

06/03/2003 02:57 AM

To: [Redacted]  
cc: [Redacted]  
Subject: Sampling Results Summary PFOA

FYI.

[Redacted]

Forwarded by [Redacted] EUR/DuPont on 06/03/2003 08:55

06/02/2003 16:40

To: [Redacted]  
cc: [Redacted]  
Subject: Sampling Results Summary

[Redacted]

You will find attached a file summarizing the March sampling event. We would like to schedule a conference call with you at everyone's convenience to specifically discuss any questions you may have, etc.

[Redacted] Administrative Assistant, [Redacted] will help schedule this call.



DORDRECHTSUM

Please give me a call on [Redacted] if you have any immediate questions concerning this work.

[Redacted]



*The miracles of science*

# Dordrecht Works C-8 Sampling Summary

Groundwater Sampling Results  
March 2003

EID735041

# Scope of Work Summary

- 24 samples were collected on March 10-12, 2003, including:
  - 18 site monitoring wells (most previously sampled in mid 1990's). Three water bearing zones: freatic, first, and second aquifers.
  - 1 site tapwater (local “city” water)
  - 1 from “Spaarbeek” reservoir
  - 2 from groundwater treatment system (combined influent and effluent)
  - 2 from site wastewater treatment plant (sweetwater and saltwater)

## Analytical Results (in ug/L)

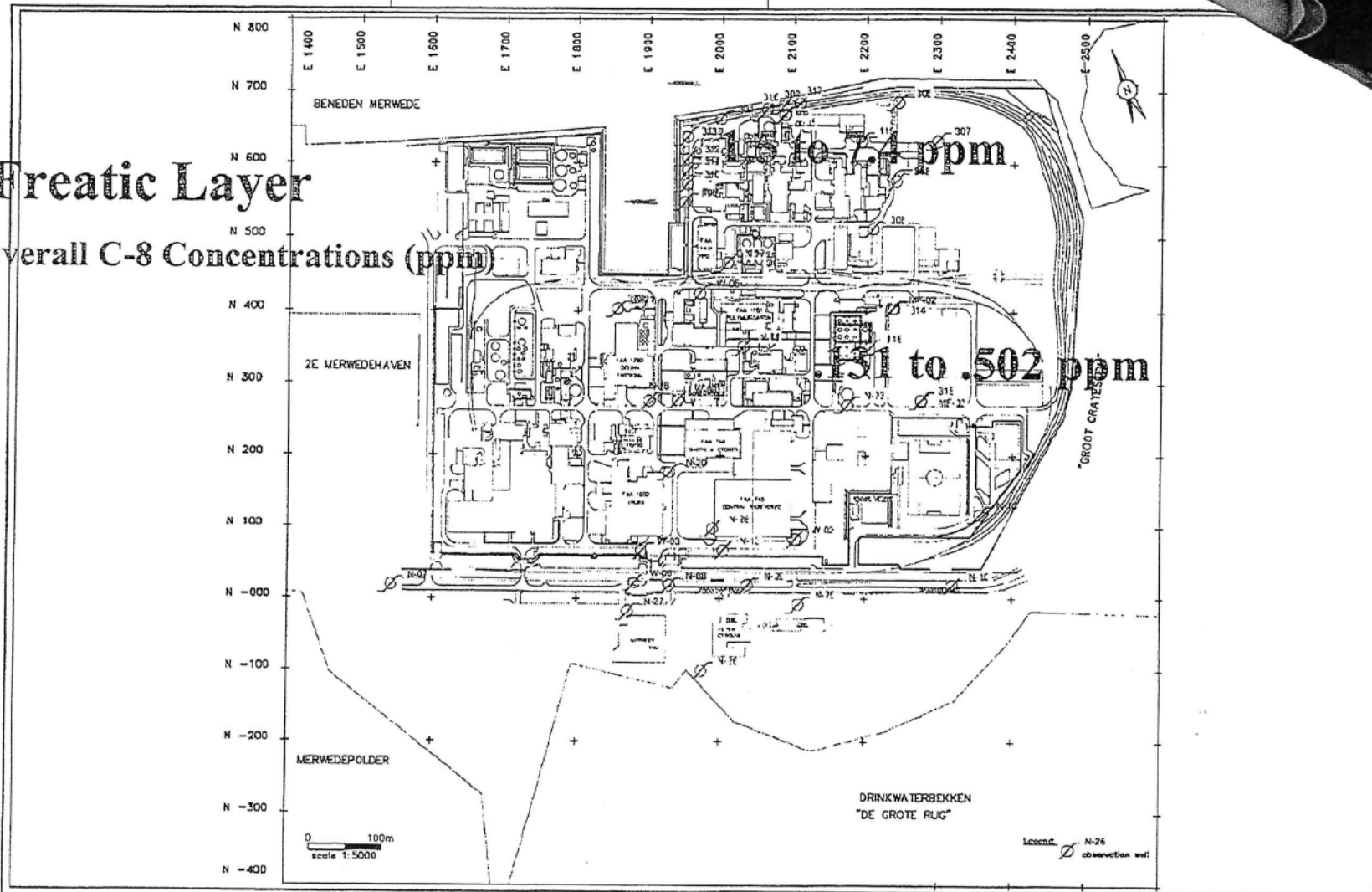
Sample ID	Date	C-8 (ug/L)
MW-315	3/10/2003	71.3
MW-N10-2	3/10/2003	15
MW-N23-1	3/10/2003	5.5
MW-N28-1	3/10/2003	14.4
GW Treatment 103	3/11/2003	9.18
Waste Treatment 82	3/11/2003	3,890
GW Treatment 401	3/11/2003	7.91
Waste Treatment 80	3/11/2003	4,850
Spaarbeek	3/11/2003	0.439
Tap Water	3/11/2003	0.0736
MW-119	3/11/2003	158
MW-303	3/11/2003	7,430
MW-05A	3/11/2003	6.1
MW-N26-1	3/11/2003	16.1
MW-N25-1	3/11/2003	3.99
MW-308	3/11/2003	131
MW-W02-A	3/11/2003	14.7
MW-314	3/11/2003	50.2
MW-118	3/11/2003	34.9
MW-N17-1	3/11/2003	0.139
MW-N19-1	3/12/2003	0.762
MW-311	3/12/2003	354
MW-316	3/12/2003	1530
MW-317	3/12/2003	2890

EID735043



# Freatic Layer

Overall C-8 Concentrations (ppm)

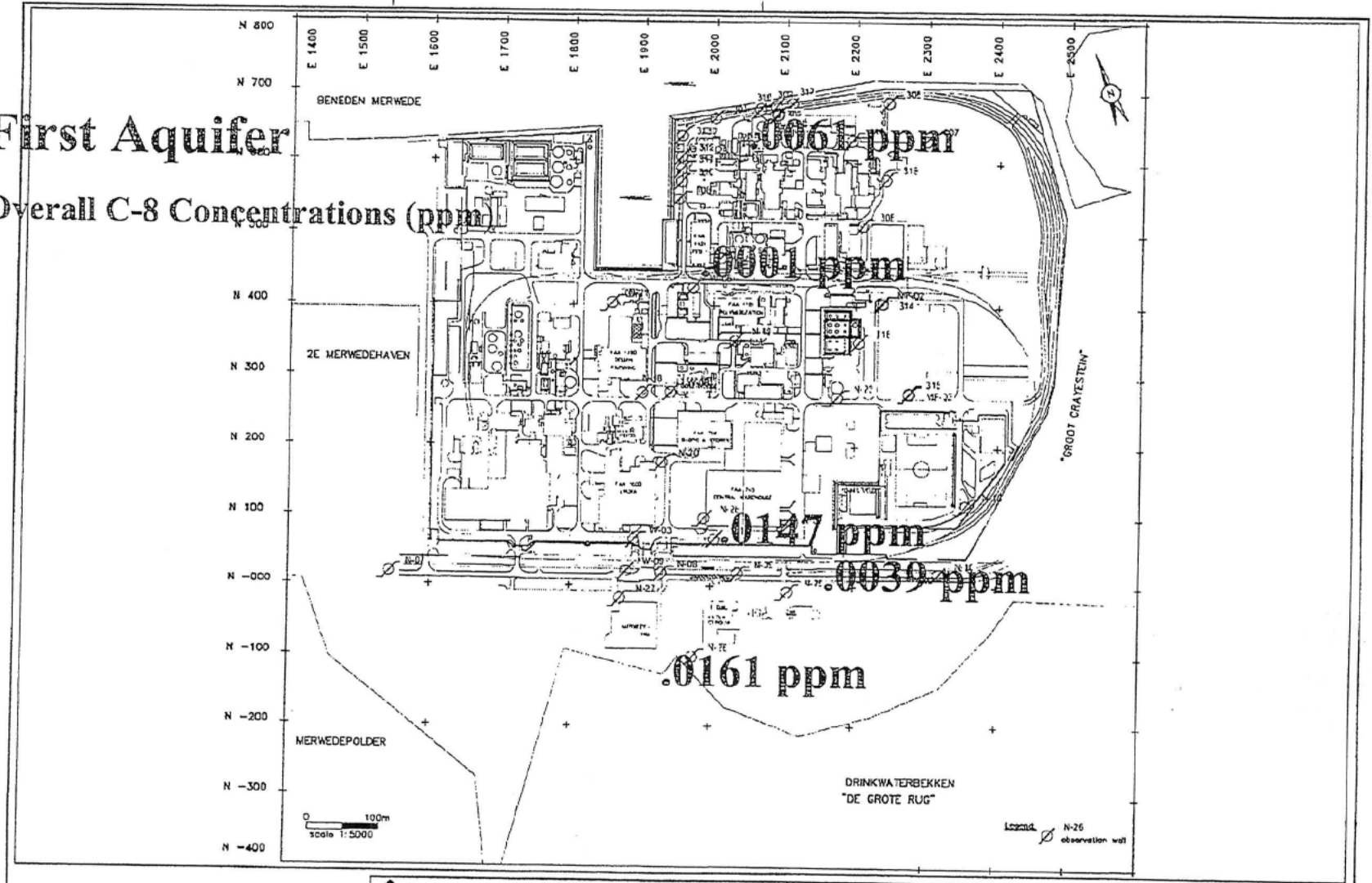


P.O. Box 85, 7500 AB Delft The Netherlands Telephone 31-(0)15-2613000 Telefax 31-(0)15-2610821 Homepage: www.geodelft.nl	Date 2002-12-20	Dr. Ros. Ch. Mth. Ann. A3	Filename: b_1_001 Department: 700 Revision: 2002-12-20	
			DUPONT DE NEMOURS (NEDERLAND) B.V. MONITORING CB (AFPO)	BO- 403970
			OBSERVATION WELLS	ANNEX.

EID735044

# First Aquifer

## Overall C-8 Concentrations (ppm)

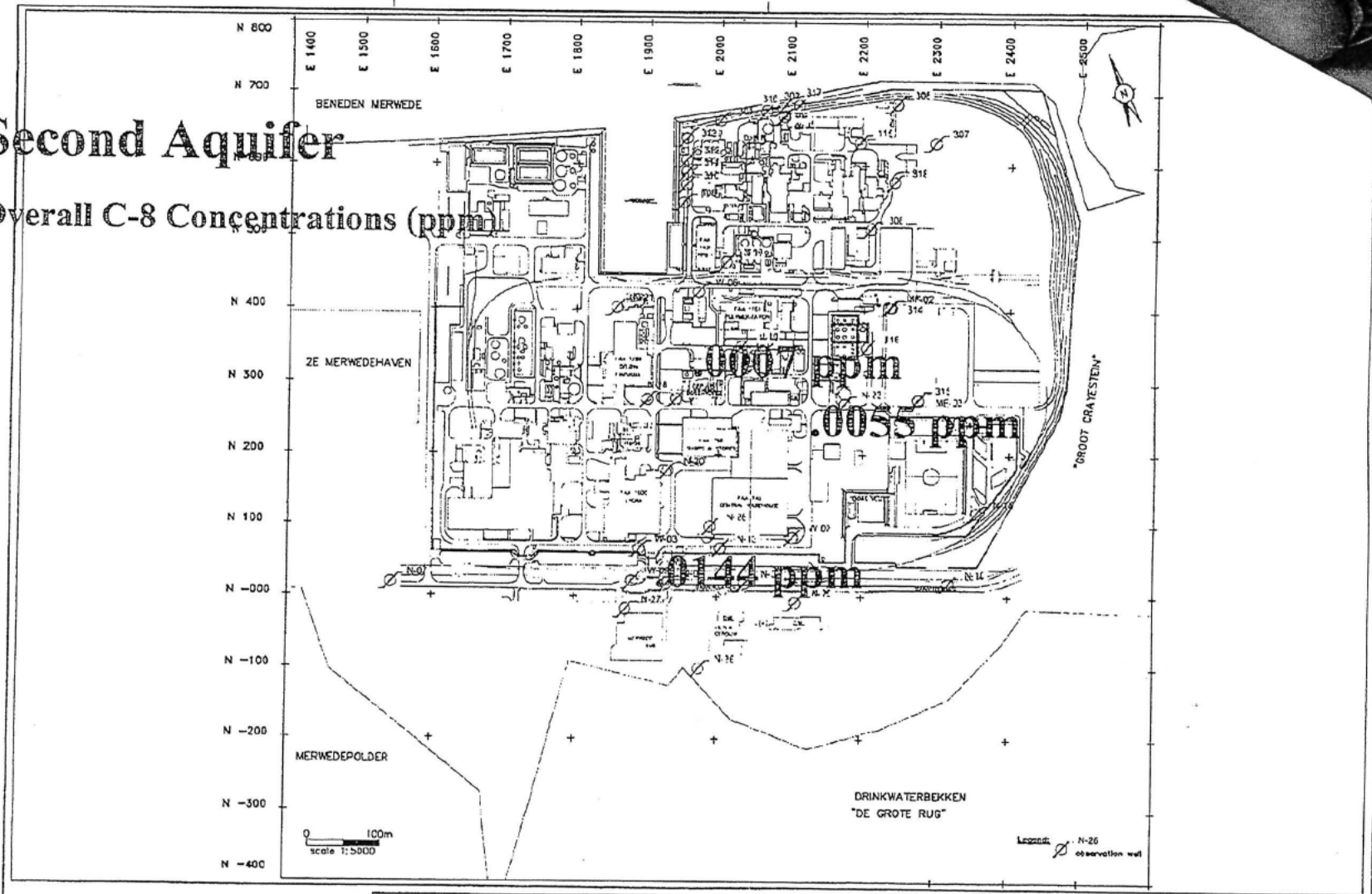


P.O. Box 58, 2000 AB Dordrecht The Netherlands Telephone 31-(0)10-2693300 Telefax 31-(0)10-2610521 Homepage www.geodelft.nl	014	dr.	Planenaam: b...f...001
	2002-12-20	Res.	Departement: 700
	B0- 403970	cv.	Revisie: 2002-12-20
OBSERVATION WELLS	ANNEX.	form.	A3

EID735045

# Second Aquifer

## Overall C-8 Concentrations (ppm)



P.O. Box 89, 2000 AB Delft The Netherlands Telephone 31-(0)15-2620000 Telefax 31-(0)15-2610321 Homepage: www.geodelft.nl	Date	2002-12-20	dr.	Filename: b_f_001
	DUPONT DE NEMOURS (NEDERLAND) B.V. MONITORING CB (AFPO)	BO- 403970	Res.	Department: JDC
	OBSERVATION WELLS	ANNEX.	Rev.	Revision: 2002-12-20

EID735046

## Results Discussion

- Elevated levels found in Waste Treatment 82-Sweetwater (3890 ug/L) and Waste Treatment 80-Saltwater (4850 ug/L).
  - Based on flow of approximately 500,000 gal./day, this represents discharge of approximately 7,300 lbs/year.
- Highest groundwater measurement 7430 ug/L in MW-303, a well completed in shallowest water bearing zone, “freatic layer” (“Ophooglaag”). Slightly higher than Aug. 1995 measurement of 1700 ug/L. Other shallow wells near this site location MW-316 (1530 ug/L) and MW-317 (2890 ug/L).
- Range for shallow water bearing zone is 34.9 ug/L (central site) to 7430 ug/L, north site, near river.



## Results Discussion

- Concentrations in first aquifer “Eerste” range from .139 to 16.1 ug/L.
- Concentrations in second aquifer “Tweede” range from .762 to 14.4 ug/L.
- Overall, 2003 measured concentrations are higher than mid 90’s sampling events.
- Spaarbekk Reservoir .439 ug/L. Water used by site for non-contact cooling. Also used for water sports/recreation.
- Groundwater treatment system influent, GW Treatment 103 was 9.18 ug/L and effluent, GW Treatment 401, was 7.91 ug/L.
- Site “Tap Water” was .0736 ug/L. Source is “city water”.

# Site Conceptual Model Summary

Areas of impact and groundwater flow directions

EID735049



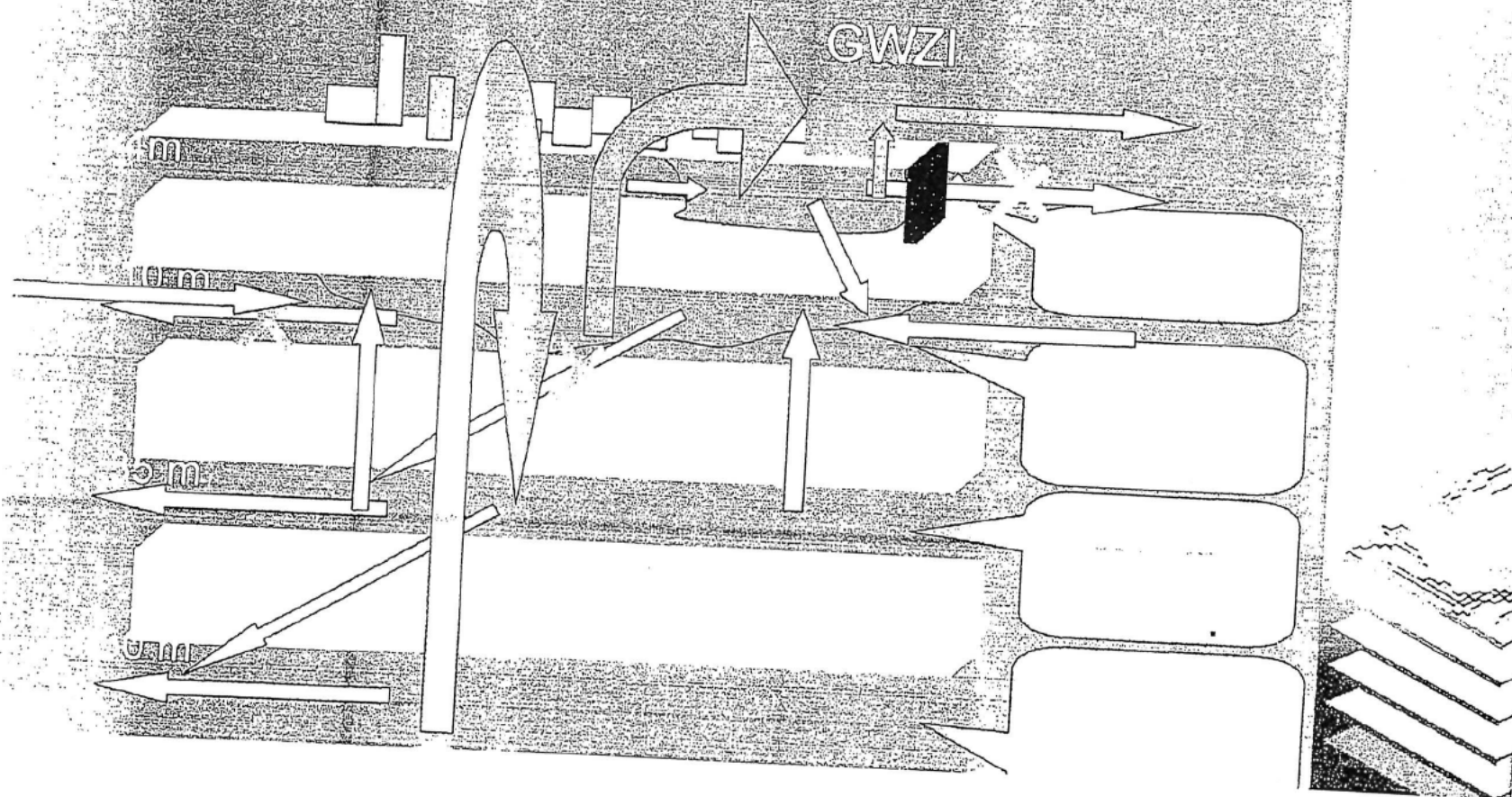
## Site Conceptual Model

- Primary source area (I.e., C8 and chlorocarbons) is freatic (shallow) aquifer underlying FP process area. This area of impact is contained by a sheet-pile cut-off wall and a Groundwater Pump & Treat system. Treatment is air stripper (no affect on C-8).
- First aquifer is also pumped to maintain inward groundwater flow gradient.
- Second aquifer receives “Pumped Infiltration” to establish higher pressures (upward gradient) and prevent first aquifer from flowing vertically downward to second.
- Second aquifer likely flows laterally offsite. Overall in this aquifer, C8 concentrations have gone from ND in mid 1990’s to 14.4 ug/L in March 2003.



03/10/2003

# Principe van het GBS



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