

TABLE 6.1

SOIL ANALYTICAL RESULTS - FORMER CLEANING SHED AREA

Location Consultant Sample Location Sample Depth (metres)	CLEANING SHED AREA					
	CH2M HILL BH36 0.3	CH2M HILL BH37 0.2	CH2M HILL BH37 0.5	CH2M HILL SB39 0.00-0.10	CH2M HILL SB39 0.90-1.00	CH2M HILL SB39 DUP1
Analyte	Units	LOR	NEHR Level I Monographs (1996)	NSW EPA Guidelines for the Assessment of Service Station Sites (1994)		
4,4'-DDD	mg/kg	0.1			na	na
Endosulphan II	mg/kg	0.1			na	na
4,4'-DDT	mg/kg	0.1	1000		na	na
Endosulphan sulphate	mg/kg	0.1			na	na
Methoxychlor	mg/kg	0.1			na	na
PCBs						
Arochlor 1016	mg/kg	1			na	na
Arochlor 1221	mg/kg	1			na	na
Arochlor 1232	mg/kg	1			na	na
Arochlor 1242	mg/kg	1			na	na
Arochlor 1248	mg/kg	1			na	na
Arochlor 1254	mg/kg	1			na	na
Arochlor 1260	mg/kg	1			na	na
Total PCBs			50		na	na

NOTE:

Exceeds NEHR Level I (1996)

Exceeds NSW EPA Guidelines for the
Assessment of Service Station Sites (1995)

n/a = not applicable

LOR = Laboratory Limits of Reporting

na = not selected for analysis

nd = not detected above laboratory LOR

* = sample required dilution

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Location		CLEANING SHED AREA						
Consultant		CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL
Sample Location		BH36	BH37	BH37	SB39	SB39	SB39	SB39
Sample Depth (metres)		0.3	0.2	0.5	0.00-0.10	0.90-1.00	0.90-1.00	DUP1
Analyte	Units	LOR	NEHE Level 1 Monographs (1996)		NSW/EPA Guidelines for the Assessment of Service Station Sites (1994)			
4-Chloro-3-methylphenol	mg/kg	0.5					na	na
2,4,5-Trichlorophenol	mg/kg	0.5					na	na
2,4,6-Trichlorophenol	mg/kg	0.5					na	na
2,4-Dinitrophenol	mg/kg	2					na	na
4-Nitrophenol	mg/kg	1					na	na
2,3,4,6-Tetrachlorophenol	mg/kg	1					na	na
4,6-Dinitro-2-methylphenol	mg/kg	2					na	na
Pentachlorophenol	mg/kg	1					na	na
4,6-Dinitro-2-sec-butylphenol	mg/kg	2					na	na
Total Phenols	mg/kg						na	na
OCPs								
HCB	mg/kg	0.1					na	na
alpha-BHC	mg/kg	0.1					na	na
gamma-BHC	mg/kg	0.1					na	na
Heptachlor	mg/kg	0.1	50				na	na
Aldrin	mg/kg	0.1	50				na	na
Dieldrin	mg/kg	0.1					na	na
beta-BHC	mg/kg	0.1					na	na
delta-BHC	mg/kg	0.1					na	na
Oxychlordane	mg/kg	0.1					na	na
Heptachlor epoxide	mg/kg	0.1					na	na
Endosulphan I	mg/kg	0.1					na	na
Chlordane-trans	mg/kg	0.1	250				na	na
Chlordane-cis	mg/kg	0.1					na	na
trans-Nonachlor	mg/kg	0.1					na	na
4,4'-DDE	mg/kg	0.1					na	na
Endrin	mg/kg	0.1					na	na

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BH36	BH37	BH37	BH37	BH37	BH37	BH37	BH37	BH37	BH37	BH37	BH37
0.3	0.2	0.2	0.5	0.5	0.00-0.10	0.90-1.00	0.90-1.00	0.90-1.00	0.90-1.00	0.90-1.00	0.90-1.00
Analyte	Units	LOR	NEHT - Level 1 Monographs	NSW EPA Guidelines for the Assessment of Service Station Sites (1994)	nd	nd	na	na	nd	nd	nd
Total Xylenes	mg/kg	3		14							
PAHs											
Naphthalene	mg/kg	0.5			2	nd	nd	nd	nd	nd	nd
Acenaphthylene	mg/kg	0.5			5.6	nd	nd	nd	nd	nd	nd
Acenaphthene	mg/kg	0.5			1.6	nd	nd	nd	nd	nd	nd
Fluorene	mg/kg	0.5			8.4	nd	nd	nd	nd	nd	nd
Phenanthrene	mg/kg	0.5			49	2.2	1	0.8	0.5	0.5	0.5
Anthracene	mg/kg	0.5			15	nd	0.6	nd	nd	nd	nd
Fluoranthene	mg/kg	0.5			54	0.8	4.6	2.2	0.8	0.8	0.6
Pyrene	mg/kg	0.5			56	0.8	5	2.2	0.8	0.8	0.6
Benzo(a)anthracene	mg/kg	0.5			31	nd	3.4	1.2	0.5	0.5	nd
Chrysene	mg/kg	0.5			21	nd	2	1.2	0.6	0.6	nd
Benzo(b)fluoranthene	mg/kg	1			40	nd	6	2	nd	nd	nd
Benzo(a)pyrene	mg/kg	0.5	5	1	29	nd	1.2	1.2	nd	nd	nd
Indeno(1,2,3-cd)pyrene	mg/kg	0.5			17	nd	3.8	0.9	nd	nd	nd
Dibenz(a,h)anthracene	mg/kg	0.5			2	nd	nd	nd	nd	nd	nd
Benzo(g,h,i)perylene	mg/kg	0.5			9.6	nd	2.2	0.6	nd	nd	nd
Total PAHs	mg/kg		100	20	340	2.3	12.5	3.5	1.7	1.7	1.7
Phenols											
Phenol	mg/kg	0.5	42500		na	na	na	na	na	na	na
2-Chlorophenol	mg/kg	0.5			na	na	na	na	na	na	na
2-Methylphenol	mg/kg	0.5			na	na	na	na	na	na	na
3-Methylphenol & 4-Methylphenol	mg/kg	0.5			na	na	na	na	na	na	na
2-Nitrophenol	mg/kg	0.5			na	na	na	na	na	na	na
2,4-Dimethylphenol	mg/kg	0.5			na	na	na	na	na	na	na
2,4-Dichlorophenol	mg/kg	0.5			na	na	na	na	na	na	na
2,6-Dichlorophenol	mg/kg	0.5			na	na	na	na	na	na	na

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Consultant	Sample Location	Sample Depth (metres)	CH2M HILL BH36	CH2M HILL BH37	CH2M HILL BH37	CH2M HILL SB39	CH2M HILL SB39	CH2M HILL 0.90-1.00	CH2M HILL SB39 DUP1
			0.3	0.2	0.5	0.00-0.10			
Analyte	Units	LOR	NEHRF - Level 1		NSW EPA		Guidelines for the Assessment of Service Station Sites (1994)		
			Monographs (1996)						
Styrene	mg/kg	1					na	na	na
1,1,1,2-Tetrachloroethane	mg/kg	1					na	na	na
1,1,2,2-Tetrachloroethane	mg/kg	1					na	na	na
Tetrachloroethene	mg/kg	1					na	na	na
Toluene	mg/kg	1			1.4		na	na	na
1,2,3-Trichlorobenzene	mg/kg	1					na	na	na
1,2,4-Trichlorobenzene	mg/kg	1					na	na	na
1,1,1-Trichloroethane	mg/kg	1					na	na	na
1,1,2-Trichloroethane	mg/kg	1					na	na	na
Trichloroethene	mg/kg	1					na	na	na
Trichlorofluoromethane	mg/kg	1					na	na	na
1,2,3-Trichloropropane	mg/kg	1					na	na	na
1,2,4-Trimethylbenzene	mg/kg	1					na	na	na
1,3,5-Trimethylbenzene	mg/kg	1					na	na	na
Vinyl chloride	mg/kg	1					na	na	na
ortho-Xylene	mg/kg	1					na	na	na
meta- & para-Xylene	mg/kg	1					na	na	na
TPH									
C6-C9	mg/kg	10				65	na	na	na
C10-C14	mg/kg	10					na	na	na
C15-C28	mg/kg	50					na	na	na
C29-C36	mg/kg	50					na	na	na
Total C10-C36	mg/kg				1000		na	na	na
BTEX									
Benzene	mg/kg	0.5			1		na	na	na
Toluene	mg/kg	1			1.4		na	na	na
Ethylbenzene	mg/kg	1			3.1		na	na	na

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Analyte	Units	LOR	NEHE - Level 1 Monographs (1996)	NSW EPA Guidelines for the Assessment of Service Station Sites (1994)			
4-Chlorotoluene	mg/kg	1			nd	na	na
Dibromochloromethane	mg/kg	1			nd	na	na
1,2-Dibromo-3-Chloropropane	mg/kg	1			nd	na	na
1,2-Dibromomethane (EDB)	mg/kg	1			nd	na	na
Dibromomethane	mg/kg	1			nd	na	na
1,2-Dichlorobenzene	mg/kg	1			nd	na	na
1,3-Dichlorobenzene	mg/kg	1			nd	na	na
1,4-Dichlorobenzene	mg/kg	1			nd	na	na
Dichlorodifluoromethane	mg/kg	1			nd	na	na
1,1-Dichloroethene	mg/kg	1			nd	na	na
1,2-Dichloroethane	mg/kg	1			nd	na	na
1,1-Dichloroethane	mg/kg	1			nd	na	na
cis-1,2-Dichloroethene	mg/kg	1			nd	na	na
trans-1,2-Dichloroethene	mg/kg	1			nd	na	na
1,2-Dichloropropane	mg/kg	1			nd	na	na
1,3-Dichloropropane	mg/kg	1			nd	na	na
2,2-Dichloropropane	mg/kg	1			nd	na	na
1,1-Dichloropropylene	mg/kg	1			nd	na	na
cis-1,3-Dichloropropylene	mg/kg	1			nd	na	na
trans-1,3-Dichloropropylene	mg/kg	1		3:1	nd	na	na
Ethylbenzene	mg/kg	1			nd	na	na
Hexachlorobutadiene	mg/kg	1			nd	na	na
Isopropylene	mg/kg	1			nd	na	na
p-Isopropyltoluene	mg/kg	1			nd	na	na
Methylene chloride	mg/kg	1			nd	na	na
Naphthalene	mg/kg	1			nd	na	na
n-Propylbenzene	mg/kg	1			nd	na	na

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Analyte	Units	LOR	NSW EPA Guidelines for the Assessment of Service Station Sites (1994)	NDHF Level B Monographs (1996)							
HEAVY METALS											
Arsenic	mg/kg	5		500		8	13	6	9	nd	nd
Cadmium	mg/kg	0.5		100		0.7	nd	0.5	nd	nd	nd
Chromium	mg/kg	5		500		12	15	11	6	nd	nd
Copper	mg/kg	5		5000		180	130	100	45	110	120
Nickel	mg/kg	2		3000		28	42	31	4	16	16
Lead	mg/kg	5		1500	300	320	40	150	88	120	110
Zinc	mg/kg	5		35000		740	62	420	62	100	97
Mercury	mg/kg	0.05		75		0.56	0.08	0.26	0.35	0.2	0.2
Total Cyanide	mg/kg	0.5		2500		na	na	na	na	na	na
VOCs											
Benzene	mg/kg	0.5				nd	nd	na	na	na	na
Bromobenzene	mg/kg	1				nd	nd	na	na	na	na
Bromochloromethane	mg/kg	1				nd	nd	na	na	na	na
Bromodichloromethane	mg/kg	1				nd	nd	na	na	na	na
Bromoform	mg/kg	1				nd	nd	na	na	na	na
Bromomethane	mg/kg	1				nd	nd	na	na	na	na
n-Butylbenzene	mg/kg	1				nd	nd	na	na	na	na
sec-Butylbenzene	mg/kg	1				nd	nd	na	na	na	na
tert-Butylbenzene	mg/kg	1				nd	nd	na	na	na	na
Carbon Tetrachloride	mg/kg	1				nd	nd	na	na	na	na
cis-1,2-Dichloroethene	mg/kg	1				nd	nd	na	na	na	na
Chlorobenzene	mg/kg	1				nd	nd	na	na	na	na
Chloroethane	mg/kg	1				nd	nd	na	na	na	na
Chloroform	mg/kg	1				nd	nd	na	na	na	na
Chloromethane	mg/kg	1				nd	nd	na	na	na	na
2-Chlorotoluene	mg/kg	1				nd	nd	na	na	na	na

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Location		CLEANING SHED AREA						
Consultant		CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL
Sample Location		BH33	TP34	TP34	BH35	BH35	BH35	BH36
Sample Depth (metres)		2	0.00-0.10	0.40-0.50	0.2	0.8	0.1	0.1
Analyte		Units	LOR	NEHF - Level F Monographs (1996)	NSW EPA Guidelines for the Assessment of Service Station Sites (1994)			
4,4'-DDD		mg/kg	0.1			na	na	na
Endosulphan II		mg/kg	0.1			na	na	na
4,4'-DDT		mg/kg	0.1	1000		na	na	na
Endosulphan sulphate		mg/kg	0.1			na	na	na
Methoxychlor		mg/kg	0.1			na	na	na
PCBs								
Arochlor 1016		mg/kg	1			na	na	na
Arochlor 1221		mg/kg	1			na	na	na
Arochlor 1232		mg/kg	1			na	na	na
Arochlor 1242		mg/kg	1			na	na	na
Arochlor 1248		mg/kg	1			na	na	na
Arochlor 1254		mg/kg	1			na	na	na
Arochlor 1260		mg/kg	1			na	na	na
Total PCBs		mg/kg	1	50		na	na	na

NOTE:

Exceeds NEHF - Level F (1996)

Exceeds NSW EPA Guidelines for the
Assessment of Service Station Sites (1995)

n/a = not applicable

LOR = Laboratory Limits of Reporting

na = not selected for analysis

nd = not detected above Laboratory LOR

* = sample required dilution

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Location		CLEANING SHED AREA						
Location	Sample Location	CH2M HILL BH33	CH2M HILL TP34	CH2M HILL TP34	CH2M HILL BH35	CH2M HILL BH35	CH2M HILL BH36	CH2M HILL BH36
Consistent	Sample Depth (metres)	2	0.00-0.10	0.40-0.50	0.2	0.8	0.1	0.1

Analyte	Units	LOR	NEHT - Level 1		NSW EPA	
			Monographs	Guidelines for the Assessment of Service Station Sites (1994)		
4-Chloro-3-methylphenol	mg/kg	0.5			na	na
2,4,5-Trichlorophenol	mg/kg	0.5			na	na
2,4,6-Trichlorophenol	mg/kg	0.5			na	na
2,4-Dinitrophenol	mg/kg	2			na	na
4-Nitrophenol	mg/kg	1			na	na
2,3,4,6-Tetrachlorophenol	mg/kg	1			na	na
4,6-Dinitro-2-methylphenol	mg/kg	2			na	na
Pentachlorophenol	mg/kg	1			na	na
4,6-Dinitro-2-sec-butylphenol	mg/kg	2			na	na
Total Pirenols	mg/kg				0	na
OCP's						
HCB	mg/kg	0.1			na	na
alpha-BHC	mg/kg	0.1			na	na
gamma-BHC	mg/kg	0.1			na	na
Heptachlor	mg/kg	0.1	50		na	na
Aldrin	mg/kg	0.1	50		na	na
Dieldrin	mg/kg	0.1			na	na
beta-BHC	mg/kg	0.1			na	na
delta-BHC	mg/kg	0.1			na	na
Oxychlorane	mg/kg	0.1			na	na
Heptachlor epoxide	mg/kg	0.1			na	na
Endosulphan I	mg/kg	0.1			na	na
Chlordane-trans	mg/kg	0.1	250		na	na
Chlordane-cis	mg/kg	0.1			na	na
trans-Nonachlor	mg/kg	0.1			na	na
4,4'-DDE	mg/kg	0.1			na	na
Endrin	mg/kg	0.1			na	na