ENGINEERING CHANGE NOTICE

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Proj.
ECN

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1. ECN (use no. from pg. 1)

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16. Design Verification Required ☐ Yes ☒ No	17. Cost Impact <table border="0"> <tr> <th colspan="2">ENGINEERING</th> <th colspan="2">CONSTRUCTION</th> </tr> <tr> <td>Additional</td> <td>☐ \$</td> <td>Additional</td> <td>☐ \$</td> </tr> <tr> <td>Savings</td> <td>☐ \$</td> <td>Savings</td> <td>☐ \$</td> </tr> </table>	ENGINEERING		CONSTRUCTION		Additional	☐ \$	Additional	☐ \$	Savings	☐ \$	Savings	☐ \$	18. Schedule Impact (days) Improvement ☐ Delay ☐
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19. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 13. Enter the affected document number in Block 20.														
SDD/DD ☐ Functional Design Criteria ☐ Operating Specification ☐ Criticality Specification ☐ Conceptual Design Report ☐ Equipment Spec. ☐ Const. Spec. ☐ Procurement Spec. ☐ Vendor Information ☐ OM Manual ☐ FSAR/SAR ☐ Safety Equipment List ☐ Radiation Work Permit ☐ Environmental Impact Statement ☐ Environmental Report ☐ Environmental Permit ☐	Seismic/Stress Analysis ☐ Stress/Design Report ☐ Interface Control Drawing ☐ Calibration Procedure ☐ Installation Procedure ☐ Maintenance Procedure ☐ Engineering Procedure ☐ Operating Instruction ☐ Operating Procedure ☐ Operational Safety Requirement ☐ IEPD Drawing ☐ Cell Arrangement Drawing ☐ Essential Material Specification ☐ Fac. Proc. Samp. Schedule ☐ Inspection Plan ☐ Inventory Adjustment Request ☐	Tank Calibration Manual ☐ Health Physics Procedure ☐ Spares Multiple Unit Listing ☐ Test Procedures/Specification ☐ Component Index ☐ ASME Coded Item ☐ Human Factor Consideration ☐ Computer Software ☐ Electric Circuit Schedule ☐ ICRS Procedure ☐ Process Control Manual/Plan ☐ Process Flow Chart ☐ Purchase Requisition ☐ Ticker File ☐												
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Document Number/Revision	Document Number/Revision	Document Number/Revision												
None														
21. Approvals														
Signature Design Authority Cog. Eng. S. M. Joyce <i>Stellan M. Joyce</i> Cog. Mgr. C. R. Stroup <i>Stellan M. Joyce</i> QA Safety Environ. Other	Date 9/17/97 9/17/97 _____ _____ _____ _____ _____ _____ _____ _____ _____	Signature Design Agent PE QA Safety Design Environ. Other _____ _____ _____ _____ _____ _____ _____ _____ _____ _____												
<u>DEPARTMENT OF ENERGY</u>														
Signature or a Control Number that tracks the Approval Signature														
<u>ADDITIONAL</u>														
_____ _____ _____ _____														

Hanford Analytical Sample Projections FY 1998 - FY 2002

S. M. Joyce

Waste Management Federal Services of Hanford, Inc., Richland, WA 99352
U.S. Department of Energy Contract DE-AC06-96RL13200

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Key Words: Analytical Services strategy, sample projections, Environmental Restoration, TWRS, Liquid Effluents, Solid Waste, Industrial Hygiene, Site Monitoring, Field Sampling, TRU.

Abstract: Sample projections are compiled for the Hanford site based on inputs from the major programs for the years 1998 through 2002. Sample projections are categorized by radiation level, protocol, sample matrix and Program. Analyses requirements are also presented.

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- III. Solid Waste Program Inputs
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- V. Spent Nuclear Fuels Program Inputs
- VI. Transition Projects Program Inputs
- VII. Site Monitoring Program Inputs

1.0 PURPOSE

This document summarizes the Hanford sample projections for fiscal years 1998 to 2002. Sample projections are based on inputs submitted to Analytical Services covering Environmental Restoration, Tank Waste Remediation Systems (TWRS), Solid Waste, Liquid Effluents, Spent Nuclear Fuels, Transition Projects, Site Monitoring, Industrial Hygiene, Analytical Services and miscellaneous Hanford support activities. In addition, details on laboratory scale technology (development) work, Sample Management, and Data Management activities are included. This information will be used by Hanford Analytical Services (HAS) and the Sample Management Working Group (SMWG) to assure that laboratories and resources are available and effectively utilized to meet these documented needs.

2.0 SCOPE

The sample projections for each activity are categorized by radioactivity, analyte, protocol, matrix, laboratory scale technology (development), sample management, and data management as follows:

- Radioactivity:
Category 1	Non-Radioactive
Category 2	<1 mR/hr β - γ ; <10 nCi/g α
Category 3	1 mR/hr β - γ to <10 mR/hr β - γ ; and <10 nCi/g α
Category 4	<10 mR/hr β - γ ; and <200 nCi/g α
Category 5	10 mR/hr β - γ to <100 mR/hr β - γ ; and <200 nCi/g α
Category 6	>100 mR/hr β - γ
Category 7	>200 nCi/g α
- Analytes: Analytes are grouped into the following categories: VOA/semi-VOA, Pesticides/PCBs, WTPH/Oil and Grease, Flash Point, Other Organics, Anions, Metals, DSC/TGA, Wet Chemistry, TOC/TIC, Cyanide, Mercury, Cr-VI, TCLP, Density/SpG, pH/Conductivity/OH⁻, Other Inorganics, Mass Spectrometry, Asbestos, NDA, Gross Alpha/Beta, Gamma Energy Analysis, Uranium, Am-241, C-14, H-3, I-129, Pu-238/239/240, Se-79, Sr-90, Tc-99, NDA and other Radiochemistry.
- Protocol: Protocols include: Resources Conservation Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Clean Water Act (CWA), Clean Air Act (CAA), Industrial Hygiene (IH), NDA, process control, and National Pollution Discharge Elimination System (NPDES), Permit 216, 10 CFR 834, 10 CFR 835, CLP, and others.

Matrix: The matrix describes the physical characteristics of samples. Matrices are grouped into the following categories: liquid, solid/soils, sludge, vapor, and other.

Laboratory Scale Technology (development):

The laboratory scale technology (development) section includes a listing with a brief description on each project support activity, cost, resources, and space requirements.

Sample Management:

The sample management section identifies the organizations and the number of FTE's which support activities for data management, contract management, project coordination, laboratory overview, sample/waste return support, and planning/data quality objectives.

Data Management:

The data management activities section identifies data bases utilized and links to other systems including laboratory systems.

Funding levels (fully burdened) associated with the sample projections were requested and are included by activity when provided.

Program activities for which sample projections were anticipated are listed below; inputs not received are identified with an asterisk:

Environmental Restoration:

- 100 Area: 100-Area Remaining Sites, 100-BC, 100-BC-5 RI, 100-HR-3 IRM, 100-HR-3 RI, 100-KR-4 IRM, 100-KR-4 RI, 100-N Deactivation, 100-N NFM, 100-NR-2 Process, 100-NR-2 RI, 183-N Water Plant 216 Permitting, 116-N Stack, N Area/N Springs
- 200 Area: 200-BP-11, 200-UP-1 IRM, 200-ZP-1 IRM, 200 Areas Source
- 300 Area: 300-FF-1, 300-FF-5
- D&D Projects
- Horn Rapids
- Environmental Restoration Disposal Facility
- Non-Radioactive Dangerous Waste Landfill (NRDWL)

Tank Waste Remediation System (TWRS):

- TWRS Waste Storage and Operations
 - o Tank Farm Operations
 - West Area Tank Farms*
 - East Area Tank Farms*
 - o TWRS Characterization Project
 - Cores
 - Grab
 - Vapor
 - Evaporator Process Samples
- TWRS Waste Disposal
 - o TWRS Privatization (Retrieval)
 - o TWRS Privatization (Treatment and Disposal)
- Vitrification Plant*
- Waste Form Certification*

Solid Waste:

- Central Waste Complex
- Mixed Waste Trench
- WRAP 1
- T-Plant

Liquid Effluents:

- 200 Area LEF (Liquid Effluent Facility)
- 300 Area LEF
- 242A Evaporator (included for this revision with TWRS)

Spent Nuclear Fuels:

- Spent Nuclear Fuel Basin Sludge Characterization
- Liquid Discharge
- Center Basin
- Effluent Treatment Facility Transfer water
- KW Filter Pit
- KW Canister Liquid
- 183-KE Air Laboratory

Transition Projects:

- Plutonium Finishing Plant (PFP) Transition Project
- B-Plant
- WESF Transition Project
- FFTF
- 309 Facility Transition Waste Characterization

Analytical Services:

- Sample/Secondary Waste Return
- QA Samples
- Operations Support
- Decentralized Laboratory Support*

Site Monitoring:

- Environmental Monitoring
- Hanford Groundwater Monitoring Project
- Bioassay Program
- Environmental Support (Effluent and Near Field Monitoring)
- Stack Monitoring*
- Room Air Monitoring*
- Spent Nuclear Fuel

Industrial Hygiene:

- Industrial Hygiene
- Drinking Water*

Miscellaneous Hanford Support:

- Construction Projects*

3.0 SUMMARY

During FY 1995 and FY 1996 substantial reductions in analytical service needs occurred at Hanford. Analytical service needs in FY 1998 are projected to be at a level similar to FY 1996 and FY 1997. Decreases in analytical needs are projected for FY 1999 through FY 2002. The projections for fiscal years 1998 through 2002 are summarized in five Tables: Table 1 provides the overall Hanford site sample projection summary, Table 2 categorizes the information by radiation level, Table 3 by analysis, Table 4 by protocol, and Table 5 by sample matrix.

Table 1
Hanford Program Sample Projection Summary

Program	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
Analytical Services	1251	1213	1213	1213	1213
Environmental Restoration	6799	2279	1826	1829	1755
Industrial Hygiene	2894	2894	2894	2894	2894
Liquid Effluents	1795	1795	1795	1997	1593
Site Monitoring	9623	9590	9571	9552	9533
Solid Waste	6444	6308	6087	5903	5903
Spent Nuclear Fuels	5722	7681	7681	6617	6617
Tank Waste Remediation System	2034	1636	1267	1613	1313
Transition Projects	23637	23107	23135	19958	19957
TOTAL	60199	56503	55469	51576	50778

Table 2
Yearly Sample Projections Summary by Radiation Level

Radiation Level	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
Non-Radioactive	10341	9413	9302	9461	9074
<1 mR/hr beta-gamma; <10 nCi/g alpha	17432	17017	16486	15267	15186
1 to <10 mR/h beta-gamma; and <10 nCi/g alpha	6542	4959	4798	4809	4780
<10 mR/hr beta-gamma; and <200 nCi/g alpha	37	30	30	29	29
10 to <100 mR/hr beta-gamma; and <200 nCi/g alpha	655	587	592	587	587
>100 mR/hr beta-gamma	1179	1061	775	1134	834

>200 nCi/g alpha	24013	23436	23486	20289	20288
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Table 3
Yearly Sample Analysis Projections Summary

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
AM-241	1208	746	656	680	628
ANIONS	10267	10026	9225	6566	6218
ASBESTOS	1632	1563	1448	1448	1448
AT/TB	19153	22424	21726	20847	20273
C-14	235	282	230	219	191
CR-VI	586	180	290	311	276
CYANIDE	678	725	664	699	577
DENSITY/SpG	1070	1230	731	945	753
DSC/TGA	10610	10018	8596	6047	5613
FLASH POINT	253	251	233	223	213
GEA	8031	6992	6383	5533	5152
H-3	2627	2512	2460	2471	2396
I-129	478	490	478	490	478
MASS SPEC	1962	1970	1700	1744	1699
MERCURY	1328	1068	1062	1132	984
METALS	15084	10969	9867	7034	6577
NDA	10742	10775	10767	10767	10767
OTHER INORGANICS	4811	4524	4389	4405	4380
OTHER ORGANICS	1596	1810	1342	1310	1300
OTHER RAD CHEM	29874	27842	27464	24501	24384
PEST/PCB	577	499	377	359	339

pH/CONDUCT/OH-	6935	3409	3158	3184	3145
PU-238/39/40	3958	3415	3365	3158	3125
SE-79	62	52	44	38	38
SR-90	3051	2527	2403	2397	2397
TC-99	930	815	719	750	694
TCLP	272	224	218	213	213
TIC/TOC	4528	5011	3911	4171	3885
URANIUM	2581	2053	1949	1980	1831
VOA/SVOA	6197	2393	2239	2265	2137
WET CHEMISTRY	1688	1509	1509	1685	1333
WTPH/OIL/GREASE	402	398	382	370	358
TOTAL	153306	138602	129885	117842	113702

Table 4
Yearly Sample Projections by Protocol

Protocol	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
10CFR834	2146	2146	2146	2146	2146
10CFR835	17035	18994	18994	18994	18994
216 PERMIT	160	320	160	320	320
40CFR61 (CAA)	65	65	65	65	65
CAA	600	600	600	600	600
CWA	197	197	197	330	64
DOE5633.3	450	450	450	450	450
DOE5633.3/5820.2A	7	7	7	7	7
EPA	4728	1122	869	892	818
IH	3064	2994	2894	2894	2894

NPDES	4	4	4	4	4
OTHER	150	150	150	150	150
PROCESS CONTROL	18945	17450	17492	13306	13230
RCRA	7460	6901	6353	6350	5968
SCREENING	30	30	30	30	30
SDWA	18	18	18	18	18
TRU	135	35	20	0	0
WIPP	5005	5020	5020	5020	5020

Table 5
Yearly Sample Projections by Matrix

Matrix	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
LIQUID	14026	13890	13745	9871	9479
OTHER	33692	35280	34774	34603	34546
SLUDGE	1058	989	748	1102	766
SOLID/SOIL	10303	5439	5375	5181	5168
VAPOR	1120	905	827	819	819

This report includes only those program needs and funding which were identified in correspondence. The overall quality of inputs received from the programs is judged to be good. Uncertainties in some programs are evident from omissions in the sample projections. Known activities for which information was not provided include TWRS West and East Area Tank Farms, Vitrification Plant, Waste Form Certification, and Drinking Water. Needs for Stack and Room Air Monitoring, Construction Projects, Environmental Support and Industrial Hygiene were only partially identified by the programs. During the next quarter HAS will work with Hanford contractors (PHMC companies, BHI, and PNNL) to improve these projections.

4.0 DISCUSSION

The Analytical Services Program updates this Hanford Analytical Sample Projections report bi-annually (November and May). A request for a sample projection update was distributed to Hanford programs in April, 1997. The sample projections are utilized by the Hanford Analytical Services to assure that timely, cost effective, and quality laboratory support is available. It is understood that sample information may not always be well defined (i.e. budgets, strategies, etc.), but programs were still requested to provide their best estimate of analytical needs. The tables list number of samples by category. There is limited information on the complexity or amount of analytical work required to analyze the samples.

4.1 Environmental Restoration

Sample projections for the Environmental Restoration program are provided for 100, 200, and 300 Areas, plus Decontamination and Decommissioning, Horn Rapids, Environmental Restoration Disposal Facility, and NRDWL.

Table 6 provides the yearly sample projection by radiation level. Table 7 provides the yearly sample analysis summary. Table 8 provides the yearly sample projections by protocol. Table 9 provides the yearly sample projections by matrix. Table 10 provides the yearly funding levels where identified.

TREND

Environmental Restoration sample projections for FY 1998 compared to FY 1997 show a leveling in the number of samples, with a greater number of low activity samples and fewer category 3 samples. There is a significant growth in the number of TRU samples; D&D projects forecast 135 TRU samples which require metals and radchemistry analyses. Also a doubling in the number of analyses is projected, with the greatest increase in metals, pH/conductivity, and VOA/SVOA. In addition there is a shift to more complex matrices (soils and sludges).

Environmental Restoration sample projections for FY 1999 and beyond show a significant decrease in the number of samples (factor of 3) and in the number of analyses (factor of 4) when compared to FY 1998 projections.

Additional information provided by ER reflects a nearly 50% decrease in the number of samples during the last half of FY 1997 compared to the November 1996 projections.

Table 6

Yearly Sample Projections by Radiation Level for the Environmental Restoration Program

Radiation Level	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
Non-Radioactive	1332	437	344	347	331
<1 mR/hr beta-gamma; <10 nCi/g alpha	2678	910	736	744	715
1 to <10 mR/h beta-gamma; and <10 nCi/g alpha	2654	892	721	733	704
>100 mR/hr beta-gamma	0	5	5	5	5
>200 nCi/g alpha	135	35	20	0	0

Table 7

Yearly Sample Analysis Summary for the Environmental Restoration Program

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
AM-241	319	8	8	8	8
ANIONS	14	14	14	14	14
ASBESTOS	178	100	0	0	0
AT/TB	281	277	277	277	277
C-14	8	8	8	8	8
CR-VI	389	100	182	182	182
CYANIDE	0	0	0	0	0
DENSITY/SpG	0	0	0	0	0
DSC/TGA	0	0	0	0	0
FLASH POINT	0	0	0	0	0
GEA	686	55	55	55	55
H-3	78	78	78	78	78
I-129	8	8	8	8	8
MASS SPEC	0	0	0	0	0
MERCURY	207	0	0	0	0
METALS	4598	775	483	488	452
NDA	0	0	0	0	0
OTHER INORGANICS	20	0	0	0	0
OTHER ORGANICS	182	182	182	182	182
OTHER RAD CHEM	4340	1075	763	766	704
PEST/PCB	173	94	0	0	0
pH/CONDUCT/OH-	4258	1032	916	918	906
PU-238/39/40	472	61	46	26	26

SE-79	0	0	0	0	0
SR-90	415	104	104	104	104
TC-99	73	73	29	29	29
TCLP	100	100	100	100	100
TIC/TOC	6	6	6	6	6
URANIUM	472	61	46	26	26
VOA/SVOA	4498	783	645	648	632
WET CHEMISTRY	114	101	101	101	80
WTPH/OIL/GREASE	0	0	0	0	0
TOTAL	21789	4995	3951	3924	3777

Table 8

Yearly Sample Projection Summary by Protocol for the Environmental Restoration Program

Protocol	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
216 PERMIT	160	320	160	320	320
EPA	4728	1122	869	892	818
IH	170	100	0	0	0
NPDES	4	4	4	4	4
PROCESS CONTROL	1602	698	773	613	613
TRU	135	35	20		

Table 9

Yearly Sample Projection Summary by Matrix for the Environmental Restoration Program

Matrix	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
LIQUID	1147	1144	1056	1059	1035

OTHER	937	682	402	402	352
SOLID/SOIL	4715	453	368	368	368

Table 10

Yearly Funding Identified by Task for the Environmental Restoration Program
(\$ in 1000s)

TASK	Funding Source (ADS)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
100 AREA						
ER100AIR	TBD	TBD	TBD	TBD	TBD	TBD
ER100ARS	TBD	TBD	TBD	TBD	TBD	TBD
ER100BC	3100	TBD	TBD	TBD	TBD	TBD
ER100BC5RI	3115	TBD	TBD	TBD	TBD	TBD
ER100HR3IRM	3110	5	5	5	5	5
ER100HR3RI	3110	2	2	2	2	2
ER100KR4IRMPERF	3110	3	3	3	3	3
ER100KR4RI	3110	26	26	26	26	26
ER100NNEARMON	DB7118	TBD	TBD	TBD	TBD	TBD
ER100NR2PROCESS	3125	4	4	4	4	4
ER100NR2RI	3125	32	32	32	32	32
ER183NWATERPLT	TBD	TBD	TBD	TBD	TBD	TBD
ERNDEACTIVATION	UN2EV/2W W/26C	TBD	TBD	TBD	TBD	TBD
ERNSPRINGS	TBD	TBD	TBD	TBD	TBD	TBD
200 AREA						
ER200ASOURCE	3200	TBD	1900	1900	1900	1900
ER200BP11	BHI	65	TBD	TBD	TBD	TBD
ER200UP1IRM	3210	18	18	TBD	TBD	TBD

ER200ZP1IRM	3210	1	1	1	1	1
300 AREA						
ER300FF1	VARIOUS	TBD	TBD	TBD	TBD	TBD
ER300FF5	3800/3510	66	66	66	66	TBD
ER300FF5SEEP	TBD	TBD	TBD	TBD	TBD	TBD
D&D						
ERD&D	EM-40	TBD	TBD	TBD	TBD	TBD
ERDF						
ERERDF	RFS	39	39	39	39	39
ERERDFGW	3700	TBD	TBD	TBD	TBD	TBD
HORN RAPIDS						
ERHORNRL	3800/3510	26	26	26	26	TBD

4.2 Tank Waste Remediation System

Tank Waste Remediation System (TWRS) includes TWRS Waste Storage and Operations, TWRS Waste Disposal, Vitrification Plant, and Waste Form Certification. TWRS Waste Storage and Operations include West and East Tank Farm Operations and TWRS Characterization Project (cores, grab, vapor, and evaporator process). The projections for the 242A Evaporator previously reported in this section have been moved to section 4.4 Liquid Effluents. No information was received from Tank Farm West and East Area Operations, Vitrification Plant, and Waste Form Certification.

Table 11 provides the yearly sample projection by radiation level. Table 12 provides the yearly sample analysis summary. Table 13 provides the yearly sample projections by protocol. Table 14 provides the yearly sample projections by matrix. Table 15 provides the yearly funding identified by task.

TRENDS

Tank Waste Remediation System sample projections for FY 1998 show a level (42 AEU's) comparable to previous projections for FY 1997. The FY 1998 projections show increases in the number of GEA analyses (factor of 13), TOC (factor of 4), Mass Spec (factor of 4), Pu isotopic (factor of 2), Tc-99 (factor of 2). TWRS Characterization shows a 10% decrease in the number of samples in FY 1999 from FY 1998. The total

number of analyses projected for FY 2000 and the out-years decreases by a factor of 2 from the FY 1998-1999 level.

Table 11
Yearly Sample Projections by Radiation Level for the Tank Waste Remediation System Program

Radiation Level	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
<1 mR/hr beta-gamma;<10 nCi/g alpha	301	86	8	0	0
10 to <100 mR/hr beta-gamma; and <200 nCi/g alpha	622	562	557	552	552
>100 mR/hr beta-gamma	1111	988	702	1061	761

Table 12
Yearly Sample Analysis Summary for the Tank Waste Remediation System Program

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
AM-241	262	112	42	77	35
ANIONS	1832	1645	871	1227	899
ASBESTOS	0	0	0	0	0
AT/TB	1520	1518	1112	1297	1075
C-14	44	91	39	28	0
CR-VI	162	0	28	49	14
CYANIDE	159	161	100	88	60
DENSITY/SpG	879	1009	514	723	541
DSC/TGA	3286	3200	1778	2224	1800
FLASH POINT	15	10	10	10	10
GEA	1532	1198	618	678	612
H-3	206	91	39	49	0

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
I-129	0	0	0	0	0
MASS SPEC	227	105	35	79	34
MERCURY	150	90	85	80	80
METALS	2054	1790	973	1260	996
NDA	0	0	0	0	0
OTHER INORGANICS	532	237	116	141	118
OTHER ORGANICS	646	266	29	20	20
OTHER RAD CHEM	346	196	130	140	133
PEST/PCB	20	10	10	10	10
pH/CONDUCT/OH-	496	232	117	156	139
PU-238/39/40	374	112	46	56	35
SE-79	0	0	0	0	0
SR-90	284	162	50	64	57
TC-99	206	91	39	70	14
TCLP	150	90	85	80	80
TIC/TOC	1831	1761	891	1139	913
URANIUM	249	155	43	78	8
VOA/SVOA	115	70	65	60	60
WET CHEMISTRY	166	0	0	21	0
WTPH/OIL/GREASE	15	10	10	10	10
TOTAL	17758	14412	7875	9914	7753

Table 13
Yearly Sample Projection Summary by Protocol for the Tank Waste Remediation System Program

Protocol	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
PROCESS CONTROL	56	0	0	0	0
RCRA	1978	1636	1267	1613	1313

Table 14
Yearly Sample Projection Summary by Matrix for the Tank Waste Remediation System Program

Matrix	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
LIQUID	146	78	28	55	39
OTHER	447	432	432	432	432
SLUDGE	980	920	684	1016	732
SOLID/SOIL	160	120	115	110	110
VAPOR	301	86	8	0	0

Table 15
Yearly Funding Identified by Task for the Tank Waste Remediation System Program
 (\$ in 1000s)

Sub Program	Funding Source (ADS)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
CORE/AUGER ANALYSIS						
All cores & auger samples	1130	9094	9094	9094	9094	9094
GRAB SAMPLE ANALYSIS						
All grab samples	1130	939	939	939	939	939

VAPOR SAMPLE ANALYSIS						
All vapor samples	1130	1969	1969	200	0	0
MISCELLANEOUS						
All miscellaneous samples	1130	138	139	139	139	139

4.3 Solid Waste

Sample projections for the Solid Waste Program have been provided for the Central Waste Complex, Mixed Waste Trench, WRAP-1, and T-Plant.

Table 16 provides the yearly sample projection by radiation level. Table 17 provides the yearly sample analysis summary. Table 18 provides the yearly sample projections by protocol. Table 19 provides the yearly sample projections by matrix. Table 20 provides the yearly funding identified by task.

TREND

Projections show an increase from November 1996, due to the inclusion of non-destructive assay (NDA) at WRAP-1, on the order of 5000 drums per year. Few TRU samples were identified which require laboratory analysis (5 samples in FY 1998, 20 samples per year for FY 1999 through FY 2002). The projections show a slight decrease over the period FY 1998 to FY 2002.

Table 16
Yearly Sample Projections by Radiation Level for the Solid Waste Program

Radiation Level	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
<1 mR/hr beta-gamma;<10 nCi/g alpha	1344	1013	772	588	588
1 to <10 mR/h beta-gamma; and <10 nCi/g alpha	3826	4006	4016	4016	4016
10 to <100 mR/hr beta-gamma; and <200 nCi/g alpha	19	19	29	29	29
>200 nCi/g alpha	1255	1270	1270	1270	1270

Table 17
Yearly Sample Analysis Summary for the Solid Waste Program

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
AM-241	38	32	27	23	23
ANIONS	109	138	125	115	115
ASBESTOS	0	0	0	0	0
AT/TB	1379	1067	822	638	638
C-14	0	0	0	0	0
CR-VI	35	80	80	80	80
CYANIDE	35	80	80	80	80
DENSITY/SpG	20	50	50	50	50
DSC/TGA	0	0	0	0	0
FLASH POINT	20	50	50	50	50
GEA	58	47	38	31	31
H-3	0	0	0	0	0
I-129	0	0	0	0	0
MASS SPEC	120	750	550	550	550
MERCURY	35	80	80	80	80
METALS	203	208	178	155	155
NDA	10035	10080	10080	10080	10080
OTHER INORGANICS	138	166	152	141	141
OTHER ORGANICS	229	850	633	620	620
OTHER RAD CHEM	39	84	84	84	84
PEST/PCB	35	80	80	80	80
pH/CONDUCT/OH-	203	208	178	155	155

PU-238/39/40	53	62	57	53	53
SE-79	44	34	26	20	20
SR-90	0	0	0	0	0
TC-99	0	0	0	0	0
TCLP	15	30	30	30	30
TIC/TOC	248	848	626	609	609
URANIUM	0	0	0	0	0
VOA/SVOA	129	150	133	120	120
WET CHEMISTRY	0	0	0	0	0
WTPH/OIL/GREASE	20	50	50	50	50
TOTAL	13240	15224	14209	13894	13894

Table 18

Yearly Sample Projection Summary by Protocol for the Solid Waste Program

Protocol	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
10CFR834	26	26	26	26	26
RCRA	1383	1232	1011	827	827
SCREENING	30	30	30	30	30
WIPP	5005	5020	5020	5020	5020

Table 19

Yearly Sample Projection Summary by Matrix for the Solid Waste Program

Matrix	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
LIQUID	211	168	161	145	145
OTHER	6167	6075	5856	5692	5692
SLUDGE	25	19	14	10	10

SOLID/SOIL	41	46	56	56	56
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Table 20
Yearly Funding Identified by Task for the Solid Waste Program
 (\$ in 1000s)

Sub Program	Funding Source (ADS)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
CENTRAL WASTE COMPLEX						
CWC	A4A01	2	2	2	2	2
MIXED WASTE TRENCH						
MWT	A7A01	3	3	3	3	3
T PLANT						
TP	2320	200	200	200	150	150
WASTE RECEIVING AND PROCESSING						
WRAP1	2320	28	28	28	28	28
WRAP1NDAOP	2320	1157	1298	1348	1723	1768

4.4 Liquid Effluents

Sample projections for the Liquid Waste Disposal program have been provided for the 200 Area LEF, 300 Area LEF, and the 242A Evaporator. Previous projections included the 242-A Evaporator with the TWRS projections.

Table 21 provides the yearly sample projections by radiation level. Table 22 provides the yearly sample analysis summary. Table 23 provides the yearly sample projections by protocol. Table 24 provides the yearly sample projections by matrix. Table 25 provides the yearly funding identified by task.

TRENDS

Sample projections for the Liquid Effluents Program have increased slightly from the November 1996 projections. Projections now include a small number of high activity samples in support of 242-A Evaporator operations. The projections indicate a level

workload for FY 1998 through FY 2002. The cyclic operations of treatment facilities continue to cause peak and valley work loads for the laboratories.

Table 21
Yearly Sample Projections by Radiation Level for the Liquid Effluents Program

Radiation Level	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
Non-Radioactive	500	500	500	676	324
<1 mR/hr beta-gamma; <10 nCi/g alpha	1189	1189	1189	1215	1163
1 to <10 mR/h beta-gamma; and <10 nCi/g alpha	60	60	60	60	60
>100 mR/hr beta-gamma	46	46	46	46	46

Table 22
Yearly Sample Analysis Summary for the Environmental Liquid Effluents Program

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
AM-241	175	175	175	180	170
ANIONS	533	533	533	538	528
ASBESTOS	0	0	0	0	0
AT/TB	642	642	642	812	472
C-14	170	170	170	170	170
CR-VI	0	0	0	0	0
CYANIDE	385	385	385	432	338
DENSITY/SpG	136	136	136	141	131
DSC/TGA	19	19	19	24	14
FLASH POINT	0	0	0	0	0
GEA	500	500	500	658	342
H-3	233	233	233	246	220
I-129	170	170	170	170	170
MASS SPEC	592	592	592	592	592
MERCURY	599	599	599	672	526
METALS	650	650	650	728	572
NDA	0	0	0	0	0
OTHER INORGANICS	348	348	348	348	348
OTHER ORGANICS	0	0	0	0	0
OTHER RAD CHEM	390	390	390	414	366
PEST/PCB	0	0	0	0	0
pH/CONDUCT/OH-	393	393	393	398	388

PU-238/39/40	175	175	175	180	170
SE-79	18	18	18	18	18
SR-90	303	303	303	308	298
TC-99	270	270	270	270	270
TCLP	0	0	0	0	0
TIC/TOC	271	271	271	302	240
URANIUM	297	297	297	348	246
VOA/SVOA	846	846	846	897	795
WET CHEMISTRY	1125	1125	1125	1280	970
WTPH/OIL/GREASE	118	118	118	118	118
TOTAL	9358	9358	9358	10244	8472

Table 23

Yearly Sample Projection Summary by Protocol for the Environmental Liquid Effluents Program

Protocol	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
CWA	133	133	133	266	0
PROCESS CONTROL	98	98	98	136	60
RCRA	1564	1564	1564	1595	1533

Table 24

Yearly Sample Projection Summary by Matrix for the Liquid Effluents Program

Matrix	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
LIQUID	1769	1769	1769	1945	1593
SLUDGE	26	26	26	52	0

Table 25
Yearly Funding Identified by Task for the Liquid Effluents Program
(\$ in 1000s)

Sub Program	Funding Source (ADS)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
200 AREA LEF & LERF						
200LEFETF2NDWASTE		*	*	*	*	*
200LEFETFGW		*	*	*	*	*
200LEFETFPC	2300-0	840	840	840	840	840
200LEFETFVERIFTK		*	*	*	*	*
200LEFLERFCOMP		*	*	*	*	*
200LEFLERFPC	2300-0	263	263	263	263	263
200LEFTEDFEOP	2300-0	395	395	395	395	395
200LEFTEDFGW		*	*	*	*	*
200LEFTEDFPC		*	*	*	*	*
242A EVAPORATOR						
242ABOILERDISCHARGE		*	*	*	*	*
242ACOOINGWATER		*	*	*	*	*
242AFEEDSTREAM		*	*	*	*	*
242AFEEDTANKS	2300-0	400	400	400	400	400
242APROCESSCOND		*	*	*	*	*
242ASLURRYSTREAM		*	*	*	*	*
242ASTEAMCOND		*	*	*	*	*
300 AREA LEF						
300TEDF307B	2300	391	391	391	391	391
300TEDF340V	2300	158	118	118	98	78

Sub Program	Funding Source (ADS)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
300TEDFCOMP		+	+	+	+	+
300TEDFCOMP2		+	+	+	+	+
300TEDFCOMPTSS		+	+	+	+	+
300TEDFCOMPWET		+	+	+	+	+
300TEDFDNR		+	+	+	+	+
300TEDFP		+	+	+	+	+
300TEDFUV		+	+	+	+	+
300TEDFWCS		+	+	+	+	+

- * All 200 Area funding included under 200LEFETFPC, 200LEFLERFPC, 200LEFTEDFEOP, 242AFEEDTANKS
- + All 300 Area funding included under 300TEDF307B and 300TEDF340V

4.5 Spent Nuclear Fuels

Sample projections for the Spent Nuclear Fuels Program are provided for center basin, backwash filter pit, Department of Health, Effluent Treatment Plant, 183 air, ion exchanger, KW canister liquid, and the KW filter pit.

Table 26 provides the yearly sample projections by radiation level. Table 27 provides the yearly sample analysis summary. Table 28 provides the yearly sample projections by protocol. Table 29 provides the yearly sample projections by matrix. Table 30 provides the yearly funding identified by task.

TRENDS

Sample projections for the Spent Nuclear Fuels Program show an upward trend due to fuel transfer operations beginning in May 1998. There is considerable uncertainty in the duration of the transfer operations (projections provided assume level loading of analytical support is required during the next 5 years to support fuel transfer operations) and in the analytical work load because of the unknown activity level of ion exchange samples (projections provided assume ion exchange samples are category 2).

Table 26
Yearly Sample Projections by Radiation Level for the Spent Nuclear Fuel Program

Radiation Level	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
<1 mR/hr beta-gamma; <10 nCi/g alpha	5689	7648	7648	6584	6584
<10 mR/hr beta-gamma; and <200 nCi/g alpha	5	5	5	5	5
10 to <100 mR/hr beta-gamma; and <200 nCi/g alpha	6	6	6	6	6
>100 mR/hr beta-gamma	22	22	22	22	22

Table 27
Yearly Sample Analysis Summary for the Spent Nuclear Fuel Program

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
AM-241	50	50	50	38	38
ANIONS	22	22	22	22	22
ASBESTOS	0	0	0	0	0
AT/TB	8491	12166	12166	11102	11102
C-14	0	0	0	0	0
CR-VI	0	0	0	0	0
CYANIDE	0	0	0	0	0
DENSITY/SpG	22	22	22	22	22
DSC/TGA	18	18	18	18	18
FLASH POINT	0	0	0	0	0
GEA	3182	3182	3182	2118	2118
H-3	544	544	544	532	532

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
I-129	0	0	0	0	0
MASS SPEC	22	22	22	22	22
MERCURY	0	0	0	0	0
METALS	28	28	28	28	28
NDA	0	0	0	0	0
OTHER INORGANICS	4	4	4	4	4
OTHER ORGANICS	20	20	20	20	20
OTHER RAD CHEM	2654	4492	4492	4492	4492
PEST/PCB	24	24	24	24	24
pH/CONDUCT/OH-	27	27	27	27	27
PU-238/39/40	367	367	367	355	355
SE-79	0	0	0	0	0
SR-90	346	346	346	334	334
TC-99	10	10	10	10	10
TCLP	0	0	0	0	0
TIC/TOC	25	25	25	25	25
URANIUM	55	55	55	43	43
VOA/SVOA	12	12	12	12	12
WET CHEMISTRY	0	0	0	0	0
WTPH/OIL/GREASE	0	0	0	0	0
TOTAL	15923	21436	21436	19248	19248

Table 28
Yearly Sample Projection Summary by Protocol for the Spent Nuclear Fuel Program

Protocol	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
10CFR835	2533	4492	4492	4492	4492
PROCESS CONTROL	3156	3156	3156	2092	2092
RCRA	33	33	33	33	33

Table 29
Yearly Sample Projection Summary by Matrix for the Spent Nuclear Fuel Program

Matrix	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
LIQUID	3162	3162	3162	2098	2098
OTHER	2538	4497	4497	4497	4497
SLUDGE	22	22	22	22	22

TABLE 30
Yearly Funding Identified by Task for the Spent Nuclear Fuel Program

Sub Program	Funding Source (ADS)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
CENTERBASIN		200	380	380	TBD	TBD
DOH		*	*	*	*	*
EFFTRMTPLT		*	*	*	*	*
SNF183AIR		*	*	*	*	*
IX		TBD	TBD	TBD	TBD	TBD
SNFKWCANLIQUID		500	500	500	500	500
SNFKWFLRPIT		560	560	560	560	560

* Centerbasin funding includes DOH, EFFTRMTPLT, & SNF183AIR

+ SNFKWCANLIQUID

4.6 Transition Projects

Sample projections for Transition Projects are provided for the Plutonium Finishing Plant (PFP) Transition Project, the B-Plant/WESF Transition Project, and the FFTF Stabilization Project. No inputs were received from PUREX.

Table 31 provides the yearly sample projections by radiation level. Table 32 provides the yearly sample analysis summary. Table 33 provided the yearly sample projections by protocol. Table 34 provides the yearly sample projections by matrix. Table 35 provides the yearly funding identified by task.

TRENDS

Projections show level needs from FY 1998 through FY 2002, except for a 10 percent drop in PFP air monitoring samples. Overall projections are significantly higher than the November 1996 projections as the PFP air monitoring samples are now included.

Table 31
Yearly Sample Projections by Radiation Level for the Transition Projects Program

Radiation Level	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
Non-Radioactive	282	282	283	282	282
<1 mR/hr beta-gamma; <10 nCi/g alpha	690	668	630	633	633
1 to <10 mR/h beta-gamma; and <10 nCi/g alpha	2	1	1	0	0
<10 mR/hr beta-gamma; and <200 nCi/g alpha	32	25	25	24	24
10 to <100 mR/hr beta-gamma; and <200 nCi/g alpha	8	0	0	0	0
>200 nCi/g alpha	22623	22131	22196	19019	19018

Table 32
Yearly Sample Analysis Summary for the Transition Projects Program

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
AM-241	18	23	8	8	8
ANIONS	6457	6436	6432	3432	3432
ASBESTOS	6	15	0	0	0
AT/TB	999	963	928	954	954
C-14	0	0	0	0	0
CR-VI	0	0	0	0	0
CYANIDE	5	5	5	5	5
DENSITY/SpG	4	4	0	0	0
DSC/TGA	7280	6774	6774	3774	3774
FLASH POINT	14	11	3	3	3
GEA	65	41	20	24	24
H-3	0	0	0	0	0
I-129	0	0	0	0	0
MASS SPEC	1001	501	501	501	501
MERCURY	2	2	1	3	1
METALS	6401	6406	6443	3263	3262
NDA	702	690	682	682	682
OTHER INORGANICS	1	1	1	3	1
OTHER ORGANICS	21	18	14	14	14
OTHER RAD CHEM	21700	21200	21200	18200	18200
PEST/PCB	21	21	13	15	15
pH/CONDUCT/OH-	809	806	816	819	819

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
PU-238/39/40	39	158	196	8	8
SE-79	0	0	0	0	0
SR-90	92	56	27	31	31
TC-99	0	0	0	0	0
TCLP	7	4	3	3	3
TIC/TOC	272	263	255	253	255
URANIUM	0	0	0	0	0
VOA/SVOA	75	72	88	88	88
WET CHEMISTRY	10	10	10	10	10
WTPH/OIL/GREASE	21	18	14	14	14
TOTAL	46022	44498	44434	32107	32104

Table 33

Yearly Sample Projection Summary by Protocol for the Transition Projects Program

Protocol	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
10CFR834	26	26	26	26	26
10CFR835	14502	14502	14502	14502	14502
40CFR61 (CAA)	65	65	65	65	65
DOE5633.3	450	450	450	450	450
DOE5633.3/5820.2A	7	7	7	7	7
PROCESS CONTROL	8307	7772	7739	4739	4739
RCRA	280	285	346	169	168

Table 34
Yearly Sample Projection Summary by Matrix for the Transition Projects Program

Matrix	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
LIQUID	4031	4022	4022	1022	1022
OTHER	14656	14656	14656	14656	14656
SOLID/SOIL	4950	4429	4457	4280	4279

Table 35
Yearly Funding Identified by Task for the Transition Projections Program
 (\$ in 1000s)

SubProgram	Funding Source (ADS)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
300 AREA						
309TRANCHAR	6643	85	16	TBD	TBD	TBD
B PLANT						
BPLANT	6626	10	TBD	TBD	TBD	TBD
FFTF						
FFTFWASTECHAR	6640	10	10	10	10	10
PLUTONIUM FINISHING PLANT						
PFP Analytical Laboratory	6624-0	2691	2691	2691	TBD	TBD
CAM Air Filter Samples	6624-0	168	168	168	TBD	TBD
Stack Monitor Samples	6624-0	84	84	84	TBD	TBD
Standards Laboratory	6624-0	70	70	70	TBD	TBD
Commercial Sample Analysis	6624-0	175	175	175	TBD	TBD

SubProgram	Funding Source (ADS)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
Nondestructive Analysis	6624-0	882	882	882	TBD	TBD
Nondestructive Examination	6624-0	189	189	189	TBD	TBD
225-WC Wastewater, 26" Vacuum, LLWTF Samples	6624-0	25	25	25	TBD	TBD

4.7 Analytical Services

Sample projections for Analytical Services are provided for 222-S and WSCF, plus waste returns from commercial laboratories. Work loads from other site laboratories are not included.

Table 36 provides the yearly sample projections by radiation level. Table 37 provides the yearly sample analysis summary. Table 38 provided the yearly sample projections by protocol. Table 39 provides the yearly sample projections by matrix. Table 40 provides the yearly funding identified by task.

TREND

Analytical Services sample projections for FY 1998 through FY 2002 remain level.

Table 36
Yearly Sample Projections by Radiation Level for the Analytical Services Program

Radiation Level	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
Non-Radioactive	15	15	15	15	15
<1 mR/hr beta-gamma;<10 nCi/g alpha	1236	1198	1198	1198	1198

Table 37
Yearly Sample Analysis Summary for the Analytical Services Program

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
AM-241	19	19	19	19	19
ANIONS	226	188	188	188	188
ASBESTOS	20	20	20	20	20
AT/TB	1463	1425	1425	1425	1425
C-14	5	5	5	5	5
CR-VI	0	0	0	0	0
CYANIDE	42	42	42	42	42
DENSITY/SpG	9	9	9	9	9
DSC/TGA	7	7	7	7	7
FLASH POINT	0	0	0	0	0
GEA	666	628	628	628	628
H-3	24	24	24	24	24
I-129	5	5	5	5	5
MASS SPEC	0	0	0	0	0
MERCURY	159	121	121	121	121
METALS	452	414	414	414	414
NDA	0	0	0	0	0
OTHER INORGANICS	48	48	48	48	48
OTHER ORGANICS	0	0	0	0	0
OTHER RAD CHEM	0	0	0	0	0
PEST/PCB	0	0	0	0	0
pH/CONDUCT/OH-	579	541	541	541	541

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
PU-238/39/40	23	23	23	23	23
SE-79	0	0	0	0	0
SR-90	101	63	63	63	63
TC-99	5	5	5	5	5
TCLP	0	0	0	0	0
TIC/TOC	117	79	79	79	79
URANIUM	44	44	44	44	44
VOA/SVOA	62	24	24	24	24
WET CHEMISTRY	273	273	273	273	273
WTPH/OIL/GREASE	0	0	0	0	0
TOTAL	4349	4007	4007	4007	4007

Table 38

Yearly Sample Projection Summary by Protocol for the Analytical Services Program

Protocol	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
PROCESS CONTROL	1093	1093	1093	1093	1093
RCRA	158	120	120	120	120

Table 39
Yearly Sample Projection Summary by Matrix for the Analytical Services Program

Matrix	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
LIQUID	1198	1185	1185	1185	1185
OTHER	3	1	1	1	1
SLUDGE	5	2	2	2	2
SOLID/SOIL	45	25	25	25	25

Table 40
Yearly Funding Identified by Task for the Analytical Services Program

SubProgram	Funding Source (ADS)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
222-S & WSCF	7100-0	1253	1253	1253	1253	1253

4.8 Site Monitoring

Sample projections for the Site Monitoring Program are provided for Environmental Monitoring, the Hanford Groundwater Monitoring Project, Bioassay Program, Environmental Support (Effluent and Near Field Monitoring). Limited data was received for Stack Monitoring (100 and 300 Areas were not received) and room air monitoring.

Table 41 provides the yearly sample projections by radiation level. Table 42 provides the yearly sample analysis summary. Table 43 provides the yearly sample projections by protocol. Table 44 provides the yearly sample projections by matrix. Table 45 provides the yearly funding identified by task.

TRENDS

Sample projections for the Site Monitoring Program remain level during the next 5 years.

Table 41
Yearly Sample Projections by Radiation Level for the Site Monitoring Program

Radiation Level	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
Non-Radioactive	6932	6899	6880	6861	6842
<1 mR/hr beta-gamma;<10 nCi/g alpha	2691	2691	2691	2691	2691

Table 42
Yearly Sample Analysis Summary for the Site Monitoring Program

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
AM-241	327	327	327	327	327
ANIONS	1074	1050	1040	1030	1020
ASBESTOS	0	0	0	0	0
AT/TB	4378	4366	4354	4342	4330
C-14	8	8	8	8	8
CR-VI	0	0	0	0	0
CYANIDE	52	52	52	52	52
DENSITY/SpG	0	0	0	0	0
DSC/TGA	0	0	0	0	0
FLASH POINT	204	180	170	160	150
GEA	1342	1341	1342	1341	1342
H-3	1542	1542	1542	1542	1542
I-129	295	307	295	307	295
MASS SPEC	0	0	0	0	0
MERCURY	176	176	176	176	176
METALS	698	698	698	698	698

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
NDA	5	5	5	5	5
OTHER INORGANICS	2360	2360	2360	2360	2360
OTHER ORGANICS	204	180	170	160	150
OTHER RAD CHEM	405	405	405	405	405
PEST/PCB	304	270	250	230	210
pH/CONDUCT/OH-	170	170	170	170	170
PU-238/39/40	2455	2457	2455	2457	2455
SE-79	0	0	0	0	0
SR-90	1510	1493	1510	1493	1510
TC-99	366	366	366	366	366
TCLP	0	0	0	0	0
TIC/TOC	1758	1758	1758	1758	1758
URANIUM	1464	1441	1464	1441	1464
VOA/SVOA	460	436	426	416	406
WET CHEMISTRY	0	0	0	0	0
WTPH/OIL/GREASE	228	202	190	178	166
TOTAL	21785	21590	21533	21422	21365

Table 43

Yearly Sample Projection Summary by Protocol for the Site Monitoring Program

Protocol	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
10CFR834	2094	2094	2094	2094	2094
CAA	600	600	600	600	600
CWA	64	64	64	64	64

Protocol	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
OTHER	150	150	150	150	150
PROCESS CONTROL	4633	4633	4633	4633	4633
RCRA	2064	2031	2012	1993	1974
SDWA	18	18	18	18	18

Table 44
Yearly Sample Projection Summary by Matrix for the Site Monitoring Program

Matrix	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
LIQUID	2362	2362	2362	2362	2362
OTHER	6050	6043	6036	6029	6022
SOLID/SOIL	392	366	354	342	330
VAPOR	819	819	819	819	819

Table 45
Yearly Funding Identified by Task for the Site Monitoring Program

SubProgram	Funding Source (ADS)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
BIO	TBD	TBD	TBD	TBD	TBD	TBD
DYNCORPCLEANUP	TBD	TBD	TBD	TBD	TBD	TBD
DYNCORPWSCF	TBD	TBD	TBD	TBD	TBD	TBD
GW	TBD	TBD	TBD	TBD	TBD	TBD
NEARFIELDMON	TBD	TBD	TBD	TBD	TBD	TBD
SE	TBD	TBD	TBD	TBD	TBD	TBD
Stacks & Near Field Monitoring Effluents	7340-0	720	820	810	810	830

4.9 Industrial Hygiene

Industrial Hygiene projections include breathing air, drinking water, asbestos, and miscellaneous samples. No information was received for Industrial Hygiene drinking water sample analyses.

Table 46 provides the yearly sample projection by radiation level. Table 47 provides the yearly sample analysis summary. Table 48 provides the yearly sample projections by protocol. Table 49 provides the yearly sample projections by matrix. Table 50 provides the yearly funding identified by task.

TRENDS

Industrial Hygiene sample loads are anticipated to remain level from FY 1998 through FY 2002.

Table 46
Yearly Sample Projections by Radiation Level for the Industrial Hygiene Program

Radiation Level	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
Non-Radioactive	1280	1280	1280	1280	1280
<1 mR/hr beta-gamma;<10 nCi/g alpha	1614	1614	1614	1614	1614

Table 47
Yearly Sample Analysis Summary for the Industrial Hygiene Program

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
AM-241	0	0	0	0	0
ANIONS	0	0	0	0	0
ASBESTOS	1428	1428	1428	1428	1428
AT/TB	0	0	0	0	0
C-14	0	0	0	0	0
CR-VI	0	0	0	0	0

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
CYANIDE	0	0	0	0	0
DENSITY/SpG	0	0	0	0	0
DSC/TGA	0	0	0	0	0
FLASH POINT	0	0	0	0	0
GEA	0	0	0	0	0
H-3	0	0	0	0	0
I-129	0	0	0	0	0
MASS SPEC	0	0	0	0	0
MERCURY	0	0	0	0	0
METALS	0	0	0	0	0
NDA	0	0	0	0	0
OTHER INORGANICS	1360	1360	1360	1360	1360
OTHER ORGANICS	294	294	294	294	294
OTHER RAD CHEM	0	0	0	0	0
PEST/PCB	0	0	0	0	0
pH/CONDUCT/OH-	0	0	0	0	0
PU-238/39/40	0	0	0	0	0
SE-79	0	0	0	0	0
SR-90	0	0	0	0	0
TC-99	0	0	0	0	0
TCLP	0	0	0	0	0
TIC/TOC	0	0	0	0	0
URANIUM	0	0	0	0	0
VOA/SVOA	0	0	0	0	0

Analysis	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
WET CHEMISTRY	0	0	0	0	0
WTPH/OIL/GREASE	0	0	0	0	0
TOTAL	3082	3082	3082	3082	3082

Table 48

Yearly Sample Projection Summary by Protocol for the Industrial Hygiene Program

Protocol	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
IH	2894	2894	2894	2894	2894

Table 49

Yearly Sample Projection Summary by Matrix for the Industrial Hygiene Program

Matrix	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
OTHER	2894	2894	2894	2894	2894

Table 50

Yearly Funding Identified by Task for the Industrial Hygiene Program

SubProgram	Funding Source (ADS)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
IH	TBD	410	410	410	410	410

4.10 Miscellaneous Hanford Support

No information was received on Construction Project analytical service needs.

4.11 Laboratory Scale Technology (Development) Support

A summary of Laboratory Scale Technology (Development) needs is provided in Table 51 for 222-S and Table 52 for PFP support. Projections include process development needs and needs for laboratory space and resources.

Table 51
222-S Laboratories Scale Technology Support

NEED	REQUIREMENTS		FISCAL YEARS		
	SPACE (ft ²)	RESOURCES FTE/K\$	97	98	99
TWRS OPERATIONS Compatibility Test (Waste Reactivity) Sludge and supernate (Includes PRSST/Propagation Tester)	10 - Hotcell 6 - Hot lab	People - 2.5 Material - 5.0 Cap Equip - 0 New Tech - To Be Negotiated	●	●	●
Emerging Technology Requirements (LOE)	8 - Hot Lab	People - 0.3 Material - 5.0	○	●	●
Polychlorinated Biphenyl (Regulatory DQO)	100 - Hot Lab	People - 1.0 Material - 10.0 New Technology - Rapid Screening	○	○	●
Compatibility of Spent Fuel Basin Sludge with Waste Tanks	50 - Hotcell 24 - Hot Lab	People - 2.0 Material - 20.0 Cap Equip -100	○	○	●
Flammable Gas Phenomenology, Formation and Accumulation Chemistry of Flammable Gas in Waste Tanks (Compatibility DQO)	75 - Hotcell 50 - Hot Lab	People - 4.0 Material - 10.	●	●	○

NEED	REQUIREMENTS		FISCAL YEAR		
	SPACE (ft ²)	RESOURCES FTE/K\$	97	98	99
<u>TWRS OPERATIONS (cont'd)</u>					
Flammable Gas - Ammonia	40 - Cold Lab	People - 0.8 Material - 2.0	●	○	○
Corrosion Rate Coupons, Parametric Studies, Electronic Disturbances	24 - Hot Lab	People - 1.5 Material - 2.0	○	●	●
Cross Site Waste Transfer	30 - Hotcell 50 - Cold Lab	People - 2.0 Material - 10.0	○	○	○
<u>TWRS EVAPORATOR</u>					
Improve Turnaround of Evaporator Feed Characterization to Meet Schedules	30 - Hotcell 50 - Hot Lab	People - 1.5 Material - 5.0 New Technology - To Be Negotiated	○	○	○
<u>DISPOSAL PROGRAMS</u>					
Process Control - Retrieval of C-106 and Validation of In-Tank Monitoring	10 - Hotcell 20 - Hot Lab	People - 1.0 Material - 5.0 New Tech - Useful	○	●	●
Compatibility Testing		Test Conditions			
Feed Staging/Characterization for Privatization	30 - Hotcell 10 - Hot Lab	People - 1.3 Shipping - 1.0 Material - 5.0	●	●	○

NEED	REQUIREMENTS		FISCAL YEAR		
	SPACE (ft ²)	RESOURCES FTE/K\$	97	98	99
DISPOSAL PROGRAMS (cont'd) Dilution/Dissolution for Privatization	15 - Hotcell 20 - Hot Lab	People - 1.0 Material - 2.0 New Tech - Test Plan Negotiated	○	●	○
Sludge Settling Rate and Sludge Washing Tests for Pretreatment Studies	30 - Hotcell 30 - Cold Lab	People - 3.0 Materials - 10.0 Cap Equip - 25.0 New Tech - Transfer from PNNL	○	●	●
Cesium Ion Exchange Flow Testing	10 - Hotcell	People - 1.0	●	○	○
Technetium Removal Studies	15 - Hotcell 10 - Hot Lab	People - 1.0 Material - 10.0 New Tech - TBD	○	●	○
Pretreatment of High Organic Wastes	15 - Hotcell	People - 1.0 Material - 5.0 New Tech - TBD	○	●	○
Sodium Assay Methodology	8 - Hotcell 15 - Hot Lab	People - 2.0 Material - 20.0 Cap Equip - TBD	○	●	○

NEED	REQUIREMENTS		FISCAL YEAR		
	SPACE (ft ²)	RESOURCES FTE/K\$	97	98	99
<u>HANFORD TANK INITIATIVE SUPPORT</u> Program Development		People - 1.0	●	●	●
In-Tank Characterization Support	50 - Cold Lab	People - 1.0 Material - 20.0 Cap Equip - TBD	○	●	●
<u>SPENT NUCLEAR FUEL</u> Characterization of Spent Fuel Sludge Includes Uranium Metal Content	30 - Hotcell	People - 1.5 Material - 5.0 Cap Equip - TBD New Tech - TBD	○	●	●
Radionuclide Transport Monitoring During Sludge Retrieval	50 - Cold Lab	People - 1.0 Material - 5.0 Cap Equip - TBD	○	●	●
Process Control During Stabilization Processing	30 - Hotcell	People - 2.5 Material - 2.0	○	●	●
Particle Shape of Sludge Particulates	10 - Hot Lab	People - 0.5 Material - 5.0 New Tech - TBD	○	●	●

NEED	REQUIREMENTS		FISCAL YEAR		
	SPACE (ft ²)	RESOURCES FTE/K\$	97	98	99
<u>SPENT NUCLEAR FUEL (cont'd)</u> Pyrophoricity of Spent Fuel Sludge (Metallic Zr, U, Hydride) Suggested Methodology X-Ray Diffraction)	20 - Hotcell	People - 0.5 Material - 5.0 Cap Equip - 150 New Tech - Transfer from PNNL	○	●	●
Fe and Al Hydrates in sludges (Suggested Methodology X-Ray Diffraction)	20 - Hotcell	People - 0.5 Material - 3.0	○	○	○
<u>OTHER DEVELOPMENT ACTIVITIES</u> Criticality Lab Uranium Fuel Characterization	20 - Hot Lab	People - 0.5 Material - 2.0	●	●	○
N-Reactor Fuel Characterization	20 - Hot Lab	People - 1.0 Material - 5.0	○	●	●
Technetium Analysis Improvement (EM-50 Funding Expected)	10 - Hot Lab	People - 1.0 Material - 5.0 New Tech - Analysis Method	○	●	○
Rapid TRU Screening (Appropriate for Disposal Program Funding)	20 - Hot Lab	People - 1.5 Material - 100.0 New Tech - Implement Available Tech	○	○	○

NEED	REQUIREMENTS		FISCAL YEAR		
	SPACE (ft ²)	RESOURCES FTE/K\$	97	98	99
<u>OTHER DEVELOPMENT ACTIVITIES</u> Laser Ablation Mass Spectrometer Validation (EM-50 Funding Expected)	30 - Hotcell 50 - Hot Lab	People - 2.0 Material - 10.0 New Tech - From PNNL	○	●	○
Clean Salt Process Demonstration (EM-50 Funding Anticipated)	20 - Hotcell 150 - Cold Lab	People - 4.0 Material - 100.0 New Tech - To Be Demonstrated Pilot Scale	○	●	●
Zeta Potential (peptization of sludges)	10 - Hot Lab	People - 0.3 Material - 10.0 Cap Equip - 25.0	○	○	○
<u>General</u> Cost, Schedule, Employee Ergonomics Improvements	30 - Hotcell 50 - Hot Lab	People - 2.0 Material - 10.0	○	●	○
HASQARD Compliance with OCRA and 033P (NTS Repository)		People - 1.0	○	●	○

○ Unfunded in Current Budget ● Work Funded in Current Baseline Budget

Table 52
PFP Laboratory Scale Technology Support

NEED	REQUIREMENTS		FISCAL YEARS		
	SPACE (ft ²)	RESOURCES FTE/K\$	97	98	99
<u>Facilities Stabilization</u> PFP Cleanout - Vault Materials Characterization	100 - Glovebox 50 Hot Lab	People - 2.0 Material - 15.0	○	●	●

<p><u>PFP FY1997 Tasks</u></p> <ul style="list-style-type: none"> - Development/Demonstration of process for the conversion of the plutonium bearing solutions to plutonium oxide - Development/demonstration of process for the cementation of Sand. Slag and Crucible (SS&C) - Investigation of the feasibility of silver persulfate for removal of plutonium from ash materials - Development of operating parameters for the treatment of plutonium bearing solutions prior to calcination - Investigation of various decontamination methods for possible use on the facility gloveboxes/canyon 	---	<p>People - 9.0 Funding - \$965</p>	●	○	○
--	-----	---	---	---	---

NEED	REQUIREMENTS		FISCAL YEARS		
	SPACE (ft ²)	RESOURCES FTE/K\$	97	98	99
<u>PFP FY1997 Tasks (cont'd)</u> - Provide technical support to the K Basin Spent Fuels program - Investigation of the organic solubilities in the high-level waste tanks - Investigation of the "red oil" (TBP-nitric acid) reactions for DOE-HQ					

○ Unfunded in Current Budget ● Work Funded in Current Baseline Budget

4.12 Sample Management Support

Inputs on sample management support were received from the three Sample Management Offices of HASP, BHI and PNNL. Table 53 provides a summary of FTE's assigned to these activities in fiscal years 1996 and 1997. Information on other Sample Management Office work performed in the projects was not received.

Table 53
Sample Management Office Support

FTE's			
Organization	FY 1996	Nov. 1996	May 1997
HASP	13	8	7
BHI	19	10	6
PNNL	4.7	2	5*

* Includes 3 PNNL Groundwater SMO FTE's

4.13 Data Management Support

A compilation of the electronic data management systems in use is shown in Table 54, Data Management Support. They are listed by data source and data system name. The list includes systems used at both the laboratory analysis level and at the sample management level.

Table 54
Data Management Support

DATA SOURCE	DATA SYSTEM NAME	SITE DATA LINKS	PROGRAM	CONTACT	ADS #	FUNDING	DESCRIPTION
Analytical Results 222-S & WSCF	LABCORE LIMS	ABCASH ERS LEMIS TCD	Analytical Services	T F Dale			The Laboratory Information Management System (LIMS) is based on Multi LIMS. Internal data links with laboratory instrumentation and the Laboratory training System (LTS).
HASP Analytical Results (Commercial Laboratories)	SDT (Sample Data Track)	None	Analytical Services	JG Paetel			Sample and data tracking system
BHI Analytical Results (Commercial Laboratories)	SDT (Sample Data Track)	HEIS	ERC	BA Kissinger	3400		Sample and data tracking system developed for BHI
BHI Analytical Results	HEIS	EDMS HGIS PSDB SDT WIDS	ERC	BA Kissinger	3400		Oracle data base. Uses MS Access as user interface

DATA SOURCE	DATA SYSTEM NAME	SITE DATA LINKS	PROGRAM	CONTACT	ADS #	FUNDING	DESCRIPTION
Bioassay	REX		Industrial Hygiene Bioassay Project, PNNL	JA MacLellan			Data loaded directly through hardwired connection with bioassay analytical contractor - Quanterra
PFP Analytical Results	RLIMS Lite		PFP Transition Projects	GA Westsik	6624-0		Scheduled for implementation in 1997
Analytical Results, ACL	StarLIMS	None	PNNL 325 Analytical Chemistry Laboratory	JM Latkovich			Used for sample tracking and status
QES 318 (TLDs) 320 (I-129) DCL (non-rad) Groundwater	HEIS	HEIS LCT MAIN ALL (Paradox) See BHI Analytical Results (HEIS)	PNNL Site Monitoring Surface Environmental Surveillance Project	BM Gillespie - TA RL Dirkes - PM	85000		HEIS Results Tables HEIS SESP Scheduling LCT MAIN and ALL for non-rad sample tracking and storing data before loaded to HEIS. Groundwater also listed as BHI Analytical Results using HEIS
NDA Measurements	SIE and DMS	SWITS	Solid Waste WRAP	ME Palmer			NDA Measurements in the WRAP facility
NDA Measurements and Real-Time Radiography	SWITS	None	Solid Waste TRUSAF	R Clinton			Drum assay and examination for Transuranics

DATA SOURCE	DATA SYSTEM NAME	SITE DATA LINKS	PROGRAM	CONTACT	ADS #	FUNDING	DESCRIPTION
222-S PNNL	TCD (Tank Characterization Data Base)	LABCORE LIMS TWINS WWW	TWRS Tank Characterization	T J Kelley	1130		PNNL developed data base, required by the TPA to manage all tank characterization data.
306 Gas Laboratory Analytical Results	TMACS and DACS	TMACS	TWRS Tank Safety	DD Tate			Data is loaded into systems depending on application. Tank Monitoring & Control System (TMACS) and Data Acquisition and Control System (DACS).
Environmental Monitoring & Investigations Data		QES ERS ABCASH LABCORE LIMS		JJ Dorian			Quanterra sends results directly from QES to ERS. WSCF uses ABCASH and LABCORE LIMS to report results to EMI
SAS Analytical Results	RLIMS-Lite			LL Lockrem			Sample status and result reporting
SNF FO	SMTD	LABCORE LIMS	K-Basins	MA Green	LC087	0.2 FTE	Sample data trending

APPENDIX I

ENVIRONMENTAL RESTORATION PROGRAM INPUTS

A-1-149

Bechtel

3350 George Washington Way
Richland, WA 99352

Tel: (509) 375-4640

Fax: (509) 375-4644

045522

Job No. 22192

Written Response Required? NO

Closes CCN: 044557

OU: N/A

TSD: N/A

ERA: N/A

Subject Code: 8610

APR 25 1997

Fluor Daniel Hanford, Inc.
C. G. Mattsson, Manager
Waste Management
Post Office Box 1000, N1-26
Richland, Washington 99352

Dear Mr. Mattsson:

Subject: ERC ANALYTICAL PROJECTIONS UPDATE FOR MAY 1997

Reference: Letter, A. G. King, RFSH, to Contractors, "Analytical Services Projections Update for May 1997," CCN 9752863, dated March 31, 1997

Attached are the Environmental Restoration Contract Sample Projections for the remainder of 1997 through 2002. They are being provided to you in hard copy and electronic format. Additionally, the tables for Sample Management, Development and Research, and Data Management have been reviewed and updates are attached.

If you have any questions, please contact Joan Kessner on 372-9538.

Sincerely,

S. C. Foelber
Manager, Engineering and Technology

JHK:jmd

Attachments: ERC Sample Projections for 1997 through 2002
ERC Sample Projections for 1997 through 2002 Diskette - S. M. Joyce only
Table Update - Sample Management, Development and Research, and Data Management

cc: S. M. Joyce (RFSH) A1-16, w/a
A. G. King (RFSH) T6-03, w/a

Bechtel Hanford, Inc.

TABLE UPDATE

SAMPLE MANAGEMENT PROJECTIONS							
PROGRAM	ACTIVITY	CONTACT	ORGANIZATION	FACILITY	ADS#	FUNDING	DESCRIPTION
Environmental Restoration	Sample Management for ERC Activities	J. H. Kessner	Sample and Data Management	All	3400 & Projects		Strategic planning for BHI and integration of site analytical needs and resources.

DEVELOPMENT AND RESEARCH SUPPORT						
ACTIVITY	DEVELOPMENT OR RESEARCH	PROGRAM	FACILITY	ADS#	FUNDING	DESCRIPTION
No change						

DATA MANAGEMENT							
DATA SOURCE	DATA SYSTEM NAME	SITE DATA LINKS	PROGRAM	CONTACT	ADS#	FUNDING	DESCRIPTION
BHI Analytical Results	SDT (Sample Data Track)	HEIS	ERC	B. A. Kissinger	3400		Sample and Data tracking system developed by BHI.
BHI Analytical Results	HEIS	EDMS HGIS PSDB SDT WIDS	ERC	B. A. Kissinger	3400		Oracle database. Uses MS Access as user interface.

FY1997 (LAST HALF)

	# of Samples	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	533	All	27	0	0	262	214	0	0	178	168	0	166	
Quick Turnaround Laboratory	247	All	17	22	5	199	143	0	11	11	5	0	3	
Low Level Protocol Lab	639	All	48	12	28	208	572	0	71	36	16	0	16	
222-S/ PNNL	87	All	3	3	3	3	87	0	3	3	0	3	0	
Industrial Hygiene	70	All	0	0	0	0	0	0	0	0	0	0	70	
Other (PC, TRU)	56	All	0	0	0	0	0	0	0	0	0	0	56	
Additional Comments:														

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100 B/CFunding Source: ADS3100

Planned Funding Amount: _____

Contact: Jon Fancher

Reference: _____

	# of Samples↕	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis	160 ⁽¹⁾	Ssoil					160							GEA
Quick Turnaround Laboratory	110 ⁽²⁾	Soil				110	66							GEA, GEA add-on, ICP metals, Cr6, Hg, Am241,Pu,U,Sr
Low Level Protocol Lab	65 ⁽³⁾	Soil				65	39							GEA,GEA add-on, ICP metals, Cr6, Hg, Am241,Pu,U,Sr
222-S/ PNNL														
Industrial Hygiene	15 ⁽⁴⁾	Other											15	Asbestos
Other (PC, TRU)														

Additional Comments: ¹ Assumes 128 samples to 100N RCF and 32 samples to RCMS insitu² Assume All require Radiochemical and 60% require metals analysis³ Assume All require Radiochemical and 60% require metals analysis⁴ 15 samples for asbestos analysis at WSCF↕ These samples represent ~25 sampling events. The frequency of these events is weekly

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100 B/C NFMFunding Source: DB7027

Planned Funding Amount: _____

Contact: CJ PerkinsReference: Glen Van Sickle

	# of Samples ♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond	Geo- Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	39 3	Air Air					39 3								3 sites x 13 bi-weekly samples/year for alpha & beta. 3 sites x 1 composite/year for GEA, Sr90, Isotopic U, Pu.
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: <u>last half of FY97.</u>															

♦ These samples represent 13 sampling events. The frequency of these events is bi-weekly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997Project: 100-BC-5 RI

Funding Source: _____

Planned Funding Amount: _____

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	10	Water								10	10		10	The other analyses are for turbidity and temperature.
	4	Water				4 ^A								
Quick Turnaround Laboratory														
Low Level Protocol Lab	10	Water				10	10		10					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦These samples represent 2 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100 D/DR NFMFunding Source: DB7155

Planned Funding Amount: \$39.4 K

Contact: CJ Perkins (373-7043)Reference: Frank Corpuz

	# of Samples ♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	52 4	Air Air					52 4								4 sites X 13, biweekly samples for GA and GB. 4 sites X 1. Yearly composite for GEa, Sr90, Isotopic U, Pu
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)	10	TLD												Dosimetry	5 Sites X 2 quarterly exchanges.
Additional Comments:															

♦ These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100-HR-3 IRMFunding Source: ADS3110

Planned Funding Amount: \$4.6K

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples ♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	57	Water				57 ^A				57	57		57	Other physical analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	10	Water				10	10		10					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦ These samples represent 6 sampling events. The frequency of these events is 5 monthly and 1 semiannually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100-HR-3 RIFunding Source: ADS3110Planned Funding Amount: \$1.2KContact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis	11 4	Water Water				4*					11	11		11	Other analyses are for turbidity and temperature.
Quick Turnaround Laboratory															
Low Level Protocol Lab	7	Water				7	7		7						
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = Cr+6															

♦ These samples represent 3 sampling events. The frequency of these events is 2 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100-KR-4 IRMFunding Source: ADS3110

Planned Funding Amount: \$0.15K

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	15	Water				15 ^A				15	15		15	Other analyses is for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦These samples represent 3 sampling events. The frequency of these events is monthly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100-KR-4 RIFunding Source: ADS3110

Planned Funding Amount: \$9.9K

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples↕	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis	17 6	Water Water				6 ^A					17	17		17	Other analyses are for turbidity and temperature.
Quick Turnaround Laboratory															
Low Level Protocol Lab	7	Water				7	7		7						
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = Cr+6															

↕ These samples represent 3 sampling events. The frequency of these events is 2 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100N DeactivationFunding Source: UN2WWPlanned Funding Amount: \$121.6KContact: Joe Zoric/Don EideReference: 183N Water Plant 216 Permit

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	14	Water	14		14					14			14	
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)	TA = 14	Water					TA = 14							Rad screening for offsite transport.
Additional Comments: Projection based on DRAFT 216 permit requirements and estimating permitissuance in April 1997. TA = Total Activity														

♦These samples represent 13 sampling events. The frequency of these events is biweekly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100N DeactivationFunding Source: UN26CPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Don EideReference: Air Operating Permit

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC = 14	Air					14							
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: 13 Air sample from 116N Stack. 1 Air sample from 107N Stack. PC = Process Control * The work has been identified, but funding sources are still being evaluated.														

◆ These samples represent 14 sampling events. The frequency of these events is 13 biweekly for the 116N Stack and 1 yearly for the 107N Stack

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100N DeactivationFunding Source: UN2WWPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Don EideReference: Drinking Water Requirements

	# of Samples↕	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	2	Water					2							1 sample per quarter.
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: WAC 246-290-300 (9) Analyze for Radium 226-228, Gross Alpha/Gross Beta, Tritium, and Sr-90. <p style="text-align: center;">* The work has been identified, but funding sources are still being evaluated.</p>														

↕ These samples represent 2 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEETYear: FY1997 - Last HalfProject: 100N DeactivationFunding Source: UN2EVPlanned Funding Amount: \$23.5KContact: Joe Zoric/Don EideReference: Near Field Monitoring

	# of Samples↕	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab															
222-S/ PNNL	PC =14	Water					14							N-Springs Seep Wells	
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: Annual river shoreline sampling of N-Springs seep wells for NFM Program.															
PC = Process Control															

↕These samples represent 1 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100N DeactivationFunding Source: UN2EVPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Don EideReference: NPDES Permit

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	2	Water								2	2			1 sample per quarter.
Quick Turnaround Laboratory														
Low Level Protocol Lab	2	Water				2								1 sample per quarter.
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)	TA = 2	Water					TA = 2							1 sample per quarter for screening for offsite transport.

Additional Comments: Well 199-N-8T

TA = Total Activity

* The work has been identified, but funding sources are still being evaluated.

↕These samples represent 2 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100N DeactivationFunding Source: UN2EVPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Don EideReference: Tech Specs NFM

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC =18	Water					18							1 sample per month for each of three diffrent wells.
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: Wells N-46, N-47, and N-48.

PC = Process Control

* The work has been identified, but funding sources are still being evaluated.

↕ These samples represent 6 sampling events. The frequency of these events is monthly for each well.

SAMPLE PROJECTIONS WORKSHEETYear: FY1997 - Last HalfProject: 100-N NFMFunding Source: DB7118Planned Funding Amount: \$34KContact: CJ Perkins (373-7043)Reference: Ine Zoric

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	52	Air					52							4 sites X 13, biweekly samples for GA and GB.	
	4	Air					4							4 sites X 1, 6 month composite for GEA, Sr90, Isotopic U, Pu	
	7	Soil					7							Annual for GEA, Sr90, Isotopic U, Pu	
	11	Veg					11							Annual for GEA, Sr90, Isotopic U, Pu	
	10	Liquid					10							Annual for GEA, H3, Sr90	
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)	46	TLD											Dosimetry	23 Sites X 2 quarterly exchanges.	

Additional Comments:

♦ These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100-NR-2 PM

Funding Source: _____

Planned Funding Amount: _____

Contact: B. Mukherjee (S. J. Trent)

Reference: _____

	# of Samples ♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab															
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															

Additional Comments: **Sampling has been discontinued as of May 1997.**

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100-NR-2 ProcessFunding Source: ADS3125

Planned Funding Amount: \$2.3K

Contact: B. Mukherjee (S. J. Trent)

Reference: _____

	# of Samples ♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	12	Water					12								
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments:															

♦ These samples represent 6 sampling events. The frequency of these events is monthly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 100-NR-2 RIFunding Source: ADS3125Planned Funding Amount: \$15.6KContact: B. Mukherjee (S. J. Trent)

Reference: _____

	# of Samples ♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis	8	Water								8	8		8	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	8 23	Water Water			8	23	23		23					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦ These samples represent 1 sampling events. The frequency of these events is annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 200-UP-1 IRMFunding Source: ADS3210Planned Funding Amount: \$8.8KContact: M. Buckmaster (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis	22	Water	22				22			22	22		22	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	22	Water					22							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent 2 sampling events. The frequency of these events is July and August.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997Project: 200-ZP-1 IRMFunding Source: ADS3210Planned Funding Amount: \$0.32KContact: M. Buckmaster (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	32	Water	32							32	32		32	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent 5 sampling events. The frequency of these events is 4 bimonthly and 1 quarterly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 216-A-29 DitchFunding Source: PHMCPlanned Funding Amount: \$10KContact: Greg Mitchem

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory	6	Soil	6	6		6	6		6	6				This is speculative since it is Fluor work and may be done through their people.
Low Level Protocol Lab														
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent __ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEET

HNF-SD-WM-TI-608, Rev. 5

Year: FY1997 - Last Half

Project: 300-FF-1

Funding Source: _____

Planned Funding Amount: \$36K

Contact: Rich Carlson or Charlie Johnson

Reference: DOE/RI-96-70

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis	Continuous	Soil					x								Radcon for health and safety and ERDF WAC, all sites.
	176	Soil				176									XRF metals ^c
Quick Turnaround Laboratory	6	Soil	6	6		6	6								COC list ^b
	7	Soil				7	7								metals, unknowns.
	5	Soil	5	5			5								TAL/TCL, unknowns.
	3	Soil					3						3		Asbestos, unknowns.
Low Level Protocol Lab	8	Soil	8	8		8	8								30 Day TAT, Protocols.
	2	Soil			TCLP=2								2		Other is TCLP metals and organics. ^{d,e}
222-S/ PNNL															
Industrial Hygiene	Continuous	Air	X												IH for health and safety and ERDF WAC.
Other (PC, TRU)															
Additional Comments: B COC list is Uranium 234, 235, and 238, Cobalt 60, Arsenic, Chrysene, Benzo(a)pyrene, Thallium, and total PCBs. C XRF RCRA Metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver) D TCLP (RCRA Metals) E Other Organics (2-butanone [methyl ethyl ketone], carbon tetrachloride, trichloroethene, tetrachloroethene, toluene, xylenes [total], and chlorobenzene.															

♦ The QTL and LLPL and a portion of the XRF samples represent 2 - one time relatively short sampling events.

Most of the XRF samples represent daily samples taken during excavation of BG-618-4, currently scheduled to start in September.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: 300-FF-5Funding Source: ADS 3800 or 3510Planned Funding Amount: \$26KContact: C. J. KempReference: DOE-RI-95-7 3 and BHI Chron. #041489

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond	Geo- Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	9	Water	2			2	9								
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments:															

♦These samples represent sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: D&D ProjectsFunding Source: EM-40Planned Funding Amount: UnknownContact: J. RuggReference: D&D Long-Term Surveillance & Maintenance

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis	10	Other					10				10				
Quick Turnaround Laboratory	100	Other				60	40								
Low Level Protocol Lab	53	Other				40	53								Sr-90, AEA
222-S/ PNNL															
Industrial Hygiene	55	Other											55		Asbestos and lead paint
Other (PC, TRU)															
Additional Comments:															

♦These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: ERDFFunding Source: Rust Federal Services

Planned Funding Amount: \$39.4 K

Contact: Mike Casbon

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	130	Air					130							3 sites X 26, biweekly and 1 site X 52, weekly samples for GA and GB. 2 sites X 4, quarterly for GEA, Sr90, U, Pu, and Am 1 sample per 200,000 gallons of leachate 1 sample yearly	
	8	Air					8								
	6	Water	6			6	6		6 ^A	6					
	1	Soil					1								
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = TDS/TSS, Anions, Ammonia, TOC															

♦These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: ERDFFunding Source: ADS3700

Planned Funding Amount: _____

Contact: F. Roeck (B. H. Ford)

Reference: _____

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	4	Water								4	4		4	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	4	Water	4			4	4		4					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

↕ These samples represent 1 sampling events. The frequency of these events is semiannually

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: Group 4 DesignFunding Source: PD12C1

Planned Funding Amount: \$33K

Contact: Kelly CookReference: Group 4 REP

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other	
Field Analysis	5	Soil	5											
Quick Turnaround Laboratory	5	Soil		5		5	5							
Low Level Protocol Lab	15 3	Soil Soil				15(ICP) 3(TCLP)	15							The TCLP will be necessary if the total metals exceeds 20x criteria.
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)	TA = 20	Soil					TA=20							
Additional Comments: Currently in planning - this is the best guess at this time. DQO is scheduled for April 24, 1997.														

♦These samples represent 3 sampling events. The frequency of these events is one time.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: Horn RapidsFunding Source: ADS 3800 or 3510Planned Funding Amount: \$26KContact: C. J. KempReference: DOE-RL-95-7.3 and BHL Chron.#041489

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	12	Water	10			2					12	12			
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments:															

♦ These samples represent sampling events. The frequency of these events is yearly

SAMPLE PROJECTIONS WORKSHEET

Year: FY1997 - Last HalfProject: N-Basin CleanoutFunding Source: ADS3600

Planned Funding Amount:

Contact: Steve Trent/Garth Duncan

Reference: _____

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis														
Quick Turnaround Laboratory	5	Water			TOC = 5	5	5		5	5	5			Verification samples for disposal of N Basin water at ETF
Low Level Protocol Lab	4	Water	4	4	4	4	4		4	4	4			N Basin water characterization samples
222-S/ PNNL	3	Other	3	3	TOC = 3	3	3		3	3		3		Sediment debris characterization samples from the 105-N Basin and 105-N Lift Station
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦ These samples represent 4 sampling events. The frequency of these events is One-time.

FY1998

	# of Samples	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	1,367	All	174	0	0	639	364	0	0	430	430	0	426	The completion of 100 B/C accounts for 320 samples. The initiation of 300-FF-1 accounts for 465 samples.
Quick Turnaround Laboratory	263	All	33	33	0	175	263	0	13	13	13	13	8	
Low Level Protocol Lab	4,635	All	3,807	140	176	3,879	4,403	0	115	3,753	12	20	160	3,450 of these samples are estimated for the 100 Area remaining sites. The project has not been fully scoped or funded.
222-S/ PNNL	184	All	0	0	0	0	184	0	0	0	0	0	0	
Industrial Hygiene	170	All	0	0	0	0	0	0	0	0	0	0	170	
Other (PC, TRU)	227	All	0	0	0	85	135	0	0	70	0	0	92	
Additional Comments:														

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 100-Area Remaining SitesFunding Source: EM-40Planned Funding Amount: ***TBD**Contact: Roger Ovink/CHIReference: Clarence Corriveau/BHI

	# of Samples➦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pes/ PCB	Other					pH	Cond	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	3,450	Soil	3,450			3,450	3,450			3,450				This effort is tentatively scheduled for FY1998 but could continue into FY1999.
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: There are about 230 remaining waste sites in the 100-Area where sampling is believed necessary for waste characterization or for site close-out support documentation where remedial action is not believed to be needed. The number of samples estimated assumes that 15 samples will be required at each waste site. Normal sample turnaround times will be expected for these analyses; data validation will be needed for all close-out support data (assume all 230 sites).

*This work has been identified, but is in the early planning stages.

♦These samples represent several sampling events. The frequency of these events is TBD - throughout the FY.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 100 B/CFunding Source: 3100Contact: Jon Fancher

Reference: _____

Planned Funding Amount: _____

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.		Other
Field Analysis	320 ⁽¹⁾	Soil					320							GEA
Quick Turnaround Laboratory	200 ⁽²⁾	Soil				140	200							GEA, GEA add-on, ICP metals, Cr6, Hg, Am241,Pu,U,Sr
Low Level Protocol Lab	111 ⁽³⁾	soil				67	111							GEA, GEA add-on, ICP metals, Cr6, Hg, Am241,Pu,U,Sr
222-S/ PNNL														
Industrial Hygiene	20 ⁽⁴⁾	Other											20	Asbestos
Other (PC, TRU)														
Additional Conunents: ¹ Assumes 256 samples to 100N RCF and 64 samples RCMS insitu ² Assume All require Radiochemical and 70% require metals analysis ³ Assume All require Radiochemical and 60% require metals analysis ⁴ 20 samples for asbestos analysis at WSCF Project ends in 1998, no sample projections beyond FY 1998.														

♦These samples represent ~50 sampling events. The frequency of these events is weekly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 100-BC-5 RIFunding Source: ADS3115Planned Funding Amount: UnknownContact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis	52 8	Water Water				8 ^A					52	52		52	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory															
Low Level Protocol Lab	12	Water				12	12		12						
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = Cr+6															

♦These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.
 i.e. These 18 samples represent 3 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 100-HR-3 IRMFunding Source: ADS3110

Planned Funding Amount: \$4.6K

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	54 82	Water Water				82 ^A				54	54		54	The other analyses is for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	21	Water					21		21					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦These samples represent 6 sampling events. The frequency of these events is 5 monthly and 1 semiannually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 100-HR-3 RIFunding Source: ADS3110Planned Funding Amount: \$1.6KContact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	39 16	Water Water				16 ^A				39	39		39	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	7	Water				7	7		7					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEETYear: FY1998Project: 100-KR-4 IRMFunding Source: ADS3110Contact: A. J. Knepp (B. H. Ford)

Reference: _____

Planned Funding Amount: \$2.9K

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis	64	Water				64 ^A				64	64		64	The other analyses are for turbidity and temperature.	
Quick Turnaround Laboratory															
Low Level Protocol Lab	17	Water					17								
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = Cr+6															

♦ These samples represent __ sampling events. The frequency of these events is _____

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 100-KR-4 RIFunding Source: ADS3110Planned Funding Amount: \$25.7KContact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	31 12	Water Water								31	31		31	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	33	Water				33	33		33					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦ These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 100N DeactivationFunding Source: UN2WWPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Don EideReference: 183N Water Plant 216 Permit

	# of Samples↕	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	160	Water	160		160					160			160	
222-S/ PNNL	PC = 160	Water					160							
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: Projection based on Enforcement Permit (216 Permit) applied to the water plant.

PC = Process Control

* The work has been identified, but funding sources are still being evaluated.

◆ These samples represent 38 sampling events. The frequency of these events is 26 are done biweekly and 12 are done monthly

SAMPLE PROJECTIONS WORKSHEETYear: FY1998Project: 100N DeactivationFunding Source: UN26CPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Don EideReference: Air Operating Permit

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab															
222-S/ PNNL	PC = 2	Air					2								
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: 1 Air sample from 116N Stack. 1 Air sample from 107N Stack. PC = Process Control * The work has been identified, but funding sources are still being evaluated.															

♦These samples represent 1 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 100N DeactivationFunding Source: UN2WWPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Don EideReference: Drinking Water Requirements

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC = 4	Water					4							1 sample per quarter.
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: WAC 246-290-300 (9). Analyze for Radium 226-228, Gross Alpha/Gross Beta, Tritium, and Sr-90.

PC = Process Control

* The work has been identified, but funding sources are still being evaluated.

♦ These samples represent 4 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 100N DeactivationFunding Source: UN2EVPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Don EideReference: Near Field Monitoring

	# of Samples↕	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC =14	Water					14							N-Springs Seep Wells
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: Annual river shoreline sampling of N-Springs seep wells for NFM Program. PC = Process Control * The work has been identified, but funding sources are still being evaluated.														

↕ These samples represent 1 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 100N DeactivationFunding Source: UN2EVPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Don EideReference: NPDES Permit

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	4	Water								4	4			1 sample per quarter.
Quick Turnaround Laboratory														
Low Level Protocol Lab	4	Water				4								1 sample per quarter.
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)	TA = 4	Water					TA = 4							1 sample per quarter for screening for offsite transport.
Additional Comments: Well 199-N-8T. TA = Total Activity * The work has been identified, but funding sources are still being evaluated.														

↕ These samples represent 4 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEETYear: FY1998Project: 100-N NFMFunding Source: DB7118Contact: CJ Perkins (373-7043)Reference: Joe ZoricPlanned Funding Amount: ***TBD**

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	104	Air					104								4 sites X 26, biweekly samples for GA and GB.
	8	Air					8								4 sites X 2, 6 month composite for GEA. Sr90, Isotopic U, Pu
	3	Soil					3								Annual for GEA. Sr90, Isotopic U, Pu
	7	Veg					7								Annual for GEA. Sr90, Isotopic U, Pu
	10	Liquid					10								Annual for GEA, H3, Sr90
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)	92	TLD												Dosimetry	23 Sites X 4 quarterly exchanges.
Additional Comments:															

♦These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEETYear: FY1998Project: 100-NR-2 ProcessFunding Source: ADS3125

Planned Funding Amount: \$4.5K

Contact: B. Mukherjee (S. J. Trent)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	24	Water					24								
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments:															

♦ These samples represent 12 sampling events. The frequency of these events is monthly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 100-NR-2 RIFunding Source: ADS3125Planned Funding Amount: \$32.8KContact: B. Mukherjee (S. J. Trent)

Reference: _____

	# of Samples	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	30	Water								30	30		30	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	16 20 19	Water Water Water			16									
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

◆ These samples represent 2 sampling events. The frequency of these events is 1 short and 1 annual.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 200-BP-11Funding Source: BHIPlanned Funding Amount: \$65KContact: Curt Wittreich

Reference: _____

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.		Other
Field Analysis														
Quick Turnaround Laboratory	13	Soil	13	13		13	13		13	13	13	13		Full chemical and physical analysis of 13 samples from a borehole. To be validated.
Low Level Protocol Lab														
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦ These samples represent __ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEETYear: FY1998Project: 200-UP-1 IRMFunding Source: ADS3210Planned Funding Amount: \$17.6KContact: M. Buckmaster (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other		
Field Analysis	44	Water	44				44			44	44		44	The other analyses are for turbidity and temperature.	
Quick Turnaround Laboratory															
Low Level Protocol Lab	44	Water					44								
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments:															

♦ These samples represent 4 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 200-ZP-1 IRMFunding Source: ADS3210

Planned Funding Amount: \$0.96K

Contact: M. Buckmaster (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	96	Water	96							96	96		96	The other analyses are for trubidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent 6 sampling events. The frequency of these events is 4 quarterly and 2 semiannually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: 300-FF-1Funding Source: Various

Planned Funding Amount:

#140K

Contact: Rich Carlson or Charlie JohnsonReference: DOE/RI-96-70

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis	Continuous	Soil					x								Radcon for health and safety and ERDF WAC, all sites.
	465	Soil				465									XRF metals ^c
Quick Turnaround Laboratory	22	Soil				22	22								Metals, unknowns.
	20	Soil	20	20			20								TAL/TCL, unknowns.
	8	Soil					8						8		Asbestos, unknowns.
Low Level Protocol Lab	60	Soil	60	60		60	60								30 Day TAT. Protocols.
222-S/ PNNL															
Industrial Hygiene	Continuous	Air	X												IH for health and safety and ERDF WAC.
Other (PC, TRU)															
Additional Comments: A Quick Turnaround is 3 day turnaround with potocols. C XRF RCRA Metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver)															

♦ The QTL and LLPL and a portion of the XRF samples represent 3 to 5 - one time relatively short sampling events.
Most of the XRF samples represent daily samples taken during excavation of BG-618-4 and Landfills 1A, 1B, and 1D.

SAMPLE PROJECTIONS WORKSHEETYear: FY1998Project: 300-FF-5Funding Source: ADS 3800 or 3510Planned Funding Amount: \$26KContact: C. J. KempReference: DOE-RI-95-7.3 and BHL Chron. #041489

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond	Geo- Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	9	Water	2			2	9								
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments:															

♦These samples represent 5 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEETYear: FY1998Project: 300-FF-5Funding Source: ADS 3800 or 3510Planned Funding Amount: \$40KContact: C-J. KempReference: DOE-RI-95-7 3 and BHL Chron. #041489

	# of Samples ♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	3	Water	3				3								
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: These are near shore river samples.															

♦ These samples represent 2 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEETYear: FY1998Project: D&D ProjectsFunding Source: EM-40Planned Funding Amount: UnknownContact: J. RuggReference: D&D Long-Term Surveillance & Maintenance Schedule

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	300 20	Other Soil	100	80		200	300			125		20		
222-S/ PNNL														
Industrial Hygiene	150	Other											150	Asbestos and lead paint
Other (PC, TRU)	TRU = 135	Other				85	135			70				U, Pu, Am, Np, Cm
Additional Comments: TRU samples may have >10 ⁶ dpm smearable alpha contamination. TRU = Transuranic														

↕ These samples represent _____ sampling events. The frequency of these events is _____.

Planned Funding Amount: \$39.4 K

Reference: _____

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	130	Air					130							3 sites X 26, biweekly and 1site X 52, weekly samples for GA and GB.
	8	Air					8							2 sites X 4, quarterly for GEA, Sr90, U, Pu, and Am
	6	Water	6			6	6	6 ^A	6					1 sample per 200,000 gallons of leachate
	1	Soil					1							1 sample yearly
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: A = TDS/TSS, Anions, Ammonia, TOC

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: ERDFFunding Source: ADS3700

Planned Funding Amount: _____

Contact: F. Roeck (B. H. Ford)

Reference: _____

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	8	Water								8	8		8	
Quick Turnaround Laboratory														
Low Level Protocol Lab	8	Water	8			8	8		8					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

↕ These samples represent 2 sampling events. The frequency of these events is semiannually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: Horn RapidsFunding Source: ADS 3800 or 3510Planned Funding Amount: \$26KContact: C. J. KempReference: DOE-RI-95-7.3 and BHI Chron. #041489

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	12	Water	10			2				12	12			
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent 5 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1998Project: NRDWLFunding Source: BHI

Planned Funding Amount: _____

Contact: Curt Wittreich

Reference: _____

	# of Samples↕	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis	34	Soil Gas	34											Same day TAT.	
Quick Turnaround Laboratory															
Low Level Protocol Lab															
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments:															

◆ These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

FY1999

SAMPLE PROJECTIONS SUMMARY WORKSHEET

FY1999

	# of Samples	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	581	All	140	0	0	223	44	0	0	422	422	0	422	
Quick Turnaround Laboratory	360	All	360	3	0	360	360	0	0	357	357	357	357	
Low Level Protocol Lab	924	All	277	91	176	275	712	0	107	228	12	0	160	
222-S/ PNNL	183	All	0	0	0	0	183	0	0	0	0	0	0	
Industrial Hygiene	100	All	0	0	0	0	0	0	0	0	0	0	100	
Other (PC, TRU)	127	All	0	0	0	20	35	0	0	0	0	0	92	

Additional Comments:

SAMPLE PROJECTIONS WORKSHEET

Year: FY1999Project: 100-BC-5 RI

Funding Source: _____

Planned Funding Amount: _____

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	52	Water								52	52		52	The other analyses are for turbidity and temperature.
	8	Water				8 ^A								
Quick Turnaround Laboratory														
Low Level Protocol Lab	12	Water				12	12		12					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦ These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1999Project: 100-HR-3 IRMFunding Source: ADS3110Planned Funding Amount: \$4.6KContact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis	54 82	Water Water				82 ^A					54	54		54	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory															
Low Level Protocol Lab	21	Water					21		21						
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = Cr+6															

♦These samples represent 6 sampling events. The frequency of these events is 5 monthly and 1 semiannually.

HNF-SD-WM-TI-608, Rev. 5
SAMPLE PROJECTIONS WORKSHEET

Year: FY1999

Project: 100-HR-3 RI

Funding Source: ADS3110

Planned Funding Amount: \$1.6K

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other		
Field Analysis	39 16	Water Water				16 ^A					39	39		39	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory															
Low Level Protocol Lab	7	Water				7	7		7						
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = Cr+6															

♦These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1999Project: 100-KR-4 IRMFunding Source: ADS3110

Planned Funding Amount: \$2.9K

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	64	Water				64 ^A				64	64		64	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	17	Water					17							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦These samples represent ___ sampling events. The frequency of these events is _____

SAMPLE PROJECTIONS WORKSHEETYear: FY1999Project: 100-KR-4 RIFunding Source: ADS3110

Planned Funding Amount: \$25.7K

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other	
Field Analysis	31	Water								31	31		31	The other analyses are for turbidity and temperature.
	12	Water				12 ^A								
Quick Turnaround Laboratory														
Low Level Protocol Lab	33	Water				33	33		33					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦ These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEETYear: FY1999Project: 183-N Water Plant 216 PermittingFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Dick MartinReference: 183N 216 Permit

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	PC=160	Water	160		160					160			160	
222-S/ PNNL	PC =160	Water					160							
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: PC = Process Control														
*The work has been identified, but funding sources are still being evaluated.														

♦These samples represent 26 sampling events. The frequency of these events is biweekly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1999Project: 116N StackFunding Source: Planned Funding Amount: ***TBD**Contact: Joe Zoric/J. J. McQuireReference: Air Operating Permit

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC =1	Air					1							
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: PC = Process Control														
*The work has been identified, but funding sources are still being evaluated.														

♦These samples represent 1 sampling events. The frequency of these events is yearly.

HNF-SD-WM-TI-608, Rev. 5
SAMPLE PROJECTIONS WORKSHEET

Year: FY1999

Project: N-Area Water Plant (183N)

Funding Source: TBD
 Planned Funding Amount: ***TBD**

Contact: Joe Zoric/Dick Martin

Reference: Drinking Water Requirements

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC =4	Water					4							1 sample per quarter.
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: WAC-246-300 (9) Analyze for Radium 226-228, Gross Alpha/Gross Beta. Tritium. and Sr-90. PC = Process Control <p style="text-align: center;">*The work has been identified, but funding sources are still being evaluated.</p>														

♦These samples represent 4 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1999Project: N-Area/N-SpringsFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/George HenckelReference: Near Field Monitoring

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC = 14	Water					14							
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: DOE/RL 91-50 Rev. 1 PC = Process Control *The work has been identified, but funding sources are still being evaluated.														

♦These samples represent 1 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1999Project: N-Area/N-SpringsFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/George HenckelReference: NPDES Permit

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	4	Water								4	4			
Quick Turnaround Laboratory														
Low Level Protocol Lab	4	Water				4								
222-S/ PNNL	PC =4	Water					4							
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: Well N-199-N-8T
PC = Process Control

*The work has been identified, but funding sources are still being evaluated.

↗These samples represent 4 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEETYear: FY1999Project: 100-N NFMFunding Source: DB7118Contact: CJ Perkins (373-7043)Reference: Joe ZoricPlanned Funding Amount: ***TBD**

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	104	Air					104							4 sites X 26, biweekly samples for GA and GB.
	8	Air					8							4 sites X 2, 6 month composite for GEA, Sr90, Isotopic U, Pu
	3	Soil					3							Annual for GEA, Sr90, Isotopic U, Pu
	7	Veg					7							Annual for GEA, Sr90, Isotopic U, Pu
	10	Liquid					10							Annual for GEA, H3, Sr90
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)	92	TLD											Dosimetry	23 Sites X 4 quarterly exchanges.
Additional Comments: *The work has been identified, but funding sources are still being evaluated.														

♦ These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1999Project: 100-NR-2 ProcessFunding Source: ADS3125

Planned Funding Amount: \$4.5K

Contact: B. Mukherjee (S. J. Trent)

Reference: _____

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	24	Water					24							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

↕ These samples represent 12 sampling events. The frequency of these events is monthly.

SAMPLE PROJECTIONS WORKSHEETYear: FY1999Project: 100-NR-2 RIFunding Source: ADS3125Planned Funding Amount: \$32.8KContact: B. Mukherjee (S. J. Trent)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis	30	Water								30	30		30	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	16 20 19	Water Water Water			16									
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent 2 sampling events. The frequency of these events is 1 short and 1 annual.

SAMPLE PROJECTIONS WORKSHEETYear: FY1999Project: 200 Areas SourceFunding Source: ADS3200Planned Funding Amount: \$1900KContact: Greg MitchemReference: 200A Strategy

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other	
Field Analysis	357	Soil	357			357	357			357	357	357	357	45 day turnaround time. Validated data.
Quick Turnaround Laboratory														
Low Level Protocol Lab	5	Soil				5								45 day turnaround time.
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: **ASSUMPTIONS:** 51 SAMPLES PER WASTE SITE SW-846/CLP-level analyses; Twenty-eight 200 Area Source waste sites to be characterized in FY 1999-FY 2002.
 Cost is based on unit cost of \$4.6K/sample for SW-846/CLP analysis set plus an allowance of \$40K/waste site for high-level rad samples.
 8 samples per SDG.
 Samples from 1 borehole. 2 test pits. 1 surface rad survey per waste site roughly evenly spaced during FR 1999 - 2002.

↕These samples represent__ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1999Project: 200-UP-1 IRMFunding Source: ADS3210Planned Funding Amount: \$17.6KContact: M. Buckmaster (B. H. Ford)

Reference: _____

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	44	Water	44				44			44	44		44	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	44	Water					44							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: Shutdown in 1999.														

↕ These samples represent 4 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEETYear: FY1999Project: 200-ZP-1 IRMFunding Source: ADS3210Planned Funding Amount: \$0.96KContact: M. Buckmaster (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other		
Field Analysis	96	Water	96							96	96		96	The other analyses are for turbidity and temperature.	
Quick Turnaround Laboratory															
Low Level Protocol Lab															
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments:															

♦These samples represent 6 sampling events. The frequency of these events is 4 quarterly and 2 semiannually.

SAMPLE PROJECTIONS WORKSHEETYear: FY1999Project: 300-EF-1Funding Source: VariousPlanned Funding Amount: \$66KContact: Rich Carlson or Charlie JohnsonReference: DOE/RI-96-70

	# of Samples↕	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis	Continuous 41	Soil Soil					x								Radcon for health and safety and ERDF WAC, all sites. XRF metals ^c
Quick Turnaround Laboratory	3	Soil	3	3		3	3								COC list, Purgewater criteria
Low Level Protocol Lab	38 3	Soil Water	38 3	38 3		38 3	38 3								30 Day TAT, Protocols. COCs to purgewater criteria.
222-S/ PNNL															
Industrial Hygiene	Continuous	Air	X												IH for health and safety and ERDF WAC.
Other (PC, TRU)															
Additional Comments: B COC list is Uranium 234, 235, and 238, Cobalt 60, Arsenic, Chrysene, Benzo(a)pyrene, Thallium, and total PCBs. C XRF RCRA Metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver)															

♦ The QTL and LLPL and the XRF samples represent 1 or 2 -relatively short sampling events.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1999Project: 300-FF-5Funding Source: ADS 3800 or 3510Planned Funding Amount: \$26KContact: C. J. KempReference: DOE-RI-95-7 3 and BHI Chron #041489

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	9	Water	2			2	9							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent 5 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1999Project: D&D ProjectsFunding Source: EM-40Planned Funding Amount: UnknownContact: J. RuggReference: D&D Long-Term Surveillance & Maintenance Schedule

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	195	Other	50	50		140	195			50					
222-S/ PNNL															
Industrial Hygiene	100	Other											100	Asbestos and lead paint	
Other (PC, TRU)	TRU = 35	Other				20	35							Pu, Am, Np, Cm	
Additional Comments: TRU samples may have >10 ⁶ dpm alpha contamination.															
TRU = Transuranic															

♦These samples represent _____ sampling events. The frequency of these events is _____.

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SAMPLE PROJECTIONS WORKSHEET

Year: FY1999

Project: ERDF

Funding Source: Rust Federal Services

Planned Funding Amount: \$39.4 K

Contact: Mike Casbon

Reference: _____

	# of Samples ♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	130 8 6 1	Air Air Water Soil	 6				130 8 6 1			6 ^A	6				3 sites X 26, biweekly and 1 site X 52, weekly samples for GA and GB. 2 sites X 4, quarterly for GEA, Sr90, U, Pu, and Am 1 sample per 200,000 gallons of leachate 1 sample yearly
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = TDS/TSS, Anions, Ammonia, TOC															

♦ These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEETYear: FY1999Project: ERDF

Funding Source: _____

Planned Funding Amount: _____

Contact: F. Roeck (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other	
Field Analysis	8	Water								8	8		8	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	8	Water	8			8	8		8					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent 2 sampling events. The frequency of these events is semianually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY1999Project: Horn RapidsFunding Source: ADS 3800 or 3510Planned Funding Amount: \$26KContact: C. J. KempReference: DOE-RI-95-7 3 and BHL Chron. #041489

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	12	Water	10			2				12	12			
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

◆ These samples represent 5 sampling events. The frequency of these events is yearly.

FY2000

	# of Samples	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	496	All	96	0	0	182	0	0	0	378	378	0	374	
Quick Turnaround Laboratory	357	All	357	0	0	357	357	0	0	357	357	357	357	
Low Level Protocol Lab	675	All	186	0	176	109	462	0	107	178	12	0	160	
222-S/ PNNL	183	All	0	0	0	0	183	0	0	0	0	0	0	
Industrial Hygiene	0	All	0	0	0	0	0	0	0	0	0	0	0	
Other (PC, TRU)	112	All	0	0	0	10	20	0	0	0	0	0	92	
Additional Comments:														

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: 100-BC-5 RI

Funding Source: _____

Planned Funding Amount: _____

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	52 8	Water Water				8 ^A				52	52		52	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	12	Water				12	12		12					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: 100-HR-3 IRMFunding Source: ADS3110

Planned Funding Amount: \$4.6K

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples↕	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other		
Field Analysis	54 82	Water Water				82 ^A					54	54		54	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory															
Low Level Protocol Lab	21	Water					21		21						
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = Cr+6															

↕ These samples represent 6 sampling events. The frequency of these events is 5 monthly and 1 semiannually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: 100-HR-3 RIFunding Source: ADS3110

Planned Funding Amount: \$1.6K

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples↕	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other		
Field Analysis	39 16	Water Water				16 ^A					39	39		39	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory															
Low Level Protocol Lab	7	Water				7	7		7						
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = Cr+6															

↕ These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: 100-KR-4 IRMFunding Source: ADS3110Planned Funding Amount: \$2.9KContact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis	64	Water				64^				64	64		64	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	17	Water					17							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦These samples represent sampling events. The frequency of these events is

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: 100-KR-4 RIFunding Source: ADS3110Planned Funding Amount: \$25.7KContact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	31	Water								31	31		31	The other analyses are for turbidity and temperature.
	12	Water				12 ^A								
Quick Turnaround Laboratory														
Low Level Protocol Lab	33	Water				33	33		33					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

↕ These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: 183-N Water Plant 216 PermittingFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Dick MartinReference: 183N 216 Permit

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	PC=160	Water	160		160					160			160	
222-S/ PNNL	PC =160	Water					160							
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: PC = Process Control														
*The work has been identified, but funding sources are still being evaluated.														

↕ These samples represent 26 sampling events. The frequency of these events is biweekly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: 116N StackFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/J. J. McQuireReference: Air Operating Permit

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC =1	Air					1							
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: PC = Process Control

*The work has been identified, but funding sources are still being evaluated.

♦ These samples represent 1 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: N-Area Water Plant (183N)Funding Source: TBD

Planned Funding Amount: *TBD

Contact: Joe Zoric/Dick MartinReference: Drinking Water Requirements

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC =4	Water					4							1 sample per quarter.
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: WAC-246-300 (9) Analyze for Radium 226-228, Gross Alpha/Gross Beta, Tritium, and Sr-90. PC = Process Control <p style="text-align: center;">*The work has been identified, but funding sources are still being evaluated.</p>														

♦These samples represent 4 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEETYear: FY2000Project: N-Area/N-SpringsFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/George HenckelReference: Near Field Monitoring

	# of Samples↕	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC =14	Water					14							
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: DOE/RL 91-50 Rev. 1 PC = Process Control *The work has been identified, but funding sources are still being evaluated.														

↕These samples represent 1 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: N-Area/N-SpringsFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/George HenckelReference: NPDES Permit

	# of Samples↕	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis	4	Water								4	4			
Quick Turnaround Laboratory														
Low Level Protocol Lab	4	Water				4								
222-S/ PNNL	PC =4	Water					4							
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: Well N-199-N-8T PC = Process Control *The work has been identified, but funding sources are still being evaluated.														

↕These samples represent 4 sampling events. The frequency of these events is quarterly.

HNF-SD-WM-TI-608, Rev. 5
SAMPLE PROJECTIONS WORKSHEET

Year: FY2000

Project: 100-N NFM

Funding Source: DB7118

Contact: CJ Perkins (373-7043)

Reference: Joe Zoric

Planned Funding Amount: ***TBD**

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	104	Air					104								4 sites X 26, biweekly samples for GA and GB.
	8	Air					8								4 sites X 2, 6 month composite for GEA, Sr90, Isotopic U, Pu
	3	Soil					3								Annual for GEA, Sr90, Isotopic U, Pu
	7	Veg					7								Annual for GEA, Sr90, Isotopic U, Pu
	10	Liquid					10								Annual for GEA, H3, Sr90
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)	92	TLD											Dosimetry		23 Sites X 4 quarterly exchanges.
Additional Comments: *The work has been identified, but funding sources are still being evaluated.															

♦These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEETYear: FY2000Project: 100-NR-2 ProcessFunding Source: ADS3125Planned Funding Amount: \$4.5KContact: B. Mukherjee (S. J. Trent)

Reference: _____

	# of Samples ♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	24	Water					24							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦ These samples represent 12 sampling events. The frequency of these events is monthly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: 100-NR-2 RIFunding Source: ADS3125

Planned Funding Amount: \$32.8K

Contact: B. Mukherjee (S. J. Trent)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other	
Field Analysis	30	Water								30	30		30	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	16	Water			16									
	20	Water				20			20					
	19	Water					19							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent 2 sampling events. The frequency of these events is 1 short and 1 annual.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: 200 Areas SourceFunding Source: ADS3200

Planned Funding Amount: \$1900K

Contact: Greg MitchumReference: 200A Strategy

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory	357	Soil	357			357	357			357	357	357	357	45 day turnaround time. Validated data.
Low Level Protocol Lab	5	Soil					5							45 day turnaround time.
222-S/ PNNI.	PC =14	Water					14							
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: **ASSUMPTIONS:** 51 SAMPLES PER WASTE SITE sw-846/CLP-level analyses: Twenty-eight 200 Area Source waste sites to be characterized in FY1999-FY2002.

Cost is based on unit cost of \$4.6K/sample for SW-846/CLP analysis set plus an allowance of \$40K/waste site for high-level ad samples.
8 samples per SDG.

Samples from 1 borehole, 2 test pits, 1 surface rad survey per waste site roughly evenly spaced during FY1999 - 2002

♦These samples represent 1 sampling events. The frequency of these events is yearly.
i.e. These 18 samples represent 3 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: 200-ZP-1 IRMFunding Source: ADS3210

Planned Funding Amount: \$0.96K

Contact: M. Buckmaster (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis	96	Water	96							96	96		96	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent 6 sampling events. The frequency of these events is 4 quarterly and 2 semiannually.

SAMPLE PROJECTIONS WORKSHEETYear: FY2000Project: 300-FF-5Funding Source: ADS 3800 or 3510Planned Funding Amount: \$26KContact: C. J. KempReference: DOE-RI-95-7 3 and BHI Chron #041489

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond	Geo- Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	9	Water	2			2	9							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent 5 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: D&D ProjectsFunding Source: EM-40Planned Funding Amount: UnknownContact: J. RuggReference: D&D Long-Term Surveillance & Maintenance Schedule

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond	Geo- Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	30	Other				15	30							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)	TRU = 20	Other				10	20							Pu, Am, Np, Cm
Additional Comments: TRU samples may have >10 ⁶ dpm alpha contamination. TRU = Transuranic														

♦ These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: ERDFFunding Source: Rust Federal ServicesPlanned Funding Amount: \$39.4 KContact: Mike Casbon

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	130	Air					130							3 sites X 26, biweekly and 1 site X 52, weekly samples for GA and GB. 2 sites X 4, quarterly for GEA, Sr90, U, Pu, and Am 1 sample per 200,000 gallons of leachate 1 sample yearly	
	8	Air					8								
	6	Water	6			6	6		6 ^A	6					
	1	Soil					1								
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = TDS/TSS, Anions, Ammonia, TOC															

♦These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEETYear: FY2000Project: ERDF

Funding Source: _____

Planned Funding Amount: _____

Contact: F. Roeck (B. H. Ford)

Reference: _____

	# of Samples➤	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other		
Field Analysis	8	Water								8	8		8	The other analyses are for turbidity and temperature.	
Quick Turnaround Laboratory															
Low Level Protocol Lab	8	Water	8			8	8		8						
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments:															

◆ These samples represent 2 sampling events. The frequency of these events is semianually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2000Project: Horn RapidsFunding Source: ADS 3800 or 3510Planned Funding Amount: \$26KContact: C. J. KempReference: DOE-RJ-95-7 3 and BHI Chron #041489

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	12	Water	10			2				12	12			
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent 5 sampling events. The frequency of these events is yearly.

FY2001

	# of Samples	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	496	All	96	0	0	182	0	0	0	378	378	0	374	
Quick Turnaround Laboratory	357	All	357	0	0	357	357	0	0	357	357	357	357	
Low Level Protocol Lab	697	All	189	0	176	124	485	0	107	178	12	0	160	
222-S/ PNNL	183	All	0	0	0	0	183	0	0	0	0	0	0	
Industrial Hygiene	0	All	0	0	0	0	0	0	0	0	0	0	0	
Other (PC, TRU)	92	All	0	0	0	0	0	0	0	0	0	0	92	
Additional Comments:														

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: 100-BC-5 RI

Funding Source: _____

Planned Funding Amount: _____

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	52 8	Water Water				8 ^A				52	52		52	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	12	Water				12	12		12					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: 100-HR-3 IRMFunding Source: ADS3110

Planned Funding Amount: \$4.6K

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples ♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis	54 82	Water Water				82 ^A					54	54		54	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory															
Low Level Protocol Lab	21	Water					21		21						
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = Cr+6															

♦ These samples represent 6 sampling events. The frequency of these events is 5 monthly and 1 semiannually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: 100-HR-3 RIFunding Source: ADS3110

Planned Funding Amount: \$1.6K

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other	
Field Analysis	39	Water								39	39		39	The other analyses are for turbidity and temperature.
	16	Water				16 ^A								
Quick Turnaround Laboratory														
Low Level Protocol Lab	7	Water				7	7		7					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: 100-KR-4 IRMFunding Source: ADS3110

Planned Funding Amount: \$2.9K

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	64	Water				64 ^A				64	64		64	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	17	Water					17							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦ These samples represent __ sampling events. The frequency of these events is _____

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: 100-KR-4 RIFunding Source: ADS3110Planned Funding Amount: \$25.7KContact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis	31 12	Water Water				12 ^A				31	31		31	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	33	Water				33	33		33					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: 183-N Water Plant 216 PermittingFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Dick MartinReference: 183N 216 Permit

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	PC=160	Water	160		160					160			160	
222-S/ PNNL	PC =160	Water					160							
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: PC = Process Control														
*The work has been identified, but funding sources are still being evaluated.														

♦These samples represent 26 sampling events. The frequency of these events is biweekly.

SAMPLE PROJECTIONS WORKSHEETYear: FY2001Project: 116N StackFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/J. J. McQuireReference: Air Operating Permit

	# of Samples➤	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC =1	Air					1							
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: PC = Process Control														
*The work has been identified, but funding sources are still being evaluated.														

➤These samples represent 1 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: N-Area Water Plant (183N)Funding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Dick MartinReference: Drinking Water Requirements

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC =4	Water					4							1 sample per quarter.
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: WAC-246-300 (9) Analyze for Radium 226-228, Gross Alpha/Gross Beta, Tritium, and Sr-90. PC = Process Control *The work has been identified, but funding sources are still being evaluated.														

♦These samples represent 4 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: N-Area/N-SpringsFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/George HenckelReference: Near Field Monitoring

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC =14	Water					14							
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: DOE/RL 91-50 Rev. 1
PC = Process Control

*The work has been identified, but funding sources are still being evaluated.

↕ These samples represent 1 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: N-Area/N-SpringsFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/George HenckelReference: NPDES Permit

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis	4	Water								4	4			
Quick Turnaround Laboratory														
Low Level Protocol Lab	4	Water				4								
222-S/ PNNL	PC =4	Water					4							
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: Well N-199-N-8T PC = Process Control <p style="text-align: center;">*The work has been identified, but funding sources are still being evaluated.</p>														

♦These samples represent 4 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: 100-N NFMFunding Source: DB7118Contact: CJ Perkins (373-7043)Reference: Joe ZoricPlanned Funding Amount: ***TBD**

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	104	Air					104								4 sites X 26, biweekly samples for GA and GB.
	8	Air					8								4 sites X 2, 6 month composite for GEA, Sr90, Isotopic U, Pu
	3	Soil					3								Annual for GEA, Sr90, Isotopic U, Pu
	7	Veg					7								Annual for GEA, Sr90, Isotopic U, Pu
	10	Liquid					10								Annual for GEA, H3, Sr90
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)	92	TLD												Dosimetry	23 Sites X 4 quarterly exchanges.
Additional Comments: *The work has been identified, but funding sources are still being evaluated.															

♦These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: 100-NR-2 ProcessFunding Source: ADS3125Planned Funding Amount: \$4.5KContact: B. Mukherjee (S. J. Trent)

Reference: _____

	# of Samples	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	24	Water					24							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

◆ These samples represent 12 sampling events. The frequency of these events is monthly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: 100-NR-2 RIFunding Source: ADS3125

Planned Funding Amount: \$32.8K

Contact: B. Mukherjee (S. J. Trent)

Reference: _____

	# of Samples ♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	30	Water								30	30		30	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	16 20 19	Water Water Water			16	20			20					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦ These samples represent 2 sampling events. The frequency of these events is 1 short and 1 annual.

SAMPLE PROJECTIONS WORKSHEETYear: FY2001Project: 200 Areas SourceFunding Source: ADS3200

Planned Funding Amount: \$1900K

Contact: Greg MitchumReference: 200A Strategy

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory	357	Soil	357			357	357			357	357	357	357	45 day turnaround time. Validated data.
Low Level Protocol Lab							5							45 day turnaround time.
222-S/ PNNL	PC =14	Water					14							
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: **ASSUMPTIONS:** 51 SAMPLES PER WASTE SITE sw-846/CLP-level analyses: Twenty-eight 200 Area Source waste sites to be characterized in FY1999-FY2002.

Cost is based on unit cost of \$4.6K/sample for SW-846/CLP analysis set plus an allowance of \$40K/waste site for high-level ad samples.
8 samples per SDG.

Samples from 1 borehole, 2 test pits, 1 surface rad survey per waste site roughly evenly spaced during FY1999 - 2002

♦ These samples represent 1 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: 200-ZP-1 IRMFunding Source: ADS3210

Planned Funding Amount:

Contact: M. Buckmaster (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	96	Water	96							96	96		96	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦ These samples represent 6 sampling events. The frequency of these events is 4 quarterly and 2 semiannually.

SAMPLE PROJECTIONS WORKSHEETYear: FY2001Project: 300-FF-5Funding Source: ADS 3800 or 3510Planned Funding Amount: \$40KContact: C. J. KempReference: DOE-RI-95-7 3 and BHI Chron #041489

	# of Samples ♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	3	Water	3				3							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: These are near shore river samples.														

♦ These samples represent 2 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEETYear: FY2001Project: 300-FF-5Funding Source: ADS 3800 or 3510Planned Funding Amount: \$26KContact: C. J. KempReference: DOE-RI-95-7 3 and BHI Chron #041489

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	9	Water	2			2	9							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent 5 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: D&D ProjectsFunding Source: EM-40

Planned Funding Amount: Unknown

Contact: J. RuggReference: D&D Long-Term Surveillance & Maintenance

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	50	Other				30	50							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent _____ sampling events. The frequency of these events is _____.

HNF-SD-WM-TI-608, Rev. 5
SAMPLE PROJECTIONS WORKSHEET

Year: FY2001

Project: ERDF

Funding Source: Rust Federal Services

Planned Funding Amount: \$39.4 K

Contact: Mike Casbon

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	130	Air					130								3 sites X 26, biweekly and 1 site X 52, weekly samples for GA and GB.
	8	Air					8								2 sites X 4, quarterly for GEA, Sr90, U, Pu, and Am
	6	Water	6			6	6		6 ^A	6					1 sample per 200,000 gallons of leachate
	1	Soil					1								1 sample yearly
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = TDS/TSS, Anions, Ammonia, TOC															

♦These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: ERDF

Funding Source: _____

Planned Funding Amount: _____

Contact: F. Roeck (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	8	Water								8	8		8	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	8	Water	8			8	8		8					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent 2 sampling events. The frequency of these events is semiannually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2001Project: Horn RapidsFunding Source: ADS 3800 or 3510Planned Funding Amount: \$26KContact: C. J. KempReference: DOE-RI-95-7 3 and BHL Chron. #041489

	# of Samples♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	12	Water	10			2				12	12			
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦These samples represent ___ sampling events. The frequency of these events is ____.

FY2002

	# of Samples	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	496	All	96	0	0	182	0	0	0	378	378	0	374	
Quick Turnaround Laboratory	357	All	357	0	0	357	357	0	0	357	357	357	357	
Low Level Protocol Lab	623	All	174	0	176	90	423	0	107	166	0	0	160	
222-S/ PNNI.	183	All	0	0	0	0	183	0	0	0	0	0	0	
Industrial Hygiene	0	All	0	0	0	0	0	0	0	0	0	0	0	
Other (PC, TRU)	92	All	0	0	0	0	0	0	0	0	0	0	92	
Additional Comments:														

SAMPLE PROJECTIONS WORKSHEET

Year: FY2002Project: 100-BC-5 RI

Funding Source: _____

Planned Funding Amount: _____

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	52 8	Water Water				8 ^A				52	52		52	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	12	Water				12	12		12					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

↕ These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEETYear: FY2002Project: 100-HR-3 IRMFunding Source: ADS3110

Planned Funding Amount: \$4.6K

Contact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples ♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other		
Field Analysis	54 82	Water Water				82 ^A				54	54		54	The other analyses are for turbidity and temperature.	
Quick Turnaround Laboratory															
Low Level Protocol Lab	21	Water					21		21						
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = Cr+6															

♦ These samples represent 6 sampling events. The frequency of these events is 5 monthly and 1 semiannually.

SAMPLE PROJECTIONS WORKSHEETYear: FY2002Project: 100-HR-3 RIFunding Source: ADS3110Planned Funding Amount: \$1.6KContact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples↕	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other		
Field Analysis	39 16	Water Water				16 ^A					39	39		39	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory															
Low Level Protocol Lab	7	Water				7	7		7						
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = Cr+6															

↕These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2002Project: 100-KR-4 IRMFunding Source: ADS3110Planned Funding Amount: \$2.9KContact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis	64	Water				64 ^A				64	64		64	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	17	Water					17							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: A = Cr+6														

♦ These samples represent ___ sampling events. The frequency of these events is _____

SAMPLE PROJECTIONS WORKSHEETYear: FY2002Project: 100-KR-4 RIFunding Source: ADS3110Planned Funding Amount: \$25.7KContact: A. J. Knepp (B. H. Ford)

Reference: _____

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other		
Field Analysis	31	Water								31	31		31	The other analyses are for turbidity and temperature.	
	12	Water				12 ^A									
Quick Turnaround Laboratory															
Low Level Protocol Lab	33	Water				33	33		33						
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = Cr+6															

♦These samples represent 5 sampling events. The frequency of these events is 4 quarterly and 1 annually.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2002Project: 183-N Water Plant 216 PermittingFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Dick MartinReference: 183N 216 Permit

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	PC=160	Water	160		160					160			160	
222-S/ PNNL	PC =160	Water					160							
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: PC = Process Control

*The work has been identified, but funding sources are still being evaluated.

↕ These samples represent 26 sampling events. The frequency of these events is biweekly.

SAMPLE PROJECTIONS WORKSHEETYear: FY2002Project: 116N StackFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/J. J. McQuireReference: Air Operating Permit

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC =1	Air					1							
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: PC = Process Control														
*The work has been identified, but funding sources are still being evaluated.														

↕These samples represent 1 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEETYear: FY2002Project: N-Area Water Plant (183N)Funding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/Dick MartinReference: Drinking Water Requirements

	# of Samples↕	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC =4	Water					4							1 sample per quarter.
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: WAC-246-300 (9) Analyze for Radium 226-228, Gross Alpha/Gross Beta, Tritium, and Sr-90. PC = Process Control *The work has been identified, but funding sources are still being evaluated.														

↕ These samples represent 4 sampling events. The frequency of these events is quarterly.

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SAMPLE PROJECTIONS WORKSHEET

Year: FY2002

Project: N-Area/N-Springs

Funding Source: TBD

Planned Funding Amount: ***TBD**

Contact: Joe Zoric/George Henckel

Reference: Near Field Monitoring

	# of Samples↕	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform. BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL	PC =14	Water					14							
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: DOE/RL 91-50 Rev. 1
 PC = Process Control

*The work has been identified, but funding sources are still being evaluated.

↕These samples represent 1 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2002Project: N-Area/N-SpringsFunding Source: TBDPlanned Funding Amount: ***TBD**Contact: Joe Zoric/George HenckelReference: NPDES Permit

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	4	Water								4	4			
Quick Turnaround Laboratory														
Low Level Protocol Lab	4	Water				4								
222-S/ PNNL	PC =4	Water					4							
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments: Well N-199-N-8T PC = Process Control <p style="text-align: center;">*The work has been identified, but funding sources are still being evaluated.</p>														

↕ These samples represent 4 sampling events. The frequency of these events is quarterly.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2002Project: 100-N NFMFunding Source: DB7118Contact: CJ Perkins (373-7043)Reference: Joe ZoricPlanned Funding Amount: ***TBD**

	# of Samples♦	Matrix	ANALYSIS											Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.	Other		
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	104	Air					104								4 sites X 26, biweekly samples for GA and GB.
	8	Air					8								4 sites X 2, 6 month composite for GEA, Sr90, Isotopic U, Pu
	3	Soil					3								Annual for GEA, Sr90, Isotopic U, Pu
	7	Veg					7								Annual for GEA, Sr90, Isotopic U, Pu
	10	Liquid					10								Annual for GEA, H3, Sr90
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)	92	TLD												Dosimetry	23 Sites X 4 quarterly exchanges.
Additional Comments: *The work has been identified, but funding sources are still being evaluated.															

♦These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2002Project: 100-NR-2 ProcessFunding Source: ADS3125

Planned Funding Amount: \$4.5K

Contact: B. Mukherjee (S. J. Trent)

Reference: _____

	# of Samples↕	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis														
Quick Turnaround Laboratory														
Low Level Protocol Lab	24	Water					24							
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

◆ These samples represent 12 sampling events. The frequency of these events is monthly

SAMPLE PROJECTIONS WORKSHEET

Year: FY2002Project: 100-NR-2 RIFunding Source: ADS3125Planned Funding Amount: \$32.8KContact: B. Mukherjee (S. J. Trent)

Reference: _____

	# of Samples↕	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.		Other
Field Analysis	30	Water								30	30		30	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	16 20 19	Water Water Water			16									
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

↕ These samples represent 2 sampling events. The frequency of these events is 1 short and 1 annual.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2002Project: 200 Areas SourceFunding Source: ADS3200

Planned Funding Amount: \$1900K

Contact: Greg MitchumReference: 200A Strategy

	# of Samples↕	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other	
Field Analysis														
Quick Turnaround Laboratory	357	Soil	357			357	357			357	357	357	357	45 day turnaround time. Validated data.
Low Level Protocol Lab	5	Soil					5							45 day turnaround time.
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														

Additional Comments: **ASSUMPTIONS:** 51 SAMPLES PER WASTE SITE sw-846/CLP-level analyses: Twenty-eight 200 Area Source waste sites to be characterized in FY1999-FY2002.

Cost is based on unit cost of \$4.6K/sample for SW-846/CLP analysis set plus an allowance of \$40K/waste site for high-level ad samples.

8 samples per SDG.

Samples from 1 borehole, 2 test pits. 1 surface rad survey per waste site roughly evenly spaced during FY1999 - 2002

↕ These samples represent 1 sampling events. The frequency of these events is yearly.

SAMPLE PROJECTIONS WORKSHEETYear: FY2002Project: 200-ZP-1 IRM

Funding Source: _____

Planned Funding Amount: \$0.96K

Contact: M. Buckmaster (B. H. Ford)

Reference: _____

	# of Samples ♦	Matrix	ANALYSIS											Comments
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo-Tech.	Other	
Field Analysis	96	Water	96							96	96		96	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab														
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

♦ These samples represent 6 sampling events. The frequency of these events is 4 quarterly and 2 semiannually.

HNF-SD-WM-TI-608, Rev. 5
SAMPLE PROJECTIONS WORKSHEET

Year: FY2002

Project: ERDF

Funding Source: Rust Federal Services

Planned Funding Amount: \$39.4 K

Contact: Mike Casbon

Reference: _____

	# of Samples♦	Matrix	ANALYSIS										Comments		
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical					
			VOA/ Semi-VOA	Pest/ PCB	Other					pH	Cond	Geo-Tech.		Other	
Field Analysis															
Quick Turnaround Laboratory															
Low Level Protocol Lab	130	Air					130								3 sites X 26, biweekly and 1 site X 52, weekly samples for GA and GB.
	8	Air					8								2 sites X 4, quarterly for GEA, Sr90, U, Pu, and Am
	6	Water	6			6	6		6 ^A	6					1 sample per 200,000 gallons of leachate
	1	Soil					1								1 sample yearly
222-S/ PNNL															
Industrial Hygiene															
Other (PC, TRU)															
Additional Comments: A = TDS/TSS, Anions, Ammonia, TOC															

♦These samples represent _____ sampling events. The frequency of these events is _____.

SAMPLE PROJECTIONS WORKSHEET

Year: FY2002Project: ERDF

Funding Source: _____

Planned Funding Amount: _____

Contact: F. Roeck (B. H. Ford)

Reference: _____

	# of Samples	Matrix	ANALYSIS										Comments	
			ORGANIC			Metals	Rad Chem	Coliform, BOD	Wet Chem	Physical				
			VOA/ Semi- VOA	Pest/ PCB	Other					pH	Cond.	Geo- Tech.	Other	
Field Analysis	8	Water								8	8		8	The other analyses are for turbidity and temperature.
Quick Turnaround Laboratory														
Low Level Protocol Lab	8	Water	8			8	8		8					
222-S/ PNNL														
Industrial Hygiene														
Other (PC, TRU)														
Additional Comments:														

◆ These samples represent 2 sampling events. The frequency of these events is semiannually.

APPENDIX II

TANK WASTE REMEDIATION SYSTEM PROGRAM INPUTS

B-1-9

Author: Thomas J (Tom) Kelley at HANFORD11E
Date: 5/15/97 8:31 AM
Priority: Urgent
TO: Steven M Joyce at HANFORD07C
TO: Thomas G Ibsen at HANFORD03C
Subject: projections

----- Message Contents -----

Excel file with all columns visible. Tom Kelley.

B-2

[illegible]

4

B-5

926 ALM/RV/87

[illegible]

[illegible]

Author: Thomas J (Tom) Kelley at ~HANFORD11E
Date: 5/12/97 5:25 PM
Priority: Normal
TO: Thomas G Ibsen at ~HANFORD03C
TO: Steven M Joyce at ~HANFORD07C
CC: Cary M Seidel at ~WHC121
CC: Joseph E Meacham
CC: Roger E Bauer at ~HANFORD10C
Subject: lab projections

----- Message Contents -----

Tom and Steve,

The sample management projections table should show George Stanton, as well as me as a contact for TWRS.

The development and research support (you didn't send me this file) should show for Safety Issues Resolution Program:

	ADS	FY 1997	FY 1998
Flammable Gas: Ammonia	1110	0.8 FTE	0 FTE
Flammable Gas: Gas Generation	1110	0.8 FTE	0.8 FTE
Flammable Gas: Retained Gas Sample	1110	3.2 FTE	3.2 FTE
Develop Propagation Tester	1110	2.2 FTE	0 FTE
PRSST	1110	0 FTE	2.2 FTE
Organic Speciation	1110	0 FTE	2.4 FTE

I don't have Disposal Program information yet for development and research.

Do you really need the funding spreadsheet filled out, with a cost per sample, or would total funding be more meaningful? Tom Kelley.

Tom Kelley.

APPENDIX III

SOLID WASTE PROGRAM INPUTS

C-1-4

Author: Mark R Kerns at ~HANFORD01A
Date: 4/28/97 3:01 PM
Priority: Normal
Receipt Requested
TO: Steven M Joyce at ~HANFORD07C
CC: Ken L Hladek
Subject: Sample Projections

----- Message Contents -----

Steve,

This should be it. If you have any questions please call me at
372-2363.

THANKS

Mark

Program Sample Projection Funding

Program ID	Sub-Program ID	Sub-Program Name	Location	Contract Name	Est. Effective Date	Year(s)	Track(s) / Points	Threats / Assets	Notes
SW	CWC	Central Waste Complex (CWC)	MORTON/CIG	Brad Stetson	25-Apr-97	1997	AA&M	2.2K	
SW	MORT	Good Waste Treatment Team (GORTT)	2440 Street 172	Walt Thompson	25-Apr-97	1997	NA	NA	
SW	TP	T-Bank	2017210	Chad Jones	25-Apr-97	1997			
SW	WRAP1	WRAP 1	2150W123	Chris Lewis	25-Apr-97	1997			WRAP analysis estimated
SW	MORT	Good Waste Treatment	MORTON/CIG	Brad Stetson	25-Apr-97	1997	AA&M	not yet determined	rough estimate

MS
.list

C-3

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APPENDIX IV

LIQUID EFFLUENTS PROGRAM INPUTS

D-1-8

Author: Steven S (Steve) Lowe at HANFORD09E
 Date: 5/8/97 9:41 AM
 Priority: Normal
 TO: Thomas G Ibsen at HANFORD03C
 TO: Steven M Joyce at HANFORD07C
 Subject: Re: Sample Projections

----- Forwarded w/Changes -----

Author: Brian H Von Bargen at HANFORD05E 5/8/97 9:30 AM
 TO: Steven S (Steve) Lowe at HANFORD09E
 Subject: Re: Sample Projections

----- Message Contents -----

Here is the cost data for the 200 Area Liquid Waste Processing Facilities.

Steve L.

Forward Header

Subject: Re: Sample Projections
 Author: Brian H Von Bargen at HANFORD05E
 Date: 5/8/97 9:30 AM

The funding placed in the FY98 budget is as follows:

TEDF	395,000
LERF	263,000
ETF SMECO	50,000
ETF Operating	790,000
Evaporator	400,000
 TOTAL	 \$1,898,000

Reply Separator

Subject: Sample Projections
 Author: Steven S (Steve) Lowe at HANFORD09E
 Date: 5/8/97 8:00 AM

Brian,
 Remember you guys did the sample projections a little while ago. Tom Ibsen (who works with Steve Joyce) called me and said one of the things they were also looking for was the funding projected for sample analysis. He said they could take it rolled up or broken out (which was his preference but really it's however you have it). Steve Boothe or Karen Buchanan probably has the info readily available. Thanks.

Steve

Author: Steven S (Steve) Lowe at HANFORD09E
 Date: 5/8/97 8:57 AM
 Priority: Normal
 TO: Thomas G Ibsen at HANFORD03C
 TO: Steven M Joyce at HANFORD07C
 Subject: FY '98 Sampling Budget

----- Forwarded w/Changes -----
 Author: Orval H Bradt at HANFORD08C 5/8/97 8:14 AM
 TO: Steven S (Steve) Lowe at HANFORD09E
 Subject: FY '98 Sampling Budget

----- Message Contents -----

Tom and Steve J,
 This is the cost data for the 300 Area Liquid Effluent Facilities. The data
 for 200 Area is coming.

Steve L.

Forward Header

Subject: FY '98 Sampling Budget
 Author: Orval H Bradt at HANFORD08C
 Date: 5/8/97 8:14 AM

Steve,
 It's easier this way....

		Cost Element
TEDF process sampling - WSCF	= \$210K	51
TEDF NPDES compliance sampling - Quanterra (?)	= 156	5G
TEDF Field Analytical Labor	= 25	5L
340 PNNL Railcar sampling	= 80	3D
340 PNNL Stack sampling	= 26	3D
340 Numatec/SESC Special Analytical Studies(RC)=	52	98

All of the above are base amounts, 16.7% G&A is NOT yet included.
 TEDF is consistent through outyears, but s/b adjusted for escalation.
 340 railcar activity is reduced by half of '98 \$ in FY 1999 + 2000, by half
 again in FY 2001, and then pretty much goes away after that.

OB
 372-3423

Author: Brian H Von Bargaen at ^HANFORD05E
Date: 4/24/97 2:27 PM
Priority: Normal
TO: Steven S (Steve) Lowe at ^WHC302
TO: Steven M Joyce at ^HANFORD07C
CC: Phillip M (Phil) Olson at ^HANFORD06B
CC: Brian H Von Bargaen
Subject: Re[3]: Liquid Effluent Sample Projections - May 1997
----- Message Contents -----

Steve,

The attached Excel file contains our input. This includes all of the facilities considered part of the current 200 Area LWPF. Let me or Phil know if you have any questions.

Brian

Reply Separator

Subject: Re[2]: Liquid Effluent Sample Projections - May 1997
Author: Steven S (Steve) Lowe at ^WHC302
Date: 4/15/97 12:48 PM

Brian,

I checked with Steve Joyce. He said they went two routes with this, the message below and an official transmittal to all the contractor presidents. The letter to the presidents asks for input by April 25. He also said we should include the 242-A Evaporator in our input.

Steve

Reply Separator

Subject: Re: Liquid Effluent Sample Projections - May 1997
Author: Brian H Von Bargaen at ^HANFORD05E
Date: 4/15/97 12:13 PM

Steve,

When do you need our updates by? Pretty busy with startup, but we'll get it done. We will also include the Evaporator, correct?

Brian

Reply Separator

Subject: Liquid Effluent Sample Projections - May 1997
Author: Steven S (Steve) Lowe at ^WHC302
Date: 4/14/97 11:22 AM

Brian and Dale,

This is the request to update the sample projections. Most of the information should be available from your BOE's. I talked to Steve Joyce about the timing for this. The Labs request this info every 6 months in April and November, and Solid Waste goes out for their Solid Waste Volume Projection in June. But the rest of the site updates their waste volume projections for the MYWP in

August-September, which in turn drives the sample projections and solid waste volumes. There could be differences in basis from one to the other. And now all these things (numbers of samples, solid waste volumes, liquid effluent volumes) are getting reported in the MYWP. Anyway, my suggestion would be to respond to this just as before and please copy me (for 200 Area) and Duke Mitchell (for 300 Area). Be sure to indicate somewhere what is the basis for your estimates. Steve Joyce said when it's time for the MYWP we can identify any changes as a markup. Thanks.

HNF-SD-WM-TI-608, Rev. 5

Steve

Forward Header

Subject: Liquid Effluent Sample Projections - May 1997

Author: Thomas G Ibsen at HANFORD03C

Date: 4/10/97 1:00 PM

Steve,

A formal sample projection request has been sent to each of the Hanford contractors. This has been sent to you assuming you will be asked to provide the projections and to make it easier for you. Five files have been attached with the projection data from November 1996. You can update the files for your area of responsibility or just mark on a hardcopy printout and send it back.

The first excel file (le1196.xls) is a compilation of all Liquid Effluent sample projections. Use legal size paper to print it out.

A second excel file (1196lefd.xls) has been added to specify in more detail the sample analysis funding.

A WordPerfect table (smplproj.tbl) has been attached showing the sample management organizations and their funding.

Research and Development (lab scale) is also requested with this submittal. Attached is a WordPerfect table (develpmt.tbl) that lists tasks previously submitted.

Data management systems are attached in a WordPerfect table (datamgmt.wp5).

If you have any questions or problems please call Tom Ibsen (372-0391) or Steve Joyce (372-2971). To mail back information use mail stop A1-16.

Thanks,
Tom

LE
Listed

UNIVERSITY, PRINCE

[illegible]

Page 2

Page 2

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[illegible]

APPENDIX V

SPENT NUCLEAR FUELS PROGRAM INPUTS

E-1-6

Author: Mary A (Mary Ann) Green at HANFORD12D
Date: 5/8/97 2:51 PM
Priority: Normal
TO: Steven M Joyce at HANFORD07C
Subject: AS PROJECTION FORMS

----- Forwarded w/Changes -----
Author: Mary A (Mary Ann) Green at HANFORD12D 4/30/97 9:04 AM
TO: Thomas G Ibsen at HANFORD03C
CC: Mary A (Mary Ann) Green
Subject: AS PROJECTION FORMS

----- Message Contents -----

Steve,

I sent these to Tom back on 4/30/97.

Mary Ann

Forward Header

Subject: AS PROJECTION FORMS
Author: Mary A (Mary Ann) Green at HANFORD12D
Date: 4/30/97 9:04 AM

see attached

E-2

[illegible]

INPUT REQUEST FORM	
PROGRAM	<u>SNE</u>
SUBPROGRAM	<u>Listed</u>

[illegible]

ATTACHMENT V: DATA MANAGEMENT

DATA MANAGEMENT							
DATA SOURCE	DATA SYSTEM NAME	SITE DATA LINKS	PROGRAM	CONTACT	ADS #	FUNDING	DESCRIPTION
Analytical Results 222-S & WSCF	LABCORE LIMS	ABCASH ERS LEMIS TCD	Analytical Services	TF Dale			The Laboratory Information Management System (LIMS) is based on Multi LIMS. Internal data links with laboratory instrumentation and the Laboratory training System (LTS).
HASP Analytical Results (Commercial Laboratories)	SDT (Sample Data Track) WIDS	None HEIS HGIS EDMS	Analytical Services	JG Paetel	3400		Sample and Data tracking system developed for BHI and Analytical Services by Enabling Technology. MS Access database system.
BHI Analytical Results (Commercial Laboratories)	SDT (Sample Data Track)	HEIS	ERC	JH Kessner			Sample and Data tracking system developed for BHI and Analytical Services by Enabling Technology.
BHI Analytical Results	HEIS	EDMS HGIS PSDB SDT WIDS	ERC	JH Kessner	3400		Oracle database. Uses MS Access as user interface
Bioassay	REX		Industrial Hygiene Bioassay Project, PNNL	JA MacLellan			Data loaded directly through hardwired connection with bioassay analytical contractor - Quanterra
PFP Analytical Results	RLIMS Lite		Transition Projects	GA Westsik			Scheduled for implementation in 1997
Analytical Results, ACL	StarLIMS	None	PNNL .325 Analytical Chemistry Laboratory	JM Latkovich			Used for sample tracking and status

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QES 318 (TLDs) 320 (1-129) DCL (non-rad)	HEIS	HEIS LCT MAIN ALL (Paradox)	PNNL Site Monitoring Surface Environmental Surveillance Project	BM Gillespie - TA RL Dirkes - PM	85000		HEIS Results Tables HEIS SESP Scheduling LCT MAIN and ALL for non-rad sample tracking and storing data before loaded to HEIS.
Groundwater		SDT WIDS HGIS EDMS PSDB	Groundwater Program		3400		
NDA Measurements	SIE and DMS	SWITS	Solid Waste WRAP	ME Palmer			NDA Measurements in the WRAP facility
NDA Measurements and Real-Time Radiography	SWITS	None	Solid Waste TRUSAF	R Clinton			Drum assay and examination for Transuranics
222-S PNNL	YCD (Tank Characterization Data Base)	LABCORE LIMS TWINS WWW	TWRS Tank Characterization	TJ Kelley	1130		PNNL developed data base, required by the TPA to manage all tank characterization data.
306 Gas Laboratory Analytical Results	TMACS and DACS	TMACS	TWRS Tank Safety	DD Tate			Data is loaded into systems depending on application. Tank Monitoring & Control System (TMACS) and Data Acquisition and Control System (DACS).
Environmental Monitoring & Investigations Data		QES ERS ABCASH LABCORE LIMS		JJ Dorian			Quanterra sends results directly from QES to ERS. WSCF uses ABCASH and LABCORE LIMS to report results to EMI
SAS Analytical Results	RLIMS-Lite			LL Lockrem			Sample status and result reporting
SNF FO	SMTD	LABCORE	K-Basins	MA Green	LC087	0.2 FTE	Sample Data Trending

March 21, 1997

SAMPLE MANAGEMENT

PROGRAM	ACTIVITY	CONTACT	ORGANIZATION	FACILITY	ADS #	FUNDING	DESCRIPTION
Analytical Services	Sample Management Working Group	Curtis R. Stroup	Analytical Services	All			Hanford sample management coordination and integration
	AS Project Support	Andy D. Rice	222-S Project Support	222-S/200W			222-S Project Coordinators
	Sample Management	Jerry G. Paetel	Sample Management Office	All			PHMC sample management
Environmental Restoration	Sample management for ERC activities	Joan H. Kessner	Sample and Data Management	All			Strategic planning for BHI and integration of site analytical needs and resources
Liquid Effluents	Sample Coordination	Phil M. Olson	200 Liquid Effluent Facilities	200 ETF	2300-0		Coordinate sampling with LEF operations, sample mobile labs. SAF and CoC generated by LEWIS. SDLA coordinates permit compliance groundwater monitoring sampling for 6 wells on a quarterly basis.
PNNL	Scheduling, data loading, sample tracking	Barb M. Gillespie RL Dirkes	Surface Environmental Surveillance Project	Sigma 5	85000	190K	SESP Data Management Task. 1 staff schedules sample annually, prepares COCs and container labels, loads data and keeps files (\$190K includes HEIS support)
	Contract and Technical Administration	Barb M. Gillespie RL Dirkes	Surface Environmental Surveillance Project	Sigma 5	85000	0.18 FTE (\$32K)	Analytical Lab Administration Task
	Bioassay Sample Management	Jay A. MacLellan	Bioassay			3.0 FTE	1.5 FTE Direct 0.5 FTE Support personnel (contracts, QE, records, chemists) 1.0 FTE to be added from client field dosimetry
Spent Nuclear Fuel	Sample management	M. A. Green	SNF, Facility Operations	100K Area	LC087	0.8 FTE	Coordinate sampling/shipping/analysis of process and DOH samples
TWRS	Program Management	Tom J. Kelley	TWRS Characterization Project		1130	0.05 FTE	Interface with 222S and PNNL on sampling schedule

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APPENDIX VI

TRANSITION PROJECTS PROGRAM INPUTS

F-1-12

Author: Peter D Jensen at HANFORD03E

Date: 5/9/97 10:36 AM

Priority: Urgent

TO: Steven M Joyce at HANFORD07C

TO: Thomas G Ibsen at HANFORD03C

TO: George A Westsik at HANFORD03B

Subject: sample projection data - pfp

----- Message Contents -----

Please see attached WP6.1 file

Steve/Tom,

For what it is worth, the information listed below is the best we can come up with this time around. Since *this pesky thing keeps raising it's ugly head, next we will get all the appropriate people together and establish a better baseline.*

One thing that hasn't been addressed to the fullest is the characterization work that will come with Deactivation of the facilities. The money has been stashed in the out years under the guise of contracts. Not well enough defined yet to establish the types/number of samples or even if they will be done in-house, on site, etc.

- Current budget for the PFP AL is \$2,691K with 29 FTEs.
- Current budget for the PPSL is is \$965K with nine FTEs.
- CAM air filter samples require two FTE (RadConTech) - \$168K
- Stack monitor samples require one FTE (RadConTch) - \$84K
- Standards Laboratory Support \$70K with .6 FTE
- Sample Analysis (Cost Element 51) \$175K
- Non-destructive Analysis approximately 10 FTEs (5 Labs, 4 Operators, 1 RCT) - \$882K
- Non-destructive Examination approximately 2 FTEs - \$189K
- 225-WC Wastewater, 26" vacuum system, LLWTF samples - .3 FTE - \$25K

If you have questions, please don't hesitate to call (SOMEONE ELSE!?).

Pete Jensen
373-3849

Author: Alan A Grasher at ^HANFORD12B
Date: 4/30/97 10:19 AM
Priority: Normal
TO: A G (Gaylord) King at ^WHC121
CC: Steven M Joyce at ^HANFORD07C
CC: Daniel B (Dan) Cartmell at ^HANFORD04B
Subject: Analytical Services Projections

----- Message Contents -----

The attached files are the BWHC input to the Analytical services
projections update for May 1997.

SAMPLE MANAGEMENT

PROGRAM	ACTIVITY	CONTACT	ORGANIZATION	FACILITY	ADS #	FUNDING	DESCRIPTION
Analytical Services	Sample Management Working Group	Curtis R. Stroup	Analytical Services	All			Hanford sample management coordination and integration
	AS Project Support	Andy D. Rice	222-S Project Support	222-S/200W			222-S Project Coordinators
	Sample Management	Jerry G. Paetel	Sample Management Office	All			PHMC sample management
Environmental Restoration	Sample management for ERC activities	Joan H. Kessner	Sample and Data Management	All			Strategic planning for BHI and integration of site analytical needs and resources
Liquid Effluents	Sample Coordination	Phil M. Olson	200 Liquid Effluent Facilities	200 ETF	2300-0		Coordinate sampling with LEF operations, sample mobile labs. SAF and CoC generated by LEMIS. SDLA coordinates permit compliance groundwater monitoring sampling for 6 wells on a quarterly basis.
PNNL	Scheduling, data loading, sample tracking	Barb M. Gillespie RL Dirkes	Surface Environmental Surveillance Project	Sigma 5	85000	190K	SESP Data Management Task. 1 staff schedules sample annually, prepares COCs and container labels, loads data and keeps files (\$190K includes HEIS support)
	Contract and Technical Administration	Barb M. Gillespie RL Dirkes	Surface Environmental Surveillance Project	Sigma 5	85000	0.18 FTE (\$32K)	Analytical Lab Administration Task
	Bioassay Sample Management	Jay A. MacLellan	Bioassay			3.0 FTE	1.5 FTE Direct 0.5 FTE Support personnel (contracts, QE, records, chemists) 1.0 FTE to be added from client field dosimetry
Spent Nuclear Fuel	Contract Administration	M. A. Green	SNF, Facility Operations	100K Area			Analytical Services provides contracts: Quanterra - Total Suspended Solids (NPDES) Laucks - Lead & Copper (SDWA)
TWRS	Program Management	Tom J. Kelley	TWRS Characterization Project		1130	0.05 FTE	Interface with 222S and PNNL on sampling schedule
PFP Transition Project	Sample Management for PFP Transition Project	E. W. Curfman	PFP Analytical Laboratory	PFP	6624-0		PFPAL support to PFP processes and safeguards activities

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ATTACHMENT IV: DEVELOPMENT AND RESEARCH SUPPORT

ORGANIZATION:

POINT-OF-CONTACT:

DEVELOPMENT AND RESEARCH SUPPORT						
ACTIVITY	DEVELOPMENT OR RESEARCH	PROGRAM	FACILITY	ADS #	FUNDING	DESCRIPTION
Flammable Gas: Ammonia	DEVELOPMENT		222-S		0.8 FTE	
Flammable Gas: Gas Generation	DEVELOPMENT		222-S		0.8 FTE	
Flammable Gas: Retained Gas Sample	DEVELOPMENT		222-S		3.2 FTE	
Develop Propagation Tester	DEVELOPMENT		222-S		2.2 FTE	
TWRS Characterization Pool (RSST, Particle Size, Boil-downs)	DEVELOPMENT		222-S		2.0 FTE	
ETF Valve Evaluation (SEM/EDS)	DEVELOPMENT		222-S		0.06 FTE	
B-Plant Filtrate	DEVELOPMENT		222-S		0.1 FTE	
B-Plant Char'n Sample Analysis	DEVELOPMENT		222-S		0.1 FTE	
Statistics Support to HTI	DEVELOPMENT		222-S		0.5 FTE	
Privatization Envelope B	DEVELOPMENT		222-S		0.3 FTE	
Organic Pathway (90% complete)	DEVELOPMENT		222-S		0.05 FTE	
Analytical Tool Development	DEVELOPMENT		222-S		0.3 FTE	
Survey Lit on Tank Gels (done)	DEVELOPMENT		222-S		0.05 FTE	
Overhead	DEVELOPMENT		222-S		1.5 FTE	
Development/demonstration of process for the conversion of the plutonium bearing solutions to plutonium oxide.	DEVELOPMENT		PFP			

Development/demonstration of process for the cementation of Sand, Slag and Crucible (SS&C).	DEVELOPMENT		PFP			
Investigation of the feasibility of silver persulfate for removal of plutonium from ash materials.	DEVELOPMENT		PFP			
Development of operating parameters for the treatment of plutonium bearing solutions prior calcination.	DEVELOPMENT		PFP			
Investigation of various decontamination methods for possible use on the facility gloveboxes/canyon.	DEVELOPMENT		PFP			
Provide technical support to the K Basin Spent Fuels program.	DEVELOPMENT		PFP			
Investigation of the organic solubilities in the high-level waste tanks.	DEVELOPMENT		PFP			
Investigation of the "red oil" (TBP-nitric acid) reactions for DOE-HQ.	DEVELOPMENT		PFP			

ATTACHMENT V: DATA MANAGEMENT

DATA MANAGEMENT							
DATA SOURCE	DATA SYSTEM NAME	SITE DATA LINKS	PROGRAM	CONTACT	ADS #	FUNDING	DESCRIPTION
Analytical Results 222-S & WSCF	LABCORE LIMS	ABCASH ERS LEMIS TCD	Analytical Services	TF Dale			The Laboratory Information Management System (LIMS) is based on Multi LIMS. Internal data links with laboratory instrumentation and the Laboratory training System (LTS).
HASP Analytical Results (Commercial Laboratories)	SDT (Sample Data Track) WIDS	None HEIS HGIS EDMS	Analytical Services	JG Paetel	3400		Sample and Data tracking system developed for BHI and Analytical Services by Enabling Technology. MS Access database system.
BHI Analytical Results (Commercial Laboratories)	SDT (Sample Data Track)	HEIS	ERC	JH Kessner			Sample and Data tracking system developed for BHI and Analytical Services by Enabling Technology.
BHI Analytical Results	HEIS	EDMS HGIS PSDB SDT WIDS	ERC	JH Kessner	3400		Oracle database. Uses MS Access as user interface
Bioassay	REX		Industrial Hygiene Bioassay Project, PNNL	JA MacLellan			Data loaded directly through hardwired connection with bioassay analytical contractor - Quanterra

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PFP Analytical Results	RLIMS Lite		PFP Transition Project	GA Westsik	6624-0		Scheduled for implementation in 1997
Analytical Results, ACL	StarLIMS	None	PNNL 325 Analytical Chemistry Laboratory	JM Latkovich			Used for sample tracking and status
QES 318 (TLDs) 320 (I-129) DCL (non-rad) Groundwater	HEIS	HEIS LCT MAIN ALL (Paradox) SDT WIDS HGIS EDMS PSDB	PNNL Site Monitoring Surface Environmental Surveillance Project Groundwater Program	BM Gillespie - TA RL Dirkes - PM	85000 3400		HEIS Results Tables HEIS SESP Scheduling LCT MAIN and ALL for non-rad sample tracking and storing data before loaded to HEIS.
NDA Measurements	SIE and DMS	SWITS	Solid Waste WRAP	ME Palmer			NDA Measurements in the WRAP facility
NDA Measurements and Real-Time Radiography	SWITS	None	Solid Waste TRUSAF	R Clinton			Drum assay and examination for Transuramics
222-S PNNL	TCD (Tank Characterization Data Base)	LABCORE LIMS TWINS WWW	TWRS Tank Characterization	TJ Kelley	1130		PNNL developed data base, required by the TPA to manage all tank characterization data.
306 Gas Laboratory Analytical Results	TMACS and DACS	TMACS	TWRS Tank Safety	DD Tate			Data is loaded into systems depending on application. Tank Monitoring & Control System (TMACS) and Data Acquisition and Control System (DACS).

Environmental Monitoring & Investigations Data		QES ERS ABCASH LABCORE LIMS		JJ Dorian			Quanterra sends results directly from QES to ERS. WSCF uses ABCASH and LABCORE LIMS to report results to EMI
SAS Analytical Results	RLIMS-Lite			LL Lockrem			Sample status and result reporting

[illegible]

(if mobile service provide base facility)

[illegible]

Funding: Please provide ADS number

APPENDIX VII

SITE MONITORING PROGRAM INPUTS

G-1-2

Pacific Northwest National LaboratoryOperated by Battelle for the U.S. Department of Energy

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April 25, 1997

Mr. A. G. King
Hanford Analytical Services
Rust Federal Services of Hanford, Inc.
P.O. Box 700
Richland, WA 99352

Dear Mr. King:

ANALYTICAL SERVICES PROJECTIONS UPDATE FOR MAY 1997

Ref: Letter to W. J. Madia, PNNL, from A. G. King, RUST, same subject, dated
March 31, 1997, RFSH-9752863.

Pursuant to your request of March 31, 1997, we have reviewed the previous Pacific Northwest National Laboratory (Pacific Northwest) submittal of subject data, circa November 1996, and identified changes to those projections. Our effort has concluded that for the programs reviewed, there are few changes at this time to the sample projections. There are, however, several minor corrections or additions that are presented in Attachment 1.

We conducted this review recognizing it was an ad hoc request, not within the work scope of the programs, nor authorized by the respective DOE program management offices. This underscores the need to establish, post haste, a fully defined and funded role for Pacific Northwest participation in the analytical activities at Hanford. We have just received funding authorization to define this role, and will be working with your staff and you to determine appropriate Pacific Northwest responsibilities. Establishing those will facilitate future requests for information.

For further discussion or clarification of the attached response, please call me at 376-3308.

Very truly yours,

John M. Latkovich
Analytical Chemistry Laboratory

JML:ksg
Attachment

G-1

Battelle Boulevard ■ P.O. Box 999 ■ Richland, WA 99352Telephone (509) 376-3308 ■ Email jm_latkovich@pnl.gov ■ Fax (509) 373-6001

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ATTACHMENT 11. Sampling, Field, and Laboratory Projections

- a. Report Requirements: For all analytical requirements, electronic data reporting applies.
- b. Notification Requirements: The driver for and intent of this information was not clear and needs further elaboration/clarification.
- c. Special QA Requirements: Same as Item b.
- d. Sample Disposal: Information was not collected.
- e. Turnaround Requirement: For the Surface Environmental Surveillance Project (SESP), all of the blank entries for Drinking Water should be 35 days, and for External Rad, the value should be 20 days.
- f. Number of Samples and Analyses: No changes identified at this time for the following programs:
 - 1) SESP
 - 2) Near-Field Environmental Monitoring Program
 - 3) Spent Nuclear Fuel Effluent Monitoring Program
 - 4) Bioassay Program

2. Sample Management Projections - No change.3. Development and Research Support - No input. What is meant by this and the requirement to submit this information are not clear.4. Data Management - No change.