APPENDIX C

Data Validation Summary Reports

DATA VALIDATION SUMMARY SHEET (Sydney)

Project Name:	**March 2010 Monitoring**	**Project Number:**	**107623038**
Primary Laboratory:	**ALS**	**Workorder Number:**	**ES1005116**
Secondary Laboratory:	**Labmark**	**Workorder Number:**	**E047395**
Date Sampled:	**15-16/03/2010**	**Sample Medium:**	**Groundwater**

Sample Information

Number of Primary Samples:	**22**	**Number of Triplicate Samples:**	**1**
Number of Duplicate Samples:	**2**	**Number of Other QAQC Samples:**	**1**

Documentation and Sample Handling Information

	Y/N	Comments
COC completed properly?	N	Project Number missing. Sample indicated in COC as BP41-10.00 was received by the lab as BP41-06.00.
All requested analysis completed?	Y	
Samples received intact and chilled?	Y	Ice present 2.6C
Samples analysed within appropiate holding times?	Y	All
Sample volumes sufficient for QC analysis?	Y	
Are there non-NATA accredited methods used?	N	
Chromatograms supplied as appropriate?		N/A
Laboratory reports signed by authorised personnel?	Y	

QAQC Sample Information (Method Blank - MB, Rinsate Blank - RB, Field Blank - FB, Trip Blank - TB)

Type	Sample ID	Comments
TB	TRIP Blank 01-16/03/10	All results less than LOR
MB	Method Blank	All results less than LOR

Trip Spike Information

Analyte	Spike Concentrations	Recovery Concentration	% Recovery	Comments
No Trip Spike been analysed for this batch				

Laboratory Control Spike (LCS) Analyses

Analyte Group	Comments
Trihalomethanes (QCLot:1285462)	Bromodichloromethane (77.0%) outside the laboratory control limits of 80.8 - 123%.
	All other LCS results from ALS were within the laboratory recovery control limits.
All	All LCS results from Lab mark were within the laboratory recovery control limit 70 - 130%.

Matrix Spike (MS) Analyses

Analyte Group	Comments
All	All results were within the laboratory control limit. All MS were undertaken on Golder samples.

Laboratory Duplicates (LD) Analyses

Analyte Group	Analyte(s)	Sample ID	Comments
Aliphatics	1.1-Dichlorethene	BP60_24.00 15/03/10	RPD (23.1%) is greater than the laboratory control limits
Trihalomethanes	Chloroform	BP60_24.00 15/03/10	RPD (27.8%) is greater than the laboratory control limits
			All ALS LD were undertaken on Golder samples. No LD was conducted by Labmark.

Field Duplicates (FD) Analyses

Analyte Group	Primary ID	Duplicate ID	Comments
trans-1,2-dichloroethene	BP58_06.00_15/03/10	QC 100	RPD (33%) is outside the control limits.
1,2-Dichloroethane	BP41_08.00_16/03/10	QC 101	RPD (67%) is outside the control limits.

Field Triplicates (FT) Analyses

Analyte Group	Primary ID	Triplicate ID	Comments
1,1-Dichloroethane	BP58_06.00_15/03/10	QC 200	RPD (50%) is outside the control limits.
1,2-Dichloroethane	BP58_06.00_15/03/10	QC 200	RPD (39%) is outside the control limits.
Trichloroethene	BP58_06.00_15/03/10	QC 200	RPD (80%) is outside the control limits.
trans-1,2-dichloroethene	BP58_06.00_15/03/10	QC 200	RPD (133%) is outside the control limits.
Vinyl chloride	BP58_06.00_15/03/10	QC 200	RPD (90%) is outside the control limits.

Surrogate Compound Monitoring Analyses

Analyte Group	Sample ID	Comments
Toluene-D8	BP60_10.00_15/03/10	115% recovery greater than upper data quality objective 110%
	BP77_14.00_16/03/10	111% recovery greater than upper data quality objective 110%
	BP77_12.00_16/03/10	111% recovery greater than upper data quality objective 110%
	BP77_22.00_16/03/11	117% recovery greater than upper data quality objective 110%
4-Bromofluorobenzene	BP60_22.00_15/03/10	116% recovery greater than upper data quality objective 115%
	BP60_24.00_15/03/11	119% recovery greater than upper data quality objective 115%
	QC100_15/03/10	119% recovery greater than upper data quality objective 115%
	BP77_06.00_16/03/10	117% recovery greater than upper data quality objective 115%
	BP77_14.00_16/03/10	118% recovery greater than upper data quality objective 115%
	BP41_06.00_16/03/10	118% recovery greater than upper data quality objective 115%
	BP114_06.00_16/03/10	117% recovery greater than upper data quality objective 115%
	QC101_16/03/10	117% recovery greater than upper data quality objective 115%

Overall Comments

Vynil chloride result for sample BP60_08.00 exceeded calibration range, reported form EP074-WF method instead.

LCS recovery for Bromodichloromethane is slightly outside the control limits and it is not expected to affect the quality of the data.

LD recovery for 1.1-Dichlorethene and Chloroform are slightly outside the control limits and it is not expected to affect the quality of the data.

The high RPDs detected in the field duplicates for trans-1,2-dichloroethene and 1,2-Dichloroethane are due to small differences between low concentrations and as such do not impact on the data for interpretative use.

The high RPDs detected in the field triplicates are due to different LOR used for ALS and Labmark.

The high surrogates recoveries are slightly greater than the upper quality objectives and are not expected to affect the quality of the data.

The batch is considered suitable for environmental interpretative use.

Note: Data validation assesses each analyte in terms of all the data validation variables and only the exceedances and outliers are reported in this form.

*When concentrations are less than the LOR for both primary and duplicate/triplicate results, no RPDs are calculated

Performed By:	Rashad Danoun	**Reviewed By:**	Fabiana Quinton
Date:	12/04/2010	**Date:**	28/05/2010

March 2010 Quarterly
Duplicate Analysis RPDs
Project # 107623038
Batches ES1005116/E047394

Batch Number	ES1005116	ES1005116	E047395
Sample ID	BP58_06.00	QC100	QC200
Sample Type	Primary	Duplicate	Triplicate
Date Sampled	15/03/2010	15/03/2010	15/03/2010

Analyte	Units	LOR					RPDs	
		ALS	Labmark				Primary vs Duplicate	Primary vs Triplicate
1,1,1,2-Tetrachloroethane	mg/l	0.001	0.005	<0.001	<0.001	<0.005	0	0
1,1,1-Trichloroethane	mg/l	0.001	0.005	<0.001	<0.001	<0.005	0	0
1,1,2,2-Tetrachloroethane	mg/l	0.001	0.005	<0.001	<0.001	<0.005	0	0
1,1,2-Trichloroethane	mg/l	0.001	0.005	<0.001	<0.001	<0.005	0	0
1,1-Dichloroethane	mg/l	0.001	0.005	0.003	0.004	<0.005	29	50
1,1-Dichloroethene	mg/l	0.001	0.005	0.004	0.004	<0.005	0	22
1,1-Dichloropropene	mg/l	0.001	0.001	<0.001	<0.001	-	0	-
1,2,3-Trichloropropane	mg/l	0.001	0.001	<0.001	<0.001	-	0	-
1,2-Dibromo-3-chloropropane	mg/l	0.001	0.001	<0.001	<0.001	-	0	-
1,2-Dichloroethane	mg/l	0.001	0.005	**0.303**	0.345	0.204	13	39
1,3-Dichloropropane	mg/l	0.001	0.001	<0.001	<0.001	-	0	-
Bromodichloromethane	mg/l	0.001	0.001	<0.001	<0.001	-	0	-
Bromoform	mg/l	0.001	0.001	<0.001	<0.001	-	0	-
Bromomethane	mg/l	0.01	0.01	<0.01	<0.01	-	0	-
Carbon disulfide	mg/l	0.001	0.005	<0.001	<0.001	<0.005	0	0
Carbon tetrachloride	mg/l	0.001	0.005	<0.001	<0.001	<0.005	0	0
Chlorodibromomethane	mg/l	0.001	0.001	<0.001	<0.001	-	0	-
Chloroethane	mg/l	0.01	0.05	<0.01	<0.01	<0.05	0	0
Chloroform	mg/l	0.001	0.005	<0.001	<0.001	<0.005	0	0
Chloromethane	mg/l	0.01	0.05	<0.01	<0.01	<0.05	0	0
cis-1,2-Dichloroethene	mg/l	0.001	0.005	0.02	0.022	0.021	10	5
cis-1,4-Dichloro-2-butene	mg/l	0.001	0.001	<0.001	<0.001	-	0	-
Dibromomethane	mg/l	0.001	0.001	<0.001	<0.001	-	0	-
Dichlorodifluoromethane	mg/l	0.01	0.01	<0.01	<0.01	-	0	-
Dichloromethane	mg/l	0.005	0.02	<0.005	<0.005	<0.02	0	0
Hexachlorobutadiene	mg/l	0.001	0.001	<0.001	<0.001	-	0	-
Iodomethane	mg/l	0.001	0.001	<0.001	<0.001	-	0	-
Pentachloroethane	mg/l	0.001	0.001	<0.001	<0.001	-	0	-
Trichloroethene	mg/l	0.001	0.005	0.003	0.004	0.007	29	80
Tetrachloroethene	mg/l	0.001	0.005	<0.001	<0.001	<0.005	0	0
trans-1,2-dichloroethene	mg/l	0.001	0.005	0.001	0.002	<0.005	67	133
trans-1,4-Dichloro-2-butene	mg/l	0.001	0.001	<0.001	<0.001	-	0	-
Trichlorofluoromethane	mg/l	0.01	0.01	<0.01	<0.01	-	0	-
Vinyl chloride	mg/l	0.01	0.05	-	-	-	-	-
Vinyl chloride	mg/l	0.001	0.05	0.019	-	<0.05	-	90

Legend
*RPDs have only been considered where a concentration is greater than 1 times the LOR.
Acceptable RPDs for each LOR multiplier range are: 200 (1-10 x LOR); 50 (10-20 x LOR); 30 (> 20 x LOR)
- Not Analysed

Prepared by: RD
Checked by: FQ

March 2010 Quarterly
Duplicate Analysis RPDs
Project # 107623038
Batches ES1005116/E047395

Batch Number	ES1005116	ES1005116
Sample ID	BP41_08.00	QC101
Sample Type	Primary	Duplicate
Date Sampled	16/03/2010	16/03/2010

Analyte	Units	LOR				RPD
		ALS	Labmark			Primary vs Duplicate
1,1,1,2-Tetrachloroethane	mg/l	0.001	0.005	<0.001	<0.001	0
1,1,1-Trichloroethane	mg/l	0.001	0.005	<0.001	<0.001	0
1,1,2,2-Tetrachloroethane	mg/l	0.001	0.005	0.006	0.006	0
1,1,2-Trichloroethane	mg/l	0.001	0.005	0.093	0.103	10
1,1-Dichloroethane	mg/l	0.001	0.005	0.064	0.055	15
1,1-Dichloroethene	mg/l	0.001	0.005	0.064	0.055	15
1,1-Dichloropropene	mg/l	0.001	0.001	<0.001	<0.001	0
1,2,3-Trichloropropane	mg/l	0.001	0.001	<0.001	<0.001	0
1,2-Dibromo-3-chloropropane	mg/l	0.001	0.001	<0.001	<0.001	0
1,2-Dichloroethane	mg/l	0.001	0.005	0.51	0.711	33
1,3-Dichloropropane	mg/l	0.001	0.001	<0.001	<0.001	0
Bromodichloromethane	mg/l	0.001	0.001	<0.001	<0.001	0
Bromoform	mg/l	0.001	0.001	<0.001	<0.001	0
Bromomethane	mg/l	0.01	0.01	<0.01	<0.01	0
Carbon disulfide	mg/l	0.001	0.005	<0.001	<0.001	0
Carbon tetrachloride	mg/l	0.001	0.005	<0.001	<0.001	0
Chlorodibromomethane	mg/l	0.001	0.001	<0.001	<0.001	0
Chloroethane	mg/l	0.01	0.05	<0.01	<0.01	0
Chloroform	mg/l	0.001	0.005	0.131	0.17	26
Chloromethane	mg/l	0.01	0.05	<0.01	<0.01	0
cis-1,2-Dichloroethene	mg/l	0.001	0.005	0.114	0.144	23
cis-1,4-Dichloro-2-butene	mg/l	0.001	0.001	<0.001	<0.001	0
Dibromomethane	mg/l	0.001	0.001	<0.001	<0.001	0
Dichlorodifluoromethane	mg/l	0.01	0.01	<0.01	<0.01	0
Dichloromethane	mg/l	0.005	0.02	0.044	0.041	7
Hexachlorobutadiene	mg/l	0.001	0.001	<0.001	<0.001	0
Iodomethane	mg/l	0.001	0.001	<0.001	<0.001	0
Pentachloroethane	mg/l	0.001	0.001	<0.001	<0.001	0
Trichloroethene	mg/l	0.001	0.005	0.091	0.077	17
Tetrachloroethene	mg/l	0.001	0.005	0.003	0.003	0
trans-1,2-dichloroethene	mg/l	0.001	0.005	0.024	0.022	9
trans-1,4-Dichloro-2-butene	mg/l	0.001	0.001	<0.001	<0.001	0
Trichlorofluoromethane	mg/l	0.01	0.01	<0.01	<0.01	0
Vinyl chloride	mg/l	0.01	0.05	0.26	0.24	8
Vinyl chloride	mg/l	0.001	0.05	-	-	-

Legend
*RPDs have only been considered where a concentration is greater than 1 times the LOR.
Acceptable RPDs for each LORL multiplier range are: 200 (1-10 x LOR); 50 (10-20 x LOR); 30 (> 20 x LOR)
- Not Analysed

Prepared by: RD
Checked by: FQ

DATA VALIDATION SUMMARY SHEET (Sydney)

Project Name:	**March 2010 Monitoring**	**Project Number:**	**107623038**
Primary Laboratory:	**ALS**	**Workorder Number:**	**ES1005125**
Secondary Laboratory:	**Labmark**	**Workorder Number:**	**E047396**
Date Sampled:	**17/03/2010**	**Sample Medium:**	**Groundwater and Surface water**

Sample Information

Number of Primary Samples:	**50**	**Number of Triplicate Samples:**	**4**
Number of Duplicate Samples:	**6**	**Number of Other QAQC Samples:**	**2**

Documentation and Sample Handling Information

	Y/N	Comments
COC completed properly?	N	Project Number missing. Some sample containers have wrong date.
All requested analysis completed?	Y	■ Trip Blank 02-03 date is 17/03/10 on the COC, received labeled on 12/03/10, lab used sampling date on the jar. ■ Samples BP 115_05.25_17/03/10 and BP 115_06.50_17/03/10 were reported in the lab certificate as BP15_05.25_17/03/10 and BP 15_06.50_17/03/10. Batch reissued with corrections.
Samples received intact and chilled?	Y	Ice present 2.6C
Samples analysed within appropiate holding times?	Y	All
Sample volumes sufficient for QC analysis?	Y	
Are there non-NATA accredited methods used?	N	
Chromatograms supplied as appropriate?		N/A
Laboratory reports signed by authorised personnel?	Y	

QAQC Sample Information (Method Blank - MB, Rinsate Blank - RB, Field Blank - FB, Trip Blank - TB)

Type	Sample ID	Comments
TB	TRIP Blank 01-16/03/10	All results less than LOR.
MB	Method Blank	All results less than LOR.

Trip Spike Information

Analyte	Spike Concentrations	Recovery Concentration	% Recovery	Comments
No Trip Spike been analysed for this batch.				

Laboratory Control Spike (LCS) Analyses

Analyte Group	Comments
Halogenated Aliphatic Compounds (QCLot:1287178)	1,2,3-Trichloropropane (127%) outside the laboratory control limit of 77.8 - 126%
	All LCS results from Labmark were within the laboratory recovery control limit 70 - 130%.

Matrix Spike (MS) Analyses

Analyte Group	Comments
All	All results were within the laboratory control limits. All MS were undertaken on Golder samples.

Laboratory Duplicates (LD) Analyses

Analyte Group	Analyte(s)	Sample ID	Comments
All RPDs results were from ALS batch within acceptable control limits or results less than LOR. ALL ALS LDs were undertaken on Golder samples. No LD was conducted for Labmark batch.			

Field Duplicates (FD) Analyses

Analyte Group	Primary ID	Duplicate ID	Comments
1,2-Dichloroethane	SW053_17/03/10	QC 102	RPD (67%) is outside the control limits.
1,2-Dichloroethane	BP43_01.00_L_17/03/10	QC 104	RPD (67%) is outside the control limits.
cis-1,2-Dichloroethene	BP43_01.00_L_17/03/10	QC 104	RPD (100%) is outside the control limits.
1,1-Dichloroethane	BP42_02.00_L_17/03/10	QC 105	RPD (70%) is outside the control limits.
1,1-Dichloroethene	BP42_02.00_L_17/03/10	QC 105	RPD (51%) is outside the control limits.
1,2-Dichloroethane	BP42_02.00_L_17/03/10	QC 105	RPD (92%) is outside the control limits.
Chloroform	BP42_02.00_L_17/03/10	QC 105	RPD (79%) is outside the control limits.
cis-1,2-Dichloroethene	BP42_02.00_L_17/03/10	QC 105	RPD (66%) is outside the control limits.
trans-1,2-dichloroethene	BP42_02.00_L_17/03/10	QC 105	RPD (44%) is outside the control limits.
1,2-Dichloroethane	BP65_02.00_L_17/03/10	QC106	RPD (67%) is outside the control limits.
Dichloromethane	BP01_00.75_17/03/10	QC108	RPD (44%) is outside the control limits.

Field Triplicates (FT) Analyses

Analyte Group	Primary ID	Triplicate ID	Comments
1,1,2,2-Tetrachloroethane	BP43_01.00_L_17/03/10	QC 204	RPD (133%) is outside the control limits.
1,1-Dichloroethane	BP65_02.00_L_17/03/10	QC 206	RPD (133%) is outside the control limits.
Dichloromethane	BP01_00.75_17/03/10	QC 208	RPD (94%) is outside the control limits.
trans-1,2-dichloroethene	BP01_00.75_17/03/10	QC 208	RPD (120%) is outside the control limits.

Surrogate Compound Monitoring Analyses

Analyte Group	Sample ID	Comments
1.2-Dichlorethane-D4	BP65_02.00_17/03/10	120% recovery equal upper data quality objective 120%.
Toluene-D8	SW031_H_17/03/10	112% recovery greater than upper data quality objective 110%.
	SW029_L_17/03/10	113% recovery greater than upper data quality objective 110%.
	SW028_L_17/03/10	113% recovery greater than upper data quality objective 110%.
	BP01_08.00_17/03/10	114% recovery greater than upper data quality objective 110%.
	BP15_06.50_17/03/10	112% recovery greater than upper data quality objective 110%.
	BP42_02.00_H_17/03/10	114% recovery greater than upper data quality objective 110%.
	BP43_00.50_H_17/03/10	115% recovery greater than upper data quality objective 110%.
	BP64_00.10_H_17/03/10	112% recovery greater than upper data quality objective 110%.
	BP65_02.00_H_17/03/10	112% recovery greater than upper data quality objective 110%.
	BP42_02.00_L_17/03/10	118% recovery greater than upper data quality objective 110%.
	BP43_01.00_L_17/03/10	112% recovery greater than upper data quality objective 110%.
	BP64_00.10_L_17/03/10	120% recovery greater than upper data quality objective 110%.
	BP64_00.50_L_17/03/10	112% recovery greater than upper data quality objective 110%.
	BP64_02.00_L_17/03/10	114% recovery greater than upper data quality objective 110%.
	BP65_02.00_L_17/03/10	116% recovery greater than upper data quality objective 110%.
	QC105	111% recovery greater than upper data quality objective 110%.
	QC106	112% recovery greater than upper data quality objective 110%.
4-Bromofluorobenzene	BP01_00.75_17/03/10	118% recovery greater than upper data quality objective 115%.
	BP01_10.00_17/03/10	117% recovery greater than upper data quality objective 116%.
	BP15_06.50_17/03/10	120% recovery greater than upper data quality objective 115%.
	MWF151_17/03/10	118% recovery greater than upper data quality objective 115%.
	BP64_00.50_H_17/03/10	115% recovery equal upper data quality objective 115%.
	BP65_02.00_H_17/03/10	118% recovery greater than upper data quality objective 115%.
	BP64_02.00_L_17/03/10	115% recovery equal upper data quality objective 115%.
	BP65_02.00_L_17/03/10	120% recovery greater than upper data quality objective 115%.
	QC106	121% recovery greater than upper data quality objective 115%.
	SW028_L_17/03/10	121% recovery greater than upper data quality objective 115%.

DATA VALIDATION SUMMARY SHEET (Sydney)

Project Name:	**March 2010 Monitoring**	**Project Number:**	**107623038**
Primary Laboratory:	**ALS**	**Workorder Number:**	**ES1005125**
Secondary Laboratory:	**Labmark**	**Workorder Number:**	**E047396**
Date Sampled:	**17/03/2010**	**Sample Medium:**	**Groundwater and Surface water**

Overall Comments

Vinyl chloride result for sample BP01_00.75 exceeded calibration range, reported form EP074-WF method instead.

LCS recovery for 1.2.3-Trichloropropane is slightly outside the control limits and it is not expected to affect the quality of the data.

With the exception of the BP42_02.00_L/QC105 duplicate pair, the high RPDs detected in the field duplicates and triplicates are due to small differences between low concentrations or or due to diferent LORs used by ALS and Labmark. The RPD exceedances for the aformentioned duplicate pair is also not considered to significantly affect the overall data quality of this batch as the intra-laboratory duplicate frequency of 1 in 10 samples has been satisfied with acceptable recoveries or minor RPD exceedances.

The high surrogates recoveries are slightly greater than the upper quality objectives and are not expected to affect the quality of the data.

The batch is considered suitable for environmental interpretative use.

Note: Data validation assesses each analyte in terms of all the data validation variables and only the exceedances and outliers are reported in this form.

*When concentrations are less than the LOR for both primary and duplicate/triplicate results, no RPDs are calculated

Performed By:	Rashad Danoun	**Reviewed By:**	Fabiana Quinton
Date:	12/04/2010	**Date:**	28/05/2010

March 2010 Quarterly
Duplicate Analysis RPDs
Project # 107623038
Batches ES1005125/E047396

			ES1005125	ES1005125	E047396		
			SW053_17/03/10	QC102_17/03/10	QC202		
			Primary	Duplicate	Triplicate		
			17/03/2010	17/03/2010	17/03/2010		
						RPDs	
						Primary vs Duplicate	Primary vs Triplicate
Analyte	Units	LOR ALS					
1,1,1,2-Tetrachloroethane	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1,1-Trichloroethane	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1,2,2-Tetrachloroethane	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1,2-Trichloroethane	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1-Dichloroethane	mg/l	0.001	<0.001	0.001	<0.005	0	0
1,1-Dichloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1-Dichloropropene	mg/l	0.001	<0.001	<0.001	-	0	-
1,2,3-Trichloropropane	mg/l	0.001	<0.001	<0.001	-	0	-
1,2-Dibromo-3-chloropropane	mg/l	0.001	<0.001	<0.001	-	0	-
1,2-Dichloroethane	mg/l	0.001	<0.001	0.002	<0.005	67	0
1,3-Dichloropropane	mg/l	0.001	<0.001	<0.001	-	0	-
Bromodichloromethane	mg/l	0.001	<0.001	<0.001	-	0	-
Bromoform	mg/l	0.001	<0.001	<0.001	-	0	-
Bromomethane	mg/l	0.01	<0.01	<0.01	-	0	-
Carbon disulfide	mg/l	0.001	<0.001	<0.001	<0.005	0	0
Carbon tetrachloride	mg/l	0.001	<0.001	<0.001	<0.005	0	0
Chlorodibromomethane	mg/l	0.001	<0.001	<0.001	-	0	-
Chloroethane	mg/l	0.01	<0.01	<0.01	<0.05	0	0
Chloroform	mg/l	0.001	<0.001	<0.001	<0.005	0	0
Chloromethane	mg/l	0.01	<0.01	<0.01	<0.05	0	0
cis-1,2-Dichloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
cis-1,4-Dichloro-2-butene	mg/l	0.001	<0.001	<0.001	-	0	-
Dibromomethane	mg/l	0.001	<0.001	<0.001	-	0	-
Dichlorodifluoromethane	mg/l	0.01	<0.01	<0.01	-	0	-
Dichloromethane	mg/l	0.005	<0.005	<0.005	<0.02	0	0
Hexachlorobutadiene	mg/l	0.001	<0.001	<0.001	-	0	-
Iodomethane	mg/l	0.001	<0.001	<0.001	-	0	-
Pentachloroethane	mg/l	0.001	<0.001	<0.001	-	0	-
Trichloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
Tetrachloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
trans-1,2-dichloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
trans-1,4-Dichloro-2-butene	mg/l	0.001	<0.001	<0.001	-	0	-
Trichlorofluoromethane	mg/l	0.01	<0.01	<0.01	-	0	-
Vinyl chloride	mg/l	0.01		-	-	-	-
Vinyl chloride	mg/l	0.001	<0.001	-	<0.05	-	0

Legend
*RPDs have only been considered where a concentration is greater than 1 times the LOR.
Acceptable RPDs for each LORL multiplier range are: 200 (1-10 x LOR); 50 (10-20 x LOR); 30 (> 20 x LOR)
- Not Analysed

Prepared by: RD
Checked by: FQ

March 2010 Quarterly
Duplicate Analysis RPDs
Project # 107623038
Batch ES1005125

Batch Number	ES1005125	ES1005125	
Sample ID	BP115_05.25_17/03/10	QC103_17/03/10	
Sample Type	Primary	Duplicate	
Date Sampled	17/03/2010	17/03/2010	
			RPD
			Primary vs Duplicate

Analyte	Units	LOR ALS			
1,1,1,2-Tetrachloroethane	mg/l	0.001	<0.001	<0.001	0
1,1,1-Trichloroethane	mg/l	0.001	<0.001	<0.001	0
1,1,2,2-Tetrachloroethane	mg/l	0.001	<0.001	<0.001	0
1,1,2-Trichloroethane	mg/l	0.001	<0.001	<0.001	0
1,1-Dichloroethane	mg/l	0.001	0.073	0.078	7
1,1-Dichloroethene	mg/l	0.001	<0.001	<0.001	0
1,1-Dichloropropene	mg/l	0.001	<0.001	<0.001	0
1,2,3-Trichloropropane	mg/l	0.001	<0.001	<0.001	0
1,2-Dibromo-3-chloropropane	mg/l	0.001	<0.001	<0.001	0
1,2-Dichloroethane	mg/l	0.001	<0.001	<0.001	0
1,3-Dichloropropane	mg/l	0.001	<0.001	<0.001	0
Bromodichloromethane	mg/l	0.001	<0.001	<0.001	0
Bromoform	mg/l	0.001	<0.001	<0.001	0
Bromomethane	mg/l	0.01	<0.01	<0.01	0
Carbon disulfide	mg/l	0.001	<0.001	<0.001	0
Carbon tetrachloride	mg/l	0.001	<0.001	<0.001	0
Chlorodibromomethane	mg/l	0.001	<0.001	<0.001	0
Chloroethane	mg/l	0.01	<0.01	<0.01	0
Chloroform	mg/l	0.001	<0.001	<0.001	0
Chloromethane	mg/l	0.01	<0.01	<0.01	0
cis-1,2-Dichloroethene	mg/l	0.001	<0.001	<0.001	0
cis-1,4-Dichloro-2-butene	mg/l	0.001	<0.001	<0.001	0
Dibromomethane	mg/l	0.001	<0.001	<0.001	0
Dichlorodifluoromethane	mg/l	0.01	<0.01	<0.01	0
Dichloromethane	mg/l	0.005	<0.005	<0.005	0
Hexachlorobutadiene	mg/l	0.001	<0.001	<0.001	0
Iodomethane	mg/l	0.001	<0.001	<0.001	0
Pentachloroethane	mg/l	0.001	<0.001	<0.001	0
Trichloroethene	mg/l	0.001	<0.001	<0.001	0
Tetrachloroethene	mg/l	0.001	<0.001	<0.001	0
trans-1,2-dichloroethene	mg/l	0.001	<0.001	<0.001	0
trans-1,4-Dichloro-2-butene	mg/l	0.001	<0.001	<0.001	0
Trichlorofluoromethane	mg/l	0.01	<0.01	<0.01	0
Vinyl chloride	mg/l	0.01	-	-	-
Vinyl chloride	mg/l	0.001	-	-	-

Legend
*RPDs have only been considered where a concentration is greater than 1 times the LOR.
Acceptable RPDs for each LORL multiplier range are: 200 (1-10 x LOR); 50 (10-20 x LOR); 30 (> 20 x LOR)
- Not Analysed

Prepared by: RD
Checked by: FQ

March 2010 Quarterly
Duplicate Analysis RPDs
Project # 107623038
Batches ES1005125/E047396

			ES1005125	ES1005125	E047396		
			BP43_01.00_L_17/03/10	QC104_17/03/10	QC204		
			Primary	Duplicate	Triplicate		
			17/03/2010	17/03/2010	17/03/2010		
						RPDs	
						Primary vs Duplicate	Primary vs Triplicate
Analyte	Units	LOR ALS					
1,1,1,2-Tetrachloroethane	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1,1-Trichloroethane	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1,2,2-Tetrachloroethane	mg/l	0.001	0.001	0.001	<0.005	0	133
1,1,2-Trichloroethane	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1-Dichloroethane	mg/l	0.001	0.01	0.012	0.011	18	10
1,1-Dichloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1-Dichloropropene	mg/l	0.001	<0.001	<0.001	-	0	-
1,2,3-Trichloropropane	mg/l	0.001	<0.001	<0.001	-	0	-
1,2-Dibromo-3-chloropropane	mg/l	0.001	<0.001	<0.001	-	0	-
1,2-Dichloroethane	mg/l	0.001	0.004	0.008	<0.005	67	22
1,3-Dichloropropane	mg/l	0.001	<0.001	<0.001	-	0	-
Bromodichloromethane	mg/l	0.001	<0.001	<0.001	-	0	-
Bromoform	mg/l	0.001	<0.001	<0.001	-	0	-
Bromomethane	mg/l	0.01	<0.01	<0.01	-	0	-
Carbon disulfide	mg/l	0.001	<0.001	<0.001	<0.005	0	0
Carbon tetrachloride	mg/l	0.001	<0.001	<0.001	<0.005	0	0
Chlorodibromomethane	mg/l	0.001	<0.001	<0.001	-	0	-
Chloroethane	mg/l	0.01	<0.01	<0.01	<0.05	0	0
Chloroform	mg/l	0.001	<0.001	<0.001	<0.005	0	0
Chloromethane	mg/l	0.01	<0.01	<0.01	<0.05	0	0
cis-1,2-Dichloroethene	mg/l	0.001	<0.001	0.003	<0.005	100	0
cis-1,4-Dichloro-2-butene	mg/l	0.001	<0.001	<0.001	-	0	-
Dibromomethane	mg/l	0.001	<0.001	<0.001	-	0	-
Dichlorodifluoromethane	mg/l	0.01	<0.01	<0.01	-	0	-
Dichloromethane	mg/l	0.005	<0.005	<0.005	<0.02	0	0
Hexachlorobutadiene	mg/l	0.001	<0.001	<0.001	-	0	-
Iodomethane	mg/l	0.001	<0.001	<0.001	-	0	-
Pentachloroethane	mg/l	0.001	<0.001	<0.001	-	0	-
Trichloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
Tetrachloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
trans-1,2-dichloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
trans-1,4-Dichloro-2-butene	mg/l	0.001	<0.001	<0.001	-	0	-
Trichlorofluoromethane	mg/l	0.01	<0.01	<0.01	-	0	-
Vinyl chloride	mg/l	0.01	<0.01	<0.01	<0.05	0	0
Vinyl chloride	mg/l	0.001	-	-	-	-	-

Legend
*RPDs have only been considered where a concentration is greater than 1 times the LOR.
Acceptable RPDs for each LORL multiplier range are: 200 (1-10 x LOR); 50 (10-20 x LOR); 30 (> 20 x LOR)
- Not Analysed

Prepared by: RD
Checked by: FQ

March 2010 Quarterly
Duplicate Analysis RPDs
Project # 107623038
Batch ES1005125

			ES1005125	ES1005125	
			BP42_02.00_L_17/03/10	QC105_17/03/10	
			Primary	Duplicate	
			17/03/2010	17/03/2010	
					RPD
					Primary vs Duplicate
Analyte	Units	LOR ALS			
1,1,1,2-Tetrachloroethane	mg/l	0.001	<0.001	<0.005	0
1,1,1-Trichloroethane	mg/l	0.001	<0.001	<0.005	0
1,1,2,2-Tetrachloroethane	mg/l	0.001	<0.001	<0.005	0
1,1,2-Trichloroethane	mg/l	0.001	0.001	<0.005	0
1,1-Dichloroethane	mg/l	0.001	0.053	0.11	70
1,1-Dichloroethene	mg/l	0.001	0.016	0.027	51
1,1-Dichloropropene	mg/l	0.001	<0.001	<0.005	0
1,2,3-Trichloropropane	mg/l	0.001	<0.001	<0.005	0
1,2-Dibromo-3-chloropropane	mg/l	0.001	<0.001	<0.005	0
1,2-Dichloroethane	mg/l	0.001	0.378	1.02	92
1,3-Dichloropropane	mg/l	0.001	<0.001	<0.005	0
Bromodichloromethane	mg/l	0.001	<0.001	<0.005	0
Bromoform	mg/l	0.001	<0.001	<0.005	0
Bromomethane	mg/l	0.01	<0.01	<0.05	0
Carbon disulfide	mg/l	0.001	<0.001	<0.005	0
Carbon tetrachloride	mg/l	0.001	<0.001	<0.005	0
Chlorodibromomethane	mg/l	0.001	<0.001	<0.005	0
Chloroethane	mg/l	0.01	<0.01	<0.05	0
Chloroform	mg/l	0.001	0.058	0.134	79
Chloromethane	mg/l	0.01	<0.01	<0.05	0
cis-1,2-Dichloroethene	mg/l	0.001	0.443	0.88	66
cis-1,4-Dichloro-2-butene	mg/l	0.001	<0.001	<0.005	0
Dibromomethane	mg/l	0.001	<0.001	<0.005	0
Dichlorodifluoromethane	mg/l	0.01	<0.01	<0.05	0
Dichloromethane	mg/l	0.005	<0.005	<0.005	0
Hexachlorobutadiene	mg/l	0.001	<0.001	<0.005	0
Iodomethane	mg/l	0.001	<0.001	<0.005	0
Pentachloroethane	mg/l	0.001	<0.001	<0.005	0
Trichloroethene	mg/l	0.001	0.009	0.013	36
Tetrachloroethene	mg/l	0.001	0.005	<0.005	0
trans-1,2-dichloroethene	mg/l	0.001	0.145	0.227	44
trans-1,4-Dichloro-2-butene	mg/l	0.001	<0.001	<0.005	0
Trichlorofluoromethane	mg/l	0.01	<0.01	<0.05	0
Vinyl chloride	mg/l	0.01	2.7	2.92	8
Vinyl chloride	mg/l	0.001	-	-	-

Legend
*RPDs have only been considered where a concentration is greater than 1 times the LOR.
Acceptable RPDs for each LORL multiplier range are: 200 (1-10 x LOR); 50 (10-20 x LOR); 30 (> 20 x LOR)
- Not Analysed

Prepared by: RD
Checked by: FQ

March 2010 Quarterly
Duplicate Analysis RPDs
Project # 107623038
Batches ES1005125/E047396

			ES1005125	ES1005125	E047396		
			BP65_02.00_L_17/03/10	QC106_17/03/10	QC206		
			Primary	Duplicate	Triplciate		
			17/03/2010	17/03/2010	17/03/2010		
						RPDs	
						Primary vs Duplicate	Primary vs Triplicate
Analyte	Units	LOR ALS					
1,1,1,2-Tetrachloroethane	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1,1-Trichloroethane	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1,2,2-Tetrachloroethane	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1,2-Trichloroethane	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1-Dichloroethane	mg/l	0.001	0.001	<0.001	<0.005	0	133
1,1-Dichloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
1,1-Dichloropropene	mg/l	0.001	<0.001	<0.001	-	0	-
1,2,3-Trichloropropane	mg/l	0.001	<0.001	<0.001	-	0	-
1,2-Dibromo-3-chloropropane	mg/l	0.001	<0.001	<0.001	-	0	-
1,2-Dichloroethane	mg/l	0.001	0.002	<0.001	<0.005	67	86
1,3-Dichloropropane	mg/l	0.001	<0.001	<0.001	-	0	-
Bromodichloromethane	mg/l	0.001	<0.001	<0.001	-	0	-
Bromoform	mg/l	0.001	<0.001	<0.001	-	0	-
Bromomethane	mg/l	0.01	<0.01	<0.01	-	0	-
Carbon disulfide	mg/l	0.001	<0.001	<0.001	<0.005	0	0
Carbon tetrachloride	mg/l	0.001	<0.001	<0.001	<0.005	0	0
Chlorodibromomethane	mg/l	0.001	<0.001	<0.001	-	0	-
Chloroethane	mg/l	0.01	<0.01	<0.01	<0.05	0	0
Chloroform	mg/l	0.001	<0.001	<0.001	<0.005	0	0
Chloromethane	mg/l	0.01	<0.01	<0.01	<0.05	0	0
cis-1,2-Dichloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
cis-1,4-Dichloro-2-butene	mg/l	0.001	<0.001	<0.001	-	0	-
Dibromomethane	mg/l	0.001	<0.001	<0.001	-	0	-
Dichlorodifluoromethane	mg/l	0.01	<0.01	<0.01	-	0	-
Dichloromethane	mg/l	0.005	<0.005	<0.005	<0.02	0	0
Hexachlorobutadiene	mg/l	0.001	<0.001	<0.001	-	0	-
Iodomethane	mg/l	0.001	<0.001	<0.001	-	0	-
Pentachloroethane	mg/l	0.001	<0.001	<0.001	-	0	-
Trichloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
Tetrachloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
trans-1,2-dichloroethene	mg/l	0.001	<0.001	<0.001	<0.005	0	0
trans-1,4-Dichloro-2-butene	mg/l	0.001	<0.001	<0.001	-	0	-
Trichlorofluoromethane	mg/l	0.01	<0.01	<0.01	-	0	-
Vinyl chloride	mg/l	0.01	<0.01	<0.01	<0.05	0	0
Vinyl chloride	mg/l	0.001	-	-	-	-	-

Legend
*RPDs have only been considered where a concentration is greater than 1 times the LOR.
Acceptable RPDs for each LORL multiplier range are: 200 (1-10 x LOR); 50 (10-20 x LOR); 30 (> 20 x LOR)
- Not Analysed

Prepared by: RD
Checked by: FQ

March 2010 Quarterly
Duplicate Analysis RPDs
Project # 107623038
Batches ES1005125

Batch Number	ES1005125	ES1005125	
Sample ID	BP01_00.75_17/03/10	QC108_17/03/10	
Sample Type	Primary	Duplicate	
Date Sampled	17/03/2010	17/03/2010	
			RPD
			Primary vs Duplicate

Analyte	Units	LOR ALS			
1,1,1,2-Tetrachloroethane	mg/l	0.001	<0.02	<0.02	0
1,1,1-Trichloroethane	mg/l	0.001	<0.02	<0.02	0
1,1,2,2-Tetrachloroethane	mg/l	0.001	0.982	1.07	9
1,1,2-Trichloroethane	mg/l	0.001	3.06	3.67	18
1,1-Dichloroethane	mg/l	0.001	0.31	0.305	2
1,1-Dichloroethene	mg/l	0.001	0.714	0.757	6
1,1-Dichloropropene	mg/l	0.001	<0.02	<0.02	0
1,2,3-Trichloropropane	mg/l	0.001	<0.02	<0.02	0
1,2-Dibromo-3-chloropropane	mg/l	0.001	<0.02	<0.02	0
1,2-Dichloroethane	mg/l	0.001	21.2	22.5	6
1,3-Dichloropropane	mg/l	0.001	<0.02	<0.02	0
Bromodichloromethane	mg/l	0.001	<0.02	<0.02	0
Bromoform	mg/l	0.001	<0.02	<0.02	0
Bromomethane	mg/l	0.01	<0.2	<0.2	0
Carbon disulfide	mg/l	0.001	<0.02	<0.02	0
Carbon tetrachloride	mg/l	0.001	<0.02	<0.02	0
Chlorodibromomethane	mg/l	0.001	<0.02	<0.02	0
Chloroethane	mg/l	0.01	<0.2	<0.2	0
Chloroform	mg/l	0.001	4.54	4.3	5
Chloromethane	mg/l	0.01	<0.2	<0.2	0
cis-1,2-Dichloroethene	mg/l	0.001	2.1	2.2	5
cis-1,4-Dichloro-2-butene	mg/l	0.001	<0.02	<0.02	0
Dibromomethane	mg/l	0.001	<0.02	<0.02	0
Dichlorodifluoromethane	mg/l	0.01	<0.2	<0.2	0
Dichloromethane	mg/l	0.005	0.036	0.023	44
Hexachlorobutadiene	mg/l	0.001	<0.02	<0.02	0
Iodomethane	mg/l	0.001	<0.02	<0.02	0
Pentachloroethane	mg/l	0.001	<0.02	<0.02	0
Trichloroethene	mg/l	0.001	4.12	4.55	10
Tetrachloroethene	mg/l	0.001	<0.02	<0.02	0
trans-1,2-dichloroethene	mg/l	0.001	0.993	1.02	3
trans-1,4-Dichloro-2-butene	mg/l	0.001	<0.02	<0.02	0
Trichlorofluoromethane	mg/l	0.01	<0.2	<0.2	0
Vinyl chloride	mg/l	0.01	2.06	1.58	26
Vinyl chloride	mg/l	0.001	-	-	-

Legend
*RPDs have only been considered where a concentration is greater than 1 times the LOR.
Acceptable RPDs for each LORL multiplier range are: 200 (1-10 x LOR); 50 (10-20 x LOR); 30 (> 20 x LOR)
- Not Analysed

Prepared by: RD
Checked by: FQ

March 2010 Quarterly
Duplicate Analysis RPDs
Project # 107623038
Batches ES1005125/E047396

Barch Number	ES1005125	E047396	
Sample ID	BP01_00.75_17/03/10	QC208	
Sample Type	Primary	Duplicate	
Date Sampled	17/03/2010	17/03/2010	

Analyte	Units	LOR ALS			RPD Primary vs Duplicate
1,1,1,2-Tetrachloroethane	mg/l	0.001	<0.02	<0.005	0
1,1,1-Trichloroethane	mg/l	0.001	<0.02	0.024	18
1,1,2,2-Tetrachloroethane	mg/l	0.001	0.982	1.21	21
1,1,2-Trichloroethane	mg/l	0.001	3.06	3.71	19
1,1-Dichloroethane	mg/l	0.001	0.31	0.389	23
1,1-Dichloroethene	mg/l	0.001	0.714	0.764	7
1,1-Dichloropropene	mg/l	0.001	<0.02	-	-
1,2,3-Trichloropropane	mg/l	0.001	<0.02	-	-
1,2-Dibromo-3-chloropropane	mg/l	0.001	<0.02	-	-
1,2-Dichloroethane	mg/l	0.001	21.2	18.7	13
1,3-Dichloropropane	mg/l	0.001	<0.02	-	-
Bromodichloromethane	mg/l	0.001	<0.02	-	-
Bromoform	mg/l	0.001	<0.02	-	-
Bromomethane	mg/l	0.01	<0.2	-	-
Carbon disulfide	mg/l	0.001	<0.02	<0.005	0
Carbon tetrachloride	mg/l	0.001	<0.02	<0.005	0
Chlorodibromomethane	mg/l	0.001	<0.02	-	-
Chloroethane	mg/l	0.01	<0.2	<0.05	0
Chloroform	mg/l	0.001	4.54	4.86	7
Chloromethane	mg/l	0.01	<0.2	<0.05	0
cis-1,2-Dichloroethene	mg/l	0.001	2.1	2.77	28
cis-1,4-Dichloro-2-butene	mg/l	0.001	<0.02	-	-
Dibromomethane	mg/l	0.001	<0.02	-	-
Dichlorodifluoromethane	mg/l	0.01	<0.2	-	-
Dichloromethane	mg/l	0.005	0.036	0.1	94
Hexachlorobutadiene	mg/l	0.001	<0.02	-	-
Iodomethane	mg/l	0.001	<0.02	-	-
Pentachloroethane	mg/l	0.001	<0.02	-	-
Trichloroethene	mg/l	0.001	4.12	5.5	29
Tetrachloroethene	mg/l	0.001	<0.02	0.005	120
trans-1,2-dichloroethene	mg/l	0.001	0.993	1.02	3
trans-1,4-Dichloro-2-butene	mg/l	0.001	<0.02	-	-
Trichlorofluoromethane	mg/l	0.01	<0.2	-	-
Vinyl chloride	mg/l	0.01	2.06	1.57	27
Vinyl chloride	mg/l	0.001	-	-	-

Legend
*RPDs have only been considered where a concentration is greater than 1 times the LOR.
Acceptable RPDs for each LORL multiplier range are: 200 (1-10 x LOR); 50 (10-20 x LOR); 30 (> 20 x LOR)
- Not Analysed

Prepared by: RD
Checked by: FQ

DATA VALIDATION SUMMARY SHEET (Sydney)

Project Name:	**March 2010 Monitoring**	**Project Number:**	**107623038**
Primary Laboratory:	**ALS**	**Workorder Number:**	**ES1005476**
Secondary Laboratory:	**N/A**	**Workorder Number:**	**N/A**
Date Sampled:	**15-16/03/2010**	**Sample Medium:**	**Groundwater**

Sample Information

Number of Primary Samples:	**15**	**Number of Triplicate Samples:**	**0**
Number of Duplicate Samples:	**1**	**Number of Other QAQC Samples:**	**1**

Documentation and Sample Handling Information

	Y/N	Comments
COC completed properly?	N	Project Number missing.
All requested analysis completed?	Y	Most of the samples in the certificate have the suffix as 18/02/10. The COC states a suffix of 18/03/10 for WG231S, BP54_09.00, BP59_04.00, BP59_08.00, BP57_03.00, BP59_12.00, WG23S, BP89_06.00, BP76_04.00 and QC107. Batch has been reissued to address this reporting error.
Samples received intact and chilled?	Y	Ice present 5.2C
Samples analysed within appropiate holding times?	Y	All
Sample volumes sufficient for QC analysis?	Y	
Are there non-NATA accredited methods used?	N	
Chromatograms supplied as appropriate?		N/A
Laboratory reports signed by authorised personnel?	Y	

QAQC Sample Information (Method Blank - MB, Rinsate Blank - RB, Field Blank - FB, Trip Blank - TB)

Type	Sample ID	Comments
TB	TRIP Blank 01-16/03/10	All results less than LOR
MB	method Blank	All results less than LOR

Trip Spike Information

Analyte	Spike Concentrations	Recovery Concentration	% Recovery	Comments
No Trip Spike been analysed for this batch.				

Laboratory Control Spike (LCS) Analyses

Analyte Group	Comments
Halogenated Aliphatic Compounds (QCLot:1292318)	VC (124%) outside the laboratory control limit of 72 - 123%
Halogenated Aliphatic Compounds (QCLot:1292318)	Carbon Tetrachloride (78.7%) outside the laboratory control limit of 79.1 -123%.
Halogenated Aliphatic Compounds (QCLot:1292316)	Trichlorofluoromethane (121%) outside the laboratory control limit of 79.8 - 120%.
Halogenated Aliphatic Compounds (QCLot:1292316)	Pentachlorethane (72.1%) outside the laboratory control limit of 74.8-135%.

Matrix Spike (MS) Analyses

Analyte Group	Comments
All	All results were within the laboratory control limit . All MS were undertaken on Golder samples.

Laboratory Duplicates (LD) Analyses

Analyte Group	Analyte(s)	Sample ID	Comments
All LDs results were within laboratory control limits. All LDs were undertaken on Golder samples.			

Field Duplicates (FD) Analyses

Analyte Group	Primary ID	Duplicate ID	Comments
All RPDs results were within the acceptable control limits.			

Field Triplicates (FT) Analyses

Analyte Group	Primary ID	Triplicate ID	Comments
No Triplicates have been analysed.			

Surrogate Compound Monitoring Analyses

Analyte Group	Sample ID	Comments
1.2-Dichlorethane-D4	BP59_04.00_18/03/10	122% recovery greater than upper data quality objective 120%.
Toluene-D8	WG231S_18/03/10	117% recovery greater than upper data quality objective 110%.
	BP54_09.00_18/02/10	118% recovery greater than upper data quality objective 110%.
	BP59_12.00_18/03/10	116% recovery greater than upper data quality objective 110%.
	QC107	113% recovery greater than upper data quality objective 110%.
	WG233S_19/03/10	119% recovery greater than upper data quality objective 110%.
	WG154D_19/03/10	117% recovery greater than upper data quality objective 115%.
	WG227S_23/03/10	115% recovery greater than upper data quality objective 115%.
4-Bromofluorobenzene	BP59_04.00_18/03/10	119% recovery greater than upper data quality objective 115%.
	BP57_03.00_18/03/10	119% recovery greater than upper data quality objective 116%.

Overall Comments

Vinyl chloride result for sample BP76_04.00 exceeded calibration range, reported form EP074-WF method instead.

LCS recovery for Vinyl Chloride, Carbon Tetrachloride, Trichlorofluoromethane and Pentachlorethane were slightly outside the control limits and it is not expected to affect the quality of the data.

Surrogate outliers are slightly greater than the upper quality objectives and are not expected to affect the quality of the data.

The batch is considered suitable for environmental interpretative use.

Note: Data validation assesses each analyte in terms of all the data validation variables and only the exceedances and outliers are reported in this form.

*When concentrations are less than the LOR for both primary and duplicate/triplicate results, no RPDs are calculated

Performed By:	Rashad Danoun	**Reviewed By:**	Fabiana Quinton
Date:	12/04/2010	**Date:**	28/05/2010

March 2010 Quarterly
Duplicate Analysis RPDs
Project # 107623038
Batch ES1005476

Batch Number	ES1005476	ES1005476
Sample ID	WG23S	QC107
Sample Type	Primary	Duplicate
Date Sampled	18/03/2010	18/03/2010

		LOR				RPD
Analyte	Units	ALS	Labmark			Primary vs Duplicate
1,1,1,2-Tetrachloroethane	mg/l	0.001	0.005	<0.005	<0.005	0
1,1,1-Trichloroethane	mg/l	0.001	0.005	<0.005	P59_04.00, BP59_08.00	0
1,1,2,2-Tetrachloroethane	mg/l	0.001	0.005	0.026	0.024	8
1,1,2-Trichloroethane	mg/l	0.001	0.005	0.007	0.006	15
1,1-Dichloroethane	mg/l	0.001	0.005	0.02	0.019	5
1,1-Dichloroethene	mg/l	0.001	0.005	0.015	0.017	13
1,1-Dichloropropene	mg/l	0.001	0.001	<0.005	<0.005	0
1,2,3-Trichloropropane	mg/l	0.001	0.001	<0.005	<0.005	0
1,2-Dibromo-3-chloropropane	mg/l	0.001	0.001	<0.005	<0.005	0
1,2-Dichloroethane	mg/l	0.001	0.005	0.006	0.005	18
1,3-Dichloropropane	mg/l	0.001	0.001	<0.005	<0.005	0
Bromodichloromethane	mg/l	0.001	0.001	<0.005	<0.005	0
Bromoform	mg/l	0.001	0.001	<0.005	<0.005	0
Bromomethane	mg/l	0.01	0.01	<0.05	<0.05	0
Carbon disulfide	mg/l	0.001	0.005	<0.005	<0.005	0
Carbon tetrachloride	mg/l	0.001	0.005	<0.005	<0.005	0
Chlorodibromomethane	mg/l	0.001	0.001	<0.005	<0.005	0
Chloroethane	mg/l	0.01	0.05	<0.05	<0.05	0
Chloroform	mg/l	0.001	0.005	0.048	0.037	26
Chloromethane	mg/l	0.01	0.05	<0.05	<0.05	0
cis-1,2-Dichloroethene	mg/l	0.001	0.005	1.07	0.967	10
cis-1,4-Dichloro-2-butene	mg/l	0.001	0.001	<0.005	<0.005	0
Dibromomethane	mg/l	0.001	0.001	<0.005	<0.005	0
Dichlorodifluoromethane	mg/l	0.01	0.01	<0.05	<0.05	0
Dichloromethane	mg/l	0.005	0.02	0.009	0.008	12
Hexachlorobutadiene	mg/l	0.001	0.001	<0.005	<0.005	0
Iodomethane	mg/l	0.001	0.001	<0.005	<0.005	0
Pentachloroethane	mg/l	0.001	0.001	<0.005	<0.005	0
Trichloroethene	mg/l	0.001	0.005	0.039	0.036	8
Tetrachloroethene	mg/l	0.001	0.005	0.043	0.04	7
trans-1,2-dichloroethene	mg/l	0.001	0.005	0.125	0.127	2
trans-1,4-Dichloro-2-butene	mg/l	0.001	0.001	<0.005	<0.005	0
Trichlorofluoromethane	mg/l	0.01	0.01	<0.05	<0.05	0
Vinyl chloride	mg/l	0.01	0.05	-	-	-
Vinyl chloride	mg/l	0.001	0.05	-	-	-

Legend
*RPDs have only been considered where a concentration is greater than 1 times the LOR.
Acceptable RPDs for each LORL multiplier range are: 200 (1-10 x LOR); 50 (10-20 x LOR); 30 (> 20 x LOR)
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