

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-5 Pit36/0.07 02/08/2011 Soil	59493-6 Pit38/0.5 02/08/2011 Soil	59493-7 Pit39/0.3 02/08/2011 Soil	59493-8 Pit40/0.1 02/08/2011 Soil	59493-9 Pit41/0.25 02/08/2011 Soil
Date extracted	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.5
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	0.1	0.1	0.8
Pyrene	mg/kg	0.1	<0.1	0.2	0.1	0.9
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.4
Chrysene	mg/kg	<0.1	<0.1	0.1	<0.1	0.5
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	0.7
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.07	0.05	0.42
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Surrogate p-Terphenyl-d ₁₄	%	108	123	120	130	119

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-10 Pit48/0.1 03/08/2011 Soil	59493-12 Pit52/0.25 03/08/2011 Soil	59493-14 Pit53/0.1 03/08/2011 Soil	59493-15 Pit54/0.1 03/08/2011 Soil	59493-16 Pit61/0.25 03/08/2011 Soil
Date extracted	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	0.6	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	5.7	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	3.5	<0.1
Phenanthrene	mg/kg	0.4	<0.1	0.1	360	1.4
Anthracene	mg/kg	<0.1	<0.1	<0.1	92	<0.1
Fluoranthene	mg/kg	3.0	<0.1	0.4	1,800	0.4
Pyrene	mg/kg	2.7	<0.1	0.4	1,500	0.3
Benzo(a)anthracene	mg/kg	0.8	<0.1	0.2	520	0.2
Chrysene	mg/kg	1.1	<0.1	0.2	450	0.3
Benzo(b+k)fluoranthene	mg/kg	1.7	<0.2	0.4	730	0.2
Benzo(a)pyrene	mg/kg	0.88	<0.05	0.15	390	0.08
Indeno(1,2,3-c,d)pyrene	mg/kg	0.6	<0.1	0.1	250	<0.1
Dibenzo(a,h)anthracene	mg/kg	0.1	<0.1	<0.1	45	<0.1
Benzo(g,h,i)perylene	mg/kg	0.6	<0.1	0.1	230	<0.1
Surrogate p-Terphenyl-d ₁₄	%	118	119	125	81	81

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-17 Pit65/0.5 02/08/2011 Soil	59493-18 Pit85/0.05 03/08/2011 Soil	59493-19 Pit86/0.25 03/08/2011 Soil	59493-20 Pit87/0.25 03/08/2011 Soil	59493-29 KGP-D2 03/08/2011 Soil
Date extracted	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.2	0.3	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.2	0.3	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	0.4	0.5	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.19	0.26	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.2	0.2	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.2	0.2	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d14	%	117	119	120	122	115

Organochlorine Pesticides in soil						
Our Reference:	UNITS	59493-4	59493-6	59493-7	59493-8	59493-9
Your Reference	-----	Bore14/0.25	Pit38/0.5	Pit39/0.3	Pit40/0.1	Pit41/0.25
Date Sampled	-----	03/08/2011	02/08/2011	02/08/2011	02/08/2011	02/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	09/08/2011	09/08/2011	09/08/2011	09/08/2011	09/08/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	103	99	102	100	103

Organochlorine Pesticides in soil						
Our Reference:	UNITS	59493-12	59493-17	59493-18	59493-20	59493-21
Your Reference	-----	Pit52/0.25	Pit65/0.5	Pit85/0.05	Pit87/0.25	Pit113/0.45
Date Sampled	-----	03/08/2011	02/08/2011	03/08/2011	03/08/2011	03/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	09/08/2011	09/08/2011	09/08/2011	09/08/2011	09/08/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Dieldrin	mg/kg	<0.1	0.3	<0.1	<0.1	<0.2
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Surrogate TCLMX	%	103	100	102	99	100

Organochlorine Pesticides in soil						
Our Reference:	UNITS	59493-22	59493-23	59493-24	59493-25	59493-26
Your Reference	-----	Pit116/0.05	Pit117/0.25	Pit118/0.05	Pit119/0.05	Pit120/0.25
Date Sampled	-----	03/08/2011	03/08/2011	03/08/2011	03/08/2011	03/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	09/08/2011	09/08/2011	09/08/2011	09/08/2011	09/08/2011
HCB	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Surrogate TCLMX	%	98	100	99	100	101

Organochlorine Pesticides in soil		
Our Reference:	UNITS	59493-27
Your Reference	-----	MJWD2
Date Sampled	-----	03/08/2011
Type of sample		Soil
Date extracted	-	08/08/2011
Date analysed	-	09/08/2011
HCB	mg/kg	<0.1
alpha-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Surrogate TCLMX	%	97

Organophosphorus Pesticides	UNITS	59493-4	59493-6	59493-7	59493-8	59493-9
Our Reference:	-----	Bore14/0.25	Pit38/0.5	Pit39/0.3	Pit40/0.1	Pit41/0.25
Your Reference	-----	03/08/2011	02/08/2011	02/08/2011	02/08/2011	02/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	09/08/2011	09/08/2011	09/08/2011	09/08/2011	09/08/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	103	99	102	100	103

Organophosphorus Pesticides	UNITS	59493-12	59493-17	59493-18	59493-20	59493-21
Our Reference:	-----	Pit52/0.25	Pit65/0.5	Pit85/0.05	Pit87/0.25	Pit113/0.45
Your Reference	-----	03/08/2011	02/08/2011	03/08/2011	03/08/2011	03/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	09/08/2011	09/08/2011	09/08/2011	09/08/2011	09/08/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	3.8
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.2
Surrogate TCLMX	%	103	100	102	99	100

Organophosphorus Pesticides						
Our Reference:	UNITS	59493-22	59493-23	59493-24	59493-25	59493-26
Your Reference	-----	Pit116/0.05	Pit117/0.25	Pit118/0.05	Pit119/0.05	Pit120/0.25
Date Sampled	-----	03/08/2011	03/08/2011	03/08/2011	03/08/2011	03/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	09/08/2011	09/08/2011	09/08/2011	09/08/2011	09/08/2011
Diazinon	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.2	<0.1	<0.1
Surrogate TCLMX	%	98	100	99	100	101

Organophosphorus Pesticides		
Our Reference:	UNITS	59493-27
Your Reference	-----	MJWD2
Date Sampled	-----	03/08/2011
Type of sample		Soil
Date extracted	-	08/08/2011
Date analysed	-	09/08/2011
Diazinon	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Chlorpyrifos	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Ethion	mg/kg	<0.1
Surrogate TCLMX	%	97

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-6 Pit38/0.5 02/08/2011 Soil	59493-7 Pit39/0.3 02/08/2011 Soil	59493-9 Pit41/0.25 02/08/2011 Soil	59493-12 Pit52/0.25 03/08/2011 Soil	59493-17 Pit65/0.5 02/08/2011 Soil
Date extracted	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	09/08/2011	09/08/2011	09/08/2011	09/08/2011	09/08/2011
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	99	102	103	103	100

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-18 Pit85/0.05 03/08/2011 Soil	59493-20 Pit87/0.25 03/08/2011 Soil
Date extracted	-	08/08/2011	08/08/2011
Date analysed	-	09/08/2011	09/08/2011
Arochlor 1016	mg/kg	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	102	99

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-1 Bore1/0.05 01/08/2011 Soil	59493-2 Bore4/0.5 01/08/2011 Soil	59493-3 Bore7/0.5 02/08/2011 Soil	59493-4 Bore14/0.25 03/08/2011 Soil	59493-5 Pit36/0.07 02/08/2011 Soil
Date digested	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Arsenic	mg/kg	<4	<4	<4	8	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	2	<1	<1	43	2
Copper	mg/kg	7	<1	<1	39	6
Lead	mg/kg	20	1	<1	32	11
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	<1	<1	60	2
Zinc	mg/kg	57	1	3	95	18
Manganese	mg/kg	70	3	1	240	76
Cobalt	mg/kg	<1	<1	<1	20	1
Tin	mg/kg	<1	<1	<1	1	<1
Phosphorus	mg/kg	120	[NA]	[NA]	[NA]	[NA]

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-6 Pit38/0.5 02/08/2011 Soil	59493-7 Pit39/0.3 02/08/2011 Soil	59493-8 Pit40/0.1 02/08/2011 Soil	59493-9 Pit41/0.25 02/08/2011 Soil	59493-10 Pit48/0.1 03/08/2011 Soil
Date digested	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5	1.2	<0.5
Chromium	mg/kg	<1	4	<1	3	5
Copper	mg/kg	4	13	2	9	18
Lead	mg/kg	9	110	6	100	170
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	4	<1	4	4
Zinc	mg/kg	69	180	24	90	130
Manganese	mg/kg	41	220	12	210	130
Cobalt	mg/kg	<1	2	<1	2	1
Tin	mg/kg	<1	3	<1	2	3
Phosphorus	mg/kg	[NA]	460	[NA]	1,200	[NA]

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-12 Pit52/0.25 03/08/2011 Soil	59493-13 Pit52/0.5 03/08/2011 Soil	59493-14 Pit53/0.1 03/08/2011 Soil	59493-15 Pit54/0.1 03/08/2011 Soil	59493-16 Pit61/0.25 03/08/2011 Soil
Date digested	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Arsenic	mg/kg	8	<4	<4	<4	22
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	29	<1	7	2	2
Copper	mg/kg	28	<1	11	3	11
Lead	mg/kg	36	<1	49	8	23
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.4
Nickel	mg/kg	15	<1	5	1	3
Zinc	mg/kg	140	<1	76	28	16
Manganese	mg/kg	61	<1	270	270	21
Cobalt	mg/kg	6	<1	4	2	1
Tin	mg/kg	3	<1	3	<1	1
Phosphorus	mg/kg	690	<10	[NA]	[NA]	[NA]

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-17 Pit65/0.5 02/08/2011 Soil	59493-18 Pit85/0.05 03/08/2011 Soil	59493-19 Pit86/0.25 03/08/2011 Soil	59493-20 Pit87/0.25 03/08/2011 Soil	59493-21 Pit113/0.45 03/08/2011 Soil
Date digested	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Arsenic	mg/kg	12	<4	<4	<4	<4
Cadmium	mg/kg	1	<0.5	<0.5	<0.5	0.6
Chromium	mg/kg	7	31	2	3	38
Copper	mg/kg	22	49	18	<1	32
Lead	mg/kg	250	48	5	11	37
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	10	13	2	2	22
Zinc	mg/kg	1,500	300	22	34	1,000
Manganese	mg/kg	100	300	23	420	120
Cobalt	mg/kg	4	8	1	2	6
Tin	mg/kg	51	2	<1	<1	1

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-22 Pit116/0.05 03/08/2011 Soil	59493-23 Pit117/0.25 03/08/2011 Soil	59493-24 Pit118/0.05 03/08/2011 Soil	59493-25 Pit119/0.05 03/08/2011 Soil	59493-26 Pit120/0.25 03/08/2011 Soil
Date digested	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	08/08/2011	08/08/2011	08/08/2011	08/08/2011	08/08/2011
Arsenic	mg/kg	<4	<4	5	5	5
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	2	2	34	33	30
Copper	mg/kg	4	2	29	25	21
Lead	mg/kg	9	2	25	18	11
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	<1	35	36	35
Zinc	mg/kg	30	6	170	80	57
Manganese	mg/kg	48	11	380	410	430
Cobalt	mg/kg	<1	<1	17	21	19
Tin	mg/kg	<1	<1	1	1	1

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-27 MJWD2 03/08/2011 Soil	59493-28 ALP-D13 03/08/2011 Soil	59493-29 KGP-D2 03/08/2011 Soil
Date digested	-	08/08/2011	08/08/2011	08/08/2011
Date analysed	-	08/08/2011	08/08/2011	08/08/2011
Arsenic	mg/kg	7	<4	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5
Chromium	mg/kg	43	<1	2
Copper	mg/kg	39	<1	20
Lead	mg/kg	44	<1	4
Mercury	mg/kg	<0.1	<0.1	<0.1
Nickel	mg/kg	54	<1	2
Zinc	mg/kg	110	<1	27
Manganese	mg/kg	370	<1	22
Cobalt	mg/kg	22	<1	1
Tin	mg/kg	2	<1	<1
Phosphorus	mg/kg	[NA]	<10	[NA]

Miscellaneous Inorg - soil						
Our Reference:	UNITS	59493-1	59493-2	59493-3	59493-7	59493-9
Your Reference	-----	Bore1/0.05	Bore4/0.5	Bore7/0.5	Pit39/0.3	Pit41/0.25
Date Sampled	-----	01/08/2011	01/08/2011	02/08/2011	02/08/2011	02/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	9/8/2011	9/8/2011	9/8/2011	9/8/2011	9/8/2011
Date analysed	-	9/8/2011	9/8/2011	9/8/2011	9/8/2011	9/8/2011
pH 1:5 soil:water	pH Units	5.6	6.9	5.5	[NA]	[NA]
Electrical Conductivity 1:5 soil:water	µS/cm	66	23	12	[NA]	[NA]
Fluoride (1:5 soil:water)	mg/kg	2.7	[NA]	[NA]	[NA]	[NA]
Ammonia as N in soil	mg/kg	13	[NA]	[NA]	7.2	8.9
TKN as N in soil	mg/kg	1,600	[NA]	[NA]	2,300	1,800
NOx as N in soil	mg/kg	1.3	[NA]	[NA]	<0.5	<0.5

Miscellaneous Inorg - soil						
Our Reference:	UNITS	59493-12	59493-13	59493-21	59493-22	59493-23
Your Reference	-----	Pit52/0.25	Pit52/0.5	Pit113/0.45	Pit116/0.05	Pit117/0.25
Date Sampled	-----	03/08/2011	03/08/2011	03/08/2011	03/08/2011	03/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	9/8/2011	9/8/2011	9/8/2011	9/8/2011	9/8/2011
Date analysed	-	9/8/2011	9/8/2011	9/8/2011	9/8/2011	9/8/2011
pH 1:5 soil:water	pH Units	[NA]	5.8	5.2	5.3	5.3
Electrical Conductivity 1:5 soil:water	µS/cm	[NA]	4	130	17	19
Fluoride (1:5 soil:water)	mg/kg	[NA]	[NA]	1.9	3.8	2.8
Ammonia as N in soil	mg/kg	24	1.5	[NA]	[NA]	[NA]
TKN as N in soil	mg/kg	2,900	63	[NA]	[NA]	[NA]
NOx as N in soil	mg/kg	<0.5	<0.5	[NA]	[NA]	[NA]

Miscellaneous Inorg - soil					
Our Reference:	UNITS	59493-24	59493-25	59493-26	59493-28
Your Reference	-----	Pit118/0.05	Pit119/0.05	Pit120/0.25	ALP-D13
Date Sampled	-----	03/08/2011	03/08/2011	03/08/2011	03/08/2011
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	9/8/2011	9/8/2011	9/8/2011	9/8/2011
Date analysed	-	9/8/2011	9/8/2011	9/8/2011	9/8/2011
pH 1:5 soil:water	pH Units	6.2	5.9	6.0	5.7
Electrical Conductivity 1:5 soil:water	µS/cm	190	180	83	6
Fluoride (1:5 soil:water)	mg/kg	5.9	3.1	1.0	[NA]
Ammonia as N in soil	mg/kg	[NA]	[NA]	[NA]	1.2
TKN as N in soil	mg/kg	[NA]	[NA]	[NA]	50
NOx as N in soil	mg/kg	[NA]	[NA]	[NA]	<0.5

Moisture Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-1 Bore1/0.05 01/08/2011 Soil	59493-2 Bore4/0.5 01/08/2011 Soil	59493-3 Bore7/0.5 02/08/2011 Soil	59493-4 Bore14/0.25 03/08/2011 Soil	59493-5 Pit36/0.07 02/08/2011 Soil
Date prepared	-	8/08/2011	8/08/2011	8/08/2011	8/08/2011	8/08/2011
Date analysed	-	9/08/2011	9/08/2011	9/08/2011	9/08/2011	9/08/2011
Moisture	%	13	4.4	17	39	13

Moisture Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-6 Pit38/0.5 02/08/2011 Soil	59493-7 Pit39/0.3 02/08/2011 Soil	59493-8 Pit40/0.1 02/08/2011 Soil	59493-9 Pit41/0.25 02/08/2011 Soil	59493-10 Pit48/0.1 03/08/2011 Soil
Date prepared	-	8/08/2011	8/08/2011	8/08/2011	8/08/2011	8/08/2011
Date analysed	-	9/08/2011	9/08/2011	9/08/2011	9/08/2011	9/08/2011
Moisture	%	6.8	16	5.6	17	11

Moisture Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-12 Pit52/0.25 03/08/2011 Soil	59493-13 Pit52/0.5 03/08/2011 Soil	59493-14 Pit53/0.1 03/08/2011 Soil	59493-15 Pit54/0.1 03/08/2011 Soil	59493-16 Pit61/0.25 03/08/2011 Soil
Date prepared	-	8/08/2011	8/08/2011	8/08/2011	8/08/2011	8/08/2011
Date analysed	-	9/08/2011	9/08/2011	9/08/2011	9/08/2011	9/08/2011
Moisture	%	23	9.9	11	1.6	19

Moisture Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-17 Pit65/0.5 02/08/2011 Soil	59493-18 Pit85/0.05 03/08/2011 Soil	59493-19 Pit86/0.25 03/08/2011 Soil	59493-20 Pit87/0.25 03/08/2011 Soil	59493-21 Pit113/0.45 03/08/2011 Soil
Date prepared	-	8/08/2011	8/08/2011	8/08/2011	8/08/2011	8/08/2011
Date analysed	-	9/08/2011	9/08/2011	9/08/2011	9/08/2011	9/08/2011
Moisture	%	35	36	26	3.0	63

Moisture Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-22 Pit116/0.05 03/08/2011 Soil	59493-23 Pit117/0.25 03/08/2011 Soil	59493-24 Pit118/0.05 03/08/2011 Soil	59493-25 Pit119/0.05 03/08/2011 Soil	59493-26 Pit120/0.25 03/08/2011 Soil
Date prepared	-	8/08/2011	8/08/2011	8/08/2011	8/08/2011	8/08/2011
Date analysed	-	9/08/2011	9/08/2011	9/08/2011	9/08/2011	9/08/2011
Moisture	%	5.9	18	55	25	27

Moisture				
Our Reference:	UNITS	59493-27	59493-28	59493-29
Your Reference	-----	MJWD2	ALP-D13	KGP-D2
Date Sampled	-----	03/08/2011	03/08/2011	03/08/2011
Type of sample		Soil	Soil	Soil
Date prepared	-	8/08/2011	8/08/2011	8/08/2011
Date analysed	-	9/08/2011	9/08/2011	9/08/2011
Moisture	%	39	11	26

Asbestos ID - soils Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-7 Pit39/0.3 02/08/2011 Soil	59493-10 Pit48/0.1 03/08/2011 Soil	59493-11 Pit49/0.1 02/08/2011 Soil	59493-14 Pit53/0.1 03/08/2011 Soil	59493-16 Pit61/0.25 03/08/2011 Soil
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
Sample mass tested	g	Approx 40g	Approx 40g	Approx 40g	Approx 40g	Approx 40g
Sample Description	-	Soil & rocks	Soil & rocks	Soil & rocks	Soil & rocks	Soil & rocks
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected

Asbestos ID - soils Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59493-17 Pit65/0.5 02/08/2011 Soil	59493-31 F4 02/08/2011 Soil
Date analysed	-	12/08/2011	12/08/2011
Sample mass tested	g	Approx 40g	Approx 40g
Sample Description	-	Soil & rocks	Soil & rocks
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	No respirable fibres detected	No respirable fibres detected

Asbestos ID - materials				
Our Reference:	UNITS	59493-30	59493-32	59493-33
Your Reference	-----	FIBRO4	FIBRO5	FIBRO6
Date Sampled	-----	02/08/2011	03/08/2011	03/08/2011
Type of sample		Material	Material	Material
Date analysed	-	11/08/2011	11/08/2011	11/08/2011
Mass / Dimension of Sample	-	150x110x8m m	200x110x10m m	70x35x4mm
Sample Description	-	Beige compressed fibre cement material	Beige compressed fibre cement material	Beige compressed fibre cement material
Asbestos ID in materials	-	Chrysotile asbestos detected Amosite asbestos detected	Chrysotile asbestos detected Amosite asbestos detected	Chrysotile asbestos detected Amosite asbestos detected

MethodID	Methodology Summary
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA 21st ED, 4500-H+.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell and dedicated meter, in accordance with APHA 21st ED 2510 and Rayment & Higginson.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA 21st ED, 4500-F-C.
Inorg-057	Ammonia - determined colourimetrically based on EPA350.1 and APHA 21st ED 4500-NH3 F, Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA 21st ED 4500 Norg.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO3- F. Soils are analysed following a water extraction.
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH & BTEX in Soil						Base II Duplicate II %RPD		
Date extracted	-			08/08/2011	59493-6	08/08/2011 08/08/2011	LCS-6	08/08/2011
Date analysed	-			08/08/2011	59493-6	08/08/2011 08/08/2011	LCS-6	08/08/2011
vTRHC ₆ - C ₉	mg/kg	25	Org-016	<25	59493-6	<25 <25	LCS-6	116%
Benzene	mg/kg	0.2	Org-016	<0.2	59493-6	<0.2 <0.2	LCS-6	103%
Toluene	mg/kg	0.5	Org-016	<0.5	59493-6	<0.5 <0.5	LCS-6	115%
Ethylbenzene	mg/kg	1	Org-016	<1	59493-6	<1 <1	LCS-6	120%
m+p-xylene	mg/kg	2	Org-016	<2	59493-6	<2 <2	LCS-6	120%
o-Xylene	mg/kg	1	Org-016	<1	59493-6	<1 <1	LCS-6	123%
Surrogate aaa-Trifluorotoluene	%		Org-016	112	59493-6	122 123 RPD: 1	LCS-6	132%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Soil (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			08/08/2011	59493-6	08/08/2011 08/08/2011	LCS-6	08/08/2011
Date analysed	-			08/08/2011	59493-6	08/08/2011 08/08/2011	LCS-6	08/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	50	Org-003	<50	59493-6	<50 <50	LCS-6	97%
TRHC ₁₅ - C ₂₈	mg/kg	100	Org-003	<100	59493-6	<100 <100	LCS-6	104%
TRHC ₂₉ - C ₃₆	mg/kg	100	Org-003	<100	59493-6	<100 <100	LCS-6	106%
Surrogate o-Terphenyl	%		Org-003	84	59493-6	85 88 RPD: 3	LCS-6	71%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Date extracted	-			08/08/2011	59493-6	08/08/2011 08/08/2011	LCS-6	08/08/2011
Date analysed	-			08/08/2011	59493-6	08/08/2011 08/08/2011	LCS-6	08/08/2011
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	59493-6	<0.1 <0.1	LCS-6	104%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	59493-6	<0.1 <0.1	LCS-6	111%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	59493-6	<0.1 <0.1	LCS-6	104%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	59493-6	<0.1 <0.1	LCS-6	101%
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	59493-6	<0.1 <0.1	LCS-6	110%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	59493-6	<0.1 <0.1	LCS-6	107%

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	59493-6	<0.2 <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	59493-6	<0.05 <0.05	LCS-6	101%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	119	59493-6	123 114 RPD: 8	LCS-6	116%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organochlorine Pesticides in soil						Base II Duplicate II %RPD		
Date extracted	-			[NT]	59493-6	08/08/2011 08/08/2011	LCS-6	08/08/2011
Date analysed	-			[NT]	59493-6	09/08/2011 09/08/2011	LCS-6	09/08/2011
HCB	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	LCS-6	107%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	LCS-6	101%
Heptachlor	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	LCS-6	83%
delta-BHC	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	LCS-6	99%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	LCS-6	101%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	LCS-6	106%
Dieldrin	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	LCS-6	98%
Endrin	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	LCS-6	95%
pp-DDD	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	LCS-6	107%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	LCS-6	85%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-005	[NT]	59493-6	99 99 RPD: 0	LCS-6	103%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organophosphorus Pesticides						Base II Duplicate II %RPD		
Date extracted	-			[NT]	59493-6	08/08/2011 08/08/2011	LCS-6	08/08/2011
Date analysed	-			[NT]	59493-6	09/08/2011 09/08/2011	LCS-6	09/08/2011
Diazinon	mg/kg	0.1	Org-008	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Dimethoate	mg/kg	0.1	Org-008	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Ronnel	mg/kg	0.1	Org-008	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos	mg/kg	0.1	Org-008	<0.1	59493-6	<0.1 <0.1	LCS-6	99%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	59493-6	<0.1 <0.1	LCS-6	96%
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	59493-6	<0.1 <0.1	LCS-6	99%
Surrogate TCLMX	%		Org-008	[NT]	59493-6	99 99 RPD: 0	LCS-6	101%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCBs in Soil						Base II Duplicate II %RPD		
Date extracted	-			[NT]	59493-6	08/08/2011 08/08/2011	LCS-6	08/08/2011
Date analysed	-			[NT]	59493-6	09/08/2011 09/08/2011	LCS-6	09/08/2011
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Arochlor 1221*	mg/kg	0.1	Org-006	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	59493-6	<0.1 <0.1	LCS-6	104%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	59493-6	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-006	[NT]	59493-6	99 99 RPD: 0	LCS-6	92%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Date digested	-			[NT]	59493-6	08/08/2011 08/08/2011	LCS-1	08/08/2011
Date analysed	-			[NT]	59493-6	08/08/2011 08/08/2011	LCS-1	08/08/2011
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	59493-6	<4 <4	LCS-1	100%
Cadmium	mg/kg	0.5	Metals-020 ICP-AES	<0.5	59493-6	<0.5 <0.5	LCS-1	107%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	59493-6	<1 <1	LCS-1	105%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	59493-6	4 4 RPD: 0	LCS-1	104%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	59493-6	9 8 RPD: 12	LCS-1	101%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	59493-6	<0.1 <0.1	LCS-1	104%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	59493-6	1 1 RPD: 0	LCS-1	104%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	59493-6	69 54 RPD: 24	LCS-1	102%
Manganese	mg/kg	1	Metals-020 ICP-AES	<1	59493-6	41 40 RPD: 2	LCS-1	104%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Cobalt	mg/kg	1	Metals-020 ICP-AES	<1	59493-6	<1 <1	LCS-1	103%
Tin	mg/kg	1	Metals-020 ICP-AES	<1	59493-6	<1 2	LCS-1	102%
Phosphorus	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	LCS-1	93%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorg - soil						Base II Duplicate II %RPD		
Date prepared	-			9/8/2011	59493-1	9/8/2011 9/8/2011	LCS-1	9/8/2011
Date analysed	-			9/8/2011	59493-1	9/8/2011 9/8/2011	LCS-1	9/8/2011
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	59493-1	5.6 5.5 RPD: 2	LCS-1	101%
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	<1	59493-1	66 64 RPD: 3	LCS-1	103%
Fluoride (1:5 soil:water)	mg/kg	0.5	Inorg-026	<0.5	59493-1	2.7 2.6 RPD: 4	LCS-1	99%
Ammonia as N in soil	mg/kg	0.5	Inorg-057	<0.5	59493-1	13 12 RPD: 8	LCS-1	93%
TKN as N in soil	mg/kg	10	Inorg-062	<10	59493-1	1600 1600 RPD: 0	LCS-1	104%
NOx as N in soil	mg/kg	0.5	Inorg-055	<0.5	59493-1	1.3 1.6 RPD: 21	LCS-1	90%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank				
Moisture								
Date prepared	-			08/08/2011				
Date analysed	-			09/08/2011				
Moisture	%	0.1	Inorg-008	[NT]				
QUALITYCONTROL	UNITS	PQL	METHOD	Blank				
Asbestos ID - soils								
Date analysed	-			[NT]				
QUALITYCONTROL	UNITS	PQL	METHOD	Blank				
Asbestos ID - materials								
Date analysed	-			[NT]				
QUALITYCONTROL	UNITS	Dup. Sm#	Duplicate	Spike Sm#	Spike % Recovery			
vTRH & BTEX in Soil			Base + Duplicate + %RPD					
Date extracted	-	59493-17	08/08/2011 08/08/2011	LCS-7	08/08/2011			
Date analysed	-	59493-17	08/08/2011 08/08/2011	LCS-7	09/08/2011			
vTRHC ₆ - C ₉	mg/kg	59493-17	<25 <25	LCS-7	118%			
Benzene	mg/kg	59493-17	<0.2 <0.2	LCS-7	106%			
Toluene	mg/kg	59493-17	<0.5 <0.5	LCS-7	118%			
Ethylbenzene	mg/kg	59493-17	<1 <1	LCS-7	122%			
m+p-xylene	mg/kg	59493-17	<2 <2	LCS-7	122%			
o-Xylene	mg/kg	59493-17	<1 <1	LCS-7	126%			
Surrogate aaa-Trifluorotoluene	%	59493-17	112 110 RPD: 2	LCS-7	136%			

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QUALITY CONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59493-17	08/08/2011 08/08/2011	LCS-7	08/08/2011
Date analysed	-	59493-17	08/08/2011 08/08/2011	LCS-7	08/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	59493-17	<50 <50	LCS-7	109%
TRHC ₁₅ - C ₂₈	mg/kg	59493-17	<100 <100	LCS-7	116%
TRHC ₂₉ - C ₃₆	mg/kg	59493-17	<100 <100	LCS-7	123%
Surrogate o-Terphenyl	%	59493-17	85 84 RPD: 1	LCS-7	98%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59493-17	08/08/2011 08/08/2011	59493-7	08/08/2011
Date analysed	-	59493-17	08/08/2011 08/08/2011	59493-7	08/08/2011
Naphthalene	mg/kg	59493-17	<0.1 <0.1	59493-7	76%
Acenaphthylene	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	59493-17	<0.1 <0.1	59493-7	109%
Phenanthrene	mg/kg	59493-17	<0.1 <0.1	59493-7	95%
Anthracene	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	59493-17	0.2 0.1 RPD: 67	59493-7	95%
Pyrene	mg/kg	59493-17	0.2 0.1 RPD: 67	59493-7	102%
Benzo(a)anthracene	mg/kg	59493-17	0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	59493-17	0.1 0.1 RPD: 0	59493-7	98%
Benzo(b+k)fluoranthene	mg/kg	59493-17	0.4 0.3 RPD: 29	[NR]	[NR]
Benzo(a)pyrene	mg/kg	59493-17	0.19 0.16 RPD: 17	59493-7	99%
Indeno(1,2,3-c,d)pyrene	mg/kg	59493-17	0.2 0.2 RPD: 0	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	59493-17	0.2 0.2 RPD: 0	[NR]	[NR]
Surrogate p-Terphenyl- d ₁₄	%	59493-17	117 128 RPD: 9	59493-7	114%

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QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59493-17	08/08/2011 08/08/2011	LCS-7	08/08/2011
Date analysed	-	59493-17	09/08/2011 09/08/2011	LCS-7	09/08/2011
HCB	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	59493-17	<0.1 <0.1	LCS-7	108%
gamma-BHC	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	59493-17	<0.1 <0.1	LCS-7	103%
Heptachlor	mg/kg	59493-17	<0.1 <0.1	LCS-7	91%
delta-BHC	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	59493-17	<0.1 <0.1	LCS-7	101%
Heptachlor Epoxide	mg/kg	59493-17	<0.1 <0.1	LCS-7	103%
gamma-Chlordane	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	59493-17	<0.1 <0.1	LCS-7	111%
Dieldrin	mg/kg	59493-17	0.3 0.2 RPD: 40	LCS-7	105%
Endrin	mg/kg	59493-17	<0.1 <0.1	LCS-7	102%
pp-DDD	mg/kg	59493-17	<0.1 <0.1	LCS-7	112%
Endosulfan II	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	59493-17	<0.1 <0.1	LCS-7	88%
Methoxychlor	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%	59493-17	100 101 RPD: 1	LCS-7	99%

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QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59493-17	08/08/2011 08/08/2011	59493-7	08/08/2011
Date analysed	-	59493-17	09/08/2011 09/08/2011	59493-7	09/08/2011
Diazinon	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Dimethoate	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos-methyl	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Ronnel	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos	mg/kg	59493-17	<0.1 <0.1	59493-7	97%
Fenitrothion	mg/kg	59493-17	<0.1 <0.1	59493-7	94%
Bromophos-ethyl	mg/kg	59493-17	<0.1 <0.1	[NR]	[NR]
Ethion	mg/kg	59493-17	<0.1 <0.1	59493-7	98%
Surrogate TCLMX	%	59493-17	100 101 RPD: 1	59493-7	99%
QUALITY CONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59493-7	08/08/2011
Date analysed	-	[NT]	[NT]	59493-7	09/08/2011
Arochlor 1016	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1221*	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	[NT]	[NT]	59493-7	111%
Arochlor 1260	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	59493-7	90%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	59493-17	08/08/2011 08/08/2011	LCS-2	08/08/2011
Date analysed	-	59493-17	08/08/2011 08/08/2011	LCS-2	08/08/2011
Arsenic	mg/kg	59493-17	12 8 RPD: 40	LCS-2	99%
Cadmium	mg/kg	59493-17	1 1.1 RPD: 10	LCS-2	108%
Chromium	mg/kg	59493-17	7 6 RPD: 15	LCS-2	107%
Copper	mg/kg	59493-17	22 21 RPD: 5	LCS-2	106%
Lead	mg/kg	59493-17	250 160 RPD: 44	LCS-2	102%
Mercury	mg/kg	59493-17	<0.1 <0.1	LCS-2	105%
Nickel	mg/kg	59493-17	10 10 RPD: 0	LCS-2	106%
Zinc	mg/kg	59493-17	1500 1500 RPD: 0	LCS-2	104%
Manganese	mg/kg	59493-17	100 98 RPD: 2	LCS-2	105%
Cobalt	mg/kg	59493-17	4 2 RPD: 67	LCS-2	105%
Tin	mg/kg	59493-17	51 17 RPD: 100	LCS-2	102%
Phosphorus	mg/kg	[NT]	[NT]	[NR]	[NR]

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QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	59493-28	9/8/2011 9/8/2011	59493-7	10/8/2011
Date analysed	-	59493-28	9/8/2011 9/8/2011	59493-7	10/8/2011
pH 1:5 soil:water	pH Units	59493-28	5.7 5.7 RPD: 0	[NR]	[NR]
Electrical Conductivity 1:5 soil:water	µS/cm	59493-28	6 6 RPD: 0	[NR]	[NR]
Fluoride (1:5 soil:water)	mg/kg	[NT]	[NT]	[NR]	[NR]
Ammonia as N in soil	mg/kg	59493-28	1.2 [N/T]	59493-7	80%
TKN as N in soil	mg/kg	59493-28	50 [N/T]	59493-7	#
NOx as N in soil	mg/kg	59493-28	<0.5 [N/T]	59493-7	#
QUALITY CONTROL vTRH & BTEX in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59493-24	08/08/2011 08/08/2011	59493-7	08/08/2011
Date analysed	-	59493-24	09/08/2011 09/08/2011	59493-7	08/08/2011
vTRH C ₆ - C ₉	mg/kg	59493-24	<50 <50	59493-7	100%
Benzene	mg/kg	59493-24	<0.4 <0.4	59493-7	89%
Toluene	mg/kg	59493-24	<1 <1	59493-7	99%
Ethylbenzene	mg/kg	59493-24	<2 <2	59493-7	104%
m+p-xylene	mg/kg	59493-24	<4 <4	59493-7	104%
o-Xylene	mg/kg	59493-24	<2 <2	59493-7	107%
Surrogate aaa- Trifluorotoluene	%	59493-24	105 110 RPD: 5	59493-7	130%
QUALITY CONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59493-24	08/08/2011 08/08/2011	59493-7	08/08/2011
Date analysed	-	59493-24	08/08/2011 08/08/2011	59493-7	08/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	59493-24	<100 <100	59493-7	126%
TRHC ₁₅ - C ₂₈	mg/kg	59493-24	<200 <200	59493-7	135%
TRHC ₂₉ - C ₃₆	mg/kg	59493-24	<200 <200	59493-7	132%
Surrogate o-Terphenyl	%	59493-24	103 100 RPD: 3	59493-7	106%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59493-24	08/08/2011 08/08/2011	59493-7	08/08/2011
Date analysed	-	59493-24	09/08/2011 09/08/2011	59493-7	09/08/2011
HCB	mg/kg	59493-24	<0.2 <0.2	[NR]	[NR]
alpha-BHC	mg/kg	59493-24	<0.2 <0.2	59493-7	109%
gamma-BHC	mg/kg	59493-24	<0.2 <0.2	[NR]	[NR]
beta-BHC	mg/kg	59493-24	<0.2 <0.2	59493-7	104%
Heptachlor	mg/kg	59493-24	<0.2 <0.2	59493-7	99%
delta-BHC	mg/kg	59493-24	<0.2 <0.2	[NR]	[NR]
Aldrin	mg/kg	59493-24	<0.2 <0.2	59493-7	101%
Heptachlor Epoxide	mg/kg	59493-24	<0.2 <0.2	59493-7	105%
gamma-Chlordane	mg/kg	59493-24	<0.2 <0.2	[NR]	[NR]

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QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
alpha-chlordane	mg/kg	59493-24	<0.2 <0.2	[NR]	[NR]
Endosulfan I	mg/kg	59493-24	<0.2 <0.2	[NR]	[NR]
pp-DDE	mg/kg	59493-24	<0.2 <0.2	59493-7	108%
Dieldrin	mg/kg	59493-24	<0.2 <0.2	59493-7	101%
Endrin	mg/kg	59493-24	<0.2 <0.2	59493-7	107%
pp-DDD	mg/kg	59493-24	<0.2 <0.2	59493-7	113%
Endosulfan II	mg/kg	59493-24	<0.2 <0.2	[NR]	[NR]
pp-DDT	mg/kg	59493-24	<0.2 <0.2	[NR]	[NR]
Endrin Aldehyde	mg/kg	59493-24	<0.2 <0.2	[NR]	[NR]
Endosulfan Sulphate	mg/kg	59493-24	<0.2 <0.2	59493-7	89%
Methoxychlor	mg/kg	59493-24	<0.2 <0.2	[NR]	[NR]
Surrogate TCLMX	%	59493-24	99 100 RPD: 1	59493-7	100%
QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date extracted	-	59493-24	08/08/2011 08/08/2011		
Date analysed	-	59493-24	09/08/2011 09/08/2011		
Diazinon	mg/kg	59493-24	<0.2 <0.2		
Dimethoate	mg/kg	59493-24	<0.2 <0.2		
Chlorpyrifos-methyl	mg/kg	59493-24	<0.2 <0.2		
Ronnel	mg/kg	59493-24	<0.2 <0.2		
Chlorpyrifos	mg/kg	59493-24	<0.2 <0.2		
Fenitrothion	mg/kg	59493-24	<0.2 <0.2		
Bromophos-ethyl	mg/kg	59493-24	<0.2 <0.2		
Ethion	mg/kg	59493-24	<0.2 <0.2		
Surrogate TCLMX	%	59493-24	99 100 RPD: 1		
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	59493-24	08/08/2011 08/08/2011	59493-7	08/08/2011
Date analysed	-	59493-24	08/08/2011 08/08/2011	59493-7	08/08/2011
Arsenic	mg/kg	59493-24	5 5 RPD: 0	59493-7	100%
Cadmium	mg/kg	59493-24	<0.5 <0.5	59493-7	100%
Chromium	mg/kg	59493-24	34 35 RPD: 3	59493-7	103%
Copper	mg/kg	59493-24	29 30 RPD: 3	59493-7	104%
Lead	mg/kg	59493-24	25 26 RPD: 4	59493-7	90%
Mercury	mg/kg	59493-24	<0.1 <0.1	59493-7	105%
Nickel	mg/kg	59493-24	35 37 RPD: 6	59493-7	100%
Zinc	mg/kg	59493-24	170 180 RPD: 6	59493-7	127%
Manganese	mg/kg	59493-24	380 410 RPD: 8	59493-7	82%
Cobalt	mg/kg	59493-24	17 18 RPD: 6	59493-7	99%
Tin	mg/kg	59493-24	1 2 RPD: 67	59493-7	99%

Client Reference: 49608.01, Tomago

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Phosphorus	mg/kg	[NT]	[NT]	59493-7	121%
QUALITY CONTROL vTRH & BTEX in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59493-25	08/08/2011
Date analysed	-	[NT]	[NT]	59493-25	09/08/2011
vTRHC ₆ - C ₉	mg/kg	[NT]	[NT]	59493-25	109%
Benzene	mg/kg	[NT]	[NT]	59493-25	97%
Toluene	mg/kg	[NT]	[NT]	59493-25	108%
Ethylbenzene	mg/kg	[NT]	[NT]	59493-25	112%
m+p-xylene	mg/kg	[NT]	[NT]	59493-25	113%
o-Xylene	mg/kg	[NT]	[NT]	59493-25	116%
Surrogate aaa- Trifluorotoluene	%	[NT]	[NT]	59493-25	121%
QUALITY CONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59493-25	08/08/2011
Date analysed	-	[NT]	[NT]	59493-25	08/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	[NT]	[NT]	59493-25	126%
TRHC ₁₅ - C ₂₈	mg/kg	[NT]	[NT]	59493-25	135%
TRHC ₂₉ - C ₃₆	mg/kg	[NT]	[NT]	59493-25	132%
Surrogate o-Terphenyl	%	[NT]	[NT]	59493-25	106%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59493-25	08/08/2011
Date analysed	-	[NT]	[NT]	59493-25	09/08/2011
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	59493-25	112%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	59493-25	105%
Heptachlor	mg/kg	[NT]	[NT]	59493-25	87%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	59493-25	104%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	59493-25	106%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	59493-25	112%
Dieldrin	mg/kg	[NT]	[NT]	59493-25	103%
Endrin	mg/kg	[NT]	[NT]	59493-25	93%
pp-DDD	mg/kg	[NT]	[NT]	59493-25	112%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]

Client Reference: 49608.01, Tomago

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	59493-25	88%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	59493-25	99%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	59493-25	08/08/2011
Date analysed	-	[NT]	[NT]	59493-25	08/08/2011
Arsenic	mg/kg	[NT]	[NT]	59493-25	89%
Cadmium	mg/kg	[NT]	[NT]	59493-25	89%
Chromium	mg/kg	[NT]	[NT]	59493-25	100%
Copper	mg/kg	[NT]	[NT]	59493-25	106%
Lead	mg/kg	[NT]	[NT]	59493-25	86%
Mercury	mg/kg	[NT]	[NT]	59493-25	107%
Nickel	mg/kg	[NT]	[NT]	59493-25	94%
Zinc	mg/kg	[NT]	[NT]	59493-25	90%
Manganese	mg/kg	[NT]	[NT]	59493-25	104%
Cobalt	mg/kg	[NT]	[NT]	59493-25	89%
Tin	mg/kg	[NT]	[NT]	59493-25	86%
Phosphorus	mg/kg	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date prepared	-	59493-1	9/8/2011 9/8/2011		
Date analysed	-	59493-1	9/8/2011 9/8/2011		
pH 1:5 soil:water	pH Units	59493-1	5.6 5.5 RPD: 2		
Electrical Conductivity 1:5 soil:water	µS/cm	59493-1	66 64 RPD: 3		
Fluoride (1:5 soil:water)	mg/kg	59493-1	2.7 2.6 RPD: 4		
Ammonia as N in soil	mg/kg	59493-1	13 12 RPD: 8		
TKN as N in soil	mg/kg	59493-1	1600 1600 RPD: 0		
NOx as N in soil	mg/kg	59493-1	1.3 1.6 RPD: 21		

Report Comments:

Total Recoverable Hydrocarbons in soil (semivol):PQL has been raised due to the high moisture content in the sample/s, resulting in a high dilution factor.# Percent recovery is not possible to report as the high concentration of analytes in the sample/s have caused interference.

Total Recoverable Hydrocarbons (volatile) in soil:PQL has been raised due to the high moisture content in the sample/s, resulting in a high dilution factor.

OCP 's in soil: PQL has been raised due to the high moisture content in the sample/s, resulting in a high dilution factor.

TKN in soil:# Percent recovery not available due to high analyte concentration.

Nitrate in soil:# Percent recovery not available due to sample matrix.

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 30-40g of sample in its own container.

Asbestos ID was analysed by Approved Identifier: Lulu Guo

Asbestos ID was authorised by Approved Signatory: Lulu Guo

INS: Insufficient sample for this test

NA: Test not required

<: Less than

PQL: Practical Quantitation Limit

RPD: Relative Percent Difference

>: Greater than

NT: Not tested

NA: Test not required

LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batched of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



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CERTIFICATE OF ANALYSIS

59726

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle
NSW 2310

Attention: Matthew Blackert, Kyle Prowse

Sample log in details:

Your Reference:	49608.01, Tomago
No. of samples:	45 soils, 4 materials
Date samples received / completed instructions received	10/08/11 / 10/08/11

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

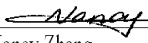
Report Details:

Date results requested by: / Issue Date:	17/08/11 / 18/08/11
Date of Preliminary Report:	Not Issued

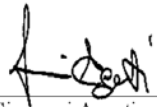
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Results Approved By:


Jacinta Hurst
Laboratory Manager


Nancy Zhang
Chemist


Alex MacLean
Chemist


Giovanni Agosti
Technical Manager


Nick Sarlamis
Inorganics Supervisor


Paul Ching
Approved Signatory


Jeremy Faircloth
Chemist

EnviroLab Reference: 59726
Revision No: R 00



VOCs in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-2 Bore16/0.05 08/08/2011 Soil
Date extracted	-	11/08/2011
Date analysed	-	11/08/2011
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-dichloroethene	mg/kg	<1
1,1-dichloroethane	mg/kg	<1
cis-1,2-dichloroethene	mg/kg	<1
bromochloromethane	mg/kg	<1
chloroform	mg/kg	<1
2,2-dichloropropane	mg/kg	<1
1,2-dichloroethane	mg/kg	<1
1,1,1-trichloroethane	mg/kg	<1
1,1-dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<1
1,2-dichloropropane	mg/kg	<1
trichloroethene	mg/kg	<1
bromodichloromethane	mg/kg	<1
trans-1,3-dichloropropene	mg/kg	<1
cis-1,3-dichloropropene	mg/kg	<1
1,1,2-trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<1
dibromochloromethane	mg/kg	<1
1,2-dibromoethane	mg/kg	<1
tetrachloroethene	mg/kg	<1
1,1,1,2-tetrachloroethane	mg/kg	<1
chlorobenzene	mg/kg	<1
Ethylbenzene	mg/kg	<1
bromoform	mg/kg	<1
m+p-xylene	mg/kg	<2
styrene	mg/kg	<1
1,1,2,2-tetrachloroethane	mg/kg	<1

VOCs in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-2 Bore16/0.05 08/08/2011 Soil
o-Xylene	mg/kg	<1
1,2,3-trichloropropane	mg/kg	<1
isopropylbenzene	mg/kg	<1
bromobenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
2-chlorotoluene	mg/kg	<1
4-chlorotoluene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
1,3-dichlorobenzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
1,4-dichlorobenzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
1,2-dichlorobenzene	mg/kg	<1
n-butyl benzene	mg/kg	<1
1,2-dibromo-3-chloropropane	mg/kg	<1
1,2,4-trichlorobenzene	mg/kg	<1
hexachlorobutadiene	mg/kg	<1
1,2,3-trichlorobenzene	mg/kg	<1
Surrogate Dibromofluorometha	%	102
Surrogate aaa-Trifluorotoluene	%	101
Surrogate Toluene-d8	%	104
Surrogate 4-Bromofluorobenzene	%	104

VTRH & BTEX in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-1 Bore15/0.25 05/08/2011 Soil	59726-2 Bore16/0.05 08/08/2011 Soil	59726-3 Bore17/0.05 04/08/2011 Soil	59726-4 Pit25/0.05 08/08/2011 Soil	59726-5 Pit26/0.25 08/08/2011 Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	99	93	104	104	113

VTRH & BTEX in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-6 Pit27/0.05 08/08/2011 Soil	59726-7 Pit28/0.25 08/08/2011 Soil	59726-8 Pit29/0.05 08/08/2011 Soil	59726-9 Pit42/0.25 05/08/2011 Soil	59726-10 Pit43/0.05 05/08/2011 Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	105	105	108	95	107

VTRH & BTEX in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-11 Pit44/0.5 05/08/2011 Soil	59726-13 Pit46/0.25 05/08/2011 Soil	59726-14 Pit47/0.25 05/08/2011 Soil	59726-15 Pit56/0.1 04/08/2011 Soil	59726-16 Pit57/0.25 04/08/2011 Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	105	112	109	112	111

VTRH & BTEX in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-18 Pit62/0.05 04/08/2011 Soil	59726-19 Pit66/0.25 04/08/2011 Soil	59726-22 Pit96/0.25 05/08/2011 Soil	59726-24 Pit98/0.05 05/08/2011 Soil	59726-26 Pit100/0.05 05/08/2011 Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	110	112	97	96	87

VTRH & BTEX in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-28 Pit102/0.25 05/08/2011 Soil	59726-30 Pit104/0.25 04/08/2011 Soil	59726-32 Pit107/0.25 04/08/2011 Soil	59726-34 Pit109/0.05 04/08/2011 Soil	59726-36 Pit111/0.05 04/08/2011 Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	106	106	95	102	100

VTRH & BTEX in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-37 Pit112/0.05 04/08/2011 Soil	59726-38 Pit114/0.05 04/08/2011 Soil	59726-39 Pit115/0.25 04/08/2011 Soil	59726-40 KGP D3 04/08/2011 Soil	59726-42 KGP D5 05/08/2011 Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	92	95	101	99	102

STRH in Soil (C10-C36)						
Our Reference:	UNITS	59726-1	59726-2	59726-3	59726-4	59726-5
Your Reference	-----	Bore15/0.25	Bore16/0.05	Bore17/0.05	Pit25/0.05	Pit26/0.25
Date Sampled	-----	05/08/2011	08/08/2011	04/08/2011	08/08/2011	08/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	91	95	97	90	92

STRH in Soil (C10-C36)						
Our Reference:	UNITS	59726-6	59726-7	59726-8	59726-9	59726-10
Your Reference	-----	Pit27/0.05	Pit28/0.25	Pit29/0.05	Pit42/0.25	Pit43/0.05
Date Sampled	-----	08/08/2011	08/08/2011	08/08/2011	05/08/2011	05/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	90	91	88	89	94

STRH in Soil (C10-C36)						
Our Reference:	UNITS	59726-11	59726-13	59726-14	59726-15	59726-16
Your Reference	-----	Pit44/0.5	Pit46/0.25	Pit47/0.25	Pit56/0.1	Pit57/0.25
Date Sampled	-----	05/08/2011	05/08/2011	05/08/2011	04/08/2011	04/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	93	96	97	101	92

STRH in Soil (C10-C36)						
Our Reference:	UNITS	59726-18	59726-19	59726-22	59726-24	59726-26
Your Reference	-----	Pit62/0.05	Pit66/0.25	Pit96/0.25	Pit98/0.05	Pit100/0.05
Date Sampled	-----	04/08/2011	04/08/2011	05/08/2011	05/08/2011	05/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	94	94	92	95	93

sTRH in Soil (C10-C36)						
Our Reference:	UNITS	59726-28	59726-30	59726-32	59726-34	59726-36
Your Reference	-----	Pit102/0.25	Pit104/0.25	Pit107/0.25	Pit109/0.05	Pit111/0.05
Date Sampled	-----	05/08/2011	04/08/2011	04/08/2011	04/08/2011	04/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	94	99	99	100	98

sTRH in Soil (C10-C36)						
Our Reference:	UNITS	59726-37	59726-38	59726-39	59726-40	59726-42
Your Reference	-----	Pit112/0.05	Pit114/0.05	Pit115/0.25	KGPD3	KGPD5
Date Sampled	-----	04/08/2011	04/08/2011	04/08/2011	04/08/2011	05/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	98	99	99	98	102

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-2 Bore16/0.05 08/08/2011 Soil	59726-4 Pit25/0.05 08/08/2011 Soil	59726-5 Pit26/0.25 08/08/2011 Soil	59726-6 Pit27/0.05 08/08/2011 Soil	59726-7 Pit28/0.25 08/08/2011 Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	0.09
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	128	119	118	120	130

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-8 Pit29/0.05 08/08/2011 Soil	59726-9 Pit42/0.25 05/08/2011 Soil	59726-10 Pit43/0.05 05/08/2011 Soil	59726-11 Pit44/0.5 05/08/2011 Soil	59726-13 Pit46/0.25 05/08/2011 Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1

PAHs in Soil	UNITS	59726-8	59726-9	59726-10	59726-11	59726-13
Our Reference:	-----	Pit29/0.05	Pit42/0.25	Pit43/0.05	Pit44/0.5	Pit46/0.25
Your Reference	-----	08/08/2011	05/08/2011	05/08/2011	05/08/2011	05/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	110	114	119	132	123

PAHs in Soil	UNITS	59726-14	59726-15	59726-16	59726-18	59726-19
Our Reference:	-----	Pit47/0.25	Pit56/0.1	Pit57/0.25	Pit62/0.05	Pit66/0.25
Your Reference	-----	05/08/2011	04/08/2011	04/08/2011	04/08/2011	04/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	127	136	104	119	108

PAHs in Soil		
Our Reference:	UNITS	59726-37
Your Reference	-----	Pit112/0.05
Date Sampled	-----	04/08/2011
Type of sample		Soil
Date extracted	-	11/08/2011
Date analysed	-	12/08/2011
Naphthalene	mg/kg	<0.2
Acenaphthylene	mg/kg	<0.2
Acenaphthene	mg/kg	<0.2
Fluorene	mg/kg	<0.2
Phenanthrene	mg/kg	0.2
Anthracene	mg/kg	<0.2
Fluoranthene	mg/kg	0.9
Pyrene	mg/kg	0.9
Benzo(a)anthracene	mg/kg	0.7
Chrysene	mg/kg	1.1
Benzo(b+k)fluoranthene	mg/kg	2.3
Benzo(a)pyrene	mg/kg	1.2
Indeno(1,2,3-c,d)pyrene	mg/kg	0.9
Dibenzo(a,h)anthracene	mg/kg	<0.2
Benzo(g,h,i)perylene	mg/kg	1.1
Surrogate p-Terphenyl-d ₁₄	%	107

Organochlorine Pesticides in soil						
Our Reference:	UNITS	59726-1	59726-3	59726-5	59726-6	59726-7
Your Reference	-----	Bore15/0.25	Bore17/0.05	Pit26/0.25	Pit27/0.05	Pit28/0.25
Date Sampled	-----	05/08/2011	04/08/2011	08/08/2011	08/08/2011	08/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	101	93	95	99	92

Organochlorine Pesticides in soil						
Our Reference:	UNITS	59726-8	59726-9	59726-10	59726-13	59726-14
Your Reference	-----	Pit/29/0.05	Pit42/0.25	Pit43/0.05	Pit46/0.25	Pit47/0.25
Date Sampled	-----	08/08/2011	05/08/2011	05/08/2011	05/08/2011	05/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	13/08/2011	13/08/2011	13/08/2011	13/08/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	93	92	90	90	94

Organochlorine Pesticides in soil						
Our Reference:	UNITS	59726-16	59726-18	59726-20	59726-21	59726-22
Your Reference	-----	Pit57/0.25	Pit62/0.05	Pit88/0.05	Pit89/0.05	Pit96/0.25
Date Sampled	-----	04/08/2011	04/08/2011	04/08/2011	04/08/2011	05/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	13/08/2011	13/08/2011	13/08/2011	13/08/2011	13/08/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	92	90	88	92	103

Organochlorine Pesticides in soil						
Our Reference:	UNITS	59726-23	59726-24	59726-25	59726-26	59726-27
Your Reference	-----	Pit97/0.05	Pit98/0.05	Pit99/0.25	Pit100/0.05	Pit101/0.25
Date Sampled	-----	05/08/2011	05/08/2011	05/08/2011	05/08/2011	05/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	13/08/2011	13/08/2011	13/08/2011	13/08/2011	13/08/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	96	99	96	93	95

Organochlorine Pesticides in soil						
Our Reference:	UNITS	59726-28	59726-29	59726-30	59726-31	59726-32
Your Reference	-----	Pit102/0.25	Pit103/0.05	Pit104/0.25	Pit105/0.05	Pit107/0.25
Date Sampled	-----	05/08/2011	05/08/2011	04/08/2011	04/08/2011	04/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	13/08/2011	13/08/2011	13/08/2011	13/08/2011	13/08/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	87	91	90	88	88

Organochlorine Pesticides in soil						
Our Reference:	UNITS	59726-33	59726-34	59726-35	59726-36	59726-37
Your Reference	-----	Pit108/0.05	Pit109/0.05	Pit110/0.25	Pit111/0.05	Pit112/0.05
Date Sampled	-----	04/08/2011	04/08/2011	04/08/2011	04/08/2011	04/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	13/08/2011	13/08/2011	13/08/2011	13/08/2011	13/08/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	89	86	87	87	90

Organochlorine Pesticides in soil						
Our Reference:	UNITS	59726-38	59726-39	59726-40	59726-41	59726-42
Your Reference	-----	Pit114/0.05	Pit115/0.25	KGPD3	KGPD4	KGPD5
Date Sampled	-----	04/08/2011	04/08/2011	04/08/2011	04/08/2011	05/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	13/08/2011	13/08/2011	13/08/2011	13/08/2011	13/08/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	90	86	88	88	89

Organophosphorus Pesticides	UNITS	59726-1	59726-3	59726-5	59726-6	59726-7
Our Reference:	-----	Bore15/0.25	Bore17/0.05	Pit26/0.25	Pit27/0.05	Pit28/0.25
Your Reference	-----	05/08/2011	04/08/2011	08/08/2011	08/08/2011	08/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	101	93	95	99	92

Organophosphorus Pesticides	UNITS	59726-8	59726-9	59726-10	59726-13	59726-14
Our Reference:	-----	Pit29/0.05	Pit42/0.25	Pit43/0.05	Pit46/0.25	Pit47/0.25
Your Reference	-----	08/08/2011	05/08/2011	05/08/2011	05/08/2011	05/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	13/08/2011	13/08/2011	13/08/2011	13/08/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	93	92	90	90	94

Organophosphorus Pesticides	UNITS	59726-16	59726-18	59726-20	59726-21	59726-22
Our Reference:	-----	Pit57/0.25	Pit62/0.05	Pit88/0.05	Pit89/0.05	Pit96/0.25
Your Reference	-----	04/08/2011	04/08/2011	04/08/2011	04/08/2011	05/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	13/08/2011	13/08/2011	13/08/2011	13/08/2011	13/08/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	92	90	88	92	103

Organophosphorus Pesticides	UNITS	59726-23	59726-24	59726-25	59726-26	59726-27
Our Reference:	-----	Pit97/0.05	Pit98/0.05	Pit99/0.25	Pit100/0.05	Pit101/0.25
Your Reference	-----	05/08/2011	05/08/2011	05/08/2011	05/08/2011	05/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	13/08/2011	13/08/2011	13/08/2011	13/08/2011	13/08/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	96	99	96	93	95

Organophosphorus Pesticides	UNITS	59726-28	59726-29	59726-30	59726-31	59726-32
Our Reference:	-----	Pit102/0.25	Pit103/0.05	Pit104/0.25	Pit105/0.05	Pit107/0.25
Your Reference	-----	05/08/2011	05/08/2011	04/08/2011	04/08/2011	04/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	13/08/2011	13/08/2011	13/08/2011	13/08/2011	13/08/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	87	91	90	88	88

Organophosphorus Pesticides	UNITS	59726-33	59726-34	59726-35	59726-36	59726-37
Our Reference:	-----	Pit108/0.05	Pit109/0.05	Pit110/0.25	Pit111/0.05	Pit112/0.05
Your Reference	-----	04/08/2011	04/08/2011	04/08/2011	04/08/2011	04/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	13/08/2011	13/08/2011	13/08/2011	13/08/2011	13/08/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	89	86	87	87	90

Organophosphorus Pesticides	UNITS	59726-38	59726-39	59726-40	59726-41	59726-42
Our Reference:	-----	Pit114/0.05	Pit115/0.25	KGPD3	KGPD4	KGPD5
Your Reference	-----	04/08/2011	04/08/2011	04/08/2011	04/08/2011	05/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	13/08/2011	13/08/2011	13/08/2011	13/08/2011	13/08/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	90	86	88	88	89

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-5 Pit26/0.25 08/08/2011 Soil	59726-6 Pit27/0.05 08/08/2011 Soil	59726-7 Pit28/0.25 08/08/2011 Soil	59726-8 Pit29/0.05 08/08/2011 Soil	59726-9 Pit42/0.25 05/08/2011 Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	95	99	92	93	92

PCBs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-10 Pit43/0.05 05/08/2011 Soil	59726-13 Pit46/0.25 05/08/2011 Soil	59726-14 Pit47/0.25 05/08/2011 Soil	59726-18 Pit62/0.05 04/08/2011 Soil
Date extracted	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	138/08/2011	138/08/2011	138/08/2011
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	90	90	94	90

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-1 Bore15/0.25 05/08/2011 Soil	59726-2 Bore16/0.05 08/08/2011 Soil	59726-3 Bore17/0.05 04/08/2011 Soil	59726-4 Pit25/0.05 08/08/2011 Soil	59726-5 Pit26/0.25 08/08/2011 Soil
Date digested	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Arsenic	mg/kg	34	5	<4	<4	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	29	46	33	2	4
Copper	mg/kg	6	24	30	16	14
Lead	mg/kg	13	15	24	9	70
Mercury	mg/kg	1.5	0.3	0.2	<0.1	0.2
Nickel	mg/kg	30	38	37	2	3
Zinc	mg/kg	48	48	140	54	100
Manganese	mg/kg	94	200	460	120	170
Cobalt	mg/kg	21	15	18	4	2
Tin	mg/kg	<1	<1	<1	<1	2

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-6 Pit27/0.05 08/08/2011 Soil	59726-7 Pit28/0.25 08/08/2011 Soil	59726-8 Pit29/0.05 08/08/2011 Soil	59726-9 Pit42/0.25 05/08/2011 Soil	59726-10 Pit43/0.05 05/08/2011 Soil
Date digested	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Arsenic	mg/kg	<4	<4	<4	6	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	2	10	3	2	2
Copper	mg/kg	1	10	2	26	4
Lead	mg/kg	15	76	15	7	21
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	10	2	4	1
Zinc	mg/kg	38	270	34	14	80
Manganese	mg/kg	360	190	34	12	1,800
Cobalt	mg/kg	2	5	1	4	<1
Tin	mg/kg	<1	2	<1	<1	<1
Phosphorus	mg/kg	[NA]	[NA]	200	[NA]	[NA]

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-11 Pit44/0.5 05/08/2011 Soil	59726-12 Pit45/0.05 05/08/2011 Soil	59726-13 Pit46/0.25 05/08/2011 Soil	59726-14 Pit47/0.25 05/08/2011 Soil	59726-15 Pit56/0.1 04/08/2011 Soil
Date digested	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	3	4	<1	18	<1
Copper	mg/kg	1	8	2	<1	2
Lead	mg/kg	11	61	1	8	1
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	2	<1	2	<1
Zinc	mg/kg	34	160	39	4	14
Manganese	mg/kg	10	130	11	21	6
Cobalt	mg/kg	<1	<1	<1	<1	<1
Tin	mg/kg	<1	1	<1	<1	<1
Phosphorus	mg/kg	220	[NA]	[NA]	[NA]	[NA]

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-16 Pit57/0.25 04/08/2011 Soil	59726-17 Pit59/0.1 04/08/2011 Soil	59726-18 Pit62/0.05 04/08/2011 Soil	59726-19 Pit66/0.25 04/08/2011 Soil	59726-20 Pit88/0.05 04/08/2011 Soil
Date digested	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Arsenic	mg/kg	<4	<4	<4	<4	6
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	<1	5	<1	1	36
Copper	mg/kg	5	13	3	3	25
Lead	mg/kg	3	20	5	5	21
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Nickel	mg/kg	<1	5	<1	<1	32
Zinc	mg/kg	300	61	24	24	230
Manganese	mg/kg	29	57	6	30	230
Cobalt	mg/kg	<1	3	<1	<1	15
Tin	mg/kg	<1	<1	<1	<1	<1

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-21 Pit89/0.05 04/08/2011 Soil	59726-22 Pit96/0.25 05/08/2011 Soil	59726-23 Pit97/0.05 05/08/2011 Soil	59726-24 Pit98/0.05 05/08/2011 Soil	59726-25 Pit99/0.25 05/08/2011 Soil
Date digested	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Arsenic	mg/kg	<4	5	6	15	21
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	8	47	40	40	33
Copper	mg/kg	6	23	12	35	26
Lead	mg/kg	5	15	13	22	17
Mercury	mg/kg	<0.1	0.1	0.2	0.4	0.4
Nickel	mg/kg	7	39	37	47	55
Zinc	mg/kg	68	65	79	81	62
Manganese	mg/kg	66	98	290	94	90
Cobalt	mg/kg	3	14	24	16	18
Tin	mg/kg	<1	1	1	<1	<1

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-26 Pit100/0.05 05/08/2011 Soil	59726-27 Pit101/0.25 05/08/2011 Soil	59726-28 Pit102/0.25 05/08/2011 Soil	59726-29 Pit103/0.05 05/08/2011 Soil	59726-30 Pit104/0.25 04/08/2011 Soil
Date digested	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Arsenic	mg/kg	16	19	<4	6	5
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	34	37	38	38	31
Copper	mg/kg	31	9	12	29	18
Lead	mg/kg	24	13	11	22	14
Mercury	mg/kg	0.3	0.4	0.1	0.1	0.1
Nickel	mg/kg	51	19	19	51	22
Zinc	mg/kg	100	46	45	98	49
Manganese	mg/kg	260	78	100	210	220
Cobalt	mg/kg	24	8	10	18	9
Tin	mg/kg	<1	<1	<1	<1	<1

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-31 Pit105/0.05 04/08/2011 Soil	59726-32 Pit107/0.25 04/08/2011 Soil	59726-33 Pit108/0.05 04/08/2011 Soil	59726-34 Pit109/0.05 04/08/2011 Soil	59726-35 Pit110/0.25 04/08/2011 Soil
Date digested	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Arsenic	mg/kg	6	6	6	5	5
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	29	32	34	28	25
Copper	mg/kg	21	17	25	26	18
Lead	mg/kg	18	14	20	19	14
Mercury	mg/kg	0.1	<0.1	0.1	0.1	0.2
Nickel	mg/kg	31	32	41	30	24
Zinc	mg/kg	72	50	99	86	41
Manganese	mg/kg	780	340	350	510	480
Cobalt	mg/kg	23	19	19	15	13
Tin	mg/kg	<1	<1	<1	<1	<1

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59726-36 Pit111/0.05 04/08/2011 Soil	59726-37 Pit112/0.05 04/08/2011 Soil	59726-38 Pit114/0.05 04/08/2011 Soil	59726-39 Pit115/0.25 04/08/2011 Soil	59726-40 KGP D3 04/08/2011 Soil
Date digested	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Arsenic	mg/kg	10	8	<4	<4	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	30	28	4	3	3
Copper	mg/kg	23	30	7	7	5
Lead	mg/kg	19	27	16	8	12
Mercury	mg/kg	0.2	0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	44	32	4	2	3
Zinc	mg/kg	85	170	56	28	31
Manganese	mg/kg	510	360	16	43	9
Cobalt	mg/kg	32	16	<1	<1	<1
Tin	mg/kg	<1	<1	<1	<1	<1

Acid Extractable metals in soil			
Our Reference:	UNITS	59726-41	59726-42
Your Reference	-----	KGPD4	KGPD5
Date Sampled	-----	04/08/2011	05/08/2011
Type of sample		Soil	Soil
Date digested	-	11/08/2011	11/08/2011
Date analysed	-	11/08/2011	11/08/2011
Arsenic	mg/kg	<4	<4
Cadmium	mg/kg	<0.5	<0.5
Chromium	mg/kg	4	39
Copper	mg/kg	3	15
Lead	mg/kg	4	12
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	3	18
Zinc	mg/kg	35	43
Manganese	mg/kg	31	67
Cobalt	mg/kg	1	8
Tin	mg/kg	<1	<1

Miscellaneous Inorg - soil						
Our Reference:	UNITS	59726-1	59726-2	59726-3	59726-5	59726-8
Your Reference	-----	Bore15/0.25	Bore16/0.05	Bore17/0.05	Pit26/0.25	Pit29/0.05
Date Sampled	-----	05/08/2011	08/08/2011	04/08/2011	08/08/2011	08/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/8/2011	12/8/2011	12/8/2011	12/8/2011	12/8/2011
Date analysed	-	12/8/2011	12/8/2011	12/8/2011	12/8/2011	12/8/2011
pH 1:5 soil:water	pH Units	7.5	6.3	5.8	7.5	6.1
Electrical Conductivity 1:5 soil:water	µS/cm	220	1,200	130	56	43
Fluoride (1:5 soil:water)	mg/kg	5.2	[NA]	3.2	3.6	2.9
Ammonia as N in soil	mg/kg	[NA]	26	[NA]	[NA]	6.2
TKN as N in soil	mg/kg	[NA]	[NA]	[NA]	[NA]	460
NOx as N in soil	mg/kg	[NA]	[NA]	[NA]	[NA]	<0.5

Miscellaneous Inorg - soil						
Our Reference:	UNITS	59726-11	59726-17	59726-22	59726-24	59726-26
Your Reference	-----	Pit44/0.5	Pit59/0.1	Pit96/0.25	Pit98/0.05	Pit100/0.05
Date Sampled	-----	05/08/2011	04/08/2011	05/08/2011	05/08/2011	05/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/8/2011	12/8/2011	12/8/2011	12/8/2011	12/8/2011
Date analysed	-	12/8/2011	12/8/2011	12/8/2011	12/8/2011	12/8/2011
pH 1:5 soil:water	pH Units	5.9	4.3	5.1	6.3	5.5
Electrical Conductivity 1:5 soil:water	µS/cm	30	110	900	160	220
Fluoride (1:5 soil:water)	mg/kg	[NA]	1.7	0.6	1.1	1.6
Ammonia as N in soil	mg/kg	5.7	[NA]	[NA]	[NA]	[NA]
TKN as N in soil	mg/kg	400	[NA]	[NA]	[NA]	[NA]
NOx as N in soil	mg/kg	<0.5	[NA]	[NA]	[NA]	[NA]

Miscellaneous Inorg - soil						
Our Reference:	UNITS	59726-28	59726-30	59726-32	59726-34	59726-36
Your Reference	-----	Pit102/0.25	Pit104/0.25	Pit107/0.25	Pit109/0.05	Pit111/0.05
Date Sampled	-----	05/08/2011	04/08/2011	04/08/2011	04/08/2011	04/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/8/2011	12/8/2011	12/8/2011	12/8/2011	12/8/2011
Date analysed	-	12/8/2011	12/8/2011	12/8/2011	12/8/2011	12/8/2011
pH 1:5 soil:water	pH Units	6.0	5.3	6.6	5.9	6.4
Electrical Conductivity 1:5 soil:water	µS/cm	840	90	850	130	160
Fluoride (1:5 soil:water)	mg/kg	1.4	<0.5	1.4	1.1	5.8

Miscellaneous Inorg - soil						
Our Reference:	UNITS	59726-37	59726-38	59726-39	59726-40	59726-42
Your Reference	-----	Pit112/0.05	Pit114/0.05	Pit115/0.25	KGPD3	KGPD5
Date Sampled	-----	04/08/2011	04/08/2011	04/08/2011	04/08/2011	05/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/8/2011	12/8/2011	12/8/2011	12/8/2011	12/8/2011
Date analysed	-	12/8/2011	12/8/2011	12/8/2011	12/8/2011	12/8/2011
pH 1:5 soil:water	pH Units	5.5	5.4	6.3	5.5	5.3
Electrical Conductivity 1:5 soil:water	µS/cm	190	92	72	92	930
Fluoride (1:5 soil:water)	mg/kg	5.7	4.7	1.0	4.7	<0.5

Moisture						
Our Reference:	UNITS	59726-1	59726-2	59726-3	59726-4	59726-5
Your Reference	-----	Bore15/0.25	Bore16/0.05	Bore17/0.05	Pit25/0.05	Pit26/0.25
Date Sampled	-----	05/08/2011	08/08/2011	04/08/2011	08/08/2011	08/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
Moisture	%	40	45	50	23	12

Moisture						
Our Reference:	UNITS	59726-6	59726-7	59726-8	59726-9	59726-10
Your Reference	-----	Pit27/0.05	Pit28/0.25	Pit29/0.05	Pit42/0.25	Pit43/0.05
Date Sampled	-----	08/08/2011	08/08/2011	08/08/2011	05/08/2011	05/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
Moisture	%	7.5	17	19	19	5.1

Moisture						
Our Reference:	UNITS	59726-11	59726-12	59726-13	59726-14	59726-15
Your Reference	-----	Pit44/0.5	Pit45/0.05	Pit46/0.25	Pit47/0.25	Pit56/0.1
Date Sampled	-----	05/08/2011	05/08/2011	05/08/2011	05/08/2011	04/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
Moisture	%	8.0	11	5.9	19	3.3

Moisture						
Our Reference:	UNITS	59726-16	59726-17	59726-18	59726-19	59726-20
Your Reference	-----	Pit57/0.25	Pit59/0.1	Pit62/0.05	Pit66/0.25	Pit88/0.05
Date Sampled	-----	04/08/2011	04/08/2011	04/08/2011	04/08/2011	04/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
Moisture	%	5.6	24	5.3	4.8	42

Moisture						
Our Reference:	UNITS	59726-21	59726-22	59726-23	59726-24	59726-25
Your Reference	-----	Pit89/0.05	Pit96/0.25	Pit97/0.05	Pit98/0.05	Pit99/0.25
Date Sampled	-----	04/08/2011	05/08/2011	05/08/2011	05/08/2011	05/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
Moisture	%	29	38	37	51	42

Moisture						
Our Reference:	UNITS	59726-26	59726-27	59726-28	59726-29	59726-30
Your Reference	-----	Pit100/0.05	Pit101/0.25	Pit102/0.25	Pit103/0.05	Pit104/0.25
Date Sampled	-----	05/08/2011	05/08/2011	05/08/2011	05/08/2011	04/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
Moisture	%	49	45	34	46	25

Moisture						
Our Reference:	UNITS	59726-31	59726-32	59726-33	59726-34	59726-35
Your Reference	-----	Pit105/0.05	Pit107/0.25	Pit108/0.05	Pit109/0.05	Pit110/0.25
Date Sampled	-----	04/08/2011	04/08/2011	04/08/2011	04/08/2011	04/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
Moisture	%	27	29	35	34	26

Moisture						
Our Reference:	UNITS	59726-36	59726-37	59726-38	59726-39	59726-40
Your Reference	-----	Pit111/0.05	Pit112/0.05	Pit114/0.05	Pit115/0.25	KGPD3
Date Sampled	-----	04/08/2011	04/08/2011	04/08/2011	04/08/2011	04/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	11/08/2011	11/08/2011	11/08/2011	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011	12/08/2011	12/08/2011	12/08/2011
Moisture	%	40	56	44	27	33

Moisture			
Our Reference:	UNITS	59726-41	59726-42
Your Reference	-----	KGPD4	KGPD5
Date Sampled	-----	04/08/2011	05/08/2011
Type of sample		Soil	Soil
Date prepared	-	11/08/2011	11/08/2011
Date analysed	-	12/08/2011	12/08/2011
Moisture	%	22	32

Asbestos ID - soils	UNITS	59726-5	59726-7	59726-8	59726-12	59726-13
Our Reference:	-----	Pit26/0.25	Pit28/0.25	Pit/29/0.05	Pit45/0.05	Pit46/0.25
Your Reference	-----	08/08/2011	08/08/2011	08/08/2011	05/08/2011	05/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Sample mass tested	g	Approx 35	Approx 35	Approx 35	34.39	Approx 35
Sample Description	-	Sandy soil	Sandy soil	Sandy soil	Sandy soil	Sandy soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected

Asbestos ID - soils	UNITS	59726-15	59726-43	59726-44	59726-45
Our Reference:	-----	Pit56/0.1	F7	F8	F9
Your Reference	-----	04/08/2011	05/08/2011	05/08/2011	05/08/2011
Date Sampled		Soil	Soil	Soil	Soil
Type of sample					
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Sample mass tested	g	Approx 35	Approx 35	Approx 35	Approx 35
Sample Description	-	Sandy soil	Sandy soil	Sandy soil	Sandy soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected

Asbestos ID - materials					
Our Reference:	UNITS	59726-46	59726-47	59726-48	59726-49
Your Reference	-----	Fibro7	Fibro8	Fibro9	Fibro10
Date Sampled	-----	05/08/2011	05/08/2011	05/08/2011	08/08/2011
Type of sample		Material	Material	Material	Material
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Mass / Dimension of Sample	-	48x27x3mm	60x35x5mm	110x60x5mm	25x18x3mm
Sample Description	-	Beige compressed fibre cement material	Beige compressed fibre cement material	Beige compressed fibrous board	Beige compressed fibre cement material
Asbestos ID in materials	-	Chrysotile asbestos detected	Chrysotile asbestos detected	No asbestos detected	Chrysotile asbestos detected

Method ID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA 21st ED, 4500-H+.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell and dedicated meter, in accordance with APHA 21st ED 2510 and Rayment & Higginson.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA 21st ED, 4500-F-C.
Inorg-057	Ammonia - determined colourimetrically based on EPA350.1 and APHA 21st ED 4500-NH3 F, Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA 21st ED 4500 Norg.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO3- F. Soils are analysed following a water extraction.
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
Date extracted	-			11/08/2011	[NT]	[NT]	LCS-5	11/08/2011
Date analysed	-			12/08/2011	[NT]	[NT]	LCS-5	12/08/2011
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	88%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	104%
2,2-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	100%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	92%
1,1-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	0.2	Org-014	<0.2	[NT]	[NT]	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	95%
bromodichloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	107%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
dibromochloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	108%
1,2-dibromoethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tetrachloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	100%
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
o-Xylene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	100	[NT]	[NT]	LCS-5	101%
Surrogate aaa-Trifluorotoluene	%		Org-014	108	[NT]	[NT]	LCS-5	121%
Surrogate Toluene-d8	%		Org-014	103	[NT]	[NT]	LCS-5	103%
Surrogate 4-Bromofluorobenzene	%		Org-014	105	[NT]	[NT]	LCS-5	103%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH & BTEX in Soil						Base Duplicate %RPD		
Date extracted	-			11/08/2011	59726-5	11/08/2011 11/08/2011	LCS-1	11/08/2011
Date analysed	-			11/08/2011	59726-5	12/08/2011 12/08/2011	LCS-1	11/08/2011
vTRHC ₆ - C ₉	mg/kg	25	Org-016	<25	59726-5	<25 <25	LCS-1	91%
Benzene	mg/kg	0.2	Org-016	<0.2	59726-5	<0.2 <0.2	LCS-1	83%
Toluene	mg/kg	0.5	Org-016	<0.5	59726-5	<0.5 <0.5	LCS-1	87%
Ethylbenzene	mg/kg	1	Org-016	<1	59726-5	<1 <1	LCS-1	93%
m+p-xylene	mg/kg	2	Org-016	<2	59726-5	<2 <2	LCS-1	97%
o-Xylene	mg/kg	1	Org-016	<1	59726-5	<1 <1	LCS-1	99%
Surrogate aaa-Trifluorotoluene	%		Org-016	112	59726-5	113 108 RPD: 5	LCS-1	113%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Soil (C10-C36)						Base Duplicate %RPD		
Date extracted	-			11/08/2011	59726-5	11/08/2011 11/08/2011	LCS-1	11/08/2011
Date analysed	-			11/08/2011	59726-5	11/08/2011 11/08/2011	LCS-1	11/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	50	Org-003	<50	59726-5	<50 <50	LCS-1	98%
TRHC ₁₅ - C ₂₈	mg/kg	100	Org-003	<100	59726-5	<100 <100	LCS-1	106%
TRHC ₂₉ - C ₃₆	mg/kg	100	Org-003	<100	59726-5	<100 <100	LCS-1	88%
Surrogate o-Terphenyl	%		Org-003	87	59726-5	92 87 RPD: 6	LCS-1	87%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base Duplicate %RPD		
Date extracted	-			11/08/2011	59726-5	11/08/2011 11/08/2011	LCS-1	11/08/2011
Date analysed	-			12/08/2011	59726-5	12/08/2011 12/08/2011	LCS-1	12/08/2011
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	59726-5	<0.1 <0.1	LCS-1	101%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	59726-5	<0.1 <0.1	LCS-1	108%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	59726-5	<0.1 <0.1	LCS-1	103%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	59726-5	<0.1 <0.1	LCS-1	101%
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	59726-5	<0.1 <0.1	LCS-1	110%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base Duplicate %RPD		
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	59726-5	<0.1 <0.1	LCS-1	107%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	59726-5	<0.2 <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	59726-5	<0.05 <0.05	LCS-1	103%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	133	59726-5	118 125 RPD: 6	LCS-1	119%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organochlorine Pesticides in soil						Base Duplicate %RPD		
Date extracted	-			11/08/2011	59726-5	11/08/2011 11/08/2011	LCS-1	11/08/2011
Date analysed	-			12/08/2011	59726-5	12/08/2011 12/08/2011	LCS-1	12/08/2011
HCB	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	LCS-1	110%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	LCS-1	107%
Heptachlor	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	LCS-1	78%
delta-BHC	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	LCS-1	107%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	LCS-1	106%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	LCS-1	119%
Dieldrin	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	LCS-1	106%
Endrin	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	LCS-1	81%
pp-DDD	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	LCS-1	109%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	LCS-1	84%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-005	100	59726-5	95 90 RPD: 5	LCS-1	91%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organophosphorus Pesticides						Base Duplicate %RPD		
Date extracted	-			11/08/2011	59726-5	11/08/2011 11/08/2011	LCS-1	11/08/2011
Date analysed	-			12/08/2011	59726-5	11/08/2011 11/08/2011	LCS-1	12/08/2011
Diazinon	mg/kg	0.1	Org-008	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Dimethoate	mg/kg	0.1	Org-008	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Ronnel	mg/kg	0.1	Org-008	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos	mg/kg	0.1	Org-008	<0.1	59726-5	<0.1 <0.1	LCS-1	110%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	59726-5	<0.1 <0.1	LCS-1	98%
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	59726-5	<0.1 <0.1	LCS-1	119%
Surrogate TCLMX	%		Org-008	100	59726-5	95 90 RPD: 5	LCS-1	104%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCBs in Soil						Base Duplicate %RPD		
Date extracted	-			11/08/2011	59726-5	11/08/2011 11/08/2011	LCS-1	11/08/2011
Date analysed	-			12/08/2011	59726-5	12/08/2011 12/08/2011	LCS-1	12/08/2011
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Arochlor 1221*	mg/kg	0.1	Org-006	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	59726-5	<0.1 <0.1	LCS-1	121%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	59726-5	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-006	100	59726-5	95 90 RPD: 5	LCS-1	92%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base Duplicate %RPD		
Date digested	-			11/08/2011	59726-5	11/08/2011 11/08/2011	LCS-1	11/08/2011
Date analysed	-			11/08/2011	59726-5	11/08/2011 11/08/2011	LCS-1	11/08/2011
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	59726-5	<4 <4	LCS-1	90%
Cadmium	mg/kg	0.5	Metals-020 ICP-AES	<0.5	59726-5	<0.5 <0.5	LCS-1	92%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	59726-5	4 4 RPD: 0	LCS-1	93%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	59726-5	14 15 RPD: 7	LCS-1	95%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	59726-5	70 100 RPD: 35	LCS-1	90%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	59726-5	0.2 0.2 RPD: 0	LCS-1	107%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	59726-5	3 3 RPD: 0	LCS-1	92%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	59726-5	100 110 RPD: 10	LCS-1	93%
Manganese	mg/kg	1	Metals-020 ICP-AES	<1	59726-5	170 170 RPD: 0	LCS-1	95%
Cobalt	mg/kg	1	Metals-020 ICP-AES	<1	59726-5	2 2 RPD: 0	LCS-1	91%
Tin	mg/kg	1	Metals-020 ICP-AES	<1	59726-5	2 2 RPD: 0	LCS-1	88%
Phosphorus	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	LCS-1	84%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorg - soil						Base II Duplicate II %RPD		
Date prepared	-			12/08/2011	59726-1	12/8/2011 12/8/2011	LCS-1	12/08/2011
Date analysed	-			16/08/2011	59726-1	12/8/2011 12/8/2011	LCS-1	16/08/2011
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	59726-1	7.5 7.6 RPD: 1	LCS-1	101%
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	<1	59726-1	220 210 RPD: 5	LCS-1	100%
Fluoride (1:5 soil:water)	mg/kg	0.5	Inorg-026	<0.5	59726-1	5.2 5.1 RPD: 2	LCS-1	109%
Ammonia as N in soil	mg/kg	0.5	Inorg-057	<0.5	[NT]	[NT]	LCS-1	94%
TKN as N in soil	mg/kg	10	Inorg-062	<10	[NT]	[NT]	LCS-1	108%
NOx as N in soil	mg/kg	0.5	Inorg-055	<0.5	[NT]	[NT]	LCS-1	106%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank				
Moisture								
Date prepared	-			11/08/2011				
Date analysed	-			12/08/2011				
Moisture	%	0.1	Inorg-008	[NT]				
QUALITY CONTROL	UNITS	PQL	METHOD	Blank				
Asbestos ID - soils								
Date analysed	-			[NT]				
QUALITY CONTROL	UNITS	PQL	METHOD	Blank				
Asbestos ID - materials								
Date analysed	-			[NT]				

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QUALITY CONTROL vTRH & BTEX in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59726-13	11/08/2011 11/08/2011	LCS-2	11/08/2011
Date analysed	-	59726-13	12/08/2011 12/08/2011	LCS-2	12/08/2011
vTRHC ₆ - C ₉	mg/kg	59726-13	<25 <25	LCS-2	101%
Benzene	mg/kg	59726-13	<0.2 <0.2	LCS-2	91%
Toluene	mg/kg	59726-13	<0.5 <0.5	LCS-2	95%
Ethylbenzene	mg/kg	59726-13	<1 <1	LCS-2	103%
m+p-xylene	mg/kg	59726-13	<2 <2	LCS-2	108%
o-Xylene	mg/kg	59726-13	<1 <1	LCS-2	110%
Surrogate aaa-Trifluorotoluene	%	59726-13	112 112 RPD: 0	LCS-2	109%
QUALITY CONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59726-13	11/08/2011 11/08/2011	LCS-2	11/08/2011
Date analysed	-	59726-13	11/08/2011 11/08/2011	LCS-2	11/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	59726-13	<50 <50	LCS-2	100%
TRHC ₁₅ - C ₂₈	mg/kg	59726-13	<100 <100	LCS-2	107%
TRHC ₂₉ - C ₃₆	mg/kg	59726-13	<100 <100	LCS-2	94%
Surrogate o-Terphenyl	%	59726-13	96 95 RPD: 1	LCS-2	89%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59726-13	11/08/2011 11/08/2011	LCS-2	11/08/2011
Date analysed	-	59726-13	12/08/2011 12/08/2011	LCS-2	12/08/2011
Naphthalene	mg/kg	59726-13	<0.1 <0.1	LCS-2	104%
Acenaphthylene	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	59726-13	<0.1 <0.1	LCS-2	110%
Phenanthrene	mg/kg	59726-13	<0.1 <0.1	LCS-2	105%
Anthracene	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	59726-13	<0.1 <0.1	LCS-2	101%
Pyrene	mg/kg	59726-13	<0.1 <0.1	LCS-2	111%
Benzo(a)anthracene	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	59726-13	<0.1 <0.1	LCS-2	109%
Benzo(b+k)fluoranthene	mg/kg	59726-13	<0.2 <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	59726-13	<0.05 <0.05	LCS-2	103%
Indeno(1,2,3-c,d)pyrene	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d ₁₄	%	59726-13	123 121 RPD: 2	LCS-2	115%

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QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59726-13	11/08/2011 11/08/2011	LCS-2	11/08/2011
Date analysed	-	59726-13	13/08/2011 13/08/2011	LCS-2	13/08/2011
HCB	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	59726-13	<0.1 <0.1	LCS-2	107%
gamma-BHC	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	59726-13	<0.1 <0.1	LCS-2	107%
Heptachlor	mg/kg	59726-13	<0.1 <0.1	LCS-2	102%
delta-BHC	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	59726-13	<0.1 <0.1	LCS-2	100%
Heptachlor Epoxide	mg/kg	59726-13	<0.1 <0.1	LCS-2	104%
gamma-Chlordane	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	59726-13	<0.1 <0.1	LCS-2	111%
Dieldrin	mg/kg	59726-13	<0.1 <0.1	LCS-2	100%
Endrin	mg/kg	59726-13	<0.1 <0.1	LCS-2	105%
pp-DDD	mg/kg	59726-13	<0.1 <0.1	LCS-2	114%
Endosulfan II	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	59726-13	<0.1 <0.1	LCS-2	86%
Methoxychlor	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%	59726-13	90 92 RPD: 2	LCS-2	97%

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QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59726-13	11/08/2011 11/08/2011	LCS-2	11/08/2011
Date analysed	-	59726-13	13/08/2011 13/08/2011	LCS-2	13/08/2011
Diazinon	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Dimethoate	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos-methyl	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Ronnel	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos	mg/kg	59726-13	<0.1 <0.1	LCS-2	96%
Fenitrothion	mg/kg	59726-13	<0.1 <0.1	LCS-2	89%
Bromophos-ethyl	mg/kg	59726-13	<0.1 <0.1	[NR]	[NR]
Ethion	mg/kg	59726-13	<0.1 <0.1	LCS-2	85%
Surrogate TCLMX	%	59726-13	90 92 RPD: 2	LCS-2	98%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	59726-13	11/08/2011 11/08/2011	LCS-2	11/08/2011
Date analysed	-	59726-13	11/08/2011 11/08/2011	LCS-2	11/08/2011
Arsenic	mg/kg	59726-13	<4 <4	LCS-2	93%
Cadmium	mg/kg	59726-13	<0.5 <0.5	LCS-2	91%
Chromium	mg/kg	59726-13	<1 <1	LCS-2	94%
Copper	mg/kg	59726-13	2 2 RPD: 0	LCS-2	98%
Lead	mg/kg	59726-13	1 2 RPD: 67	LCS-2	92%
Mercury	mg/kg	59726-13	<0.1 <0.1	LCS-2	108%
Nickel	mg/kg	59726-13	<1 <1	LCS-2	94%
Zinc	mg/kg	59726-13	39 41 RPD: 5	LCS-2	95%
Manganese	mg/kg	59726-13	11 15 RPD: 31	LCS-2	97%
Cobalt	mg/kg	59726-13	<1 <1	LCS-2	93%
Tin	mg/kg	59726-13	<1 <1	LCS-2	91%
Phosphorus	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date prepared	-	59726-28	12/8/2011 12/8/2011		
Date analysed	-	59726-28	12/8/2011 12/8/2011		
pH 1:5 soil:water	pH Units	59726-28	6.0 6.0 RPD: 0		
Electrical Conductivity 1:5 soil:water	µS/cm	59726-28	840 830 RPD: 1		
Fluoride (1:5 soil:water)	mg/kg	59726-28	1.4 1.3 RPD: 7		
Ammonia as N in soil	mg/kg	[NT]	[NT]		
TKN as N in soil	mg/kg	[NT]	[NT]		
NOx as N in soil	mg/kg	[NT]	[NT]		
QUALITY CONTROL vTRH & BTEX in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59726-36	11/08/2011 11/08/2011	59726-6	11/08/2011
Date analysed	-	59726-36	12/08/2011 12/08/2011	59726-6	12/08/2011
vTRHC ₆ - C ₉	mg/kg	59726-36	<25 <25	59726-6	97%
Benzene	mg/kg	59726-36	<0.2 <0.2	59726-6	89%
Toluene	mg/kg	59726-36	<0.5 <0.5	59726-6	92%
Ethylbenzene	mg/kg	59726-36	<1 <1	59726-6	98%
m+p-xylene	mg/kg	59726-36	<2 <2	59726-6	103%
o-Xylene	mg/kg	59726-36	<1 <1	59726-6	106%
Surrogate aaa-Trifluorotoluene	%	59726-36	100 102 RPD: 2	59726-6	107%
QUALITY CONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59726-36	11/08/2011 11/08/2011	59726-6	11/08/2011
Date analysed	-	59726-36	11/08/2011 11/08/2011	59726-6	11/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	59726-36	<50 <50	59726-6	104%
TRHC ₁₅ - C ₂₈	mg/kg	59726-36	<100 <100	59726-6	112%
TRHC ₂₉ - C ₃₆	mg/kg	59726-36	<100 <100	59726-6	112%
Surrogate o-Terphenyl	%	59726-36	98 99 RPD: 1	59726-6	90%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59726-6	11/08/2011
Date analysed	-	[NT]	[NT]	59726-6	12/08/2011
Naphthalene	mg/kg	[NT]	[NT]	59726-6	101%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	59726-6	107%
Phenanthrene	mg/kg	[NT]	[NT]	59726-6	100%
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	59726-6	98%

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QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Pyrene	mg/kg	[NT]	[NT]	59726-6	106%
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	59726-6	105%
Benzo(b+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	59726-6	103%
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d ₁₄	%	[NT]	[NT]	59726-6	114%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59726-20	11/08/2011 11/08/2011	59726-6	11/08/2011
Date analysed	-	59726-20	13/08/2011 13/08/2011	59726-6	12/08/2011
HCB	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	59726-20	<0.1 <0.1	59726-6	105%
gamma-BHC	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	59726-20	<0.1 <0.1	59726-6	101%
Heptachlor	mg/kg	59726-20	<0.1 <0.1	59726-6	75%
delta-BHC	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	59726-20	<0.1 <0.1	59726-6	102%
Heptachlor Epoxide	mg/kg	59726-20	<0.1 <0.1	59726-6	100%
gamma-Chlordane	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	59726-20	<0.1 <0.1	59726-6	113%
Dieldrin	mg/kg	59726-20	<0.1 <0.1	59726-6	101%
Endrin	mg/kg	59726-20	<0.1 <0.1	59726-6	81%
pp-DDD	mg/kg	59726-20	<0.1 <0.1	59726-6	104%
Endosulfan II	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	59726-20	<0.1 <0.1	59726-6	82%
Methoxychlor	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%	59726-20	88 88 RPD: 0	59726-6	87%

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QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59726-20	11/08/2011 11/08/2011	59726-6	11/08/2011
Date analysed	-	59726-20	13/08/2011 13/08/2011	59726-6	12/08/2011
Diazinon	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
Dimethoate	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos-methyl	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
Ronnel	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos	mg/kg	59726-20	<0.1 <0.1	59726-6	83%
Fenitrothion	mg/kg	59726-20	<0.1 <0.1	59726-6	75%
Bromophos-ethyl	mg/kg	59726-20	<0.1 <0.1	[NR]	[NR]
Ethion	mg/kg	59726-20	<0.1 <0.1	59726-6	92%
Surrogate TCLMX	%	59726-20	88 88 RPD: 0	59726-6	91%
QUALITY CONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59726-6	11/08/2011
Date analysed	-	[NT]	[NT]	59726-6	12/08/2011
Arochlor 1016	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1221*	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	[NT]	[NT]	59726-6	100%
Arochlor 1260	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	59726-6	86%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	59726-20	11/08/2011 11/08/2011	LCS-3	11/08/2011
Date analysed	-	59726-20	11/08/2011 11/08/2011	LCS-3	11/08/2011
Arsenic	mg/kg	59726-20	6 7 RPD: 15	LCS-3	89%
Cadmium	mg/kg	59726-20	<0.5 <0.5	LCS-3	88%
Chromium	mg/kg	59726-20	36 41 RPD: 13	LCS-3	90%
Copper	mg/kg	59726-20	25 22 RPD: 13	LCS-3	92%
Lead	mg/kg	59726-20	21 17 RPD: 21	LCS-3	88%
Mercury	mg/kg	59726-20	0.2 0.2 RPD: 0	LCS-3	106%
Nickel	mg/kg	59726-20	32 32 RPD: 0	LCS-3	89%
Zinc	mg/kg	59726-20	230 190 RPD: 19	LCS-3	91%
Manganese	mg/kg	59726-20	230 280 RPD: 20	LCS-3	94%
Cobalt	mg/kg	59726-20	15 17 RPD: 12	LCS-3	88%
Tin	mg/kg	59726-20	<1 <1	LCS-3	88%
Phosphorus	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date prepared	-	59726-40	12/8/2011 12/8/2011		
Date analysed	-	59726-40	12/8/2011 12/8/2011		
Fluoride (1:5 soil:water)	mg/kg	59726-40	4.7 4.7 RPD: 0		
Ammonia as N in soil	mg/kg	[NT]	[NT]		
TKN as N in soil	mg/kg	[NT]	[NT]		
NOx as N in soil	mg/kg	[NT]	[NT]		
QUALITY CONTROL vTRH & BTEX in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59726-18	11/08/2011
Date analysed	-	[NT]	[NT]	59726-18	12/08/2011
vTRHC ₆ - C ₉	mg/kg	[NT]	[NT]	59726-18	93%
Benzene	mg/kg	[NT]	[NT]	59726-18	84%
Toluene	mg/kg	[NT]	[NT]	59726-18	87%
Ethylbenzene	mg/kg	[NT]	[NT]	59726-18	95%
m+p-xylene	mg/kg	[NT]	[NT]	59726-18	100%
o-Xylene	mg/kg	[NT]	[NT]	59726-18	102%
Surrogate aaa-Trifluorotoluene	%	[NT]	[NT]	59726-18	109%
QUALITY CONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59726-18	11/08/2011
Date analysed	-	[NT]	[NT]	59726-18	11/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	[NT]	[NT]	59726-18	109%
TRHC ₁₅ - C ₂₈	mg/kg	[NT]	[NT]	59726-18	117%
TRHC ₂₉ - C ₃₆	mg/kg	[NT]	[NT]	59726-18	121%
Surrogate o-Terphenyl	%	[NT]	[NT]	59726-18	98%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59726-18	11/08/2011
Date analysed	-	[NT]	[NT]	59726-18	12/08/2011
Naphthalene	mg/kg	[NT]	[NT]	59726-18	103%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	59726-18	111%
Phenanthrene	mg/kg	[NT]	[NT]	59726-18	107%
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	59726-18	102%
Pyrene	mg/kg	[NT]	[NT]	59726-18	111%
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	59726-18	113%

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QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Benzo(b+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	59726-18	105%
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d ₁₄	%	[NT]	[NT]	59726-18	115%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59726-36	11/08/2011 11/08/2011	59726-18	11/08/2011
Date analysed	-	59726-36	13/08/2011 13/08/2011	59726-18	13/08/2011
HCB	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	59726-36	<0.1 <0.1	59726-18	103%
gamma-BHC	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	59726-36	<0.1 <0.1	59726-18	102%
Heptachlor	mg/kg	59726-36	<0.1 <0.1	59726-18	96%
delta-BHC	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	59726-36	<0.1 <0.1	59726-18	97%
Heptachlor Epoxide	mg/kg	59726-36	<0.1 <0.1	59726-18	99%
gamma-Chlordane	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	59726-36	<0.1 <0.1	59726-18	108%
Dieldrin	mg/kg	59726-36	<0.1 <0.1	59726-18	96%
Endrin	mg/kg	59726-36	<0.1 <0.1	59726-18	104%
pp-DDD	mg/kg	59726-36	<0.1 <0.1	59726-18	102%
Endosulfan II	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	59726-36	<0.1 <0.1	59726-18	82%
Methoxychlor	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%	59726-36	87 87 RPD: 0	59726-18	85%

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QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59726-36	11/08/2011 11/08/2011	59726-18	11/08/2011
Date analysed	-	59726-36	13/08/2011 13/08/2011	59726-18	13/08/2011
Diazinon	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
Dimethoate	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos-methyl	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
Ronnel	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos	mg/kg	59726-36	<0.1 <0.1	59726-18	94%
Fenitrothion	mg/kg	59726-36	<0.1 <0.1	59726-18	88%
Bromophos-ethyl	mg/kg	59726-36	<0.1 <0.1	[NR]	[NR]
Ethion	mg/kg	59726-36	<0.1 <0.1	59726-18	93%
Surrogate TCLMX	%	59726-36	87 87 RPD: 0	59726-18	94%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	59726-25	11/08/2011 11/08/2011	59726-6	11/08/2011
Date analysed	-	59726-25	11/08/2011 11/08/2011	59726-6	11/08/2011
Arsenic	mg/kg	59726-25	21 27 RPD: 25	59726-6	90%
Cadmium	mg/kg	59726-25	<0.5 <0.5	59726-6	80%
Chromium	mg/kg	59726-25	33 30 RPD: 10	59726-6	86%
Copper	mg/kg	59726-25	26 25 RPD: 4	59726-6	92%
Lead	mg/kg	59726-25	17 16 RPD: 6	59726-6	76%
Mercury	mg/kg	59726-25	0.4 0.4 RPD: 0	59726-6	103%
Nickel	mg/kg	59726-25	55 55 RPD: 0	59726-6	82%
Zinc	mg/kg	59726-25	62 61 RPD: 2	59726-6	80%
Manganese	mg/kg	59726-25	90 82 RPD: 9	59726-6	78%
Cobalt	mg/kg	59726-25	18 18 RPD: 0	59726-6	82%
Tin	mg/kg	59726-25	<1 <1	59726-6	82%
Phosphorus	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date prepared	-	59726-11	12/8/2011 12/8/2011		
Date analysed	-	59726-11	12/8/2011 12/8/2011		
Fluoride (1:5 soil:water)	mg/kg	[NT]	[NT]		
TKN as N in soil	mg/kg	59726-11	400 390 RPD: 3		
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	59726-36	11/08/2011 11/08/2011	59726-18	11/08/2011
Date analysed	-	59726-36	11/08/2011 11/08/2011	59726-18	11/08/2011
Arsenic	mg/kg	59726-36	10 10 RPD: 0	59726-18	94%
Cadmium	mg/kg	59726-36	<0.5 <0.5	59726-18	92%
Chromium	mg/kg	59726-36	30 30 RPD: 0	59726-18	94%
Copper	mg/kg	59726-36	23 24 RPD: 4	59726-18	94%
Lead	mg/kg	59726-36	19 19 RPD: 0	59726-18	92%
Mercury	mg/kg	59726-36	0.2 0.1 RPD: 67	59726-18	108%
Nickel	mg/kg	59726-36	44 44 RPD: 0	59726-18	92%
Zinc	mg/kg	59726-36	85 88 RPD: 3	59726-18	92%
Manganese	mg/kg	59726-36	510 530 RPD: 4	59726-18	96%
Cobalt	mg/kg	59726-36	32 33 RPD: 3	59726-18	92%
Tin	mg/kg	59726-36	<1 <1	59726-18	87%
Phosphorus	mg/kg	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date prepared	-	59726-1	12/8/2011 12/8/2011		
Date analysed	-	59726-1	12/8/2011 12/8/2011		
pH 1:5 soil:water	pH Units	59726-1	7.5 7.6 RPD: 1		
Electrical Conductivity 1:5 soil:water	µS/cm	59726-1	220 210 RPD: 5		
Fluoride (1:5 soil:water)	mg/kg	59726-1	5.2 5.1 RPD: 2		
Ammonia as N in soil	mg/kg	[NT]	[NT]		
TKN as N in soil	mg/kg	[NT]	[NT]		
NOx as N in soil	mg/kg	[NT]	[NT]		

Client Reference: 49608.01, Tomago

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	59726-26	11/08/2011
Date analysed	-	[NT]	[NT]	59726-26	11/08/2011
Arsenic	mg/kg	[NT]	[NT]	59726-26	85%
Cadmium	mg/kg	[NT]	[NT]	59726-26	75%
Chromium	mg/kg	[NT]	[NT]	59726-26	85%
Copper	mg/kg	[NT]	[NT]	59726-26	92%
Lead	mg/kg	[NT]	[NT]	59726-26	75%
Mercury	mg/kg	[NT]	[NT]	59726-26	109%
Nickel	mg/kg	[NT]	[NT]	59726-26	81%
Zinc	mg/kg	[NT]	[NT]	59726-26	80%
Manganese	mg/kg	[NT]	[NT]	59726-26	74%
Cobalt	mg/kg	[NT]	[NT]	59726-26	78%
Tin	mg/kg	[NT]	[NT]	59726-26	72%
Phosphorus	mg/kg	[NT]	[NT]	[NR]	[NR]
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date prepared	-	59726-28	12/8/2011 12/8/2011		
Date analysed	-	59726-28	12/8/2011 12/8/2011		
pH 1:5 soil:water	pH Units	59726-28	6.0 6.0 RPD: 0		
Electrical Conductivity 1:5 soil:water	µS/cm	59726-28	840 830 RPD: 1		
Fluoride (1:5 soil:water)	mg/kg	59726-28	1.4 1.3 RPD: 7		
Ammonia as N in soil	mg/kg	[NT]	[NT]		
TKN as N in soil	mg/kg	[NT]	[NT]		
NOx as N in soil	mg/kg	[NT]	[NT]		
QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date prepared	-	59726-40	12/8/2011 12/8/2011		
Date analysed	-	59726-40	12/8/2011 12/8/2011		
pH 1:5 soil:water	pH Units	59726-40	5.5 [N/T]		
Electrical Conductivity 1:5 soil:water	µS/cm	59726-40	92 [N/T]		
Fluoride (1:5 soil:water)	mg/kg	59726-40	4.7 4.7 RPD: 0		
Ammonia as N in soil	mg/kg	[NT]	[NT]		
TKN as N in soil	mg/kg	[NT]	[NT]		
NOx as N in soil	mg/kg	[NT]	[NT]		

Report Comments:

PAH's in soil:PQL has been raised due to the high moisture content in the sample/s, resulting in a high dilution factor.

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 30-40g of sample in its own container.

Sample 59726-12; Chrysotile asbestos identified embedded in several fragments of fibre cement (total weight 0.0020g) within the sample (total weight 34.39g), which is calculated as less than the reporting limit for the method (i.e. < 0.1g/kg).

Asbestos ID was analysed by Approved Identifier:	Alex Tam
Asbestos ID was authorised by Approved Signatory:	Paul Ching

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batched of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



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CERTIFICATE OF ANALYSIS

59900

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle
NSW 2310

Attention: Matthew Blackert, Kyle Prowse

Sample log in details:

Your Reference:	49608.01, Tomago
No. of samples:	31 soils, 2 materials
Date samples received / completed instructions received	12/08/11 / 12/08/11

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date: 19/08/11 / 19/08/11

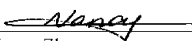
Date of Preliminary Report: Not Issued

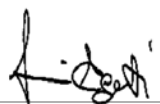
NATA accreditation number 2901. This document shall not be reproduced except in full.

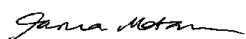
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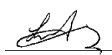
Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:

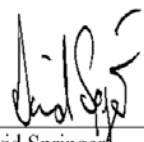

Nancy Zhang
Chemist


Giovanni Agosti
Technical Manager


Tania Notaras
Manager


Lulu Guo
Approved Signatory

Envirolab Reference: 59900
Revision No: R 00


David Springer
General Manager



VOCs in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-2 Bore21/0.05 10/08/2011 Soil	59900-3 Bore22/0.25 09/08/2011 Soil	59900-19 Pit91/0.05 09/08/2011 Soil	59900-20 Pit92/0.25 09/08/2011 Soil	59900-21 Pit93/0.05 09/08/2011 Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Dichlorodifluoromethane	mg/kg	<1	<1	<2	<1	<1
Chloromethane	mg/kg	<1	<1	<2	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<2	<1	<1
Bromomethane	mg/kg	<1	<1	<2	<1	<1
Chloroethane	mg/kg	<1	<1	<2	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<2	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<2	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<2	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<2	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<2	<1	<1
bromochloromethane	mg/kg	<1	<1	<2	<1	<1
chloroform	mg/kg	<1	<1	<2	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<2	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<2	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<2	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<2	<1	<1
Cyclohexane	mg/kg	<1	<1	<2	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<2	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.4	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<2	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<2	<1	<1
trichloroethene	mg/kg	<1	<1	<2	<1	<1
bromodichloromethane	mg/kg	<1	<1	<2	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<2	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<2	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<2	<1	<1
Toluene	mg/kg	<0.5	<0.5	<1	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<2	<1	<1
dibromochloromethane	mg/kg	<1	<1	<2	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<2	<1	<1
tetrachloroethene	mg/kg	<1	<1	<2	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<2	<1	<1
chlorobenzene	mg/kg	<1	<1	<2	<1	<1
Ethylbenzene	mg/kg	<1	<1	<2	<1	<1
bromoform	mg/kg	<1	<1	<2	<1	<1
m+p-xylene	mg/kg	<2	<2	<4	<2	<2
styrene	mg/kg	<1	<1	<2	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<2	<1	<1

VOCs in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-2 Bore21/0.05 10/08/2011 Soil	59900-3 Bore22/0.25 09/08/2011 Soil	59900-19 Pit91/0.05 09/08/2011 Soil	59900-20 Pit92/0.25 09/08/2011 Soil	59900-21 Pit93/0.05 09/08/2011 Soil
o-Xylene	mg/kg	<1	<1	<2	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<2	<1	<1
isopropylbenzene	mg/kg	<1	<1	<2	<1	<1
bromobenzene	mg/kg	<1	<1	<2	<1	<1
n-propyl benzene	mg/kg	<1	<1	<2	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<2	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<2	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<2	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<2	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<2	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<2	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<2	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<2	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<2	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<2	<1	<1
n-butyl benzene	mg/kg	<1	<1	<2	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<2	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<2	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<2	<1	<1
Surrogate Dibromofluorometha	%	95	94	95	93	95
Surrogate aaa-Trifluorotoluene	%	81	85	80	81	75
Surrogate Toluene-d8	%	94	93	94	94	94
Surrogate 4-Bromofluorobenzene	%	109	109	110	109	110

VOCs in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-22 Pit94/0.25 09/08/2011 Soil	59900-23 Pit95/0.05 09/08/2011 Soil	59900-33 KGPD6 09/08/2011 Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011
Dichlorodifluoromethane	mg/kg	<1	<1	<2
Chloromethane	mg/kg	<1	<1	<2
Vinyl Chloride	mg/kg	<1	<1	<2
Bromomethane	mg/kg	<1	<1	<2
Chloroethane	mg/kg	<1	<1	<2
Trichlorofluoromethane	mg/kg	<1	<1	<2
1,1-Dichloroethene	mg/kg	<1	<1	<2
trans-1,2-dichloroethene	mg/kg	<1	<1	<2
1,1-dichloroethane	mg/kg	<1	<1	<2
cis-1,2-dichloroethene	mg/kg	<1	<1	<2
bromochloromethane	mg/kg	<1	<1	<2
chloroform	mg/kg	<1	<1	<2
2,2-dichloropropane	mg/kg	<1	<1	<2
1,2-dichloroethane	mg/kg	<1	<1	<2
1,1,1-trichloroethane	mg/kg	<1	<1	<2
1,1-dichloropropene	mg/kg	<1	<1	<2
Cyclohexane	mg/kg	<1	<1	<2
carbon tetrachloride	mg/kg	<1	<1	<2
Benzene	mg/kg	<0.2	<0.2	<0.4
dibromomethane	mg/kg	<1	<1	<2
1,2-dichloropropane	mg/kg	<1	<1	<2
trichloroethene	mg/kg	<1	<1	<2
bromodichloromethane	mg/kg	<1	<1	<2
trans-1,3-dichloropropene	mg/kg	<1	<1	<2
cis-1,3-dichloropropene	mg/kg	<1	<1	<2
1,1,2-trichloroethane	mg/kg	<1	<1	<2
Toluene	mg/kg	<0.5	<0.5	<1
1,3-dichloropropane	mg/kg	<1	<1	<2
dibromochloromethane	mg/kg	<1	<1	<2
1,2-dibromoethane	mg/kg	<1	<1	<2
tetrachloroethene	mg/kg	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<2
chlorobenzene	mg/kg	<1	<1	<2
Ethylbenzene	mg/kg	<1	<1	<2
bromoform	mg/kg	<1	<1	<2
m+p-xylene	mg/kg	<2	<2	<4
styrene	mg/kg	<1	<1	<2
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<2
o-Xylene	mg/kg	<1	<1	<2

VOCs in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-22 Pit94/0.25 09/08/2011 Soil	59900-23 Pit95/0.05 09/08/2011 Soil	59900-33 KGPD6 09/08/2011 Soil
1,2,3-trichloropropane	mg/kg	<1	<1	<2
isopropylbenzene	mg/kg	<1	<1	<2
bromobenzene	mg/kg	<1	<1	<2
n-propyl benzene	mg/kg	<1	<1	<2
2-chlorotoluene	mg/kg	<1	<1	<2
4-chlorotoluene	mg/kg	<1	<1	<2
1,3,5-trimethyl benzene	mg/kg	<1	<1	<2
tert-butyl benzene	mg/kg	<1	<1	<2
1,2,4-trimethyl benzene	mg/kg	<1	<1	<2
1,3-dichlorobenzene	mg/kg	<1	<1	<2
sec-butyl benzene	mg/kg	<1	<1	<2
1,4-dichlorobenzene	mg/kg	<1	<1	<2
4-isopropyl toluene	mg/kg	<1	<1	<2
1,2-dichlorobenzene	mg/kg	<1	<1	<2
n-butyl benzene	mg/kg	<1	<1	<2
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<2
1,2,4-trichlorobenzene	mg/kg	<1	<1	<2
hexachlorobutadiene	mg/kg	<1	<1	<2
1,2,3-trichlorobenzene	mg/kg	<1	<1	<2
Surrogate Dibromofluorometha	%	94	94	95
Surrogate aaa-Trifluorotoluene	%	85	80	78
Surrogate Toluene-d8	%	95	94	95
Surrogate 4-Bromofluorobenzene	%	109	111	109

vTRH & BTEX in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-2 Bore21/0.05 10/08/2011 Soil	59900-3 Bore22/0.25 09/08/2011 Soil	59900-4 Pit19/0.05 09/08/2011 Soil	59900-5 Pit30/0.05 10/08/2011 Soil	59900-6 Pit31/0.5 10/08/2011 Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	81	85	86	92	91

vTRH & BTEX in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-7 Pit63/0.05 09/08/2011 Soil	59900-12 Pit76/0.05 09/08/2011 Soil	59900-13 Pit78/0.05 09/08/2011 Soil	59900-14 Pit79/0.05 09/08/2011 Soil	59900-15 Pit81/0.1 09/08/2011 Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	88	88	94	84	92

vTRH & BTEX in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-16 Pit81/0.2 09/08/2011 Soil	59900-18 Pit83/0.05 09/08/2011 Soil	59900-19 Pit91/0.05 09/08/2011 Soil	59900-20 Pit92/0.25 09/08/2011 Soil	59900-21 Pit93/0.05 09/08/2011 Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
vTRHC ₆ - C ₉	mg/kg	<25	<50	<50	<25	<25
Benzene	mg/kg	<0.2	<0.4	<0.4	<0.2	<0.2
Toluene	mg/kg	<0.5	<1	<1	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<2	<2	<1	<1
m+p-xylene	mg/kg	<2	<4	<4	<2	<2
o-Xylene	mg/kg	<1	<2	<2	<1	<1
Surrogate aaa-Trifluorotoluene	%	95	80	80	81	75

vTRH & BTEX in Soil	UNITS	59900-22	59900-23	59900-24	59900-25	59900-26
Our Reference:	-----	Pit94/0.25	Pit95/0.05	Pit106/0.05	ALPD30	ALPD32
Your Reference	-----	09/08/2011	09/08/2011	09/08/2011	10/08/2011	10/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	85	80	84	92	91

vTRH & BTEX in Soil	UNITS	59900-33
Our Reference:	-----	KGPD6
Your Reference	-----	09/08/2011
Date Sampled		Soil
Type of sample		
Date extracted	-	15/08/2011
Date analysed	-	15/08/2011
vTRHC ₆ - C ₉	mg/kg	<50
Benzene	mg/kg	<0.4
Toluene	mg/kg	<1
Ethylbenzene	mg/kg	<2
m+p-xylene	mg/kg	<4
o-Xylene	mg/kg	<2
Surrogate aaa-Trifluorotoluene	%	78

sTRH in Soil (C10-C36)						
Our Reference:	UNITS	59900-2	59900-3	59900-4	59900-5	59900-6
Your Reference	-----	Bore21/0.05	Bore22/0.25	Pit19/0.05	Pit30/0.05	Pit31/0.5
Date Sampled	-----	10/08/2011	09/08/2011	09/08/2011	10/08/2011	10/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	86	70	94	96	96

sTRH in Soil (C10-C36)						
Our Reference:	UNITS	59900-7	59900-12	59900-13	59900-14	59900-15
Your Reference	-----	Pit63/0.05	Pit76/0.05	Pit78/0.05	Pit79/0.05	Pit81/0.1
Date Sampled	-----	09/08/2011	09/08/2011	09/08/2011	09/08/2011	09/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	4,600	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	2,000	<100
Surrogate o-Terphenyl	%	95	95	97	#	92

sTRH in Soil (C10-C36)						
Our Reference:	UNITS	59900-16	59900-18	59900-19	59900-20	59900-21
Your Reference	-----	Pit81/0.2	Pit83/0.05	Pit91/0.05	Pit92/0.25	Pit93/0.05
Date Sampled	-----	09/08/2011	09/08/2011	09/08/2011	09/08/2011	09/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<100	<100	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<200	<200	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<200	<200	<100	<100
Surrogate o-Terphenyl	%	93	85	80	76	66

sTRH in Soil (C10-C36)						
Our Reference:	UNITS	59900-22	59900-23	59900-24	59900-25	59900-26
Your Reference	-----	Pit94/0.25	Pit95/0.05	Pit106/0.05	ALPD30	ALPD32
Date Sampled	-----	09/08/2011	09/08/2011	09/08/2011	10/08/2011	10/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	92	93	95	95	97

sTRH in Soil (C10-C36)		
Our Reference:	UNITS	59900-33
Your Reference	-----	KGPD6
Date Sampled	-----	09/08/2011
Type of sample		Soil
Date extracted	-	15/08/2011
Date analysed	-	16/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	<100
TRHC ₁₅ - C ₂₈	mg/kg	<200
TRHC ₂₉ - C ₃₆	mg/kg	<200
Surrogate o-Terphenyl	%	98

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-2 Bore21/0.05 10/08/2011 Soil	59900-3 Bore22/0.25 09/08/2011 Soil	59900-4 Pit19/0.05 09/08/2011 Soil	59900-5 Pit30/0.05 10/08/2011 Soil	59900-6 Pit31/0.5 10/08/2011 Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	0.07
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	128	129	138	122	140

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-7 Pit63/0.05 09/08/2011 Soil	59900-10 Pit72/0.05 10/08/2011 Soil	59900-12 Pit76/0.05 09/08/2011 Soil	59900-13 Pit78/0.05 09/08/2011 Soil	59900-14 Pit79/0.05 09/08/2011 Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	5.7
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	3.4
Phenanthrene	mg/kg	<0.1	<0.1	0.1	0.8	290
Anthracene	mg/kg	<0.1	<0.1	<0.1	0.1	57
Fluoranthene	mg/kg	<0.1	<0.1	0.2	2.1	810
Pyrene	mg/kg	<0.1	<0.1	0.2	2.0	680
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.1	1.3	220
Chrysene	mg/kg	<0.1	<0.1	0.2	1.5	210
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	0.3	3.4	290
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.14	2.2	160
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.1	1.5	99
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	0.3	24
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.1	1.6	89

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-7 Pit63/0.05 09/08/2011 Soil	59900-10 Pit72/0.05 10/08/2011 Soil	59900-12 Pit76/0.05 09/08/2011 Soil	59900-13 Pit78/0.05 09/08/2011 Soil	59900-14 Pit79/0.05 09/08/2011 Soil
Surrogate p-Terphenyl-d ₁₄	%	129	116	133	134	133

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-15 Pit81/0.1 09/08/2011 Soil	59900-16 Pit81/0.2 09/08/2011 Soil	59900-17 Pit82/0.05 09/08/2011 Soil	59900-18 Pit83/0.05 09/08/2011 Soil	59900-19 Pit91/0.05 09/08/2011 Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Phenanthrene	mg/kg	0.3	<0.1	<0.1	<0.2	0.5
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Fluoranthene	mg/kg	0.7	0.2	0.2	0.2	3.6
Pyrene	mg/kg	0.6	0.2	0.2	<0.2	3.4
Benzo(a)anthracene	mg/kg	0.2	<0.1	<0.1	<0.2	1.1
Chrysene	mg/kg	0.2	<0.1	<0.1	<0.2	1.7
Benzo(b+k)fluoranthene	mg/kg	0.3	<0.2	<0.2	<0.4	2.5
Benzo(a)pyrene	mg/kg	0.18	0.06	0.05	<0.1	1.3
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.2	0.9
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.2	<0.2
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.2	0.9
Surrogate p-Terphenyl-d ₁₄	%	132	131	126	109	120

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-20 Pit92/0.25 09/08/2011 Soil	59900-21 Pit93/0.05 09/08/2011 Soil	59900-22 Pit94/0.25 09/08/2011 Soil	59900-23 Pit95/0.05 09/08/2011 Soil	59900-24 Pit106/0.05 09/08/2011 Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.3	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	1.2	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	1.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.3	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.5	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	0.8	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.46	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d14	%	132	109	123	109	117

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-25 ALPD30 10/08/2011 Soil	59900-26 ALPD32 10/08/2011 Soil	59900-28 ALPD36 10/08/2011 Soil	59900-33 KGPd6 09/08/2011 Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.2
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.2
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.2
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.2
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.2
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.2
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	1.2
Pyrene	mg/kg	<0.1	<0.1	<0.1	1.2
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	0.4
Chrysene	mg/kg	<0.1	<0.1	<0.1	0.6
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	0.9
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	0.39
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.3
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.2
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	0.3

PAHs in Soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-25 ALPD30 10/08/2011 Soil	59900-26 ALPD32 10/08/2011 Soil	59900-28 ALPD36 10/08/2011 Soil	59900-33 KGP6 09/08/2011 Soil
Surrogate p-Terphenyl-d ₁₄	%	115	116	120	120

Organochlorine Pesticides in soil						
Our Reference:	UNITS	59900-1	59900-4	59900-7	59900-8	59900-9
Your Reference	-----	Bore18/0.05	Pit19/0.05	Pit63/0.05	Pit68/0.05	Pit69/0.05
Date Sampled	-----	11/08/2011	09/08/2011	09/08/2011	10/08/2011	10/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
HCB	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	96	93	94	90	90

Organochlorine Pesticides in soil					
Our Reference:	UNITS	59900-12	59900-24	59900-27	59900-29
Your Reference	-----	Pit76/0.05	Pit106/0.05	ALPD34	ALPD37
Date Sampled	-----	09/08/2011	09/08/2011	10/08/2011	10/08/2011
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	91	91	86	85

Organophosphorus Pesticides	UNITS	59900-1	59900-4	59900-7	59900-8	59900-9
Our Reference:	-----	Bore18/0.05	Pit19/0.05	Pit63/0.05	Pit68/0.05	Pit69/0.05
Your Reference	-----	11/08/2011	09/08/2011	09/08/2011	10/08/2011	10/08/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Diazinon	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.2	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	96	93	94	90	90

Organophosphorus Pesticides	UNITS	59900-12	59900-24	59900-27	59900-29
Our Reference:	-----	Pit76/0.05	Pit106/0.05	ALPD34	ALPD37
Your Reference	-----	09/08/2011	09/08/2011	10/08/2011	10/08/2011
Date Sampled		Soil	Soil	Soil	Soil
Type of sample					
Date extracted	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	91	91	86	85

PCBs in Soil		
Our Reference:	UNITS	59900-4
Your Reference	-----	Pit19/0.05
Date Sampled	-----	09/08/2011
Type of sample		Soil
Date extracted	-	15/08/2011
Date analysed	-	16/08/2011
Arochlor 1016	mg/kg	<0.1
Arochlor 1221*	mg/kg	<0.1
Arochlor 1232	mg/kg	<0.1
Arochlor 1242	mg/kg	<0.1
Arochlor 1248	mg/kg	<0.1
Arochlor 1254	mg/kg	<0.1
Arochlor 1260	mg/kg	<0.1
Surrogate TCLMX	%	93

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-1 Bore18/0.05 11/08/2011 Soil	59900-2 Bore21/0.05 10/08/2011 Soil	59900-3 Bore22/0.25 09/08/2011 Soil	59900-4 Pit19/0.05 09/08/2011 Soil	59900-5 Pit30/0.05 10/08/2011 Soil
Date digested	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Arsenic	mg/kg	6	9	8	9	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	31	17	32	31	1
Copper	mg/kg	30	17	23	23	1
Lead	mg/kg	27	17	17	23	2
Mercury	mg/kg	0.2	0.2	0.1	0.2	<0.1
Nickel	mg/kg	33	14	33	43	<1
Zinc	mg/kg	160	47	84	110	22
Manganese	mg/kg	320	97	230	690	23
Cobalt	mg/kg	12	9	21	39	<1
Tin	mg/kg	1	<1	1	1	<1

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-6 Pit31/0.5 10/08/2011 Soil	59900-7 Pit63/0.05 09/08/2011 Soil	59900-8 Pit68/0.05 10/08/2011 Soil	59900-9 Pit69/0.05 10/08/2011 Soil	59900-10 Pit72/0.05 10/08/2011 Soil
Date digested	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Arsenic	mg/kg	6	5	11	<4	5
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	24	29	3	6	24
Copper	mg/kg	30	24	9	9	17
Lead	mg/kg	53	42	15	30	8
Mercury	mg/kg	0.2	<0.1	<0.1	<0.1	0.1
Nickel	mg/kg	34	36	5	4	30
Zinc	mg/kg	260	220	43	55	69
Manganese	mg/kg	1,200	1,000	160	140	350
Cobalt	mg/kg	38	38	2	2	19
Tin	mg/kg	7	1	2	2	<1
Phosphorus	mg/kg	1,800	[NA]	[NA]	[NA]	[NA]

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-11 Pit750.05 09/08/2011 Soil	59900-12 Pit76/0.05 09/08/2011 Soil	59900-13 Pit78/0.05 09/08/2011 Soil	59900-14 Pit79/0.05 09/08/2011 Soil	59900-15 Pit81/0.1 09/08/2011 Soil
Date digested	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Arsenic	mg/kg	<4	12	<4	<4	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	11	12	5	7	6
Copper	mg/kg	10	19	7	7	13
Lead	mg/kg	18	13	6	12	7
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	10	12	5	8	6
Zinc	mg/kg	110	59	47	56	34
Manganese	mg/kg	260	230	280	240	84
Cobalt	mg/kg	7	7	3	6	3
Tin	mg/kg	1	<1	<1	<1	<1

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-16 Pit81/0.2 09/08/2011 Soil	59900-17 Pit82/0.05 09/08/2011 Soil	59900-18 Pit83/0.05 09/08/2011 Soil	59900-19 Pit91/0.05 09/08/2011 Soil	59900-20 Pit92/0.25 09/08/2011 Soil
Date digested	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Arsenic	mg/kg	7	8	7	4	8
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	4	38	32	18	37
Copper	mg/kg	10	25	31	28	50
Lead	mg/kg	4	17	25	23	29
Mercury	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Nickel	mg/kg	6	54	36	28	45
Zinc	mg/kg	28	89	120	170	350
Manganese	mg/kg	67	430	240	550	370
Cobalt	mg/kg	4	32	13	15	19
Tin	mg/kg	<1	1	1	1	3
Phosphorus	mg/kg	[NA]	[NA]	670	[NA]	[NA]

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-21 Pit93/0.05 09/08/2011 Soil	59900-22 Pit94/0.25 09/08/2011 Soil	59900-23 Pit95/0.05 09/08/2011 Soil	59900-24 Pit106/0.05 09/08/2011 Soil	59900-25 ALPD30 10/08/2011 Soil
Date digested	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Arsenic	mg/kg	12	5	<4	7	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	30	4	10	40	<1
Copper	mg/kg	10	11	11	44	<1
Lead	mg/kg	14	6	150	21	1
Mercury	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	34	8	8	65	<1
Zinc	mg/kg	48	36	38	89	16
Manganese	mg/kg	250	370	46	250	13
Cobalt	mg/kg	22	8	3	25	<1
Tin	mg/kg	1	<1	2	1	<1

Acid Extractable metals in soil Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	59900-26 ALPD32 10/08/2011 Soil	59900-27 ALPD34 10/08/2011 Soil	59900-28 ALPD36 10/08/2011 Soil	59900-29 ALPD37 10/08/2011 Soil	59900-33 KGPD6 09/08/2011 Soil
Date digested	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Arsenic	mg/kg	7	10	5	<4	<4
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	29	2	23	6	17
Copper	mg/kg	35	7	14	9	27
Lead	mg/kg	56	15	8	35	23
Mercury	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	41	4	23	4	26
Zinc	mg/kg	280	39	43	59	170
Manganese	mg/kg	1,300	120	220	150	570
Cobalt	mg/kg	43	2	12	2	15
Tin	mg/kg	9	1	4	2	1
Phosphorus	mg/kg	2,100	[NA]	[NA]	[NA]	[NA]

Miscellaneous Inorg - soil						
Our Reference:	UNITS	59900-2	59900-3	59900-4	59900-6	59900-10
Your Reference	-----	Bore21/0.05	Bore22/0.25	Pit19/0.05	Pit31/0.5	Pit72/0.05
Date Sampled	-----	10/08/2011	09/08/2011	09/08/2011	10/08/2011	10/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/8/2011	18/8/2011	18/8/2011	18/8/2011	18/8/2011
Date analysed	-	18/8/2011	18/8/2011	18/8/2011	18/8/2011	18/8/2011
pH 1:5 soil:water	pH Units	3.9	4.7	5.7	5.9	5.8
Electrical Conductivity 1:5 soil:water	µS/cm	360	290	400	89	100
Fluoride (1:5 soil:water)	mg/kg	[NA]	[NA]	0.94	[NA]	[NA]
Ammonia as N in soil	mg/kg	67	18	[NA]	19	[NA]
TKN as N in soil	mg/kg	[NA]	[NA]	[NA]	2,800	[NA]
NOx as N in soil	mg/kg	[NA]	[NA]	[NA]	<0.5	[NA]

Miscellaneous Inorg - soil						
Our Reference:	UNITS	59900-17	59900-18	59900-19	59900-20	59900-21
Your Reference	-----	Pit82/0.05	Pit83/0.05	Pit91/0.05	Pit92/0.25	Pit93/0.05
Date Sampled	-----	09/08/2011	09/08/2011	09/08/2011	09/08/2011	09/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/8/2011	18/8/2011	18/8/2011	18/8/2011	18/8/2011
Date analysed	-	18/8/2011	18/8/2011	18/8/2011	18/8/2011	18/8/2011
pH 1:5 soil:water	pH Units	5.6	6.0	6.5	7.2	7.4
Electrical Conductivity 1:5 soil:water	µS/cm	360	1,200	420	450	430
Fluoride (1:5 soil:water)	mg/kg	[NA]	1.6	[NA]	[NA]	[NA]
Ammonia as N in soil	mg/kg	[NA]	47	62	26	14
TKN as N in soil	mg/kg	[NA]	6,400	[NA]	[NA]	[NA]
NOx as N in soil	mg/kg	[NA]	<0.5	[NA]	[NA]	[NA]

Miscellaneous Inorg - soil						
Our Reference:	UNITS	59900-22	59900-23	59900-26	59900-28	59900-33
Your Reference	-----	Pit94/0.25	Pit95/0.05	ALPD32	ALPD36	KGPD6
Date Sampled	-----	09/08/2011	09/08/2011	10/08/2011	10/08/2011	09/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	18/8/2011	18/8/2011	18/8/2011	18/8/2011	18/8/2011
Date analysed	-	18/8/2011	18/8/2011	18/8/2011	18/8/2011	18/8/2011
pH 1:5 soil:water	pH Units	6.2	5.1	5.9	5.6	6.6
Electrical Conductivity 1:5 soil:water	µS/cm	46	450	93	100	410
Ammonia as N in soil	mg/kg	3.8	8.7	14	[NA]	50
TKN as N in soil	mg/kg	[NA]	[NA]	2,700	[NA]	[NA]
NOx as N in soil	mg/kg	[NA]	[NA]	<0.5	[NA]	[NA]

Moisture						
Our Reference:	UNITS	59900-1	59900-2	59900-3	59900-4	59900-5
Your Reference	-----	Bore18/0.05	Bore21/0.05	Bore22/0.25	Pit19/0.05	Pit30/0.05
Date Sampled	-----	11/08/2011	10/08/2011	09/08/2011	09/08/2011	10/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Moisture	%	64	42	30	49	15

Moisture						
Our Reference:	UNITS	59900-6	59900-7	59900-8	59900-9	59900-10
Your Reference	-----	Pit31/0.5	Pit63/0.05	Pit68/0.05	Pit69/0.05	Pit72/0.05
Date Sampled	-----	10/08/2011	09/08/2011	10/08/2011	10/08/2011	10/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Moisture	%	20	29	20	14	23

Moisture						
Our Reference:	UNITS	59900-11	59900-12	59900-13	59900-14	59900-15
Your Reference	-----	Pit75/0.05	Pit76/0.05	Pit78/0.05	Pit79/0.05	Pit81/0.1
Date Sampled	-----	09/08/2011	09/08/2011	09/08/2011	09/08/2011	09/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Moisture	%	22	26	11	31	24

Moisture						
Our Reference:	UNITS	59900-16	59900-17	59900-18	59900-19	59900-20
Your Reference	-----	Pit81/0.2	Pit82/0.05	Pit83/0.05	Pit91/0.05	Pit92/0.25
Date Sampled	-----	09/08/2011	09/08/2011	09/08/2011	09/08/2011	09/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Moisture	%	12	36	61	57	38

Moisture						
Our Reference:	UNITS	59900-21	59900-22	59900-23	59900-24	59900-25
Your Reference	-----	Pit93/0.05	Pit94/0.25	Pit95/0.05	Pit106/0.05	ALPD30
Date Sampled	-----	09/08/2011	09/08/2011	09/08/2011	09/08/2011	10/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Moisture	%	40	17	22	38	15

Moisture						
Our Reference:	UNITS	59900-26	59900-27	59900-28	59900-29	59900-33
Your Reference	-----	ALPD32	ALPD34	ALPD36	ALPD37	KGPD6
Date Sampled	-----	10/08/2011	10/08/2011	10/08/2011	10/08/2011	09/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date analysed	-	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Moisture	%	26	19	23	16	54

Asbestos ID - soils						
Our Reference:	UNITS	59900-5	59900-8	59900-13	59900-20	59900-30
Your Reference	-----	Pit30/0.05	Pit68/0.05	Pit78/0.05	Pit92/0.25	F11
Date Sampled	-----	10/08/2011	10/08/2011	09/08/2011	09/08/2011	09/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Sample mass tested	g	Approx 40	Approx 40	Approx 40	Approx 40	43.06
Sample Description	-	Soil & rocks	Soil & rocks	Soil & rocks	Soil & rocks	Soil & rocks
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	Chrysotile asbestos detected
Trace Analysis	-	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected	No respirable fibres detected

Asbestos ID - materials			
Our Reference:	UNITS	59900-31	59900-32
Your Reference	-----	Fibro11	Fibro12
Date Sampled	-----	09/08/2011	10/08/2011
Type of sample		Soil	Soil
Date analysed	-	18/08/2011	18/08/2011
Mass / Dimension of Sample	-	170x90x4mm	150x100x6mm
Sample Description	-	Beige compressed fibre cement material	Beige compressed fibre cement material
Asbestos ID in materials	-	Chrysotile asbestos detected	Chrysotile asbestos detected Amosite asbestos detected

MethodID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA 21st ED, 4500-H+.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell and dedicated meter, in accordance with APHA 21st ED 2510 and Rayment & Higginson.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA 21st ED, 4500-F-C.
Inorg-057	Ammonia - determined colourimetrically based on EPA350.1 and APHA 21st ED 4500-NH ₃ F, Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA 21st ED 4500 Norg.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO ₃ - F. Soils are analysed following a water extraction.
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
Date extracted	-			15/08/2011	59900-2	15/08/2011 15/08/2011	LCS-6	15/08/2011
Date analysed	-			15/08/2011	59900-2	15/08/2011 15/08/2011	LCS-6	15/08/2011
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	LCS-6	82%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	59900-2	<1 <1	LCS-6	82%
2,2-dichloropropane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	LCS-6	61%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	LCS-6	68%
1,1-dichloropropene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
Benzene	mg/kg	0.2	Org-014	<0.2	59900-2	<0.2 <0.2	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	59900-2	<1 <1	LCS-6	77%
bromodichloromethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	LCS-6	81%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	59900-2	<0.5 <0.5	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
dibromochloromethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	LCS-6	82%
1,2-dibromoethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
tetrachloroethene	mg/kg	1	Org-014	<1	59900-2	<1 <1	LCS-6	78%
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	59900-2	<2 <2	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
o-Xylene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	59900-2	<1 <1	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	93	59900-2	95 94 RPD: 1	LCS-6	101%
Surrogate aaa-Trifluorotoluene	%		Org-014	93	59900-2	81 80 RPD: 1	LCS-6	105%
Surrogate Toluene-d8	%		Org-014	94	59900-2	94 93 RPD: 1	LCS-6	111%
Surrogate 4-Bromofluorobenzene	%		Org-014	108	59900-2	109 110 RPD: 1	LCS-6	113%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH & BTEX in Soil						Base II Duplicate II %RPD		
Date extracted	-			15/08/2011	59900-2	15/08/2011 15/08/2011	LCS-6	15/08/2011
Date analysed	-			15/08/2011	59900-2	15/08/2011 15/08/2011	LCS-6	15/08/2011
vTRHC ₆ - C ₉	mg/kg	25	Org-016	<25	59900-2	<25 <25	LCS-6	99%
Benzene	mg/kg	0.2	Org-016	<0.2	59900-2	<0.2 <0.2	LCS-6	79%
Toluene	mg/kg	0.5	Org-016	<0.5	59900-2	<0.5 <0.5	LCS-6	90%
Ethylbenzene	mg/kg	1	Org-016	<1	59900-2	<1 <1	LCS-6	111%
m+p-xylene	mg/kg	2	Org-016	<2	59900-2	<2 <2	LCS-6	108%
o-Xylene	mg/kg	1	Org-016	<1	59900-2	<1 <1	LCS-6	114%
Surrogate aaa-Trifluorotoluene	%		Org-016	93	59900-2	81 80 RPD: 1	LCS-6	103%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Soil (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			15/08/2011	59900-2	15/08/2011 15/08/2011	LCS-6	15/08/2011
Date analysed	-			16/08/2011	59900-2	16/08/2011 16/08/2011	LCS-6	16/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	50	Org-003	<50	59900-2	<50 <50	LCS-6	104%
TRHC ₁₅ - C ₂₈	mg/kg	100	Org-003	<100	59900-2	<100 <100	LCS-6	104%
TRHC ₂₉ - C ₃₆	mg/kg	100	Org-003	<100	59900-2	<100 <100	LCS-6	93%
Surrogate o-Terphenyl	%		Org-003	[NT]	59900-2	86 80 RPD: 7	LCS-6	87%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Date extracted	-			15/08/2011	59900-2	15/08/2011 15/08/2011	LCS-7	15/08/2011
Date analysed	-			15/08/2011	59900-2	15/08/2011 15/08/2011	LCS-7	15/08/2011
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	59900-2	<0.1 <0.1	LCS-7	101%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	59900-2	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	59900-2	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	59900-2	<0.1 <0.1	LCS-7	108%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	59900-2	<0.1 <0.1	LCS-7	97%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	59900-2	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	59900-2	<0.1 <0.1	LCS-7	91%
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	59900-2	<0.1 <0.1	LCS-7	95%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	59900-2	<0.1 <0.1	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	59900-2	<0.1 <0.1	LCS-7	107%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	59900-2	<0.2 <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	59900-2	<0.05 <0.05	LCS-7	101%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	59900-2	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	59900-2	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	59900-2	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d ₁₄	%		Org-012 subset	116	59900-2	128 121 RPD: 6	LCS-7	122%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organochlorine Pesticides in soil						Base II Duplicate II %RPD		
Date extracted	-			15/08/2011	59900-12	15/08/2011 15/08/2011	LCS-6	15/08/2011
Date analysed	-			16/08/2011	59900-12	16/08/2011 16/08/2011	LCS-6	16/08/2011
HCB	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	LCS-6	100%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	LCS-6	97%
Heptachlor	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	LCS-6	97%
delta-BHC	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	LCS-6	95%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	LCS-6	98%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	LCS-6	103%
Dieldrin	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	LCS-6	95%
Endrin	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	LCS-6	105%
pp-DDD	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	LCS-6	99%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	LCS-6	85%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-005	84	59900-12	91 90 RPD: 1	LCS-6	88%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organophosphorus Pesticides						Base II Duplicate II %RPD		
Date extracted	-			15/08/2011	59900-12	15/08/2011 15/08/2011	LCS-6	15/08/2011
Date analysed	-			16/08/2011	59900-12	16/08/2011 16/08/2011	LCS-6	16/08/2011
Diazinon	mg/kg	0.1	Org-008	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
Dimethoate	mg/kg	0.1	Org-008	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
Ronnel	mg/kg	0.1	Org-008	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
Chlorpyrifos	mg/kg	0.1	Org-008	<0.1	59900-12	<0.1 <0.1	LCS-6	92%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	59900-12	<0.1 <0.1	LCS-6	96%
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	59900-12	<0.1 <0.1	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	59900-12	<0.1 <0.1	LCS-6	105%
Surrogate TCLMX	%		Org-008	84	59900-12	91 90 RPD: 1	LCS-6	87%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCBs in Soil						Base II Duplicate II %RPD		
Date extracted	-			15/08/2011	[NT]	[NT]	LCS-6	15/08/2011
Date analysed	-			16/08/2011	[NT]	[NT]	LCS-6	16/08/2011
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1221*	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	LCS-6	101%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%		Org-006	84	[NT]	[NT]	LCS-6	88%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Date digested	-			15/08/2011	59900-2	15/08/2011 15/08/2011	LCS-1	15/08/2011
Date analysed	-			15/08/2011	59900-2	15/08/2011 15/08/2011	LCS-1	15/08/2011
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	59900-2	9 9 RPD: 0	LCS-1	90%
Cadmium	mg/kg	0.5	Metals-020 ICP-AES	<0.5	59900-2	<0.5 <0.5	LCS-1	90%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	59900-2	17 16 RPD: 6	LCS-1	92%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	59900-2	17 16 RPD: 6	LCS-1	94%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	59900-2	17 16 RPD: 6	LCS-1	90%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	59900-2	0.2 0.2 RPD: 0	LCS-1	110%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	59900-2	14 13 RPD: 7	LCS-1	90%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	59900-2	47 46 RPD: 2	LCS-1	90%
Manganese	mg/kg	1	Metals-020 ICP-AES	<1	59900-2	97 100 RPD: 3	LCS-1	95%
Cobalt	mg/kg	1	Metals-020 ICP-AES	<1	59900-2	9 9 RPD: 0	LCS-1	89%
Tin	mg/kg	1	Metals-020 ICP-AES	<1	59900-2	<1 <1	LCS-1	91%
Phosphorus	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	LCS-1	84%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorg - soil						Base II Duplicate II %RPD		
Date prepared	-			16/08/2011	59900-10	18/8/2011 18/8/2011	LCS-1	16/08/2011
Date analysed	-			17/08/2011	59900-10	18/8/2011 18/8/2011	LCS-1	18/08/2011
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	59900-10	5.8 5.8 RPD: 0	LCS-1	101%
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	<1	59900-10	100 110 RPD: 10	LCS-1	104%
Fluoride (1:5 soil:water)	mg/kg	0.5	Inorg-026	<0.5	[NT]	[NT]	LCS-1	108%
Ammonia as N in soil	mg/kg	0.5	Inorg-057	<0.5	[NT]	[NT]	LCS-1	103%
TKN as N in soil	mg/kg	10	Inorg-062	<10	[NT]	[NT]	LCS-1	108%
NOx as N in soil	mg/kg	0.5	Inorg-055	<0.5	[NT]	[NT]	LCS-1	102%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank				
Moisture								
Date prepared	-			15/08/2011				
Date analysed	-			16/08/2011				
Moisture	%	0.1	Inorg-008	[NT]				
QUALITYCONTROL	UNITS	PQL	METHOD	Blank				
Asbestos ID - soils								
Date analysed	-			[NT]				
QUALITYCONTROL	UNITS	PQL	METHOD	Blank				
Asbestos ID - materials								
Date analysed	-			[NT]				

QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59900-3	15/08/2011
Date analysed	-	[NT]	[NT]	59900-3	15/08/2011
Dichlorodifluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	[NT]	[NT]	59900-3	77%
cis-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromochloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
chloroform	mg/kg	[NT]	[NT]	59900-3	78%
2,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	[NT]	[NT]	59900-3	73%
1,1,1-trichloroethane	mg/kg	[NT]	[NT]	59900-3	64%
1,1-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
Cyclohexane	mg/kg	[NT]	[NT]	[NR]	[NR]
carbon tetrachloride	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
dibromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
trichloroethene	mg/kg	[NT]	[NT]	59900-3	73%
bromodichloromethane	mg/kg	[NT]	[NT]	59900-3	76%
trans-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
dibromochloromethane	mg/kg	[NT]	[NT]	59900-3	77%
1,2-dibromoethane	mg/kg	[NT]	[NT]	[NR]	[NR]
tetrachloroethene	mg/kg	[NT]	[NT]	59900-3	74%
1,1,1,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
chlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITYCONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
o-Xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
isopropylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3- chloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%	[NT]	[NT]	59900-3	104%
Surrogate aaa- Trifluorotoluene	%	[NT]	[NT]	59900-3	98%
Surrogate Toluene-d8	%	[NT]	[NT]	59900-3	114%
Surrogate 4- Bromofluorobenzene	%	[NT]	[NT]	59900-3	113%

Client Reference: 49608.01, Tomago

QUALITYCONTROL vTRH & BTEX in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59900-12	15/08/2011 15/08/2011	59900-3	15/08/2011
Date analysed	-	59900-12	15/08/2011 15/08/2011	59900-3	15/08/2011
vTRHC ₆ - C ₉	mg/kg	59900-12	<25 <25	59900-3	85%
Benzene	mg/kg	59900-12	<0.2 <0.2	59900-3	69%
Toluene	mg/kg	59900-12	<0.5 <0.5	59900-3	78%
Ethylbenzene	mg/kg	59900-12	<1 <1	59900-3	96%
m+p-xylene	mg/kg	59900-12	<2 <2	59900-3	92%
o-Xylene	mg/kg	59900-12	<1 <1	59900-3	98%
Surrogate aaa- Trifluorotoluene	%	59900-12	88 71 RPD: 21	59900-3	93%
QUALITYCONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59900-12	15/08/2011 15/08/2011	59900-4	15/08/2011
Date analysed	-	59900-12	16/08/2011 16/08/2011	59900-4	16/08/2011
TRHC ₁₀ - C ₁₄	mg/kg	59900-12	<50 <50	59900-4	111%
TRHC ₁₅ - C ₂₈	mg/kg	59900-12	<100 <100	59900-4	114%
TRHC ₂₉ - C ₃₆	mg/kg	59900-12	<100 <100	59900-4	124%
Surrogate o-Terphenyl	%	59900-12	95 94 RPD: 1	59900-4	95%
QUALITYCONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	59900-12	15/08/2011 15/08/2011	LCS-6	15/08/2011
Date analysed	-	59900-12	15/08/2011 15/08/2011	LCS-6	15/08/2011
Naphthalene	mg/kg	59900-12	<0.1 <0.1	LCS-6	110%
Acenaphthylene	mg/kg	59900-12	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	59900-12	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	59900-12	<0.1 <0.1	LCS-6	115%
Phenanthrene	mg/kg	59900-12	0.1 0.1 RPD: 0	LCS-6	107%
Anthracene	mg/kg	59900-12	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	59900-12	0.2 0.2 RPD: 0	LCS-6	99%
Pyrene	mg/kg	59900-12	0.2 0.2 RPD: 0	LCS-6	106%
Benzo(a)anthracene	mg/kg	59900-12	0.1 0.1 RPD: 0	[NR]	[NR]
Chrysene	mg/kg	59900-12	0.2 0.2 RPD: 0	LCS-6	123%
Benzo(b+k)fluoranthene	mg/kg	59900-12	0.3 0.3 RPD: 0	[NR]	[NR]
Benzo(a)pyrene	mg/kg	59900-12	0.14 0.16 RPD: 13	LCS-6	113%
Indeno(1,2,3-c,d)pyrene	mg/kg	59900-12	0.1 0.1 RPD: 0	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	59900-12	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	59900-12	0.1 0.1 RPD: 0	[NR]	[NR]
Surrogate p-Terphenyl- d ₁₄	%	59900-12	133 128 RPD: 4	LCS-6	120%

QUALITYCONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59900-4	15/08/2011
Date analysed	-	[NT]	[NT]	59900-4	16/08/2011
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	59900-4	106%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	59900-4	103%
Heptachlor	mg/kg	[NT]	[NT]	59900-4	103%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	59900-4	101%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	59900-4	104%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	59900-4	109%
Dieldrin	mg/kg	[NT]	[NT]	59900-4	101%
Endrin	mg/kg	[NT]	[NT]	59900-4	100%
pp-DDD	mg/kg	[NT]	[NT]	59900-4	105%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	59900-4	91%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	59900-4	95%

Client Reference: 49608.01, Tomago

QUALITYCONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59900-4	15/08/2011
Date analysed	-	[NT]	[NT]	59900-4	16/08/2011
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Ronnel	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	59900-4	89%
Fenitrothion	mg/kg	[NT]	[NT]	59900-4	93%
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	59900-4	103%
Surrogate TCLMX	%	[NT]	[NT]	59900-4	92%
QUALITYCONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59900-4	15/08/2011
Date analysed	-	[NT]	[NT]	59900-4	16/08/2011
Arochlor 1016	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1221*	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	[NT]	[NT]	59900-4	114%
Arochlor 1260	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	59900-4	93%
QUALITYCONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	59900-12	15/08/2011 15/08/2011	LCS-2	15/08/2011
Date analysed	-	59900-12	15/08/2011 15/08/2011	LCS-2	15/08/2011
Arsenic	mg/kg	59900-12	12 4 RPD: 100	LCS-2	90%
Cadmium	mg/kg	59900-12	<0.5 <0.5	LCS-2	88%
Chromium	mg/kg	59900-12	12 17 RPD: 34	LCS-2	91%
Copper	mg/kg	59900-12	19 19 RPD: 0	LCS-2	93%
Lead	mg/kg	59900-12	13 16 RPD: 21	LCS-2	90%
Mercury	mg/kg	59900-12	<0.1 <0.1	LCS-2	111%
Nickel	mg/kg	59900-12	12 17 RPD: 34	LCS-2	90%
Zinc	mg/kg	59900-12	59 74 RPD: 23	LCS-2	90%
Manganese	mg/kg	59900-12	230 280 RPD: 20	LCS-2	97%
Cobalt	mg/kg	59900-12	7 9 RPD: 25	LCS-2	89%
Tin	mg/kg	59900-12	<1 <1	LCS-2	90%
Phosphorus	mg/kg	[NT]	[NT]	LCS-2	81%

Client Reference: 49608.01, Tomago

QUALITYCONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	59900-20	18/8/2011 18/8/2011	59900-3	16/08/2011
Date analysed	-	59900-20	18/8/2011 18/8/2011	59900-3	18/08/2011
pH 1:5 soil:water	pH Units	59900-20	7.2 7.4 RPD: 3	[NR]	[NR]
Electrical Conductivity 1:5 soil:water	µS/cm	59900-20	450 430 RPD: 5	[NR]	[NR]
Fluoride (1:5 soil:water)	mg/kg	[NT]	[NT]	[NR]	[NR]
Ammonia as N in soil	mg/kg	59900-20	26 [N/T]	59900-3	#
TKN as N in soil	mg/kg	[NT]	[NT]	[NR]	[NR]
NOx as N in soil	mg/kg	[NT]	[NT]	[NR]	[NR]
QUALITYCONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	59900-4	15/08/2011
Date analysed	-	[NT]	[NT]	59900-4	15/08/2011
Naphthalene	mg/kg	[NT]	[NT]	59900-4	112%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	59900-4	122%
Phenanthrene	mg/kg	[NT]	[NT]	59900-4	108%
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	59900-4	105%
Pyrene	mg/kg	[NT]	[NT]	59900-4	110%
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	59900-4	117%
Benzo(b+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	59900-4	117%
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate <i>p</i> -Terphenyl- d ₁₄	%	[NT]	[NT]	59900-4	129%

Client Reference: 49608.01, Tomago

QUALITYCONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	59900-21	15/08/2011 15/08/2011	59900-3	15/08/2011
Date analysed	-	59900-21	15/08/2011 15/08/2011	59900-3	15/08/2011
Arsenic	mg/kg	59900-21	12 5 RPD: 82	59900-3	83%
Cadmium	mg/kg	59900-21	<0.5 <0.5	59900-3	79%
Chromium	mg/kg	59900-21	30 34 RPD: 12	59900-3	94%
Copper	mg/kg	59900-21	10 11 RPD: 10	59900-3	97%
Lead	mg/kg	59900-21	14 14 RPD: 0	59900-3	83%
Mercury	mg/kg	59900-21	0.2 <0.1	59900-3	109%
Nickel	mg/kg	59900-21	34 30 RPD: 12	59900-3	88%
Zinc	mg/kg	59900-21	48 51 RPD: 6	59900-3	76%
Manganese	mg/kg	59900-21	250 230 RPD: 8	59900-3	#
Cobalt	mg/kg	59900-21	22 19 RPD: 15	59900-3	80%
Tin	mg/kg	59900-21	1 1 RPD: 0	59900-3	80%
Phosphorus	mg/kg	[NT]	[NT]	[NR]	[NR]
QUALITYCONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD		
Date prepared	-	59900-2	18/8/2011 18/8/2011		
Date analysed	-	59900-2	18/8/2011 18/8/2011		
Fluoride (1:5 soil:water)	mg/kg	[NT]	[NT]		
Ammonia as N in soil	mg/kg	59900-2	67 49 RPD: 31		
TKN as N in soil	mg/kg	[NT]	[NT]		
NOx as N in soil	mg/kg	[NT]	[NT]		
QUALITYCONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	59900-22	15/08/2011
Date analysed	-	[NT]	[NT]	59900-22	15/08/2011
Arsenic	mg/kg	[NT]	[NT]	59900-22	93%
Cadmium	mg/kg	[NT]	[NT]	59900-22	91%
Chromium	mg/kg	[NT]	[NT]	59900-22	93%
Copper	mg/kg	[NT]	[NT]	59900-22	93%
Lead	mg/kg	[NT]	[NT]	59900-22	94%
Mercury	mg/kg	[NT]	[NT]	59900-22	110%
Nickel	mg/kg	[NT]	[NT]	59900-22	87%
Zinc	mg/kg	[NT]	[NT]	59900-22	80%
Manganese	mg/kg	[NT]	[NT]	59900-22	#
Cobalt	mg/kg	[NT]	[NT]	59900-22	85%
Tin	mg/kg	[NT]	[NT]	59900-22	93%
Phosphorus	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITYCONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date prepared	-	59900-33	18/8/2011 18/8/2011
Date analysed	-	59900-33	18/8/2011 18/8/2011
Fluoride (1:5 soil:water)	mg/kg	[NT]	[NT]
Ammonia as N in soil	mg/kg	59900-33	50 48 RPD: 4
TKN as N in soil	mg/kg	[NT]	[NT]
NOx as N in soil	mg/kg	[NT]	[NT]

Report Comments:

vTRH, sTRH, VOC, OC and PAH's in soil: PQL has been raised due to the high moisture content in the sample/s, resulting in a high dilution factor.

Total Recoverable Hydrocarbons in soil (semivol):.# Percent recovery is not possible to report as the high concentration of analytes in the sample/s have caused interference.

Sample 59900-30; Chrysotile asbestos identified embedded in several fragments of fibre cement (total weight 3.08g). It is estimated that the fibre cement contains up to 15% asbestos fibres by weight. This calculates to 0.46g of asbestos fibres, which in 43.06g of soil is 10.74g/kg (i.e. > reporting limit for the method of 0.1g/kg).

Acid Extractable Metals in Soil: #Low spike recovery was obtained for samples 3 and 23. This is due to the inhomogeneous nature of the sample for this particular element (sample 23). For sample 3, the recovery could not be calculated due to a high level of the analyte in the sample. However, an acceptable recovery was obtained for the LCS.

Asbestos ID was analysed by Approved Identifier: Alex Tam
Asbestos ID was authorised by Approved Signatory: Lulu Guo

INS: Insufficient sample for this test
NA: Test not required
<: Less than

PQL: Practical Quantitation Limit
RPD: Relative Percent Difference
>: Greater than

NT: Not tested
NA: Test not required
LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



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CERTIFICATE OF ANALYSIS

60582

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle
NSW 2310

Attention: Matthew Blackert / Angela Peade

Sample log in details:

Your Reference:	<u>49608.01, Tomago</u>
No. of samples:	30 Soils
Date samples received / completed instructions received	25/08/11 / 25/08/11

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

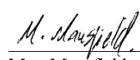
Date results requested by: / Issue Date:	2/09/11 / 2/09/11
Date of Preliminary Report:	Not Issued

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Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:


Matt Mansfield
Approved Signatory



Chromium Suite Our Reference: Your Reference	UNITS -----	60582-1 Bore 2/0.25	60582-2 Bore 2/1.5- 1.95	60582-3 Bore 3/1.5- 1.95	60582-4 Bore 5/3-3.45	60582-5 Bore 6/3.2- 3.65
Date Sampled	-----	1/08/2011	1/08/2011	29/07/2011	27/07/2011	26/07/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
pH _{kd}	pH units	5.3	5.7	4.7	5.3	5.1
s-TAA pH 6.5	%w/w S	0.01	0.10	0.02	0.01	<0.01
TAA pH 6.5	moles H ⁺ /t	7	64	11	8	<5
Chromium Reducible Sulfur	%w/w	0.01	0.02	0.06	0.01	0.06
a-Chromium Reducible Sulfur	moles H ⁺ /t	8	11	36	9	40
SHCl	%w/w S	<0.005	<0.005	0.008	<0.005	0.010
SKCl	%w/w S	<0.005	<0.005	0.005	<0.005	0.006
SNAS	%w/w S	<0.005	<0.005	<0.005	<0.005	<0.005
ANCBT	% CaCO ₃	<0.05	<0.05	<0.05	<0.05	<0.05
s-ANCBT	%w/w S	<0.05	<0.05	<0.05	<0.05	<0.05
s-Net Acidity	%w/w S	0.03	0.12	0.08	0.03	0.07
a-Net Acidity	moles H ⁺ /t	15	11	47	16	44
Liming rate	kg CaCO ₃ /t	1.1	0.86	3.5	1.2	3.3
a-Net Acidity without ANCE	moles H ⁺ /t	15	11	47	16	44
Liming rate without ANCE	kg CaCO ₃ /t	1.1	0.86	3.5	1.2	3.3

Chromium Suite Our Reference: Your Reference	UNITS -----	60582-6 Bore 8/0.5	60582-7 Bore 8/3-3.45	60582-8 Bore 10/0.1	60582-9 Bore 10/8	60582-10 Bore 11/1.5- 1.95
Date Sampled	-----	26/07/2011	26/07/2011	28/07/2011	28/07/2011	27/07/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
pH _{kd}	pH units	4.7	5.0	5.1	5.7	7.9
s-TAA pH 6.5	%w/w S	0.02	0.01	0.01	<0.01	<0.01
TAA pH 6.5	moles H ⁺ /t	13	10	9	<5	<5
Chromium Reducible Sulfur	%w/w	0.02	0.04	0.02	0.02	0.25
a-Chromium Reducible Sulfur	moles H ⁺ /t	10	23	10	16	160
SHCl	%w/w S	<0.005	<0.005	0.014	0.005	0.078
SKCl	%w/w S	<0.005	<0.005	0.005	<0.005	0.085
SNAS	%w/w S	<0.005	<0.005	0.009	<0.005	<0.005
ANCBT	% CaCO ₃	<0.05	<0.05	<0.05	<0.05	3.0
s-ANCBT	%w/w S	<0.05	<0.05	<0.05	<0.05	0.95
s-Net Acidity	%w/w S	0.04	0.05	0.04	0.03	<0.01
a-Net Acidity	moles H ⁺ /t	23	32	20	17	<10
Liming rate	kg CaCO ₃ /t	1.7	2.4	1.5	1.3	<0.75
a-Net Acidity without ANCE	moles H ⁺ /t	23	32	20	17	160
Liming rate without ANCE	kg CaCO ₃ /t	1.7	2.4	1.5	1.3	12

Chromium Suite Our Reference: Your Reference	UNITS -----	60582-11 Bore 12/3- 3.45	60582-12 Bore 13/1.5- 1.95	60582-13 Bore 14/0.5	60582-14 Bore 15/1.5- 1.95	60582-15 Bore 16/1.5- 1.95
Date Sampled	-----	27/07/2011	27/07/2011	2/08/2011	8/08/2011	8/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
pH _{kd}	pH units	6.4	8.0	4.8	7.8	6.5
s-TAA pH 6.5	%w/w S	<0.01	<0.01	0.02	<0.01	<0.01
TAA pH 6.5	moles H ⁺ /t	<5	<5	16	<5	<5
Chromium Reducible Sulfur	%w/w	0.86	0.46	0.02	0.25	0.34
a-Chromium Reducible Sulfur	moles H ⁺ /t	540	280	11	150	220
SHCl	%w/w S	0.11	0.30	0.050	0.042	0.15
SKCl	%w/w S	0.11	0.33	0.039	0.038	0.16
SNAS	%w/w S	<0.005	<0.005	0.011	<0.005	<0.005
ANCBT	% CaCO ₃	<0.05	5.0	<0.05	1.5	<0.05
s-ANCBT	%w/w S	<0.05	1.6	<0.05	0.47	<0.05
s-Net Acidity	%w/w S	0.86	<0.01	0.05	<0.01	0.33
a-Net Acidity	moles H ⁺ /t	540	<10	27	<10	220
Liming rate	kg CaCO ₃ /t	40	<0.75	2.0	<0.75	16
a-Net Acidity without ANCE	moles H ⁺ /t	540	280	27	150	220
Liming rate without ANCE	kg CaCO ₃ /t	40	21	2.0	12	16

Chromium Suite Our Reference: Your Reference	UNITS -----	60582-16 Bore 17/1.5- 1.95	60582-17 Bore 18/1.5- 1.95	60582-18 Bore 20/1.5- 1.95	60582-19 Bore 20/9- 9.45	60582-20 Bore 21/0.05
Date Sampled	-----	4/08/2011	11/08/2011	10/08/2011	10/08/2011	10/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
pH _{kd}	pH units	5.4	4.9	4.4	7.4	3.3
s-TAA pH 6.5	%w/w S	<0.01	0.10	0.04	<0.01	0.32
TAA pH 6.5	moles H ⁺ /t	<5	63	27	<5	200
Chromium Reducible Sulfur	%w/w	0.09	0.31	0.96	0.06	0.01
a-Chromium Reducible Sulfur	moles H ⁺ /t	57	190	600	38	7
SHCl	%w/w S	0.048	0.086	0.31	0.009	0.47
SKCl	%w/w S	0.049	0.081	0.30	0.010	0.045
SNAS	%w/w S	<0.005	<0.005	0.007	<0.005	0.42
ANCBT	% CaCO ₃	<0.05	<0.05	<0.05	0.21	<0.05
s-ANCBT	%w/w S	<0.05	<0.05	<0.05	0.07	<0.05
s-Net Acidity	%w/w S	0.1	0.41	1.0	0.01	0.75
a-Net Acidity	moles H ⁺ /t	61	250	630	<10	470
Liming rate	kg CaCO ₃ /t	4.6	19	48	<0.75	35
a-Net Acidity without ANCE	moles H ⁺ /t	61	250	630	38	470
Liming rate without ANCE	kg CaCO ₃ /t	4.6	19	48	2.8	35

Chromium Suite Our Reference: Your Reference	UNITS -----	60582-21 Bore 22/1.5- 1.95	60582-22 TP63/0.25	60582-23 TP70/0.25	60582-24 TP70/1.5	60582-25 TP71/0.05
Date Sampled	-----	9/08/2011	9/08/2011	10/08/2011	10/08/2011	10/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
pH _{kd}	pH units	5.8	5.1	4.4	5.1	5.0
s-TAA pH 6.5	%w/w S	<0.01	0.01	0.02	0.01	0.01
TAA pH 6.5	moles H ⁺ /t	<5	9	15	6	7
Chromium Reducible Sulfur	%w/w	0.48	0.007	<0.005	<0.005	0.01
a-Chromium Reducible Sulfur	moles H ⁺ /t	300	4	<3	<3	6
SHCl	%w/w S	0.11	0.009	<0.005	<0.005	0.010
SKCl	%w/w S	0.11	<0.005	<0.005	<0.005	<0.005
SNAS	%w/w S	<0.005	0.006	<0.005	<0.005	0.007
ANCBT	% CaCO ₃	<0.05	<0.05	<0.05	<0.05	<0.05
s-ANCBT	%w/w S	<0.05	<0.05	<0.05	<0.05	<0.05
s-Net Acidity	%w/w S	0.49	0.03	0.03	0.01	0.03
a-Net Acidity	moles H ⁺ /t	300	14	17	<10	13
Liming rate	kg CaCO ₃ /t	23	1.0	1.3	<0.75	0.97
a-Net Acidity without ANCE	moles H ⁺ /t	300	14	17	<10	13
Liming rate without ANCE	kg CaCO ₃ /t	23	1.0	1.3	<0.75	0.97

Chromium Suite Our Reference: Your Reference	UNITS -----	60582-26 TP71/0.25	60582-27 TP78/1.5	60582-28 TP90/0.25	60582-29 TP98/0.05	60582-30 TP117/0.45
Date Sampled	-----	10/08/2011	9/08/2011	5/08/2011	5/08/2011	3/08/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
pH _{kd}	pH units	4.9	6.0	4.1	5.4	4.7
s-TAA pH 6.5	%w/w S	0.01	<0.01	0.06	0.01	0.01
TAA pH 6.5	moles H ⁺ /t	7	<5	40	9	9
Chromium Reducible Sulfur	%w/w	0.006	0.006	0.01	0.007	<0.005
a-Chromium Reducible Sulfur	moles H ⁺ /t	4	4	6	4	<3
SHCl	%w/w S	0.008	<0.005	0.033	0.019	<0.005
SKCl	%w/w S	<0.005	<0.005	0.010	0.005	<0.005
SNAS	%w/w S	0.006	<0.005	0.023	0.014	<0.005
ANCBT	% CaCO ₃	<0.05	<0.05	<0.05	<0.05	<0.05
s-ANCBT	%w/w S	<0.05	<0.05	<0.05	<0.05	<0.05
s-Net Acidity	%w/w S	0.02	0.01	0.1	0.04	0.02
a-Net Acidity	moles H ⁺ /t	11	<10	61	14	12
Liming rate	kg CaCO ₃ /t	0.83	<0.75	4.6	1.0	0.87
a-Net Acidity without ANCE	moles H ⁺ /t	11	<10	61	14	12
Liming rate without ANCE	kg CaCO ₃ /t	0.83	<0.75	4.6	1.0	0.87

Method ID	Methodology Summary
Inorg-068	Chromium Reducible Sulfur - Hydrogen Sulfide is quantified by iodometric titration after distillation to determine potential acidity. Based on Acid Sulfate Soils Laboratory Methods Guidelines, Version 2.1 - June 2004.

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Chromium Suite						Base Duplicate %RPD		
pH _{kcl}	pH units		Inorg-068	[NT]	60582-1	5.3 5.3 RPD: 0	LCS	100%
s-TAA pH 6.5	%w/w S	0.01	Inorg-068	<0.01	60582-1	0.01 0.01 RPD: 0	[NR]	[NR]
TAA pH 6.5	moles H ⁺ /t	5	Inorg-068	<5	60582-1	7 8 RPD: 13	LCS	111%
Chromium Reducible Sulfur	%w/w	0.005	Inorg-068	<0.005	60582-1	0.01 0.01 RPD: 0	LCS	87%
a-Chromium Reducible Sulfur	moles H ⁺ /t	3	Inorg-068	<3	60582-1	8 8 RPD: 0	[NR]	[NR]
SHCl	%w/w S	0.005	Inorg-068	<0.005	60582-1	<0.005 <0.005	LCS	90%
SKCl	%w/w S	0.005	Inorg-068	<0.005	60582-1	<0.005 <0.005	LCS	110%
SNAS	%w/w S	0.005	Inorg-068	<0.005	60582-1	<0.005 <0.005	[NR]	[NR]
ANC _{BT}	% CaCO ₃	0.05	Inorg-068	<0.05	60582-1	<0.05 <0.05	[NR]	[NR]
s-ANC _{BT}	%w/w S	0.05	Inorg-068	<0.05	60582-1	<0.05 <0.05	[NR]	[NR]
s-Net Acidity	%w/w S	0.01	Inorg-068	<0.01	60582-1	0.03 0.03 RPD: 0	[NR]	[NR]
a-Net Acidity	moles H ⁺ /t	10	Inorg-068	<10	60582-1	15 16 RPD: 6	[NR]	[NR]
Liming rate	kg CaCO ₃ /t	0.75	Inorg-068	<0.75	60582-1	1.1 1.2 RPD: 9	[NR]	[NR]
a-Net Acidity without ANCE	moles H ⁺ /t	10	Inorg-068	<10	60582-1	15 16 RPD: 6	[NR]	[NR]
Liming rate without ANCE	kg CaCO ₃ /t	0.75	Inorg-068	<0.75	60582-1	1.1 1.2 RPD: 9	[NR]	[NR]

QUALITY CONTROL	UNITS	Dup. Sm#	Duplicate
Chromium Suite			Base + Duplicate + %RPD
pH _{kcl}	pH units	60582-11	6.4 6.3 RPD: 2
s-TAA pH 6.5	%w/w S	60582-11	<0.01 <0.01
TAA pH 6.5	moles H ⁺ /t	60582-11	<5 <5
Chromium Reducible Sulfur	%w/w	60582-11	0.86 0.88 RPD: 2
a-Chromium Reducible Sulfur	moles H ⁺ /t	60582-11	540 550 RPD: 2
SHCl	%w/w S	60582-11	0.11 0.11 RPD: 0
SKCl	%w/w S	60582-11	0.11 0.12 RPD: 9
SNAS	%w/w S	60582-11	<0.005 <0.005
ANC _{BT}	% CaCO ₃	60582-11	<0.05 <0.05
s-ANC _{BT}	%w/w S	60582-11	<0.05 <0.05
s-Net Acidity	%w/w S	60582-11	0.86 0.86 RPD: 0

QUALITY CONTROL Chromium Suite	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
a-Net Acidity	moles H^+ /t	60582-11	540 550 RPD: 2
Liming rate	kg $CaCO_3$ /t	60582-11	40 41 RPD: 2
a-Net Acidity without ANCE	moles H^+ /t	60582-11	540 550 RPD: 2
Liming rate without ANCE	kg $CaCO_3$ /t	60582-11	40 41 RPD: 2
QUALITY CONTROL Chromium Suite	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
pH _{kcl}	pH units	60582-21	5.8 5.8 RPD: 0
s-TAA pH 6.5	%w/w S	60582-21	<0.01 <0.01
TAA pH 6.5	moles H^+ /t	60582-21	<5 <5
Chromium Reducible Sulfur	%w/w	60582-21	0.48 0.51 RPD: 6
a-Chromium Reducible Sulfur	moles H^+ /t	60582-21	300 320 RPD: 6
SHCl	%w/w S	60582-21	0.11 0.11 RPD: 0
SKCl	%w/w S	60582-21	0.11 0.11 RPD: 0
SNAS	%w/w S	60582-21	<0.005 <0.005
ANC _{BT}	% $CaCO_3$	60582-21	<0.05 <0.05
s-ANC _{BT}	%w/w S	60582-21	<0.05 <0.05
s-Net Acidity	%w/w S	60582-21	0.49 0.52 RPD: 6
a-Net Acidity	moles H^+ /t	60582-21	300 320 RPD: 6
Liming rate	kg $CaCO_3$ /t	60582-21	23 24 RPD: 4
a-Net Acidity without ANCE	moles H^+ /t	60582-21	300 320 RPD: 6
Liming rate without ANCE	kg $CaCO_3$ /t	60582-21	23 24 RPD: 4

Report Comments:

Asbestos ID was analysed by Approved Identifier:	Not applicable for this job
Asbestos ID was authorised by Approved Signatory:	Not applicable for this job

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



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CERTIFICATE OF ANALYSIS

60069

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle
NSW 2310

Attention: Kyle Prowse, Matthew Blackert

Sample log in details:

Your Reference:	49608.01, Tomago
No. of samples:	12 waters
Date samples received / completed instructions received	16/08/11 / 16/08/11

Analysis Details:

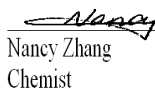
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

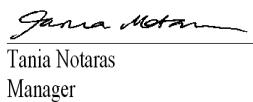
Report Details:

Date results requested by: / Issue Date: 25/08/11 / 29/08/11
Date of Preliminary Report: Not issued
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Results Approved By:


Jacinta Hurst
Laboratory Manager


Nancy Zhang
Chemist


Tania Notaras
Manager


Giovanni Agosti
Technical Manager


Simon Mills
Group R&D/Quality Manager

EnviroLab Reference: 60069
Revision No: R 01



VOCs in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60069-10 SW140 15/08/2011 Water
Date extracted	-	17/08/2011
Date analysed	-	18/08/2011
Dichlorodifluoromethane	µg/L	<10
Chloromethane	µg/L	<10
Vinyl Chloride	µg/L	<10
Bromomethane	µg/L	<10
Chloroethane	µg/L	<10
Trichlorofluoromethane	µg/L	<10
1,1-Dichloroethene	µg/L	<1
Trans-1,2-dichloroethene	µg/L	<1
1,1-dichloroethane	µg/L	<1
Cis-1,2-dichloroethene	µg/L	<1
Bromochloromethane	µg/L	<1
Chloroform	µg/L	<1
2,2-dichloropropane	µg/L	<1
1,2-dichloroethane	µg/L	<1
1,1,1-trichloroethane	µg/L	<1
1,1-dichloropropene	µg/L	<1
Cyclohexane	µg/L	<1
Carbon tetrachloride	µg/L	<1
Benzene	µg/L	<1
Dibromomethane	µg/L	<1
1,2-dichloropropane	µg/L	<1
Trichloroethene	µg/L	<1
Bromodichloromethane	µg/L	<1
trans-1,3-dichloropropene	µg/L	<1
cis-1,3-dichloropropene	µg/L	<1
1,1,2-trichloroethane	µg/L	<1
Toluene	µg/L	<1
1,3-dichloropropane	µg/L	<1
Dibromochloromethane	µg/L	<1
1,2-dibromoethane	µg/L	<1
Tetrachloroethene	µg/L	<1
1,1,1,2-tetrachloroethane	µg/L	<1
Chlorobenzene	µg/L	<1
Ethylbenzene	µg/L	<1
Bromoform	µg/L	<1
m+p-xylene	µg/L	<2
Styrene	µg/L	<1
1,1,2,2-tetrachloroethane	µg/L	<1
o-xylene	µg/L	<1
1,2,3-trichloropropane	µg/L	<1

VOCs in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60069-10 SW140 15/08/2011 Water
Isopropylbenzene	µg/L	<1
Bromobenzene	µg/L	<1
n-propyl benzene	µg/L	<1
2-chlorotoluene	µg/L	<1
4-chlorotoluene	µg/L	<1
1,3,5-trimethyl benzene	µg/L	<1
Tert-butyl benzene	µg/L	<1
1,2,4-trimethyl benzene	µg/L	<1
1,3-dichlorobenzene	µg/L	<1
Sec-butyl benzene	µg/L	<1
1,4-dichlorobenzene	µg/L	<1
4-isopropyl toluene	µg/L	<1
1,2-dichlorobenzene	µg/L	<1
n-butyl benzene	µg/L	<1
1,2-dibromo-3-chloropropane	µg/L	<1
1,2,4-trichlorobenzene	µg/L	<1
Hexachlorobutadiene	µg/L	<1
1,2,3-trichlorobenzene	µg/L	<1
Surrogate Dibromofluoromethane	%	79
Surrogate toluene-d8	%	102
Surrogate 4-BFB	%	108

vTRH & BTEX in Water	UNITS	60069-1	60069-2	60069-3	60069-4	60069-5
Our Reference:	-----	SW121	SW122	SW123	SW124	SW125
Your Reference	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date Sampled		Water	Water	Water	Water	Water
Type of sample						
Date extracted	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Date analysed	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
TRHC ₆ - C ₉	µg/L	<10	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	85	92	90	93	91
Surrogate toluene-d8	%	101	101	100	101	101
Surrogate 4-BFB	%	99	101	103	101	101

vTRH & BTEX in Water	UNITS	60069-6	60069-7	60069-8	60069-9	60069-10
Our Reference:	-----	SW126	SW132	SW133	SW139	SW140
Your Reference	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Date Sampled		Water	Water	Water	Water	Water
Type of sample						
Date extracted	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Date analysed	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
TRHC ₆ - C ₉	µg/L	<10	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	89	90	82	86	79
Surrogate toluene-d8	%	100	100	100	101	102
Surrogate 4-BFB	%	101	100	99	100	108

vTRH & BTEX in Water			
Our Reference:	UNITS	60069-11	60069-12
Your Reference	-----	SW141	KGPD8
Date Sampled	-----	15/08/2011	15/08/2011
Type of sample		Water	Water
Date extracted	-	18/08/2011	18/08/2011
Date analysed	-	18/08/2011	18/08/2011
TRHC ₆ - C ₉	µg/L	<10	<10
Benzene	µg/L	<1	<1
Toluene	µg/L	<1	<1
Ethylbenzene	µg/L	<1	<1
m+p-xylene	µg/L	<2	<2
o-xylene	µg/L	<1	<1
Surrogate Dibromofluoromethane	%	84	89
Surrogate toluene-d8	%	100	101
Surrogate 4-BFB	%	99	100

sTRH in Water (C10-C36)						
Our Reference:	UNITS	60069-1	60069-2	60069-3	60069-4	60069-5
Your Reference	-----	SW121	SW122	SW123	SW124	SW125
Date Sampled	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Date analysed	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
TRHC ₁₀ - C ₁₄	µg/L	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	µg/L	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	µg/L	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	69	66	85	65	89

sTRH in Water (C10-C36)						
Our Reference:	UNITS	60069-6	60069-7	60069-8	60069-9	60069-10
Your Reference	-----	SW126	SW132	SW133	SW139	SW140
Date Sampled	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Date analysed	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
TRHC ₁₀ - C ₁₄	µg/L	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	µg/L	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	µg/L	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	72	63	69	73	64

sTRH in Water (C10-C36)			
Our Reference:	UNITS	60069-11	60069-12
Your Reference	-----	SW141	KGPD8
Date Sampled	-----	15/08/2011	15/08/2011
Type of sample		Water	Water
Date extracted	-	17/08/2011	17/08/2011
Date analysed	-	17/08/2011	17/08/2011
TRHC ₁₀ - C ₁₄	µg/L	<50	<50
TRHC ₁₅ - C ₂₈	µg/L	<100	<100
TRHC ₂₉ - C ₃₆	µg/L	<100	<100
Surrogate o-Terphenyl	%	73	76

PAHs in Water - Low Level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60069-1 SW121 15/08/2011 Water	60069-2 SW122 15/08/2011 Water	60069-3 SW123 15/08/2011 Water	60069-4 SW124 15/08/2011 Water	60069-5 SW125 15/08/2011 Water
Date extracted	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Date analysed	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Naphthalene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	104	76	101	68	106

PAHs in Water - Low Level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60069-6 SW126 15/08/2011 Water	60069-7 SW132 15/08/2011 Water	60069-8 SW133 15/08/2011 Water	60069-9 SW139 15/08/2011 Water	60069-10 SW140 15/08/2011 Water
Date extracted	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Date analysed	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Naphthalene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	96	71	87	90	67

PAHs in Water - Low Level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60069-11 SW141 15/08/2011 Water	60069-12 KGP D8 15/08/2011 Water
Date extracted	-	17/08/2011	17/08/2011
Date analysed	-	17/08/2011	17/08/2011
Naphthalene	µg/L	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1
Benzo(b+k)fluoranthene	µg/L	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	85	83

OCP in water - low level						
Our Reference:	UNITS	60069-1	60069-2	60069-3	60069-4	60069-5
Your Reference	-----	SW121	SW122	SW123	SW124	SW125
Date Sampled	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
HCb	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
gamma-BHC (Lindane)	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
delta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
trans-Chlordane	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Oxychlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDE	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDD	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDT	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Aldehyde	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Ketone	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulfate	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Surrogate OC Recovery	%	117	110	113	98	110

OCP in water - low level						
Our Reference:	UNITS	60069-6	60069-7	60069-8	60069-9	60069-10
Your Reference	-----	SW126	SW132	SW133	SW139	SW140
Date Sampled	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
HCB	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
gamma-BHC (Lindane)	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
delta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
trans-Chlordane	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Oxychlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDE	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDD	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDT	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Aldehyde	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Ketone	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulfate	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Surrogate OC Recovery	%	109	105	93	107	91

OCP in water - low level			
Our Reference:	UNITS	60069-11	60069-12
Your Reference	-----	SW141	KGPD8
Date Sampled	-----	15/08/2011	15/08/2011
Type of sample		Water	Water
Date extracted	-	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011
HCB	µg/L	<0.01	<0.01
Heptachlor	µg/L	<0.01	<0.01
Heptachlor Epoxide	µg/L	<0.01	<0.01
Aldrin	µg/L	<0.01	<0.01
gamma-BHC (Lindane)	µg/L	<0.01	<0.01
alpha-BHC	µg/L	<0.01	<0.01
beta-BHC	µg/L	<0.01	<0.01
delta-BHC	µg/L	<0.01	<0.01
trans-Chlordane	µg/L	<0.05	<0.05
cis-Chlordane	µg/L	<0.01	<0.01
Oxychlordane	µg/L	<0.01	<0.01
Dieldrin	µg/L	<0.01	<0.01
p,p-DDE	µg/L	<0.01	<0.01
p,p-DDD	µg/L	<0.01	<0.01
p,p-DDT	µg/L	<0.01	<0.01
Endrin	µg/L	<0.01	<0.01
Endrin Aldehyde	µg/L	<0.01	<0.01
Endrin Ketone	µg/L	<0.01	<0.01
alpha-Endosulfan	µg/L	<0.01	<0.01
beta-Endosulfan	µg/L	<0.01	<0.01
Endosulfan Sulfate	µg/L	<0.01	<0.01
Methoxychlor	µg/L	<0.01	<0.01
Surrogate OC Recovery	%	109	107

OP Pesticides - Low Level						
Our Reference:	UNITS	60069-1	60069-2	60069-3	60069-4	60069-5
Your Reference	-----	SW121	SW122	SW123	SW124	SW125
Date Sampled	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
Demeton-S-methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dichlorvos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Diazinon	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dimethoate	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Malathion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenthion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (E)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (Z)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Ethion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenitrothion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Ethyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Methyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Surrogate OP Recovery	%	87	91	92	79	93

OP Pesticides - Low Level						
Our Reference:	UNITS	60069-6	60069-7	60069-8	60069-9	60069-10
Your Reference	-----	SW126	SW132	SW133	SW139	SW140
Date Sampled	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
Demeton-S-methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dichlorvos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Diazinon	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dimethoate	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Malathion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenthion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (E)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (Z)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Ethion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenitrothion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Ethyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Methyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Surrogate OP Recovery	%	83	90	78	65	67

OP Pesticides - Low Level			
Our Reference:	UNITS	60069-11	60069-12
Your Reference	-----	SW141	KGPD8
Date Sampled	-----	15/08/2011	15/08/2011
Type of sample		Water	Water
Date extracted	-	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011
Demeton-S-methyl	µg/L	<0.10	<0.10
Dichlorvos	µg/L	<0.10	<0.10
Diazinon	µg/L	<0.10	<0.10
Dimethoate	µg/L	<0.10	<0.10
Chlorpyrifos	µg/L	<0.10	<0.10
Chlorpyrifos methyl	µg/L	<0.10	<0.10
Malathion	µg/L	<0.10	<0.10
Fenthion	µg/L	<0.10	<0.10
Azinphos Ethyl	µg/L	<0.10	<0.10
Azinphos Methyl	µg/L	<0.10	<0.10
Chlorfenvinphos (E)	µg/L	<0.10	<0.10
Chlorfenvinphos (Z)	µg/L	<0.10	<0.10
Ethion	µg/L	<0.10	<0.10
Fenitrothion	µg/L	<0.10	<0.10
Parathion (Ethyl)	µg/L	<0.10	<0.10
Parathion (Methyl)	µg/L	<0.10	<0.10
Primiphos Ethyl	µg/L	<0.10	<0.10
Primiphos Methyl	µg/L	<0.10	<0.10
Surrogate OP Recovery	%	92	89

PCB low level in water						
Our Reference:	UNITS	60069-1	60069-2	60069-3	60069-4	60069-5
Your Reference	-----	SW121	SW122	SW123	SW124	SW125
Date Sampled	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
Aroclor 1016	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor 1260	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total PCB's (as above)	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1

PCB low level in water						
Our Reference:	UNITS	60069-6	60069-7	60069-8	60069-9	60069-10
Your Reference	-----	SW126	SW132	SW133	SW139	SW140
Date Sampled	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
Aroclor 1016	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor 1260	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total PCB's (as above)	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1

PCB low level in water			
Our Reference:	UNITS	60069-11	60069-12
Your Reference	-----	SW141	KGPD8
Date Sampled	-----	15/08/2011	15/08/2011
Type of sample		Water	Water
Date extracted	-	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011
Aroclor 1016	µg/L	<0.1	<0.1
Aroclor 1221	µg/L	<0.1	<0.1
Aroclor 1232	µg/L	<0.1	<0.1
Aroclor 1242	µg/L	<0.1	<0.1
Aroclor 1248	µg/L	<0.1	<0.1
Aroclor 1254	µg/L	<0.10	<0.10
Aroclor 1260	µg/L	<0.1	<0.1
Total PCB's (as above)	µg/L	<0.1	<0.1

HM in water - total Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60069-1 SW121 15/08/2011 Water	60069-2 SW122 15/08/2011 Water	60069-3 SW123 15/08/2011 Water	60069-4 SW124 15/08/2011 Water	60069-5 SW125 15/08/2011 Water
Date prepared	-	17/8/2011	17/8/2011	17/8/2011	17/8/2011	17/8/2011
Date analysed	-	19/8/2011	19/8/2011	19/8/2011	19/8/2011	19/8/2011
Aluminium-Total	µg/L	1,000	230	500	240	1,600
Arsenic-Total	µg/L	1	1	<1	<1	1
Cadmium-Total	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium-Total	µg/L	2	2	1	2	3
Copper-Total	µg/L	2	2	1	1	2
Lead-Total	µg/L	<1	<1	<1	<1	1
Mercury-Total	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel-Total	µg/L	2	5	2	9	3
Zinc-Total	µg/L	4	5	1	12	10
Manganese-Total	µg/L	66	31	38	94	75
Cobalt-Total	µg/L	<1	<1	<1	2	1
Tin-Total	µg/L	<1	<1	<1	<1	<1

HM in water - total Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60069-6 SW126 15/08/2011 Water	60069-7 SW132 15/08/2011 Water	60069-8 SW133 15/08/2011 Water	60069-9 SW139 15/08/2011 Water	60069-10 SW140 15/08/2011 Water
Date prepared	-	17/8/2011	17/8/2011	17/8/2011	17/8/2011	17/8/2011
Date analysed	-	19/8/2011	19/8/2011	19/8/2011	19/8/2011	19/8/2011
Aluminium-Total	µg/L	550	200	180	1,100	1,700
Arsenic-Total	µg/L	<1	<1	<1	17	2
Cadmium-Total	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium-Total	µg/L	2	1	1	3	4
Copper-Total	µg/L	1	<1	2	2	4
Lead-Total	µg/L	<1	<1	<1	4	4
Mercury-Total	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel-Total	µg/L	6	5	18	4	8
Zinc-Total	µg/L	11	4	11	10	36
Manganese-Total	µg/L	89	110	86	180	150
Cobalt-Total	µg/L	1	2	4	<1	1
Tin-Total	µg/L	<1	<1	<1	<1	<1

HM in water - total			
Our Reference:	UNITS	60069-11	60069-12
Your Reference	-----	SW141	KGPD8
Date Sampled	-----	15/08/2011	15/08/2011
Type of sample		Water	Water
Date prepared	-	17/8/2011	17/8/2011
Date analysed	-	19/8/2011	19/8/2011
Aluminium-Total	µg/L	470	1,200
Arsenic-Total	µg/L	<1	18
Cadmium-Total	µg/L	<0.1	<0.1
Chromium-Total	µg/L	<1	3
Copper-Total	µg/L	4	2
Lead-Total	µg/L	4	4
Mercury-Total	µg/L	<0.1	<0.1
Nickel-Total	µg/L	4	3
Zinc-Total	µg/L	43	11
Manganese-Total	µg/L	180	250
Cobalt-Total	µg/L	1	<1
Tin-Total	µg/L	<1	<1

Metals in Waters - Acid extractable						
Our Reference:	UNITS	60069-1	60069-2	60069-3	60069-4	60069-5
Your Reference	-----	SW121	SW122	SW123	SW124	SW125
Date Sampled	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Date analysed	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Phosphorus - Total	mg/L	0.1	0.1	0.08	0.2	0.1
Iron - Total	mg/L	1.5	0.9	0.6	2.3	2.2
Calcium - Total	mg/L	130	56	130	36	160
Sodium - Total	mg/L	3,200	470	3,000	170	4,200
Magnesium - Total	mg/L	360	64	340	27	450
Potassium - Total	mg/L	110	19	98	8.1	140

Metals in Waters - Acid extractable						
Our Reference:	UNITS	60069-6	60069-7	60069-8	60069-9	60069-10
Your Reference	-----	SW126	SW132	SW133	SW139	SW140
Date Sampled	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Date analysed	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Phosphorus - Total	mg/L	0.2	0.1	0.08	0.3	<0.05
Iron - Total	mg/L	3.9	3.7	3.1	8.0	4.1
Calcium - Total	mg/L	19	69	23	9.6	4.2
Sodium - Total	mg/L	45	1,500	250	16	25
Magnesium - Total	mg/L	8.7	170	33	3.4	2.6
Potassium - Total	mg/L	3.3	52	12	4.3	2.6

Metals in Waters - Acid extractable			
Our Reference:	UNITS	60069-11	60069-12
Your Reference	-----	SW141	KGPD8
Date Sampled	-----	15/08/2011	15/08/2011
Type of sample		Water	Water
Date prepared	-	17/08/2011	17/08/2011
Date analysed	-	18/08/2011	18/08/2011
Phosphorus - Total	mg/L	<0.05	0.3
Iron - Total	mg/L	1.0	9.0
Calcium - Total	mg/L	4.1	9.6
Sodium - Total	mg/L	9.5	22
Magnesium - Total	mg/L	2.0	3.6
Potassium - Total	mg/L	2.4	4.4

Miscellaneous Inorganics						
Our Reference:	UNITS	60069-1	60069-2	60069-3	60069-4	60069-5
Your Reference	-----	SW121	SW122	SW123	SW124	SW125
Date Sampled	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	16/8/2011	16/8/2011	16/8/2011	16/8/2011	16/8/2011
Date analysed	-	16/8/2011	16/8/2011	16/8/2011	16/8/2011	16/8/2011
pH	pH Units	7.8	6.9	7.9	6.8	7.9
Electrical Conductivity	µS/cm	15,000	3,100	15,000	1,200	19,000
Fluoride, F	mg/L	0.45	1.0	0.46	1.0	0.50
Ammonia as N in water	mg/L	0.016	<0.005	0.010	<0.005	0.031
TKN in water	mg/L	0.9	1.6	0.5	1.2	0.5
NOx as N in water	mg/L	0.05	<0.025	0.05	<0.025	0.08

Miscellaneous Inorganics						
Our Reference:	UNITS	60069-6	60069-7	60069-8	60069-9	60069-10
Your Reference	-----	SW126	SW132	SW133	SW139	SW140
Date Sampled	-----	15/08/2011	15/08/2011	15/08/2011	15/08/2011	15/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	16/8/2011	16/8/2011	16/8/2011	16/8/2011	16/8/2011
Date analysed	-	16/8/2011	16/8/2011	16/8/2011	16/8/2011	16/8/2011
pH	pH Units	6.8	6.9	6.6	6.3	5.2
Electrical Conductivity	µS/cm	410	7,800	1,600	190	190
Fluoride, F	mg/L	0.93	0.41	0.67	1.1	1.5
Ammonia as N in water	mg/L	<0.005	0.010	<0.005	0.0096	<0.005
TKN in water	mg/L	1.2	0.9	1.6	1.8	1.9
NOx as N in water	mg/L	<0.025	<0.025	<0.025	0.04	<0.025

Miscellaneous Inorganics			
Our Reference:	UNITS	60069-11	60069-12
Your Reference	-----	SW141	KGPD8
Date Sampled	-----	15/08/2011	15/08/2011
Type of sample		Water	Water
Date prepared	-	16/8/2011	16/8/2011
Date analysed	-	16/8/2011	16/8/2011
pH	pH Units	6.0	6.2
Electrical Conductivity	µS/cm	110	190
Fluoride, F	mg/L	1.1	1.1
Ammonia as N in water	mg/L	<0.005	0.015
TKN in water	mg/L	1.2	1.8
NOx as N in water	mg/L	<0.025	0.02

MethodID	Methodology Summary
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Ext-020	Analysis subcontracted to Australian Government - National Measurement Institute. NATA Accreditation No: 198
Metals-022 ICP-MS	Determination of various metals by ICP-MS.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA 21st ED, 4500-H+.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell and dedicated meter, in accordance with APHA 21st ED 2510 and Rayment & Higginson.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA 21st ED, 4500-F-C.
Inorg-057	Ammonia - determined colourimetrically based on EPA350.1 and APHA 21st ED 4500-NH3 F, Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA 21st ED 4500 Norg.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO3- F. Soils are analysed following a water extraction.

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in water						Base II Duplicate II %RPD		
Date extracted	-			17/08/2011	[NT]	[NT]	LCS-W1	17/08/2011
Date analysed	-			18/08/2011	[NT]	[NT]	LCS-W1	18/08/2011
Dichlorodifluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Chloromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Bromomethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Chloroethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Trans-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	103%
Cis-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Chloroform	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	103%
2,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	102%
1,1,1-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	104%
1,1-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Cyclohexane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Carbon tetrachloride	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Dibromomethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Trichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	103%
Bromodichloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	102%
trans-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Dibromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	101%
1,2-dibromoethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tetrachloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	103%
1,1,1,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Chlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromoform	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
m+p-xylene	µg/L	2	Org-013	<2	[NT]	[NT]	[NR]	[NR]
Styrene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
o-xylene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in water						Base II Duplicate II %RPD		
1,2,3-trichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Isopropylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tert-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Sec-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Surrogate	%		Org-013	81	[NT]	[NT]	LCS-W1	97%
Dibromofluoromethane								
Surrogate toluene-d8	%		Org-013	77	[NT]	[NT]	LCS-W1	99%
Surrogate 4-BFB	%		Org-013	103	[NT]	[NT]	LCS-W1	99%

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH & BTEX in Water						Base II Duplicate II %RPD		
Date extracted	-			18/08/2011	[NT]	[NT]	LCS-W1	18/08/2011
Date analysed	-			18/08/2011	[NT]	[NT]	LCS-W1	18/08/2011
TRHC ₆ - C ₉	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	106%
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	104%
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	105%
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	106%
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	LCS-W1	107%
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	106%
Surrogate	%		Org-016	102	[NT]	[NT]	LCS-W1	86%
Dibromofluoromethane								
Surrogate toluene-d8	%		Org-016	100	[NT]	[NT]	LCS-W1	101%
Surrogate 4-BFB	%		Org-016	99	[NT]	[NT]	LCS-W1	100%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Water (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			17/08/2011	[NT]	[NT]	LCS-W2	17/08/2011
Date analysed	-			17/08/2011	[NT]	[NT]	LCS-W2	17/08/2011
TRHC ₁₀ - C ₁₄	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-W2	83%
TRHC ₁₅ - C ₂₈	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W2	77%
TRHC ₂₉ - C ₃₆	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W2	96%
Surrogate o-Terphenyl	%		Org-003	79	[NT]	[NT]	LCS-W2	97%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water - Low Level						Base II Duplicate II %RPD		
Date extracted	-			17/08/2011	[NT]	[NT]	LCS-W2	17/08/2011
Date analysed	-			17/08/2011	[NT]	[NT]	LCS-W2	17/08/2011
Naphthalene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	101%
Acenaphthylene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	116%
Phenanthrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	102%
Anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	95%
Pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	103%

Client Reference: 49608.01, Tomago

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water - Low Level						Base II Duplicate II %RPD		
Benzo(a)anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	110%
Benzo(b+k)fluoranthene	µg/L	0.2	Org-012 subset	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	100%
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d ₁₄	%		Org-012 subset	90	[NT]	[NT]	LCS-W2	109%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
OCP in water - low level						Base II Duplicate II %RPD		
Date extracted	-			22/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Date analysed	-			25/08/2011	[NT]	[NT]	LCS-W1	25/08/2011
HCB	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Heptachlor	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	93%
Heptachlor Epoxide	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Aldrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	95%
gamma-BHC (Lindane)	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	83%
alpha-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
beta-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
delta-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
trans-Chlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
cis-Chlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Oxychlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Dieldrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	95%
p,p-DDE	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
p,p-DDD	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
p,p-DDT	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	81%
Endrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	84%
Endrin Aldehyde	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Endrin Ketone	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
alpha-Endosulfan	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
beta-Endosulfan	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulfate	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Methoxychlor	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Surrogate OC Recovery	%		Ext-020	[NT]	[NT]	[NT]	LCS-W1	105%

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
OP Pesticides - Low Level						Base II Duplicate II %RPD		
Date extracted	-			22/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Date analysed	-			25/08/2011	[NT]	[NT]	LCS-W1	25/08/2011
Demeton-S-methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Dichlorvos	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Diazinon	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	82%
Dimethoate	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	82%
Chlorpyrifos methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Malathion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Fenthion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Azinphos Ethyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Azinphos Methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (E)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (Z)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Ethion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	96%
Fenitrothion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Parathion (Ethyl)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	82%
Parathion (Methyl)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Primiphos Ethyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Primiphos Methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Surrogate OP Recovery	%		Ext-020	[NT]	[NT]	[NT]	LCS-W1	92%

Client Reference: 49608.01, Tomago

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCB low level in water						Base II Duplicate II %RPD		
Date extracted	-			22/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Date analysed	-			25/08/2011	[NT]	[NT]	LCS-W1	25/08/2011
Aroclor 1016	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1221	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1232	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1242	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1248	µg/L	0.1	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1254	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Aroclor 1260	µg/L	0.1	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Total PCB's (as above)	µg/L	0.010	Ext-020	<0.01	[NT]	[NT]	LCS-W1	106%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
HM in water - total						Base II Duplicate II %RPD		
Date prepared	-			17/8/2011	60069-1	17/8/2011 17/8/2011	LCS-W1	17/8/2011
Date analysed	-			19/8/2011	60069-1	19/8/2011 19/8/2011	LCS-W1	19/8/2011
Aluminium-Total	µg/L	10	Metals-022 ICP-MS	<10	60069-1	1000 1000 RPD: 0	LCS-W1	90%
Arsenic-Total	µg/L	1	Metals-022 ICP-MS	<1	60069-1	1 1 RPD: 0	LCS-W1	95%
Cadmium-Total	µg/L	0.1	Metals-022 ICP-MS	<0.1	60069-1	<0.1 <0.1	LCS-W1	97%
Chromium-Total	µg/L	1	Metals-022 ICP-MS	<1	60069-1	2 2 RPD: 0	LCS-W1	91%
Copper-Total	µg/L	1	Metals-022 ICP-MS	<1	60069-1	2 2 RPD: 0	LCS-W1	90%
Lead-Total	µg/L	1	Metals-022 ICP-MS	<1	60069-1	<1 <1	LCS-W1	97%
Mercury-Total	µg/L	0.1	Metals-021 CV-AAS	<0.1	60069-1	<0.1 <0.1	LCS-W1	104%
Nickel-Total	µg/L	1	Metals-022 ICP-MS	<1	60069-1	2 2 RPD: 0	LCS-W1	89%
Zinc-Total	µg/L	1	Metals-022 ICP-MS	<1	60069-1	4 4 RPD: 0	LCS-W1	92%
Manganese-Total	µg/L	5	Metals-022 ICP-MS	<5	60069-1	66 66 RPD: 0	LCS-W1	91%
Cobalt-Total	µg/L	1	Metals-022 ICP-MS	<1	60069-1	<1 <1	LCS-W1	90%
Tin-Total	µg/L	1	Metals-022 ICP-MS	<1	60069-1	<1 <1	LCS-W1	103%

Client Reference: 49608.01, Tomago

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Waters - Acid extractable						Base Duplicate %RPD		
Date prepared	-			17/08/2011	60069-1	17/08/2011 17/08/2011	LCS-W1	17/08/2011
Date analysed	-			18/08/2011	60069-1	18/08/2011 18/08/2011	LCS-W1	18/08/2011
Phosphorus - Total	mg/L	0.05	Metals-020 ICP-AES	<0.05	60069-1	0.1 0.1 RPD: 0	LCS-W1	99%
Iron - Total	mg/L	0.02	Metals-020 ICP-AES	<0.02	60069-1	1.5 1.6 RPD: 6	LCS-W1	113%
Calcium - Total	mg/L	0.5	Metals-020 ICP-AES	<0.5	60069-1	130 130 RPD: 0	LCS-W1	103%
Sodium - Total	mg/L	0.5	Metals-020 ICP-AES	<0.5	60069-1	3200 3300 RPD: 3	LCS-W1	102%
Magnesium - Total	mg/L	0.5	Metals-020 ICP-AES	<0.5	60069-1	360 360 RPD: 0	LCS-W1	98%
Potassium - Total	mg/L	0.5	Metals-020 ICP-AES	<0.5	60069-1	110 110 RPD: 0	LCS-W1	91%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorganics						Base Duplicate %RPD		
Date prepared	-			16/8/2011	60069-1	16/8/2011 16/8/2011	LCS-W1	16/8/2011
Date analysed	-			16/8/2011	60069-1	16/8/2011 16/8/2011	LCS-W1	16/8/2011
pH	pH Units		Inorg-001	[NT]	60069-1	7.8 7.8 RPD: 0	LCS-W1	100%
Electrical Conductivity	µS/cm	1	Inorg-002	<1	60069-1	15000 15000 RPD: 0	LCS-W1	99%
Fluoride, F	mg/L	0.1	Inorg-026	<0.1	60069-1	0.45 0.44 RPD: 2	LCS-W1	103%
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	60069-1	0.016 0.015 RPD: 6	LCS-W1	98%
TKN in water	mg/L	0.1	Inorg-062	<0.1	60069-1	0.9 0.9 RPD: 0	LCS-W1	104%
NOx as N in water	mg/L	0.005	Inorg-055	<0.005	60069-1	0.05 0.05 RPD: 0	LCS-W1	98%
QUALITYCONTROL	UNITS	Dup. Sm#		Duplicate		Spike Sm#	Spike % Recovery	
HM in water - total				Base + Duplicate + %RPD				
Date prepared	-	[NT]		[NT]		60069-1	17/08/2011	
Date analysed	-	[NT]		[NT]		60069-1	19/08/2011	
Aluminium-Total	µg/L	[NT]		[NT]		[NR]	[NR]	
Arsenic-Total	µg/L	[NT]		[NT]		[NR]	[NR]	
Cadmium-Total	µg/L	[NT]		[NT]		[NR]	[NR]	
Chromium-Total	µg/L	[NT]		[NT]		[NR]	[NR]	
Copper-Total	µg/L	[NT]		[NT]		[NR]	[NR]	
Lead-Total	µg/L	[NT]		[NT]		[NR]	[NR]	
Mercury-Total	µg/L	[NT]		[NT]		60069-1	117%	
Nickel-Total	µg/L	[NT]		[NT]		[NR]	[NR]	
Zinc-Total	µg/L	[NT]		[NT]		[NR]	[NR]	
Manganese-Total	µg/L	[NT]		[NT]		[NR]	[NR]	
Cobalt-Total	µg/L	[NT]		[NT]		[NR]	[NR]	
Tin-Total	µg/L	[NT]		[NT]		[NR]	[NR]	

Client Reference: 49608.01, Tomago

QUALITY CONTROL Metals in Waters - Acid extractable	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	60069-11	17/08/2011 17/08/2011	60069-2	17/08/2011
Date analysed	-	60069-11	18/08/2011 18/08/2011	60069-2	18/08/2011
Phosphorus - Total	mg/L	60069-11	<0.05 0.05	60069-2	93%
Iron - Total	mg/L	60069-11	1.0 1.0 RPD: 0	60069-2	97%
Calcium - Total	mg/L	60069-11	4.1 4.0 RPD: 2	60069-2	97%
Sodium - Total	mg/L	60069-11	9.5 9.5 RPD: 0	60069-2	108%
Magnesium - Total	mg/L	60069-11	2.0 2.0 RPD: 0	60069-2	94%
Potassium - Total	mg/L	60069-11	2.4 2.4 RPD: 0	60069-2	97%
QUALITY CONTROL Miscellaneous Inorganics	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	60069-11	16/8/2011 16/8/2011	60069-2	16/8/2011
Date analysed	-	60069-11	16/8/2011 16/8/2011	60069-2	16/8/2011
pH	pH Units	60069-11	6.0 6.0 RPD: 0	[NR]	[NR]
Electrical Conductivity	µS/cm	60069-11	110 110 RPD: 0	[NR]	[NR]
Fluoride, F	mg/L	60069-11	1.1 1.1 RPD: 0	60069-2	90%
Ammonia as N in water	mg/L	60069-11	<0.005 <0.005	60069-2	92%
TKN in water	mg/L	60069-11	1.2 1.0 RPD: 18	60069-2	87%
NOx as N in water	mg/L	60069-11	<0.025 <0.025	60069-2	82%

Report Comments:

PQL raised for NOx as N for samples 2, 4, 6-8 and 10-11 due to sample matrix interference.

OC/OP/PCB's in water analysed by NMI. Report No.RN872898.

Asbestos ID was analysed by Approved Identifier: Not applicable for this job

Asbestos ID was authorised by Approved Signatory: Not applicable for this job

INS: Insufficient sample for this test

PQL: Practical Quantitation Limit

NT: Not tested

NA: Test not required

RPD: Relative Percent Difference

NA: Test not required

<: Less than

>: Greater than

LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batched of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



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CERTIFICATE OF ANALYSIS

60147

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle
NSW 2310

Attention: Kyle Prowse, Matthew Blackert

Sample log in details:

Your Reference:	49608.01, Tomago
No. of samples:	12 waters
Date samples received / completed instructions received	17/08/11 / 17/08/11

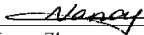
Analysis Details:

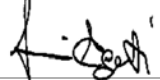
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date: 12/09/11 / 14/09/11
Date of Preliminary Report: Not issued
NATA accreditation number 2901. This document shall not be reproduced except in full.
This document is issued in accordance with NATA's accreditation requirements.
Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:


Nancy Zhang
Chemist


Rhian Morgan
Reporting Supervisor

Giovanni Agosti
Technical Manager


Simon Mills
Group R&D/Quality Manager

VOCs in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60147-9 SW137 16/08/2011 Water	60147-10 SW138 16/08/2011 Water
Date extracted	-	18/08/2011	18/08/2011
Date analysed	-	18/08/2011	18/08/2011
Dichlorodifluoromethane	µg/L	<10	<10
Chloromethane	µg/L	<10	<10
Vinyl Chloride	µg/L	<10	<10
Bromomethane	µg/L	<10	<10
Chloroethane	µg/L	<10	<10
Trichlorofluoromethane	µg/L	<10	<10
1,1-Dichloroethene	µg/L	<1	<1
Trans-1,2-dichloroethene	µg/L	<1	<1
1,1-dichloroethane	µg/L	<1	<1
Cis-1,2-dichloroethene	µg/L	<1	<1
Bromochloromethane	µg/L	<1	<1
Chloroform	µg/L	2	<1
2,2-dichloropropane	µg/L	<1	<1
1,2-dichloroethane	µg/L	<1	<1
1,1,1-trichloroethane	µg/L	<1	<1
1,1-dichloropropene	µg/L	<1	<1
Cyclohexane	µg/L	<1	<1
Carbon tetrachloride	µg/L	<1	<1
Benzene	µg/L	<1	<1
Dibromomethane	µg/L	<1	<1
1,2-dichloropropane	µg/L	<1	<1
Trichloroethene	µg/L	<1	4
Bromodichloromethane	µg/L	<1	<1
trans-1,3-dichloropropene	µg/L	<1	<1
cis-1,3-dichloropropene	µg/L	<1	<1
1,1,2-trichloroethane	µg/L	<1	<1
Toluene	µg/L	<1	<1
1,3-dichloropropane	µg/L	<1	<1
Dibromochloromethane	µg/L	<1	<1
1,2-dibromoethane	µg/L	<1	<1
Tetrachloroethene	µg/L	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<1	<1
Chlorobenzene	µg/L	<1	<1
Ethylbenzene	µg/L	<1	<1
Bromoform	µg/L	<1	<1
m+p-xylene	µg/L	<2	<2
Styrene	µg/L	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<1	<1
o-xylene	µg/L	<1	<1
1,2,3-trichloropropane	µg/L	<1	<1

VOCs in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60147-9 SW137 16/08/2011 Water	60147-10 SW138 16/08/2011 Water
Isopropylbenzene	µg/L	<1	<1
Bromobenzene	µg/L	<1	<1
n-propyl benzene	µg/L	<1	<1
2-chlorotoluene	µg/L	<1	<1
4-chlorotoluene	µg/L	<1	<1
1,3,5-trimethyl benzene	µg/L	<1	<1
Tert-butyl benzene	µg/L	<1	<1
1,2,4-trimethyl benzene	µg/L	<1	<1
1,3-dichlorobenzene	µg/L	<1	<1
Sec-butyl benzene	µg/L	<1	<1
1,4-dichlorobenzene	µg/L	<1	<1
4-isopropyl toluene	µg/L	<1	<1
1,2-dichlorobenzene	µg/L	<1	<1
n-butyl benzene	µg/L	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<1	<1
1,2,4-trichlorobenzene	µg/L	<1	<1
Hexachlorobutadiene	µg/L	<1	<1
1,2,3-trichlorobenzene	µg/L	<1	<1
Surrogate Dibromofluoromethane	%	79	79
Surrogate toluene-d8	%	102	102
Surrogate 4-BFB	%	109	110

vTRH & BTEX in Water	UNITS	60147-1	60147-2	60147-3	60147-4	60147-5
Our Reference:	-----	SW127	SW128	SW129	SW130	SW131
Your Reference	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Date Sampled		Water	Water	Water	Water	Water
Type of sample						
Date extracted	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Date analysed	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
TRHC ₆ - C ₉	µg/L	<10	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	94	90	100	100	97
Surrogate toluene-d8	%	101	101	101	101	100
Surrogate 4-BFB	%	100	100	100	98	100

vTRH & BTEX in Water	UNITS	60147-6	60147-7	60147-8	60147-9	60147-10
Our Reference:	-----	SW134	SW135	SW136	SW137	SW138
Your Reference	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Date Sampled		Water	Water	Water	Water	Water
Type of sample						
Date extracted	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Date analysed	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
TRHC ₆ - C ₉	µg/L	<10	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	90	90	98	79	79
Surrogate toluene-d8	%	100	101	100	102	102
Surrogate 4-BFB	%	99	100	99	109	110

vTRH & BTEX in Water			
Our Reference:	UNITS	60147-11	60147-12
Your Reference	-----	14-U	KGPD9
Date Sampled	-----	16/08/2011	16/08/2011
Type of sample		Water	Water
Date extracted	-	18/08/2011	18/08/2011
Date analysed	-	18/08/2011	18/08/2011
TRHC ₆ - C ₉	µg/L	<10	<10
Benzene	µg/L	<1	<1
Toluene	µg/L	<1	<1
Ethylbenzene	µg/L	<1	<1
m+p-xylene	µg/L	<2	<2
o-xylene	µg/L	<1	<1
Surrogate Dibromofluoromethane	%	98	94
Surrogate toluene-d8	%	101	101
Surrogate 4-BFB	%	104	100

sTRH in Water (C10-C36)						
Our Reference:	UNITS	60147-1	60147-2	60147-3	60147-4	60147-5
Your Reference	-----	SW127	SW128	SW129	SW130	SW131
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Date analysed	-	19/08/2011	19/08/2011	19/08/2011	19/08/2011	19/08/2011
TRHC ₁₀ - C ₁₄	µg/L	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	µg/L	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	µg/L	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	91	85	69	74	80

sTRH in Water (C10-C36)						
Our Reference:	UNITS	60147-6	60147-7	60147-8	60147-9	60147-10
Your Reference	-----	SW134	SW135	SW136	SW137	SW138
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Date analysed	-	19/08/2011	19/08/2011	19/08/2011	19/08/2011	19/08/2011
TRHC ₁₀ - C ₁₄	µg/L	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	µg/L	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	µg/L	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	68	61	81	75	73

sTRH in Water (C10-C36)			
Our Reference:	UNITS	60147-11	60147-12
Your Reference	-----	14-U	KGPD9
Date Sampled	-----	16/08/2011	16/08/2011
Type of sample		Water	Water
Date extracted	-	18/08/2011	18/08/2011
Date analysed	-	19/08/2011	19/08/2011
TRHC ₁₀ - C ₁₄	µg/L	<50	<50
TRHC ₁₅ - C ₂₈	µg/L	<100	<100
TRHC ₂₉ - C ₃₆	µg/L	<100	<100
Surrogate o-Terphenyl	%	83	64

PAHs in Water - Low Level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60147-1 SW127 16/08/2011 Water	60147-2 SW128 16/08/2011 Water	60147-3 SW129 16/08/2011 Water	60147-4 SW130 16/08/2011 Water	60147-5 SW131 16/08/2011 Water
Date extracted	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Date analysed	-	19/08/2011	19/08/2011	19/08/2011	19/08/2011	19/08/2011
Naphthalene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	103	92	67	91	86

PAHs in Water - Low Level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60147-6 SW134 16/08/2011 Water	60147-7 SW135 16/08/2011 Water	60147-8 SW136 16/08/2011 Water	60147-9 SW137 16/08/2011 Water	60147-10 SW138 16/08/2011 Water
Date extracted	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Date analysed	-	19/08/2011	19/08/2011	19/08/2011	19/08/2011	19/08/2011
Naphthalene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	70	72	94	81	87

PAHs in Water - Low Level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60147-11 14-U 16/08/2011 Water	60147-12 KGP D9 16/08/2011 Water
Date extracted	-	18/08/2011	18/08/2011
Date analysed	-	19/08/2011	19/08/2011
Naphthalene	µg/L	0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1
Benzo(b+k)fluoranthene	µg/L	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	100	76

OCP in water - low level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60147-1 SW127 16/08/2011 Water	60147-2 SW128 16/08/2011 Water	60147-3 SW129 16/08/2011 Water	60147-4 SW130 16/08/2011 Water	60147-5 SW131 16/08/2011 Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
HCB	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
gamma-BHC (Lindane)	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
delta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
trans-Chlordane	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Oxychlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDE	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDD	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDT	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Aldehyde	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Ketone	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulfate	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Surrogate OC Recovery	%	115	119	106	99	95

OCP in water - low level						
Our Reference:	UNITS	60147-6	60147-7	60147-8	60147-9	60147-10
Your Reference	-----	SW134	SW135	SW136	SW137	SW138
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
HCb	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
gamma-BHC (Lindane)	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
delta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
trans-Chlordane	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Oxychlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDE	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDD	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDT	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Aldehyde	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Ketone	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulfate	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Surrogate OC Recovery	%	104	106	100	99	88

OCP in water - low level			
Our Reference:	UNITS	60147-11	60147-12
Your Reference	-----	14-U	KGPD9
Date Sampled	-----	16/08/2011	16/08/2011
Type of sample		Water	Water
Date extracted	-	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011
HCB	µg/L	<0.01	<0.01
Heptachlor	µg/L	<0.01	<0.01
Heptachlor Epoxide	µg/L	<0.01	<0.01
Aldrin	µg/L	<0.01	<0.01
gamma-BHC (Lindane)	µg/L	<0.01	<0.01
alpha-BHC	µg/L	<0.01	<0.01
beta-BHC	µg/L	<0.01	<0.01
delta-BHC	µg/L	<0.01	<0.01
trans-Chlordane	µg/L	<0.05	<0.05
cis-Chlordane	µg/L	<0.01	<0.01
Oxychlordane	µg/L	<0.01	<0.01
Dieldrin	µg/L	<0.01	<0.01
p,p-DDE	µg/L	<0.01	<0.01
p,p-DDD	µg/L	<0.01	<0.01
p,p-DDT	µg/L	<0.01	<0.01
Endrin	µg/L	<0.01	<0.01
Endrin Aldehyde	µg/L	<0.01	<0.01
Endrin Ketone	µg/L	<0.01	<0.01
alpha-Endosulfan	µg/L	<0.01	<0.01
beta-Endosulfan	µg/L	<0.01	<0.01
Endosulfan Sulfate	µg/L	<0.01	<0.01
Methoxychlor	µg/L	<0.01	<0.01
Surrogate OC Recovery	%	99	97

OP Pesticides - Low Level						
Our Reference:	UNITS	60147-1	60147-2	60147-3	60147-4	60147-5
Your Reference	-----	SW127	SW128	SW129	SW130	SW131
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
Demeton-S-methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dichlorvos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Diazinon	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dimethoate	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Malathion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenthion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (E)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (Z)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Ethion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenitrothion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Ethyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Methyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Surrogate OP Recovery	%	97	95	90	77	85

OP Pesticides - Low Level						
Our Reference:	UNITS	60147-6	60147-7	60147-8	60147-9	60147-10
Your Reference	-----	SW134	SW135	SW136	SW137	SW138
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
Demeton-S-methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dichlorvos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Diazinon	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dimethoate	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Malathion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenthion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (E)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (Z)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Ethion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenitrothion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Ethyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Methyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Surrogate OP Recovery	%	87	87	89	86	67

OP Pesticides - Low Level			
Our Reference:	UNITS	60147-11	60147-12
Your Reference	-----	14-U	KGPD9
Date Sampled	-----	16/08/2011	16/08/2011
Type of sample		Water	Water
Date extracted	-	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011
Demeton-S-methyl	µg/L	<0.10	<0.10
Dichlorvos	µg/L	<0.10	<0.10
Diazinon	µg/L	<0.10	<0.10
Dimethoate	µg/L	<0.10	<0.10
Chlorpyrifos	µg/L	<0.10	<0.10
Chlorpyrifos methyl	µg/L	<0.10	<0.10
Malathion	µg/L	<0.10	<0.10
Fenthion	µg/L	<0.10	<0.10
Azinphos Ethyl	µg/L	<0.10	<0.10
Azinphos Methyl	µg/L	<0.10	<0.10
Chlorfenvinphos (E)	µg/L	<0.10	<0.10
Chlorfenvinphos (Z)	µg/L	<0.10	<0.10
Ethion	µg/L	<0.10	<0.10
Fenitrothion	µg/L	<0.10	<0.10
Parathion (Ethyl)	µg/L	<0.10	<0.10
Parathion (Methyl)	µg/L	<0.10	<0.10
Primiphos Ethyl	µg/L	<0.10	<0.10
Primiphos Methyl	µg/L	<0.10	<0.10
Surrogate OP Recovery	%	84	88

PCB low level in water						
Our Reference:	UNITS	60147-1	60147-2	60147-3	60147-4	60147-5
Your Reference	-----	SW127	SW128	SW129	SW130	SW131
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
Aroclor 1016	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor 1260	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total PCB's (as above)	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1

PCB low level in water						
Our Reference:	UNITS	60147-6	60147-7	60147-8	60147-9	60147-10
Your Reference	-----	SW134	SW135	SW136	SW137	SW138
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
Aroclor 1016	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor 1260	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total PCB's (as above)	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1

PCB low level in water			
Our Reference:	UNITS	60147-11	60147-12
Your Reference	-----	14-U	KGPD9
Date Sampled	-----	16/08/2011	16/08/2011
Type of sample		Water	Water
Date extracted	-	22/08/2011	22/08/2011
Date analysed	-	25/08/2011	25/08/2011
Aroclor 1016	µg/L	<0.1	<0.1
Aroclor 1221	µg/L	<0.1	<0.1
Aroclor 1232	µg/L	<0.1	<0.1
Aroclor 1242	µg/L	<0.1	<0.1
Aroclor 1248	µg/L	<0.1	<0.1
Aroclor 1254	µg/L	<0.10	<0.10
Aroclor 1260	µg/L	<0.1	<0.1
Total PCB's (as above)	µg/L	<0.1	<0.1

HM in water - total Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60147-1 SW127 16/08/2011 Water	60147-2 SW128 16/08/2011 Water	60147-3 SW129 16/08/2011 Water	60147-4 SW130 16/08/2011 Water	60147-5 SW131 16/08/2011 Water
Date prepared	-	17/8/2011	17/8/2011	17/8/2011	17/8/2011	17/8/2011
Date analysed	-	19/8/2011	19/8/2011	19/8/2011	19/8/2011	19/8/2011
Aluminium-Total	µg/L	220	180	460	94	1,600
Arsenic-Total	µg/L	1	1	2	1	2
Cadmium-Total	µg/L	<0.1	<0.1	0.1	<0.1	0.1
Chromium-Total	µg/L	1	2	2	2	4
Copper-Total	µg/L	<1	<1	1	1	6
Lead-Total	µg/L	<1	<1	<1	<1	1
Mercury-Total	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel-Total	µg/L	19	13	23	16	37
Zinc-Total	µg/L	33	10	18	7	23
Manganese-Total	µg/L	200	1,200	1,300	35	320
Cobalt-Total	µg/L	7	20	25	2	19
Tin-Total	µg/L	<1	<1	3	<1	<1

HM in water - total Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60147-6 SW134 16/08/2011 Water	60147-7 SW135 16/08/2011 Water	60147-8 SW136 16/08/2011 Water	60147-9 SW137 16/08/2011 Water	60147-10 SW138 16/08/2011 Water
Date prepared	-	17/8/2011	17/8/2011	17/8/2011	17/8/2011	17/8/2011
Date analysed	-	19/8/2011	19/8/2011	19/8/2011	19/8/2011	19/8/2011
Aluminium-Total	µg/L	78	480	970	1,200	2,500
Arsenic-Total	µg/L	1	2	3	16	24
Cadmium-Total	µg/L	<0.1	<0.1	<0.1	<0.1	0.2
Chromium-Total	µg/L	1	3	4	5	5
Copper-Total	µg/L	<1	2	3	5	13
Lead-Total	µg/L	<1	<1	3	24	27
Mercury-Total	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel-Total	µg/L	7	13	11	2	12
Zinc-Total	µg/L	7	8	26	24	130
Manganese-Total	µg/L	180	290	590	100	590
Cobalt-Total	µg/L	4	10	8	1	9
Tin-Total	µg/L	<1	<1	1	<1	<1

HM in water - total		
Our Reference:	UNITS	60147-12
Your Reference	-----	KGPD9
Date Sampled	-----	16/08/2011
Type of sample		Water
Date prepared	-	17/8/2011
Date analysed	-	19/8/2011
Aluminium-Total	µg/L	320
Arsenic-Total	µg/L	4
Cadmium-Total	µg/L	<0.1
Chromium-Total	µg/L	9
Copper-Total	µg/L	6
Lead-Total	µg/L	<1
Mercury-Total	µg/L	<0.1
Nickel-Total	µg/L	75
Zinc-Total	µg/L	32
Manganese-Total	µg/L	180
Cobalt-Total	µg/L	9
Tin-Total	µg/L	<1

HM in water - dissolved		
Our Reference:	UNITS	60147-11
Your Reference	-----	14-U
Date Sampled	-----	16/08/2011
Type of sample		Water
Date prepared	-	25/8/2011
Date analysed	-	25/8/2011
Aluminium-Dissolved	µg/L	30
Arsenic-Dissolved	µg/L	4
Cadmium-Dissolved	µg/L	<0.1
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	<1
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.1
Nickel-Dissolved	µg/L	69
Zinc-Dissolved	µg/L	<1
Manganese-Dissolved	µg/L	1,100
Cobalt-Dissolved	µg/L	64
Tin-Dissolved	µg/L	2

Metals in Waters - Acid extractable						
Our Reference:	UNITS	60147-1	60147-2	60147-3	60147-4	60147-5
Your Reference	-----	SW127	SW128	SW129	SW130	SW131
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Date analysed	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Phosphorus - Total	mg/L	0.1	0.4	0.5	0.2	1.1
Iron - Total	mg/L	1.9	9.2	4.5	1.9	13
Calcium - Total	mg/L	53	470	55	50	15
Sodium - Total	mg/L	410	1,700	610	170	130
Magnesium - Total	mg/L	72	230	93	29	22
Potassium - Total	mg/L	24	59	27	10	9.6

Metals in Waters - Acid extractable						
Our Reference:	UNITS	60147-6	60147-7	60147-8	60147-9	60147-10
Your Reference	-----	SW134	SW135	SW136	SW137	SW138
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Date analysed	-	18/08/2011	18/08/2011	18/08/2011	18/08/2011	18/08/2011
Phosphorus - Total	mg/L	0.4	0.8	0.7	0.09	1.3
Iron - Total	mg/L	6.0	8.4	12	14	9.6
Calcium - Total	mg/L	12	19	32	7.0	4.8
Sodium - Total	mg/L	39	37	20	9.8	11
Magnesium - Total	mg/L	6.5	7.6	4.8	1.9	1.6
Potassium - Total	mg/L	3.2	4.3	1.7	1.0	0.9

Metals in Waters - Acid extractable			
Our Reference:	UNITS	60147-11	60147-12
Your Reference	-----	14-U	KGPD9
Date Sampled	-----	16/08/2011	16/08/2011
Type of sample		Water	Water
Date prepared	-	09/09/2011	18/08/2011
Date analysed	-	09/09/2011	18/08/2011
Phosphorus - Total	mg/L	0.4	0.1
Iron - Total	mg/L	[NA]	1.4
Calcium - Total	mg/L	[NA]	37
Sodium - Total	mg/L	[NA]	130
Magnesium - Total	mg/L	[NA]	22
Potassium - Total	mg/L	[NA]	7.9

Metals in Water - Dissolved		
Our Reference:	UNITS	60147-11
Your Reference	-----	14-U
Date Sampled	-----	16/08/2011
Type of sample		Water
Date digested	-	24/08/2011
Date analysed	-	24/08/2011
Iron - Dissolved	mg/L	47
Calcium - Dissolved	mg/L	590
Potassium - Dissolved	mg/L	100
Magnesium - Dissolved	mg/L	440
Sodium - Dissolved	mg/L	3,100

Miscellaneous Inorganics						
Our Reference:	UNITS	60147-1	60147-2	60147-3	60147-4	60147-5
Your Reference	-----	SW127	SW128	SW129	SW130	SW131
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Date analysed	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
pH	pH Units	5.7	6.6	5.8	6.7	6.2
Electrical Conductivity	µS/cm	4,000	11,000	4,400	1,700	1,200
Fluoride, F	mg/L	1.1	0.71	1.1	1.1	0.90
Ammonia as N in water	mg/L	<0.005	<0.005	0.054	0.0083	0.016
TKN in water	mg/L	0.8	1.5	5.2	1.7	3.4
NOx as N in water	mg/L	<0.025	<0.025	<0.025	<0.025	<0.025

Miscellaneous Inorganics						
Our Reference:	UNITS	60147-6	60147-7	60147-8	60147-9	60147-10
Your Reference	-----	SW134	SW135	SW136	SW137	SW138
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Date analysed	-	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
pH	pH Units	6.5	6.5	7.0	6.3	6.0
Electrical Conductivity	µS/cm	550	620	400	200	190
Fluoride, F	mg/L	0.68	0.88	1.3	0.44	0.42
Ammonia as N in water	mg/L	<0.005	0.052	0.029	0.0060	<0.005
TKN in water	mg/L	2.4	3.1	3.9	2.3	8.8
NOx as N in water	mg/L	<0.025	<0.025	<0.025	0.01	<0.005

Miscellaneous Inorganics			
Our Reference:	UNITS	60147-11	60147-12
Your Reference	-----	14-U	KGPD9
Date Sampled	-----	16/08/2011	16/08/2011
Type of sample		Water	Water
Date prepared	-	17/08/2011	17/08/2011
Date analysed	-	17/08/2011	17/08/2011
pH	pH Units	6.6	6.8
Electrical Conductivity	µS/cm	17,000	1,700
Fluoride, F	mg/L	0.57	1.1
Ammonia as N in water	mg/L	1.5	0.0067
TKN in water	mg/L	2.4	1.8
NOx as N in water	mg/L	<0.025	<0.025

MethodID	Methodology Summary
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Ext-020	Analysis subcontracted to Australian Government - National Measurement Institute. NATA Accreditation No: 198
Metals-022 ICP-MS	Determination of various metals by ICP-MS.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA 21st ED, 4500-H+.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell and dedicated meter, in accordance with APHA 21st ED 2510 and Rayment & Higginson.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA 21st ED, 4500-F-C.
Inorg-057	Ammonia - determined colourimetrically based on EPA350.1 and APHA 21st ED 4500-NH3 F, Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA 21st ED 4500 Norg.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO3- F. Soils are analysed following a water extraction.

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in water						Base II Duplicate II %RPD		
Date extracted	-			18/08/2011	[NT]	[NT]	LCS-W1	18/08/2011
Date analysed	-			18/08/2011	[NT]	[NT]	LCS-W1	18/08/2011
Dichlorodifluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Chloromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Bromomethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Chloroethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Trans-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	112%
Cis-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Chloroform	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	105%
2,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	103%
1,1,1-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	104%
1,1-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Cyclohexane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Carbon tetrachloride	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Dibromomethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Trichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	124%
Bromodichloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	92%
trans-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Dibromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	82%
1,2-dibromoethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tetrachloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	99%
1,1,1,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Chlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromoform	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
m+p-xylene	µg/L	2	Org-013	<2	[NT]	[NT]	[NR]	[NR]
Styrene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
o-xylene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in water						Base II Duplicate II %RPD		
1,2,3-trichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Isopropylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tert-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Sec-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Surrogate	%		Org-013	81	[NT]	[NT]	LCS-W1	63%
Dibromofluoromethane								
Surrogate toluene-d8	%		Org-013	77	[NT]	[NT]	LCS-W1	99%
Surrogate 4-BFB	%		Org-013	103	[NT]	[NT]	LCS-W1	95%

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH & BTEX in Water						Base II Duplicate II %RPD		
Date extracted	-			18/08/2011	[NT]	[NT]	LCS-W1	18/08/2011
Date analysed	-			18/08/2011	[NT]	[NT]	LCS-W1	18/08/2011
TRHC ₆ - C ₉	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	123%
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	124%
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	124%
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	123%
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	LCS-W1	123%
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	123%
Surrogate	%		Org-016	103	[NT]	[NT]	LCS-W1	103%
Dibromofluoromethane								
Surrogate toluene-d8	%		Org-016	99	[NT]	[NT]	LCS-W1	100%
Surrogate 4-BFB	%		Org-016	99	[NT]	[NT]	LCS-W1	100%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Water (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			18/08/2011	[NT]	[NT]	LCS-W3	18/08/2011
Date analysed	-			19/08/2011	[NT]	[NT]	LCS-W3	19/08/2011
TRHC ₁₀ - C ₁₄	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-W3	76%
TRHC ₁₅ - C ₂₈	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W3	108%
TRHC ₂₉ - C ₃₆	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W3	93%
Surrogate o-Terphenyl	%		Org-003	98	[NT]	[NT]	LCS-W3	98%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water - Low Level						Base II Duplicate II %RPD		
Date extracted	-			18/08/2011	[NT]	[NT]	LCS-W3	18/08/2011
Date analysed	-			19/08/2011	[NT]	[NT]	LCS-W3	19/08/2011
Naphthalene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W3	68%
Acenaphthylene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W3	82%
Phenanthrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W3	78%
Anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W3	70%
Pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W3	76%

Client Reference: 49608.01, Tomago

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water - Low Level						Base II Duplicate II %RPD		
Benzo(a)anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W3	88%
Benzo(b+k)fluoranthene	µg/L	0.2	Org-012 subset	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W3	81%
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d ₁₄	%		Org-012 subset	83	[NT]	[NT]	LCS-W3	88%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
OCP in water - low level						Base II Duplicate II %RPD		
Date extracted	-			22/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Date analysed	-			25/08/2011	[NT]	[NT]	LCS-W1	25/08/2011
HCB	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Heptachlor	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	93%
Heptachlor Epoxide	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Aldrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	95%
gamma-BHC (Lindane)	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	83%
alpha-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
beta-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
delta-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
trans-Chlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
cis-Chlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Oxychlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Dieldrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	95%
p,p-DDE	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
p,p-DDD	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
p,p-DDT	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	81%
Endrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	84%
Endrin Aldehyde	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Endrin Ketone	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
alpha-Endosulfan	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
beta-Endosulfan	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulfate	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Methoxychlor	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Surrogate OC Recovery	%		Ext-020	[NT]	[NT]	[NT]	LCS-W1	105%

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
OP Pesticides - Low Level						Base II Duplicate II %RPD		
Date extracted	-			22/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Date analysed	-			25/08/2011	[NT]	[NT]	LCS-W1	25/08/2011
Demeton-S-methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Dichlorvos	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Diazinon	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	82%
Dimethoate	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	82%
Chlorpyrifos methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Malathion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Fenthion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Azinphos Ethyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Azinphos Methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (E)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (Z)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Ethion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	96%
Fenitrothion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Parathion (Ethyl)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	82%
Parathion (Methyl)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Primiphos Ethyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Primiphos Methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Surrogate OP Recovery	%		Ext-020	[NT]	[NT]	[NT]	LCS-W1	92%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCB low level in water						Base II Duplicate II %RPD		
Date extracted	-			22/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Date analysed	-			25/08/2011	[NT]	[NT]	LCS-W1	25/08/2011
Aroclor 1016	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1221	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1232	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1242	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1248	µg/L	0.1	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1254	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Aroclor 1260	µg/L	0.1	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Total PCB's (as above)	µg/L	0.010	Ext-020	<0.1	[NT]	[NT]	LCS-W1	106%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
HM in water - total						Base II Duplicate II %RPD		
Date prepared	-			17/8/2011	60147-1	17/8/2011 17/8/2011	LCS-W1	17/8/2011
Date analysed	-			19/8/2011	60147-1	19/8/2011 19/8/2011	LCS-W1	19/8/2011
Aluminium-Total	µg/L	10	Metals-022 ICP-MS	<10	60147-1	220 220 RPD: 0	LCS-W1	95%
Arsenic-Total	µg/L	1	Metals-022 ICP-MS	<1	60147-1	1 <1	LCS-W1	88%
Cadmium-Total	µg/L	0.1	Metals-022 ICP-MS	<0.1	60147-1	<0.1 <0.1	LCS-W1	92%
Chromium-Total	µg/L	1	Metals-022 ICP-MS	<1	60147-1	1 1 RPD: 0	LCS-W1	100%
Copper-Total	µg/L	1	Metals-022 ICP-MS	<1	60147-1	<1 <1	LCS-W1	98%
Lead-Total	µg/L	1	Metals-022 ICP-MS	<1	60147-1	<1 <1	LCS-W1	102%
Mercury-Total	µg/L	0.1	Metals-021 CV-AAS	<0.1	60147-1	<0.1 <0.1	LCS-W1	116%
Nickel-Total	µg/L	1	Metals-022 ICP-MS	<1	60147-1	19 19 RPD: 0	LCS-W1	99%
Zinc-Total	µg/L	1	Metals-022 ICP-MS	<1	60147-1	33 34 RPD: 3	LCS-W1	95%
Manganese-Total	µg/L	5	Metals-022 ICP-MS	<5	60147-1	200 200 RPD: 0	LCS-W1	94%
Cobalt-Total	µg/L	1	Metals-022 ICP-MS	<1	60147-1	7 7 RPD: 0	LCS-W1	100%
Tin-Total	µg/L	1	Metals-022 ICP-MS	<1	60147-1	<1 <1	LCS-W1	102%

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
HM in water - dissolved						Base II Duplicate II %RPD		
Date prepared	-			25/8/2011	[NT]	[NT]	LCS-W1	25/8/2011
Date analysed	-			25/8/2011	[NT]	[NT]	LCS-W1	25/8/2011
Aluminium-Dissolved	µg/L	10	Metals-022 ICP-MS	<10	[NT]	[NT]	LCS-W1	108%
Arsenic-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	98%
Cadmium-Dissolved	µg/L	0.1	Metals-022 ICP-MS	<0.1	[NT]	[NT]	LCS-W1	95%
Chromium-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	110%
Copper-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	99%
Lead-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	98%
Mercury-Dissolved	µg/L	0.1	Metals-021 CV-AAS	<0.1	[NT]	[NT]	LCS-W1	112%
Nickel-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	97%
Zinc-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	91%
Manganese-Dissolved	µg/L	5	Metals-022 ICP-MS	<5	[NT]	[NT]	LCS-W1	102%
Cobalt-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	97%
Tin-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	100%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Waters - Acid extractable						Base II Duplicate II %RPD		
Date prepared	-			18/8/2011	60147-1	18/08/2011 18/08/2011	LCS-W1	18/8/2011
Date analysed	-			18/8/2011	60147-1	18/08/2011 18/08/2011	LCS-W1	18/8/2011
Phosphorus - Total	mg/L	0.05	Metals-020 ICP-AES	<0.05	60147-1	0.1 0.1 RPD: 0	LCS-W1	95%
Iron - Total	mg/L	0.02	Metals-020 ICP-AES	<0.02	60147-1	1.9 2.0 RPD: 5	LCS-W1	106%
Calcium - Total	mg/L	0.5	Metals-020 ICP-AES	<0.5	60147-1	53 53 RPD: 0	LCS-W1	104%
Sodium - Total	mg/L	0.5	Metals-020 ICP-AES	<0.5	60147-1	410 410 RPD: 0	LCS-W1	94%
Magnesium - Total	mg/L	0.5	Metals-020 ICP-AES	<0.5	60147-1	72 72 RPD: 0	LCS-W1	94%
Potassium - Total	mg/L	0.5	Metals-020 ICP-AES	<0.5	60147-1	24 24 RPD: 0	LCS-W1	85%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Water - Dissolved						Base II Duplicate II %RPD		
Date digested	-			24/08/2011	[NT]	[NT]	LCS-W1	24/08/2011
Date analysed	-			24/08/2011	[NT]	[NT]	LCS-W1	24/08/2011
Iron - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-W1	102%
Calcium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	[NT]	[NT]	LCS-W1	93%
Potassium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	[NT]	[NT]	LCS-W1	99%
Magnesium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	[NT]	[NT]	LCS-W1	100%
Sodium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	[NT]	[NT]	LCS-W1	99%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorganics						Base Duplicate %RPD		
Date prepared	-			17/8/2011	60147-1	17/08/2011 17/08/2011	LCS-W1	17/8/2011
Date analysed	-			17/8/2011	60147-1	17/08/2011 17/08/2011	LCS-W1	17/8/2011
pH	pH Units		Inorg-001	[NT]	60147-1	5.7 5.7 RPD: 0	LCS-W1	102%
Electrical Conductivity	µS/cm	1	Inorg-002	<1	60147-1	4000 4000 RPD: 0	LCS-W1	105%
Fluoride, F	mg/L	0.1	Inorg-026	<0.1	60147-1	1.1 1.0 RPD: 10	LCS-W1	103%
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	60147-1	<0.005 <0.005	LCS-W1	92%
TKN in water	mg/L	0.1	Inorg-062	<0.1	60147-1	0.8 0.8 RPD: 0	LCS-W1	98%
NOx as N in water	mg/L	0.005	Inorg-055	<0.005	60147-1	<0.025 <0.025	LCS-W1	98%
QUALITYCONTROL	UNITS	Dup. Sm#		Duplicate		Spike Sm#	Spike % Recovery	
HM in water - total				Base + Duplicate + %RPD				
Date prepared	-	[NT]		[NT]		60147-2	17/8/2011	
Date analysed	-	[NT]		[NT]		60147-2	19/8/2011	
Aluminium-Total	µg/L	[NT]		[NT]		60147-2	89%	
Arsenic-Total	µg/L	[NT]		[NT]		60147-2	100%	
Cadmium-Total	µg/L	[NT]		[NT]		60147-2	96%	
Chromium-Total	µg/L	[NT]		[NT]		60147-2	94%	
Copper-Total	µg/L	[NT]		[NT]		60147-2	88%	
Lead-Total	µg/L	[NT]		[NT]		60147-2	91%	
Mercury-Total	µg/L	[NT]		[NT]		60147-2	117%	
Nickel-Total	µg/L	[NT]		[NT]		60147-2	90%	
Zinc-Total	µg/L	[NT]		[NT]		60147-2	85%	
Manganese-Total	µg/L	[NT]		[NT]		60147-2	95%	
Cobalt-Total	µg/L	[NT]		[NT]		60147-2	92%	
Tin-Total	µg/L	[NT]		[NT]		60147-2	100%	
QUALITYCONTROL	UNITS	Dup. Sm#		Duplicate		Spike Sm#	Spike % Recovery	
Metals in Waters - Acid extractable				Base + Duplicate + %RPD				
Date prepared	-	[NT]		[NT]		60147-2	18/8/2011	
Date analysed	-	[NT]		[NT]		60147-2	18/8/2011	
Phosphorus - Total	mg/L	[NT]		[NT]		60147-2	99%	
Iron - Total	mg/L	[NT]		[NT]		60147-2	116%	
Calcium - Total	mg/L	[NT]		[NT]		60147-2	#	
Sodium - Total	mg/L	[NT]		[NT]		60147-2	#	
Magnesium - Total	mg/L	[NT]		[NT]		60147-2	90%	
Potassium - Total	mg/L	[NT]		[NT]		60147-2	99%	

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QUALITY CONTROL Miscellaneous Inorganics	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	60147-11	17/08/2011 17/08/2011	60147-2	17/8/2011
Date analysed	-	60147-11	17/08/2011 17/08/2011	60147-2	17/8/2011
pH	pH Units	60147-11	6.6 6.6 RPD: 0	[NR]	[NR]
Electrical Conductivity	µS/cm	60147-11	17000 17000 RPD: 0	[NR]	[NR]
Fluoride, F	mg/L	60147-11	0.57 0.56 RPD: 2	60147-2	91%
Ammonia as N in water	mg/L	60147-11	1.5 1.5 RPD: 0	60147-2	96%
TKN in water	mg/L	60147-11	2.4 2.5 RPD: 4	60147-2	102%
NOx as N in water	mg/L	60147-11	<0.025 <0.025	60147-2	#

Report Comments:

Spike recovery for Ca and Na in sample 2 not available due to high sample background.

PQL raised for NOx as N for samples 1-8 and 10-12 due to sample matrix interference.

Percent recovery not available for NOx as N due to matrix interference, however an acceptable recovery was achieved for the LCS.

This report replaces R00 due to the addition of total phosphorous results for sample 11.

Asbestos ID was analysed by Approved Identifier:	Not applicable for this job
Asbestos ID was authorised by Approved Signatory:	Not applicable for this job

INS: Insufficient sample for this test

NA: Test not required

<: Less than

PQL: Practical Quantitation Limit

RPD: Relative Percent Difference

>: Greater than

NT: Not tested

NA: Test not required

LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



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CERTIFICATE OF ANALYSIS

60211

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle
NSW 2310

Attention: Kyle Prowse, Matthew Blackert

Sample log in details:

Your Reference:	49608.01, Tomago
No. of samples:	5 waters
Date samples received / completed instructions received	18/08/11 / 18/08/11

Analysis Details:

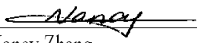
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

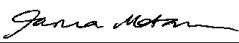
Report Details:

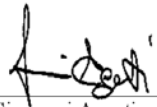
Date results requested by: / Issue Date:	29/08/11 / 31/08/11
Date of Preliminary Report:	Not issued

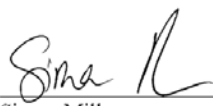
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Results Approved By:


Nancy Zhang
Chemist


Tania Notaras
Manager


Giovanni Agosti
Technical Manager


Simon Mills
Group R&D Quality Manager



vTRH & BTEX in Water						
Our Reference:	UNITS	60211-1	60211-2	60211-3	60211-4	60211-5
Your Reference	-----	12	14-L	20-U	20-L	KGPD10
Date Sampled	-----	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	19/08/2011	19/08/2011	19/08/2011	19/08/2011	19/08/2011
Date analysed	-	19/08/2011	19/08/2011	19/08/2011	19/08/2011	19/08/2011
TRHC ₆ - C ₉	µg/L	<10	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	2	<2	2	<2	2
o-xylene	µg/L	<1	<1	1	<1	1
Surrogate Dibromofluoromethane	%	101	81	94	87	97
Surrogate toluene-d8	%	101	101	107	99	100
Surrogate 4-BFB	%	100	97	99	97	99

sTRH in Water (C10-C36)						
Our Reference:	UNITS	60211-1	60211-2	60211-3	60211-4	60211-5
Your Reference	-----	12	14-L	20-U	20-L	KGPD10
Date Sampled	-----	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
TRHC ₁₀ - C ₁₄	µg/L	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	µg/L	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	µg/L	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	115	102	136	102	121

PAHs in Water - Low Level						
Our Reference:	UNITS	60211-1	60211-2	60211-3	60211-4	60211-5
Your Reference	-----	12	14-L	20-U	20-L	KGPD10
Date Sampled	-----	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Naphthalene	µg/L	<0.1	0.1	0.2	0.3	0.2
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	98	86	135	88	113

OCP in water - low level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60211-1 12 17/08/2011 Water	60211-2 14-L 17/08/2011 Water	60211-3 20-U 17/08/2011 Water	60211-4 20-L 17/08/2011 Water	60211-5 KGPD10 17/08/2011 Water
Date extracted	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
Date analysed	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
HCB	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
gamma-BHC (Lindane)	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
delta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
trans-Chlordane	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
cis-Chlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Oxychlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDE	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDD	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDT	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Aldehyde	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Ketone	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulfate	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Surrogate OC Recovery	%	96	95	96	97	103

OP Pesticides - Low Level						
Our Reference:	UNITS	60211-1	60211-2	60211-3	60211-4	60211-5
Your Reference	-----	12	14-L	20-U	20-L	KGPD10
Date Sampled	-----	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
Date analysed	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
Demeton-S-methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dichlorvos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Diazinon	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dimethoate	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Malathion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenthion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (E)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (Z)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Ethion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenitrothion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Ethyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Methyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Surrogate OP Recovery	%	85	82	83	85	79

PCB low level in water						
Our Reference:	UNITS	60211-1	60211-2	60211-3	60211-4	60211-5
Your Reference	-----	12	14-L	20-U	20-L	KGPD10
Date Sampled	-----	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
Date analysed	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
Aroclor 1016	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor 1260	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total PCB's (as above)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10

HM in water - dissolved						
Our Reference:	UNITS	60211-1	60211-2	60211-3	60211-4	60211-5
Your Reference	-----	12	14-L	20-U	20-L	KGPD10
Date Sampled	-----	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	25/8/2011	25/8/2011	25/8/2011	25/8/2011	25/8/2011
Date analysed	-	5/8/2011	5/8/2011	5/8/2011	5/8/2011	5/8/2011
Aluminium-Dissolved	µg/L	21	20	23	26	21
Arsenic-Dissolved	µg/L	5	2	<1	7	<1
Cadmium-Dissolved	µg/L	<0.1	0.2	0.1	<0.1	0.2
Chromium-Dissolved	µg/L	1	<1	<1	<1	<1
Copper-Dissolved	µg/L	<1	4	<1	<1	<1
Lead-Dissolved	µg/L	<1	<1	<1	<1	<1
Mercury-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel-Dissolved	µg/L	21	6	29	23	30
Zinc-Dissolved	µg/L	32	15	39	4	44
Manganese-Dissolved	µg/L	940	810	6,900	940	6,800
Cobalt-Dissolved	µg/L	13	1	18	<1	20
Tin-Dissolved	µg/L	<1	<1	<1	1	<1

Metals in Waters - Acid extractable						
Our Reference:	UNITS	60211-1	60211-2	60211-3	60211-4	60211-5
Your Reference	-----	12	14-L	20-U	20-L	KGPD10
Date Sampled	-----	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	19/08/2011	19/08/2011	19/08/2011	19/08/2011	19/08/2011
Date analysed	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Phosphorus - Total	mg/L	3.8	2.4	0.4	0.6	0.4

Metals in Water - Dissolved						
Our Reference:	UNITS	60211-1	60211-2	60211-3	60211-4	60211-5
Your Reference	-----	12	14-L	20-U	20-L	KGPD10
Date Sampled	-----	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Type of sample		Water	Water	Water	Water	Water
Date digested	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Calcium - Dissolved	mg/L	100	400	590	470	570
Potassium - Dissolved	mg/L	85	340	200	360	190
Magnesium - Dissolved	mg/L	64	1,700	1,100	1,600	1,000
Sodium - Dissolved	mg/L	300	13,000	5,700	13,000	5,500
Iron - Dissolved	mg/L	6.1	4.7	46	1.3	50

Miscellaneous Inorganics						
Our Reference:	UNITS	60211-1	60211-2	60211-3	60211-4	60211-5
Your Reference	-----	12	14-L	20-U	20-L	KGPD10
Date Sampled	-----	17/08/2011	17/08/2011	17/08/2011	17/08/2011	17/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	18/8/2011	18/8/2011	18/8/2011	18/8/2011	18/8/2011
Date analysed	-	18/8/2011	18/8/2011	18/8/2011	18/8/2011	18/8/2011
pH	pH Units	6.9	7.4	6.7	7.1	6.7
Electrical Conductivity	µS/cm	2,700	54,000	29,000	51,000	26,000
Fluoride, F	mg/L	0.65	0.43	0.45	0.47	0.44
Ammonia as N in water	mg/L	0.46	20	1.4	8.0	1.2
TKN in water	mg/L	7.4	20	2.4	8.6	2.2
NOx as N in water	mg/L	<0.025	<0.025	<0.025	<0.025	<0.025

Method ID	Methodology Summary
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Ext-020	Analysis subcontracted to Australian Government - National Measurement Institute. NATA Accreditation No: 198
Metals-022 ICP-MS	Determination of various metals by ICP-MS.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA 21st ED, 4500-H+.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell and dedicated meter, in accordance with APHA 21st ED 2510 and Rayment & Higginson.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA 21st ED, 4500-F-C.
Inorg-057	Ammonia - determined colourimetrically based on EPA350.1 and APHA 21st ED 4500-NH3 F, Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA 21st ED 4500 Norg.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO3- F. Soils are analysed following a water extraction.

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH & BTEX in Water						Base II Duplicate II %RPD		
Date extracted	-			18/08/2011	[NT]	[NT]	LCS-W1	18/08/2011
Date analysed	-			18/08/2011	[NT]	[NT]	LCS-W1	18/08/2011
TRHC ₆ - C ₉	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	123%
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	124%
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	124%
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	123%
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	LCS-W1	123%
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	123%
Surrogate Dibromofluoromethane	%		Org-016	103	[NT]	[NT]	LCS-W1	103%
Surrogate toluene-d8	%		Org-016	99	[NT]	[NT]	LCS-W1	100%
Surrogate 4-BFB	%		Org-016	99	[NT]	[NT]	LCS-W1	100%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Water (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			22/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Date analysed	-			22/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
TRHC ₁₀ - C ₁₄	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-W1	65%
TRHC ₁₅ - C ₂₈	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	77%
TRHC ₂₉ - C ₃₆	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	69%
Surrogate o-Terphenyl	%		Org-003	82	[NT]	[NT]	LCS-W1	111%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water - Low Level						Base II Duplicate II %RPD		
Date extracted	-			22/08/2011	[NT]	[NT]	LCS-W2	22/08/2011
Date analysed	-			22/08/2011	[NT]	[NT]	LCS-W2	22/08/2011
Naphthalene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	82%
Acenaphthylene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	98%
Phenanthrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	89%
Anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	85%
Pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	91%

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water - Low Level						Base II Duplicate II %RPD		
Benzo(a)anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	103%
Benzo(b+k)fluoranthene	µg/L	0.2	Org-012 subset	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	101%
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	125	[NT]	[NT]	LCS-W2	108%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
OCP in water - low level						Base II Duplicate II %RPD		
Date extracted	-			26/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Date analysed	-			26/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
HCB	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Heptachlor	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	91%
Heptachlor Epoxide	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Aldrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	95%
gamma-BHC (Lindane)	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	79%
alpha-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
beta-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
delta-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
trans-Chlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
cis-Chlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Oxychlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Dieldrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	91%
p,p-DDE	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
p,p-DDD	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
p,p-DDT	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	83%
Endrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	81%
Endrin Aldehyde	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Endrin Ketone	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
alpha-Endosulfan	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
beta-Endosulfan	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulfate	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Methoxychlor	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Surrogate OC Recovery	%		Ext-020	[NT]	[NT]	[NT]	LCS-W1	96%

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
OP Pesticides - Low Level						Base II Duplicate II %RPD		
Date extracted	-			26/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Date analysed	-			26/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Demeton-S-methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Dichlorvos	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Diazinon	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	93%
Dimethoate	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	72%
Chlorpyrifos methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Malathion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Fenthion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Azinphos Ethyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Azinphos Methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (E)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (Z)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Ethion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	83%
Fenitrothion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Parathion (Ethyl)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	78%
Parathion (Methyl)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Primiphos Ethyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Primiphos Methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Surrogate OP Recovery	%		Ext-020	[NT]	[NT]	[NT]	LCS-W1	86%

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCB low level in water						Base Duplicate %RPD		
Date extracted	-			26/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Date analysed	-			26/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Aroclor 1016	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1221	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1232	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1242	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1248	µg/L	0.1	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1254	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Aroclor 1260	µg/L	0.1	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Total PCB's (as above)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	104%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
HM in water - dissolved						Base Duplicate %RPD		
Date prepared	-			25/8/2011	60211-1	25/8/2011 25/8/2011	LCS-W1	25/8/2011
Date analysed	-			25/8/2011	60211-1	5/8/2011 5/8/2011	LCS-W1	25/8/2011
Aluminium-Dissolved	µg/L	10	Metals-022 ICP-MS	<10	60211-1	21 17 RPD: 21	LCS-W1	108%
Arsenic-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60211-1	5 5 RPD: 0	LCS-W1	98%
Cadmium-Dissolved	µg/L	0.1	Metals-022 ICP-MS	<0.1	60211-1	<0.1 <0.1	LCS-W1	95%
Chromium-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60211-1	1 <1	LCS-W1	110%
Copper-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60211-1	<1 <1	LCS-W1	102%
Lead-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60211-1	<1 <1	LCS-W1	98%
Mercury-Dissolved	µg/L	0.1	Metals-021 CV-AAS	<0.1	60211-1	<0.1 <0.1	LCS-W1	112%
Nickel-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60211-1	21 19 RPD: 10	LCS-W1	97%
Zinc-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60211-1	32 30 RPD: 6	LCS-W1	93%
Manganese-Dissolved	µg/L	5	Metals-022 ICP-MS	<5	60211-1	940 880 RPD: 7	LCS-W1	102%
Cobalt-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60211-1	13 13 RPD: 0	LCS-W1	97%
Tin-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60211-1	<1 <1	LCS-W1	100%

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Waters - Acid extractable						Base II Duplicate II %RPD		
Date prepared	-			19/08/2011	[NT]	[NT]	LCS-W1	19/08/2011
Date analysed	-			24/08/2011	[NT]	[NT]	LCS-W1	24/08/2011
Phosphorus - Total	mg/L	0.05	Metals-020 ICP-AES	<0.05	[NT]	[NT]	LCS-W1	91%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Water - Dissolved						Base II Duplicate II %RPD		
Date digested	-			24/08/2011	60211-1	24/08/2011 24/08/2011	LCS-W1	24/08/2011
Date analysed	-			24/08/2011	60211-1	24/08/2011 24/08/2011	LCS-W1	24/08/2011
Calcium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	60211-1	100 100 RPD: 0	LCS-W1	94%
Potassium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	60211-1	85 83 RPD: 2	LCS-W1	100%
Magnesium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	60211-1	64 63 RPD: 2	LCS-W1	93%
Sodium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	60211-1	300 300 RPD: 0	LCS-W1	97%
Iron - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	60211-1	6.1 6.0 RPD: 2	LCS-W1	103%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorganics						Base II Duplicate II %RPD		
Date prepared	-			18/08/2011	60211-1	18/8/2011 18/8/2011	LCS-W1	18/08/2011
Date analysed	-			18/08/2011	60211-1	18/8/2011 18/8/2011	LCS-W1	18/08/2011
pH	pH Units		Inorg-001	[NT]	60211-1	6.9 6.9 RPD: 0	LCS-W1	100%
Electrical Conductivity	µS/cm	1	Inorg-002	<1	60211-1	2700 2600 RPD: 4	LCS-W1	104%
Fluoride, F	mg/L	0.1	Inorg-026	<0.1	60211-1	0.65 0.65 RPD: 0	LCS-W1	102%
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	60211-1	0.46 [N/T]	LCS-W1	113%
TKN in water	mg/L	0.1	Inorg-062	<0.1	60211-1	7.4 7.4 RPD: 0	LCS-W1	102%
NOx as N in water	mg/L	0.005	Inorg-055	<0.005	60211-1	<0.025 [N/T]	LCS-W1	96%
QUALITY CONTROL	UNITS	Dup. Sm#		Duplicate		Spike Sm#	Spike % Recovery	
Metals in Water - Dissolved				Base + Duplicate + %RPD				
Date digested	-	[NT]		[NT]		60211-2	24/08/2011	
Date analysed	-	[NT]		[NT]		60211-2	24/08/2011	
Calcium - Dissolved	mg/L	[NT]		[NT]		60211-2	94%	
Potassium - Dissolved	mg/L	[NT]		[NT]		60211-2	117%	
Magnesium - Dissolved	mg/L	[NT]		[NT]		60211-2	100%	
Sodium - Dissolved	mg/L	[NT]		[NT]		60211-2	#	
Iron - Dissolved	mg/L	[NT]		[NT]		60211-2	100%	

Report Comments:

Metals in Waters - Dissolved: # Percent recovery is not possible to report due to the high concentration of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

PQL raised to 0.025mg/L for NOx for all samples due to sample matrix interference.

OC/OP/PCB's in water analysed by NMI. Report No.RN872891.

Asbestos ID was analysed by Approved Identifier:	Not applicable for this job
Asbestos ID was authorised by Approved Signatory:	Not applicable for this job

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batched of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



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CERTIFICATE OF ANALYSIS

60281

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle
NSW 2310

Attention: Kyle Prowse, Matthew Blackert

Sample log in details:

Your Reference:	49608.01, Tomago
No. of samples:	6 waters
Date samples received / completed instructions received	19/08/11 / 19/08/11

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date: 30/08/11 / 30/08/11
Date of Preliminary Report: Not issued

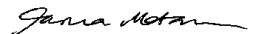
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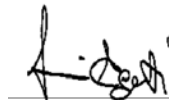
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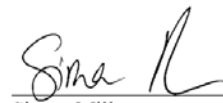
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Results Approved By:


Jacinta Hurst
Laboratory Manager


Tania Notaras
Manager


Giovanni Agosti
Technical Manager


Simon Mills
Group R&D/Quality Manager

Envirolab Reference: 60281
Revision No: R 00



VOCs in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60281-4 16 16/08/2011 Water
Date extracted	-	22/08/2011
Date analysed	-	22/08/2011
Dichlorodifluoromethane	µg/L	<10
Chloromethane	µg/L	<10
Vinyl Chloride	µg/L	<10
Bromomethane	µg/L	<10
Chloroethane	µg/L	<10
Trichlorofluoromethane	µg/L	<10
1,1-Dichloroethene	µg/L	<1
Trans-1,2-dichloroethene	µg/L	<1
1,1-dichloroethane	µg/L	<1
Cis-1,2-dichloroethene	µg/L	<1
Bromochloromethane	µg/L	<1
Chloroform	µg/L	<1
2,2-dichloropropane	µg/L	<1
1,2-dichloroethane	µg/L	<1
1,1,1-trichloroethane	µg/L	<1
1,1-dichloropropene	µg/L	<1
Cyclohexane	µg/L	<1
Carbon tetrachloride	µg/L	<1
Benzene	µg/L	<1
Dibromomethane	µg/L	<1
1,2-dichloropropane	µg/L	<1
Trichloroethene	µg/L	<1
Bromodichloromethane	µg/L	<1
trans-1,3-dichloropropene	µg/L	<1
cis-1,3-dichloropropene	µg/L	<1
1,1,2-trichloroethane	µg/L	<1
Toluene	µg/L	<1
1,3-dichloropropane	µg/L	<1
Dibromochloromethane	µg/L	<1
1,2-dibromoethane	µg/L	<1
Tetrachloroethene	µg/L	<1
1,1,1,2-tetrachloroethane	µg/L	<1
Chlorobenzene	µg/L	<1
Ethylbenzene	µg/L	<1
Bromoform	µg/L	<1
m+p-xylene	µg/L	<2
Styrene	µg/L	<1
1,1,2,2-tetrachloroethane	µg/L	<1
o-xylene	µg/L	<1
1,2,3-trichloropropane	µg/L	<1

VOCs in water		
Our Reference:	UNITS	60281-4
Your Reference	-----	16
Date Sampled	-----	16/08/2011
Type of sample		Water
Isopropylbenzene	µg/L	<1
Bromobenzene	µg/L	<1
n-propyl benzene	µg/L	<1
2-chlorotoluene	µg/L	<1
4-chlorotoluene	µg/L	<1
1,3,5-trimethyl benzene	µg/L	<1
Tert-butyl benzene	µg/L	<1
1,2,4-trimethyl benzene	µg/L	<1
1,3-dichlorobenzene	µg/L	<1
Sec-butyl benzene	µg/L	<1
1,4-dichlorobenzene	µg/L	<1
4-isopropyl toluene	µg/L	<1
1,2-dichlorobenzene	µg/L	<1
n-butyl benzene	µg/L	<1
1,2-dibromo-3-chloropropane	µg/L	<1
1,2,4-trichlorobenzene	µg/L	<1
Hexachlorobutadiene	µg/L	<1
1,2,3-trichlorobenzene	µg/L	<1
Surrogate Dibromofluoromethane	%	109
Surrogate toluene-d8	%	102
Surrogate 4-BFB	%	114

vTRH & BTEX in Water						
Our Reference:	UNITS	60281-1	60281-2	60281-3	60281-4	60281-5
Your Reference	-----	13	15-U	15-L	16	17
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	20/08/2011	20/08/2011	20/08/2011	20/08/2011	20/08/2011
Date analysed	-	20/08/2011	20/08/2011	20/08/2011	20/08/2011	20/08/2011
TRHC ₆ - C ₉	µg/L	<10	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	107	74	77	107	107
Surrogate toluene-d8	%	100	98	98	100	100
Surrogate 4-BFB	%	104	92	93	104	104

vTRH & BTEX in Water		
Our Reference:	UNITS	60281-6
Your Reference	-----	18
Date Sampled	-----	16/08/2011
Type of sample		Water
Date extracted	-	20/08/2011
Date analysed	-	20/08/2011
TRHC ₆ - C ₉	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	3
o-xylene	µg/L	1
Surrogate Dibromofluoromethane	%	81
Surrogate toluene-d8	%	99
Surrogate 4-BFB	%	94

STRH in Water (C10-C36)						
Our Reference:	UNITS	60281-1	60281-2	60281-3	60281-4	60281-5
Your Reference	-----	13	15-U	15-L	16	17
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
TRHC ₁₀ - C ₁₄	µg/L	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	µg/L	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	µg/L	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	84	89	95	100	92

STRH in Water (C10-C36)		
Our Reference:	UNITS	60281-6
Your Reference	-----	18
Date Sampled	-----	16/08/2011
Type of sample		Water
Date extracted	-	22/08/2011
Date analysed	-	22/08/2011
TRHC ₁₀ - C ₁₄	µg/L	<50
TRHC ₁₅ - C ₂₈	µg/L	<100
TRHC ₂₉ - C ₃₆	µg/L	<100
Surrogate o-Terphenyl	%	97

PAHs in Water - Low Level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60281-1 13 16/08/2011 Water	60281-2 15-U 16/08/2011 Water	60281-3 15-L 16/08/2011 Water	60281-4 16 16/08/2011 Water	60281-5 17 16/08/2011 Water
Date extracted	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Naphthalene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	101	94	109	101	116

PAHs in Water - Low Level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60281-6 18 16/08/2011 Water
Date extracted	-	22/08/2011
Date analysed	-	22/08/2011
Naphthalene	µg/L	0.3
Acenaphthylene	µg/L	<0.1
Acenaphthene	µg/L	<0.1
Fluorene	µg/L	<0.1
Phenanthrene	µg/L	<0.1
Anthracene	µg/L	<0.1
Fluoranthene	µg/L	<0.1
Pyrene	µg/L	<0.1
Benzo(a)anthracene	µg/L	<0.1
Chrysene	µg/L	<0.1
Benzo(b+k)fluoranthene	µg/L	<0.2
Benzo(a)pyrene	µg/L	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1
Surrogate p-Terphenyl-d ₁₄	%	110

OCP in water - low level						
Our Reference:	UNITS	60281-1	60281-2	60281-3	60281-4	60281-5
Your Reference	-----	13	15-U	15-L	16	17
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
Date analysed	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
HCB	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
gamma-BHC (Lindane)	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
delta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
trans-Chlordane	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
cis-Chlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Oxychlordan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDE	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDD	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDT	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Aldehyde	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Ketone	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulfate	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Surrogate OC Recovery	%	103	107	109	105	113

OCP in water - low level		
Our Reference:	UNITS	60281-6
Your Reference	-----	18
Date Sampled	-----	16/08/2011
Type of sample		Water
Date extracted	-	26/08/2011
Date analysed	-	26/08/2011
HCB	µg/L	<0.01
Heptachlor	µg/L	<0.01
Heptachlor Epoxide	µg/L	<0.01
Aldrin	µg/L	<0.01
gamma-BHC (Lindane)	µg/L	<0.01
alpha-BHC	µg/L	<0.01
beta-BHC	µg/L	<0.01
delta-BHC	µg/L	<0.01
trans-Chlordane	µg/L	<0.02
cis-Chlordane	µg/L	<0.01
Oxychlordane	µg/L	<0.01
Dieldrin	µg/L	<0.01
p,p-DDE	µg/L	<0.01
p,p-DDD	µg/L	<0.01
p,p-DDT	µg/L	<0.01
Endrin	µg/L	<0.01
Endrin Aldehyde	µg/L	<0.01
Endrin Ketone	µg/L	<0.01
alpha-Endosulfan	µg/L	<0.01
beta-Endosulfan	µg/L	<0.01
Endosulfan Sulfate	µg/L	<0.01
Methoxychlor	µg/L	<0.01
Surrogate OC Recovery	%	104

OP Pesticides - Low Level						
Our Reference:	UNITS	60281-1	60281-2	60281-3	60281-4	60281-5
Your Reference	-----	13	15-U	15-L	16	17
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
Date analysed	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
Demeton-S-methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dichlorvos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Diazinon	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dimethoate	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Malathion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenthion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (E)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (Z)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Ethion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenitrothion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Ethyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Methyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Surrogate OP Recovery	%	81	83	86	71	91

OP Pesticides - Low Level		
Our Reference:	UNITS	60281-6
Your Reference	-----	18
Date Sampled	-----	16/08/2011
Type of sample		Water
Date extracted	-	26/08/2011
Date analysed	-	26/08/2011
Demeton-S-methyl	µg/L	<0.10
Dichlorvos	µg/L	<0.10
Diazinon	µg/L	<0.10
Dimethoate	µg/L	<0.10
Chlorpyrifos	µg/L	<0.10
Chlorpyrifos methyl	µg/L	<0.10
Malathion	µg/L	<0.10
Fenthion	µg/L	<0.10
Azinphos Ethyl	µg/L	<0.10
Azinphos Methyl	µg/L	<0.10
Chlorfenvinphos (E)	µg/L	<0.10
Chlorfenvinphos (Z)	µg/L	<0.10
Ethion	µg/L	<0.10
Fenitrothion	µg/L	<0.10
Parathion (Ethyl)	µg/L	<0.10
Parathion (Methyl)	µg/L	<0.10
Primiphos Ethyl	µg/L	<0.10
Primiphos Methyl	µg/L	<0.10
Surrogate OP Recovery	%	89

PCB low level in water						
Our Reference:	UNITS	60281-1	60281-2	60281-3	60281-4	60281-5
Your Reference	-----	13	15-U	15-L	16	17
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
Date analysed	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
Aroclor 1016	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor 1260	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total PCB's (as above)	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1

PCB low level in water		
Our Reference:	UNITS	60281-6
Your Reference	-----	18
Date Sampled	-----	16/08/2011
Type of sample		Water
Date extracted	-	26/08/2011
Date analysed	-	26/08/2011
Aroclor 1016	µg/L	<0.1
Aroclor 1221	µg/L	<0.1
Aroclor 1232	µg/L	<0.1
Aroclor 1242	µg/L	<0.1
Aroclor 1248	µg/L	<0.1
Aroclor 1254	µg/L	<0.10
Aroclor 1260	µg/L	<0.1
Total PCB's (as above)	µg/L	<0.1

HM in water - dissolved						
Our Reference:	UNITS	60281-1	60281-2	60281-3	60281-4	60281-5
Your Reference	-----	13	15-U	15-L	16	17
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	25/8/2011	25/8/2011	25/8/2011	25/8/2011	25/8/2011
Date analysed	-	25/8/2011	25/8/2011	25/8/2011	25/8/2011	25/8/2011
Aluminium-Dissolved	µg/L	30	15	50	30	28
Arsenic-Dissolved	µg/L	2	3	1	<1	5
Cadmium-Dissolved	µg/L	0.2	<0.1	<0.1	0.2	0.1
Chromium-Dissolved	µg/L	<1	<1	<1	<1	<1
Copper-Dissolved	µg/L	1	<1	<1	<1	<1
Lead-Dissolved	µg/L	<1	<1	<1	<1	<1
Mercury-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel-Dissolved	µg/L	31	27	31	94	36
Zinc-Dissolved	µg/L	19	9	30	43	28
Manganese-Dissolved	µg/L	2,700	380	190	4,500	950
Cobalt-Dissolved	µg/L	21	5	1	60	13
Tin-Dissolved	µg/L	2	<1	<1	1	<1

HM in water - dissolved		
Our Reference:	UNITS	60281-6
Your Reference	-----	18
Date Sampled	-----	16/08/2011
Type of sample		Water
Date prepared	-	25/8/2011
Date analysed	-	25/8/2011
Aluminium-Dissolved	µg/L	18
Arsenic-Dissolved	µg/L	2
Cadmium-Dissolved	µg/L	0.4
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	2
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.1
Nickel-Dissolved	µg/L	1
Zinc-Dissolved	µg/L	11
Manganese-Dissolved	µg/L	230
Cobalt-Dissolved	µg/L	1
Tin-Dissolved	µg/L	<1

Metals in Waters - Acid extractable	UNITS	60281-1	60281-2	60281-3	60281-4	60281-5
Our Reference:	-----	13	15-U	15-L	16	17
Your Reference	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Date Sampled		Water	Water	Water	Water	Water
Type of sample						
Date prepared	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Phosphorus - Total	mg/L	0.2	0.2	0.07	0.4	0.2

Metals in Waters - Acid extractable	UNITS	60281-6
Our Reference:	-----	18
Your Reference	-----	16/08/2011
Date Sampled		Water
Type of sample		
Date prepared	-	24/08/2011
Date analysed	-	24/08/2011
Phosphorus - Total	mg/L	2.7

Metals in Water - Dissolved						
Our Reference:	UNITS	60281-1	60281-2	60281-3	60281-4	60281-5
Your Reference	-----	13	15-U	15-L	16	17
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date digested	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Calcium - Dissolved	mg/L	670	110	18	550	360
Potassium - Dissolved	mg/L	140	6.8	6.3	150	140
Magnesium - Dissolved	mg/L	740	24	13	730	500
Sodium - Dissolved	mg/L	5,400	79	100	4,500	4,000
Iron - Dissolved	mg/L	9.6	3.2	14	2.9	9.8

Metals in Water - Dissolved		
Our Reference:	UNITS	60281-6
Your Reference	-----	18
Date Sampled	-----	16/08/2011
Type of sample		Water
Date digested	-	24/08/2011
Date analysed	-	24/08/2011
Calcium - Dissolved	mg/L	46
Potassium - Dissolved	mg/L	1.7
Magnesium - Dissolved	mg/L	6.8
Sodium - Dissolved	mg/L	18
Iron - Dissolved	mg/L	2.5

Miscellaneous Inorganics						
Our Reference:	UNITS	60281-1	60281-2	60281-3	60281-4	60281-5
Your Reference	-----	13	15-U	15-L	16	17
Date Sampled	-----	16/08/2011	16/08/2011	16/08/2011	16/08/2011	16/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date analysed	-	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
pH	pH Units	6.9	6.9	5.8	6.5	6.7
Electrical Conductivity	µS/cm	25,000	1,100	820	21,000	19,000
Fluoride, F	mg/L	0.50	0.85	0.13	0.29	0.52
Ammonia as N in water	mg/L	0.82	0.027	0.23	0.53	0.024
TKN in water	mg/L	1.2	0.7	0.2	0.8	0.3
NOx as N in water	mg/L	0.1	<0.005	<0.025	<0.025	<0.025

Miscellaneous Inorganics		
Our Reference:	UNITS	60281-6
Your Reference	-----	18
Date Sampled	-----	16/08/2011
Type of sample		Water
Date prepared	-	22/08/2011
Date analysed	-	22/08/2011
pH	pH Units	7.0
Electrical Conductivity	µS/cm	400
Fluoride, F	mg/L	0.14
Ammonia as N in water	mg/L	0.19
TKN in water	mg/L	18
NOx as N in water	mg/L	0.08

MethodID	Methodology Summary
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Ext-020	Analysis subcontracted to Australian Government - National Measurement Institute. NATA Accreditation No: 198
Metals-022 ICP-MS	Determination of various metals by ICP-MS.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA 21st ED, 4500-H+.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell and dedicated meter, in accordance with APHA 21st ED 2510 and Rayment & Higginson.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA 21st ED, 4500-F-C.
Inorg-057	Ammonia - determined colourimetrically based on EPA350.1 and APHA 21st ED 4500-NH3 F, Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA 21st ED 4500 Norg.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO3- F. Soils are analysed following a water extraction.

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in water						Base II Duplicate II %RPD		
Date extracted	-			22/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Date analysed	-			22/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Dichlorodifluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Chloromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Bromomethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Chloroethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Trans-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	101%
Cis-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Chloroform	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	102%
2,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	99%
1,1,1-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	104%
1,1-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Cyclohexane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Carbon tetrachloride	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Dibromomethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Trichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	103%
Bromodichloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	102%
trans-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Dibromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	101%
1,2-dibromoethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tetrachloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	103%
1,1,1,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Chlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromoform	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
m+p-xylene	µg/L	2	Org-013	<2	[NT]	[NT]	[NR]	[NR]
Styrene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
o-xylene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in water						Base II Duplicate II %RPD		
1,2,3-trichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Isopropylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tert-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Sec-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Surrogate	%		Org-013	99	[NT]	[NT]	LCS-W1	99%
Dibromofluoromethane								
Surrogate toluene-d8	%		Org-013	93	[NT]	[NT]	LCS-W1	99%
Surrogate 4-BFB	%		Org-013	105	[NT]	[NT]	LCS-W1	97%

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH & BTEX in Water						Base II Duplicate II %RPD		
Date extracted	-			20/08/2011	[NT]	[NT]	LCS-W1	20/08/2011
Date analysed	-			20/08/2011	[NT]	[NT]	LCS-W1	20/08/2011
TRHC ₆ - C ₉	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	120%
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	120%
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	124%
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	118%
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	LCS-W1	119%
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	120%
Surrogate	%		Org-016	103	[NT]	[NT]	LCS-W1	93%
Dibromofluoromethane								
Surrogate toluene-d8	%		Org-016	99	[NT]	[NT]	LCS-W1	98%
Surrogate 4-BFB	%		Org-016	99	[NT]	[NT]	LCS-W1	94%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Water (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			22/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
Date analysed	-			22/08/2011	[NT]	[NT]	LCS-W1	22/08/2011
TRHC ₁₀ - C ₁₄	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-W1	71%
TRHC ₁₅ - C ₂₈	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	92%
TRHC ₂₉ - C ₃₆	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	85%
Surrogate o-Terphenyl	%		Org-003	92	[NT]	[NT]	LCS-W1	95%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water - Low Level						Base II Duplicate II %RPD		
Date extracted	-			22/08/2011	[NT]	[NT]	LCS-W2	22/08/2011
Date analysed	-			22/08/2011	[NT]	[NT]	LCS-W2	22/08/2011
Naphthalene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	82%
Acenaphthylene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	98%
Phenanthrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	89%
Anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	85%
Pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	91%

Client Reference: 49608.01, Tomago

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water - Low Level						Base II Duplicate II %RPD		
Benzo(a)anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	103%
Benzo(b+k)fluoranthene	µg/L	0.2	Org-012 subset	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	101%
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d ₁₄	%		Org-012 subset	125	[NT]	[NT]	LCS-W2	108%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
OCP in water - low level						Base II Duplicate II %RPD		
Date extracted	-			26/08/2011	[NT]	[NT]	LCS-W1	26/08/2011
Date analysed	-			26/08/2011	[NT]	[NT]	LCS-W1	26/08/2011
HCB	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Heptachlor	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	91%
Heptachlor Epoxide	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Aldrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	95%
gamma-BHC (Lindane)	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	79%
alpha-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
beta-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
delta-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
trans-Chlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
cis-Chlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Oxychlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Dieldrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	91%
p,p-DDE	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
p,p-DDD	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
p,p-DDT	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	83%
Endrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	81%
Endrin Aldehyde	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Endrin Ketone	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
alpha-Endosulfan	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
beta-Endosulfan	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulfate	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Methoxychlor	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Surrogate OC Recovery	%		Ext-020	[NT]	[NT]	[NT]	LCS-W1	96%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
OP Pesticides - Low Level						Base II Duplicate II %RPD		
Date extracted	-			26/08/2011	[NT]	[NT]	LCS-W1	26/08/2011
Date analysed	-			26/08/2011	[NT]	[NT]	LCS-W1	26/08/2011
Demeton-S-methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Dichlorvos	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Diazinon	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	93%
Dimethoate	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	72%
Chlorpyrifos methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Malathion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Fenthion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Azinphos Ethyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Azinphos Methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (E)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (Z)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Ethion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	83%
Fenitrothion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Parathion (Ethyl)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	78%
Parathion (Methyl)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Primiphos Ethyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Primiphos Methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Surrogate OP Recovery	%		Ext-020	[NT]	[NT]	[NT]	LCS-W1	86%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCB low level in water						Base II Duplicate II %RPD		
Date extracted	-			26/08/2011	[NT]	[NT]	LCS-W1	26/08/2011
Date analysed	-			26/08/2011	[NT]	[NT]	LCS-W1	26/08/2011
Aroclor 1016	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1221	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1232	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1242	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1248	µg/L	0.1	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1254	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Aroclor 1260	µg/L	0.1	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Total PCB's (as above)	µg/L	0.010	Ext-020	<0.01	[NT]	[NT]	LCS-W1	104%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
HM in water - dissolved						Base II Duplicate II %RPD		
Date prepared	-			25/8/2011	60281-1	25/8/2011 25/8/2011	LCS-W1	25/8/2011
Date analysed	-			25/8/2011	60281-1	25/8/2011 25/8/2011	LCS-W1	25/8/2011
Aluminium-Dissolved	µg/L	10	Metals-022 ICP-MS	<10	60281-1	30 28 RPD: 7	LCS-W1	111%
Arsenic-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60281-1	2 2 RPD: 0	LCS-W1	98%
Cadmium-Dissolved	µg/L	0.1	Metals-022 ICP-MS	<0.1	60281-1	0.2 0.3 RPD: 40	LCS-W1	95%
Chromium-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60281-1	<1 <1	LCS-W1	97%
Copper-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60281-1	1 1 RPD: 0	LCS-W1	110%
Lead-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60281-1	<1 <1	LCS-W1	98%
Mercury-Dissolved	µg/L	0.1	Metals-021 CV-AAS	<0.1	60281-1	<0.1 <0.1	LCS-W1	112%
Nickel-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60281-1	31 31 RPD: 0	LCS-W1	97%
Zinc-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60281-1	19 19 RPD: 0	LCS-W1	93%
Manganese-Dissolved	µg/L	5	Metals-022 ICP-MS	<5	60281-1	2700 2700 RPD: 0	LCS-W1	103%
Cobalt-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60281-1	21 21 RPD: 0	LCS-W1	97%
Tin-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60281-1	2 <1	LCS-W1	100%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Waters - Acid extractable						Base II Duplicate II %RPD		
Date prepared	-			24/08/2011	[NT]	[NT]	LCS-1	24/08/2011
Date analysed	-			24/08/2011	[NT]	[NT]	LCS-1	24/08/2011
Phosphorus - Total	mg/L	0.05	Metals-020 ICP-AES	<0.05	[NT]	[NT]	LCS-1	91%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Water - Dissolved						Base II Duplicate II %RPD		
Date digested	-			24/08/2011	60281-1	24/08/2011 24/08/2011	LCS-W1	24/08/2011
Date analysed	-			24/08/2011	60281-1	24/08/2011 24/08/2011	LCS-W1	24/08/2011
Calcium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	60281-1	670 660 RPD: 2	LCS-W1	94%
Potassium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	60281-1	140 140 RPD: 0	LCS-W1	100%
Magnesium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	60281-1	740 640 RPD: 14	LCS-W1	93%
Sodium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	60281-1	5400 5400 RPD: 0	LCS-W1	97%
Iron - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	60281-1	9.6 8.5 RPD: 12	LCS-W1	103%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorganics						Base II Duplicate II %RPD		
Date prepared	-			22/08/2011	60281-1	22/08/2011 22/08/2011	60281-1	22/08/2011
Date analysed	-			22/08/2011	60281-1	22/08/2011 22/08/2011	60281-1	22/08/2011
pH	pH Units		Inorg-001	[NT]	60281-1	6.9 6.9 RPD: 0	60281-1	101%
Electrical Conductivity	µS/cm	1	Inorg-002	[NT]	60281-1	25000 25000 RPD: 0	60281-1	103%
Fluoride, F	mg/L	0.1	Inorg-026	<0.1	60281-1	0.50 0.48 RPD: 4	60281-1	102%
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	60281-1	0.82 0.82 RPD: 0	60281-1	101%
TKN in water	mg/L	0.1	Inorg-062	<0.1	60281-1	1.2 1.0 RPD: 18	60281-1	96%
NOx as N in water	mg/L	0.005	Inorg-055	<0.005	60281-1	0.1 0.1 RPD: 0	60281-1	98%
QUALITYCONTROL	UNITS	Dup. Sm#		Duplicate		Spike Sm#	Spike % Recovery	
HM in water - dissolved				Base + Duplicate + %RPD				
Date prepared	-	[NT]		[NT]		60281-2	25/8/2011	
Date analysed	-	[NT]		[NT]		60281-2	25/8/2011	
Aluminium-Dissolved	µg/L	[NT]		[NT]		60281-2	105%	
Arsenic-Dissolved	µg/L	[NT]		[NT]		60281-2	98%	
Cadmium-Dissolved	µg/L	[NT]		[NT]		60281-2	96%	
Chromium-Dissolved	µg/L	[NT]		[NT]		60281-2	93%	
Copper-Dissolved	µg/L	[NT]		[NT]		60281-2	108%	
Lead-Dissolved	µg/L	[NT]		[NT]		60281-2	95%	

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QUALITY CONTROL HM in water - dissolved	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Mercury-Dissolved	µg/L	[NT]	[NT]	60281-2	100%
Nickel-Dissolved	µg/L	[NT]	[NT]	60281-2	93%
Zinc-Dissolved	µg/L	[NT]	[NT]	60281-2	98%
Manganese-Dissolved	µg/L	[NT]	[NT]	60281-2	91%
Cobalt-Dissolved	µg/L	[NT]	[NT]	60281-2	92%
Tin-Dissolved	µg/L	[NT]	[NT]	60281-2	100%
QUALITY CONTROL Miscellaneous Inorganics	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	60281-2	22/08/2011
Date analysed	-	[NT]	[NT]	60281-2	22/08/2011
pH	pH Units	[NT]	[NT]	[NR]	[NR]
Electrical Conductivity	µS/cm	[NT]	[NT]	[NR]	[NR]
Fluoride, F	mg/L	[NT]	[NT]	60281-2	90%
Ammonia as N in water	mg/L	[NT]	[NT]	60281-2	107%
TKN in water	mg/L	[NT]	[NT]	[NR]	[NR]
NOx as N in water	mg/L	[NT]	[NT]	60281-2	103%

Report Comments:

NOx in water: PQL for samples 3-5 raised due to matrix interference.

OC/OP/PCB's in water analysed by NMI. Report No.RN873189.

Asbestos ID was analysed by Approved Identifier:

Not applicable for this job

Asbestos ID was authorised by Approved Signatory:

Not applicable for this job

INS: Insufficient sample for this test

PQL: Practical Quantitation Limit

NT: Not tested

NA: Test not required

RPD: Relative Percent Difference

NA: Test not required

<: Less than

>: Greater than

LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batched of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



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CERTIFICATE OF ANALYSIS

60463

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle
NSW 2310

Attention: Kyle Prowse, Matthew Blackert

Sample log in details:

Your Reference:	<u>49608.01, Tomago</u>
No. of samples:	8 waters
Date samples received / completed instructions received	23/08/11 / 23/08/11

Analysis Details:

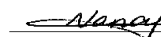
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

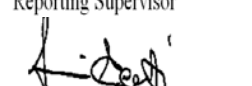
Report Details:

Date results requested by: / Issue Date: 12/09/11 / 9/09/11
Date of Preliminary Report: Not Issued
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Results Approved By:


Jacinta Hurst
Laboratory Manager


Nancy Zhang
Chemist


Rhian Morgan
Reporting Supervisor

Giovanni Agosti
Technical Manager


Nick Sarlamis
Inorganics Supervisor



vTRH & BTEX in Water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60463-1 1 22/08/2011 Water	60463-2 5 22/08/2011 Water	60463-3 6 22/08/2011 Water	60463-4 9 22/08/2011 Water	60463-5 10-U 22/08/2011 Water
Date extracted	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
TRHC ₆ - C ₉	µg/L	<10	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	129	129	134	135	137
Surrogate toluene-d8	%	95	97	95	94	95
Surrogate 4-BFB	%	83	82	81	80	80

vTRH & BTEX in Water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60463-6 10-L 22/08/2011 Water	60463-7 11 22/08/2011 Water	60463-8 KGPD11 22/08/2011 Water
Date extracted	-	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011
TRHC ₆ - C ₉	µg/L	<10	<10	<10
Benzene	µg/L	<1	<1	<1
Toluene	µg/L	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2
o-xylene	µg/L	<1	<1	<1
Surrogate Dibromofluoromethane	%	139	140	103
Surrogate toluene-d8	%	95	93	98
Surrogate 4-BFB	%	80	79	79

sTRH in Water (C10-C36)						
Our Reference:	UNITS	60463-1	60463-2	60463-3	60463-4	60463-5
Your Reference	-----	1	5	6	9	10-U
Date Sampled	-----	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
TRHC ₁₀ - C ₁₄	µg/L	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	µg/L	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	µg/L	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	81	81	80	92	72

sTRH in Water (C10-C36)				
Our Reference:	UNITS	60463-6	60463-7	60463-8
Your Reference	-----	10-L	11	KGPD11
Date Sampled	-----	22/08/2011	22/08/2011	22/08/2011
Type of sample		Water	Water	Water
Date extracted	-	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	24/08/2011	24/08/2011	24/08/2011
TRHC ₁₀ - C ₁₄	µg/L	<50	<50	<50
TRHC ₁₅ - C ₂₈	µg/L	<100	<100	<100
TRHC ₂₉ - C ₃₆	µg/L	<100	<100	<100
Surrogate o-Terphenyl	%	77	92	60

PAHs in Water - Low Level	UNITS	60463-1	60463-2	60463-3	60463-4	60463-5
Our Reference:	-----	1	5	6	9	10-U
Your Reference	-----	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date Sampled		Water	Water	Water	Water	Water
Type of sample						
Date extracted	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Naphthalene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	97	104	88	108	83

PAHs in Water - Low Level	UNITS	60463-6	60463-7	60463-8
Our Reference:	-----	10-L	11	KGPD11
Your Reference	-----	22/08/2011	22/08/2011	22/08/2011
Date Sampled		Water	Water	Water
Type of sample				
Date extracted	-	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	24/08/2011	24/08/2011	24/08/2011
Naphthalene	µg/L	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	µg/L	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	89	105	121

OCP in water - low level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60463-1 1 22/08/2011 Water	60463-2 5 22/08/2011 Water	60463-3 6 22/08/2011 Water	60463-4 9 22/08/2011 Water	60463-5 10-U 22/08/2011 Water
Date extracted	-	29/08/2011	29/08/2011	29/08/2011	29/08/2011	29/08/2011
Date analysed	-	30/08/2011	30/08/2011	30/08/2011	30/08/2011	30/08/2011
HCB	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
gamma-BHC (Lindane)	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
delta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
trans-Chlordane	µg/L	<0.02	<0.02	<0.02	<0.02	<0.05
cis-Chlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.02
Oxychlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.02
p,p-DDE	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDD	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDT	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Aldehyde	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Ketone	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulfate	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Surrogate OC Recovery	%	89	68	73	93	83

OCP in water - low level				
Our Reference:	UNITS	60463-6	60463-7	60463-8
Your Reference	-----	10-L	11	KGPD11
Date Sampled	-----	22/08/2011	22/08/2011	22/08/2011
Type of sample		Water	Water	Water
Date extracted	-	29/08/2011	29/08/2011	29/08/2011
Date analysed	-	30/08/2011	30/08/2011	30/08/2011
HCB	µg/L	<0.01	<0.01	<0.01
Heptachlor	µg/L	<0.01	<0.01	<0.01
Heptachlor Epoxide	µg/L	<0.01	<0.01	<0.01
Aldrin	µg/L	<0.01	<0.01	<0.01
gamma-BHC (Lindane)	µg/L	<0.01	<0.01	<0.01
alpha-BHC	µg/L	<0.01	<0.01	<0.01
beta-BHC	µg/L	<0.01	<0.01	<0.01
delta-BHC	µg/L	<0.01	<0.01	<0.01
trans-Chlordane	µg/L	<0.05	<0.05	<0.05
cis-Chlordane	µg/L	<0.01	<0.01	<0.02
Oxychlordane	µg/L	<0.01	<0.01	<0.01
Dieldrin	µg/L	<0.01	<0.01	<0.02
p,p-DDE	µg/L	<0.01	<0.01	<0.01
p,p-DDD	µg/L	<0.01	<0.01	<0.01
p,p-DDT	µg/L	<0.01	<0.01	<0.01
Endrin	µg/L	<0.01	<0.01	<0.01
Endrin Aldehyde	µg/L	<0.01	<0.01	<0.01
Endrin Ketone	µg/L	<0.01	<0.01	<0.01
alpha-Endosulfan	µg/L	<0.01	<0.01	<0.01
beta-Endosulfan	µg/L	<0.01	<0.01	<0.01
Endosulfan Sulfate	µg/L	<0.01	<0.01	<0.01
Methoxychlor	µg/L	<0.01	<0.01	<0.01
Surrogate OC Recovery	%	97	89	78

OP Pesticides - Low Level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60463-1 1 22/08/2011 Water	60463-2 5 22/08/2011 Water	60463-3 6 22/08/2011 Water	60463-4 9 22/08/2011 Water	60463-5 10-U 22/08/2011 Water
Date extracted	-	29/08/2011	29/08/2011	29/08/2011	29/08/2011	29/08/2011
Date analysed	-	30/08/2011	30/08/2011	30/08/2011	30/08/2011	30/08/2011
Demeton-S-methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dichlorvos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Diazinon	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dimethoate	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Malathion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenthion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (E)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (Z)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Ethion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenitrothion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Ethyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Methyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Surrogate OP Recovery	%	81	64	69	87	81

OP Pesticides - Low Level				
Our Reference:	UNITS	60463-6	60463-7	60463-8
Your Reference	-----	10-L	11	KGPD11
Date Sampled	-----	22/08/2011	22/08/2011	22/08/2011
Type of sample		Water	Water	Water
Date extracted	-	29/08/2011	29/08/2011	29/08/2011
Date analysed	-	30/08/2011	30/08/2011	30/08/2011
Demeton-S-methyl	µg/L	<0.10	<0.10	<0.10
Dichlorvos	µg/L	<0.10	<0.10	<0.10
Diazinon	µg/L	<0.10	<0.10	<0.10
Dimethoate	µg/L	<0.10	<0.10	<0.10
Chlorpyrifos	µg/L	<0.10	<0.10	<0.10
Chlorpyrifos methyl	µg/L	<0.10	<0.10	<0.10
Malathion	µg/L	<0.10	<0.10	<0.10
Fenthion	µg/L	<0.10	<0.10	<0.10
Azinphos Ethyl	µg/L	<0.10	<0.10	<0.10
Azinphos Methyl	µg/L	<0.10	<0.10	<0.10
Chlorfenvinphos (E)	µg/L	<0.10	<0.10	<0.10
Chlorfenvinphos (Z)	µg/L	<0.10	<0.10	<0.10
Ethion	µg/L	<0.10	<0.10	<0.10
Fenitrothion	µg/L	<0.10	<0.10	<0.10
Parathion (Ethyl)	µg/L	<0.10	<0.10	<0.10
Parathion (Methyl)	µg/L	<0.10	<0.10	<0.10
Primiphos Ethyl	µg/L	<0.10	<0.10	<0.10
Primiphos Methyl	µg/L	<0.10	<0.10	<0.10
Surrogate OP Recovery	%	86	74	73

Client Reference: 49608.01, Tomago

PCB low level in water	UNITS	60463-1	60463-2	60463-3	60463-4	60463-5
Our Reference:	-----	1	5	6	9	10-U
Your Reference	-----	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date Sampled		Water	Water	Water	Water	Water
Type of sample						
Date extracted	-	29/08/2011	29/08/2011	29/08/2011	29/08/2011	29/08/2011
Date analysed	-	30/08/2011	30/08/2011	30/08/2011	30/08/2011	30/08/2011
Aroclor 1016	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor 1260	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total PCB's (as above)	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1

PCB low level in water	UNITS	60463-6	60463-7	60463-8
Our Reference:	-----	10-L	11	KGPD11
Your Reference	-----	22/08/2011	22/08/2011	22/08/2011
Date Sampled		Water	Water	Water
Type of sample				
Date extracted	-	29/08/2011	29/08/2011	29/08/2011
Date analysed	-	30/08/2011	30/08/2011	30/08/2011
Aroclor 1016	µg/L	<0.1	<0.1	<0.1
Aroclor 1221	µg/L	<0.1	<0.1	<0.1
Aroclor 1232	µg/L	<0.1	<0.1	<0.1
Aroclor 1242	µg/L	<0.1	<0.1	<0.1
Aroclor 1248	µg/L	<0.1	<0.1	<0.1
Aroclor 1254	µg/L	<0.10	<0.10	<0.10
Aroclor 1260	µg/L	<0.1	<0.1	<0.1
Total PCB's (as above)	µg/L	<0.1	<0.1	<0.1

HM in water - dissolved	UNITS	60463-1	60463-2	60463-3	60463-4	60463-5
Our Reference:	-----	1	5	6	9	10-U
Your Reference	-----	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date Sampled		Water	Water	Water	Water	Water
Type of sample						
Date prepared	-	24/8/2011	24/8/2011	24/8/2011	24/8/2011	24/8/2011
Date analysed	-	25/8/2011	25/8/2011	25/8/2011	25/8/2011	25/8/2011
Aluminium-Dissolved	µg/L	460	1000	1,700	<10	10
Arsenic-Dissolved	µg/L	<1	<1	7	5	4
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	3	3	4	<1	<1
Copper-Dissolved	µg/L	1	1	17	<1	<1
Lead-Dissolved	µg/L	<1	<1	<1	<1	<1
Mercury-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel-Dissolved	µg/L	7	20	32	3	4
Zinc-Dissolved	µg/L	20	30	1,100	6	9
Cobalt-Dissolved	µg/L	<1	1	9	<1	2
Manganese-Dissolved	µg/L	34	46	1,400	360	2,500
Tin-Dissolved	µg/L	<1	<1	<1	<1	<1

HM in water - dissolved	UNITS	60463-6	60463-7	60463-8
Our Reference:	-----	10-L	11	KGPD11
Your Reference	-----	22/08/2011	22/08/2011	22/08/2011
Date Sampled		Water	Water	Water
Type of sample				
Date prepared	-	24/8/2011	24/8/2011	24/8/2011
Date analysed	-	25/8/2011	25/8/2011	25/8/2011
Aluminium-Dissolved	µg/L	49	10	1,100
Arsenic-Dissolved	µg/L	<1	1	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	2	<1	3
Copper-Dissolved	µg/L	<1	<1	<1
Lead-Dissolved	µg/L	<1	<1	<1
Mercury-Dissolved	µg/L	<0.1	<0.1	<0.1
Nickel-Dissolved	µg/L	4	6	20
Zinc-Dissolved	µg/L	14	5	29
Cobalt-Dissolved	µg/L	<1	<1	1
Manganese-Dissolved	µg/L	220	100	45
Tin-Dissolved	µg/L	<1	<1	<1

Metals in Water - Dissolved	UNITS	60463-1	60463-2	60463-3	60463-4	60463-5
Our Reference:	-----	1	5	6	9	10-U
Your Reference	-----	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date Sampled		Water	Water	Water	Water	Water
Type of sample						
Date digested	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
Iron - Dissolved	mg/L	0.08	1.3	2.9	9.6	30
Calcium - Dissolved	mg/L	8.9	7.5	31	150	560
Magnesium - Dissolved	mg/L	4.1	7.5	5.8	18	260
Sodium - Dissolved	mg/L	14	18	24	90	2,200
Potassium - Dissolved	mg/L	4.4	2.5	8.4	1.5	46

Metals in Water - Dissolved	UNITS	60463-6	60463-7	60463-8
Our Reference:	-----	10-L	11	KGPD11
Your Reference	-----	22/08/2011	22/08/2011	22/08/2011
Date Sampled		Water	Water	Water
Type of sample				
Date digested	-	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011
Iron - Dissolved	mg/L	6.1	7.1	1.4
Calcium - Dissolved	mg/L	52	74	8.1
Magnesium - Dissolved	mg/L	23	5.7	8.0
Sodium - Dissolved	mg/L	200	26	23
Potassium - Dissolved	mg/L	6.9	4.3	2.7

Metals in Waters - Acid extractable	UNITS	60463-1	60463-2	60463-3	60463-4	60463-5
Our Reference:	-----	1	5	6	9	10-U
Your Reference	-----	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Date Sampled		Water	Water	Water	Water	Water
Type of sample						
Date prepared	-	09/09/2011	09/09/2011	09/09/2011	09/09/2011	09/09/2011
Date analysed	-	09/09/2011	09/09/2011	09/09/2011	09/09/2011	09/09/2011
Phosphorus - Total	mg/L	0.4	0.05	1.3	0.3	0.2

Metals in Waters - Acid extractable	UNITS	60463-6	60463-7	60463-8
Our Reference:	-----	10-L	11	KGPD11
Your Reference	-----	22/08/2011	22/08/2011	22/08/2011
Date Sampled		Water	Water	Water
Type of sample				
Date prepared	-	09/09/2011	09/09/2011	09/09/2011
Date analysed	-	09/09/2011	09/09/2011	09/09/2011
Phosphorus - Total	mg/L	0.1	0.2	<0.05

Miscellaneous Inorganics						
Our Reference:	UNITS	60463-1	60463-2	60463-3	60463-4	60463-5
Your Reference	-----	1	5	6	9	10-U
Date Sampled	-----	22/08/2011	22/08/2011	22/08/2011	22/08/2011	22/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
pH	pH Units	5.6	5.1	6.0	6.9	7.0
Electrical Conductivity	µS/cm	200	270	360	1,100	11,000
Fluoride, F	mg/L	<0.1	0.28	2.2	0.32	0.78
Ammonia as N in water	mg/L	<0.005	0.30	0.60	0.15	0.74
TKN in water	mg/L	2.3	1.5	4.6	0.2	1.2
NOx as N in water	mg/L	5.3	0.005	0.3	<0.005	<0.005

Miscellaneous Inorganics				
Our Reference:	UNITS	60463-6	60463-7	60463-8
Your Reference	-----	10-L	11	KGPD11
Date Sampled	-----	22/08/2011	22/08/2011	22/08/2011
Type of sample		Water	Water	Water
Date prepared	-	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	24/08/2011	24/08/2011	24/08/2011
pH	pH Units	6.2	6.6	5.1
Electrical Conductivity	µS/cm	1,400	530	270
Fluoride, F	mg/L	0.13	<0.1	0.28
Ammonia as N in water	mg/L	1.4	0.21	0.30
TKN in water	mg/L	1.4	0.8	1.6
NOx as N in water	mg/L	<0.005	0.02	<0.005

Method ID	Methodology Summary
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Ext-020	Analysis subcontracted to Australian Government - National Measurement Institute. NATA Accreditation No: 198
Metals-022 ICP-MS	Determination of various metals by ICP-MS.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA 21st ED, 4500-H+.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell and dedicated meter, in accordance with APHA 21st ED 2510 and Rayment & Higginson.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA 21st ED, 4500-F-C.
Inorg-057	Ammonia - determined colourimetrically based on EPA350.1 and APHA 21st ED 4500-NH ₃ F, Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA 21st ED 4500 Norg.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO ₃ - F. Soils are analysed following a water extraction.

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH & BTEX in Water						Base II Duplicate II %RPD		
Date extracted	-			24/08/2011	[NT]	[NT]	LCS-W1	24/08/2011
Date analysed	-			25/08/2011	[NT]	[NT]	LCS-W1	25/08/2011
TRHC ₆ - C ₉	µg/L	10	Org-016	[NT]	[NT]	[NT]	LCS-W1	118%
Benzene	µg/L	1	Org-016	[NT]	[NT]	[NT]	LCS-W1	130%
Toluene	µg/L	1	Org-016	[NT]	[NT]	[NT]	LCS-W1	128%
Ethylbenzene	µg/L	1	Org-016	[NT]	[NT]	[NT]	LCS-W1	123%
m+p-xylene	µg/L	2	Org-016	[NT]	[NT]	[NT]	LCS-W1	107%
o-xylene	µg/L	1	Org-016	[NT]	[NT]	[NT]	LCS-W1	135%
Surrogate Dibromofluoromethane	%		Org-016	126	[NT]	[NT]	LCS-W1	131%
Surrogate toluene-d8	%		Org-016	94	[NT]	[NT]	LCS-W1	96%
Surrogate 4-BFB	%		Org-016	84	[NT]	[NT]	LCS-W1	103%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Water (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			24/08/2011	[NT]	[NT]	LCS-W1	24/08/2011
Date analysed	-			24/08/2011	[NT]	[NT]	LCS-W1	24/08/2011
TRHC ₁₀ - C ₁₄	µg/L	50	Org-003	[NT]	[NT]	[NT]	LCS-W1	67%
TRHC ₁₅ - C ₂₈	µg/L	100	Org-003	[NT]	[NT]	[NT]	LCS-W1	115%
TRHC ₂₉ - C ₃₆	µg/L	100	Org-003	[NT]	[NT]	[NT]	LCS-W1	89%
Surrogate o-Terphenyl	%		Org-003	94	[NT]	[NT]	LCS-W1	94%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water - Low Level						Base II Duplicate II %RPD		
Date extracted	-			24/08/2011	[NT]	[NT]	LCS-W2	24/08/2011
Date analysed	-			24/08/2011	[NT]	[NT]	LCS-W2	24/08/2011
Naphthalene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	LCS-W2	87%
Acenaphthylene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	[NR]	[NR]
Acenaphthene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	[NR]	[NR]
Fluorene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	LCS-W2	107%
Phenanthrene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	LCS-W2	95%
Anthracene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	[NR]	[NR]
Fluoranthene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	LCS-W2	91%
Pyrene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	LCS-W2	99%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water - Low Level						Base Duplicate %RPD		
Benzo(a)anthracene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	[NR]	[NR]
Chrysene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	LCS-W2	95%
Benzo(b+k)fluoranthene	µg/L	0.2	Org-012 subset	[NT]	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	LCS-W2	94%
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	0.1	Org-012 subset	[NT]	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	127	[NT]	[NT]	LCS-W2	102%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
OCP in water - low level						Base Duplicate %RPD		
Date extracted	-			29/08/2011	60463-1	29/08/2011 29/08/2011	LCS-W1	29/08/2011
Date analysed	-			30/08/2011	60463-1	30/08/2011 30/08/2011	LCS-W1	30/08/2011
HCB	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
Heptachlor	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	LCS-W1	79%
Heptachlor Epoxide	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
Aldrin	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	LCS-W1	92%
gamma-BHC (Lindane)	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	LCS-W1	89%
alpha-BHC	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
beta-BHC	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
delta-BHC	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
trans-Chlordane	µg/L	0.01	Ext-020	[NT]	60463-1	<0.02 <0.02	[NR]	[NR]
cis-Chlordane	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
Oxychlordane	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
Dieldrin	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	LCS-W1	91%
p,p-DDE	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
p,p-DDD	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
p,p-DDT	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	LCS-W1	82%
Endrin	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	LCS-W1	81%
Endrin Aldehyde	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
Endrin Ketone	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
alpha-Endosulfan	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
beta-Endosulfan	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
Endosulfan Sulfate	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
Methoxychlor	µg/L	0.01	Ext-020	[NT]	60463-1	<0.01 <0.01	[NR]	[NR]
Surrogate OC Recovery	%		Ext-020	[NT]	60463-1	89 86 RPD: 3	LCS-W1	101%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
OP Pesticides - Low Level						Base Duplicate %RPD		
Date extracted	-			29/08/2011	60463-1	29/08/2011 29/08/2011	LCS-W1	29/08/2011
Date analysed	-			30/08/2011	60463-1	30/08/2011 30/08/2011	LCS-W1	30/08/2011
Demeton-S-methyl	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Dichlorvos	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Diazinon	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	LCS-W1	92%
Dimethoate	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Chlorpyrifos	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	LCS-W1	99%
Chlorpyrifos methyl	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Malathion	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Fenthion	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Azinphos Ethyl	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Azinphos Methyl	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Chlorfenvinphos (E)	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Chlorfenvinphos (Z)	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Ethion	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	LCS-W1	117%
Fenitrothion	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Parathion (Ethyl)	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	LCS-W1	92%
Parathion (Methyl)	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Primiphos Ethyl	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Primiphos Methyl	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Surrogate OP Recovery	%		Ext-020	[NT]	60463-1	81 82 RPD: 1	LCS-W1	86%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCB low level in water						Base Duplicate %RPD		
Date extracted	-			29/08/2011	60463-1	29/08/2011 29/08/2011	LCS-W1	29/08/2011
Date analysed	-			30/08/2011	60463-1	30/08/2011 30/08/2011	LCS-W1	30/08/2011
Aroclor 1016	µg/L	0.10	Ext-020	[NT]	60463-1	<0.1 <0.1	[NR]	[NR]
Aroclor 1221	µg/L	0.10	Ext-020	[NT]	60463-1	<0.1 <0.1	[NR]	[NR]
Aroclor 1232	µg/L	0.10	Ext-020	[NT]	60463-1	<0.1 <0.1	[NR]	[NR]
Aroclor 1242	µg/L	0.10	Ext-020	[NT]	60463-1	<0.1 <0.1	[NR]	[NR]
Aroclor 1248	µg/L	0.1	Ext-020	[NT]	60463-1	<0.1 <0.1	[NR]	[NR]
Aroclor 1254	µg/L	0.1	Ext-020	[NT]	60463-1	<0.10 <0.10	[NR]	[NR]
Aroclor 1260	µg/L	0.1	Ext-020	[NT]	60463-1	<0.1 <0.1	[NR]	[NR]
Total PCB's (as above)	µg/L	0.010	Ext-020	[NT]	60463-1	<0.1 <0.1	LCS-W1	101%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
HM in water - dissolved						Base Duplicate %RPD		
Date prepared	-			24/8/2011	60463-1	24/8/2011 24/8/2011	LCS-W1	24/8/2011
Date analysed	-			25/8/2011	60463-1	25/8/2011 25/8/2011	LCS-W1	25/8/2011
Aluminium-Dissolved	µg/L	10	Metals-022 ICP-MS	[NT]	60463-1	460 460 RPD: 0	LCS-W1	97%
Arsenic-Dissolved	µg/L	1	Metals-022 ICP-MS	[NT]	60463-1	<1 <1	LCS-W1	95%
Cadmium-Dissolved	µg/L	0.1	Metals-022 ICP-MS	[NT]	60463-1	<0.1 <0.1	LCS-W1	95%
Chromium-Dissolved	µg/L	1	Metals-022 ICP-MS	[NT]	60463-1	3 3 RPD: 0	LCS-W1	94%
Copper-Dissolved	µg/L	1	Metals-022 ICP-MS	[NT]	60463-1	1 1 RPD: 0	LCS-W1	106%
Lead-Dissolved	µg/L	1	Metals-022 ICP-MS	[NT]	60463-1	<1 <1	LCS-W1	99%
Mercury-Dissolved	µg/L	0.1	Metals-021 CV-AAS	[NT]	60463-1	<0.1 <0.1	LCS-W1	108%
Nickel-Dissolved	µg/L	1	Metals-022 ICP-MS	[NT]	60463-1	7 7 RPD: 0	LCS-W1	95%
Zinc-Dissolved	µg/L	1	Metals-022 ICP-MS	[NT]	60463-1	20 21 RPD: 5	LCS-W1	91%
Cobalt-Dissolved	µg/L	1	Metals-022 ICP-MS	[NT]	60463-1	<1 <1	LCS-W1	94%
Manganese-Dissolved	µg/L	5	Metals-022 ICP-MS	[NT]	60463-1	34 34 RPD: 0	LCS-W1	97%
Tin-Dissolved	µg/L	1	Metals-022 ICP-MS	[NT]	60463-1	<1 <1	LCS-W1	101%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Water - Dissolved						Base Duplicate %RPD		
Date digested	-			24/08/2011	60463-1	24/08/2011 24/08/2011	LCS-W1	24/08/2011
Date analysed	-			25/08/2011	60463-1	25/08/2011 25/08/2011	LCS-W1	25/08/2011
Iron - Dissolved	mg/L	0.02	Metals-020 ICP-AES	[NT]	60463-1	0.08 0.08 RPD: 0	LCS-W1	102%
Calcium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	[NT]	60463-1	8.9 8.7 RPD: 2	LCS-W1	99%
Magnesium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	[NT]	60463-1	4.1 4.0 RPD: 2	LCS-W1	96%
Sodium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	[NT]	60463-1	14 14 RPD: 0	LCS-W1	105%
Potassium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	[NT]	60463-1	4.4 4.3 RPD: 2	LCS-W1	109%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Waters - Acid extractable						Base Duplicate %RPD		
Date prepared	-			09/09/2011	60463-1	09/09/2011 09/09/2011	LCS-W1	09/09/2011
Date analysed	-			09/09/2011	60463-1	09/09/2011 09/09/2011	LCS-W1	09/09/2011
Phosphorus - Total	mg/L	0.05	Metals-020 ICP-AES	<0.05	60463-1	0.4 0.4 RPD: 0	LCS-W1	97%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorganics						Base Duplicate %RPD		
Date prepared	-			24/08/2011	60463-1	24/08/2011 24/08/2011	LCS-W1	24/08/2011
Date analysed	-			24/08/2011	60463-1	24/08/2011 24/08/2011	LCS-W1	24/08/2011
pH	pH Units		Inorg-001	[NT]	60463-1	5.6 5.5 RPD: 2	LCS-W1	101%
Electrical Conductivity	µS/cm	1	Inorg-002	[NT]	60463-1	200 190 RPD: 5	LCS-W1	105%
Fluoride, F	mg/L	0.1	Inorg-026	<0.1	60463-1	<0.1 <0.1	LCS-W1	103%
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	60463-1	<0.005 <0.005	LCS-W1	97%
TKN in water	mg/L	0.1	Inorg-062	<0.1	60463-1	2.3 2.1 RPD: 9	LCS-W1	96%
NOx as N in water	mg/L	0.005	Inorg-055	<0.005	60463-1	5.3 5.3 RPD: 0	LCS-W1	96%
QUALITY CONTROL	UNITS	Dup. Sm#		Duplicate		Spike Sm#	Spike % Recovery	
OCP in water - low level				Base + Duplicate + %RPD				
Date extracted	-		[NT]		[NT]	60463-1	29/08/2011	
Date analysed	-		[NT]		[NT]	60463-1	30/08/2011	
HCb	µg/L		[NT]		[NT]	[NR]	[NR]	
Heptachlor	µg/L		[NT]		[NT]	60463-1	78%	
Heptachlor Epoxide	µg/L		[NT]		[NT]	[NR]	[NR]	
Aldrin	µg/L		[NT]		[NT]	60463-1	79%	
gamma-BHC (Lindane)	µg/L		[NT]		[NT]	60463-1	72%	
alpha-BHC	µg/L		[NT]		[NT]	[NR]	[NR]	

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QUALITY CONTROL OCP in water - low level	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
beta-BHC	µg/L	[NT]	[NT]	[NR]	[NR]
delta-BHC	µg/L	[NT]	[NT]	[NR]	[NR]
trans-Chlordane	µg/L	[NT]	[NT]	[NR]	[NR]
cis-Chlordane	µg/L	[NT]	[NT]	[NR]	[NR]
Oxychlordane	µg/L	[NT]	[NT]	[NR]	[NR]
Dieldrin	µg/L	[NT]	[NT]	60463-1	81%
p,p-DDE	µg/L	[NT]	[NT]	[NR]	[NR]
p,p-DDD	µg/L	[NT]	[NT]	[NR]	[NR]
p,p-DDT	µg/L	[NT]	[NT]	60463-1	99%
Endrin	µg/L	[NT]	[NT]	60463-1	70%
Endrin Aldehyde	µg/L	[NT]	[NT]	[NR]	[NR]
Endrin Ketone	µg/L	[NT]	[NT]	[NR]	[NR]
alpha-Endosulfan	µg/L	[NT]	[NT]	[NR]	[NR]
beta-Endosulfan	µg/L	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulfate	µg/L	[NT]	[NT]	[NR]	[NR]
Methoxychlor	µg/L	[NT]	[NT]	[NR]	[NR]
Surrogate OC Recovery	%	[NT]	[NT]	60463-1	53%
QUALITY CONTROL OP Pesticides - Low Level	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	60463-1	29/08/2011
Date analysed	-	[NT]	[NT]	60463-1	30/08/2011
Demeton-S-methyl	µg/L	[NT]	[NT]	[NR]	[NR]
Dichlorvos	µg/L	[NT]	[NT]	[NR]	[NR]
Diazinon	µg/L	[NT]	[NT]	60463-1	87%
Dimethoate	µg/L	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	µg/L	[NT]	[NT]	60463-1	90%
Chlorpyrifos methyl	µg/L	[NT]	[NT]	[NR]	[NR]
Malathion	µg/L	[NT]	[NT]	[NR]	[NR]
Fenthion	µg/L	[NT]	[NT]	[NR]	[NR]
Azinphos Ethyl	µg/L	[NT]	[NT]	[NR]	[NR]
Azinphos Methyl	µg/L	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (E)	µg/L	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (Z)	µg/L	[NT]	[NT]	[NR]	[NR]
Ethion	µg/L	[NT]	[NT]	60463-1	99%
Fenitrothion	µg/L	[NT]	[NT]	[NR]	[NR]
Parathion (Ethyl)	µg/L	[NT]	[NT]	60463-1	81%
Parathion (Methyl)	µg/L	[NT]	[NT]	[NR]	[NR]
Primiphos Ethyl	µg/L	[NT]	[NT]	[NR]	[NR]
Primiphos Methyl	µg/L	[NT]	[NT]	[NR]	[NR]
Surrogate OP Recovery	%	[NT]	[NT]	60463-1	52%

Client Reference: 49608.01, Tomago

QUALITY CONTROL PCB low level in water	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	60463-1	29/08/2011
Date analysed	-	[NT]	[NT]	60463-1	30/08/2011
Aroclor 1016	µg/L	[NT]	[NT]	[NR]	[NR]
Aroclor 1221	µg/L	[NT]	[NT]	[NR]	[NR]
Aroclor 1232	µg/L	[NT]	[NT]	[NR]	[NR]
Aroclor 1242	µg/L	[NT]	[NT]	[NR]	[NR]
Aroclor 1248	µg/L	[NT]	[NT]	[NR]	[NR]
Aroclor 1254	µg/L	[NT]	[NT]	[NR]	[NR]
Aroclor 1260	µg/L	[NT]	[NT]	[NR]	[NR]
Total PCB's (as above)	µg/L	[NT]	[NT]	60463-1	101%
QUALITY CONTROL HM in water - dissolved	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	60463-2	24/8/2011
Date analysed	-	[NT]	[NT]	60463-2	25/8/2011
Aluminium-Dissolved	µg/L	[NT]	[NT]	60463-2	#
Arsenic-Dissolved	µg/L	[NT]	[NT]	60463-2	93%
Cadmium-Dissolved	µg/L	[NT]	[NT]	60463-2	92%
Chromium-Dissolved	µg/L	[NT]	[NT]	60463-2	90%
Copper-Dissolved	µg/L	[NT]	[NT]	60463-2	102%
Lead-Dissolved	µg/L	[NT]	[NT]	60463-2	90%
Mercury-Dissolved	µg/L	[NT]	[NT]	60463-2	108%
Nickel-Dissolved	µg/L	[NT]	[NT]	60463-2	85%
Zinc-Dissolved	µg/L	[NT]	[NT]	60463-2	82%
Cobalt-Dissolved	µg/L	[NT]	[NT]	60463-2	90%
Manganese-Dissolved	µg/L	[NT]	[NT]	60463-2	86%
Tin-Dissolved	µg/L	[NT]	[NT]	60463-2	99%
QUALITY CONTROL Metals in Water - Dissolved	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	60463-2	24/08/2011
Date analysed	-	[NT]	[NT]	60463-2	25/08/2011
Iron - Dissolved	mg/L	[NT]	[NT]	60463-2	102%
Calcium - Dissolved	mg/L	[NT]	[NT]	60463-2	91%
Magnesium - Dissolved	mg/L	[NT]	[NT]	60463-2	91%
Sodium - Dissolved	mg/L	[NT]	[NT]	60463-2	102%
Potassium - Dissolved	mg/L	[NT]	[NT]	60463-2	104%

Client Reference: 49608.01, Tomago

QUALITY CONTROL Metals in Waters - Acid extractable	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	60463-2	09/09/2011
Date analysed	-	[NT]	[NT]	60463-2	09/09/2011
Phosphorus - Total	mg/L	[NT]	[NT]	60463-2	93%
QUALITY CONTROL Miscellaneous Inorganics	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	60463-2	24/08/2011
Date analysed	-	[NT]	[NT]	60463-2	24/08/2011
pH	pH Units	[NT]	[NT]	[NR]	[NR]
Electrical Conductivity	µS/cm	[NT]	[NT]	[NR]	[NR]
Fluoride, F	mg/L	[NT]	[NT]	60463-2	101%
Ammonia as N in water	mg/L	[NT]	[NT]	60463-2	95%
TKN in water	mg/L	[NT]	[NT]	60463-2	100%
NOx as N in water	mg/L	[NT]	[NT]	60463-2	98%

Report Comments:

Trace Metals: # Percent recovery is not possible to report due to the high concentration of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

OC/OP/PCB's in water analysed by NMI. Report No.RN873757.

This report replaces R00 due to the addition of total phosphorous results.

Asbestos ID was analysed by Approved Identifier:	Not applicable for this job
Asbestos ID was authorised by Approved Signatory:	Not applicable for this job

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batched of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



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CERTIFICATE OF ANALYSIS

60504

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle
NSW 2310

Attention: Kyle Prowse, Matthew Blackert

Sample log in details:

Your Reference:	49608.01, Tomago
No. of samples:	8 Waters
Date samples received / completed instructions received	24/08/11 / 24/08/11

Analysis Details:

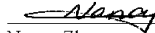
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

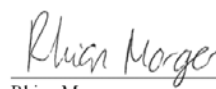
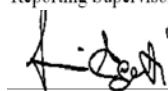
Report Details:

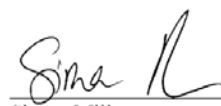
Date results requested by: / Issue Date: 2/09/11 / 31/08/11
Date of Preliminary Report: Not Issued
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Results Approved By:


Jacinta Hurst
Laboratory Manager


Nancy Zhang
Chemist


Rhian Morgan
Reporting Supervisor

Giovanni Agosti
Technical Manager


Simon Mills
Group R&D/Quality Manager

VOCs in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60504-1 2 23/08/2011 Water	60504-2 3 23/08/2011 Water	60504-3 4 23/08/2011 Water	60504-4 7 23/08/2011 Water	60504-5 8 23/08/2011 Water
Date extracted	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Dichlorodifluoromethane	µg/L	<10	<10	<10	<10	<10
Chloromethane	µg/L	<10	<10	<10	<10	<10
Vinyl Chloride	µg/L	<10	<10	<10	<10	<10
Bromomethane	µg/L	<10	<10	<10	<10	<10
Chloroethane	µg/L	<10	<10	<10	<10	<10
Trichlorofluoromethane	µg/L	<10	<10	<10	<10	<10
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	µg/L	<1	<1	<1	<1	<1
1,1-dichloroethane	µg/L	<1	<1	<1	<1	<1
Cis-1,2-dichloroethene	µg/L	<1	<1	1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1	<1	<1
Chloroform	µg/L	<1	<1	<1	<1	<1
2,2-dichloropropane	µg/L	<1	<1	<1	<1	<1
1,2-dichloroethane	µg/L	<1	<1	<1	<1	<1
1,1,1-trichloroethane	µg/L	<1	<1	<1	<1	<1
1,1-dichloropropene	µg/L	<1	<1	<1	<1	<1
Cyclohexane	µg/L	<1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1	<1	<1
Benzene	µg/L	<1	<1	<1	<1	<1
Dibromomethane	µg/L	<1	<1	<1	<1	<1
1,2-dichloropropane	µg/L	<1	<1	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1	<1	<1
Bromodichloromethane	µg/L	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	µg/L	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	µg/L	<1	<1	<1	<1	<1
1,1,2-trichloroethane	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
1,3-dichloropropane	µg/L	<1	<1	<1	<1	<1
Dibromochloromethane	µg/L	<1	<1	<1	<1	<1
1,2-dibromoethane	µg/L	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
Bromoform	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
Styrene	µg/L	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<1	<1	<1	<1	<1
o-xylene	µg/L	<1	<1	<1	<1	<1
1,2,3-trichloropropane	µg/L	<1	<1	<1	<1	<1

VOCs in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60504-1 2 23/08/2011 Water	60504-2 3 23/08/2011 Water	60504-3 4 23/08/2011 Water	60504-4 7 23/08/2011 Water	60504-5 8 23/08/2011 Water
Isopropylbenzene	µg/L	<1	<1	<1	<1	<1
Bromobenzene	µg/L	<1	<1	<1	<1	<1
n-propyl benzene	µg/L	<1	<1	<1	<1	<1
2-chlorotoluene	µg/L	<1	<1	<1	<1	<1
4-chlorotoluene	µg/L	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	µg/L	<1	<1	<1	<1	<1
Tert-butyl benzene	µg/L	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	µg/L	<1	<1	<1	<1	<1
1,3-dichlorobenzene	µg/L	<1	<1	<1	<1	<1
Sec-butyl benzene	µg/L	<1	<1	<1	<1	<1
1,4-dichlorobenzene	µg/L	<1	<1	<1	<1	<1
4-isopropyl toluene	µg/L	<1	5	<1	<1	<1
1,2-dichlorobenzene	µg/L	<1	<1	<1	<1	<1
n-butyl benzene	µg/L	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	µg/L	<1	<1	<1	<1	<1
Hexachlorobutadiene	µg/L	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	98	97	100	100	101
Surrogate toluene-d8	%	86	86	87	85	88
Surrogate 4-BFB	%	111	112	112	112	113

vTRH & BTEX in Water	UNITS	60504-1	60504-2	60504-3	60504-4	60504-5
Our Reference:	-----	2	3	4	7	8
Your Reference	-----	23/08/2011	23/08/2011	23/08/2011	23/08/2011	23/08/2011
Date Sampled		Water	Water	Water	Water	Water
Type of sample						
Date extracted	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	24/08/2011	24/08/2011	24/08/2011	24/08/2011	24/08/2011
TRHC ₆ - C ₉	µg/L	<10	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	98	97	100	100	101
Surrogate toluene-d8	%	86	86	87	85	88
Surrogate 4-BFB	%	111	112	112	112	113

vTRH & BTEX in Water	UNITS	60504-6	60504-7	60504-8
Our Reference:	-----	21	22	KGPD12
Your Reference	-----	23/08/2011	23/08/2011	23/08/2011
Date Sampled		Water	Water	Water
Type of sample				
Date extracted	-	24/08/2011	24/08/2011	24/08/2011
Date analysed	-	24/08/2011	24/08/2011	24/08/2011
TRHC ₆ - C ₉	µg/L	<10	<10	<10
Benzene	µg/L	<1	<1	<1
Toluene	µg/L	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2
o-xylene	µg/L	<1	<1	<1
Surrogate Dibromofluoromethane	%	101	109	105
Surrogate toluene-d8	%	90	98	96
Surrogate 4-BFB	%	81	87	81

STRH in Water (C10-C36)						
Our Reference:	UNITS	60504-1	60504-2	60504-3	60504-4	60504-5
Your Reference	-----	2	3	4	7	8
Date Sampled	-----	23/08/2011	23/08/2011	23/08/2011	23/08/2011	23/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
Date analysed	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
TRHC ₁₀ - C ₁₄	µg/L	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	µg/L	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	µg/L	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	80	65	94	74	69

STRH in Water (C10-C36)				
Our Reference:	UNITS	60504-6	60504-7	60504-8
Your Reference	-----	21	22	KGPD12
Date Sampled	-----	23/08/2011	23/08/2011	23/08/2011
Type of sample		Water	Water	Water
Date extracted	-	25/08/2011	25/08/2011	25/08/2011
Date analysed	-	26/08/2011	26/08/2011	26/08/2011
TRHC ₁₀ - C ₁₄	µg/L	<50	<50	<50
TRHC ₁₅ - C ₂₈	µg/L	<100	<100	<100
TRHC ₂₉ - C ₃₆	µg/L	<100	<100	<100
Surrogate o-Terphenyl	%	90	78	96

PAHs in Water - Low Level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60504-1 2 23/08/2011 Water	60504-2 3 23/08/2011 Water	60504-3 4 23/08/2011 Water	60504-4 7 23/08/2011 Water	60504-5 8 23/08/2011 Water
Date extracted	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
Date analysed	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
Naphthalene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	111	88	117	102	91

PAHs in Water - Low Level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60504-6 21 23/08/2011 Water	60504-7 22 23/08/2011 Water	60504-8 KGPD12 23/08/2011 Water
Date extracted	-	25/08/2011	25/08/2011	25/08/2011
Date analysed	-	26/08/2011	26/08/2011	26/08/2011
Naphthalene	µg/L	<0.1	0.2	<0.1
Acenaphthylene	µg/L	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	µg/L	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	114	103	111

OCP in water - low level Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60504-1 2 23/08/2011 Water	60504-2 3 23/08/2011 Water	60504-3 4 23/08/2011 Water	60504-4 7 23/08/2011 Water	60504-5 8 23/08/2011 Water
Date extracted	-	29/08/2011	29/08/2011	29/08/2011	29/08/2011	29/08/2011
Date analysed	-	30/08/2011	30/08/2011	30/08/2011	30/08/2011	30/08/2011
HCBC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
gamma-BHC (Lindane)	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
delta-BHC	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
trans-Chlordane	µg/L	<0.02	<0.02	<0.02	<0.02	<0.05
cis-Chlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Oxychlordane	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDE	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDD	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDT	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Aldehyde	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin Ketone	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
beta-Endosulfan	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulfan Sulfate	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Methoxychlor	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Surrogate OC Recovery	%	88	65	96	84	94

OCP in water - low level				
Our Reference:	UNITS	60504-6	60504-7	60504-8
Your Reference	-----	21	22	KGPD12
Date Sampled	-----	23/08/2011	23/08/2011	23/08/2011
Type of sample		Water	Water	Water
Date extracted	-	29/08/2011	29/08/2011	29/08/2011
Date analysed	-	30/08/2011	30/08/2011	30/08/2011
HCb	µg/L	<0.01	<0.01	<0.01
Heptachlor	µg/L	<0.01	<0.01	<0.01
Heptachlor Epoxide	µg/L	<0.01	<0.01	<0.01
Aldrin	µg/L	<0.01	<0.01	<0.01
gamma-BHC (Lindane)	µg/L	<0.01	<0.01	<0.01
alpha-BHC	µg/L	<0.01	<0.01	<0.01
beta-BHC	µg/L	<0.01	<0.01	<0.01
delta-BHC	µg/L	<0.01	<0.01	<0.01
trans-Chlordane	µg/L	<0.02	<0.02	<0.02
cis-Chlordane	µg/L	<0.01	<0.01	<0.01
Oxychlordane	µg/L	<0.01	<0.01	<0.01
Dieldrin	µg/L	<0.01	<0.01	<0.01
p,p-DDE	µg/L	<0.01	<0.01	<0.01
p,p-DDD	µg/L	<0.01	<0.01	<0.01
p,p-DDT	µg/L	<0.01	<0.01	<0.01
Endrin	µg/L	<0.01	<0.01	<0.01
Endrin Aldehyde	µg/L	<0.01	<0.01	<0.01
Endrin Ketone	µg/L	<0.01	<0.01	<0.01
alpha-Endosulfan	µg/L	<0.01	<0.01	<0.01
beta-Endosulfan	µg/L	<0.01	<0.01	<0.01
Endosulfan Sulfate	µg/L	<0.01	<0.01	<0.01
Methoxychlor	µg/L	<0.01	<0.01	<0.01
Surrogate OC Recovery	%	108	83	79

OP Pesticides - Low Level						
Our Reference:	UNITS	60504-1	60504-2	60504-3	60504-4	60504-5
Your Reference:	-----	2	3	4	7	8
Date Sampled	-----	23/08/2011	23/08/2011	23/08/2011	23/08/2011	23/08/2011
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	29/08/2011	29/08/2011	29/08/2011	29/08/2011	29/08/2011
Date analysed	-	30/08/2011	30/08/2011	30/08/2011	30/08/2011	30/08/2011
Demeton-S-methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dichlorvos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Diazinon	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Dimethoate	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorpyrifos methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Malathion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenthion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Azinphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (E)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorfenvinphos (Z)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Ethion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Fenitrothion	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Ethyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Parathion (Methyl)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Ethyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Primiphos Methyl	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Surrogate OP Recovery	%	77	67	82	83	74

OP Pesticides - Low Level				
Our Reference:	UNITS	60504-6	60504-7	60504-8
Your Reference:	-----	21	22	KGPD12
Date Sampled	-----	23/08/2011	23/08/2011	23/08/2011
Type of sample		Water	Water	Water
Date extracted	-	29/08/2011	29/08/2011	29/08/2011
Date analysed	-	30/08/2011	30/08/2011	30/08/2011
Demeton-S-methyl	µg/L	<0.10	<0.10	<0.10
Dichlorvos	µg/L	<0.10	<0.10	<0.10
Diazinon	µg/L	<0.10	<0.10	<0.10
Dimethoate	µg/L	<0.10	<0.10	<0.10
Chlorpyrifos	µg/L	<0.10	<0.10	<0.10
Chlorpyrifos methyl	µg/L	<0.10	<0.10	<0.10
Malathion	µg/L	<0.10	<0.10	<0.10
Fenthion	µg/L	<0.10	<0.10	<0.10
Azinphos Ethyl	µg/L	<0.10	<0.10	<0.10
Azinphos Methyl	µg/L	<0.10	<0.10	<0.10
Chlorfenvinphos (E)	µg/L	<0.10	<0.10	<0.10
Chlorfenvinphos (Z)	µg/L	<0.10	<0.10	<0.10
Ethion	µg/L	<0.10	<0.10	<0.10
Fenitrothion	µg/L	<0.10	<0.10	<0.10
Parathion (Ethyl)	µg/L	<0.10	<0.10	<0.10
Parathion (Methyl)	µg/L	<0.10	<0.10	<0.10
Primiphos Ethyl	µg/L	<0.10	<0.10	<0.10
Primiphos Methyl	µg/L	<0.10	<0.10	<0.10
Surrogate OP Recovery	%	87	69	72

PCB low level in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60504-1 2 23/08/2011 Water	60504-2 3 23/08/2011 Water	60504-3 4 23/08/2011 Water	60504-4 7 23/08/2011 Water	60504-5 8 23/08/2011 Water
Date extracted	-	29/08/2011	29/08/2011	29/08/2011	29/08/2011	29/08/2011
Date analysed	-	30/08/2011	30/08/2011	30/08/2011	30/08/2011	30/08/2011
Aroclor 1016	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor 1260	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Total PCB's (as above)	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1

PCB low level in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60504-6 21 23/08/2011 Water	60504-7 22 23/08/2011 Water	60504-8 KGPD12 23/08/2011 Water
Date extracted	-	29/08/2011	29/08/2011	29/08/2011
Date analysed	-	30/08/2011	30/08/2011	30/08/2011
Aroclor 1016	µg/L	<0.1	<0.1	<0.1
Aroclor 1221	µg/L	<0.1	<0.1	<0.1
Aroclor 1232	µg/L	<0.1	<0.1	<0.1
Aroclor 1242	µg/L	<0.1	<0.1	<0.1
Aroclor 1248	µg/L	<0.1	<0.1	<0.1
Aroclor 1254	µg/L	<0.10	<0.10	<0.10
Aroclor 1260	µg/L	<0.1	<0.1	<0.1
Total PCB's (as above)	µg/L	<0.1	<0.1	<0.1

HM in water - dissolved Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60504-1 2 23/08/2011 Water	60504-2 3 23/08/2011 Water	60504-3 4 23/08/2011 Water	60504-4 7 23/08/2011 Water	60504-5 8 23/08/2011 Water
Date prepared	-	25/8/2011	25/8/2011	25/8/2011	25/8/2011	25/8/2011
Date analysed	-	25/8/2011	25/8/2011	25/8/2011	25/8/2011	25/8/2011
Aluminium-Dissolved	µg/L	1,400	1,400	790	3,400	2,300
Arsenic-Dissolved	µg/L	<1	5	1	2	3
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	3	3	2	4	4
Copper-Dissolved	µg/L	<1	1	1	2	4
Lead-Dissolved	µg/L	1	<1	<1	<1	1
Mercury-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel-Dissolved	µg/L	11	15	6	8	10
Zinc-Dissolved	µg/L	10	11	13	90	32
Manganese-Dissolved	µg/L	17	560	42	220	330
Cobalt-Dissolved	µg/L	<1	7	<1	2	2
Tin-Dissolved	µg/L	<1	<1	<1	<1	<1

HM in water - dissolved Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	60504-6 21 23/08/2011 Water	60504-7 22 23/08/2011 Water	60504-8 KGP12 23/08/2011 Water
Date prepared	-	25/8/2011	25/8/2011	25/8/2011
Date analysed	-	25/8/2011	25/8/2011	25/8/2011
Aluminium-Dissolved	µg/L	30	21	32
Arsenic-Dissolved	µg/L	1	2	1
Cadmium-Dissolved	µg/L	<0.1	0.1	0.2
Chromium-Dissolved	µg/L	<1	1	<1
Copper-Dissolved	µg/L	<1	<1	<1
Lead-Dissolved	µg/L	<1	<1	<1
Mercury-Dissolved	µg/L	<0.1	<0.1	<0.1
Nickel-Dissolved	µg/L	160	74	160
Zinc-Dissolved	µg/L	69	26	69
Manganese-Dissolved	µg/L	17,000	8,100	16,000
Cobalt-Dissolved	µg/L	250	100	250
Tin-Dissolved	µg/L	<1	<1	<1

Metals in Water - Dissolved						
Our Reference:	UNITS	60504-1	60504-2	60504-3	60504-4	60504-5
Your Reference	-----	2	3	4	7	8
Date Sampled	-----	23/08/2011	23/08/2011	23/08/2011	23/08/2011	23/08/2011
Type of sample		Water	Water	Water	Water	Water
Date digested	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011	25/08/2011	25/08/2011
Iron - Dissolved	mg/L	0.4	23	0.8	4.3	5.4
Calcium - Dissolved	mg/L	6.0	7.5	5.8	2.7	5.5
Potassium - Dissolved	mg/L	3.0	5.3	1.4	3.4	6.0
Magnesium - Dissolved	mg/L	1.9	5.6	2.1	2.5	4.0
Sodium - Dissolved	mg/L	34	26	18	25	40

Metals in Water - Dissolved				
Our Reference:	UNITS	60504-6	60504-7	60504-8
Your Reference	-----	21	22	KGPD12
Date Sampled	-----	23/08/2011	23/08/2011	23/08/2011
Type of sample		Water	Water	Water
Date digested	-	25/08/2011	25/08/2011	25/08/2011
Date analysed	-	25/08/2011	25/08/2011	25/08/2011
Iron - Dissolved	mg/L	250	320	250
Calcium - Dissolved	mg/L	530	380	530
Potassium - Dissolved	mg/L	120	100	120
Magnesium - Dissolved	mg/L	820	500	810
Sodium - Dissolved	mg/L	4,400	3,300	4,300

Metals in Waters - Acid extractable						
Our Reference:	UNITS	60504-1	60504-2	60504-3	60504-4	60504-5
Your Reference:	-----	2	3	4	7	8
Date Sampled	-----	23/08/2011	23/08/2011	23/08/2011	23/08/2011	23/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
Date analysed	-	26/08/2011	26/08/2011	26/08/2011	26/08/2011	26/08/2011
Phosphorus - Total	mg/L	0.3	0.7	0.1	0.08	0.1

Metals in Waters - Acid extractable				
Our Reference:	UNITS	60504-6	60504-7	60504-8
Your Reference:	-----	21	22	KGPD12
Date Sampled	-----	23/08/2011	23/08/2011	23/08/2011
Type of sample		Water	Water	Water
Date prepared	-	26/08/2011	26/08/2011	26/08/2011
Date analysed	-	26/08/2011	26/08/2011	26/08/2011
Phosphorus - Total	mg/L	0.2	1.1	0.2

Miscellaneous Inorganics						
Our Reference:	UNITS	60504-1	60504-2	60504-3	60504-4	60504-5
Your Reference	-----	2	3	4	7	8
Date Sampled	-----	23/08/2011	23/08/2011	23/08/2011	23/08/2011	23/08/2011
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	24/8/2011	24/8/2011	24/8/2011	24/8/2011	24/8/2011
Date analysed	-	24/8/2011	24/8/2011	24/8/2011	24/8/2011	24/8/2011
pH	pH Units	5.7	5.9	5.6	5.3	5.5
Electrical Conductivity	µS/cm	230	240	160	200	300
Fluoride, F	mg/L	<0.1	0.57	0.66	2.7	1.4
Ammonia as N in water	mg/L	0.089	0.19	0.031	0.098	0.31
TKN in water	mg/L	2.2	5.5	2.3	1.3	2.2
NOx as N in water	mg/L	0.09	<0.025	0.2	<0.025	<0.025

Miscellaneous Inorganics				
Our Reference:	UNITS	60504-6	60504-7	60504-8
Your Reference	-----	21	22	KGPD12
Date Sampled	-----	23/08/2011	23/08/2011	23/08/2011
Type of sample		Water	Water	Water
Date prepared	-	24/8/2011	24/8/2011	24/8/2011
Date analysed	-	24/8/2011	24/8/2011	24/8/2011
pH	pH Units	6.3	6.3	6.2
Electrical Conductivity	µS/cm	23,000	18,000	22,000
Fluoride, F	mg/L	0.31	0.32	0.29
Ammonia as N in water	mg/L	0.77	3.2	0.84
TKN in water	mg/L	2.7	7.2	2.5
NOx as N in water	mg/L	<0.05	<0.05	<0.05

MethodID	Methodology Summary
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Ext-020	Analysis subcontracted to Australian Government - National Measurement Institute. NATA Accreditation No: 198
Metals-022 ICP-MS	Determination of various metals by ICP-MS.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA 21st ED, 4500-H+.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell and dedicated meter, in accordance with APHA 21st ED 2510 and Rayment & Higginson.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA 21st ED, 4500-F-C.
Inorg-057	Ammonia - determined colourimetrically based on EPA350.1 and APHA 21st ED 4500-NH3 F, Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA 21st ED 4500 Norg.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO3- F. Soils are analysed following a water extraction.

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in water						Base II Duplicate II %RPD		
Date extracted	-			24/08/2011	[NT]	[NT]	LCS-W1	24/08/2011
Date analysed	-			24/08/2011	[NT]	[NT]	LCS-W1	24/08/2011
Dichlorodifluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Chloromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Bromomethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Chloroethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Trans-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	94%
Cis-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Chloroform	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	104%
2,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	101%
1,1,1-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	109%
1,1-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Cyclohexane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Carbon tetrachloride	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Dibromomethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Trichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	117%
Bromodichloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	101%
trans-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Dibromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	103%
1,2-dibromoethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tetrachloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	106%
1,1,1,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Chlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromoform	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
m+p-xylene	µg/L	2	Org-013	<2	[NT]	[NT]	[NR]	[NR]
Styrene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
o-xylene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in water						Base II Duplicate II %RPD		
1,2,3-trichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Isopropylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tert-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Sec-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Surrogate	%		Org-013	85	[NT]	[NT]	LCS-W1	88%
Dibromofluoromethane								
Surrogate toluene-d8	%		Org-013	83	[NT]	[NT]	LCS-W1	84%
Surrogate 4-BFB	%		Org-013	115	[NT]	[NT]	LCS-W1	102%

Client Reference: 49608.01, Tomago

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH & BTEX in Water						Base II Duplicate II %RPD		
Date extracted	-			24/08/2011	[NT]	[NT]	LCS-W1	24/08/2011
Date analysed	-			24/08/2011	[NT]	[NT]	LCS-W1	24/08/2011
TRHC ₆ - C ₉	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	117%
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	121%
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	122%
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	112%
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	LCS-W1	114%
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	115%
Surrogate	%		Org-016	85	[NT]	[NT]	LCS-W1	110%
Dibromofluoromethane								
Surrogate toluene-d8	%		Org-016	83	[NT]	[NT]	LCS-W1	107%
Surrogate 4-BFB	%		Org-016	115	[NT]	[NT]	LCS-W1	106%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Water (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			25/08/2011	[NT]	[NT]	LCS-W1	25/08/2011
Date analysed	-			26/08/2011	[NT]	[NT]	LCS-W1	26/08/2011
TRHC ₁₀ - C ₁₄	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-W1	66%
TRHC ₁₅ - C ₂₈	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	101%
TRHC ₂₉ - C ₃₆	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	76%
Surrogate o-Terphenyl	%		Org-003	90	[NT]	[NT]	LCS-W1	81%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water - Low Level						Base II Duplicate II %RPD		
Date extracted	-			25/08/2011	[NT]	[NT]	LCS-W2	25/08/2011
Date analysed	-			26/08/2011	[NT]	[NT]	LCS-W2	26/08/2011
Naphthalene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	88%
Acenaphthylene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	107%
Phenanthrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	95%
Anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	91%
Pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	98%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water - Low Level						Base II Duplicate II %RPD		
Benzo(a)anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	94%
Benzo(b+k)fluoranthene	µg/L	0.2	Org-012 subset	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-W2	95%
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d ₁₄	%		Org-012 subset	120	[NT]	[NT]	LCS-W2	119%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
OCP in water - low level						Base II Duplicate II %RPD		
Date extracted	-			29/08/2011	[NT]	[NT]	LCS-W1	29/08/2011
Date analysed	-			30/08/2011	[NT]	[NT]	LCS-W1	30/08/2011
HCB	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Heptachlor	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	79%
Heptachlor Epoxide	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Aldrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	92%
gamma-BHC (Lindane)	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	89%
alpha-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
beta-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
delta-BHC	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
trans-Chlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
cis-Chlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Oxychlordane	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Dieldrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	91%
p,p-DDE	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
p,p-DDD	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
p,p-DDT	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	82%
Endrin	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	LCS-W1	81%
Endrin Aldehyde	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Endrin Ketone	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
alpha-Endosulfan	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
beta-Endosulfan	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulfate	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Methoxychlor	µg/L	0.01	Ext-020	<0.01	[NT]	[NT]	[NR]	[NR]
Surrogate OC Recovery	%		Ext-020	[NT]	[NT]	[NT]	LCS-W1	101%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
OP Pesticides - Low Level						Base II Duplicate II %RPD		
Date extracted	-			29/08/2011	[NT]	[NT]	LCS-W1	29/08/2011
Date analysed	-			30/08/2011	[NT]	[NT]	LCS-W1	30/08/2011
Demeton-S-methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Dichlorvos	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Diazinon	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	92%
Dimethoate	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	99%
Chlorpyrifos methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Malathion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Fenthion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Azinphos Ethyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Azinphos Methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (E)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (Z)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Ethion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	117%
Fenitrothion	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Parathion (Ethyl)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	LCS-W1	92%
Parathion (Methyl)	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Primiphos Ethyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Primiphos Methyl	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Surrogate OP Recovery	%		Ext-020	[NT]	[NT]	[NT]	LCS-W1	86%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCB low level in water						Base II Duplicate II %RPD		
Date extracted	-			29/08/2011	[NT]	[NT]	LCS-W1	29/08/2011
Date analysed	-			30/08/2011	[NT]	[NT]	LCS-W1	30/08/2011
Aroclor 1016	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1221	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1232	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1242	µg/L	0.10	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1248	µg/L	0.1	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Aroclor 1254	µg/L	0.1	Ext-020	<0.10	[NT]	[NT]	[NR]	[NR]
Aroclor 1260	µg/L	0.1	Ext-020	<0.1	[NT]	[NT]	[NR]	[NR]
Total PCB's (as above)	µg/L	0.010	Ext-020	<0.01	[NT]	[NT]	LCS-W1	110%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
HM in water - dissolved						Base II Duplicate II %RPD		
Date prepared	-			25/8/2011	60504-1	25/8/2011 25/8/2011	LCS-W1	25/8/2011
Date analysed	-			25/8/2011	60504-1	25/8/2011 25/8/2011	LCS-W1	25/8/2011
Aluminium-Dissolved	µg/L	10	Metals-022 ICP-MS	<10	60504-1	1400 1500 RPD: 7	LCS-W1	99%
Arsenic-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60504-1	<1 <1	LCS-W1	97%
Cadmium-Dissolved	µg/L	0.1	Metals-022 ICP-MS	<0.1	60504-1	<0.1 <0.1	LCS-W1	93%
Chromium-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60504-1	3 3 RPD: 0	LCS-W1	94%
Copper-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60504-1	<1 <1	LCS-W1	105%
Lead-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60504-1	1 <1	LCS-W1	99%
Mercury-Dissolved	µg/L	0.1	Metals-021 CV-AAS	<0.1	60504-1	<0.1 <0.1	LCS-W1	116%
Nickel-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60504-1	11 11 RPD: 0	LCS-W1	92%
Zinc-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60504-1	10 12 RPD: 18	LCS-W1	95%
Manganese-Dissolved	µg/L	5	Metals-022 ICP-MS	<5	60504-1	17 18 RPD: 6	LCS-W1	94%
Cobalt-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60504-1	<1 <1	LCS-W1	90%
Tin-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	60504-1	<1 <1	LCS-W1	97%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Water - Dissolved						Base Duplicate %RPD		
Date digested	-			25/08/2011	60504-1	25/08/2011 25/08/2011	LCS-W1	25/08/2011
Date analysed	-			25/08/2011	60504-1	25/08/2011 25/08/2011	LCS-W1	25/08/2011
Iron - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	60504-1	0.4 0.4 RPD: 0	LCS-W1	102%
Calcium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	60504-1	6.0 5.8 RPD: 3	LCS-W1	99%
Potassium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	60504-1	3.0 2.9 RPD: 3	LCS-W1	109%
Magnesium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	60504-1	1.9 1.8 RPD: 5	LCS-W1	96%
Sodium - Dissolved	mg/L	0.5	Metals-020 ICP-AES	<0.5	60504-1	34 33 RPD: 3	LCS-W1	97%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Waters - Acid extractable						Base Duplicate %RPD		
Date prepared	-			26/08/2011	60504-1	26/08/2011 26/08/2011	LCS-W1	26/08/2011
Date analysed	-			29/08/2011	60504-1	26/08/2011 26/08/2011	LCS-W1	29/08/2011
Phosphorus - Total	mg/L	0.05	Metals-020 ICP-AES	<0.05	60504-1	0.3 0.3 RPD: 0	LCS-W1	94%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorganics						Base Duplicate %RPD		
Date prepared	-			24/8/2011	60504-1	24/8/2011 24/8/2011	LCS-W1	24/8/2011
Date analysed	-			24/8/2011	60504-1	24/8/2011 24/8/2011	LCS-W1	24/8/2011
pH	pH Units		Inorg-001	[NT]	60504-1	5.7 5.6 RPD: 2	LCS-W1	101%
Electrical Conductivity	µS/cm	1	Inorg-002	<1	60504-1	230 230 RPD: 0	LCS-W1	105%
Fluoride, F	mg/L	0.1	Inorg-026	<0.1	60504-1	<0.1 <0.1	LCS-W1	103%
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	60504-1	0.089 0.085 RPD: 5	LCS-W1	97%
TKN in water	mg/L	0.1	Inorg-062	<0.1	60504-1	2.2 2.1 RPD: 5	LCS-W1	97%
NOx as N in water	mg/L	0.005	Inorg-055	<0.005	60504-1	0.09 0.09 RPD: 0	LCS-W1	116%
QUALITYCONTROL	UNITS	Dup. Sm#		Duplicate		Spike Sm#	Spike % Recovery	
OCP in water - low level				Base + Duplicate + %RPD				
Date extracted	-	[NT]		[NT]		60504-1	29/08/2011	
Date analysed	-	[NT]		[NT]		60504-1	30/08/2011	
HCb	µg/L	[NT]		[NT]		[NR]	[NR]	
Heptachlor	µg/L	[NT]		[NT]		60504-1	78%	
Heptachlor Epoxide	µg/L	[NT]		[NT]		[NR]	[NR]	
Aldrin	µg/L	[NT]		[NT]		60504-1	79%	
gamma-BHC (Lindane)	µg/L	[NT]		[NT]		60504-1	72%	
alpha-BHC	µg/L	[NT]		[NT]		[NR]	[NR]	

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QUALITY CONTROL OCP in water - low level	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
beta-BHC	µg/L	[NT]	[NT]	[NR]	[NR]
delta-BHC	µg/L	[NT]	[NT]	[NR]	[NR]
trans-Chlordane	µg/L	[NT]	[NT]	[NR]	[NR]
cis-Chlordane	µg/L	[NT]	[NT]	[NR]	[NR]
Oxychlordane	µg/L	[NT]	[NT]	[NR]	[NR]
Dieldrin	µg/L	[NT]	[NT]	60504-1	81%
p,p-DDE	µg/L	[NT]	[NT]	[NR]	[NR]
p,p-DDD	µg/L	[NT]	[NT]	[NR]	[NR]
p,p-DDT	µg/L	[NT]	[NT]	60504-1	99%
Endrin	µg/L	[NT]	[NT]	60504-1	70%
Endrin Aldehyde	µg/L	[NT]	[NT]	[NR]	[NR]
Endrin Ketone	µg/L	[NT]	[NT]	[NR]	[NR]
alpha-Endosulfan	µg/L	[NT]	[NT]	[NR]	[NR]
beta-Endosulfan	µg/L	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulfate	µg/L	[NT]	[NT]	[NR]	[NR]
Methoxychlor	µg/L	[NT]	[NT]	[NR]	[NR]
Surrogate OC Recovery	%	[NT]	[NT]	60504-1	53%
QUALITY CONTROL OP Pesticides - Low Level	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	60504-1	29/08/2011
Date analysed	-	[NT]	[NT]	60504-1	30/08/2011
Demeton-S-methyl	µg/L	[NT]	[NT]	[NR]	[NR]
Dichlorvos	µg/L	[NT]	[NT]	[NR]	[NR]
Diazinon	µg/L	[NT]	[NT]	60504-1	87%
Dimethoate	µg/L	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	µg/L	[NT]	[NT]	60504-1	90%
Chlorpyrifos methyl	µg/L	[NT]	[NT]	[NR]	[NR]
Malathion	µg/L	[NT]	[NT]	[NR]	[NR]
Fenthion	µg/L	[NT]	[NT]	[NR]	[NR]
Azinphos Ethyl	µg/L	[NT]	[NT]	[NR]	[NR]
Azinphos Methyl	µg/L	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (E)	µg/L	[NT]	[NT]	[NR]	[NR]
Chlorfenvinphos (Z)	µg/L	[NT]	[NT]	[NR]	[NR]
Ethion	µg/L	[NT]	[NT]	60504-1	99%
Fenitrothion	µg/L	[NT]	[NT]	[NR]	[NR]
Parathion (Ethyl)	µg/L	[NT]	[NT]	60504-1	81%
Parathion (Methyl)	µg/L	[NT]	[NT]	[NR]	[NR]
Primiphos Ethyl	µg/L	[NT]	[NT]	[NR]	[NR]
Primiphos Methyl	µg/L	[NT]	[NT]	[NR]	[NR]
Surrogate OP Recovery	%	[NT]	[NT]	60504-1	52%

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QUALITYCONTROL PCB low level in water	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	60504-1	29/08/2011
Date analysed	-	[NT]	[NT]	60504-1	30/08/2011
Aroclor 1016	µg/L	[NT]	[NT]	[NR]	[NR]
Aroclor 1221	µg/L	[NT]	[NT]	[NR]	[NR]
Aroclor 1232	µg/L	[NT]	[NT]	[NR]	[NR]
Aroclor 1242	µg/L	[NT]	[NT]	[NR]	[NR]
Aroclor 1248	µg/L	[NT]	[NT]	[NR]	[NR]
Aroclor 1254	µg/L	[NT]	[NT]	[NR]	[NR]
Aroclor 1260	µg/L	[NT]	[NT]	[NR]	[NR]
Total PCB's (as above)	µg/L	[NT]	[NT]	60504-1	101%
QUALITYCONTROL Metals in Waters - Acid extractable	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	60504-2	26/08/2011
Date analysed	-	[NT]	[NT]	60504-2	26/08/2011
Phosphorus - Total	mg/L	[NT]	[NT]	60504-2	92%
QUALITYCONTROL Miscellaneous Inorganics	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	60504-2	24/08/2011
Date analysed	-	[NT]	[NT]	60504-2	24/08/2011
pH	pH Units	[NT]	[NT]	[NR]	[NR]
Electrical Conductivity	µS/cm	[NT]	[NT]	[NR]	[NR]
Fluoride, F	mg/L	[NT]	[NT]	[NR]	[NR]
Ammonia as N in water	mg/L	[NT]	[NT]	60504-2	89%
TKN in water	mg/L	[NT]	[NT]	60504-2	93%
NOx as N in water	mg/L	[NT]	[NT]	60504-2	#

Report Comments:

PQL raised for NOx as N for samples 2, 3-8 due to sample matrix interference.

NOx as N in water: # Percent spike recovery not available due to matrix interference, however an acceptable recovery was achieved for the LCS.

OP/OC/PCB's in water analysed by NMI. Report No.RN873757.

Asbestos ID was analysed by Approved Identifier: Not applicable for this job

Asbestos ID was authorised by Approved Signatory: Not applicable for this job

INS: Insufficient sample for this test

PQL: Practical Quantitation Limit

NT: Not tested

NA: Test not required

RPD: Relative Percent Difference

NA: Test not required

<: Less than

>: Greater than

LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

Appendix C

Quality Assurance / Quality Control Report
Chain of Custody (Field and Despatch)
Sample Receipts
PID Calibration Reports

Quality Assurance/Quality Control Report

Stage 2 Contamination Assessment, Proposed Northbank Enterprise Hub

Lot 1001 DP 1127780, 365 Tomago Road, Tomago

Quality Assurance (QA) was maintained by:

- Compliance with a Project Quality Plan written for the objectives of the study;
- Using qualified engineers/scientists to undertake the field supervision and sampling;
- Following the Douglas Partners Pty Ltd (DP) operating procedures for sampling, field testing and decontamination as presented in Table C1;
- Using NATA registered laboratories for sample testing that generally utilise standard laboratory methods of the US EPA, the APHA and NSW EPA.

Table C1: Field Procedures

Abbreviation	Procedure Name
FPM LOG	Logging
FPM DECONT	Decontamination of Personnel and Equipment
FPM ENVID	Sample Identification, Handling, Transport and Storage of Contamination Samples
FPM PIDETC	Operation of Field Analysers
FPM ENVSAMP	Sampling of Contaminated Soils

Notes: From DP Field Procedures Manual

Quality Control (QC) of the laboratory programme was achieved by the following means:

- Check replicate - a specific sample was split in the field, placed in separate containers and labelled with different sample numbers, and sent to the laboratory for analysis;
- Method blanks - the laboratory ran reagent blanks to confirm the equipment and standards used were uncontaminated;
- Laboratory replicates - the laboratory split samples internally and conducted tests on separate extracts;
- Laboratory spikes - samples were spiked by the laboratory with a known concentration of contaminants and subsequently tested for percent recovery.

Discussion

A. Check Replicate

The Relative Percent Difference (RPD) between replicate results is used as a measure of laboratory reproducibility and is given by the following:

$$\text{RPD} = \frac{\text{ABS (Replicate result 1 – Replicate result 2)}}{(\text{Replicate result 1} + \text{Replicate result 2})/2} \times 100$$

The RPD can have a value between 0% and 200%. An RPD data quality objective of up to 50% is generally considered to be acceptable for organic analysis, and 35% for inorganics (i.e. Metals).

The results of the soil replicate QA/QC testing are presented in Table C2 below.

Table C2: Results of Quality Control Analysis – Soil Results

Analyte		Bore 10/1.0 m	Replicate ALP-D4	RPD (%)	Bore 14/0.25 m	Replicate MJW-D2	RPD (%)	Pit 30/0.05 m	Replicate ALP-D30	RPD (%)	Pit 31/0.5 m	Replicate ALP-D32	RPD (%)	Pit 52/0.5 m	Replicate ALP-D13	RPD (%)	Pit 68/0.05 m	Replicate ALP-D34	RPD (%)	Pit 69/0.05	Replicate ALP-D37	RPD (%)
pH (pH Units)		7.9	NT	N/A	NT	NT	N/A	NT	NT	N/A	5.9	5.9	0	5.8	5.7	2	NT	NT	N/A	NT	NT	N/A
EC (µS/cm)		170	NT	N/A	NT	NT	N/A	NT	NT	N/A	89	93	4	4	6	40	NT	NT	N/A	NT	NT	N/A
Metals	As	6	6	0	8	7	13	<4	<4	N/A	6	7	15	<4	<4	N/A	11	10	10	<4	<4	N/A
	Cd	<0.5	<0.5	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A
	Cr	31	29	7	43	43	0	1	<1	N/A	24	29	19	<1	<1	N/A	3	2	40	6	6	0
	Cu	10	10	0	39	39	0	1	<1	N/A	30	35	15	<1	<1	N/A	9	7	25	9	9	0
	Pb	10	10	0	32	44	32	2	1	67	53	56	6	<1	<1	N/A	15	15	0	30	35	15
	Hg	<0.1	<0.1	N/A	<0.1	<0.1	N/A	<0.1	<0.1	N/A	0.2	0.2	0	<0.1	<0.1	N/A	<0.1	<0.1	N/A	<0.1	<0.1	N/A
	Ni	18	20	11	60	54	11	<1	<1	N/A	34	41	19	<1	<1	N/A	5	4	22	4	4	0
	Zn	34	33	3	95	110	15	22	16	32	260	280	7	<1	<1	N/A	43	39	10	55	59	7
	Mn	120	220	59	240	370	43	23	13	56	1200	1300	8	<1	<1	N/A	160	120	29	140	150	7
	Co	8	11	32	20	22	10	<1	<1	N/A	38	43	12	<1	<1	N/A	2	2	0	2	2	0
	Sn	3	3	0	1	2	67	<1	<1	N/A	7	9	25	<1	<1	N/A	2	1	67	2	2	0
TRH	C ₆ - C ₉	<25	<25	N/A	<25	<25	N/A	<25	<25	N/A	<25	<25	N/A	<25	<25	N/A	NT	NT	N/A	NT	NT	N/A
	C ₁₀ - C ₁₄	<50	<50	N/A	<50	<50	N/A	<50	<50	N/A	<50	<50	N/A	<50	<50	N/A	NT	NT	N/A	NT	NT	N/A
	C ₁₅ - C ₂₈	<100	<100	N/A	<100	<100	N/A	<100	<100	N/A	<100	<100	N/A	<100	<100	N/A	NT	NT	N/A	NT	NT	N/A
	C ₂₉ - C ₃₆	<100	<100	N/A	<100	<100	N/A	<100	<100	N/A	<100	<100	N/A	<100	<100	N/A	NT	NT	N/A	NT	NT	N/A
BTEx	Benzene	<0.2	<0.2	N/A	<0.2	<0.2	N/A	<0.2	<0.2	N/A	<0.2	<0.2	N/A	<0.2	<0.2	N/A	NT	NT	N/A	NT	NT	N/A
	Toluene	<0.5	<0.5	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A	NT	NT	N/A	NT	NT	N/A
	Ethyl Benzene	<1	<1	N/A	<1	<1	N/A	<1	<1	N/A	<1	<1	N/A	<1	<1	N/A	NT	NT	N/A	NT	NT	N/A
	Xylene	<3	<3	N/A	<3	<3	N/A	<3	<3	N/A	<3	<3	N/A	<3	<3	N/A	NT	NT	N/A	NT	NT	N/A
PAH	Total	<1.55	<1.55	N/A	NT	NT	N/A	<1.55	<1.55	N/A	<1.57	<1.55	N/A	NT	NT	N/A	NT	NT	N/A	0	NT	N/A
	Benzo(a)pyrene	<0.05	<0.05	N/A	NT	NT	N/A	<0.05	<0.05	N/A	0.07	<0.05	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A
OCPs		<PQL	<PQL	N/A	<PQL	<PQL	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
OPPs		<PQL	<PQL	N/A	<PQL	<PQL	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
PCBs		<PQL	<PQL	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A
VOC		NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A
NOx		NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A	NT	NT	N/A	NT	NT	N/A
TKN		NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	2800	2700	4	63	50	23	NT	NT	N/A	NT	NT	N/A
Ammonia		NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	19	14	30	1.5	1.2	22	NT	NT	N/A	NT	NT	N/A
Fluoride		NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A
Phosphorus		NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	1800	2100	15	<10	<10	N/A	NT	NT	N/A	NT	NT	N/A

Table C2: Results of Quality Control Analysis – Soil Results (Continued)

Analyte		Pit 72/0.05 m	Replicate ALP-D36	RPD (%)	Pit 86/0.25 m	Replicate KGP-D2	RPD (%)	Pit 89/0.05 m	Replicate KGP-D4	RPD (%)	Pit 91/0.05 m	Replicate KGP-D6	RPD (%)	Pit 96/0.25 m	Replicate KGP-D5	RPD (%)	Pit 114/0.05 m	Replicate KGP-D3	RPD (%)
pH (pH Units)		5.8	5.6	4	NT	NT	N/A	NT	NT	N/A	6.5	6.6	2	5.1	5.3	4	5.4	5.5	2
EC (µS/cm)		110	100	10	NT	NT	N/A	NT	NT	N/A	420	410	2	900	930	3	92	92	0
Metals	As	5	5	0	<4	<4	N/A	<4	<4	N/A	4	<4	N/A	5	<4	N/A	<4	<4	N/A
	Cd	<0.5	<0.5	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A
	Cr	24	23	4	2	2	0	8	4	67	18	17	6	47	39	19	4	3	29
	Cu	17	14	19	18	20	11	6	3	67	28	27	4	23	15	42	7	5	33
	Pb	8	8	0	5	4	22	5	4	22	23	23	0	15	12	22	16	12	29
	Hg	0.1	<0.1	N/A	<0.1	<0.1	N/A	<0.1	<0.1	N/A	<0.1	<0.1	N/A	0.1	<0.1	N/A	<0.1	<0.1	N/A
	Ni	30	23	26	2	2	0	7	3	80	28	26	7	39	18	74	4	3	29
	Zn	69	43	46	22	27	20	68	35	64	170	170	0	65	43	41	56	31	57
	Mn	350	220	46	23	22	4	66	31	72	550	570	4	98	67	38	16	9	56
	Co	19	12	45	1	1	0	3	1	100	15	15	0	14	8	55	<1	<1	N/A
	Sn	<1	4	N/A	<1	<1	N/A	<1	<1	N/A	1	1	0	1	<1	N/A	<1	<1	N/A
	TRH																		
	C₆ - C₉	NT	NT	N/A	<25	<25	N/A	NT	NT	N/A	<50	<50	N/A	<25	<25	N/A	<25	<25	N/A
	C₁₀ - C₁₄	NT	NT	N/A	<50	<50	N/A	NT	NT	N/A	<100	<100	N/A	<50	<50	N/A	<50	<50	N/A
	C₁₅ - C₂₈	NT	NT	N/A	<100	<100	N/A	NT	NT	N/A	<200	<200	N/A	<100	<100	N/A	<100	<100	N/A
	C₂₉ - C₃₆	NT	NT	N/A	<100	<100	N/A	NT	NT	N/A	<200	<200	N/A	<100	<100	N/A	<100	<100	N/A
BTEX	Benzene	NT	NT	N/A	<0.2	<0.2	N/A	NT	NT	N/A	<0.4	<0.4	N/A	<0.2	<0.2	N/A	<0.2	<0.2	N/A
	Toluene	NT	NT	N/A	<0.5	<0.5	N/A	NT	NT	N/A	<1	<1	N/A	<0.5	<0.5	N/A	<0.5	<0.5	N/A
	Ethyl Benzene	NT	NT	N/A	<1	<1	N/A	NT	NT	N/A	<2	<2	N/A	<1	<1	N/A	<1	<1	N/A
	Xylene	NT	NT	N/A	<3	<3	N/A	NT	NT	N/A	<6	<6	N/A	<3	<3	N/A	<3	<3	N/A
PAH	Total	<1.55	<1.55	N/A	<1.55	<1.55	N/A	NT	NT	N/A	<17.1	<6.69	N/A	NT	NT	N/A	NT	NT	N/A
	Benzo(a)pyrene	<0.05	<0.05	N/A	<0.05	<0.05	N/A	NT	NT	N/A	1.3	0.39	108	NT	NT	N/A	NT	NT	N/A
OCPs		NT	NT	N/A	NT	NT	N/A	<PQL	<PQL	N/A	NT	NT	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
OPPs		NT	NT	N/A	NT	NT	N/A	<PQL	<PQL	N/A	NT	NT	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
PCBs		NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A
VOC		NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	<PQL	<PQL	N/A	NT	NT	N/A	NT	NT	N/A
NOx		NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A
TKN		NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A
Ammonia		NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	62	50	21	NT	NT	N/A	NT	NT	N/A
Fluoride		NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	0.6	<0.5	N/A	4.7	4.7	0
Phosphorus		NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A

Notes:

Results expressed in mg/kg on dry weight basis unless otherwise stated

N/A - Not Applicable

NT - Not Tested

The majority of field replicate RPDs for soil were found to be within the within the quality control objectives.

Elevated RPDs (up to 72%) were generally for metals (Manganese, Copper, Lead, Tin, Nickel, Cobalt, Chromium and Zinc). An elevated RPD of 108% was also found for Benzo(a)pyrene in fill sample Pit 91/0.05 and replicate KGP-D6.

The elevated RPDs for soils can generally be attributed to low concentrations for some analytes, resulting in high RPDs for small changes in concentration and/or the heterogeneity of the fill materials analysed.

The results of QA/QC testing for surface water and groundwater samples are presented in Table C3 below.

Table C3: Results of Quality Control Analysis - Surface Water and Groundwater

Analyte	Surface Water						Groundwater								
	SW130	KGP D9	RPD (%)	SW139	KGP D8	RPD (%)	Well 5	KGPD11	RPD (%)	20-U	KGPD10	RPD (%)	21	KGPD12	RPD (%)
pH	6.7	6.8	1	6.3	6.2	2	5.1	5.1	0	6.7	6.7	0	6.3	6.2	2
EC (uS/cm)	1700	1700	0	190	190	0	270	270	0	29000	26000	11	23000	22000	4
Anions															
Fluoride (F)	1.1	1.1	0	1.1	1.1	0	0.28	0.28	0	0.45	0.44	2	0.31	0.29	7
Ammonia (NH ₃) as N	0.0083	0.0067	21	0.0096	0.015	44	0.3	0.3	0	1.4	1.2	15	0.77	0.84	9
Total Nitrogen as N	1.7	1.8	6	1.84	1.82	1	1.505	1.6	6	2.4	2.2	9	2.7	2.5	8
NO _x (NO ₂ ⁻ + NO ₃ ⁻)	<PQL	<PQL	N/A	0.04	0.02	67	0.005	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
TKN	1.7	1.8	6	1.8	1.8	0	1.5	1.6	6	2.4	2.2	9	2.7	2.5	8
Cations															
Ca	50	37	30	9.6	9.6	0	7.5	8.1	8	590	570	3	530	530	0
Mg	29	22	27	3.4	3.6	6	7.5	8	6	1100	1000	10	820	810	1
K	10	7.9	23	4.3	4.4	2	2.5	2.7	8	200	190	5	120	120	0
Na	170	130	27	16	22	32	18	23	24	5700	5500	4	4400	4300	2
Metal															
Al	0.094	0.32	109	1.1	1.2	9	1	1.1	10	0.023	0.021	9	0.03	0.032	6
As	0.001	0.004	120	0.017	0.018	6	<PQL	<PQL	N/A	<PQL	<PQL	N/A	0.001	0.001	0
Cd	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	0.0001	0.0002	67	<PQL	0.0002	N/A
Co	0.002	0.009	127	<PQL	<PQL	N/A	0.001	0.001	0	0.018	0.02	11	0.25	0.25	0
Cr	0.002	0.009	127	0.003	0.003	0	0.003	0.003	0	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Cu	0.001	0.006	143	0.002	0.002	0	0.001	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Fe	1.9	1.4	30	8	9	12	1.3	1.4	7	46	50	8	250	250	0
Mn	0.035	0.18	135	0.18	0.25	33	0.046	0.045	2	6.9	6.8	1	17	16	6
Ni	0.016	0.075	130	0.004	0.003	29	0.02	0.02	0	0.029	0.03	3	0.16	0.16	0
Pb	<PQL	<PQL	N/A	0.004	0.004	0	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Sn	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Zn	0.007	0.032	128	0.01	0.011	10	0.03	0.029	3	0.039	0.044	12	0.069	0.069	0
Hg	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
TRH															
C ₆ - C ₉	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
C ₁₀ - C ₁₄	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
C ₁₅ - C ₂₈	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
C ₂₉ - C ₃₆	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
BTEX															
Benzene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Toluene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Ethyl Benzene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Xylene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	0.003	0.003	0	<PQL	<PQL	N/A
PAHs															
Total PAHs	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<0.0017	<0.0017	N/A	<PQL	<PQL	N/A
Naphthalene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	0.0002	0.0002	0	<PQL	<PQL	N/A
Acenaphthylene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Acenaphthene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Fluorene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Phenanthrene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Anthracene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Fluoranthene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Pyrene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Benzo[a]anthracene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Chrysene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Benzo[b,k]fluoranthene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Benzo[a]pyrene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Indeno[123-cd]pyrene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Dibenzo[ah]anthracene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Benzo[ghi]perylene	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Total OPPs	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
OCPs															
Total OCPs	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Aldrin + Dieldrin	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Chlordane	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
DDT	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Heptachlor	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Total PCBs	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A	<PQL	<PQL	N/A
Phosphorus															
Total Phosphorus	0.2	0.1	67	0.3	0.3	0	0.05	<PQL	N/A	0.4	0.4	0	0.2	0.2	0
Total VOCs	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A	NT	NT	N/A

Notes:

Results expressed in mg/L unless otherwise stated

N/A - Not Applicable

NT - Not Tested

The majority of field replicate RPDs for groundwater and surface water were found to be within the within the quality control objectives.

Elevated RPDs (up to 143%) were generally for phosphorus and metals (Aluminium, Arsenic, Cobalt, Cadmium, Chromium Copper, Manganese, Nickel and Zinc), with the majority of elevated RPDs for surface water sample SW130 and replicate KGP-D6.

Elevated RPDs can generally be attributed to the low analyte concentrations which result in high RPDs for small changes in concentration, with the majority of elevated RPDs for samples less than five times the laboratory PQL.

B. Method Blanks

All method blanks returned results lower than the laboratory detection limit, therefore are acceptable.

C. Laboratory Replicates

RPDs for laboratory replicates generally ranged between 0% to 50%.

Elevated RPDs in soil up to 100% were identified for selected samples. The laboratory attributed this to the following:

- The non homogenous nature of the sample; and
- The high concentration of analytes in the sample which resulted in matrix interference.

The results are therefore considered acceptable.

D. Laboratory Spikes

Recoveries in the order of 70% to 130% are generally considered to be acceptable for inorganic material and 60% to 140% for organic material. The average percent recovery for individual contaminants ranged from 52% to 136%, which is generally within the quality control objectives. The results should however be qualified and may slightly under-estimate or over-estimate contaminant concentrations in certain samples (i.e. biased low or high respectively).

Conclusions

In summary, while some elevated results were found, they can be attributed to the heterogeneity of the filling material and/or the relatively low concentration of contaminants.

It is also noted that the magnitude of RPDs for field replicates (i.e. blind replicates) are generally higher than those for laboratory replicates. Field replicates results generally show greater variability than laboratory replicates, because they measure both field and laboratory reproducibility.

The accuracy and precision of the soil testing procedures, as inferred by the laboratory QA/QC data is considered to be of sufficient standard to allow the data reported to be used in interpret site contamination conditions.

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608-01
Location: Tomago

Field								DP Office	Despatch	Notes
Sample ID	Depth (m)	Duplicate/Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>ALP</u> Date: <u>26/7/11</u> - <u>27/7/11</u>	☒ Environmental Date: <u>2-8-11</u>	
					By	Date	Time	Storage Location*		
BH6	0.1		S	G, P	ALP	26/7/11	9:30	Fridge		
	0.25									
	0.5								✓	
	1.0	ALPD1								
	1.5-1.95									
	3.2-3.65									
BH8	0.1								✓	
	0.25									
	0.5									
	1.0									
	1.5-1.95									
	3-3.45						4:00			
BH5	0.1					27/7/11	8:30		✓	
	0.25									
	0.5									
	1.0	ALPD2								
	1.5-1.95									
	3-3.45						10:30			
BH11	0.1						11:00			
	0.25								✓	

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608-01
Location: Tomago

Sample ID	Depth (m)	Duplicate/ Replicate Sample	Field					DP Office	Despatch	Notes
			Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>ALP</u> Date: <u>27/7/11</u>	☒ <u>Envirolab</u>	
					By	Date	Time	Storage Location*	Date: <u>2-8-11</u>	
BH11	0.5		S	G, P	ALP	27/7/11		Fridge		
	1.0									
	1.5-1.95									
	3.0-3.45						1:00			
BH12	0.1						2:30			
	0.25									
	0.5								✓	
	0.8									
	1.0	APD3								
	1.5-1.95									
	3-3.45						4:30			
BH10L	0.1					28/7/11	9:15			
	0.25									
	0.5								✓	
	1.0	APD4							✓ + ALPD4	
	1.5-1.95									
	1.8									
	2.5									
	3.0									
	3-3.45			G			9:50			

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

[illegible]

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

Field								DP Office	Despatch	Notes
Sample ID	Depth (m)	Duplicate/ Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>ALP</u>	☒ <u>Environlab</u>	
					By	Date	Time	Date: <u>1/8/11</u>	Date: <u>2-8-11</u>	
<u>TP32</u>	<u>0.1</u>		<u>S</u>	<u>G, P</u>	<u>ALP</u>	<u>1/8/11</u>	<u>8:45</u>	<u>Fridge</u>	<u>✓</u>	
	<u>0.25</u>		↓	↓	↓	↓	↓	↓		
	<u>0.5</u>		↓	↓	↓	↓	↓	↓		
	<u>1.0</u>	<u>ALPD6</u>	↓	↓	↓	↓	↓	↓		
<u>TP33</u>	<u>0.1</u>		↓	↓	↓	↓	↓	↓		
	<u>0.25</u>		↓	↓	↓	↓	↓	↓		
	<u>0.5</u>		↓	↓	↓	↓	↓	↓		
	<u>1.0</u>		↓	↓	↓	↓	↓	↓		
	<u>1.3</u>		↓	↓	↓	↓	↓	↓	<u>✓</u>	
<u>TP34</u>	<u>0.1</u>		↓	↓	↓	↓	↓	↓	<u>✓</u>	
	<u>0.25</u>		↓	↓	↓	↓	↓	↓		
	<u>0.5</u>		↓	↓	↓	↓	↓	↓		
	<u>1.0</u>		↓	↓	↓	↓	↓	↓		
<u>TP35</u>	<u>0.1</u>		↓	↓	↓	↓	↓	↓		
	<u>0.25</u>		↓	↓	↓	↓	↓	↓	<u>✓</u>	
	<u>0.5</u>		↓	↓	↓	↓	↓	↓		
	<u>1.0</u>		↓	↓	↓	↓	↓	↓		
<u>TP23</u>	<u>0.1</u>		↓	↓	↓	↓	↓	↓		
	<u>0.25</u>		↓	↓	↓	↓	↓	↓	<u>✓</u>	
	<u>0.5</u>		↓	↓	↓	↓	<u>12:20</u>	↓		

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge



Geotechnics • Environment • Groundwater

CHAIN OF CUSTODY FIELD SHEET

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

[illegible]

*Default storage: Glass containers = 125/250 mL glass jar with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

[illegible]

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

Field								DP Office	Despatch	Notes
Sample ID	Depth (m)	Duplicate/ Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>MDW</u>	☒ <u>Enumerated</u>	
					By	Date	Time	Date: <u>1/8/11</u>	Date: <u>4-8-11</u>	
2	0.1	-	S	G, P	MDW	1/8/11	9:10	*		*ASS
↓	0.25	-	↓	↓	↓	↓	↓	↓		↓
↓	0.5	-	↓	↓	↓	↓	↓	↓		↓
↓	1.0	-	↓	↓	↓	↓	↓	↓		↓
↓	1.5-1.95	-	↓	↓	↓	↓	↓	↓		↓
↓	3.0-3.45	-	↓	↓	↓	↓	↓	↓		↓
1	0.05		S	G/P	MDW	1/8/11	10:45		✓	ASS
↓	0.25		↓	↓	↓	↓	↓	↓		↓
↓	0.5		↓	↓	↓	↓	↓	↓		↓
↓	1.0		↓	↓	↓	↓	↓	↓		↓
↓	1.5-1.95		↓	↓	↓	↓	↓	↓		↓
↓	3.0-3.45		↓	↓	↓	↓	↓	↓		↓
↓	3.5		↓	↓	↓	↓	↓	↓		↓
4	0.05	MDW-0-1	S	G/P	MDW	1/8/11	1:20			Poor recovery, ASS only
↓	0.25		↓	↓	↓	↓	↓	↓		↓
↓	0.5		↓	↓	↓	↓	↓	↓		↓
↓	1.0		↓	↓	↓	↓	↓	↓	✓	↓
↓	1.5-1.95		↓	↓	↓	↓	↓	↓		↓
↓	3.0-3.45		↓	↓	↓	↓	↓	↓		↓

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag
*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

Field								DP Office	Despatch	Notes
Sample ID	Depth (m)	Duplicate/ Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>ALP</u> Date: <u>2/8/11</u>	☒ <u>Envelope</u> Date: <u>4-8-11</u>	
					By	Date	Time	Storage Location*		
TP38	0.1		S	G, P	ALP	2/8/11	7:45	Fridge		
	0.25									
	0.5								✓	
	1.0	ALPD9								
	1.5									
TP 36	0.05						8:40			
	0.087								✓	
	0.25									
	0.45									
	1.0									
	1.5						9:15			
TP40	0.1								✓	
	0.25									
	0.5									
	1.0									
	1.5						10:30			
TP39	0.1									
	0.25									
	0.43								✓	
	1.04									

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

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Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

Field								DP Office	Despatch	Notes
Sample ID	Depth (m)	Duplicate/ Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>MDW</u> Date: <u>2/8/11</u>	☒ Envelope Date: <u>4-8-11</u>	
					By	Date	Time	Storage Location*		
7	0-0.5	-	S	G, P	MDW	2/8/11	7:45	X		
	0.25	-								
	0.5	-								
	1.0	-								
	1.5-1.95	-								
	3.0-3.45	-								
14-L	0.05	-	S	G/P	MDW	2/8/11				
	0.25	MDW-D-2								
	0.5	-								
	1.0	-								
	1.3	-								
	1.5-1.95	-								
	3.0-3.45	-								
	4.5-4.95	-								
	6.0-6.45	-								
	7.5-7.95	-								
	9.0-9.45	-								
	10.5-10.95	-		P						
	12.0-12.45	-		P						

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag
*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

CHAIN OF CUSTODY FIELD SHEET

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

Sample ID	Depth (m)	Field						DP Office	Despatch	Notes
		Duplicate/ Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>ALP</u>	☒ <u>EnviroLab</u>	
					By	Date	Time	Date: <u>3/8/11</u>	Date: <u>4-8-11</u>	
TP48	0.1		S	G, P	ALP	3/8/11	8:00	Fridge	✓	
	0.25									
	0.5									
	1.0									
	1.5									
TP52	0.1						8:30		✓	
	0.25									
	0.4									
	0.5	ALPD13								
	1.0									
TP53	1.5								✓	
	0.1									
	0.25									
	0.3									
	0.5									
TP54	1.0								✓	
	0.1									
	0.25									
	0.5	ALPD14					12:10			
	1.0									

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tamago

Sample ID	Depth (m)	Duplicate/ Replicate Sample	Field		Sampling			DP Office	Despatch	Notes
			Sample Type S-soil W-water	Container Type G-glass P-plastic	By	Date	Time	Received by:	☒ EnviroLab	
			Date: <u>3/8/11</u>	Date: <u>9-8-11</u>						
								Storage Location*		
TP 61	0.1		S	G, P	ALP	3/8/11		Fridge		
	0.25								✓	
	0.5									
	1.0									
TP 51	0.1									
	0.25	ALPD15								
	0.5									
	1.0									
TP 50	0.1									
	0.25									
	0.5	ALPD16								
	1.0									
Fibro 5	-		Fibro	P			3:40pm		✓	
Fibro 6	-		Fibro	P			3:55pm		✓	

Default containers for soil: glass = clear 125/250 mL with teflon liner; plastic = press seal bag
*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub Pty Ltd
Project: Stage 2 Detailed Contamination Assessment Project No: 49608-01
Location: Lot 1001, DP 1127780, 365 Tomago Road, Tomago

Field								DP Office	Despatch	Notes
Sample ID	Depth (m)	Duplicate/Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: KGP	☒ Envo. label	
					By	Date	Time	Date: 3/8/11	Date: 4-8-11	
Pit 113	0.05		S	GP	KGP	3/8/11	10:00am	*		
↓	0.25			↓						
	0.45			GP + ASS					✓	
Pit 87	0.05	K6PD1		GP						
↓	0.25			↓					✓	
Pit 118	0.05			GP + ASS					✓	
↓	0.25									
	0.45									
Pit 85	0.05								✓	
↓	0.25									
	0.45									
Pit 120	0.05									
↓	0.25								✓	
	0.45									
Pit 119	0.05								✓	
↓	0.25									
	0.45									
Pit 86	0.05			GP + asbestos						
↓	0.25	K6PD2		↓					✓ + K6PD2	
	0.55			GP + ASS			2:20pm			

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

CHAIN OF CUSTODY FIELD SHEET

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

Sample ID	Depth (m)	Duplicate/ Replicate Sample	Field					DP Office	Despatch	Notes
			Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>ALP</u>	☒ <u>Envirolink</u>	
					By	Date	Time	Date: <u>4/8/11</u>	Date: <u>9-8-11</u>	
TP60	0.1		S	G,P	ALP	4/8/11	7:45	Fridge		
	0.25									
	0.5									
	1.0									
	1.5									
TP59	0.1						8:30			
	0.25								✓	
	0.5									
	1.0									
	1.5									
TP56	0.1	ALPD17					9:30			
	0.25								✓	
	0.5									
	1.0									
	1.5									
TP57	0.05						10:50			
	0.25								✓	
	0.5									
	1.0	ALPD18								
	1.5						11:50			

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

Field								DP Office	Despatch	Notes	
Sample ID	Depth (m)	Duplicate/ Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>ALP</u>	☒ <u>Envelop</u>		
					By	Date	Time	Date: <u>4/8/11</u>	Date: <u>9-8-11</u>		
TP55	0.05		S	G,P	ALP	4/8/11	↓	Fridge			
	0.25										
	0.5										
	1.0										
	1.5										
TP58	0.05					~~ALP~~	1:30				
	0.25										
	0.5	ALPD19									
	1.0										
	1.5										
TP62	0.05					~~ALP~~	2:30		✓		
	0.25										
	0.5										
	1.0										
	1.5										
TP66	0.05						↓		✓		
	0.25										
	0.5										
	1.0	ALP20									
	1.5										
			↓	↓	↓	↓	4:00	↓			

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge



Geotechnics • Environment • Groundwater

CHAIN OF CUSTODY FIELD SHEET

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

[illegible]

*Default storage: Glass containers in fridge, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub Pty Ltd
Project: Stage 2 Detailed Contamination Assessment Project No: 49608-01
Location: Lot 1001, DP 1127780 365 Tomago Road, Tomago

Field								DP Office	Despatch	Notes
Sample ID	Depth (m)	Duplicate/ Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: KGP	☒ Envelope	
					By	Date	Time	Date: 4/8/11	Date: 9-8-11	
Pit 115	0.05		S	G+ASS	KGP	4/8/11	7:00am	*		
↓	0.25								✓	
	0.45									
Pit 114	0.05	KGP D3							✓ + KGP D3	
↓	0.25									
	0.45									
Pit 111	0.05								✓	
↓	0.25									
	0.45									
Pit 112	0.05								✓	
↓	0.25									
	0.45									
Pit 107	0.05								✓	
↓	0.25									
	0.45									
Pit 108	0.05								✓	
↓	0.25									
	0.45									
Pit 110	0.05									
↓	0.25		✓	✓	✓		12:20pm	✓	✓	

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag
*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub Pty Ltd
Project: Stage 2 Detailed Contamination Assessment
Location: Lot 1001, DP 1127780 365 Tomago Road, Tomago

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

Sample ID	Depth (m)	Duplicate/Replicate Sample	Field					DP Office	Despatch	Notes
			Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>ALP</u>	☒ Envelope	
					By	Date	Time	Date: <u>5/8/11</u>	Date: <u>9-8-11</u>	
TP44	0.25		S	G,P	ALP	5/8/11				
	0.5									
	1.0									
	1.5	ALPD22								
~~TP45~~	2.5						12:30			
TP46	0.05									
	0.25									
	0.5									
	1.0									
	1.5						2:00			
TP47	0.05									
	0.25									
	0.5									
	1.0									
	1.5	ALPD23								
Fibro 9	-		Fibro	~~Plastic~~ P			3:00			
F9	-		S	~~Plastic~~ P						
TP84	0.05			G,P						
	0.25									
	0.5						4:00			

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

Field								DP Office	Despatch	Notes
Sample ID	Depth (m)	Duplicate/ Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: ... <u>ALP</u> Date: ... <u>5/8/11</u> ...	☒ ... <u>Enrolah</u> ...	
					By	Date	Time	Storage Location*	Date: <u>9-8-11</u>	
<u>Fibro 7</u>	-		<u>Fibro</u>	<u>P</u>	<u>ALP</u>	<u>5/8/11</u>	<u>7:45</u>	<u>Fridge</u>	✓	
<u>F7</u>	-		<u>S</u>	↓					✓	
<u>Fibro 8</u>	-		<u>Fibro</u>	↓					✓	
<u>F8</u>	-		<u>S</u>	↓					✓	
<u>TP42</u>	<u>0.05</u>		<u>S</u>	<u>G, P</u>						
	<u>0.25</u>		↓	↓					✓	
	<u>0.5</u>		↓	↓						
	<u>1.0</u>		↓	↓						
	<u>1.5</u>		↓	↓						
<u>TP43</u>	<u>0.05</u>		↓	↓					✓	
	<u>0.25</u>		↓	↓						
	<u>0.5</u>		↓	↓						
	<u>1.0</u>	<u>ALPD21</u>	↓	↓			↓			
	<u>1.5</u>		↓	↓			<u>9:45</u>			
<u>TP445</u>	<u>0.05</u>		↓	↓			↓		✓	
	<u>0.25</u>		↓	↓						
	<u>0.5</u>		↓	↓						
	<u>1.0</u>		↓	↓						
	<u>1.5</u>		↓	↓			↓			
<u>TP44</u>	<u>0.05</u>		↓	↓	↓	↓	<u>11:00</u>	↓		

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge



Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

[illegible]

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge



Geotechnics • Environment • Groundwater

CHAIN OF CUSTODY FIELD SHEET

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

[illegible]

Default containers for soil: glass = clear 125/250 mL with teflon liner; plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub Pty Ltd
Project: Stage 2 Detailed Contamination Assessment Project No: 49608-01
Location: Lot 1001, DP 1127780 365 Tomago Road, Tomago

Field								DP Office	Despatch	Notes
Sample ID	Depth (m)	Duplicate/ Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>KGP</u> Date: <u>5/8/11</u>	☒ <u>Envelope</u> Date: <u>9-8-11</u>	
					By	Date	Time	Storage Location*		
Pit 90	0.05		S	GP PAX	KGP	5/8/11	9:00am	*		
↓	0.25		↓	↓	↓	↓	↓	↓		
	0.45		↓	↓	↓	↓	↓	↓		
Pit 101	0.05		↓	↓	↓	↓	↓	↓		
↓	0.25		↓	↓	↓	↓	↓	↓	✓	
	0.45		↓	↓	↓	↓	↓	↓		
Pit 102	0.05		↓	↓	↓	↓	↓	↓		
↓	0.25		↓	↓	↓	↓	↓	↓	✓	
	0.45		↓	↓	↓	↓	↓	↓		
Pit 103	0.05		↓	↓	↓	↓	↓	↓	✓	
↓	0.25		↓	↓	↓	↓	↓	↓		
	0.45		↓	↓	↓	↓	↓	↓		
Pit 96	0.05	~~KGPDS~~	↓	↓	↓	↓	↓	↓		
↓	0.25	KGPDS	↓	↓	↓	↓	↓	↓	✓ + KGPDS	
↓	0.45		↓	↓	↓	↓	↓	↓		
Pit 97	0.05		↓	↓	↓	↓	↓	↓	✓	
↓	0.25		↓	↓	↓	↓	↓	↓		
	0.45		↓	↓	↓	↓	↓	↓		
Pit 98	0.05		↓	↓	↓	↓	↓	↓	✓	
↓	0.25		↓	↓	↓	↓	1:45pm	↓		

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge



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CHAIN OF CUSTODY FIELD SHEET

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

[illegible]

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

Sample ID	Depth (m)	Duplicate/ Replicate Sample	Field					DP Office	Despatch	Notes
			Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>ALP</u>	☒ <u>Environlab</u>	
					By	Date	Time	Date: <u>8/8/11</u>	Date: <u>9-8-11</u>	
<u>TP27</u>	<u>0.05</u>		<u>S</u>	<u>G,P</u>	<u>ALP</u>	<u>8/8/11</u>	<u>8:00</u>	<u>Fridge</u>	☒	
	<u>0.25</u>									
	<u>0.5</u>									
	<u>1.0</u>									
	<u>1.5</u>						<u>8:45</u>			
<u>TP70</u>	<u>0.05</u>									
	<u>0.25</u>									
	<u>0.5</u>									
	<u>1.0</u>	<u>ALPD24</u>								
	<u>1.5</u>									
<u>TP25</u>	<u>0.05</u>								☒	
	<u>0.25</u>									
	<u>0.5</u>									
	<u>1.0</u>									
	<u>1.5</u>									
<u>TP26</u>	<u>0.05</u>									
	<u>0.25</u>								☒	
	<u>0.5</u>									
	<u>1.0</u>									
	<u>1.5</u>	<u>ALPD25</u>								

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge



CHAIN OF CUSTODY FIELD SHEET

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

[illegible]

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

Field								DP Office	Despatch	Notes
Sample ID	Depth (m)	Duplicate/ Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by:.....ALP	☒ Env. data	
					By	Date	Time	Date: 9/8/11.....	Date: 9/11-8-11	
TP 29	0.05		S	C, P	ALP	9/8/11	8:00	Fridge	✓	
	0.25									
	0.5									
	1.0	ALPD26								
	1.5						↓			
TP 75	0.05						8:30		✓	
	0.25									
	0.5									
	0.7									
	1.0									
	1.5									
TP 73	0.05									
	0.25									
	0.5									
	1.0									
	1.5									
TP 77	0.05									
	0.25									
	0.5									
	1.0						12:00			

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag
*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge



Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

[illegible]

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hwh Pty Ltd
Project: Stage 2 Detailed Contamination Assessment Project No: 49608-01
Location: Lot 1001, DP 1127780 365 Tomago Road, Tomago

Sample ID	Depth (m)	Duplicate/ Replicate Sample	Field					DP Office		Despatch	Notes
			Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: KLP	Date: 9/8/11	☒ Envelope	
					By	Date	Time	Storage Location*	Date: 11-8-11		
Pit 91	0.05	KLPD6	S	GP+ASS	KLP	9/8/11	9:25am	*		✓ +KLPD6	
↓	0.25										
↓	0.45										
Pit 50	0.05										
↓	0.25										
↓	0.45										
Pit 79	0.05			GP						✓	
↓	0.25										
↓	0.45			GP+ASS							
Pit 93	0.05									✓	
↓	0.25										
↓	0.45										
Pit 92	0.05										
↓	0.25									✓	
↓	0.45										
Pit 106	0.05									✓	
↓	0.25										
↓	0.45										
↓	0.55			P							
Pit 94	0.05			GP			2:06pm				

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag
*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub Pty Ltd
Project: Stage 2 Detailed Contamination Assessment Project No: 49608-01
Location: Lot 1001, DP 1127780 365 Tamaro Road, Tamaro

[illegible]

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

1 of 2

Field								DP Office	Despatch	Notes
Sample ID	Depth (m)	Duplicate/Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>MJW</u> Date: <u>9-10/9/11</u>	☒ <u>11-8-11</u>	
					By	Date	Time	Storage Location*	Date: <u>11-8-11</u>	
22	0-0.5	-	S	G, P	MJW	9/9/11		+		
	0-2.5	-	J	J	J	J		J	✓	
	0-5	-	J	J	J	J		J		
	1-0	-	J	J	J	J		J		
	1-5-1-9.5	-	J	J	J	J		J		
	3-0-3-4.5	-	J	J	J	J		J		
21	0.05	-	S	G/P	MJW	10/8/11			✓	
	0-2.5	-	J	J	J	J		J		
	0-5	-	J	J	J	J		J		
	1-0	-	J	J	J	J		J		
	1-5-1-9.5	-	J	J	J	J		J		
	3-0-3-4.5	-	J	J	J	J		J		
20-L	0.05	-	S	G/P	MJW	10/8/11				
	0-2.5	-	J	J	J	J		J		
	0-5	-	J	J	J	J		J		
	1-0	-	J	J	J	J		J		
	1-5-1-9.5	-	J	J	J	J		J		
	3-0-3-4.5	-	J	J	J	J		J		
	4-5-4-9.5	-	J	J	J	J		J		
	6-0-6-4.5	-	J	J	J	J		J		

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge



Geotechnics • Environment • Groundwater

CHAIN OF CUSTODY FIELD SHEET

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

 $\hat{Z} \propto Z$ [illegible]

Default containers for soil: glass = clear 125/250 mL with teflon liner; plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

CHAIN OF CUSTODY FIELD SHEET

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tamago

Field								DP Office	Despatch	Notes
Sample ID	Depth (m)	Duplicate/ Replicate Sample	Sample Type S-soil W-water	Container Type G-glass P-plastic	Sampling			Received by: <u>ALP</u>	☒ <u>EnviroLab</u>	
					By	Date	Time	Date: <u>10/8/11</u>	Date: <u>11-8-11</u>	
<u>TP30</u>	<u>0.05</u>	<u>ALPD30</u>	<u>S</u>	<u>G,P</u>	<u>ALP</u>	<u>10/8/11</u>	<u>8:30</u>	<u>Fridge</u>	<u>✓ +ALPD30</u>	<u>Fibro 12</u>
	<u>0.25</u>		↓	↓	↓	↓	↓	↓		<u>Collected</u>
	<u>0.5</u>		↓	↓	↓	↓	↓	↓		<u>next to TP</u>
	<u>1.0</u>		↓	↓	↓	↓	↓	↓		<u>30</u>
	<u>1.5</u>		↓	↓	↓	↓	<u>9:00</u>	↓		
<u>TP31</u>	<u>0.05</u>	<u>ALPD31</u>	↓	↓	↓	↓	↓	↓		
	<u>0.25</u>		↓	↓	↓	↓	↓	↓		
	<u>0.5</u>	<u>ALPD32</u>	↓	↓	↓	↓	↓	↓	<u>✓ +ALPD32</u>	
	<u>1.0</u>		↓	↓	↓	↓	↓	↓		
	<u>1.5</u>		↓	↓	↓	↓	<u>9:50</u>	↓		
<u>Fibro 12</u>	<u>-</u>	<u>-</u>	<u>Fibro</u>	<u>P</u>			<u>8:20</u>		<u>✓</u>	<u>Fibro on concrete</u>
<u>TP72</u>	<u>0.05</u>	<u>ALPD36</u>	<u>S</u>	<u>G,P</u>			↓	↓	<u>✓ +ALPD36</u>	
	<u>0.25</u>		↓	↓	↓	↓	↓	↓		
	<u>0.5</u>		↓	↓	↓	↓	↓	↓		
	<u>1.0</u>		↓	↓	↓	↓	↓	↓		
	<u>1.5</u>		↓	↓	↓	↓	↓	↓		
	<u>1.7</u>		↓	↓	↓	↓	↓	↓		
<u>TP71</u>	<u>0.05</u>	<u>ALPD35</u>	↓	↓	↓	↓	↓	↓		
	<u>0.25</u>		↓	↓	↓	↓	↓	↓		
	<u>0.5</u>		↓	↓	↓	↓	<u>12:00</u>	↓		

Default containers for soil: glass = clear 105/250, plastic = 105/250

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge



Douglas Partners
Geotechnics • Environment • Groundwater

CHAIN OF CUSTODY FIELD SHEET

Client: Northbank Enterprise Hub
Project: Stage 2 Contamination Assessment Project No: 49608.01
Location: Tomago

[illegible]

*Default storage: Glass containers in foil, plastic bags

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub Pty Ltd
Project: Stage 2 Detailed Contamination Assessment
Location: Lot 1001, DP 1127780 365 Tamaro Road, Tamaro

[illegible]

Default containers for soil: glass = clear 125/250 mL with teflon liner, plastic = press seal bag

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub Pty Ltd
Project: Stage 2 Detailed Contamination Assessment Project No: 49608-01
Location: Lot 1001, DP 1127780 365 Tonnage Road, Tonnage

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub Pty Ltd
Project: Stage 2 Detailed Contamination Assessment Project No: 49608-01
Location: Lot 1001, DP 1127780 365 Tonnage Road, Tonnage

[illegible]

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub Pty Ltd
Project: Stage 2 Detailed Contamination Assessment Project No: 49608-01
Location: Lot 1001, DP 1127780 365 Tamaro Road, Tamaro

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub Pty Ltd
Project: Stage 2 Detailed Contamination Assessment
Location: Lot 1001, DP 1127780 365 Tonnage Road, Tonnage

[illegible]

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Client: Northbank Enterprise Hub Pty Ltd
Project: Stage 2 Detailed Contamination Assessment Project No: 49608-01
Location: Lot 1001, DP 1127780 365 Tonnage Road, Tonnage

*Default storage: Glass containers in fridge, plastic containers shelved, all water samples in fridge

Project Name: TOMAGO
Project No: 49608.01 DP Order No: 95629
DP Contact Person: Matthew Blackert/Kyle Prowse
Prior Storage: esky / fridge / freezer / shelved (circle)

To: Envirolab Services Pty Ltd
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200
Attn: Jacinta Hurst

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes															Notes	
				pH EC	Metals #	Flouride	Ammonia	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	PCB	VOC	Asbestos	Scr Suite			
1- BORE 3/0.1	29-7-11	S			✓							✓	✓	✓	✓					INV as per
2- BORE 5/0.25	27-7-11			✓	✓	✓	✓	✓	✓	✓										Quote 11/105
3- BORE 6/0.5	26-7-11				✓							✓	✓	✓	✓					
4- BORE 8/0.1	26-7-11			✓	✓	✓						✓	✓	✓	✓					
5- BORE 9/0.1	29-7-11			✓	✓	✓						✓	✓	✓	✓	✓				
6- BORE 10/0.5	28-7-11				✓							✓	✓	✓	✓					
7- BORE 10/1.0	28-7-11			✓	✓							✓	✓	✓	✓					
8- BORE 11/0.25	27-7-11				✓							✓	✓	✓	✓					Envirolab Services 12 Ashley St Chatswood NSW 2067 Ph: (02) 9910 6200
9- BORE 12/0.5	27-7-11				✓							✓	✓	✓	✓					Job No. 59351
10- Pit 23/0.25	1-8-11				✓							✓	✓	✓	✓	✓				Date Received: 3/8/11
11- Pit 23/1.4					✓							✓	✓	✓	✓					Time Received: 11:55
12- Pit 24/0.1					✓							✓	✓	✓	✓					Received by: AL
PQL (S)		mg/kg																		Temp Cool/Ambient
PQL (W)		mg/L																		Cooling Cool/Repack
PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)				SAMPLES RECEIVED								Send results to:								
# - Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni, Mn, Co, Sn				Please sign and date to acknowledge receipt of samples and return by fax								Douglas Partners Pty Ltd								
Date relinquished: 2-8-11												Address:								
Total number of samples in container: 24												BOX 324 Hunter Region Mail Centre								
Results required by:												NSW 2310								
TAT (Circle): Standard 72 hr 48hr 24hr												Fax: (02) 4960 9601								
				Signature: [Signature]								Date: 3/8/11 Lab Ref: ELS								

Project Name: TOMAGO
Project No: 49608.01 DP Order No: 95629
DP Contact Person: Matthew Blackert/Kyle Prowse
Prior Storage: esky / fridge / freezer / shelved (circle)

To: Envirolab Services Pty Ltd
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200
Attn: Jacinta Hurst

	Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes															Notes
					pH EC	Metals #	Flouride	Ammonia	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	PCB	VOC	Asbestos	Scr Suite		
13-	Pt32/0.1	1-8-11	S		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓				INV as per	
14-	Pt33/1.3					✓						✓	✓	✓	✓	✓			@ note 11/105	
15-	Pt34/0.1					✓						✓	✓	✓	✓	✓	✓			
16-	Pt35/0.25					✓						✓	✓	✓	✓	✓				
17-	Pt64/0.1					✓						✓	✓	✓	✓					
18-	Fibro1		Fibro														✓			
19-	Fibro2																✓			
20-	Fibro3																✓			
21-	F1		S														✓			
22-	F2																✓			
23-	F3																✓			
24-	ALPD4	28-7-11				✓						✓	✓	✓	✓					
	PQL (S)		mg/kg																	
	PQL (W)		mg/L																	

PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)

- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni, Mn, Co, Sn

Date relinquished: 2-8-11

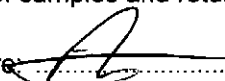
Total number of samples in container: 29

Results required by:

TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED

Please sign and date to acknowledge receipt of samples and return by fax

Signature: 

Date: 3/8/11 Lab Ref: ELS

Send results to:

Douglas Partners Pty Ltd

Address:

BOX 324 Hunter Region Mail Centre

NSW 2310

Fax: (02) 4960 9601

Project Name: TOMAGO
Project No: 49608.01 DP Order No: 95632
DP Contact Person: Matthew Blackert/Kyle Prowse
Prior Storage: esky/ fridge / freezer / shelved (circle)

To: Envirolab Services Pty Ltd
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200
Attn: Jacinta Hurst

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes															Notes
				pH EC	Metals #	Flouride	Ammonia	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	PCB	VOC	Asbestos	Scr Suite		
• BORE 1/0.05	1-8-11	S	1	✓	✓	/	/	/	/	/									INVAS per
• BORE 4/0.5	1-8-11	S	2	✓	✓						✓								Quote 11/105-Rev1
• BORE 7/0.5	2-8-11	S	3	✓	✓														
• BORE 14/0.25	3-8-11	S	4		✓						✓		✓						
• Pit 36/0.07	2-8-11		5		✓						✓	✓							
• Pit 38/0.5			6		✓						✓	✓	✓	✓					
• Pit 39/0.3			7		✓		✓	✓	✓	✓	✓	✓	✓	✓			✓		Envirolab Services 12 Ashley St Chatswood NSW 2067 Ph: (02) 9910 6200
• Pit 40/0.1			8		✓						✓	✓	✓					Job No: 59493	
• Pit 41/0.25	↓		9		✓		✓	✓	✓	✓	✓	✓	✓	✓				Date Received: 5/8/11	
• Pit 48/0.1	3-8-11		10		✓						✓	✓						Time Received: 8:30 am	
• Pit 49/0.1	2-8-11		11															Received by: MP	
• Pit 52/0.25	3-8-11	↓	12		✓		✓	✓	✓	✓	✓	✓	✓	✓				Temp: Cool/Ambient	
																		Cooling: Gel/icepack	
																		Security: Intact/Broken/None	
PQL (S)		mg/kg																	
PQL (W)		mg/L																	

PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)
- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni, Mn, Co, Sn
Date relinquished: 4-8-11
Total number of samples in container: 33
Results required by:
TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED
Please sign and date to acknowledge receipt of samples and return by fax
Signature: Morgan Philp
Date: 5/8/11 Lab Ref: ELS

Send results to:
Douglas Partners Pty Ltd
Address:
BOX 324 Hunter Region Mail Centre
NSW 2310
Fax: (02) 4960 9601

Project Name: TOMAGO
Project No: 49608.01 DP Order No: 95632
DP Contact Person: Matthew Blackert/Kyle Prowse
Prior Storage: esky / fridge / freezer / shelved (circle)

To: Envirolab Services Pty Ltd
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200
Attn: Jacinta Hurst

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes															Notes
				pH EC	Metals #	Flouride	Ammonia	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	PCB	VOC	Asbestos	Scr Suite		
Pit 52/0.5	3-8-11	S	13	✓	✓		✓	✓	✓	✓	✓								
Pit 53/0.1	↓	↓	14		✓						✓	✓				✓			
Pit 54/0.1	↓	↓	15		✓						✓	✓							
Pit 61/0.25	↓	↓	16		✓						✓	✓				✓			
Pit 65/0.5	2-8-11		17		✓						✓	✓	✓	✓		✓			
Pit 85/0.05	3-8-11		18		✓						✓	✓	✓	✓					
Pit 86/0.25	↓	↓	19		✓						✓	✓							
Pit 87/0.25		↓	20		✓						✓	✓	✓	✓					
Pit 113/0.45	↓	↓	21	✓	✓	✓					✓		✓						
Pit 116/0.05		↓	22	✓	✓	✓					✓		✓						
Pit 117/0.25	↓	↓	23	✓	✓	✓					✓		✓						
Pit 118/0.05	↓	↓	24	✓	✓	✓					✓		✓						
PQL (S)		mg/kg																	
PQL (W)		mg/L																	

PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)
- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni, Mn, Co, Sn
Date relinquished: 4-8-11
Total number of samples in container: 33
Results required by:
TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED
Please sign and date to acknowledge receipt of samples and return by fax
Signature: Morgan Phip
Date: 5/8/11 Lab Ref: ELS

Send results to:
Douglas Partners Pty Ltd
Address:
BOX 324 Hunter Region Mail Centre
NSW 2310
Fax: (02) 4960 9601

Project Name: TOMAGO.....
Project No: 49608.01..... DP Order No: 95632.....
DP Contact Person: Matthew Blackert/Kyle Prowse.....
Prior Storage: esky / fridge / freezer / shelved (circle)

To: Envirolab Services Pty Ltd.....
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200.....
Attn: Jacinta Hurst

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes															Notes
				pH EC	Metals #	Flouride	Ammonia	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	PCB	VOC	Asbestos	Scr Suite		
Pit119/0-05	3-8-11	S	25	✓	✓	✓					✓		✓						
Pit120/0-05			26	✓	✓	✓					✓		✓						
MJW-D2			27		✓						✓		✓						
ALPD13			28	✓	✓		✓	✓	✓	✓	✓								
KGP-D2			29		✓						✓	✓							
Fibro 4	2-8-11	Fibro	30														✓		
F4		S	31														✓		
Fibro 5	3-8-11	Fibro	32														✓		
Fibro 6		Fibro	33														✓		
PQL (S)		mg/kg																	
PQL (W)		mg/L																	

PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)
- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni, Mn, Co, Sn
Date relinquished: 4-8-11.....
Total number of samples in container: 33.....
Results required by:.....
TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED
Please sign and date to acknowledge receipt of samples and return by fax
Signature: Morgan Philp
Date: 5/8/11 Lab Ref: ELS

Send results to:
Douglas Partners Pty Ltd
Address:
BOX 324 Hunter Region Mail Centre
NSW 2310
Fax: (02) 4960 9601

Quick
CHAIN OF CUSTODY DESPATCH SHEET

Pg 1 of 5

Project Name: TOMAGO.....
Project No: 49608.01..... DP Order No: 95637.....
DP Contact Person: Matthew Blackert/Kyle Prowse.....
Prior Storage: esky / fridge / freezer / shelved (circle)

To: Envirolab Services Pty Ltd.....
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200.....
Attn: Jacinta Hurst

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes														Notes
				pH EC	Metals #	Flouride	Ammonia	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	PCB	VOC	Asbestos	Scr Suite	
BoRE15/0-25	5-8-11	S	1	✓	✓	✓					✓		✓					IN Vasper
BoRE16/0-05	8-8-11		2	✓	✓		✓				✓	✓			✓			Quote 11/05-Bnd
BoRE17/0-05	4-8-11		3	✓	✓	✓					✓		✓					
Pit25/0-05	8-8-11		4		✓						✓	✓						
Pit26/0-25			5	✓	✓	✓					✓	✓	✓	✓		✓		
Pit27/0-05			6		✓						✓	✓	✓	✓				Envirolab Services 12 Ashley St Chatswood NSW 2067 Ph: (02) 9910 6200
Pit28/0-25			7		✓						✓	✓	✓	✓		✓		Job No: 59726
Pit29/0-05			8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		Date Received: 10/8/11
Pit42/0-25	5-8-11		9		✓						✓	✓	✓	✓				Time Received: 8:30am
Pit43/0-05			10		✓						✓	✓	✓	✓				Received by: mp
Pit44/0-5			11	✓	✓		✓	✓	✓	✓	✓	✓						Temp: Cool/Ambient
Pit45/0-05			12		✓											✓		Cooling: Ice/Icepack
PQL (S)		mg/kg																Security: <u>Not Broken</u> /None
PQL (W)		mg/L																

PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)
- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni, Mn, Co, Sn
Date relinquished: 9-8-11
Total number of samples in container: 49
Results required by:
TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED
Please sign and date to acknowledge receipt of samples and return by fax

Signature: Morgan Phip
Date: 10/8/11 Lab Ref: ELS

Send results to:
Douglas Partners Pty Ltd
Address:
BOX 324 Hunter Region Mail Centre
NSW 2310
Fax: (02) 4960 9601

Project Name: TOMAGO
Project No: 49608.01 DP Order No: 95637
DP Contact Person: Matthew Blackett/Kyle Prowse
Prior Storage: esky / (ridge) / freezer / shelved (circle)

To: EnviroLab Services Pty Ltd
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200
Attn: Jacinta Hurst

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes														Notes
				pH EC	Metals #	Flouride	Ammonia	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	PCB	VOC	Asbestos	Scr Suite	
Pit 46/0.25	5-8-11	S	13		✓						✓	✓	✓	✓		✓		IN Vasper
Pit 47/0.25	↓		14		✓						✓	✓	✓	✓				Quote 11/105-Rus
Pit 56/0.1	4-8-11		15		✓						✓	✓				✓		
Pit 57/0.25	↓		16		✓						✓	✓	✓					
Pit 59/0.1	4-8-11		17	✓	✓	✓												
Pit 62/0.05			18		✓						✓	✓	✓	✓				
Pit 66/0.25			19		✓						✓	✓						
Pit 88/0.05			20		✓								✓					
Pit 89/0.05			21		✓								✓					
Pit 96/0.25	5-8-11		22	✓	✓	✓					✓		✓					
Pit 97/0.05	↓		23		✓								✓					
Pit 98/0.05	↓	↓	24	✓	✓	✓					✓		✓					
PQL (S)		mg/kg																
PQL (W)		mg/L																

PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)
- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni, Mn, Co, Sn
Date relinquished: 9-8-11
Total number of samples in container: 49
Results required by:
TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED
Please sign and date to acknowledge receipt of samples and return by fax
Signature: Morgan Phipps
Date: 10/8/11 Lab Ref: ELS

Send results to:
Douglas Partners Pty Ltd
Address:
BOX 324 Hunter Region Mail Centre
NSW 2310
Fax: (02) 4960 9601

Project Name: TOMAGO.....
Project No: 49608.01..... DP Order No: 95637.....
DP Contact Person: Matthew Blackert/Kyle Prowse.....
Prior Storage: esky / fridge / freezer / shelved (circle)

To: Envirolab Services Pty Ltd.....
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200.....
Attn: Jacinta Hurst.....

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes															Notes	
				pH EC	Metals #	Flouride	Ammonia	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	PCB	VOC	Asbestos	Scr Suite			
Pit 99/0-25	9-8-11	S	25		✓									✓						INV as per
Pit 100/0-05			26	✓	✓	✓							✓	✓						Quote 11/105-Bud
Pit 101/0-25			27		✓									✓						
Pit 102/0-25			28	✓	✓	✓							✓	✓						
Pit 103/0-05	↓		29		✓									✓						
Pit 104/0-25	4-8-11		30	✓	✓	✓							✓	✓						
Pit 105/0-05	↓		31		✓									✓						
Pit 107/0-25	4-8-11		32	✓	✓	✓							✓	✓						
Pit 108/0-05	↓		33		✓									✓						
Pit 109/0-05	↓		34	✓	✓	✓							✓	✓						
Pit 110/0-25	↓		35		✓									✓						
Pit 111/0-05	4-8-11	↓	36	✓	✓	✓							✓	✓						
PQL (S)		mg/kg																		
PQL (W)		mg/L																		

PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)
- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni, Mn, Co, Sn
Date relinquished: 9-8-11.....
Total number of samples in container: 49.....
Results required by:
TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED
Please sign and date to acknowledge receipt of samples and return by fax
Signature: Morgan Phip
Date: 10/8/11..... Lab Ref: ELS

Send results to:
Douglas Partners Pty Ltd
Address:
BOX 324 Hunter Region Mail Centre
NSW 2310
Fax: (02) 4960 9601

Project Name: TOMAGO
Project No: 49608.01 DP Order No: 95637
DP Contact Person: Matthew Blackert/Kyle Prowse
Prior Storage: esky / fridge / freezer / shelved (circle)

To: Envirolab Services Pty Ltd
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200
Attn: Jacinta Hurst

Attn: Jacinta Hurst

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes															Notes	
				pH EC	Metals #	Flouride	Ammonia	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	PCB	VOC	Asbestos	Scr Suite			
Pit 112 0.05	4-8-11	S	37	✓	✓	✓					✓	✓	✓							IN Vasper
Pit 114 0.05	4-8-11		38	✓	✓	✓					✓		✓							Quote 11/105-Rnd
Pit 115 0.25	4-8-11		39	✓	✓	✓					✓		✓							
KAP D3	↓		40	✓	✓	✓					✓		✓							
KAP D4	↓		41		✓								✓							
KAP D5	5-8-11	↓	42	✓	✓	✓					✓		✓							
F7	5-8-11	↓	43														✓			
F8	↓		44														✓			
F9	5-8-11	↓	45														✓			
Fibro 7	5-8-11	Fibro	46														✓			
Fibro 8	↓	↓	47														✓			
Fibro 9	5-8-11	↓	48														✓			
PQL (S)		mg/kg																		
PQL (W)		mg/L																		

PQL = practical quantitation limit. *As per laboratory Method 8260-11-11-11

PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)
- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni, Mn, Co, Sn
Date relinquished: 9-8-11
Total number of samples in container: 49
Results required by: _____
TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED
Please sign and date to acknowledge receipt of samples and return by fax
Signature: Morgan Philp
Date: 10/8/11 Lab Ref: ELS

Send results to:
Douglas Partners Pty Ltd
Address:
BOX 324 Hunter Region Mail Centre
NSW 2310
Fax: (02) 4960 9601



To: Envirolab Services Pty Ltd.....
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200.....
Attn: Jacinta Hurst.....

M:/Environmental/QA-QC/AmendedC-O-C.doc

Project Name: TOMAGO
Project No: 49608.01 DP Order No: 95639
DP Contact Person: Matthew Blackett/Kyle Prowse
Prior Storage: esky / fridge / freezer / shelved (circle)

To: Envirolab Services Pty Ltd
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200
Attn: Jacinta Hurst

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes															Notes	
				pH EC	Metals #	Flouride	Ammonia	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	PCB	VOC	Asbestos	Scr Suite			
BOLE 18/0.05	11-8-11	S	1		✓									✓						INV as per
BOLE 21/0.05	10-8-11		2	✓	✓		✓					✓	✓				✓			Quote 11/105-Rev1
BOLE 22/0.05	9-8-11		3	✓	✓		✓					✓	✓				✓			
Pit 19/0.05	9-8-11		4	✓	✓	✓						✓	✓	✓	✓					
Pit 30/0.05	10-8-11		5		✓							✓	✓				✓			Envirolab Services 12 Ashley St Chatswood NSW 2067 Ph: (02) 9910 6200
Pit 31/0.05	↓		6	✓	✓		✓	✓	✓	✓	✓	✓	✓							Job No: 59900
Pit 63/0.05	9-8-11		7		✓							✓	✓	✓						Date Received: 12/8/11
Pit 68/0.05	10-8-11		8		✓									✓			✓			Time Received: 0900
Pit 69/0.05	↓		9		✓									✓						Received by: WP
Pit 71/0.05	10-8-11		10	✓	✓								✓							Temp: Cool/Ambient
Pit 75/0.05	9-8-11	↓	11		✓															Cooling: Icepack
PQL (S)		mg/kg																		Security: Intact/Broken/None
PQL (W)		mg/L																		

PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)

- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni, Mn, Co, Sn

Date relinquished: 11-8-11

Total number of samples in container: 33

Results required by: _____

TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED

Please sign and date to acknowledge receipt of samples and return by fax

Signature: Morgan Phipps

Date: 12/8/11 Lab Ref: ELS

Send results to:

Douglas Partners Pty Ltd

Address:

BOX 324 Hunter Region Mail Centre

NSW 2310

Fax: (02) 4960 9601

Project Name: TOMAGO
Project No: 49608.01 DP Order No: 95639
DP Contact Person: Matthew Blackert/Kyle Prowse
Prior Storage: esky / fridge / freezer / shelved (circle)

To: Envirolab Services Pty Ltd
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200
Attn: Jacinta Hurst

Attn: Jacinta Hurst																			
Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes															Notes
				pH EC	Metals #	Flouride	Ammonia	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	PCB	VOC	Asbestos	Scr Suite		
Pit 76/0.05	9-8-11	S	12		✓						✓	✓	✓						
Pit 78/0.05	9-8-11		13		✓						✓	✓				✓			
Pit 79/0.05	9-8-11		14		✓						✓	✓							
Pit 81/0.1			15		✓						✓	✓							
Pit 81/0.2			16		✓						✓	✓							
Pit 82/0.05			17	✓	✓							✓							
Pit 83/0.05			18	✓	✓	✓	✓	✓	✓	✓	✓	✓							
Pit 91/0.05			19	✓	✓		✓				✓	✓			✓				
Pit 92/0.25			20	✓	✓		✓				✓	✓			✓	✓			
Pit 93/0.05			21	✓	✓		✓				✓	✓			✓				
Pit 94/0.25			22	✓	✓		✓				✓	✓			✓				
Pit 95/0.05	✓	✓	23	✓	✓		✓				✓	✓			✓				
PQL (S)		mg/kg																	
PQL (W)		mg/L																	

PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)
- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni, Mn, Co, Sn
Date relinquished: 11-8-11
Total number of samples in container: 33
Results required by:
TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED
Please sign and date to acknowledge receipt of samples and return by fax

Signature: Morgan Phip
Date: 12/8/11 Lab Ref: ELS

Send results to:
Douglas Partners Pty Ltd
Address:
BOX 324 Hunter Region Mail Centre
NSW 2310
Fax: (02) 4960 9601

Project Name: TOMAGO.....
Project No: 49608.01..... DP Order No: 95639.....
DP Contact Person: Matthew Blacker/Kyle Prowse.....
Prior Storage: esky / fridge / freezer / shelved (circle)

To: Envirolab Services Pty Ltd.....
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200.....
Attn: Jacinta Hurst

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes															Notes
				pH EC	Metals #	Flouride	Ammonia	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	PCB	VOC	Asbestos	Scr Suite		
Pit 106/0-05	9-8-11	S	24		✓							✓	✓	✓					
ALPD30	10-8-11		25		✓							✓	✓						
ALPD32			26	✓	✓		✓	✓	✓	✓	✓	✓	✓						
ALPD34			27		✓									✓					
ALPD36			28	✓	✓								✓						
ALPD37			29		✓									✓					
F11	9-8-11	↓	30														✓		
Fibro 11		Fibro	31														✓		
Fibro 12	10-8-11	↓	32														✓		
KAPD6	9-8-11	S	33	✓	✓		✓					✓	✓			✓			
PQL (S)		mg/kg																	
PQL (W)		mg/L																	

PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)
- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni, Mn, Co, Sn
Date relinquished: 11-8-11.....
Total number of samples in container: 33.....
Results required by:.....
TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED
Please sign and date to acknowledge receipt of samples and return by fax
Signature: Morgan Phipps
Date: 12/8/11 Lab Ref: ELS

Send results to:
Douglas Partners Pty Ltd
Address:
BOX 324 Hunter Region Mail Centre
NSW 2310
Fax: (02) 4960 9601

Project Name: Tomago
Project No: 49608.01 DP Order No: 97252
DP Contact Person: Matthew Blackett / Angela Peade
Prior Storage: esky / fridge / shelved (circle) Freezer

To: Envirolab Services Pty Ltd
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200
Attn: Jacinta Hurst

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes												TCLP	Notes
				Chromium Suite													
1 Bore 2/0.25	1/8/11	S		✓													
2 Bore 2/1.5-1.95	"			✓													
3 Bore 3/1.5-1.95	29/7/11			✓													
4 Bore 5/3-3.45	27/7/11			✓													
5 Bore 6/3.2-3.65	26/7/11			✓													
6 Bore 8/0.5	"			✓													
7 Bore 8/3-3.45	"			✓													
8 Bore 10/0.1	28/7/11			✓													
9 Bore 10/8	"			✓													
10 Bore 11/1.5-1.95	27/7/11			✓													
11 Bore 12/3-3.45	"			✓													
12 Bore 13/1.5-1.95	"	↓		✓													
PQL (S)		mg/kg															
PQL (W)		mg/L															

Envirolab Services
12 Ashley Street
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: **60582**

Date Received: **25/8/11**

Time Received: **9:00**

Received by: **[Signature]**

Temp: Cool/Ambient

Cooling: Ice/Inspack

Security: Intact/Broken/None

PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)

- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni Other

Date relinquished: 24/8/11

Total number of samples in container: 30

Results required by:

TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED

Please sign and date to acknowledge receipt of samples and return by fax

Signature: [Signature]

Date: 24/8/11 Lab Ref: 60582

Send results to:

Douglas Partners Pty Ltd

Address:

BOX 324 Hunter Region Mail Centre

NSW 2310

Fax: (02) 4960 9601

Project Name: Tomago
Project No: 49608.01 DP Order No: 97252
DP Contact Person: Matthew Blackett / Angela Peade
Prior Storage: esky / fridge / shelved (circle) Freezer

To: Envirolab Services Pty Ltd.....
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200.....
Attn: Jacinta Hurst

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes												TCLP	Notes
				Chromium Suite													
13 Bore 14/0.5	2/8/11	S		✓													
14 Bore 15/15-195	8/8/11			✓													
15 Bore 16/15-195	"			✓													
16 Bore 17/15-195	4/8/11			✓													
17 Bore 18/15-195	11/8/11			✓													
18 Bore 20/15-195	10/8/11			✓													
19 Bore 20/9-9.95	"			✓													
20 Bore 21/0.05	"			✓													
21 Bore 22/15-195	9/8/11			✓													
22 TP 63/0.25	"			✓													
23 TP 70/0.25	10/8/11			✓													
24 TP 70/15	"			✓													
PQL (S)		mg/kg															
PQL (W)		mg/L															

PQL = practical quantitation limit *As per Laboratory Method (Detection Limit)
- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg Ni Other
Date relinquished: 24/8/11
Total number of samples in container: 30
Results required by:
TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED
Please sign and date to acknowledge receipt of samples and return by fax

Signature: [Signature]
Date: 25/8/11 Lab Ref: 60582

Send results to:
Douglas Partners Pty Ltd
Address:
BOX 324 Hunter Region Mail Centre
NSW 2310
Fax: (02) 4960 9601



To: Envirolab Services Pty Ltd.....
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200.....
Attn: Jacinta Hurst

Rev4/Feb 2005

Project Name: TOMAGO.....
Project No: 49608.01..... DP Order No:.....
DP Contact Person: Kyle Prowse / Matthew Blackert.....
Prior Storage: esky / fridge / shelved (circle)

To: Envirolab Services Pty Ltd.....
12 Ashley Street.....
CHATSWOOD NSW 2067.....
Ph: (02) 9910 6200.....
Attn: Jacinta Hurst.....

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes														Notes
				pH EC	*Metals	Flouride	NH ₃	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	Ca, Fe, K, Mg, Na	PCB	VOC		
SW121	15/8/11	W	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			* PQLs requested in quote
SW122			2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			11/105 Revision 1, dated
SW123			3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			13 July 2011
SW124			4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
SW125			5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
SW126			6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
SW132			7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
SW133			8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
SW139			9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
SW140			10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
SW141			11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
KGP08			12	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
PQL (S)		mg/kg																
PQL (W)		mg/L																

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 60069
Date Received: 16.8.11
Time Received: 10:10
Received by: DL
Temp: Cool/Ambient
Cooling: Ice/icepack
Security: Intact/Smoked/None

PQL = practical quantitation limit

- Metals to Analyse (Please circle): Al As Cd Cr Cu Pb Zn Hg Ni Mn Co Sn

Date relinquished: 15/8/11.....

Total number of samples in container: 12.....

Results required by: Standard TAT.....

TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED

Please sign and date to acknowledge receipt of samples and return by fax

Signature: K. Prowse

Date: 16.8.11..... Lab Ref: ELS

Send results to:

Douglas Partners Pty Ltd

Address:
BOX 324 Hunter Region Mail Centre
NSW 2310

Fax: (02) 4960 9601

Project Name: TOMAGO.....
Project No: 49608.01..... DP Order No: 95642.....
DP Contact Person: Kyle Prowse / Matthew Blackett.....
Prior Storage: esky / fridge / shelved (circle)

To: Envirolab Services Pty Ltd.....
12 Ashley Street.....
CHATSWOOD NSW 2067.....
Ph: (02) 9910 6200.....
Attn: Jacinta Hurst.....

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes														Notes
				pH EC	*Metals	Flouride	NH ₃	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	Ca, Fe, K, Mg, Na	PCB	VOC		
SW127	16/8/11	W	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			* PQLs requested in quote
SW128			2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			11/105 Revision 1, dated
SW129			3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			13 July 2011
SW130			4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
SW131			5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
SW134			6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
SW135			7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			Envirolab Services 12 Ashley St Chatswood NSW 2067 Ph: (02) 9910 6200
SW136			8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			Job No: 60147
SW137			9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		Date Received: 17/8/11
SW138			10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		Time Received: 08:50
14-U			11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			Received by: WP
KGP DA			12	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			Temp: (Circled) Ambient
PQL (S)		mg/kg																Sec: (Circled) Icepack
PQL (W)		mg/L																Security: (Circled) Broken/None

PQL = practical quantitation limit

- Metals to Analyse (Please circle): Al As Cd Cr Cu Pb Zn Hg Ni Mn Co Sn

Date relinquished: 16/8/11.....

Total number of samples in container: 12.....

Results required by: Standard TAT.....

TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED

Please sign and date to acknowledge receipt of samples and return by fax

Signature: Morgan Philp

Date: 17/8/11..... Lab Ref: ELS

Send results to:

Douglas Partners Pty Ltd

Address:

BOX 324 Hunter Region Mail Centre

NSW 2310

Fax: (02) 4960 9601

To: Envirolab Services Pty Ltd.....
12 Ashley Street.....
CHATSWOOD NSW 2067.....
Ph: (02) 9910 6200.....
Attn: Jacinta Hurst.....

Rev 6/August 2008

Project Name: TOMAGO
Project No: 49608.01 DP Order No: 95644
DP Contact Person: Kyle Prowse / Matthew Blackert
Prior Storage: esky / fridge / shelved (circle)

To: Envirolab Services Pty Ltd
12 Ashley Street
CHATSWOOD NSW 2067
Ph: (02) 9910 6200
Attn: Jacinta Hurst

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes														Notes
				pH EC	*Metals	Flouride	NH ₃	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	Ca, Fe, K, Mg, Na	PCB	VOC		
13	16/8/11	W	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	* PQLs requested in quote
15-u			2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	11/105 Revision 1, dated
15-L			3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	13 July 2011
16			4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
17			5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
18			6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
PQL (S)		mg/kg																
PQL (W)		mg/L																

PQL = practical quantitation limit

- Metals to Analyse (Please circle): Al As Cd Cr Cu Pb Zn Hg Ni Mn Co Sn

Date relinquished: 18/8/11

Total number of samples in container: 6

Results required by: Standard TAT

TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED

Please sign and date to acknowledge receipt of samples and return by fax

Signature: [Signature]

Date: 19/8/11 Lab Ref:

Send results to:

Douglas Partners Pty Ltd

Address:

BOX 324 Hunter Region Mail Centre

NSW 2310

Fax: (02) 4960 9601

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 60281

Date Received: 19/8/11

Time Received: 9am

Received by: EL

Temp: Cool/Ambient

Cooling: Icepack

Security: Intact/Broken/None

Project Name: TOMAGO.....
Project No: 49608.01..... DP Order No: 45645.....
DP Contact Person: Kyle Prowse / Matthew Blackert.....
Prior Storage: esky / fridge / shelved (circle)

To: Envirolab Services Pty Ltd.....
12 Ashley Street.....
CHATSWOOD NSW 2067.....
Ph: (02) 9910 6200.....
Attn: Jacinta Hurst.....

1-
2-
3-
4-
5-
6-
7-
8-

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes														Notes
				pH EC	*Metals	Flouride	NH ₃	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	Ca, Fe, K, Mg, Na	PCB	VOC		
1	22/8/11	W		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			* PQLs requested in quote
5				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			11/105 Revision 1, dated
6				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			13 July 2011
9				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
10-U				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
10-L				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
11				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
KGPD11				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
PQL (S)		mg/kg																
PQL (W)		mg/L																

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 60463

Date Received: 23/8/11
Time Received: 09:00
Received by: AW
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

PQL = practical quantitation limit

- Metals to Analyse (Please circle): Al As Cd Cr Cu Pb Zn Hg Ni Mn Co Sn

Date relinquished: 22/8/11.....

Total number of samples in container: 8.....

Results required by: Standard TAT.....

TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED

Please sign and date to acknowledge receipt of samples and return by fax

Signature: [Signature]

Date: 23/8/11 Lab Ref: AW

Send results to:

Douglas Partners Pty Ltd

Address:

BOX 324 Hunter Region Mail Centre

NSW 2310

Fax: (02) 4960 9601

Project Name: TOMAGO.....
Project No: 49608.01..... DP Order No: 97251.....
DP Contact Person: Kyle Prowse / Matthew Blackert.....
Prior Storage: esky / fridge / shelved (circle)

To: Envirolab Services Pty Ltd.....
12 Ashley Street.....
CHATSWOOD NSW 2067.....
Ph: (02) 9910 6200.....
Attn: Jacinta Hurst.....

Sample ID	Date Sampled	Sample Type S-soil W-water	Lab ID	Analytes														Notes
				pH EC	*Metals	Flouride	NH ₃	TKN	NOx	Total P	TRH BTEX	PAH	OCP OPP	Ca, Fe, K, Mg, Na	PCB	VOC		
2	23/8/11	W	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	* PQLs requested in quote
3			2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	11/105 Revision 1, dated
4			3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	13 July 2011
7			4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
8			5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
21			6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
22			7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
K6PD12			8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
PQL (S)		mg/kg																
PQL (W)		mg/L																

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 60504

Date Received: 24/8/11

Time Received: 0900

Received by: mp

Temp: Room Ambient

Cooling: Yes Icepack

Security: Intact Broken/None

PQL = practical quantitation limit

- Metals to Analyse (Please circle): Al As Cd Cr Cu Pb Zn Hg Ni Mn Co Sn

Date relinquished: 23/8/11.....

Total number of samples in container: 8.....

Results required by: Standard TAT.....

TAT (Circle): Standard 72 hr 48hr 24hr

SAMPLES RECEIVED

Please sign and date to acknowledge receipt of samples and return by fax

Signature: Megan Phip

Date: 24/8/11 Lab Ref: ELS

Send results to:

Douglas Partners Pty Ltd

Address:

BOX 324 Hunter Region Mail Centre

NSW 2310

Fax: (02) 4960 9601



Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

Douglas Partners
96 Hermitage Rd
West Ryde NSW 2114

ph: 02 9809 0666
Fax: 02 9809 4095

Attention: Matthew Blackert, Kyle Prowse

Sample log in details:

Your reference:	49608.01, Tomago
Envirolab Reference:	59351
Date received:	03/08/11
Date results expected to be reported:	10/08/11

Samples received in appropriate condition for analysis:	YES
No. of samples provided	21 soils, 3 materials
Turnaround time requested:	Standard
Temperature on receipt	Cool
Cooling Method:	Ice

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au



Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle NSW 2310

ph: 4960 9600
Fax: 4960 9601

Attention: Matthew Blackert, Kyle Prowse

Sample log in details:

Your reference:	49608.01, Tomago
Envirolab Reference:	59493
Date received:	05/08/11
Date results expected to be reported:	12/08/11

Samples received in appropriate condition for analysis:	YES
No. of samples provided	30 soils, 3 materials
Turnaround time requested:	Standard
Temperature on receipt	Cool
Cooling Method:	Ice

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au



Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle NSW 2310

ph: 4960 9600
Fax: 4960 9601

Attention: Matthew Blackert, Kyle Prowse

Sample log in details:

Your reference:	49608.01, Tomago
Envirolab Reference:	59726
Date received:	10/08/11
Date results expected to be reported:	17/08/11

Samples received in appropriate condition for analysis:	YES
No. of samples provided	45 soils, 4 materials
Turnaround time requested:	Standard
Temperature on receipt	Cool
Cooling Method:	Ice

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au



Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle NSW 2310

ph: 4960 9600
Fax: 4960 9601

Attention: Matthew Blackert, Kyle Prowse

Sample log in details:

Your reference:	49608.01, Tomago
Envirolab Reference:	59900
Date received:	12/08/11
Date results expected to be reported:	19/08/11

Samples received in appropriate condition for analysis:	YES
No. of samples provided	31 soils, 2 materials
Turnaround time requested:	Standard
Temperature on receipt	Cool
Cooling Method:	Ice

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au



Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle NSW 2310

ph: 4960 9600
Fax: 4960 9601

Attention: Matthew Blackert / Angela Peade

Sample log in details:

Your reference:	49608.01, Tomago
Envirolab Reference:	60582
Date received:	25/08/11
Date results expected to be reported:	2/09/11

Samples received in appropriate condition for analysis:	YES
No. of samples provided	30 Soils
Turnaround time requested:	Standard
Temperature on receipt	Cool
Cooling Method:	Ice

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au



Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle NSW 2310

ph: 4960 9600
Fax: 4960 9601

Attention: Kyle Prowse, Matthew Blackert

Sample log in details:

Your reference:	49608.01, Tomago
Envirolab Reference:	60069
Date received:	16/08/11
Date results expected to be reported:	25/08/11

Samples received in appropriate condition for analysis:	YES
No. of samples provided	12 waters
Turnaround time requested:	Standard
Temperature on receipt	Cool
Cooling Method:	Ice

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au



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enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle NSW 2310

ph: 4960 9600
Fax: 4960 9601

Attention: Kyle Prowse, Matthew Blackert

Sample log in details:

Your reference:	49608.01, Tomago
Envirolab Reference:	60147
Date received:	17/08/11
Date results expected to be reported:	26/08/11

Samples received in appropriate condition for analysis:	YES
No. of samples provided	12 waters
Turnaround time requested:	Standard
Temperature on receipt	Cool
Cooling Method:	Ice

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au



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www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle NSW 2310

ph: 4960 9600
Fax: 4960 9601

Attention: Kyle Prowse, Matthew Blackert

Sample log in details:

Your reference:	49608.01, Tomago
Envirolab Reference:	60211
Date received:	18/08/11
Date results expected to be reported:	29/08/11

Samples received in appropriate condition for analysis:	YES
No. of samples provided	5 waters
Turnaround time requested:	Standard
Temperature on receipt	Cool
Cooling Method:	Ice

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au



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www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle NSW 2310

ph: 4960 9600
Fax: 4960 9601

Attention: Kyle Prowse, Matthew Blackert

Sample log in details:

Your reference:	49608.01, Tomago
Envirolab Reference:	60281
Date received:	19/08/11
Date results expected to be reported:	30/08/11

Samples received in appropriate condition for analysis:	YES
No. of samples provided	6 waters
Turnaround time requested:	Standard
Temperature on receipt	Cool
Cooling Method:	Ice

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au



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www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle NSW 2310

ph: 4960 9600
Fax: 4960 9601

Attention: Kyle Prowse, Matthew Blackert

Sample log in details:

Your reference:	49608.01, Tomago
Envirolab Reference:	60463
Date received:	23/08/11
Date results expected to be reported:	30/08/11

Samples received in appropriate condition for analysis:	YES
No. of samples provided	8 waters
Turnaround time requested:	Standard
Temperature on receipt	Cool
Cooling Method:	Ice

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au



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enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client:

Douglas Partners Newcastle
Box 324 Hunter Region Mail Centre
Newcastle NSW 2310

ph: 4960 9600
Fax: 4960 9601

Attention: Kyle Prowse, Matthew Blackert

Sample log in details:

Your reference:	49608.01, Tomago
Envirolab Reference:	60504
Date received:	24/08/11
Date results expected to be reported:	2/09/11

Samples received in appropriate condition for analysis:	YES
No. of samples provided	8 Waters
Turnaround time requested:	Standard
Temperature on receipt	Cool
Cooling Method:	Ice

Comments:

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst
ph: 02 9910 6200 fax: 02 9910 6201
email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au



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Photoionisation Detector (PID)
CALIBRATION RECORD

PROJECT: <i>Tomago - Stage 2</i>	PROJECT NO: <i>49608.01</i>

PID: PhotoVAC 2020 Pro Plus MiniRAE 2000 <u>MiniRae LITE</u> (circle)	LAMP: 10.6 eV

CALIBRATION ✓	
ZERO AIR: Ambient	
RESPONSE FACTOR: 1.0	
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm

OPERATOR: <i>ALP</i>	SIGNED: <i>[Signature]</i>	DATE: <i>25/7/11</i>

M:\Environmental\Templates\Field Templates\Calibration Sheets\PID Calibration – April 2007



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Photoionisation Detector (PID)
CALIBRATION RECORD

PROJECT: <u>TOMAGO</u>	PROJECT NO: <u>49608-01</u>

PID: PhotoVAC 2020 Pro Plus <u>MiniRAE 2000</u> MiniRae LITE (circle)	LAMP: 10.6 eV

CALIBRATION	
ZERO AIR: Ambient	<u>OK</u>
RESPONSE FACTOR: 1.0	<u>OK</u>
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm <u>OK</u>

OPERATOR: <u>MDW</u>	SIGNED: <u>[Signature]</u>	DATE: <u>1/8/11</u>

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Photoionisation Detector (PID)
CALIBRATION RECORD

PROJECT: <i>Tomago - stage 2</i>	PROJECT NO: <i>49608 01</i>

PID: PhotoVAC 2020 Pro Plus MiniRAE 2000 <u>MiniRae LITE</u> (circle)	LAMP: 10.6 eV

CALIBRATION ✓	
ZERO AIR: Ambient	
RESPONSE FACTOR: 1.0	
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm

OPERATOR: <i>ALP</i>	SIGNED: <i>[Signature]</i>	DATE: <i>2/8/11</i>

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Photoionisation Detector (PID)
CALIBRATION RECORD

PROJECT: <i>TOMA CW</i>	PROJECT NO: <i>496089</i>

PID: PhotoVAC 2020 Pro Plus MiniRAE 2000 MiniRae LITE (circle)	LAMP: 10.6 eV

CALIBRATION	
ZERO AIR: Ambient	<i>OK</i>
RESPONSE FACTOR: 1.0	<i>OK</i>
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm <i>OK</i>

OPERATOR: <i>MJW</i>	SIGNED: <i>[Signature]</i>	DATE: <i>2/8/11</i>

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Photoionisation Detector (PID)
CALIBRATION RECORD

PROJECT: <i>Tomgao</i>	PROJECT NO: <i>49604.01</i>

PID: ~~PhotoVAC 2020 Pro Plus~~ ~~MiniRAE 2000~~ MiniRae LITE (circle)	LAMP: 10.6 eV

CALIBRATION	
ZERO AIR: Ambient	<i>OK</i>
RESPONSE FACTOR: 1.0	<i>OK</i>
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm <i>OK</i>

OPERATOR: <i>MJR</i>	SIGNED: <i>[Signature]</i>	DATE: <i>3/8/10</i>

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Photoionisation Detector (PID)
CALIBRATION RECORD

PROJECT: Northbank Enterprise
Phosphate Contamination

PROJECT NO: 49608-01

PID: PhotoVAC 2020 Pro-Plus

(MiniRAE 2000)

MiniRae LITE

(circle)

LAMP: 10.6 eV

CALIBRATION

ZERO AIR: Ambient

RESPONSE FACTOR: 1.0

SPAN GAS: Isobutylene

CONCENTRATION: 100 ppm

OPERATOR: Kyle Prouse

SIGNED:

DATE:

4/8/11

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PROJECT: Northbank Enterprise
Park Contamination

PROJECT NO: 49608-01

PID: PhotoVAC 2020 Pro-Plus

MiniRAE 2000

MiniRae LITE

(circle)

LAMP: 10.6 eV

CALIBRATION

ZERO AIR: Ambient

RESPONSE FACTOR: 1.0

SPAN GAS: Isobutylene

CONCENTRATION: 100 ppm

OPERATOR: Kyle Prowse

SIGNED:

DATE: 5/8/11

M:\Environmental\Templates\Field Templates\Calibration Sheets\PID Calibration - April 2007

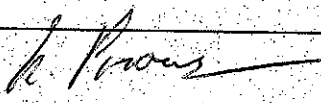




PROJECT: Northbank Enterprises Phosphate Contamination	PROJECT NO: 49608-01

PID: PhotoVAC 2020 Pro Plus (MiniRAE 2000) MiniRae LITE (circle)	LAMP: 10.6 eV

CALIBRATION	
ZERO AIR: Ambient	
RESPONSE FACTOR: 1.0	
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm

OPERATOR: Kyle Prowse	SIGNED: 	DATE: 9/8/14

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Photoionisation Detector (PID)
CALIBRATION RECORD

PROJECT: <i>DMAG</i>	PROJECT NO: <i>49606-01</i>

PID: PhotoVAC 2020 Pro Plus <u>MiniRAE 2000</u> MiniRae LITE (circle)	LAMP: 10.6 eV

CALIBRATION	
ZERO AIR: Ambient	<i>OK</i>
RESPONSE FACTOR: 1.0	<i>OK</i>
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm <i>OK</i>

OPERATOR: <i>MW</i>	SIGNED: <i>[Signature]</i>	DATE: <i>12/8/11</i>

M:\Environmental\Templates\Field Templates\Calibration Sheets\PID Calibration – April 2007





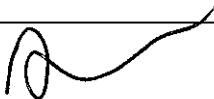
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Photoionisation Detector (PID)
CALIBRATION RECORD

PROJECT: TOMACD	PROJECT NO: 49608.01

PID: PhotoVAC-2020 Pro Plus <u>MiniRAE 2000</u> MiniRae LITE (circle)	LAMP: 10.6 eV

CALIBRATION	
ZERO AIR: Ambient	OK
RESPONSE FACTOR: 1.0	OK
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm OK

OPERATOR: MJW	SIGNED: 	DATE: 15/8/11

M:\Environmental\Templates\Field Templates\Calibration Sheets\PID Calibration – April 2007





PROJECT: Northbank Enterprise Pond Contamination	PROJECT NO: 49608-01

PID: PhotoVAC 2020 Pro Plus MiniRAE 2000 MiniRae LITE (circle)	LAMP: 10.6 eV

CALIBRATION	
ZERO AIR: Ambient	
RESPONSE FACTOR: 1.0	
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm

OPERATOR: Kyle Prowse	SIGNED: <i>Kyle Prowse</i>	DATE: 15/8/11

M:\Environmental\Templates\Field Templates\Calibration Sheets\PID Calibration – April 2007



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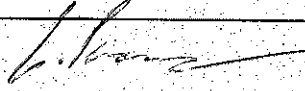
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Photoionisation Detector (PID)
CALIBRATION RECORD

PROJECT: Northbank Enterprise Pond Contamination	PROJECT NO: 49608-01

PID: PhotoVAC 2020 Pro Plus MiniRAE 2000 MiniRae LITE (circle)	LAMP: 10.6 eV

CALIBRATION	
ZERO AIR: Ambient	
RESPONSE FACTOR: 1.0	
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm

OPERATOR: Kyle Prowse	SIGNED: 	DATE: 16/8/11

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PROJECT: Northbank Enterprise Pond Contamination	PROJECT NO: 49608-01

PID: PhotoVAC 2020 Pro Plus MiniRAE 2000 MiniRae LITE (circle)	LAMP: 10.6 eV

CALIBRATION	
ZERO AIR: Ambient	
RESPONSE FACTOR: 1.0	
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm

OPERATOR: Kyle Prowse	SIGNED: 	DATE: 17/8/16

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Photoionisation Detector (PID)
CALIBRATION RECORD

PROJECT: Northbank Enterprise Pond Contamination	PROJECT NO: 49608-01

PID: PhotoVAC 2020 Pro Plus MiniRAE 2000 MiniRae LITE (circle)	LAMP: 10.6 eV

CALIBRATION	
ZERO AIR: Ambient	
RESPONSE FACTOR: 1.0	
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm

OPERATOR: Kyle Prowse	SIGNED:	DATE: 18/8/11

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Photoionisation Detector (PID)
CALIBRATION RECORD

PROJECT: Northbank Enterprise Pond Contamination	PROJECT NO: 49608-01

PID: PhotoVAC 2020 Pro Plus MiniRAE 2000 MiniRae LITE (circle)	LAMP: 10.6 eV

CALIBRATION ✓	
ZERO AIR: Ambient	
RESPONSE FACTOR: 1.0	
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm

OPERATOR: Kyle Prowse	SIGNED: 	DATE: 22/8/11

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Photoionisation Detector (PID)
CALIBRATION RECORD

PROJECT: Northbank Enterprise Panda Contamination	PROJECT NO: 49608-01

PID: PhotoVAC 2020 Pro Plus MiniRAE 2000 MiniRae LITE (circle)	LAMP: 10.6 eV

CALIBRATION	
ZERO AIR: Ambient	
RESPONSE FACTOR: 1.0	
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm

OPERATOR: Kyle Prowse	SIGNED:	DATE: 23/8/11

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Photoionisation Detector (PID)
CALIBRATION RECORD

PROJECT: Tomago Stage 2	PROJECT NO: 49608-01

PID: PhotoVAC 2020 Pro Plus MiniRAE 2000 <u>MiniRae LITE</u> (circle)	LAMP: 10.6 eV

CALIBRATION ✓	
ZERO AIR: Ambient	
RESPONSE FACTOR: 1.0	
SPAN GAS: Isobutylene	CONCENTRATION: 100 ppm

OPERATOR: KGP	SIGNED: <i>[Signature]</i>	DATE: 5/9/11

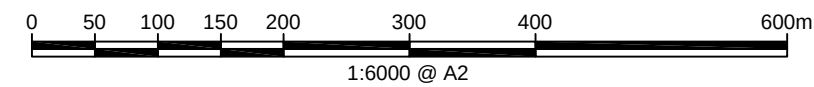
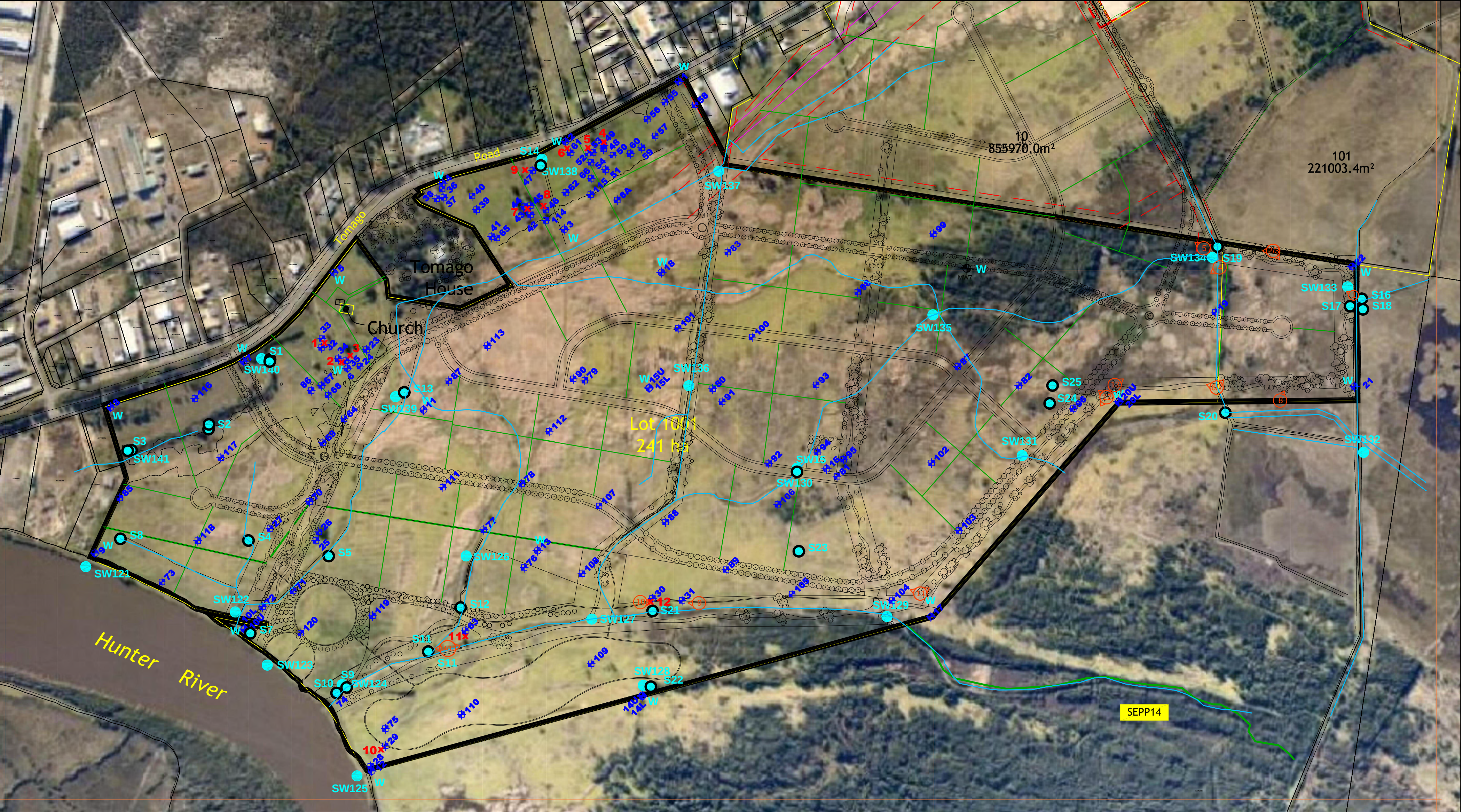
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Appendix D

Drawing 1– Test Location Plan
Drawing 2 – Test Location Plan - Proposed Development Layout
Drawing 3 – Groundwater Contour Plans - 5 September 2011
Drawing 4 - Soil Exceedances and Identified Asbestos
Drawing 5 - Groundwater Exceedances
Drawing 6 - Surface Water Exceedances



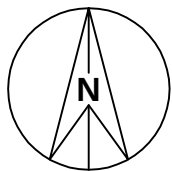
NOTE: Base drawing, survey plan and masterplan from Plan supplied by Client, Ref 37672 Version A dated 22.03.2010, Ref 37672 Version B dated 25.08.2011, Ref N21618 dated 11.07.2011 and NearMap Image

Ref:P:/49608.01/Drawings/49608.01 Drawing 1 Contamination Assessment

LEGEND

- Test Pit Location
- Test Bore Location
- Test Bore Location (Previous Investigation)
- Wells
- Approximate Surface Water Sample Location
- Approximate Surface Water Field Monitoring Location (previous/current investigation)
- Boundary
- Approximate Photo Location & Orientation
- Approximate Fibro Sheeting Sample Location
- Approximate Fibro Sheeting/Underlying Soil Sample Location
- Drains/Creeks

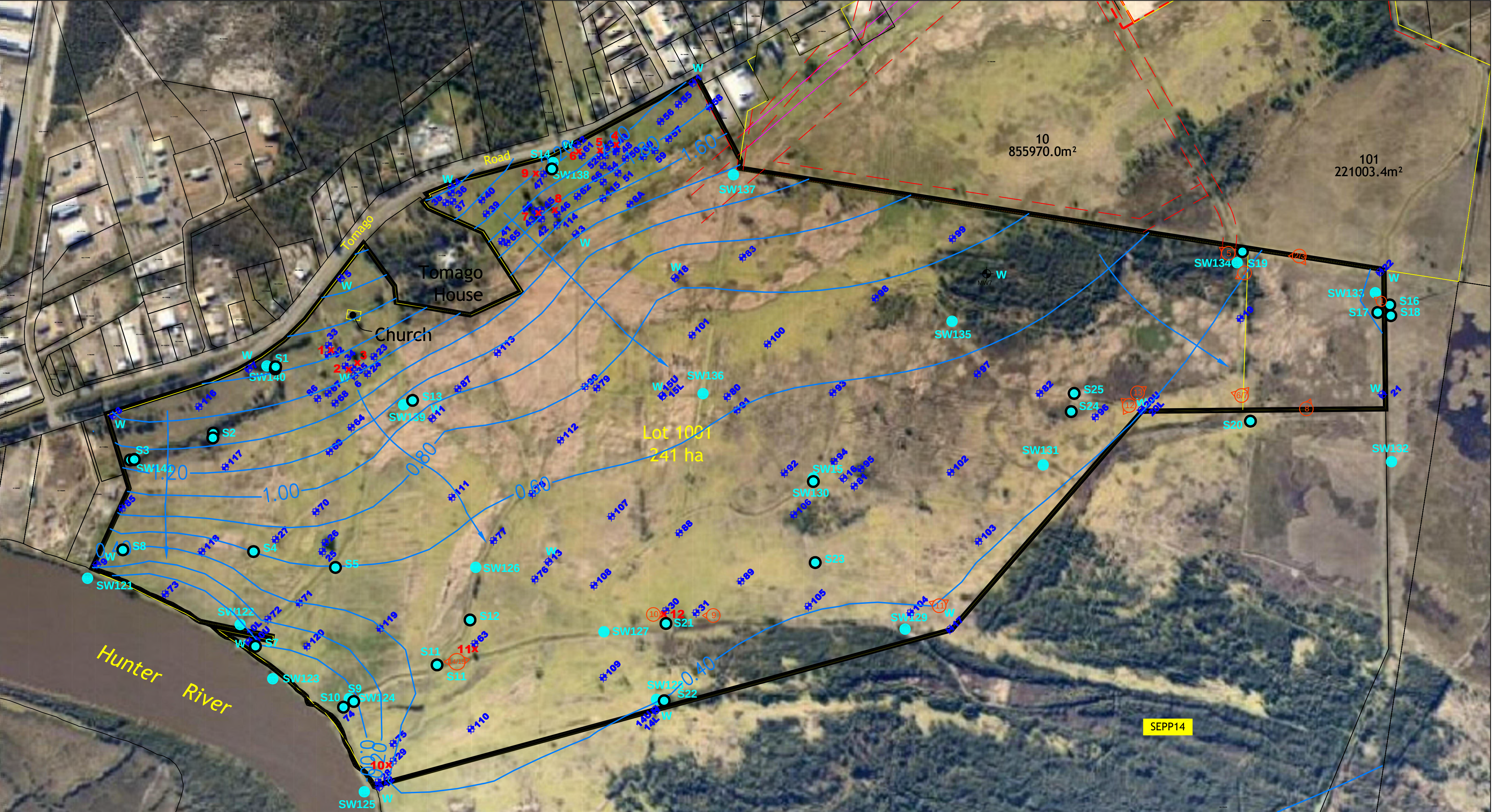
TITLE: **Proposed Development, Contamination Assessment**
Proposed North Bank Enterprises Park,
Lot 1001, DP1127780 Tomago Road, Tomago



PROJECT No: 49608.01
DRAWING No: 2
REVISION: 0



CLIENT: ADW Johnson Pty Ltd
OFFICE: Newcastle
SCALE: 1:6000@A2
DRAWN BY: PLH
DATE: 23.09.2011



0 50 100 150 200 300 400 600m

1:6000 @ A2

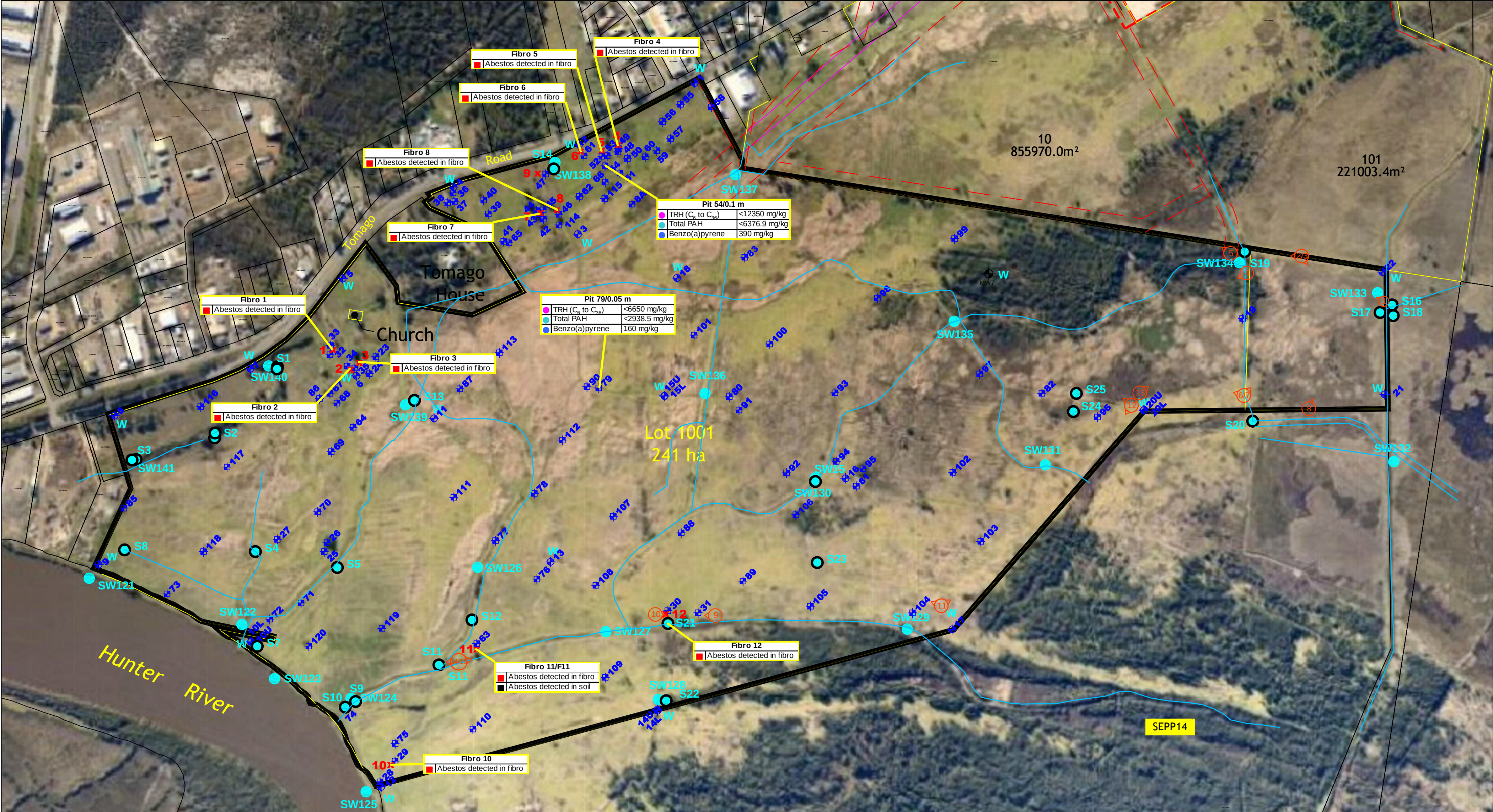
NOTE: Base drawing and survey plans supplied by Client, Ref 37672
Version A dated 22.03.2010, Ref 37672 Version B dated 25.8.2011 and NearMap Image

Contours are based on discrete data points and numerical interpretation.
The actual surface may vary from contoured surface shown.

Ref:P:/49608.01/Drawings/49608.01 Drawing 1 Contamination Assessment

LEGEND

- Test Pit Location
- Test Bore Location
- Test Bore Location (Previous Investigation)
- Wells
- Approximate Surface Water Sample Location
- Boundary
- Approximate Photo Location & Orientation
- Approximate Fibro Sheeting Sample Location
- Approximate Fibro Sheeting/Underlying Soil Sample Location
- Groundwater Contours (AHD - 5 September 2011)
- Approximate Surface Water Field Monitoring Location (previous/current investigation)
- Groundwater Flow Direction



0 50 100 150 200 300 400 600m

1:6000 @ A2

NOTE: Base drawing and survey plans supplied by Client, Ref 37672 Version A dated 22.03.2010, Ref 37672 Version B dated 25.8.2011 and NearMap Image

Ref:P:/49608.01/Drawings/49608.01 Drawing 1 Contamination Assessment

LEGEND

Sample ID	
● Contaminant exceeding adopted guideline	Concentration (mg/kg)
■ Asbestos	Detected in fibro/soil

- ✦ Test Pit Location
- ✦ Test Bore Location
- ✦ Test Bore Location (Previous Investigation)
- W Wells
- Approximate Surface Water Sample Location
- Approximate Surface Water Field Monitoring Location (previous/current investigation)
- Approximate Photo Location & Orientation
- ✕ Approximate Fibro Sheeting Sample Location
- ✕ Approximate Fibro Sheeting/Underlying Soil Sample Location
- Drains/Creeks
- Boundary

CLIENT: ADW Johnson Pty Ltd

OFFICE: Newcastle

SCALE: 1:6000@A2

DRAWN BY: PLH/DEW

DATE: 29.09.2011

TITLE: **Soil Exceedances and Identified Asbestos, Contamination Assessment**

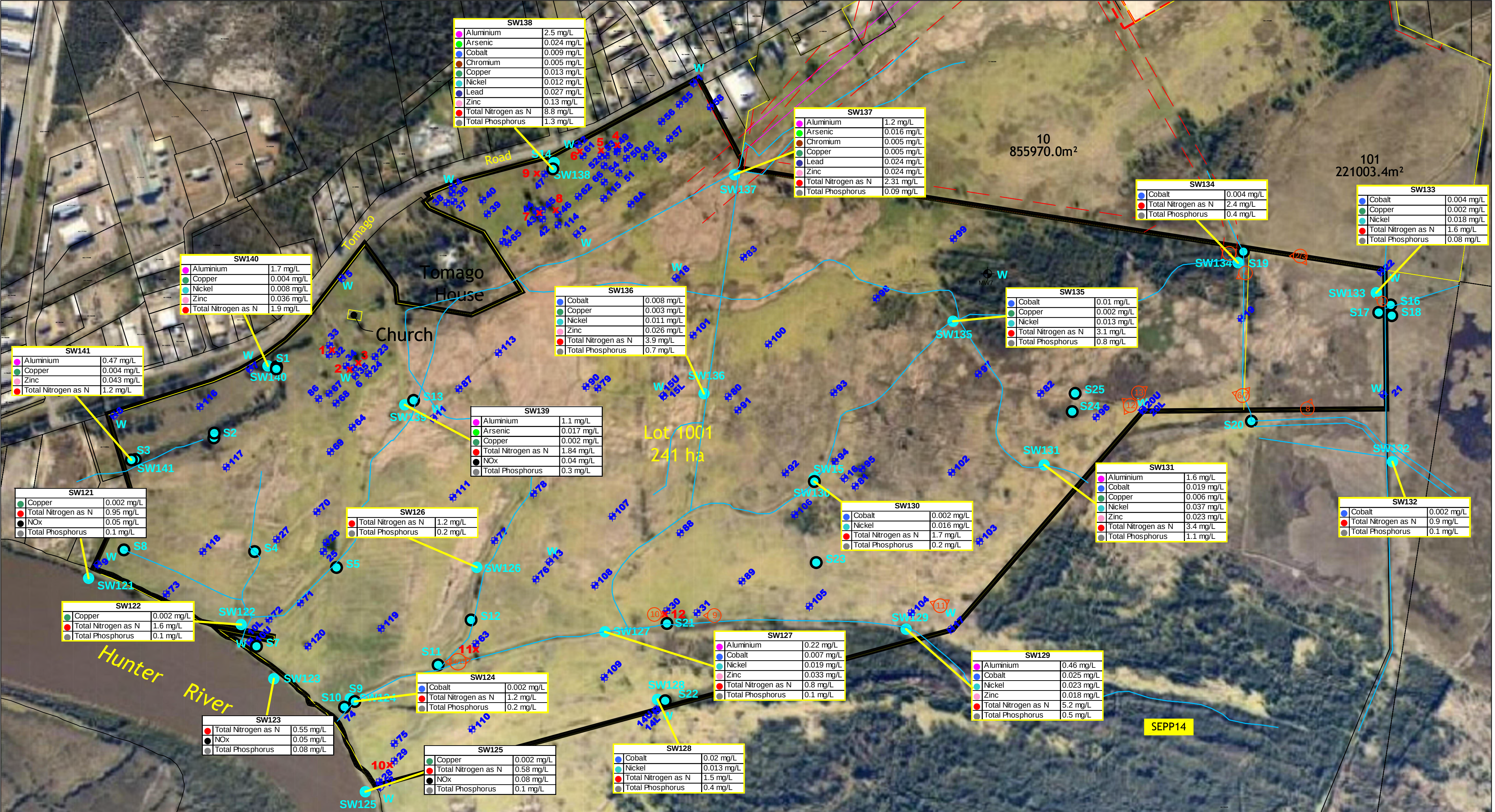
Proposed North Bank Enterprises Park,

Lot 1001, DP1127780 Tomago Road, Tomago

PROJECT No: 49608.01

DRAWING No: 4

REVISION: 0



LEGEND

0 50 100 150 200 300 400 600m

1:6000 @ A2

Sample ID	
Contaminant exceeding ANZECC (2000) guidelines	Concentration (mg/L)

- Test Pit Location
- Test Bore Location
- Test Bore Location (Previous Investigation)
- Wells
- Approximate Surface Water Sample Location
- Boundary

- Approximate Photo Location & Orientation
- Approximate Fibro Sheeting Sample Location
- Approximate Fibro Sheeting/Underlying Soil Sample Location
- Drains/Creeks
- Approximate Surface Water Field Monitoring Location (previous/current investigation)

NOTE: Base drawing and survey plans supplied by Client, Ref 37672 Version A dated 22.03.2010, Ref 37672 Version B dated 25.8.2011 and NearMap Image

Ref:P:/49608.01/Drawings/49608.01 Drawing 1 Contamination Assessment

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CLIENT: ADW Johnson Pty Ltd	
OFFICE: Newcastle	DRAWN BY: PLH/DEW
SCALE: 1:6000@A2	DATE: 29.09.2011

TITLE: **Surface Water Exceedances, Contamination Assessment**
Proposed North Bank Enterprises Park,
Lot 1001, DP1127780 Tomago Road, Tomago

PROJECT No:	49608.01
DRAWING No:	6
REVISION:	0



Douglas Partners

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Report on
Preliminary Contamination Assessment

Proposed Northbank Enterprise Hub
Lot 1001 DP 1127780, 365 Tomago Road
Tomago

Prepared for
ADW Johnson Pty Ltd
on behalf of
Northbank Enterprise Hub

Project 49608
December 2010

Integrated Practical Solutions



Document History

Document details

Project No.	49608	Document No.	1
Document title	Preliminary Contamination Assessment Proposed Northbank Enterprises Hub		
Site address	Lot 1001 DP 1127780, 365 Tomago Road, Tomago		
Report prepared for	ADW Johnson Pty Ltd on behalf of Northbank Enterprise Hub		
File name	P:\49608\Docs\49608 PCA.doc		

Document status and review

Revision	Prepared by	Reviewed by	Date issued
0 [Draft]	Matthew Blackert	Stephen Jones	30 July 2010
1	Matthew Blackert	Stephen Jones	7 December 2010

Distribution of copies

Revision	Electronic	Paper	Issued to
1	1	3	ADW Johnson Pty Ltd

The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

	Signature	Date
Author	<i>Matthew Blackert</i>	7 December 2010
Reviewer	<i>Stephen Jones</i>	7 December 2010

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Report on Preliminary Contamination Assessment Proposed Northbank Enterprises Hub Lot 1001 DP 1127780, 365 Tomago Road, Tomago

1. Introduction

This report presents the findings of a Preliminary Contamination Assessment (PCA) for Lot 1001 DP 1127780, 365 Tomago Road, Tomago, New South Wales. The assessment was carried out at the request of Mr Craig Marler of ADW Johnson Pty Ltd (ADW) on behalf of Northbank Enterprise Hub Pty Ltd with reference to our proposal NCL100153 dated 31 March 2010.

It is understood that the site is proposed to be developed for industrial/commercial purposes and part of the site will need to be raised using imported fill materials.

It is further understood that the site is currently zoned IN1 General Industrial under the provisions of SEPP (Major Development) 2005. The current zoning encourages industrial development to proceed.

The PCA was undertaken to assess past and present contaminating activities, report on site conditions, and provide a preliminary assessment of site contamination.

The PCA comprised the following tasks:

- A review of site history comprising:
 - o Records search (PSC, NSW DECCW, NSW WorkCover);
 - o Historical aerial photo review;
 - o Historical title deed search.
- A review of previous reports held in-house by Douglas Partners Pty Ltd (DP);
- Site visits on 2 and 5 July 2010;
- Discussions with Tomago Aluminium's Environmental Manager;
- Surface water sampling at selected locations over the site;
- Preparation of this report which discusses the findings of the preliminary assessment.

For the purpose of this investigation the following survey plans and drawings by ADW were supplied:

- Site Plan, Tomago Road, Tomago, Ref 37692 dated 22 March 2010;
- Contour Plan, Ref 36792 dated 6 July 2010.

The assessment was undertaken with reference to NSW EPA "Guidelines for Consultants Reporting on Contaminated Sites" (Ref 1).

A Preliminary Geotechnical Assessment report (Ref 2) was prepared concurrently with this PCA as a separate document.

2. Site Description

The site is identified as Lot 1001 DP 1127780, 365 Tomago Road, Tomago, New South Wales, and is shown in Drawing 1, Appendix C.

The site has a eastern frontage of about 1300 m to Tomago Road, and comprises an irregular shaped area of about 239 ha.

3. Geology and Hydrogeology

Reference to the 1:250,000 Newcastle Geology map indicates that the site is underlain by Quaternary alluvium, which typically comprises gravel, sand, silt and clay. The underlying bedrock comprises siltstone and sandstone of the Permian aged Tomago Coal Measures.

Reference to the Beresfield and Williamtown Acid Sulphate Soil Risk Map prepared by the Department of Infrastructure, Planning and Natural Resources (DIPNR) indicates that the site lies within two acid sulphate soil risk zones. The majority of the site lies within an area of high risk of acid sulphate conditions between 1 m to 3 m below the ground surface (Ap4 – alluvial plain, elevation 2 m - 4 m), while the north eastern portion of the site (raised sandy area within 100 m to 200 m of Tomago Road) lies within an area of low probability of acid sulphate soil conditions greater than 3 m below the ground surface (Wa4(p) – Aeolian sandplain, elevation >4 m). Further discussion on the presence and management of acid sulphate soils is provided in the Preliminary Geotechnical Assessment (Ref 2).

The groundwater flow regime is believed to be to the south west towards the North Arm of the Hunter River (located adjacent to the south western boundary of the site) and is considered to be the nearest sensitive receptor. It should be noted that groundwater levels are affected by climatic conditions and soil permeability and will therefore vary with time.

An on-line records search of groundwater wells registered with the DECCW (formerly DNR) indicated that the nearest registered groundwater well (GW017544) is located within the western portion of the site, north of the church, and is authorised for Domestic Stock with the intended purpose of irrigation. The well was installed to 9.14 m through sand with nominal water supply. No details on water bearing zones, screen interval or water quality were provided. There are no registered wells between the remainder of the site and the nearest receptor (i.e. Hunter River).

A number of other registered wells are located to the north of Tomago Road within the industrial estate, however are likely to be up-gradient of the site.

Reference to the Beresfield and Williamtown 1:25,000 Topographic maps, indicates the elevation of the site is <10 m AHD and comprises a number of drains which traverse the site and discharge into the Hunter River at two outlets on the south western boundary of the site.

4. Site History

4.1 Site History Review

The brief review of site history comprised the following:

- Review of in-house reports held by DP;
- On-line desktop review of adjacent landuses;
- Search of Port Stephens Council (NCC) records;
- Historic Title Deeds search;
- Review of Section 149 Planning Certificate;
- Review of historical aerial photos;
- Searches with NSW Department of Environment, Climate Change and Water (DECCW);
- Searches with NSW WorkCover (Dangerous Goods Register);
- Discussions with a representative of Tomago Aluminium (former site owners).

Details are presented in the following sections.

4.2 Review of Previous Reports

The following reports held in-house by DP were reviewed for the preliminary assessment:

- Douglas Partners Pty Ltd, facsimile titled "Stockpile Testing, Tomago", Project 39690, dated 2 March 2007;
- Douglas Partners Pty Ltd, "Contaminated Site Survey", Project 16470 dated 16 October 1991;
- Douglas Partners Pty Ltd, "Contamination Assessment, Genkem Site, School Road, Tomago", Project 16798, September 1993;
- Douglas Partners Pty Ltd, "Contamination Assessment, School Road, Tomago", Project 16870, January 1994;
- Douglas Partners Pty Ltd, "Proposed Industrial Subdivision, Tomago Road, Tomago", Project 18677, May 1997.

The reports indicated the following in relation to potential contamination at the subject site:

- Industrial/commercial properties are located up-gradient of the subject site;
- Industrial properties up-gradient of the site utilise on-site waste water disposal systems;
- Genkem Pty Ltd was formerly located directly opposite the subject site and produced bisulphate, lead, chromium and aluminium based chemicals. An unlined sludge pond was used for waste disposal. Investigation conducted by DP identified an approximate 2000 m² contaminant plume up to 15 m deep heading south towards School Road. Groundwater testing in 1993 indicated

elevated sulphate, lead and iron migrating off-site at approximately 5 m to 10 m per year. Additional testing in 1994 indicated groundwater concentration had diluted and were within the then current guidelines;

- Stockpiles soil within the scrap metal yard to the west of the site was identified to comprise elevated heavy metals above NSW EPA “Solid Waste” criteria and bonded asbestos.

4.3 On-line Desktop Review of Adjacent Landuses

A brief on-line review of Tomago Aluminium website and Tomago House website were conducted for the assessment to obtain information which may be relevant to the preliminary assessment of the subject site.

The review identified the following:

- Tomago Aluminium conducts environmental monitoring including groundwater monitoring for fluoride, electrical conductivity and pH at numerous sites, surface water monitoring at a number of sites including the Hunter River and air monitoring for fluoride and sulphur dioxide at various sites in the vicinity of the smelter, the buffer zone and beyond;
- Vegetation and fauna monitoring is also conducted by Tomago Aluminium around the smelter;
- Tomago house, which the subject site bounds, was constructed in early 1840s by Richard Windeyer. The surrounding lands, also owned by Mr Windeyer was utilised for vineyards and other farming activities possibly including cattle, horse and pigs farming and sugar-cane and wheat production, which he was known to conduct within his 12,141 ha site.
- Extensive drainage works within swamp lands in the vicinity of “Graham’s Town” were conducted by Mr Windeyer however it was not clear whether this includes the subject site;
- The Chapel, which the site encompasses was built in 1860-1861.

4.4 Council Records Search

Correspondence with PSC indicate that only one Development Applications (DA) and/or Building Applications (BA) had been submitted for Lot 1001 DP 1127780 post 1981 (computer records). The development application lodged in June 2010 for demolition of four buildings and associated out buildings was under consideration by council.

Review of the Section 149 Planning Certificate for Lot 1001 DP 1127780 indicated the following:

- The site is zoned 1(a) Rural Agriculture “A” and 5(c) proposed Road;
- The land may be wholly or partially flood prone land;
- Council’s records indicate the land may be wholly or partially contaminated. Council has adopted a policy which may restrict development on contaminated land;
- The site has no notices under Section 59(2) of the Contaminated Land Management Act (1997);
- The property is located within the Tomago Aluminium Smelter Buffer Zone.