

# START

## ENGINEERING CHANGE NOTICE

1. ECN No **618170**

Proj. ECN

2. ECN Category (mark one)  <input checked="" type="checkbox"/> Supplemental <input type="checkbox"/> Direct Revision <input type="checkbox"/> Change ECN <input type="checkbox"/> Temporary <input type="checkbox"/> Standby <input type="checkbox"/> Supersedure <input type="checkbox"/> Cancel/Void	3. Originator's Name, Organization, MSIN, and Telephone No. B.A. Williams/ Groundwater Management/H6-06/376-3416 <span style="margin-left: 300px;">84230</span>		4. Date 11/15/94
	5. Project Title/No./Work Order No. 216-U-12 Crib Groundwater Mon. <span style="margin-left: 50px;">84044</span>	6. Bldg./Sys./Fac. No. 2440 STVCN	7. Approval Designator EQ
	8. Document Numbers Changed by this ECN (includes sheet no. and rev.) WHC-SD-EN-AP-108, Rev. 0	9. Related ECN No(s). N/A	10. Related PO No. N/A

11a. Modification Work  <input type="checkbox"/> Yes (fill out Blk. 11b) <input checked="" type="checkbox"/> No (NA Blks. 11b, 11c, 11d)	11b. Work Package No. N/A	11c. Modification Work Complete  N/A  _____ Cog. Engineer Signature & Date	11d. Restored to Original Condition (Temp. or Standby ECN only) N/A  _____ Cog. Engineer Signature & Date
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12. Description of Change  
 Pg 8, Section 5.3, WATER TABLE MEASUREMENT SCHEDULE  
 Delete third sentence (Measurement frequencies...).

Pg, 9, Section 5.4, GROUNDWATER QUALITY ASSESSMENT SAMPLING SCHEDULE, change first and second sentences to read, "... and if feasible, added to the sampling list and sampled quarterly for the contamination-indicator, groundwater quality (less phenols), and site specific parameters. New wells drilled to support the assessment of the U-12 Crib will include the above list of constituents and also the Appendix III constituents (quarterly for first year) as required by 40 CFR 265.92(b). Any ion concentrations (See Attached)

13a. Justification (mark one)	Criteria Change <input type="checkbox"/>	Design Improvement <input type="checkbox"/>	Environmental <input checked="" type="checkbox"/>
As-Found <input type="checkbox"/>	Facilitate Const. <input type="checkbox"/>	Const. Error/Omission <input type="checkbox"/>	Design Error/Omission <input type="checkbox"/>

13b. Justification Details  
 The analyte list and groundwater assessment monitoring schedule have been modified to more accurately reflect the intent of the assessment groundwater monitoring program at the 216-U-12 Crib. The changes are needed to remove constituents that are consistently below detection, add constituents to evaluate the natural groundwater chemistry, delete the constituents that exceed the minimum required under 40 CFR 265, or can be adequately detected by screening parameters.

14. Distribution (include name, MSIN, and no. of copies)

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 DATE DEC 19 1994  
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Table 5-1. Water Table Level Measurement Schedule  
for the 216-U-12 Crib

Well	Aquifer	Well Standards	Measurement Frequency
299-W22-40 <sup>90</sup>	Top of unconfined	RCRA	Quarterly
299-W22-41 <sup>90</sup>	Top of unconfined	RCRA	Quarterly
299-W22-42 <sup>90</sup>	Top of unconfined	RCRA	Quarterly
299-W22-43 <sup>90</sup>	Top of unconfined	RCRA	Quarterly
299-W22-23	Top of unconfined		Quarterly
New wells	Top of unconfined	RCRA	Quarterly

299-W22-43 is the upgradient well.

Subscript following well number denotes the year of installation.

RCRA = well is constructed to RCRA specified standards.

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12. Description of Change (Continued)

that are detected during Phase I sampling will be added to the site-specific list of constituents and analyzed for all wells during the remainder of the assessment program."

Change last sentence to read, "Table 5-2 contains the sample schedule and constituent list for the assessment monitoring program."

Pg 9, Section 5.5 SCHEDULE OF IMPLEMENTATION, change to read, "Phase I of the assessment monitoring program will be implemented during the next scheduled monitoring event and will end when the project scientist has enough data to determine if the U-12 Crib has impacted the groundwater or no later than September 1995."

Pg 10, Section 7.0 RECORD KEEPING AND REPORTING REQUIREMENTS, change first and second sentences to read, "Phase I of the groundwater quality assessment program will be compiled during Cy 1993 through early 1995. All groundwater data and water level measurement results will be reported in the quarterly reports (e.g., DOE-RL, 1992c). The status and summary of results will be reported in RCRA annual reports (e.g., DOE-RL, 1993). The final report summarizing the results of Phase I will be included in a report due to Ecology after completion of the Phase I sampling and analysis effort."

Pg 31, Table 5.1, delete and add revised Table 5.1 on page 3.

Pg 32, Table 5-2, delete and add revised Table 5-2 on page 4.

Pg 33, add to 8.0 References, "DOE-RL, 1993, *Annual Report for RCRA Groundwater Monitoring Projects at Hanford Site Facilities for 1993*, DOE/RL-93-88, Revision 0, U.S. Department of Energy, Richland Operations, Richland, Washington

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Table 5.2. Phase I Groundwater *Analysis*  
Analysis Schedule for FY 1995.

Well	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
2-W22-23			Z			Z			Z			Z
2-W22-40 <sup>D</sup>			Z <sup>a</sup>			Z			Z			Z
2-W22-41			Z			Z			Z			Z
2-W22-42			X			X			X			X
2-W22-43			X			X			X			X
New Wells			Y			Y			Y			Y

<sup>a</sup>Cosample with 200 West Area Operational Monitoring Program.

"X" list:

Alkalinity	Gross alpha and beta
Anions	Conductivity (field)*
Conductivity (lab)	ICP metals (filt)
Iodine-129	pH (field)*
pH (lab)	TDS
Technetium-99	TOC*
TOX*	Tritium
Turbidity	

"Y" list:\*\*

Alkalinity	Gross alpha and beta
Anions	Coliform
Conductivity (field)*	Conductivity (lab)
Herbicides and pesticides	Phenols
ICP metals (filt)	Arsenic and selenium (filt)
Lead (filt)	Iodine-129
Mercury (filt)	pH (field)*
pH (lab)	Radium
TDS	Technetium-99
TOC*	TOX*
Tritium	Turbidity

"Z" list:

Gross alpha and beta	Anions
Conductivity (field)*	Conductivity (lab)
ICP metals (filt)	Iodine-129
pH (field)*	Technetium-99
TOC*	TOX*
Tritium	Turbidity

\*Quadruplicate measurements are needed.

\*\*Constituents appeared in "Y" list during 1st year only (4 quarters)

<sup>D</sup> NO QUADRUPPLICATE MEASUREMENTS FOR THIS WELL.

**INFORMATION RELEASE REQUEST  
PUBLIC DOCUMENT CHANGE/REVISION  
(Short Form No. 1)**

1. Base Document ID Number: WHC-SD-EN-AP-108, Rev. 0

2. Base Document Title:

Groundwater Quality Assessment Plan for 216-U-12 Crib Groundwater Monitoring

3. Change/Revision Number: Rev. 0

4. Change/Revision Date: 11/15/94

5. Unclassified Category:\* UC -

6. Budget & Reporting Code:\* B&R -

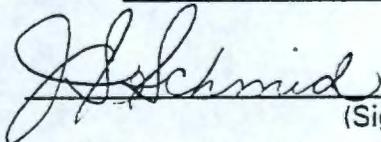
I verify this change/revision to the base document indicated above:

- Complies with the provisions of WHC-CM-3-4
- Contains no Limited-Use information
- Contains no classified or Applied Technology references
- Does not change the intent or meaning of the base document
- And, the base document itself is approved for public release.

7. Responsible Manager: J.S.Schmid

MSIN: H6-06

Telephone Number: 376-0241



(Signature)

12/16/94

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8. Information Release Administration Specialist:\*\*

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\*\*Required only for full revisions.