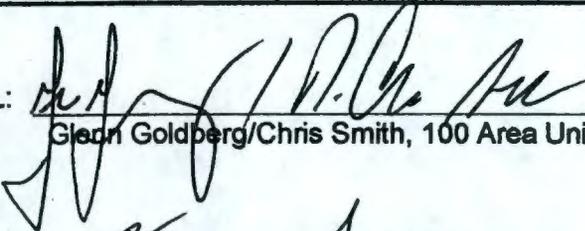
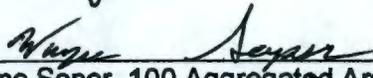


0053069

077876

**Meeting Minutes Transmittal/Approval
Unit Managers' Meeting
Remedial Action and Waste Disposal Unit/Source Operable Unit
3350 George Washington Way, Richland, Washington
September 1999**

APPROVAL:  Date 4-18-00
Glenn Goldberg/Chris Smith, 100 Area Unit Managers, RL (H0-12)

APPROVAL:  Date 4-20-00
Wayne Soper, 100 Aggregated Area Unit Manager, Ecology (B5-18)

APPROVAL:  Date 4-20-00
Dennis Faulk, 100 Aggregate Area Unit Manager, EPA (B5-01)

APPROVAL:  Date 4-20-00
Rick Bond, 100-N Area Unit Manager, Ecology (H0-18)

RECEIVED
APR 26 2000

EDMC

Meeting minutes are attached. Minutes are comprised of the following:

- Attachment 1 -- Agenda
 - Attachment 2 -- Attendance Record
 - Attachment 3 -- 100 Area UMM Minutes - September 1999
 - Attachment 4 -- Best Management Practice for Wet Cleaning and/or Decontamination of
Equipment working in Contaminated Areas
 - Attachment 5 -- Chromium Concentration Charts
 - Attachment 6 -- Concentration Charts
 - Attachment 7 -- 100-H and 100-F Remedial Action Waste Sites
 - Attachment 9 -- 100-H Remedial Action Map
-

Prepared by:


Amy J. Jones (H0-10) / Tamen Rodriguez

Date

3/30/00

Concurrence by:


Vern Dronen, BHI Remedial Action and Waste Disposal Project Manager
(H0-17)

Date

4/29/00

UNIT MANAGERS' MEETING AGENDA

3350 George Washington Way

September 23, 1999

1:00 – 4:00 p.m. 100 Area 1B45

100 Area Remedial Action

- N RODs Status
- Clarification on the 15 Months Startup from Signature of 100-N RODs
- Confirmation of Approval Signature for 100-N SAP/RDR (is it Ecology)
- Confirmation that Regulator Approval Signature of the Engineering Study is not Required
- 100 Area Tri-Party Agreement Milestones
- 100 Area Burial Ground Brief Status-(Discussions continuing off line)
- Radiologic Risk "Limit" in CVPs
- Implementation of Best Management Practices for Equipment Decontamination for N Cribs Remediation
- Status of Cr6+ Kd-Leachability Testing (116D7 Site)
- Concurrence on Waste Sites at 100-HR-1, to accomplish TPA Milestone M-16-26C
- Remedial Action/D&D Cleanup Values

**MEETING MINUTES
REMEDIAL ACTION AND WASTE DISPOSAL
UNIT MANAGERS' MEETING – 100 AREA
September 23, 1999**

Attendees: See Attachment #2

Agenda: See Attachment #1

Topics of Discussion:

100 Area Remedial Action

1. N RODs Status – Ecology advised that 100 N RODs (100-NR-1 and 100-NR-2) are being revised to incorporate comments from DOE. The revision will include justification for granting a waiver in the RODs. Ecology plans to have the two RODs finalized and distributed to DOE in the next two weeks. EPA stated that these revisions will also address the "To Be Determined" entries in the cleanup values table. Some contaminants of concern still do not have a specific value in the document. EPA stated that the 100 N Area sites have contaminants of concern that do not occur in other waste sites, so it is not applicable to use cleanup values from other ROD documents to complete the table. Ecology will work with ERC to establish the appropriate cleanup values for these "TBD" contaminants.
2. Clarification on the 15 Months Startup from Signature of 100-N RODs – DOE verified that all attendees had the same understanding of the 100 N Area schedule. The current schedule shows that the remedial action for the N Area cribs will begin in July, with the 100-NR-1 and 100-NR-2 sites starting in about three years. EPA stated that the 15 month timeframe would not be met to start the 100-NR-1 and 100-NR-2 sites. Also, issues such as the specific site cleanup standards will need to be addressed in future documentation, such as the milestone package.
3. Confirmation of Approval Signature for 100-N SAP/RDR (is it Ecology) – Ecology confirmed that their agency is responsible for the approval signature on the 100 N Sampling and Analysis Plan (SAP) and Remedial Design Report (RDR) documents. EPA discussed the upcoming EPA requirement to have an Institutional Controls program in place at Hanford. The requirements for this EPA program are still being defined, with the program to be implemented by March, 2000. Attendees discussed the Hanford Groundwater Program documentation, which is in the form of a Monitoring Plan rather than a SAP. Ecology stated that they plan to do a separate RDR for the Groundwater program. When the 100 N Remedial Design Report is issued, that document can reference the documentation of the Groundwater Program. Attendees discussed the possibility of appending the IC Plan and the Groundwater Monitoring Plan to the 100 N RDR. EPA stated that the objective is to make the Institutional Controls Program a sitewide requirement, and they would prefer to not use it as an appendix to site-specific documents.
4. Confirmation that Regulator Approval Signature of the Engineering Study is not Required – Ecology confirmed that their agency does not need to approve engineering studies.

5. 100 Area Tri-Party Agreement Milestones – Attendees discussed the upcoming TPA milestones, and the preferable method to revise milestones that will be missed. Ecology previously discussed capturing all such milestone revisions in one large package, rather than on an individual basis. EPA stated that, although a large package would be more efficient overall, there are too many unknown factors to group all pending missed milestones. Therefore, EPA requested that the upcoming F Area milestone be revised in an individual package and that the DOE & BHI hold off issuing the change package until sometime in December of 1999 in order to capture as many unknowns as possible (i.e. plumes) as part of the change package. Ecology also stated that an individual change package should be prepared for the milestones associated with the cribs and 100-NR-1 remediation. ERC agreed to issue a 110 day notice and follow up with change packages, and also offered to prepare a revised schedule for these activities. (AMY – the wording for the “Therefore, EPA requested that the...” statement to the end of this paragraph need to remain unedited – this was requested by BHI Project Controls Management.)

6. 100 Area Burial Ground Brief Status-(Discussions continuing off line)

ERC discussed in progress revisions to both the RDR/RAWP and the SAP documents. These revisions are being made to reflect “lessons learned” and new information. The draft versions of the revised documents will be ready for review later this fall.

A personnel change was announced. Ralph Wilson will replace Jon Fancher as the technical representative for Cleanup Verification Package (CVP) documents.

7. Radiologic Risk “Limit” in CVPs – Some already issued CVP documents contain radiological risk limit information. EPA pointed out that the radiological risk limit is not a regulatory requirement, so it should either be treated as an equal constituent in the document or eliminated all together. Attendees discussed possible ways to either incorporate the risk language appropriately in CVP text and/or tables, or the possibility of eliminating it from the CVP document all together. EPA suggested adding a column to the CVP table in which it can be specified which items are Remedial Action Goals and which are other types. ERC stated that they would review the guidance documents, and then discuss the options with EPA and the Department of Health.

Attendees discussed the 116-DR-9 waste site. DOH requested the RESRAD runs from the site, and ERC agreed to provide this information. ERC requested that Ecology make a decision on whether or not 116-DR-9 could be backfilled at this time.

EPA discussed generating a “lessons learned” from the cleanup of the 116-C-5 site. During the cleanup process, EPA had some 116-C-5 plume split samples analyzed. The split samples showed radiological contaminant levels of concern, but these higher levels were not addressed in the CVP document. Also, in the CVP data summary table, data from different sources was incorporated without adequately identifying the source from which data was taken. Specifying the source of data in the table would make the table clearer.

8. Implementation of Best Management Practices (BMP) for Equipment Decontamination for N Cribs Remediation - ERC discussed this BMP (Attachment 4). ERC would like guidance on or approval for the 100 N Area subcontractor to incorporate a decontamination pad in their work practices. Ecology stated that they would review the BMP for possible incorporation into 100 N remedial design. Attendees also discussed how to determine the proper disposal method for rinsate water. Ecology stated that the

rinsate would be sampled, and the sample results would determine the proper disposal method. Ecology added that both the BMP and the disposal of rinsate water have been successfully performed and documented at other sites.

9. Status of Cr6+ Kd-Leachability Testing (116D7 Site) - ERC presented information on the conclusions from Cr6+ Kd-Leachability Testing (Attachment 5). ERC presented data results from both colorimetric and ICP/MS analyses. Attendees discussed the results. ERC will provide the regulators with the information on this analysis for review.
10. ERC provided the regulators with radionuclides analysis information from the 116-DR-1 & 2 test boring (Attachment 6). The regulators stated that they would review the information and discuss it at a future meeting.
11. Concurrence on Waste Sites at 100-HR-1 and 100-FR-1 & 2, to accomplish TPA Milestone M-16-26C and 13B - Guidance documents do not completely agree on which sites are required to meet this milestone. ERC previously committed to reconcile the list of required waste sites and present recommendations. ERC handed out a list (Attachment 7) showing the sites specified by guidance documents such as the ROD, and recommended which sites should be included for completion of this milestone. Attendees will review the list and concur on the sites at a future meeting.
12. Remedial Action/D&D Cleanup Values - ERC Decontamination and Decommissioning personnel attended to discuss the different cleanup values used by D&D and Remedial Action. EPA asked that attendees briefly review cleanup guidance provided in *Sampling And Analysis Plan for 105F And 105-DR Phase III Below Grade Structures and Underlying Soils* (DOE/RL-99-35, Rev. 0). The review was followed by discussion of the cleanup levels used by the D&D and RA groups. EPA pointed out that not only do the two groups often use different cleanup levels for contaminants of concern, these values are arrived at through different land use and residential scenarios. The regulators concurred that these values need to be reconciled so both groups will use the same cleanup values in similar conditions. The D&D attendees took the action to meld the cleanup values of the two groups. After the two groups agree on the solution, this will be presented at a future UMM meeting.

ERC handed out a summary (Attachment 8) on grout material that has been encountered in places below the 116-H-7 structure. There is no historical information on this grout being placed in the site during repair work on the structure. The handout provided information on the volume and properties of the grout material encountered so far. The recommended action to be taken was included in the attachment. Ecology and EPA are requested to review the proposal and provide agreement or recommended alternatives by the next UMM.

066634

BEST MANAGEMENT PRACTICE FOR WET CLEANING AND/OR DECONTAMINATION OF EQUIPMENT WORKING IN CONTAMINATED AREAS

Remediation Site Equipment Decontamination. The following is proposed as a best management practice (BMP) for the wet cleaning and/or decontamination of heavy equipment and vehicles working directly in contaminated areas, when cleaning and/or decontamination water is not collected.

General BMP. Applies to all equipment cleaning/decontamination activities within a waste site.

- Conduct decontamination within the waste site to prevent the spread of contaminants.
- Minimize the amount of water used to clean equipment.
- Use raw or potable water only.
- Do not add soaps, detergents, or other cleaning agents to washwater.
- Pressure washing will normally use cold water (hot water may be used to avoid icing).
- Steam cleaning may be used only after other decontamination methods prove to be ineffective.
- Decontamination practices will be documented in the daily log.
- Personnel responsible for equipment decontamination will be trained to this BMP.

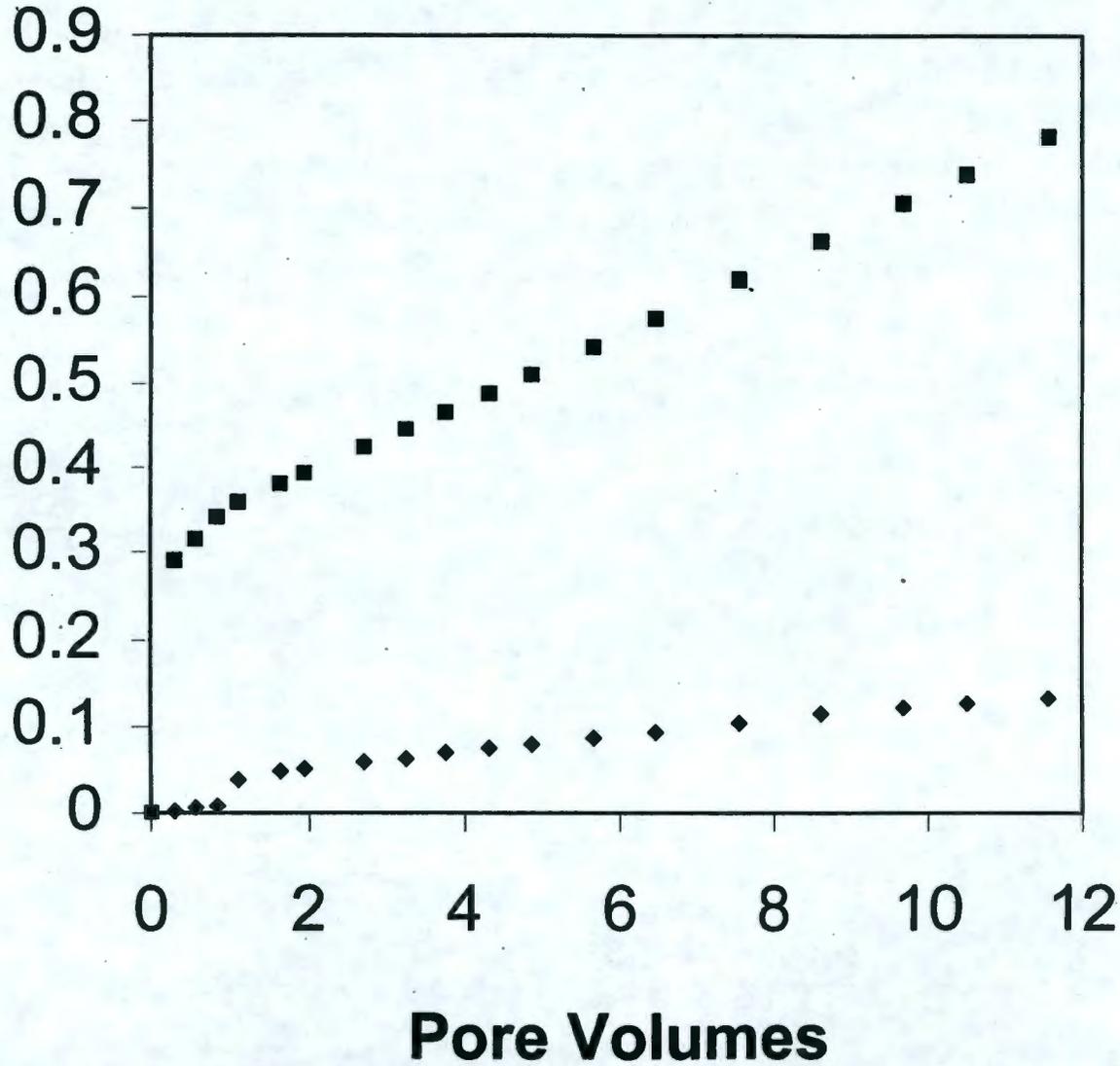
Ongoing Remediation Site BMP. Applies to equipment being washed and/or decontaminated within sites that have ongoing remediation.

- Equipment washing/decontamination will be located in areas with ongoing waste removal.
- Spent washwater and associated contamination will be kept within the area of contamination.
- Pre and post washing/decontamination contaminant surveys are not required.
- The Project may opt to collect washwater for reuse in the excavation or to be sent for treatment.

Completed Remediation Site BMP. Applies to equipment being washed and/or decontaminated within sites that have achieved preliminary remediation goals (PRGs).

- At the "completion" of excavation activities at a site, the Project may opt to transport the equipment to a nearby site that is being remediated (by excavation) to perform equipment washing/decontamination (as described above).
- Equipment washing/decontamination to be performed at the site will be physically located within the remediated site.
- A pre and post-survey will be performed on the washing/decontamination area to assess and remediate (if required) areas affected by the activity.
- When the washing/decontamination is set up in an area of a site that has (apparently) attained the PRGs, sampling of the area will be performed per the Sampling and Analysis Plan.
- The Project may opt to perform other methods of equipment washing and/or decontamination for a completed site, e.g., wrap the equipment for transfer to a decon pad, provide for a temporary facility at the site to collect washwater, fix the contamination to the equipment.

% Cr Leached from Sediment



◆ ICP/MS
■ Colorimetric

DRAFT

Table. Protection of 116-D-7 Groundwater and the Columbia River from Chromium VI

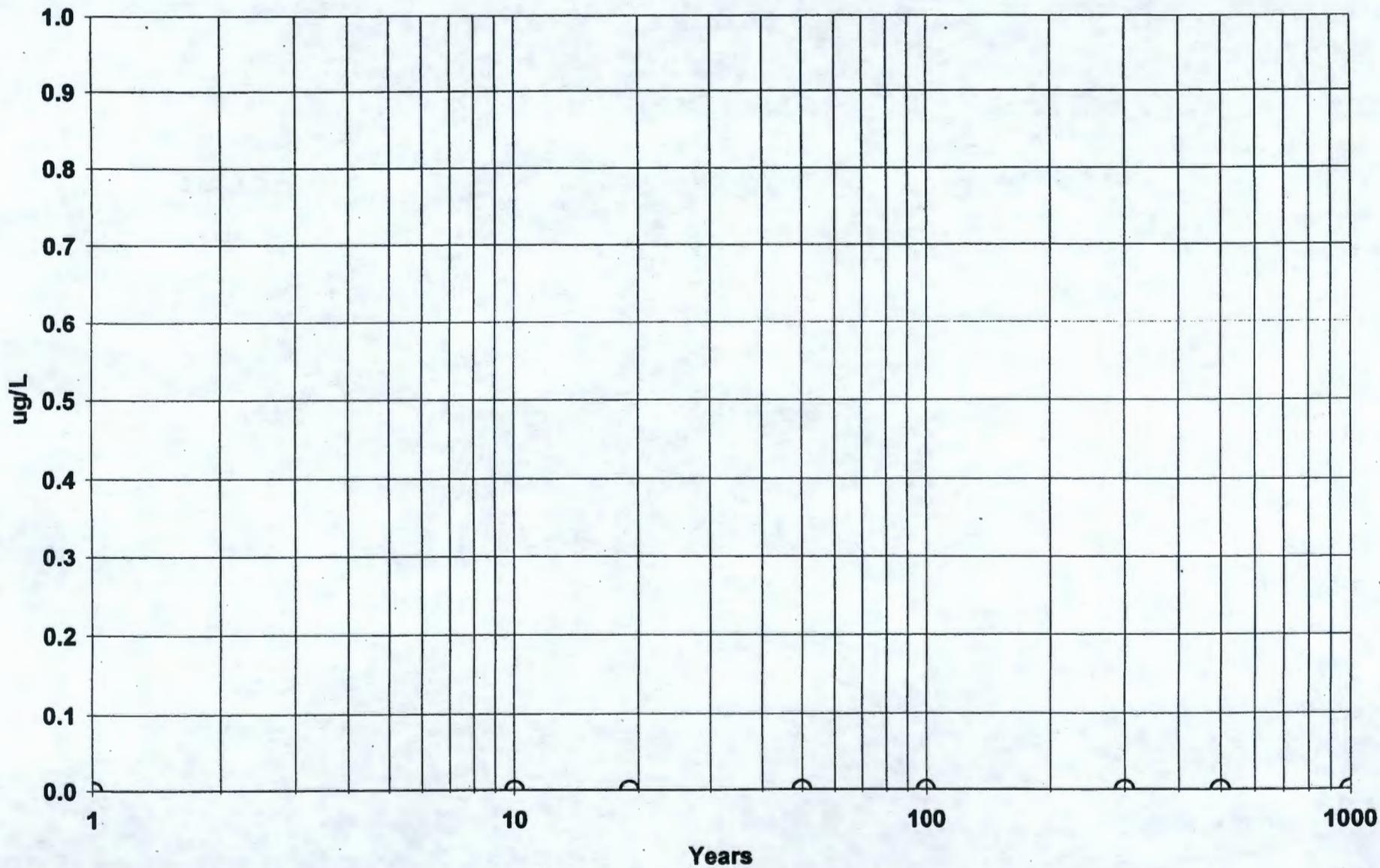
Leach Rate, fraction/yr	Thickness of Contaminated Zone, m	Does Cr VI Reach Groundwater in 1,000 years?	Peak Year	Groundwater Concentration at Peak Year, ug/L	Is the Columbia River Protected?
0.0005	2	No	N/A	N/A	Yes
	5	No	N/A	N/A	Yes
	10	Yes	580	40	No
0.0012	2	No	N/A	N/A	Yes
	5	Yes	1,000	12.8	Yes
	10	Yes	260	93	No

N/A: Not Applicable

Note: Cr VI Statistical Value in 116-D-7 Deep Zone Soil: 3.26 mg/kg

DRAFT

Well Water Concentration: Cr VI Leach Rate 0.0005/yr. Contaminated Zone 2 m Thick

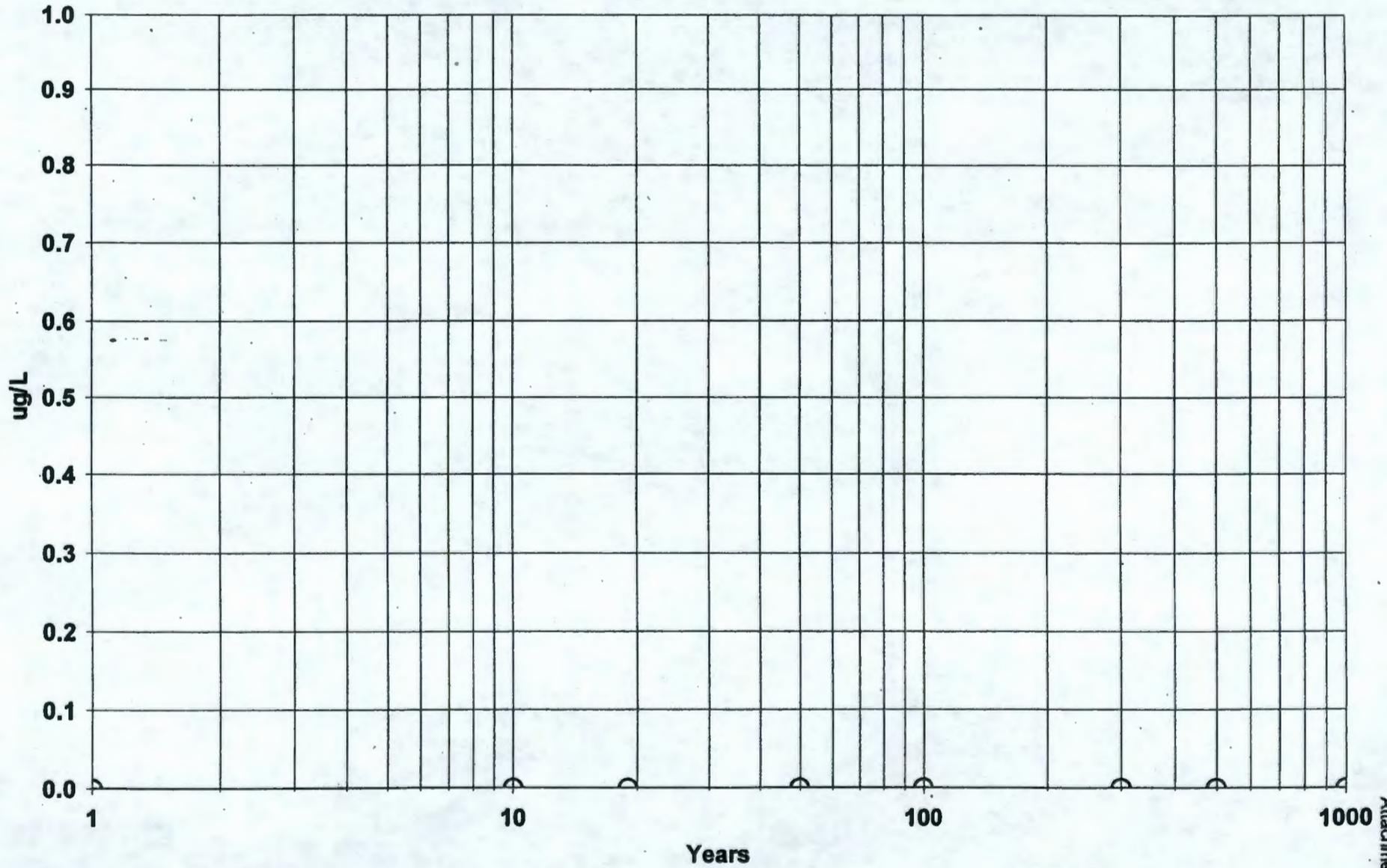


Attachment 5

D7-CR2.RAD 09/23/99 08:27

DRAFT

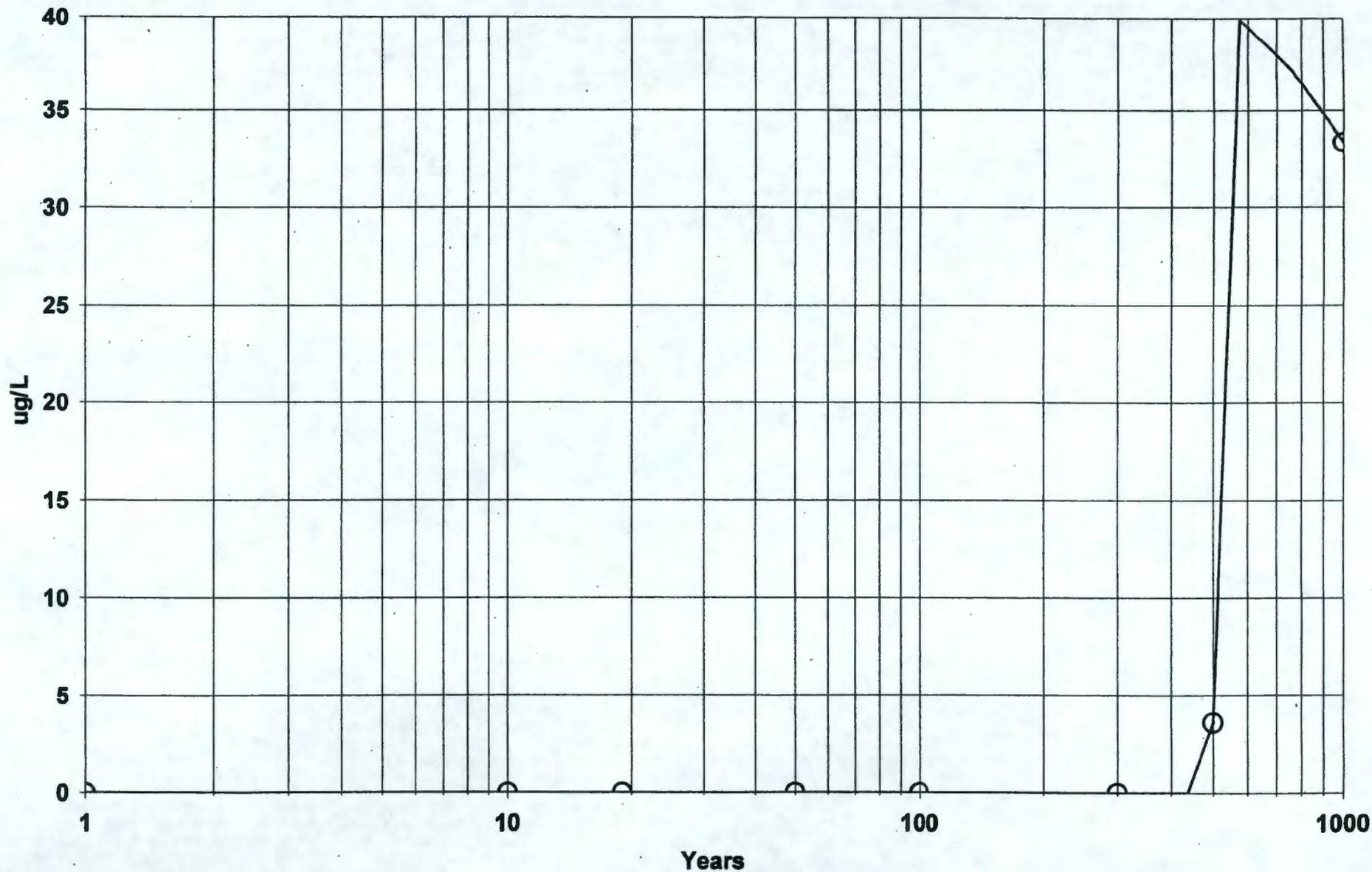
Well Water Concentration: Cr VI Leach Rate 0.0005/yr. Contaminated Zone 5 m Thick



D7-CR5.RAD 09/23/99 08:55

DRAFT

Well Water Concentration: Cr VI Leach Rate 0.0005/yr. Contaminated Zone 10 m Thick.

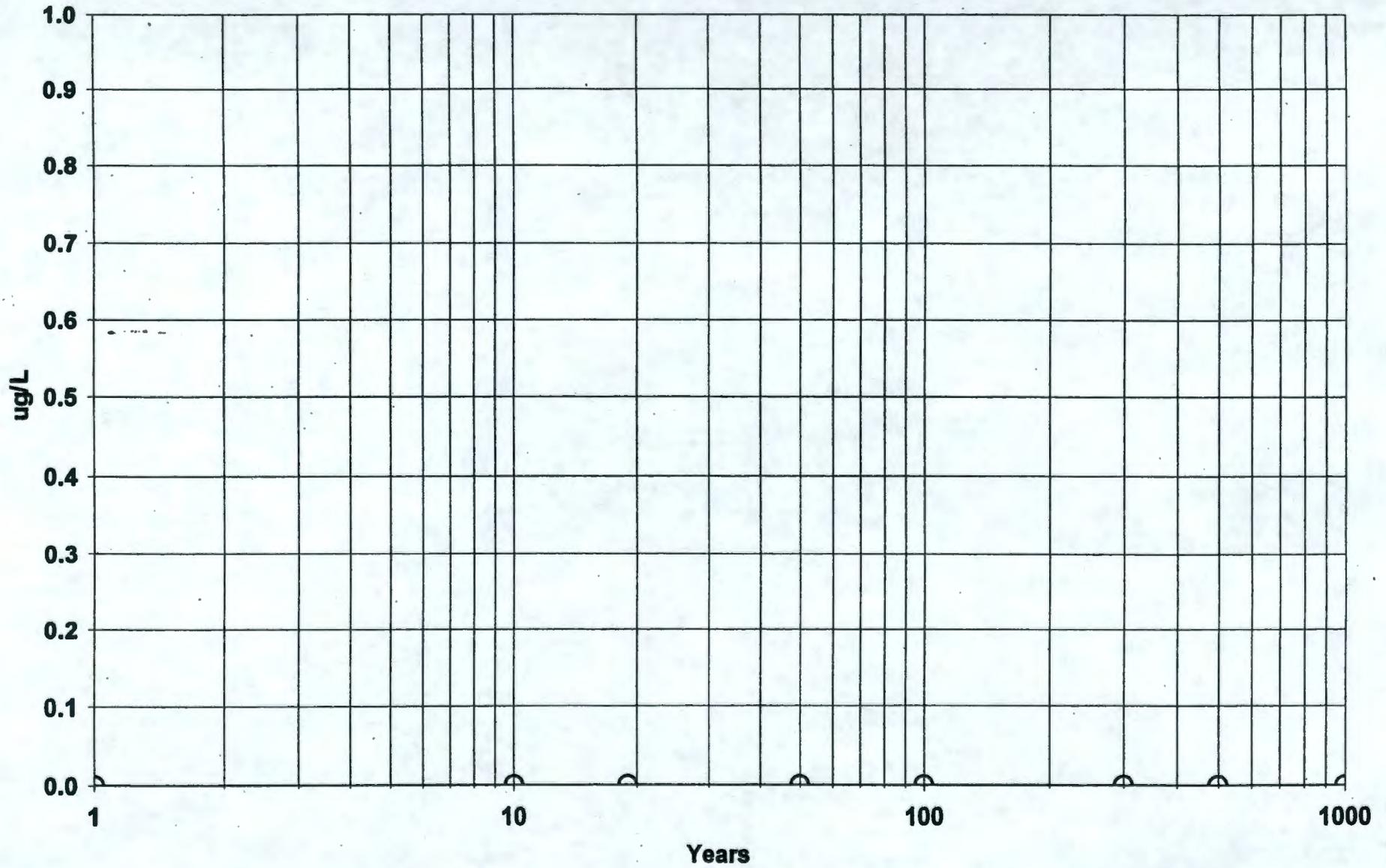


Attachment 5

D7-CR10.RAD 09/23/99 09:25

DRAFT

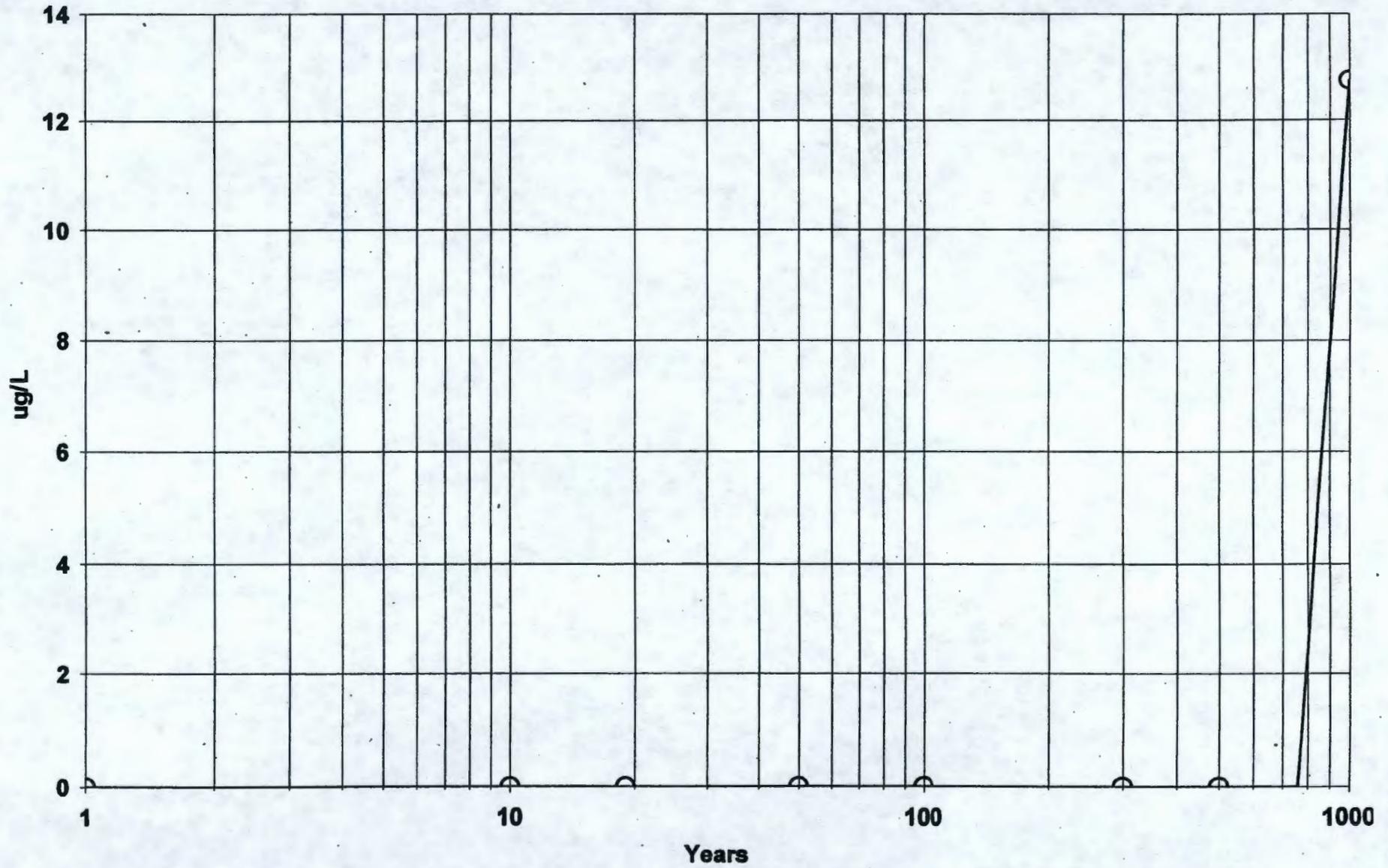
Well Water Concentration: Cr VI Leach Rate 0.0012/yr. Contaminated Zone 2 m Thick



Attachment 5

DRAFT

Well Water Concentration: Cr VI Leach Rate 0.0012/yr. Contaminated Zone 5 m Thick.

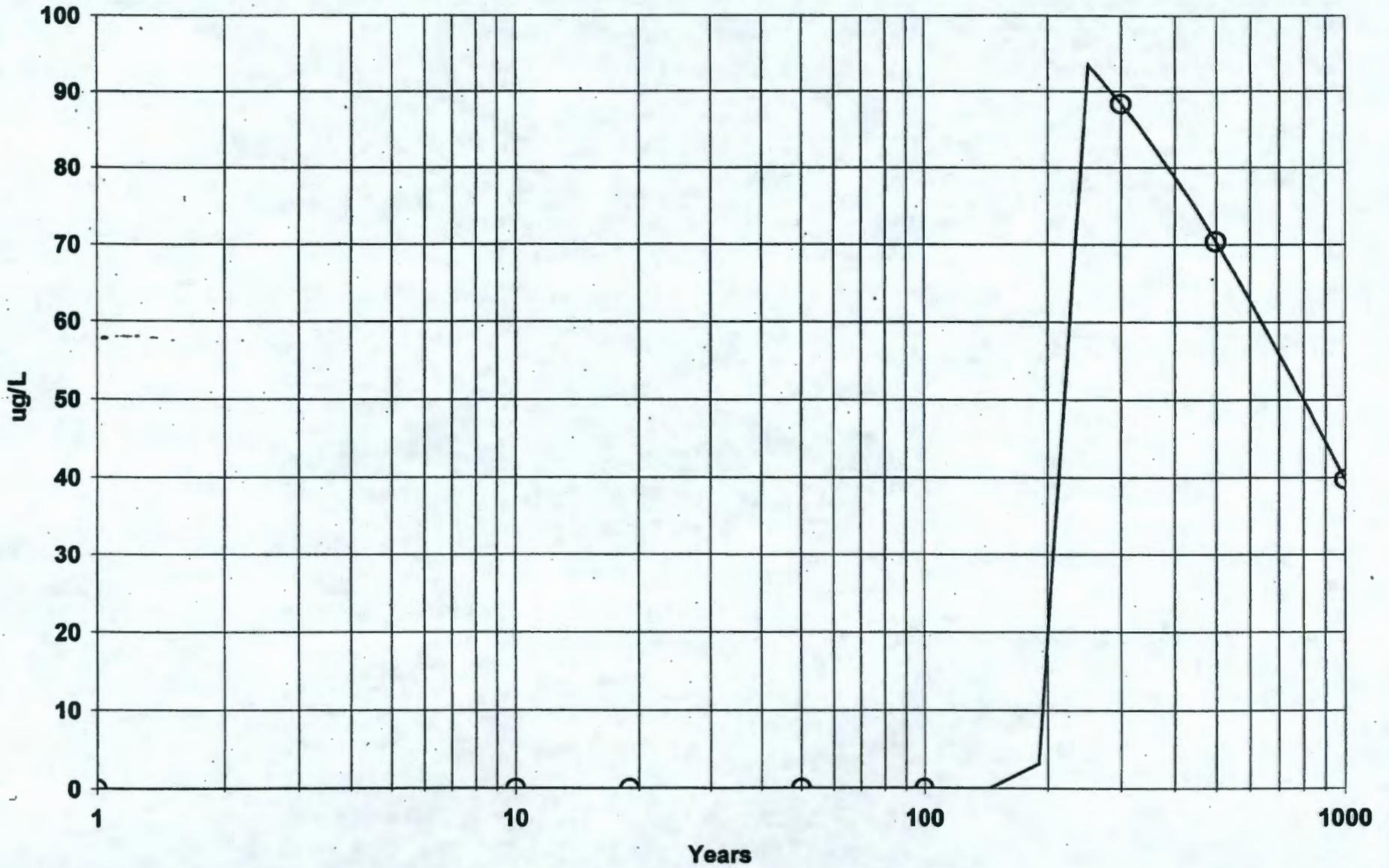


Attachment 5

D7-CR5.RAD 09/23/99 09:08

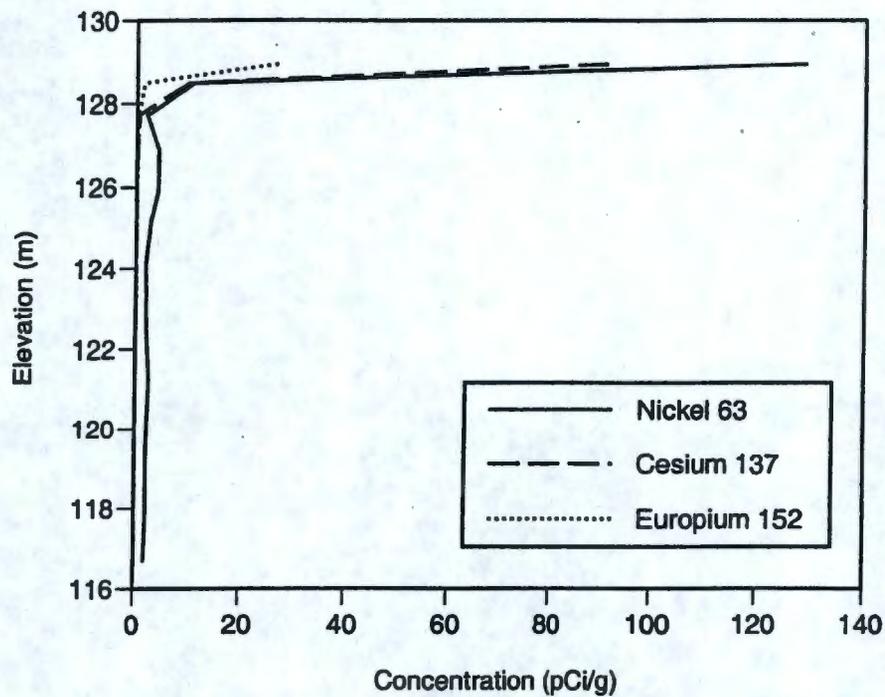
DRAFT

Well Water Concentration: Cr VI Leach Rate 0.0012/yr. Contaminated Zone 10 m Thick.

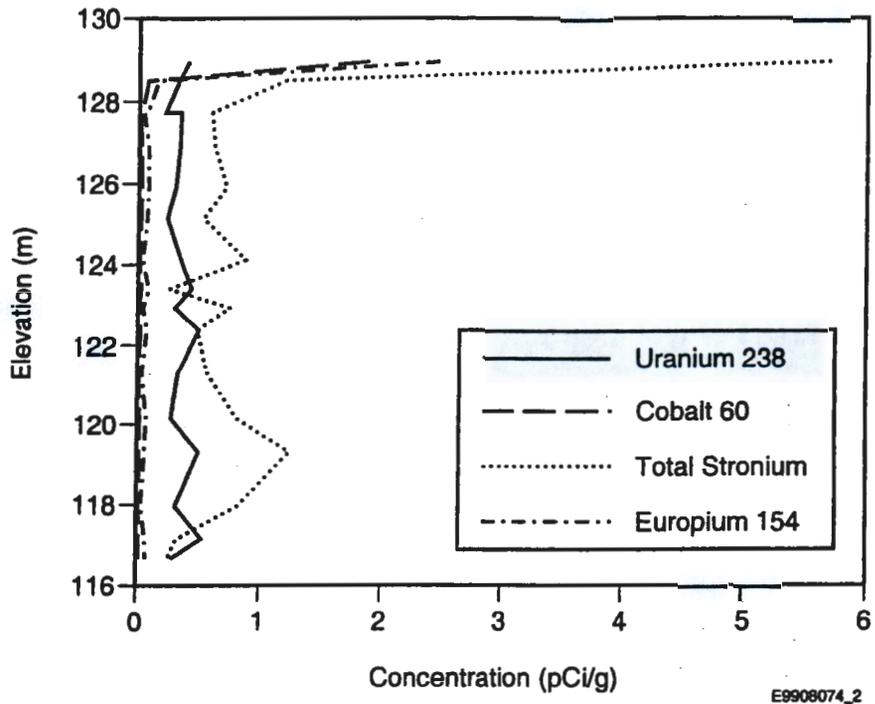


D7-CR10.RAD 09/23/99 09:41

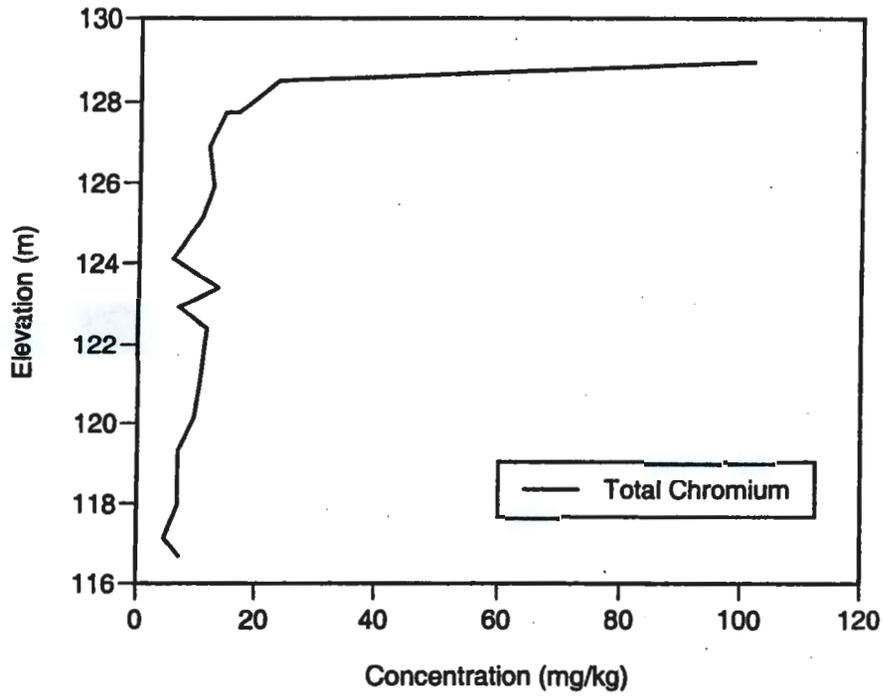
DRAFT



E9908074_1



E9908074_2



E9908074_3

116-DR-1&2
 Test Boring
 Radionuclide Results

HEIS Number	Elevation (m)	Isot											
		Uranium 233/234			Uranium 235			Uranium 238			Plutonium 238		
		Result	MDA	Qualifier	Result	MDA	Qualifier	Result	MDA	Qualifier	Result	MDA	Qualifier
B0VNH1	129.0	0.439	0.070	J	0.054	0.059	U	0.407	0.061	J	0.010	0.049	U
B0VNH2	128.5	0.358	0.051	J	0.032	0.061	U	0.325	0.051	J	0.000	0.058	U
B0VNH3	127.7	0.351	0.037	J	0.044	0.028	J	0.345	0.023	J	0.000	0.100	U
B0VNH4	127.7	0.308	0.058	J	0.018	0.070	U	0.218	0.058	J	0.008	0.031	U
B0VNH5	126.9	0.473	0.089	J	0.034	0.086	U	0.334	0.071	J	-0.007	0.100	U
B0VNH6	125.9	0.411	0.092	J	0.058	0.110	U	0.302	0.092	J	-0.004	0.038	U
B0VNH7	125.1	0.386	0.097	J	0.074	0.081	U	0.237	0.067	J	-0.005	0.063	U
B0VNH8	124.1	0.334	0.065	J	0.021	0.079	U	0.351	0.065	J	0.005	0.056	U
B0VNH9	130.3	0.162	0.086	J	0.011	0.083	U	0.243	0.069	J	0.008	0.037	U
B0VNJ0	123.4	0.328	0.090	J	0.057	0.087	U	0.441	0.072	J	0.006	0.061	U
B0VNJ1	122.9	0.340	0.072	J	0.000	0.087	U	0.302	0.072	J	-0.006	0.077	U
B0VNJ2	122.4	0.572	0.067	J	0.064	0.082	U	0.502	0.067	J	-0.012	0.080	U
B0VNJ3	121.3	0.477	0.066	J	0.021	0.080	U	0.330	0.066	J	0.013	0.064	U
B0VNJ4	120.1	0.346	0.076	J	0.000	0.092	U	0.277	0.076	J	-0.018	0.076	U
B0VNJ5	119.3	0.336	0.076	J	0.024	0.092	U	0.504	0.076	J	0.067	0.230	U
B0VNJ6	118.0	0.525	0.073	J	0.012	0.088	U	0.315	0.073	J	0.000	0.076	U
B0VNJ7	117.1	0.495	0.087	J	0.057	0.073	U	0.534	0.060	J	-0.023	0.150	U
B0VNJ8	116.7	0.291	0.086	J	0.041	0.100	U	0.291	0.086	J	-0.014	0.056	U

Attachment 6

DRAFT

116-DR-1&2
 Test Boring
 Radionuclide Results

HEIS Number	Elevation (m)	pic											
		Plutonium 239/240			Nickel 63			Americium 241			Total Strontium		
		Result	MDA	Qualifier	Result	MDA	Qualifier	Result	MDA	Qualifier	Result	MDA	Qualifier
B0VNH1	129.0	0.137	0.056	J	129.000	4.800		0.010	0.120	U	5.690	0.270	
B0VNH2	128.5	0.005	0.065	U	10.900	3.400	J	0.011	0.061	U	1.200	0.150	
B0VNH3	127.7	0.011	0.083	U	0.667	2.000	U	0.005	0.025	U	0.600	0.150	J
B0VNH4	127.7	0.016	0.039	U	0.623	2.100	U	0.015	0.036	U	0.596	0.160	J
B0VNH5	126.9	-0.007	0.072	U	0.047	4.300	U	0.012	0.018	U	0.624	0.170	J
B0VNH6	125.9	-0.004	0.038	U	-1.240	4.200	U	0.000	0.029	U	0.723	0.140	J
B0VNH7	125.1	0.000	0.068	U	-0.579	2.800	U	0.003	0.045	U	0.534	0.170	J
B0VNH8	124.1	-0.005	0.056	U	-0.545	2.000	U	0.006	0.047	U	0.881	0.140	J
B0VNH9	130.3	0.004	0.029	U	-0.728	2.000	U	0.015	0.028	U	-0.030	0.200	U
B0VNH0	123.4	0.011	0.053	U	-0.843	2.100	U	0.006	0.034	U	0.258	0.260	U
B0VNH1	122.9	0.044	0.060	U	-1.040	2.100	U	0.014	0.035	U	0.759	0.130	J
B0VNH2	122.4	0.000	0.086	U	-0.641	2.200	U	-0.007	0.040	U	0.486	0.130	J
B0VNH3	121.3	0.020	0.051	U	-0.694	2.700	U	0.017	0.041	U	0.570	0.160	J
B0VNH4	120.1	-0.012	0.076	U	0.322	2.400	U	0.833	0.042	J	0.813	0.170	J
B0VNH5	119.3	0.013	0.170	U	-0.048	2.200	U	0.000	0.025	U	1.240	0.160	
B0VNH6	118.0	-0.006	0.059	U	-0.614	2.300	U	-0.011	0.039	U	0.825	0.110	J
B0VNH7	117.1	-0.023	0.160	U	-0.707	2.100	U	-0.003	0.039	U	0.329	0.110	J
B0VNH8	116.7	0.005	0.070	U	-0.590	2.000	U	0.008	0.022	U	0.258	0.088	J

Attachment 6

DRAFT

116-DR-1&2
 Test Boring
 Radionuclide Results

HEIS Number	Elevation (m)	Potassium 40			Cobalt 60			Cesium 137			Europium 152		
		Result	MDA	Qualifier	Result	MDA	Qualifier	Result	MDA	Qualifier	Result	MDA	Qualifier
B0VNH1	129.0	11.800	0.220		1.880	0.039		91.300	0.093		26.500	0.330	
B0VNH2	128.5	10.300	0.110		0.074	0.014		9.860	0.025		1.510	0.062	
B0VNH3	127.7	11.100	0.100		U	0.012	U	0.492	0.014		0.243	0.029	
B0VNH4	127.7	10.300	0.220		U	0.021	U	0.364	0.017		0.254	0.049	
B0VNH5	126.9	11.100	0.190		U	0.022	U	0.161	0.024		0.190	0.045	
B0VNH6	125.9	11.900	0.220		U	0.024	U	U	0.021	U	0.097	0.049	J
B0VNH7	125.1	11.900	0.240		U	0.021	U	U	0.020	U	0.107	0.053	
B0VNH8	124.1	9.620	0.110		U	0.011	U	U	0.009	U	U	0.028	U
B0VNH9	130.3	5.530	0.180		U	0.019	U	U	0.014	U	U	0.033	U
B0VNJ0	123.4	15.000	0.280		U	0.027	U	U	0.024	U	U	0.069	U
B0VNJ1	122.9	10.700	0.110		U	0.011	U	U	0.010	U	U	0.030	U
B0VNJ2	122.4	12.800	0.250		U	0.023	U	U	0.019	U	U	0.054	U
B0VNJ3	121.3	11.800	0.098		U	0.010	U	U	0.009	U	U	0.024	U
B0VNJ4	120.1	9.850	0.230		U	0.022	U	U	0.019	U	U	0.042	U
B0VNJ5	119.3	9.540	0.220		U	0.019	U	U	0.016	U	U	0.047	U
B0VNJ6	118.0	9.200	0.110		U	0.018	U	U	0.010	U	U	0.028	U
B0VNJ7	117.1	8.950	0.220		U	0.023	U	U	0.020	U	U	0.042	U
B0VNJ8	116.7	11.600	0.230		U	0.023	U	0.038	0.021	J	U	0.054	U

DRAFT

116-DR-1&2
 Test Boring
 Radionuclide Results

HEIS Number	Elevation (m)	Gamma											
		Europium 154			Europium 155			Radium 226			Radium 228		
		Result	MDA	Qualifier	Result	MDA	Qualifier	Result	MDA	Qualifier	Result	MDA	Qualifier
B0VNH1	129.0	2.460	0.140		U	0.220	U	0.392	0.130		0.487	0.210	
B0VNH2	128.5	0.160	0.056		U	0.057	U	0.341	0.039		0.518	0.063	
B0VNH3	127.7	U	0.042	U	U	0.031	U	0.362	0.023		0.514	0.048	
B0VNH4	127.7	U	0.069	U	U	0.058	U	0.350	0.042		0.566	0.087	
B0VNH5	126.9	U	0.082	U	U	0.043	U	0.434	0.040		0.537	0.110	
B0VNH6	125.9	U	0.085	U	U	0.077	U	0.411	0.038		0.728	0.100	
B0VNH7	125.1	U	0.073	U	U	0.057	U	0.411	0.036		0.610	0.100	
B0VNH8	124.1	U	0.037	U	U	0.031	U	0.350	0.021		0.497	0.051	
B0VNH9	130.3	U	0.057	U	U	0.029	U	0.165	0.030		0.203	0.071	
B0VNJ0	123.4	U	0.090	U	U	0.073	U	0.552	0.052		0.840	0.098	
B0VNJ1	122.9	U	0.042	U	U	0.031	U	0.352	0.022		0.563	0.051	
B0VNJ2	122.4	U	0.073	U	U	0.059	U	0.465	0.035		0.660	0.090	
B0VNJ3	121.3	U	0.035	U	U	0.038	U	0.372	0.018		0.505	0.041	
B0VNJ4	120.1	U	0.075	U	U	0.063	U	0.402	0.034		0.542	0.100	
B0VNJ5	119.3	U	0.062	U	U	0.060	U	0.340	0.036		0.481	0.086	
B0VNJ6	118.0	U	0.038	U	U	0.042	U	0.434	0.021		0.611	0.052	
B0VNJ7	117.1	U	0.071	U	U	0.050	U	0.378	0.041		0.548	0.097	
B0VNJ8	116.7	U	0.079	U	U	0.061	U	0.387	0.046		0.576	0.096	

DRAFT

116-DR-1&2
 Test Boring
 Radionuclide Results

HEIS Number	Elevation (m)	Thorium 228			Thorium 232			Americium 241			Uranium 238		
		Result	MDA	Qualifier	Result	MDA	Qualifier	Result	MDA	Qualifier	Result	MDA	Qualifier
B0VNH1	129.0	0.457	0.120		0.487	0.210		U	0.220	U	U	6.900	U
B0VNH2	128.5	0.484	0.033		0.518	0.063		U	0.062	U	U	1.800	U
B0VNH3	127.7	0.465	0.015		0.514	0.048		U	0.037	U	U	1.300	U
B0VNH4	127.7	0.468	0.024		0.566	0.087		U	0.073	U	U	2.400	U
B0VNH5	126.9	0.503	0.023		0.537	0.110		U	0.026	U	U	2.900	U
B0VNH6	125.9	0.475	0.240		0.728	0.100		U	0.027	U	U	2.700	U
B0VNH7	125.1	0.556	0.025		0.610	0.100		U	0.077	U	U	2.600	U
B0VNH8	124.1	0.480	0.013		0.497	0.051		U	0.034	U	U	1.300	U
B0VNH9	130.3	0.223	0.025		0.203	0.071		U	0.018	U	U	2.200	U
B0VNH0	123.4	0.756	0.032		0.840	0.098		U	0.100	U	U	3.100	U
B0VNJ1	122.9	0.471	0.015		0.563	0.051		U	0.037	U	U	1.300	U
B0VNJ2	122.4	0.577	0.025		0.660	0.090		U	0.078	U	U	2.600	U
B0VNJ3	121.3	0.483	0.013		0.505	0.041		U	0.032	U	U	1.200	U
B0VNJ4	120.1	0.644	0.032		0.542	0.100		U	0.025	U	U	2.600	U
B0VNJ5	119.3	0.449	0.022		0.481	0.086		U	0.071	U	U	2.700	U
B0VNJ6	118.0	0.551	0.015		0.611	0.052		U	0.036	U	U	1.300	U
B0VNJ7	117.1	0.512	0.024		0.548	0.097		U	0.025	U	U	2.600	U
B0VNJ8	116.7	0.564	0.027		0.576	0.096		U	0.082	U	U	2.500	U

DRAFT

**116-DR-1&2
Test Boring
Radionuclide Results**

HEIS Number	Elevation (m)	Uranium 235		
		Result	MDA	Qualifier
B0VNH1	129.0	U	0.330	U
B0VNH2	128.5	U	0.090	U
B0VNH3	127.7	U	0.049	U
B0VNH4	127.7	U	0.075	U
B0VNH5	126.9	U	0.072	U
B0VNH6	125.9	U	0.071	U
B0VNH7	125.1	U	0.075	U
B0VNH8	124.1	U	0.084	U
B0VNH9	130.3	U	0.048	U
B0VNJ0	123.4	U	0.097	U
B0VNJ1	122.9	U	0.068	U
B0VNJ2	122.4	U	0.078	U
B0VNJ3	121.3	U	0.042	U
B0VNJ4	120.1	U	0.068	U
B0VNJ5	119.3	U	0.073	U
B0VNJ6	118.0	U	0.048	U
B0VNJ7	117.1	U	0.068	U
B0VNJ8	116.7	U	0.082	U

DRAFT

HEIS Number	Elevation (m)	Arsenic		Total Chromium		Mercury		Lead		Chromium (VI)	
		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
B0VNH1	129.0	2.60		102.00		0.08		5.60		0.41	U
B0VNH2	128.5	1.60		23.30		0.02		1.90		2.30	
B0VNH3	127.7	1.30		14.40		0.02	U	2.10		0.42	U
B0VNH4	127.7	1.60		16.60		0.02	U	1.70		0.41	U
B0VNH5	126.9	1.60		11.60		0.02	U	2.10		0.66	
B0VNH6	125.9	1.60		12.50		0.02	U	2.20		0.96	
B0VNH7	125.1	1.90		10.60		0.01	U	2.00		0.42	U
B0VNH8	124.1	1.50		5.80		0.02	U	2.00		0.42	U
B0VNH9	130.3	0.22	U	0.15		0.02	U	0.75		0.40	U
B0VNH0	123.4	2.30		13.50		0.02	U	3.00		0.43	U
B0VNH1	122.9	1.00		6.80		0.02	U	2.80		0.42	U
B0VNH2	122.4	1.40		11.50		0.02	U	2.90		0.42	U
B0VNH3	121.3	1.50		10.70		0.02	U	2.20		0.41	U
B0VNH4	120.1	1.20		9.60		0.02	U	1.90		0.41	U
B0VNH5	119.3	1.4		6.90		0.02	U	1.90		0.41	U
B0VNH6	118.0	1.10		6.90		0.02	U	2.60		0.41	U
B0VNH7	117.1	0.62		4.70		0.01	U	1.50		0.44	U
B0VNH8	116.7	0.74		7.30		0.02	U	1.80		0.43	U

DRAFT

100 H Remedial Action Waste Sites

TPA Milestone M-16-26C Complete remediation and backfill of 10 liquid waste sites and process effluent pipelines in the 100-HR-1 Operable

Unit (11 total) as defined in the RDR/RAWP for the 100 Area

QTY	Waste Site	Site Description	ROD and	Remaining Sites	Waste Sites within the	Recomendes Sites to	DWP
	RDR/RAWP		Amend.	ROD	100-HR-1 Pipeline	Accomplish TPA	
	Rev. 1				Excavation Footprint	Milestone M-16-26C	
1	116-H-1	Process Effluent Trench	116-H-1			116-H-1	116-H-1
2	116-H-2	Effluent Disposal Trench	116-H-2			116-H-2	116-H-2
3	116-H-3	Dummy Decontamination French Drain	116-H-3			116-H-3	116-H-3
4	116-H-4	Pluto Crib	116-H-4				
5	116-H-7	Retention Basin	116-H-7			116-H-7	116-H-7
6	100-H-5	Sludge Burial Trench	100-H-5			100-H-5	100-H-5
7	100-H-17	Trench	100-H-17			100-H-17	100-H-17
8	Pipelines	100-H Reactor Effluent Pipelines	Pipelines			Pipelines	Pipelines
9		151-H Substation		100-H-24		100-H-24	100-H-24
10		Septic System		1607-H2		1607-H2	1607-H2
11		Septic System		1607-H4		1607-H4	1607-H4
12		117-H crib: drainage of filter bldg seal pits		116-H-9			
13		Expansion box french drain		100-H-11			
14		Expansion box french drain		100-H-12			
15		French Drain		100-H-13	100-H-13		
16		Surface contamination next to reactor		100-H-14	100-H-14		
17		Pipeline leak		100-H-22	100-H-22		
18		PCB in soil near reactor		100-H-31			
19		1904-H outfall structure		116-H-5			
20		Thimble Guide Burial Ground		100-H-2		100-H-2	100-H-2
		The sites listed below are CSE sites, where sampling is planned, and possibly remediation					
21		1716-H Gasoline Storage Tank Site		100-H-3			
22		1717-H Hot Shop French Drain		100-H-4			
23		French Drain A		100-H-7			
24		French Drain B		100-H-8			
25		French Drain C		100-H-9			
26		French Drain D		100-H-10			
27		183-H Clearwells; Disposal Pit		126-H-2			
28		116-H Reactor Exhaust Stack Burial Site		132-H-1			
29		1606-H Waste Water Pumping Station Site		132-H-3			
30		Burning Pit		128-H-1*			
31		Burning Pit		128-H-2*			
32		100-H Burning Ground #3		128-H-3*			
33		117-H Filter Building Site		132-H-2*			
34		Pre-Hanford Dumping Area		600-151*			
35		Septic Tank and Drain Field		1607-H-1*			
36		Rod Cave (cobble covered Pb brick cave)			100-H-1		
37		Thimbal Pit Burial Ground			118-H-5		
38		Sanitary Sewer trench			100-H-30		
		* These sites are from 100-HR-2; all other sites are from 100-HR-1					
TOTAL	8		8	27	6	11	11

100-F Area Sites

100 F Remedial Action Waste Sites

TPA Milestone M-16-13B Complete remediation and backfill of 16 liquid waste sites and process effluent pipelines in the 100-FR-1and 100-FR-2

Operable Units (17 total) as defined in the RDR/RAWP for the 100 Area

QTY	Waste Site RDR/RAWP Rev. 1	Site Description	ROD and Amend.	Remaining Sites ROD	Waste Sites within the 100-FR-19 Pipeline Excavation Footprint	Recomendes Sites to Accomplish TPA Milestone M-16-26C	DWP
1	100-F-15	(108F) French Drain	100-F-15			100-F-15	100-F-15
2	100-F-19	Process Effluent Piping	100-F-19			100-F-19	100-F-19
3	116-F-1	Lewis Canal Trench	116-F-1			116-F-1	116-F-1
4	116-F-2	Trench	116-F-2			116-F-2	116-F-2
5	116-F-3	Fuel Storage Basin Trench	116-F-3			116-F-3	116-F-3
6	116-F-4	Pluto Crib (verification pkg)	116-F-4			116-F-4	116-F-4
7	116-F-5	Ball Washer Crib (unknown)	116-F-5			116-F-5	116-F-5
8	116-F-6	Liquid Waste Disposal Trench	116-F-6			116-F-6	116-F-6
9	116-F-9	Trench	116-F-9			116-F-9	116-F-9
10	116-F-10	French Drain	116-F-10			116-F-10	116-F-10
11	116-F-11	French Drain	116-F-11			116-F-11	116-F-11
12	116-F-14	Retention Basin	116-F-14			116-F-14	116-F-14
13	126-F-1	Ash Pit	126-F-1			126-F-1	126-F-1
14	UPR-100-F-2	Basin Leak Ditch	UPR-100-F-2			UPR-100-F-2	UPR-100-F-2
15		Strontium Gardens		100-F-2		100-F-2	100-F-2
16		Discovery Site		100-F-35		100-F-35	100-F-35
17		Outfall		116-F-8	116-F-8		
18		Rad Crib		116-F-15			
19		PNL Outfall		116-F-16			
20		Glass Dump		120-F-1			
21		Septic Tank and Drain Field		1607-F-2		1607-F-2	1607-F-2
22		Septic Tank and Drain Field		1607-F-6		1607-F-6	1607-F-6
23		French Drain			100-F-4		
24		French Drain			100-F-11		
25		French Drain			100-F-16		
26		French Drain			100-F-34		
27		French Drain			116-F-12		
28		French Drain			116-F-13		
29		Drain/Tile Field			1607-F-6		
Total Sites	14		14	8	8	18	18

Attachment 7

077876

Distribution

Unit Managers' Meeting: 100 Area Remedial Action Unit/Source Operable Units

Glenn Goldberg DOE-RL, RP (H0-12)
Owen Robertson..... DOE-RL, RP (H0-12)
Chris Smith..... DOE-RL, RP (H0-12)
Eileen Murphy-Fitch DOE-RL (H0-12)

Lisa Treichel DOE-HQ (EM-442)

Wayne Soper..... WDOE (Kennewick) (B5-18)
Rick Bond WDOE (Kennewick) (B5-18)

Dennis Faulk..... EPA (B5-01)

Lynn Albin..... Washington Dept. of Health
Richard Jaquish..... Washington Dept. of Health

John April..... BHI (H0-17)
Ella Coenenburg..... BHI (H9-03)
Frank Corpuz..... BHI (X9-06)
Rick Donahoe..... BHI (H0-17)
Jon Fancher..... CHI (H9-02)
Alvina Goforth..... BHI (H0-09)
Chris Kemp..... BHI (S3-20)
Tom Kisenwether..... BHI (X9-10)
Alvin Langstaff..... BHI (X3-40)
Tamen Rodriguez..... BHI (H0-17)
Fred Roeck..... BHI (H0-17)
Mark Sturges..... CHI (X3-40)
Joan Woolard BHI (H0-02)
Administrative Record BHI (H0-09)

Please inform Tamen Rodriguez (372-9562) – BHI (H0-17)
of deletions or additions to the distribution list.