amdel

Job Number : 5E0734

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E0080 OC Pesticides in Water (ug/L)							
HCB	10	10			104%		
a-BHC	10	11			110%		
g-BHC	10	11			108%		
Heptachlor	10	11			106%		
Aldrin	10	11			105%		
b-BHC	10	12			115%		
d-BHC	10	10			101%		
Oxychlordane	10	10			103%		
Heptachlor epoxide	10	10			103%		
Endosulfan 1	10	10			103%		
Chlordane-Trans	10	11			105%		
Chlordane-Cis	10	11			106%		
trans-Nonachlor	10	10			102%		
DDE	20	21			104%		
Dieldrin	10	11			106%		
Endrin	10	11			106%		
DDD	20	21			104%		
Endosulfan 2	10	10			102%		
DDT	20	22			108%		
Endosulfan sulfate	10	10			101%		
Methoxychlor	10	10			97%		

PQL = Practical Quantitation Limit
-- = Not Applicable
nd = < PQL

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E0080 OC Pesticides in Water (ug/L)						
HCB	1	nd				
a-BHC	1	nd				
g-BHC	1	nd				
Heptachlor	1	nd				
Aldrin	1	nd				
b-BHC	1	nd				
d-BHC	1	nd				
Oxychlordane	1	nd				
Heptachlor epoxide	1	nd				
Endosulfan 1	1	nd				
Chlordane-Trans	1	nd				
Chlordane-Cis	1	nd				
trans-Nonachlor	1	nd				
DDE	1	nd				
Dieldrin	1	nd				
Endrin	1	nd				
DDD	1	nd				
Endosulfan 2	1	nd				
DDT	1	nd				
Endosulfan sulfate	1	nd				
Methoxychlor	1	nd				

PQL = Practical Quantitation Limit
nd = < PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

amdel

Job Number : 5E0734

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E0090 OP Pesticides in Water (ug/L)							
Dichlorvos	100	100			100%		
Mevinphos	100	100			106%		
Ethoprop	100	100			98%		
Phorate	100	100			98%		
Demeton-s-methyl	100	100			102%		
Diazinon	100	100			98%		
Disulfoton	100	100			97%		
Ronnel	100	100			99%		
Chlorpyrifos methyl	100	100			100%		
Chlorpyrifos	100	100			100%		
Merphos							
Parathion methyl	100	100			102%		
Fenthion	100	100			102%		
Malathion	100	100			102%		
Fenitrothion	100	100			102%		
Prothiofos	100	100			99%		
Stirophos	100	100			103%		
Ethion	100	100			102%		
Bolstar	100	100			101%		
Fensulfothion	100	100			106%		
Azinphos methyl	100	120			115%		
Coumaphos	100	100			104%		

PQL = Practical Quantitation Limit
-- = Not Applicable
nd = < PQL

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E0090 OP Pesticides in Water (ug/L)						
Dichlorvos	10	nd				
Mevinphos	10	nd				
Ethoprop	10	nd				
Phorate	10	nd				
Demeton-s-methyl	10	nd				
Diazinon	10	nd				
Disulfoton	10	nd				
Ronnel	10	nd				
Chlorpyrifos methyl	10	nd				
Chlorpyrifos	10	nd				
Merphos	10	nd				
Parathion methyl	10	nd				
Fenthion	10	nd				
Malathion	10	nd				
Fenitrothion	10	nd				
Prothiofos	10	nd				
Stirophos	10	nd				
Ethion	10	nd				
Bolstar	10	nd				
Fensulfothion	10	nd				
Azinphos methyl	10	nd				
Coumaphos	10	nd				

PQL = Practical Quantitation Limit
nd = < PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

amdel

Job Number : 5E0734

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E0110 Priority PAH's in Water (ug/L)							
Naphthalene	10	7			71%		
Acenaphthylene	10	7			71%		
Acenaphthene	10	7			70%		
Fluorene	10	7			71%		
Phenanthrene	10	7			72%		
Anthracene	10	7			71%		
Fluoranthene	10	7			70%		
Pyrene	10	7			70%		
Benz(a)anthracene	10	7			72%		
Chrysene	10	8			79%		
Benzo(b) & (k)fluoranthene	20	15			74%		
Benzo(a)pyrene	10	7			73%		
Indeno(1.2.3-cd)pyrene	10	7			72%		
Dibenz(a.h)anthracene	10	7			74%		
Benzo(g.h.i)perylene	10	8			79%		

PQL = Practical Quantitation Limit
-- = Not Applicable
nd = < PQL

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E0110 Priority PAH's in Water (ug/L)						
Naphthalene	1	nd				
Acenaphthylene	1	nd				
Acenaphthene	1	nd				
Fluorene	1	nd				
Phenanthrene	1	nd				
Anthracene	1	nd				
Fluoranthene	1	nd				
Pyrene	1	nd				
Benz(a)anthracene	1	nd				
Chrysene	1	nd				
Benzo(b) & (k)fluoranthene	2	nd				
Benzo(a)pyrene	1	nd				
Indeno(1.2.3-cd)pyrene	1	nd				
Dibenz(a.h)anthracene	1	nd				
Benzo(g.h.i)perylene	1	nd				

PQL = Practical Quantitation Limit
nd = < PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

amdel

Job Number : 5E0734

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E2670 Suspended Solids in Water							
Suspended Solids	75	69			91%		
E2550 Nitrate as N in Water							
Nitrate as N	1.0	1.00			100%		
E2560 Nitrite as N in Water							
Nitrite as N	1.0	1.02	1.02		102%	102%	
E2770 Kjeldahl Nitrogen in Water							
Kjeldahl Nitrogen	1	1.0			102%		
E2330 Ammonia as N in Water							
Ammonia as N	1.0	0.97	1.01		97%	101%	
E2640 Total Phosphorus in Water							
Phosphorus	0.40	0.44			110%		
E2630 Dissolved Phosphorus in Water							
Dissolved Phosphorus	1.0	1.04	1.01		104%	101%	
E2530 Total Hardness							
Total Hardness as CaCO3	66.2	62			94%		

PQL = Practical Quantitation Limit
-- = Not Applicable
nd = < PQL

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

Job Number : 5E0734

QAQC : Laboratory Duplicate(s)

Analyte	Dupl A	Dupl B	Average	RPD (%)	Dupl A	Dupl B	Average	RPD (%)
E2395 Chlorophyll-a in Water (E180316)								
Chlorophyll-a	0.037	0.037	0.037	0%				

PQL = Practical Quantitation Limit
nd = < PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

The number in brackets after the method header identifies the sample tested.

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E2670 Suspended Solids in Water						
Suspended Solids	1	nd				
E2550 Nitrate as N in Water						
Nitrate as N	0.02	nd				
E2560 Nitrite as N in Water						
Nitrite as N	0.02	nd				
E2770 Kjeldahl Nitrogen in Water						
Kjeldahl Nitrogen	0.1	nd				
E2330 Ammonia as N in Water						
Ammonia as N	0.01	nd				
E2640 Total Phosphorus in Water						
Phosphorus	0.02	nd				
E2630 Dissolved Phosphorus in Water						
Dissolved Phosphorus	0.01	nd				
E2530 Total Hardness						
Total Hardness as CaCO3	0.5	nd				
E2395 Chlorophyll-a in Water						
Chlorophyll-a	0.005	nd				

PQL = Practical Quantitation Limit
nd = <PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

amdel

Job Number : 5E0734

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E5910 Metals in Soil							
Chromium	50	51			101%		
Lead	50	50			100%		
Zinc	50	46			93%		
Arsenic	50	47			95%		
Copper	50	50			100%		
E5950 Mercury in Soil							
Mercury	0.50	0.40			80%		

PQL = Practical Quantitation Limit
-- = Not Applicable
nd = < PQL

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E5910 Metals in Soil						
Chromium	5	nd				
Lead	5	nd				
Zinc	5	nd				
Arsenic	5	nd				
Copper	5	nd				
E5950 Mercury in Soil						
Mercury	0.05	nd				

PQL = Practical Quantitation Limit
nd = < PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

amdel

Job Number : 5E0734

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E1140 Phenols By GC/MS In Soil							
Phenol	10	9.6			96%		
2-Chlorophenol	10	9.4			94%		
2-Methylphenol							
3-Methylphenol & 4-Methylpheno							
2-Nitrophenol							
2.4-Dimethylphenol							
2.4-Dichlorophenol							
2.6-Dichlorophenol							
4-Chloro-3-methylphenol	10	9.6			96%		
2.4.5-Trichlorophenol							
2.4.6-Trichlorophenol							
2.4-Dinitrophenol							
4-Nitrophenol	10	11			107%		
2.3.4.6-Tetrachlorophenol							
4.6-Dinitro-2-methylphenol							
Pentachlorophenol	10	9			94%		
4.6-Dinitro-2-sec-butylphenol							

PQL = Practical Quantitation Limit
-- = Not Applicable
nd = < PQL

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E1140 Phenols By GC/MS In Soil						
Phenol	0.5	nd				
2-Chlorophenol	0.5	nd				
2-Methylphenol	0.5	nd				
3-Methylphenol & 4-Methylpheno	0.5	nd				
2-Nitrophenol	0.5	nd				
2.4-Dimethylphenol	0.5	nd				
2.4-Dichlorophenol	0.5	nd				
2.6-Dichlorophenol	0.5	nd				
4-Chloro-3-methylphenol	0.5	nd				
2.4.5-Trichlorophenol	0.5	nd				
2.4.6-Trichlorophenol	0.5	nd				
2.4-Dinitrophenol	5	nd				
4-Nitrophenol	1	nd				
2.3.4.6-Tetrachlorophenol	0.5	nd				
4.6-Dinitro-2-methylphenol	2	nd				
Pentachlorophenol	1	nd				
4.6-Dinitro-2-sec-butylphenol	2	nd				

PQL = Practical Quantitation Limit
nd = <PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

amdel

Job Number : 5E0734

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E1080 Organochlorine Pesticides in Soil							
HCB	0.5	0.5			106%		
a-BHC	0.5	0.5			108%		
g-BHC	0.5	0.5			106%		
Heptachlor	0.5	0.5			108%		
Aldrin	0.5	0.5			106%		
b-BHC	0.5	0.5			100%		
d-BHC	0.5	0.6			110%		
Oxychlordane	0.5	0.5			106%		
Heptachlor epoxide	0.5	0.5			106%		
Endosulfan 1	0.5	0.5			106%		
Chlordane-Trans	0.5	0.5			106%		
Chlordane-Cis	0.5	0.5			104%		
trans-Nonachlor	0.5	0.5			108%		
DDE	1	1.0			100%		
Dieldrin	0.5	0.5			106%		
Endrin	0.5	0.5			106%		
DDD	1	1.0			100%		
Endosulfan 2	0.5	0.5			106%		
DDT	1	1.0			100%		
Endosulfan sulfate	0.5	0.5			106%		
Methoxychlor	0.5	0.5			106%		

PQL = Practical Quantitation Limit
-- = Not Applicable
nd = < PQL

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E1080 Organochlorine Pesticides in Soil						
HCB	0.1	nd				
a-BHC	0.1	nd				
g-BHC	0.1	nd				
Heptachlor	0.1	nd				
Aldrin	0.1	nd				
b-BHC	0.1	nd				
d-BHC	0.1	nd				
Oxychlordane	0.1	nd				
Heptachlor epoxide	0.1	nd				
Endosulfan 1	0.1	nd				
Chlordane-Trans	0.1	nd				
Chlordane-Cis	0.1	nd				
trans-Nonachlor	0.1	nd				
DDE	0.1	nd				
Dieldrin	0.1	nd				
Endrin	0.1	nd				
DDD	0.1	nd				
Endosulfan 2	0.1	nd				
DDT	0.1	nd				
Endosulfan sulfate	0.1	nd				
Methoxychlor	0.1	nd				

PQL = Practical Quantitation Limit
nd = < PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

amdel

Job Number : 5E0734

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E1110 Priority PAH's in Soil							
Naphthalene	5	4.2			84%		
Acenaphthylene	5	4.2			86%		
Acenaphthene	5	4.2			84%		
Fluorene	5	4.2			84%		
Phenanthrene	5	4.2			86%		
Anthracene	5	4.2			86%		
Fluoranthene	5	4.2			86%		
Pyrene	5	4.2			83%		
Benz(a)anthracene	5	4.2			83%		
Chrysene	5	4.2			85%		
Benzo(b) & (k)fluoranthene	10	8			83%		
Benzo(a)pyrene	5	3.8			78%		
Indeno(1.2.3-cd)pyrene	5	4.0			81%		
Dibenz(a.h)anthracene	5	4.2			84%		
Benzo(g.h.i)perylene	5	4.2			86%		

PQL = Practical Quantitation Limit
-- = Not Applicable
nd = < PQL

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E1110 Priority PAH's in Soil						
Naphthalene	0.5	nd				
Acenaphthylene	0.5	nd				
Acenaphthene	0.5	nd				
Fluorene	0.5	nd				
Phenanthrene	0.5	nd				
Anthracene	0.5	nd				
Fluoranthene	0.5	nd				
Pyrene	0.5	nd				
Benz(a)anthracene	0.5	nd				
Chrysene	0.5	nd				
Benzo(b) & (k)fluoranthene	1	nd				
Benzo(a)pyrene	0.5	nd				
Indeno(1.2.3-cd)pyrene	0.5	nd				
Dibenz(a.h)anthracene	0.5	nd				
Benzo(g.h.i)perylene	0.5	nd				

PQL = Practical Quantitation Limit
nd = <PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

SEE REVERSE

Patterson Britton & Partners Pty Ltd

consulting engineers

FORM No. 5.004.1 (DEC 1992)

job number 4467/5194 | sheet number 1 of 2

job title S12 & S3 Dry Weather | prepared by | chk'd

date 23/2/05

To Amdel

(1) Please test water samples

E18031G

→ ~~S12 TDS — 23/2/05 2.30pm~~

E18031H

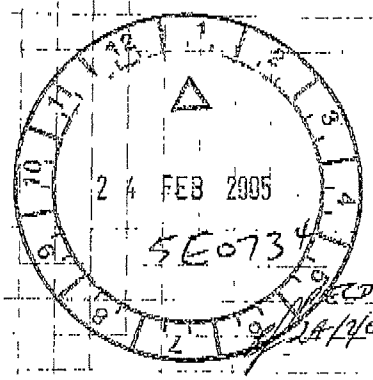
→ S310US — 23/2/05 3.15pm

E18031B

→ S310DS — 23/2/05 3.30pm

for the following:

- Suspended solids
- Total Nitrogen
- Ammonia Nitrogen
- TKN
- Nitrates
- Nitrites
- Total phosphorous
- Hardness
- Filterable phosphorous
- Chromium
- Lead
- Zinc
- Arsenic
- Mercury
- Copper
- Phenolic compounds
- OC/OP Pesticides
- PAH
- Chlorophyll-a.
- Faecal coliform Count.



SEE REVERSE

Patterson Britton & Partners Pty Ltd

consulting engineers

job number

job title

sheet number 2 of 2

prepared by chk'd

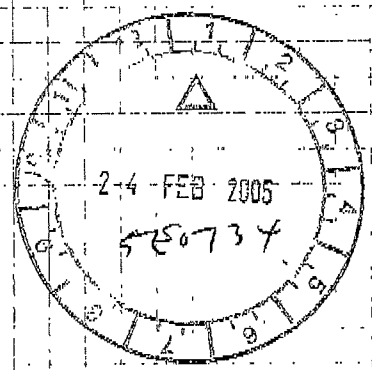
date

FORM No. 5.004.1 (DEC 1992)

(2) please also test the following soil samples for:

- E18031g — S3S1 US — 23/2/05 3.30pm
- E18032n — S3S1 DS — 23/2/05 3.50pm

- Chromium
- Lead
- Zinc
- Arsenic
- Mercury
- Copper
- phenolic compounds
- Organochlorine pesticides
- Total PAH



Thanks

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E-MAILED

Attention: Ms Julie Edman

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99 Mitchell Road
CARDIFF NSW 2285

E-mail To:
jedman@amdel.com
cc: Angela Karsch
akarsch@amdel.com

CERTIFICATE OF ANALYSIS

Report No:	**S 05009970 ci**	**Report Date:**	**1 March 2005**
Date Received:	**24 February 2005**	**Date Tested:**	**24 February 2005**
Standing Order:	**S046575**	**Arrival Temp:**	**12.0°C**

RESULTS

Sample Description **Order No.**

Water Samples – DD: 24.2.05 5E0734

Sample Description	Thermotolerant Coliforms CFU per 100ml M12.2
S1275DS	490
S310US	520
S310DS	390

The data pertains solely to the analytical and sampling procedure(s) used and the condition and homogeneity of the sample(s) as received. The data therefore may not be representative of the lot or batch or other samples. Consequently the data may not necessarily justify the acceptance or rejection of a lot or batch, a product recall or support legal proceedings. It is the responsibility of the client to provide all information relevant to the analysis requested. This report does not imply that Silliker Microtech Pty Ltd has been engaged to consult upon the consequences of the analysis and for any action that should be taken as a result of the analysis.

SELINA BEGUM MAppSci, MAIFST
CONSULTANT MICROBIOLOGIST

NATA accredited Laboratory Number 2766. This Laboratory is accredited by the National Association of Testing Authorities, Australia. The test(s) reported herein have been performed in accordance with its scope of accreditation. This document shall not be reproduced except in full.

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CERTIFICATE OF ANALYSIS

Contents:
1. Cover Pages (2)
2. Analysis Report Pages
3. QA/QC Appendix
4. Additional Reports - External (if applicable)
5. Chain of Custody (if applicable)

Report No.	:	4E1488
Attention	:	David Stone
Client	:	Patterson Britton & Partners Pty Ltd
	:	PO Box 515
	:	NORTH SYDNEY
Samples	:	18
Reference/Order	:	4467/4142-05
Project	:	5194/4903-01
Received Samples	:	18/08/04
Instructions	:	18/08/04
Date Reported	:	26/08/04

PLEASE SEE FOLLOWING PAGES FOR METHOD LISTING AND RESULTS

RESULTS

All samples were analysed as received. This report relates specifically to the samples as received. Results relate to the source material only to the extent that the samples as supplied are truly representative of the sample source. This report replaces any preliminary results issued. Note that for methods indicated with "#", NATA accreditation does not cover the performance of this service. Three significant figures (or 2 for < 10PQL) are reported for statistical purposes only. Where "Total" concentrations are reported for organic suites of compounds this is the summation of the individual compounds and the PQL is noted for reporting purposes only. This report has been authorized by the NATA signatories listed in the method descriptions section on the following page.

James McMahon B.Sc.,Ph.D. (Chem.)
Manager - Environmental

amdel

Report No. : 4E1488

Please note: Where samples are collected/submitted over several days, the date on which the last samples were analysed or extracted is reported.
Unless Ferrous Iron is determined on site, the possibility of a ferrous-ferric ratio change may occur.

Method	Description	Extracted	Analysed	Authorised	
E2570	Total Nitrogen	26/08/04	26/08/04	PKE	101
E2550	Nitrate-N	19/08/04	19/08/04	PKE	101
E2560	Nitrite-N	19/08/04	19/08/04	PKE	101
E2770	TKN	25/08/04	25/08/04	PKE	101
E2330	Ammonia as N	19/08/04	19/08/04	PKE	101
E2640	Phosphorus-Total	25/08/04	25/08/04	PKE	101
E2630	Dissolved Phosphorus	23/08/04	23/08/04	PKE	101
E2670	Suspended Solids	20/08/04	20/08/04	PKE	101
E2640R	Phosphorus-Total (Filtered RESIDUE)	25/08/04	25/08/04	PKE	101

NATA Signatory

Initials	Name	Sections/Methods
MCM	James McMahon	093, 094, 095, 101
MNG	Minh Nguyen	094, 095
MFA	Mark Fahmy	094, 095
LHA	Ly Kim Ha	094, 095
DJA	Dilanthi Jayamanne	094
GTO	Greg Towers	094
GPE	Geoff Peterson	095
DLU	Darrel Luck	093
NBL	Nina Blake	093
SHO	Steve Hopkins	093
JHO	Justin Hopghton	093
MAV	Merrin Avery	101
DBL	Dianne Blane	101
NCO	Nathan Cooper	101
AGR	Alison Graham	101
PKE	Peter Keyte	101

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Job Number : 4E1488
Client : Patterson Britton & Partners Pty Ltd
Reference : 4467/4142-05
Project : 5194/4903-01

Analyte	Lab No	E133712	E133713	E133714		
		WS1232SB				
	Sample Id	OUT	WS302US	WS302DS		
	PQL					
Total Nitrogen	0.1	1.8	0.7	1.2		
E2550 Nitrate as N in Water						
Nitrate as N	0.01	1.18	0.34	0.75		
E2560 Nitrite as N in Water						
Nitrite as N	0.01	0.04	0.02	0.03		
E2770 Kjeldahl Nitrogen in Water						
Kjeldahl Nitrogen	0.1	0.7	0.3	0.5		
E2330 Ammonia as N in Water						
Ammonia as N	0.01	0.03	nd	0.04		
E2640 Total Phosphorus in Water						
Phosphorus	0.02	nd	0.06	0.13		
E2630 Dissolved Phosphorus in Water						
Dissolved Phosphorus	0.01	nd	nd	0.03		
E2670 Suspended Solids in Water						
Suspended Solids	1	3	24	31		
E2640 Total Phosphorus in filtered water						
Phosphorus	0.1	nd	nd	nd		

PQL = Practical Quantitation Limit
LNR = Samples Listed not Received
nd = <PQL
-- = Not Applicable

Soils : mg/kg (ppm) dry weight unless otherwise specified
Waters : mg/L (ppm) unless otherwise specified in Method Header
Leachates : mg/L (ppm) in leachate unless otherwise specified in Method Header

Refer to Amdel standard laboratory qualifier codes for comments.

amde

AMDEL INTERNAL ... LITY ASSURANCE REVIEW.

Job No. 4E14...

General

1. Laboratory QA/QC inc... Method Blanks, Duplicates, Matrix Spikes, Laboratory Control Samples or CR... included in this QA/QC appendix. (Where applicable)
2. Inter-Laboratory profic... ial results are available upon request.
3. PQLs are matrix depen... are increased accordingly where sample extracts are diluted due to interferences.
4. Results are uncorrected ... matrix spike or surrogate recoveries.
5. Where 3 and 2 signific... gures are reported for > 10x PQL and < 10x PQL respectively, the last figure is uncertain and is provided for stat... al purposes only.
6. Samples duplicated or s... d are from this job only and are identified in the following QA/QC report.
7. SVOC analyses on wat... re performed on homogenized, unfiltered samples, unless noted otherwise.

Maximum Holding Times Soils, Sediments and Waters

Parameter	Holding Times
Soils	
Volatile and Semi-Volatile ... ganic Analysis.	Extracted in 14 days, analysed within 40 days.
Metals	Extracted and analysed within 28 days-6 months.
Inorganics*	Extracted and analysed within 7-28 days.
TCLPs*	Extracted and analysed within 14 days, (Zero Headspace-TCLP 7 days).
Waters	
Volatile Organic Analysis	Analysed within 7 days (USEPA requires 14 days).
Semi-Volatile Organic An... is	Extracted in 7 days, analysed within 40 days.
Inorganics*	Analysed within 24 hrs-28 days.
Metals (dissolved metals s... ld be supplied field filtered)	Prepared and analysed within 28 days.

* Please refer to 'Preservati... Information Chart for Soils, Sediments & Waters' for further information. (ISFORM.098). Holding t... s may be extended with the use of preservation bottles and/or freezing samples. Holding times can be calc... ed from dates reported in the body of the report. Tests clearly exceeding holding times will be note... hen sufficient information is provided.
Reference: USEPA SW84... nd AMDEL SPM-01 (incorporating NEPM Guidelines).

Chain of Custody and Sa... le Integrity	Yes/NO/NA
Chain of Custody / instruc... ns received with samples	Yes
Custody seals were receiv... intact, if used	NA
Samples were received ch... ed and in good condition	Yes
Samples received appropr... ely preserved for all tests	Yes
VOC/SVOC samples were ... eceived in teflon lined containers	NA
Samples received with Ze... Headspace	NA
Chain of Custody comple... and attached (if applicable)	Yes

Chromatography Calibra... on/Acceptence Criteria (if applicable)

Retention time window m... ts acceptance criteria (+/-2%)	NA
Reference standard meets ... ceptance criteria (+/-10%)	NA
Recalibration standard me... s acceptance criteria (+/-15%)	NA
Internal standard recovery ... cceptable.	NA

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AMDEL INTERNAL QUALITY ASSURANCE REVIEW Cont..

Amdel QA/QC Compliance Assessment

	Compliance
Surrogates performed on all appropriate GC analyses and meet acceptance limits (70% - 130% recovery*).	Please see body of report
Matrix Spikes performed once per process batch and at least 1 in 20 samples (Results meet acceptance limits - 70% - 130% recovery* or 80% - 120% recovery* for inorganics in water.)	Please see body of report
Laboratory Control samples performed once per process batch and at least 1 in 20 samples (Results meet acceptance limits - 70% - 130% recovery* in soil or 70%-130%/90-110% recovery* for waters.)	NA
Laboratory Duplicate samples performed once per process batch and at least 1 in 10 samples	Yes
Laboratory duplicates meet acceptance criteria < 4 PQL - +/- 2 PQL 4-10 PQL - 25-50 or 50% RPD > 10 PQL - 10-30 or 30% RPD	Please see body of report
Method Blanks performed once per process batch and at least 1 in 20 samples (Results not detected at the PQL).	NA

N/A = Not Applicable.

* Phenols 50% - 130% recovery
* SVOCs 60% - 130% recovery
* Phenoxy Acid Herbicides 60% - 140% recovery

QA/QC Appendix

Please refer to the following pages for the QA/QC data.
For further information on samples or non-conformance in QC protocols please see notations in the body of the report plus comments on the following page.

Additional Comments

James McMahon B.Sc.,Ph.D. (Chem.)
Manager - Environmental

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AMDEL STANDARD LABORATORY QUALIFIER CODES.

Job NO. 4E1488

Qualifier Codes	Description
*	PQLs are raised due to matrix interference.
@	PQLs are raised due to insufficient sample provided for analysis.
$	The mass imbalance indicates the presence of other ions not measured as part of this procedure.
nd	< PQL
--	Not applicable
LNR	The sample was listed on the COC, but not received.
IS	Insufficient sample was supplied to conduct this analysis.
AN	The analysis indicates the presences of an analyte that has been 'tentatively' identified, and the associated numerical value represents it's approximate concentration.
A	Sample results are reported on an 'as received' basis (not moisture corrected).
B	The sample was not received in a suitable timeframe to allow completion within the recommended holding time.
C	This sample was received with headspace.
D	This sample was received with the incorrect preservation for this analysis.
E	The raw data indicates the absence of 0.055g of Copper Sulphate in the sample.
F	This sample contained significant amounts of solids and was therefore analysed by settling and decanting the aqueous phase to avoid including the solid in the analysis portion.
G	This test was performed outside the recommended holding time.
H	This sample contained significant material > 5mm which was removed prior to analysis.
ISD	Insufficient sample was supplied to conduct duplicate analyses.
ISM	Insufficient sample was supplied to conduct matrix spike analyses.
W	The spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.
J	The duplicate %RPD is outside the recommended acceptance criteria. Further analysis indicates sample heterogeneity as the cause.
K	The matrix spike concentration is less than five times the background concentration in the sample, and therfore the spike recovery can not be determined.
L	The surrogate recovery is outside of the recommended acceptance criteria, due to matrix interference.
M	The surrogate recovery is outside of the recommended acceptance criteria. Insufficent sample remains to perform re-analysis.
N	Results are expressed in mg/L (ppm) due to the high concentration of the analyte.
O	The results reported are 'recoverable organics' for this fraction, as the chromatogram and peak shape indicates the presence of a significant concentration of polar compounds.
P	The concentration reported is mainly due to a single peak.
Q	This samples contains volatile halogenated oxygenated or other compounds that are included and quantitated as part of TPH C6-9.
R	Theoretically the total result should be greater or equal to the dissolved concentration. However the difference reported is within the uncertainty of the individual tests.
S	The mass imbalance was equal to or less than 0.2 milli-equivalents.
T	During Kjeldahl digestion, nitrate (> 10mg/L) can oxidise ammonia resulting in a negative TKN interference, which may have occurred for this sample.
U	Theoretically the TKN result should be greater or equal to ammonia concentration. However the difference reported is within the uncertainty of the individual tests.
V	This sample contained significant amounts of sediment which was included in the analysis portion as requested.
SUR	Surrogate recoveries could not be determined due to the dilution required to quantify the analyte.

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Job Number : 4E1488

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E2550 Nitrate as N in Water							
Nitrate as N	1.0	0.91			91%		
E2560 Nitrite as N in Water							
Nitrite as N	1.0	1.04			104%		
E2770 Kjeldahl Nitrogen in Water							
Kjeldahl Nitrogen	1.0	1.0			93%		
E2330 Ammonia as N in Water							
Ammonia as N	1.0	1.00			100%		
E2640 Total Phosphorus in Water							
Phosphorus	0.4	0.36			91%		
E2630 Dissolved Phosphorus in Water							
Dissolved Phosphorus	1.0	1.01			101%		
E2670 Suspended Solids in Water							
Suspended Solids	75	70			93%		
E2640 Total Phosphorus in filtered water							
Phosphorus	0.4	0.4			98%		

PQL = Practical Quantitation Limit
-- = Not Applicable
nd = < PQL

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

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Job Number : 4E1488

QAQC : Laboratory Duplicate(s)

Analyte	Dupl A	Dupl B	Average	RPD (%)	Dupl A	Dupl B	Average	RPD (%)
E2550 Nitrate as N in Water (E133697)								
Nitrate as N	0.06	0.06	0.06	0%				
E2560 Nitrite as N in Water (E133697)								
Nitrite as N	0.01	0.01	0.01	0%				
E2770 Kjeldahl Nitrogen in Water (E133697)								
Kjeldahl Nitrogen	0.6	0.7	0.7	15%				
E2330 Ammonia as N in Water (E133697,E133698)								
Ammonia as N	nd	nd			0.03	0.03	0.03	0%
E2640 Total Phosphorus in Water (E133697)								
Phosphorus	0.29	0.30	0.30	3%				
E2630 Dissolved Phosphorus in Water (E133697,E133698)								
Dissolved Phosphorus	0.20	0.19	0.20	5%	0.16	0.16	0.16	0%
E2670 Suspended Solids in Water (E133708)								
Suspended Solids	27	26	27	3%				
E2640 Total Phosphorus in filtered water (E133697)								
Phosphorus	0.2	0.2	0.2	0%				

PQL = Practical Quantitation Limit
nd = <PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

The number in brackets after the method header identifies the sample tested.

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Job Number : 4E1488

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E2550 Nitrate as N in Water						
Nitrate as N	0.01	nd				
E2560 Nitrite as N in Water						
Nitrite as N	0.01	nd				
E2770 Kjeldahl Nitrogen in Water						
Kjeldahl Nitrogen	0.1	nd				
E2330 Ammonia as N in Water						
Ammonia as N	0.01	nd				
E2640 Total Phosphorus in Water						
Phosphorus	0.02	nd				
E2630 Dissolved Phosphorus in Water						
Dissolved Phosphorus	0.01	nd				
E2670 Suspended Solids in Water						
Suspended Solids	1	nd				
E2640 Total Phosphorus in filtered water						
Phosphorus	0.1	nd				

PQL = Practical Quantitation Limit
nd = < PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

SILLIKER
Assuring Quality Worldwide

SILLIKER MICROTECH

Attention: Ms Julie Edman

AMDEL LIMITED
99 Mitchell Road
CARDIFF NSW 2285

Fax To: (02) 4902 4899

CERTIFICATE OF ANALYSIS

Report No: S 04040437 ky
Report Date: 19 August 2004
Date Received: 18 August 2004
Date Tested: 18 August 2004
Standing Order: S024507
Arrival Temp: 12.0°C

RESULTS

Sample Description
Water Samples – 18.8.04

Order No.
4E1488

Sample Description	Thermotolerant Coliforms CFU per 100ml M85
Water – WS801-US	1,000
Water – WS801-DS	1,800
Water – WS801-IS	2,600
Water – WS801-IS2	1,200
Water – WSP14-US	2,700
Water – WSP14-DS	2,100
Water – WSP14-IS	2,200
Water – WSP14WQCP1IN	1,200
Water – WSP14WQCP1OUT	310
Water – WSP14WQCP2IN	1,900
Water – WSP14WQCP2OUT	<10
Water – WS1232DS	480
Water – WS1232NBIN	360
Water – WS1232NBOUT	310

SILLIKER MICROTECH PTY LTD
ABN 94 006 462 335
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Attn: Ms Julie Edman
AMDEL LIMITED (results cont'd... ...)

Sample Description	Thermotolerant Coliforms CFU per 100ml M85
Water – WS1232SBIN	650
Water – WS1232SBOUT	140
Water – WS301US	990
Water – WS301DS	880

Note: '<' indicates Less than

MARGARET BOLLIGER BSc,MASM,MAIFST
CONSULTANT MICROBIOLOGIST

NATA accredited Laboratory Number 2766 and/or 2142. This Laboratory is accredited by the National Association of Testing Authorities, Australia. The test(s) reported herein have been performed in accordance with its scope of accreditation. This document shall not be reproduced except in full.

TGA Licence No: 152612

Enviro Sydney

From: David Stone [davids@patbrit.com.au]
Sent: Wednesday, 18 August 2004 4:35 PM
To: Enviro Sydney
Subject: Additional Analytes - Q02012166
Importance: High

In addition to the analystes listed on the COC, could you please analyse all samples sent to you today (ie. WS801..., WSP14..., WS1232..., WS301...) for Suspended Solids.

If there are any problems please call me on 9957 1619.

Regards
David Stone

Patterson Britton & Partners Pty Ltd
PO Box 515, North Sydney, Australia, 2059
Tel: (02) 9957 1619, Fax: (02) 9957 1291

Patterson Britton & Partners Pty Ltd

consulting engineers

job number 4467/4142-05 | sheet number 1 of 1

job title 5194/4903-01 | prepared by DS | chk'd

date 17/8/04

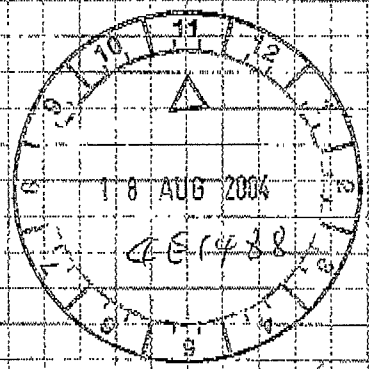
FORM No. 5.004.1 (DEC 1992)

Your Ref 00250121166

To Amdel,

Please test the following samples:

8	1 3 3 6 9 7	WS301US
	1 3 3 6 9 8	WS302US
	6 9 9	WS301HS
	7 - 4	WS301HS2
	7 0 1	WSP14US
	7 0 2	WSP14DS
	7 0 3	WSP14HS
	7 0 4	WSP14WQCP1IN
	7 0 5	WSP14WQCP1OUT
	7 0 6	WSP14WQCP2IN
	7 0 7	WSP14WQCP2OUT
	7 0 8	WS1232DS
	7 0 9	WS1232NBHN
	7 1 0	WS1232NBOUT
	7 1 1	WS1232SBIN
	7 1 2	WS1232SBOUT
	7 1 3	WS301US2 — bottles are labelled WS302
	7 1 4	WS301DS



Test all samples for;

Total-N, TKN, Ammonia-N

Nitrates + Nitrites

Total-P, ortho-P, non-filterable-P

Faecal coliforms

Regards

Eulene

David Stone (9957 1619, dstone@pattbrit.com.au)