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NAS CECIL FIELD, FL
5090.3a

TECHNICAL MEMORANDUM REGARDING UPDATE ON CONDITIONS AT OPERABLE UNIT 8 (OU 8) WITH ATTACHMENTS NAS CECIL FIELD FL
6/14/1996
ABB ENVIRONMENTAL SERVICES INC

NAS Cecil Field Administrative Record
Document Index Number

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Update on Conditions at OU 8
NAS Cecil Field
June 14, 1996

Site 3 Groundwater Sampling. At the request of the BCT a groundwater sample was collected from monitoring well CEF-3-31S on May 30, 1996 and sent to the laboratory for TCL VOC analysis. The sample was collected to see if the groundwater quality has changed at this location since the well was initially sampled in March 1994. The results of the resampling are as follows.

Compound	March 1994	May 1996	Surface Water Standard
1,1 DCE	28	35	3.2
1,1 DCA	9	10	NA
1,2 DCE	9	17	NA
TCE	48	62	80.7

Note: Concentrations in ug/l

Absence of Vinyl Chloride in Groundwater. Maureen Dooley of ABB-ES was contacted to discuss why vinyl chloride has not been detected in groundwater if there is biodegradation taking place. The presence of methane in groundwater at Site 3 indicates that biodegradation is occurring. Maureen indicted that there are two possibilities why vinyl chloride is not being detected. They include:

1. Vinyl chloride is being produced but it is degrading very rapidly under aerobic conditions as you move away from the carbon source. Dissolved oxygen entering the aquifer through recharge may create aerobic conditions where vinyl chloride would rapidly degrade.

2. Vinyl chloride is not being produced. The degradation is stopping at DCE because the bacteria run out of something (carbon source) and the DCE degrades aerobically.

Further sampling and analysis of biodegradation parameters would be necessary to assess the absence of vinyl chloride at Site 3.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF3MW31S

Lab Name: QUANTERRA Contract:

Lab Code: QES Case No.: SAS No.: SDG No.: WA078

Matrix: (soil/water) WATER Lab Sample ID: C48FA101

Sample wt/vol: 10 (g/ML) ML Lab File ID: V0801739

Level: (low/med) LOW Date Received: 05/31/96

% Moisture: not dec. _____ Date Analyzed: 06/10/96

GC Column: RTX502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	25	U
75-15-0	Carbon Disulfide	2	U
75-35-4	1,1-Dichloroethene	35	
75-34-3	1,1-Dichloroethane	10	
540-59-0	1,2-Dichloroethene (total)	17	
67-66-3	Chloroform	2	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	25	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon Tetrachloride	2	U
75-27-4	Bromodichloromethane	2	U
78-87-5	1,2-Dichloropropane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
79-01-6	Trichloroethene	62	
124-48-1	Dibromochloromethane	2	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	2	U
10061-02-6	trans-1,3-Dichloropropene	2	U
75-25-2	Bromoform	2	U
108-10-1	4-Methyl-2-pentanone	25	U
591-78-6	2-Hexanone	25	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
100-42-5	Styrene	2	U
1330-20-7	Xylenes (total)	2	U

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CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8	Dichlorodifluoromethane	2	U
75-69-4	Trichlorofluoromethane	2	U
107-02-8	Acrolein	25	U
107-13-1	Acrylonitrile	25	U
108-05-4	Vinyl acetate	25	U
110-75-8	2-Chloroethyl vinyl ether	25	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
95-50-1	1,2-Dichlorobenzene	2	U