

Appendix I

Volatile Organics

by

Purge and Trap GC-MS

				Dani	Dan 3	Dan 3	Dam3
		Date Analysed		16/12/01	16/12/01	16/12/01	16/12/01
		Ref no		01-1553	01-1553	01-1553	01-1553
		Sample I.D.	MDL	12D	13D	14D	15D
Peak	CAS No.:	Units	μg/litre	μg/litre	μg/litre	μg/litre	μg/litre
30	100-41-4	Ethylbenzene	0.2		-	nom .	
31	108-38-3 106-42-3	m,p-Xylene	0.4		440	MP.	-
32	95-47-6	o-Xylene	0.1	-	-	***	400
33	100-42-5	Styrene	0.1	-	_	-	-
34	75-25-2	Bromoform	0.4	. Ofter		-	-
35	98-82-8	Isopropylbenzene	0.2	446	_	***	v.
36	79-34-5	1,1,2,2-Tetrachloroethane	0.4		-		
37	96-18-4	1,2,3-Trichloropropane	0.4	-	-	ven	100
38	108-86-1	Bromobenzene	0.2		_	_	***
39	103-65-1	n-Propylbenzene	0.2	MP .	-	-	-
40	95-49-8	2-Chlorotoluene	0.1			-	-
41	108-67-8	1,3,5-Trimethylbenzene	0.1	-	SAN		
42	106-43-4	4-Chlorotoluene	0.2	***		-	-
43	98-06-6	tert-Butylbenzene	0.3	_		Pull.	-
44	95-63-6	1,2,4-Trimethylbenzene	0.2	un un	_	diss	_
45	135-98-8	sec-Butylbenzene	0.3	-		-	-
46	99-87-6	4-Isopropyltoluene	0.2	-	499	_	
47	541-73-1	1,3-Dichlorobenzene	0.4	00	-		_
48	106-46-7	1,4-Dichlorobenzene	0.3	Mill	-	110	-
49	104-51-8	n-Butylbenzene	0.5	440	-		-
50	95-50-1	1,2-Dichlorobenzene	0.2		and the same of th	_	-
51	96-12-8	1,2-Dibromo-3-					
		chloropropane	0.2	-		**	-
52	120-82-1	1,2,4-Trichlorobenzene	0.4		804	_	_
53	87-68-3	Hexachlorobutadiene	0.7	-	***		-
54	91-20-3	Naphthalene	0.5	-	-	**	_
55	87-61-6	1,2,3-Trichlorobenzene	0.7		-	-	-

"-" = < Method detection limit (MDL)

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Appendix I

Volatile Organics by

Purge and Trap GC-MS

				Dan 2	Dam Z	Danz
		Date Analysed		16/12/01	16/12/01	16/12/01
		Ref no		01-1553	01-1553	01-1553
		Sample I.D.	MDL	16D	17D	18D
Peak	CAS No.:	Units	μg/litre	μg/litre	μg/litre	μg/litre
1	75-71-8	Dichlorodifluoromethane	0.4	to the state of th		-
2	75-01-4	Vinyl Chloride	0.2	luis.	-	Lan
3	74-83-9	Bromomethane	0.3	***	-	New
4	75-69-4	Trichlorofluoromethane	0.2	**	-	Peak
5	75-35-4	1,1-Dichloroethene	0.3	-	-	NAME .
6	75-09-2	Dichloromethane	0.1	<4	<4	<4
7	156-60-5	trans-1,2-Dichloroethene	0.3		and a	
8	75-34-3	1,1-Dichloroethane	0.3	-	_	_
9	156-59-2	cis-1,2-Dichloroethene	0.1	-	-	_
10	594-20-7	2,2-Dichloropropane	0.2		-	
11	74-97-5	Bromochloromethane	0.2	***		_
12	67-66-3	Chloroform	0.3	-	-	
13	71-55-6	1,1,1-Trichloroethane	0.2	4-		
14	563-58-6	1,1-Dichloropropene	0.3	nui.		
15	56-23-5	Carbon Tetrachloride	0.3	-		
16	107-06-2	1,2-Dichloroethane	0.2	_		Nage
17	71-43-2	Benzene	0.2	_	-	Lun.
18	79-01-6	Trichloroethene	0.2	-	-	-
19	78-87-5	1,2-Dichloropropane	0.2	hall	-	
20	74-95-3	Dibromomethane	0.1	man .	_	
21	75-27-4	Bromodichloromethane	0.2	MA	-	ng.
22	108-88-3	Toluene	0.2	MA	-	-
23	79-00-5	1,1,2-Trichloroethane	0.3	-		100
24	142-28-9	1,3-Dichloropropane	0.2		440	Page 1
25	127-18-4	Tetrachloroethene	0.2	•	-	40
26	124-48-1	Dibromochloromethane	0.3	halls.		-
27	106-93-4	1,2-Dibromoethane	0.2	lan .	-	_
28	108-90-7	Chlorobenzene	0.3	-	-	
29	630-20-6	1,1,1,2-Tetrachloroethane	0.2	-		Page 1

[&]quot;-" = < Method detection limit (MDL)

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Appendix I

Volatile Organics

by Purge and Trap GC-MS

Damz Dans Damz Date Analysed 16/12/01 16/12/01 16/12/01 Ref no 01-1553 01-1553 01-1553 Sample I.D. MDL 16D 17D 18D Peak CAS No .: Units μg/litre μg/litre μg/litre μg/litre 100-41-4 0.2 30 Ethylbenzene 31 108-38-3 m,p-Xylene 106-42-3 0.4 32 95-47-6 0.1 o-Xylene 33 100-42-5 Styrene 0.1 75-25-2 34 Bromoform 0.4 ---35 98-82-8 Isopropylbenzene 0.2 79-34-5 36 1,1,2,2-Tetrachloroethane 0.4 96-18-4 37 0.4 1,2,3-Trichloropropane 38 108-86-1 0.2 Bromobenzene 39 103-65-1 0.2 n-Propylbenzene 95-49-8 40 2-Chlorotoluene 0.1 41 108-67-8 0.1 1,3,5-Trimethylbenzene 42 106-43-4 4-Chlorotoluene 0.2 43 98-06-6 tert-Butvlbenzene 0.3 95-63-6 44 1,2,4-Trimethylbenzene 0.2 45 135-98-8 sec-Butylbenzene 0.3 99-87-6 4-Isopropyltoluene 0.2 46 47 541-73-1 1,3-Dichlorobenzene 0.4 48 106-46-7 1,4-Dichlorobenzene 0.3 49 104-51-8 0.5 n-Butylbenzene 50 95-50-1 1,2-Dichlorobenzene 0.2 96-12-8 51 1.2-Dibromo-3chloropropane 0.2 120-82-1 0.4 52 1,2,4-Trichlorobenzene 53 87-68-3 Hexachlorobutadiene 0.7 91-20-3 0.5 54 Naphthalene <1 55 87-61-6 1,2,3-Trichlorobenzene 0.7

"-" = < Method detection limit (MDL)

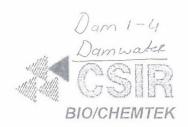
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REFERENCE NO: 01-1553



Semi-Volatile

Semi-volatile organics

by GC-MS

			Damy	Damy	Damy
	Date Analysed		12/12/01	14/12/01	12/12/01
	Ref no		01-1553	01-1553	01-1553
	Sample I.D	MDL	1S	1D	2S
CAS No.:	COMPONENTS	μg/litre	μg/litre	μg/litre	μg/litre
62-75-9	N-Nitrosodimethylamine	2	-		-
111-44-4	bis(2-Chloroethyl)ether	1	-	-	-
108-95-2	Phenol	1	-	**	Mad
95-57-8	2-Chlorophenol	1	-	100	-
541-73-1	1,3-Dichlorobenzene	1			And
106-46-7	1,4-Dichlorobenzene	1		~	-
95-50-1	1,2-Dichlorobenzene	1	MAR.	apar .	
108-60-1	bis(2-chloroisopropyl)ether	2	***	-	
95-48-7	2-Methylphenol	2	MB	-	-
67-72-1	Hexachloroethane	1		-	-
621-64-7	N-Nitroso-di-n-propylamine	4	gan.	Più.	_
106-44-5	4-Methylphenol	3	-		-
98-95-3	Nitrobenzene	1	_	6-0	-
78-59-1	Isophorone	3		-	
88-75-5	2-Nitrophenol	2	-	-	-
105-67-9	2,4-Dimethylphenol	2	-	_	-
111-91-1	bis(2-Chloroethoxy)methane	2		**	-
120-83-2	2,4-Dichlorophenol	2	- Apr	_	ban .
120-82-1	1,2,4-Trichlorobenzene	1	_	-	-
91-20-3	Naphthalene	1	-	-	200
106-47-8	4-Chloroaniline	2		-	
87-68-3	Hexachlorobutadiene	1	-	~	
59-50-7	4-Chloro-3-methylphenol	3	_	-	-
91-57-6	2-Methylnaphthalene	2	_	-	**
77-47-4	Hexachlorocyclopentadiene	4	_		-
88-06-2	2,4,6-Trichlorophenol	1	maj		Aug.
95-95-4	2,4,5-Trichlorophenol	2	-	_	-
91-58-7	2-Chloronaphthalene	1	-	_	-
88-74-4	2-Nitroaniline	1	-		-
208-96-8	Acenaphthylene	1	-	-	_
131-11-3	Dimethylphthalate	2	-	-	don't
606-20-2	2,6-Dinitrotoluene	2	-	-	

"-" = < Method detection limit (MDL)

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Research for IVS



Semi-volatile organics

by GC-MS

Dam 4 Dam 4 Dam 4 14/12/01 12/12/01 12/12/01 Date Analysed 01-1553 01-1553 01-1553 Ref no Sample I.D MDL 18 28 1D μg/litre μg/litre μg/litre μg/litre CAS No .: COMPONENTS 83-32-9 Acenaphthene 99-09-2 4 3-Nitroaniline 4 51-28-5 2.4-Dinitrophenol 132-64-9 Dibenzofuran 121-14-2 2,4-Dinitrotoluene 3 100-02-7 4-Nitrophenol 8 ---86-73-7 2 Fluorene 2 7005-72-3 4-Chlorophenyl-phenylether 84-66-2 3 Diethylphthalate 100-01-6 4-Nitroaniline 5 534-52-1 4,6-Dinitro-2-methylphenol 103-33-3 Azobenzene 101-55-3 4-Bromophenyl-phenylether 118-74-1 Hexachlorobenzene 87-86-5 4 Pentachlorophenol 85-01-8 Phenanthrene 120-12-7 Anthracene 86-74-8 Carbazole 2 84-74-2 Di-n-butylphthalate 4 206-44-0 Fluoranthene 129-00-0 9 Pyrene 85-68-7 Butylbenzylphthalate 6 56-55-3 Benzo[a]anthracene 218-01-9 Chrysene 117-81-7 bis(2-Ethylhexyl)phthalate 4 117-84-0 Di-n-octylphthalate 6 205-99-2 Benzo[b]fluoranthene 207-08-9 Benzo[k]fluoranthene 2 50-32-8 Benzo[a]pyrene 193-39-5 3 Indeno[1,2,3-cd]pyrene 53-70-3 3 Dibenz[a,h]anthracene 191-24-2 Benzo[g,h,i]perylene

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Semi-volatile organics

by GC-MS

			Dany	Dam 4	Damy
	Date Analysed		12/12/01	14/12/01	14/12/01
	Ref no		01-1553	01-1553	01-1553
	Sample I.D	MDL	2D	38	3D
CAS No.:	COMPONENTS	μg/litre	μg/litre	μg/litre	μg/litre
62-75-9	N-Nitrosodimethylamine	2			_
111-44-4	bis(2-Chloroethyl)ether	1		-	-
108-95-2	Phenol	1	-		THE PERSON NAMED IN COLUMN TWO
95-57-8	2-Chlorophenol	1	-	_	pag .
541-73-1	1,3-Dichlorobenzene	1	-	-	
106-46-7	1,4-Dichlorobenzene	1	-	-	
95-50-1	1,2-Dichlorobenzene	1	-	-	_
108-60-1	bis(2-chloroisopropyl)ether	2	-	-	gar.
95-48-7	2-Methylphenol	2	_	-	
67-72-1	Hexachloroethane	1	-	ptos .	**
621-64-7	N-Nitroso-di-n-propylamine	4	-	Jean	-
106-44-5	4-Methylphenol	3	-	_	9,4
98-95-3	Nitrobenzene	1		_	-
78-59-1	Isophorone	3	-		
88-75-5	2-Nitrophenol	2	-	es .	~
105-67-9	2,4-Dimethylphenol	2	- mar	and a	no.
111-91-1	bis(2-Chloroethoxy)methane	2	-	and .	-
120-83-2	2,4-Dichlorophenol	2	-	649	~
120-82-1	1,2,4-Trichlorobenzene	1		_	-
91-20-3	Naphthalene	1	_	_	-
106-47-8	4-Chloroaniline	2	_	-	-
87-68-3	Hexachlorobutadiene	1	-	-	-
59-50-7	4-Chloro-3-methylphenol	3	-	_	
91-57-6	2-Methylnaphthalene	2	-	-	-
77-47-4	Hexachlorocyclopentadiene	4		-	-
88-06-2	2,4,6-Trichlorophenol	1	-		And the state of t
95-95-4	2,4,5-Trichlorophenol	2	_	-	Adar
91-58-7	2-Chloronaphthalene	1		-	-
88-74-4	2-Nitroaniline)- mark	Was	_	-
208-96-8	Acenaphthylene	1		-	-
131-11-3	Dimethylphthalate	2	_	-	
606-20-2	2,6-Dinitrotoluene	2	409	***	-

"-" = < Method detection limit (MDL)

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CONFIDENTIAL Research for IVS

REFERENCE NO: 01-1553



Semi-volatile organics

by GC-MS

Dam 4 Dan 4 Dam 4 12/12/01 14/12/01 14/12/01 Date Analysed 01-1553 01-1553 01-1553 Ref no Sample I.D MDL 2D 38 3D μg/litre CAS No .: **COMPONENTS** ug/litre μg/litre μg/litre 83-32-9 Acenaphthene 99-09-2 4 3-Nitroaniline 51-28-5 4 2,4-Dinitrophenol 132-64-9 Dibenzofuran 3 121-14-2 2,4-Dinitrotoluene 8 4-Nitrophenol 2 86-73-7 Fluorene 7005-72-3 4-Chlorophenyl-phenylether 84-66-2 Diethylphthalate 3 4-Nitroaniline 534-52-1 5 4,6-Dinitro-2-methylphenol 103-33-3 Azobenzene 101-55-3 4-Bromophenyl-phenylether 118-74-1 Hexachlorobenzene 87-86-5 Pentachlorophenol 4 85-01-8 Phenanthrene 120-12-7 Anthracene 86-74-8 Carbazole 2 84-74-2 Di-n-butylphthalate 4 206-44-0 Fluoranthene 3 129-00-0 Pyrene 9 85-68-7 Butylbenzylphthalate 6 6 56-55-3 Benzo[a]anthracene 218-01-9 Chrysene 117-81-7 2 2 bis(2-Ethylhexyl)phthalate 4 117-84-0 6 Di-n-octvlphthalate 205-99-2 2 Benzo[b]fluoranthene 207-08-9 2 Benzo[k]fluoranthene 50-32-8 Benzo[a]pyrene 193-39-5 3 Indeno[1,2,3-cd]pyrene 53-70-3 Dibenz[a,h]anthracene 191-24-2 Benzo[g,h,i]perylene

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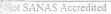
Semi-volatile organics

by GC-MS

Dany Dumy Damy 20/12/01 20/12/01 10/12/01 Date Analysed 01-1553 01-1553 01-1553 Refno Sample I.D MDL 48 4D 58 CAS No.: COMPONENTS μg/litre μg/litre μg/litre μg/litre 62-75-9 N-Nitrosodimethylamine 111-44-4 bis(2-Chloroethyl)ether 108-95-2 Phenol 95-57-8 2-Chlorophenol 541-73-1 1.3-Dichlorobenzene 106-46-7 1.4-Dichlorobenzene 95-50-1 1,2-Dichlorobenzene 108-60-1 bis(2-chloroisopropyl)ether 95-48-7 2-Methylphenol 2 67-72-1 Hexachloroethane 4 621-64-7 N-Nitroso-di-n-propylamine 106-44-5 4-Methylphenol 3 98-95-3 Nitrobenzene 78-59-1 Isophorone 3 88-75-5 2-Nitrophenol 2 105-67-9 2,4-Dimethylphenol 2 2 111-91-1 bis(2-Chloroethoxy)methane 120-83-2 2.4-Dichlorophenol 120-82-1 1,2,4-Trichlorobenzene 91-20-3 Naphthalene 106-47-8 4-Chloroaniline 87-68-3 Hexachlorobutadiene 59-50-7 3 4-Chloro-3-methylphenol 2-Methylnaphthalene 91-57-6 2 77-47-4 Hexachlorocyclopentadiene 4 88-06-2 2,4,6-Trichlorophenol 2 2,4,5-Trichlorophenol 95-95-4 91-58-7 2-Chloronaphthalene 88-74-4 2-Nitroaniline 208-96-8 Acenaphthylene 2 131-11-3 Dimethylphthalate 606-20-2 2.6-Dinitrotoluene

"-" = < Method detection limit (MDL)

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Semi-volatile organics

by GC-MS

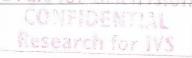
Dam 4 Damy Damy 20/12/01 20/12/01 10/12/01 Date Analysed 01-1553 Ref no 01-1553 01-1553 Sample I.D MDL 45 4D 55 μg/litre COMPONENTS μg/litre μg/litre μg/litre CAS No .: 83-32-9 Acenaphthene 99-09-2 3-Nitroaniline 4 51-28-5 4 2,4-Dinitrophenol 132-64-9 Dibenzofuran 121-14-2 2,4-Dinitrotoluene 3 8 100-02-7 4-Nitrophenol 2 86-73-7 Fluorene 2 7005-72-3 4-Chlorophenyl-phenylether 84-66-2 Diethylphthalate 7 100-01-6 4-Nitroaniline 5 534-52-1 4,6-Dinitro-2-methylphenol 103-33-3 Azobenzene 101-55-3 4-Bromophenyl-phenylether 2 118-74-1 Hexachlorobenzene 87-86-5 Pentachlorophenol 4 85-01-8 Phenanthrene 120-12-7 Anthracene 2 86-74-8 Carbazole 84-74-2 Di-n-butylphthalate 4 3 206-44-0 Fluoranthene 129-00-0 9 Pyrene 6 85-68-7 Butylbenzylphthalate 6 1 56-55-3 Benzo[a]anthracene 218-01-9 Chrysene 117-81-7 bis(2-Ethylhexyl)phthalate 3 6 117-84-0 6 Di-n-octylphthalate 2 205-99-2 Benzo[b]fluoranthene 2 207-08-9 Benzo[k]fluoranthene 50-32-8 Benzo[a]pyrene 3 193-39-5 Indeno[1,2,3-cd]pyrene 53-70-3 Dibenz[a,h]anthracene 191-24-2 Benzo[g,h,i]perylene

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Semi-volatile organics

by GC-MS

Damy Damy Damy 11/12/01 11/12/01 13/12/01 Date Analysed Ref no 01-1553 01-1553 01-1553 Sample I.D MDL 6S 5D 6D CAS No .: COMPONENTS ug/litre μg/litre μg/litre ug/litre 62-75-9 N-Nitrosodimethylamine 111-44-4 bis(2-Chloroethyl)ether 108-95-2 Phenol 95-57-8 2-Chlorophenol 541-73-1 1,3-Dichlorobenzene 106-46-7 1.4-Dichlorobenzene 95-50-1 1,2-Dichlorobenzene 2 108-60-1 bis(2-chloroisopropyl)ether 95-48-7 2-Methylphenol 67-72-1 Hexachloroethane 621-64-7 N-Nitroso-di-n-propylamine 4 106-44-5 4-Methylphenol 3 98-95-3 Nitrobenzene 78-59-1 Isophorone 2 88-75-5 2-Nitrophenol 2 105-67-9 2,4-Dimethylphenol 2 111-91-1 bis(2-Chloroethoxy)methane 2 120-83-2 2,4-Dichlorophenol 120-82-1 1,2,4-Trichlorobenzene 91-20-3 Naphthalene 2 106-47-8 4-Chloroaniline 87-68-3 Hexachlorobutadiene 59-50-7 3 4-Chloro-3-methylphenol 91-57-6 2-Methylnaphthalene 77-47-4 4 Hexachlorocyclopentadiene 2,4,6-Trichlorophenol 88-06-2 95-95-4 2,4,5-Trichlorophenol 2 91-58-7 2-Chloronaphthalene 88-74-4 2-Nitroaniline Acenaphthylene 208-96-8 131-11-3 Dimethylphthalate 606-20-2 2,6-Dinitrotoluene

"-" = < Method detection limit (MDL)

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Semi-volatile organics

by GC-MS

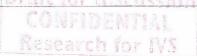
		30 1110	Dam 4	Dam 4	Damy
	Date Analysed		11/12/01	11/12/01	13/12/01
***************************************	Ref no		01-1553	01-1553	01-1553
	Sample I.D	MDL	5D	6S	6D
CAS No.:	COMPONENTS	μg/litre	μ g/litr e	μg/litre	μg/litre
83-32-9	Acenaphthene	1	-	-	-
99-09-2	3-Nitroaniline	4	-	Ow.	_
51-28-5	2,4-Dinitrophenol	4			-
132-64-9	Dibenzofuran	1		-	-
121-14-2	2,4-Dinitrotoluene	3	4.0		
100-02-7	4-Nitrophenol	8	-	me .	~
86-73-7	Fluorene	2	MAR.	-	No.
7005-72-3	4-Chlorophenyl-phenylether	2		_	-
84-66-2	Diethylphthalate	3	MA.	t _{an} t	
100-01-6	4-Nitroaniline	7	-	-	~
534-52-1	4,6-Dinitro-2-methylphenol	5	-	-	466
103-33-3	Azobenzene	1	-	947	~
101-55-3	4-Bromophenyl-phenylether	2	***	PRO	-
118-74-1	Hexachlorobenzene	2		-	-
87-86-5	Pentachlorophenol	4	en e	949	~
85-01-8	Phenanthrene	1	-	de	-
120-12-7	Anthracene	1	dan		
86-74-8	Carbazole	2		-	
84-74-2	Di-n-butylphthalate	4	-	**	Name of State of Stat
206-44-0	Fluoranthene	3	-	Inde	_
129-00-0	Pyrene	9	100	-	
85-68-7	Butylbenzylphthalate	6	7	8	-
56-55-3	Benzo[a]anthracene	1	940		-
218-01-9	Chrysene	1	-	-	-
117-81-7	bis(2-Ethylhexyl)phthalate	2	6	8	3
117-84-0	Di-n-octylphthalate	6	wid .	t-V	t-re
205-99-2	Benzo[b]fluoranthene	2	-		PHS.
207-08-9	Benzo[k]fluoranthene	2	***		
50-32-8	Benzo[a]pyrene	1		-	***
193-39-5	Indeno[1,2,3-cd]pyrene	3	-	and and	
53-70-3	Dibenz[a,h]anthracene	3		***	-
191-24-2	Benzo[g,h,i]perylene	4	-	-	-

"-" = < Method detection limit (MDL)

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Dumy

20/12/01

Damy

20/12/01

Appendix 2

Semi-volatile organics

by GC-MS

Date Analysed

01-1553 01-1553 Ref no Sample I.D MDL **7**S 7D CAS No .: COMPONENTS μg/litre μg/litre µg/litre 62-75-9 N-Nitrosodimethylamine 2 111-44-4 bis(2-Chloroethyl)ether 108-95-2 Phenol 95-57-8 2-Chlorophenol 541-73-1 1.3-Dichlorobenzene 106-46-7 1.4-Dichlorobenzene 95-50-1 1,2-Dichlorobenzene 1 108-60-1 2 bis(2-chloroisopropyl)ether 95-48-7 2-Methylphenol 2 67-72-1 Hexachloroethane 621-64-7 N-Nitroso-di-n-propylamine 4 106-44-5 4-Methylphenol 3 98-95-3 Nitrobenzene 78-59-1 Isophorone 3 88-75-5 2-Nitrophenol 2 105-67-9 2 2,4-Dimethylphenol 111-91-1 bis(2-Chloroethoxy)methane 2 120-83-2 2,4-Dichlorophenol 2

"-" = < Method detection limit (MDL)

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120-82-1

91-20-3

106-47-8

87-68-3 59-50-7

91-57-6

77-47-4

88-06-2

95-95-4

91-58-7

88-74-4

208-96-8

131-11-3

606-20-2

1.2.4-Trichlorobenzene

4-Chloro-3-methylphenol

Hexachlorocyclopentadiene

2-Methylnaphthalene

2,4,6-Trichlorophenol

2,4,5-Trichlorophenol

2-Chloronaphthalene

2-Nitroaniline

Acenaphthylene

Dimethylphthalate

2,6-Dinitrotoluene

Naphthalene

4-Chloroaniline Hexachlorobutadiene

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CONFIDENTIAL Research for IVS

REFERENCE NO: 01-1553



Semi-volatile organics

by GC-MS

Damy Damy

	Date Analysed		20/12/01	20/12/01
	Ref no		01-1553	01-1553
	Sample I.D	MDL	7S	7D
CAS No.:	COMPONENTS	μg/litre	μg/litre	μg/litre
83-32-9	Acenaphthene	1	-	-
99-09-2	3-Nitroaniline	4	-	-
51-28-5	2,4-Dinitrophenol	4		
132-64-9	Dibenzofuran	1	_	-
121-14-2	2,4-Dinitrotoluene	3	-	ana
100-02-7	4-Nitrophenol	8	949	4
86-73-7	Fluorene	2	No.	-
7005-72-3	4-Chlorophenyl-phenylether	2		***
84-66-2	Diethylphthalate	3	-	ess.
100-01-6	4-Nitroaniline	7	NO	64
534-52-1	4,6-Dinitro-2-methylphenol	5	80	-44
103-33-3	Azobenzene	1	tus .	-
101-55-3	4-Bromophenyl-phenylether	2		-
118-74-1	Hexachlorobenzene	2	-	
87-86-5	Pentachlorophenol	4	_	-
85-01-8	Phenanthrene	1	400	-
120-12-7	Anthracene	1	_	-
86-74-8	Carbazole	2		
84-74-2	Di-n-butylphthalate	4	5	-
206-44-0	Fluoranthene	3		-
129-00-0	Pyrene	9	950-	-
85-68-7	Butylbenzylphthalate	6	No.	
56-55-3	Benzo[a]anthracene	1		
218-01-9	Chrysene	1		-
117-81-7	bis(2-Ethylhexyl)phthalate	2		-
117-84-0	Di-n-octylphthalate	6	_	
205-99-2	Benzo[b]fluoranthene	2	-	-
207-08-9	Benzo[k]fluoranthene	2	_	
50-32-8	Benzo[a]pyrene	1	-	-
193-39-5	Indeno[1,2,3-cd]pyrene	3	-	-
53-70-3	Dibenz[a,h]anthracene	3		tops
191-24-2	Benzo[g,h,i]perylene	4	- \	-

"-" = < Method detection limit (MDL)

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REFERENCE NO: 01-1553



Semi-volatile organics

by GC-MS

Dan 3 Dan 1 Dami 10/12/01 14/12/01 10/12/01 Date Analysed 01-1553 01-1553 Ref no 01-1553 Sample I.D MDL 8D 9D 10D COMPONENTS μg/litre CAS No .: μg/litre μg/litre μg/litre 62-75-9 N-Nitrosodimethylamine 111-44-4 bis(2-Chloroethyl)ether 108-95-2 Phenol 87 52 95-57-8 2-Chlorophenol 541-73-1 1,3-Dichlorobenzene 106-46-7 1.4-Dichlorobenzene 95-50-1 1,2-Dichlorobenzene 108-60-1 bis(2-chloroisopropyl)ether 2 95-48-7 2-Methylphenol 2 24 19 67-72-1 Hexachloroethane 1 621-64-7 N-Nitroso-di-n-propylamine 4 106-44-5 3 4-Methylphenol 110 68 98-95-3 Nitrobenzene 78-59-1 Isophorone 3 88-75-5 2 2-Nitrophenol 105-67-9 2,4-Dimethylphenol 41 24 111-91-1 bis(2-Chloroethoxy)methane 120-83-2 2,4-Dichlorophenol 120-82-1 1,2,4-Trichlorobenzene 91-20-3 Naphthalene 106-47-8 4-Chloroaniline 2 87-68-3 Hexachlorobutadiene 59-50-7 4-Chloro-3-methylphenol 3 91-57-6 2-Methylnaphthalene 2 77-47-4 Hexachlorocyclopentadiene 4 88-06-2 2,4,6-Trichlorophenol 95-95-4 2,4,5-Trichlorophenol 2 91-58-7 2-Chloronaphthalene 88-74-4 2-Nitroaniline 208-96-8 Acenaphthylene 131-11-3 Dimethylphthalate 2 606-20-2 2.6-Dinitrotoluene

"-" = < Method detection limit (MDL)

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Semi-volatile organics

by GC-MS

Dam 3 Dani Dan 1 10/12/01 10/12/01 14/12/01 Date Analysed 01-1553 01-1553 01-1553 Ref no Sample I.D MDL 8D 9D 10D COMPONENTS μg/litre μg/litre μg/litre ug/litre CAS No .: 83-32-9 Acenaphthene 1 99-09-2 3-Nitroaniline 4 51-28-5 4 2,4-Dinitrophenol 132-64-9 Dibenzofuran 121-14-2 3 2,4-Dinitrotoluene 100-02-7 4-Nitrophenol 8 86-73-7 2 Fluorene 7005-72-3 4-Chlorophenyl-phenylether 84-66-2 Diethylphthalate 3 100-01-6 4-Nitroaniline 534-52-1 4.6-Dinitro-2-methylphenol 5 103-33-3 Azobenzene 101-55-3 2 4-Bromophenyl-phenylether 118-74-1 Hexachlorobenzene 2 87-86-5 Pentachlorophenol 4 85-01-8 Phenanthrene 1 120-12-7 Anthracene 86-74-8 Carbazole 2 84-74-2 Di-n-butylphthalate 4 206-44-0 Fluoranthene 129-00-0 9 Pyrene 85-68-7 Butylbenzylphthalate 56-55-3 1 Benzo[a]anthracene 218-01-9 Chrysene 117-81-7 bis(2-Ethylhexyl)phthalate 2 117-84-0 Di-n-octylphthalate 205-99-2 2 Benzo[b]fluoranthene 207-08-9 Benzo[k]fluoranthene 2 50-32-8 Benzo[a]pyrene 193-39-5 Indeno[1,2,3-cd]pyrene 3

"-" = < Method detection limit (MDL)

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53-70-3

191-24-2

Dibenz[a,h]anthracene

Benzo[g,h,i]perylene



Semi-volatile organics

by GC-MS

Dani Dani Dam 3 20/12/01 20/12/01 20/12/01 Date Analysed 01-1553 Ref no 01-1553 01-1553 Sample I.D MDL 11D 12D 13D μg/litre μg/litre CAS No.: COMPONENTS μg/litre μg/litre 62-75-9 2 N-Nitrosodimethylamine 111-44-4 bis(2-Chloroethyl)ether 108-95-2 Phenol 95-57-8 2-Chlorophenol 541-73-1 1,3-Dichlorobenzene 106-46-7 1.4-Dichlorobenzene 95-50-1 1.2-Dichlorobenzene 2 108-60-1 bis(2-chloroisopropyl)ether 95-48-7 2-Methylphenol 67-72-1 Hexachloroethane 621-64-7 N-Nitroso-di-n-propylamine 4 3 106-44-5 4-Methylphenol 98-95-3 Nitrobenzene 1 78-59-1 Isophorone 3 2 88-75-5 2-Nitrophenol 2 105-67-9 2,4-Dimethylphenol 2 111-91-1 bis(2-Chloroethoxy) methane 120-83-2 2,4-Dichlorophenol 2 120-82-1 1,2,4-Trichlorobenzene 91-20-3 Naphthalene 4-Chloroaniline 106-47-8 2 87-68-3 Hexachlorobutadiene 59-50-7 3 4-Chloro-3-methylphenol 91-57-6 2-Methylnaphthalene 77-47-4 Hexachlorocyclopentadiene 4 88-06-2 2,4,6-Trichlorophenol 1 95-95-4 2,4,5-Trichlorophenol 91-58-7 2-Chloronaphthalene 88-74-4 2-Nitroaniline 208-96-8 Acenaphthylene 131-11-3 Dimethylphthalate 606-20-2 2,6-Dinitrotoluene

"-" = < Method detection limit (MDL)

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Semi-volatile organics

by GC-MS

			Dami	Danj	Dam 3
	Date Analysed		20/12/01	20/12/01	20/12/01
	Ref no		01-1553	01-1553	01-1553
	Sample I.D	MDL	11D	12D	13D
CAS No.:	COMPONENTS	μg/litre	μg/litre	μg/litre	μg/litre
83-32-9	Acenaphthene	1	-	_	-
99-09-2	3-Nitroaniline	4	_	_	
51-28-5	2,4-Dinitrophenol	4	-	-	-
132-64-9	Dibenzofuran	1	_	-	New York
121-14-2	2,4-Dinitrotoluene	3	-	_	_
100-02-7	4-Nitrophenol	8	No.	_	
86-73-7	Fluorene	2	_	-	-
7005-72-3	4-Chlorophenyl-phenylether	2	_	-	_
84-66-2	Diethylphthalate	3	-		-
100-01-6	4-Nitroaniline	7	-		_
534-52-1	4,6-Dinitro-2-methylphenol	5		-	-
103-33-3	Azobenzene	1		PAGE .	_
101-55-3	4-Bromophenyl-phenylether	2	-	ner .	
118-74-1	Hexachlorobenzene	2	-	-	
87-86-5	Pentachlorophenol	4	-	~~	-
85-01-8	Phenanthrene	1	-	nae .	
120-12-7	Anthracene	1		_	- Marie
86-74-8	Carbazole	2	_	-	-
84-74-2	Di-n-butylphthalate	4	-	-	-
206-44-0	Fluoranthene	3		-	_
129-00-0	Pyrene	9		_	***
85-68-7	Butylbenzylphthalate	6	-	-	-
56-55-3	Benzo[a]anthracene	1	-	***	-
218-01-9	Chrysene	1	-	-	-
117-81-7	bis(2-Ethylhexyl)phthalate	2	-	-	-
117-84-0	Di-n-octylphthalate	6	_	***	ana.
205-99-2	Benzo[b]fluoranthene	2	***	dis	***
207-08-9	Benzo[k]fluoranthene	2	**	-	-
50-32-8	Benzo[a]pyrene	1	-	_	-
193-39-5	Indeno[1,2,3-cd]pyrene	3	-	_	-
53-70-3	Dibenz[a,h]anthracene	3	-	-	-
191-24-2	Benzo[g,h,i]perylene	4	Mg.	**	AMP

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Semi-volatile organics

by GC-MS

Dams Dans

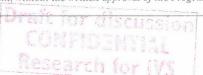
	GC-MD		.0 ,	-
<u> </u>	Date Analysed		20/12/01	11/12/01
	Ref no		01-1553	01-1553
	Sample I.D	MDL	14D	15D
CAS No.:	COMPONENTS	μg/litre	μg/litre	μg/litre
62-75-9	N-Nitrosodimethylamine	2	_	
111-44-4	bis(2-Chloroethyl)ether	1	_	_
108-95-2	Phenol	1	_	ma ma
95-57-8	2-Chlorophenol	1	-	Rud.
541-73-1	1,3-Dichlorobenzene	1		
106-46-7	1,4-Dichlorobenzene	1	2406	non.
95-50-1	1,2-Dichlorobenzene	1	-	
108-60-1	bis(2-chloroisopropyl)ether	2	-	-
95-48-7	2-Methylphenol	2		_
67-72-1	Hexachloroethane	I	-	-
621-64-7	N-Nitroso-di-n-propylamine	4	-	-
106-44-5	4-Methylphenol	3	-	-
98-95-3	Nitrobenzene	1		-
78-59-1	Isophorone	3		-
88-75-5	2-Nitrophenol	2		-
105-67-9	2,4-Dimethylphenol	2	-	-
111-91-1	bis(2-Chloroethoxy)methane	2	400	-
120-83-2	2,4-Dichlorophenol	2	-	-
120-82-1	1,2,4-Trichlorobenzene	1	6-9	-
91-20-3	Naphthalene	1	-	-
106-47-8	4-Chloroaniline	2	_	_
87-68-3	Hexachlorobutadiene	1	-	_
59-50-7	4-Chloro-3-methylphenol	3	-	748
91-57-6	2-Methylnaphthalene	2	_	_
77-47-4	Hexachlorocyclopentadiene	4	-	AM
88-06-2	2,4,6-Trichlorophenol	1	-	_
95-95-4	2,4,5-Trichlorophenol	2	_	
91-58-7	2-Chloronaphthalene	1	-	_
88-74-4	2-Nitroaniline	1	-	-
208-96-8	Acenaphthylene	1	_	
131-11-3	Dimethylphthalate	2		459
606-20-2	2,6-Dinitrotoluene	2	me	-

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Semi-volatile organics by

GC-MS

			Dam 3	Dam3
	Date Analysed		20/12/01	11/12/01
	Ref no		01-1553	01-1553
	Sample I.D	MDL	14D	15D
CAS No.:	COMPONENTS	μg/litre	μg/litre	μg/litre
83-32-9	Acenaphthene	1	-	_
99-09-2	3-Nitroaniline	4	_	-
51-28-5	2,4-Dinitrophenol	4	-	_
132-64-9	Dibenzofuran	1	err	-
121-14-2	2,4-Dinitrotoluene	3	no.	_
100-02-7	4-Nitrophenol	8	-	-
86-73-7	Fluorene	2	_	-
7005-72-3	4-Chlorophenyl-phenylether	2	_	-
84-66-2	Diethylphthalate	3		_
100-01-6	4-Nitroaniline	7	-	_
534-52-1	4,6-Dinitro-2-methylphenol	5		-
103-33-3	Azobenzene	1	-	NAP
101-55-3	4-Bromophenyl-phenylether	2	-	
118-74-1	Hexachlorobenzene	2	-	-
87-86-5	Pentachlorophenol	4	-	-
85-01-8	Phenanthrene	1	_	70
120-12-7	Anthracene	1	-	-
86-74-8	Carbazole	2		-
84-74-2	Di-n-butylphthalate	4	And a	-
206-44-0	Fluoranthene	3	-	-
129-00-0	Pyrene	9	-	
85-68-7	Butylbenzylphthalate	6	_	7
56-55-3	Benzo[a]anthracene	1	-	-
218-01-9	Chrysene	1	-	_
117-81-7	bis(2-Ethylhexyl)phthalate	2	_	5
117-84-0	Di-n-octylphthalate	6	put	-
205-99-2	Benzo[b]fluoranthene	2	and a	-
207-08-9	Benzo[k]fluoranthene	2		
50-32-8	Benzo[a]pyrene	1	-	_
193-39-5	Indeno[1,2,3-cd]pyrene	3	-	_
53-70-3	Dibenz[a,h]anthracene	3	-	-
191-24-2	Benzo[g,h,i]perylene	4	-	_

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REFERENCE NO: 01-1553



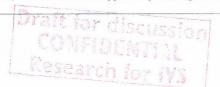
Semi-volatile organics

by GC-MS

Dam 2 Damz Damz 19/12/01 21/12/01 15/12/01 Date Analysed 01-1553 01-1553 01-1553 Ref no Sample I.D MDL 16D 17D 18D µg/litre **COMPONENTS** µg/litre μg/litre µg/litre CAS No .: 2 62-75-9 N-Nitrosodimethylamine 111-44-4 bis(2-Chloroethyl)ether 108-95-2 Phenol 95-57-8 2-Chlorophenol 541-73-1 1,3-Dichlorobenzene 106-46-7 1,4-Dichlorobenzene 1 95-50-1 1.2-Dichlorobenzene 108-60-1 bis(2-chloroisopropyl)ether 2 95-48-7 2-Methylphenol 67-72-1 Hexachloroethane 621-64-7 N-Nitroso-di-n-propylamine 4 106-44-5 3 4-Methylphenol 98-95-3 Nitrobenzene 1 78-59-1 3 Isophorone 88-75-5 2-Nitrophenol 105-67-9 2 2,4-Dimethylphenol 2 111-91-1 bis(2-Chloroethoxy)methane 2 120-83-2 2,4-Dichlorophenol 120-82-1 1.2.4-Trichlorobenzene 91-20-3 Naphthalene 4-Chloroaniline 106-47-8 2 87-68-3 Hexachlorobutadiene 59-50-7 4-Chloro-3-methylphenol 3 91-57-6 2 2-Methylnaphthalene 77-47-4 Hexachlorocyclopentadiene 4 88-06-2 2,4,6-Trichlorophenol 95-95-4 2 2,4,5-Trichlorophenol 91-58-7 2-Chloronaphthalene 88-74-4 2-Nitroaniline 1 208-96-8 Acenaphthylene 1 2 131-11-3 Dimethylphthalate 606-20-2 2.6-Dinitrotoluene

"-" = < Method detection limit (MDL)

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Semi-volatile organics

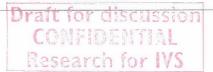
by GC-MS

Dam 2 Dam 2 Danz 19/12/01 21/12/01 15/12/01 Date Analysed 01-1553 01-1553 01-1553 Ref no Sample I.D MDL 16D 17D 18D μg/litre μg/litre μg/litre CAS No.: COMPONENTS ug/litre 83-32-9 Acenaplithene 99-09-2 3-Nitroaniline 4 4 51-28-5 2,4-Dinitrophenol 132-64-9 Dibenzofuran 1 121-14-2 2,4-Dinitrotoluene 3 100-02-7 4-Nitrophenol 8 86-73-7 2 Fluorene 2 7005-72-3 4-Chlorophenyl-phenylether 84-66-2 Diethylphthalate 3 100-01-6 4-Nitroaniline 534-52-1 4,6-Dinitro-2-methylphenol 103-33-3 Azobenzene 2 101-55-3 4-Bromophenyl-phenylether 118-74-1 Hexachlorobenzene 2 87-86-5 4 Pentachlorophenol 85-01-8 Phenanthrene 120-12-7 Anthracene 86-74-8 2 Carbazole 84-74-2 Di-n-butylphthalate 4 206-44-0 Fluoranthene 9 129-00-0 Pyrene 85-68-7 Butylbenzylphthalate 6 56-55-3 Benzo[a]anthracene 218-01-9 Chrysene 117-81-7 bis(2-Ethylhexyl)phthalate 117-84-0 Di-n-octylphthalate 6 205-99-2 2 Benzo[b]fluoranthene 207-08-9 Benzo[k]fluoranthene 50-32-8 Benzo[a]pyrene 193-39-5 Indeno[1,2,3-cd]pyrene 53-70-3 Dibenz[a,h]anthracene 191-24-2 Benzo[g,h,i]perylene

"-" = < Method detection limit (MDL)

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EVAPORATION DAM 1 - 4: LABORATORY ANALYSIS

SEDIMENTS

Draft for discussion COMFIDENCIAL Research for IVS



Reg. No.1948/28709/07

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P.O. Box 82582 Southdale 2135

Phone: +27 (0) 11 680 3466 Fax: +27 (0) 11 433 3654

Ockie Fourie Toxicologists (Pty) Ltd

P.O. Box 73179

Lynnwood Ridge, 0040 - RSA

Attn: Dr H.O. Fourie Fax : (012) 348 7436

Draft for discussion CONFIDENTIAL Research for IVS

Johannesburg, January 15, 2002

Date Rec.: November 27, 2001

LR. Ref. : NOV1008.R01 Reference: LAB/41/2001

Project : Total(Head) Analysis

CERTIFICATE OF ANALYSIS

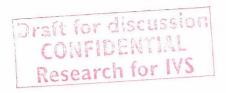
	No.	Sample ID	Al g/t	As g/t	Cr g∕t	Cd g/t	Ba g/t	Pb g/t	Co g/t	Cu g/t	Fe g/t	V g/t	Mn g/t	Ni g/t	Ti g/t	Zn g/t	
(7	Sample 1	7500	< 50	44	< 10	5.8	< 100	< 10	< 10	12000	< 10	89	< 10	160	13	
	7	Sample 2	9500	< 50	60	< 10	7.6	< 100	< 10	< 10	17000	16	130	12	660	31	
	3	Sample 3	4100	< 50	82	< 10	6.0	< 100	< 10	< 10	12000	25	160	15	640	30	
Dam 4	4	Sample 4	5300	< 50	54	< 10	4.5	< 100	< 10	< 10	9100	11	400	< 10	160	170	
	\$	Sample 5	2800	< 50	230	< 10	73	< 100	< 10	13	12000	24	240	16	560	310	
/	4	Sample 6	8500	< 50	99	< 10	38	< 100	< 10	< 10	9500	21	710	10	330	1300	
m 3	57	Sample 8	7700	< 50	110	< 10	3.6	< 100	< 10	< 10	11000	27	190	< 10	670	250	
m 3 Dam 1	(8)	Sample 9.	4700	< 50	61	< 10	12	< 100	< 10	< 10	4000	21	300	12	220	37	
Dam 1	3	Sample 10	15000	< 50	62	< 10	19	< 100	10	< 10	8100	< 10	150	< 10	100	32	
	No.	Sample ID	* F *	NH3-N mg/L	* рН	* Cond mS/m	* TDS mg/L	* Alk mg/L	Ca g/t	Mg g/t	Na g/t	K g/t	Si %	* Cl mg/L	* SO4	* NO3 mg/L	
		Sample ID			* pH							g/t					
			mg/L	mg/L		mS/m	mg/L	mg/L	g/t	g/t	g/t	g/t 1300	%	mg/L	mg/L	mg/L	
		Sample 1	mg/L 5.30	mg/L 2.69	7.0	mS/m 325	mg/L 3060	mg/L 48	g/t 720	g/t 660	g/t 1200	g/t 1300 1600	< 0.20	mg/L 650	mg/L 1350	mg/L 1.60	
	Jan Day	Sample 1 Sample 2	mg/L 5.30 4.60	mg/L 2.69 24.4	7.0	mS/m 325 330	mg/L 3060 3055	mg/L 48 16	g/t 720 30000	g/t 660 820	g/t 1200 1300	g/t 1300 1600 740	% < 0.20 < 0.20	mg/L 650 550	mg/L 1350 1300	1.60 1.30	
	The last the sail	Sample 1 Sample 2 Sample 3	mg/L 5.30 4.60 0.95	2.69 24.4 9.30	7.0 6.7 7.1	325 330 238	mg/L 3060 3055 2275	mg/L 48 16 36	g/t 720 30000 1100	g/t 660 820 420	g/t 1200 1300 1300	g/t 1300 1600 740 830	< 0.20 < 0.20 < 0.20	650 550 550	mg/L 1350 1300 1150	1.60 1.30 7.40	
	Grand Ward	Sample 1 Sample 2 Sample 3 Sample 4	5.30 4.60 0.95 2.70	2.69 24.4 9.30 13.3	7.0 6.7 7.1 6.9	325 330 238 276	mg/L 3060 3055 2275 2785	48 16 36 14	g/t 720 30000 1100 680	g/t 660 820 420 430	g/t 1200 1300 1300 2000	g/t 1300 1600 740 830 750	< 0.20 < 0.20 < 0.20 < 0.20	mg/L 650 550 550 400	1350 1300 1150 1400	1.60 1.30 7.40 7.70	
	a was as as as	Sample 1 Sample 2 Sample 3 Sample 4 Sample 5	mg/L 5.30 4.60 0.95 2.70 5.80	mg/L 2.69 24.4 9.30 13.3 21.5	7.0 6.7 7.1 6.9 6.7	325 330 238 276 326	mg/L 3060 3055 2275 2785 3155	mg/L 48 16 36 14 48	720 30000 1100 680 100	g/t 660 820 420 430 410	g/t 1200 1300 1300 2000 750	g/t 1300 1600 740 830 750 1300	% 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20	mg/L 650 550 550 400 650	1350 1300 1150 1400 1450	1.60 1.30 7.40 7.70 5.30	
Dom 4 { an 3 -	A Carlo de la	Sample 1 Sample 2 Sample 3 Sample 4 Sample 5 Sample 6	mg/L 5.30 4.60 0.95 2.70 5.80 1.56	mg/L 2.69 24.4 9.30 13.3 21.5 22.6	7.0 6.7 7.1 6.9 6.7 6.8	325 330 238 276 326 296	mg/L 3060 3055 2275 2785 3155 3020	48 16 36 14 48 26	9/t 720 30000 1100 680 100 92	9/t 660 820 420 430 410 610	g/t 1200 1300 1300 2000 750 1500	g/t 1300 1600 740 830 750 1300 1100	% < 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20	mg/L 650 550 550 400 650 250	mg/L 1350 1300 1150 1400 1450 1400	1.60 1.30 7.40 7.70 5.30 8.30	

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и	0.	Sample ID	AL	As	Cr	Cd	Ва	Pb	Со	Cu	Fe	V	Mn	Ni	Τí	Zn
			g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t
11 + 12 = Dam 1 { } + 14 + 15 = Dam3 { } 16 + 17 + 18 = Dam 4	19	Sample 11	7700	< 50	100	< 10	18	< 100	< 10	< 10	8100	14	. 120	< 10	510	46
11+12=Dan 1 }	1/1	Sample 12	9000	< 50	110	< 10	2.6	< 100	< 10	< 10	8900	25	58	< 10	810	19
20 - 5	1/2	Sample 14	3700	< 50	96	< 10	8.9	< 100	< 10	< 10	15000	54	490	14	380	300
x+14+15- Dam39	13	Sample 15	2800	< 50	63	< 10	8.1	< 100	< 10	< 10	5600	16	140	14	400	35
	14	Sample 16	5300	< 50	51	< 10	5.9	< 100	< 10	< 10	5200	15	120	11	370	30
11 1 17 116 - 1001)	15,	Sample 17	11000	< 50	49	< 10	17	< 100	< 10	< 10	5500	13	130	< 10	380	19
16+11+18-11	16	Sample 18	6600	< 50	41	< 10	6.4	< 100	< 10	< 10	14000	12	150	< 10	440	18
-	- C	heck														
	17	Sample 1	6900	< 50	62	< 10	4.4	< 100	< 10	< 10	11000	13	100	< 10	310	23
	18	Sample 1	6800	< 50	58	< 10	4.7	< 100	< 10	< 10	11000	11	66	< 10	240	14
	19	Sample 2	9500	< 50	45	< 10	2.9	< 100	< 10	< 10	11000	11	110	< 10	360	23
	20	Sample 2	9400	< 50	60	< 10	2.1	< 100	< 10	< 10	16000	13	140	< 10	530	29
N.	0.	Sample ID	* F	* NH3-N	* pH	* Cond	* TDS	* Alk	Са	Mg	Na	K	Si	* Cl	* SO4	* NO3
			mg/L	mg/L		mS/m	mg/L	mg/L	g/t	g/t	g/t	g/t	. %	mg/L	mg/L	mg/L
11+12 = Don1 {	19	Sample 11	1.38	0.76	9.2	99.9	740	76	120	2700	1100	1600	< 0.20	300	100	2.40
11+12 = bom 1	1/1	Sample 12	1.09	5.80	8.7	46.4	335	84	1100	800	800	1100	< 0.20	600	150	22.8
	1/2	Sample 14	6.40	0.54	7.8	229	1535	42	5400	730	1900	1300	< 0.20	450	800	8.90
5 + 19 + 15 : Umil	V3	Sample 15	1.52	1.97	8.0	214	1530	40	7000	440	2200	1200	< 0.20	400	900	8.20
	1/4	Sample 16	2.00	6.20	8.4	91.3	780	170	2500	690	1500	920	< 0.20	100	550	17.8
v.	15	Sample 17	0.97	2.86	8.2	49.3	625	92	170	320	1300	930	< 0.20	400	400	9.30
6+17+18=Dany	16	Sample 18	0.71	3.61	8.4	111	945	150	4800	1600	1500	1300	< 0.20	200	500	4.50
-	- C	heck														
	17	Sample 1			7.0	325		48	14000	910	1200	1100	< 0.20	600	1500	~ ~
	18	Sample 1			7.0	325		48	3900	630	780	1200	< 0.20	650	1350	
	1/9	Sample 2		** *	6.7	330	** **	16	6700	770	1100	1600	< 0.20	500	1450	** **
2	20	Sample 2		en 46	6.7	330		16	16000	800	2100	1600	< 0.20	500	1450	es 1-
		-1749														



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No.	Sample ID	Αl	As	Cr	Cd	Ва	Pb	Со	Cu	Fe	V	Mn	Ni	71	Zn
		g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t
21	Sample 3	3800	< 50	42	< 10	4.1	< 100	< 10	< 10	11000	< 10	120	< 10	270	13
22	Sample 3	3400	< 50	47	< 10	3.0	< 100	< 10	< 10	11000	< 10	140	< 10	290	15
23	Sample 4	5900	< 50	57	< 10	3.3	< 100	< 10	< 10	10000	15	120	12	540	34
24	Sample 4	6300	< 50	46	< 10	23	< 100	< 10	< 10	9900	12	95	< 10	360	17
25	Sample 5	3600	< 50	73	< 10	43	< 100	< 10	< 10	15000	18	110	13	420	28
26	Sample 5	3100	< 50	55	< 10	28	< 100	< 10	< 10	13000	14	97	< 10	340	28
27	Sample 6	8700	< 50	52	< 10	17	< 100	< 10	< 10	10000	11	440	< 10	170	200
28	Sample 6	8500	< 50	49	< 10	14	< 100	< 10	< 10	10000	< 10	350	< 10	250	160
29	Sample 8	7600	< 50	190	< 10	8.7	< 100	< 10	< 10	6600	20	330	14	790	300
30	Sample 8	7400	< 50	250	< 10	57	< 100	< 10	14	9200	26	280	18	650	350
31	Sample 9	5000	< 50	83	< 10	27	< 100	< 10	< 10	4300	18	620	13	280	1100
32	Sample 9	4900	< 50	100	< 10	46	< 100	< 10	< 10	4400	22	670	12	330	1400
No.	Sample ID	* F	* NH3-N	* pH	* Cond	* TDS	* Alk	Ca	Mg	Na	K	Si	* Cl	* \$04	* NO3
	•	mg/L	mg/L		mS/m	mg/L	mg/L	g/t	g/t	g/t	g/t	%	mg/L	mg/L	mg/L
21	Sample 3	7 +		7.1	238		36	4900	390	1700	730	< 0.20	550	1000	
22	Sample 3	=		7.1	238		36	7700	380	1700	650	< 0.20	550	1050	
23	Sample 4		w w	6.9	276		12	2800	440	1500	910	< 0.20	400	1300	
24	Sample 4	-		6.9	276	Ar 60	14	140	820	1100	950	< 0.20	400	1400	
25	Sample 5			6.7	326		48	270	530	1200	810	< 0.20	600	1500	
26	Sample 5			6.7	326		50	420	410	940	740	< 0.20	650	1500	
27	Sample 6			6.8	296	~ ~	26	99	650	2100	1400	< 0.20	300	1450	
28	Sample 6			6.8	296		26	69	650	1700	1400	< 0.20	300	1400	
29	Sample 8			7.3	134		32	550	520	880	1100	< 0.20	300	350	
30	Sample 8		** **	7.3	134		34	110	540	980	1100	< 0.20	300	300	~ ~
31	Sample 9			10.2	140		156	120	5600	1300	1400	< 0.20	200	400	
32	Sample 9			10.2	140		158	110	5400	1600	1400	< 0.20	200	250	



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Zn	Τi	Ni	Mn	V	Fe	Си	Co	Pb	Ba	Cd	Cr	As	Al	Sample ID	No.
g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t		
290	880	13	250	37	20000	< 10	< 10	< 100	6.8	< 10	130	< 50	15000	Sample 10	33
260	670	< 10	200	28	8200	< 10	< 10	< 100	6.2	< 10	110	< 50	15000	Sample 10	34
11	27	11	55	< 10	10000	< 10	< 10	< 100	4.4	< 10	32	< 50	8500	Sample 11	35
< 10	31	< 10	56	< 10	7100	< 10	< 10	< 100	4.0	< 10	32	< 50	7500	Sample 11	36
34	130	< 10	170	< 10	12000	< 10	11	< 100	6.4	< 10	46	< 50	11000	Sample 12	37
32	120	11	150	10	10000	< 10	11	< 100	20	< 10	50	< 50	11000	Sample 12	38
54	560	< 10	130	14	2400	< 10	< 10	< 100	18	< 10	100	< 50	700	Sample 14	39
52	520	< 10	100	12	2100	< 10	< 10	< 100	11	< 10	91	< 50	600	Sample 14	40
18	780	< 10	49	17	10000	< 10	< 10	< 100	18	< 10	82	< 50	3000	Sample 15	41
21	730	< 10	46	16	6800	< 10	< 10	< 100	16	< 10	80	< 50	3000	Sample 15	42
230	250	19	290	39	5700	< 10	< 10	< 100	26	< 10	80	< 50	5900	Sample 16	43
270	350	12	410	47	5800	< 10	< 10	< 100	3.2	< 10	90	< 50	6100	Sample 16	44
													4		
* NO3	* 504	* Cf	Si	K	Na	Mg	Ca	* Alk	* TDS	* Cond	* рН	* NH3-N	* F	Sample ID	No.
	/3								mg/L	mS/m		mg/L	mg/L		
mg/L	mg/L	mg/L	%	g/t	g/t	g/t	g/t	mg/L	mg/ L						
mg/L	mg/L 350	mg/L 300	< 0.20	g/t 1700	g/t 810	g/t 1400	g/t 5300	68		94.3	8.3		~ ~	Sample 10	33
					*						8.3 8.3			Sample 10 Sample 10	33 34
	350	300	< 0.20	1700	810	1400	5300	68	da ev	94.3			~ ~		
	350 300	300 300	< 0.20	1700 1700	810 680	1400 1300	5300 2500	68 70		94.3 94.3	8.3		~ ~	Sample 10	34
	350 300 300	300 300 300	< 0.20 < 0.20 < 0.20	1700 1700 1800	810 680 2100	1400 1300 3000	5300 2500 160	68 70 78		94.3 94.3 99.9	8.3 9.2			Sample 10 Sample 11	34 35
	350 300 300 200	300 300 300 300	< 0.20 < 0.20 < 0.20 < 0.20	1700 1700 1800 1600	810 680 2100 2300	1400 1300 3000 2700	5300 2500 160 95	68 70 78 76		94.3 94.3 99.9 99.9	8.3 9.2 8.7			Sample 10 Sample 11 Sample 11	34 35 36
	350 300 300 200 300	300 300 300 300 600	< 0.20 < 0.20 < 0.20 < 0.20 < 0.20	1700 1700 1800 1600 1200	810 680 2100 2300 2100	1400 1300 3000 2700 990	5300 2500 160 95 480	68 70 78 76 84		94.3 94.3 99.9 99.9 46.4	8.3 9.2 8.7 8.7			Sample 10 Sample 11 Sample 11 Sample 12	34 35 36 37
	350 300 300 200 300 100	300 300 300 300 600 600	< 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20	1700 1700 1800 1600 1200 1200	810 680 2100 2300 2100 2300	1400 1300 3000 2700 990 960	5300 2500 160 95 480 95	68 70 78 76 84 82		94.3 94.3 99.9 99.9 46.4 46.4	8.3 9.2 8.7 8.7 7.8			Sample 10 Sample 11 Sample 11 Sample 12 Sample 12	34 35 36 37 38
	350 300 300 200 300 100 700	300 300 300 300 600 600 450	< 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20	1700 1700 1800 1600 1200 1200 850	810 680 2100 2300 2100 2300 1200	1400 1300 3000 2700 990 960 310	5300 2500 160 95 480 95 160	68 70 78 76 84 82 42		94.3 94.3 99.9 99.9 46.4 46.4 229	8.3 9.2 8.7 8.7 7.8 7.8			Sample 10 Sample 11 Sample 11 Sample 12 Sample 12 Sample 14	34 35 36 37 38 39
	350 300 300 200 300 100 700 600	300 300 300 300 600 600 450 450	< 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20	1700 1700 1800 1600 1200 1200 850 830	810 680 2100 2300 2100 2300 1200 970	1400 1300 3000 2700 990 960 310 300	5300 2500 160 95 480 95 160 180	68 70 78 76 84 82 42 42		94.3 94.3 99.9 99.9 46.4 46.4 229 229	8.3 9.2 8.7 8.7 7.8 7.8			Sample 10 Sample 11 Sample 11 Sample 12 Sample 12 Sample 14 Sample 14	34 35 36 37 38 39 40
	350 300 300 200 300 100 700 600	300 300 300 300 600 600 450 450 400	< 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20 < 0.20	1700 1700 1800 1600 1200 1200 850 830 1200	810 680 2100 2300 2100 2300 1200 970 790	1400 1300 3000 2700 990 960 310 300 500	5300 2500 160 95 480 95 160 180 290	68 70 78 76 84 82 42 42 40		94.3 94.3 99.9 99.9 46.4 46.4 229 229	8.3 9.2 8.7 8.7 7.8 7.8 8.0			Sample 10 Sample 11 Sample 11 Sample 12 Sample 12 Sample 14 Sample 14	34 35 36 37 38 39 40 41



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No.	Sample ID	Αt	As	Cr	Cd	Ba	Pb	Co	Cu	Fe	V	Mn	Nī	Ti	Zn
		g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t	g/t
45	Sample 17	8900	< 50	70	< 10	15	< 100	< 10	< 10	4600	15	42	< 10	670	16
46	Sample 17	9600	< 50	76	< 10	16	< 100	< 10	< 10	5100	15	44	< 10	700	20
47	Sample 18	6500	< 50	82	< 10	27	< 100	< 10	< 10	7300	40	300	20	250	240
48	Sample 18	6900	< 50	84	< 10	3.1	< 100	< 10	< 10	13000	44	390	11	330	250
No.	Sample ID	* F	* NH3-N	* рН	* Cond	* TDS	* Alk	Ca	Mg	Na	K	Si	* cl	* S04	* NO3
		mg/L	mg/L		mS/m	mg/L	mg/L	g/t	g/t	g/t	g/t	%	mg/L	mg/L	mg/L
45	Sample 17	10. 44		8.2	49.3		92	240	310	710	930	< 0.20	400	100	
46	Sample 17	Ser use	W 66	8.4	49.3		92	360	340	650	950	< 0.20	40D	200	
47	Sample 18	~ ~	3.62	8-4	111	₩ ₩	150	100	1400	1500	1300	< 0.20	200	600	4.50
48	Sample 18	Ad	3.62	8.3	111		152	1700	1600	1600	1300	< 0.20	200	300	4.58

* - Analysis on 10:1 Liquid: Solid Ratio

Noelene McKenzie Snr. Chemist

Draft for discussion CONFIDENTIAL Research for IVS

Tim Elliott

Manager, Analytical Services

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Ockie Fourie Toxicologists (Pty) Ltd P.O. Box 73179 Lynnwood Ridge, 0040 - RSA

Attn : Dr H.O. Fourie Fax : (012) 348 7436 Draft for discussion CONFIDENTIAL Research for IVS Sediments

Dam 4 - (1-6)

Dam 3 - 8, (13), 14 & 15

Dam 2 - 16, 17 & 18

Dam 1 - 9, 10, 11 & 12

Johannesburg, January 15, 2002

Date Rec.: November 27, 2001
LR. Ref.: NOV1501.R01
Reference: LAB/41/2001
Project: EPA TCLP Leach

CERTIFICATE OF ANALYSIS

	No.	Sample ID	Al	As	Cr	Ag	Cd	Ва	Нд	Se	Pb	Co	Cu	Fe	V	Mn	Ni
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
	TT	Sample 1 #1	1.2	< 0.34	< 0.04	< 0.02	< 0.03	0.17	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	54	< 0.07	3.1	0.09
	2	Sample 2 #1	0.95	< 0.34	< 0.04	< 0.02	< 0.03	0.33	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	190	< 0.07	6.5	0.07
3)	3	Sample 3 #1	0.96	< 0.34	< 0.04	< 0.02	< 0.03	0.10	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	2.5	< 0.07	2.3	< 0.05
Dum 4) 4	Sample 4 #1	1.5	< 0.34	< 0.04	< 0.02	< 0.03	0.12	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	23	< 0.07	3.5	0.09
	(5	Sample 5 #1	0.63	< 0.34	< 0.04	< 0.02	< 0.03	0.12	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	45	< 0.07	2.9	0.05
nous s	6	Sample 6, #1	1.2	< 0.34	< 0.04	< 0.02	< 0.03	0.15	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	44	< 0.07	3.1	0.06
Dam 3 Dam 1	<- >	Sample 8 #1	1.6	< 0.34	< 0.04	< 0.02	< 0.03	0.33	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	84	< 0.07	5.1	< 0.05
Daml	8	Sample 9.#2	0.83)< 0.34	< 0.04	< 0.02	< 0.03	0.51	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	16	< 0.07	11	< 0.05
	No.	Sample ID	Ti mg/L	Zn mg/L	F mg/L	NH3-N mg/L	На	Cond mS/m	TDS mg/L	Alk mg/L	Ca mg/L	Mg mg/L	K mg/L	Si mg/L	Cl Mg/L	S04 g/L	NO3
	and the same	Sample 1 #1	< 0.02	< 0.17	1.0	4	4.9	744	9550	3300	630	17	36	5.7	120	2.0	< 10
	3	Sample 2 #1	< 0.02	0.25	0.6	10	5.0	712	8600	2350	410	21	52	20	80	1.3	10
Dans	< 3	Sample 3 #1	< 0.02	0.17	0.4	3	4.9	773	8800	1250	850	11	23	6-4	70	2.2	< 10
	1 &	Sample 4 #1	< 0.02	0.19	0.7	7	4.9	786	9050	1250	870	12	28	6.5	50	2.5	< 10
	15	Sample 5 #1	< 0.02	< 0.17	0.3	7	4.9	799	9050	1300	880	15	29	8.4	120	2.6	< 10
	(8	Sample 6 #1	< 0.02	< 0.17	0.5	10	4.9	799	8950	1400	840	15	42	7.1	50	2.4	< 10
J. APP.	7.	Sample 8° #1	< 0.02	< 0.17	0.8	7	5.0	556	6450	1100	48	14	26	4.1	70	< 1.0	< 10
	8:	Sample 9 #2	< 0.02	< 0.17	1.2	13	7.3	697	8900	3000	1900	140	48	25	50	< 1.0	13

Dan 1-4 Sediments

Page 1/3

Reg. No.1948/28709/07

Directors: South Africa - Heinrich Williams Canada - Larry E. Seely, Christopher A. Fleming, Robin K. MacLean

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	No. Sample ID	AL	As	Сг	Ag	Cd	Ва	Нд	Se	Pb	Со	Cu	Fe	V	Mn	Ni
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
	Sample 10.#1 Sample 11 #2 Sample 12 #1 Sample 14 #1 Sample 15 #1 Sample 16.#1 Sample 17 #1 Sample 18.#1	0.11	< 0.34	< 0.04	< 0.02	< 0.03	0.47	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	90	< 0.07	11	< 0.05
Dam 13/2		1.6	< 0.34	< 0.04	< 0.02	< 0.03	0.31	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	48	< 0.07	18	< 0.05
Land Landson		0.30	< 0.34	< 0.04	< 0.02	< 0.03	0.45	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	46	< 0.07	4.2	< 0.05
The same of the same of	12 Sample 14 #1	0.94	< 0.34	< 0.04	< 0.02	< 0.03	0.08	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	0.13	< 0.07	2.0	< 0.05
Dancis	13 Sample 15 #1	2.1	< 0.34	< 0.04	< 0.02	< 0.03	0.21	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	77	< 0.07	5.7	< 0.05
A Section of the Sect	14 Sample 16 #1	0.15	< 0.34	< 0.04	< 0.02	< 0.03	0.39	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	37	< 0.07	3.2	< 0.05
Dom 21 co	15 Sample 17 #1	0.30	< 0.34	< 0.04	< 0.02	< 0.03	0.40	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	19	< 0.07	0.9	< 0.05
	- 16 Sample 18 #1	0.09	< 0.34	< 0.04	< 0.02	< 0.03	0.44	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	83	< 0.07	12	< 0.05
	Check															
	17 Sample 2 #1	0.85	< 0.34	< 0.04	< 0.02	< 0.03	0.27	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	170	< 0.07	6.8	0.07
	18 Sample 10. #1	0.13	< 0.34	< 0.04	< 0.02	< 0.03	0.49	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	99	< 0.07	10	< 0.05
	19 Sample 18 #1	0.10	< 0.34	< 0.04	< 0.02	< 0.03	0.45	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	85	< 0.07	12	< 0.05
									The Control of the Co							
	No. Sample ID	Τi	Zn	F	NH3-N	pН	Cond	TDS	Alk	Са	Mg	K	Sí	Cl	S04	коз
		mg/L	mg/L	mg/L	mg/L		mS/m	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	g/L	mg/L
	9 Sample 10 #1	< 0.02	< 0.17	3.0	10	6.9	704	8300	10850	620	19	37	9.8	10	< 1.0	< 10
	10 Sample 11 #2	< 0.02	< 0.17	1.2	6	7.0	669	9300	16300	1960	48	50	22	20	< 1.0	< 10
	11) Sample 12 #1	< 0.02	< 0.17	0.5	6	5.4	597	7450	10050	270	13	28	8.2	50	< 1.0	< 10
	12 Sample 14 #1	< 0.02	< 0.17	0.7	11	4.9	574	6450	1500	42	12	39	2.6	70	< 1.0	11
	13) Sample 15 #1	< 0.02	< 0.17	0.3	6	5.0	587	6750	2000	74	17	45	7.7	20	< 1.0	< 10
	(A) Sample 16 #1	< 0.02	< 0.17	0.3	8	5.3	601	7900	3100	200	16	30	7.9	50	< 1.0	< 10
	15 Sample 17 #1	< 0.02	< 0.17	0.3	11	5.0	551	7300	2050	57	5.3	24	4.5	90	1.0	11
	16 Sample 18 #1	< 0.02	< 0.17	0.6	6	5.3	624	8050	3000	270	26	42	25	20	< 1.0	< 10
	Check															
	17 Sample 2 #1	< 0.02	0.23	0.9	12	5.0	710	8100		400	19	47	22	90	1.6	12
	18 Sample 10 #1	< 0.02	< 0.17	2.9	11	5.6	695	8500	10250	590	18	36	9.6	50	< 1.0	11
	19 Sample 18 #1	< 0.02	< 0.17	0.5	12	5.0	626	7650	3000	270	26	42	25	50	< 1.0	12



Reg. No.1948/28709/07

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No.	Sample ID	Al mg/L	As		Ag	Cd	Ba	Нд	Se	Pb		Cu		V	Mn	Ni
		1119/ -	mg/L													
20	Blank A	< 0.08	< 0.34	< 0.04	< 0.02	< 0.03	0.02	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	< 0.02	< 0.07	< 0.01	< 0.05
21	Blank B1	< 0.08	< 0.34	< 0.04	< 0.02	< 0.03	0.04	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	< 0.02	< 0.07	< 0.01	< 0.05
22	Blank B2	< 0.08	< 0.34	< 0.04	< 0.02	< 0.03	< 0.02	< 0.01	< 0.05	< 0.31	< 0.12	0.04	< 0.02	< 0.07	< 0.01	< 0.05
23	Blank C	< 0.08	< 0.34	< 0.04	< 0.02	< 0.03	< 0.02	< 0.01	< 0.05	< 0.31	< 0.12	< 0.02	< 0.02	< 0.07	< 0.01	< 0.05
No.	Sample ID	Τi	Zn	F	NH3-N	рН	Cond	TDS	Alk	Ca	Mg	К	Sí	cl	\$04	N03
		mg/L	mg/L	mg/L	mg/L		mS/m	mg/L	g/L	mg/L						
20	Blank A	< 0.02	< 0.17	< 0.1	3	6.5	495	6050	4250	< 0.05	< 0.02	1.8	< 0.37	< 10	< 1.0	< 10
21	Blank B1	< 0.02	< 0.17	< 0.1	3	5.6	492	5700	3000	< 0.05	< 0.02	< 0.11	< 0.37	< 10	< 1.0	< 10
22	Blank B2	< 0.02	< 0.17	< 0.1	8	4.9	485	500	< 10	< 0.05	< 0.02	1.7	< 0.37	< 10	< 1.0	< 10
23	Blank C	< 0.02	< 0.17	< 0.1	7	4.9	497	5800	2900	< 0.05	< 0.02	< 0.11	0.57	< 10	< 1.0	< 10

Noelene McKenzie Snr. Chemist

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Tim Elliott Manager, Analytical Services

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior written approval.



Canada Argentina Australia Brazil Chile Peru South Africa

Leachate Test Report

Client Informatio	n		
Reference No.:	LAB/41/2001	Date Received:	November 27, 2001
Company:	Ockie Fourie Toxicologists	Quote/Proposal #:	MEAN THE RESIDENCE AND A SECURE OF THE PROPERTY OF THE RESIDENCE AND A SECURE OF THE PROPERTY OF THE RESIDENCE AND A SECURE OF
Client Contact:	Dr HO Fourie	LIMS #:	NOV 1501.R01
Order Number:	-	No. of Samples:	6

Test Information	NAN TIPET			CONTRACTOR
Test Method:	USEPA TOLP 13	311		
Extractant Used:	TCLP #1 (pH 4.9	3 ± 0.05)	and Makada ngaraka Mala Africa Akaga nga a cikanan kara na ninda Sharja da mada Ni Sharin Mala nin na ninda ka	
Sample Weight:	100 g		ana halikajah 18 Magalanga jahang gipang jaga samalyan masai ara sasah yang katal napilan sahan magi saha kanan	
Extractant Volume:	2			-
Extraction Period:	18 h	- Warner - W		
Comments:	Leaches comple	ted on as-receive	d samples resuspended	d prior to weighing
Ī		1		
Sample ID:	1	2	2 (duplicate)	3
Evaluation pH:	7.42	7.15	-	6.89
Final pH:	5.01	5.14	5.16	4.96
Γ				
Sample ID:	4	5	6	Blank A
Evaluation pH:	7.06	6.97	7.32	465
Final pH:	4.99	4.99	5.00	4.99

Environmental Chemist

PRMHADA Environmental Manager

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Research for IVS

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Canada Argentina Australa Brazil Chile Peru South Africa

Leachate Test Report

Client Informatio	n		
Reference No.:	LAB/41/2001	Date Received:	November 27, 2001
Company:	Ockie Fourie Toxicologists	Quote/Proposal #:	
Client Contact:	Dr HO Fourie	LIMS #:	NOV 1501.R01
Order Number:	-	No. of Samples:	5

Test Information Test Method: USEPA TCLP 1311 Extractant Used: TCLP #1* (pH 4.93 ± 0.05) and TCLP #2** (pH 2.88 ± 0.05) Sample Weight: 100 g Extractant Volume: 2 L Extraction Period: 18 h Comments: Leaches completed on as-received samples resuspended prior to weighing 8* 10* 10 (duplicate)* Sample ID: 7.88 10.37 8.38 Evaluation pH: 5.10 5.88 6.27 6.20 Final pH: 11** 12* Blank B1* Blank B2** Sample ID: 9.42 9.82 Evaluation pH: 5.75 5.44 4.99 2.94 Final pH:

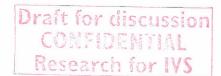
Environmental Chemist

Mtmlfda_ Environmental Manage

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tel: +27 (0171 6803466 Fax: +27 (0177 4333654 e-mail: africa@lakefield.com www.lakefield.com







Canada Argentina Australia Brazil Chile Peru South Africa

Leachate Test Report

Date Received:	lovember 27, 2001
Quote/Proposal #:	
LIMS #: N	NOV 1501.R01
No. of Samples:	5
	Quote/Proposal #: LIMS #: 1

Test Information Test Method: USEPA TCLP 1311 Extractant Used: TCLP #1 (pH 4.93 ± 0.05) Sample Weight: 100 g Extractant Volume: 2 L Extraction Period: 18 h Comments: Leaches completed on as-received samples resuspended prior to weighing 14 15 16 17 Sample ID: 7.58 8.51 9.21 9.38 Evaluation pH: 4.98 5.09 5.35 5.09 Final pH: 18 (duplicate) Blank C Sample ID: 9.44 Evaluation pH: 5.59 4.96 5.60 Final pH:

A

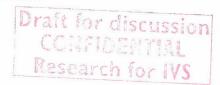
Environmental Chemist

PP MAMLTALA Environmental Manager

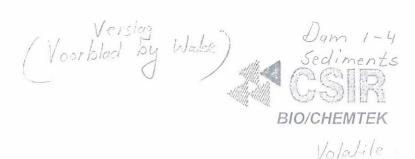
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Volatile Organics by

Headspace GC-MS

Damy Damy Damy Damy

			Damy	Dam 4	Damy	Darny
	The second secon	Date Analysed	04/02/02	04/02/02	04/02/02	04/02/02
		Ref no	01-1553	01-1553	01-1553	01-1553
		Sample I.D.	1	2	3	4
Peak	CAS No.:	Units	μg/kg	μg/kg '	μg/kg	μg/kg
1	75-71-8	Dichlorodifluoromethane	<10	<10	<10	<10
2	75-01-4	Vinyl Chloride	<10	<10	<10	<10
3	74-83-9	Bromomethane	<10	<10	<10	<10
4	75-69-4	Trichlorofluoromethane	<10	<10	<10	<10
5	75-35-4	1,1-Dichloroethene	<10	<10	<10	<10
6	75-09-2	Dichloromethane	<10	<10	<10	<10
7	156-60-5	trans-1,2-Dichloroethene	<10	<10	<10	<10
8	75-34-3	1,1-Dichloroethane	<10	<10	<10	<10
9	156-59-2	cis-1,2-Dichloroethene	<10	<10	<10	<10
10	594-20-7	2,2-Dichloropropane	<10	<10	<10	<10
11	74-97-5	Bromochloromethane	<10	<10	<10	<10
12	67-66-3	Chloroform	<10	<10	<10	<10
13	71-55-6	1,1,1-Trichloroethane	<10	<10	<10	<10
14	563-58-6	1,1-Dichloropropene	<10	<10	<10	<10
15	56-23-5	Carbon Tetrachloride	<10	<10	<10	<10
16	107-06-2	1,2-Dichloroethane	<10	<10	<10	<10
17	71-43-2	Benzene	<10	<10	<10	<10
18	79-01-6	Trichloroethene	<10	<10	<10	<10
19	78-87-5	1,2-Dichloropropane	<10	<10	<10	<10
20	74-95-3	Dibromomethane	<10	<10	<10	<10
21	75-27-4	Bromodichloromethane	<10	<10	<10	<10
22	108-88-3	Toluene	<10	<10	<10	<10
23	79-00-5	1,1,2-Trichloroethane	<10	<10	<10	<10
24	142-28-9	1,3-Dichloropropane	<10	<10	<10	<10
25	127-18-4	Tetrachloroethene	<10	<10	<10	<10
26	124-48-1	Dibromochloromethane	<10	<10	<10	<10
27	106-93-4	1,2-Dibromoethane	<10	<10	<10	<10
28	108-90-7	Chlorobenzene	<10	<10	<10	<10
29	630-20-6	1,1,1,2-Tetrachloroethane	<10	<10	<10	<10





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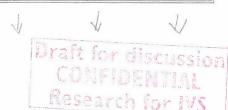


Volatile Organics

by

Headspace GC-MS

		^	Dan 4	Damy	Dan 4	Damy
		Date Analysed	04/02/02	04/02/02	04/02/02	04/02/02
		Ref no	01-1553	01-1553	01-1553	01-1553
		Sample I.D.	1	2	3	4
Peak	CAS No.:	Units	μg/kg	μg/kg '	μg/kg	μg/kg
30	100-41-4	Ethylbenzene	<10	<10	<10	<10
31	108-38-3	m,p-Xylene				
	106-42-3		<10	<10	<10	<10
32	95-47-6	o-Xylene	<10	<10	<10	<10
33	100-42-5	Styrene	<10	<10	<10	<10
34	75-25-2	Bromoform	<10	<10	<10	<10
35	98-82-8	Isopropylbenzene	<10	<10	<10	<10
36	79-34-5	1,1,2,2-Tetrachloroethane	<10	<10	<10	<10
37	96-18-4	1,2,3-Trichloropropane	<10	<10	<10	<10
38	108-86-1	Bromobenzene	<10	<10	<10	<10
39	103-65-1	n-Propylbenzene	<10	<10	<10	<10
40	95-49-8	2-Chlorotoluene	<10	<10	<10	<10
41	108-67-8	1,3,5-Trimethylbenzene	<10	<10	<10	<10
42	106-43-4	4-Chlorotoluene	<10	<10	<10	<10
43	98-06-6	tert-Butylbenzene	<10	<10	<10	<10
44	95-63-6	1,2,4-Trimethylbenzene	<10	<10	<10	<10
45	135-98-8	sec-Butylbenzene	<10	<10	<10	<10
46	99-87-6	4-Isopropyltoluene	<10	<10	<10	<10
47	541-73-1	1,3-Dichlorobenzene	<10	<10	<10	<10
48	106-46-7	1,4-Dichlorobenzene	<10	<10	<10	<10
49	104-51-8	n-Butylbenzene	<10	<10	<10	<10
50	95-50-1	1,2-Dichlorobenzene	<10	<10	<10	<10
51	96-12-8	1,2-Dibromo-3-				
		chloropropane	<10	<10	<10	<10
52	120-82-1	1,2,4-Trichlorobenzene	<10	<10	<10	<10
53	87-68-3	Hexachlorobutadiene	<10	<10	<10	<10
54	91-20-3	Naphthalene	<10	<10	<10	<10
55	87-61-6	1,2,3-Trichlorobenzene	<10	<10	<10	<10



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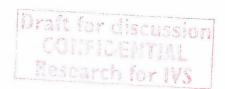
Page 18 of 18

REFERENCE NO: 01-1553



Volatile Organics by

			by			
		Headspa	Dan 4	Dank	Dam 3	Doml
		Date Analysed	04/02/02	04/02/02	04/02/02	04/02/02
		Ref no	01-1553	01-1553	01-1553	01-1553
		Sample I.D.	5	6	8	9
Peak	CAS No.:	Units	μg/kg	μg/kg	μg/kg	μg/kg
30	100-41-4	Ethylbenzene	<10	<10	<10	<10
31	108-38-3	m,p-Xylene				
	106-42-3		<10	<10	<10	<10
32	95-47-6	o-Xylene	<10	<10	<10	<10
33	100-42-5	Styrene	<10	<10	<10	<10
34	75-25-2	Bromoform	<10	<10	<10	<10
35	98-82-8	Isopropylbenzene	<10	<10	<10	<10
36	79-34-5	1,1,2,2-Tetrachlorocthane	<10	<10	<10	<10
37	96-18-4	1,2,3-Trichloropropane	<10	<10	<10	<10
38	108-86-1	Bromobenzene	<10	<10	<10	<10
39	103-65-1	n-Propylbenzene	<10	<10	<10	<10
40	95-49-8	2-Chlorotoluene	<10	<10	<10	<10
41	108-67-8	1,3,5-Trimethylbenzene	<10	<10	<10	<10
42	106-43-4	4-Chlorotoluene	<10	<10	<10	<10
43	98-06-6	tert-Butylbenzene	<10	<10	<10	<10
44	95-63-6	1,2,4-Trimethylbenzene	<10	<10	<10	<10
45	135-98-8	sec-Butylbenzene	<10	<10	<10	<10
46	99-87-6	4-Isopropyltoluene	<10	<10	<10	<10
47	541-73-1	1,3-Dichlorobenzene	<10	<10	<10	<10
48	106-46-7	1,4-Dichlorobenzene	<10	<10	<10	<10
49	104-51-8	n-Butylbenzene	<10	<10	<10	<10
50	95-50-1	1,2-Dichlorobenzene	<10	<10	<10	<10
51	96-12-8	1,2-Dibromo-3-				
		chloropropane	<10	<10	<10	<10
52	120-82-1	1,2,4-Trichlorobenzene	<10	<10	<10	<10
53	87-68-3	Hexachlorobutadiene	<10	<10	<10	<10
54	91-20-3	Naphthalene	<10	<10	<10	12
55	87-61-6	1,2,3-Trichlorobenzene	<10	<10	<10	<10



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REFERENCE NO: 01-1553



Volatile Organics

by

Headspace GC-MS

		^	Doml	Danj	Danj	Dam3
		Date Analysed	04/02/02	04/02/02	04/02/02	04/02/02
		Ref no	01-1553	01-1553	01-1553	01-1553
		Sample I.D.	10	11	12	14
Peak	CAS No.:	Units	μg/kg	μg/kg	μg/kg	μg/kg
1	75-71-8	Dichlorodifluoromethane	<10	<10	<10	<10
2	75-01-4	Vinyl Chloride	<10	<10	<10	<10
3	74-83-9	Bromomethane	<10	<10	<10	<10
4	75-69-4	Trichlorofluoromethane	<10	<10	<10	<10
5	75-35-4	1,1-Dichloroethene	<10	<10	<10	<10
6	75-09-2	Dichloromethane	<10	<10	<10	<10
7	156-60-5	trans-1,2-Dichloroethene	<10	<10	<10	<10
8	75-34-3	1,1-Dichloroethane	<10	<10	<10	<10
9	156-59-2	cis-1,2-Dichloroethene	<10	<10	<10	<10
10	594-20-7	2,2-Dichloropropane	<10	<10	<10	<10
11	74-97-5	Bromochloromethane	<10	<10	<10	<10
12	67-66-3	Chloroform	<10	<10	<10	<10
13	71-55-6	1,1,1-Trichloroethane	<10	<10	<10	<10
14	563-58-6	1,1-Dichloropropene	<10	<10	<10	<10
15	56-23-5	Carbon Tetrachloride	<10	<10	<10	<10
16	107-06-2	1,2-Dichloroethane	<10	<10	<10	<10
17	71-43-2	Benzene	<10	<10	<10	<10
18	79-01-6	Trichloroethene	<10	<10	<10	<10
19	78-87-5	1,2-Dichloropropane	<10	<10	<10	<10
20	74-95-3	Dibromomethane	<10	<10	<10	<10
21	75-27-4	Bromodichloromethane	<10	<10	<10	<10
22	108-88-3	Toluene	<10	<10	<10	<10
23	79-00-5	1,1,2-Trichloroethane	<10	<10	<10	<10
24	142-28-9	1,3-Dichloropropane	<10	<10	<10	<10
25	127-18-4	Tetrachloroethene	<10	<10	<10	<10
26	124-48-1	Dibromochloromethane	<10	<10	<10	<10
27	106-93-4	1,2-Dibromoethane	<10	<10	<10	<10
28	108-90-7	Chlorobenzene	<10	<10	<10	<10
29	630-20-6	1,1,1,2-Tetrachloroethane	<10	<10	<10	<10



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REFERENCE NO: 01-1553



Volatile Organics by

Headspace GC-MS

		Headspa	Demi	Dani	Dani	Dam3
		Date Analysed	04/02/02	04/02/02	04/02/02	04/02/02
		Ref no	01-1553	01-1553	01-1553	01-1553
		Sample I.D.	10	11	12	14
Peak	CAS No.:	Units	μg/kg	μg/kg	μg/kg	μg/kg
30	100-41-4	Ethylbenzene	<10	<10	<10	<10
31	108-38-3	m,p-Xylene				
	106-42-3		<10	<10	<10	<10
32	95-47-6	o-Xylene	<10	<10	<10	<10
33	100-42-5	Styrene	<10	<10	<10	<10
34	75-25-2	Bromoform	<10	<10	<10	<10
35	98-82-8	Isopropylbenzene	<10	<10	<10	<10
36	79-34-5	1,1,2,2-Tetrachloroethane	<10	<10	<10	<10
37	96-18-4	1,2,3-Trichloropropane	<10	<10	<10	<10
38	108-86-1	Bromobenzene	<10	<10	<10	<10
39	103-65-1	n-Propylbenzene	<10	<10	<10	<10
40	95-49-8	2-Chlorotoluene	<10	<10	<10	<10
41	108-67-8	1,3,5-Trimethylbenzene	<10	<10	<10	<10
42	106-43-4	4-Chlorotoluene	<10	<10	<10	<10
43	98-06-6	tert-Butylbenzene	<10	<10	<10	<10
44	95-63-6	1,2,4-Trimethylbenzene	<10	<10	<10	<10
45	135-98-8	sec-Butylbenzene	<10	<10	<10	<10
46	99-87-6	4-Isopropyltoluene	<10	<10	<10	<10
47	541-73-1	1,3-Dichlorobenzene	<10	<10	<10	<10
48	106-46-7	1,4-Dichlorobenzene	<10	<10	<10	<10
49	104-51-8	n-Butylbenzene	<10	<10	<10	<10
50	95-50-1	1,2-Dichlorobenzene	<10	<10	<10	<10
51	96-12-8	1,2-Dibromo-3-				
		chloropropane	<10	<10	<10	<10
52	120-82-1	1,2,4-Trichlorobenzene	<10	<10	<10	<10
53	87-68-3	Hexachlorobutadiene	<10	<10	<10	<10
54	91-20-3	Naphthalene	<10	<10	<10	<10
55	87-61-6	1,2,3-Trichlorobenzene	<10	<10	<10	<10

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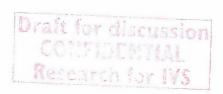


Volatile Organics

by

Headspace GC-MS

			Dan 3	Dem 2	Oan 2	Dam 2
		Date Analysed	04/02/02	04/02/02	04/02/02	04/02/02
		Ref no	01-1553	01-1553	01-1553	01-1553
		Sample I.D.	15	16	17	18
Peak	CAS No.:	Units	μg/kg	μg/kg	μg/kg	μg/kg
1	75-71-8	Dichlorodifluoromethane	<10	<10	<10	<10
2	75-01-4	Vinyl Chloride	<10	<10	<10	<10
3	74-83-9	Bromomethane	<10	<10	<10	<10
4	75-69-4	Trichlorofluoromethane	<10	<10	<10	<10
5	75-35-4	1,1-Dichloroethene	<10	<10	<10	<10
6	75-09-2	Dichloromethane	<10	<10	<10	<10
7	156-60-5	trans-1,2-Dichloroethene	<10	<10	<10	<10
8	75-34-3	1,1-Dichloroethane	<10	<10	<10	<10
9	156-59-2	cis-1,2-Dichloroethene	<10	<10	<10	<10
10	594-20-7	2,2-Dichloropropane	<10	<10	<10	<10
11	74-97-5	Bromochloromethane	<10	<10	<10	<10
12	67-66-3	Chloroform	<10	<10	<10	<10
13	71-55-6	1,1,1-Trichloroethane	<10	<10	<10	<10
14	563-58-6	1,1-Dichloropropene	<10	<10	<10	<10
15	56-23-5	Carbon Tetrachloride	<10	<10	<10	<10
16	107-06-2	1,2-Dichloroethane	<10	<10	<10	<10
17	71-43-2	Benzene	<10	<10	<10	<10
18	79-01-6	Trichloroethene	<10	<10	<10	<10
19	78-87-5	1,2-Dichloropropane	<10	<10	<10	<10
20	74-95-3	Dibromomethane	<10	<10	<10	<10
21	75-27-4	Bromodichloromethane	<10	<10	<10	<10
22	108-88-3	Toluene	<10	<10	<10	<10
23	79-00-5	1,1,2-Trichloroethane	<10	<10	<10	<10
24	142-28-9	1,3-Dichloropropane	<10	<10	<10	<10
25	127-18-4	Tetrachloroethene	<10	<10	<10	<10
26	124-48-1	Dibromochloromethane	<10	<10	<10	<10
27	106-93-4	1,2-Dibromoethane	<10	<10	<10	<10
28	108-90-7	Chlorobenzene	<10	<10	<10	<10
29	630-20-6	1,1,1,2-Tetrachloroethane	<10	<10	<10	<10



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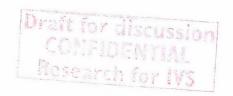
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Volatile Organics

by Headspace GC-MS

		Headspa	ce GC-MS Jon 3	Dan 2	Danz	Dom 2
		Date Analysed	04/02/02	04/02/02	04/02/02	04/02/02
		Ref no	01-1553	01-1553.	01-1553	01-1553
		Sample I.D.	15	16	17	18
Peak	CAS No.:	Units	μg/kg	μg/kg	μg/kg	μg/kg
30	100-41-4	Ethylbenzene	<10	<10	<10	<10
31	108-38-3 106-42-3	m,p-Xylene	<10	<10	<10	<10
32	95-47-6	o-Xylene	<10	<10	<10	<10
33	100-42-5	Styrene	<10	<10	<10	<10
34	75-25-2	Bromoform	<10	<10	<10	<10
35	98-82-8	Isopropylbenzene	<10	<10	<10	<10
36	79-34-5	1,1,2,2-Tetrachloroethane	<10	<10	<10	<10
37	96-18-4	1,2,3-Trichloropropane	<10	<10	<10	<10
38	108-86-1	Bromobenzene	<10	<10	<10	<10
39	103-65-1	n-Propylbenzene	<10	<10	<10	<10
40	95-49-8	2-Chlorotoluene	<10	<10	<10	<10
41	108-67-8	1,3,5-Trimethylbenzene	<10	<10	<10	<10
42	106-43-4	4-Chlorotoluene	<10	<10	<10	<10
43	98-06-6	tert-Butylbenzene	<10	<10	<10	<10
44	95-63-6	1,2,4-Trimethylbenzene	<10	<10	<10	<10
45	135-98-8	sec-Butylbenzene	<10	<10	<10	<10
46	99-87-6	4-Isopropyltoluene	<10	<10	<10	<10
47	541-73-1	1,3-Dichlorobenzene	<10	<10	<10	<10
48	106-46-7	1,4-Dichlorobenzene	<10	<10	<10	<10
49	104-51-8	n-Butylbenzene	<10	<10	<10	<10
50	95-50-1	1,2-Dichlorobenzene	<10	<10	<10	<10
51	96-12-8	1,2-Dibromo-3-	-10	-10	-10	-10
=-	100.00.1	chloropropane	<10	<10	<10	<10
52	120-82-1	1,2,4-Trichlorobenzene	<10	<10	<10	<10
53	87-68-3	Hexachlorobutadiene	<10	<10	<10	<10
54	91-20-3	Naphthalene	<10	<10	<10	<10
55	87-61-6	1,2,3-Trichlorobenzene	<10	<10	<10	<10



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(Semi-voladile)

Semi-volatile organics

by GC-MS

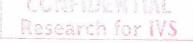
			Dan 4	Dan 4	Dany
	Date Analysed		14/01/02	14/01/02	14/01/02
	Ref no	MDL	01-1553	01-1553	01-1553
	Sample I.D	*	1	. 2	3
CAS No.:	COMPONENTS	μg/kg	μg/kg	μg/kg	μg/kg
62-75-9	N-Nitrosodimethylamine	59	**	~	-
111-44-4	bis(2-Chloroethyl)ether	87			
108-95-2	Phenol	64	van.	No.	_
95-57-8	2-Chlorophenol	148	-	-	-
541-73-1	1,3-Dichlorobenzene	86	-		-
106-46-7	1,4-Dichlorobenzene	83	440	449	_
95-50-1	1,2-Dichlorobenzene	85	PA	-	_
108-60-1	bis(2-chloroisopropyl)ether	87	M60	-	
95-48-7	2-Methylphenol	103	-	-	The state of the s
67-72-1	Hexachloroethane	90	-	-	-
621-64-7	N-Nitroso-di-n-propylamine	79	NAME OF THE PARTY	-	
106-44-5	4-Methylphenol	101	449	_	290
98-95-3	Nitrobenzene	88	ndar .		-
78-59-1	Isophorone	78	_		-
88-75-5	2-Nitrophenol	137	ular	**	-
105-67-9	2,4-Dimethylphenol	157	and .	-	-
111-91-1	bis(2-Chloroethoxy)methane	76	-	-	_
120-83-2	2,4-Dichlorophenol	147	-	-	-
120-82-1	1,2,4-Trichlorobenzene	226	-	-	400
91-20-3	Naphthalene	86	-		
106-47-8	4-Chloroaniline	79	-	-	- Serv
87-68-3	Hexachlorobutadiene	101	-	-	***
59-50-7	4-Chloro-3-methylphenol	110			-
91-57-6	2-Methylnaphthalene	83	-	-	_
77-47-4	Hexachlorocyclopentadiene	283	**	-	MA.
88-06-2	2,4,6-Trichlorophenol	236	-		-
95-95-4	2,4,5-Trichlorophenol	206		_	-
91-58-7	2-Chloronaphthalene	83	***	-	
88-74-4	2-Nitroaniline	95	-	-	***
208-96-8	Acenaphthylene	91	P+	***	94
131-11-3	Dimethylphthalate	94		-	-
606-20-2	2,6-Dinitrotoluene	93	444	-	_

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Semi-volatile organics

by GC-MS

Dany Domn 4 Dam 4 14/01/02 14/01/02 Date Analysed 14/01/02 MDL 01-1553 01-1553 01-1553 Ref no Sample I.D , 2 3 1 CAS No .: **COMPONENTS** μg/kg μg/kg μg/kg µg/kg 83-32-9 90 Acenaphthene 99-09-2 104 3-Nitroaniline 51-28-5 2,4-Dinitrophenol 162 132-64-9 97 Dibenzofuran 121-14-2 2,4-Dinitrotoluene 104 100-02-7 -Nitrophenol 101 86-73-7 87 Fluorene 7005-72-3 4-Chlorophenyl-phenylether 93 84-66-2 Diethylphthalate 104 100-01-6 4-Nitroaniline 151 534-52-1 4,6-Dinitro-2-methylphenol 158 103-33-3 84 Azobenzene 101-55-3 4-Bromophenyl-phenylether 89 118-74-1 Hexachlorobenzene 92 87-86-5 190 Pentachlorophenol 85-01-8 Phenanthrene 95 120-12-7 Anthracene 96 86-74-8 Carbazole 103 84-74-2 Di-n-butylphthalate 94 190 120 206-44-0 Fluoranthene 102 120 150 129-00-0 Pyrene 105 110 85-68-7 Butylbenzylphthalate 99 150 56-55-3 Benzo[a]anthracene 101 218-01-9 103 Chrysene -117-81-7 bis(2-Ethylhexyl)phthalate 247 143 117-84-0 Di-n-octylphthalate 205-99-2 Benzo[b]+]k]fluoranthene 119 130 50-32-8 107 Benzo[a]pyrene 193-39-5 Indeno[1,2,3-cd]pyrene 118 53-70-3 Dibenz[a,h]anthracene 114 191-24-2 116 Benzo[g,h,i]pervlene

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Semi-volatile organics

by GC-MS

Dan 4 Damy Damy 15/01/02 15/01/02 15/01/02 Date Analysed Ref no MDL 01-1553 01-1553 01-1553 Sample I.D 4 5 6 CAS No .: COMPONENTS μg/kg μg/kg μg/kg μg/kg 62-75-9 N-Nitrosodimethylamine 59 111-44-4 bis(2-Chloroethyl)ether 87 108-95-2 Phenol 64 95-57-8 2-Chlorophenol 148 541-73-1 1.3-Dichlorobenzene 86 106-46-7 1.4-Dichlorobenzene 83 95-50-1 1,2-Dichlorobenzene 85 108-60-1 bis(2-chloroisopropyl)ether 87 95-48-7 2-Methylphenol 103 67-72-1 Hexachloroethane 90 621-64-7 79 N-Nitroso-di-n-propylamine 106-44-5 4-Methylphenol 101 420 98-95-3 Nitrobenzene 88 78-59-1 Isophorone 78 88-75-5 2-Nitrophenol 137 105-67-9 2,4-Dimethylphenol 157 111-91-1 bis(2-Chloroethoxy)methane 76 120-83-2 2,4-Dichlorophenol 147 120-82-1 1.2,4-Trichlorobenzene 226 91-20-3 Naphthalene 86 106-47-8 4-Chloroaniline 79 87-68-3 Hexachlorobutadiene 101 59-50-7 4-Chloro-3-methylphenol 110 91-57-6 2-Methylnaphthalene 83 77-47-4 Hexachlorocyclopentadiene 283 88-06-2 2,4,6-Trichlorophenol 236 95-95-4 2,4,5-Trichlorophenol 206 91-58-7 2-Chloronaphthalene 83 88-74-4 2-Nitroaniline 95 208-96-8 Acenaphthylene 91 94 131-11-3 Dimethylphthalate 606-20-2 2,6-Dinitrotoluene 93

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Semi-volatile organics

by GC-MS

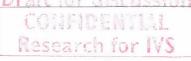
		GC-MS	Duny	Domy	Duny
	Date Analysed		15/01/02	15/01/02	15/01/02
	Ref no	MDL	01-1553	01-1553	01-1553
	Sample I.D	- 1.7	4	, 5	6
CAS No.:	COMPONENTS	μg/kg	µg/kg	μg/kg	μg/kg
83-32-9	Acenaphthene	90	epa	-	death of the state
99-09-2	3-Nitroaniline	104	_	**	_
51-28-5	2,4-Dinitrophenol	162	846	-	And
132-64-9	Dibenzofuran	97	-	or.	
121-14-2	2,4-Dinitrotoluene	104	_	and the same of th	-
100-02-7	-Nitrophenol	101	_	-	-
86-73-7	Fluorene	87		ned .	-
7005-72-3	4-Chlorophenyl-phenylether	93			-
84-66-2	Diethylphthalate	104	Page 1		-
100-01-6	4-Nitroaniline	151	***	and the same of th	
534-52-1	4,6-Dinitro-2-methylphenol	158	bull .	-	
103-33-3	Azobenzene	84	ens.	_	_
101-55-3	4-Bromophenyl-phenylether	89	na.	-	
118-74-1	Hexachlorobenzene	92		_	Aus
87-86-5	Pentachlorophenol	190	646	-	-
85-01-8	Phenanthrene	95	-	two .	
120-12-7	Anthracene	96	_	-	_
86-74-8	Carbazole	103	The State of the S	_	-
84-74-2	Di-n-butylphthalate	94	120	130	140
206-44-0	Fluoranthene	102	140	-	40
129-00-0	Pyrene	105	Pauls	-	. new
85-68-7	Butylbenzylphthalate	99	-	-	980
56-55-3	Benzo[a]anthracene	101	-	448	Post
218-01-9	Chrysene	103	ew	-	no.
117-81-7	bis(2-Ethylhexyl)phthalate	247	-	***	hell.
117-84-0	Di-n-octylphthalate	143	ans	-	40
205-99-2	Benzo[b]+]k]fluoranthene	119	sine	-	-
50-32-8	Benzo[a]pyrene	107	_	-	_
193-39-5	Indeno[1,2,3-cd]pyrene	118	-	-	
53-70-3	Dibenz[a,h]anthracene	114	-		
191-24-2	Benzo[g,h,i]perylene	116	pre		Peak

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Semi-volatile organics

by GC-MS

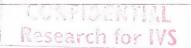
Dumi Dom3 Dam/ 15/01/02 15/01/02 19/01/02 Date Analysed Ref no 01-1553 01-1553 01-1553 MDL Sample I.D 8 9 10 CAS No .: COMPONENTS µg/kg μg/kg μg/kg μg/kg 62-75-9 59 N-Nitrosodimethylamine 87 111-44-4 bis(2-Chloroethyl)ether 108-95-2 Phenol 64 230 90 148 95-57-8 2-Chlorophenol _ 541-73-1 1.3-Dichlorobenzene 86 106-46-7 1.4-Dichlorobenzene 83 95-50-1 1,2-Dichlorobenzene 85 108-60-1 bis(2-chloroisopropyl)ether 87 95-48-7 2-Methylphenol 103 *** 67-72-1 Hexachloroethane 90 621-64-7 N-Nitroso-di-n-propylamine 79 106-44-5 4-Methylphenol 101 220 98-95-3 Nitrobenzene 88 78-59-1 Isophorone 78 -88-75-5 2-Nitrophenol 137 105-67-9 2,4-Dimethylphenol 157 310 111-91-1 bis(2-Chloroethoxy)methane 76 120-83-2 2,4-Dichlorophenol 147 -120-82-1 1,2,4-Trichlorobenzene 226 91-20-3 Naphthalene 86 100 4-Chloroaniline 79 106-47-8 87-68-3 Hexachlorobutadiene 101 59-50-7 4-Chloro-3-methylphenol 110 91-57-6 2-Methylnaphthalene 83 280 77-47-4 Hexachlorocyclopentadiene 283 88-06-2 2,4,6-Trichlorophenol 236 _ 95-95-4 2,4,5-Trichlorophenol 206 91-58-7 2-Chloronaphthalene 83 88-74-4 2-Nitroaniline 95 208-96-8 Acenaphthylene 91 460 131-11-3 Dimethylphthalate 94 606-20-2 2,6-Dinitrotoluene 93

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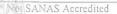
Semi-volatile organics

by GC-MS

Dani Dum 3 Dani 15/01/02 15/01/02 19/01/02 Date Analysed Ref no MDL 01-1553 01-1553 01-1553 Sample I.D 8 19 10 CAS No .: COMPONENTS μg/kg μg/kg µg/kg μg/kg 83-32-9 90 740 Acenaphthene 99-09-2 104 3-Nitroaniline 162 51-28-5 2,4-Dinitrophenol 132-64-9 Dibenzofuran 97 930 121-14-2 104 2,4-Dinitrotoluene 100-02-7 Nitrophenol 101 . 86-73-7 87 Fluorene 1300 7005-72-3 93 4-Chlorophenyl-phenylether 84-66-2 Diethylphthalate 104 100-01-6 4-Nitroaniline 151 534-52-1 4,6-Dinitro-2-methylphenol 158 103-33-3 84 Azobenzene 101-55-3 4-Bromophenyl-phenylether 89 118-74-1 Hexachlorobenzene 92 190 87-86-5 Pentachlorophenol 85-01-8 Phenanthrene 95 2200 120-12-7 96 Anthracene 1200 86-74-8 Carbazole 103 2300 150 84-74-2 170 Di-n-butylphthalate 94 130 206-44-0 Fluoranthene 102 180 170 9000 129-00-0 Pyrene 105 120 120 6000 85-68-7 Butylbenzylphthalate 99 190 56-55-3 Benzo[a]anthracene 101 2100 218-01-9 Chrysene 103 2100 117-81-7 bis(2-Ethylhexyl)phthalate 247 270 430. 117-84-0 Di-n-octylphthalate 143 205-99-2 Benzo[b]+]k]fluoranthene 119 140 3100 50-32-8 107 1400 Benzo[a]pyrene -193-39-5 Indeno[1,2,3-cd]pyrene 118 1100 53-70-3 114 180 Dibenz[a,h]anthracene 191-24-2 Benzo[g,h,i]perylene 116 710

"-" = < Method detection limit (MDL)

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Semi-volatile organics

by GC-MS

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			09	O arri
	Date Analysed		15/01/02	16/01/02
	Ref no	MDL	01-1553	01-1553
	Sample I.D		11 .	12
CAS No.:	COMPONENTS	μg/kg	μg/kg	μg/kg
62-75-9	N-Nitrosodimethylamine	59	-	-
111-44-4	bis(2-Chloroethyl)ether	87	en	**
108-95-2	Phenol	64		120
95-57-8	2-Chlorophenol	148		-
541-73-1	1,3-Dichlorobenzene	86		_
106-46-7	1,4-Dichlorobenzene	83		_
95-50-1	1,2-Dichlorobenzene	85	-	-
108-60-1	bis(2-chloroisopropyl)ether	87	-	***
95-48-7	2-Methylphenol	103	-	-
67-72-1	Hexachloroethane	90	-	-
621-64-7	N-Nitroso-di-n-propylamine	79	-	-
106-44-5	4-Methylphenol	101	-	430
98-95-3	Nitrobenzene	88	-	-
78-59-1	Isophorone	78	-	44
88-75-5	2-Nitrophenol	137	***	_
105-67-9	2,4-Dimethylphenol	157	-	-
111-91-1	bis(2-Chloroethoxy)methane	76		-
120-83-2	2,4-Dichlorophenol	147	-	-
120-82-1	1,2,4-Trichlorobenzene	226	-	-
91-20-3	Naphthalene	86		40
106-47-8	4-Chloroaniline	79	-	
87-68-3	Hexachlorobutadiene	101	-	_
59-50-7	4-Chloro-3-methylphenol	110		
91-57-6	2-Methylnaphthalene	83	100	
77-47-4	Hexachlorocyclopentadiene	283	No.	
88-06-2	2,4,6-Trichlorophenol	236	-	-
95-95-4	2,4,5-Trichlorophenol	206	-	
91-58-7	2-Chloronaphthalene	83	***	40
88-74-4	2-Nitroaniline	95	-	-
208-96-8	Acenaphthylene	91	49	_
131-11-3	Dimethylphthalate	94	•	-
606-20-2	2,6-Dinitrotoluene	93	-	_

"-" = < Method detection limit (MDL)

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Semi-volatile organics

by GC-MS

Dom! Dom!

	Date Analysed		15/01/02	16/01/02
	Ref no	MDL	01-1553	01-1553
	Sample I.D		11 ,	12
CAS No.:	COMPONENTS	μg/kg	μg/kg	μg/kg
83-32-9	Acenaphthene	90	-	P#
99-09-2	3-Nitroaniline	104	-	-
51-28-5	2,4-Dinitrophenol	162	-	-
132-64-9	Dibenzofuran	97	150	-
121-14-2	2,4-Dinitrotoluene	104	-	-
100-02-7	-Nitrophenol	101	84	400
86-73-7	Fluorene	87	270	min
7005-72-3	4-Chlorophenyl-phenylether	93	-	A49
84-66-2	Diethylphthalate	104	-	No.
100-01-6	4-Nitroaniline	151	200	0.0
534-52-1	4,6-Dinitro-2-methylphenol	158	-	**
103-33-3	Azobenzene	84	eve.	and.
101-55-3	4-Bromophenyl-phenylether	89	-	40
118-74-1	Hexachlorobenzene	92	-	-
87-86-5	Pentachlorophenol	190	-	
85-01-8	Phenanthrene	95	370	-
120-12-7	Anthracene	96	180	Ple
86-74-8	Carbazole	103	1500	ma.
84-74-2	Di-n-butylphthalate	94	110	110
206-44-0	Fluoranthene	102	1200	180
129-00-0	Pyrene	105	670	120
85-68-7	Butylbenzylphthalate	99		84
56-55-3	Benzo[a]anthracene	101	290	ena .
218-01-9	Chrysene	103	360	
117-81-7	bis(2-Ethylhexyl)phthalate	247	-	Pol-
117-84-0	Di-n-octylphthalate	143	PAR .	pa
205-99-2	Benzo[b]+]k]fluoranthene	119	580	
50-32-8	Benzo[a]pyrene	107	230	
193-39-5	Indeno[1,2,3-cd]pyrene	118	200	_
53-70-3	Dibenz[a,h]anthracene	114		-
191-24-2	Benzo[g,h,i]perylene	116	130	

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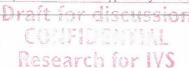


Semi-volatile organics by

GC-MS Dam 3 Damis 16/01/02 16/01/02 Date Analysed Ref no MDL 01-1553 01-1553 Sample I.D 14 15 CAS No .: COMPONENTS μg/kg μg/kg μg/kg 62-75-9 N-Nitrosodimethylamine 59 ---*** 111-44-4 bis(2-Chloroethyl)ether 87 108-95-2 Phenol 64 95-57-8 2-Chlorophenol 148 ... 541-73-1 1,3-Dichlorobenzene 86 106-46-7 1.4-Dichlorobenzene 83 95-50-1 1,2-Dichlorobenzene 85 108-60-1 87 bis(2-chloroisopropyl)ether 95-48-7 2-Methylphenol 103 67-72-1 Hexachloroethane 90 621-64-7 N-Nitroso-di-n-propylamine 79 106-44-5 4-Methylphenol 101 103 98-95-3 Nitrobenzene 88 78-59-1 Isophorone 78 88-75-5 2-Nitrophenol 137 105-67-9 2,4-Dimethylphenol 157 111-91-1 bis(2-Chloroethoxy) methane 76 120-83-2 2,4-Dichlorophenol 147 120-82-1 1.2,4-Trichlorobenzene 226 91-20-3 Naphthalene 86 106-47-8 4-Chloroaniline 79 -87-68-3 Hexachlorobutadiene 101 59-50-7 4-Chloro-3-methylphenol 110 91-57-6 2-Methylnaphthalene 83 77-47-4 Hexachlorocyclopentadiene 283 88-06-2 2,4,6-Trichlorophenol 236 95-95-4 2,4,5-Trichlorophenol 206 91-58-7 2-Chloronaphthalene 83 88-74-4 2-Nitroaniline 95 208-96-8 Acenaphthylene 91 131-11-3 94 Dimethylphthalate 606-20-2 2,6-Dinitrotoluene 93

"-" = < Method detection limit (MDL)

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Semi-volatile organics

by FC-MS

	GC-M	1S	Dan 3	Dan3
	Date Analysed		16/01/02	16/01/02
	Ref no	MDL	01-1553	01-1553
	Sample I.D		14	15
CAS No.:	COMPONENTS	μg/kg	μg/kg	μg/kg
83-32-9	Acenaphthene	90	-	- 0
99-09-2	3-Nitroaniline	104	ted.	tur.
51-28-5	2,4-Dinitrophenol	162	-	-
132-64-9	Dibenzofuran	97	-	tue .
121-14-2	2,4-Dinitrotoluene	104	_	_
100-02-7	-Nitrophenol	101		tub .
86-73-7	Fluorene	87	No.	866
7005-72-3	4-Chlorophenyl-phenylether	93	-	
84-66-2	Diethylphthalate	104		NA.
100-01-6	4-Nitroaniline	151	Charles Charle	Per
534-52-1	4,6-Dinitro-2-methylphenol	158		-
103-33-3	Azobenzene	84	_	-
101-55-3	4-Bromophenyl-phenylether	89	_	~
118-74-1	Hexachlorobenzene	92	_	Aug
87-86-5	Pentachlorophenol	190	-	-
85-01-8	Phenanthrene	95	-	=
120-12-7	Anthracene	96		
86-74-8	Carbazole	103	Ma	Per
84-74-2	Di-n-butylphthalate	94		-
206-44-0	Fluoranthene	102	16	40
129-00-0	Pyrene	105		Net .
85-68-7	Butylbenzylphthalate	99	Ade	No.
56-55-3	Benzo[a]anthracene	101	-	
218-01-9	Chrysene	103	-	-
117-81-7	bis(2-Ethylhexyl)phthalate	247		gat.
117-84-0	Di-n-octylphthalate	143	No.	-
205-99-2	Benzo[b]+]k]fluoranthene	119	560	nu nu
50-32-8	Benzo[a]pyrene	107	Ma	
193-39-5	Indeno[1,2,3-cd]pyrene	118	Per Per	
53-70-3	Dibenz[a,h]anthracene	114	-	nut .
191-24-2	Benzo[g,h,i]perylene	116	***	_

" – " = < Method detection limit (MDL)

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CONFIDENTIAL Research for IVS



Semi-volatile organics

by GC-MS

Dan 2-Dam 2 Dan 7-16/01/02 18/01/02 18/01/02 Date Analysed Ref no MDL 01-1553 01-1553 01-1553 Sample I.D 17 18 16 COMPONENTS CAS No .: μg/kg μg/kg µg/kg µg/kg 62-75-9 N-Nitrosodimethylamine 59 111-44-4 bis(2-Chloroethyl)ether 87 108-95-2 64 Phenol 95-57-8 148 2-Chlorophenol 541-73-1 1.3-Dichlorobenzene 86 106-46-7 1.4-Dichlorobenzene 83 95-50-1 1,2-Dichlorobenzene 85 87 108-60-1 bis(2-chloroisopropyl)ether 95-48-7 2-Methylphenol 103 67-72-1 Hexachloroethane 90 79 621-64-7 N-Nitroso-di-n-propylamine 106-44-5 4-Methylphenol 101 190 98-95-3 88 Nitrobenzene 78-59-1 Isophorone 78 88-75-5 137 2-Nitrophenol 105-67-9 2,4-Dimethylphenol 157 180 111-91-1 bis(2-Chloroethoxy)methane 76 120-83-2 2.4-Dichlorophenol 147 120-82-1 1,2,4-Trichlorobenzene 226 91-20-3 Naphthalene 86 106-47-8 4-Chloroaniline 79 87-68-3 Hexachlorobutadiene 101 59-50-7 4-Chloro-3-methylphenol 110 91-57-6 2-Methylnaphthalene 83 77-47-4 283 Hexachlorocyclopentadiene 88-06-2 2,4,6-Trichlorophenol 236 100 95-95-4 2,4,5-Trichlorophenol 206 91-58-7 2-Chloronaphthalene 83 88-74-4 2-Nitroaniline 95 208-96-8 91 Acenaphthylene 94 131-11-3 Dimethylphthalate 606-20-2 2,6-Dinitrotoluene 93

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Research for IVS

REFERENCE NO: 01-1553



Semi-volatile organics

by GC-MS

GC-MS
Dan 2
Dan 2

lysed 18/01/02 18/01/02 16/01/02

	Date Analysed		18/01/02	18/01/02	16/01/02
	Ref no	MDL	01-1553	01-1553	01-1553
	Sample I.D		16	17	18
CAS No.:	COMPONENTS	μg/kg	μg/kg	μg/kg	μg/kg
83-32-9	Acenaphthene	90	_	_	_
99-09-2	3-Nitroaniline	104	-	top.	
51-28-5	2,4-Dinitrophenol	162	and .	_	-
132-64-9	Dibenzofuran	97	-	ND ND	-
121-14-2	2,4-Dinitrotoluene	104	-	966	_
100-02-7	-Nitrophenol	101	-	-	-
86-73-7	Fluorene	87	-	-	put
7005-72-3	4-Chlorophenyl-	93	N/A	-	-
01.660	phenylether	101			
84-66-2	Diethylphthalate	104		-	-
100-01-6	4-Nitroaniline	151	-	-	NAD
534-52-1	4,6-Dinitro-2-methylphenol	158	₩	***	***
103-33-3	Azobenzene	84	-	-	
101-55-3	4-Bromophenyl- phenylether	89	-		
118-74-1	Hexachlorobenzene	92	44		-
87-86-5	Pentachlorophenol	190	and.	-	-
85-01-8	Phenanthrene	95	110	849	-
120-12-7	Anthracene	96	110		
86-74-8	Carbazole	103	290	-	150
84-74-2	Di-n-butylphthalate	94	210	160	170
206-44-0	Fluoranthene	102	310	No.	170
129-00-0	Pyrene	105	240		120
85-68-7	Butylbenzylphthalate	99	84	AND .	-
56-55-3	Benzo[a]anthracene	101	***		
218-01-9	Chrysene	103	110	-	-
117-81-7	bis(2-Ethylhexyl)phthalate	247	440		320
117-84-0	Di-n-octylphthalate	143			-
205-99-2	Benzo[b]+]k]fluoranthene	119	150	to 0	
50-32-8	Benzo[a]pyrene	107		00	-
193-39-5	Indeno[1,2,3-cd]pyrene	118	was .		4.0
53-70-3	Dibenz[a,h]anthracene	114	est .	may .	
191-24-2	Benzo[g,h,i]perylene	116		-	

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