

TABLE 6.1

SOIL ANALYTICAL RESULTS - FORMER CLEANING SHED AREA

Location Consultant Sample Location Sample Depth (metres)		CLEANING SHED AREA							
		CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL
		SB24	SB24	BH26	BH26	BH26	BH27	BH28	
		1.0-1.1	DUP3	0.2	0.8	0.2	0.2	0.30-0.40	
Analyte	Units	LOR	NEHF Level 1 Monographs (1996)	NSW EPA Guidelines for the Assessment of Service Station Sites (1994)					
4,4'-DDD	mg/kg	0.1			na	na	na	na	
Endosulphan II	mg/kg	0.1			na	na	na	na	
4,4'-DDT	mg/kg	0.1	1000		na	na	na	na	
Endosulphan sulphate	mg/kg	0.1			na	na	na	na	
Methoxychlor	mg/kg	0.1			na	na	na	na	
PCBs									
Arochlor 1016	mg/kg	1			na	na	na	na	
Arochlor 1221	mg/kg	1			na	na	na	na	
Arochlor 1232	mg/kg	1			na	na	na	na	
Arochlor 1242	mg/kg	1			na	na	na	na	
Arochlor 1248	mg/kg	1			na	na	na	na	
Arochlor 1254	mg/kg	1			na	na	na	na	
Arochlor 1260	mg/kg	1			na	na	na	na	
Total PCBs			50		na	na	na	na	

NOTE:

Exceeds NEHR - Level 1 (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 Consultant Sample Location Sample Depth (metres)	CLEANING SHED AREA						
	CH2M HILL SB24 1.0-1.1	CH2M HILL SB24 DUP3	CH2M HILL BH26 0.2	CH2M HILL BH26 0.8	CH2M HILL BH27 0.2	CH2M HILL BH28 0.30-0.40	
Analyte	Units	LOR	NEHT - Level P Monographs (1996)	NSW-EPA Guidelines for the Assessment of Service Station Sites (1994)			
4-Chloro-3-methylphenol	mg/kg	0.5			na	na	na
2,4,5-Trichlorophenol	mg/kg	0.5			na	na	na
2,4,6-Trichlorophenol	mg/kg	0.5			na	na	na
2,4-Dinitrophenol	mg/kg	2			na	na	na
4-Nitrophenol	mg/kg	1			na	na	na
2,3,4,6-Tetrachlorophenol	mg/kg	1			na	na	na
4,6-Dinitro-2-methylphenol	mg/kg	2			na	na	na
Pentachlorophenol	mg/kg	1			na	na	na
4,6-Dinitro-2-sec-butylphenol	mg/kg	2			na	na	na
Total Phenols	mg/kg				na	na	na
OCPs							
HCB	mg/kg	0.1			na	na	na
alpha-BHC	mg/kg	0.1			na	na	na
gamma-BHC	mg/kg	0.1			na	na	na
Heptachlor	mg/kg	0.1	50		na	na	na
Aldrin	mg/kg	0.1	50		na	na	na
Dieldrin	mg/kg	0.1			na	na	na
beta-BHC	mg/kg	0.1			na	na	na
delta-BHC	mg/kg	0.1			na	na	na
Oxychlorane	mg/kg	0.1			na	na	na
Heptachlor epoxide	mg/kg	0.1			na	na	na
Endosulphan I	mg/kg	0.1			na	na	na
Chlordane-trans	mg/kg	0.1	250		na	na	na
Chlordane-cis	mg/kg	0.1			na	na	na
trans-Nonachlor	mg/kg	0.1			na	na	na
4,4'-DDE	mg/kg	0.1			na	na	na
Endrin	mg/kg	0.1			na	na	na

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	CH2M HILL SB24 1.0-1.1	CH2M HILL SB24 DUP3	CH2M HILL BH26 0.2	CH2M HILL BH26 0.8	CH2M HILL BH27 0.2	CH2M HILL BH28 0.30-0.40				
Analyte	nd	nd	nd	na	na	na				
Total Xylenes	mg/kg	3								
PAHs										
Naphthalene	mg/kg	0.5								
Acenaphthylene	mg/kg	0.5								
Acenaphthene	mg/kg	0.5								
Fluorene	mg/kg	0.5								
Phenanthrene	mg/kg	0.5								
Anthracene	mg/kg	0.5								
Fluoranthene	mg/kg	0.5								
Pyrene	mg/kg	0.5								
Benzo(a)anthracene	mg/kg	0.5								
Chrysene	mg/kg	0.5								
Benzo(b,k)fluoranthene	mg/kg	1								
Benzo(a)pyrene	mg/kg	0.5								
Indeno(1,2,3-cd)pyrene	mg/kg	0.5								
Dibenz(a,h)anthracene	mg/kg	0.5								
Benzo(g,h,i)perylene	mg/kg	0.5								
Total PAHs	mg/kg									
Phenols										
Phenol	mg/kg	0.5								
2-Chlorophenol	mg/kg	0.5								
2-Methylphenol	mg/kg	0.5								
3-Methylphenol & 4-Methylphenol	mg/kg	0.5								
2-Nitrophenol	mg/kg	0.5								
2,4-Dimethylphenol	mg/kg	0.5								
2,4-Dichlorophenol	mg/kg	0.5								
2,6-Dichlorophenol	mg/kg	0.5								

NSW EPA
Guidelines for the
Assessment of
Service Station
Sites (1994)

NEHRF Level 1
Monographs
(1996)

Units
mg/kg

LOR
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Location		CLEANING SHED AREA					
Consultant		CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL
Sample Location		SB24	SB24	BH26	BH26	BH27	BH28
Sample Depth (metres)		1.0-1.1	DUP3	0.2	0.8	0.2	0.30-0.40
Analyte		Units	LOR	NEHRF Level 1 Monographs	NSW EPA Guidelines for the Assessment of Service Station Sites (1994)		
Styrene		mg/kg	1			na	nd
1,1,1,2-Tetrachloroethane		mg/kg	1			na	nd
1,1,1,2,2-Tetrachloroethane		mg/kg	1			na	nd
Tetrachloroethene		mg/kg	1			na	nd
Toluene		mg/kg	1		1.4	na	nd
1,2,3-Trichlorobenzene		mg/kg	1			na	nd
1,2,4-Trichlorobenzene		mg/kg	1			na	nd
1,1,1-Trichloroethane		mg/kg	1			na	nd
1,1,2-Trichloroethane		mg/kg	1			na	nd
Trichloroethene		mg/kg	1			na	nd
Trichlorofluoromethane		mg/kg	1			na	nd
1,2,3-Trichloropropane		mg/kg	1			na	nd
1,2,4-Trimethylbenzene		mg/kg	1			na	nd
1,3,5-Trimethylbenzene		mg/kg	1			na	nd
Vinyl chloride		mg/kg	1			na	nd
ortho-Xylene		mg/kg	1			na	nd
meta- & para-Xylene		mg/kg	1			na	nd
TPH							
C6-C9		mg/kg	10		65	na	na
C10-C14		mg/kg	10			na	na
C15-C28		mg/kg	50			260	na
C29-C36		mg/kg	50			160	na
Total C10-C36		mg/kg			1000	420	na
BTEX							
Benzene		mg/kg	0.5		1	nd	nd
Toluene		mg/kg	1		1.4	nd	nd
Ethylbenzene		mg/kg	1		3.1	nd	nd

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		CH2M HILL SB24	CH2M HILL SB24	CH2M HILL BH26	CH2M HILL BH26	CH2M HILL BH27	CH2M HILL BH28	CH2M HILL BH27	CH2M HILL BH28
		1.0-1.1	DUP3	0.2	0.8	0.2	0.30-0.40		
Analyte		Units	LOR	NEHRF Level 1 (1996)	NSW EPA Guidelines for the Assessment of Service Station Sites (1994)				
HEAVY METALS									
Arsenic		mg/kg	5	500		5	9	31	na
Cadmium		mg/kg	0.5	100		nd	nd	nd	na
Chromium		mg/kg	5	500		9	8	18	na
Copper		mg/kg	5	5000		20	430	120	na
Nickel		mg/kg	2	3000		nd	15	21	na
Lead		mg/kg	5	1500	300	14	300	100	na
Zinc		mg/kg	5	35000		nd	170	140	na
Mercury		mg/kg	0.05	75		nd	0.17	0.09	na
Total Cyanide		mg/kg	0.5	2500		na	nd	na	na
VOCs									
Benzene		mg/kg	0.5		1	na	na	na	nd
Bromobenzene		mg/kg	1			na	na	na	nd
Bromochloromethane		mg/kg	1			na	na	na	nd
Bromodichloromethane		mg/kg	1			na	na	na	nd
Bromoform		mg/kg	1			na	na	na	nd
Bromomethane		mg/kg	1			na	na	na	nd
n-Butylbenzene		mg/kg	1			na	na	na	nd
sec-Butylbenzene		mg/kg	1			na	na	na	nd
tert-Butylbenzene		mg/kg	1			na	na	na	nd
Carbon Tetrachloride		mg/kg	1			na	na	na	nd
cis-1,2-Dichloroethene		mg/kg	1			na	na	na	nd
Chlorobenzene		mg/kg	1			na	na	na	nd
Chloroethane		mg/kg	1			na	na	na	nd
Chloroform		mg/kg	1			na	na	na	nd
Chloromethane		mg/kg	1			na	na	na	nd
2-Chlorotoluene		mg/kg	1			na	na	na	nd

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Location		CLEANING SHED AREA					
Consultant		CH2M HILL SB23	CH2M HILL SB23	CH2M HILL SB23	CH2M HILL SB23	CH2M HILL SB24	CH2M HILL SB24
Sample Location		0.00-0.10	0.50-0.60	DUP2	2.00-2.10	0.00-0.10	0.20-0.30
Sample Depth (metres)							
Analyte	Units	NEHF - Level F (1996)		NSW EPA Guidelines for the Assessment of Service Station Sites (1994)			
4,4'-DDD	mg/kg	LOR					
Endosulphan II	mg/kg	0.1					
4,4'-DDT	mg/kg	0.1		1000			
Endosulphan sulphate	mg/kg	0.1					
Methoxychlor	mg/kg	0.1					
PCBs							
Arochlor 1016	mg/kg	1					
Arochlor 1221	mg/kg	1					
Arochlor 1232	mg/kg	1					
Arochlor 1242	mg/kg	1					
Arochlor 1248	mg/kg	1					
Arochlor 1254	mg/kg	1					
Arochlor 1260	mg/kg	1					
Total PCBs				50			

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

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Consultant		CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL	CH2M HILL
Sample Location		SB23	SB23	SB23	SB23	SB23	SB23	SB23	SB23	SB24	SB24
Sample Depth (metres)		0.00-0.10	0.50-0.60	DUP2	2.00-2.10	0.00-0.10	0.00-0.10	0.00-0.10	0.00-0.10	0.20-0.30	0.20-0.30

Analyte	Units	LOR	NEJIF Level 1F Monographs (1996)	NSW EPA Guidelines for the Assessment of Service Station Sites (1994)	CH2M HILL						
					SB23	SB23	SB23	SB23	SB24	SB24	
4-Chloro-3-methylphenol	mg/kg	0.5			na	na	na	na	na	na	na
2,4,5-Trichlorophenol	mg/kg	0.5			na	na	na	na	na	na	na
2,4,6-Trichlorophenol	mg/kg	0.5			na	na	na	na	na	na	na
2,4-Dinitrophenol	mg/kg	2			na	na	na	na	na	na	na
4-Nitrophenol	mg/kg	1			na	na	na	na	na	na	na
2,3,4,6-Tetrachlorophenol	mg/kg	1			na	na	na	na	na	na	na
4,6-Dinitro-2-methylphenol	mg/kg	2			na	na	na	na	na	na	na
Pentachlorophenol	mg/kg	1			na	na	na	na	na	na	na
4,6-Dinitro-2-sec-butylphenol	mg/kg	2			na	na	na	na	na	na	na
Total Phenols	mg/kg				na	na	na	na	na	na	na
OCPs											
HCB	mg/kg	0.1			na	na	na	na	na	na	na
alpha-BHC	mg/kg	0.1			na	na	na	na	na	na	na
gamma-BHC	mg/kg	0.1			na	na	na	na	na	na	na
Heptachlor	mg/kg	0.1	50		na	na	na	na	na	na	na
Aldrin	mg/kg	0.1	50		na	na	na	na	na	na	na
Dieldrin	mg/kg	0.1			na	na	na	na	na	na	na
beta-BHC	mg/kg	0.1			na	na	na	na	na	na	na
delta-BHC	mg/kg	0.1			na	na	na	na	na	na	na
Oxychlorodane	mg/kg	0.1			na	na	na	na	na	na	na
Heptachlor epoxide	mg/kg	0.1			na	na	na	na	na	na	na
Endosulphan I	mg/kg	0.1			na	na	na	na	na	na	na
Chlordane-trans	mg/kg	0.1	250		na	na	na	na	na	na	na
Chlordane-cis	mg/kg	0.1			na	na	na	na	na	na	na
trans-Nonachlor	mg/kg	0.1			na	na	na	na	na	na	na
4,4'-DDE	mg/kg	0.1			na	na	na	na	na	na	na
ndrin	mg/kg	0.1			na	na	na	na	na	na	na