



Department of Energy

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OCT 08 1998

Mr. James A. Saric, Remedial Project Manager
U.S. Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0009-99

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Mr. Val Orr
Division of Drinking and Ground Waters-UIC Unit
P.O. Box 1049
1800 Watermark Drive
Columbus, Ohio 43216-1049

Dear Mr. Saric, Mr. Schneider, and Mr. Orr:

**ANALYTICAL RESULTS FOR THE JUNE 1998 SAMPLE OF TREATED GROUNDWATER
FOR THE RE-INJECTION DEMONSTRATION PROJECT**

This letter transmits analytical results for the treated groundwater exiting the Advanced Wastewater Treatment (AWWT) Expansion Facility. Treated groundwater from this facility will be re-injected into the Great Miami Aquifer for the Re-Injection Demonstration Project. The Re-Injection Demonstration Project began on September 2, 1998.

As specified in the Re-Injection Demonstration Test Plan, the treated groundwater was analyzed for Final Remediation Level (FRL) constituents which have been detected in the aquifer, in the area of the extraction wells, at concentrations above their established FRL. The analysis of the June 28, 1998, sample indicates that the treated groundwater being slated for re-injection does not contain any FRL constituent concentration exceedances.

The approved Re-Injection Demonstration Test Plan requires that monthly samples of the treated groundwater being used for re-injection be analyzed for agreed to FRL constituents. This June 1998 sample is the second of these monthly analyses. Results from the July and August 1998 samples will be transmitted to you as soon as the data is received from the off-site laboratory.

Mr. James A. Saric
Mr. Tom Schneider
Mr. Val Orr

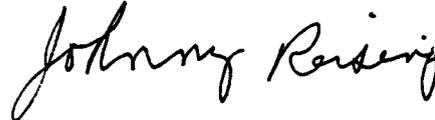
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Should you have any questions regarding this submittal, please contact John Kappa at (513) 648-3149.

Sincerely,



Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:Kappa

Enclosure

cc w/enclosure:

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R. Beaumier, TPSS/DERR, OEPA-Columbus
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F. Bell, ATSDR
M. Schupe, HSI GeoTrans
R. Vandegrift, ODH
F. Barker, Tetra Tech
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R. Heck, FDF/2
S. Hinnefeld, FDF/90
EDC, FDF/52-7

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**Mr. James A. Saric
Mr. Tom Schneider**

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**bcc w/enclosure:
R. J. Janke, OH/FEMP
K. Nickel, OH/FEMP**

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ANALYSIS OF INJECTATE
Sample Collected June 28, 1998

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Constituents ^a	Result ^b	Groundwater FRL ^c	Detection Limit	Constituent Type ^e	Basis for FRL ^f
General Chemistry		mg/L			
Nitrate	0.30	11.0		MP	B
Inorganics		mg/L			
Antimony	U	0.006	0.00075	N	A
Arsenic	U	0.05	0.00082	N	A
Barium	0.0513	2.0		N	A
Beryllium	U	0.004	0.00005	N	A
Cadmium	U	0.014	0.00012	N	B
Total Chromium	0.00035	0.022 ^d		MP	R
Cobalt	U	0.17	0.00038	N	R
Lead	U	0.015	0.00062	N	A
Manganese	U	0.9	0.00005	N	B
Mercury	U	0.002	0.0001	MP	A
Nickel	0.00091	0.1		N	A
Selenium	0.0018	0.05		N	A
Silver	U	0.05	.00028	N	A
Vanadium	U	0.038	.00032	N	R
Zinc	0.00098	0.021		N	B
Radionuclides		pCi/L			
Neptunium-237	0.028	1.0		MP	R*
Radium-226	1.71	20.0		N	A
Strontium-90	0.751	8.0		MP	A
Thorium-228	0.257	4.0		N	R*
Thorium-232	U	1.2	0.11	N	R*
Total Uranium		µg/L			
Total Uranium	U	20.0	0.016	MP	A
Organics		µg/L			
Bis(2-ethylhexyl)phthalate	U	6.0	5	N	A
Carbon disulfide	U	5.5	1	N	A
1,1-Dichloroethene	U	7.0	1	N	A
1,2-Dichloroethane	1	5.0		MP	A
Trichloroethene	0.4 J	5.0		N	A

^aConstituents taken from Table 2-1 of Re-injection Demonstration Test Plan. Constituents are those previously detected in aquifer zones 2 and 4 at concentrations above their FRL.

^bIf a duplicate sample was analyzed the highest concentration between the regular sample and duplicate sample is reported.

J = Lab qualifier, means data is estimated.

U = Undetect

^cFrom Table 9-4 in OU5 ROD.

^dFRL is for hexavalent chromium.

^eConstituent types from Appendix A of IEMP. MP indicates that the constituent has been identified as being able to migrate to the aquifer. N indicates that the constituent has been identified as not being able to migrate to the aquifer.

^fA - Applicable or relevant and appropriate requirement based (MCL, PMCL, etc.).

B - Based on 95th percentile background concentrations.

R - Risk Based

R* - Risk Based radionuclide cleanup levels include constituent specific 95th percentile background concentration.

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