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SNOHOMISH HEALTH DISTRICT

Serving the Public Health of Snohomish County and its Incorporated Cities and Towns.

M. WARD HINDS, M.D., M.P.H.
Health Officer

Vital Statistics	(206) 339-5280	Administration Office	(206) 339-5210
Clinic Services	(206) 339-5220	Community Health Division	(206) 339-5230
Sanitation Program	(206) 339-5270	Environmental Health Division	(206) 339-5250

June 13, 1990

Robert and Virginia Bertilson
14301 8th Avenue Northeast
Marysville, Washington 98270

Subject: Airway Mobile Home Park Well

Dear Mr. and Ms. Bertilson:

Enclosed is a copy of the pentachlorophenol (penta) analysis report for the above referenced water supply, as well as a site map detailing the location of the monitoring wells surrounding the J. H. Baxter South Woodwaste Landfill.

As can be seen from the report, no pentachlorophenol was found in the well water sample collected by our office. However, I was told by the laboratory representative who conducted the analysis that other hydrocarbons were noted in the sample. These compounds were not identified.

I have discussed this matter with Steve Hulsman of the Washington State Department of Health (DOH). He believes that, in all likelihood, the organics noted in the sample are either a result of natural humus material present in the aquifer, or bacterial growth in the well water. Mr. Hulsman further informed me that he collected a water sample from the well approximately one year ago, and had a rigorous analysis conducted. Nothing of public health significance was noted in the water at that time.

Although this theory and the previous sampling results bode well for your water supply, I recommend that, as part of the monitoring program requested by the DOH, you have the water tested for both volatile organic carbon (per method 524.2) and base-neutral acids (per method 625). The results of these analyses will reportedly allow the DOH to determine

whether the unidentified compounds noted in the penta analysis are natural constituents of the ground water, or are the result of industrial contamination.

Regardless of the results of additional water quality analyses, I once again strongly advise you to connect the remainder of your mobile home park to the City of Arlington water system. You may want to contact Mike Spies of the J. H. Baxter Company to discuss your concerns related to the financial aspects of this matter.

In reference to the enclosed map, I understand that the monitoring well designated as BXS-1 is the well in which pentachlorophenol was found at a concentration of approximately 150 ppb. Apparently there was no pentachlorophenol detected in any of the other monitoring wells tested.

Please feel free to call me at 339-5250 if you should have any questions.

Sincerely,

Jeffrey R. Defenbach, Supervisor
Environmental Health Division

JRD:sei

cc: Steve Hulsman, DOH
Bud Musgrove, Ecology
Mike Spies, J. H. Baxter Company
Brent Raasina, Sanitation

Enclosures

AMTEST

AmTest Inc.
Professional Analytical Services
14603 N.E. 87th St.
Redmond, WA 98052
Fax: 206 883 3496
Tel: 206 885 1664

ANALYSIS REPORT

CLIENT: Snohomish County Health Department

DATE RECEIVED: 5/7/90

REPORT TO: Jeff Defenbach
Snohomish County Courthouse
Everett, WA 98201

DATE REPORTED: 5/24/90

Laboratory Sample No.	009912	Detection Limit (ug/l)
Client Identification	5/4 2:15 pm	
Pentachlorophenol	ND	0.59

ND = Not Detected

REPORTED BY Mark A. Fugied

MAF/ccy

summary

Results of JHBaxter Dioxin/Furan Study (April 2,1998 report)

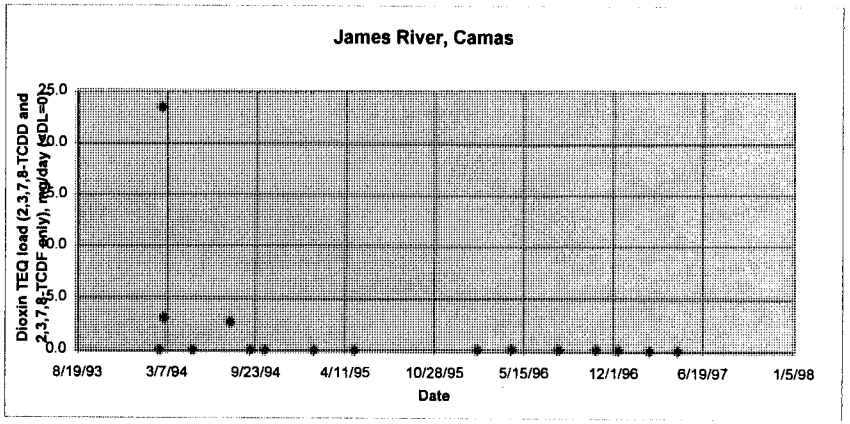
Site	Date	Dioxin TEQ (ppq)	PCP (ppb)	ratio (TEQ/PCP)	TSS
Drain 13/14	9/18/97	6,635	74	9.0E-05	1020
Duplicate	9/18/97	6,681	88	7.6E-05	890
Drain 13/14	1/8/98	13,568	130	1.0E-04	676
Duplicate	1/8/98	8,777	140	6.3E-05	412
Drain 23	9/18/97	25.6	720	3.6E-08	113
Drain 23	1/8/98	2,905	250	1.2E-05	98
Drain 24	9/18/97	33.6	780	4.3E-08	260
Drain 24	1/8/98	6,799	550	1.2E-05	282
Drain 25	9/18/97	4,282	340	1.3E-05	260
Drain 25	1/8/98	3,887	180	2.2E-05	62

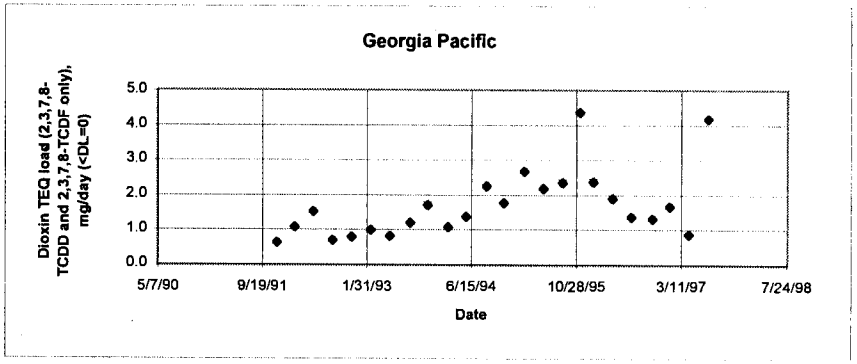
Site	Date	Dioxin TEQ (ppt)	PCP (ppm)	ratio
Treating soln.	9/18/97	55,293.06	<47,000	1.2E-06
Treating soln.	1/8/98	192,661.6	<18,000	4.1E-06

RECEIVED
APR 29 1998
DEPT. OF ECOLOGY

Dioxin Loads from Pulp and Paper Mills (2,3,7,8-TCDD and 2,3,7,8-TCDF only)

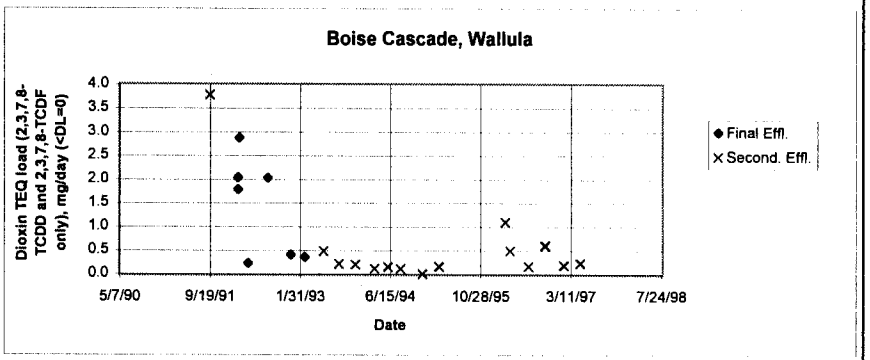
Date	2,3,7,8-TCDD TEF = 1 Value (ppq)	TEQ (ppq) <DL = 0	TEQ (ppq) <DL = DL	2,3,7,8-TCDF TEF = 0.1 Value (ppq)	TEQ (ppq) <DL = 0	TEQ (ppq) <DL = DL	Flow (MGD)	TEQ Load (mg/day) <DL= 0	TEQ Load (mg/day) <DL= 1/2 DL	TEQ Load (mg/day) <DL= DL	% of total TEQ Load during Class II inspection (<DL=0)	Comment
James River, Camas - "ASB Effluent"												
Duplicate:												
2/23/94	**92.0**	92	92	**240**	24	24	54.0	23.71	23.71	23.71		
2/23/94	**84.0**	84	84	**300**	30	30	54.0	23.30	23.30	23.30		
Ave. of dup:	**88.0**	88	88	**270**	27	27	54.0	23.50	23.50	23.50		
2/18/94	3.3 U	0	3.3	3.3 U	0	0.33	54.0	0.00	0.37	0.74		
2/23/94	**88**	88	88	**270**	27	27	54.0	23.50	23.50	23.50		
2/28/94	**12.0**	12	12	**31**	3.1	3.1	54.0	3.09	3.09	3.09		
5/4/94	4.1 U	0	4.1	4.1 U	0	0.41	51.7	0.00	0.44	0.88		
7/27/94	**11.0**	11	11	**10**	1	1	59.0	2.68	2.68	2.68		
9/9/94	5.5 U	0	5.5	5.5 U	0	0.55	58.2	0.00	0.67	1.33		
10/12/94	2.8 U	0	2.8	2.8 U	0	0.28	59.8	0.00	0.35	0.70		
1/30/95	2.7 U	0	2.7	2.7 U	0	0.27	59.0	0.00	0.33	0.66		
5/1/95	1.5 U	0	1.5	1.5 U	0	0.15	59.8	0.00	0.19	0.37		
1/31/96	3.8 U	0	3.8	**3.8**	0.38	0.38	53.1	0.08	0.46	0.84		
4/17/96	4.3 U	0	4.3	**4.3**	0.43	0.43	52.4	0.09	0.51	0.94		
7/31/96	3.2 U	0	3.2	**3.2**	0.32	0.32	56.3	0.07	0.41	0.75		
10/23/96	4.6 U	0	4.6	**4.6**	0.46	0.46	55.4	0.10	0.58	1.06		
12/11/96	2.8 U	0	2.8	**2.8**	0.28	0.28	58.0	0.06	0.37	0.68		
2/19/97	2.7 U	0	2.7	2.9 U	0	0.29	47.4	0.00	0.27	0.54		
4/23/97	1.8 U	0	1.8	**2.5** U	0	0.25	45.6	0.00	0.18	0.35		
Low >= 87								0.00	0.18	0.35		
Average >= 87								1.85	2.15	2.44		
High >= 87								23.50	23.50	23.50		
Count								16				
Georgia Pacific - "Effluent"												
11/25/91	10 U	0	10	**50**	5	5	32.6	0.6	1.2	1.9	0 % of 0.00 mg/day	Det. limit was 23.2 pg/L for 2,3,7,8-TCDF for Class II inspection (4/14-15/93)
2/19/92	10 U	0	10	**90**	9	9	31.3	1.1	1.7	2.3		
5/20/92	20 U	0	20	**110**	11	11	36.2	1.5	2.9	4.2		
8/19/92	10 U	0	10	**50**	5	5	35	0.7	1.3	2.0		
11/18/92	10 U	0	10	**60**	6	6	34.4	0.8	1.4	2.1		
2/17/93	10 U	0	10	**80**	8	8	32.6	1.0	1.6	2.2		
5/19/93	10 U	0	10	**60**	6	6	35.5	0.8	1.5	2.1		
8/25/93	10 U	0	10	**80**	8	8	39.3	1.2	1.9	2.7		
11/18/93	10 U	0	10	**150**	15	15	30.1	1.7	2.3	2.8		
2/23/94	10 U	0	10	**80**	8	8	35.3	1.1	1.7	2.4		
5/19/94	10 U	0	10	**90**	9	9	40.1	1.4	2.1	2.9		
8/25/94	10 U	0	10	**180**	18	18	32.9	2.2	2.9	3.5		
11/16/94	10 U	0	10	**110**	11	11	42.3	1.8	2.6	3.4		
2/22/95	10 U	0	10	**260**	26	26	27.1	2.7	3.2	3.7		
5/24/95	10 U	0	10	**180**	18	18	31.9	2.2	2.8	3.4		
8/23/95	10 U	0	10	**160**	16	16	38.8	2.3	3.1	3.8		
11/15/95	10 U	0	10	**280**	28	28	41.2	4.4	5.1	5.9		





Dioxin Loads from Pulp and Paper Mills (2,3,7,8-TCDD and 2,3,7,8-TCDF only)

Date	2,3,7,8-TCDD TEF = 1 Value (ppq)	TEQ (ppq) <DL = 0	TEQ (ppq) <DL = DL	2,3,7,8-TCDF TEF = 0.1 Value (ppq)	TEQ (ppq) <DL = 0	TEQ (ppq) <DL = DL	Flow (MGD)	TEQ Load (mg/day) <DL= 0	TEQ Load (mg/day) <DL= 1/2 DL	TEQ Load (mg/day) <DL= DL	% of total TEQ Load during Class II inspection (<DL=0)	Comment
1/17/96	10 U	0	10	**150**	15	15	41.7	2.4	3.2	3.9		
4/17/96	**10**	10	10	**70**	7	7	29.5	1.9	1.9	1.9		
7/17/96	10 U	0	10	**110**	11	11	33	1.4	2.0	2.6		
10/23/96	10 U	0	10	**90**	9	9	38.3	1.3	2.0	2.8		
1/15/97	10 U	0	10	**130**	13	13	33.8	1.7	2.3	2.9		
4/16/97	10 U	0	10	**60**	6	6	37.6	0.9	1.6	2.3		
7/16/97	10 U	0	10	**280**	28	28	39.4	4.2	4.9	5.7		
Low >= 87								0.62	1.23	1.85		
Average >= 87								1.71	2.38	3.06		
High >= 87								4.37	5.15	4.25		
Count								24				
Boise Cascade, Wallula - Final Mill Effluent												
2/20/92	**13**	13	13	**46**	4.6	4.6	26.8	1.79	1.79	1.79	0% of 0.32 mg/day	Det. limit was 24.3 pg/L for 2,3,7,8-TCDF for Class II inspection (4/7-8/92)
2/20/92	**15**	15	15	**51**	5.1	5.1	26.8	2.04	2.04	2.04		
2/27/92	**20**	20	20	**72**	7.2	7.2	27.93	2.88	2.88	2.88		
4/15/92	4.1 U	0	4.1	**20**	2	2	29.11	0.22	0.45	0.67		
8/4/92	**13**	13	13	**55**	5.5	5.5	29.08	2.04	2.04	2.04		
12/9/92	10 U	0	10	**40**	4	4	26.62	0.40	0.91	1.41		
2/24/93	3.9 U	0	3.9	**38**	3.8	3.8	24.9	0.36	0.54	0.73		
Boise Cascade, Wallula - Secondary and Final Effluent												
note: secondary effluent is major portion of final effluent (75-80%)												
9/16/91	**40**	40	40	**140**	14	14	18.5	3.78	3.78	3.78		
6/10/93	6.9 U	0	6.9	**78**	7.8	7.8	16.5	0.49	0.70	0.92		
9/2/93	3.6 U	0	3.6	**33**	3.3	3.3	17.1	0.21	0.33	0.45		
12/2/93	10 U	0	10	**33**	3.3	3.3	16.4	0.20	0.52	0.83		
3/19/94	2.4 U	0	2.4	**15**	1.5	1.5	20	0.11	0.20	0.30		
6/1/94	7.6 U	0	7.6	**18**	1.8	1.8	22.5	0.15	0.48	0.80		
8/11/94	3.4 U	0	3.4	**15**	1.5	1.5	19	0.11	0.23	0.35		
12/8/94	3.8 U	0	3.8	10 U	0	1	19.7	0.00	0.18	0.36		
3/12/95	10 U	0	10	**23**	2.3	2.3	18	0.16	0.50	0.84		
6/8/95	4.5 U	0	4.5	**14**	1.4	1.4	28.95	0.15	0.40	0.65		
9/10/95	3.1 U	0	3.1	**55**	5.5	5.5	18.3	0.38	0.49	0.60		
3/13/96	**5.6**	5.6	5.6	**53**	5.3	5.3	26.7	1.10	1.10	1.10		
11/18/95	**10**	10	10	**74**	7.4	7.4	18.2	1.20	1.20	1.20		
4/6/96	7.1 U	0	7.1	**72**	7.2	7.2	18.1	0.49	0.74	0.98		
7/20/96	1.2 U	0	1.2	**18**	1.8	1.8	22.9	0.16	0.21	0.26		
10/19/96	**2.9**	2.9	2.9	**29**	2.9	2.9	27.6	0.61	0.61	0.61		
1/31/97	5.0 U	0	5	**28**	2.8	2.8	17.7	0.19	0.36	0.52		
5/2/97	2.9 U	0	2.9	**28**	2.8	2.8	21.4	0.23	0.34	0.46		
Low >= 87								0.00	0.18	0.26		
Average >= 87								0.78	0.92	1.06		
High >= 87								3.78	3.78	3.78		
Count								25				



Dioxin Loads from Pulp and Paper Mills (2,3,7,8-TCDD and 2,3,7,8-TCDF only)

Date	2,3,7,8-TCDD TEF = 1 Value (ppq)	TEQ (ppq) <DL = 0	TEQ (ppq) <DL = DL	2,3,7,8-TCDF TEF = 0.1 Value (ppq)	TEQ (ppq) <DL = 0	TEQ (ppq) <DL = DL	Flow (MGD)	TEQ Load (mg/day) <DL= 0	TEQ Load (mg/day) <DL= 1/2 DL	TEQ Load (mg/day) <DL= DL	% of total TEQ Load during Class II inspection (<DL=0)	Comment
Longview Fibre, Longview - "Final Mill Effluent"												
7/26/91	**8.5**	8.5	8.5	**40**	4	4	60	2.84	2.84	2.84	0 % of 0.02 mg/day	Estimated flow based on average flow for AOX data
7/26/91	**12**	12	12	**38**	3.8	3.8	60	3.59	3.59	3.59		Estimated flow based on average flow for AOX data
10/14/91	**8.2**	8.2	8.2	**22**	2.2	2.2	62.4	2.46	2.46	2.46		
2/17/92	10 U	0	10	**13**	1.3	1.3	61.2	0.30	1.46	2.62		
5/13/92	4.6 U	0	4.6	**39**	3.9	3.9	60.4	0.89	1.42	1.94		
8/14/92	3 U	0	3	**8.8**	0.88	0.88	77.2	0.26	0.70	1.13		
12/16/92	3.2 U	0	3.2	5 U	0	0.5	57.6	0.00	0.40	0.81		
3/26/93	2.3 U	0	2.3	**5.6**	0.56	0.56	66.4	0.14	0.43	0.72		
7/27/93	1.5 U	0	1.5	1.6 U	0	0.16	62.5	0.00	0.20	0.39		
11/16/93	3.2 U	0	3.2	2.4 U	0	0.24	64.5	0.00	0.42	0.84		
12/19/94	4.5 U	0	4.5	5.6 U	0	0.56	54.5	0.00	0.52	1.04		
11/21/94	1.7 U	0	1.7	2.8 U	0	0.28	58.6	0.00	0.22	0.44		
2/27/95	2.9 U	0	2.9	**6.5**	0.65	0.65	55.2	0.14	0.44	0.74		
5/3/95	1.8 U	0	1.8	1.9 U	0	0.19	55.5	0.00	0.21	0.42		
8/16/95	4.5 U	0	4.5	3.6 U	0	0.36						
11/9/95	2.0 U	0	2	1.9 U	0	0.19						
5/30/96	2.5 U	0	2.5	2.7 U	0	0.27						
9/11/96	2.3 U	0	2.3	1.9 U	0	0.19						
11/12/96	1.7 U	0	1.7	1.4 U	0	0.14						
1/22/97	2.3 U	0	2.3	2.2 U	0	0.22