Publication No. 84-e16

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

7272 Cleanwater Lane, LU-11 • Olympia, Washington 98504 • (206) 753-2353

MEMORANDUM
July 23, 1984

To: Greg Cloud

From: Art Johnson AJ

Subject: Organics Analysis of B & L Leachate

Attached are the results of analysis for EPA organic priority pollutants/ hazardous substances in a sample of B & L leachate collected by Dale Norton on February 14, 1984. A flow of 0.032 cfs was measured at the time of collection. These data are summarized below, along with calculated loads to Hylebos Creek and notes on available water quality criteria or other toxicity data.

Compound	Concentration (ug/L)	Load (grams/day)	EPA Criteria (ug/L)[1]	NIOSH Data[2]
4-methylphenol	6,400	500	None	Oral rat LD_{50}: 242 mg/Kg
benzoic acid	600	47	None	Oral rat LD_{50}: 2530 mg/Kg
phenol	400	31	10,200 acute toxicity f.w. life 300 human organoleptic	Aq. Tox. Rating: TLm96: 100-10 ppm.
acetone	370	29	None	Aq. Tox. Rating: TLm96: over 1000 ppm
toluene	38	3.0	17,500 acute toxicity f.w. life 14,300 human health	Aq. Tox. Rating: TLm96: 100-10 ppm
2-methylphenol	28	2.2	None	Oral rat LD_{50}: 121 mg/Kg
2-hexanone	8.4m	≤ 0.7	None	None
4-methyl-2-pentanone	5.7m	≤ 0.4	None	Aq. Tox. Rating: TLm96: over 1000 ppm
ethylbenzene	1.7m	≤ 0.1	32,000 acute toxicity f.w. life 1,400 human health	Aq. Tox. Rating: TLm96: 100-10 ppm

[1] Fed. Reg., Vol. 45 no. 231, November 1980.
[2] Registry of Toxic Effects of Chemical Substances. 1982. Nat. Inst. Occup. Safety & Health.
m = detected, but concentration below quantification limit shown.

AJ:cp

Attachment

cc: Frank Monahan
Jim Krull
Bill Yake

.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
.O. BOX 818, Alexandria, Virginia 22313 - 703/557-2490

ATA PREP/RELEASE BY: CC / [illegible]

SAMPLE NO: J 3433 B&L leachate February 14, 1984

ORGANICS ANALYSIS DATA SHEET

ABORATORY: California Analytical Labs, Inc.
AB SAMPLE NO: S4052

CASE NO: 2354/730J
QC REPORT NO: RED 730J-4
CONTRACT NO: 68-01-6763

DATE SAMPLE REC'D: 2/16/84
SAMPLE MATRIX: WATER
PERCENT MOISTURE:

OVER LETTER IS AN INTEGRAL PART OF THIS REPORT - PLEASE READ

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/20/84
DATE ANALYZED: 3/13/84

PP#	CAS #		ug/L	PP#	CAS #		ug/L
21A	88-06-2	2,4,6-trichlorophenol	1.0 U	52B	87-68-3	hexachlorobutadiene	1.0 U
22A	59-50-7	p-chloro-m-cresol	1.0 U	53B	77-47-4	hexachlorocyclopentadiene	1.0 U
24A	95-57-8	2-chlorophenol	1.0 U	54B	78-59-1	isophorone	1.0 U
31A	120-83-2	2,4-dichlorophenol	1.0 U	55B	91-28-5	naphthalene	1.0 U
34A	105-67-9	2,4-dimethylphenol	1.0 U	56B	98-95-3	nitrobenzene	1.0 U
37A	88-75-5	2-nitrophenol	1.0 U	62B	86-30-6	N-nitrosodiphenylamine	1.0 U
38A	100-02-7	4-nitrophenol	1.0 U	63B	621-64-7	N-nitrosodipropylamine	1.0 U
39A	51-28-5	2,4-dinitrophenol	1.0 U	66B	117-81-7	bis(2-ethylhexyl)phthalate	1.0 U
40A	534-52-1	4,6-dinitro-o-cresol	1.0 U	67B	85-68-7	benzyl butyl phthalate	1.0 U
54A	87-86-5	pentachlorophenol	1.0 U	69B	84-74-2	di-n-butyl phthalate	1.0 U
55A	108-95-2	phenol	400	69B	117-84-0	di-n-octyl phthalate	1.0 U
CL1	65-85-0	benzoic acid	600	70B	84-66-2	diethyl phthalate	1.0 U
CL2	95-48-7	2-methylphenol	28	71B	131-11-3	dimethyl phthalate	1.0 U
CL3	108-39-4	4-methylphenol	6400	72B	56-55-3	benzo(a)anthracene	0.1 U
CL4	95-95-4	2,4,5-trichlorophenol	1.0 U	73B	50-32-8	benzo(a)pyrene	0.1 U
1B	83-32-9	acenaphthene	0.1 U	74B	205-99-2	benzo(b)fluoranthene	0.1 U
5B	92-87-5	benzidine	1.0 U	75B	207-08-9	benzo(k)fluoranthene	0.1 U
8B	120-82-1	1,2,4-trichlorobenzene	1.0 U	76B	218-01-9	chrysene	0.1 U
9B	118-74-1	hexachlorobenzene	1.0 U	77B	208-96-8	acenaphthylene	0.1 U
2B	67-72-1	hexachloroethane	1.0 U	78B	120-12-7	anthracene	0.1 U
3B	111-44-4	bis(2-chloroethyl)ether	1.0 U	79B	191-24-2	benzo(ghi)perylene	0.1 U
0B	91-58-7	2-chloronaphthalene	1.0 U	80B	86-73-7	fluorene	0.1 U
5B	95-50-1	1,2-dichlorobenzene	1.0 U	81B	85-01-8	phenanthrene	0.1 U
6B	541-73-1	1,3-dichlorobenzene	1.0 U	82B	53-70-3	dibenzo(a,h)anthracene	0.1 U
7B	106-46-7	1,4-dichlorobenzene	1.0 U	83B	193-39-5	indeno(1,2,3-cd)pyrene	0.1 U
8B	91-94-1	3,3'-dichlorobenzidine	1.0 U	84B	129-00-0	pyrene	0.1 U
5B	121-14-2	2,4-dinitrotoluene	1.0 U	CL5	62-53-3	aniline	1.0 U
6B	606-20-2	2,6 dinitrotoluene	1.0 U	CL6	100-51-6	benzyl alcohol	1.0 U
7B	122-66-7	1,2-diphenylhydrazine	1.0 U	CL7	106-47-8	4-chloroaniline	1.0 U
9B	206-44-0	fluoranthene	0.1 U	CL8	132-64-9	dibenzofuran	0.1 U
0B	7005-72-3	4-chlorophenyl phenyl ether	1.0 U	CL9	91-57-6	2-methylnaphthalene	1.0 U
1B	101-55-3	4-bromophenyl phenyl ether	1.0 U	CL10	88-74-4	2-nitroaniline	1.0 U
2B	39638-32-9	bis(2-chloroisopropyl) ether	1.0 U	CL11	99-09-2	3-nitroaniline	1.0 U
3B	111-91-1	bis(2-chloroethoxy) methane	1.0 U	CL12	100-01-6	4-nitroaniline	1.0 U

BN COMPOUNDS - FS
OR DATA REPORTING QUALIFIERS SEE COVER LETTER
DATA IS HELD FOR A MINIMUM OF 90 DAYS THEN SENT TO NEIC FOR EVIDENCE AUDITING

U = NOT DETECTED AT LIMIT OF DETECTION
M = DETECTED BUT NOT QUANTIFIED AT LIMIT OF QUANTIFICATION

ROMENTAL PROTECTION AGENCY - CLP Sample Management Office
ox 818, Alexandria, Virginia 22313 - 703/557-2490

TA PREP/RELEASE BY: _____ / _____

SAMPLE NO: J 3438 B FL leachate February 14, 1984

ORGANICS ANALYSIS DATA SHEET

LABORATORY NAME: California Analytical Labs, Inc.
LAB SAMPLE NO: S4052

CASE NO: 2354/730J
QC REPORT NO: RED 730J-4
CONTRACT NO: 68-01-6763

DATE SAMPLE REC'D: 02/16/84
SAMPLE MATRIX: WATER
PERCENT MOISTURE:

COVER LETTER IS AN INTEGRAL PART OF THIS REPORT - PLEASE READ

VOLATILES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE ANALYZED: 2/22/84

PP#	CAS #		ug/L
2V	107-02-8	acrolein	10 U
3V	107-13-1	acrylonitrile	10 U
4V	71-43-2	benzene	1 U
5V	56-23-5	carbon tetrachloride	1 U
7V	108-90-7	chlorobenzene	1 U
8V	107-06-2	1,2-dichloroethane	1 U
9V	71-55-6	1,1,1-trichloroethane	1 U
0V	75-34-3	1,1-dichloroethane	1 U
1V	79-00-5	1,1,2-trichloroethane	1 U
5V	79-34-5	1,1,2,2-tetrachloroethane	1 U
6V	75-00-3	chloroethane	1 U
7V	110-75-8	2-chloroethylvinyl ether	10 U
9V	67-66-3	chloroform	1 U
0V	75-35-4	1,1-dichloroethene	1 U
1V	156-60-5	trans-1,2-dichloroethene	1 U
2V	78-87-5	1,2-dichloropropane	1 U
3V	10061-02-6	trans-1,3-dichloropropene	1 U
	10061-01-5	cis-1,3-dichloropropene	1 U
5V	100-41-4	ethylbenzene	1 U
6V	75-09-2	methylene chloride	1.7M
7V	74-87-3	chloromethane	1 U
8V	74-83-9	bromomethane	1 U
9V	75-25-2	bromoform	1 U
0V	75-27-4	bromodichloromethane	1 U
1V	75-69-4	fluorotrichloromethane	1 U
2V	75-71-8	dichlorodifluoromethane	1 U
3V	124-48-1	chlorodibromomethane	1 U
4V	127-18-4	tetrachloroethene	1 U
5V	108-88-3	toluene	1 U
6V	79-01-6	trichloroethene	38
7V	75-01-4	vinyl chloride	1 U
13	67-64-1	acetone	1 U
14	78-93-3	2-butanone	370
15	75-15-0	carbondisulfide	5 U
16	519-78-6	2-hexanone	1 U
17	108-10-1	4-methyl-2-pentanone	8.4M
18	100-42-5	styrene	5.7M
19	108-05-4	vinyl acetate	1 U
20	95-47-6	total xylenes	5 U

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/17/84
DATE ANALYZED: 03/12/84

PP#	CAS #		ug/L
89P	309-00-2	aldrin	0.05 U
90P	60-57-1	dieldrin	0.05 U
91P	57-74-9	chlordane	0.50 U
92P	50-29-3	4,4'-DDT	0.10 U
93P	72-55-9	4,4'-DDE	0.05 U
94P	72-54-8	4,4'-DDD	0.10 U
95P	115-29-7	a-endosulfan	0.05 U
96P	115-29-7	b-endosulfan	0.05 U
97P	1031-07-8	endosulfan sulfate	0.10 U
98P	72-20-8	endrin	0.05 U
99P	7421-93-4	endrin aldehyde	0.10 U
100P	76-44-8	heptachlor	0.05 U
101P	1024-57-3	heptachlor epoxide	0.05 U
102P	319-84-6	a-BHC	0.05 U
103P	319-85-7	b-BHC	0.05 U
104P	319-86-8	d-BHC	0.05 U
105P	58-89-9	g-BHC (lindane)	0.05 U
106P	53469-21-9	PCB-1242	0.50 U
107P	11097-69-1	PCB-1254	1.0 U
108P	11104-28-2	PCB-1221	1.0 U
109P	11141-16-5	PCB-1232	1.0 U
110P	12672-29-6	PCB-1248	1.0 U
111P	11096-82-5	PCB-1260	2.0 U
112P	12674-11-2	PCB-1016	0.50 U
113P	8001-35-2	toxaphene 10 U	~~2.0 U~~

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/17/84
DATE ANALYZED: 3/13/84

PP#	CAS #		ug/L
298	1746-01-6	2,3,7,8-tetrachloro-dibenzo-p-dioxin	0.03 U

DIOXINS-FS 7/2/84