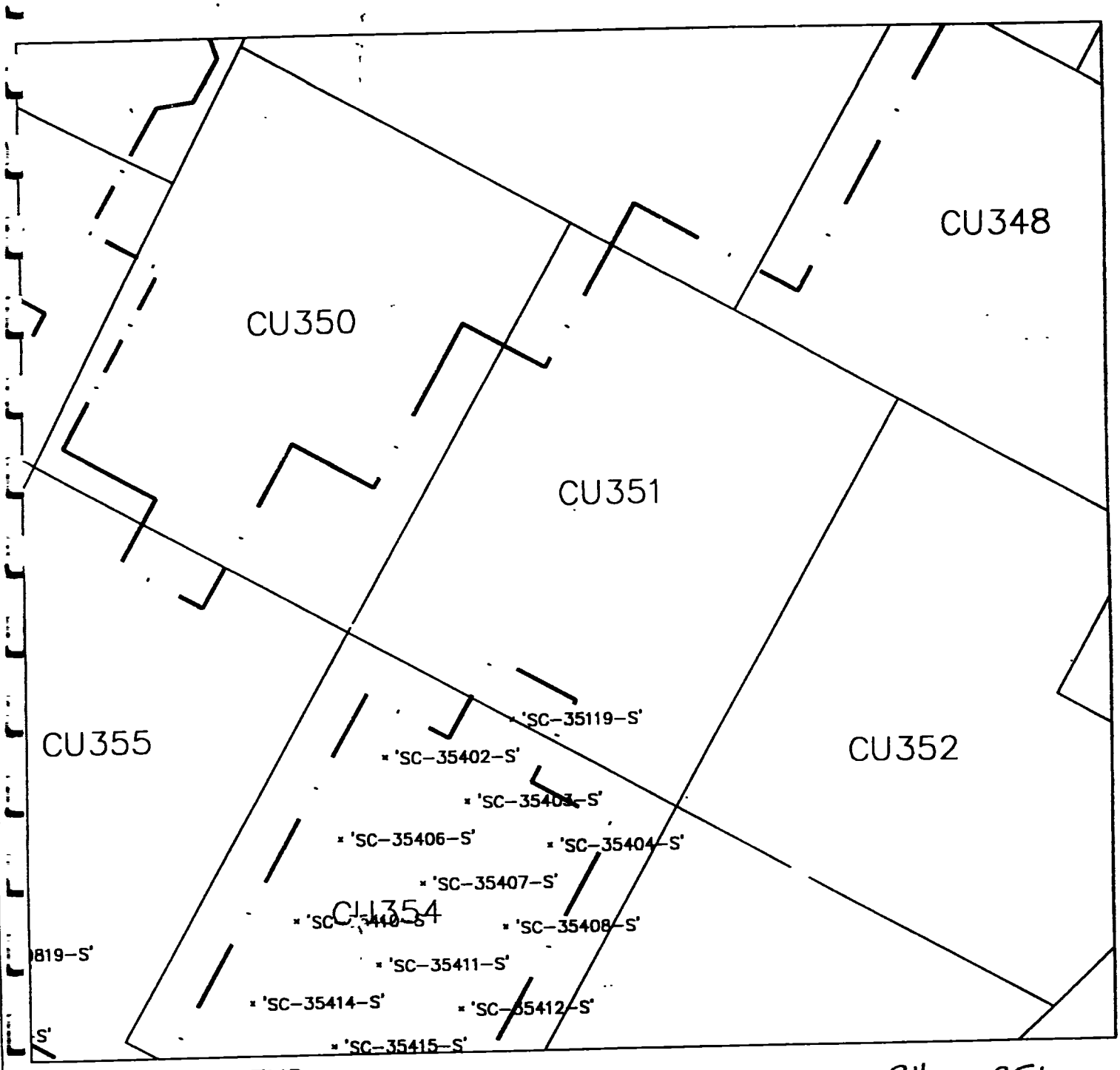
(IN FEET)
1 inch = 50 ft.

Radiation Survey Form WP 437, RU 24 CU 351

Date Plotted 3/24/00 DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/13/00	Calibration Date:	9/24/00
Survey Date / Time:	3/28/00	Field Bkg.:	6000 cpm
Surveyor(s):	T. Brown		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

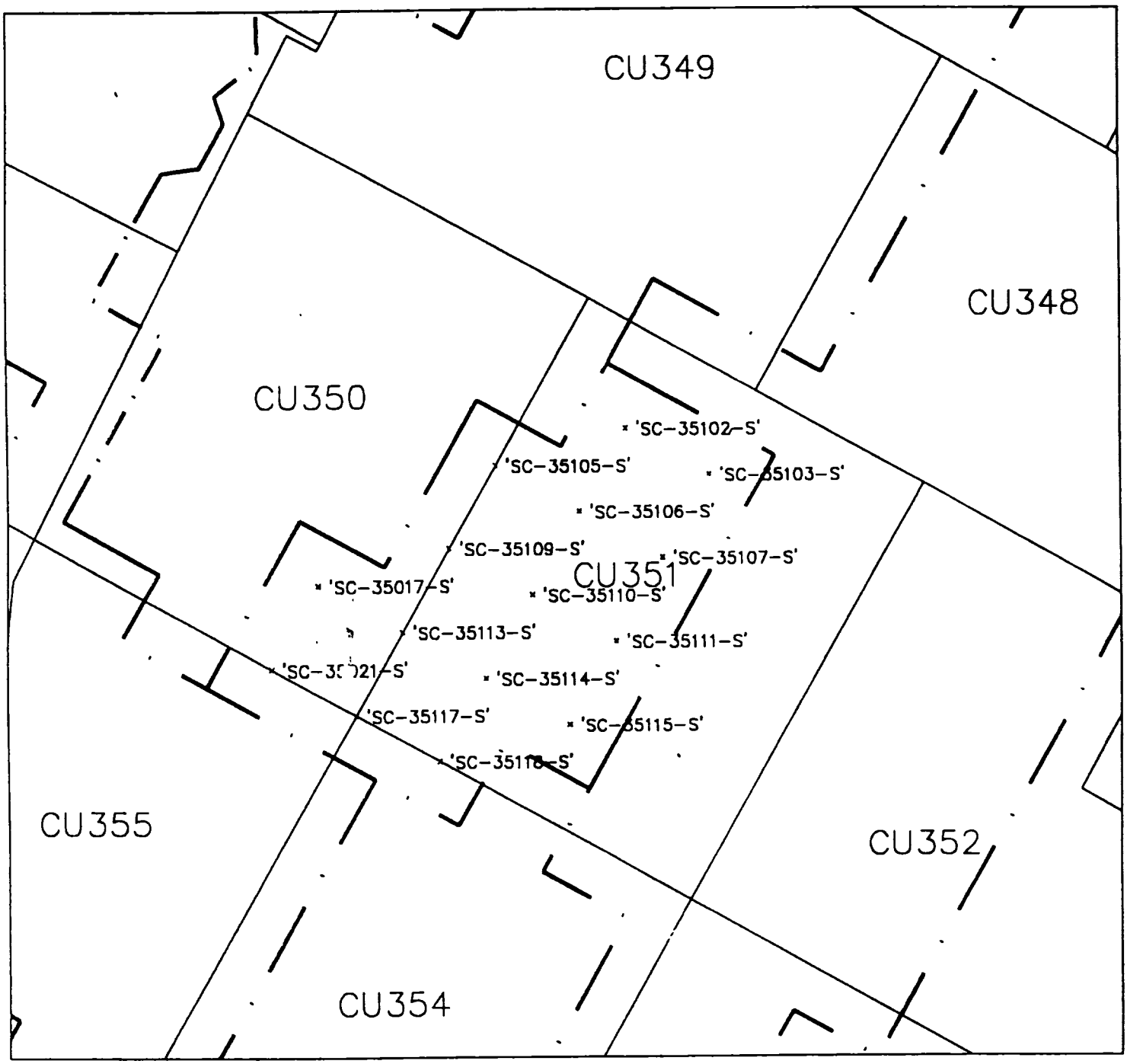
Radiation Survey Form WP 437, RU 24 CU 351

Date Plotted 4/20/00

DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/13/00	Calibration Date:	7/24/00
Survey Date / Time:	4/19/00	Field Bkg.:	6000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

N

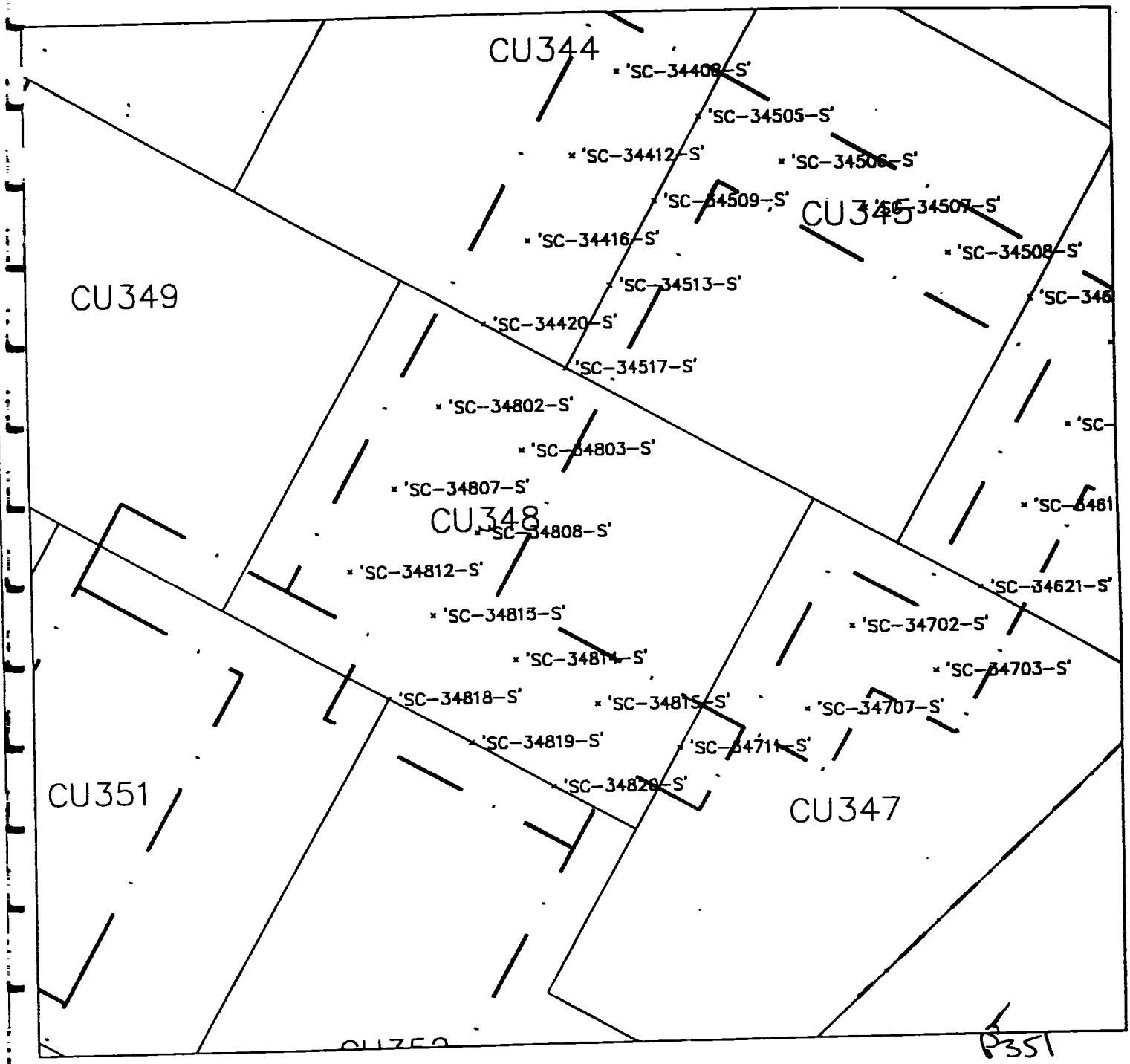
Radiation Survey Form WP 437, RU 24 CU 351

Date Plotted 4/28/00

DEO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/13/00	Calibration Due:	9/24/00
Survey Date / Time:	4/27/00	Field Bkg.:	6000 cpm
Surveyor(s):	C. Hamm		

Comments: Area was surveyed and found to be less than 1.5 times background



P351

LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING L!''ITS

N

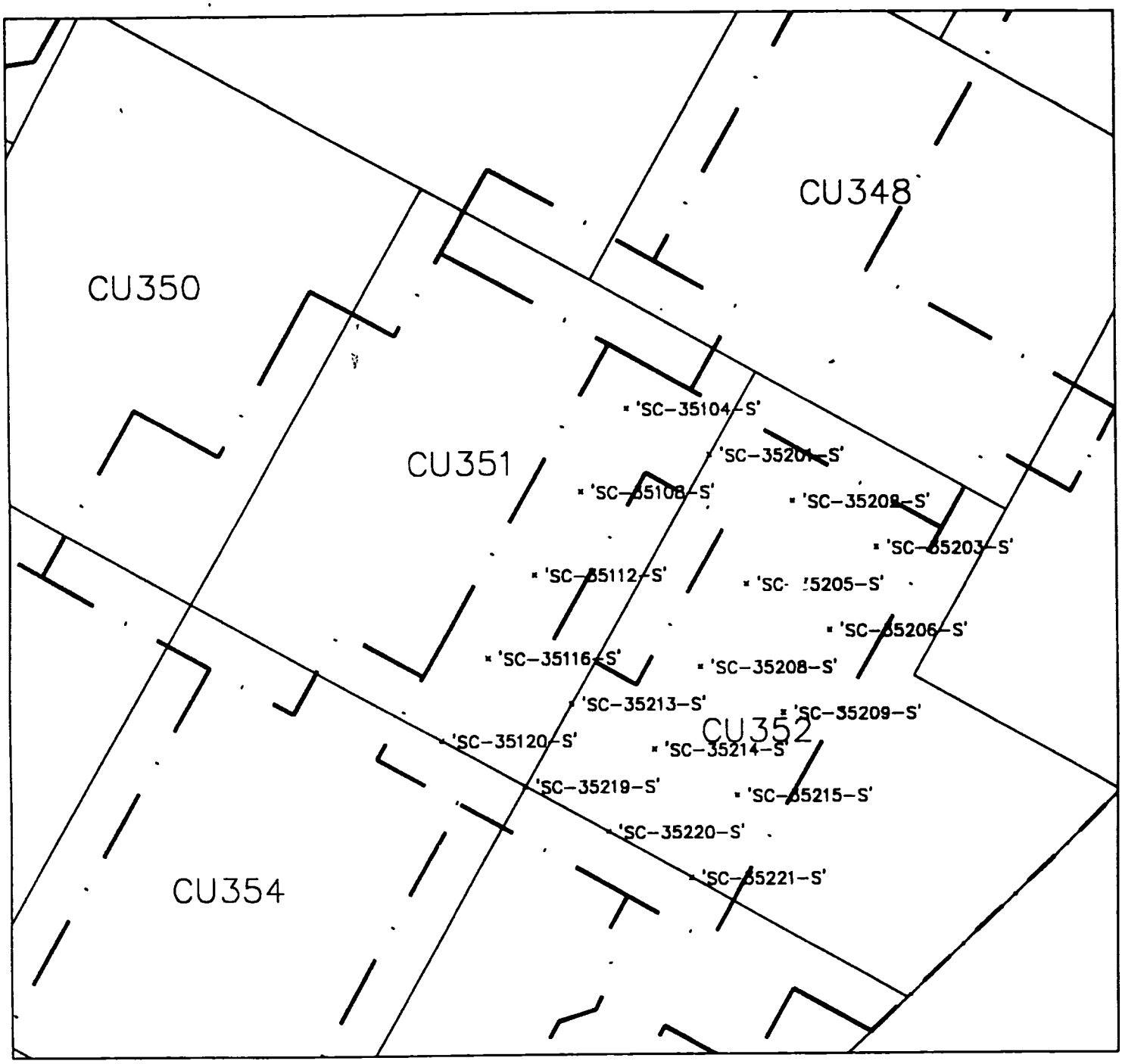
Radiation Survey Form WP 437, RU 24 CU ~~348~~

Date Plotted 5/04/00

DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "f"
Meter Serial #:	79158	Detector Serial #:	122191
Calibration Date:	7/24/00	Calibration Date:	9/24/00
Survey Date / Time:	5/3/00	Field Bkg.:	5000 cpm
Surveyor(s):	J. Bowling		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

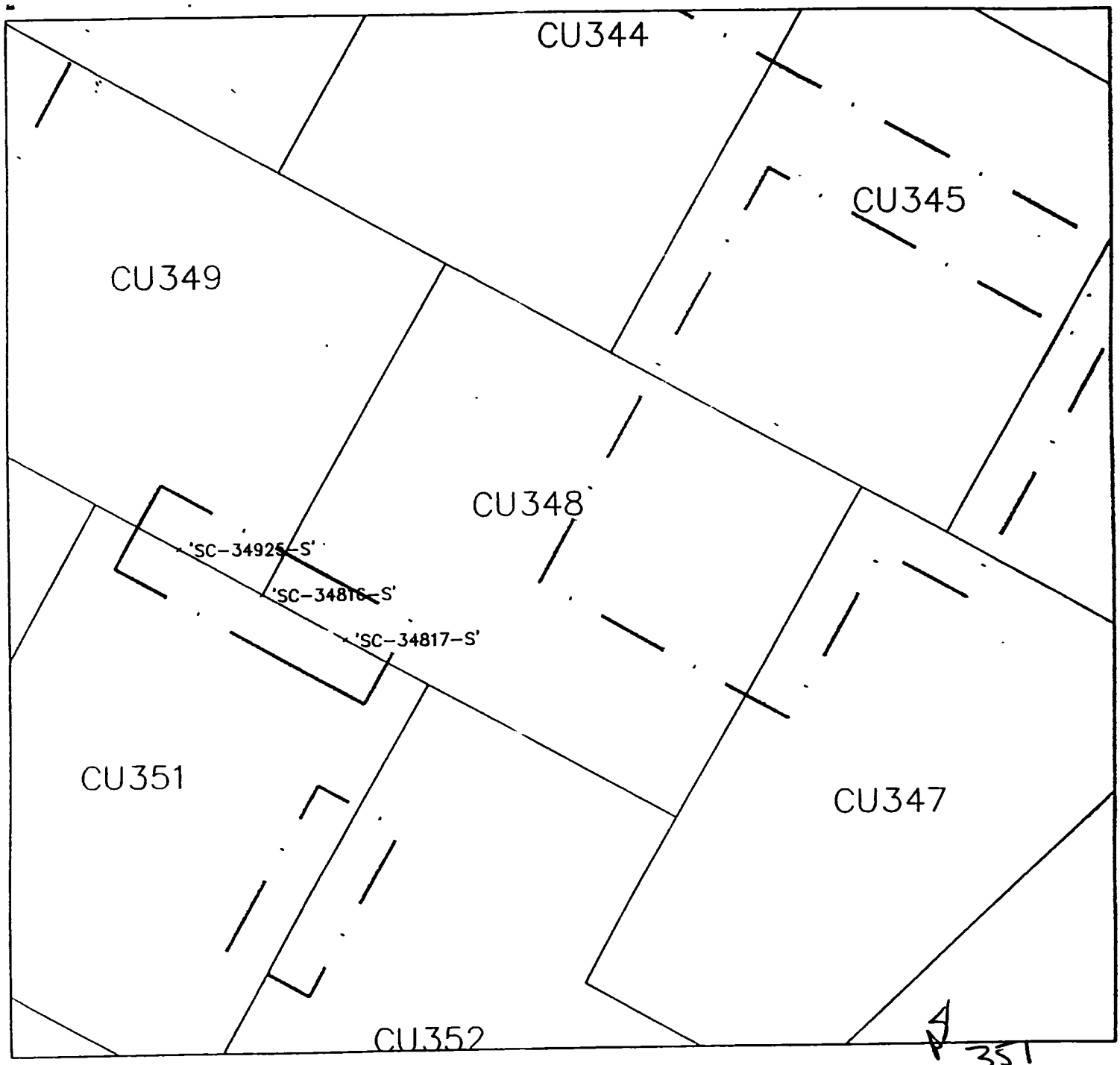
N

Radiation Survey Form WP 437, RU 24 CU 351

Date Plotted 5/05/00

DHO CAD

Meter Model #:	2221	Detector Model #:	2x2 'F'
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Date:	7/24/00	Calibration Date:	9/24/00
Survey Date / Time:	5/5/00	Field Bkg.:	5,000 CPM
Surveyor(s):	T. Brown		
Comments:	All readings <1.5 Bkg.		



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

N

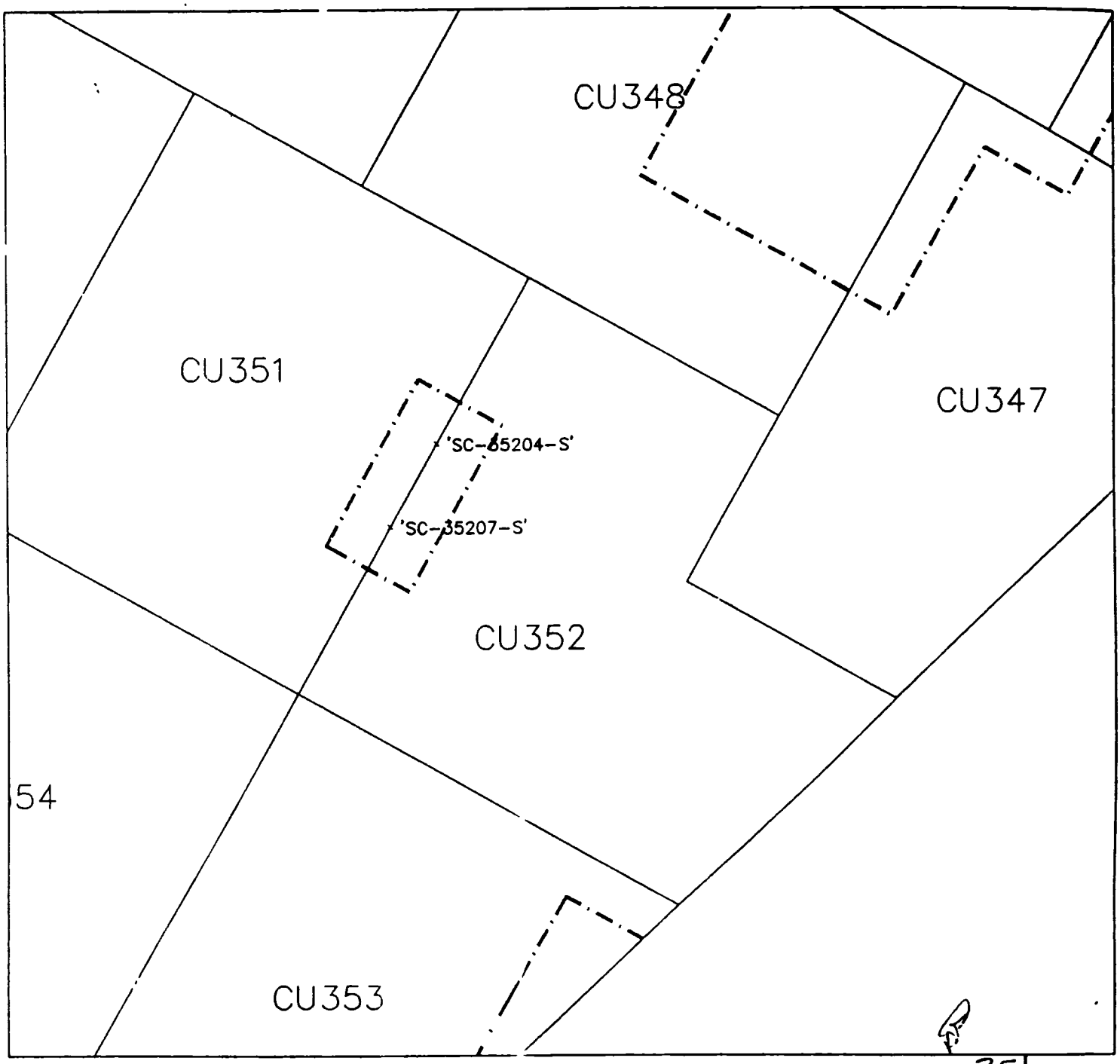
Radiation Survey Form WP 437, RU 24 CU ~~348~~ 351

Date Plotted 5/8/00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/13/00	Calibration Due:	9/24/00
Survey Date / Time:	5/6/00	Field Bkg.:	5300 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

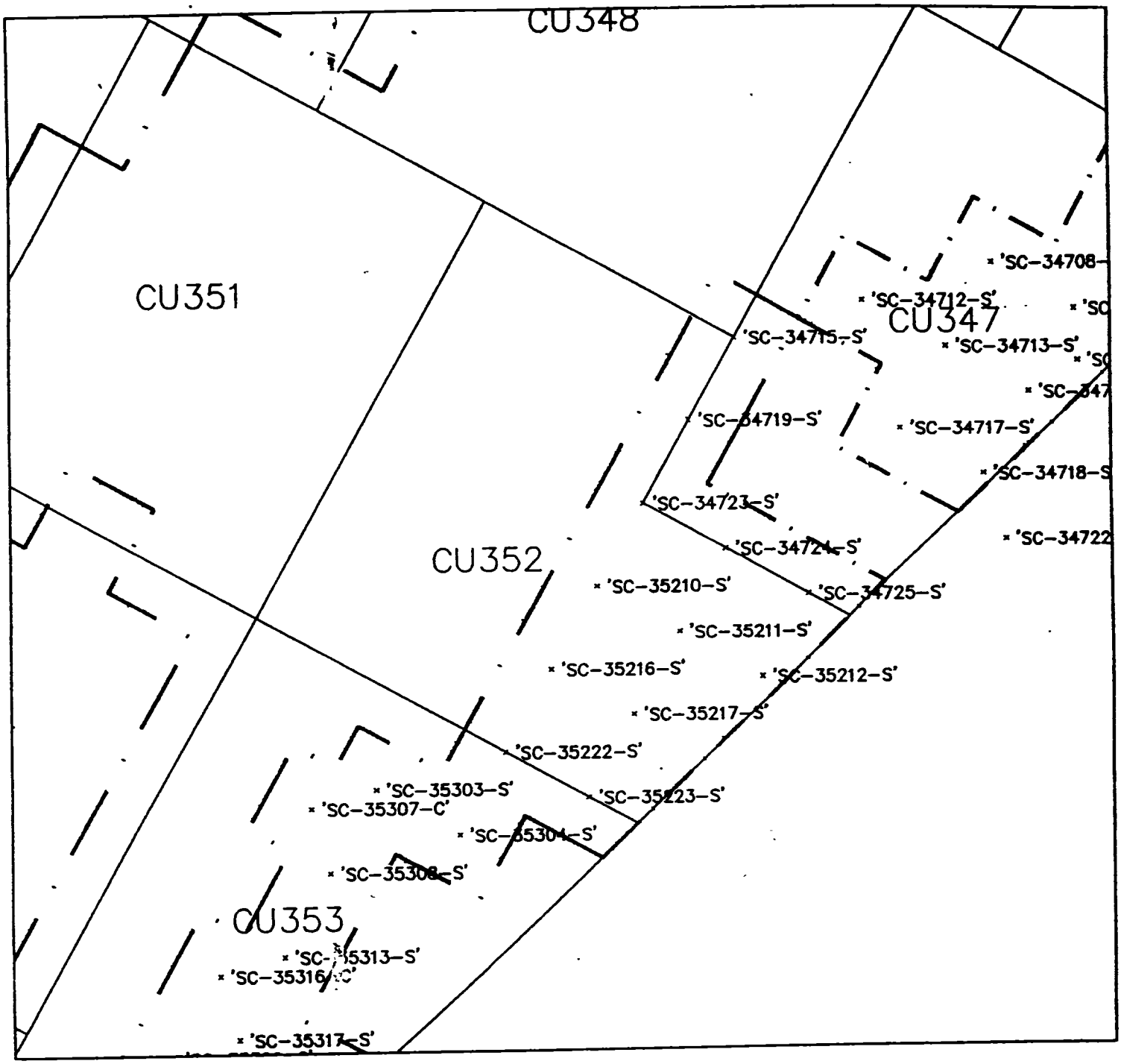
Radiation Survey Form WP 437, RU 24 CU ~~352~~ 351

Date Plotted 5/26/00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "P"
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/09/01	Calibration Due:	1/21/01
Survey Date / Time	5/25/00	Field Bkg.:	10,000 cpm
Surveyor(s)	C. Hamer		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

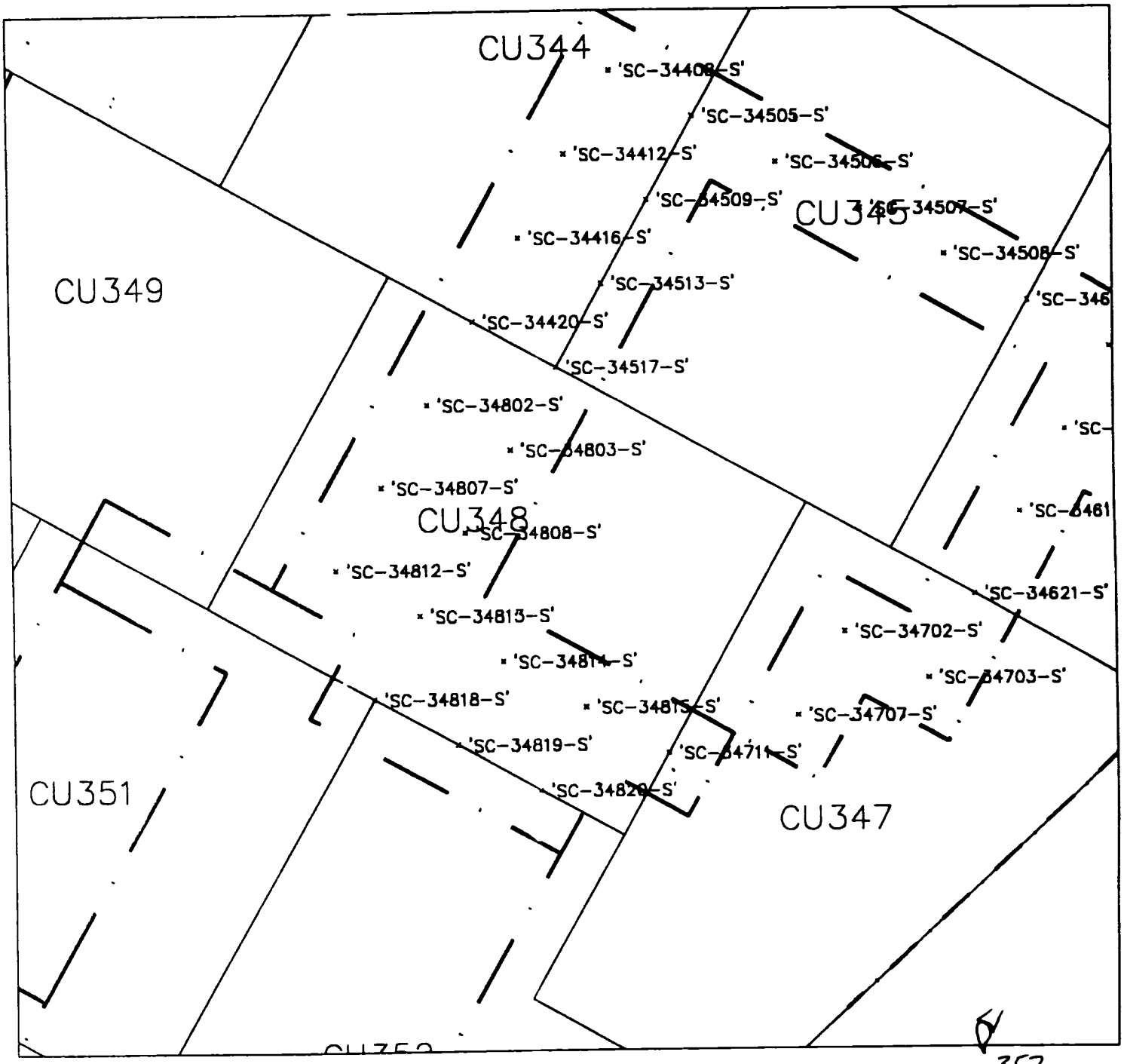
Radiation Survey Form WP 437, RU 24 CU 352

Date Plotted 4/21/00

DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/13/00	Calibration Due:	9/24/00
Survey Date / Time:	3/13/00	Field Bkg.:	5000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

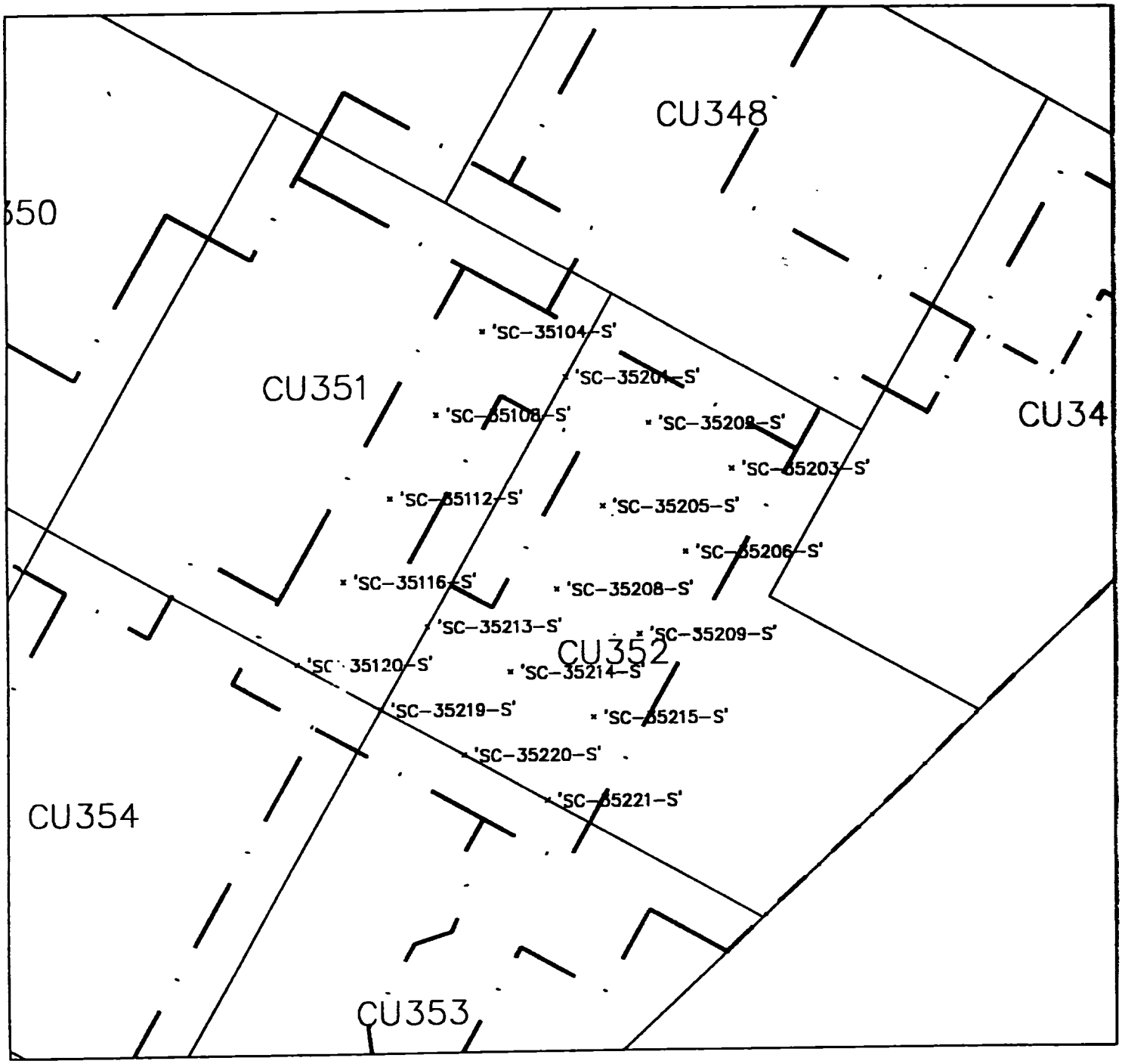
N

Radiation Survey Form WP 437, RU 24 CU ~~349~~ 352

Date Plotted 5/04/00 DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI 6"
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Date:	7/24/00	Calibration Date:	9/24/00
Survey Date / Time:	5/3/00	Field Bkg.:	5000 cpm
Surveyor(s):	J. Bowhay		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

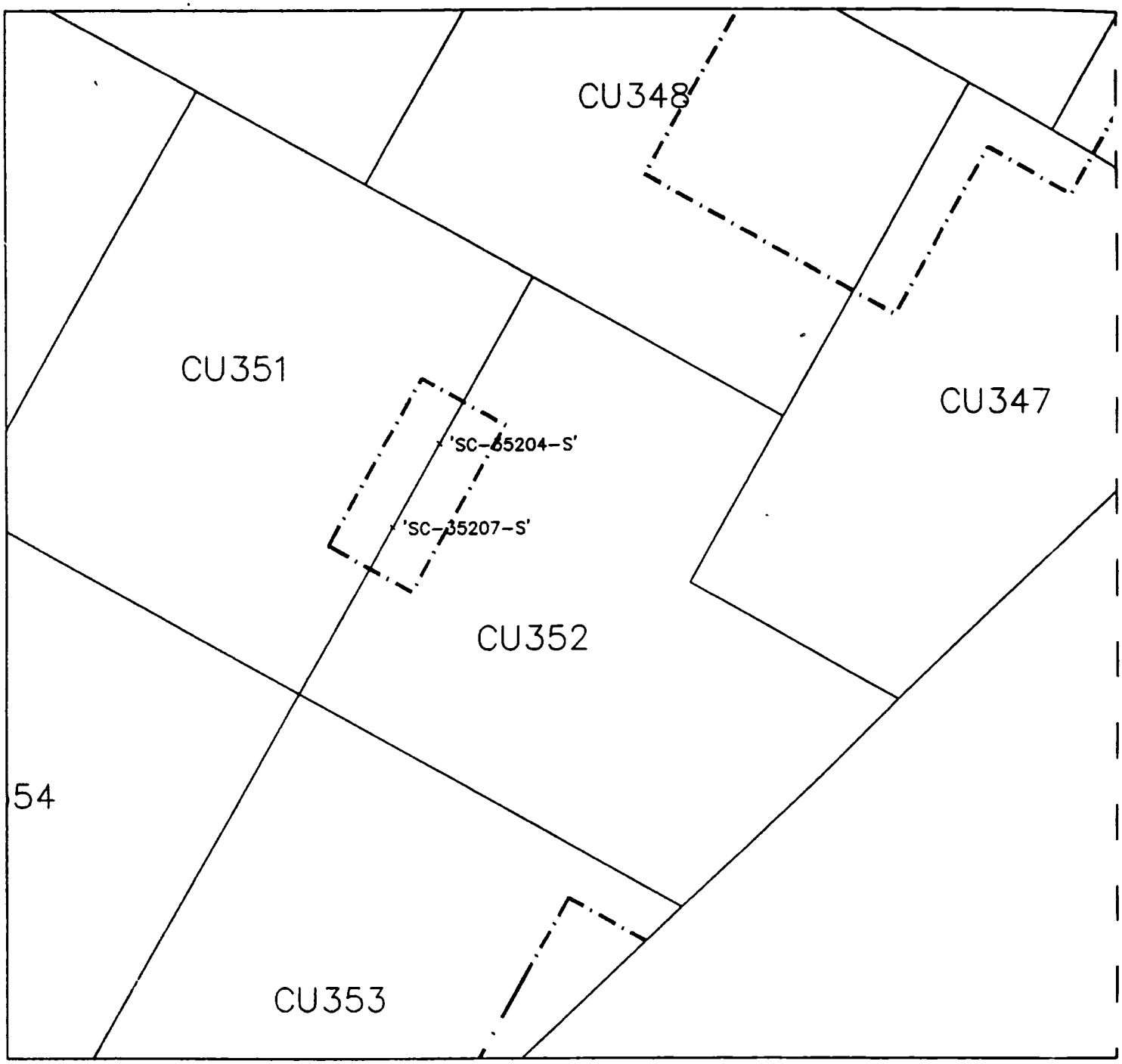
N

Radiation Survey Form WP 437, RU 24 CU 352

Date Plotted 5/05/00

DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 "F"
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Date:	7/24/00	Calibration Date:	9/24/00
Survey Date / Time:	5/5/00	Field Bkg.:	5,000CPM
Surveyor(s):	T. Brower		
Comments:	All readings <1.5 BKg.		



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

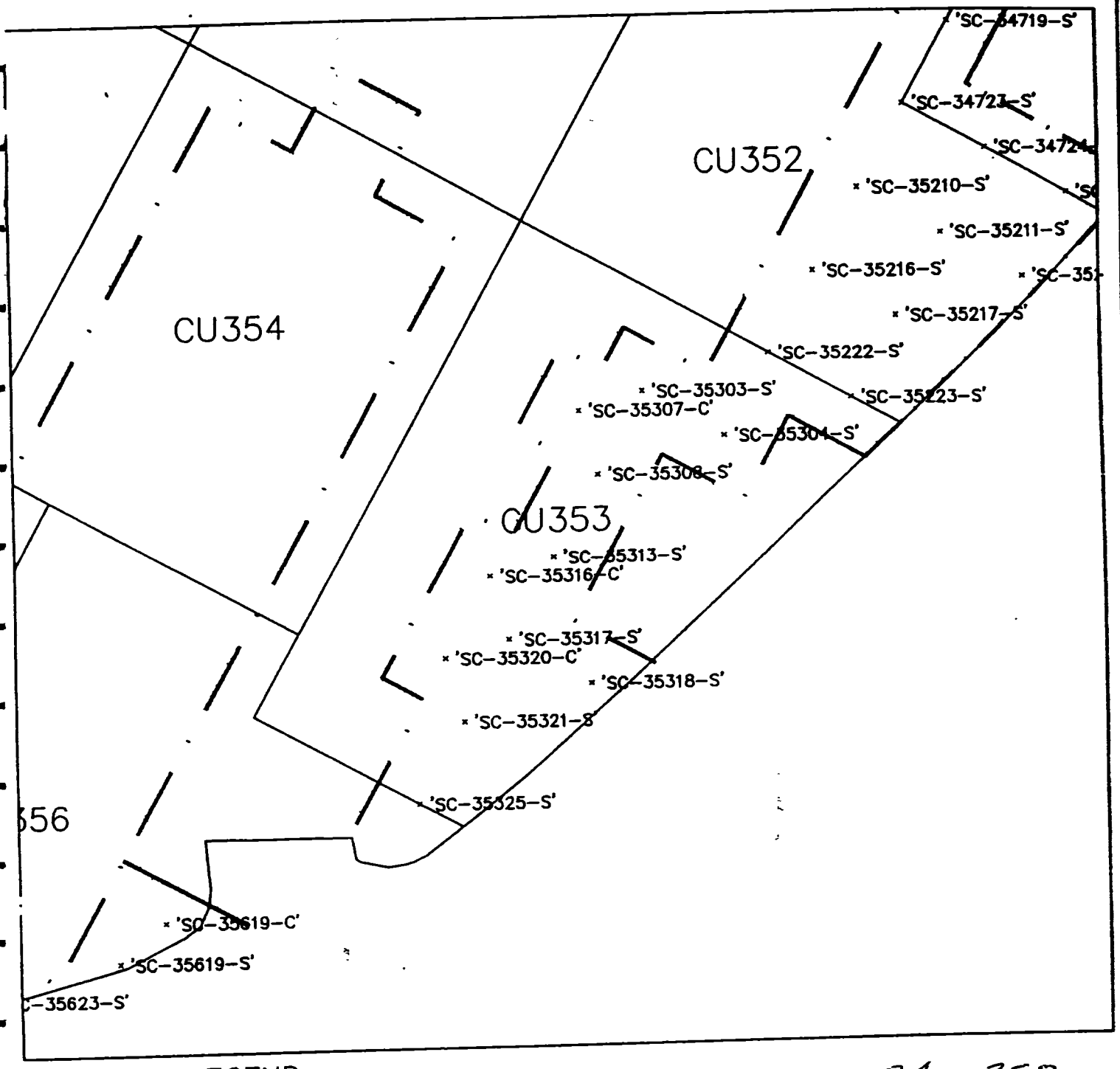
Radiation Survey Form WP 437, RU 24 CU 352

Date Plotted 5/26/00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "P"
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/09/01	Calibration Due:	1/21/01
Survey Date / Time:	5/25/00	Field Bkg.:	10,000 cpm
Surveyor(s):	C. Hamner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

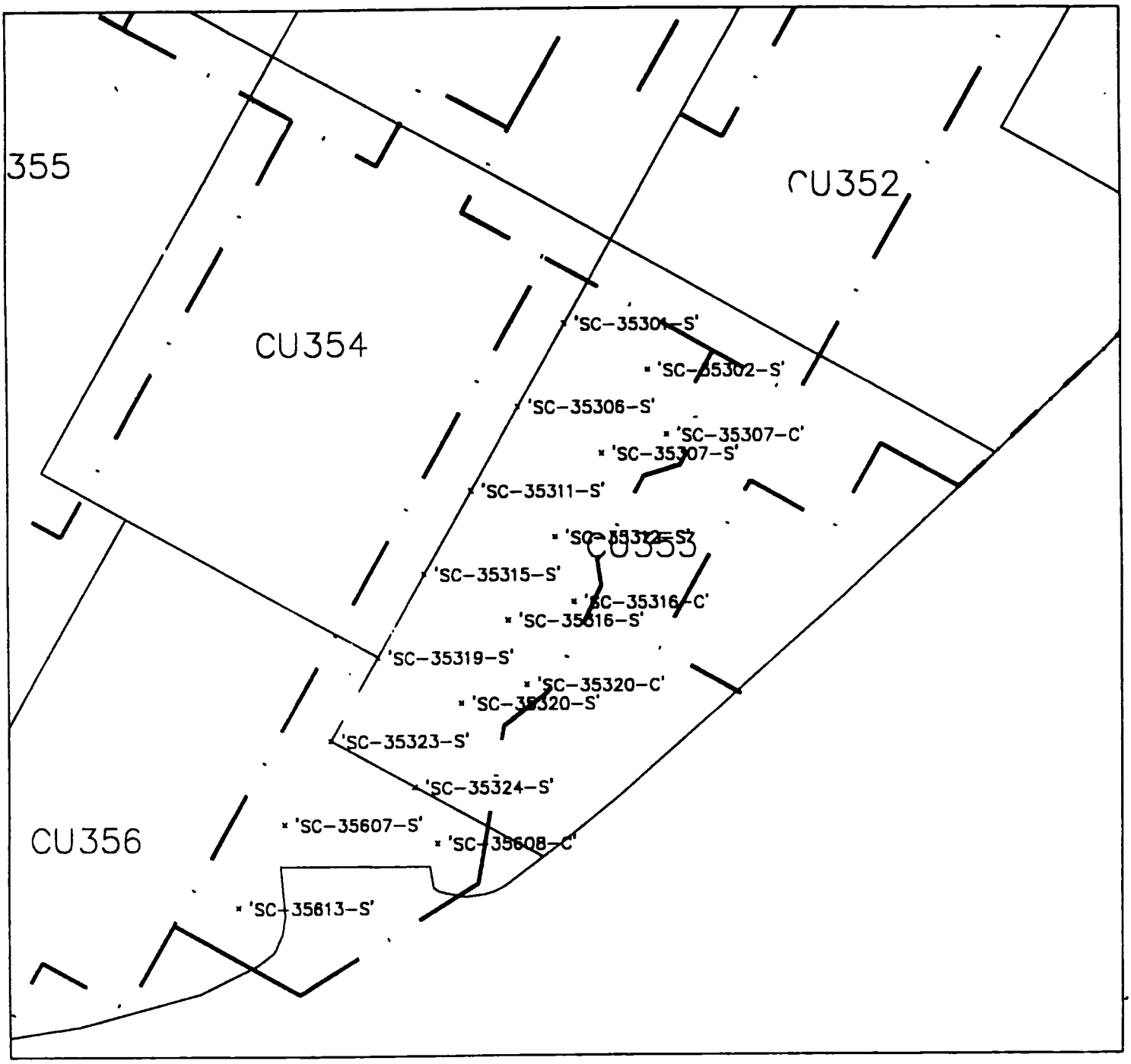
Radiation Survey Form WP 437, RU 24 CU 353

Date Plotted 4/21/00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "n"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/13/00	Calibration Due:	9/24/00
Survey Date / Time:	3/19/00	Field Bkg.:	400 5000 cpm
Surveyor(s):	C. Herner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

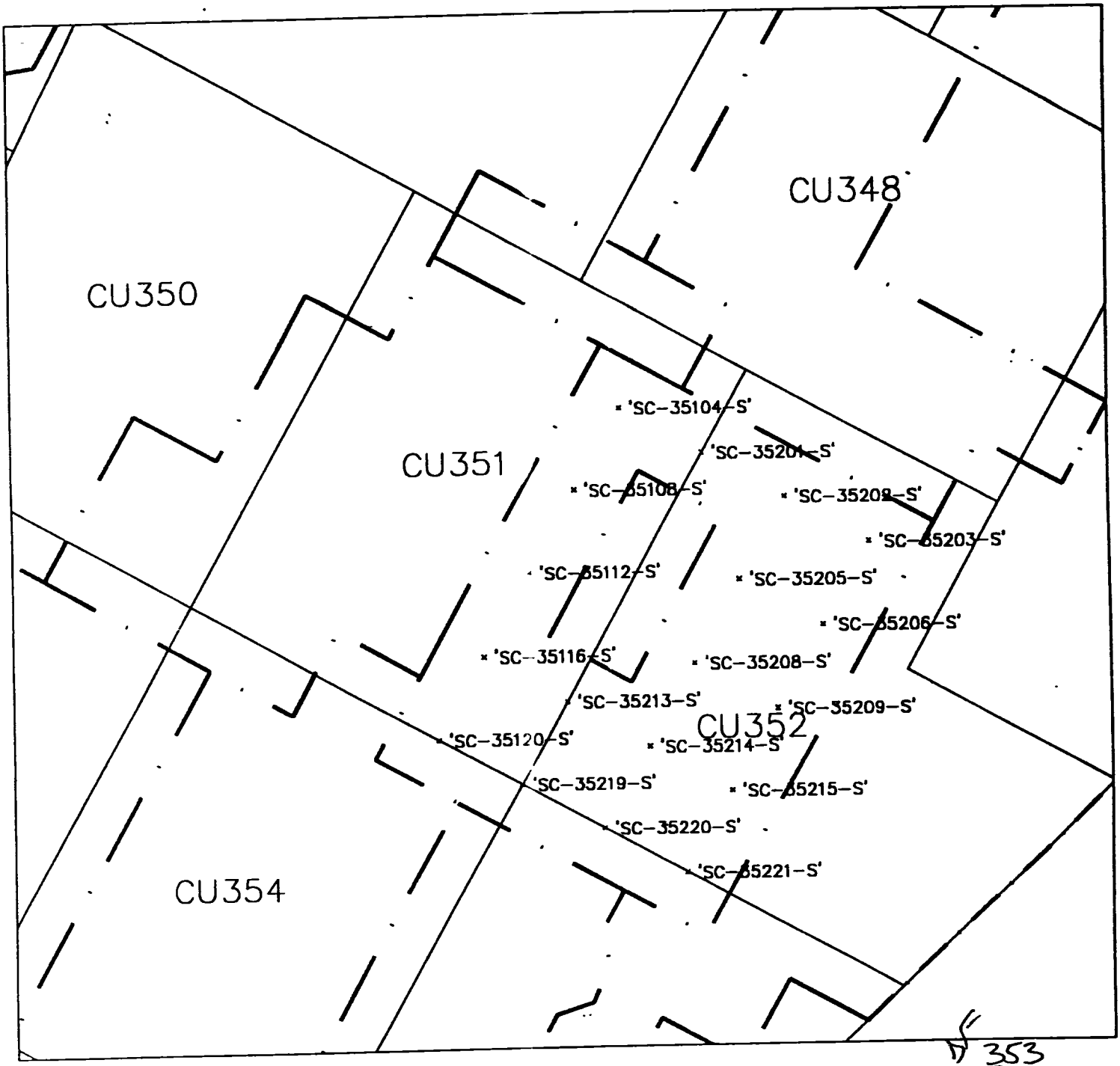
PINNING LIMITS

N

Radiation Survey Form W 437, RU 24 CU 353

Date Plotted 5/05/00 DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 "F"
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Due:	7/24/00	Calibration Due:	9/24/00
Survey Date / Time:	5/5/00	Field Bkg.:	5,000 CPM
Surveyor(s):	T. Brower		
Comments:	All readings <1.5 BKg.		



353
354

LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

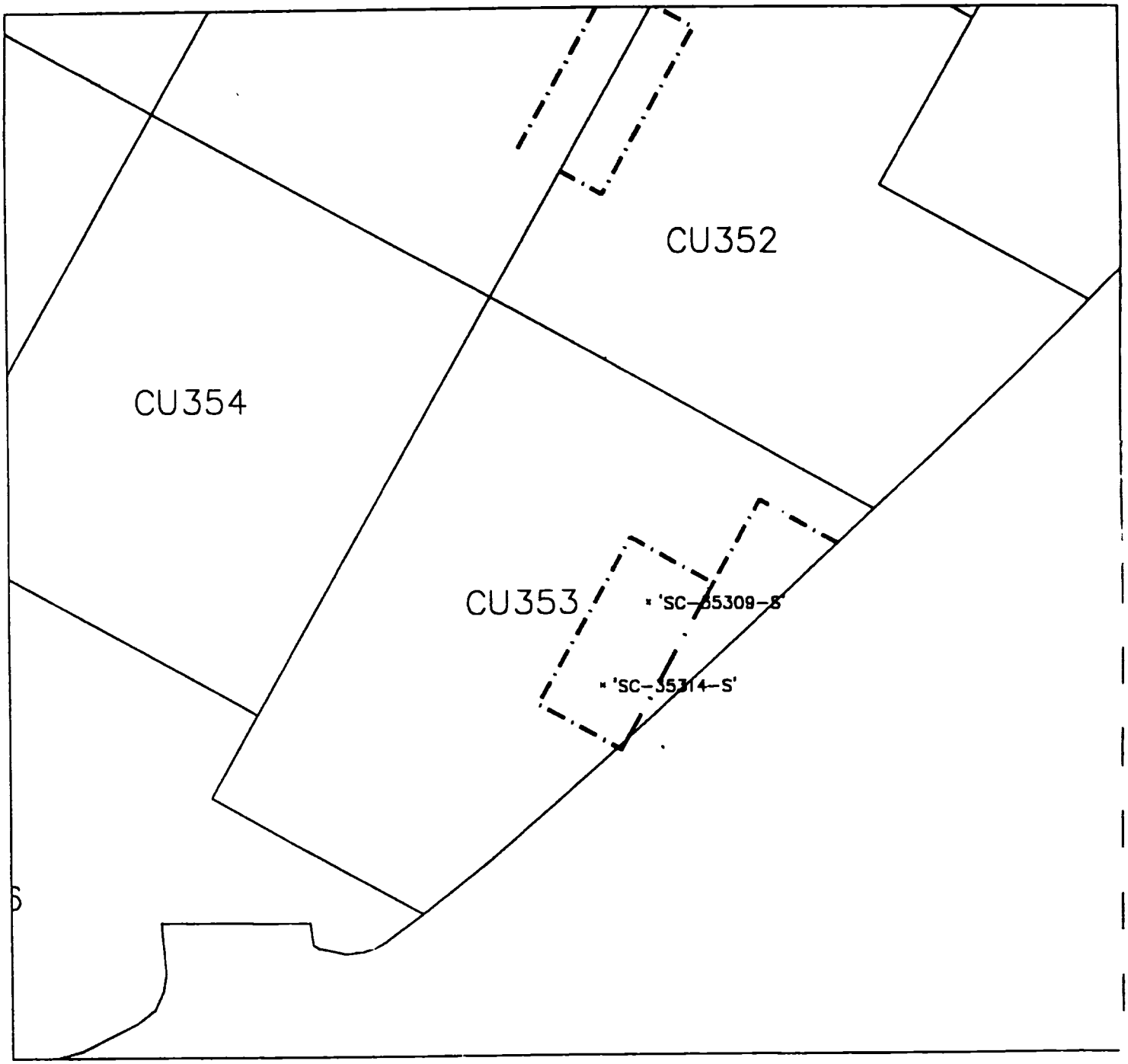
N

Radiation Survey Form WP 437, RU 24 CU 354

Date Plotted 5/05/00

DEO CAD

Meter Model #:	2221	Detector Model #:	2x2 "F"
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Due:	7/24/00	Calibration Due:	9/24/00
Survey Date / Time:	5/5/00	Field Bkg.:	5,000 cpm
Surveyor(s):	T. Brower		
Comments:	All readings <1.5 Bkg.		



LEGEND

• 'SC-32606-S' SAMPLE POINTS PINNED

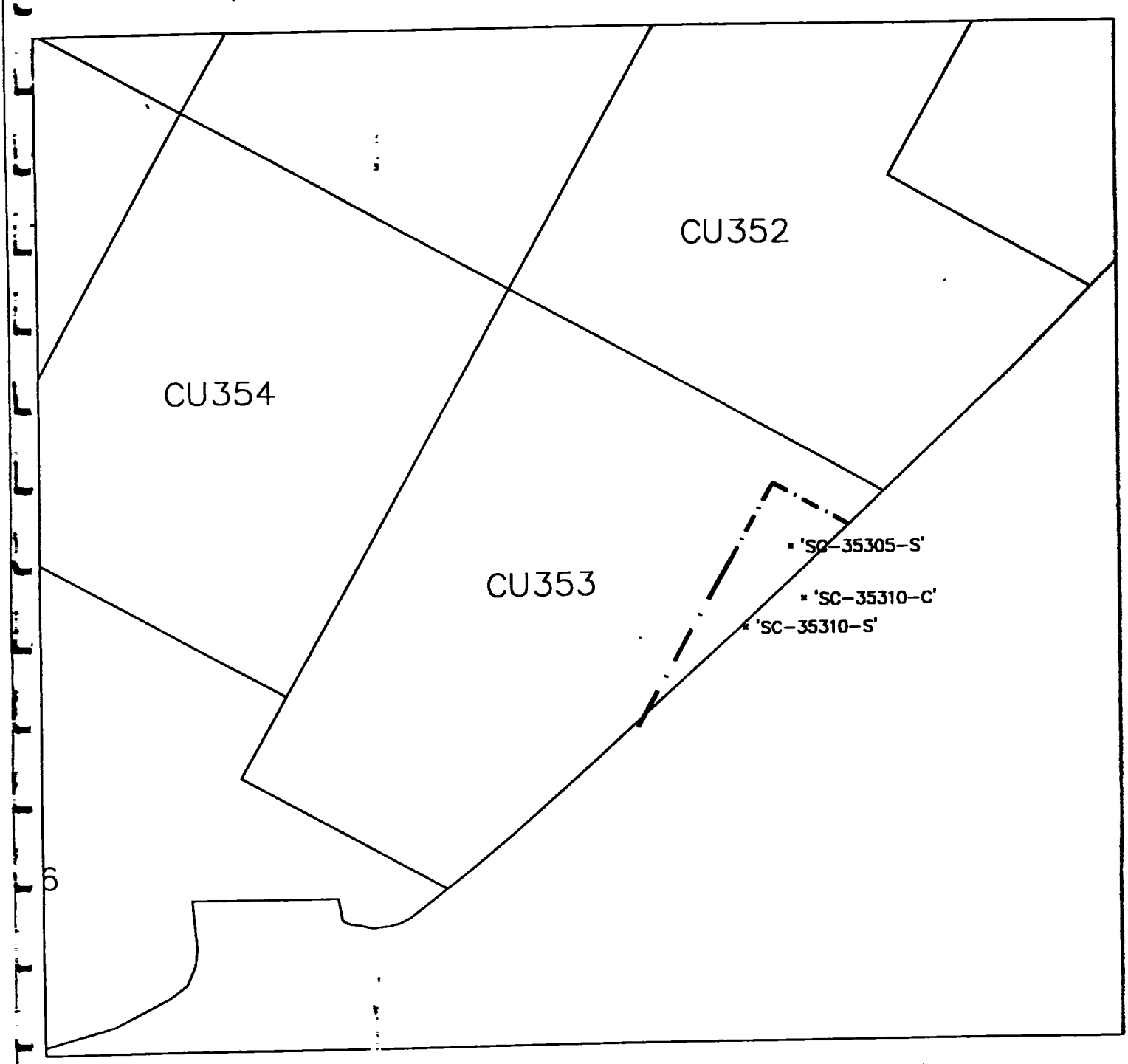
— · — · — PINNING LIMITS

N

Radiation Survey Form WP 437, RU 24 CU 353

Date Plotted 5/11/00 DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 "F"
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Date:	7/24/00	Calibration Date:	9/24/00
Survey Date / Time:	5/5/00	Field Bkg.:	5,000 cpm
Surveyor(s):	C. Hamer, T. Brewer		
Comments:	All readings <1.5 BKg		



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

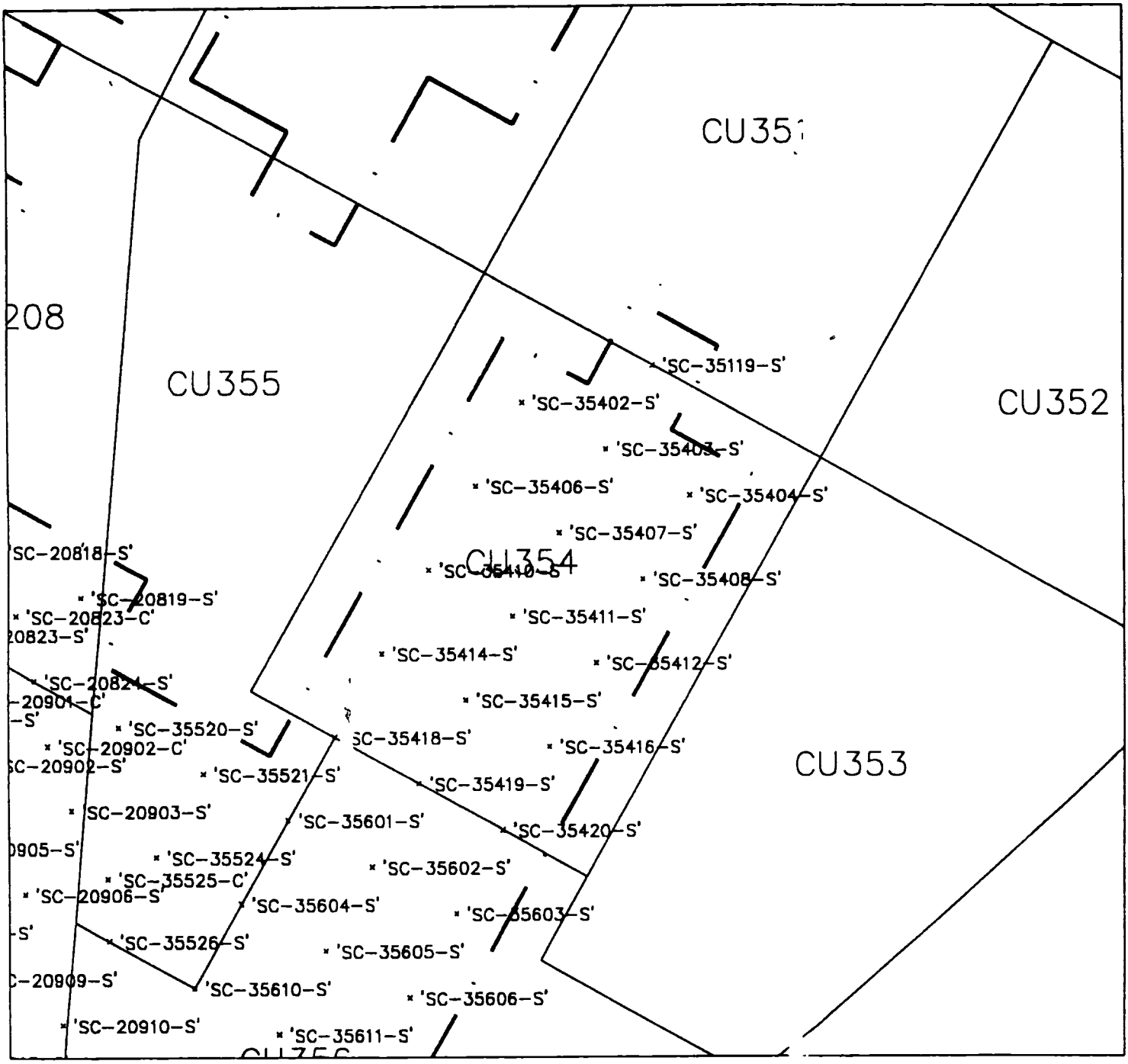
N

Radiation Survey Form WP 437, RU 24 CU 353

Date Plotted 6/16/00

DHO CAD

Meter Model #:	2221	Detector Model #:	2x2 "P"
Meter Serial #:	154199	Detector Serial #:	17606
Calibration Due:	2/9/01	Calibration Due:	1/21/01
Survey Date / Time:	6/15/00	Field Bkg.:	10,000 CPM
Surveyor(s):	T. Brower		
Comments:	All ~~redin~~ TPB readings <1.5 BKg		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

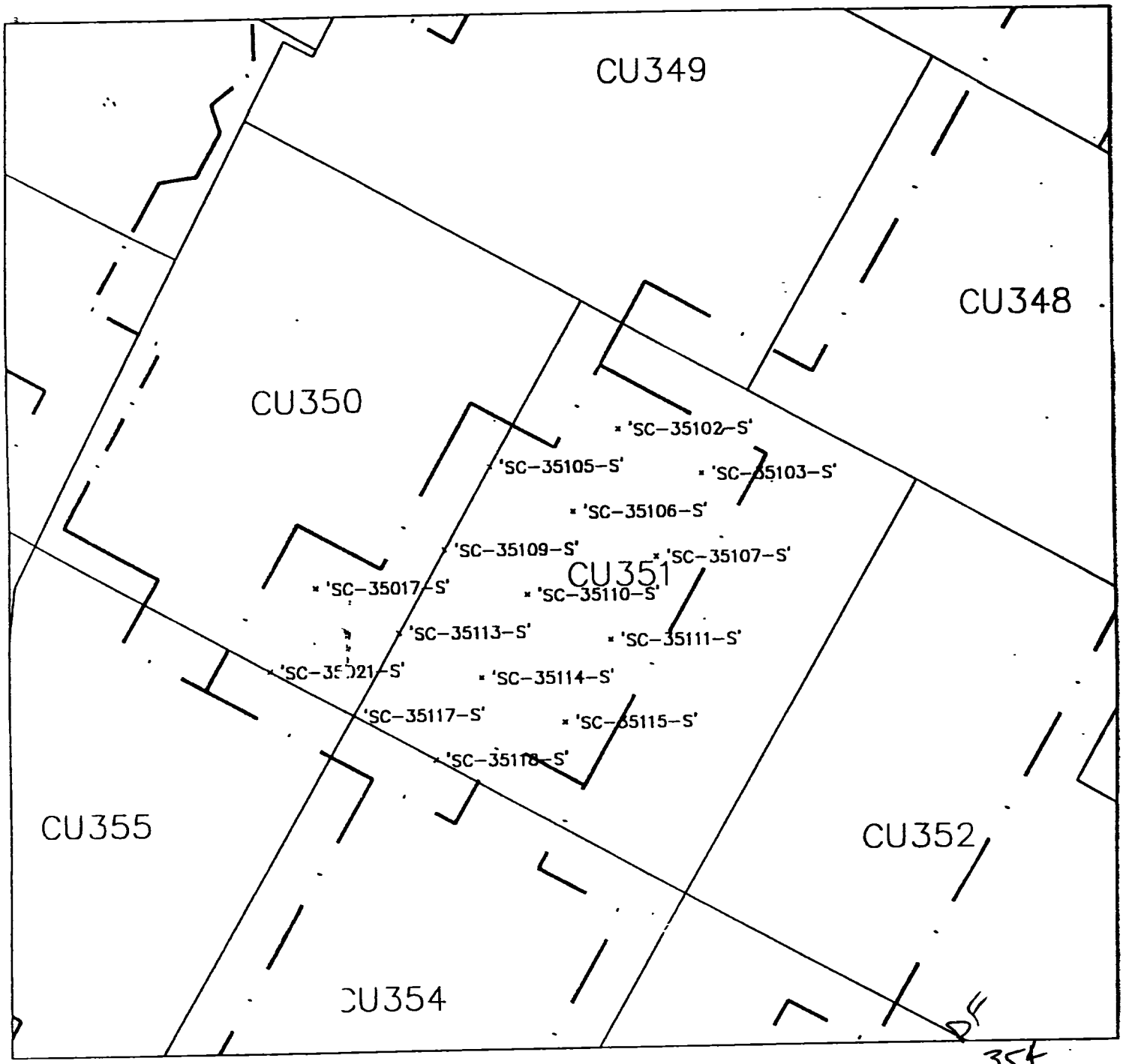
Radiation Survey Form WP 437, RU 24 CU 354

Date Plotted 4/20/00

DEO CAD

Meter Model #:	2221	Detector Model #:	2+2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130164
Calibration Date:	10/13/00	Calibration Date:	9/24/00
Survey Date / Time:	4/19/00	Field Bkg.:	6000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

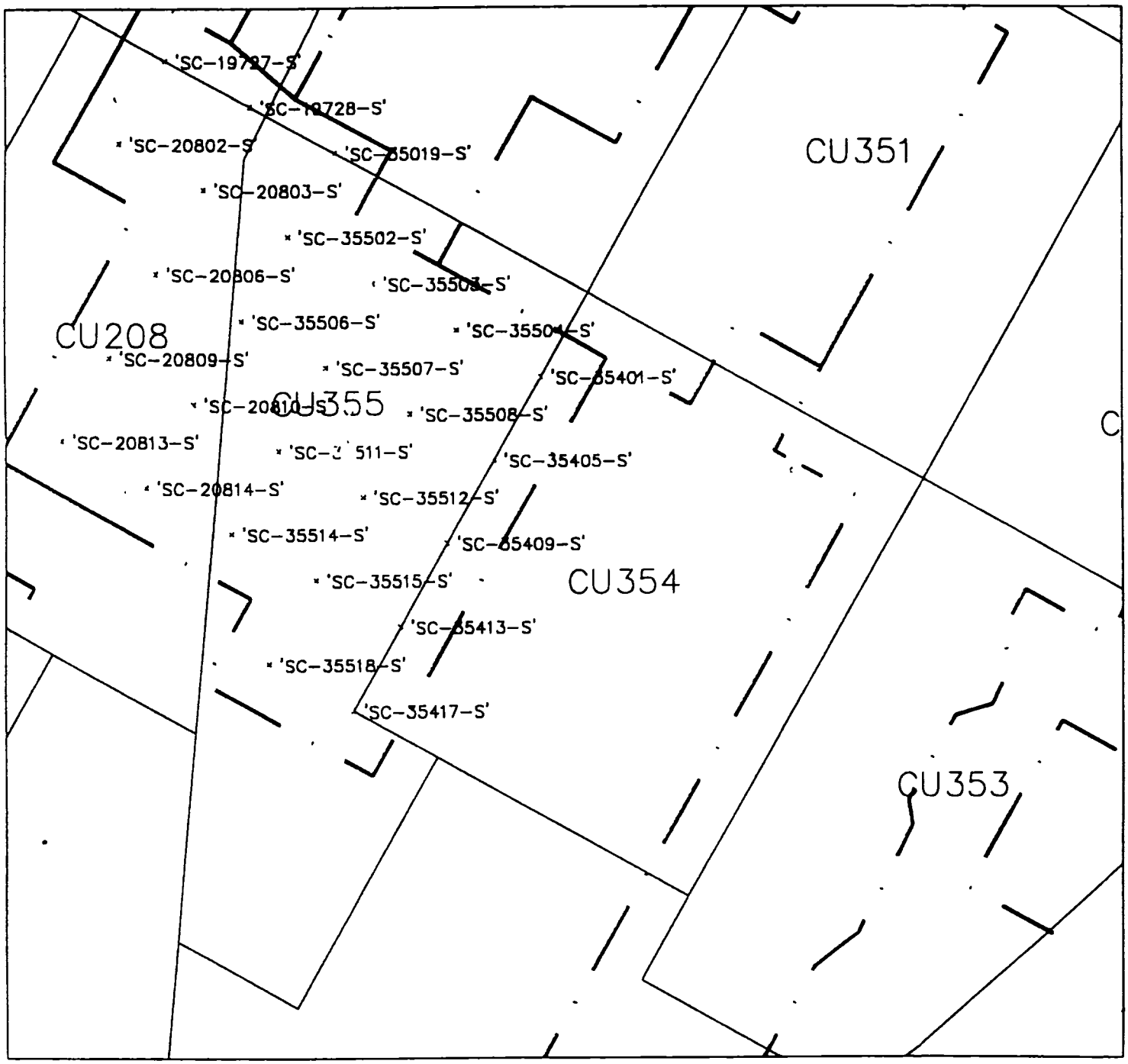
Radiation Survey Form WP 437, RU 24 CU ~~351~~ 354

Date Plotted 4/28/00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/13/00	Calibration Date:	9/24/00
Survey Date / Time:	4/27/00	Field Bkg.:	6000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

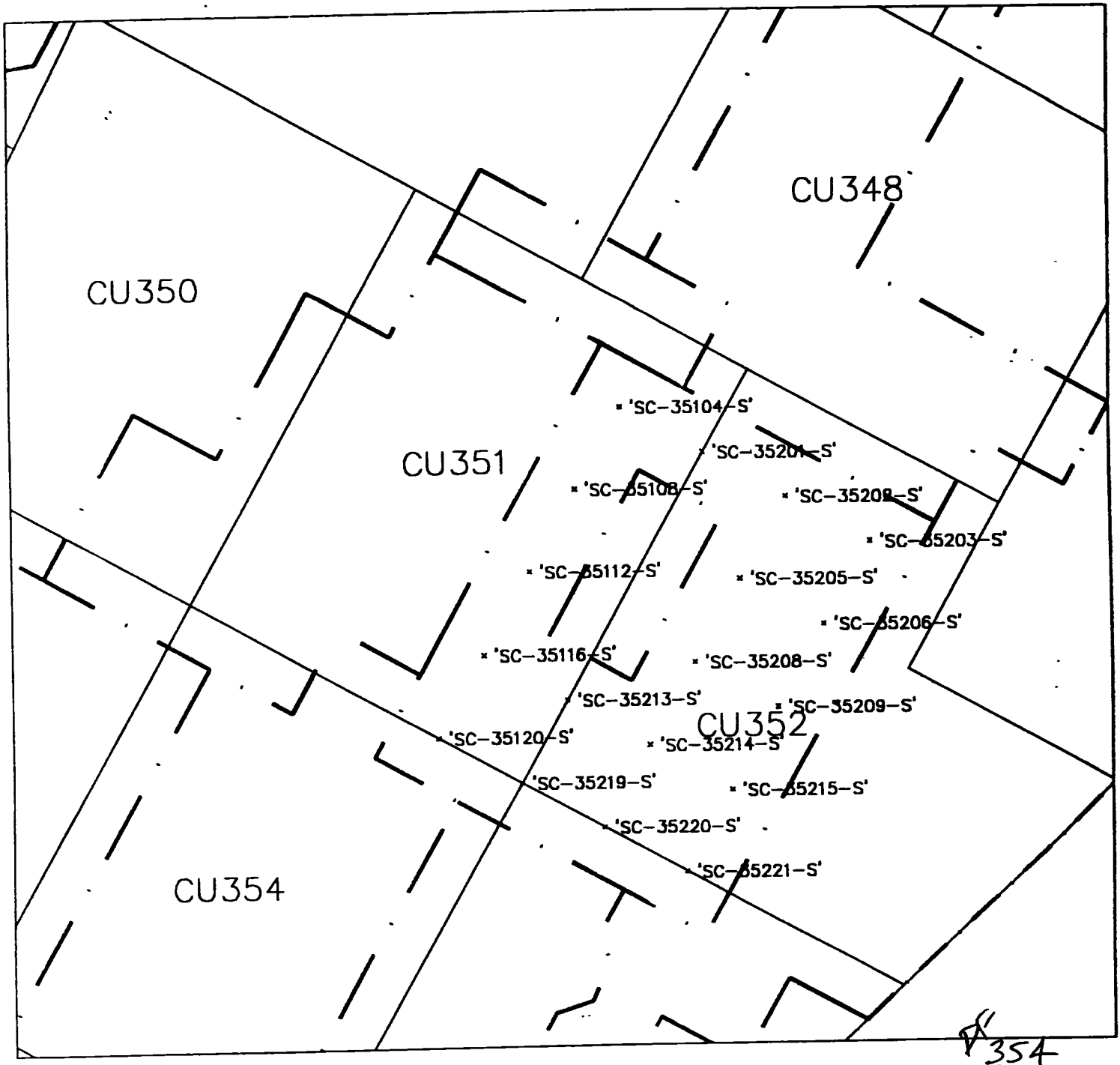
Radiation Survey Form WP 437, RU 24 CU 354

Date Plotted 4/28/00

DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/13/00	Calibration Date:	9/24/00
Survey Date / Time:	4/27/00	Field Bkg.:	5700 cpm
Surveyor(s):	C. Hamner		

Comments: Area was surveyed and found to be less than 1.5 times background



354
351

LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

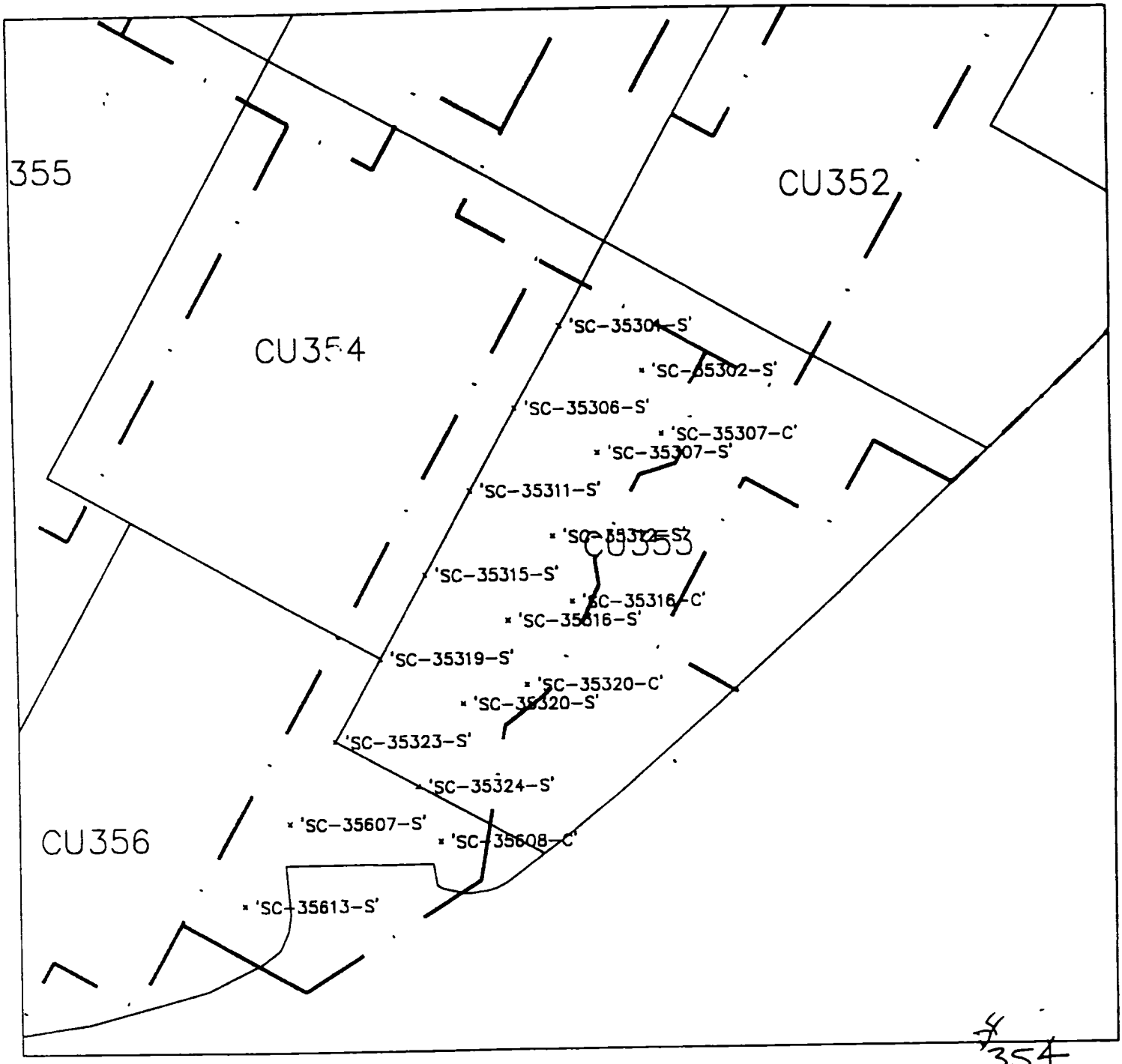
N

Radiation Survey Form WP 437, RU 24 CU ~~351~~

Date Plotted 5/05/00

DEP CAD

Meter Model #:	2221	Detector Model #:	2x2 "F"
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Date:	7/24/00	Calibration Date:	9/24/00
Survey Date / Time:	5/5/00	Field Bkg.:	5,000 cpm
Surveyor(s):	T. Brower		
Comments:	All readings <1.5 Bkg.		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

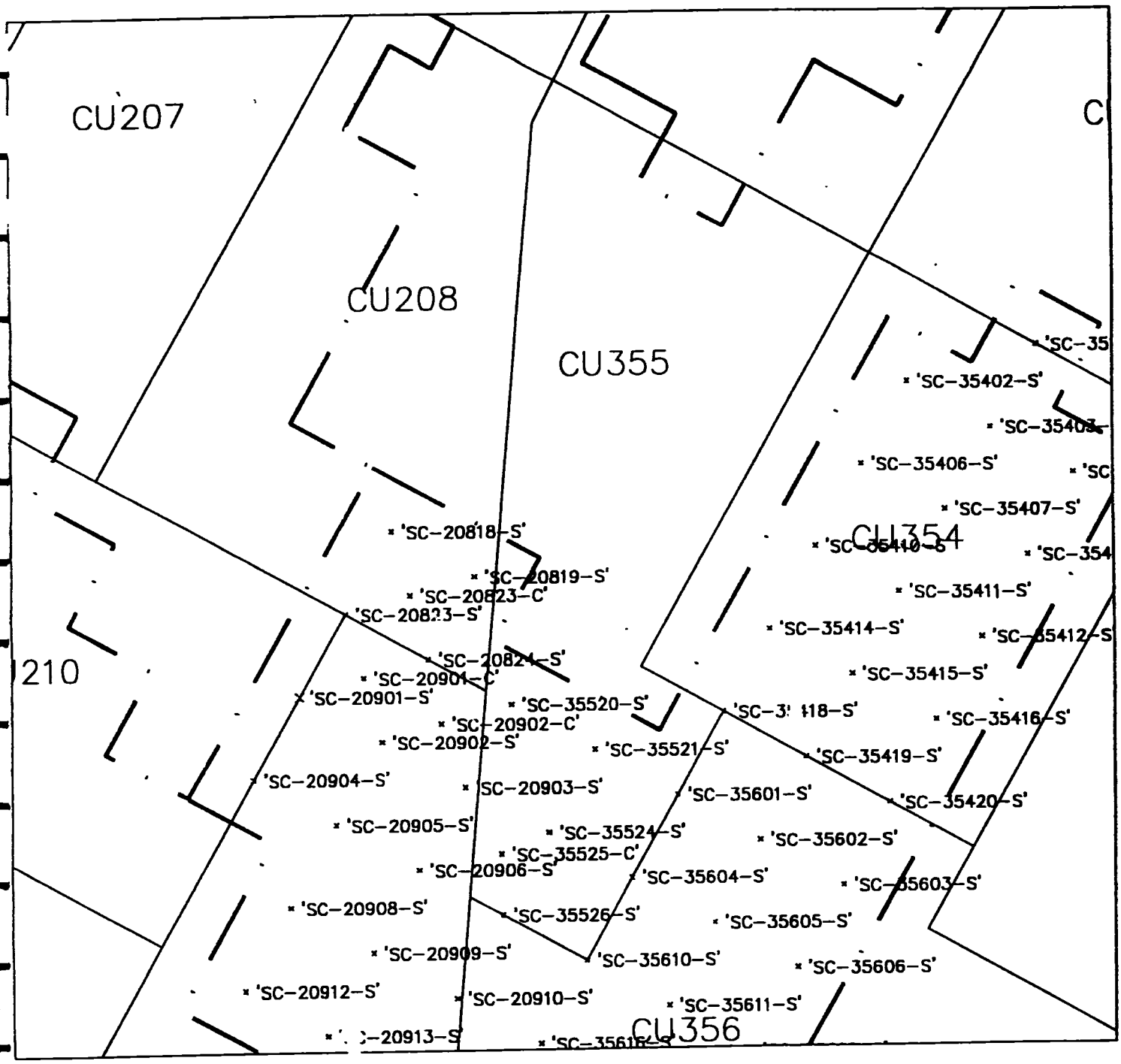
PINNING LIMITS

N

Radiation Survey Form WP 437, RU 24 CU ~~353~~ 354

Date Plotted 5/05/00 DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 "F"
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Date:	7/24/00	Calibration Date:	9/24/00
Survey Date / Time:	5/5/00	Field Bkg.:	5,000 CPM
Surveyor(s):	T. Brown		
Comments:	All readings <1.5 BKg.		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

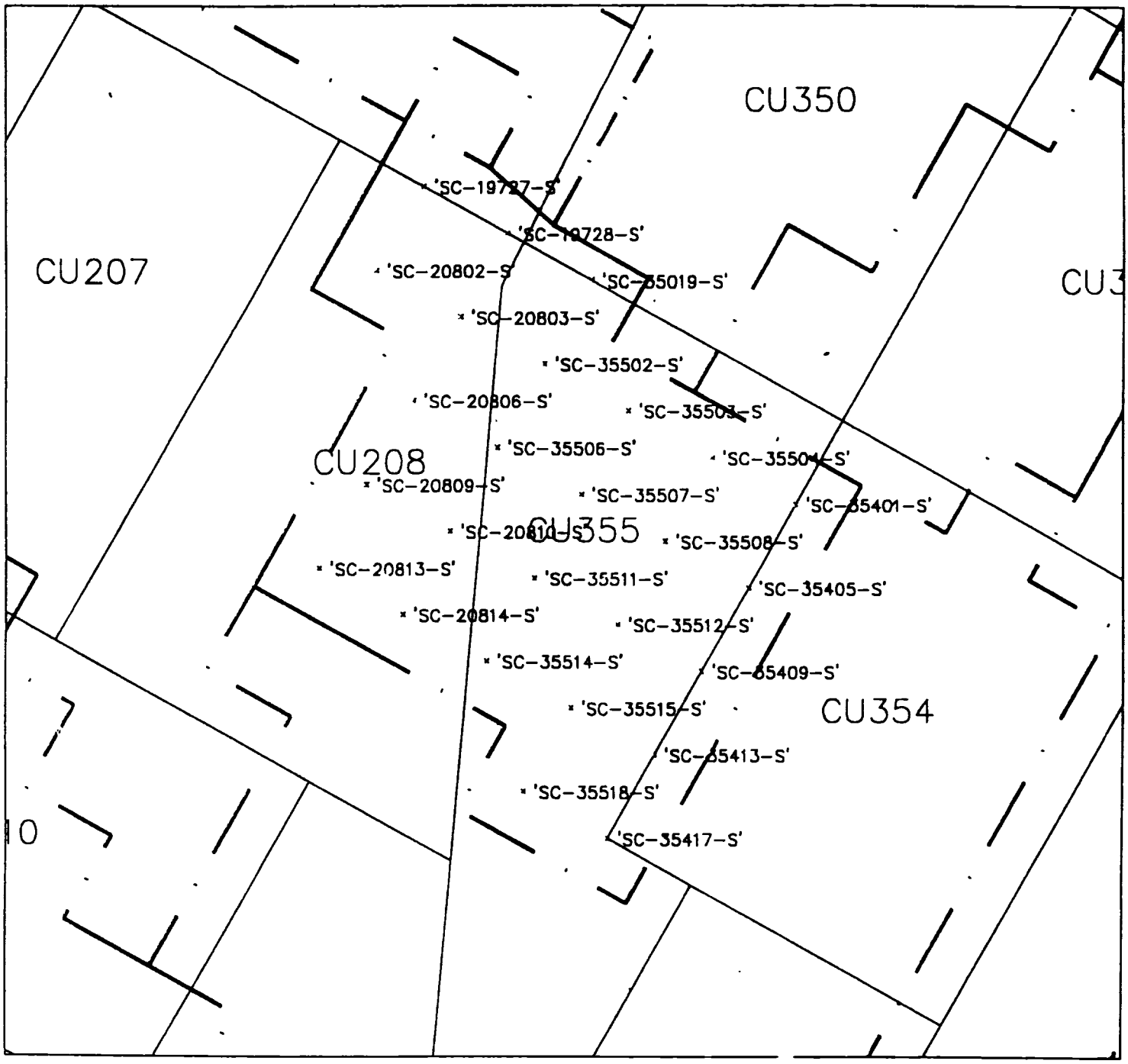
N

Radiation Survey Form WP 437, RU 24 CU 355

Date Plotted 4/20/00 DEO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/13/00	Calibration Date:	9/24/00
Survey Date / Time:	4/19/00	Field Bkg.:	6000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

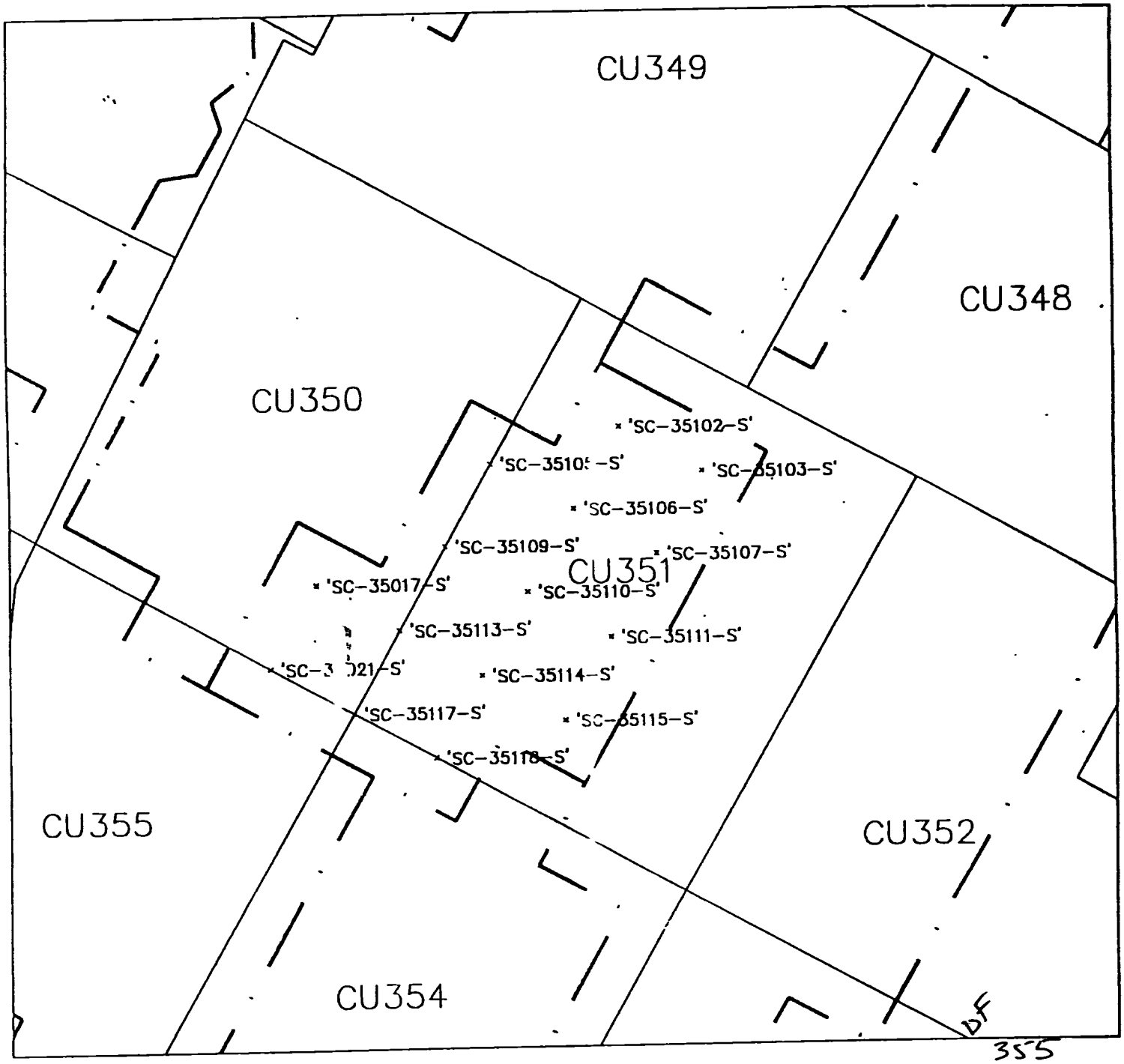
Radiation Survey Form WP 437, RU 24 CU 355

Date Plotted 4/28/00

DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/13/00	Calibration Due:	9/29/00
Survey Date / Time:	4/27/00	Field Bkg.:	5700 cpm
Surveyor(s):	C. Hunter		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

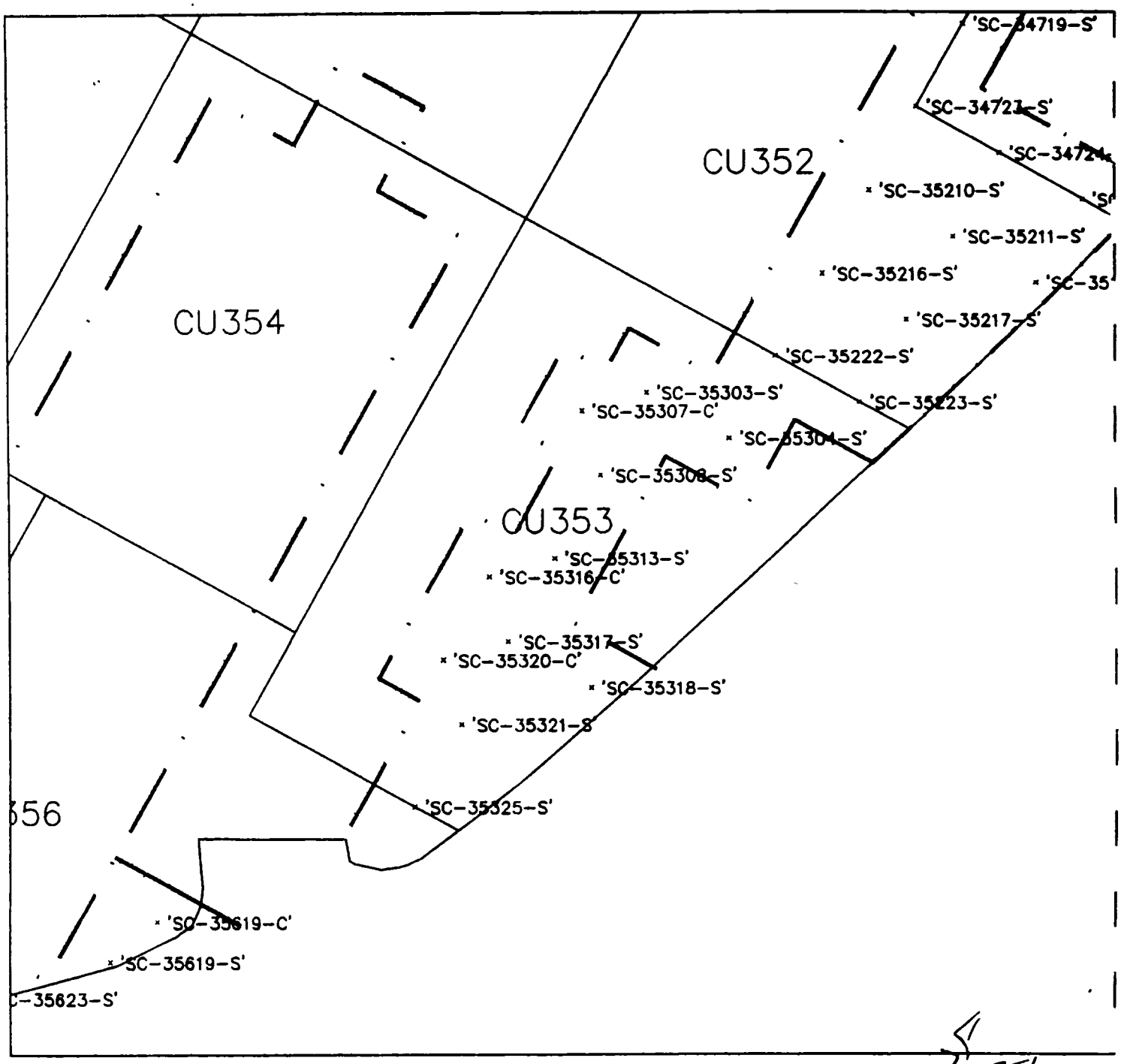
Radiation Survey Form WP 437, RU 24 CU ~~351~~ 355

Date Plotted 4/28/00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/13/00	Calibration Date:	9/24/00
Survey Date / Time:	4/27/00	Field Bkg.:	6000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

· 'SC-32606-S' SAMPLE POINTS PINNED

— · — · — PINNING LIMITS

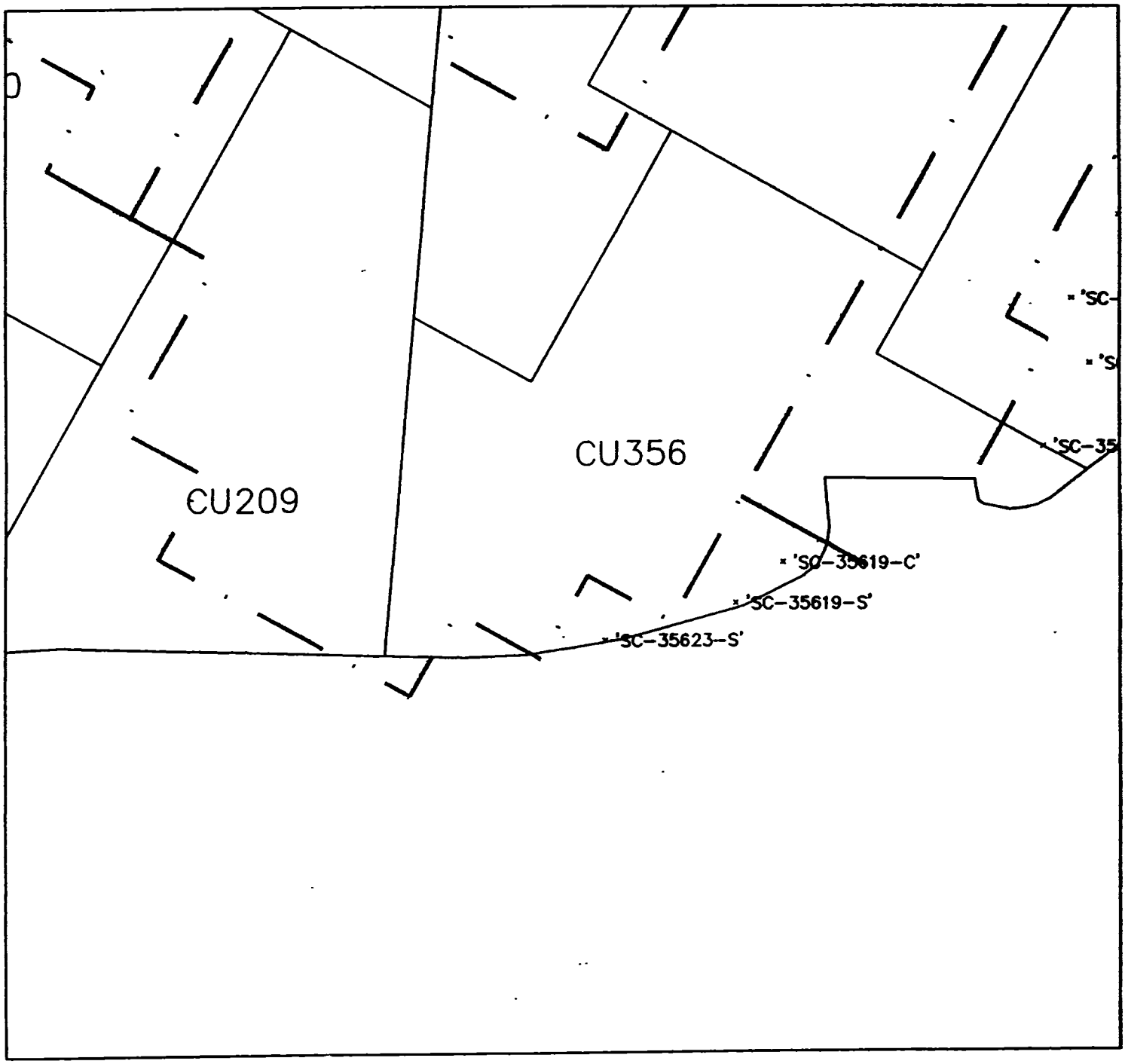
N

Radiation Survey Form WP 437, RU 24 CU ~~353~~ 356

Date Plotted 4/21/00

DHO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "r"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/13/00	Calibration Due:	9/24/00
Survey Date / Time:	3/19/00	Field Bkg.:	5000 Cpm
Surveyor(s):	C. Hanner		
Comments:	Area was surveyed and found to be less than 1.5 times background		



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

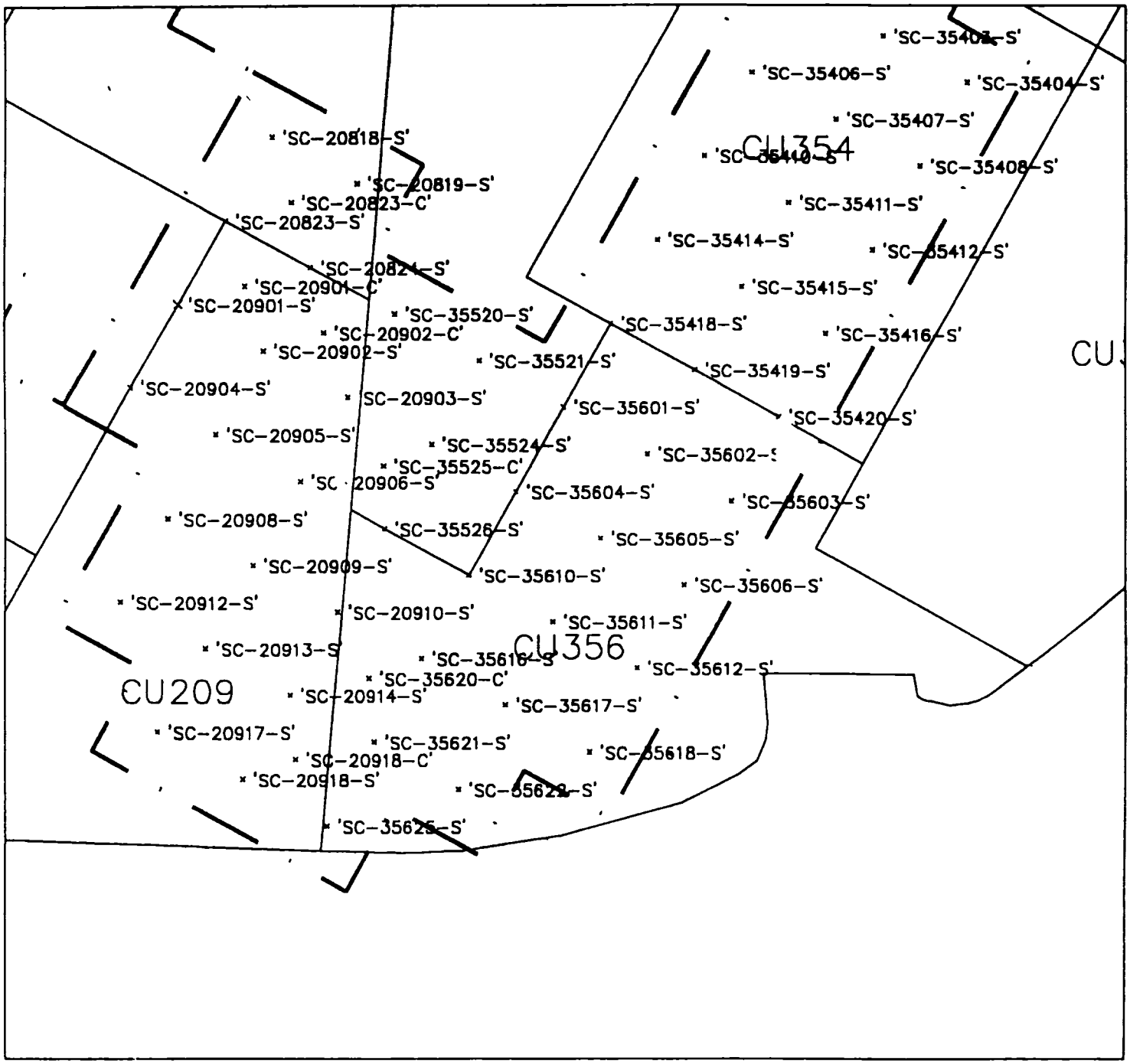
Radiation Survey Form, WP 437, RU 24 CU 356

Date Plotted 4/21/00

DBO CAD

Meter Model #:	2221	Detector Model #:	2x2 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Due:	10/13/00	Calibration Due:	9/24/00
Survey Date / Time:	3/13/00	Field Bkg.:	5000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

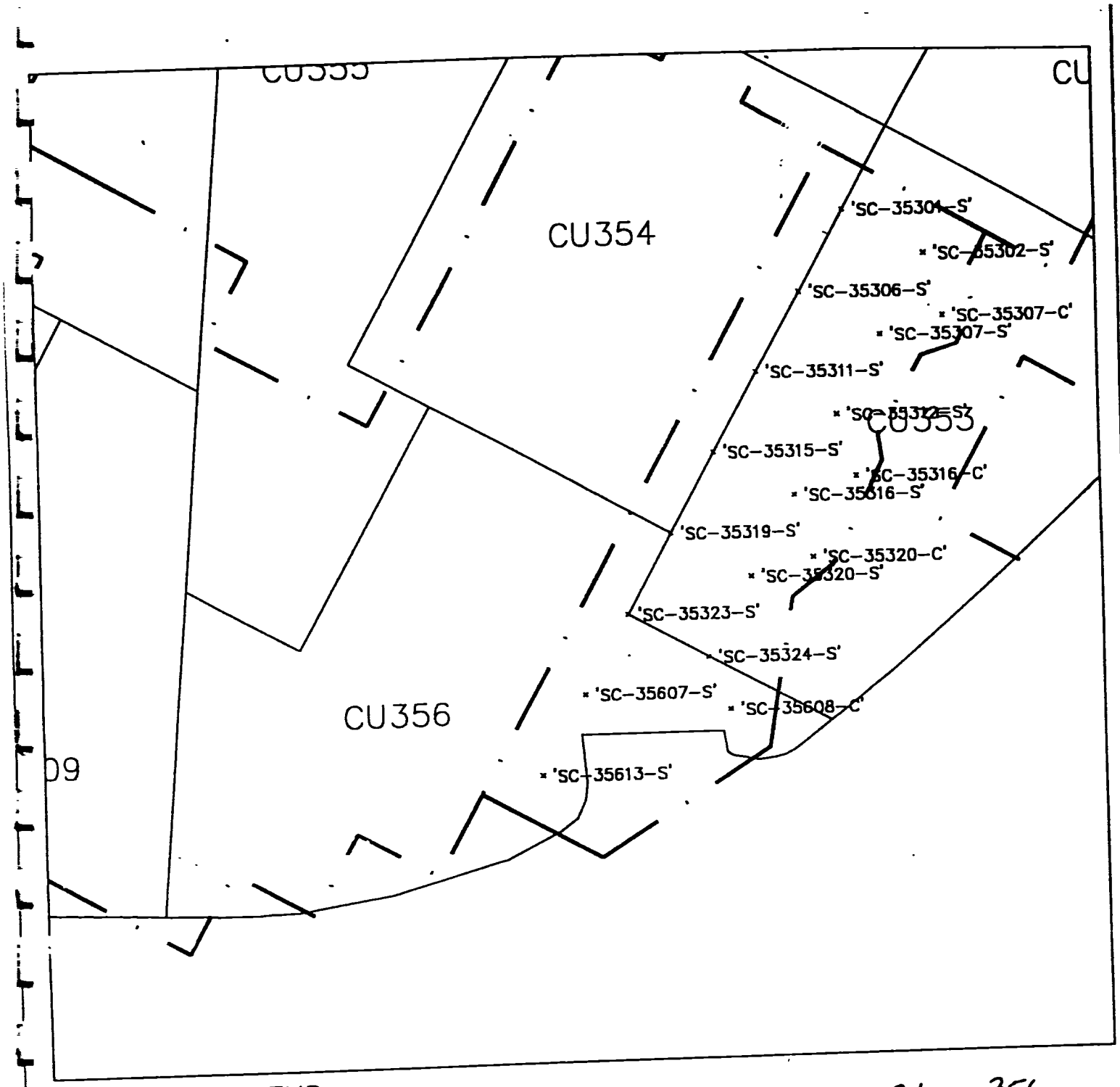
Radiation Survey Form WP 437, RU 24 CU 356

Date Plotted 4/20/00

DBD CAD

Meter Model #:	2221	Detector Model #:	2-42 NaI "M"
Meter Serial #:	117617	Detector Serial #:	130764
Calibration Date:	10/13/00	Calibration Date:	9/24/00
Survey Date / Time:	4/19/00	Field Bkg.:	6000 cpm
Surveyor(s):	C. Hanner		

Comments: Area was surveyed and found to be less than 1.5 times background



LEGEND

'SC-32606-S' SAMPLE POINTS PINNED

PINNING LIMITS

N

Radiation Survey Form WP 437, RU 24 CU 356

Date Plotted 5/05/00

DBD CAD

Meter Model #:	2221	Detector Model #:	2x2 "F"
Meter Serial #:	99158	Detector Serial #:	122191
Calibration Due:	7/24/00	Calibration Due:	9/29/00
Survey Date / Time:	5/5/00	Field Bkg.:	5,000 cPM
Surveyor(s):	T. Brewer		
Comments:	All readings <1.5 Bkg		

APPENDIX B
WP437 RU024 Final Data

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34901-U	3/30/2000	2,4,6-TRINITROTOLUENE	0.155	0.31	UG/G
SC-34902-U	3/30/2000	2,4,6-TRINITROTOLUENE	0.16	0.32	UG/G
SC-34903-U	3/30/2000	2,4,6-TRINITROTOLUENE	0.15	0.3	UG/G
SC-35001-U	3/30/2000	2,4,6-TRINITROTOLUENE	0.15	0.3	UG/G
SC-35002-U	3/30/2000	2,4,6-TRINITROTOLUENE	0.15	0.3	UG/G
SC-35003-U	3/30/2000	2,4,6-TRINITROTOLUENE	0.155	0.31	UG/G
SC-35004-U	3/30/2000	2,4,6-TRINITROTOLUENE	0.15	0.3	UG/G
SC-35005-U	3/30/2000	2,4,6-TRINITROTOLUENE	0.15	0.3	UG/G
SC-35501-U	5/13/2000	2,4,6-TRINITROTOLUENE	0.15	0.3	UG/G
SC-35502-U	5/13/2000	2,4,6-TRINITROTOLUENE	0.15	0.3	UG/G
SC-35503-U	5/13/2000	2,4,6-TRINITROTOLUENE	0.15	0.3	UG/G
SC-35504-U	5/13/2000	2,4,6-TRINITROTOLUENE	0.145	0.29	UG/G
SC-35505-U	5/13/2000	2,4,6-TRINITROTOLUENE	0.15	0.3	UG/G
SC-34307-S	3/7/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34308-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34311-S	3/7/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34312-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34315-S	3/7/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34316-S	4/13/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-34320-S	3/7/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-34321-S	4/13/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-34405-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34406-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34407-S	4/13/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-34409-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34410-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34411-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34413-S	4/13/2000	2,4-DINITROTOLUENE	0.115	0.23	UG/G
SC-34414-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34415-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34417-S	4/13/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-34418-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34419-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34801-S	4/13/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-34806-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34811-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34901-U	3/30/2000	2,4-DINITROTOLUENE	0.155	0.31	UG/G
SC-34902-U	3/30/2000	2,4-DINITROTOLUENE	0.16	0.32	UG/G
SC-34903-S	3/7/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34903-U	3/30/2000	2,4-DINITROTOLUENE	0.15	0.3	UG/G
SC-34904-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34905-S	4/13/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-34906-S	4/13/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-34909-S	3/7/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34910-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34911-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34912-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34915-S	3/7/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-34916-S	4/13/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-34917-S	4/13/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-34918-S	4/13/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-34922-S	3/8/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-35001-U	3/30/2000	2,4-DINITROTOLUENE	0.15	0.3	UG/G
SC-35002-U	3/30/2000	2,4-DINITROTOLUENE	0.15	0.3	UG/G
SC-35003-U	3/30/2000	2,4-DINITROTOLUENE	0.155	0.31	UG/G

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35004-S	3/8/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-35004-U	3/30/2000	2,4-DINITROTOLUENE	0.15	0.3	UG/G
SC-35005-U	3/30/2000	2,4-DINITROTOLUENE	0.15	0.3	UG/G
SC-35008-S	3/8/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-35012-S	3/8/2000	2,4-DINITROTOLUENE	0.12	0.24	UG/G
SC-35501-U	5/13/2000	2,4-DINITROTOLUENE	0.15	0 3	UG/G
SC-35502-U	5/13/2000	2,4-DINITROTOLUENE	0.15	0 3	UG/G
SC-35503-U	5/13/2000	2,4-DINITROTOLUENE	0.15	0.3	UG/G
SC-35504-U	5/13/2000	2,4-DINITROTOLUENE	0.145	0.29	UG/G
SC-35016-S	3/8/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-35505-U	5/13/2000	2,4-DINITROTOLUENE	0.15	0.3	UG/G
SC-35020-S	3/8/2000	2,4-DINITROTOLUENE	0.125	0.25	UG/G
SC-33801-U	6/27/2000	AROCLOR-1248	21.5	43	UG/KG
SC-33802-U	6/29/2000	AROCLOR-1248	20	40	UG/KG
SC-33803-U	6/29/2000	AROCLOR-1248	20.5	41	UG/KG
SC-33804-U	6/29/2000	AROCLOR-1248	22	44	UG/KG
SC-33805-U	6/29/2000	AROCLOR-1248	21.5	43	UG/KG
SC-33806-U	6/30/2000	AROCLOR-1248	21	42	UG/KG
SC-33807-U	6/30/2000	AROCLOR-1248	19.5	39	UG/KG
SC-33808-U	7/7/2000	AROCLOR-1248	22	44	UG/KG
SC-33809-U	7/7/2000	AROCLOR-1248	22	44	UG/KG
SC-33810-U	7/7/2000	AROCLOR-1248	20.5	41	UG/KG
SC-33813-U	7/16/2000	AROCLOR-1248	21.5	43	UG/KG
SC-34601-U	7/7/2000	AROCLOR-1248	20.5	41	UG/KG
SC-34602-U	7/10/2000	AROCLOR-1248	20	40	UG/KG
SC-34603-U	7/10/2000	AROCLOR-1248	21	42	UG/KG
SC-34604-U	7/10/2000	AROCLOR-1248	20.5	41	UG/KG
SC-34722-C	4/24/2000	AROCLOR-1248	41	41	UG/KG
SC-34901-U	3/30/2000	AROCLOR-1248	20.5	41	UG/KG
SC-34902-U	3/30/2000	AROCLOR-1248	21	42	UG/KG
SC-34903-U	3/30/2000	AROCLOR-1248	20	40	UG/KG
SC-35001-U	3/30/2000	AROCLOR-1248	20	40	UG/KG
SC-35002-U	3/30/2000	AROCLOR-1248	19.5	39	UG/KG
SC-35003-U	3/30/2000	AROCLOR-1248	20	40	UG/KG
SC-35004-U	3/30/2000	AROCLOR-1248	20	40	UG/KG
SC-35005-U	3/30/2000	AROCLOR-1248	20	40	UG/KG
SC-35501-U	5/13/2000	AROCLOR-1248	20	40	UG/KG
SC-35502-U	5/13/2000	AROCLOR-1248	20	40	UG/KG
SC-35503-U	5/13/2000	AROCLOR-1248	19.5	39	UG/KG
SC-35504-U	5/13/2000	AROCLOR-1248	19.5	39	UG/KG
SC-35505-U	5/13/2000	AROCLOR-1248	20	40	UG/KG
SC-33801-U	6/27/2000	AROCLOR-1254	21.5	43	UG/KG
SC-33802-U	6/29/2000	AROCLOR-1254	20	40	UG/KG
SC-33803-U	6/29/2000	AROCLOR-1254	20.5	41	UG/KG
SC-33804-U	6/29/2000	AROCLOR-1254	22	44	UG/KG
SC-33805-U	6/29/2000	AROCLOR-1254	21.5	43	UG/KG
SC-33806-U	6/30/2000	AROCLOR-1254	21	42	UG/KG
SC-33807-U	6/30/2000	AROCLOR-1254	19.5	39	UG/KG
SC-33808-U	7/7/2000	AROCLOR-1254	22	44	UG/KG
SC-33809-U	7/7/2000	AROCLOR-1254	22	44	UG/KG
SC-33810-U	7/7/2000	AROCLOR-1254	20.5	41	UG/KG
SC-33813-U	7/16/2000	AROCLOR-1254	21.5	43	UG/KG
SC-34601-U	7/7/2000	AROCLOR-1254	20.5	41	UG/KG
SC-34602-U	7/10/2000	AROCLOR-1254	20	40	UG/KG
SC-34603-U	7/10/2000	AROCLOR-1254	21	42	UG/KG

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34604-U	7/10/2000	AROCLOR-1254	20.5	41	UG/KG
SC-34722-C	4/24/2000	AROCLOR-1254	180	41	UG/KG
SC-34901-U	3/30/2000	AROCLOR-1254	20.5	41	UG/KG
SC-34902-U	3/30/2000	AROCLOR-1254	21	42	UG/KG
SC-34903-U	3/30/2000	AROCLOR-1254	20	40	UG/KG
SC-35001-U	3/30/2000	AROCLOR-1254	20	40	UG/KG
SC-35002-U	3/30/2000	AROCLOR-1254	19.5	39	UG/KG
SC-35003-U	3/30/2000	AROCLOR-1254	20	40	UG/KG
SC-35004-U	3/30/2000	AROCLOR-1254	20	40	UG/KG
SC-35005-U	3/30/2000	AROCLOR-1254	20	40	UG/KG
SC-35501-U	5/13/2000	AROCLOR-1254	20	40	UG/KG
SC-35502-U	5/13/2000	AROCLOR-1254	20	40	UG/KG
SC-35503-U	5/13/2000	AROCLOR-1254	19.5	39	UG/KG
SC-35504-U	5/13/2000	AROCLOR-1254	19.5	39	UG/KG
SC-35505-U	5/13/2000	AROCLOR-1254	20	40	UG/KG
SC-33801-U	6/27/2000	AROCLOR-1260	21.5	43	UG/KG
SC-33802-U	6/29/2000	AROCLOR-1260	20	40	UG/KG
SC-33803-U	6/29/2000	AROCLOR-1260	20.5	41	UG/KG
SC-33804-U	6/29/2000	AROCLOR-1260	22	44	UG/KG
SC-33805-U	6/29/2000	AROCLOR-1260	21.5	43	UG/KG
SC-33806-U	6/30/2000	AROCLOR-1260	21	42	UG/KG
SC-33807-U	6/30/2000	AROCLOR-1260	19.5	39	UG/KG
SC-33808-U	7/7/2000	AROCLOR-1260	22	44	UG/KG
SC-33809-U	7/7/2000	AROCLOR-1260	22	44	UG/KG
SC-33810-U	7/7/2000	AROCLOR-1260	20.5	41	UG/KG
SC-33813-U	7/16/2000	AROCLOR-1260	21.5	43	UG/KG
SC-34601-U	7/7/2000	AROCLOR-1260	20.5	41	UG/KG
SC-34602-U	7/10/2000	AROCLOR-1260	20	40	UG/KG
SC-34603-U	7/10/2000	AROCLOR-1260	21	42	UG/KG
SC-34604-U	7/10/2000	AROCLOR-1260	20.5	41	UG/KG
SC-34722-C	4/24/2000	AROCLOR-1260	41	41	UG/KG
SC-34901-U	3/30/2000	AROCLOR-1260	20.5	41	UG/KG
SC-34902-U	3/30/2000	AROCLOR-1260	21	42	UG/KG
SC-34903-U	3/30/2000	AROCLOR-1260	20	40	UG/KG
SC-35001-U	3/30/2000	AROCLOR-1260	20	40	UG/KG
SC-35002-U	3/30/2000	AROCLOR-1260	19.5	39	UG/KG
SC-35003-U	3/30/2000	AROCLOR-1260	20	40	UG/KG
SC-35004-U	3/30/2000	AROCLOR-1260	20	40	UG/KG
SC-35005-U	3/30/2000	AROCLOR-1260	20	40	UG/KG
SC-35501-U	5/13/2000	AROCLOR-1260	20	40	UG/KG
SC-35502-U	5/13/2000	AROCLOR-1260	20	40	UG/KG
SC-35503-U	5/13/2000	AROCLOR-1260	19.5	39	UG/KG
SC-35504-U	5/13/2000	AROCLOR-1260	19.5	39	UG/KG
SC-35505-U	5/13/2000	AROCLOR-1260	20	40	UG/KG
SC-33801-U	6/27/2000	ARSENIC	5.4	0.44	UG/G
SC-33802-U	6/29/2000	ARSENIC	3.4	0.44	UG/G
SC-33803-U	6/29/2000	ARSENIC	7.2	0.44	UG/G
SC-33804-U	6/29/2000	ARSENIC	5.8	0.44	UG/G
SC-33805-U	6/29/2000	ARSENIC	3.9	0.44	UG/G
SC-33806-U	6/30/2000	ARSENIC	0.84	0.36	UG/G
SC-33807-U	6/30/2000	ARSENIC	11.9	0.33	UG/G
SC-33808-U	7/7/2000	ARSENIC	5.1	0.38	UG/G
SC-33809-U	7/7/2000	ARSENIC	3.2	0.37	UG/G
SC-33810-U	7/7/2000	ARSENIC	2	0.35	UG/G
SC-33813-U	7/16/2000	ARSENIC	9.2	0.37	UG/G

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34307-S	3/7/2000	ARSENIC	9	0.58	UG/G
SC-34308-S	4/13/2000	ARSENIC	10.2	0.64	UG/G
SC-34311-S	3/7/2000	ARSENIC	6	0.56	UG/G
SC-34312-S	4/13/2000	ARSENIC	6.3	0.64	UG/G
SC-34315-S	3/7/2000	ARSENIC	10	0.54	UG/G
SC-34316-S	4/13/2000	ARSENIC	3.6	0.66	UG/G
SC-34320-S	3/7/2000	ARSENIC	83	0.56	UG/G
SC-34320-S-RS	3/16/2000	ARSENIC	10	0.28	UG/G
SC-34321-S	4/13/2000	ARSENIC	8	0.66	UG/G
SC-34405-S	4/13/2000	ARSENIC	8.8	0.54	UG/G
SC-34406-S	4/13/2000	ARSENIC	9.4	0.61	UG/G
SC-34407-S	4/13/2000	ARSENIC	9.9	0.65	UG/G
SC-34409-S	4/13/2000	ARSENIC	8.4	0.6	UG/G
SC-34410-S	4/13/2000	ARSENIC	8.3	0.49	UG/G
SC-34411-S	4/13/2000	ARSENIC	7.2	0.59	UG/G
SC-34413-S	4/13/2000	ARSENIC	4.3	0 61	UG/G
SC-34414-S	4/13/2000	ARSENIC	5.8	0 57	UG/G
SC-34415-S	4/13/2000	ARSENIC	7.9	0.55	UG/G
SC-34417-S	4/13/2000	ARSENIC	7.2	0.54	UG/G
SC-34418-S	4/13/2000	ARSENIC	9.3	0.68	UG/G
SC-34419-S	4/13/2000	ARSENIC	9.09	0.65	UG/G
SC-34601-U	7/7/2000	ARSENIC	3.6	0.35	UG/G
SC-34602-U	7/10/2000	ARSENIC	6.7	0.34	UG/G
SC-34603-U	7/10/2000	ARSENIC	7.9	0.35	UG/G
SC-34604-U	7/10/2000	ARSENIC	8.3	0.34	UG/G
SC-34801-S	4/13/2000	ARSENIC	8 8	0.58	UG/G
SC-34806-S	4/13/2000	ARSENIC	8.3	0.7	UG/G
SC-34811-S	4/13/2000	ARSENIC	10.3	0.69	UG/G
SC-34901-U	3/30/2000	ARSENIC	10.6	0.28	UG/G
SC-34902-U	3/30/2000	ARSENIC	11.8	0.28	UG/G
SC-34903-S	3/7/2000	ARSENIC	7	0.55	UG/G
SC-34903-U	3/30/2000	ARSENIC	11.3	0.27	UG/G
SC-34904-S	4/13/2000	ARSENIC	8.2	0.69	UG/G
SC-34905-S	4/13/2000	ARSENIC	6.2	0.66	UG/G
SC-34906-S	4/13/2000	ARSENIC	8.1	0.71	UG/G
SC-34909-S	3/7/2000	ARSENIC	8	0.56	UG/G
SC-34910-S	4/13/2000	ARSENIC	7.1	0.69	UG/G
SC-34911-S	4/13/2000	ARSENIC	7.8	0.67	UG/G
SC-34912-S	4/13/2000	ARSENIC	8.5	0.52	UG/G
SC-34915-S	3/7/2000	ARSENIC	9	0.55	UG/G
SC-34916-S	4/13/2000	ARSENIC	7 2	0.5	UG/G
SC-34917-S	4/13/2000	ARSENIC	9.4	0.7	UG/G
SC-34918-S	4/13/2000	ARSENIC	8.8	0.64	UG/G
SC-34922-S	3/8/2000	ARSENIC	8	0.57	UG/G
SC-35001-U	3/30/2000	ARSENIC	10.7	0.27	UG/G
SC-35002-U	3/30/2000	ARSENIC	6.7	0.26	UG/G
SC-35003-U	3/30/2000	ARSENIC	6.3	0.27	UG/G
SC-35004-S	3/8/2000	ARSENIC	7	0.55	UG/G
SC-35004-U	3/30/2000	ARSENIC	7	0.27	UG/G
SC-35005-U	3/30/2000	ARSENIC	7	0.27	UG/G
SC-35008-S	3/8/2000	ARSENIC	10	0.57	UG/G
SC-35012-S	3/8/2000	ARSENIC	9	0 55	UG/G
SC-35501-U	5/13/2000	ARSENIC	5.9	0.53	UG/G
SC-35502-U	5/13/2000	ARSENIC	5.6	0.53	UG/G
SC-35503-U	5/13/2000	ARSENIC	6.4	0.52	UG/G

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35504-U	5/13/2000	ARSENIC	5.7	0.52	UG/G
SC-35016-S	3/8/2000	ARSENIC	7	0.56	UG/G
SC-35505-U	5/13/2000	ARSENIC	7	0.54	UG/G
SC-35020-S	3/8/2000	ARSENIC	8	0.59	UG/G
SC-34307-S	3/7/2000	BARIUM	149	0.04	UG/G
SC-34308-S	4/13/2000	BARIUM	169	0.04	UG/G
SC-34311-S	3/7/2000	BARIUM	126	0.03	UG/G
SC-34312-S	4/13/2000	BARIUM	115	0.04	UG/G
SC-34315-S	3/7/2000	BARIUM	172	0.04	UG/G
SC-34316-S	4/13/2000	BARIUM	118	0.05	UG/G
SC-34320-S	3/7/2000	BARIUM	1780	0.04	UG/G
SC-34321-S	4/13/2000	BARIUM	174	0.05	UG/G
SC-34405-S	4/13/2000	BARIUM	179	0.04	UG/G
SC-34406-S	4/13/2000	BARIUM	221	0.04	UG/G
SC-34407-S	4/13/2000	BARIUM	148	0.04	UG/G
SC-34409-S	4/13/2000	BARIUM	175	0.04	UG/G
SC-34410-S	4/13/2000	BARIUM	175	0.03	UG/G
SC-34411-S	4/13/2000	BARIUM	136	0.04	UG/G
SC-34413-S	4/13/2000	BARIUM	191	0.04	UG/G
SC-34414-S	4/13/2000	BARIUM	140	0.04	UG/G
SC-34415-S	4/13/2000	BARIUM	147	0.04	UG/G
SC-34417-S	4/13/2000	BARIUM	156	0.04	UG/G
SC-34418-S	4/13/2000	BARIUM	212	0.05	UG/G
SC-34419-S	4/13/2000	BARIUM	160	0.04	UG/G
SC-34801-S	4/13/2000	BARIUM	201	0.04	UG/G
SC-34806-S	4/13/2000	BARIUM	167	0.048	UG/G
SC-34811-S	4/13/2000	BARIUM	184	0.048	UG/G
SC-34903-S	3/7/2000	BARIUM	145	0.04	UG/G
SC-34904-S	4/13/2000	BARIUM	162	0.048	UG/G
SC-34905-S	4/13/2000	BARIUM	205	0.046	UG/G
SC-34906-S	4/13/2000	BARIUM	143	0.049	UG/G
SC-34909-S	3/7/2000	BARIUM	113	0.04	UG/G
SC-34910-S	4/13/2000	BARIUM	212	0.048	UG/G
SC-34911-S	4/13/2000	BARIUM	133	0.047	UG/G
SC-34912-S	4/13/2000	BARIUM	133	0.036	UG/G
SC-34915-S	3/7/2000	BARIUM	110	0.04	UG/G
SC-34916-S	4/13/2000	BARIUM	194	0.034	UG/G
SC-34917-S	4/13/2000	BARIUM	199	0.048	UG/G
SC-34918-S	4/13/2000	BARIUM	171	0.044	UG/G
SC-34922-S	3/8/2000	BARIUM	137	0.04	UG/G
SC-35004-S	3/8/2000	BARIUM	101	0.04	UG/G
SC-35008-S	3/8/2000	BARIUM	188	0.04	UG/G
SC-35012-S	3/8/2000	BARIUM	144	0.04	UG/G
SC-35016-S	3/8/2000	BARIUM	230	0.04	UG/G
SC-35020-S	3/8/2000	BARIUM	149	0.04	UG/G
SC-33801-U	6/27/2000	BENZO(A)ANTHRACENE	10	20	UG/KG
SC-33802-U	6/29/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-33803-U	6/29/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-33804-U	6/29/2000	BENZO(A)ANTHRACENE	10	20	UG/KG
SC-33805-U	6/29/2000	BENZO(A)ANTHRACENE	10	20	UG/KG
SC-33806-U	6/30/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-33807-U	6/30/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-33808-U	7/7/2000	BENZO(A)ANTHRACENE	10	20	UG/KG
SC-33809-U	7/7/2000	BENZO(A)ANTHRACENE	10	20	UG/KG
SC-33810-U	7/7/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-33813-U	7/16/2000	BENZO(A)ANTHRACENE	10	20	UG/KG
SC-34213-C	5/20/2000	BENZO(A)ANTHRACENE	8.5	17	UG/KG
SC-34214-S	5/20/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34218-C	5/20/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34219-S	5/20/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34220-S	5/20/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34301-S	5/20/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-34301-U	5/18/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-34302-S	5/20/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-34302-U	5/18/2000	BENZO(A)ANTHRACENE	8.5	17	UG/KG
SC-34303-U	5/18/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34305-S	5/20/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34306-S	5/20/2000	BENZO(A)ANTHRACENE	8.5	17	UG/KG
SC-34309-S	5/20/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34310-S	5/18/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-34313-S	5/18/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34314-S	5/18/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34318-C	5/18/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34319-S	5/18/2000	BENZO(A)ANTHRACENE	8.5	17	UG/KG
SC-34601-U	7/7/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-34602-U	7/10/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34603-U	7/10/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-34604-U	7/10/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34901-U	3/30/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-34902-S	5/18/2000	BENZO(A)ANTHRACENE	8.5	17	UG/KG
SC-34902-U	3/30/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-34903-U	3/30/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34904-U	3/30/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34907-U	5/20/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-34908-S	5/18/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34908-U	5/20/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-34909-U	5/20/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-35001-U	3/30/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-35002-U	3/30/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-35003-U	3/30/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-35004-U	3/30/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-35005-U	3/30/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-35006-U	3/30/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-35007-U	3/30/2000	BENZO(A)ANTHRACENE	9 5	19	UG/KG
SC-35008-U	3/30/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-35009-U	3/30/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-35010-U	5/5/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35011-U	5/5/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35501-U	5/13/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-35502-U	5/13/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-35503-U	5/13/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-35504-U	5/13/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-35505-U	5/13/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-35017-U	5/20/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-35018-U	5/20/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-35019-U	5/20/2000	BENZO(A)ANTHRACENE	10	20	UG/KG
SC-35020-U	5/20/2000	BENZO(A)ANTHRACENE	9	18	UG/KG
SC-35021-U	5/20/2000	BENZO(A)ANTHRACENE	9.5	19	UG/KG
SC-35307-C	5/8/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35316-C	5/8/2000	BENZO(A)ANTHRACENE	26	12	UG/KG

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35320-C	5/8/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35401-S	4/29/2000	BENZO(A)ANTHRACENE	5.5	11	UG/KG
SC-35402-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35403-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35404-S	4/21/2000	BENZO(A)ANTHRACENE	21	12	UG/KG
SC-35405-S	4/29/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35406-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35407-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35408-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35409-S	4/29/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35410-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35411-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35412-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35413-S	4/29/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35414-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35415-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35416-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35417-S	4/29/2000	BENZO(A)ANTHRACENE	260	11	UG/KG
SC-35418-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35419-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35420-S	4/21/2000	BENZO(A)ANTHRACENE	6.5	13	UG/KG
SC-35601-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35602-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35603-S	4/21/2000	BENZO(A)ANTHRACENE	6.5	13	UG/KG
SC-35604-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35605-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35606-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35610-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35611-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-35612-S	4/21/2000	BENZO(A)ANTHRACENE	6	12	UG/KG
SC-33801-U	6/27/2000	BENZO(A)PYRENE	10	20	UG/KG
SC-33802-U	6/29/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-33803-U	6/29/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-33804-U	6/29/2000	BENZO(A)PYRENE	10	20	UG/KG
SC-33805-U	6/29/2000	BENZO(A)PYRENE	10	20	UG/KG
SC-33806-U	6/30/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-33807-U	6/30/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-33808-U	7/7/2000	BENZO(A)PYRENE	10	20	UG/KG
SC-33809-U	7/7/2000	BENZO(A)PYRENE	10	20	UG/KG
SC-33810-U	7/7/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-33813-U	7/16/2000	BENZO(A)PYRENE	10	20	UG/KG
SC-34213-C	5/20/2000	BENZO(A)PYRENE	8.5	17	UG/KG
SC-34214-S	5/20/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34218-C	5/20/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34219-S	5/20/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34220-S	5/20/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34301-S	5/20/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-34301-U	5/18/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-34302-S	5/20/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-34302-U	5/18/2000	BENZO(A)PYRENE	8.5	17	UG/KG
SC-34303-U	5/18/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34305-S	5/20/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34306-S	5/20/2000	BENZO(A)PYRENE	8.5	17	UG/KG
SC-34309-S	5/20/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34310-S	5/18/2000	BENZO(A)PYRENE	9.5	19	UG/KG

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34313-S	5/18/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34314-S	5/18/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34318-C	5/18/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34319-S	5/18/2000	BENZO(A)PYRENE	8.5	17	UG/KG
SC-34601-U	7/7/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-34602-U	7/10/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34603-U	7/10/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-34604-U	7/10/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34901-U	3/30/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-34902-S	5/18/2000	BENZO(A)PYRENE	8.5	17	UG/KG
SC-34902-U	3/30/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-34903-U	3/30/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34904-U	3/30/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34907-U	5/20/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-34908-S	5/18/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34908-U	5/20/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-34909-U	5/20/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35001-U	3/30/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35002-U	3/30/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35003-U	3/30/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35004-U	3/30/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35005-U	3/30/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35006-U	3/30/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35007-U	3/30/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35008-U	3/30/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35009-U	3/30/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35010-U	5/5/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35011-U	5/5/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35501-U	5/13/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35502-U	5/13/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35503-U	5/13/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35504-U	5/13/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35505-U	5/13/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35017-U	5/20/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35018-U	5/20/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35019-U	5/20/2000	BENZO(A)PYRENE	10	20	UG/KG
SC-35020-U	5/20/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35021-U	5/20/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35307-C	5/8/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35316-C	5/8/2000	BENZO(A)PYRENE	43	19	UG/KG
SC-35320-C	5/8/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35401-S	4/29/2000	BENZO(A)PYRENE	8.5	17	UG/KG
SC-35402-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35403-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35404-S	4/21/2000	BENZO(A)PYRENE	21	17	UG/KG
SC-35405-S	4/29/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35406-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35407-S	4/21/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35408-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35409-S	4/29/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35410-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35411-S	4/21/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35412-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35413-S	4/29/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35414-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35415-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35416-S	4/21/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35417-S	4/29/2000	BENZO(A)PYRENE	240	16	UG/KG
SC-35418-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35419-S	4/21/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35420-S	4/21/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35601-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35602-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35603-S	4/21/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35604-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35605-S	4/21/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35606-S	4/21/2000	BENZO(A)PYRENE	9.5	19	UG/KG
SC-35610-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35611-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-35612-S	4/21/2000	BENZO(A)PYRENE	9	18	UG/KG
SC-33801-U	6/27/2000	BENZO(B)FLUORANTHENE	10	20	UG/KG
SC-33802-U	6/29/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-33803-U	6/29/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-33804-U	6/29/2000	BENZO(B)FLUORANTHENE	10	20	UG/KG
SC-33805-U	6/29/2000	BENZO(B)FLUORANTHENE	10	20	UG/KG
SC-33806-U	6/30/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-33807-U	6/30/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-33808-U	7/7/2000	BENZO(B)FLUORANTHENE	10	20	UG/KG
SC-33809-U	7/7/2000	BENZO(B)FLUORANTHENE	10	20	UG/KG
SC-33810-U	7/7/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-33813-U	7/16/2000	BENZO(B)FLUORANTHENE	10	20	UG/KG
SC-34213-C	5/20/2000	BENZO(B)FLUORANTHENE	8.5	17	UG/KG
SC-34214-S	5/20/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34218-C	5/20/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34219-S	5/20/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34220-S	5/20/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34301-S	5/20/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-34301-U	5/18/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-34302-S	5/20/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-34302-U	5/18/2000	BENZO(B)FLUORANTHENE	8.5	17	UG/KG
SC-34303-U	5/18/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34305-S	5/20/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34306-S	5/20/2000	BENZO(B)FLUORANTHENE	8.5	17	UG/KG
SC-34309-S	5/20/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34310-S	5/18/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-34313-S	5/18/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34314-S	5/18/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34318-C	5/18/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34319-S	5/18/2000	BENZO(B)FLUORANTHENE	8.5	17	UG/KG
SC-34601-U	7/7/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-34602-U	7/10/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34603-U	7/10/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-34604-U	7/10/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34901-U	3/30/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-34902-S	5/18/2000	BENZO(B)FLUORANTHENE	8.5	17	UG/KG
SC-34902-U	3/30/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-34903-U	3/30/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34904-U	3/30/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34907-U	5/20/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-34908-S	5/18/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34908-U	5/20/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-34909-U	5/20/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-35001-U	3/30/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-35002-U	3/30/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-35003-U	3/30/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-35004-U	3/30/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-35005-U	3/30/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-35006-U	3/30/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-35007-U	3/30/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-35008-U	3/30/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-35009-U	3/30/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-35010-U	5/5/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35011-U	5/5/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35501-U	5/13/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-35502-U	5/13/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-35503-U	5/13/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-35504-U	5/13/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-35505-U	5/13/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-35017-U	5/20/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-35018-U	5/20/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-35019-U	5/20/2000	BENZO(B)FLUORANTHENE	10	20	UG/KG
SC-35020-U	5/20/2000	BENZO(B)FLUORANTHENE	9	18	UG/KG
SC-35021-U	5/20/2000	BENZO(B)FLUORANTHENE	9.5	19	UG/KG
SC-35307-C	5/8/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35316-C	5/8/2000	BENZO(B)FLUORANTHENE	65	15	UG/KG
SC-35320-C	5/8/2000	BENZO(B)FLUORANTHENE	11	15	UG/KG
SC-35401-S	4/29/2000	BENZO(B)FLUORANTHENE	6.5	13	UG/KG
SC-35402-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35403-S	4/21/2000	BENZO(B)FLUORANTHENE	7	14	UG/KG
SC-35404-S	4/21/2000	BENZO(B)FLUORANTHENE	22	14	UG/KG
SC-35405-S	4/29/2000	BENZO(B)FLUORANTHENE	7	14	UG/KG
SC-35406-S	4/21/2000	BENZO(B)FLUORANTHENE	7	14	UG/KG
SC-35407-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35408-S	4/21/2000	BENZO(B)FLUORANTHENE	7	14	UG/KG
SC-35409-S	4/29/2000	BENZO(B)FLUORANTHENE	7	14	UG/KG
SC-35410-S	4/21/2000	BENZO(B)FLUORANTHENE	7	14	UG/KG
SC-35411-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35412-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35413-S	4/29/2000	BENZO(B)FLUORANTHENE	7	14	UG/KG
SC-35414-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35415-S	4/21/2000	BENZO(B)FLUORANTHENE	7	14	UG/KG
SC-35416-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35417-S	4/29/2000	BENZO(B)FLUORANTHENE	210	13	UG/KG
SC-35418-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35419-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35420-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35601-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35602-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35603-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35604-S	4/21/2000	BENZO(B)FLUORANTHENE	7	14	UG/KG
SC-35605-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35606-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35610-S	4/21/2000	BENZO(B)FLUORANTHENE	7.5	15	UG/KG
SC-35611-S	4/21/2000	BENZO(B)FLUORANTHENE	7	14	UG/KG
SC-35612-S	4/21/2000	BENZO(B)FLUORANTHENE	7 5	15	UG/KG

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-33801-U	6/27/2000	BENZO(K)FLUORANTHENE	10	20	UG/KG
SC-33802-U	6/29/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-33803-U	6/29/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-33804-U	6/29/2000	BENZO(K)FLUORANTHENE	10	20	UG/KG
SC-33805-U	6/29/2000	BENZO(K)FLUORANTHENE	10	20	UG/KG
SC-33806-U	6/30/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-33807-U	6/30/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-33808-U	7/7/2000	BENZO(K)FLUORANTHENE	10	20	UG/KG
SC-33809-U	7/7/2000	BENZO(K)FLUORANTHENE	10	20	UG/KG
SC-33810-U	7/7/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-33813-U	7/16/2000	BENZO(K)FLUORANTHENE	10	20	UG/KG
SC-34213-C	5/20/2000	BENZO(K)FLUORANTHENE	8.5	17	UG/KG
SC-34214-S	5/20/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34218-C	5/20/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34219-S	5/20/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34220-S	5/20/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34301-S	5/20/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-34301-U	5/18/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-34302-S	5/20/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-34302-U	5/18/2000	BENZO(K)FLUORANTHENE	8.5	17	UG/KG
SC-34303-U	5/18/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34305-S	5/20/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34306-S	5/20/2000	BENZO(K)FLUORANTHENE	8.5	17	UG/KG
SC-34309-S	5/20/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34310-S	5/18/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-34313-S	5/18/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34314-S	5/18/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34318-C	5/18/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34319-S	5/18/2000	BENZO(K)FLUORANTHENE	8.5	17	UG/KG
SC-34601-U	7/7/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-34602-U	7/10/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34603-U	7/10/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-34604-U	7/10/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34901-U	3/30/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-34902-S	5/18/2000	BENZO(K)FLUORANTHENE	8.5	17	UG/KG
SC-34902-U	3/30/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-34903-U	3/30/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34904-U	3/30/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34907-U	5/20/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-34908-S	5/18/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34908-U	5/20/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-34909-U	5/20/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-35001-U	3/30/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-35002-U	3/30/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-35003-U	3/30/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-35004-U	3/30/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-35005-U	3/30/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-35006-U	3/30/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-35007-U	3/30/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-35008-U	3/30/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-35009-U	3/30/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-35010-U	5/5/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35011-U	5/5/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35501-U	5/13/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-35502-U	5/13/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35503-U	5/13/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-35504-U	5/13/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-35505-U	5/13/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-35017-U	5/20/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-35018-U	5/20/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-35019-U	5/20/2000	BENZO(K)FLUORANTHENE	10	20	UG/KG
SC-35020-U	5/20/2000	BENZO(K)FLUORANTHENE	9	18	UG/KG
SC-35021-U	5/20/2000	BENZO(K)FLUORANTHENE	9.5	19	UG/KG
SC-35307-C	5/8/2000	BENZO(K)FLUORANTHENE	7	14	UG/KG
SC-35316-C	5/8/2000	BENZO(K)FLUORANTHENE	22	14	UG/KG
SC-35320-C	5/8/2000	BENZO(K)FLUORANTHENE	7	14	UG/KG
SC-35401-S	4/29/2000	BENZO(K)FLUORANTHENE	6	12	UG/KG
SC-35402-S	4/21/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35403-S	4/21/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35404-S	4/21/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35405-S	4/29/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35406-S	4/21/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35407-S	4/21/2000	BENZO(K)FLUORANTHENE	7	14	UG/KG
SC-35408-S	4/21/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35409-S	4/29/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35410-S	4/21/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35411-S	4/21/2000	BENZO(K)FLUORANTHENE	7	14	UG/KG
SC-35412-S	4/21/2000	BENZO(K)FLUORANTHENE	7	14	UG/KG
SC-35413-S	4/29/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35414-S	4/21/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35415-S	4/21/2000	BENZO(K)FLUORANTHENE	6 5	13	UG/KG
SC-35416-S	4/21/2000	BENZO(K)FLUORANTHENE	7	14	UG/KG
SC-35417-S	4/29/2000	BENZO(K)FLUORANTHENE	120	12	UG/KG
SC-35418-S	4/21/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35419-S	4/21/2000	BENZO(K)FLUORANTHENE	7	14	UG/KG
SC-35420-S	4/21/2000	BENZO(K)FLUORANTHENE	7	14	UG/KG
SC-35601-S	4/21/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35602-S	4/21/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35603-S	4/21/2000	BENZO(K)FLUORANTHENE	7	14	UG/KG
SC-35604-S	4/21/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35605-S	4/21/2000	BENZO(K)FLUORANTHENE	7	14	UG/KG
SC-35606-S	4/21/2000	BENZO(K)FLUORANTHENE	7	14	UG/KG
SC-35610-S	4/21/2000	BENZO(K)FLUORANTHENE	6.5	13	UG/KG
SC-35611-S	4/21/2000	BENZO(K)FLUORANTHENE	6 5	13	UG/KG
SC-35612-S	4/21/2000	BENZO(K)FLUORANTHENE	7	14	UG/KG
SC-33801-U	6/27/2000	CHROMIUM	15.6	0.22	UG/G
SC-33802-U	6/29/2000	CHROMIUM	19.4	0 22	UG/G
SC-33803-U	6/29/2000	CHROMIUM	20.3	0.22	UG/G
SC-33804-U	6/29/2000	CHROMIUM	18.7	0.22	UG/G
SC-33805-U	6/29/2000	CHROMIUM	17.1	0.22	UG/G
SC-33806-U	6/30/2000	CHROMIUM	17.8	0.28	UG/G
SC-33807-U	6/30/2000	CHROMIUM	16.2	0.26	UG/G
SC-33808-U	7/7/2000	CHROMIUM	20.4	0.3	UG/G
SC-33809-U	7/7/2000	CHROMIUM	14.9	0.29	UG/G
SC-33810-U	7/7/2000	CHROMIUM	15.7	0 27	UG/G
SC-33813-U	7/16/2000	CHROMIUM	11	0.29	UG/G
SC-34307-S	3/7/2000	CHROMIUM	13	0.12	UG/G
SC-34308-S	4/13/2000	CHROMIUM	19.2	0.13	UG/G
SC-34311-S	3/7/2000	CHROMIUM	15	0 12	UG/G
SC-34312-S	4/13/2000	CHROMIUM	14	0.13	UG/G

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34315-S	3/7/2000	CHROMIUM	13	0.11	UG/G
SC-34316-S	4/13/2000	CHROMIUM	11.7	0.15	UG/G
SC-34320-S	3/7/2000	CHROMIUM	140	0.12	UG/G
SC-34320-S-RS	3/16/2000	CHROMIUM	18	0.15	UG/G
SC-34321-S	4/13/2000	CHROMIUM	19.3	0.14	UG/G
SC-34405-S	4/13/2000	CHROMIUM	18	0.11	UG/G
SC-34406-S	4/13/2000	CHROMIUM	20.3	0.13	UG/G
SC-34407-S	4/13/2000	CHROMIUM	21.1	0.13	UG/G
SC-34409-S	4/13/2000	CHROMIUM	17.4	0.12	UG/G
SC-34410-S	4/13/2000	CHROMIUM	17.2	0.1	UG/G
SC-34411-S	4/13/2000	CHROMIUM	15.4	0.12	UG/G
SC-34413-S	4/13/2000	CHROMIUM	12.6	0.13	UG/G
SC-34414-S	4/13/2000	CHROMIUM	21.9	0.12	UG/G
SC-34415-S	4/13/2000	CHROMIUM	18.3	0.11	UG/G
SC-34417-S	4/13/2000	CHROMIUM	16.3	0.11	UG/G
SC-34418-S	4/13/2000	CHROMIUM	18.5	0.14	UG/G
SC-34419-S	4/13/2000	CHROMIUM	17.9	0.13	UG/G
SC-34601-U	7/7/2000	CHROMIUM	16.4	0.28	UG/G
SC-34602-U	7/10/2000	CHROMIUM	13.8	0.27	UG/G
SC-34603-U	7/10/2000	CHROMIUM	13.8	0.28	UG/G
SC-34604-U	7/10/2000	CHROMIUM	16.3	0.27	UG/G
SC-34801-S	4/13/2000	CHROMIUM	17.1	0.12	UG/G
SC-34806-S	4/13/2000	CHROMIUM	16.4	0.14	UG/G
SC-34811-S	4/13/2000	CHROMIUM	19.8	0.14	UG/G
SC-34901-U	3/30/2000	CHROMIUM	20.1	0.15	UG/G
SC-34902-U	3/30/2000	CHROMIUM	20.2	0.15	UG/G
SC-34903-S	3/7/2000	CHROMIUM	14	0.11	UG/G
SC-34903-U	3/30/2000	CHROMIUM	22.1	0.14	UG/G
SC-34904-S	4/13/2000	CHROMIUM	19.1	0.14	UG/G
SC-34905-S	4/13/2000	CHROMIUM	18.1	0.14	UG/G
SC-34906-S	4/13/2000	CHROMIUM	16	0.15	UG/G
SC-34909-S	3/7/2000	CHROMIUM	13	0.12	UG/G
SC-34910-S	4/13/2000	CHROMIUM	19	0.14	UG/G
SC-34911-S	4/13/2000	CHROMIUM	17.7	0.14	UG/G
SC-34912-S	4/13/2000	CHROMIUM	16.7	0.11	UG/G
SC-34915-S	3/7/2000	CHROMIUM	13	0.11	UG/G
SC-34916-S	4/13/2000	CHROMIUM	16.1	0.1	UG/G
SC-34917-S	4/13/2000	CHROMIUM	16.1	0.14	UG/G
SC-34918-S	4/13/2000	CHROMIUM	17	0.13	UG/G
SC-34922-S	3/8/2000	CHROMIUM	12	0.12	UG/G
SC-35001-U	3/30/2000	CHROMIUM	20.9	0.15	UG/G
SC-35002-U	3/30/2000	CHROMIUM	18	0.14	UG/G
SC-35003-U	3/30/2000	CHROMIUM	17.5	0.15	UG/G
SC-35004-S	3/8/2000	CHROMIUM	11	0.11	UG/G
SC-35004-U	3/30/2000	CHROMIUM	17.7	0.14	UG/G
SC-35005-U	3/30/2000	CHROMIUM	19.2	0.15	UG/G
SC-35008-S	3/8/2000	CHROMIUM	14	0.12	UG/G
SC-35012-S	3/8/2000	CHROMIUM	15	0.11	UG/G
SC-35501-U	5/13/2000	CHROMIUM	19.3	0.26	UG/G
SC-35502-U	5/13/2000	CHROMIUM	14.8	0.27	UG/G
SC-35503-U	5/13/2000	CHROMIUM	14.8	0.26	UG/G
SC-35504-U	5/13/2000	CHROMIUM	13.8	0.26	UG/G
SC-35016-S	3/8/2000	CHROMIUM	12	0.11	UG/G
SC-35505-U	5/13/2000	CHROMIUM	16.6	0.27	UG/G
SC-35020-S	3/8/2000	CHROMIUM	14	0.12	UG/G

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-33801-U	6/27/2000	CHRYSENE	10	20	UG/KG
SC-33802-U	6/29/2000	CHRYSENE	9	18	UG/KG
SC-33803-U	6/29/2000	CHRYSENE	9.5	19	UG/KG
SC-33804-U	6/29/2000	CHRYSENE	10	20	UG/KG
SC-33805-U	6/29/2000	CHRYSENE	10	20	UG/KG
SC-33806-U	6/30/2000	CHRYSENE	9.5	19	UG/KG
SC-33807-U	6/30/2000	CHRYSENE	9	18	UG/KG
SC-33808-U	7/7/2000	CHRYSENE	10	20	UG/KG
SC-33809-U	7/7/2000	CHRYSENE	10	20	UG/KG
SC-33810-U	7/7/2000	CHRYSENE	9.5	19	UG/KG
SC-33813-U	7/16/2000	CHRYSENE	330	20	UG/KG
SC-34213-C	5/20/2000	CHRYSENE	8.5	17	UG/KG
SC-34214-S	5/20/2000	CHRYSENE	9	18	UG/KG
SC-34218-C	5/20/2000	CHRYSENE	9	18	UG/KG
SC-34219-S	5/20/2000	CHRYSENE	9	18	UG/KG
SC-34220-S	5/20/2000	CHRYSENE	9	18	UG/KG
SC-34301-S	5/20/2000	CHRYSENE	9.5	19	UG/KG
SC-34301-U	5/18/2000	CHRYSENE	9.5	19	UG/KG
SC-34302-S	5/20/2000	CHRYSENE	9.5	19	UG/KG
SC-34302-U	5/18/2000	CHRYSENE	8.5	17	UG/KG
SC-34303-U	5/18/2000	CHRYSENE	9	18	UG/KG
SC-34305-S	5/20/2000	CHRYSENE	9	18	UG/KG
SC-34306-S	5/20/2000	CHRYSENE	8.5	17	UG/KG
SC-34309-S	5/20/2000	CHRYSENE	9	18	UG/KG
SC-34310-S	5/18/2000	CHRYSENE	9.5	19	UG/KG
SC-34313-S	5/18/2000	CHRYSENE	9	18	UG/KG
SC-34314-S	5/18/2000	CHRYSENE	9	18	UG/KG
SC-34318-C	5/18/2000	CHRYSENE	9	18	UG/KG
SC-34319-S	5/18/2000	CHRYSENE	8.5	17	UG/KG
SC-34601-U	7/7/2000	CHRYSENE	9.5	19	UG/KG
SC-34602-U	7/10/2000	CHRYSENE	9	18	UG/KG
SC-34603-U	7/10/2000	CHRYSENE	9.5	19	UG/KG
SC-34604-U	7/10/2000	CHRYSENE	9	18	UG/KG
SC-34901-U	3/30/2000	CHRYSENE	9.5	19	UG/KG
SC-34902-S	5/18/2000	CHRYSENE	8.5	17	UG/KG
SC-34902-U	3/30/2000	CHRYSENE	9.5	19	UG/KG
SC-34903-U	3/30/2000	CHRYSENE	9	18	UG/KG
SC-34904-U	3/30/2000	CHRYSENE	9	18	UG/KG
SC-34907-U	5/20/2000	CHRYSENE	9.5	19	UG/KG
SC-34908-S	5/18/2000	CHRYSENE	9	18	UG/KG
SC-34908-U	5/20/2000	CHRYSENE	9	18	UG/KG
SC-34909-U	5/20/2000	CHRYSENE	9.5	19	UG/KG
SC-35001-U	3/30/2000	CHRYSENE	9	18	UG/KG
SC-35002-U	3/30/2000	CHRYSENE	9	18	UG/KG
SC-35003-U	3/30/2000	CHRYSENE	9	18	UG/KG
SC-35004-U	3/30/2000	CHRYSENE	9	18	UG/KG
SC-35005-U	3/30/2000	CHRYSENE	9	18	UG/KG
SC-35006-U	3/30/2000	CHRYSENE	9.5	19	UG/KG
SC-35007-U	3/30/2000	CHRYSENE	9.5	19	UG/KG
SC-35008-U	3/30/2000	CHRYSENE	9.5	19	UG/KG
SC-35009-U	3/30/2000	CHRYSENE	9.5	19	UG/KG
SC-35010-U	5/5/2000	CHRYSENE	60	120	UG/KG
SC-35011-U	5/5/2000	CHRYSENE	60	120	UG/KG
SC-35501-U	5/13/2000	CHRYSENE	9	18	UG/KG
SC-35502-U	5/13/2000	CHRYSENE	9	18	UG/KG

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35503-U	5/13/2000	CHRYSENE	9	18	UG/KG
SC-35504-U	5/13/2000	CHRYSENE	9	18	UG/KG
SC-35505-U	5/13/2000	CHRYSENE	9	18	UG/KG
SC-35017-U	5/20/2000	CHRYSENE	9	18	UG/KG
SC-35018-U	5/20/2000	CHRYSENE	9	18	UG/KG
SC-35019-U	5/20/2000	CHRYSENE	10	20	UG/KG
SC-35020-U	5/20/2000	CHRYSENE	9	18	UG/KG
SC-35021-U	5/20/2000	CHRYSENE	9.5	19	UG/KG
SC-35307-C	5/8/2000	CHRYSENE	60	120	UG/KG
SC-35316-C	5/8/2000	CHRYSENE	60	120	UG/KG
SC-35320-C	5/8/2000	CHRYSENE	60	120	UG/KG
SC-35401-S	4/29/2000	CHRYSENE	55	110	UG/KG
SC-35402-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35403-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35404-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35405-S	4/29/2000	CHRYSENE	60	120	UG/KG
SC-35406-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35407-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35408-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35409-S	4/29/2000	CHRYSENE	60	120	UG/KG
SC-35410-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35411-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35412-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35413-S	4/29/2000	CHRYSENE	60	120	UG/KG
SC-35414-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35415-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35416-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35417-S	4/29/2000	CHRYSENE	460	110	UG/KG
SC-35418-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35419-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35420-S	4/21/2000	CHRYSENE	65	130	UG/KG
SC-35601-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35602-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35603-S	4/21/2000	CHRYSENE	65	130	UG/KG
SC-35604-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35605-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35606-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35610-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35611-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-35612-S	4/21/2000	CHRYSENE	60	120	UG/KG
SC-33801-U	6/27/2000	INDENO(1,2,3-CD)PYRENE	10	20	UG/KG
SC-33802-U	6/29/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-33803-U	6/29/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-33804-U	6/29/2000	INDENO(1,2,3-CD)PYRENE	10	20	UG/KG
SC-33805-U	6/29/2000	INDENO(1,2,3-CD)PYRENE	10	20	UG/KG
SC-33806-U	6/30/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-33807-U	6/30/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-33808-U	7/7/2000	INDENO(1,2,3-CD)PYRENE	10	20	UG/KG
SC-33809-U	7/7/2000	INDENO(1,2,3-CD)PYRENE	10	20	UG/KG
SC-33810-U	7/7/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-33813-U	7/16/2000	INDENO(1,2,3-CD)PYRENE	10	20	UG/KG
SC-34213-C	5/20/2000	INDENO(1,2,3-CD)PYRENE	8.5	17	UG/KG
SC-34214-S	5/20/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34218-C	5/20/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34219-S	5/20/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34220-S	5/20/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34301-S	5/20/2000	INDENO(1,2,3-CD)PYRENE	9 5	19	UG/KG
SC-34301-U	5/18/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-34302-S	5/20/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-34302-U	5/18/2000	INDENO(1,2,3-CD)PYRENE	8.5	17	UG/KG
SC-34303-U	5/18/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34305-S	5/20/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34306-S	5/20/2000	INDENO(1,2,3-CD)PYRENE	8.5	17	UG/KG
SC-34309-S	5/20/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34310-S	5/18/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-34313-S	5/18/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34314-S	5/18/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34318-C	5/18/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34319-S	5/18/2000	INDENO(1,2,3-CD)PYRENE	8.5	17	UG/KG
SC-34601-U	7/7/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-34602-U	7/10/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34603-U	7/10/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-34604-U	7/10/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34901-U	3/30/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-34902-S	5/18/2000	INDENO(1,2,3-CD)PYRENE	8.5	17	UG/KG
SC-34902-U	3/30/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-34903-U	3/30/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34904-U	3/30/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34907-U	5/20/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-34908-S	5/18/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34908-U	5/20/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-34909-U	5/20/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-35001-U	3/30/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-35002-U	3/30/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-35003-U	3/30/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-35004-U	3/30/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-35005-U	3/30/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-35006-U	3/30/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-35007-U	3/30/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-35008-U	3/30/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-35009-U	3/30/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-35010-U	5/5/2000	INDENO(1,2,3-CD)PYRENE	17.5	35	UG/KG
SC-35011-U	5/5/2000	INDENO(1,2,3-CD)PYRENE	17.5	35	UG/KG
SC-35501-U	5/13/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-35502-U	5/13/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-35503-U	5/13/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-35504-U	5/13/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-35505-U	5/13/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-35017-U	5/20/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-35018-U	5/20/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-35019-U	5/20/2000	INDENO(1,2,3-CD)PYRENE	10	20	UG/KG
SC-35020-U	5/20/2000	INDENO(1,2,3-CD)PYRENE	9	18	UG/KG
SC-35021-U	5/20/2000	INDENO(1,2,3-CD)PYRENE	9.5	19	UG/KG
SC-35307-C	5/8/2000	INDENO(1,2,3-CD)PYRENE	18	36	UG/KG
SC-35316-C	5/8/2000	INDENO(1,2,3-CD)PYRENE	60	36	UG/KG
SC-35320-C	5/8/2000	INDENO(1,2,3-CD)PYRENE	18	36	UG/KG
SC-35401-S	4/29/2000	INDENO(1,2,3-CD)PYRENE	16	32	UG/KG
SC-35402-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	17.5	35	UG/KG
SC-35403-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	17.5	35	UG/KG
SC-35404-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	16.5	33	UG/KG

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35405-S	4/29/2000	INDENO(1,2,3-CD)PYRENE	17	34	UG/KG
SC-35406-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	17	34	UG/KG
SC-35407-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	18	36	UG/KG
SC-35408-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	17.5	35	UG/KG
SC-35409-S	4/29/2000	INDENO(1,2,3-CD)PYRENE	17	34	UG/KG
SC-35410-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	17	34	UG/KG
SC-35411-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	18	36	UG/KG
SC-35412-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	18	36	UG/KG
SC-35413-S	4/29/2000	INDENO(1,2,3-CD)PYRENE	17	34	UG/KG
SC-35414-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	17.5	35	UG/KG
SC-35415-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	17	34	UG/KG
SC-35416-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	18	36	UG/KG
SC-35417-S	4/29/2000	INDENO(1,2,3-CD)PYRENE	150	32	UG/KG
SC-35418-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	18	36	UG/KG
SC-35419-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	18	36	UG/KG
SC-35420-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	18.5	37	UG/KG
SC-35601-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	17.5	35	UG/KG
SC-35602-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	17.5	35	UG/KG
SC-35603-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	18.5	37	UG/KG
SC-35604-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	17.5	35	UG/KG
SC-35605-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	18	36	UG/KG
SC-35606-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	18	36	UG/KG
SC-35610-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	17.5	35	UG/KG
SC-35611-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	17.5	35	UG/KG
SC-35612-S	4/21/2000	INDENO(1,2,3-CD)PYRENE	18	36	UG/KG
SC-33801-U	6/27/2000	LEAD	11.7	0.56	UG/G
SC-33802-U	6/29/2000	LEAD	6.9	0.56	UG/G
SC-33803-U	6/29/2000	LEAD	18.4	0.56	UG/G
SC-33804-U	6/29/2000	LEAD	12.8	0.56	UG/G
SC-33805-U	6/29/2000	LEAD	11.2	0.56	UG/G
SC-33806-U	6/30/2000	LEAD	12.3	0.49	UG/G
SC-33807-U	6/30/2000	LEAD	28.5	0.45	UG/G
SC-33808-U	7/7/2000	LEAD	16.3	0.51	UG/G
SC-33809-U	7/7/2000	LEAD	12	0.5	UG/G
SC-33810-U	7/7/2000	LEAD	11.8	0.48	UG/G
SC-33813-U	7/16/2000	LEAD	11.1	0.5	UG/G
SC-34307-S	3/7/2000	LEAD	15	0.46	UG/G
SC-34308-S	4/13/2000	LEAD	14	0.51	UG/G
SC-34311-S	3/7/2000	LEAD	10	0.44	UG/G
SC-34312-S	4/13/2000	LEAD	12.3	0.51	UG/G
SC-34315-S	3/7/2000	LEAD	15	0.43	UG/G
SC-34316-S	4/13/2000	LEAD	10.4	0.57	UG/G
SC-34320-S	3/7/2000	LEAD	115	0.44	UG/G
SC-34321-S	4/13/2000	LEAD	14.5	0.52	UG/G
SC-34405-S	4/13/2000	LEAD	13.8	0.43	UG/G
SC-34406-S	4/13/2000	LEAD	15	0.48	UG/G
SC-34407-S	4/13/2000	LEAD	14.7	0.52	UG/G
SC-34409-S	4/13/2000	LEAD	13.2	0.47	UG/G
SC-34410-S	4/13/2000	LEAD	13.1	0.39	UG/G
SC-34411-S	4/13/2000	LEAD	12.6	0.47	UG/G
SC-34413-S	4/13/2000	LEAD	10.9	0.48	UG/G
SC-34414-S	4/13/2000	LEAD	10	0.45	UG/G
SC-34415-S	4/13/2000	LEAD	15.2	0.43	UG/G
SC-34417-S	4/13/2000	LEAD	14.5	0.43	UG/G
SC-34418-S	4/13/2000	LEAD	13.8	0.54	UG/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34419-S	4/13/2000	LEAD	14.2	0.51	UG/G
SC-34601-U	7/7/2000	LEAD	13	0.48	UG/G
SC-34602-U	7/10/2000	LEAD	13.2	0.46	UG/G
SC-34603-U	7/10/2000	LEAD	15	0 48	UG/G
SC-34604-U	7/10/2000	LEAD	34.7	0.47	UG/G
SC-34801-S	4/13/2000	LEAD	18.6	0.46	UG/G
SC-34806-S	4/13/2000	LEAD	21.3	0.55	UG/G
SC-34811-S	4/13/2000	LEAD	14.6	0.55	UG/G
SC-34901-U	3/30/2000	LEAD	14.9	0.15	UG/G
SC-34902-U	3/30/2000	LEAD	14.6	0.15	UG/G
SC-34903-S	3/7/2000	LEAD	13	0.43	UG/G
SC-34903-U	3/30/2000	LEAD	14.4	0.14	UG/G
SC-34904-S	4/13/2000	LEAD	16.5	0.55	UG/G
SC-34905-S	4/13/2000	LEAD	14.4	0.52	UG/G
SC-34906-S	4/13/2000	LEAD	13	0.56	UG/G
SC-34909-S	3/7/2000	LEAD	12	0.44	UG/G
SC-34910-S	4/13/2000	LEAD	12.9	0.55	UG/G
SC-34911-S	4/13/2000	LEAD	12.6	0.53	UG/G
SC-34912-S	4/13/2000	LEAD	14.8	0.42	UG/G
SC-34915-S	3/7/2000	LEAD	13	0.44	UG/G
SC-34916-S	4/13/2000	LEAD	19	0.39	UG/G
SC-34917-S	4/13/2000	LEAD	15	0.55	UG/G
SC-34918-S	4/13/2000	LEAD	14.3	0.51	UG/G
SC-34922-S	3/8/2000	LEAD	12	0.45	UG/G
SC-35001-U	3/30/2000	LEAD	14	0.15	UG/G
SC-35002-U	3/30/2000	LEAD	10.5	0.14	UG/G
SC-35003-U	3/30/2000	LEAD	11	0.15	UG/G
SC-35004-S	3/8/2000	LEAD	10	0 44	UG/G
SC-35004-U	3/30/2000	LEAD	11	0 14	UG/G
SC-35005-U	3/30/2000	LEAD	10.6	0.15	UG/G
SC-35008-S	3/8/2000	LEAD	14	0.45	UG/G
SC-35012-S	3/8/2000	LEAD	14	0.44	UG/G
SC-35501-U	5/13/2000	LEAD	9	0.67	UG/G
SC-35502-U	5/13/2000	LEAD	8.5	0 67	UG/G
SC-35503-U	5/13/2000	LEAD	12.3	0.66	UG/G
SC-35504-U	5/13/2000	LEAD	10.7	0 66	UG/G
SC-35016-S	3/8/2000	LEAD	10	0 44	UG/G
SC-35505-U	5/13/2000	LEAD	10.3	0.68	UG/G
SC-35020-S	3/8/2000	LEAD	13	0.47	UG/G
SC-33801-U	6/27/2000	RADIUM-226	0.235	0.47	PCI/G
SC-33802-U	6/29/2000	RADIUM-226	0.76	0.26	PCI/G
SC-33803-U	6/29/2000	RADIUM-226	0.81	0.19	PCI/G
SC-33804-U	6/29/2000	RADIUM-226	0.7	0.19	PCI/G
SC-33805-U	6/29/2000	RADIUM-226	0.52	0.23	PCI/G
SC-33806-U	6/30/2000	RADIUM-226	0.65	0.23	PCI/G
SC-33807-U	6/30/2000	RADIUM-226	0.62	0.26	PCI/G
SC-33808-U	7/7/2000	RADIUM-226	0.68	0.24	PCI/G
SC-33809-U	7/7/2000	RADIUM-226	0.58	0.24	PCI/G
SC-33810-U	7/7/2000	RADIUM-226	0.245	0.49	PCI/G
SC-33811-U	7/12/2000	RADIUM-226	1.04	0.23	PCI/G
SC-33812-U	7/12/2000	RADIUM-226	0.96	0.23	PCI/G
SC-33813-U	7/16/2000	RADIUM-226	0.73	0.23	PCI/G
SC-33814-U	8/4/2000	RADIUM-226	0.26	0.52	PCI/G
SC-33815-U	8/4/2000	RADIUM-226	0.79	0.26	PCI/G
SC-33816-U	8/16/2000	RADIUM-226	0.909	0.298	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-33817-S	6/3/2000	RADIUM-226	0.89	0.24	PCI/G
SC-33901-S	6/1/2000	RADIUM-226	0.77	0.19	PCI/G
SC-33901-U	7/27/2000	RADIUM-226	0.78	0.26	PCI/G
SC-33902-C	6/1/2000	RADIUM-226	0.69	0.24	PCI/G
SC-33902-S	6/1/2000	RADIUM-226	0.8	0.22	PCI/G
SC-33902-U	7/27/2000	RADIUM-226	0.7	0.24	PCI/G
SC-33903-C	6/1/2000	RADIUM-226	0.77	0.26	PCI/G
SC-33903-S	6/1/2000	RADIUM-226	0.7	0.27	PCI/G
SC-33903-U	8/1/2000	RADIUM-226	0.22	0.44	PCI/G
SC-33904-C	6/1/2000	RADIUM-226	0.63	0.26	PCI/G
SC-33904-S	6/1/2000	RADIUM-226	0.27	0.54	PCI/G
SC-33904-U	8/4/2000	RADIUM-226	0.72	0.25	PCI/G
SC-33905-S	6/3/2000	RADIUM-226	0.68	0.23	PCI/G
SC-33905-U	8/4/2000	RADIUM-226	0.27	0.54	PCI/G
SC-33906-S	7/11/2000	RADIUM-226	0.58	0.26	PCI/G
SC-33906-U	8/4/2000	RADIUM-226	0.275	0.55	PCI/G
SC-33907-S	7/11/2000	RADIUM-226	0.89	0.26	PCI/G
SC-33907-U	8/4/2000	RADIUM-226	0.8	0.26	PCI/G
SC-33908-S	6/3/2000	RADIUM-226	0.88	0.26	PCI/G
SC-33908-U	8/16/2000	RADIUM-226	1.19	0.487	PCI/G
SC-33909-S	6/3/2000	RADIUM-226	0.73	0.25	PCI/G
SC-33909-U	8/16/2000	RADIUM-226	1.08	0.388	PCI/G
SC-33910-S	7/11/2000	RADIUM-226	0.79	0.28	PCI/G
SC-33910-U	8/16/2000	RADIUM-226	0.822	0.353	PCI/G
SC-33911-S	7/11/2000	RADIUM-226	0.57	0.26	PCI/G
SC-33912-S	6/3/2000	RADIUM-226	0.64	0.25	PCI/G
SC-33913-S	6/3/2000	RADIUM-226	0.73	0.25	PCI/G
SC-33914-S	7/11/2000	RADIUM-226	0.59	0.27	PCI/G
SC-33915-S	7/11/2000	RADIUM-226	0.7	0.26	PCI/G
SC-33916-S	6/3/2000	RADIUM-226	0.87	0.24	PCI/G
SC-33917-S	6/3/2000	RADIUM-226	0.81	0.25	PCI/G
SC-33918-S	6/1/2000	RADIUM-226	0.76	0.22	PCI/G
SC-33919-S	6/1/2000	RADIUM-226	0.62	0.3	PCI/G
SC-33920-S	6/1/2000	RADIUM-226	0.81	0.25	PCI/G
SC-34001-S	7/23/2000	RADIUM-226	0.245	0.49	PCI/G
SC-34001-U	7/27/2000	RADIUM-226	0.88	0.27	PCI/G
SC-34002-C	7/23/2000	RADIUM-226	0.8	0.26	PCI/G
SC-34002-S	7/23/2000	RADIUM-226	0.77	0.29	PCI/G
SC-34002-U	8/1/2000	RADIUM-226	0.79	0.28	PCI/G
SC-34003-S	7/23/2000	RADIUM-226	0.64	0.25	PCI/G
SC-34003-U	8/1/2000	RADIUM-226	0.255	0.51	PCI/G
SC-34004-C	7/21/2000	RADIUM-226	0.84	0.23	PCI/G
SC-34004-S	7/21/2000	RADIUM-226	0.265	0.53	PCI/G
SC-34004-U	8/1/2000	RADIUM-226	0.82	0.26	PCI/G
SC-34005-S	7/28/2000	RADIUM-226	0.72	0.21	PCI/G
SC-34005-U	8/1/2000	RADIUM-226	0.23	0.46	PCI/G
SC-34006-S	7/28/2000	RADIUM-226	0.61	0.26	PCI/G
SC-34006-U	8/1/2000	RADIUM-226	0.6	0.26	PCI/G
SC-34007-S	7/28/2000	RADIUM-226	0.255	0.51	PCI/G
SC-34007-U	8/1/2000	RADIUM-226	0.24	0.48	PCI/G
SC-34008-S	7/21/2000	RADIUM-226	0.66	0.27	PCI/G
SC-34008-U	8/1/2000	RADIUM-226	0.54	0.25	PCI/G
SC-34009-S	7/28/2000	RADIUM-226	0.5	0.27	PCI/G
SC-34009-U	8/4/2000	RADIUM-226	0.26	0.52	PCI/G
SC-34010-S	7/28/2000	RADIUM-226	0.63	0.25	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34010-U	8/4/2000	RADIUM-226	0.83	0.25	PCI/G
SC-34011-S	7/28/2000	RADIUM-226	0.7	0.23	PCI/G
SC-34011-U	8/4/2000	RADIUM-226	0.78	0.25	PCI/G
SC-34012-S	7/21/2000	RADIUM-226	0.77	0.3	PCI/G
SC-34012-U	8/4/2000	RADIUM-226	0.72	0.22	PCI/G
SC-34013-S	7/28/2000	RADIUM-226	0.26	0 52	PCI/G
SC-34013-U	8/16/2000	RADIUM-226	0.367	0.608	PCI/G
SC-34014-S	7/28/2000	RADIUM-226	0.69	0.21	PCI/G
SC-34014-U	8/17/2000	RADIUM-226	1.04	0.255	PCI/G
SC-34015-S	7/28/2000	RADIUM-226	0.26	0.52	PCI/G
SC-34015-U	8/17/2000	RADIUM-226	0.901	0.505	PCI/G
SC-34016-S	7/21/2000	RADIUM-226	0.87	0.24	PCI/G
SC-34017-S	7/23/2000	RADIUM-226	0.28	0.56	PCI/G
SC-34018-S	7/21/2000	RADIUM-226	0.76	0.25	PCI/G
SC-34019-S	7/21/2000	RADIUM-226	0.89	0.25	PCI/G
SC-34020-S	7/21/2000	RADIUM-226	0.24	0.48	PCI/G
SC-34101-S	7/26/2000	RADIUM-226	0.9	0 24	PCI/G
SC-34101-U	8/1/2000	RADIUM-226	0.25	0 5	PCI/G
SC-34102-C	7/26/2000	RADIUM-226	0.91	0.26	PCI/G
SC-34102-S	7/26/2000	RADIUM-226	0.69	0 25	PCI/G
SC-34102-U	8/2/2000	RADIUM-226	0.93	0 3	PCI/G
SC-34103-S	7/22/2000	RADIUM-226	0.86	0.22	PCI/G
SC-34103-U	8/2/2000	RADIUM-226	0.74	0.24	PCI/G
SC-34104-C	7/22/2000	RADIUM-226	0.62	0.29	PCI/G
SC-34104-S	7/22/2000	RADIUM-226	0.73	0 24	PCI/G
SC-34104-U	8/2/2000	RADIUM-226	0.285	0 57	PCI/G
SC-34105-S	7/26/2000	RADIUM-226	1	0 28	PCI/G
SC-34105-U	8/2/2000	RADIUM-226	0.83	0.24	PCI/G
SC-34106-S	7/26/2000	RADIUM-226	0.95	0.27	PCI/G
SC-34106-U	8/2/2000	RADIUM-226	0.295	0 59	PCI/G
SC-34107-S	7/26/2000	RADIUM-226	0.245	0.49	PCI/G
SC-34107-U	8/2/2000	RADIUM-226	0.86	0.26	PCI/G
SC-34108-S	7/22/2000	RADIUM-226	0.88	0.26	PCI/G
SC-34108-U	8/2/2000	RADIUM-226	0.67	0.25	PCI/G
SC-34109-S	7/26/2000	RADIUM-226	0.92	0.26	PCI/G
SC-34109-U	8/2/2000	RADIUM-226	0.27	0.54	PCI/G
SC-34110-S	7/26/2000	RADIUM-226	0.305	0.61	PCI/G
SC-34110-U	8/2/2000	RADIUM-226	0.81	0.24	PCI/G
SC-34111-S	7/26/2000	RADIUM-226	0.86	0.28	PCI/G
SC-34111-U	8/3/2000	RADIUM-226	0.265	0.53	PCI/G
SC-34112-S	7/22/2000	RADIUM-226	0.91	0 27	PCI/G
SC-34112-U	8/3/2000	RADIUM-226	0.74	0.26	PCI/G
SC-34113-S	7/26/2000	RADIUM-226	1.14	0 28	PCI/G
SC-34113-U	8/3/2000	RADIUM-226	0.56	0 23	PCI/G
SC-34114-S	7/26/2000	RADIUM-226	1	0.23	PCI/G
SC-34114-U	8/4/2000	RADIUM-226	0.26	0.52	PCI/G
SC-34115-S	7/26/2000	RADIUM-226	0.245	0.49	PCI/G
SC-34115-U	8/4/2000	RADIUM-226	0.85	0.22	PCI/G
SC-34116-S	7/22/2000	RADIUM-226	0.79	0.26	PCI/G
SC-34116-U	8/4/2000	RADIUM-226	0.86	0.23	PCI/G
SC-34117-S	7/26/2000	RADIUM-226	0.97	0.26	PCI/G
SC-34117-U	8/4/2000	RADIUM-226	1	0.2	PCI/G
SC-34118-S	7/26/2000	RADIUM-226	0.275	0.55	PCI/G
SC-34118-U	8/4/2000	RADIUM-226	0.78	0.27	PCI/G
SC-34119-S	7/26/2000	RADIUM-226	0 7	0.24	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34119-U	8/4/2000	RADIUM-226	0.76	0.24	PCI/G
SC-34120-S	7/22/2000	RADIUM-226	0.71	0.25	PCI/G
SC-34120-U	8/10/2000	RADIUM-226	0.59	0.24	PCI/G
SC-34121-U	8/10/2000	RADIUM-226	0.245	0.49	PCI/G
SC-34122-U	8/12/2000	RADIUM-226	0.65	0.27	PCI/G
SC-34123-U	8/12/2000	RADIUM-226	0.41	0.22	PCI/G
SC-34124-U	8/12/2000	RADIUM-226	0.77	0.23	PCI/G
SC-34201-U	8/16/2000	RADIUM-226	0.79	0.28	PCI/G
SC-34202-C	7/26/2000	RADIUM-226	0.265	0.53	PCI/G
SC-34202-S	5/20/2000	RADIUM-226	0.265	0.53	PCI/G
SC-34203-S	7/26/2000	RADIUM-226	0.84	0.24	PCI/G
SC-34204-C	7/26/2000	RADIUM-226	0.669	0.27	PCI/G
SC-34204-S	7/26/2000	RADIUM-226	0.94	0.23	PCI/G
SC-34205-C	5/20/2000	RADIUM-226	0.74	0.22	PCI/G
SC-34206-S	5/20/2000	RADIUM-226	0.75	0.28	PCI/G
SC-34207-S	7/26/2000	RADIUM-226	0.29	0.58	PCI/G
SC-34208-S	7/26/2000	RADIUM-226	0.71	0.24	PCI/G
SC-34210-S	5/20/2000	RADIUM-226	0.8	0.26	PCI/G
SC-34211-S	7/26/2000	RADIUM-226	0.8	0.27	PCI/G
SC-34212-S	7/26/2000	RADIUM-226	0.82	0.24	PCI/G
SC-34213-C	5/20/2000	RADIUM-226	0.76	0.25	PCI/G
SC-34214-S	5/20/2000	RADIUM-226	0.65	0.23	PCI/G
SC-34215-S	7/31/2000	RADIUM-226	0.62	0.24	PCI/G
SC-34216-S	7/31/2000	RADIUM-226	0.25	0.5	PCI/G
SC-34217-S	7/26/2000	RADIUM-226	0.29	0.58	PCI/G
SC-34218-C	5/20/2000	RADIUM-226	0.82	0.31	PCI/G
SC-34219-S	5/20/2000	RADIUM-226	0.75	0.24	PCI/G
SC-34220-S	5/20/2000	RADIUM-226	0.6	0.3	PCI/G
SC-34221-S	7/31/2000	RADIUM-226	0.73	0.26	PCI/G
SC-34222-S	7/26/2000	RADIUM-226	0.85	0.25	PCI/G
SC-34301-S	5/20/2000	RADIUM-226	0.79	0.22	PCI/G
SC-34301-U	5/18/2000	RADIUM-226	0.84	0.29	PCI/G
SC-34302-S	5/20/2000	RADIUM-226	0.63	0.21	PCI/G
SC-34302-U	5/18/2000	RADIUM-226	0.59	0.23	PCI/G
SC-34303-S	7/31/2000	RADIUM-226	0.88	0.26	PCI/G
SC-34303-U	5/18/2000	RADIUM-226	0.22	0.44	PCI/G
SC-34304-S	7/26/2000	RADIUM-226	0.245	0.49	PCI/G
SC-34304-U	8/2/2000	RADIUM-226	0.27	0.54	PCI/G
SC-34305-S	5/20/2000	RADIUM-226	0.81	0.21	PCI/G
SC-34305-U	8/2/2000	RADIUM-226	0.72	0.24	PCI/G
SC-34306-S	5/20/2000	RADIUM-226	0.64	0.29	PCI/G
SC-34306-U	8/2/2000	RADIUM-226	0.275	0.55	PCI/G
SC-34307-S	3/7/2000	RADIUM-226	0.8	0.26	PCI/G
SC-34307-U	8/15/2000	RADIUM-226	0.592	0.414	PCI/G
SC-34308-S	4/13/2000	RADIUM-226	0.82	0.3	PCI/G
SC-34308-U	8/15/2000	RADIUM-226	0.78	0.22	PCI/G
SC-34309-S	5/20/2000	RADIUM-226	0.87	0.26	PCI/G
SC-34309-U	8/15/2000	RADIUM-226	0.85	0.23	PCI/G
SC-34310-S	5/18/2000	RADIUM-226	0.66	0.24	PCI/G
SC-34311-S	3/7/2000	RADIUM-226	0.93	0.27	PCI/G
SC-34312-S	4/13/2000	RADIUM-226	0.8	0.25	PCI/G
SC-34313-S	5/18/2000	RADIUM-226	0.8	0.23	PCI/G
SC-34314-S	5/18/2000	RADIUM-226	0.68	0.24	PCI/G
SC-34315-S	3/7/2000	RADIUM-226	0.82	0.26	PCI/G
SC-34316-S	4/13/2000	RADIUM-226	0.8	0.23	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34318-C	5/18/2000	RADIUM-226	0.245	0.49	PCI/G
SC-34319-S	5/18/2000	RADIUM-226	0.82	0.24	PCI/G
SC-34320-S	3/7/2000	RADIUM-226	0.83	0.28	PCI/G
SC-34321-S	4/13/2000	RADIUM-226	0.77	0.26	PCI/G
SC-34401-S	7/26/2000	RADIUM-226	0.83	0.25	PCI/G
SC-34401-U	5/19/2000	RADIUM-226	0.75	0.27	PCI/G
SC-34402-S	7/26/2000	RADIUM-226	1.04	0.22	PCI/G
SC-34402-U	8/1/2000	RADIUM-226	0.75	0.23	PCI/G
SC-34403-S	7/26/2000	RADIUM-226	0.78	0.22	PCI/G
SC-34403-U	8/1/2000	RADIUM-226	0.61	0.26	PCI/G
SC-34404-S	7/22/2000	RADIUM-226	0.275	0.55	PCI/G
SC-34404-U	8/1/2000	RADIUM-226	0.7	0.26	PCI/G
SC-34405-S	4/13/2000	RADIUM-226	0.72	0.27	PCI/G
SC-34405-U	8/2/2000	RADIUM-226	0.78	0.24	PCI/G
SC-34406-S	4/13/2000	RADIUM-226	0.75	0.25	PCI/G
SC-34406-U	8/2/2000	RADIUM-226	0.24	0 48	PCI/G
SC-34407-S	4/13/2000	RADIUM-226	0.79	0 23	PCI/G
SC-34407-U	8/12/2000	RADIUM-226	0.66	0 23	PCI/G
SC-34408-S	5/5/2000	RADIUM-226	0.65	0.23	PCI/G
SC-34408-U	8/12/2000	RADIUM-226	0.65	0.29	PCI/G
SC-34409-S	4/13/2000	RADIUM-226	0.87	0.27	PCI/G
SC-34409-U	8/12/2000	RADIUM-226	0.66	0.24	PCI/G
SC-34410-S	4/13/2000	RADIUM-226	1.18	0.26	PCI/G
SC-34410-U	8/15/2000	RADIUM-226	0.709	0.239	PCI/G
SC-34411-S	4/13/2000	RADIUM-226	0.91	0.24	PCI/G
SC-34412-S	5/5/2000	RADIUM-226	0.74	0.21	PCI/G
SC-34413-S	4/13/2000	RADIUM-226	1.17	0.29	PCI/G
SC-34414-S	4/13/2000	RADIUM-226	0.97	0.23	PCI/G
SC-34415-S	4/13/2000	RADIUM-226	0.91	0 31	PCI/G
SC-34416-S	5/5/2000	RADIUM-226	0.63	0.21	PCI/G
SC-34417-S	4/13/2000	RADIUM-226	1.11	0 27	PCI/G
SC-34418-S	4/13/2000	RADIUM-226	0.94	0.28	PCI/G
SC-34419-S	4/13/2000	RADIUM-226	0.97	0.23	PCI/G
SC-34420-S	5/5/2000	RADIUM-226	0.63	0.23	PCI/G
SC-34601-U	7/7/2000	RADIUM-226	0.67	0.23	PCI/G
SC-34602-U	7/10/2000	RADIUM-226	0.225	0 45	PCI/G
SC-34603-U	7/10/2000	RADIUM-226	0.22	0.44	PCI/G
SC-34604-U	7/10/2000	RADIUM-226	0.49	0.25	PCI/G
SC-34722-C	4/24/2000	RADIUM-226	0.27	0.54	PCI/G
SC-34801-S	4/13/2000	RADIUM-226	0.91	0.24	PCI/G
SC-34801-U	5/19/2000	RADIUM-226	0.73	0.24	PCI/G
SC-34802-S	5/5/2000	RADIUM-226	0.63	0.25	PCI/G
SC-34802-U	5/19/2000	RADIUM-226	0.58	0.19	PCI/G
SC-34803-U	5/19/2000	RADIUM-226	0.63	0.24	PCI/G
SC-34804-U	5/19/2000	RADIUM-226	0.76	0.25	PCI/G
SC-34805-U	5/19/2000	RADIUM-226	0.8	0.25	PCI/G
SC-34806-S	4/13/2000	RADIUM-226	0.85	0.23	PCI/G
SC-34807-S	5/5/2000	RADIUM-226	0.68	0.27	PCI/G
SC-34811-S	4/13/2000	RADIUM-226	0.82	0.28	PCI/G
SC-34812-S	5/5/2000	RADIUM-226	0.75	0.26	PCI/G
SC-34816-S	5/8/2000	RADIUM-226	0 61	0.2	PCI/G
SC-34817-S	5/8/2000	RADIUM-226	0.24	0.48	PCI/G
SC-34901-U	3/30/2000	RADIUM-226	0.67	0.28	PCI/G
SC-34902-S	5/18/2000	RADIUM-226	0.71	0.26	PCI/G
SC-34902-U	3/30/2000	RADIUM-226	0.78	0.25	PCI/G

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SC-34903-S	3/7/2000	RADIUM-226	0.74	0.26	PCI/G
SC-34903-U	3/30/2000	RADIUM-226	0.69	0.27	PCI/G
SC-34904-S	4/13/2000	RADIUM-226	0.82	0.25	PCI/G
SC-34904-U	3/30/2000	RADIUM-226	0.96	0.25	PCI/G
SC-34905-S	4/13/2000	RADIUM-226	1.03	0.25	PCI/G
SC-34905-U	3/30/2000	RADIUM-226	0.85	0.27	PCI/G
SC-34906-S	4/13/2000	RADIUM-226	0.74	0.26	PCI/G
SC-34906-U	5/17/2000	RADIUM-226	0.62	0.23	PCI/G
SC-34907-U	5/20/2000	RADIUM-226	0.24	0.48	PCI/G
SC-34908-S	5/18/2000	RADIUM-226	1.13	0.25	PCI/G
SC-34908-U	5/20/2000	RADIUM-226	0.51	0.23	PCI/G
SC-34909-S	3/7/2000	RADIUM-226	0.72	0.28	PCI/G
SC-34909-U	5/20/2000	RADIUM-226	0.245	0.49	PCI/G
SC-34910-S	4/13/2000	RADIUM-226	0.88	0.32	PCI/G
SC-34911-S	4/13/2000	RADIUM-226	0.88	0.23	PCI/G
SC-34912-S	4/13/2000	RADIUM-226	1.29	0.31	PCI/G
SC-34913-C	4/17/2000	RADIUM-226	0.99	0.26	PCI/G
SC-34913-C-01	5/11/2000	RADIUM-226	0.69	0.25	PCI/G
SC-34914-S	4/17/2000	RADIUM-226	0.84	0.24	PCI/G
SC-34914-S-01	5/11/2000	RADIUM-226	0.98	0.27	PCI/G
SC-34915-S	3/7/2000	RADIUM-226	0.87	0.28	PCI/G
SC-34916-S	4/13/2000	RADIUM-226	0.76	0.28	PCI/G
SC-34917-S	4/13/2000	RADIUM-226	1.02	0.28	PCI/G
SC-34918-S	4/13/2000	RADIUM-226	0.92	0.27	PCI/G
SC-34920-S	4/17/2000	RADIUM-226	1.09	0.27	PCI/G
SC-34920-S-01	5/11/2000	RADIUM-226	0.83	0.24	PCI/G
SC-34921-S	4/17/2000	RADIUM-226	1	0.21	PCI/G
SC-34922-S	3/8/2000	RADIUM-226	0.67	0.28	PCI/G
SC-34923-S	3/29/2000	RADIUM-226	0.5	0.26	PCI/G
SC-34924-S	3/29/2000	RADIUM-226	0.55	0.27	PCI/G
SC-34925-S	5/8/2000	RADIUM-226	0.73	0.26	PCI/G
SC-35001-U	3/30/2000	RADIUM-226	0.64	0.31	PCI/G
SC-35002-U	3/30/2000	RADIUM-226	0.92	0.2	PCI/G
SC-35003-S	4/17/2000	RADIUM-226	0.82	0.25	PCI/G
SC-35003-U	3/30/2000	RADIUM-226	0.66	0.27	PCI/G
SC-35004-S	3/8/2000	RADIUM-226	0.225	0.45	PCI/G
SC-35004-U	3/30/2000	RADIUM-226	0.69	0.26	PCI/G
SC-35005-S	3/29/2000	RADIUM-226	0.77	0.27	PCI/G
SC-35005-U	3/30/2000	RADIUM-226	0.62	0.25	PCI/G
SC-35006-C	4/17/2000	RADIUM-226	1.09	0.23	PCI/G
SC-35006-U	3/30/2000	RADIUM-226	0.68	0.29	PCI/G
SC-35007-S	4/17/2000	RADIUM-226	0.81	0.26	PCI/G
SC-35007-U	3/30/2000	RADIUM-226	0.88	0.27	PCI/G
SC-35008-S	3/8/2000	RADIUM-226	0.7	0.25	PCI/G
SC-35008-U	3/30/2000	RADIUM-226	0.76	0.24	PCI/G
SC-35009-S	4/17/2000	RADIUM-226	0.57	0.25	PCI/G
SC-35009-U	3/30/2000	RADIUM-226	0.65	0.25	PCI/G
SC-35010-U	5/5/2000	RADIUM-226	0.78	0.29	PCI/G
SC-35011-S	4/17/2000	RADIUM-226	0.83	0.25	PCI/G
SC-35011-U	5/5/2000	RADIUM-226	0.9	0.3	PCI/G
SC-35012-S	3/8/2000	RADIUM-226	0.71	0.27	PCI/G
SC-35501-U	5/13/2000	RADIUM-226	0.87	0.27	PCI/G
SC-35013-S	4/17/2000	RADIUM-226	0.57	0.24	PCI/G
SC-35502-U	5/13/2000	RADIUM-226	0.9	0.22	PCI/G
SC-35014-C	4/17/2000	RADIUM-226	0.93	0.27	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35503-U	5/13/2000	RADIUM-226	0.76	0.24	PCI/G
SC-35015-S	4/17/2000	RADIUM-226	0.91	0.25	PCI/G
SC-35504-U	5/13/2000	RADIUM-226	0.73	0.25	PCI/G
SC-35016-S	3/8/2000	RADIUM-226	0.67	0.29	PCI/G
SC-35505-U	5/13/2000	RADIUM-226	0.77	0 28	PCI/G
SC-35017-S	4/28/2000	RADIUM-226	0.215	0.43	PCI/G
SC-35017-U	5/20/2000	RADIUM-226	0.45	0.25	PCI/G
SC-35018-C	4/17/2000	RADIUM-226	0.95	0.28	PCI/G
SC-35018-U	5/20/2000	RADIUM-226	0.93	0.28	PCI/G
SC-35019-S	4/29/2000	RADIUM-226	0.68	0.26	PCI/G
SC-35019-U	5/20/2000	RADIUM-226	0.52	0.26	PCI/G
SC-35020-S	3/8/2000	RADIUM-226	0.76	0.25	PCI/G
SC-35020-U	5/20/2000	RADIUM-226	0.71	0.26	PCI/G
SC-35021-S	4/28/2000	RADIUM-226	0.88	0.25	PCI/G
SC-35021-U	5/20/2000	RADIUM-226	0.87	0 24	PCI/G
SC-35101-S	3/29/2000	RADIUM-226	0.81	0.24	PCI/G
SC-35101-U	5/17/2000	RADIUM-226	0 8	0 22	PCI/G
SC-35102-S	4/28/2000	RADIUM-226	0.77	0.32	PCI/G
SC-35102-U	5/17/2000	RADIUM-226	0 57	0.29	PCI/G
SC-35103-S	4/28/2000	RADIUM-226	0.88	0.25	PCI/G
SC-35103-U	5/17/2000	RADIUM-226	0.88	0.21	PCI/G
SC-35104-S	5/6/2000	RADIUM-226	0.86	0.28	PCI/G
SC-35104-U	6/4/2000	RADIUM-226	0.35	0.23	PCI/G
SC-35105-S	4/28/2000	RADIUM-226	0.55	0.18	PCI/G
SC-35105-U	6/4/2000	RADIUM-226	0.53	0.24	PCI/G
SC-35106-S	4/28/2000	RADIUM-226	0.82	0.26	PCI/G
SC-35106-U	6/4/2000	RADIUM-226	0.49	0.23	PCI/G
SC-35107-S	4/28/2000	RADIUM-226	0.58	0.32	PCI/G
SC-35107-U	6/4/2000	RADIUM-226	0.59	0 22	PCI/G
SC-35108-S	5/6/2000	RADIUM-226	0 27	0 54	PCI/G
SC-35108-U	6/4/2000	RADIUM-226	0.49	0 27	PCI/G
SC-35109-S	4/28/2000	RADIUM-226	0.47	0 25	PCI/G
SC-35110-S	4/28/2000	RADIUM-226	0.64	0.22	PCI/G
SC-35111-S	4/28/2000	RADIUM-226	0.84	0.25	PCI/G
SC-35112-S	5/6/2000	RADIUM-226	0.54	0.29	PCI/G
SC-35113-S	4/28/2000	RADIUM-226	0.59	0.25	PCI/G
SC-35114-S	4/28/2000	RADIUM-226	0.53	0.23	PCI/G
SC-35115-S	4/28/2000	RADIUM-226	0.79	0.26	PCI/G
SC-35116-S	5/6/2000	RADIUM-226	0.72	0.3	PCI/G
SC-35117-S	4/28/2000	RADIUM-226	0 78	0.26	PCI/G
SC-35118-S	4/28/2000	RADIUM-226	0.84	0.26	PCI/G
SC-35119-S	4/21/2000	RADIUM-226	0.68	0.22	PCI/G
SC-35120-S	5/6/2000	RADIUM-226	0.86	0.24	PCI/G
SC-35201-S	5/6/2000	RADIUM-226	0.88	0.23	PCI/G
SC-35202-S	5/6/2000	RADIUM-226	0.86	0.25	PCI/G
SC-35203-S	5/6/2000	RADIUM-226	0.89	0.24	PCI/G
SC-35204-S	6/2/2000	RADIUM-226	0.51	0 24	PCI/G
SC-35205-S	5/6/2000	RADIUM-226	0.88	0.26	PCI/G
SC-35206-S	5/6/2000	RADIUM-226	0.69	0.3	PCI/G
SC-35207-S	6/2/2000	RADIUM-226	0.6	0.21	PCI/G
SC-35208-S	5/6/2000	RADIUM-226	0.83	0.21	PCI/G
SC-35209-S	5/6/2000	RADIUM-226	0.8	0.25	PCI/G
SC-35213-S	5/6/2000	RADIUM-226	0.6	0.23	PCI/G
SC-35214-S	5/6/2000	RADIUM-226	0.85	0.27	PCI/G
SC-35215-S	5/6/2000	RADIUM-226	0.94	0.2	PCI/G

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SC-35219-S	5/6/2000	RADIUM-226	0.84	0.26	PCI/G
SC-35220-S	5/6/2000	RADIUM-226	0.82	0.26	PCI/G
SC-35221-S	5/6/2000	RADIUM-226	0.77	0.23	PCI/G
SC-35307-C	5/8/2000	RADIUM-226	0.26	0.52	PCI/G
SC-35316-C	5/8/2000	RADIUM-226	0.67	0.28	PCI/G
SC-35320-C	5/8/2000	RADIUM-226	0.7	0.23	PCI/G
SC-35401-S	4/29/2000	RADIUM-226	0.86	0.28	PCI/G
SC-35402-S	4/21/2000	RADIUM-226	0.82	0.27	PCI/G
SC-35403-S	4/21/2000	RADIUM-226	0.73	0.23	PCI/G
SC-35404-S	4/21/2000	RADIUM-226	0.76	0.29	PCI/G
SC-35405-S	4/29/2000	RADIUM-226	0.85	0.23	PCI/G
SC-35406-S	4/21/2000	RADIUM-226	0.76	0.25	PCI/G
SC-35407-S	4/21/2000	RADIUM-226	0.8	0.27	PCI/G
SC-35408-S	4/21/2000	RADIUM-226	0.83	0.23	PCI/G
SC-35409-S	4/29/2000	RADIUM-226	0.78	0.26	PCI/G
SC-35410-S	4/21/2000	RADIUM-226	0.73	0.3	PCI/G
SC-35411-S	4/21/2000	RADIUM-226	0.67	0.27	PCI/G
SC-35412-S	4/21/2000	RADIUM-226	0.72	0.28	PCI/G
SC-35413-S	4/29/2000	RADIUM-226	0.27	0.54	PCI/G
SC-35414-S	4/21/2000	RADIUM-226	0.81	0.29	PCI/G
SC-35415-S	4/21/2000	RADIUM-226	0.85	0.24	PCI/G
SC-35416-S	4/21/2000	RADIUM-226	0.86	0.27	PCI/G
SC-35417-S	4/29/2000	RADIUM-226	0.55	0.19	PCI/G
SC-35418-S	4/21/2000	RADIUM-226	0.77	0.25	PCI/G
SC-35419-S	4/21/2000	RADIUM-226	0.78	0.18	PCI/G
SC-35420-S	4/21/2000	RADIUM-226	0.78	0.27	PCI/G
SC-35601-S	4/21/2000	RADIUM-226	0.74	0.28	PCI/G
SC-35602-S	4/21/2000	RADIUM-226	0.84	0.25	PCI/G
SC-35603-S	4/21/2000	RADIUM-226	0.84	0.27	PCI/G
SC-35604-S	4/21/2000	RADIUM-226	0.76	0.27	PCI/G
SC-35605-S	4/21/2000	RADIUM-226	0.7	0.26	PCI/G
SC-35606-S	4/21/2000	RADIUM-226	0.86	0.27	PCI/G
SC-35610-S	4/21/2000	RADIUM-226	0.66	0.25	PCI/G
SC-35611-S	4/21/2000	RADIUM-226	0.7	0.27	PCI/G
SC-35612-S	4/21/2000	RADIUM-226	0.265	0.53	PCI/G
SC-33801-U	6/27/2000	RADIUM-228	1.02	0.41	PCI/G
SC-33802-U	6/29/2000	RADIUM-228	1.11	0.32	PCI/G
SC-33803-U	6/29/2000	RADIUM-228	0.92	0.42	PCI/G
SC-33804-U	6/29/2000	RADIUM-228	0.94	0.28	PCI/G
SC-33805-U	6/29/2000	RADIUM-228	1.12	0.44	PCI/G
SC-33806-U	6/30/2000	RADIUM-228	1.06	0.35	PCI/G
SC-33807-U	6/30/2000	RADIUM-228	1.16	0.36	PCI/G
SC-33808-U	7/7/2000	RADIUM-228	1.02	0.42	PCI/G
SC-33809-U	7/7/2000	RADIUM-228	1.11	0.35	PCI/G
SC-33810-U	7/7/2000	RADIUM-228	0.385	0.77	PCI/G
SC-33811-U	7/12/2000	RADIUM-228	1.29	0.37	PCI/G
SC-33812-U	7/12/2000	RADIUM-228	0.42	0.84	PCI/G
SC-33813-U	7/16/2000	RADIUM-228	1.05	0.31	PCI/G
SC-33814-U	8/4/2000	RADIUM-228	0.38	0.76	PCI/G
SC-33815-U	8/4/2000	RADIUM-228	1.1	0.3	PCI/G
SC-33816-U	8/16/2000	RADIUM-228	0.925	0.635	PCI/G
SC-33817-S	6/3/2000	RADIUM-228	1.21	0.4	PCI/G
SC-33901-S	6/1/2000	RADIUM-228	1.06	0.32	PCI/G
SC-33901-U	7/27/2000	RADIUM-228	0.325	0.65	PCI/G
SC-33902-C	6/1/2000	RADIUM-228	0.96	0.38	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-33902-S	6/1/2000	RADIUM-228	1.14	0 4	PCI/G
SC-33902-U	7/27/2000	RADIUM-228	1.1	0.38	PCI/G
SC-33903-C	6/1/2000	RADIUM-228	0.93	0.32	PCI/G
SC-33903-S	6/1/2000	RADIUM-228	0.93	0.46	PCI/G
SC-33903-U	8/1/2000	RADIUM-228	0.385	0 77	PCI/G
SC-33904-C	6/1/2000	RADIUM-228	0.98	0.35	PCI/G
SC-33904-S	6/1/2000	RADIUM-228	1.3	0.42	PCI/G
SC-33904-U	8/4/2000	RADIUM-228	0.385	0.77	PCI/G
SC-33905-S	6/3/2000	RADIUM-228	0.96	0.34	PCI/G
SC-33905-U	8/4/2000	RADIUM-228	1.08	0.39	PCI/G
SC-33906-S	7/11/2000	RADIUM-228	0.69	0.33	PCI/G
SC-33906-U	8/4/2000	RADIUM-228	0.365	0.73	PCI/G
SC-33907-S	7/11/2000	RADIUM-228	0.405	0.81	PCI/G
SC-33907-U	8/4/2000	RADIUM-228	1.09	0.38	PCI/G
SC-33908-S	6/3/2000	RADIUM-228	0.94	0.43	PCI/G
SC-33908-U	8/16/2000	RADIUM-228	1.28	1.03	PCI/G
SC-33909-S	6/3/2000	RADIUM-228	0.96	0.31	PCI/G
SC-33909-U	8/16/2000	RADIUM-228	0.745	0.483	PCI/G
SC-33910-S	7/11/2000	RADIUM-228	0 405	0.81	PCI/G
SC-33910-U	8/16/2000	RADIUM-228	0.972	0.536	PCI/G
SC-33911-S	7/11/2000	RADIUM-228	0.41	0.82	PCI/G
SC-33912-S	6/3/2000	RADIUM-228	0.37	0.74	PCI/G
SC-33913-S	6/3/2000	RADIUM-228	1.05	0.34	PCI/G
SC-33914-S	7/11/2000	RADIUM-228	1.17	0.37	PCI/G
SC-33915-S	7/11/2000	RADIUM-228	0.395	0.79	PCI/G
SC-33916-S	6/3/2000	RADIUM-228	1.22	0.35	PCI/G
SC-33917-S	6/3/2000	RADIUM-228	1.01	0 31	PCI/G
SC-33918-S	6/1/2000	RADIUM-228	1.19	0.35	PCI/G
SC-33919-S	6/1/2000	RADIUM-228	0.9	0.43	PCI/G
SC-33920-S	6/1/2000	RADIUM-228	1.02	0 35	PCI/G
SC-34001-S	7/23/2000	RADIUM-228	0.395	0.79	PCI/G
SC-34001-U	7/27/2000	RADIUM-228	0.38	0.76	PCI/G
SC-34002-C	7/23/2000	RADIUM-228	0.87	0.36	PCI/G
SC-34002-S	7/23/2000	RADIUM-228	0.415	0.83	PCI/G
SC-34002-U	8/1/2000	RADIUM-228	0.325	0.65	PCI/G
SC-34003-S	7/23/2000	RADIUM-228	0.95	0 4	PCI/G
SC-34003-U	8/1/2000	RADIUM-228	0.39	0.78	PCI/G
SC-34004-C	7/21/2000	RADIUM-228	1.22	0.33	PCI/G
SC-34004-S	7/21/2000	RADIUM-228	0.405	0.81	PCI/G
SC-34004-U	8/1/2000	RADIUM-228	0.83	0.31	PCI/G
SC-34005-S	7/28/2000	RADIUM-228	1.07	0.34	PCI/G
SC-34005-U	8/1/2000	RADIUM-228	0.385	0 77	PCI/G
SC-34006-S	7/28/2000	RADIUM-228	1.01	0.37	PCI/G
SC-34006-U	8/1/2000	RADIUM-228	1.27	0.33	PCI/G
SC-34007-S	7/28/2000	RADIUM-228	0.39	0.78	PCI/G
SC-34007-U	8/1/2000	RADIUM-228	0.385	0.77	PCI/G
SC-34008-S	7/21/2000	RADIUM-228	1.02	0 3	PCI/G
SC-34008-U	8/1/2000	RADIUM-228	0.82	0.34	PCI/G
SC-34009-S	7/28/2000	RADIUM-228	1	0.39	PCI/G
SC-34009-U	8/4/2000	RADIUM-228	0.375	0.75	PCI/G
SC-34010-S	7/28/2000	RADIUM-228	0.405	0 81	PCI/G
SC-34010-U	8/4/2000	RADIUM-228	0.93	0.36	PCI/G
SC-34011-S	7/28/2000	RADIUM-228	0.94	0.38	PCI/G
SC-34011-U	8/4/2000	RADIUM-228	0.98	0.47	PCI/G
SC-34012-S	7/21/2000	RADIUM-228	0.42	0 84	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34012-U	8/4/2000	RADIUM-228	1.08	0.33	PCI/G
SC-34013-S	7/28/2000	RADIUM-228	1.15	0.42	PCI/G
SC-34013-U	8/16/2000	RADIUM-228	0.815	1.63	PCI/G
SC-34014-S	7/28/2000	RADIUM-228	1.35	0.35	PCI/G
SC-34014-U	8/17/2000	RADIUM-228	1.24	0.627	PCI/G
SC-34015-S	7/28/2000	RADIUM-228	0.385	0.77	PCI/G
SC-34015-U	8/17/2000	RADIUM-228	0.86	1.72	PCI/G
SC-34016-S	7/21/2000	RADIUM-228	0.84	0.34	PCI/G
SC-34017-S	7/23/2000	RADIUM-228	0.345	0.69	PCI/G
SC-34018-S	7/21/2000	RADIUM-228	0.38	0.76	PCI/G
SC-34019-S	7/21/2000	RADIUM-228	0.93	0.34	PCI/G
SC-34020-S	7/21/2000	RADIUM-228	0.375	0.75	PCI/G
SC-34101-S	7/26/2000	RADIUM-228	1.06	0.37	PCI/G
SC-34101-U	8/1/2000	RADIUM-228	1.05	0.38	PCI/G
SC-34102-C	7/26/2000	RADIUM-228	0.42	0.84	PCI/G
SC-34102-S	7/26/2000	RADIUM-228	0.93	0.33	PCI/G
SC-34102-U	8/2/2000	RADIUM-228	0.375	0.75	PCI/G
SC-34103-S	7/22/2000	RADIUM-228	0.95	0.33	PCI/G
SC-34103-U	8/2/2000	RADIUM-228	1.04	0.35	PCI/G
SC-34104-C	7/22/2000	RADIUM-228	0.385	0.77	PCI/G
SC-34104-S	7/22/2000	RADIUM-228	1.08	0.31	PCI/G
SC-34104-U	8/2/2000	RADIUM-228	0.355	0.71	PCI/G
SC-34105-S	7/26/2000	RADIUM-228	0.375	0.75	PCI/G
SC-34105-U	8/2/2000	RADIUM-228	1.13	0.36	PCI/G
SC-34106-S	7/26/2000	RADIUM-228	1.02	0.38	PCI/G
SC-34106-U	8/2/2000	RADIUM-228	0.425	0.85	PCI/G
SC-34107-S	7/26/2000	RADIUM-228	0.345	0.69	PCI/G
SC-34107-U	8/2/2000	RADIUM-228	0.38	0.76	PCI/G
SC-34108-S	7/22/2000	RADIUM-228	0.4	0.8	PCI/G
SC-34108-U	8/2/2000	RADIUM-228	1.11	0.38	PCI/G
SC-34109-S	7/26/2000	RADIUM-228	0.9	0.34	PCI/G
SC-34109-U	8/2/2000	RADIUM-228	0.405	0.81	PCI/G
SC-34110-S	7/26/2000	RADIUM-228	0.41	0.82	PCI/G
SC-34110-U	8/2/2000	RADIUM-228	1.02	0.32	PCI/G
SC-34111-S	7/26/2000	RADIUM-228	1.11	0.36	PCI/G
SC-34111-U	8/3/2000	RADIUM-228	0.375	0.75	PCI/G
SC-34112-S	7/22/2000	RADIUM-228	0.74	0.38	PCI/G
SC-34112-U	8/3/2000	RADIUM-228	0.99	0.33	PCI/G
SC-34113-S	7/26/2000	RADIUM-228	0.4	0.8	PCI/G
SC-34113-U	8/3/2000	RADIUM-228	1.07	0.34	PCI/G
SC-34114-S	7/26/2000	RADIUM-228	1.1	0.37	PCI/G
SC-34114-U	8/4/2000	RADIUM-228	0.385	0.77	PCI/G
SC-34115-S	7/26/2000	RADIUM-228	0.375	0.75	PCI/G
SC-34115-U	8/4/2000	RADIUM-228	0.96	0.35	PCI/G
SC-34116-S	7/22/2000	RADIUM-228	0.385	0.77	PCI/G
SC-34116-U	8/4/2000	RADIUM-228	0.395	0.79	PCI/G
SC-34117-S	7/26/2000	RADIUM-228	0.365	0.73	PCI/G
SC-34117-U	8/4/2000	RADIUM-228	0.94	0.35	PCI/G
SC-34118-S	7/26/2000	RADIUM-228	1.18	0.42	PCI/G
SC-34118-U	8/4/2000	RADIUM-228	0.405	0.81	PCI/G
SC-34119-S	7/26/2000	RADIUM-228	0.7	0.33	PCI/G
SC-34119-U	8/4/2000	RADIUM-228	1.04	0.32	PCI/G
SC-34120-S	7/22/2000	RADIUM-228	1.01	0.33	PCI/G
SC-34120-U	8/10/2000	RADIUM-228	1.09	0.33	PCI/G
SC-34121-U	8/10/2000	RADIUM-228	0.39	0.78	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34122-U	8/12/2000	RADIUM-228	1.09	0.36	PCI/G
SC-34123-U	8/12/2000	RADIUM-228	0.27	0.35	PCI/G
SC-34124-U	8/12/2000	RADIUM-228	1.15	0 32	PCI/G
SC-34201-U	8/16/2000	RADIUM-228	1.03	0.37	PCI/G
SC-34202-C	7/26/2000	RADIUM-228	0.42	0.84	PCI/G
SC-34202-S	5/20/2000	RADIUM-228	0.385	0.77	PCI/G
SC-34203-S	7/26/2000	RADIUM-228	0.84	0 34	PCI/G
SC-34204-C	7/26/2000	RADIUM-228	0.395	0.79	PCI/G
SC-34204-S	7/26/2000	RADIUM-228	1.02	0.35	PCI/G
SC-34205-C	5/20/2000	RADIUM-228	1.01	0 33	PCI/G
SC-34206-S	5/20/2000	RADIUM-228	0.375	0.75	PCI/G
SC-34207-S	7/26/2000	RADIUM-228	0.43	0.86	PCI/G
SC-34208-S	7/26/2000	RADIUM-228	1.1	0 34	PCI/G
SC-34210-S	5/20/2000	RADIUM-228	1.16	0.34	PCI/G
SC-34211-S	7/26/2000	RADIUM-228	0.41	0.82	PCI/G
SC-34212-S	7/26/2000	RADIUM-228	1.01	0.42	PCI/G
SC-34213-C	5/20/2000	RADIUM-228	1.08	0.35	PCI/G
SC-34214-S	5/20/2000	RADIUM-228	0.98	0.34	PCI/G
SC-34215-S	7/31/2000	RADIUM-228	1.07	0.3	PCI/G
SC-34216-S	7/31/2000	RADIUM-228	0.32	0.64	PCI/G
SC-34217-S	7/26/2000	RADIUM-228	1.42	0.41	PCI/G
SC-34218-C	5/20/2000	RADIUM-228	0.395	0 79	PCI/G
SC-34219-S	5/20/2000	RADIUM-228	0.93	0 37	PCI/G
SC-34220-S	5/20/2000	RADIUM-228	0.385	0 77	PCI/G
SC-34221-S	7/31/2000	RADIUM-228	1.13	0.39	PCI/G
SC-34222-S	7/26/2000	RADIUM-228	1	0.36	PCI/G
SC-34301-S	5/20/2000	RADIUM-228	1.04	0.32	PCI/G
SC-34301-U	5/18/2000	RADIUM-228	0.96	0.44	PCI/G
SC-34302-S	5/20/2000	RADIUM-228	0.74	0.39	PCI/G
SC-34302-U	5/18/2000	RADIUM-228	0.91	0 34	PCI/G
SC-34303-S	7/31/2000	RADIUM-228	0.385	0.77	PCI/G
SC-34303-U	5/18/2000	RADIUM-228	0.395	0.79	PCI/G
SC-34304-S	7/26/2000	RADIUM-228	0.405	0 81	PCI/G
SC-34304-U	8/2/2000	RADIUM-228	0.385	0 77	PCI/G
SC-34305-S	5/20/2000	RADIUM-228	1.17	0 38	PCI/G
SC-34305-U	8/2/2000	RADIUM-228	0.89	0 38	PCI/G
SC-34306-S	5/20/2000	RADIUM-228	0.395	0.79	PCI/G
SC-34306-U	8/2/2000	RADIUM-228	0.395	0 79	PCI/G
SC-34307-S	3/7/2000	RADIUM-228	1.16	0.42	PCI/G
SC-34307-U	8/15/2000	RADIUM-228	0.852	0 565	PCI/G
SC-34308-S	4/13/2000	RADIUM-228	0.98	0.45	PCI/G
SC-34308-U	8/15/2000	RADIUM-228	1.23	0.44	PCI/G
SC-34309-S	5/20/2000	RADIUM-228	0.86	0.36	PCI/G
SC-34309-U	8/15/2000	RADIUM-228	1.25	0.34	PCI/G
SC-34310-S	5/18/2000	RADIUM-228	1.14	0.34	PCI/G
SC-34311-S	3/7/2000	RADIUM-228	1.25	0.38	PCI/G
SC-34312-S	4/13/2000	RADIUM-228	1.15	0.37	PCI/G
SC-34313-S	5/18/2000	RADIUM-228	1.1	0.45	PCI/G
SC-34314-S	5/18/2000	RADIUM-228	0.95	0.37	PCI/G
SC-34315-S	3/7/2000	RADIUM-228	1.28	0.37	PCI/G
SC-34316-S	4/13/2000	RADIUM-228	1.12	0.43	PCI/G
SC-34318-C	5/18/2000	RADIUM-228	1.09	0.34	PCI/G
SC-34319-S	5/18/2000	RADIUM-228	1.21	0.33	PCI/G
SC-34320-S	3/7/2000	RADIUM-228	0.83	0.35	PCI/G
SC-34321-S	4/13/2000	RADIUM-228	1.1	0.46	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34401-S	7/26/2000	RADIUM-228	1	0.38	PCI/G
SC-34401-U	5/19/2000	RADIUM-228	1.27	0.32	PCI/G
SC-34402-S	7/26/2000	RADIUM-228	0.395	0.79	PCI/G
SC-34402-U	8/1/2000	RADIUM-228	0.87	0.38	PCI/G
SC-34403-S	7/26/2000	RADIUM-228	0.95	0.33	PCI/G
SC-34403-U	8/1/2000	RADIUM-228	0.38	0.76	PCI/G
SC-34404-S	7/22/2000	RADIUM-228	0.385	0.77	PCI/G
SC-34404-U	8/1/2000	RADIUM-228	1.08	0.34	PCI/G
SC-34405-S	4/13/2000	RADIUM-228	0.415	0.83	PCI/G
SC-34405-U	8/2/2000	RADIUM-228	1.08	0.35	PCI/G
SC-34406-S	4/13/2000	RADIUM-228	0.91	0.33	PCI/G
SC-34406-U	8/2/2000	RADIUM-228	0.38	0.76	PCI/G
SC-34407-S	4/13/2000	RADIUM-228	1.05	0.35	PCI/G
SC-34407-U	8/12/2000	RADIUM-228	1.01	0.38	PCI/G
SC-34408-S	5/5/2000	RADIUM-228	0.365	0.73	PCI/G
SC-34408-U	8/12/2000	RADIUM-228	0.39	0.78	PCI/G
SC-34409-S	4/13/2000	RADIUM-228	0.94	0.35	PCI/G
SC-34409-U	8/12/2000	RADIUM-228	0.62	0.34	PCI/G
SC-34410-S	4/13/2000	RADIUM-228	1.14	0.42	PCI/G
SC-34410-U	8/15/2000	RADIUM-228	1.29	0.763	PCI/G
SC-34411-S	4/13/2000	RADIUM-228	0.97	0.34	PCI/G
SC-34412-S	5/5/2000	RADIUM-228	0.8	0.32	PCI/G
SC-34413-S	4/13/2000	RADIUM-228	1.01	0.49	PCI/G
SC-34414-S	4/13/2000	RADIUM-228	1.21	0.4	PCI/G
SC-34415-S	4/13/2000	RADIUM-228	1.01	0.5	PCI/G
SC-34416-S	5/5/2000	RADIUM-228	0.86	0.43	PCI/G
SC-34417-S	4/13/2000	RADIUM-228	1.28	0.31	PCI/G
SC-34418-S	4/13/2000	RADIUM-228	1.21	0.44	PCI/G
SC-34419-S	4/13/2000	RADIUM-228	1.24	0.31	PCI/G
SC-34420-S	5/5/2000	RADIUM-228	0.85	0.32	PCI/G
SC-34601-U	7/7/2000	RADIUM-228	1.11	0.34	PCI/G
SC-34602-U	7/10/2000	RADIUM-228	0.365	0.73	PCI/G
SC-34603-U	7/10/2000	RADIUM-228	0.415	0.83	PCI/G
SC-34604-U	7/10/2000	RADIUM-228	1.08	0.31	PCI/G
SC-34610-C	6/22/2000	RADIUM-228	1.05	0.44	PCI/G
SC-34624-S	6/22/2000	RADIUM-228	1.17	0.46	PCI/G
SC-34722-C	4/24/2000	RADIUM-228	0.78	0.43	PCI/G
SC-34801-S	4/13/2000	RADIUM-228	0.43	0.86	PCI/G
SC-34801-U	5/19/2000	RADIUM-228	1.08	0.37	PCI/G
SC-34802-S	5/5/2000	RADIUM-228	1.06	0.44	PCI/G
SC-34802-U	5/19/2000	RADIUM-228	0.95	0.33	PCI/G
SC-34803-U	5/19/2000	RADIUM-228	0.92	0.36	PCI/G
SC-34804-U	5/19/2000	RADIUM-228	1.03	0.35	PCI/G
SC-34805-U	5/19/2000	RADIUM-228	1.06	0.35	PCI/G
SC-34806-S	4/13/2000	RADIUM-228	1.3	0.49	PCI/G
SC-34807-S	5/5/2000	RADIUM-228	1.19	0.35	PCI/G
SC-34811-S	4/13/2000	RADIUM-228	0.355	0.71	PCI/G
SC-34812-S	5/5/2000	RADIUM-228	0.82	0.39	PCI/G
SC-34816-S	5/8/2000	RADIUM-228	0.59	0.26	PCI/G
SC-34817-S	5/8/2000	RADIUM-228	0.365	0.73	PCI/G
SC-34901-U	3/30/2000	RADIUM-228	0.395	0.79	PCI/G
SC-34902-S	5/18/2000	RADIUM-228	0.365	0.73	PCI/G
SC-34902-U	3/30/2000	RADIUM-228	0.95	0.36	PCI/G
SC-34903-S	3/7/2000	RADIUM-228	1.17	0.45	PCI/G
SC-34903-U	3/30/2000	RADIUM-228	1.11	0.44	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34904-S	4/13/2000	RADIUM-228	1.18	0.37	PCI/G
SC-34904-U	3/30/2000	RADIUM-228	0.85	0.45	PCI/G
SC-34905-S	4/13/2000	RADIUM-228	0.99	0.38	PCI/G
SC-34905-U	3/30/2000	RADIUM-228	1.02	0.34	PCI/G
SC-34906-S	4/13/2000	RADIUM-228	1.13	0.35	PCI/G
SC-34906-U	5/17/2000	RADIUM-228	1	0.41	PCI/G
SC-34907-U	5/20/2000	RADIUM-228	1.02	0.4	PCI/G
SC-34908-S	5/18/2000	RADIUM-228	1.12	0.39	PCI/G
SC-34908-U	5/20/2000	RADIUM-228	1.01	0.34	PCI/G
SC-34909-S	3/7/2000	RADIUM-228	0.97	0.37	PCI/G
SC-34909-U	5/20/2000	RADIUM-228	0.83	0.4	PCI/G
SC-34910-S	4/13/2000	RADIUM-228	1.08	0.48	PCI/G
SC-34911-S	4/13/2000	RADIUM-228	1.2	0.35	PCI/G
SC-34912-S	4/13/2000	RADIUM-228	1.28	0.48	PCI/G
SC-34913-C	4/17/2000	RADIUM-228	0.355	0.71	PCI/G
SC-34913-C-01	5/11/2000	RADIUM-228	1	0.35	PCI/G
SC-34914-S	4/17/2000	RADIUM-228	1.07	0 33	PCI/G
SC-34914-S-01	5/11/2000	RADIUM-228	0.375	0.75	PCI/G
SC-34915-S	3/7/2000	RADIUM-228	1.15	0 35	PCI/G
SC-34916-S	4/13/2000	RADIUM-228	1.08	0.37	PCI/G
SC-34917-S	4/13/2000	RADIUM-228	0.41	0.82	PCI/G
SC-34918-S	4/13/2000	RADIUM-228	1.23	0.39	PCI/G
SC-34920-S	4/17/2000	RADIUM-228	1.16	0.41	PCI/G
SC-34920-S-01	5/11/2000	RADIUM-228	1.15	0 31	PCI/G
SC-34921-S	4/17/2000	RADIUM-228	1.03	0.35	PCI/G
SC-34922-S	3/8/2000	RADIUM-228	1.13	0.32	PCI/G
SC-34923-S	3/29/2000	RADIUM-228	0.98	0.39	PCI/G
SC-34924-S	3/29/2000	RADIUM-228	0.395	0.79	PCI/G
SC-34925-S	5/8/2000	RADIUM-228	0.99	0.29	PCI/G
SC-35001-U	3/30/2000	RADIUM-228	0.84	0.38	PCI/G
SC-35002-U	3/30/2000	RADIUM-228	1.26	0.34	PCI/G
SC-35003-S	4/17/2000	RADIUM-228	0.375	0.75	PCI/G
SC-35003-U	3/30/2000	RADIUM-228	0.87	0.42	PCI/G
SC-35004-S	3/8/2000	RADIUM-228	0.37	0 74	PCI/G
SC-35004-U	3/30/2000	RADIUM-228	1.13	0.32	PCI/G
SC-35005-S	3/29/2000	RADIUM-228	0.95	0.49	PCI/G
SC-35005-U	3/30/2000	RADIUM-228	0.365	0.73	PCI/G
SC-35006-C	4/17/2000	RADIUM-228	1.19	0.31	PCI/G
SC-35006-U	3/30/2000	RADIUM-228	0.41	0.82	PCI/G
SC-35007-S	4/17/2000	RADIUM-228	1.2	0.41	PCI/G
SC-35007-U	3/30/2000	RADIUM-228	0.39	0.78	PCI/G
SC-35008-S	3/8/2000	RADIUM-228	0.88	0.38	PCI/G
SC-35008-U	3/30/2000	RADIUM-228	0.97	0.34	PCI/G
SC-35009-S	4/17/2000	RADIUM-228	1.14	0.31	PCI/G
SC-35009-U	3/30/2000	RADIUM-228	1.06	0.31	PCI/G
SC-35010-U	5/5/2000	RADIUM-228	1.26	0.37	PCI/G
SC-35011-S	4/17/2000	RADIUM-228	0.35	0.7	PCI/G
SC-35011-U	5/5/2000	RADIUM-228	1.17	0.46	PCI/G
SC-35012-S	3/8/2000	RADIUM-228	0.37	0.74	PCI/G
SC-35501-U	5/13/2000	RADIUM-228	1.07	0.34	PCI/G
SC-35013-S	4/17/2000	RADIUM-228	1.04	0.32	PCI/G
SC-35502-U	5/13/2000	RADIUM-228	0.97	0.33	PCI/G
SC-35014-C	4/17/2000	RADIUM-228	0.395	0 79	PCI/G
SC-35503-U	5/13/2000	RADIUM-228	0.39	0 78	PCI/G
SC-35015-S	4/17/2000	RADIUM-228	0.89	0 38	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35504-U	5/13/2000	RADIUM-228	0.94	0.34	PCI/G
SC-35016-S	3/8/2000	RADIUM-228	1.06	0.32	PCI/G
SC-35505-U	5/13/2000	RADIUM-228	1.01	0.42	PCI/G
SC-35017-S	4/28/2000	RADIUM-228	0.39	0.78	PCI/G
SC-35017-U	5/20/2000	RADIUM-228	0.85	0.36	PCI/G
SC-35018-C	4/17/2000	RADIUM-228	1.12	0.42	PCI/G
SC-35018-U	5/20/2000	RADIUM-228	1.09	0.39	PCI/G
SC-35019-S	4/29/2000	RADIUM-228	0.91	0.47	PCI/G
SC-35019-U	5/20/2000	RADIUM-228	1.04	0.28	PCI/G
SC-35020-S	3/8/2000	RADIUM-228	1.05	0.32	PCI/G
SC-35020-U	5/20/2000	RADIUM-228	0.96	0.41	PCI/G
SC-35021-S	4/28/2000	RADIUM-228	1.23	0.35	PCI/G
SC-35021-U	5/20/2000	RADIUM-228	1.11	0.32	PCI/G
SC-35101-S	3/29/2000	RADIUM-228	0.99	0.5	PCI/G
SC-35101-U	5/17/2000	RADIUM-228	1.13	0.32	PCI/G
SC-35102-S	4/28/2000	RADIUM-228	1.03	0.58	PCI/G
SC-35102-U	5/17/2000	RADIUM-228	0.92	0.44	PCI/G
SC-35103-S	4/28/2000	RADIUM-228	1.12	0.34	PCI/G
SC-35103-U	5/17/2000	RADIUM-228	1.19	0.37	PCI/G
SC-35104-S	5/6/2000	RADIUM-228	1.1	0.42	PCI/G
SC-35104-U	6/4/2000	RADIUM-228	0.86	0.38	PCI/G
SC-35105-S	4/28/2000	RADIUM-228	0.9	0.29	PCI/G
SC-35105-U	6/4/2000	RADIUM-228	1.11	0.29	PCI/G
SC-35106-S	4/28/2000	RADIUM-228	0.93	0.42	PCI/G
SC-35106-U	6/4/2000	RADIUM-228	0.35	0.7	PCI/G
SC-35107-S	4/28/2000	RADIUM-228	1.05	0.43	PCI/G
SC-35107-U	6/4/2000	RADIUM-228	1.08	0.32	PCI/G
SC-35108-S	5/6/2000	RADIUM-228	0.4	0.8	PCI/G
SC-35108-U	6/4/2000	RADIUM-228	0.36	0.72	PCI/G
SC-35109-S	4/28/2000	RADIUM-228	0.81	0.36	PCI/G
SC-35110-S	4/28/2000	RADIUM-228	1.09	0.31	PCI/G
SC-35111-S	4/28/2000	RADIUM-228	0.88	0.38	PCI/G
SC-35112-S	5/6/2000	RADIUM-228	1.19	0.48	PCI/G
SC-35113-S	4/28/2000	RADIUM-228	0.37	0.74	PCI/G
SC-35114-S	4/28/2000	RADIUM-228	0.93	0.39	PCI/G
SC-35115-S	4/28/2000	RADIUM-228	1.03	0.38	PCI/G
SC-35116-S	5/6/2000	RADIUM-228	1.21	0.4	PCI/G
SC-35117-S	4/28/2000	RADIUM-228	0.98	0.34	PCI/G
SC-35118-S	4/28/2000	RADIUM-228	0.395	0.79	PCI/G
SC-35119-S	4/21/2000	RADIUM-228	1.12	0.33	PCI/G
SC-35120-S	5/6/2000	RADIUM-228	1.01	0.34	PCI/G
SC-35201-S	5/6/2000	RADIUM-228	1.08	0.42	PCI/G
SC-35202-S	5/6/2000	RADIUM-228	1.1	0.33	PCI/G
SC-35203-S	5/6/2000	RADIUM-228	1.28	0.41	PCI/G
SC-35204-S	6/2/2000	RADIUM-228	0.95	0.36	PCI/G
SC-35205-S	5/6/2000	RADIUM-228	1.06	0.34	PCI/G
SC-35206-S	5/6/2000	RADIUM-228	1.15	0.41	PCI/G
SC-35207-S	6/2/2000	RADIUM-228	0.405	0.81	PCI/G
SC-35208-S	5/6/2000	RADIUM-228	1.21	0.28	PCI/G
SC-35209-S	5/6/2000	RADIUM-228	0.42	0.84	PCI/G
SC-35213-S	5/6/2000	RADIUM-228	0.97	0.34	PCI/G
SC-35214-S	5/6/2000	RADIUM-228	0.415	0.83	PCI/G
SC-35215-S	5/6/2000	RADIUM-228	1.08	0.35	PCI/G
SC-35219-S	5/6/2000	RADIUM-228	0.93	0.49	PCI/G
SC-35220-S	5/6/2000	RADIUM-228	1.26	0.28	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35221-S	5/6/2000	RADIUM-228	1.15	0.29	PCI/G
SC-35307-C	5/8/2000	RADIUM-228	0.4	0.8	PCI/G
SC-35310-C	6/16/2000	RADIUM-228	1.16	0.28	PCI/G
SC-35310-S	6/16/2000	RADIUM-228	0.86	0.36	PCI/G
SC-35316-C	5/8/2000	RADIUM-228	1.01	0.34	PCI/G
SC-35320-C	5/8/2000	RADIUM-228	1.12	0 29	PCI/G
SC-35401-S	4/29/2000	RADIUM-228	0.96	0.36	PCI/G
SC-35402-S	4/21/2000	RADIUM-228	1.15	0.42	PCI/G
SC-35403-S	4/21/2000	RADIUM-228	0.81	0.37	PCI/G
SC-35404-S	4/21/2000	RADIUM-228	1.17	0.37	PCI/G
SC-35405-S	4/29/2000	RADIUM-228	1.01	0.4	PCI/G
SC-35406-S	4/21/2000	RADIUM-228	1.01	0.39	PCI/G
SC-35407-S	4/21/2000	RADIUM-228	0.4	0.8	PCI/G
SC-35408-S	4/21/2000	RADIUM-228	1.08	0 32	PCI/G
SC-35409-S	4/29/2000	RADIUM-228	0.8	0.36	PCI/G
SC-35410-S	4/21/2000	RADIUM-228	0.98	0.45	PCI/G
SC-35411-S	4/21/2000	RADIUM-228	1.14	0.34	PCI/G
SC-35412-S	4/21/2000	RADIUM-228	1.13	0 45	PCI/G
SC-35413-S	4/29/2000	RADIUM-228	0.335	0 67	PCI/G
SC-35414-S	4/21/2000	RADIUM-228	1.06	0.41	PCI/G
SC-35415-S	4/21/2000	RADIUM-228	1.16	0.39	PCI/G
SC-35416-S	4/21/2000	RADIUM-228	1.09	0.48	PCI/G
SC-35417-S	4/29/2000	RADIUM-228	0.45	0.33	PCI/G
SC-35418-S	4/21/2000	RADIUM-228	1.09	0.33	PCI/G
SC-35419-S	4/21/2000	RADIUM-228	0.87	0 3	PCI/G
SC-35420-S	4/21/2000	RADIUM-228	1.06	0.33	PCI/G
SC-35601-S	4/21/2000	RADIUM-228	1	0 4	PCI/G
SC-35602-S	4/21/2000	RADIUM-228	1.13	0 36	PCI/G
SC-35603-S	4/21/2000	RADIUM-228	0.99	0 42	PCI/G
SC-35604-S	4/21/2000	RADIUM-228	1.13	0.37	PCI/G
SC-35605-S	4/21/2000	RADIUM-228	0.365	0.73	PCI/G
SC-35606-S	4/21/2000	RADIUM-228	1.29	0 32	PCI/G
SC-35610-S	4/21/2000	RADIUM-228	1 11	0.45	PCI/G
SC-35611-S	4/21/2000	RADIUM-228	1.08	0.34	PCI/G
SC-35612-S	4/21/2000	RADIUM-228	0.4	0 8	PCI/G
SC-34307-S	3/7/2000	SELENIUM	0.43	0.86	UG/G
SC-34308-S	4/13/2000	SELENIUM	1.5	0.97	UG/G
SC-34311-S	3/7/2000	SELENIUM	0.425	0.85	UG/G
SC-34312-S	4/13/2000	SELENIUM	0.49	0.98	UG/G
SC-34315-S	3/7/2000	SELENIUM	0.41	0.82	UG/G
SC-34316-S	4/13/2000	SELENIUM	0.55	1.1	UG/G
SC-34320-S	3/7/2000	SELENIUM	0.425	0.85	UG/G
SC-34321-S	4/13/2000	SELENIUM	0.5	1	UG/G
SC-34405-S	4/13/2000	SELENIUM	0.41	0 82	UG/G
SC-34406-S	4/13/2000	SELENIUM	0.465	0.93	UG/G
SC-34407-S	4/13/2000	SELENIUM	0.495	0.99	UG/G
SC-34409-S	4/13/2000	SELENIUM	0.455	0.91	UG/G
SC-34410-S	4/13/2000	SELENIUM	0.37	0.74	UG/G
SC-34411-S	4/13/2000	SELENIUM	0.445	0.89	UG/G
SC-34413-S	4/13/2000	SELENIUM	0.46	0.92	UG/G
SC-34414-S	4/13/2000	SELENIUM	0.43	0.86	UG/G
SC-34415-S	4/13/2000	SELENIUM	0 415	0.83	UG/G
SC-34417-S	4/13/2000	SELENIUM	0.41	0 82	UG/G
SC-34418-S	4/13/2000	SELENIUM	0.515	1 03	UG/G
SC-34419-S	4/13/2000	SELENIUM	0.49	0 98	UG/G

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SC-34801-S	4/13/2000	SELENIUM	0.445	0.89	UG/G
SC-34806-S	4/13/2000	SELENIUM	0.55	1.1	UG/G
SC-34811-S	4/13/2000	SELENIUM	0.55	1.1	UG/G
SC-34901-U	3/30/2000	SELENIUM	1.6	0.3	UG/G
SC-34902-U	3/30/2000	SELENIUM	1.3	0.3	UG/G
SC-34903-S	3/7/2000	SELENIUM	0.415	0.83	UG/G
SC-34903-U	3/30/2000	SELENIUM	1.4	0.29	UG/G
SC-34904-S	4/13/2000	SELENIUM	0.5	1	UG/G
SC-34905-S	4/13/2000	SELENIUM	0.5	1	UG/G
SC-34906-S	4/13/2000	SELENIUM	0.55	1.1	UG/G
SC-34909-S	3/7/2000	SELENIUM	1	0.85	UG/G
SC-34910-S	4/13/2000	SELENIUM	0.55	1.1	UG/G
SC-34911-S	4/13/2000	SELENIUM	0.5	1	UG/G
SC-34912-S	4/13/2000	SELENIUM	0.4	0.8	UG/G
SC-34915-S	3/7/2000	SELENIUM	1	0.84	UG/G
SC-34916-S	4/13/2000	SELENIUM	0.375	0.75	UG/G
SC-34917-S	4/13/2000	SELENIUM	0.55	1.1	UG/G
SC-34918-S	4/13/2000	SELENIUM	0.485	0.97	UG/G
SC-34922-S	3/8/2000	SELENIUM	0.43	0.86	UG/G
SC-35001-U	3/30/2000	SELENIUM	1.2	0.29	UG/G
SC-35002-U	3/30/2000	SELENIUM	1	0.29	UG/G
SC-35003-U	3/30/2000	SELENIUM	1.1	0.29	UG/G
SC-35004-S	3/8/2000	SELENIUM	0.415	0.83	UG/G
SC-35004-U	3/30/2000	SELENIUM	0.93	0.29	UG/G
SC-35005-U	3/30/2000	SELENIUM	1.1	0.29	UG/G
SC-35008-S	3/8/2000	SELENIUM	0.43	0.86	UG/G
SC-35012-S	3/8/2000	SELENIUM	1	0.84	UG/G
SC-35501-U	5/13/2000	SELENIUM	0.215	0.43	UG/G
SC-35502-U	5/13/2000	SELENIUM	0.215	0.43	UG/G
SC-35503-U	5/13/2000	SELENIUM	0.215	0.43	UG/G
SC-35504-U	5/13/2000	SELENIUM	0.21	0.42	UG/G
SC-35016-S	3/8/2000	SELENIUM	1	0.84	UG/G
SC-35505-U	5/13/2000	SELENIUM	0.22	0.44	UG/G
SC-35020-S	3/8/2000	SELENIUM	0.45	0.9	UG/G
SC-33801-U	6/27/2000	THALLIUM	1.4	0.6	UG/G
SC-33802-U	6/29/2000	THALLIUM	1.8	0.6	UG/G
SC-33803-U	6/29/2000	THALLIUM	1.7	0.6	UG/G
SC-33804-U	6/29/2000	THALLIUM	1.9	0.6	UG/G
SC-33805-U	6/29/2000	THALLIUM	2	0.6	UG/G
SC-33806-U	6/30/2000	THALLIUM	0.425	0.85	UG/G
SC-33807-U	6/30/2000	THALLIUM	1.2	0.77	UG/G
SC-33808-U	7/7/2000	THALLIUM	0.445	0.89	UG/G
SC-33809-U	7/7/2000	THALLIUM	0.435	0.87	UG/G
SC-33810-U	7/7/2000	THALLIUM	0.87	0.82	UG/G
SC-33813-U	7/16/2000	THALLIUM	0.435	0.87	UG/G
SC-34601-U	7/7/2000	THALLIUM	1	0.83	UG/G
SC-34602-U	7/10/2000	THALLIUM	0.405	0.81	UG/G
SC-34603-U	7/10/2000	THALLIUM	0.42	0.84	UG/G
SC-34604-U	7/10/2000	THALLIUM	0.405	0.81	UG/G
SC-33801-U	6/27/2000	THORIUM-230	1	0.64	PCI/G
SC-33802-S	6/6/2000	THORIUM-230	1.07	0.64	PCI/G
SC-33802-U	6/29/2000	THORIUM-230	0.89	0.62	PCI/G
SC-33803-S	6/6/2000	THORIUM-230	1.1	0.64	PCI/G
SC-33803-U	6/29/2000	THORIUM-230	0.98	0.64	PCI/G
SC-33804-U	6/29/2000	THORIUM-230	0.99	0.62	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-33805-C	4/25/2000	THORIUM-230	1.05	0.64	PCI/G
SC-33805-S	4/25/2000	THORIUM-230	1.01	0.64	PCI/G
SC-33805-U	6/29/2000	THORIUM-230	1.06	0.64	PCI/G
SC-33806-S	6/6/2000	THORIUM-230	1.04	0.64	PCI/G
SC-33806-U	6/30/2000	THORIUM-230	0.97	0.64	PCI/G
SC-33807-S	6/6/2000	THORIUM-230	1.21	0.64	PCI/G
SC-33807-U	6/30/2000	THORIUM-230	0.76	0.64	PCI/G
SC-33808-C	6/6/2000	THORIUM-230	0.94	0.64	PCI/G
SC-33808-S	6/6/2000	THORIUM-230	1.07	0.64	PCI/G
SC-33808-U	7/7/2000	THORIUM-230	0.79	0.64	PCI/G
SC-33809-C	6/22/2000	THORIUM-230	0.89	0.64	PCI/G
SC-33809-U	7/7/2000	THORIUM-230	0.71	0.64	PCI/G
SC-33810-U	7/7/2000	THORIUM-230	1.15	0.64	PCI/G
SC-33811-U	7/12/2000	THORIUM-230	1.03	0.62	PCI/G
SC-33812-S	4/25/2000	THORIUM-230	0.97	0.64	PCI/G
SC-33812-U	7/12/2000	THORIUM-230	0.78	0.64	PCI/G
SC-33813-S	6/6/2000	THORIUM-230	1.14	0.64	PCI/G
SC-33813-U	7/16/2000	THORIUM-230	0.9	0.65	PCI/G
SC-33814-S	6/6/2000	THORIUM-230	1.19	0.64	PCI/G
SC-33814-U	8/4/2000	THORIUM-230	1.15	0.62	PCI/G
SC-33815-S	6/6/2000	THORIUM-230	1.08	0.64	PCI/G
SC-33815-U	8/4/2000	THORIUM-230	0.84	0.64	PCI/G
SC-33816-S	6/6/2000	THORIUM-230	1.4	0.64	PCI/G
SC-33816-U	8/16/2000	THORIUM-230	2.43	0.132	PCI/G
SC-33817-S	6/3/2000	THORIUM-230	3.66	0.64	PCI/G
SC-33818-C	4/25/2000	THORIUM-230	2.37	0.64	PCI/G
SC-33819-S	6/6/2000	THORIUM-230	1.27	0.64	PCI/G
SC-33821-S	6/6/2000	THORIUM-230	0.74	0.64	PCI/G
SC-33901-S	6/1/2000	THORIUM-230	0.96	0 64	PCI/G
SC-33901-U	7/27/2000	THORIUM-230	1.33	0 65	PCI/G
SC-33902-C	6/1/2000	THORIUM-230	1.12	0.64	PCI/G
SC-33902-S	6/1/2000	THORIUM-230	1.22	0.65	PCI/G
SC-33902-U	7/27/2000	THORIUM-230	1 59	0 65	PCI/G
SC-33903-C	6/1/2000	THORIUM-230	1.29	0 65	PCI/G
SC-33903-S	6/1/2000	THORIUM-230	0.91	0.64	PCI/G
SC-33903-U	8/1/2000	THORIUM-230	0.89	0.65	PCI/G
SC-33904-C	6/1/2000	THORIUM-230	0.94	0.64	PCI/G
SC-33904-S	6/1/2000	THORIUM-230	1.28	0.65	PCI/G
SC-33904-U	8/4/2000	THORIUM-230	0.87	0.62	PCI/G
SC-33905-S	6/3/2000	THORIUM-230	1.09	0.64	PCI/G
SC-33905-U	8/4/2000	THORIUM-230	1.11	0.64	PCI/G
SC-33906-S	7/11/2000	THORIUM-230	0.85	0.65	PCI/G
SC-33906-U	8/4/2000	THORIUM-230	0.9	0.65	PCI/G
SC-33907-S	7/11/2000	THORIUM-230	0.79	0.64	PCI/G
SC-33907-U	8/4/2000	THORIUM-230	0.99	0.65	PCI/G
SC-33908-S	6/3/2000	THORIUM-230	1	0.64	PCI/G
SC-33908-U	8/16/2000	THORIUM-230	2.55	0.138	PCI/G
SC-33909-S	6/3/2000	THORIUM-230	1.15	0.64	PCI/G
SC-33909-U	8/16/2000	THORIUM-230	2.77	0.188	PCI/G
SC-33910-S	7/11/2000	THORIUM-230	2.17	0.65	PCI/G
SC-33910-U	8/16/2000	THORIUM-230	1.78	0.147	PCI/G
SC-33911-S	7/11/2000	THORIUM-230	0.81	0.62	PCI/G
SC-33912-S	6/3/2000	THORIUM-230	1 15	0.64	PCI/G
SC-33913-S	6/3/2000	THORIUM-230	0 85	0.64	PCI/G
SC-33914-S	7/11/2000	THORIUM-230	1.11	0.64	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-33915-S	7/11/2000	THORIUM-230	0.92	0.64	PCI/G
SC-33916-S	6/3/2000	THORIUM-230	1	0.64	PCI/G
SC-33917-S	6/3/2000	THORIUM-230	1.07	0.64	PCI/G
SC-33918-S	6/1/2000	THORIUM-230	1.22	0.65	PCI/G
SC-33919-S	6/1/2000	THORIUM-230	1.26	0.64	PCI/G
SC-33920-S	6/1/2000	THORIUM-230	1.03	0.64	PCI/G
SC-34001-S	7/23/2000	THORIUM-230	0.92	0.65	PCI/G
SC-34001-U	7/27/2000	THORIUM-230	1.46	0.62	PCI/G
SC-34002-C	7/23/2000	THORIUM-230	1.22	0.62	PCI/G
SC-34002-S	7/23/2000	THORIUM-230	1.19	0.64	PCI/G
SC-34002-U	8/1/2000	THORIUM-230	1.33	0.65	PCI/G
SC-34003-S	7/23/2000	THORIUM-230	1.49	0.65	PCI/G
SC-34003-U	8/1/2000	THORIUM-230	1.14	0.62	PCI/G
SC-34004-C	7/21/2000	THORIUM-230	1	0.65	PCI/G
SC-34004-S	7/21/2000	THORIUM-230	1.14	0.62	PCI/G
SC-34004-U	8/1/2000	THORIUM-230	1.16	0.64	PCI/G
SC-34005-S	7/28/2000	THORIUM-230	0.77	0.65	PCI/G
SC-34005-U	8/1/2000	THORIUM-230	0.84	0.65	PCI/G
SC-34006-S	7/28/2000	THORIUM-230	0.82	0.65	PCI/G
SC-34006-U	8/1/2000	THORIUM-230	0.96	0.62	PCI/G
SC-34007-S	7/28/2000	THORIUM-230	1.29	0.62	PCI/G
SC-34007-U	8/1/2000	THORIUM-230	1.15	0.62	PCI/G
SC-34008-S	7/21/2000	THORIUM-230	1.52	0.64	PCI/G
SC-34008-U	8/1/2000	THORIUM-230	0.98	0.64	PCI/G
SC-34009-S	7/28/2000	THORIUM-230	0.88	0.64	PCI/G
SC-34009-U	8/4/2000	THORIUM-230	1.07	0.62	PCI/G
SC-34010-S	7/28/2000	THORIUM-230	2.67	0.65	PCI/G
SC-34010-U	8/4/2000	THORIUM-230	1.23	0.62	PCI/G
SC-34011-S	7/28/2000	THORIUM-230	0.95	0.65	PCI/G
SC-34011-U	8/4/2000	THORIUM-230	0.92	0.62	PCI/G
SC-34012-S	7/21/2000	THORIUM-230	1.09	0.65	PCI/G
SC-34012-U	8/4/2000	THORIUM-230	0.99	0.64	PCI/G
SC-34013-S	7/28/2000	THORIUM-230	1.07	0.62	PCI/G
SC-34013-U	8/16/2000	THORIUM-230	3.24	0.361	PCI/G
SC-34014-S	7/28/2000	THORIUM-230	1.78	0.64	PCI/G
SC-34014-U	8/17/2000	THORIUM-230	1.54	0.126	PCI/G
SC-34015-S	7/28/2000	THORIUM-230	1.35	0.65	PCI/G
SC-34015-U	8/17/2000	THORIUM-230	1.32	0.17	PCI/G
SC-34016-S	7/21/2000	THORIUM-230	1.12	0.65	PCI/G
SC-34017-S	7/23/2000	THORIUM-230	1.38	0.62	PCI/G
SC-34018-S	7/21/2000	THORIUM-230	0.88	0.64	PCI/G
SC-34019-S	7/21/2000	THORIUM-230	5.92	0.65	PCI/G
SC-34020-S	7/21/2000	THORIUM-230	0.96	0.65	PCI/G
SC-34101-S	7/26/2000	THORIUM-230	1.62	0.62	PCI/G
SC-34101-U	8/1/2000	THORIUM-230	0.9	0.65	PCI/G
SC-34102-C	7/26/2000	THORIUM-230	1.34	0.64	PCI/G
SC-34102-S	7/26/2000	THORIUM-230	0.97	0.65	PCI/G
SC-34102-U	8/2/2000	THORIUM-230	1.09	0.65	PCI/G
SC-34103-S	7/22/2000	THORIUM-230	1.97	0.62	PCI/G
SC-34103-U	8/2/2000	THORIUM-230	1.37	0.62	PCI/G
SC-34104-C	7/22/2000	THORIUM-230	3.02	0.64	PCI/G
SC-34104-S	7/22/2000	THORIUM-230	1.37	0.65	PCI/G
SC-34104-U	8/2/2000	THORIUM-230	1.33	0.62	PCI/G
SC-34105-S	7/26/2000	THORIUM-230	0.98	0.65	PCI/G
SC-34105-U	8/2/2000	THORIUM-230	1.12	0.64	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34106-S	7/26/2000	THORIUM-230	1.15	0.62	PCI/G
SC-34106-U	8/2/2000	THORIUM-230	1.29	0.64	PCI/G
SC-34107-S	7/26/2000	THORIUM-230	1.49	0.64	PCI/G
SC-34107-U	8/2/2000	THORIUM-230	1.31	0.62	PCI/G
SC-34108-S	7/22/2000	THORIUM-230	1.34	0.65	PCI/G
SC-34108-U	8/2/2000	THORIUM-230	1.57	0.64	PCI/G
SC-34109-S	7/26/2000	THORIUM-230	1.13	0.65	PCI/G
SC-34109-U	8/2/2000	THORIUM-230	1.27	0.65	PCI/G
SC-34110-S	7/26/2000	THORIUM-230	0.96	0.65	PCI/G
SC-34110-U	8/2/2000	THORIUM-230	1.23	0.62	PCI/G
SC-34111-S	7/26/2000	THORIUM-230	0.82	0.62	PCI/G
SC-34111-U	8/3/2000	THORIUM-230	1.32	0.65	PCI/G
SC-34112-S	7/22/2000	THORIUM-230	1.28	0.62	PCI/G
SC-34112-U	8/3/2000	THORIUM-230	1 15	0.62	PCI/G
SC-34113-S	7/26/2000	THORIUM-230	1.24	0.64	PCI/G
SC-34113-U	8/3/2000	THORIUM-230	1 09	0.64	PCI/G
SC-34114-S	7/26/2000	THORIUM-230	1.08	0.65	PCI/G
SC-34114-U	8/4/2000	THORIUM-230	0.87	0.65	PCI/G
SC-34115-S	7/26/2000	THORIUM-230	1.06	0.64	PCI/G
SC-34115-U	8/4/2000	THORIUM-230	0.87	0.65	PCI/G
SC-34116-S	7/22/2000	THORIUM-230	1.35	0.64	PCI/G
SC-34116-U	8/4/2000	THORIUM-230	0.9	0.62	PCI/G
SC-34117-S	7/26/2000	THORIUM-230	1.11	0.65	PCI/G
SC-34117-U	8/4/2000	THORIUM-230	1.08	0.64	PCI/G
SC-34118-S	7/26/2000	THORIUM-230	1.51	0.65	PCI/G
SC-34118-U	8/4/2000	THORIUM-230	0.99	0 65	PCI/G
SC-34119-S	7/26/2000	THORIUM-230	1.01	0.62	PCI/G
SC-34119-U	8/4/2000	THORIUM-230	1.04	0.62	PCI/G
SC-34120-S	7/22/2000	THORIUM-230	1.19	0 65	PCI/G
SC-34120-U	8/10/2000	THORIUM-230	0.89	0.64	PCI/G
SC-34121-U	8/10/2000	THORIUM-230	0.96	0.64	PCI/G
SC-34122-U	8/12/2000	THORIUM-230	1.05	0.62	PCI/G
SC-34123-U	8/12/2000	THORIUM-230	0.85	0.64	PCI/G
SC-34124-U	8/12/2000	THORIUM-230	1.41	0.64	PCI/G
SC-34201-U	8/16/2000	THORIUM-230	1.42	0.64	PCI/G
SC-34202-C	7/26/2000	THORIUM-230	1.26	0.64	PCI/G
SC-34202-S	5/20/2000	THORIUM-230	1.2	0.64	PCI/G
SC-34203-S	7/26/2000	THORIUM-230	1.08	0.65	PCI/G
SC-34204-C	7/26/2000	THORIUM-230	1.09	0.65	PCI/G
SC-34204-S	7/26/2000	THORIUM-230	1.05	0.62	PCI/G
SC-34205-C	5/20/2000	THORIUM-230	1.15	0.64	PCI/G
SC-34206-S	5/20/2000	THORIUM-230	3.24	0 64	PCI/G
SC-34207-S	7/26/2000	THORIUM-230	0.95	0.64	PCI/G
SC-34208-S	7/26/2000	THORIUM-230	1.13	0.65	PCI/G
SC-34210-S	5/20/2000	THORIUM-230	5.16	0.64	PCI/G
SC-34211-S	7/26/2000	THORIUM-230	1.21	0.65	PCI/G
SC-34212-S	7/26/2000	THORIUM-230	1.01	0.62	PCI/G
SC-34213-C	5/20/2000	THORIUM-230	2.87	0.64	PCI/G
SC-34214-S	5/20/2000	THORIUM-230	2.75	0 64	PCI/G
SC-34215-S	7/31/2000	THORIUM-230	0.87	0.65	PCI/G
SC-34216-S	7/31/2000	THORIUM-230	1.59	0 62	PCI/G
SC-34217-S	7/26/2000	THORIUM-230	1.61	0.64	PCI/G
SC-34218-C	5/20/2000	THORIUM-230	6.6	0.64	PCI/G
SC-34218-C-HS01	5/30/2000	THORIUM-230	0.81	0 65	PCI/G
SC-34218-C-HS02	5/30/2000	THORIUM-230	0 93	0 64	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34218-C-HS03	5/30/2000	THORIUM-230	0.82	0.64	PCI/G
SC-34218-C-HS04	5/30/2000	THORIUM-230	0.99	0.65	PCI/G
SC-34219-S	5/20/2000	THORIUM-230	3.66	0.64	PCI/G
SC-34220-S	5/20/2000	THORIUM-230	3.32	0.64	PCI/G
SC-34221-S	7/31/2000	THORIUM-230	0.92	0.64	PCI/G
SC-34222-S	7/26/2000	THORIUM-230	1.45	0.65	PCI/G
SC-34301-S	5/20/2000	THORIUM-230	2.28	0.64	PCI/G
SC-34301-U	5/18/2000	THORIUM-230	1.9	0.62	PCI/G
SC-34302-S	5/20/2000	THORIUM-230	1.49	0.64	PCI/G
SC-34302-U	5/18/2000	THORIUM-230	1	0.62	PCI/G
SC-34303-S	7/31/2000	THORIUM-230	1.21	0.65	PCI/G
SC-34303-U	5/18/2000	THORIUM-230	0.97	0.64	PCI/G
SC-34304-S	7/26/2000	THORIUM-230	1.22	0.65	PCI/G
SC-34304-U	8/2/2000	THORIUM-230	1.07	0.62	PCI/G
SC-34305-S	5/20/2000	THORIUM-230	1.12	0.64	PCI/G
SC-34305-U	8/2/2000	THORIUM-230	1.12	0.64	PCI/G
SC-34306-S	5/20/2000	THORIUM-230	2.06	0.64	PCI/G
SC-34306-U	8/2/2000	THORIUM-230	1.02	0.65	PCI/G
SC-34307-S	3/7/2000	THORIUM-230	0.89	0.64	PCI/G
SC-34307-U	8/15/2000	THORIUM-230	2.55	0.183	PCI/G
SC-34308-S	4/13/2000	THORIUM-230	1.19	0.64	PCI/G
SC-34308-U	8/15/2000	THORIUM-230	0.8	0.64	PCI/G
SC-34309-S	5/20/2000	THORIUM-230	1.16	0.64	PCI/G
SC-34309-U	8/15/2000	THORIUM-230	1.02	0.65	PCI/G
SC-34310-S	5/18/2000	THORIUM-230	1.52	0.62	PCI/G
SC-34311-S	3/7/2000	THORIUM-230	0.87	0.64	PCI/G
SC-34312-S	4/13/2000	THORIUM-230	1.16	0.62	PCI/G
SC-34313-S	5/18/2000	THORIUM-230	0.8	0.62	PCI/G
SC-34314-S	5/18/2000	THORIUM-230	1.02	0.62	PCI/G
SC-34315-S	3/7/2000	THORIUM-230	1.21	0.64	PCI/G
SC-34316-S	4/13/2000	THORIUM-230	1.12	0.64	PCI/G
SC-34318-C	5/18/2000	THORIUM-230	0.77	0.64	PCI/G
SC-34319-S	5/18/2000	THORIUM-230	0.86	0.62	PCI/G
SC-34320-S	3/7/2000	THORIUM-230	1.04	0.62	PCI/G
SC-34321-S	4/13/2000	THORIUM-230	1.24	0.62	PCI/G
SC-34401-S	7/26/2000	THORIUM-230	0.95	0.62	PCI/G
SC-34401-U	5/19/2000	THORIUM-230	1.02	0.62	PCI/G
SC-34402-S	7/26/2000	THORIUM-230	1.2	0.64	PCI/G
SC-34402-U	8/1/2000	THORIUM-230	1.02	0.64	PCI/G
SC-34403-S	7/26/2000	THORIUM-230	1.36	0.65	PCI/G
SC-34403-U	8/1/2000	THORIUM-230	0.84	0.62	PCI/G
SC-34404-S	7/22/2000	THORIUM-230	1.15	0.65	PCI/G
SC-34404-U	8/1/2000	THORIUM-230	1.33	0.64	PCI/G
SC-34405-S	4/13/2000	THORIUM-230	0.99	0.64	PCI/G
SC-34405-U	8/2/2000	THORIUM-230	1.17	0.62	PCI/G
SC-34406-S	4/13/2000	THORIUM-230	0.98	0.62	PCI/G
SC-34406-U	8/2/2000	THORIUM-230	1.18	0.62	PCI/G
SC-34407-S	4/13/2000	THORIUM-230	0.88	0.64	PCI/G
SC-34407-U	8/12/2000	THORIUM-230	1.15	0.64	PCI/G
SC-34408-S	5/5/2000	THORIUM-230	1.02	0.62	PCI/G
SC-34408-U	8/12/2000	THORIUM-230	1.11	0.62	PCI/G
SC-34409-S	4/13/2000	THORIUM-230	1.27	0.62	PCI/G
SC-34409-U	8/12/2000	THORIUM-230	0.73	0.64	PCI/G
SC-34410-S	4/13/2000	THORIUM-230	2.6	0.64	PCI/G
SC-34410-U	8/15/2000	THORIUM-230	7.63	0.144	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34411-S	4/13/2000	THORIUM-230	1.01	0.62	PCI/G
SC-34412-S	5/5/2000	THORIUM-230	1.05	0.62	PCI/G
SC-34413-S	4/13/2000	THORIUM-230	8.9	0.64	PCI/G
SC-34413-S-RS	4/27/2000	THORIUM-230	1.09	0.64	PCI/G
SC-34414-S	4/13/2000	THORIUM-230	1.44	0.62	PCI/G
SC-34415-S	4/13/2000	THORIUM-230	0.94	0.64	PCI/G
SC-34416-S	5/5/2000	THORIUM-230	1.34	0.64	PCI/G
SC-34417-S	4/13/2000	THORIUM-230	4.23	0.62	PCI/G
SC-34418-S	4/13/2000	THORIUM-230	2.58	0.64	PCI/G
SC-34419-S	4/13/2000	THORIUM-230	0.88	0.62	PCI/G
SC-34420-S	5/5/2000	THORIUM-230	0.83	0.64	PCI/G
SC-34601-U	7/7/2000	THORIUM-230	0.88	0.62	PCI/G
SC-34602-U	7/10/2000	THORIUM-230	0.79	0.65	PCI/G
SC-34603-U	7/10/2000	THORIUM-230	1.13	0.62	PCI/G
SC-34604-U	7/10/2000	THORIUM-230	0.8	0.64	PCI/G
SC-34801-S	4/13/2000	THORIUM-230	1.06	0.64	PCI/G
SC-34801-U	5/19/2000	THORIUM-230	0.99	0.64	PCI/G
SC-34802-S	5/5/2000	THORIUM-230	1.09	0.62	PCI/G
SC-34802-U	5/19/2000	THORIUM-230	0.89	0.62	PCI/G
SC-34803-U	5/19/2000	THORIUM-230	0.8	0.62	PCI/G
SC-34804-U	5/19/2000	THORIUM-230	0.95	0.64	PCI/G
SC-34805-U	5/19/2000	THORIUM-230	0.93	0.62	PCI/G
SC-34806-S	4/13/2000	THORIUM-230	0.89	0.62	PCI/G
SC-34807-S	5/5/2000	THORIUM-230	0.95	0.62	PCI/G
SC-34811-S	4/13/2000	THORIUM-230	1.14	0.64	PCI/G
SC-34812-S	5/5/2000	THORIUM-230	0.91	0.64	PCI/G
SC-34816-S	5/8/2000	THORIUM-230	1.53	0.65	PCI/G
SC-34817-S	5/8/2000	THORIUM-230	1.2	0.64	PCI/G
SC-34901-U	3/30/2000	THORIUM-230	0.9	0.64	PCI/G
SC-34902-S	5/18/2000	THORIUM-230	0.88	0.64	PCI/G
SC-34902-U	3/30/2000	THORIUM-230	0.99	0.64	PCI/G
SC-34903-S	3/7/2000	THORIUM-230	1.07	0.64	PCI/G
SC-34903-U	3/30/2000	THORIUM-230	0.74	0.64	PCI/G
SC-34904-S	4/13/2000	THORIUM-230	0.99	0.62	PCI/G
SC-34904-U	3/30/2000	THORIUM-230	0.85	0.64	PCI/G
SC-34905-S	4/13/2000	THORIUM-230	1.45	0.64	PCI/G
SC-34905-U	3/30/2000	THORIUM-230	0.84	0.64	PCI/G
SC-34906-S	4/13/2000	THORIUM-230	0.83	0.62	PCI/G
SC-34906-U	5/17/2000	THORIUM-230	0.92	0.62	PCI/G
SC-34907-U	5/20/2000	THORIUM-230	0.78	0.62	PCI/G
SC-34908-S	5/18/2000	THORIUM-230	1.34	0.62	PCI/G
SC-34908-U	5/20/2000	THORIUM-230	0.8	0 62	PCI/G
SC-34909-S	3/7/2000	THORIUM-230	1.51	0.62	PCI/G
SC-34909-U	5/20/2000	THORIUM-230	0.96	0.64	PCI/G
SC-34910-S	4/13/2000	THORIUM-230	1.75	0.64	PCI/G
SC-34911-S	4/13/2000	THORIUM-230	1.32	0.62	PCI/G
SC-34912-S	4/13/2000	THORIUM-230	7.06	0.64	PCI/G
SC-34912-S-RS	4/27/2000	THORIUM-230	0.93	0.64	PCI/G
SC-34913-C	4/17/2000	THORIUM-230	1.81	0 62	PCI/G
SC-34913-C-01	5/11/2000	THORIUM-230	0.73	0.64	PCI/G
SC-34914-S	4/17/2000	THORIUM-230	0.78	0.62	PCI/G
SC-34914-S-01	5/11/2000	THORIUM-230	0.64	0.64	PCI/G
SC-34915-S	3/7/2000	THORIUM-230	1.42	0.64	PCI/G
SC-34916-S	4/13/2000	THORIUM-230	1.5	0.62	PCI/G
SC-34917-S	4/13/2000	THORIUM-230	1.12	0.64	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34918-S	4/13/2000	THORIUM-230	3.49	0.62	PCI/G
SC-34920-S	4/17/2000	THORIUM-230	12.2	0.64	PCI/G
SC-34920-S-01	5/11/2000	THORIUM-230	0.92	0.65	PCI/G
SC-34920-S-RS	4/27/2000	THORIUM-230	0.81	0.64	PCI/G
SC-34921-S	4/17/2000	THORIUM-230	1.26	0.64	PCI/G
SC-34922-S	3/8/2000	THORIUM-230	1.05	0.64	PCI/G
SC-34923-S	3/29/2000	THORIUM-230	0.98	0.64	PCI/G
SC-34924-S	3/29/2000	THORIUM-230	0.96	0.64	PCI/G
SC-34925-S	5/8/2000	THORIUM-230	0.96	0.64	PCI/G
SC-35001-U	3/30/2000	THORIUM-230	1	0.64	PCI/G
SC-35002-U	3/30/2000	THORIUM-230	0.98	0.64	PCI/G
SC-35003-S	4/17/2000	THORIUM-230	0.95	0.62	PCI/G
SC-35003-U	3/30/2000	THORIUM-230	1.26	0.64	PCI/G
SC-35004-S	3/8/2000	THORIUM-230	1.24	0.64	PCI/G
SC-35004-U	3/30/2000	THORIUM-230	0.91	0.64	PCI/G
SC-35005-S	3/29/2000	THORIUM-230	1.01	0.64	PCI/G
SC-35005-U	3/30/2000	THORIUM-230	1.13	0.64	PCI/G
SC-35006-C	4/17/2000	THORIUM-230	0.85	0.62	PCI/G
SC-35006-U	3/30/2000	THORIUM-230	1.04	0.64	PCI/G
SC-35007-S	4/17/2000	THORIUM-230	1.02	0.64	PCI/G
SC-35007-U	3/30/2000	THORIUM-230	0.96	0.64	PCI/G
SC-35008-S	3/8/2000	THORIUM-230	0.96	0.62	PCI/G
SC-35008-U	3/30/2000	THORIUM-230	1.13	0.64	PCI/G
SC-35009-S	4/17/2000	THORIUM-230	0.92	0.64	PCI/G
SC-35009-U	3/30/2000	THORIUM-230	0.76	0.64	PCI/G
SC-35010-U	5/5/2000	THORIUM-230	1.06	0.64	PCI/G
SC-35011-S	4/17/2000	THORIUM-230	1.34	0.62	PCI/G
SC-35011-U	5/5/2000	THORIUM-230	1.05	0.62	PCI/G
SC-35012-S	3/8/2000	THORIUM-230	1.15	0.64	PCI/G
SC-35501-U	5/13/2000	THORIUM-230	0.67	0.62	PCI/G
SC-35013-S	4/17/2000	THORIUM-230	0.85	0.62	PCI/G
SC-35502-U	5/13/2000	THORIUM-230	0.85	0.62	PCI/G
SC-35014-C	4/17/2000	THORIUM-230	1.06	0.64	PCI/G
SC-35503-U	5/13/2000	THORIUM-230	0.9	0.62	PCI/G
SC-35015-S	4/17/2000	THORIUM-230	0.9	0.64	PCI/G
SC-35504-U	5/13/2000	THORIUM-230	0.89	0.64	PCI/G
SC-35016-S	3/8/2000	THORIUM-230	1.06	0.64	PCI/G
SC-35505-U	5/13/2000	THORIUM-230	0.95	0.62	PCI/G
SC-35017-S	4/28/2000	THORIUM-230	0.85	0.62	PCI/G
SC-35017-U	5/20/2000	THORIUM-230	0.79	0.62	PCI/G
SC-35018-C	4/17/2000	THORIUM-230	1.26	0.62	PCI/G
SC-35018-U	5/20/2000	THORIUM-230	0.8	0.62	PCI/G
SC-35019-S	4/29/2000	THORIUM-230	1.2	0.65	PCI/G
SC-35019-U	5/20/2000	THORIUM-230	0.91	0.62	PCI/G
SC-35020-S	3/8/2000	THORIUM-230	1.15	0.64	PCI/G
SC-35020-U	5/20/2000	THORIUM-230	0.94	0.64	PCI/G
SC-35021-S	4/28/2000	THORIUM-230	1.06	0.62	PCI/G
SC-35021-U	5/20/2000	THORIUM-230	2.3	0.62	PCI/G
SC-35101-S	3/29/2000	THORIUM-230	1.08	0.64	PCI/G
SC-35101-U	5/17/2000	THORIUM-230	1.29	0.64	PCI/G
SC-35102-S	4/28/2000	THORIUM-230	1.18	0.64	PCI/G
SC-35102-U	5/17/2000	THORIUM-230	1.27	0.62	PCI/G
SC-35103-S	4/28/2000	THORIUM-230	1.02	0.64	PCI/G
SC-35103-U	5/17/2000	THORIUM-230	0.89	0.62	PCI/G
SC-35104-S	5/6/2000	THORIUM-230	0.99	0.64	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35104-U	6/4/2000	THORIUM-230	0.71	0.64	PCI/G
SC-35105-S	4/28/2000	THORIUM-230	0.96	0.62	PCI/G
SC-35105-U	6/4/2000	THORIUM-230	0 76	0.64	PCI/G
SC-35106-S	4/28/2000	THORIUM-230	0.99	0.62	PCI/G
SC-35106-U	6/4/2000	THORIUM-230	1.12	0.64	PCI/G
SC-35107-S	4/28/2000	THORIUM-230	1.12	0.64	PCI/G
SC-35107-U	6/4/2000	THORIUM-230	0.96	0.64	PCI/G
SC-35108-S	5/6/2000	THORIUM-230	0.89	0.64	PCI/G
SC-35108-U	6/4/2000	THORIUM-230	0.72	0.64	PCI/G
SC-35109-S	4/28/2000	THORIUM-230	0.77	0.64	PCI/G
SC-35110-S	4/28/2000	THORIUM-230	1.17	0.62	PCI/G
SC-35111-S	4/28/2000	THORIUM-230	0.93	0.62	PCI/G
SC-35112-S	5/6/2000	THORIUM-230	0.94	0.64	PCI/G
SC-35113-S	4/28/2000	THORIUM-230	0.92	0.64	PCI/G
SC-35114-S	4/28/2000	THORIUM-230	1.01	0.62	PCI/G
SC-35115-S	4/28/2000	THORIUM-230	1.06	0.64	PCI/G
SC-35116-S	5/6/2000	THORIUM-230	0.88	0.65	PCI/G
SC-35117-S	4/28/2000	THORIUM-230	1 01	0 64	PCI/G
SC-35118-S	4/28/2000	THORIUM-230	0.99	0.62	PCI/G
SC-35119-S	4/21/2000	THORIUM-230	1 05	0 64	PCI/G
SC-35120-S	5/6/2000	THORIUM-230	0 86	0 64	PCI/G
SC-35201-S	5/6/2000	THORIUM-230	1 06	0.65	PCI/G
SC-35202-S	5/6/2000	THORIUM-230	0.87	0.64	PCI/G
SC-35203-S	5/6/2000	THORIUM-230	1.03	0.64	PCI/G
SC-35204-S	6/2/2000	THORIUM-230	1.06	0.64	PCI/G
SC-35205-S	5/6/2000	THORIUM-230	0.89	0 64	PCI/G
SC-35206-S	5/6/2000	THORIUM-230	0.84	0.65	PCI/G
SC-35207-S	6/2/2000	THORIUM-230	1.14	0.65	PCI/G
SC-35208-S	5/6/2000	THORIUM-230	0.97	0 64	PCI/G
SC-35209-S	5/6/2000	THORIUM-230	0.85	0.64	PCI/G
SC-35213-S	5/6/2000	THORIUM-230	0.8	0 64	PCI/G
SC-35214-S	5/6/2000	THORIUM-230	0.98	0.65	PCI/G
SC-35215-S	5/6/2000	THORIUM-230	0.88	0.64	PCI/G
SC-35219-S	5/6/2000	THORIUM-230	0 97	0.64	PCI/G
SC-35220-S	5/6/2000	THORIUM-230	1	0.64	PCI/G
SC-35221-S	5/6/2000	THORIUM-230	1 07	0.65	PCI/G
SC-35307-C	5/8/2000	THORIUM-230	0.91	0 64	PCI/G
SC-35310-C	6/16/2000	THORIUM-230	1.12	0 64	PCI/G
SC-35310-S	6/16/2000	THORIUM-230	1.26	0 64	PCI/G
SC-35316-C	5/8/2000	THORIUM-230	1.21	0 65	PCI/G
SC-35320-C	5/8/2000	THORIUM-230	1.61	0.64	PCI/G
SC-35401-S	4/29/2000	THORIUM-230	0.98	0.62	PCI/G
SC-35402-S	4/21/2000	THORIUM-230	0.91	0.64	PCI/G
SC-35403-S	4/21/2000	THORIUM-230	1.13	0.62	PCI/G
SC-35404-S	4/21/2000	THORIUM-230	1.14	0.62	PCI/G
SC-35405-S	4/29/2000	THORIUM-230	1.24	0.64	PCI/G
SC-35406-S	4/21/2000	THORIUM-230	0.9	0.64	PCI/G
SC-35407-S	4/21/2000	THORIUM-230	1.22	0.64	PCI/G
SC-35408-S	4/21/2000	THORIUM-230	1.3	0.62	PCI/G
SC-35409-S	4/29/2000	THORIUM-230	1 23	0 64	PCI/G
SC-35410-S	4/21/2000	THORIUM-230	0.92	0.62	PCI/G
SC-35411-S	4/21/2000	THORIUM-230	0.92	0.64	PCI/G
SC-35412-S	4/21/2000	THORIUM-230	1.15	0 62	PCI/G
SC-35413-S	4/29/2000	THORIUM-230	2.46	0 62	PCI/G
SC-35414-S	4/21/2000	THORIUM-230	0.8	0.64	PCI/G

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SC-35415-S	4/21/2000	THORIUM-230	1.17	0.64	PCI/G
SC-35416-S	4/21/2000	THORIUM-230	1.31	0.62	PCI/G
SC-35417-S	4/29/2000	THORIUM-230	1.35	0.62	PCI/G
SC-35418-S	4/21/2000	THORIUM-230	0.86	0.62	PCI/G
SC-35419-S	4/21/2000	THORIUM-230	1.29	0.64	PCI/G
SC-35420-S	4/21/2000	THORIUM-230	1.08	0.62	PCI/G
SC-35601-S	4/21/2000	THORIUM-230	1.1	0.62	PCI/G
SC-35602-S	4/21/2000	THORIUM-230	0.9	0.62	PCI/G
SC-35603-S	4/21/2000	THORIUM-230	0.97	0.64	PCI/G
SC-35604-S	4/21/2000	THORIUM-230	1.08	0.64	PCI/G
SC-35605-S	4/21/2000	THORIUM-230	0.84	0.62	PCI/G
SC-35606-S	4/21/2000	THORIUM-230	1.01	0.62	PCI/G
SC-35610-S	4/21/2000	THORIUM-230	0.86	0.64	PCI/G
SC-35611-S	4/21/2000	THORIUM-230	1.03	0.64	PCI/G
SC-35612-S	4/21/2000	THORIUM-230	0.71	0.64	PCI/G
SC-33801-U	6/27/2000	URANIUM-238	1.16	2.32	PCI/G
SC-33802-S	6/6/2000	URANIUM-238	1.095	2.19	PCI/G
SC-33802-U	6/29/2000	URANIUM-238	4.08	2.09	PCI/G
SC-33803-S	6/6/2000	URANIUM-238	6.7	2.16	PCI/G
SC-33803-U	6/29/2000	URANIUM-238	1.6	2.5	PCI/G
SC-33804-S	6/1/2000	URANIUM-238	1.145	2.29	PCI/G
SC-33804-U	6/29/2000	URANIUM-238	3.31	1.92	PCI/G
SC-33805-C	4/25/2000	URANIUM-238	0.645	1.29	PCI/G
SC-33805-S	4/25/2000	URANIUM-238	1.135	2.27	PCI/G
SC-33805-U	6/29/2000	URANIUM-238	1.08	2.16	PCI/G
SC-33806-S	6/6/2000	URANIUM-238	1.255	2.51	PCI/G
SC-33806-U	6/30/2000	URANIUM-238	1.055	2.11	PCI/G
SC-33807-S	6/6/2000	URANIUM-238	1.155	2.31	PCI/G
SC-33807-U	6/30/2000	URANIUM-238	1.06	2.12	PCI/G
SC-33808-C	6/6/2000	URANIUM-238	1.21	2.42	PCI/G
SC-33808-S	6/6/2000	URANIUM-238	5.88	2.13	PCI/G
SC-33808-U	7/7/2000	URANIUM-238	1.085	2.17	PCI/G
SC-33809-U	7/7/2000	URANIUM-238	1.055	2.11	PCI/G
SC-33810-U	7/7/2000	URANIUM-238	1.02	2.04	PCI/G
SC-33811-S	6/3/2000	URANIUM-238	1.03	2.06	PCI/G
SC-33811-U	7/12/2000	URANIUM-238	1.29	2.58	PCI/G
SC-33812-S	4/25/2000	URANIUM-238	1.195	2.39	PCI/G
SC-33812-U	7/12/2000	URANIUM-238	1.19	2.38	PCI/G
SC-33813-S	6/6/2000	URANIUM-238	1.53	2.42	PCI/G
SC-33813-U	7/16/2000	URANIUM-238	1.065	2.13	PCI/G
SC-33814-S	6/6/2000	URANIUM-238	1.15	2.3	PCI/G
SC-33814-U	8/4/2000	URANIUM-238	5.2	2.4	PCI/G
SC-33815-S	6/6/2000	URANIUM-238	3.67	2.63	PCI/G
SC-33815-U	8/4/2000	URANIUM-238	1.16	2.32	PCI/G
SC-33816-S	6/6/2000	URANIUM-238	5.38	1.95	PCI/G
SC-33816-U	8/16/2000	URANIUM-238	1.1	2.2	PCI/G
SC-33817-S	6/3/2000	URANIUM-238	1.17	2.34	PCI/G
SC-33818-C	4/25/2000	URANIUM-238	0.97	1.94	PCI/G
SC-33818-S	4/25/2000	URANIUM-238	1.15	2.3	PCI/G
SC-33819-S	6/6/2000	URANIUM-238	1.72	2.27	PCI/G
SC-33821-S	6/6/2000	URANIUM-238	5.41	1.94	PCI/G
SC-33823-S	6/3/2000	URANIUM-238	1.015	2.03	PCI/G
SC-33824-S	4/25/2000	URANIUM-238	0.86	1.72	PCI/G
SC-33829-C	4/25/2000	URANIUM-238	0.955	1.91	PCI/G
SC-33829-S	4/25/2000	URANIUM-238	1.105	2.21	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-33901-S	6/1/2000	URANIUM-238	1.2	2.4	PCI/G
SC-33901-U	7/27/2000	URANIUM-238	1.4	2.8	PCI/G
SC-33902-C	6/1/2000	URANIUM-238	3.39	1.75	PCI/G
SC-33902-S	6/1/2000	URANIUM-238	2.46	2.31	PCI/G
SC-33902-U	7/27/2000	URANIUM-238	5.16	1.82	PCI/G
SC-33903-C	6/1/2000	URANIUM-238	1.22	2.44	PCI/G
SC-33903-S	6/1/2000	URANIUM-238	3.26	2.36	PCI/G
SC-33903-U	8/1/2000	URANIUM-238	1.035	2.07	PCI/G
SC-33904-C	6/1/2000	URANIUM-238	1.09	2.18	PCI/G
SC-33904-S	6/1/2000	URANIUM-238	1.095	2.19	PCI/G
SC-33904-U	8/4/2000	URANIUM-238	1.09	2.18	PCI/G
SC-33905-S	6/3/2000	URANIUM-238	1.16	2.32	PCI/G
SC-33905-U	8/4/2000	URANIUM-238	1.105	2.21	PCI/G
SC-33906-S	7/11/2000	URANIUM-238	1.09	2 18	PCI/G
SC-33906-U	8/4/2000	URANIUM-238	4.6	2 52	PCI/G
SC-33907-S	7/11/2000	URANIUM-238	1.15	2.3	PCI/G
SC-33907-U	8/4/2000	URANIUM-238	1.295	2 59	PCI/G
SC-33908-S	6/3/2000	URANIUM-238	1.13	2.26	PCI/G
SC-33908-U	8/16/2000	URANIUM-238	1.78	3.73	PCI/G
SC-33909-S	6/3/2000	URANIUM-238	1.09	2 18	PCI/G
SC-33909-U	8/16/2000	URANIUM-238	1.98	4.03	PCI/G
SC-33910-S	7/11/2000	URANIUM-238	1.305	2 61	PCI/G
SC-33910-U	8/16/2000	URANIUM-238	1.13	2.03	PCI/G
SC-33911-S	7/11/2000	URANIUM-238	0.95	1.9	PCI/G
SC-33912-S	6/3/2000	URANIUM-238	1 08	2.16	PCI/G
SC-33913-S	6/3/2000	URANIUM-238	1.135	2.27	PCI/G
SC-33914-S	7/11/2000	URANIUM-238	1.105	2.21	PCI/G
SC-33915-S	7/11/2000	URANIUM-238	1.045	2.09	PCI/G
SC-33916-S	6/3/2000	URANIUM-238	1.115	2.23	PCI/G
SC-33917-S	6/3/2000	URANIUM-238	1.045	2 09	PCI/G
SC-33918-S	6/1/2000	URANIUM-238	1.095	2 19	PCI/G
SC-33919-S	6/1/2000	URANIUM-238	1.055	2 11	PCI/G
SC-33920-S	6/1/2000	URANIUM-238	1.15	2 3	PCI/G
SC-34001-S	7/23/2000	URANIUM-238	1.23	2.46	PCI/G
SC-34001-U	7/27/2000	URANIUM-238	1.32	2 64	PCI/G
SC-34002-C	7/23/2000	URANIUM-238	1.185	2.37	PCI/G
SC-34002-S	7/23/2000	URANIUM-238	1.175	2.35	PCI/G
SC-34002-U	8/1/2000	URANIUM-238	14.6	2.27	PCI/G
SC-34003-S	7/23/2000	URANIUM-238	1.1	2 2	PCI/G
SC-34003-U	8/1/2000	URANIUM-238	1.655	3.31	PCI/G
SC-34004-C	7/21/2000	URANIUM-238	1.06	2.12	PCI/G
SC-34004-S	7/21/2000	URANIUM-238	1.11	2.22	PCI/G
SC-34004-U	8/1/2000	URANIUM-238	8.35	2.22	PCI/G
SC-34005-S	7/28/2000	URANIUM-238	1.085	2.17	PCI/G
SC-34005-U	8/1/2000	URANIUM-238	1.05	2.1	PCI/G
SC-34006-S	7/28/2000	URANIUM-238	1.115	2.23	PCI/G
SC-34006-U	8/1/2000	URANIUM-238	1.075	2.15	PCI/G
SC-34007-S	7/28/2000	URANIUM-238	1.085	2.17	PCI/G
SC-34007-U	8/1/2000	URANIUM-238	1.055	2.11	PCI/G
SC-34008-S	7/21/2000	URANIUM-238	1.125	2.25	PCI/G
SC-34008-U	8/1/2000	URANIUM-238	1.01	2.02	PCI/G
SC-34009-S	7/28/2000	URANIUM-238	1.13	2.26	PCI/G
SC-34009-U	8/4/2000	URANIUM-238	1.085	2.17	PCI/G
SC-34010-S	7/28/2000	URANIUM-238	1.055	2.11	PCI/G
SC-34010-U	8/4/2000	URANIUM-238	1.075	2 15	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34011-S	7/28/2000	URANIUM-238	1.075	2.15	PCI/G
SC-34011-U	8/4/2000	URANIUM-238	1.17	2.34	PCI/G
SC-34012-S	7/21/2000	URANIUM-238	1.12	2.24	PCI/G
SC-34012-U	8/4/2000	URANIUM-238	1.085	2.17	PCI/G
SC-34013-S	7/28/2000	URANIUM-238	1.005	2.01	PCI/G
SC-34013-U	8/16/2000	URANIUM-238	0.699	4.21	PCI/G
SC-34014-S	7/28/2000	URANIUM-238	1.16	2.32	PCI/G
SC-34014-U	8/17/2000	URANIUM-238	1.07	1.53	PCI/G
SC-34015-S	7/28/2000	URANIUM-238	1.03	2.06	PCI/G
SC-34015-U	8/17/2000	URANIUM-238	1.53	2.51	PCI/G
SC-34016-S	7/21/2000	URANIUM-238	1.08	2.16	PCI/G
SC-34017-S	7/23/2000	URANIUM-238	1.09	2.18	PCI/G
SC-34018-S	7/21/2000	URANIUM-238	1.195	2.39	PCI/G
SC-34019-S	7/21/2000	URANIUM-238	1.2	2.4	PCI/G
SC-34020-S	7/21/2000	URANIUM-238	1.155	2.31	PCI/G
SC-34101-S	7/26/2000	URANIUM-238	1.14	2.28	PCI/G
SC-34101-U	8/1/2000	URANIUM-238	0.985	1.97	PCI/G
SC-34102-C	7/26/2000	URANIUM-238	1.49	2.98	PCI/G
SC-34102-S	7/26/2000	URANIUM-238	1.055	2.11	PCI/G
SC-34102-U	8/2/2000	URANIUM-238	1.06	2.12	PCI/G
SC-34103-S	7/22/2000	URANIUM-238	1.095	2.19	PCI/G
SC-34103-U	8/2/2000	URANIUM-238	1.21	2.42	PCI/G
SC-34104-C	7/22/2000	URANIUM-238	0.99	1.98	PCI/G
SC-34104-S	7/22/2000	URANIUM-238	1.135	2.27	PCI/G
SC-34104-U	8/2/2000	URANIUM-238	1.355	2.71	PCI/G
SC-34105-S	7/26/2000	URANIUM-238	1.08	2.16	PCI/G
SC-34105-U	8/2/2000	URANIUM-238	1.115	2.23	PCI/G
SC-34106-S	7/26/2000	URANIUM-238	1.18	2.36	PCI/G
SC-34106-U	8/2/2000	URANIUM-238	1.18	2.36	PCI/G
SC-34107-S	7/26/2000	URANIUM-238	1.06	2.12	PCI/G
SC-34107-U	8/2/2000	URANIUM-238	1.105	2.21	PCI/G
SC-34108-S	7/22/2000	URANIUM-238	1.06	2.12	PCI/G
SC-34108-U	8/2/2000	URANIUM-238	1.155	2.31	PCI/G
SC-34109-S	7/26/2000	URANIUM-238	1.225	2.45	PCI/G
SC-34109-U	8/2/2000	URANIUM-238	1.14	2.28	PCI/G
SC-34110-S	7/26/2000	URANIUM-238	1.17	2.34	PCI/G
SC-34110-U	8/2/2000	URANIUM-238	1.11	2.22	PCI/G
SC-34111-S	7/26/2000	URANIUM-238	1.2	2.4	PCI/G
SC-34111-U	8/3/2000	URANIUM-238	1.275	2.55	PCI/G
SC-34112-S	7/22/2000	URANIUM-238	1.185	2.37	PCI/G
SC-34112-U	8/3/2000	URANIUM-238	1.16	2.32	PCI/G
SC-34113-S	7/26/2000	URANIUM-238	1.05	2.1	PCI/G
SC-34113-U	8/3/2000	URANIUM-238	1.1	2.2	PCI/G
SC-34114-S	7/26/2000	URANIUM-238	1.215	2.43	PCI/G
SC-34114-U	8/4/2000	URANIUM-238	1.02	2.04	PCI/G
SC-34115-S	7/26/2000	URANIUM-238	1.045	2.09	PCI/G
SC-34115-U	8/4/2000	URANIUM-238	1.2	2.4	PCI/G
SC-34116-S	7/22/2000	URANIUM-238	1.07	2.14	PCI/G
SC-34116-U	8/4/2000	URANIUM-238	1.115	2.23	PCI/G
SC-34117-S	7/26/2000	URANIUM-238	1.1	2.2	PCI/G
SC-34117-U	8/4/2000	URANIUM-238	1.085	2.17	PCI/G
SC-34118-S	7/26/2000	URANIUM-238	1.165	2.33	PCI/G
SC-34118-U	8/4/2000	URANIUM-238	1.19	2.38	PCI/G
SC-34119-S	7/26/2000	URANIUM-238	1.01	2.02	PCI/G
SC-34119-U	8/4/2000	URANIUM-238	1.155	2.31	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34120-S	7/22/2000	URANIUM-238	1.15	2.3	PCI/G
SC-34120-U	8/10/2000	URANIUM-238	1.13	2.26	PCI/G
SC-34121-U	8/10/2000	URANIUM-238	1.055	2.11	PCI/G
SC-34122-U	8/12/2000	URANIUM-238	1.085	2 17	PCI/G
SC-34123-U	8/12/2000	URANIUM-238	0.91	1.82	PCI/G
SC-34124-U	8/12/2000	URANIUM-238	1.145	2.29	PCI/G
SC-34201-U	8/16/2000	URANIUM-238	1.08	2 16	PCI/G
SC-34202-C	7/26/2000	URANIUM-238	1.105	2.21	PCI/G
SC-34202-S	5/20/2000	URANIUM-238	0.985	1.97	PCI/G
SC-34203-S	7/26/2000	URANIUM-238	1.135	2.27	PCI/G
SC-34204-C	7/26/2000	URANIUM-238	1.07	2.14	PCI/G
SC-34204-S	7/26/2000	URANIUM-238	1.13	2.26	PCI/G
SC-34205-C	5/20/2000	URANIUM-238	1.07	2.14	PCI/G
SC-34206-S	5/20/2000	URANIUM-238	1.19	2.38	PCI/G
SC-34207-S	7/26/2000	URANIUM-238	1.19	2.38	PCI/G
SC-34208-S	7/26/2000	URANIUM-238	1.095	2.19	PCI/G
SC-34210-S	5/20/2000	URANIUM-238	1.275	2.55	PCI/G
SC-34211-S	7/26/2000	URANIUM-238	1.035	2.07	PCI/G
SC-34212-S	7/26/2000	URANIUM-238	1.225	2.45	PCI/G
SC-34213-C	5/20/2000	URANIUM-238	1.1	2.2	PCI/G
SC-34214-S	5/20/2000	URANIUM-238	1.13	2.26	PCI/G
SC-34215-S	7/31/2000	URANIUM-238	1.145	2 29	PCI/G
SC-34216-S	7/31/2000	URANIUM-238	1.06	2.12	PCI/G
SC-34217-S	7/26/2000	URANIUM-238	1.245	2.49	PCI/G
SC-34218-C	5/20/2000	URANIUM-238	1.405	2 81	PCI/G
SC-34219-S	5/20/2000	URANIUM-238	1.2	2 4	PCI/G
SC-34220-S	5/20/2000	URANIUM-238	1.305	2.61	PCI/G
SC-34221-S	7/31/2000	URANIUM-238	1.185	2.37	PCI/G
SC-34222-S	7/26/2000	URANIUM-238	1.13	2.26	PCI/G
SC-34301-S	5/20/2000	URANIUM-238	1.37	2.74	PCI/G
SC-34301-U	5/18/2000	URANIUM-238	8.39	2.59	PCI/G
SC-34302-S	5/20/2000	URANIUM-238	1.055	2.11	PCI/G
SC-34302-U	5/18/2000	URANIUM-238	1.075	2 15	PCI/G
SC-34303-S	7/31/2000	URANIUM-238	1.2	2.4	PCI/G
SC-34303-U	5/18/2000	URANIUM-238	1.13	2.26	PCI/G
SC-34304-S	7/26/2000	URANIUM-238	1.005	2.01	PCI/G
SC-34304-U	8/2/2000	URANIUM-238	1.07	2.14	PCI/G
SC-34305-S	5/20/2000	URANIUM-238	1.16	2.32	PCI/G
SC-34305-U	8/2/2000	URANIUM-238	3.31	2.14	PCI/G
SC-34306-S	5/20/2000	URANIUM-238	4.23	2.38	PCI/G
SC-34306-U	8/2/2000	URANIUM-238	1.31	2.62	PCI/G
SC-34307-S	3/7/2000	URANIUM-238	1.135	2.27	PCI/G
SC-34307-U	8/15/2000	URANIUM-238	0.726	2.71	PCI/G
SC-34308-S	4/13/2000	URANIUM-238	1 3	2.6	PCI/G
SC-34308-U	8/15/2000	URANIUM-238	1.085	2 17	PCI/G
SC-34309-S	5/20/2000	URANIUM-238	1.105	2.21	PCI/G
SC-34309-U	8/15/2000	URANIUM-238	1.105	2.21	PCI/G
SC-34310-S	5/18/2000	URANIUM-238	1.285	2.57	PCI/G
SC-34311-S	3/7/2000	URANIUM-238	1.175	2.35	PCI/G
SC-34312-S	4/13/2000	URANIUM-238	1.17	2.34	PCI/G
SC-34313-S	5/18/2000	URANIUM-238	1.095	2 19	PCI/G
SC-34314-S	5/18/2000	URANIUM-238	1.08	2.16	PCI/G
SC-34315-S	3/7/2000	URANIUM-238	1.09	2.18	PCI/G
SC-34316-S	4/13/2000	URANIUM-238	1.165	2.33	PCI/G
SC-34318-C	5/18/2000	URANIUM-238	1.115	2.23	PCI/G

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34319-S	5/18/2000	URANIUM-238	1.14	2.28	PCI/G
SC-34320-S	3/7/2000	URANIUM-238	1.13	2.26	PCI/G
SC-34321-S	4/13/2000	URANIUM-238	1.02	2.04	PCI/G
SC-34401-S	7/26/2000	URANIUM-238	1.15	2.3	PCI/G
SC-34401-U	5/19/2000	URANIUM-238	1.15	2.3	PCI/G
SC-34402-S	7/26/2000	URANIUM-238	4.75	2.24	PCI/G
SC-34402-U	8/1/2000	URANIUM-238	1.12	2.24	PCI/G
SC-34403-S	7/26/2000	URANIUM-238	1.09	2.18	PCI/G
SC-34403-U	8/1/2000	URANIUM-238	1.145	2.29	PCI/G
SC-34404-S	7/22/2000	URANIUM-238	1.1	2.2	PCI/G
SC-34404-U	8/1/2000	URANIUM-238	1.095	2.19	PCI/G
SC-34405-S	4/13/2000	URANIUM-238	1.235	2.47	PCI/G
SC-34405-U	8/2/2000	URANIUM-238	1.13	2.26	PCI/G
SC-34406-S	4/13/2000	URANIUM-238	2.16	2.09	PCI/G
SC-34406-U	8/2/2000	URANIUM-238	1.08	2.16	PCI/G
SC-34407-S	4/13/2000	URANIUM-238	1.215	2.43	PCI/G
SC-34407-U	8/12/2000	URANIUM-238	1.055	2.11	PCI/G
SC-34408-S	5/5/2000	URANIUM-238	1.06	2.12	PCI/G
SC-34408-U	8/12/2000	URANIUM-238	1.07	2.14	PCI/G
SC-34409-S	4/13/2000	URANIUM-238	1.2	2.4	PCI/G
SC-34409-U	8/12/2000	URANIUM-238	0.99	1.98	PCI/G
SC-34410-S	4/13/2000	URANIUM-238	1.245	2.49	PCI/G
SC-34410-U	8/15/2000	URANIUM-238	2.33	1.7	PCI/G
SC-34411-S	4/13/2000	URANIUM-238	1.15	2.3	PCI/G
SC-34412-S	5/5/2000	URANIUM-238	1.045	2.09	PCI/G
SC-34413-S	4/13/2000	URANIUM-238	5.91	2.77	PCI/G
SC-34414-S	4/13/2000	URANIUM-238	1.18	2.36	PCI/G
SC-34415-S	4/13/2000	URANIUM-238	1.095	2.19	PCI/G
SC-34416-S	5/5/2000	URANIUM-238	1.075	2.15	PCI/G
SC-34417-S	4/13/2000	URANIUM-238	1.255	2.51	PCI/G
SC-34418-S	4/13/2000	URANIUM-238	1.225	2.45	PCI/G
SC-34419-S	4/13/2000	URANIUM-238	1.215	2.43	PCI/G
SC-34420-S	5/5/2000	URANIUM-238	1.055	2.11	PCI/G
SC-34501-S	7/23/2000	URANIUM-238	1.17	2.34	PCI/G
SC-34502-S	7/23/2000	URANIUM-238	1.185	2.37	PCI/G
SC-34503-S	7/23/2000	URANIUM-238	1.175	2.35	PCI/G
SC-34504-S	7/25/2000	URANIUM-238	1.255	2.51	PCI/G
SC-34505-S	5/5/2000	URANIUM-238	1.12	2.24	PCI/G
SC-34506-S	5/5/2000	URANIUM-238	1.135	2.27	PCI/G
SC-34507-S	5/5/2000	URANIUM-238	1.005	2.01	PCI/G
SC-34508-S	5/5/2000	URANIUM-238	1	2	PCI/G
SC-34509-S	5/5/2000	URANIUM-238	0.8	1.6	PCI/G
SC-34513-S	5/5/2000	URANIUM-238	1.055	2.11	PCI/G
SC-34517-S	5/5/2000	URANIUM-238	0.985	1.97	PCI/G
SC-34601-S	6/3/2000	URANIUM-238	1.015	2.03	PCI/G
SC-34601-U	7/7/2000	URANIUM-238	1.105	2.21	PCI/G
SC-34602-S	6/1/2000	URANIUM-238	1.18	1.89	PCI/G
SC-34602-U	7/10/2000	URANIUM-238	1.035	2.07	PCI/G
SC-34603-S	5/5/2000	URANIUM-238	1.1	2.2	PCI/G
SC-34603-U	7/10/2000	URANIUM-238	0.98	1.96	PCI/G
SC-34604-S	5/5/2000	URANIUM-238	1.105	2.21	PCI/G
SC-34604-U	7/10/2000	URANIUM-238	1.06	2.12	PCI/G
SC-34605-C	6/22/2000	URANIUM-238	6.52	2.63	PCI/G
SC-34605-S	6/22/2000	URANIUM-238	1.195	2.39	PCI/G
SC-34606-S	5/5/2000	URANIUM-238	1.085	2.17	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34607-S	5/5/2000	URANIUM-238	3.47	2.27	PCI/G
SC-34608-S	5/5/2000	URANIUM-238	1.145	2.29	PCI/G
SC-34609-S	4/25/2000	URANIUM-238	1.14	2.28	PCI/G
SC-34610-S	6/22/2000	URANIUM-238	1.11	2.22	PCI/G
SC-34612-S	5/5/2000	URANIUM-238	1.09	2.18	PCI/G
SC-34613-S	5/5/2000	URANIUM-238	1.14	2.28	PCI/G
SC-34614-S	4/25/2000	URANIUM-238	1.1	2.2	PCI/G
SC-34617-S	5/5/2000	URANIUM-238	1.135	2.27	PCI/G
SC-34618-S	4/25/2000	URANIUM-238	1.235	2.47	PCI/G
SC-34619-C	4/25/2000	URANIUM-238	1.105	2.21	PCI/G
SC-34619-S	4/25/2000	URANIUM-238	1.08	2.16	PCI/G
SC-34621-S	5/5/2000	URANIUM-238	1.73	3.46	PCI/G
SC-34622-S	4/25/2000	URANIUM-238	1.09	2.18	PCI/G
SC-34623-S	4/25/2000	URANIUM-238	0.985	1.97	PCI/G
SC-34702-S	5/5/2000	URANIUM-238	1.09	2.18	PCI/G
SC-34703-S	5/5/2000	URANIUM-238	1.07	2.14	PCI/G
SC-34704-S	4/25/2000	URANIUM-238	1.135	2.27	PCI/G
SC-34705-S	4/25/2000	URANIUM-238	0.725	1.45	PCI/G
SC-34707-S	5/5/2000	URANIUM-238	1.04	2 08	PCI/G
SC-34708-S	4/25/2000	URANIUM-238	1.11	2.22	PCI/G
SC-34709-S	4/25/2000	URANIUM-238	1 07	2 14	PCI/G
SC-34711-S	5/5/2000	URANIUM-238	1.11	2 22	PCI/G
SC-34712-S	4/25/2000	URANIUM-238	1.135	2.27	PCI/G
SC-34713-S	4/25/2000	URANIUM-238	0.95	1 9	PCI/G
SC-34714-C	4/25/2000	URANIUM-238	1 11	2.22	PCI/G
SC-34714-S	4/25/2000	URANIUM-238	1 07	2.14	PCI/G
SC-34715-S	4/25/2000	URANIUM-238	0 99	1.98	PCI/G
SC-34716-S	5/8/2000	URANIUM-238	1.005	2.01	PCI/G
SC-34717-S	4/25/2000	URANIUM-238	1 115	2.23	PCI/G
SC-34718-S	4/25/2000	URANIUM-238	0.755	1.51	PCI/G
SC-34719-S	4/25/2000	URANIUM-238	1.01	2.02	PCI/G
SC-34720-S	5/8/2000	URANIUM-238	1.11	2.22	PCI/G
SC-34721-S	5/8/2000	URANIUM-238	1.06	2.12	PCI/G
SC-34723-S	4/25/2000	URANIUM-238	1.12	2 24	PCI/G
SC-34724-S	4/25/2000	URANIUM-238	1.1	2.2	PCI/G
SC-34725-S	4/25/2000	URANIUM-238	1 12	2 24	PCI/G
SC-34801-S	4/13/2000	URANIUM-238	1 05	2 1	PCI/G
SC-34801-U	5/19/2000	URANIUM-238	1.09	2 18	PCI/G
SC-34802-S	5/5/2000	URANIUM-238	1 115	2.23	PCI/G
SC-34802-U	5/19/2000	URANIUM-238	0 72	1.44	PCI/G
SC-34803-S	5/5/2000	URANIUM-238	1.07	2.14	PCI/G
SC-34803-U	5/19/2000	URANIUM-238	1.1	2.2	PCI/G
SC-34804-U	5/19/2000	URANIUM-238	1 13	2.26	PCI/G
SC-34805-U	5/19/2000	URANIUM-238	1.145	2 29	PCI/G
SC-34806-S	4/13/2000	URANIUM-238	1 11	2.22	PCI/G
SC-34807-S	5/5/2000	URANIUM-238	1.03	2.06	PCI/G
SC-34808-S	5/5/2000	URANIUM-238	1.085	2.17	PCI/G
SC-34811-S	4/13/2000	URANIUM-238	1 145	2.29	PCI/G
SC-34812-S	5/5/2000	URANIUM-238	1.015	2.03	PCI/G
SC-34813-S	5/5/2000	URANIUM-238	1 21	2 42	PCI/G
SC-34814-S	5/5/2000	URANIUM-238	1.22	2.44	PCI/G
SC-34815-S	5/5/2000	URANIUM-238	1.085	2.17	PCI/G
SC-34816-S	5/8/2000	URANIUM-238	0.985	1.97	PCI/G
SC-34817-S	5/8/2000	URANIUM-238	1.08	2 16	PCI/G
SC-34818-S	5/5/2000	URANIUM-238	0.69	1.38	PCI/G

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-34819-S	5/5/2000	URANIUM-238	0.705	1.41	PCI/G
SC-34820-S	5/5/2000	URANIUM-238	1.19	2.38	PCI/G
SC-34901-U	3/30/2000	URANIUM-238	1.155	2.31	PCI/G
SC-34902-S	5/18/2000	URANIUM-238	1.07	2.14	PCI/G
SC-34902-U	3/30/2000	URANIUM-238	1.11	2.22	PCI/G
SC-34903-S	3/7/2000	URANIUM-238	1.1	2.2	PCI/G
SC-34903-U	3/30/2000	URANIUM-238	1	2	PCI/G
SC-34904-S	4/13/2000	URANIUM-238	1.89	1.96	PCI/G
SC-34904-U	3/30/2000	URANIUM-238	1.09	2.18	PCI/G
SC-34905-S	4/13/2000	URANIUM-238	1.13	2.26	PCI/G
SC-34905-U	3/30/2000	URANIUM-238	1.165	2.33	PCI/G
SC-34906-S	4/13/2000	URANIUM-238	1.14	2.28	PCI/G
SC-34906-U	5/17/2000	URANIUM-238	1.11	2.22	PCI/G
SC-34907-U	5/20/2000	URANIUM-238	1.145	2.29	PCI/G
SC-34908-S	5/18/2000	URANIUM-238	1.155	2.31	PCI/G
SC-34908-U	5/20/2000	URANIUM-238	1.065	2.13	PCI/G
SC-34909-S	3/7/2000	URANIUM-238	1.09	2.18	PCI/G
SC-34909-U	5/20/2000	URANIUM-238	1.06	2.12	PCI/G
SC-34910-S	4/13/2000	URANIUM-238	1.2	2.4	PCI/G
SC-34911-S	4/13/2000	URANIUM-238	1.165	2.33	PCI/G
SC-34912-S	4/13/2000	URANIUM-238	1.37	2.74	PCI/G
SC-34913-C	4/17/2000	URANIUM-238	1.14	2.28	PCI/G
SC-34913-C-01	5/11/2000	URANIUM-238	1.1	2.2	PCI/G
SC-34914-S	4/17/2000	URANIUM-238	1.145	2.29	PCI/G
SC-34914-S-01	5/11/2000	URANIUM-238	1.04	2.08	PCI/G
SC-34915-S	3/7/2000	URANIUM-238	1.17	2.34	PCI/G
SC-34916-S	4/13/2000	URANIUM-238	1.075	2.15	PCI/G
SC-34917-S	4/13/2000	URANIUM-238	1.085	2.17	PCI/G
SC-34918-S	4/13/2000	URANIUM-238	1.23	2.46	PCI/G
SC-34920-S	4/17/2000	URANIUM-238	1.26	2.52	PCI/G
SC-34920-S-01	5/11/2000	URANIUM-238	1.105	2.21	PCI/G
SC-34921-S	4/17/2000	URANIUM-238	1.14	2.28	PCI/G
SC-34922-S	3/8/2000	URANIUM-238	1.125	2.25	PCI/G
SC-34923-S	3/29/2000	URANIUM-238	0.99	1.98	PCI/G
SC-34924-S	3/29/2000	URANIUM-238	0.99	1.98	PCI/G
SC-34925-S	5/8/2000	URANIUM-238	1.245	2.49	PCI/G
SC-35001-U	3/30/2000	URANIUM-238	1.085	2.17	PCI/G
SC-35002-U	3/30/2000	URANIUM-238	1.15	2.3	PCI/G
SC-35003-S	4/17/2000	URANIUM-238	1.005	2.01	PCI/G
SC-35003-U	3/30/2000	URANIUM-238	1.12	2.24	PCI/G
SC-35004-S	3/8/2000	URANIUM-238	0.955	1.91	PCI/G
SC-35004-U	3/30/2000	URANIUM-238	1.14	2.28	PCI/G
SC-35005-S	3/29/2000	URANIUM-238	1	2	PCI/G
SC-35005-U	3/30/2000	URANIUM-238	1.05	2.1	PCI/G
SC-35006-C	4/17/2000	URANIUM-238	1.135	2.27	PCI/G
SC-35006-U	3/30/2000	URANIUM-238	1.185	2.37	PCI/G
SC-35007-S	4/17/2000	URANIUM-238	1.135	2.27	PCI/G
SC-35007-U	3/30/2000	URANIUM-238	1.12	2.24	PCI/G
SC-35008-S	3/8/2000	URANIUM-238	1.13	2.26	PCI/G
SC-35008-U	3/30/2000	URANIUM-238	1.165	2.33	PCI/G
SC-35009-S	4/17/2000	URANIUM-238	1.07	2.14	PCI/G
SC-35009-U	3/30/2000	URANIUM-238	1.09	2.18	PCI/G
SC-35010-U	5/5/2000	URANIUM-238	1.13	2.26	PCI/G
SC-35011-S	4/17/2000	URANIUM-238	1.09	2.18	PCI/G
SC-35011-U	5/5/2000	URANIUM-238	1.11	2.22	PCI/G

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WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35012-S	3/8/2000	URANIUM-238	1.045	2.09	PCI/G
SC-35501-U	5/13/2000	URANIUM-238	1.12	2.24	PCI/G
SC-35013-S	4/17/2000	URANIUM-238	1.07	2.14	PCI/G
SC-35502-U	5/13/2000	URANIUM-238	1.11	2.22	PCI/G
SC-35014-C	4/17/2000	URANIUM-238	1.19	2.38	PCI/G
SC-35503-U	5/13/2000	URANIUM-238	1.055	2.11	PCI/G
SC-35015-S	4/17/2000	URANIUM-238	1.36	1 93	PCI/G
SC-35504-U	5/13/2000	URANIUM-238	1.14	2.28	PCI/G
SC-35016-S	3/8/2000	URANIUM-238	1.12	2.24	PCI/G
SC-35505-U	5/13/2000	URANIUM-238	1.045	2.09	PCI/G
SC-35017-S	4/28/2000	URANIUM-238	1.035	2.07	PCI/G
SC-35017-U	5/20/2000	URANIUM-238	1.06	2.12	PCI/G
SC-35018-C	4/17/2000	URANIUM-238	1.22	2.44	PCI/G
SC-35018-U	5/20/2000	URANIUM-238	1.31	2.35	PCI/G
SC-35019-S	4/29/2000	URANIUM-238	1.15	2.3	PCI/G
SC-35019-U	5/20/2000	URANIUM-238	1 055	2.11	PCI/G
SC-35020-S	3/8/2000	URANIUM-238	1 135	2.27	PCI/G
SC-35020-U	5/20/2000	URANIUM-238	1.1	2.2	PCI/G
SC-35021-S	4/28/2000	URANIUM-238	1.155	2.31	PCI/G
SC-35021-U	5/20/2000	URANIUM-238	1.245	2.49	PCI/G
SC-35101-S	3/29/2000	URANIUM-238	1.16	2.32	PCI/G
SC-35101-U	5/17/2000	URANIUM-238	1.125	2.25	PCI/G
SC-35102-S	4/28/2000	URANIUM-238	1.075	2 15	PCI/G
SC-35102-U	5/17/2000	URANIUM-238	1.115	2 23	PCI/G
SC-35103-S	4/28/2000	URANIUM-238	1 13	2 26	PCI/G
SC-35103-U	5/17/2000	URANIUM-238	1.145	2.29	PCI/G
SC-35104-S	5/6/2000	URANIUM-238	1.02	2.04	PCI/G
SC-35104-U	6/4/2000	URANIUM-238	1.02	2.04	PCI/G
SC-35105-S	4/28/2000	URANIUM-238	0.775	1.55	PCI/G
SC-35105-U	6/4/2000	URANIUM-238	1.075	2 15	PCI/G
SC-35106-S	4/28/2000	URANIUM-238	1.135	2.27	PCI/G
SC-35106-U	6/4/2000	URANIUM-238	1.1	2 2	PCI/G
SC-35107-S	4/28/2000	URANIUM-238	1.08	2.16	PCI/G
SC-35107-U	6/4/2000	URANIUM-238	1.025	2.05	PCI/G
SC-35108-S	5/6/2000	URANIUM-238	1.07	2.14	PCI/G
SC-35108-U	6/4/2000	URANIUM-238	1 005	2.01	PCI/G
SC-35109-S	4/28/2000	URANIUM-238	1.065	2.13	PCI/G
SC-35110-S	4/28/2000	URANIUM-238	1 115	2 23	PCI/G
SC-35111-S	4/28/2000	URANIUM-238	1.115	2.23	PCI/G
SC-35112-S	5/6/2000	URANIUM-238	1.135	2.27	PCI/G
SC-35113-S	4/28/2000	URANIUM-238	0.945	1.89	PCI/G
SC-35114-S	4/28/2000	URANIUM-238	1.11	2.22	PCI/G
SC-35115-S	4/28/2000	URANIUM-238	1.14	2.28	PCI/G
SC-35116-S	5/6/2000	URANIUM-238	1 095	2 19	PCI/G
SC-35117-S	4/28/2000	URANIUM-238	1.14	2 28	PCI/G
SC-35118-S	4/28/2000	URANIUM-238	1.15	2.3	PCI/G
SC-35119-S	4/21/2000	URANIUM-238	1.12	2.24	PCI/G
SC-35120-S	5/6/2000	URANIUM-238	1.145	2.29	PCI/G
SC-35201-S	5/6/2000	URANIUM-238	1.15	2.3	PCI/G
SC-35202-S	5/6/2000	URANIUM-238	1.175	2.35	PCI/G
SC-35203-S	5/6/2000	URANIUM-238	1.075	2.15	PCI/G
SC-35204-S	6/2/2000	URANIUM-238	1 02	2.04	PCI/G
SC-35205-S	5/6/2000	URANIUM-238	1.135	2.27	PCI/G
SC-35206-S	5/6/2000	URANIUM-238	1.095	2 19	PCI/G
SC-35207-S	6/2/2000	URANIUM-238	0.975	1 95	PCI/G

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35208-S	5/6/2000	URANIUM-238	1.145	2.29	PCI/G
SC-35209-S	5/6/2000	URANIUM-238	1.08	2.16	PCI/G
SC-35210-S	4/25/2000	URANIUM-238	1.13	2.26	PCI/G
SC-35211-S	4/25/2000	URANIUM-238	1.13	2.26	PCI/G
SC-35212-S	4/25/2000	URANIUM-238	0.935	1.87	PCI/G
SC-35213-S	5/6/2000	URANIUM-238	1.115	2.23	PCI/G
SC-35214-S	5/6/2000	URANIUM-238	1.14	2.28	PCI/G
SC-35215-S	5/6/2000	URANIUM-238	1.125	2.25	PCI/G
SC-35216-S	4/25/2000	URANIUM-238	1.02	2.04	PCI/G
SC-35217-S	4/25/2000	URANIUM-238	1.06	2.12	PCI/G
SC-35219-S	5/6/2000	URANIUM-238	1.2	2.4	PCI/G
SC-35220-S	5/6/2000	URANIUM-238	1.135	2.27	PCI/G
SC-35221-S	5/6/2000	URANIUM-238	1.145	2.29	PCI/G
SC-35222-S	4/25/2000	URANIUM-238	1.02	2.04	PCI/G
SC-35223-S	4/25/2000	URANIUM-238	1.045	2.09	PCI/G
SC-35301-S	5/8/2000	URANIUM-238	0.935	1.87	PCI/G
SC-35302-S	5/8/2000	URANIUM-238	1.085	2.17	PCI/G
SC-35303-S	4/25/2000	URANIUM-238	1.15	2.3	PCI/G
SC-35304-S	4/25/2000	URANIUM-238	1.135	2.27	PCI/G
SC-35305-S	6/16/2000	URANIUM-238	3.99	2.41	PCI/G
SC-35306-S	5/8/2000	URANIUM-238	1.325	2.65	PCI/G
SC-35307-C	5/8/2000	URANIUM-238	1.115	2.23	PCI/G
SC-35307-S	5/8/2000	URANIUM-238	1.095	2.19	PCI/G
SC-35308-S	4/25/2000	URANIUM-238	1.13	2.26	PCI/G
SC-35309-S	5/15/2000	URANIUM-238	1.155	2.31	PCI/G
SC-35311-S	5/8/2000	URANIUM-238	1.075	2.15	PCI/G
SC-35312-S	5/8/2000	URANIUM-238	1.125	2.25	PCI/G
SC-35313-S	4/25/2000	URANIUM-238	0.93	1.86	PCI/G
SC-35314-S	5/15/2000	URANIUM-238	1.19	2.38	PCI/G
SC-35315-S	5/8/2000	URANIUM-238	1.135	2.27	PCI/G
SC-35316-C	5/8/2000	URANIUM-238	1.165	2.33	PCI/G
SC-35316-S	5/8/2000	URANIUM-238	1.14	2.28	PCI/G
SC-35317-S	4/25/2000	URANIUM-238	1.075	2.15	PCI/G
SC-35318-S	4/25/2000	URANIUM-238	0.875	1.75	PCI/G
SC-35319-S	5/8/2000	URANIUM-238	1.69	2.46	PCI/G
SC-35320-C	5/8/2000	URANIUM-238	2.39	1.94	PCI/G
SC-35320-S	5/8/2000	URANIUM-238	1.175	2.35	PCI/G
SC-35321-S	4/25/2000	URANIUM-238	1.01	2.02	PCI/G
SC-35323-S	5/8/2000	URANIUM-238	1.24	2.48	PCI/G
SC-35324-S	5/8/2000	URANIUM-238	1.14	2.28	PCI/G
SC-35325-S	4/25/2000	URANIUM-238	0.97	1.94	PCI/G
SC-35401-S	4/29/2000	URANIUM-238	1.085	2.17	PCI/G
SC-35402-S	4/21/2000	URANIUM-238	1.115	2.23	PCI/G
SC-35403-S	4/21/2000	URANIUM-238	1.2	2.4	PCI/G
SC-35404-S	4/21/2000	URANIUM-238	1.105	2.21	PCI/G
SC-35405-S	4/29/2000	URANIUM-238	1.215	2.43	PCI/G
SC-35406-S	4/21/2000	URANIUM-238	1.14	2.28	PCI/G
SC-35407-S	4/21/2000	URANIUM-238	1.14	2.28	PCI/G
SC-35408-S	4/21/2000	URANIUM-238	1.11	2.22	PCI/G
SC-35409-S	4/29/2000	URANIUM-238	1.15	2.3	PCI/G
SC-35410-S	4/21/2000	URANIUM-238	1.03	2.06	PCI/G
SC-35411-S	4/21/2000	URANIUM-238	1.14	2.28	PCI/G
SC-35412-S	4/21/2000	URANIUM-238	1.13	2.26	PCI/G
SC-35413-S	4/29/2000	URANIUM-238	1.2	2.4	PCI/G
SC-35414-S	4/21/2000	URANIUM-238	1.04	2.08	PCI/G

APPENDIX B WP-437 FINAL DATA

WSSRAP_ID	DATE_SAM	PARAMETER	CONC	DL	UNITS
SC-35415-S	4/21/2000	URANIUM-238	1.14	2.28	PCI/G
SC-35416-S	4/21/2000	URANIUM-238	1.08	2.16	PCI/G
SC-35417-S	4/29/2000	URANIUM-238	0.97	1.94	PCI/G
SC-35418-S	4/21/2000	URANIUM-238	1.14	2.28	PCI/G
SC-35419-S	4/21/2000	URANIUM-238	0.725	1.45	PCI/G
SC-35420-S	4/21/2000	URANIUM-238	1.21	2 42	PCI/G
SC-35502-S	4/29/2000	URANIUM-238	1.045	2.09	PCI/G
SC-35503-S	4/29/2000	URANIUM-238	0.98	1 96	PCI/G
SC-35504-S	4/29/2000	URANIUM-238	0.915	1.83	PCI/G
SC-35506-S	4/29/2000	URANIUM-238	1.05	2.1	PCI/G
SC-35507-S	4/29/2000	URANIUM-238	1.16	2.32	PCI/G
SC-35508-S	4/29/2000	URANIUM-238	1.115	2.23	PCI/G
SC-35511-S	4/29/2000	URANIUM-238	1.17	2.34	PCI/G
SC-35512-S	4/29/2000	URANIUM-238	1.195	2.39	PCI/G
SC-35514-S	4/29/2000	URANIUM-238	1.16	2.32	PCI/G
SC-35515-S	4/29/2000	URANIUM-238	1.11	2.22	PCI/G
SC-35518-S	4/29/2000	URANIUM-238	1.045	2.09	PCI/G
SC-35520-S	4/21/2000	URANIUM-238	1.04	2.08	PCI/G
SC-35521-S	4/26/2000	URANIUM-238	1.13	2.26	PCI/G
SC-35524-S	4/21/2000	URANIUM-238	1 09	2.18	PCI/G
SC-35525-C	4/21/2000	URANIUM-238	1.11	2.22	PCI/G
SC-35526-S	4/21/2000	URANIUM-238	1.12	2.24	PCI/G
SC-35601-S	4/21/2000	URANIUM-238	1 095	2.19	PCI/G
SC-35602-S	4/21/2000	URANIUM-238	1.135	2.27	PCI/G
SC-35603-S	4/21/2000	URANIUM-238	1.22	2.44	PCI/G
SC-35604-S	4/21/2000	URANIUM-238	1 115	2.23	PCI/G
SC-35605-S	4/21/2000	URANIUM-238	1.095	2.19	PCI/G
SC-35606-S	4/21/2000	URANIUM-238	1.11	2.22	PCI/G
SC-35607-S	5/8/2000	URANIUM-238	1.15	2 3	PCI/G
SC-35608-C	5/8/2000	URANIUM-238	0.96	1 92	PCI/G
SC-35610-S	4/21/2000	URANIUM-238	1 83	2.09	PCI/G
SC-35611-S	4/21/2000	URANIUM-238	1.135	2.27	PCI/G
SC-35612-S	4/21/2000	URANIUM-238	1.09	2.18	PCI/G
SC-35613-S	5/8/2000	URANIUM-238	1.02	2 04	PCI/G
SC-35616-S	4/21/2000	URANIUM-238	0 895	1.79	PCI/G
SC-35617-S	4/21/2000	URANIUM-238	1 185	2.37	PCI/G
SC-35618-S	4/21/2000	URANIUM-238	1 135	2.27	PCI/G
SC-35619-C	4/25/2000	URANIUM-238	0.98	1.96	PCI/G
SC-35619-S	4/25/2000	URANIUM-238	1.135	2.27	PCI/G
SC-35620-C	4/26/2000	URANIUM-238	1.08	2 16	PCI/G
SC-35621-S	4/21/2000	URANIUM-238	1.01	2.02	PCI/G
SC-35622-S	4/21/2000	URANIUM-238	1.1	2.2	PCI/G
SC-35623-S	4/25/2000	URANIUM-238	0.775	1 55	PCI/G
SC-35625-S	4/26/2000	URANIUM-238	1 15	2.3	PCI/G

APPENDIX C
WP437 RU024 Sample Location Coordinates

WP437 RU24 SAMPLE LOCATION COORDINATES

ID	Date Sampled	Northing	Easting	Elevation
SC-33801-U	6/27/2000	1041887.99	754987.17	642.50
SC-33802-S	6/6/2000	1041887.64	755030.23	656 13
SC-33802-U	6/29/2000	1041906.85	754950.11	649.74
SC-33803-S	6/6/2000	1041871.61	755058.87	655.24
SC-33803-U	6/29/2000	1041918.44	754925.43	649.64
SC-33804-S	6/1/2000	1041939.25	754871.31	659 17
SC-33804-U	6/29/2000	1041930.68	754902.12	650.71
SC-33805-C	4/25/2000	1041928.52	754921.65	657.26
SC-33805-S	4/25/2000	1041923.12	754899.74	656.74
SC-33805-U	6/29/2000	1041908.21	754995.55	644.48
SC-33806-S	6/6/2000	1041907.04	754928.26	656.44
SC-33806-U	6/30/2000	1041864.64	754938.60	641.72
SC-33807-S	6/6/2000	1041890.99	754956.95	656 24
SC-33807-U	6/30/2000	1041852.59	754907.67	642 11
SC-33808-C	6/6/2000	1041880.97	755007.83	655 54
SC-33808-S	6/6/2000	1041874.90	754985.57	655.51
SC-33808-U	7/7/2000	1041839.43	754877.00	642.11
SC-33809-C	6/22/2000	1041869.15	755037.70	651.84
SC-33809-U	7/7/2000	1041824.23	754847.31	641.08
SC-33810-U	7/7/2000	1041811 50	754816.91	641.45
SC-33811-S	6/3/2000	1041910.63	754854.50	660.01
SC-33811-U	7/12/2000	1041908.04	754887.21	644 54
SC-33812-S	4/25/2000	1041894.37	754883.60	657.56
SC-33812-U	7/12/2000	1041908 43	754923.03	650.24
SC-33813-S	6/6/2000	1041878 40	754912.27	655 65
SC-33813-U	7/16/2000	1041925.66	754919.43	635.36 *
SC-33814-S	6/6/2000	1041862.28	754941.06	655.09
SC-33814-U	8/4/2000	1041969.47	754855.90	652.44
SC-33815-S	6/6/2000	1041846.36	754969.47	653.32
SC-33815-U	8/4/2000	1041955.06	754885.69	652.61
SC-33816-S	6/6/2000	1041830.45	754998 13	651.64
SC-33816-U	8/16/2000	1041941.67	754895.56	643.79
SC-33817-S	6/3/2000	1041881.94	754838.99	659.81
SC-33818-C	4/25/2000	1041872 79	754890.23	655.53
SC-33818-S	4/25/2000	1041865.72	754867.53	655 88
SC-33819-S	6/6/2000	1041847 84	754896.83	654 81
SC-33821-S	6/6/2000	1041817.78	754953.49	651 65
SC-33823-S	6/3/2000	1041852.89	754822.95	659 62
SC-33824-S	4/25/2000	1041837.16	754851.58	653 91
SC-33829-C	4/25/2000	1041831.58	754829.21	656 03
SC-33829-S	4/25/2000	1041824.56	754806.95	658 45
SC-33901-S	6/1/2000	1042003.12	754756.26	659.90
SC-33901-U	7/27/2000	1042021 84	754741.06	655.92
SC-33902-C	6/1/2000	1041991 24	754806.16	659.94
SC-33902-S	6/1/2000	1041987.07	754785.11	659 17
SC-33902-U	7/27/2000	1042004.62	754769.54	655 15
SC-33903-C	6/1/2000	1041975.81	754835.12	659.78
SC-33903-S	6/1/2000	1041971.33	754813.62	659.79
SC-33903-U	8/1/2000	1041908.21	754733 96	639.89
SC-33904-C	6/1/2000	1041959.86	754863.97	659 74
SC-33904-S	6/1/2000	1041955 12	754842 71	660 13
SC-33904-U	8/4/2000	1042033.58	754740.09	652.88
SC-33905-S	6/3/2000	1041974.44	754740.29	652.06
SC-33905-U	8/4/2000	1042019.09	754769.30	653 30
SC-33906-S	7/11/2000	1041958 51	754769.35	644 87

WP437 RU24 SAMPLE LOCATION COORDINATES

ID	Date Sampled	Northing	Easting	Elevation
SC-33906-U	8/4/2000	1042002.15	754798.15	652.77
SC-33907-S	7/11/2000	1041942.52	754797.42	644.12
SC-33907-U	8/4/2000	1041986.38	754826.46	652.37
SC-33908-S	6/3/2000	1041926.04	754826.18	650.98
SC-33908-U	8/16/2000	1041955.82	754865.51	644.66
SC-33909-S	6/3/2000	1041946.20	754724.16	651.48
SC-33909-U	8/16/2000	1041971.72	754837.44	644.96
SC-33910-S	7/11/2000	1041929.95	754752.53	641.88
SC-33910-U	8/16/2000	1041988.73	754806.72	644.99
SC-33911-S	7/11/2000	1041914.17	754781.38	641.94
SC-33912-S	6/3/2000	1041897.82	754810.47	649.55
SC-33913-S	6/3/2000	1041917.59	754708.36	651.97
SC-33914-S	7/11/2000	1041901.66	754737.05	642.53
SC-33915-S	7/11/2000	1041885.44	754765.79	642.79
SC-33916-S	6/3/2000	1041869.45	754794.33	650.02
SC-33917-S	6/3/2000	1041888.90	754692.02	655.97
SC-33918-S	6/1/2000	1041872.24	754721.21	655.33
SC-33919-S	6/1/2000	1041855.77	754750.32	656.32
SC-33920-S	6/1/2000	1041840.62	754778.71	659.34
SC-34001-S	7/23/2000	1042067.26	754642.04	659.73
SC-34001-U	7/27/2000	1041987.23	754799.06	654.83
SC-34002-C	7/23/2000	1042054.06	754691.12	660.02
SC-34002-S	7/23/2000	1042050.72	754670.41	659.90
SC-34002-U	8/1/2000	1042021.81	754740.93	655.98
SC-34003-S	7/23/2000	1042035.19	754699.28	660.00
SC-34003-U	8/1/2000	1042004.57	754769.53	655.25
SC-34004-C	7/21/2000	1042022.69	754748.62	659.82
SC-34004-S	7/21/2000	1042019.06	754727.95	659.78
SC-34004-U	8/1/2000	1041984.64	754797.96	654.96
SC-34005-S	7/28/2000	1042038.64	754625.89	647.85
SC-34005-U	8/1/2000	1041923.25	754705.18	640.19
SC-34006-S	7/28/2000	1042002.71	754654.77	644.61
SC-34006-U	8/1/2000	1041938.24	754676.34	638.99
SC-34007-S	7/28/2000	1042006.52	754683.31	644.54
SC-34007-U	8/1/2000	1041951.85	754646.87	638.93
SC-34008-S	7/21/2000	1041990.42	754711.85	655.52
SC-34009-U	8/1/2000	1041967.07	754617.92	639.45
SC-34009-S	7/28/2000	1042009.89	754609.92	646.58
SC-34009-U	8/4/2000	1042095.53	754623.73	653.54
SC-34010-S	7/28/2000	1041993.92	754638.57	642.18
SC-34010-U	8/4/2000	1042080.65	754654.28	652.52
SC-34011-S	7/28/2000	1041977.92	754667.23	642.74
SC-34011-U	8/4/2000	1042065.99	754683.85	652.17
SC-34012-S	7/21/2000	1041961.89	754696.05	654.98
SC-34012-U	8/4/2000	1042050.16	754711.10	652.22
SC-34013-S	7/28/2000	1041981.39	754593.97	646.32
SC-34013-U	8/16/2000	1042004.10	754774.91	644.62
SC-34014-S	7/28/2000	1041965.32	754622.69	641.74
SC-34014-U	8/17/2000	1042022.41	754744.59	645.18
SC-34015-S	7/28/2000	1041949.36	754651.37	640.58
SC-34015-U	8/17/2000	1042038.06	754713.20	644.84
SC-34016-S	7/21/2000	1041933.40	754679.89	655.49
SC-34017-S	7/23/2000	1041952.69	754577.94	656.22
SC-34018-S	7/21/2000	1041936.81	754606.61	654.71
SC-34019-S	7/21/2000	1041920.76	754635.18	654.91

WP437 RU24 SAMPLE LOCATION COORDINATES

ID	Date Sampled	Northing	Easting	Elevation
SC-34020-S	7/21/2000	1041904.66	754663.95	657.12
SC-34101-S	7/26/2000	1042131.50	754527 34	656.04
SC-34101-U	8/1/2000	1041975.79	754604.01	639.87
SC-34102-C	7/26/2000	1042117.18	754576 02	659.67
SC-34102-S	7/26/2000	1042115.46	754556.29	660.13
SC-34102-U	8/2/2000	1042009.22	754539.24	657.21
SC-34103-S	7/22/2000	1042098.65	754586.90	657.95
SC-34103-U	8/2/2000	1042036.68	754555.37	656.49
SC-34104-C	7/22/2000	1042085 71	754633.65	658 71
SC-34104-S	7/22/2000	1042083.05	754615.74	658.47
SC-34104-U	8/2/2000	1042063.50	754571.00	656.04
SC-34105-S	7/26/2000	1042102.79	754511.42	657 11
SC-34105-U	8/2/2000	1042091.82	754586.31	655.65
SC-34106-S	7/26/2000	1042086.75	754540.15	659.97
SC-34106-U	8/2/2000	1042120.61	754601.56	655 41
SC-34107-S	7/26/2000	1042070 64	754568.69	659 51
SC-34107-U	8/2/2000	1042141 88	754587 76	655 28
SC-34108-S	7/22/2000	1042054.36	754598.76	659 26
SC-34108-U	8/2/2000	1042156 35	754559.48	655 87
SC-34109-S	7/26/2000	1042074 13	754495.33	658 41
SC-34109-U	8/2/2000	1042174.00	754531.13	656 32
SC-34110-S	7/26/2000	1042058.08	754524.23	659.27
SC-34110-U	8/2/2000	1042163.61	754504.01	652 77
SC-34111-S	7/26/2000	1042042 09	754552.75	660 08
SC-34111-U	8/3/2000	1042112.14	754609 63	655 58
SC-34112-S	7/22/2000	1042026.26	754580.41	659.23
SC-34112-U	8/3/2000	1042064.46	754627.33	657.03
SC-34113-S	7/26/2000	1042045.51	754479.52	660.44
SC-34113-U	8/3/2000	1042059.54	754626.59	657 02
SC-34114-S	7/26/2000	1042029.51	754508.00	658.80
SC-34114-U	8/4/2000	1042112.20	754592.49	652 70
SC-34115-S	7/26/2000	1042013.53	754536.64	660.34
SC-34115-U	8/4/2000	1042087.62	754567.91	653.53
SC-34116-S	7/22/2000	1041998.03	754566.29	659.17
SC-34116-U	8/4/2000	1042058.46	754553 37	654.08
SC-34117-S	7/26/2000	1042016.79	754463 35	658.91
SC-34117-U	8/4/2000	1042029.79	754538.19	654.32
SC-34118-S	7/26/2000	1042000.85	754492.19	655.49
SC-34118-U	8/4/2000	1042001 14	754520.66	655.43
SC-34119-S	7/26/2000	1041984.85	754520.53	659.77
SC-34119-U	8/4/2000	1041970 62	754507.11	654 97
SC-34120-S	7/22/2000	1041968.77	754546.79	658.94
SC-34120-U	8/10/2000	1041998.24	754505.29	659.92 *
SC-34121-U	8/10/2000	1041994.26	754522.97	656.97 *
SC-34122-U	8/12/2000	1041985.95	754543.16	636.43
SC-34123-U	8/12/2000	1041981.50	754575 43	639.45
SC-34124-U	8/12/2000	1041977.61	754599.33	640.13
SC-34201-U	8/16/2000	1042199.60	754413.85	646.91
SC-34202-C	7/26/2000	1042180.15	754461.03	653.74
SC-34202-S	5/20/2000	1042179.58	754441 64	660.47
SC-34203-S	7/26/2000	1042163.37	754470.25	659.73
SC-34204-C	7/26/2000	1042148.73	754518.31	651 71
SC-34204-S	7/26/2000	1042147.41	754498.91	654 51
SC-34205-C	5/20/2000	1042171.88	754421.88	661 60
SC-34206-S	5/20/2000	1042151 17	754425.55	660 95

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ID	Date Sampled	Northing	Easting	Elevation
SC-34207-S	7/26/2000	1042134.84	754454.37	660.26
SC-34208-S	7/26/2000	1042118.82	754482.92	653.34
SC-34210-S	5/20/2000	1042122.24	754409.75	661.75
SC-34211-S	7/26/2000	1042106.16	754438.26	661.65
SC-34212-S	7/26/2000	1042090.15	754466.88	657.88
SC-34213-C	5/20/2000	1042126.71	754365.43	646.84
SC-34214-S	5/20/2000	1042109.68	754365.06	647.03
SC-34215-S	7/31/2000	1042090.32	754385.55	648.04
SC-34216-S	7/31/2000	1042077.71	754421.88	660.08
SC-34217-S	7/26/2000	1042061.22	754450.63	659.30
SC-34218-C	5/20/2000	1042099.00	754350.93	646.68
SC-34218-C-HS01	5/30/2000	1042105.46	754355.56	646.99
SC-34218-C-HS02	5/30/2000	1042094.37	754357.76	646.93
SC-34218-C-HS03	5/30/2000	1042090.78	754348.65	646.85
SC-34218-C-HS04	5/30/2000	1042102.16	754343.45	646.96
SC-34219-S	5/20/2000	1042080.89	754348.92	647.01
SC-34220-S	5/20/2000	1042065.03	754377.63	646.82
SC-34221-S	7/31/2000	1042049.02	754406.01	657.90
SC-34222-S	7/26/2000	1042032.91	754434.54	659.08
SC-34301-S	5/20/2000	1042052.37	754333.07	646.75
SC-34301-U	5/18/2000	1041988.56	754350.53	643.44
SC-34302-S	5/20/2000	1042036.39	754361.42	646.68
SC-34302-U	5/18/2000	1041960.51	754334.26	643.27
SC-34303-S	7/31/2000	1042020.42	754390.20	655.76
SC-34303-U	5/18/2000	1041931.78	754320.43	642.97
SC-34304-S	7/26/2000	1042004.29	754418.84	661.39
SC-34304-U	8/2/2000	1041965.43	754480.72	659.34
SC-34305-S	5/20/2000	1042023.93	754317.05	646.87
SC-34305-U	8/2/2000	1041976.15	754450.50	659.57
SC-34306-S	5/20/2000	1042007.78	754345.64	644.45
SC-34306-U	8/2/2000	1041988.67	754420.76	660.97
SC-34307-S	3/7/2000	1041991.68	754374.12	661.32
SC-34307-U	8/15/2000	104193.41	754408.23	639.91
SC-34308-S	4/13/2000	1041975.65	754402.75	659.37
SC-34308-U	8/15/2000	1041992.73	754410..55	645.25
SC-34309-S	5/20/2000	1041995.09	754300.92	643.89
SC-34309-U	8/15/2000	1042007.43	754381.70	644.69
SC-34310-S	5/18/2000	1041979.09	754329.35	644.25
SC-34311-S	3/7/2000	1041963.05	754358.09	659.08
SC-34312-S	4/13/2000	1041947.03	754386.72	645.93
SC-34313-S	5/18/2000	1041966.59	754284.66	644.04
SC-34314-S	5/18/2000	1041950.58	754313.27	644.19
SC-34315-S	3/7/2000	1041934.43	754342.07	659.53
SC-34316-S	4/13/2000	1041918.40	754370.69	645.50
SC-34318-C	5/18/2000	1041944.65	754292.25	643.87
SC-34319-S	5/18/2000	1041921.91	754297.21	644.16
SC-34320-S	3/7/2000	1041905.80	754326.04	659.89
SC-34320-S-RS	3/16/2000	1041906.14	754325.88	658.73
SC-34321-S	4/13/2000	1041889.77	754354.67	646.33
SC-34401-S	7/26/2000	1041988.26	754447.53	662.33
SC-34401-U	5/19/2000	1041826.25	754462.37	660.90 *
SC-34402-S	7/26/2000	1041972.27	754476.05	661.54
SC-34402-U	8/1/2000	1041856.47	754476.82	658.96
SC-34403-S	7/26/2000	1041956.33	754504.70	660.68
SC-34403-U	8/1/2000	1041888.42	754494.33	658.99

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ID	Date Sampled	Northing	Easting	Elevation
SC-34404-S	7/22/2000	1041941.51	754532.01	660.05
SC-34404-U	8/1/2000	1041917 70	754509.79	658.63
SC-34405-S	4/13/2000	1041959.63	754431.37	658 87
SC-34405-U	8/2/2000	1041949.73	754517 56	660.92
SC-34406-S	4/13/2000	1041943.60	754460.00	657.96
SC-34406-U	8/2/2000	1041981 04	754524.16	657.16
SC-34407-S	4/13/2000	1041927.57	754488.63	659 72
SC-34407-U	8/12/2000	1041967.04	754531 72	636 62
SC-34408-S	5/5/2000	1041911.55	754517.25	661.36
SC-34408-U	8/12/2000	1041968.74	754563.64	639.18
SC-34409-S	4/13/2000	1041931.00	754415.35	642.65
SC-34409-U	8/12/2000	1041968.43	754597.92	640.44
SC-34410-S	4/13/2000	1041914.97	754443 97	645.93
SC-34410-U	8/15/2000	1041965.34	754425.20	638.85
SC-34411-S	4/13/2000	1041989.95	754472.60	654 93
SC-34412-S	5/5/2000	1041882.92	754501.23	661.58
SC-34413-S	4/13/2000	1041902.37	754399.32	645 14
SC-34413-S-RS	4/27/2000	1041901 88	754397 31	644.20
SC-34414-S	4/13/2000	1041886.35	754427.95	646.25
SC-34415-S	4/13/2000	1041870.32	754456.57	654 82
SC-34416-S	5/5/2000	1041854.29	754485.20	661 60
SC-34417-S	4/13/2000	1041873.75	754383.29	646 00
SC-34418-S	4/13/2000	1041857.72	754411.92	646 18
SC-34419-S	4/13/2000	1041841.69	754440.55	654.64
SC-34420-S	5/5/2000	1041825.66	754469.17	661 90
SC-34501-S	7/23/2000	1041924.10	754561.97	657 45
SC-34502-S	7/23/2000	1041908.13	754590 57	658.57
SC-34503-S	7/23/2000	1041892.07	754619 19	658.96
SC-34504-S	7/25/2000	1041876.15	754647.92	658.92
SC-34505-S	5/5/2000	1041895.52	754545.88	653 35
SC-34506-S	5/5/2000	1041879.49	754574.51	647 78
SC-34507-S	5/5/2000	1041863.47	754603.14	645.88
SC-34508-S	5/5/2000	1041847.44	754631.76	646.20
SC-34509-S	5/5/2000	1041866.89	754529.85	650.88
SC-34513-S	5/5/2000	1041838.27	754513 83	650.73
SC-34517-S	5/5/2000	1041809.64	754497 80	651 00
SC-34601-S	6/3/2000	1041860.02	754676.44	659.08
SC-34601-U	7/7/2000	1041798.78	754787 80	641 72
SC-34602-S	6/1/2000	1041844 42	754704.83	659.41
SC-34602-U	7/10/2000	1041783.63	754758.00	640 61 *
SC-34603-S	5/5/2000	1041827.98	754733.67	659 21
SC-34603-U	7/10/2000	1041759.48	754735.13	640 74 *
SC-34604-S	5/5/2000	1041811.96	754762.30	659 39
SC-34604-U	7/10/2000	1041736.69	754710.69	640.89 *
SC-34605-C	6/22/2000	1041802.28	754810 59	648.54
SC-34605-S	6/22/2000	1041795.85	754791 03	644 46
SC-34606-S	5/5/2000	1041831 41	754660.39	647.19
SC-34607-S	5/5/2000	1041815.38	754689.02	653.03
SC-34608-S	5/5/2000	1041799.36	754717.64	659.57
SC-34609-S	4/25/2000	1041783.16	754746.07	658.67
SC-34610-C	6/22/2000	1041773.91	754797 09	644 08
SC-34610-S	6/22/2000	1041767 48	754775.05	648 79
SC-34612-S	5/5/2000	1041786 76	754672 99	647 06
SC-34613-S	5/5/2000	1041770 73	754701 62	658 21
SC-34614-S	4/25/2000	1041754 72	754730 26	653 53

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ID	Date Sampled	Northing	Easting	Elevation
SC-34617-S	5/5/2000	1041758.13	754656.96	651.10
SC-34618-S	4/25/2000	1041742.39	754685.94	659.70
SC-34619-C	4/25/2000	1041734.71	754733.90	647.44
SC-34619-S	4/25/2000	1041726.58	754713.75	648.47
SC-34621-S	5/5/2000	1041729.50	754640.94	656.13
SC-34622-S	4/25/2000	1041713.26	754669.30	654.97
SC-34623-S	4/25/2000	1041697.47	754698.22	645.53
SC-34624-S	6/22/2000	1041779.75	754819.62	644.03
SC-34702-S	5/5/2000	1041716.90	754596.28	649.91
SC-34703-S	5/5/2000	1041700.88	754624.71	660.15
SC-34704-S	4/25/2000	1041685.08	754653.80	649.85
SC-34705-S	4/25/2000	1041668.80	754682.14	645.12
SC-34707-S	5/5/2000	1041688.28	754580.26	656.04
SC-34708-S	4/25/2000	1041672.31	754608.96	655.75
SC-34709-S	4/25/2000	1041656.32	754637.61	645.45
SC-34711-S	5/5/2000	1041675.68	754535.60	653.81
SC-34712-S	4/25/2000	1041659.47	754564.00	658.16
SC-34713-S	4/25/2000	1041643.62	754592.87	649.92
SC-34714-C	4/25/2000	1041638.58	754638.95	643.07
SC-34714-S	4/25/2000	1041627.59	754621.48	642.92
SC-34715-S	4/25/2000	1041647.40	754519.49	659.72
SC-34716-S	5/8/2000	1041631.12	754548.06	650.13
SC-34717-S	4/25/2000	1041615.11	754576.96	644.51
SC-34718-S	4/25/2000	1041599.09	754605.59	643.22
SC-34719-S	4/25/2000	1041618.32	754503.43	654.63
SC-34720-S	5/8/2000	1041602.33	754532.38	646.80
SC-34721-S	5/8/2000	1041586.60	754560.91	640.35
SC-34722-C	4/24/2000	1041576.09	754613.15	642.75
SC-34723-S	4/25/2000	1041589.91	754487.67	655.76
SC-34724-S	4/25/2000	1041573.58	754515.94	647.53
SC-34725-S	4/25/2000	1041557.43	754544.44	644.01
SC-34801-S	4/13/2000	1041813.06	754424.52	654.44
SC-34801-U	5/19/2000	1041821.76	754444.03	661.08 *
SC-34802-S	5/5/2000	1041797.04	754453.15	661.92
SC-34802-U	5/19/2000	1041796.42	754428.68	661.40 *
SC-34803-S	5/5/2000	1041781.01	754481.77	651.25
SC-34803-U	5/19/2000	1041770.18	754412.79	661.49 *
SC-34804-U	5/19/2000	1041745.44	754397.80	661.55 *
SC-34805-U	5/19/2000	1041722.88	754384.13	661.42 *
SC-34806-S	4/13/2000	1041784.44	754408.49	654.34
SC-34807-S	5/5/2000	1041768.41	754437.12	662.06
SC-34808-S	5/5/2000	1041752.38	754465.75	651.85
SC-34811-S	4/13/2000	1041755.81	754392.47	654.07
SC-34812-S	5/5/2000	1041739.78	754421.09	662.10
SC-34813-S	5/5/2000	1041723.76	754449.72	655.22
SC-34814-S	5/5/2000	1041707.73	754478.35	650.75
SC-34815-S	5/5/2000	1041691.70	754506.97	648.65
SC-34816-S	5/8/2000	1041726.90	754376.21	662.38
SC-34817-S	5/8/2000	1041711.36	754405.26	662.60
SC-34818-S	5/5/2000	1041695.13	754433.69	662.46
SC-34819-S	5/5/2000	1041679.10	754462.32	660.84
SC-34820-S	5/5/2000	1041663.08	754490.95	659.01
SC-34901-U	3/30/2000	1041775.78	754255.35	658.79
SC-34902-S	5/18/2000	1041893.19	754281.50	643.41
SC-34902-U	3/30/2000	1041825.24	754261.79	657.93

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ID	Date Sampled	Northing	Easting	Elevation
SC-34903-S	3/7/2000	1041877.17	754310.01	660.12
SC-34903-U	3/30/2000	1041795.58	754248.63	658.98
SC-34904-S	4/13/2000	1041861 15	754338.64	646.48
SC-34904-U	3/30/2000	1041791.95	754262.47	657 68
SC-34905-S	4/13/2000	1041845 12	754367 27	646.19
SC-34905-U	3/30/2000	1041755.59	754310.67	659.05
SC-34906-S	4/13/2000	1041829.09	754395.89	646.38
SC-34906-U	5/17/2000	1041737.64	754362.66	658.65
SC-34907-U	5/20/2000	1041893.20	754300.54	642.30
SC-34908-S	5/18/2000	1041864.37	754265.21	646 75
SC-34908-U	5/20/2000	1041862.58	754291.90	642.51
SC-34909-S	3/7/2000	1041848.55	754293.99	660.68
SC-34909-U	5/20/2000	1041775.16	754254.73	640.53
SC-34910-S	4/13/2000	1041832.52	754322.61	646 76
SC-34911-S	4/13/2000	1041816 49	754351.24	646 56
SC-34912-S	4/13/2000	1041800.46	754379.87	646 48
SC-34912-S-RS	4/27/2000	1041800.67	754378.00	645 33
SC-34913-C	4/17/2000	1041856 17	754246.92	658.08
SC-34913-C-01	5/11/2000	1041856.37	754247.00	647.43
SC-34914-S	4/17/2000	1041835 95	754249.33	657.71
SC-34914-S-01	5/11/2000	1041836.69	754248.93	648.72
SC-34915-S	3/7/2000	1041819.92	754277.96	661.05
SC-34916-S	4/13/2000	1041803 89	754306.59	647 81
SC-34917-S	4/13/2000	1041787.86	754335.21	647.78
SC-34918-S	4/13/2000	1041771 84	754363.84	648.22
SC-34920-S	4/17/2000	1041823.35	754204.68	660.50
SC-34920-S-01	5/11/2000	1041823.40	754204.42	649.47
SC-34920-S-RS	4/27/2000	1041822.07	754206.27	658.86
SC-34921-S	4/17/2000	1041807.32	754233.30	657.96
SC-34922-S	3/8/2000	1041791.29	754261.93	662.02
SC-34923-S	3/29/2000	1041775 26	754290.56	661.65
SC-34924-S	3/29/2000	1041759.24	754319.19	662.26
SC-34925-S	5/8/2000	1041743.52	754347.94	660.75
SC-35001-U	3/30/2000	101764.80	754234.45	658.67
SC-35002-U	3/30/2000	1041736.58	754217 31	658.64
SC-35003-S	4/17/2000	1041778.69	754217.28	659.34
SC-35003-U	3/30/2000	1041707.63	754203.84	658 66
SC-35004-S	3/8/2000	1041762.66	754245.90	661.86
SC-35004-U	3/30/2000	1041677.99	754189.75	658.49
SC-35005-S	3/29/2000	1041746.64	754274.53	657.81
SC-35005-U	3/30/2000	1041649.27	754174.14	659.22
SC-35006-C	4/17/2000	1041772.21	754195.52	660.25
SC-35006-U	3/30/2000	1041751.78	754202.64	658.92
SC-35007-S	4/17/2000	1041750.06	754201.25	659.32
SC-35007-U	3/30/2000	1041722.88	754188.95	658.76
SC-35008-S	3/8/2000	1041734.04	754229.88	661.08
SC-35008-U	3/30/2000	1041694.43	754172.39	659.80
SC-35009-S	4/17/2000	1041718.01	754258.50	645.31
SC-35009-U	3/30/2000	1041662.68	754169.71	659.52
SC-35010-U	5/5/2000	1041607.93	754150.84	659.10
SC-35011-S	4/17/2000	1041721.40	754185.22	661.55
SC-35011-U	5/5/2000	1041581.30	754138.53	659.98
SC-35012-S	3/8/2000	1041705.41	754213.85	661.11
SC-35013-S	4/17/2000	1041689.38	754242.48	644.68
SC-35014-C	4/17/2000	1041714 28	754164 70	660 81

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ID	Date Sampled	Northing	Easting	Elevation
SC-35015-S	4/17/2000	1041692.81	754169.20	662.33
SC-35016-S	3/8/2000	1041676.78	754197.82	661.32
SC-35017-S	4/28/2000	1041660.76	754226.45	645.30
SC-35017-U	5/20/2000	1041749.80	754241.63	640.00
SC-35018-C	4/17/2000	1041685.32	754149.29	661.06
SC-35018-U	5/20/2000	1041718.34	754222.68	639.93
SC-35019-S	4/29/2000	1041664.18	754153.17	662.58
SC-35019-U	5/20/2000	1041687.76	754205.58	638.93
SC-35020-S	3/8/2000	1041648.16	754181.80	661.60
SC-35020-U	5/20/2000	1041658.28	754189.58	639.59
SC-35021-S	4/28/2000	1041632.13	754210.42	660.48
SC-35021-U	5/20/2000	1041622.26	754171.28	640.36
SC-35101-S	3/29/2000	1041730.61	754303.16	657.34
SC-35101-U	5/17/2000	1041726.38	754348.42	655.99
SC-35102-S	4/28/2000	1041714.58	754331.79	658.06
SC-35102-U	5/17/2000	1041712.93	754372.96	658.55
SC-35103-S	4/28/2000	1041698.56	754360.41	661.35
SC-35103-U	5/17/2000	1041695.69	754377.51	656.94
SC-35104-S	5/6/2000	1041682.34	754388.95	656.97
SC-35104-U	6/4/2000	1041696.24	754407.74	636.14
SC-35105-S	4/28/2000	1041701.98	754287.13	641.69
SC-35105-U	6/4/2000	1041656.14	754389.28	638.18
SC-35106-S	4/28/2000	1041685.96	754315.76	649.02
SC-35106-U	6/4/2000	1041704.09	754386.41	636.39
SC-35107-S	4/28/2000	1041699.93	754344.39	661.45
SC-35107-U	6/4/2000	1041698.72	754342.20	638.94
SC-35108-S	5/6/2000	1041653.89	754373.31	647.90
SC-35108-U	6/4/2000	1041692.82	754297.58	639.77
SC-35109-S	4/28/2000	1041673.36	754271.10	641.14
SC-35110-S	4/28/2000	1041657.33	754299.73	648.09
SC-35111-S	4/28/2000	1041641.30	754328.36	661.53
SC-35112-S	5/6/2000	1041625.13	754356.58	647.68
SC-35113-S	4/28/2000	1041644.73	754255.08	644.86
SC-35114-S	4/28/2000	1041628.70	754283.71	649.10
SC-35115-S	4/28/2000	1041612.68	754312.33	661.63
SC-35116-S	5/6/2000	1041596.91	754341.09	648.15
SC-35117-S	4/28/2000	1041616.10	754239.05	661.51
SC-35118-S	4/28/2000	1041600.08	754267.68	661.96
SC-35119-S	4/21/2000	1041584.05	754296.31	654.64
SC-35120-S	5/6/2000	1041568.11	754325.00	661.26
SC-35201-S	5/6/2000	1041666.59	754417.50	656.34
SC-35202-S	5/6/2000	1041650.75	754446.12	656.52
SC-35203-S	5/6/2000	1041634.50	754475.05	661.34
SC-35204-S	6/2/2000	1041638.67	754401.42	640.63
SC-35205-S	5/6/2000	1041621.29	754431.23	646.42
SC-35206-S	5/6/2000	1041605.88	754458.20	661.18
SC-35207-S	6/2/2000	1041608.02	754385.32	640.89
SC-35208-S	5/6/2000	1041593.05	754414.18	646.38
SC-35209-S	5/6/2000	1041576.66	754441.60	661.40
SC-35210-S	4/25/2000	1041561.00	754471.30	657.97
SC-35211-S	4/25/2000	1041544.74	754499.71	650.96
SC-35212-S	4/25/2000	1041529.75	754528.10	644.76
SC-35213-S	5/6/2000	1041580.61	754369.69	646.74
SC-35214-S	5/6/2000	1041564.31	754398.38	649.15
SC-35215-S	5/6/2000	1041549.05	754426.68	661.61

WP437 RU24 SAMPLE LOCATION COORDINATES

ID	Date Sampled	Northing	Easting	Elevation
SC-35216-S	4/25/2000	1041532.95	754455.02	658.00
SC-35217-S	4/25/2000	1041516.39	754483.99	649 42
SC-35219-S	5/6/2000	1041551 74	754353 73	661 50
SC-35220-S	5/6/2000	1041535.95	754382.46	661 61
SC-35221-S	5/6/2000	1041519 80	754410 77	661.07
SC-35222-S	4/25/2000	1041503.98	754439.48	656.15
SC-35223-S	4/25/2000	1041487.80	754468.00	647.41
SC-35301-S	5/8/2000	1041523.20	754337.25	660.01
SC-35302-S	5/8/2000	1041507.09	754366.11	660 08
SC-35303-S	4/25/2000	1041491 17	754394 74	655.99
SC-35304-S	4/25/2000	1041474.66	754424.97	651.36
SC-35305-S	6/16/2000	1041459.23	754451 93	644.78
SC-35306-S	5/8/2000	1041494.74	754321 51	659 96
SC-35307-C	5/8/2000	1041484.81	754372 30	657 16
SC-35307-S	5/8/2000	1041478 59	754349.94	659 67
SC-35308-S	4/25/2000	1041462.57	754378 72	654 74
SC-35309-S	5/15/2000	1041446.76	754407 33	651 92
SC-35310-C	6/16/2000	1041440.84	754456 46	644 95
SC-35310-S	6/16/2000	1041430.57	754435 77	644 66
SC-35311-S	5/8/2000	1041466.21	754305.20	659 25
SC-35312-S	5/8/2000	1041450.24	754333 78	658.52
SC-35313-S	4/25/2000	1041434 08	754362.73	654.91
SC-35314-S	5/15/2000	1041418.24	754391 31	652.60
SC-35315-S	5/8/2000	1041437 61	754289.50	659.19
SC-35316-C	5/8/2000	1041428.16	754340.44	657 24
SC-35316-S	5/8/2000	1041421.92	754317.47	659 25
SC-35317-S	4/25/2000	1041405 34	754346 68	655.83
SC-35318-S	4/25/2000	1041389.30	754375.27	653 11
SC-35319-S	5/8/2000	1041408.81	754273.63	659 30
SC-35320-C	5/8/2000	1041399.28	754324 17	657 45
SC-35320-S	5/8/2000	1041392.77	754301 75	658 47
SC-35321-S	4/25/2000	1041376.35	754330.61	656 31
SC-35323-S	5/8/2000	1041380.12	754257.52	659 42
SC-35324-S	5/8/2000	1041364.02	754286 15	658 85
SC-35325-S	4/25/2000	1041347 40	754314.67	656 17
SC-35401-S	4/29/2000	1041587.48	754223 02	662 97
SC-35402-S	4/21/2000	1041571.54	754251 74	656.79
SC-35403-S	4/21/2000	1041555.68	754280 58	657 06
SC-35404-S	4/21/2000	1041539 55	754309 11	659 98
SC-35405-S	4/29/2000	1041558.85	754207.00	662.25
SC-35406-S	4/21/2000	1041542.77	754235.57	656.62
SC-35407-S	4/21/2000	1041526.85	754264 33	656.72
SC-35408-S	4/21/2000	1041510.67	754292.72	660.45
SC-35409-S	4/29/2000	1041530.22	754190.97	662 14
SC-35410-S	4/21/2000	1041513 88	754219.25	656.59
SC-35411-S	4/21/2000	1041497.79	754247.71	656.50
SC-35412-S	4/21/2000	1041482.18	754276.92	660 74
SC-35413-S	4/29/2000	1041501.59	754174.94	662.80
SC-35414-S	4/21/2000	1041485.57	754203.57	659.03
SC-35415-S	4/21/2000	1041469.60	754232.28	658.63
SC-35416-S	4/21/2000	1041453.65	754261.06	662 62
SC-35417-S	4/29/2000	1041472.97	754158.92	663 55
SC-35418-S	4/21/2000	1041456.99	754187.60	659 11
SC-35419-S	4/21/2000	1041440 91	754216 16	659 05
SC-35420-S	4/21/2000	1041424 97	754244 97	660 85

WP437 RU24 SAMPLE LOCATION COORDINATES

ID	Date Sampled	Northing	Easting	Elevation
SC-35501-U	5/13/2000	1041571.08	754133.01	660.40
SC-35502-S	4/29/2000	1041635.56	754137.14	663.88
SC-35502-U	5/13/2000	1041540.96	754120.12	660.61
SC-35503-S	4/29/2000	1041619.53	754165.77	663.97
SC-35503-U	5/13/2000	1041503.84	754113.75	660.30
SC-35504-S	4/29/2000	1041603.50	754194.40	663.45
SC-35504-U	5/13/2000	1041474.11	754110.76	661.02
SC-35505-U	5/13/2000	1041445.92	754106.46	662.08
SC-35506-S	4/29/2000	1041606.93	754121.12	663.64
SC-35507-S	4/29/2000	1041590.90	754149.74	664.43
SC-35508-S	4/29/2000	1041574.88	754178.37	663.93
SC-35511-S	4/29/2000	1041562.28	754133.72	663.51
SC-35512-S	4/29/2000	1041546.25	754162.34	663.08
SC-35514-S	4/29/2000	1041533.65	754117.69	663.50
SC-35515-S	4/29/2000	1041517.62	754146.32	664.55
SC-35518-S	4/29/2000	1041488.99	754130.29	665.59
SC-35520-S	4/21/2000	1041460.35	754114.25	664.66
SC-35521-S	4/26/2000	1041444.25	754142.79	663.29
SC-35524-S	4/21/2000	1041415.88	754127.06	662.51
SC-35525-C	4/21/2000	1041408.28	754110.32	663.35
SC-35526-S	4/21/2000	1041387.25	754111.07	661.92
SC-35601-S	4/21/2000	1041428.32	754171.53	658.99
SC-35602-S	4/21/2000	1041412.18	754199.92	658.91
SC-35603-S	4/21/2000	1041396.30	754228.85	660.78
SC-35604-S	4/21/2000	1041399.98	754155.97	661.84
SC-35605-S	4/21/2000	1041383.85	754184.55	661.79
SC-35606-S	4/21/2000	1041367.68	754212.88	663.39
SC-35607-S	5/8/2000	1041351.15	754241.39	659.54
SC-35608-C	5/8/2000	1041344.71	754293.39	658.40
SC-35610-S	4/21/2000	1041371.09	754139.53	660.85
SC-35611-S	4/21/2000	1041355.01	754168.02	662.01
SC-35612-S	4/21/2000	1041338.95	754196.43	661.71
SC-35613-S	5/8/2000	1041322.85	754225.56	659.03
SC-35616-S	4/21/2000	1041342.45	754123.50	667.49
SC-35617-S	4/21/2000	1041326.45	754152.29	664.94
SC-35618-S	4/21/2000	1041310.44	754181.51	660.33
SC-35619-C	4/25/2000	1041308.26	754225.73	659.69
SC-35619-S	4/25/2000	1041294.35	754209.30	660.40
SC-35620-C	4/26/2000	1041335.63	754105.65	666.76
SC-35621-S	4/21/2000	1041313.81	754107.40	666.65
SC-35622-S	4/21/2000	1041297.78	754136.01	666.20
SC-35623-S	4/25/2000	1041281.77	754164.41	661.72
SC-35625-S	4/26/2000	1041285.14	754091.79	664.69

* approximate elevation as determined by as-built topo

APPENDIX D
Interoffice Correspondence

MORRISON KNUDSEN CORPORATION

MK-FERGUSON GROUP

INTER-OFFICE CORRESPONDENCE

DATE: November 17, 1995

TO: ALARA Committee

FROM: Michelle French/Richard Machado

SUBJECT: RA-226 DETERMINATION FOR SITE CONFIRMATION SAMPLES

Background

The issue surrounding Ra-226 analysis via gamma spectroscopy arises due to the fact that the Ra-226 soil concentration is determined by using the following energy peaks: 295 keV and 352 keV for Pb-214; and 609 keV, 1120 keV, and 1764 keV for Bi-214. These radionuclides are both short-lived daughters of Rn-222. The drying and grinding processes are known to drive off Rn-222 that is trapped in the soil pores and moisture held in the soil. In order to quantitatively identify Ra-226 using gamma spectroscopy, Rn-222 and its short-lived progeny must be allowed to grow into secular equilibrium following such sample preparation techniques. The following alternatives were evaluated for estimating the Ra-226 concentration in soil given gamma spectroscopy analysis within five working days of sample collection.

Alternative

Send all samples requiring Ra-226 analysis to an offsite laboratory. At offsite facilities, Ra-226 is typically analyzed through alpha spectroscopy which does not rely on the Ra-222 daughter products to provide a quantitative result. The minimum turnaround time that can be provided for alpha spectroscopy analysis for Ra-226 is four days. At one and two day turnaround times, the method for analysis is modified to use Gas Flow Proportional Counting for total alpha counting yielding a total radium number with no separation of isotopic contributions. Given the four day turnaround time and an estimate of 750 samples (WP-253 and WP-420), the total analytical costs will be $95,250.

The major disadvantage in this approach is the tight schedule involved with sample collection, packaging, shipping, data receipt, data review, and ALARA committee action. It may be impossible to accomplish this within five working days given the four day turnaround requirement.

Alternative 2

As stated above, the drying and grinding processes are known to drive off radon that is trapped in the soil matrix. However, the amount of radon removed from these processes is not quantified. If you were to assume that all the radon is removed during these processes and the time of final preparation was recorded, a correction factor can be applied based upon the secular equilibrium condition equation. For example, the following table summarizes the ratio of activity of Rn-222 to the activity of Ra-226.

A(Rn-222)/A(Ra-226)	Time Post Canning (Days)
0.167	1
0.306	2
0.422	3
0.665	6
0.807	9
0.888	12
0.935	15
0.963	18
0.978	21
0.987	24
0.993	27
0.996	30

Thus, if the samples were counted three days post canning, a correction factor of 0.422 would be used to determine the estimated final Ra-226 concentration. Given this approach, any concentration determined three days post preparation would be divided by 0.422 to arrive at the final concentration. For a 5 pCi/g ALARA goal, any result above 2.1 pCi/g would be rejected.

The major limitation with this approach is the assumption that the drying and grinding processes remove 100% of the radon. Samples that have been analyzed within one day of preparation have never yielded results much below expected background concentrations (0.8-1.0 pCi/g).

Thus, the use of a correction factor on the order of 0.167 could result in a very conservative approach for estimating the final Ra-226 soil concentration in background soils (in fact all samples analyzed one day after canning would equal or exceed 5 pCi/g).

Alternative 3

All samples that are collected to support confirmation can be analyzed as wet samples to virtually eliminate the radon removal that occurs during sample preparation. However, there are numerous considerations, such as sample homogeneity, particle size, moisture content variability, etc., that can produce error in such analyses. If the samples are analyzed wet, they would also be prepared and analyzed to provide final concentrations for each radionuclide of interest for the sample. This dry evaluation would require an analysis within the confirmation cleanup turnaround period and a second analysis within 20-30 days later to finalize Ra-226 concentrations to an acceptable quality level. This approach would involve three analyses of every sample. The initial wet analysis can be used to estimate the final Ra-226 concentration. However, this estimate must be made on a case by case basis through moisture corrections, etc.

The major limitation for this approach is the reduction in lab productivity as an extra canning effort would be needed to generate a wet and a dry sample for each sample and count time for each sample would increase by a factor of three.

Alternative 4

Over the last several months, the onsite radiological laboratory has been recounting samples that were analyzed during the months of April - September 1995. These reanalyses were done in order to support final analyses of SE Drainage and Quarry characterization samples. The graph on the attached page illustrates a portion of the recount results versus the initial results. The graph includes those samples that had initial Ra-226 results < 5 pCi/g. As illustrated, the background - 2.2 pCi/g sample range had 100% of all sample recounts fall less than 5 pCi/g. For those in the ange of 2.2 - 3.2 pCi/g, the likelihood of exceeding 5 p i/g was approximately 50%. All of the samples with initial results greater than 3.2 pCi/g had final Ra-226 results > 5 pCi/g.

This information can be used to establish a criteria about which samples can be said to meet the ALARA goal of 5 pCi/g within the five working day turnaround window.

Given the current study findings, it is recommended that any sample with an initial Ra-226 result > 2.2 pCi/g be expected to exceed the ALARA goal of 5 pCi/g. In addition, the estimated final Ra-226 soil concentration should be found by multiplying the initial result by 2.27 (2.2 pCi/g x 2.27 = 5 pCi/g). This correction factor is very close to the maximum increase from initial results to recount results (e.g., 2.56) in the background to 2.2 pCi/g concentration range. The average increase from initial results to recount results for this range was 1.51. However, use of a value closer to the maximum value affords less risk in exceeding expected confirmation goals. The laboratory will work to refine these numbers to further minimize the risk as they continue to recount samples collected over the last few months. The major limitation with this alternative is the potential to over excavate, increasing disposal costs.

Alternative 5

This alternative involves a combination of alternatives 3 and 4. Samples that do not have elevated direct survey results via a 2x2 NaI or a 44-9 survey should be prepared and evaluated in accordance with alternative 4. Samples that do have above background survey results will be analyzed wet and evaluated accordingly to determine the estimated final Ra-226 concentration. The sample will then be prepared and analyzed a second time to provide quality level da a for the other radionuclides of interest. In addition each prepared sample would be analyzed within 30 days after preparation to finalize the Ra-226 concentration to an acceptable quality level.

The major limitation with this approach is the loss in productivity as a result of the double canning needs and increased count times for a portion of the samples.

Recommendation

The Onsite Radiological Laboratory recommends the use of alternative 4. This alternative minimizes risk of failing to meet expected cleanup ALARA goals and provides for maximum efficiency/productivity within the laboratory. The second favorable alternative is number 5. This alternative would increase the workload in the laboratory, but would further reduce the risk of over excavation and failure to meet desired cleanup objectives.

In all of the above alternatives, the estimated final Ra-226 concentration will be used in conjunction with the measured Ra-228 concentration as follows to determine if the mixture rule for the ALARA goals as described in the Record of Decision is achieved.

$$\frac{\text{Est. Final Ra-226 (pCi/g)}}{5\ \text{pCi/g}} + \frac{\text{Ra-228 (pCi/g)}}{5\ \text{pCi/g}} = \text{Mixture Ratio}$$

If mixture ratio <= 1, then the sample meets cleanup confirmation design. If mixture ratio > 1, then the sample must be considered by the ALARA committee.

MLF/RM/pr

Attachment

Distribution:

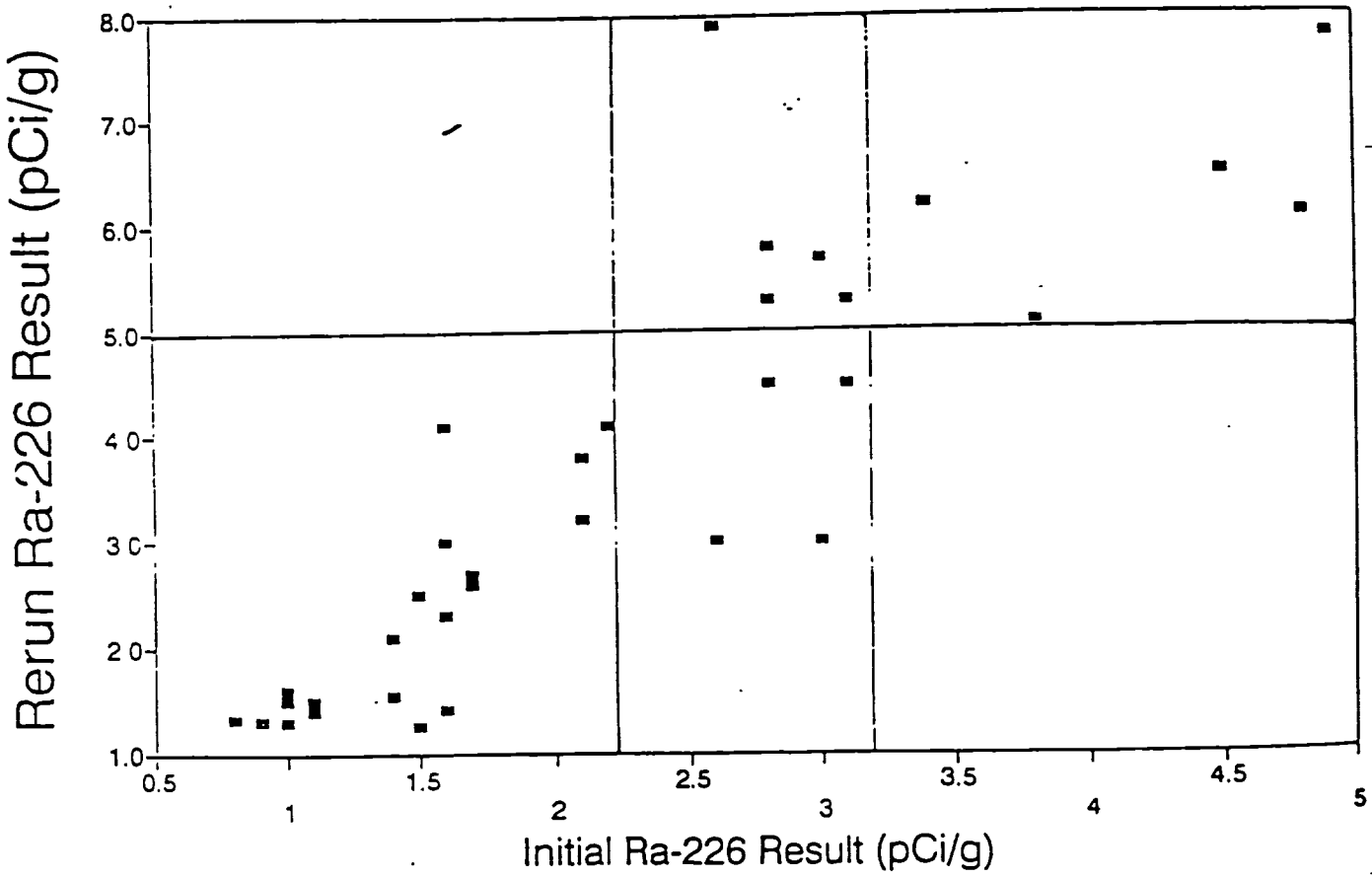
Ken Meyer
Steve Warren
Ken Greenwell
Jim Meier

Alternates:
Marj Wesley
Jack Cooney
Dan Hoffman

cc: Melissa Lutz

Ra226 Concentration Range

Background - 5.0 pCi/g



MORRISON KNUDSEN CORPORATIO
MK-FERGUSON GROUP

INTER-OFFICE CORRESPONDENCE

DATE: November 20, 1995

TO: ALARA Committee

FROM: Richard Machado/Michelle French MF

SUBJECT: TH232 DETERMINATION FOR SITE CONFIRMATION SAMPLES

Th232 can occur in two forms at the site: (1) naturally and (2) processed to purify Th232. Both of these forms are subject to the same transformation equation. Given a Th232 half life of 1.39 x 10^{10} years and a Ra228 half life of 5.75 years, a condition known as secular equilibrium occurs. Secular equilibrium occurs when the half life of the parent is very much greater than that of the daughter. If an initially pure parent (Th232) is formed, its radioactive transformation will result in accumulation of the daughter (Ra228). Since the daughter (Ra228) decays very much faster than the parent (Th232), a point is soon reached at which the amount of parent (Th232) present is equal to that of the daughter (Ra228).

The equation that represents this condition of secular equilibrium is:

$$Q_B = Q_A (1 - e^{-\lambda_B t})$$

where Q_A=parent (Th232) activity, Q_B=daughter (Ra228) activity, t=time since placement of material, and λ_B=decay constant for daughter (Ra228). Therefore, the fraction of daughter activity to parent activity

$$\left(\frac{A(RA\text{-}228)}{A(Th\text{-}232)}\right)$$

present at the WSSRAP in 1995 can be calculated.

Assume that production ceased at the site on January 1, 1965, and that all Th232 was produced on that very last day (t=30.9 years). Given a half life for Ra228 of 5.75 years, the decay constant would equal

$$(\lambda_B = 0.121\ Y^{-1})$$

11 3219

Given this information, the ratio of Ra228 activity to Th232 activity can be calculated as follows:

$$\frac{Q_B}{Q_A} = \frac{A\,(Ra\text{-}228)}{A\,(Th\text{-}232)} = 1 - e^{-\lambda_B t}$$

$$\frac{A\,(Ra228)}{A\,(Th232)} = 1 - e^{-(0.121Y^{-1})\,(30.9Y)} = 1 - 0.024 = 0.976$$

$$\therefore \frac{A\,(Ra\text{-}228)}{A\,(Th\text{-}232)} = 0.976 \quad or \quad A\,(Th\text{-}232) = 1.025\,A\,(Ra\text{-}228)$$

This representation will be true for both naturally occurring Th232 and processed Th232. The other situation to be addressed includes the circumstance when Ra228 and associated decay products were placed as a waste material after purification of Th232. In this situation, the amount of Ra228 present will be much greater than the Th232 present. This information i illustrated in a previous assessment of the ratio of Ra22 concentrations to that of Th232 in raffinate pit wastes. The average ratio was reported as 7.02 in the *Concentration Ratios of Radionuclides* in the U238, U235, and Th232 *Decay Series* (DOE/OR/21548-250), indicating that the average activity concentration for Th232 is 0.14 of the activity concentration for Ra228.

The Record of Decision states that if Th232 and Ra228 are present and not in secular equilibrium, the cleanup criteria apply for the radionuclide with the higher concentration. Thus, for determination of successful cleanup, the use of a Ra-228 ALARA goal of 4.88 pCi/g and a criteria of 6.05 pCi/g will result in removing Th232 to within 5 pCi/g (ALARA) and 6.2 pCi/g (criteria), respectively.

Given this practice, it is recommended that the on-site radiological analyses for Ra-228 concentrations in soil be used to determine attainment of Th-232 cleanup. It is also recommended that 2% of the samples (1 of every 50) that are independently analyzed via an off-site facility be used as a quality check for all radionuclides of interest (U238, Th230, Th232, Ra228, and Ra226). In addition, these numbers should be summarized in post remediation reports for each work package to support the decision to use Ra228 to determine successful cleanup of Th232.

RM/MF/jn

<u>Distribution</u>: ALARA Committee

Steve Warren	Alternates:	Marj Wesley
Ken Meyer		Jack Cooney
Ken Greenwell		Dan Hoffman
Jim Meier		Melissa Lutz

MORRISON KNUDSEN CORPORATION

MK-FERGUSON GROUP

INTER-OFFICE CORRESPONDENCE

DATE: April 27, 1999

TO: Dan Hoffman

FROM: Dave Cowell DC

SUBJECT: RA-226 RECOUNTS

In an effort to eliminate repetitive work, the on-site lab performed a study to determine if recounts 30 days after sealing sample cans was necessary for samples that have background or near background Ra-226 concentrations. As a result of the study, the lab will now only perform Ra-226 recounts for samples that fail the Radium ALARA preliminary calculation.

This calculation will involve multiplying the Ra-226 result by a correction factor of 2.27 (established in an IOC dated 11/17/95) and adding it to the Ra-228 result. If this result is greater than 5 pCi/g then that sample will be held and recounted 30 days later with the intention of reducing the final reported value.

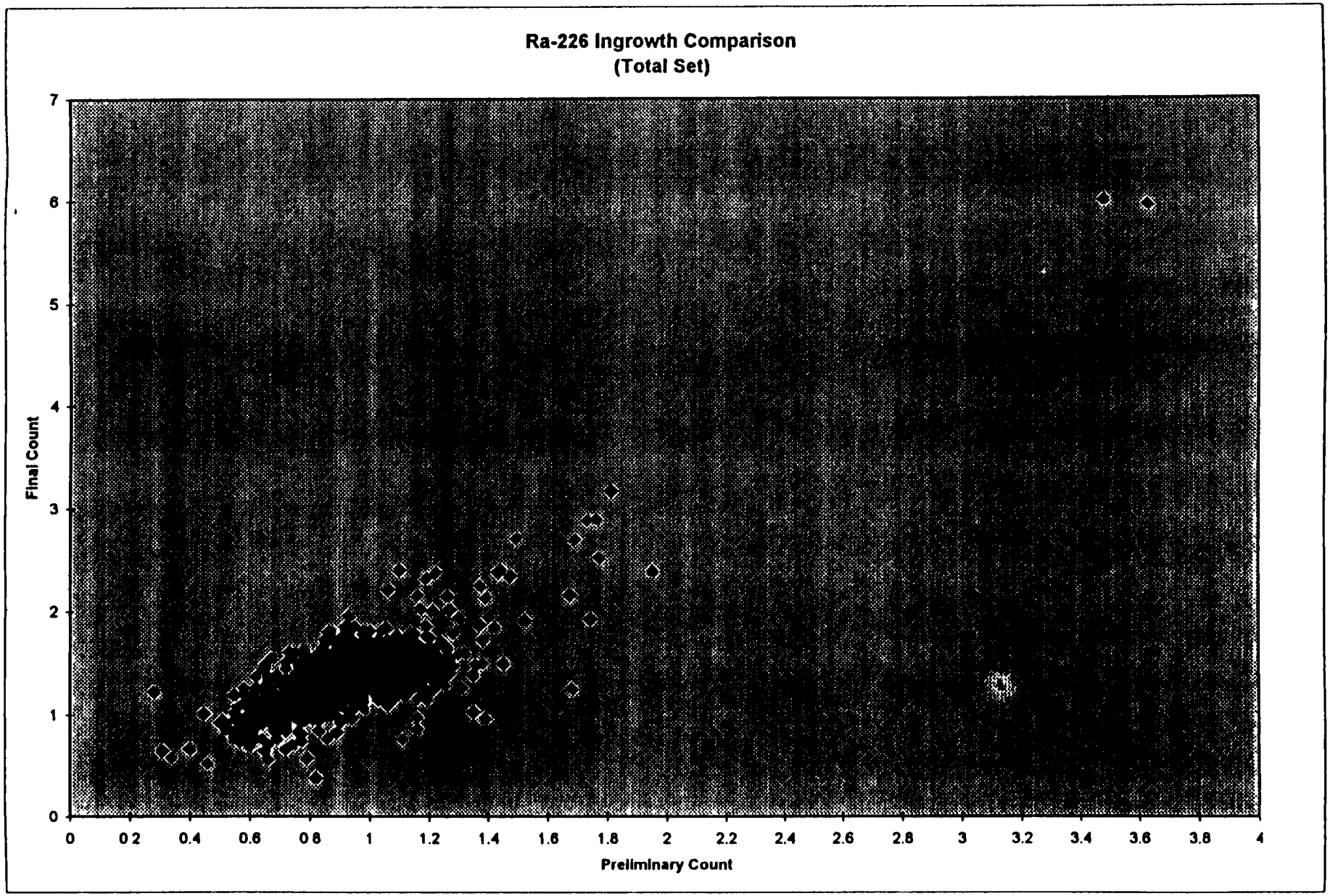
This approach is conservative because the correction factor of 2.27 was established using samples with concentrations of up to 8 pCi/g. Samples having near background concentrations of Ra-226 do not ingrow to that level. Additionally, the correction factor was intended identify samples with Ra-226 levels that could exceed 5 pCi/g and did not account for the contribution from Ra-228, which we will include in this new calculation.

The attached page is included to illustrate the results of the study.

DC/jn

Attachment

Cc: Jim Meier
Steve Warren
Dave Hixson
John Coniglio
Melissa Lutz
Randy Thompson


Ra-226 Ingrowth Comparison
(Total Set)
Final Count
Preliminary Count
0
1
2
3
4
5
6
7
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
2.2
2.4
2.6
2.8
3
3.2
3.4
3.6
3.8
4

MORRISON KNUDSEN CORPORATION
Federal Programs Division

INTER-OFFICE CORRESPONDENCE

DATE: **December 30, 1999**

TO: **Distribution**

FROM: **Melissa Lutz** ML

SUBJECT: **ADDITION OF PARAMETERS TO THE CONFIRMATION SAMPLING IN RU24 (SWTP)**

The Compliance Group has requested that all confirmation sampling points located within the Site Water Treatment Plant Equalization Basin be sampled for arsenic, barium, chromium, lead, selenium, and 2,4-DNT, in addition to the confirmation parameters assigned per the *Confirmation Sampling Plan Details for the Disposal Cell Facility (WP437)*. Please make the appropriate changes in FST to accommodate this request.

The request issued by Compliance has been attached for your information. If you have any questions, please contact me.

Attachment

Distribution:

Dan Boss
Linda Broody
Terry Caldwell
Tim Christopher
Karen Cullinan
Nick Twesten
Terri Uhlmeyer
Soil Confirmation File

ML/lac

MORRISON KNUDSEN CORPORATION
Federal Programs Division

INTER-OFFICE CORRESPONDENCE

DATE: November 5, 1999

TO: Dan Hoffman

FROM: David Hixson

SUBJECT: **REQUEST TO INCLUDE ARSENIC, BARIUM, CHROMIUM, LEAD, SELENIUM AND 2,4-DNT AT THE SWTP EQUALIZATION BASIN**

The Compliance Department has identified arsenic, barium, chromium, lead, selenium, and 2,4-DNT as contaminants required to be evaluated for the determination of RCRA clean closure at the SWTP Equalization Basin (EB). The Compliance Department is requesting that these contaminants be added during confirmation sampling for the SWTP EB. This request is in accordance with the RCRA Closure Document, Rev. 0, March 1999.

If you have any questions, contact Terri Uhlmeyer at extension 3118.

cc: Randy Thompson
Melissa Lutz
Linda Broody
Nick Twesten
EC 3.14

DSH/tru/lac

MORRISON KNUDSEN CORPORATION
Federal Programs Division

INTER-OFFICE CORRESPONDENCE

DATE: **December 30, 1999**

TO: **Soil Confirmation File**

FROM: **Melissa Lutz** ML

SUBJECT: **MODIFICATION OF THE CONFIRMATION COCs ASSIGNED BENEATH BUILDING 434**

The *Confirmation Sampling Plan Details for the Disposal Cell Facility (WP437)* was written in 1998, prior to any characterization data available beneath Building 434 (B434). Confirmation analytes were based upon the wastes stored within the building that had contaminants exceeding ALARA concentrations and also based upon the buildings historical use. Using this assumption, the COCs assigned beneath B434 included full radiological parameters, plus arsenic, chromium, lead, thallium and PCBs.

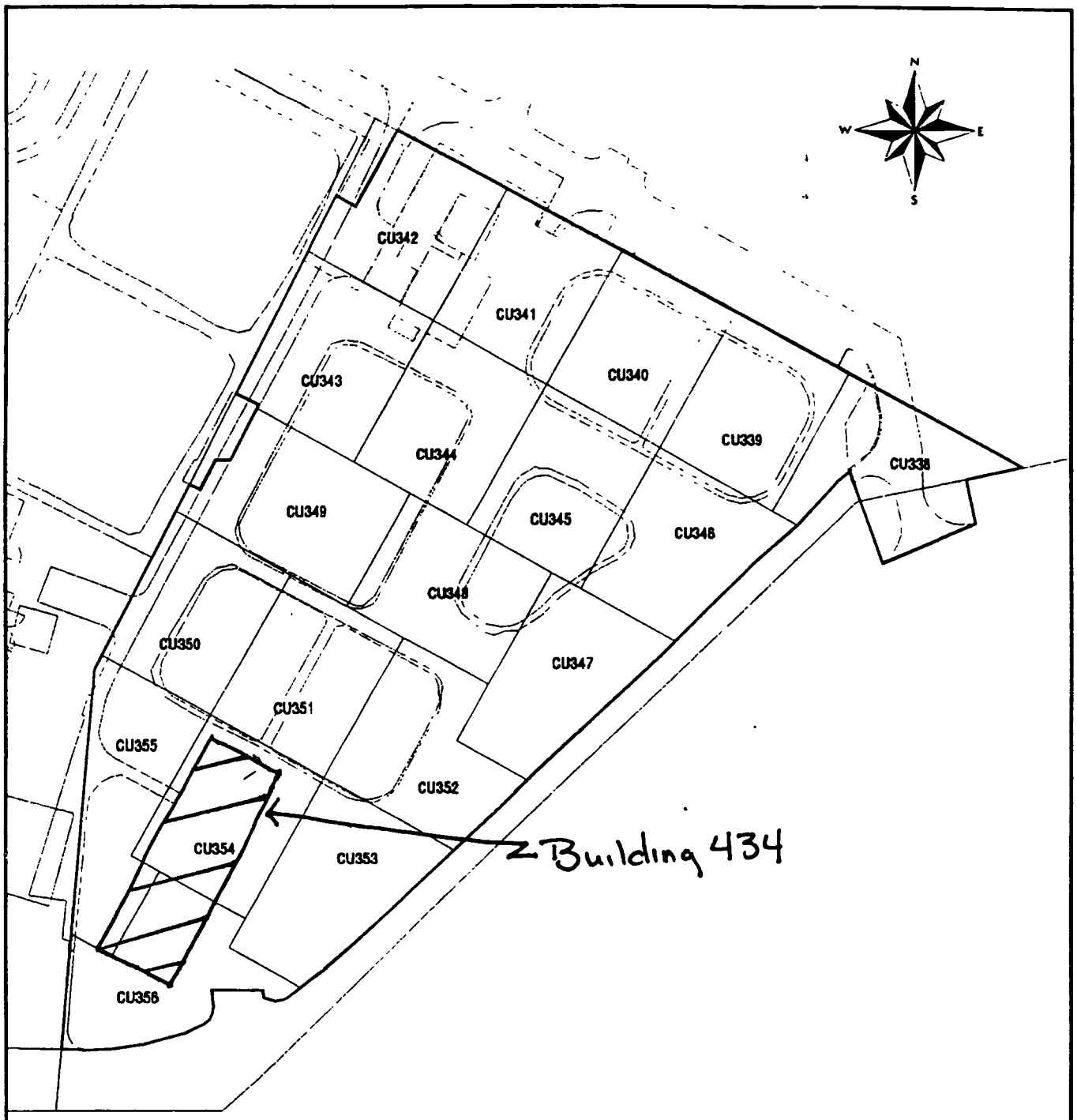
Since then, engineering has collected soil samples from 15 locations: 12 locations drilled beneath the concrete floor and 3 locations around the building's exterior. Samples were analyzed for all the ROD contaminants of concern (COC). PAHs were the only chemical COC identified that exceeded ALARA. Based upon these characterization results, the B434 area will now be confirmed for U238, Ra226, Ra228, Th230, Th232, and PAHs. This same suite of parameters will also be assigned to the areas beneath the flammable storage sheds adjacent to B434.

B434 and the storage sheds are located within portions CU353, CU354, CU355, and CU356 (Attachment 1). Revised tables, C-212 thru C-215, are attached and supercede those in the *Confirmation Sampling Plan Details for the Disposal Cell Facility (WP437)*, Rev. 0.

cc: Linda Broody
Tim Christopher
Karen Cullinan
Nick Twesten
Dan Boss
Terry Caldwell
Jill Bennett

Attachment

ML/lac



50 25 0 50 METERS

150 75 0 150 FEET

Confirmation Units in Remedial Unit 24

ATTACHMENT 1

REPORT NO.: DOE/OR/21548-706		EXHIBIT NO.: G/CP/99/1297	
ORIGINATOR: MGL	DRAWN BY: WSSRAP GIS	DATE: 01/06/98	

Table C-212 Summary of Samples Required to Confirm RU024CU353

Sample ID	Easting	Northing	Analyses
SC-35301-S	754337.5323	1041523.368	U238
SC-35302-S	754366.1593	1041507.341	U238
SC-35303-S	754394.7863	1041491.314	U238
SC-35304-S	754423.4133	1041475.288	U238
SC-35305-C	754467.4704	1041471.713	U238
SC-35305-S	754452.0402	1041459.261	U238
SC-35306-S	754321.5054	1041494.741	U238
SC-35307-S	754350.1324	1041478.714	U238
SC-35307-C	754372.4593	1041485.014	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35308-S	754378.7594	1041462.688	U238
SC-35309-S	754407.3864	1041446.661	U238
SC-35311-S	754305.4786	1041466.114	U238
SC-35312-S	754334.1055	1041450.087	U238
SC-35313-S	754362.7325	1041434.061	U238
SC-35314-C	754411.4363	1041426.928	U238
SC-35314-S	754391.3595	1041418.034	U238
SC-35315-S	754289.4517	1041437.487	U238
SC-35316-S	754318.0787	1041421.46	U238
SC-35316-C	754340.4056	1041427.760	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35317-S	754346.7057	1041405.434	U238
SC-35318-S	754375.3327	1041389.407	U238
SC-35319-S	754273.4248	1041408.86	U238
SC-35320-S	754302.0518	1041392.833	U238
SC-35320-C	754330.6788	1041376.807	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35321-S	754330.6788	1041376.807	U238
SC-35323-S	754257.398	1041380.233	U238
SC-35324-S	754286.0249	1041364.206	U238
SC-35325-C	754334.1189	1041357.831	U238
SC-35325-S	754314.6519	1041348.18	U238

Table C-213 Summary of Samples Required to Confirm RU024CU354

Sample ID	Easting	Northing	Analyses
SC-35401-S	754223.0243	1041587.476	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35402-S	754251.6513	1041571.449	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35403-S	754280.2783	1041555.422	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35404-S	754308.9053	1041539.395	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35405-S	754206.9975	1041558.849	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35406-S	754235.6245	1041542.822	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35407-S	754264.2514	1041526.795	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35408-S	754292.8784	1041510.768	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35409-S	754190.9706	1041530.222	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35410-S	754219.5976	1041514.195	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35411-S	754248.2246	1041498.168	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35412-S	754276.8516	1041482.141	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35413-S	754174.9437	1041501.595	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35414-S	754203.5707	1041485.568	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35415-S	754232.1977	1041469.541	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35416-S	754260.8247	1041453.514	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35417-S	754158.9169	1041472.968	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35418-S	754187.5439	1041456.941	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35419-S	754216.1709	1041440.914	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35420-S	754244.7978	1041424.887	U238, Ra226, Ra228, Th230, Th232, PAH

Table C-214 Summary of Samples Required to Confirm RU024CU355

Sample ID	Easting	Northing	Analyses
SC-35502-S	754137.1434	1041635.556	U238
SC-35503-S	754165.7704	1041619.529	U238
SC-35504-S	754194.3974	1041603.503	U238
SC-35506-S	754121.1165	1041606.929	U238
SC-35507-S	754149.7435	1041590.902	U238
SC-35508-S	754178.3705	1041574.876	U238
SC-35511-S	754133.7166	1041562.275	U238
SC-35512-S	754162.3436	1041546.249	U238
SC-35514-S	754117.6898	1041533.648	U238
SC-35515-S	754146.3168	1041517.622	U238
SC-35518-S	754130.2899	1041488.995	U238
SC-35520-S	754114.2630	1041460.368	U238
SC-35521-S	754142.8900	1041444.341	U238
SC-35524-S	754126.8631	1041415.714	U238
SC-35525-C	754110.4247	1041408.369	U238
SC-35526-S	754110.8363	1041387.087	U238

Table C-215 Summary of Samples Required to Confirm RU024CU356

Sample ID	Easting	Northing	Analyses
SC-35601-S	754171.517	1041428.314	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35602-S	754200.144	1041412.287	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35603-S	754228.771	1041396.260	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35604-S	754155.4901	1041399.687	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35605-S	754184.1171	1041383.660	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35606-S	754212.7441	1041367.633	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35607-S	754241.3711	1041351.606	U238
SC-35608-C	754293.6467	1041344.884	U238
SC-35610-S	754139.4633	1041371.060	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35611-S	754168.0903	1041355.033	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35612-S	754196.7172	1041339.006	U238, Ra226, Ra228, Th230, Th232, PAH
SC-35613-S	754225.3442	1041322.979	U238
SC-35616-S	754123.4364	1041342.433	U238
SC-35617-S	754152.0634	1041326.406	U238
SC-35618-S	754180.6904	1041310.379	U238
SC-35619-C	754225.4543	1041308.238	U238
SC-35619-S	754209.3174	1041294.352	U238
SC-35620-C	754105.5421	1041335.604	U238
SC-35621-S	754107.4095	1041313.806	U238
SC-35622-S	754136.0365	1041297.779	U238
SC-35623-S	754164.6635	1041281.752	U238
SC-35625-S	754091.3827	1041285.179	U238

MORRISON KNUDSEN CORPORATION
Federal Programs Division

INTER-OFFICE CORRESPONDENCE

DATE: **February 8, 2000**

TO: **Distribution**

FROM: **Linda Broody** LGB

SUBJECT: **ADDITIONAL CONFIRMATION SAMPLE POINTS IN RU24 (SWTP)**

Four in-situ excavation areas (SWTP-1 through SWTP-4) were created in the Site Water Treatment Plant work zone after the *Confirmation Sampling Plan Details for the Disposal Cell Facility (WP 437)* was issued. The additional areas have been incorporated into RU24 (SWTP) confirmation units and will require confirmation sampling points to be added in order to accommodate them. Affected confirmation units are CU338, CU346, CU347, CU353.

Confirmation parameters as defined in *Technical Memorandum No. 3840TM-7229-A* will be assigned to the new points and can be found in the list below. One existing sample location falls within an in-situ area and will require added parameters, which are also listed below.

New sample point ID's and locations are shown on the attached figures.

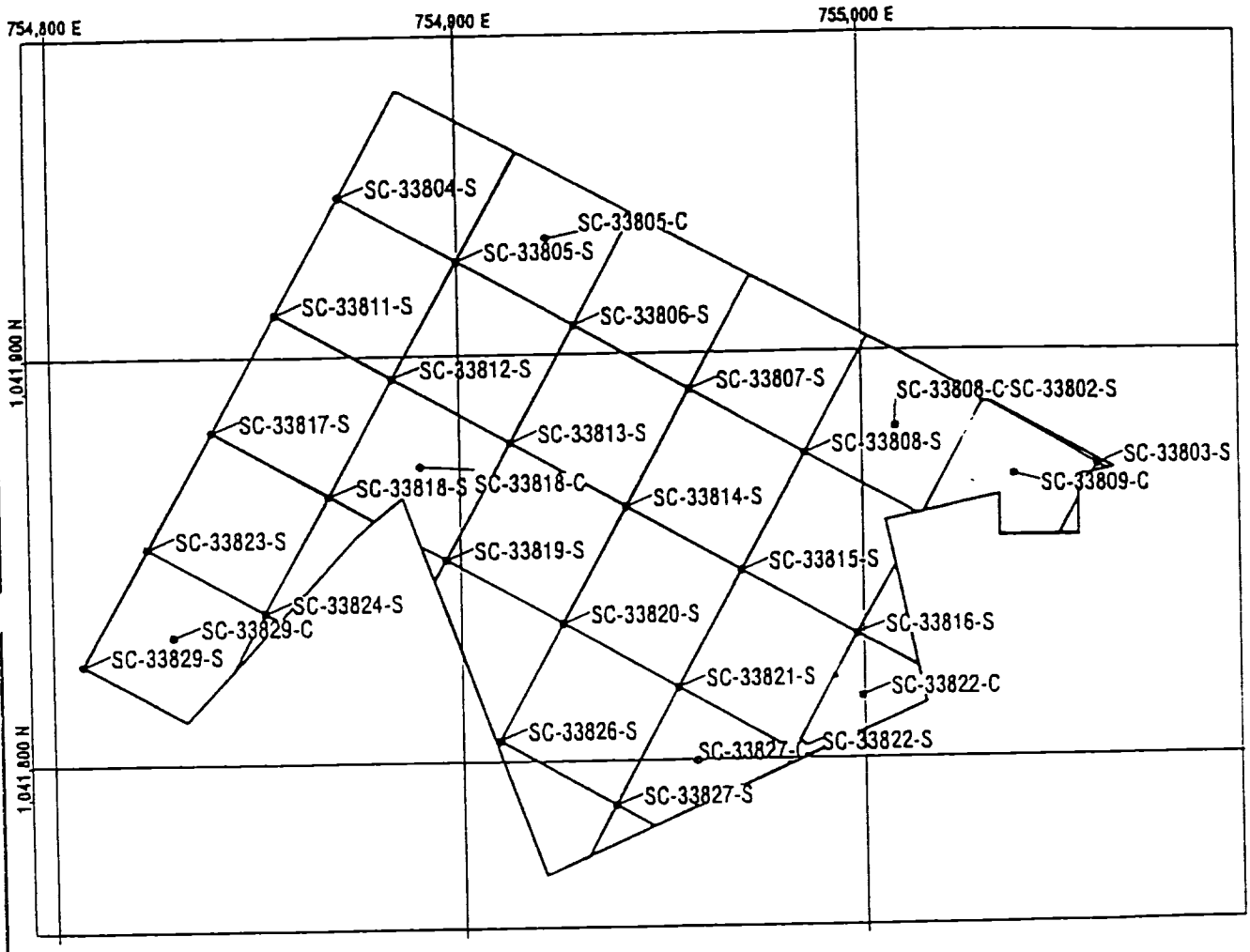
New Sample ID	Easting	Northing	Parameter(s)
SC-33809-C	755037.744	1041869.133	Th-230
SC-34610-C	754774.897	1041767.304	Th-232
SC-34624-S	754819.551	1041779.904	Th-232
SC-34722-C	754613.115	1041576.062	Ra-226 / Ra-228 / PCBs
SC-35310-C	754456.655	1041440.696	Th-230 / Th-232
SC-35310-S	7544436.013	1041430.634	Th-230 / Th-232

Existing Sample ID	Additional Parameter(s)
SC-35305-S	Th-230 / Th-232

cc: Dan Boss
Terry Caldwell
Tim Christopher
Karen Cullinan
Jason Fugate
Karl Hamilton
Melissa Lutz
Nick Twesten
Steve Warren (w/out attachments)
Chris Weston
Confirmation File

Attachments

LB/lac



Data Sources:
(a) Confirmation GIS
(b) Spec 2300

15 7.5 0 METERS

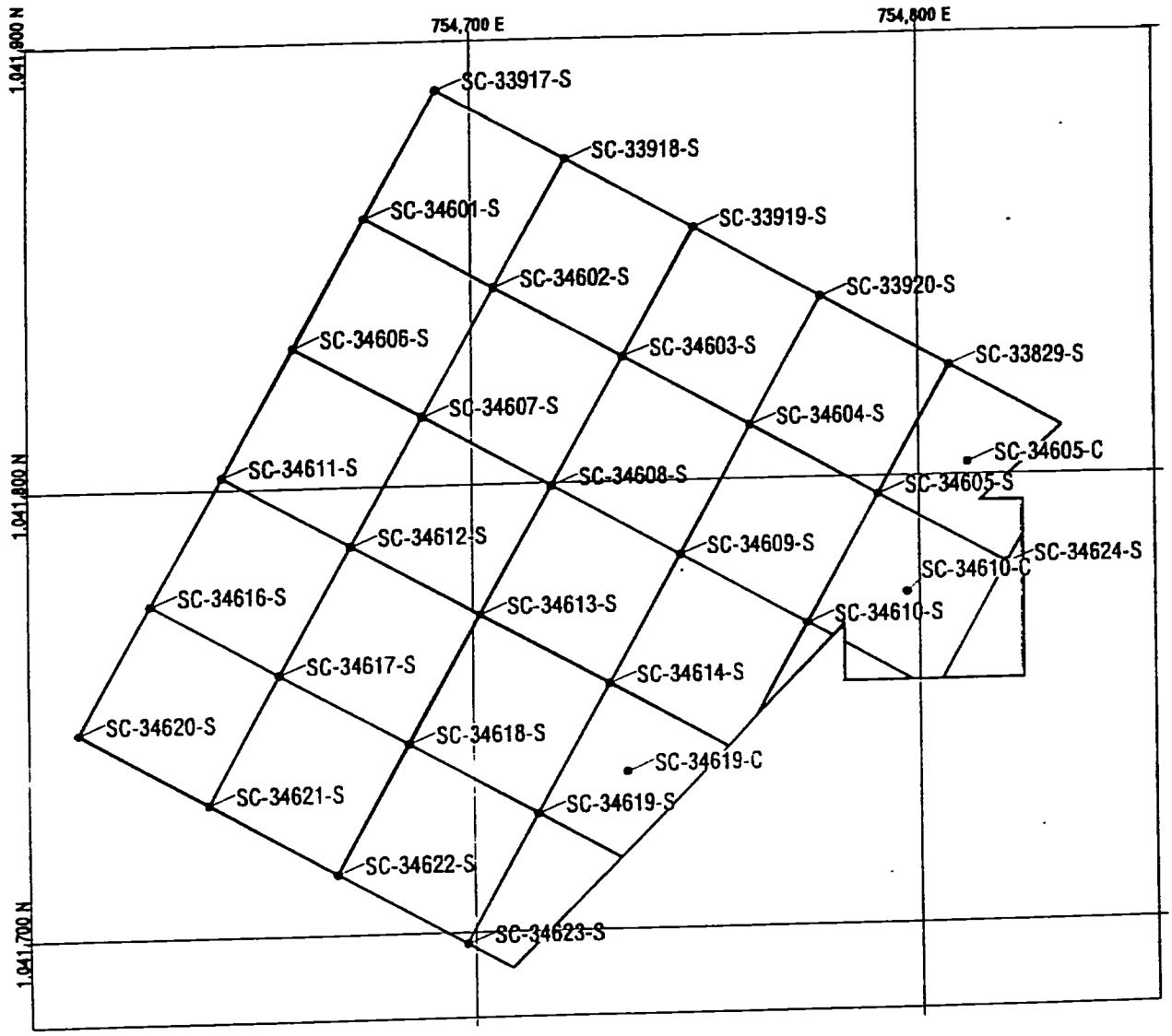
45 22.5 0 FEET

Scale: 1 inch = 45 feet

Sample Locations in Remedial Unit RU024
Confirmation Unit CU338

Figure:

REPORT NO.: DOE/OR/21548-___		EXHIBIT NO.: G/CP/___/0100	
ORIGINATOR: LB	DRAWN BY: WSSRAP GIS	DATE: 01/30/00	



Data Sources:
(a) Confirmation GIS
(b) Spec 2300

15 7.5 0 METERS

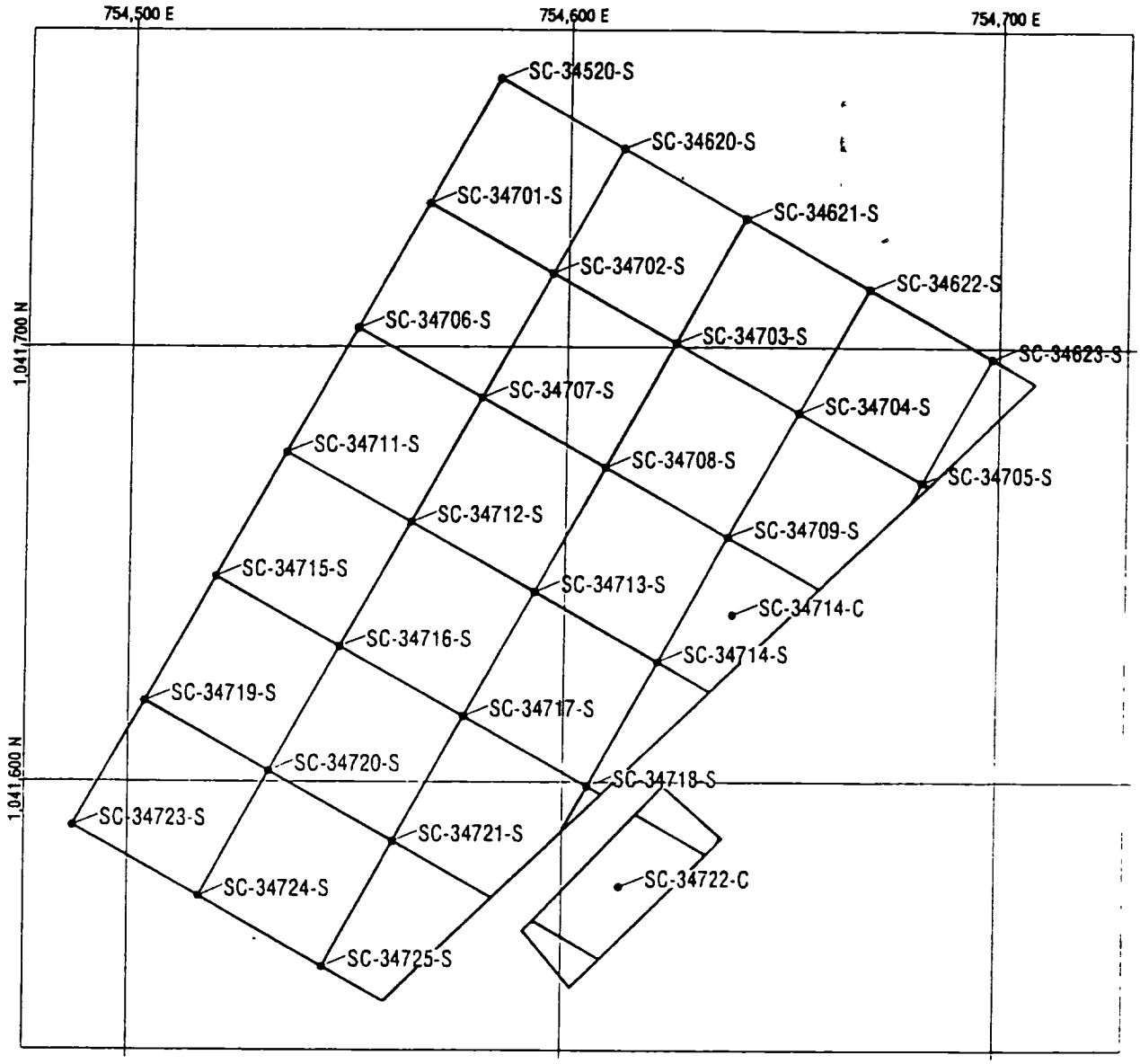
45 22.5 0 FEET

Scale: 1 inch = 40 feet

Sample Locations in Remedial Unit RU024 Confirmation Unit CU346

Figure:

REPORT NO: DOE/OR/21548-___		EXHIBIT NO G/CP/___/0100	
ORIGINATOR: LB	CRAWN BY: WSSRAP GIS	DATE 02/02/00	



Data Sources:
(a) Confirmation GIS
(b) Spec 2300

15 7.5 0 METERS

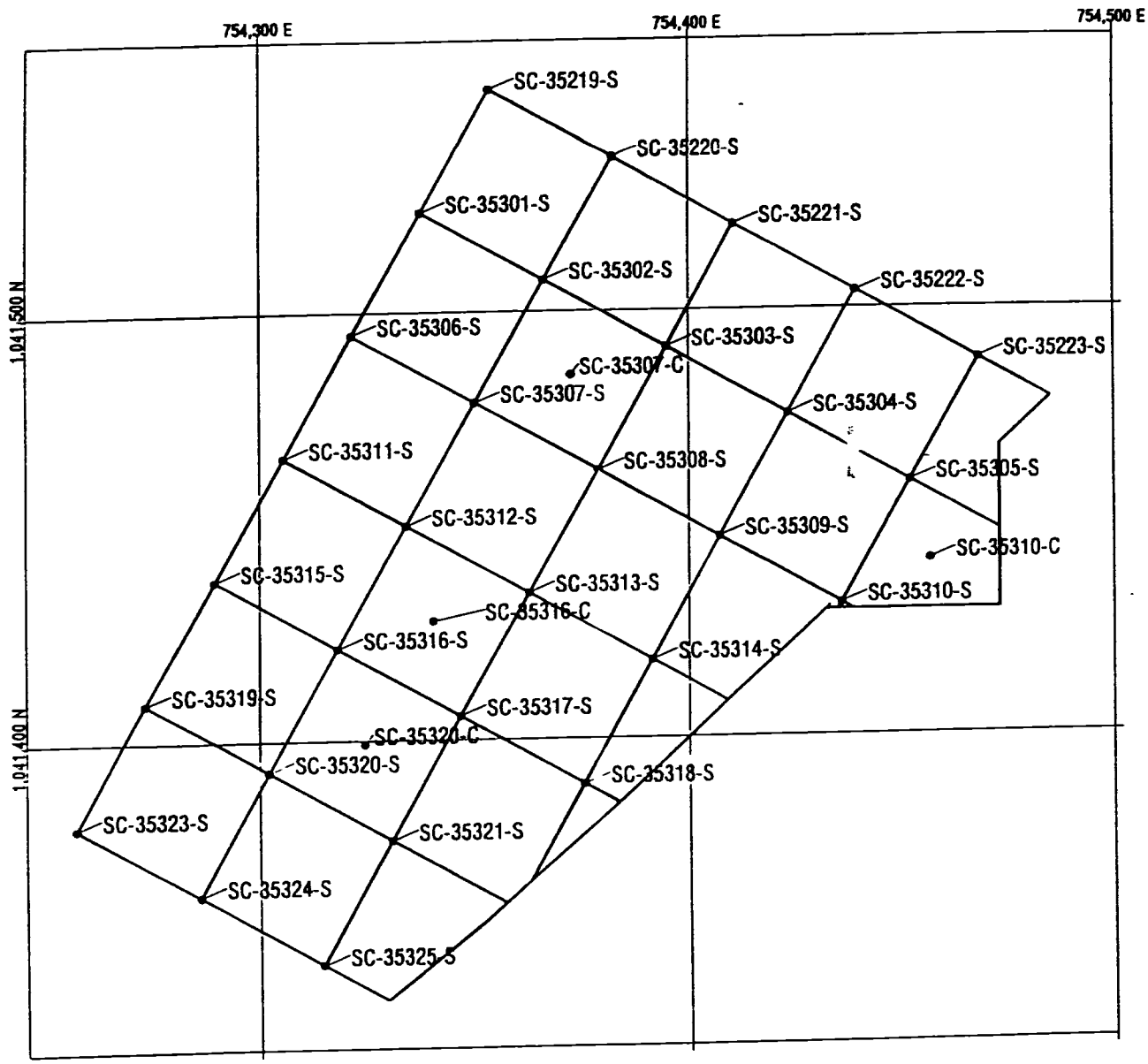
45 22.5 0 FEET

Scale: 1 inch = 40 feet

Sample Locations in Remedial Unit RU024
Confirmation Unit CU347

Figure:

REPORT NO DOE/OR/21548-___		EXHIBIT NO G/CP/___/0100	
ORIGINATOR LB	DRAWN BY WSSRAP GIS	DATE 02/02/00	



Data Sources:
(a) Confirmation GIS
(b) Spec 2300

15 7.5 0 METERS

45 22.5 0 FEET

Scale: 1 inch = 40 feet

Sample Locations in Remedial Unit RU024 Confirmation Unit CU353

Figure:

REPORT NO.: DOE/OR/21548-___		EXHIBIT NO	G/CP/___/0100
ORIGINATOR: LB	DRAWN BY: WSS AP GIS	DATE	02/02/00

MORRISON KNUDSEN CORPORATION
Federal Programs Division

INTER-OFFICE CORRESPONDENCE

DATE: **August 1, 2000**

TO: **Confirmation File**

FROM: **Melissa Lutz**

SUBJECT: **CONFIRMATION UNIT BOUNDARY CHANGES WITH RU24**

A review of characterization data for Sedimen ation Basin 5 (previously identified as the Siltation Basin 3) has been conducted, which included both sediment and underlying soil. The sediment had been characterized during the berm height increase. All results were less than their respective ALARA cleanup numbers and the sediment was removed as clean material. During 1999, after the sediment had been removed, the soils beneath were also sampled. These results were also less than their respective ALARA goals and have been attached.

Based upon the above information, no further confirmation will be conducted in this basin. This approach is consistent with the statement made in the Confirmation Sampling Plan for WP437, p 50, which states the basin may not require confirmation if characterization of the sediment is conducted and results are less than the cleanup standards. See the attached map for the areas being deleted from CU345, CU346, CU347, and CU348.

If you have any questions, please contact Linda Broody at extension 2937 or myself at extension 3544.

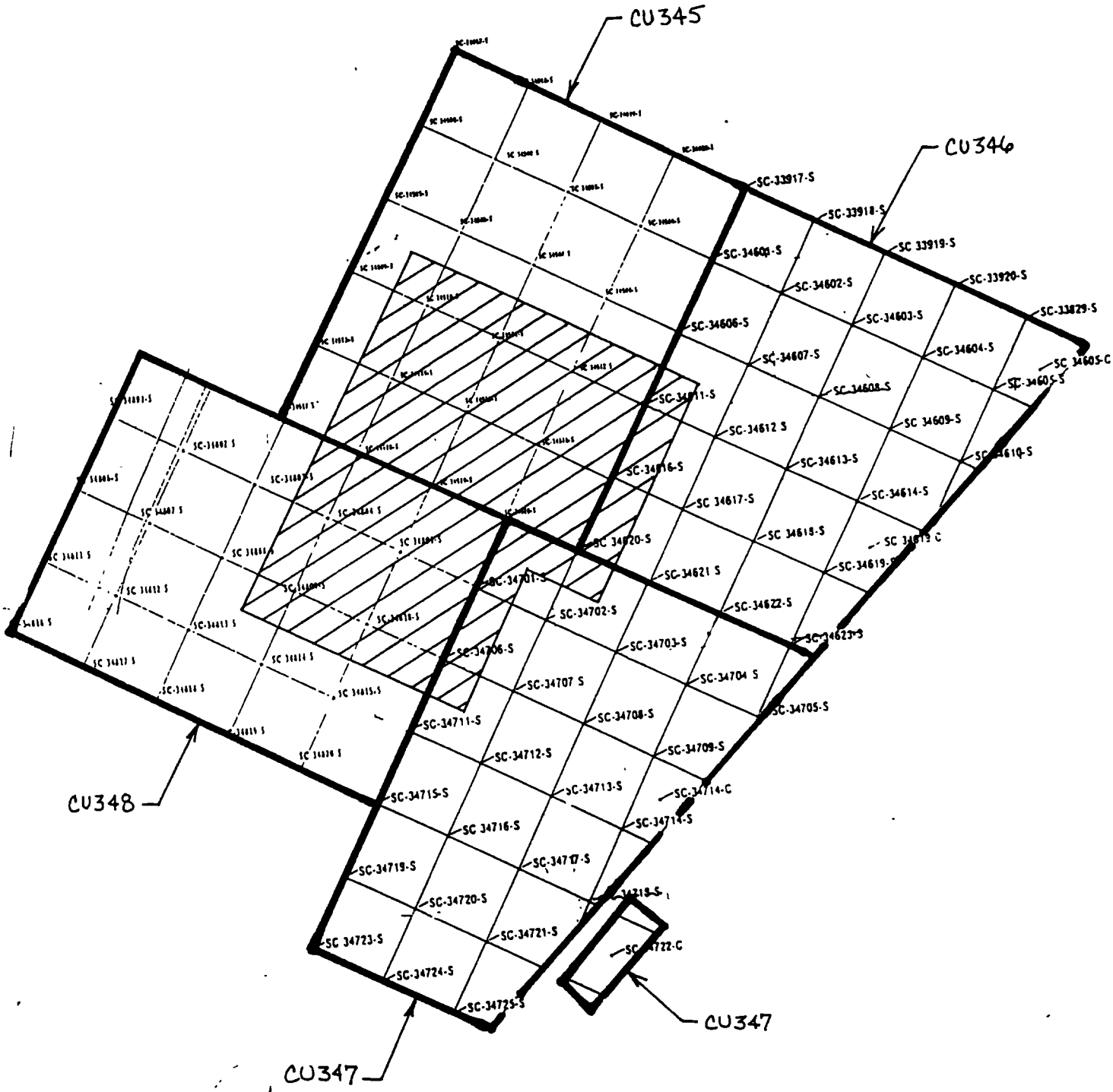
Attachment

cc: Linda Broody
Dave Dobkowski
Dave Fleming
Jim Meier
Dave Hixson
Marj Wesley
Steve Warren

ML/lac

Request: SILTBASIN3 Purchase Order: 3589 Date: 05/04/99

WSSRAP ID	Lab ID	Date Sampled	Date Analyzed	Method	Matrix	Parameter	Conc.	Error	Est. Final Conc.	Units	DL	Comments
SO-SILT#3-01		05/03/99	05/04/99	HASL300	SOIL	RADIUM-226	0.75	0.16	1.70	PCI/G	0.29	
SO-SILT#3-01		05/03/99	05/04/99	HASL300	SOIL	RADIUM-228	0.95	0.25		PCI/G	0.44	
SO-SILT#3-01		05/03/99	05/04/99	CALCULATED	SOIL	EST. THORIUM-232	0.97	0.25		PCI/G	0.44	CALCULATED FROM RADIUM-228 CONCENTRATION
SO-SILT#3-01		05/03/99	05/04/99	HASL300	SOIL	URANIUM-238	ND			PCI/G	2.56	
SO-SILT#3-01		05/03/99	04/04/99	EML TH-01	SOIL	THORIUM-230	2.23	1.00		PCI/G	0.76	
SO-SILT#3-02		05/03/99	05/04/99	HASL300	SOIL	RADIUM-226	0.84	0.20	1.91	PCI/G	0.33	
SO-SILT#3-02		05/03/99	05/03/99	HASL300	SOIL	RADIUM-228	ND			PCI/G	0.91	
SO-SILT#3-02		05/03/99	05/03/99	CALCULATED	SOIL	EST. THORIUM-232	0.00			PCI/G	0.91	CALCULATED FROM RADIUM-228 CONCENTRATION
SO-SILT#3-02		05/03/99	05/04/99	HASL300	SOIL	URANIUM-238	ND			PCI/G	2.57	
SO-SILT#3-02		05/03/99	05/04/99	EML TH-01	SOIL	THORIUM-230	1.53	0.72		PCI/G	0.70	
SO-SILT#3-03		05/03/99	05/04/99	HASL300	SOIL	RADIUM-226	0.57	0.14	1.29	PCI/G	0.25	
SO-SILT#3-03		05/03/99	05/04/99	HASL300	SOIL	RADIUM-228	1.00	0.23		PCI/G	0.40	
SO-SILT#3-03		05/03/99	05/04/99	CALCULATED	SOIL	EST. THORIUM-232	1.02	0.23		PCI/G	0.40	CALCULATED FROM RADIUM-228 CONCENTRATION
SO-SILT#3-03		05/03/99	05/04/99	HASL300	SOIL	URANIUM-238	ND			PCI/G	2.57	
SO-SILT#3-03		05/03/99	05/04/99	EML TH-01	SOIL	THORIUM-230	1.53	0.72		PCI/G	0.70	
SO-SILT#3-04		05/03/99	05/04/99	HASL300	SOIL	RADIUM-226	0.68	0.19	1.54	PCI/G	0.31	
SO-SILT#3-04		05/03/99	05/04/99	HASL300	SOIL	RADIUM-228	ND			PCI/G	0.92	
SO-SILT#3-04		05/03/99	05/04/99	CALCULATED	SOIL	EST. THORIUM-232	0.00			PCI/G	0.92	CALCULATED FROM RADIUM-228 CONCENTRATION
SO-SILT#3-04		05/03/99	05/04/99	HASL300	SOIL	URANIUM-238	ND			PCI/G	2.43	
SO-SILT#3-04		05/03/99	05/04/99	EML TH-01	SOIL	THORIUM-230	1.69	0.76		PCI/G	0.62	
SO-SILT#3-05		05/03/99	05/04/99	HASL300	SOIL	RADIUM-226	0.64	0.15	1.45	PCI/G	0.26	
SO-SILT#3-05		05/03/99	05/04/99	HASL300	SOIL	RADIUM-228	1.07	0.26		PCI/G	0.52	
SO-SILT#3-05		05/03/99	05/04/99	CALCULATED	SOIL	EST. THORIUM-232	1.10	0.26		PCI/G	0.52	CALCULATED FROM RADIUM-228 CONCENTRATION
SO-SILT#3-05		05/03/99	05/04/99	HASL300	SOIL	URANIUM-238	ND			PCI/G	2.76	
SO-SILT#3-05		05/03/99	05/04/99	EML TH-01	SOIL	THORIUM-230	1.28	0.60		PCI/G	0.76	
SO-SILT#3-06		05/03/99	05/04/99	HASL300	SOIL	RADIUM-226	ND		0.00	PCI/G	0.55	
SO-SILT#3-06		05/03/99	05/04/99	HASL300	SOIL	RADIUM-228	ND			PCI/G	0.85	
SO-SILT#3-06		05/03/99	05/04/99	CALCULATED	SOIL	EST. THORIUM-232	0.00			PCI/G	0.85	CALCULATED FROM RADIUM-228 CONCENTRATION
SO-SILT#3-06		05/03/99	05/04/99	HASL300	SOIL	URANIUM-238	ND			PCI/G	2.55	
SO-SILT#3-06		05/03/99	05/04/99	EML TH-01	SOIL	THORIUM-230	2.51	1.04		PCI/G	0.70	



AREA BEING REMOVED

CU's ENCOMPASSING SEDIMENT BASIN 5

FIGURE A