2
SEP 23 1994

ENGINEERING DATA TRANSMITTAL

Page 1 of 1

1. EDT 606161

2. To: (Receiving Organization) Distribution	3. From: (Originating Organization) Environmental Engineering	4. Related EDT No.: N/A
5. Proj./Prog./Dept./Div.: ER	6. Cog. Engr.: T. H. Mitchell	7. Purchase Order No.: N/A
8. Originator Remarks: APPROVAL/RELEASE		9. Equip./Component No.: N/A
		10. System/Bldg./Facility: N/A
11. Receiver Remarks:		12. Major Assm. Dwg. No.: N/A
		13. Permit/Permit Application No.: N/A
		14. Required Response Date: 9/94

15. DATA TRANSMITTED					(F)	(G)	(H)	(I)
(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Impact Level	Reason for Trans- mittal	Origi- nator Dispo- sition	Receiv- er Dispo- sition
1	WHC-SD-EN-TI-247		0	Geophysical Investigations in the 100 Areas: Fiscal Year 1991 through December 1993	N/A	2		

16. KEY					
Impact Level (F)		Reason for Transmittal (G)		Disposition (H) & (I)	
1, 2, 3, or 4 (see MRP 5.43)		1. Approval 2. Release 3. Information	4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment	4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

(G)	(H)	17. SIGNATURE/DISTRIBUTION (See Impact Level for required signatures)								(G)	(H)
Reason	Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(J) Name	(K) Signature	(L) Date	(M) MSIN	Reason	Disp.
4	1	Cog.Eng. T.H. Mitchell	T.H. Mitchell	5/23/94	H6-06	EPIC (2)			H6-08	3	
4	1	Cog. Mgr. J.W. Fassett	J.W. Fassett	5/23/94	H6-06	Central Files (2)			LS-04	3	
		QA				ERC			H6-07	3	
		Safety				OSTI			LS-07	3	
		Env.									

18. T.H. Mitchell Signature of EDT Originator 5/23/94 Date	19. Authorized Representative Date for Receiving Organization	20. J.W. Fassett Signature of Project Engineer's Manager 5/23/94 Date	21. DOE APPROVAL (if required) Ltr. No. ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments
---	--	--	--

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

RELEASE AUTHORIZATION

Document Number: WHC-SD-EN-TI-247, REV. 0

Document Title: Geophysical Investigations in the 100 Areas: Fiscal Year 1991 through December 1993

Release Date: 9/22/94

* * * * *

This document was reviewed following the
procedures described in WHC-CM-3-4 and is:

APPROVED FOR PUBLIC RELEASE

* * * * *

WHC Information Release Administration Specialist:

N.L. Solis N.L. SOLIS

(Signature)

9/22/94

(Date)

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

MASTER

SUPPORTING DOCUMENT

1. Total Pages 16

2. Title

Geophysical Investigations in the 100 Areas:
Fiscal Year 1991 through December 1993

3. Number

WHC-SD-EN-TI-247

4. Rev No.

0

5. Key Words

Geophysics, radar, GPR, electromagnetic

APPROVED FOR
PUBLIC RELEASE

Signature

Name: T.H. Mitchell

6. Author

7. Abstract

Mitchell, T.H., and K.A. Bergstrom, Geophysical Investigations in the 100 Areas:
Fiscal Year 1991 through December 1993, WHC-SD-EN-TI-247, Rev. 0, Westinghouse
Hanford Company, Richland, Washington.

8. PURPOSE AND USE OF DOCUMENT - This document was prepared for use

within the U.S. Department of Energy and its contractors. It is to
be used only to perform, direct, or integrate work under
U.S. Department of Energy contracts. This document is not approved
for public release until reviewed.

PATENT STATUS - This document copy, since it is transmitted in
advance of patent clearance, is made available in confidence solely
for use in performance of work under contracts with the
U.S. Department of Energy. This document is not to be published nor
its contents otherwise disseminated or used for purposes other than
specified above before patent approval or such release of use has
been secured, upon request, from the Patent Counsel, U.S. Department
of Energy field office, Richland, WA.

DISCLAIMER - This report was prepared as an account of work
sponsored by an agency of the United States Government. Neither the
United States Government nor any agency thereof, nor any of their
employees, makes any warranty, express or implied, or assumes any
legal liability or responsibility for the accuracy, completeness, or
any third party's use or the results of such use of any information,
apparatus, product, or process disclosed, or represents that its use
would not infringe privately owned rights. Reference herein to any
specific commercial product, process, or service by trade name,
trademark, manufacturer, or otherwise, does not necessarily
constitute or imply its endorsement, recommendation, or favoring by
the United States Government or any agency thereof or its
contractors or subcontractors. The views and opinions of authors
expressed herein do not necessarily state or reflect those of the
United States Government or any agency thereof.

9. Impact Level N/A

OFFICIAL RELEASE

BY WHC

DATE SEP 23 1994

35

STATION 21

RELEASE STAMP

CONTENTS

1.0	INTRODUCTION	1
2.0	METHODOLOGY	1
3.0	RESULTS	9

APPENDIX	Comprehensive List of Surface Geophysics WHC Documents Fiscal Year 1991 through March 1994	
----------	---	--

FIGURES:

Figure 1.	100 Areas Location Map	2
Figure 2.	100 B/C Area Surveys	3
Figure 3.	100 D Area Surveys	4
Figure 4.	100 F Area Surveys	5
Figure 5.	100 H Area Surveys	6
Figure 6.	100 K Area Surveys	7
Figure 7.	100 N Area Surveys	8

Geophysical Investigations in the 100 Areas:
Fiscal Year 1991 through December, 1993.

1.0 INTRODUCTION

The geophysical investigations identified in this document were conducted by the Westinghouse Hanford Company (WHC) Surface Geophysics Team, Geophysics Group, between October, 1991 and December, 1993. The investigations supported 100-Area activities for the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensations and Liability Act of 1980 (CERCLA) (Figure 1).

The primary intent of this document is to provide a general map location and the associated document number for investigations that have been conducted as of December, 1993. The results of the individual investigations are not included here. The results of all of these investigations have been previously reported individually in WHC supporting documents. The investigations conducted during Fiscal Year (FY) 1992 are summarized in a single WHC document, WHC-SD-EN-TI-204, Rev. 0. A brief summary of some of the successful applications of geophysics in the 100-Areas is included.

Figures 2 through 7 are maps of the 100-Areas with the approximate locations of WHC geophysical investigations. Surveys outside of the 100-Areas are not shown on the maps. However, a list of documents that surface geophysics has released since October, 1991 is attached (Appendix).

2.0 METHODOLOGY

Ground-Penetrating Radar (GPR) has been the primary geophysical tool used. This is for a number of reasons including, 1) it is adaptable to a wide variety of survey objectives, 2) it is non-intrusive, 3) it is able to operate in many "culturally" congested areas, and 4) it provides good information on the depth of anomalies. GPR was generally effective to depths of about 12 to 15 feet at most Hanford locations.

The integration of multiple geophysical methods increases the quality and reliability of the subsurface information. GPR is just one of several geophysical tools. Electromagnetic Induction (EMI) was the second most used geophysical method. EMI data were often collected in conjunction with GPR.

Figure 1. 100 Areas Location Map.

100B/C Area

Site #	Site Name	Date	Grid Size	Document WHIC-SD-EN-TI-	Survey Objective
1	199-B2-12	2-6-92	70X80	204, Rev.0	Borehole Siting
2	116-B-5	2-21-92	40X160	204, Rev.0	Borehole/ Crib
3	199-B-2	2-28-92	80X100	204, Rev.0	Borehole Siting
4	116-B-2	3-5-92	80X100	204, Rev.0	Borehole Siting
5	199-B5-2	3-11-92	80X80	204, Rev.0	Borehole Siting
6	B4-9	3-5-92	90X110	204, Rev.0	Borehole/Trench
7	116-B-1	12-27-92	100X150	204, Rev.0	Borehole/ Crib
8	118-B-1	4-6-93	1050X400	137, Rev.0	Burial Grounds
9	116-C-2A	5-14-93	80X90	154, Rev.0	Pluto Crib
10	118-C-1	8-93	400X530	067, Rev.0	Burial Grounds
11	116-B-9/10	10-18-93	180X190	213, Rev.0	Proposed Borehole

● Geophysical Surveys Conducted during Fiscal Year 1992

▲ Geophysical Surveys Conducted Fiscal Year 1993/Dec. 1994

Figure 2. 100 B/C Area Surveys.

- ▲ Geophysical Surveys Conducted
Fiscal Year 1993/Dec. 1994

Figure 3. 100 D Area Surveys.

Site #	Site Name	Date	Grid Size	Document WHC-SD-EN-TI-	Survey Objective
1	116-DR-1&2	10-25-91	250X400	204, Rev.0	Borehole/ Locate Trench
2	116-D-3	11-14-91	70X70	204, Rev.0	Borehole/ Trench Drain
3	116-D-4	11-14-91	70X60	204, Rev.0	Borehole Siting
4	11-D-9	11-21-91	70X80	204, Rev.0	Borehole/ crib
5	116-D-5	12-5-91	80X50	204, Rev.0	Borehole/outfall
6	116-DR-5	12-5-91	70X80	204, Rev.0	Borehole/outfall
7	D-5-15	1-3-92	70X110	204, Rev.0	Borehole Siting
8	D-5-14	1-3-92	120X70	204, Rev.0	Borehole Siting
9	D-5-17	1-3-92	~40X50	204, Rev.0	Borehole Siting
10	116-D-2	1-7-92	60X60	204, Rev.0	Borehole/ Pluto Crib
11	130-D-1	1-24-92	40X50	204, Rev.0	N.A.
12	1607-D4	1-28-92	80X170	204, Rev.0	Soil Gas-Septic
13	116-D6	1-30-92	25X25	204, Rev.0	Cushin Corridor
14	116-D-1A/1B & Extensions	2-11-92	300X160	204, Rev.0	Soil Gas
15	132-D-3	2-12-92	~90X60	204, Rev.0	Borehole Ext.
16	Paint Snop & Extension	4-15-92	195X150	204, Rev.0	Miscellaneous
17	1714-D/1715-D	5-27-92	60X150	204, Rev.0	Oil-paint strg.
18	Salt Pit	5-27-92	60X100	204, Rev.0	Salt Pit
19	108-D	5-1-92	110X135	204, Rev.0	Foundation
20	Sodium Dichromate	6-16-93	50X145	178, Rev.0	Maps pipes
21	116-DR-7	6-16-93	30X45	179, Rev.0	Inkwell crib
22E	116-DR-4	6-16-93	50X50	195, Rev.0	Pluto crib
22E	116-DR-3 NE ext.	6-28-93	50X70	None	Trench
23	116-DR-3	6-14-93	80X175	177, Rev.0	Trench
23E	116-DR-3 ext	8-17-93	70X100	177, Rev.0	Trench
24	116-DR-8	12-15-93	90X100	225, Rev.0	Crib
25	116-D-8	12-17-93	60X60	224, Rev.0	French Drain
26	1607-D3	12-17-93	80X100	227, Rev.0	Septic tank
27	132-DR-1	12-29-93	60X120	222, Rev.0	Pump house
28	116-DR-6	12-15-93	80X110	223, Rev.0	Trench
28E	116-DR-6 ext	1-19-94	80X140	223, Rev.0	Trench
29	118-D-5	1-19-94	60X80/ 45X100	226, Rev.0	Burial Ground

Site #	Site Name	Date	Grid Size	Document WHC-SD-EN-TI-	Survey Objective
1	141-F	5-20-92	200X200	204, Rev.0	Sheep Barn
2	F5-45	6-30-92	60X65	204, Rev.0	Borehole Siting
3	F5-48	6-30-92	55X60	204, Rev.0	Borehole Siting
4	F5-46	8-6-92	60X60	204, Rev.0	Borehole Siting
5	F5-47	8-6-92	60X60	204, Rev.0	Borehole Siting
6	116-F-6	1-6-93	60X80	115, Rev.0	Borehole Siting
7	116-F-3	1-12-93	50X70	118, Rev.0	Test Pit
8	116-F-4 & Extension	1-12-93	~85X100	119, Rev.0	Borehole Siting
9	116-F-2	1-6-93	45X60	114, Rev.0	Borehole Siting
10	116-F-14	1-30-93	50X60	126, Rev.0	Borehole Siting
11	116-F-9D	3-17-93	100X200	129, Rev.0	Proposed Borehole

▲ Geophysica
Fiscal Year

Figure 4. 100 F Area Surveys.

Figure 5. 100 H Area Surveys.

Figure 6. 100 K Area Surveys.

100 K Area

Site #	Site Name	Date	Grid Size	Document WHC-SD-EN-TI-	Survey Objective
1	199-K32 A&B	4-27-92	40X75	204, Rev.0	Borehole Siting
2	199-K-34	5-7-92	55X60	204, Rev.0	Borehole Siting
3	199-K-35	5-7-92	30X100	204, Rev.0	Borehole Siting
4	116-KW-3A	10-5-92	N.A.	095, Rev.0	Borehole in SCA
5	116-KW-4A	10-6-92	30X65	095, Rev.0	Borehole Siting
6	199-K-36	5-18-92	25X80	204, Rev.0	Borehole Siting
7	199-K-106A	12-16-93	50X50	230, Rev.0	Borehole Siting
8	199-K-107A	12-16-93	50X70	229, Rev.0	Borehole Siting
9	199-K-108A	12-16-93	50X50	228, Rev.0	Borehole Siting

● Geophysical Surveys Conducted
during Fiscal Year 1992

▲ Geophysical Surveys Conducted
Fiscal Year 1993/Dec. 1994

100 N Area

Site #	Site Name	Date	Grd Size	Document WHC-SD-EN-TI-	Survey Objective
1	N-80	6-19-92	40X60	204, Rev.0	Borehole Siting
2	100N-G5-1	7-24-92	50X60	204, Rev.0	Borehole Siting
3	South Pond	11-2-92	65X70	094, Rev.0	Borehole Siting
4	UN-100N-17	11-2-92	60X60	091, Rev.0	Borehole Siting
5	119N	11-10-92	40X50	090, Rev.0	Borehole Siting
6	1322N	11-19-92	~30X40	089, Rev.0	Borehole Siting
7	116-N-2	11-20-92	40X45	088, Rev.0	Borehole Siting

● Geophysical Surveys Conducted
during Fiscal Year 1992

▲ Geophysical Surveys Conducted
Fiscal Year 1993/Dec. 1994

Figure 7. 100 N Area Surveys.

EMI was primarily used as a reconnaissance tool because the data are quickly and easily collected. However, EMI does not provide good depth estimates to subsurface anomalies. It is also very difficult to isolate individual features within areas of multiple buried objects. EMI has limited effectiveness in congested areas such as close to buildings, fences, etc.

Other geophysical methods that have more specific applications, include magnetics, gravity, resistivity, and seismic reflection/refraction.

GPR data are best collected on regularly, close-spaced grid lines. The data are normally recorded on digital tape and interpreted in the office. It has been our experience that in-field analysis increases the likelihood of misinterpreting the data, especially if the data are complex. However, real-time in-field analysis is occasionally appropriate for simple, shallow, metallic features, provided the features of interest are relatively isolated with minimal subsurface "clutter."

3.0 RESULTS

Following are some generalities from experiences gained through geophysical surveys conducted in the 100-Areas. Metallic objects in the sub-surface are usually of human origin. Metallic materials in the near-surface are often unmistakable in both GPR and, in most cases, EMI data. If they are missed, it is usually because they are disguised by nearby buried debris, are deeper than the effective penetration depth of the geophysical tool used, or are too small.

Non-metallic features of interest are commonly PVC pipe, vitrified clay pipe, plastic barriers, construction debris, wooden cribs, trash, and trench and excavation boundaries. GPR has, in many cases, been effective at detecting these types of features either directly or indirectly. For example, GPR can often effectively map the excavation boundaries for a buried feature. The excavation boundaries are then used to indirectly locate suspected trenches, cribs, or pipes that were not directly observed.

GPR has also been successful in delineating natural geologic features such as paleosols, clastic dikes, cross-bedding, and caliche layers at depths up to around 20 feet. However, GPR at Hanford has been most effective at depths from the surface to about 15 feet.

If there are any questions about the results of the investigations shown in Figures 2 through 7, please contact T.H. (Tom) Mitchell or K.A. (Kevin) Bergstrom at 376-4024.

APPENDIX

Comprehensive List of Surface Geophysics WHC Documents
Fiscal Year 1991 through March 1994

1. Ground Penetrating Radar Investigation for Proposed Borehole, 116-N-2, 100 N Area. WHC-SD-EN-TI-088 BERGSTROM AND MITCHELL 1/93
2. Ground Penetrating Radar Investigation for Proposed Borehole, 1322-N, 100 N Area. WHC-SD-EN-TI-089 MITCHELL AND BERGSTROM 1/93
3. Ground Penetrating Radar Investigation for Proposed Borehole, 119-N, 100 N Area. WHC-SD-EN-TI-090 BERGSTROM AND MITCHELL 1/93
4. Ground Penetrating Radar Investigation for Proposed Borehole, UN-100-N-17, 100 N Area. WHC-SD-EN-TI-091 MITCHELL AND BERGSTROM 1/93
5. Ground Penetrating Radar Investigation for Proposed Borehole, 116-K-2, 100 K Area. WHC-SD-EN-TI--092 BERGSTROM AND MITCHELL 1/93
6. Ground Penetrating Radar Investigation for Proposed Borehole, 116-KW-4A, 100 K Area. WHC-SD-EN-TI-093 MITCHELL AND BERGSTROM 1/93
7. Ground Penetrating Radar Investigation for Proposed Borehole, South Pond, 100 N Area. WHC-SD-EN-TI-094 BERGSTROM AND MITCHELL 1/93
8. Ground Penetrating Radar Investigation for Proposed Borehole, 116-KW-3A, 100 K Area. WHC-SD-EN-TI-095 1-93 MITCHELL AND BERGSTROM 1/93
9. Ground Penetrating Radar Investigation for Proposed Borehole, 299-W15-218, 200 West Area. WHC-SD-EN-TI-096 BERGSTROM AND MITCHELL 1/93
10. Ground Penetrating Radar Investigation for Proposed Borehole, 116-F-2, 100 F Area. WHC-SD-EN-TI-114 MITCHELL, KUNK, AND BERGSTROM 2/93
11. Ground Penetrating Radar Investigation for Proposed Borehole, 116-F-6, 100 F Area. WHC-SD-EN-TI-115 BERGSTROM, KUNK, AND MITCHELL 2/93
12. Data Package for Geophysical Investigations of Sodium Dichromate Barrel Landfill ERA. WHC-SD-EN-DP-061 MITCHELL AND BERGSTROM 1/93
13. Data Package for Geophysical Investigations of Riverland ERA. WHC-SD-EN-DP-061 MITCHELL AND BERGSTROM 10/93
14. Data Package for Geophysical studies in the 300-FF-5 Operable Unit. WHC-SD-EN-DP-059 KUNK

15. Phase I Summary of Surface Geophysical Studies in the 300-FF-5 Operable Unit. WHC-SD-EN-TI-069 KUNK, NARBUTOVSKIY, BERGSTROM, AND MITCHELL 1/93
16. Geophysical Investigation of the Nonradioactive Dangerous Waste Landfill (NRDWL). WHC-SD-EN-TI-116 6/93
17. Ground Penetrating Radar Investigation for Riverland ERA. WHC-SD-EN-TI-117 BERGSTROM AND MITCHELL 4/93
18. Geophysical Investigation at the Sodium Dichromate Barrel Landfill. WHC-SD-EN-ES-030 MITCHELL AND BERGSTROM 10/92
19. Ground Penetrating Radar Investigation for Proposed Test Pit, 116-F-3, 100 F Area. WHC-SD-EN-TI-118 BERGSTROM AND MITCHELL 7/93
20. Ground Penetrating Radar Investigation for Proposed Borehole, 116-F-4, 100 F Area. WHC-SD-EN-TI-119 MITCHELL AND BERGSTROM 6/93
21. Ground Penetrating Radar Investigation for Northslope ERA. WHC-SD-EN-TI-124 BERGSTROM AND MITCHELL 7/93
22. Ground Penetrating Radar Investigation for Proposed Borehole, 116-F-14, 100 F Area. WHC-SD-EN-TI-126 MITCHELL AND BERGSTROM 5/93
23. Ground Penetrating Radar Investigation for Proposed Borehole, 116-F-9D, 100 F Area. WHC-SD-EN-TI-129 BERGSTROM AND MITCHELL 6/93
24. Data Package for Geophysical Investigation of Nonradioactive Dangerous Waste Landfill (NRDWL). WHC-SD-EN-DP-064 5/93
25. Geophysical Investigation of the 118-B-1 Burial Ground, 100 B/C Area. WHC-SD-EN-TI-137 MITCHELL, KUNK AND BERGSTROM 10/93
26. Geophysical Investigation of the 118-C-1 Burial Ground, 100 B/C Area. WHC-SD-EN-TI-138 BERGSTROM AND MITCHELL 11/93
27. Ground Penetrating Radar Investigation for Proposed Borehole, 299-W11-232, 200 West Area. WHC-SD-EN-TI-141 MITCHELL AND BERGSTROM 1/94
28. Ground Penetrating Radar Investigation of the 116-C-2A; Pluto Crib 100 B/C Area. WHC-SD-EN-TI-154 MITCHELL AND BERGSTROM 7/93
29. Ground Penetrating Radar Investigation for proposed well sites: 299-W15-219, 299-W15-220, 299-W18-252; 200 West Area. WHC-SD-EN-TI-153 BERGSTROM AND MITCHELL 6/93

30. Ground Penetrating Radar Investigation for Cone Penetrometer CPT-4; 200 West Area. WHC-SD-EN-TI-162 MITCHELL AND BERGSTROM 6/93
31. Ground Penetrating Radar Investigation for 218-W-4C #1 and #4 Trenches; 200 West Area. WHC-SD-EN-TI-174 KIESLER, MITCHELL, AND BERGSTROM 8/93
32. Ground Penetrating Radar Investigation over leaking pipe at U-Plant Cut; 200 West Area. WHC-SD-EN-TI-180 KIESLER AND MITCHELL 8/93
33. Ground Penetrating Radar Investigation at 216-U-4 and 216-U-16; 200 West Area. WHC-SD-EN-TI-176 BERGSTROM AND MITCHELL 9/93
34. Ground Penetrating Radar Investigation at the 116-DR-3 Burial Grounds; 100 D Area. WHC-SD-EN-TI-177 MITCHELL AND BERGSTROM 11/93
35. Ground Penetrating Radar Investigation at the Sodium Dichromate Pump Station; 100 D Area. WHC-SD-EN-TI-178 BERGSTROM AND MITCHELL 11/93
36. Ground Penetrating Radar Investigation at the 116-DR-4 Burial Grounds; 100 D Area. WHC-SD-EN-TI-195 MITCHELL AND BERGSTROM 9/93
37. Ground Penetrating Radar Investigation at the 116-DR-7 Burial Grounds; 100 D Area. WHC-SD-EN-TI-179 BERGSTROM AND MITCHELL 1/94
38. Ground Penetrating Radar Investigation for Cone Penetrometer Survey: CPT-BT-23; 200 West Area. WHC-SD-EN-TI-193 MITCHELL AND BERGSTROM 3/94
39. Ground Penetrating Radar Investigation of proposed wells 299-W15-223 and 299-W15-25; 200 West Area. WHC-SD-EN-TI-196 MITCHELL AND BERGSTROM 11/93
40. Data Package for Geophysical Investigation of Burial Ground 118-B-1; 100 B/C Area. WHC-SD-EN-DP-066 BERGSTROM AND MITCHELL 2/94
41. Data Package for Geophysical Investigation of Burial Ground 118-C-1; 100 B/C Area. WHC-SD-EN-DP-067 MITCHELL AND BERGSTROM 2/94
42. Geophysical Investigation of the 118-H-1 Burial Ground, 100 H Area. WHC-SD-EN-TI-207 BERGSTROM AND MITCHELL 3/94
43. Geophysical Investigation of the 118-H-2 Burial Ground, 100 H Area. WHC-SD-EN-TI-208 MITCHELL AND BERGSTROM 3/94

44. Geophysical Investigation of the 118-H-3 Burial Ground, 100 H Area. WHC-SD-EN-TI-209 BERGSTROM AND MITCHELL 3/94
45. Geophysical Investigation of the "THIMBLE" Burial Ground, 100 H Area. WHC-SD-EN-TI-210 MITCHELL AND BERGSTROM 3/94
46. Geophysical Surveys at the 618-9 Burial Ground. WHC-MR-0271 KUNK AND MITCHELL FY-1991
47. 100-DR-1 Geophysical Surveys. WHC-MR-0257 MITCHELL AND KUNK FY-1991
48. 100-HR-1 Geophysical Surveys. WHC-MR-0263 MITCHELL AND KUNK FY-1991
- ***49. Geophysical Investigations Conducted in the 100 Areas in Fiscal Year 1992. WHC-SD-EN-TI-204 SZWARTZ, MITCHELL AND BERGSTROM 3/94

***Investigations covered in WHC-SD-EN-TI-204 Include:

100-B/C Areas

Six surveys were done at the 100 B/C area in fiscal year 1992: B2-12, 116-B-5, 116-B-1, 199-B9-2, 116-B2, 199-B5-2, and well B4-9

100-D Area

Twenty surveys were done at the 100 D area in fiscal year 1992: 1715-D and 1714-D, 108-D, 116-D-4, 116-D-5, 116-DR-5, D-5-14, D5-15, D5-17, 132-D-3, 130-D-1, 116-D-6, 116-D-1A/1B, 116-DR-1/2, 116-D-3, 11-D-9, 116-D-2, 1607-D4, the "Paint Shop" and the "Salt Dissolving Pit".

100-F Area

Five surveys were conducted at the 100 F Area: F5-48, F5-45, FF-5-46, FF-5-47, and the "Sheep Barn."

100-H Area

Six surveys were conducted at the 100 H Area: 199-H4-47, 199-H5-1, 199-H4-49, 199-H4-46, 199-H4-48, and 116-H3.

100-K Area

Five surveys were conducted in the 100 K Area: 199-K32-A&B, 199-K-33, 199-K-34, 199-K-35, and 199-K-36.

100-N Area

Three surveys were conducted in the 100 N Area: 100N-G5-1, 100N-G5-2/3, and Well N-80.