

**VOLUME VIII
Remedial Investigation Report
South Mesa WQARF Registry Site
Mesa, Arizona
ADEQ Task Assignment EV11-0084**

Prepared for:

**Arizona Department of Environmental Quality
Waste Programs Division
1110 West Washington Street
Phoenix, Arizona 85007**

Prepared by:

**AMEC Environment & Infrastructure, Inc.
Phoenix, Arizona**

June 7, 2013

AMEC Project No. 14-2012-2022.04.01

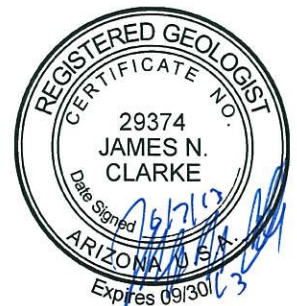
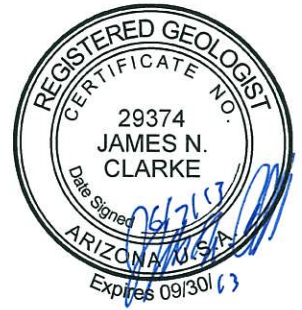


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APPENDIX N

SVE VAPOR SAMPLE ANALYTICAL REPORTS (Continued)

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Monday, July 16, 2007

Jim Clarke
Mactec
3630 East Wier Avenue
Phoenix, AZ 85040

TEL: (602) 437-0250
FAX (602) 437-3675

RE: South Mesa/4972-07-2050.4.5

Dear Jim Clarke:

Order No.: 07070014

Aerotech Environmental Laboratories received 3 sample(s) on 7/2/2007 for the analyses presented in the following report.

This report includes the following information:

- Case Narrative.
- Analytical Report: includes test results, report limit (Limit), any applicable data qualifier (Qual), units, dilution factor (DF), and date analyzed.
- QC Summary Report.

This communication is intended only for the individual or entity to whom it is directed. It may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. Dissemination, distribution, or copying of this communication by anyone other than the intended recipient, or a duly designated employee or agent of such recipient, is prohibited. If you have received this communication in error, please notify us immediately and destroy this message and all attachments thereto. If you have any questions regarding these test results, please do not hesitate to call.

Sincerely,



Tim Trestrail
Project Manager

JMC

Aerotech Environmental Laboratories

Date: 16-Jul-07

CLIENT: Mactec
Project: South Mesa/4972-07-2050.4.5
Lab Order: 07070014

CASE NARRATIVE

Analyses included in this report were performed by Aerotech Environmental Laboratories (AEL), 4645 E. Cotton Center Boulevard, Building 3, Suite 189, Phoenix, AZ.

AEL is licensed through the State of Arizona (License No. AZ0610), and holds NELAC accreditation (OR100001) through the State of Oregon for the analytical techniques noted on the scope of accreditation.

AEL is also accredited by the American Industrial Hygiene Association (AIHA) in the industrial hygiene program for the analytical techniques noted on the scope of accreditation.

Samples were analyzed using methods outlined in references such as:

- Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.
- 40 CFR, Part 136, July 2006. Appendix A to Part 136 - Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater.
- Methods for the Chemical Analysis of Water and Wastes, EPA/600/4-79-020, Revised March 1983.
- Methods for the Determination of Organic Compounds in Drinking Water: Supplement III, August 1995, EPA/600/R-95/131.
- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA, 3rd Edition 1986, and Updates.
- Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA, Second Edition, 1999.
- NIOSH Manual of Analytical Methods, Fourth Edition, 1994.

Analytical Comments:

All method blanks and laboratory control spikes met method and/or laboratory quality control objectives for the analyses included in this report.

Data Qualifiers:

Listed below are the data qualifiers used in your analytical report to explain any analytical or quality control issues. You will find them noted in your report under the column header "QUAL". Any quality control deficiencies that cannot be adequately described by these qualifiers will be addressed in the analytical comments section of this case narrative.

D2 Sample required dilution due to high concentration of target analyte.

Aerotech Environmental Laboratories

Date: 16-Jul-07

CLIENT: Mactec
Lab Order: 07070014
Project: South Mesa/4972-07-2050.4.5
Lab ID: 07070014-01A

Client Sample ID: EFF
Tag Number: 1436
Collection Date: 7/2/2007 10:50:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	7/5/2007	
1,1,2,2-Tetrachloroethane	< 0.50	0.50	< 3.5	3.5	1	7/5/2007	
1,1,2-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	7/5/2007	
1,1-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	7/5/2007	
1,1-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	7/5/2007	
1,2,4-Trichlorobenzene	< 2.0	2.0	< 15	15	1	7/5/2007	
1,2,4-Trimethylbenzene	1.5	0.50	7.5	2.5	1	7/5/2007	
1,2-Dibromoethane	< 0.50	0.50	< 3.9	3.9	1	7/5/2007	
1,2-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	7/5/2007	
1,2-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	7/5/2007	
1,2-Dichloropropane	< 0.50	0.50	< 2.4	2.4	1	7/5/2007	
1,3,5-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	7/5/2007	
1,3-Butadiene	< 0.50	0.50	< 1.1	1.1	1	7/5/2007	
1,3-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	7/5/2007	
1,4-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	7/5/2007	
2,2,4-Trimethylpentane	< 0.50	0.50	< 2.4	2.4	1	7/5/2007	
2-Butanone (MEK)	< 1.0	1.0	< 3.0	3.0	1	7/5/2007	
2-Hexanone	< 1.0	1.0	< 4.2	4.2	1	7/5/2007	
2-Propanol	< 2.0	2.0	< 5.0	5.0	1	7/5/2007	
4-Ethyltoluene	< 0.50	0.50	< 2.2	2.2	1	7/5/2007	
4-Methyl-2-pentanone	< 1.0	1.0	< 4.2	4.2	1	7/5/2007	
Acetone	7.5	5.0	18	12	1	7/5/2007	
Allyl chloride	< 0.50	0.50	< 0.80	0.80	1	7/5/2007	
Benzene	0.99	0.50	3.2	1.6	1	7/5/2007	
Benzyl chloride	< 2.0	2.0	< 11	11	1	7/5/2007	
Bromodichloromethane	< 0.50	0.50	< 3.4	3.4	1	7/5/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 16-Jul-07

CLIENT:	Mactec	Client Sample ID:	EFF
Lab Order:	07070014	Tag Number:	1436
Project:	South Mesa/4972-07-2050.4.5	Collection Date:	7/2/2007 10:50:00 AM
Lab ID:	07070014-01A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 0.50	0.50	< 1.1	1.1	1	7/5/2007	
Bromoform	< 0.50	0.50	< 5.2	5.2	1	7/5/2007	
Bromomethane	< 0.50	0.50	< 2.0	2.0	1	7/5/2007	
Carbon disulfide	< 0.50	0.50	< 1.6	1.6	1	7/5/2007	
Carbon tetrachloride	< 0.50	0.50	< 3.2	3.2	1	7/5/2007	
Chlorobenzene	< 0.50	0.50	< 2.4	2.4	1	7/5/2007	
Chloroethane	< 0.50	0.50	< 1.3	1.3	1	7/5/2007	
Chloroform	< 0.50	0.50	< 2.5	2.5	1	7/5/2007	
Chloromethane	0.64	0.50	1.3	1.0	1	7/5/2007	
cis-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	7/5/2007	
cis-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	7/5/2007	
Cyclohexane	< 0.50	0.50	< 1.7	1.7	1	7/5/2007	
Dibromochloromethane	< 0.50	0.50	< 4.3	4.3	1	7/5/2007	
Dichlorodifluoromethane(F-12)	0.73	0.50	3.7	2.5	1	7/5/2007	
Dichlorotetrafluoroethane(F-114)	< 0.50	0.50	< 3.6	3.6	1	7/5/2007	
Ethyl Acetate	1.9	0.50	7.0	1.8	1	7/5/2007	
Ethylbenzene	0.50	0.50	2.2	2.2	1	7/5/2007	
Heptane	< 0.50	0.50	< 2.1	2.1	1	7/5/2007	
Hexachlorobutadiene	< 1.0	1.0	< 11	11	1	7/5/2007	
Hexane	< 0.50	0.50	< 1.8	1.8	1	7/5/2007	
m&p-Xylene	3.2	1.0	14	4.4	1	7/5/2007	
Methyl tert-butyl ether	< 1.0	1.0	< 3.7	3.7	1	7/5/2007	
Methylene chloride	< 0.50	0.50	< 1.8	1.8	1	7/5/2007	
o-Xylene	1.8	0.50	7.9	2.2	1	7/5/2007	
Propene (Propylene)	< 0.50	0.50	< 0.88	0.88	1	7/5/2007	
Styrene	< 0.50	0.50	< 2.2	2.2	1	7/5/2007	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 16-Jul-07

CLIENT: Mactec

Client Sample ID: EFF

Lab Order: 07070014

Tag Number: 1436

Project: South Mesa/4972-07-2050.4.5

Collection Date: 7/2/2007 10:50:00 AM

Lab ID: 07070014-01A

Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	*Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	< 0.50	0.50	< 3.4	3.4	1	7/5/2007	
Tetrahydrofuran	< 2.0	2.0	< 6.0	6.0	1	7/5/2007	
Toluene	4.8	0.50	18	1.9	1	7/5/2007	
trans-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	7/5/2007	
trans-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	7/5/2007	
Trichloroethene	0.85	0.50	4.7	2.8	1	7/5/2007	
Trichlorofluoromethane(F-11)	< 0.50	0.50	< 2.8	2.8	1	7/5/2007	
Trichlorotrifluoroethane(F-113)	< 0.50	0.50	< 3.9	3.9	1	7/5/2007	
Vinyl acetate	< 0.50	0.50	< 1.8	1.8	1	7/5/2007	
Vinyl chloride	< 0.50	0.50	< 1.3	1.3	1	7/5/2007	
Surr: 4-Bromofluorobenzene	103 %REC	70-130	-	-	1	7/5/2007	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 16-Jul-07

CLIENT: Mactec
Lab Order: 07070014
Project: South Mesa/4972-07-2050.4.5
Lab ID: 07070014-02A

Client Sample ID: INT
Tag Number: 0673
Collection Date: 7/2/2007 10:58:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	7/6/2007	
1,1,2,2-Tetrachloroethane	< 0.50	0.50	< 3.5	3.5	1	7/6/2007	
1,1,2-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	7/6/2007	
1,1-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	7/6/2007	
1,1-Dichloroethene	0.53	0.50	2.1	2.0	1	7/6/2007	
1,2,4-Trichlorobenzene	< 2.0	2.0	< 15	15	1	7/6/2007	
1,2,4-Trimethylbenzene	0.54	0.50	2.7	2.5	1	7/6/2007	
1,2-Dibromoethane	< 0.50	0.50	< 3.9	3.9	1	7/6/2007	
1,2-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	7/6/2007	
1,2-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	7/6/2007	
1,2-Dichloropropane	< 0.50	0.50	< 2.4	2.4	1	7/6/2007	
1,3,5-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	7/6/2007	
1,3-Butadiene	< 0.50	0.50	< 1.1	1.1	1	7/6/2007	
1,3-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	7/6/2007	
1,4-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	7/6/2007	
2,2,4-Trimethylpentane	< 0.50	0.50	< 2.4	2.4	1	7/6/2007	
2-Butanone (MEK)	< 1.0	1.0	< 3.0	3.0	1	7/6/2007	
2-Hexanone	< 1.0	1.0	< 4.2	4.2	1	7/6/2007	
2-Propanol	< 2.0	2.0	< 5.0	5.0	1	7/6/2007	
4-Ethyltoluene	< 0.50	0.50	< 2.2	2.2	1	7/6/2007	
4-Methyl-2-pentanone	< 1.0	1.0	< 4.2	4.2	1	7/6/2007	
Acetone	8.5	5.0	20	12	1	7/6/2007	
Allyl chloride	< 0.50	0.50	< 0.80	0.80	1	7/6/2007	
Benzene	< 0.50	0.50	< 1.6	1.6	1	7/6/2007	
Benzyl chloride	< 2.0	2.0	< 11	11	1	7/6/2007	
Bromodichloromethane	< 0.50	0.50	< 3.4	3.4	1	7/6/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 16-Jul-07

CLIENT:	Mactec	Client Sample ID:	INT
Lab Order:	07070014	Tag Number:	0673
Project:	South Mesa/4972-07-2050.4.5	Collection Date:	7/2/2007 10:58:00 AM
Lab ID:	07070014-02A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 0.50	0.50	< 1.1	1.1	1	7/6/2007	
Bromoform	< 0.50	0.50	< 5.2	5.2	1	7/6/2007	
Bromomethane	< 0.50	0.50	< 2.0	2.0	1	7/6/2007	
Carbon disulfide	< 0.50	0.50	< 1.6	1.6	1	7/6/2007	
Carbon tetrachloride	< 0.50	0.50	< 3.2	3.2	1	7/6/2007	
Chlorobenzene	< 0.50	0.50	< 2.4	2.4	1	7/6/2007	
Chloroethane	< 0.50	0.50	< 1.3	1.3	1	7/6/2007	
Chloroform	< 0.50	0.50	< 2.5	2.5	1	7/6/2007	
Chloromethane	0.64	0.50	1.3	1.0	1	7/6/2007	
cis-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	7/6/2007	
cis-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	7/6/2007	
Cyclohexane	< 0.50	0.50	< 1.7	1.7	1	7/6/2007	
Dibromochloromethane	< 0.50	0.50	< 4.3	4.3	1	7/6/2007	
Dichlorodifluoromethane(F-12)	0.79	0.50	4.0	2.5	1	7/6/2007	
Dichlorotetrafluoroethane(F-114)	< 0.50	0.50	< 3.6	3.6	1	7/6/2007	
Ethyl Acetate	5.7	0.50	21	1.8	1	7/6/2007	
Ethylbenzene	< 0.50	0.50	< 2.2	2.2	1	7/6/2007	
Heptane	< 0.50	0.50	< 2.1	2.1	1	7/6/2007	
Hexachlorobutadiene	< 1.0	1.0	< 11	11	1	7/6/2007	
Hexane	< 0.50	0.50	< 1.8	1.8	1	7/6/2007	
m&p-Xylene	< 1.0	1.0	< 4.4	4.4	1	7/6/2007	
Methyl tert-butyl ether	< 1.0	1.0	< 3.7	3.7	1	7/6/2007	
Methylene chloride	< 0.50	0.50	< 1.8	1.8	1	7/6/2007	
o-Xylene	< 0.50	0.50	< 2.2	2.2	1	7/6/2007	
Propene (Propylene)	< 0.50	0.50	< 0.88	0.88	1	7/6/2007	
Styrene	< 0.50	0.50	< 2.2	2.2	1	7/6/2007	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 16-Jul-07

CLIENT:	Mactec	Client Sample ID:	INT
Lab Order:	07070014	Tag Number:	0673
Project:	South Mesa/4972-07-2050.4.5	Collection Date:	7/2/2007 10:58:00 AM
Lab ID:	07070014-02A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	15	0.50	100	3.4	1	7/6/2007	
Tetrahydrofuran	< 2.0	2.0	< 6.0	6.0	1	7/6/2007	
Toluene	1.1	0.50	4.2	1.9	1	7/6/2007	
trans-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	7/6/2007	
trans-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	7/6/2007	
Trichloroethene	< 0.50	0.50	< 2.8	2.8	1	7/6/2007	
Trichlorofluoromethane(F-11)	1.2	0.50	6.8	2.8	1	7/6/2007	
Trichlorotrifluoroethane(F-113)	< 0.50	0.50	< 3.9	3.9	1	7/6/2007	
Vinyl acetate	< 0.50	0.50	< 1.8	1.8	1	7/6/2007	
Vinyl chloride	< 0.50	0.50	< 1.3	1.3	1	7/6/2007	
Surr: 4-Bromofluorobenzene	99.4 %REC	70-130	-	-	1	7/6/2007	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 16-Jul-07

CLIENT: Mactec
Lab Order: 07070014
Project: South Mesa/4972-07-2050.4.5
Lab ID: 07070014-03A

Client Sample ID: VW-7A
Tag Number: 0264
Collection Date: 7/2/2007 11:18:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 2.5	2.5	< 14	14	5	7/5/2007	
1,1,2,2-Tetrachloroethane	< 2.5	2.5	< 17	17	5	7/5/2007	
1,1,2-Trichloroethane	< 2.5	2.5	< 14	14	5	7/5/2007	
1,1-Dichloroethane	6.4	2.5	26	10	5	7/5/2007	
1,1-Dichloroethene	2.9	2.5	12	10	5	7/5/2007	
1,2,4-Trichlorobenzene	< 10	10	< 75	75	5	7/5/2007	
1,2,4-Trimethylbenzene	< 2.5	2.5	< 12	12	5	7/5/2007	
1,2-Dibromoethane	< 2.5	2.5	< 20	20	5	7/5/2007	
1,2-Dichlorobenzene	< 2.5	2.5	< 15	15	5	7/5/2007	
1,2-Dichloroethane	< 2.5	2.5	< 10	10	5	7/5/2007	
1,2-Dichloropropane	< 2.5	2.5	< 12	12	5	7/5/2007	
1,3,5-Trimethylbenzene	< 2.5	2.5	< 12	12	5	7/5/2007	
1,3-Butadiene	< 2.5	2.5	< 5.6	5.6	5	7/5/2007	
1,3-Dichlorobenzene	< 2.5	2.5	< 15	15	5	7/5/2007	
1,4-Dichlorobenzene	< 2.5	2.5	< 15	15	5	7/5/2007	
2,2,4-Trimethylpentane	< 2.5	2.5	< 12	12	5	7/5/2007	
2-Butanone (MEK)	< 5.0	5.0	< 15	15	5	7/5/2007	
2-Hexanone	< 5.0	5.0	< 21	21	5	7/5/2007	
2-Propanol	< 10	10	< 25	25	5	7/5/2007	
4-Ethyltoluene	< 2.5	2.5	< 11	11	5	7/5/2007	
4-Methyl-2-pentanone	< 5.0	5.0	< 21	21	5	7/5/2007	
Acetone	< 25	25	< 60	60	5	7/5/2007	
Allyl chloride	< 2.5	2.5	< 4.0	4.0	5	7/5/2007	
Benzene	< 2.5	2.5	< 8.1	8.1	5	7/5/2007	
Benzyl chloride	< 10	10	< 53	53	5	7/5/2007	
Bromodichloromethane	< 2.5	2.5	< 17	17	5	7/5/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 16-Jul-07

CLIENT:	Mactec	Client Sample ID:	VW-7A
Lab Order:	07070014	Tag Number:	0264
Project:	South Mesa/4972-07-2050.4.5	Collection Date:	7/2/2007 11:18:00 AM
Lab ID:	07070014-03A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 2.5	2.5	< 5.6	5.6	5	7/5/2007	
Bromoform	< 2.5	2.5	< 26	26	5	7/5/2007	
Bromomethane	< 2.5	2.5	< 9.9	9.9	5	7/5/2007	
Carbon disulfide	< 2.5	2.5	< 7.9	7.9	5	7/5/2007	
Carbon tetrachloride	< 2.5	2.5	< 16	16	5	7/5/2007	
Chlorobenzene	< 2.5	2.5	< 12	12	5	7/5/2007	
Chloroethane	< 2.5	2.5	< 6.7	6.7	5	7/5/2007	
Chloroform	3.0	2.5	15	12	5	7/5/2007	
Chloromethane	< 2.5	2.5	< 5.2	5.2	5	7/5/2007	
cis-1,2-Dichloroethene	2.8	2.5	11	10	5	7/5/2007	
cis-1,3-Dichloropropene	< 2.5	2.5	< 12	12	5	7/5/2007	
Cyclohexane	< 2.5	2.5	< 8.7	8.7	5	7/5/2007	
Dibromochloromethane	< 2.5	2.5	< 22	22	5	7/5/2007	
Dichlorodifluoromethane(F-12)	< 2.5	2.5	< 13	13	5	7/5/2007	
Dichlorotetrafluoroethane(F-114)	< 2.5	2.5	< 18	18	5	7/5/2007	
Ethyl Acetate	< 2.5	2.5	< 9.2	9.2	5	7/5/2007	
Ethylbenzene	< 2.5	2.5	< 11	11	5	7/5/2007	
Heptane	< 2.5	2.5	< 10	10	5	7/5/2007	
Hexachlorobutadiene	< 5.0	5.0	< 54	54	5	7/5/2007	
Hexane	< 2.5	2.5	< 8.9	8.9	5	7/5/2007	
m&p-Xylene	< 5.0	5.0	< 22	22	5	7/5/2007	
Methyl tert-butyl ether	< 5.0	5.0	< 18	18	5	7/5/2007	
Methylene chloride	< 2.5	2.5	< 8.8	8.8	5	7/5/2007	
o-Xylene	< 2.5	2.5	< 11	11	5	7/5/2007	
Propene (Propylene)	< 2.5	2.5	< 4.4	4.4	5	7/5/2007	
Styrene	< 2.5	2.5	< 11	11	5	7/5/2007	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 16-Jul-07

CLIENT:	Mactec	Client Sample ID:	VW-7A
Lab Order:	07070014	Tag Number:	0264
Project:	South Mesa/4972-07-2050.4.5	Collection Date:	7/2/2007 11:18:00 AM
Lab ID:	07070014-03A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	140	2.5	970	17	D2	5	7/5/2007
Tetrahydrofuran	< 10	10	< 30	30		5	7/5/2007
Toluene	< 2.5	2.5	< 9.6	9.6		5	7/5/2007
trans-1,2-Dichloroethene	< 2.5	2.5	< 10	10		5	7/5/2007
trans-1,3-Dichloropropene	< 2.5	2.5	< 12	12		5	7/5/2007
Trichloroethene	< 2.5	2.5	< 14	14		5	7/5/2007
Trichlorofluoromethane(F-11)	3.2	2.5	18	14		5	7/5/2007
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19	19		5	7/5/2007
Vinyl acetate	< 2.5	2.5	< 8.9	8.9		5	7/5/2007
Vinyl chloride	< 2.5	2.5	< 6.5	6.5		5	7/5/2007
Surr: 4-Bromofluorobenzene	104 %REC	70-130	-	-		5	7/5/2007

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 09-Jul-07

CLIENT:

Mactec

Work Order:

07070014

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R88744	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 88744						
Client ID:	Batch ID: R88744	TestNo: TO15		Analysis Date: 7/5/2007	SeqNo: 1049271						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1-Trichloroethane	<0.50	0.50									
1,1,2,2-Tetrachloroethane	<0.50	0.50									
1,1,2-Trichloroethane	<0.50	0.50									
1,1-Dichloroethane	<0.50	0.50									
1,1-Dichloroethene	<0.50	0.50									
1,2,4-Trichlorobenzene	<2.0	2.0									
1,2,4-Trimethylbenzene	<0.50	0.50									
1,2-Dibromoethane	<0.50	0.50									
1,2-Dichlorobenzene	<0.50	0.50									
1,2-Dichloroethane	<0.50	0.50									
1,2-Dichloropropane	<0.50	0.50									
1,3,5-Trimethylbenzene	<0.50	0.50									
1,3-Butadiene	<0.50	0.50									
1,3-Dichlorobenzene	<0.50	0.50									
1,4-Dichlorobenzene	<0.50	0.50									
2,2,4-Trimethylpentane	<0.50	0.50									
2-Butanone (MEK)	<1.0	1.0									
2-Hexanone	<1.0	1.0									
2-Propanol	<2.0	2.0									
4-Ethyltoluene	<0.50	0.50									
4-Methyl-2-pentanone	<1.0	1.0									
Acetone	<5.0	5.0									
Allyl chloride	<0.50	0.50									
Benzene	<0.50	0.50									
Benzyl chloride	<2.0	2.0									

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 09-Jul-07

CLIENT:

Mactec

Work Order:

07070014

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R88744	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 88744						
Client ID:	Batch ID: R88744	TestNo: TO15		Analysis Date: 7/5/2007	SeqNo: 1049271						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	<0.50	0.50									
Bromoethene(Vinyl Bromide)	<0.50	0.50									
Bromoform	<0.50	0.50									
Bromomethane	<0.50	0.50									
Carbon disulfide	<0.50	0.50									
Carbon tetrachloride	<0.50	0.50									
Chlorobenzene	<0.50	0.50									
Chloroethane	<0.50	0.50									
Chloroform	<0.50	0.50									
Chloromethane	<0.50	0.50									
cis-1,2-Dichloroethene	<0.50	0.50									
cis-1,3-Dichloropropene	<0.50	0.50									
Cyclohexane	<0.50	0.50									
Dibromochloromethane	<0.50	0.50									
Dichlorodifluoromethane(F-12)	<0.50	0.50									
Dichlorotetrafluoroethane(F-114)	<0.50	0.50									
Ethyl Acetate	<0.50	0.50									
Ethylbenzene	<0.50	0.50									
Heptane	<0.50	0.50									
Hexachlorobutadiene	<1.0	1.0									
Hexane	<0.50	0.50									
m&p-Xylene	<1.0	1.0									
Methyl tert-butyl ether	<1.0	1.0									
Methylene chloride	<0.50	0.50									
o-Xylene	<0.50	0.50									

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 09-Jul-07

CLIENT:

Mactec

Work Order:

07070014

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R88744	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 88744						
Client ID:	Batch ID: R88744	TestNo: TO15		Analysis Date: 7/5/2007	SeqNo: 1049271						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Propene (Propylene)

<0.50

Styrene

<0.50

Tetrachloroethene

<0.50

Tetrahydrofuran

<2.0

Toluene

<0.50

trans-1,2-Dichloroethene

<0.50

trans-1,3-Dichloropropene

<0.50

Trichloroethene

<0.50

Trichlorofluoromethane(F-11)

<0.50

Trichlorotrifluoroethane(F-113)

<0.50

Vinyl acetate

<0.50

Vinyl chloride

<0.50

Surr: 4-Bromofluorobenzene

10

0

99.6

70

130

Sample ID: LCS-R88744	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 88744						
Client ID:	Batch ID: R88744	TestNo: TO15		Analysis Date: 7/5/2007	SeqNo: 1049319						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1-Trichloroethane

11.12

0.50

10

0

111

65

135

1,1,2,2-Tetrachloroethane

10.95

0.50

10

0

110

65

135

1,1,2-Trichloroethane

10.98

0.50

10

0

110

65

135

1,1-Dichloroethane

11.21

0.50

10

0

112

65

135

1,1-Dichloroethene

11.16

0.50

10

0

112

65

135

1,2,4-Trichlorobenzene

11.72

2.0

10

0

117

65

135

1,2,4-Trimethylbenzene

12.93

0.50

10

0

129

65

135

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 09-Jul-07

CLIENT:

Mactec

Work Order:

07070014

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R88744	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 88744						
Client ID:	Batch ID: R88744	TestNo: TO15		Analysis Date: 7/5/2007	SeqNo: 1049319						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dibromoethane	11.18	0.50	10	0	112	65	135			
1,2-Dichlorobenzene	12.09	0.50	10	0	121	65	135			
1,2-Dichloroethane	10.99	0.50	10	0	110	65	135			
1,2-Dichloropropane	11.32	0.50	10	0	113	65	135			
1,3,5-Trimethylbenzene	12.00	0.50	10	0	120	65	135			
1,3-Butadiene	10.81	0.50	10	0	108	65	135			
1,3-Dichlorobenzene	11.91	0.50	10	0	119	65	135			
1,4-Dichlorobenzene	11.79	0.50	10	0	118	65	135			
2,2,4-Trimethylpentane	11.50	0.50	10	0	115	65	135			
2-Butanone (MEK)	11.53	1.0	10	0	115	65	135			
2-Hexanone	11.60	1.0	10	0	116	65	135			
2-Propanol	10.59	2.0	10	0	106	65	135			
4-Ethyltoluene	12.79	0.50	10	0	128	65	135			
4-Methyl-2-pentanone	12.05	1.0	10	0	120	65	135			
Acetone	10.01	5.0	10	0	100	65	135			
Allyl chloride	11.66	0.50	10	0	117	65	135			
Benzene	11.43	0.50	10	0	114	65	135			
Benzyl chloride	12.21	2.0	10	0	122	65	135			
Bromodichloromethane	11.20	0.50	10	0	112	65	135			
Bromoethene(Vinyl Bromide)	10.81	0.50	10	0	108	65	135			
Bromoform	10.97	0.50	10	0	110	65	135			
Bromomethane	10.96	0.50	10	0	110	65	135			
Carbon disulfide	10.92	0.50	10	0	109	65	135			
Carbon tetrachloride	10.97	0.50	10	0	110	65	135			
Chlorobenzene	10.87	0.50	10	0	109	65	135			

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 09-Jul-07

CLIENT:

Mactec

Work Order:

07070014

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R88744	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 88744						
Client ID:	Batch ID: R88744	TestNo: TO15		Analysis Date: 7/5/2007	SeqNo: 1049319						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane	11.00	0.50	10	0	110	65	135				
Chloroform	10.97	0.50	10	0	110	65	135				
Chloromethane	11.21	0.50	10	0	112	65	135				
cis-1,2-Dichloroethene	11.40	0.50	10	0	114	65	135				
cis-1,3-Dichloropropene	11.95	0.50	10	0	120	65	135				
Cyclohexane	12.08	0.50	10	0	121	65	135				
Dibromochloromethane	11.00	0.50	10	0	110	65	135				
Dichlorodifluoromethane(F-12)	11.16	0.50	10	0	112	65	135				
Dichlorotetrafluoroethane(F-114)	11.30	0.50	10	0	113	65	135				
Ethyl Acetate	11.41	0.50	10	0	114	65	135				
Ethylbenzene	11.65	0.50	10	0	116	65	135				
Heptane	11.41	0.50	10	0	114	65	135				
Hexachlorobutadiene	10.95	1.0	10	0	110	65	135				
Hexane	12.19	0.50	10	0	122	65	135				
m&p-Xylene	22.76	1.0	20	0	114	65	135				
Methyl tert-butyl ether	10.46	1.0	10	0	105	65	135				
Methylene chloride	10.80	0.50	10	0	108	65	135				
o-Xylene	11.51	0.50	10	0	115	65	135				
Propene (Propylene)	11.27	0.50	10	0	113	65	135				
Styrene	12.12	0.50	10	0	121	65	135				
Tetrachloroethene	11.20	0.50	10	0	112	65	135				
Tetrahydrofuran	12.31	2.0	10	0	123	65	135				
Toluene	11.72	0.50	10	0	117	65	135				
trans-1,2-Dichloroethene	11.12	0.50	10	0	111	65	135				
trans-1,3-Dichloropropene	11.81	0.50	10	0	118	65	135				

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 09-Jul-07

CLIENT:

Mactec

Work Order:

07070014

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R88744	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 88744						
Client ID:	Batch ID: R88744	TestNo: TO15		Analysis Date: 7/5/2007	SeqNo: 1049319						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	11.34	0.50	10	0	113	65	135				
Trichlorofluoromethane(F-11)	10.91	0.50	10	0	109	65	135				
Trichlorotrifluoroethane(F-113)	11.09	0.50	10	0	111	65	135				
Vinyl acetate	11.66	0.50	10	0	117	65	135				
Vinyl chloride	10.92	0.50	10	0	109	65	135				
Surr: 4-Bromofluorobenzene	10.16	0.50	10	0	102	70	130				

Sample ID: LCSD-R88744		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 88744	
Client ID:		Batch ID: R88744		TestNo: TO15				Analysis Date: 7/5/2007		SeqNo: 1049321	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	11.04	0.50	10	0	110	65	135	11.12	0.722	25	
1,1,2,2-Tetrachloroethane	11.01	0.50	10	0	110	65	135	10.95	0.546	25	
1,1,2-Trichloroethane	10.91	0.50	10	0	109	65	135	10.98	0.640	25	
1,1-Dichloroethane	11.24	0.50	10	0	112	65	135	11.21	0.267	25	
1,1-Dichloroethene	11.17	0.50	10	0	112	65	135	11.16	0.0896	25	
1,2,4-Trichlorobenzene	11.99	2.0	10	0	120	65	135	11.72	2.28	25	
1,2,4-Trimethylbenzene	12.93	0.50	10	0	129	65	135	12.93	0	25	
1,2-Dibromoethane	11.08	0.50	10	0	111	65	135	11.18	0.898	25	
1,2-Dichlorobenzene	11.64	0.50	10	0	116	65	135	12.09	3.79	25	
1,2-Dichloroethane	10.93	0.50	10	0	109	65	135	10.99	0.547	25	
1,2-Dichloropropane	11.18	0.50	10	0	112	65	135	11.32	1.24	25	
1,3,5-Trimethylbenzene	11.97	0.50	10	0	120	65	135	12.00	0.250	25	
1,3-Butadiene	10.74	0.50	10	0	107	65	135	10.81	0.650	25	
1,3-Dichlorobenzene	11.84	0.50	10	0	118	65	135	11.91	0.589	25	

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 09-Jul-07

CLIENT:

Mactec

Work Order:

07070014

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R88744		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 88744	
Client ID:	Batch ID: R88744	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	Analysis Date: 7/5/2007	%RPD	SeqNo: 1049321
Analyte											
1,4-Dichlorobenzene		11.85	0.50	10	0	118	65	135		11.79	0.508
2,2,4-Trimethylpentane		11.45	0.50	10	0	114	65	135		11.50	0.436
2-Butanone (MEK)		11.69	1.0	10	0	117	65	135		11.53	1.38
2-Hexanone		11.48	1.0	10	0	115	65	135		11.60	1.04
2-Propanol		10.75	2.0	10	0	108	65	135		10.59	1.50
4-Ethyltoluene		12.87	0.50	10	0	129	65	135		12.79	0.624
4-Methyl-2-pentanone		11.79	1.0	10	0	118	65	135		12.05	2.18
Acetone		9.880	5.0	10	0	98.8	65	135		10.01	1.31
Allyl chloride		11.66	0.50	10	0	117	65	135		11.66	0
Benzene		11.43	0.50	10	0	114	65	135		11.43	0
Benzyl chloride		12.34	2.0	10	0	123	65	135		12.21	1.06
Bromodichloromethane		11.03	0.50	10	0	110	65	135		11.20	1.53
Bromoethene(Vinyl Bromide)		10.88	0.50	10	0	109	65	135		10.81	0.645
Bromoform		10.95	0.50	10	0	110	65	135		10.97	0.182
Bromomethane		10.82	0.50	10	0	108	65	135		10.96	1.29
Carbon disulfide		10.83	0.50	10	0	108	65	135		10.92	0.828
Carbon tetrachloride		10.83	0.50	10	0	108	65	135		10.97	1.28
Chlorobenzene		10.97	0.50	10	0	110	65	135		10.87	0.916
Chloroethane		10.57	0.50	10	0	106	65	135		11.00	3.99
Chloroform		10.90	0.50	10	0	109	65	135		10.97	0.640
Chloromethane		10.93	0.50	10	0	109	65	135		11.21	2.53
cis-1,2-Dichloroethene		11.39	0.50	10	0	114	65	135		11.40	0.0878
cis-1,3-Dichloropropene		11.94	0.50	10	0	119	65	135		11.95	0.0837
Cyclohexane		12.08	0.50	10	0	121	65	135		12.08	0
Dibromochloromethane		10.87	0.50	10	0	109	65	135		11.00	1.19

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 09-Jul-07

CLIENT:

Mactec

Work Order:

07070014

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R88744	SampType: LCSD	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 88744						
Client ID:	Batch ID: R88744	TestNo: TO15		Analysis Date: 7/5/2007	SeqNo: 1049321						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane(F-12)	10.96	0.50	10	0	110	65	135	11.16	1.81	25	
Dichlorotetrafluoroethane(F-114)	11.17	0.50	10	0	112	65	135	11.30	1.16	25	
Ethyl Acetate	11.38	0.50	10	0	114	65	135	11.41	0.263	25	
Ethylbenzene	11.79	0.50	10	0	118	65	135	11.65	1.19	25	
Heptane	11.29	0.50	10	0	113	65	135	11.41	1.06	25	
Hexachlorobutadiene	11.10	1.0	10	0	111	65	135	10.95	1.36	25	
Hexane	12.27	0.50	10	0	123	65	135	12.19	0.654	25	
m&p-Xylene	22.98	1.0	20	0	115	65	135	22.76	0.962	25	
Methyl tert-butyl ether	10.74	1.0	10	0	107	65	135	10.46	2.64	25	
Methylene chloride	10.75	0.50	10	0	108	65	135	10.80	0.464	25	
o-Xylene	11.49	0.50	10	0	115	65	135	11.51	0.174	25	
Propene (Propylene)	11.41	0.50	10	0	114	65	135	11.27	1.23	25	
Styrene	12.22	0.50	10	0	122	65	135	12.12	0.822	25	
Tetrachloroethene	11.03	0.50	10	0	110	65	135	11.20	1.53	25	
Tetrahydrofuran	12.36	2.0	10	0	124	65	135	12.31	0.405	25	
Toluene	11.64	0.50	10	0	116	65	135	11.72	0.685	25	
trans-1,2-Dichloroethene	11.28	0.50	10	0	113	65	135	11.12	1.43	25	
trans-1,3-Dichloropropene	11.89	0.50	10	0	119	65	135	11.81	0.675	25	
Trichloroethene	11.27	0.50	10	0	113	65	135	11.34	0.619	25	
Trichlorofluoromethane(F-11)	10.83	0.50	10	0	108	65	135	10.91	0.736	25	
Trichlorotrifluoroethane(F-113)	11.02	0.50	10	0	110	65	135	11.09	0.633	25	
Vinyl acetate	11.80	0.50	10	0	118	65	135	11.66	1.19	25	
Vinyl chloride	10.80	0.50	10	0	108	65	135	10.92	1.10	25	
Surr: 4-Bromofluorobenzene	10.07	0.50	10	0	101	70	130	10.16	0	0	

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories Sample Receipt Checklist

Project Checked By:

Laboratory Number: 07-07-0014

Completed By/On: Jovan Espinoza 7/2

Client Name: MACTEC

Date/Time Rec'd: 7/2/07 1155 By: JE

Matrix: (Air) Soil Aqueous Oil Sludge Solid WW DW

Carrier Name: Mark

Temperature	Cooler #1 Amb °C	Cooler #2 °C	Cooler #3 °C	Cooler #4 °C
Temp. Read With	Thermometer IR	Thermometer IR	Thermometer IR	Thermometer IR

Client or PM made aware of temp. out of range? Yes No Circle one: Blue Ice Wet Ice Not Present

	Yes	No*	Not Present	Soil Containers:
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Brass Sleeve
Custody seals intact on shipping container/cooler?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Glass Jar
Custody seals intact on sample containers?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Methanol
Chain of Custody present and relinquished/received properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plastic Bag
Chain of Custody agrees with sample labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Encore Samplers
Samples in proper containers/bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sterile Plastic
Sample containers intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
All samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there sufficient sample volume to perform the tests?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3mL vials for volatiles & SOCs received with zero headspace?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Total number of bottles received: 3 I/H sample media: 1L Canister

If applicable, how many sample bottles were shipped from AEL-Tucson?

N/A ☒

Number of containers received by preservative and by sample number: (If more than 10 samples are rec'd, please continue on separate sheet(s)).

Preservative	Simple***	1	2	3	4	5	6	7	8	9	10	
General		1	1	1								
HNO3												
H2SO4												
HCl												
Na2S2O3												
NaOH												
Sulfide												
Sulfite												
CAA												
Methanol												
IAA												
Other												

*Any No response must be detailed in the comments section. Contact the PM immediately to determine how to proceed. Refer to SOP 11-001 and continue on back if additional space is needed.

**The holding time for pH and Total Residual Chlorine analysis is immediate. For the most accurate results, the pH and Total Residual Chlorine should be taken in the field within 15 minutes of sampling.

***The Simple box is only to be used when there is one bottle per preservative in equal sample sets.

pH acceptable upon receipt? Yes No N/A ☒

Preservative & pH pH of samples upon receipt If pH requires adjustment, list sample number and reagent I.D. number

als	<2	
IO ₄	<2	
4	<2	
inide	>12	
ide	>9	

Comments:



Aerotech Laboratories, Inc.

www.aeroenvirolabs.com or call toll-free 866.772.5227

Instructions / Special Requirements:

Analysis performed is subject to the Terms & Conditions available at www.aeroenvirolabs.com or call 866.772.5227 to request a copy.

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Monday, August 20, 2007

Jim Clarke
Mactec
3630 East Wier Avenue
Phoenix, AZ 85040

TEL: (602) 437-0250

FAX (602) 437-3675

RE: South Mesa/4972-07-2050.4.5

Dear Jim Clarke:

Order No.: 07080288

Aerotech Environmental Laboratories received 3 sample(s) on 8/7/2007 for the analyses presented in the following report.

This report includes the following information:

- Case Narrative.
- Analytical Report: includes test results, report limit (Limit), any applicable data qualifier (Qual), units, dilution factor (DF), and date analyzed.
- QC Summary Report.

This communication is intended only for the individual or entity to whom it is directed. It may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. Dissemination, distribution, or copying of this communication by anyone other than the intended recipient, or a duly designated employee or agent of such recipient, is prohibited. If you have received this communication in error, please notify us immediately and destroy this message and all attachments thereto. If you have any questions regarding these test results, please do not hesitate to call.

Sincerely,



Tim Trestrail
Project Manager

pat 8/22/07

CLIENT: Mactec
Project: South Mesa/4972-07-2050.4.5
Lab Order: 07080288

CASE NARRATIVE

Analyses included in this report were performed by Aerotech Environmental Laboratories (AEL), 4645 E. Cotton Center Boulevard, Building 3, Suite 189, Phoenix, AZ.

AEL is licensed through the State of Arizona (License No. AZ0610), and holds NELAC accreditation (OR100001) through the State of Oregon for the analytical techniques noted on the scope of accreditation.

AEL is also accredited by the American Industrial Hygiene Association (AIHA) in the industrial hygiene program for the analytical techniques noted on the scope of accreditation.

Samples were analyzed using methods outlined in references such as:

- Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.
- 40 CFR, Part 136, July 2006. Appendix A to Part 136 - Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater.
- Methods for the Chemical Analysis of Water and Wastes, EPA/600/4-79-020, Revised March 1983.
- Methods for the Determination of Organic Compounds in Drinking Water: Supplement III, August 1995, EPA/600/R-95/131.
- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA, 3rd Edition 1986, and Updates.
- Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA, Second Edition, 1999.
- NIOSH Manual of Analytical Methods, Fourth Edition, 1994. NIOSH Method 7300 analyses are performed using a modified digestion procedure to eliminate the use of perchloric acid.

Analytical Comments:

All method blanks and laboratory control spikes met method and/or laboratory quality control objectives for the analyses included in this report.

Data Qualifiers:

Listed below are the data qualifiers used in your analytical report to explain any analytical or quality control issues. You will find them noted in your report under the column header "QUAL". Any quality control deficiencies that cannot be adequately described by these qualifiers will be addressed in the analytical comments section of this case narrative.

- D2 Sample required dilution due to high concentration of target analyte.
- L1 The associated blank spike recovery was above laboratory acceptance limits.
- V1 CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

Aerotech Environmental Laboratories

Date: 22-Aug-07

CLIENT:	Mactec	Client Sample ID:	EFF
Lab Order:	07080288	Tag Number:	0747
Project:	South Mesa/4972-07-2050.4.5	Collection Date:	8/7/2007 10:40:00 AM
Lab ID:	07080288-01A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	8/17/2007	
1,1,2,2-Tetrachloroethane	< 0.50	0.50	< 3.5	3.5	1	8/17/2007	
1,1,2-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	8/17/2007	
1,1-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	8/17/2007	
1,1-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	8/17/2007	
1,2,4-Trichlorobenzene	< 2.0	2.0	< 15	15	1	8/17/2007	
1,2,4-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	8/17/2007	
1,2-Dibromoethane	< 0.50	0.50	< 3.9	3.9	1	8/17/2007	
1,2-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	8/17/2007	
1,2-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	8/17/2007	
1,2-Dichloropropane	< 0.50	0.50	< 2.4	2.4	1	8/17/2007	
1,3,5-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	8/17/2007	
1,3-Butadiene	< 0.50	0.50	< 1.1	1.1	1	8/17/2007	
1,3-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	8/17/2007	
1,4-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	8/17/2007	
2,2,4-Trimethylpentane	2.2	0.50	10	2.4	1	8/17/2007	
2-Butanone (MEK)	< 1.0	1.0	< 3.0	3.0	1	8/17/2007	
2-Hexanone	1.1	1.0	4.6	4.2	1	8/17/2007	
2-Propanol	3.3	2.0	8.2	5.0	1	8/17/2007	
4-Ethyltoluene	< 0.50	0.50	< 2.2	2.2	1	8/17/2007	
4-Methyl-2-pentanone	< 1.0	1.0	< 4.2	4.2	1	8/17/2007	
Acetone	18	5.0	43	12	1	8/17/2007	
Allyl chloride	< 0.50	0.50	< 0.80	0.80	1	8/17/2007	
Benzene	< 0.50	0.50	< 1.6	1.6	1	8/17/2007	
Benzyl chloride	< 2.0	2.0	< 11	11	V1L1 1	8/17/2007	
Bromodichloromethane	< 0.50	0.50	< 3.4	3.4	1	8/17/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 22-Aug-07

CLIENT:	Mactec	Client Sample ID:	EFF
Lab Order:	07080288	Tag Number:	0747
Project:	South Mesa/4972-07-2050.4.5	Collection Date:	8/7/2007 10:40:00 AM
Lab ID:	07080288-01A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 0.50	0.50	< 1.1	1.1	1	8/17/2007	
Bromoform	< 0.50	0.50	< 5.2	5.2	1	8/17/2007	
Bromomethane	< 0.50	0.50	< 2.0	2.0	1	8/17/2007	
Carbon disulfide	< 0.50	0.50	< 1.6	1.6	1	8/17/2007	
Carbon tetrachloride	< 0.50	0.50	< 3.2	3.2	1	8/17/2007	
Chlorobenzene	< 0.50	0.50	< 2.4	2.4	1	8/17/2007	
Chloroethane	< 0.50	0.50	< 1.3	1.3	1	8/17/2007	
Chloroform	< 0.50	0.50	< 2.5	2.5	1	8/17/2007	
Chloromethane	0.73	0.50	1.5	1.0	1	8/17/2007	
cis-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	8/17/2007	
cis-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	8/17/2007	
Cyclohexane	< 0.50	0.50	< 1.7	1.7	1	8/17/2007	
Dibromochloromethane	< 0.50	0.50	< 4.3	4.3	1	8/17/2007	
Dichlorodifluoromethane(F-12)	0.60	0.50	3.0	2.5	1	8/17/2007	
Dichlorotetrafluoroethane(F-114)	< 0.50	0.50	< 3.6	3.6	1	8/17/2007	
Ethyl Acetate	< 0.50	0.50	< 1.8	1.8	1	8/17/2007	
Ethylbenzene	< 0.50	0.50	< 2.2	2.2	1	8/17/2007	
Heptane	< 0.50	0.50	< 2.1	2.1	1	8/17/2007	
Hexachlorobutadiene	< 1.0	1.0	< 11	11	1	8/17/2007	
Hexane	< 0.50	0.50	< 1.8	1.8	1	8/17/2007	
m&p-Xylene	< 1.0	1.0	< 4.4	4.4	1	8/17/2007	
Methyl tert-butyl ether	1.1	1.0	4.0	3.7	1	8/17/2007	
Methylene chloride	< 0.50	0.50	< 1.8	1.8	1	8/17/2007	
o-Xylene	< 0.50	0.50	< 2.2	2.2	1	8/17/2007	
Propene (Propylene)	< 0.50	0.50	< 0.88	0.88	1	8/17/2007	
Styrene	< 0.50	0.50	< 2.2	2.2	1	8/17/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 22-Aug-07

CLIENT:	Mactec	Client Sample ID:	EFF
Lab Order:	07080288	Tag Number:	0747
Project:	South Mesa/4972-07-2050.4.5	Collection Date:	8/7/2007 10:40:00 AM
Lab ID:	07080288-01A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15					Analyst: J.J.
Tetrachloroethene	0.75	0.50	5.2	3.4	1	8/17/2007	
Tetrahydrofuran	< 2.0	2.0	< 6.0	6.0	1	8/17/2007	
Toluene	1.0	0.50	3.8	1.9	1	8/17/2007	
trans-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	8/17/2007	
trans-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	8/17/2007	
Trichloroethene	< 0.50	0.50	< 2.8	2.8	1	8/17/2007	
Trichlorofluoromethane(F-11)	< 0.50	0.50	< 2.8	2.8	1	8/17/2007	
Trichlorotrifluoroethane(F-113)	< 0.50	0.50	< 3.9	3.9	1	8/17/2007	
Vinyl acetate	< 0.50	0.50	< 1.8	1.8	1	8/17/2007	
Vinyl chloride	< 0.50	0.50	< 1.3	1.3	1	8/17/2007	
Surr: 4-Bromofluorobenzene	73.4 %REC	70-130	-	-	1	8/17/2007	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 22-Aug-07

CLIENT:	Mactec	Client Sample ID:	INF
Lab Order:	07080288	Tag Number:	0736
Project:	South Mesa/4972-07-2050.4.5	Collection Date:	8/7/2007 10:55:00 AM
Lab ID:	07080288-02A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 5.0	5.0	< 28	28	10	8/18/2007	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	< 35	35	10	8/18/2007	
1,1,2-Trichloroethane	< 5.0	5.0	< 28	28	10	8/18/2007	
1,1-Dichloroethane	9.4	5.0	39	21	10	8/18/2007	
1,1-Dichloroethene	< 5.0	5.0	< 20	20	10	8/18/2007	
1,2,4-Trichlorobenzene	< 20	20	< 150	150	10	8/18/2007	
1,2,4-Trimethylbenzene	< 5.0	5.0	< 25	25	10	8/18/2007	
1,2-Dibromoethane	< 5.0	5.0	< 39	39	10	8/18/2007	
1,2-Dichlorobenzene	< 5.0	5.0	< 31	31	10	8/18/2007	
1,2-Dichloroethane	< 5.0	5.0	< 21	21	10	8/18/2007	
1,2-Dichloropropane	< 5.0	5.0	< 24	24	10	8/18/2007	
1,3,5-Trimethylbenzene	< 5.0	5.0	< 25	25	10	8/18/2007	
1,3-Butadiene	< 5.0	5.0	< 11	11	10	8/18/2007	
1,3-Dichlorobenzene	< 5.0	5.0	< 31	31	10	8/18/2007	
1,4-Dichlorobenzene	< 5.0	5.0	< 31	31	10	8/18/2007	
2,2,4-Trimethylpentane	< 5.0	5.0	< 24	24	10	8/18/2007	
2-Butanone (MEK)	< 10	10	< 30	30	10	8/18/2007	
2-Hexanone	< 10	10	< 42	42	10	8/18/2007	
2-Propanol	< 20	20	< 50	50	10	8/18/2007	
4-Ethyltoluene	< 5.0	5.0	< 22	22	10	8/18/2007	
4-Methyl-2-pentanone	< 10	10	< 42	42	10	8/18/2007	
Acetone	63	50	150	120	D2	10	8/18/2007
Allyl chloride	< 5.0	5.0	< 8.0	8.0	10	8/18/2007	
Benzene	< 5.0	5.0	< 16	16	10	8/18/2007	
Benzyl chloride	< 20	20	< 110	110	V1L1	10	8/18/2007
Bromodichloromethane	< 5.0	5.0	< 34	34	10	8/18/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 22-Aug-07

CLIENT: Mactec
Lab Order: 07080288
Project: South Mesa/4972-07-2050.4.5
Lab ID: 07080288-02A

Client Sample ID: INF
Tag Number: 0736
Collection Date: 8/7/2007 10:55:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 5.0	5.0	< 11	11	10	8/18/2007	
Bromoform	< 5.0	5.0	< 52	52	10	8/18/2007	
Bromomethane	< 5.0	5.0	< 20	20	10	8/18/2007	
Carbon disulfide	< 5.0	5.0	< 16	16	10	8/18/2007	
Carbon tetrachloride	< 5.0	5.0	< 32	32	10	8/18/2007	
Chlorobenzene	< 5.0	5.0	< 24	24	10	8/18/2007	
Chloroethane	< 5.0	5.0	< 13	13	10	8/18/2007	
Chloroform	6.1	5.0	30	25	10	8/18/2007	
Chloromethane	< 5.0	5.0	< 10	10	10	8/18/2007	
cis-1,2-Dichloroethene	< 5.0	5.0	< 20	20	10	8/18/2007	
cis-1,3-Dichloropropene	< 5.0	5.0	< 23	23	10	8/18/2007	
Cyclohexane	< 5.0	5.0	< 17	17	10	8/18/2007	
Dibromochloromethane	< 5.0	5.0	< 43	43	10	8/18/2007	
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 25	25	10	8/18/2007	
Dichlorotetrafluoroethane(F-114)	< 5.0	5.0	< 36	36	10	8/18/2007	
Ethyl Acetate	< 5.0	5.0	< 18	18	10	8/18/2007	
Ethylbenzene	< 5.0	5.0	< 22	22	10	8/18/2007	
Heptane	< 5.0	5.0	< 21	21	10	8/18/2007	
Hexachlorobutadiene	< 10	10	< 110	110	10	8/18/2007	
Hexane	< 5.0	5.0	< 18	18	10	8/18/2007	
m&p-Xylene	< 10	10	< 44	44	10	8/18/2007	
Methyl tert-butyl ether	< 10	10	< 37	37	10	8/18/2007	
Methylene chloride	< 5.0	5.0	< 18	18	10	8/18/2007	
o-Xylene	< 5.0	5.0	< 22	22	10	8/18/2007	
Propene (Propylene)	< 5.0	5.0	< 8.8	8.8	10	8/18/2007	
Styrene	< 5.0	5.0	< 22	22	10	8/18/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 22-Aug-07

CLIENT:	Mactec	Client Sample ID:	INF
Lab Order:	07080288	Tag Number:	0736
Project:	South Mesa/4972-07-2050.4.5	Collection Date:	8/7/2007 10:55:00 AM
Lab ID:	07080288-02A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	170	5.0	1200	34	D2	10	8/18/2007
Tetrahydrofuran	< 20	20	< 60	60		10	8/18/2007
Toluene	< 5.0	5.0	< 19	19		10	8/18/2007
trans-1,2-Dichloroethene	< 5.0	5.0	< 20	20		10	8/18/2007
trans-1,3-Dichloropropene	< 5.0	5.0	< 23	23		10	8/18/2007
Trichloroethene	< 5.0	5.0	< 28	28		10	8/18/2007
Trichlorofluoromethane(F-11)	< 5.0	5.0	< 28	28		10	8/18/2007
Trichlorotrifluoroethane(F-113)	< 5.0	5.0	< 39	39		10	8/18/2007
Vinyl acetate	< 5.0	5.0	< 18	18		10	8/18/2007
Vinyl chloride	< 5.0	5.0	< 13	13		10	8/18/2007
Surr: 4-Bromofluorobenzene	91.3 %REC	70-130	-	-		10	8/18/2007

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 22-Aug-07

CLIENT: Mactec
Lab Order: 07080288
Project: South Mesa/4972-07-2050.4.5
Lab ID: 07080288-03A

Client Sample ID: VW-7A
Tag Number: 0193
Collection Date: 8/7/2007 11:00:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 5.0	5.0	< 28	28	10	8/17/2007	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	< 35	35	10	8/17/2007	
1,1,2-Trichloroethane	< 5.0	5.0	< 28	28	10	8/17/2007	
1,1-Dichloroethane	11	5.0	45	21	10	8/17/2007	
1,1-Dichloroethene	< 5.0	5.0	< 20	20	10	8/17/2007	
1,2,4-Trichlorobenzene	< 20	20	< 150	150	10	8/17/2007	
1,2,4-Trimethylbenzene	< 5.0	5.0	< 25	25	10	8/17/2007	
1,2-Dibromoethane	< 5.0	5.0	< 39	39	10	8/17/2007	
1,2-Dichlorobenzene	< 5.0	5.0	< 31	31	10	8/17/2007	
1,2-Dichloroethane	< 5.0	5.0	< 21	21	10	8/17/2007	
1,2-Dichloropropane	< 5.0	5.0	< 24	24	10	8/17/2007	
1,3,5-Trimethylbenzene	< 5.0	5.0	< 25	25	10	8/17/2007	
1,3-Butadiene	< 5.0	5.0	< 11	11	10	8/17/2007	
1,3-Dichlorobenzene	< 5.0	5.0	< 31	31	10	8/17/2007	
1,4-Dichlorobenzene	< 5.0	5.0	< 31	31	10	8/17/2007	
2,2,4-Trimethylpentane	< 5.0	5.0	< 24	24	10	8/17/2007	
2-Butanone (MEK)	< 10	10	< 30	30	10	8/17/2007	
2-Hexanone	< 10	10	< 42	42	10	8/17/2007	
2-Propanol	< 20	20	< 50	50	10	8/17/2007	
4-Ethyltoluene	< 5.0	5.0	< 22	22	10	8/17/2007	
4-Methyl-2-pentanone	< 10	10	< 42	42	10	8/17/2007	
Acetone	< 50	50	< 120	120	10	8/17/2007	
Allyl chloride	< 5.0	5.0	< 8.0	8.0	10	8/17/2007	
Benzene	< 5.0	5.0	< 16	16	10	8/17/2007	
Benzyl chloride	< 20	20	< 110	110	V1L1 10	8/17/2007	
Bromodichloromethane	< 5.0	5.0	< 34	34	10	8/17/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 22-Aug-07

CLIENT: Mactec
Lab Order: 07080288
Project: South Mesa/4972-07-2050.4.5
Lab ID: 07080288-03A

Client Sample ID: VW-7A
Tag Number: 0193
Collection Date: 8/7/2007 11:00:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 5.0	5.0	< 11	11	10	8/17/2007	
Bromoform	< 5.0	5.0	< 52	52	10	8/17/2007	
Bromomethane	< 5.0	5.0	< 20	20	10	8/17/2007	
Carbon disulfide	< 5.0	5.0	< 16	16	10	8/17/2007	
Carbon tetrachloride	< 5.0	5.0	< 32	32	10	8/17/2007	
Chlorobenzene	< 5.0	5.0	< 24	24	10	8/17/2007	
Chloroethane	< 5.0	5.0	< 13	13	10	8/17/2007	
Chloroform	7.3	5.0	36	25	10	8/17/2007	
Chloromethane	< 5.0	5.0	< 10	10	10	8/17/2007	
cis-1,2-Dichloroethene	< 5.0	5.0	< 20	20	10	8/17/2007	
cis-1,3-Dichloropropene	< 5.0	5.0	< 23	23	10	8/17/2007	
Cyclohexane	< 5.0	5.0	< 17	17	10	8/17/2007	
Dibromochloromethane	< 5.0	5.0	< 43	43	10	8/17/2007	
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 25	25	10	8/17/2007	
Dichlorotetrafluoroethane(F-114)	< 5.0	5.0	< 36	36	10	8/17/2007	
Ethyl Acetate	< 5.0	5.0	< 18	18	10	8/17/2007	
Ethylbenzene	< 5.0	5.0	< 22	22	10	8/17/2007	
Heptane	< 5.0	5.0	< 21	21	10	8/17/2007	
Hexachlorobutadiene	< 10	10	< 110	110	10	8/17/2007	
Hexane	< 5.0	5.0	< 18	18	10	8/17/2007	
m&p-Xylene	< 10	10	< 44	44	10	8/17/2007	
Methyl tert-butyl ether	< 10	10	< 37	37	10	8/17/2007	
Methylene chloride	< 5.0	5.0	< 18	18	10	8/17/2007	
o-Xylene	< 5.0	5.0	< 22	22	10	8/17/2007	
Propene (Propylene)	< 5.0	5.0	< 8.8	8.8	10	8/17/2007	
Styrene	< 5.0	5.0	< 22	22	10	8/17/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 22-Aug-07

CLIENT:	Mactec	Client Sample ID:	VW-7A
Lab Order:	07080288	Tag Number:	0193
Project:	South Mesa/4972-07-2050.4.5	Collection Date:	8/7/2007 11:00:00 AM
Lab ID:	07080288-03A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15		Analyst: J.J.			
Tetrachloroethene	180	5.0	1200	34	D2	10	8/17/2007
Tetrahydrofuran	< 20	20	< 60	60		10	8/17/2007
Toluene	< 5.0	5.0	< 19	19		10	8/17/2007
trans-1,2-Dichloroethene	< 5.0	5.0	< 20	20		10	8/17/2007
trans-1,3-Dichloropropene	< 5.0	5.0	< 23	23		10	8/17/2007
Trichloroethene	< 5.0	5.0	< 28	28		10	8/17/2007
Trichlorofluoromethane(F-11)	5.3	5.0	30	28		10	8/17/2007
Trichlorotrifluoroethane(F-113)	< 5.0	5.0	< 39	39		10	8/17/2007
Vinyl acetate	< 5.0	5.0	< 18	18		10	8/17/2007
Vinyl chloride	< 5.0	5.0	< 13	13		10	8/17/2007
Surr: 4-Bromofluorobenzene	84.7 %REC	70-130	-	-		10	8/17/2007

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 20-Aug-07

CLIENT:

Mactec

Work Order:

07080288

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R90190	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90190						
Client ID:	Batch ID: R90190	TestNo: TO15		Analysis Date: 8/17/2007	SeqNo: 1068108						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1-Trichloroethane	<0.50	0.50									
1,1,2,2-Tetrachloroethane	<0.50	0.50									
1,1,2-Trichloroethane	<0.50	0.50									
1,1-Dichloroethane	<0.50	0.50									
1,1-Dichloroethene	<0.50	0.50									
1,2,4-Trichlorobenzene	<2.0	2.0									
1,2,4-Trimethylbenzene	<0.50	0.50									
1,2-Dibromoethane	<0.50	0.50									
1,2-Dichlorobenzene	<0.50	0.50									
1,2-Dichloroethane	<0.50	0.50									
1,2-Dichloropropane	<0.50	0.50									
1,3,5-Trimethylbenzene	<0.50	0.50									
1,3-Butadiene	<0.50	0.50									
1,3-Dichlorobenzene	<0.50	0.50									
1,4-Dichlorobenzene	<0.50	0.50									
2,2,4-Trimethylpentane	<0.50	0.50									
2-Butanone (MEK)	<1.0	1.0									
2-Hexanone	<1.0	1.0									
2-Propanol	<2.0	2.0									
4-Ethyltoluene	<0.50	0.50									
4-Methyl-2-pentanone	<1.0	1.0									
Acetone	<5.0	5.0									
Allyl chloride	<0.50	0.50									
Benzene	<0.50	0.50									
Benzyl chloride	<2.0	2.0									V1

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 20-Aug-07

CLIENT:

Mactec

Work Order:

07080288

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R90190	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90190						
Client ID:	Batch ID: R90190	TestNo: TO15		Analysis Date: 8/17/2007	SeqNo: 1068108						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Bromodichloromethane	<0.50	0.50									
Bromoethene(Vinyl Bromide)	<0.50	0.50									
Bromoform	<0.50	0.50									
Bromomethane	<0.50	0.50									
Carbon disulfide	<0.50	0.50									
Carbon tetrachloride	<0.50	0.50									
Chlorobenzene	<0.50	0.50									
Chloroethane	<0.50	0.50									
Chloroform	<0.50	0.50									
Chloromethane	<0.50	0.50									
cis-1,2-Dichloroethene	<0.50	0.50									
cis-1,3-Dichloropropene	<0.50	0.50									
Cyclohexane	<0.50	0.50									
Dibromochloromethane	<0.50	0.50									
Dichlorodifluoromethane(F-12)	<0.50	0.50									
Dichlorotetrafluoroethane(F-114)	<0.50	0.50									
Ethyl Acetate	<0.50	0.50									
Ethylbenzene	<0.50	0.50									
Heptane	<0.50	0.50									
Hexachlorobutadiene	<1.0	1.0									
Hexane	<0.50	0.50									
m&p-Xylene	<1.0	1.0									
Methyl tert-butyl ether	<1.0	1.0									
Methylene chloride	<0.50	0.50									
o-Xylene	<0.50	0.50									

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 20-Aug-07

CLIENT:

Mactec

Work Order:

07080288

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R90190	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90190						
Client ID:	Batch ID: R90190	TestNo: TO15		Analysis Date: 8/17/2007	SeqNo: 1068108						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Propene (Propylene)	<0.50	0.50									
Styrene	<0.50	0.50									
Tetrachloroethene	<0.50	0.50									
Tetrahydrofuran	<2.0	2.0									
Toluene	<0.50	0.50									
trans-1,2-Dichloroethene	<0.50	0.50									
trans-1,3-Dichloropropene	<0.50	0.50									
Trichloroethene	<0.50	0.50									
Trichlorofluoromethane(F-11)	<0.50	0.50									
Trichlorotrifluoroethane(F-113)	<0.50	0.50									
Vinyl acetate	<0.50	0.50									
Vinyl chloride	<0.50	0.50									
Surr: 4-Bromofluorobenzene	8.870	0.50	10	0	88.7	70	130				

Sample ID: LCS-R90190	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90190						
Client ID:	Batch ID: R90190	TestNo: TO15		Analysis Date: 8/17/2007	SeqNo: 1068109						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	8.340	0.50	10	0	83.4	65	135				
1,1,2,2-Tetrachloroethane	8.950	0.50	10	0	89.5	65	135				
1,1,2-Trichloroethane	8.940	0.50	10	0	89.4	65	135				
1,1-Dichloroethane	8.880	0.50	10	0	88.8	65	135				
1,1-Dichloroethene	8.260	0.50	10	0	82.6	65	135				
1,2,4-Trichlorobenzene	9.070	2.0	10	0	90.7	65	135				
1,2,4-Trimethylbenzene	8.860	0.50	10	0	88.6	65	135				

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 20-Aug-07

CLIENT:

Mactec

Work Order:

07080288

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R90190		SampType: LCS		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 90190	
Client ID:		Batch ID: R90190		TestNo: TO15				Analysis Date: 8/17/2007		SeqNo: 1068109	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane	9.020	0.50	10	0	90.2	65	135				
1,2-Dichlorobenzene	8.460	0.50	10	0	84.6	65	135				
1,2-Dichloroethane	8.160	0.50	10	0	81.6	65	135				
1,2-Dichloropropane	9.230	0.50	10	0	92.3	65	135				
1,3,5-Trimethylbenzene	8.880	0.50	10	0	88.8	65	135				
1,3-Butadiene	9.660	0.50	10	0	96.6	65	135				
1,3-Dichlorobenzene	8.670	0.50	10	0	86.7	65	135				
1,4-Dichlorobenzene	8.630	0.50	10	0	86.3	65	135				
2,2,4-Trimethylpentane	9.520	0.50	10	0	95.2	65	135				
2-Butanone (MEK)	9.230	1.0	10	0	92.3	65	135				
2-Hexanone	9.160	1.0	10	0	91.6	65	135				
2-Propanol	10.32	2.0	10	0	103	65	135				
4-Ethyltoluene	9.010	0.50	10	0	90.1	65	135				
4-Methyl-2-pentanone	9.520	1.0	10	0	95.2	65	135				
Acetone	9.510	5.0	10	0	95.1	65	135				
Allyl chloride	9.470	0.50	10	0	94.7	65	135				
Benzene	8.890	0.50	10	0	88.9	65	135				
Benzyl chloride	15.35	2.0	10	0	154	65	135				L1
Bromodichloromethane	9.030	0.50	10	0	90.3	65	135				
Bromoethene(Vinyl Bromide)	10.83	0.50	10	0	108	65	135				
Bromoform	9.340	0.50	10	0	93.4	65	135				
Bromomethane	9.950	0.50	10	0	99.5	65	135				
Carbon disulfide	9.370	0.50	10	0	93.7	65	135				
Carbon tetrachloride	8.910	0.50	10	0	89.1	65	135				
Chlorobenzene	9.240	0.50	10	0	92.4	65	135				

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 20-Aug-07

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

CLIENT: Mactec

Work Order: 07080288

Project: South Mesa/4972-07-2050.4.5

Sample ID: LCS-R90190	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90190						
Client ID:	Batch ID: R90190	TestNo: TO15		Analysis Date: 8/17/2007	SeqNo: 1068109						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane	9.680	0.50	10	0	96.8	65	135				
Chloroform	8.370	0.50	10	0	83.7	65	135				
Chloromethane	9.340	0.50	10	0	93.4	65	135				
cis-1,2-Dichloroethene	9.040	0.50	10	0	90.4	65	135				
cis-1,3-Dichloropropene	9.200	0.50	10	0	92.0	65	135				
Cyclohexane	9.110	0.50	10	0	91.1	65	135				
Dibromochloromethane	9.080	0.50	10	0	90.8	65	135				
Dichlorodifluoromethane(F-12)	8.360	0.50	10	0	83.6	65	135				
Dichlorotetrafluoroethane(F-114)	9.390	0.50	10	0	93.9	65	135				
Ethyl Acetate	9.630	0.50	10	0	96.3	65	135				
Ethylbenzene	9.250	0.50	10	0	92.5	65	135				
Heptane	9.140	0.50	10	0	91.4	65	135				
Hexachlorobutadiene	8.700	1.0	10	0	87.0	65	135				
Hexane	9.560	0.50	10	0	95.6	65	135				
m&p-Xylene	18.59	1.0	20	0	93.0	65	135				
Methyl tert-butyl ether	8.650	1.0	10	0	86.5	65	135				
Methylene chloride	8.900	0.50	10	0	89.0	65	135				
o-Xylene	9.010	0.50	10	0	90.1	65	135				
Propene (Propylene)	9.010	0.50	10	0	90.1	65	135				
Styrene	9.090	0.50	10	0	90.9	65	135				
Tetrachloroethene	8.300	0.50	10	0	83.0	65	135				
Tetrahydrofuran	9.280	2.0	10	0	92.8	65	135				
Toluene	9.090	0.50	10	0	90.9	65	135				
trans-1,2-Dichloroethene	9.160	0.50	10	0	91.6	65	135				
trans-1,3-Dichloropropene	9.480	0.50	10	0	94.8	65	135				

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 20-Aug-07

CLIENT:

Mactec

Work Order:

07080288

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R90190	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90190						
Client ID:	Batch ID: R90190	TestNo: TO15		Analysis Date: 8/17/2007	SeqNo: 1068109						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Trichloroethene	8.770	0.50	10	0	87.7	65	135				
Trichlorofluoromethane(F-11)	9.560	0.50	10	0	95.6	65	135				
Trichlorotrifluoroethane(F-113)	9.100	0.50	10	0	91.0	65	135				
Vinyl acetate	11.12	0.50	10	0	111	65	135				
Vinyl chloride	9.460	0.50	10	0	94.6	65	135				
Surr: 4-Bromofluorobenzene	8.890	0.50	10	0	88.9	70	130				

Sample ID: LCSD-R90190		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 90190	
Client ID:		Batch ID: R90190		TestNo: TO15				Analysis Date: 8/17/2007		SeqNo: 1068110	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1-Trichloroethane	8.330	0.50	10	0	83.3	65	135	8.340	0.120	25	
1,1,2,2-Tetrachloroethane	9.020	0.50	10	0	90.2	65	135	8.950	0.779	25	
1,1,2-Trichloroethane	8.940	0.50	10	0	89.4	65	135	8.940	0	25	
1,1-Dichloroethane	8.910	0.50	10	0	89.1	65	135	8.880	0.337	25	
1,1-Dichloroethene	8.250	0.50	10	0	82.5	65	135	8.260	0.121	25	
1,2,4-Trichlorobenzene	9.230	2.0	10	0	92.3	65	135	9.070	1.75	25	
1,2,4-Trimethylbenzene	8.860	0.50	10	0	88.6	65	135	8.860	0	25	
1,2-Dibromoethane	9.050	0.50	10	0	90.5	65	135	9.020	0.332	25	
1,2-Dichlorobenzene	8.470	0.50	10	0	84.7	65	135	8.460	0.118	25	
1,2-Dichloroethane	8.110	0.50	10	0	81.1	65	135	8.160	0.615	25	
1,2-Dichloropropane	9.270	0.50	10	0	92.7	65	135	9.230	0.432	25	
1,3,5-Trimethylbenzene	8.790	0.50	10	0	87.9	65	135	8.880	1.02	25	
1,3-Butadiene	9.660	0.50	10	0	96.6	65	135	9.660	0	25	
1,3-Dichlorobenzene	8.630	0.50	10	0	86.3	65	135	8.670	0.462	25	

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 20-Aug-07

CLIENT:

Mactec

Work Order:

07080288

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R90190		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 90190	
Client ID:		Batch ID: R90190		TestNo: TO15				Analysis Date: 8/17/2007		SeqNo: 1068110	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	8.550	0.50	10	0	85.5	65	135	8.630	0.931	25	
2,2,4-Trimethylpentane	9.620	0.50	10	0	96.2	65	135	9.520	1.04	25	
2-Butanone (MEK)	9.060	1.0	10	0	90.6	65	135	9.230	1.86	25	
2-Hexanone	9.270	1.0	10	0	92.7	65	135	9.160	1.19	25	
2-Propanol	10.40	2.0	10	0	104	65	135	10.32	0.772	25	
4-Ethyltoluene	8.940	0.50	10	0	89.4	65	135	9.010	0.780	25	
4-Methyl-2-pentanone	9.520	1.0	10	0	95.2	65	135	9.520	0	25	
Acetone	9.590	5.0	10	0	95.9	65	135	9.510	0.838	25	
Allyl chloride	9.520	0.50	10	0	95.2	65	135	9.470	0.527	25	
Benzene	8.850	0.50	10	0	88.5	65	135	8.890	0.451	25	
Benzyl chloride	15.73	2.0	10	0	157	65	135	15.35	2.45	25	L1
Bromodichloromethane	9.040	0.50	10	0	90.4	65	135	9.030	0.111	25	
Bromoethene(Vinyl Bromide)	10.77	0.50	10	0	108	65	135	10.83	0.556	25	
Bromoform	9.230	0.50	10	0	92.3	65	135	9.340	1.18	25	
Bromomethane	9.920	0.50	10	0	99.2	65	135	9.950	0.302	25	
Carbon disulfide	9.300	0.50	10	0	93.0	65	135	9.370	0.750	25	
Carbon tetrachloride	8.820	0.50	10	0	88.2	65	135	8.910	1.02	25	
Chlorobenzene	9.200	0.50	10	0	92.0	65	135	9.240	0.434	25	
Chloroethane	9.810	0.50	10	0	98.1	65	135	9.680	1.33	25	
Chloroform	8.350	0.50	10	0	83.5	65	135	8.370	0.239	25	
Chloromethane	9.380	0.50	10	0	93.8	65	135	9.340	0.427	25	
cis-1,2-Dichloroethene	9.020	0.50	10	0	90.2	65	135	9.040	0.221	25	
cis-1,3-Dichloropropene	9.200	0.50	10	0	92.0	65	135	9.200	0	25	
Cyclohexane	9.140	0.50	10	0	91.4	65	135	9.110	0.329	25	
Dibromochloromethane	9.150	0.50	10	0	91.5	65	135	9.080	0.768	25	

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 20-Aug-07

CLIENT:

Mactec

Work Order:

07080288

Project:

South Mesa/4972-07-2050.4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R90190		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 90190	
Client ID:		Batch ID: R90190		TestNo: TO15				Analysis Date: 8/17/2007		SeqNo: 1068110	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane(F-12)	8.340	0.50	10	0	83.4	65	135	8.360	0.240	25	
Dichlorotetrafluoroethane(F-114)	9.350	0.50	10	0	93.5	65	135	9.390	0.427	25	
Ethyl Acetate	9.740	0.50	10	0	97.4	65	135	9.630	1.14	25	
Ethylbenzene	9.270	0.50	10	0	92.7	65	135	9.250	0.216	25	
Heptane	9.190	0.50	10	0	91.9	65	135	9.140	0.546	25	
Hexachlorobutadiene	8.280	1.0	10	0	82.8	65	135	8.700	4.95	25	
Hexane	9.510	0.50	10	0	95.1	65	135	9.560	0.524	25	
m&p-Xylene	18.51	1.0	20	0	92.6	65	135	18.59	0.431	25	
Methyl tert-butyl ether	8.730	1.0	10	0	87.3	65	135	8.650	0.921	25	
Methylene chloride	8.920	0.50	10	0	89.2	65	135	8.900	0.224	25	
o-Xylene	8.970	0.50	10	0	89.7	65	135	9.010	0.445	25	
Propene (Propylene)	8.960	0.50	10	0	89.6	65	135	9.010	0.556	25	
Styrene	9.020	0.50	10	0	90.2	65	135	9.090	0.773	25	
Tetrachloroethene	8.230	0.50	10	0	82.3	65	135	8.300	0.847	25	
Tetrahydrofuran	9.280	2.0	10	0	92.8	65	135	9.280	0	25	
Toluene	9.080	0.50	10	0	90.8	65	135	9.090	0.110	25	
trans-1,2-Dichloroethene	9.170	0.50	10	0	91.7	65	135	9.160	0.109	25	
trans-1,3-Dichloropropene	9.530	0.50	10	0	95.3	65	135	9.480	0.526	25	
Trichloroethene	8.720	0.50	10	0	87.2	65	135	8.770	0.572	25	
Trichlorofluoromethane(F-11)	9.530	0.50	10	0	95.3	65	135	9.560	0.314	25	
Trichlorotrifluoroethane(F-113)	9.100	0.50	10	0	91.0	65	135	9.100	0	25	
Vinyl acetate	11.17	0.50	10	0	112	65	135	11.12	0.449	25	
Vinyl chloride	9.520	0.50	10	0	95.2	65	135	9.460	0.632	25	
Surr: 4-Bromofluorobenzene	9.250	0.50	10	0	92.5	70	130	8.890	0	0	

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories Sample Receipt Checklist

Project Checked By:

Laboratory Number: 07080289	Completed By/On: PTJH 8/7/07
Client Name: Macfee	Date/Time Rec'd: 8/7/07 1440 By: AG
Matrix: Soil Aqueous Oil Sludge Solid WW DW	Carrier Name: Mark H.

Temperature	Cooler #1 Amb °C	Cooler #2 °C	Cooler #3 °C	Cooler #4 °C
Temp. Read With	Thermometer IR	Thermometer IR	Thermometer IR	Thermometer IR

Client or PM made aware of temp. out of range? Yes No Circle one: Blue Ice Wet Ice Not Present

	Yes	No*	Not Present	
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>			Soil Containers:
Custody seals intact on shipping container/cooler?			<input checked="" type="checkbox"/>	Brass Sleeve
Custody seals intact on sample containers?			<input checked="" type="checkbox"/>	Glass Jar
Chain of Custody present and relinquished/received properly?	<input checked="" type="checkbox"/>			Methanol
Chain of Custody agrees with sample labels?	<input checked="" type="checkbox"/>			Plastic Bag
Samples in proper containers/bottles?	<input checked="" type="checkbox"/>			Encore Samplers
Sample containers intact?	<input checked="" type="checkbox"/>			Sterile Plastic
All samples received within holding time?	<input checked="" type="checkbox"/>			
Is there sufficient sample volume to perform the tests?	<input checked="" type="checkbox"/>			
40mL vials for volatiles & SOCs received with zero headspace?			<input checked="" type="checkbox"/>	

Total number of bottles received: **3** IH sample media: **1L Canister**If applicable, how many sample bottles were shipped from AEL-Tucson? **N/A** ☒

Number of containers received by preservative and by sample number: (If more than 10 samples are rec'd, please continue on separate sheet(s)).

Preservative	Simple***	1	2	3	4	5	6	7	8	9	10	
A-General	3											*Any No response must be detailed in the comments section. Contact the PM immediately to determine how to proceed. Refer to SOP 11-001 and continue on back if additional space is needed. **The holding time for pH and Total Residual Chlorine analysis is immediate. For the most accurate results, the pH and Total Residual Chlorine should be taken in the field within 15 minutes of sampling. ***The Simple box is only to be used when there is one bottle per preservative in equal sample sets.
B-HNO3												
C-H2SO4												
D-HCl												
E-Na2S2O3												
F-NaOH												
G-Sulfide												
H-Na Sulfite												
I-MCAA												
J-Methanol												
K-HAA												
L-Other												

Water-pH acceptable upon receipt? Yes No N/A ☒

Preservative & pH	pH of samples upon receipt	If pH requires adjustment, list sample number and reagent I.D. number.
Metals <2		
H2SO4 <2		
1664 <2		
Cyanide >12		
Sulfide >9		

Comments:



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[] Main Lab - 4645 E. Cotton Center Blvd., Building 3, Suite 189, Phoenix, AZ 85040 602.437.3340 - FAX 623.445.6192

[] North Phoenix - 1501 W. Knudsen, Phoenix, AZ 85027 623.780.4800 - FAX 623.445.6216

[] Tucson - 4455 S. Park Ave. Suite 110, Tucson, AZ 85714 520.807.3801 - FAX 520.807.3803

www.aerovirolabs.com or call toll-free 866.772.5227

[illegible]

Instructions / Special Requirements:

Received By:

Samples Relinquished By:

Date: Time:

Analysis performed is subject to the Terms & Conditions available at www.aerovirolabs.com or call 866.772.5227 to request a copy.

Chain of Custody, Page 1 of 1, REV 02, 111803, VPQAS

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Tuesday, August 28, 2007

Jim Clarke
Mactec
3630 East Wier Avenue
Phoenix, AZ 85040

TEL: (602) 437-0250

FAX (602) 437-3675

RE: Southwest Mesa/4972-07-2050 4.5

Order No.: 07080720

Dear Jim Clarke:

Aerotech Environmental Laboratories received 2 sample(s) on 8/17/2007 for the analyses presented in the following report.

This report includes the following information:

- Case Narrative.
- Analytical Report: includes test results, report limit (Limit), any applicable data qualifier (Qual), units, dilution factor (DF), and date analyzed.
- QC Summary Report.

This communication is intended only for the individual or entity to whom it is directed. It may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. Dissemination, distribution, or copying of this communication by anyone other than the intended recipient, or a duly designated employee or agent of such recipient, is prohibited. If you have received this communication in error, please notify us immediately and destroy this message and all attachments thereto. If you have any questions regarding these test results, please do not hesitate to call.

Sincerely,



Tim Trestrail
Project Manager

ant

CLIENT: Mactec
Project: Southwest Mesa/4972-07-2050 4.5
Lab Order: 07080720

CASE NARRATIVE

Analyses included in this report were performed by Aerotech Environmental Laboratories (AEL), 4645 E. Cotton Center Boulevard, Building 3, Suite 189, Phoenix, AZ.

AEL is licensed through the State of Arizona (License No. AZ0610), and holds NELAC accreditation (OR100001) through the State of Oregon for the analytical techniques noted on the scope of accreditation.

AEL is also accredited by the American Industrial Hygiene Association (AIHA) in the industrial hygiene program for the analytical techniques noted on the scope of accreditation.

Samples were analyzed using methods outlined in references such as:

- Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.
- 40 CFR, Part 136, July 2006. Appendix A to Part 136 - Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater.
- Methods for the Chemical Analysis of Water and Wastes, EPA/600/4-79-020, Revised March 1983.
- Methods for the Determination of Organic Compounds in Drinking Water: Supplement III, August 1995, EPA/600/R-95/131.
- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA, 3rd Edition 1986, and Updates.
- Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA, Second Edition, 1999.
- NIOSH Manual of Analytical Methods, Fourth Edition, 1994.

Analytical Comments:

All method blanks and laboratory control spikes met method and/or laboratory quality control objectives for the analyses included in this report.

Data Qualifiers:

Listed below are the data qualifiers used in your analytical report to explain any analytical or quality control issues. You will find them noted in your report under the column header "QUAL". Any quality control deficiencies that cannot be adequately described by these qualifiers will be addressed in the analytical comments section of this case narrative.

D2 Sample required dilution due to high concentration of target analyte.

Aerotech Environmental Laboratories

Date: 29-Aug-07

CLIENT: Mactec
Lab Order: 07080720
Project: Southwest Mesa/4972-07-2050 4.5
Lab ID: 07080720-01A

Client Sample ID: VW-7C
Tag Number: 0315
Collection Date: 8/17/2007 10:15:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	8/26/2007	
1,1,2,2-Tetrachloroethane	< 0.50	0.50	< 3.5	3.5	1	8/26/2007	
1,1,2-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	8/26/2007	
1,1-Dichloroethane	37	0.50	150	2.1	1	8/26/2007	
1,1-Dichloroethene	10	0.50	40	2.0	1	8/26/2007	
1,2,4-Trichlorobenzene	< 2.0	2.0	< 15	15	1	8/26/2007	
1,2,4-Trimethylbenzene	9.2	0.50	46	2.5	1	8/26/2007	
1,2-Dibromoethane	< 0.50	0.50	< 3.9	3.9	1	8/26/2007	
1,2-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	8/26/2007	
1,2-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	8/26/2007	
1,2-Dichloropropane	6.5	0.50	31	2.4	1	8/26/2007	
1,3,5-Trimethylbenzene	3.0	0.50	15	2.5	1	8/26/2007	
1,3-Butadiene	< 0.50	0.50	< 1.1	1.1	1	8/26/2007	
1,3-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	8/26/2007	
1,4-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	8/26/2007	
2,2,4-Trimethylpentane	2.0	0.50	9.5	2.4	1	8/26/2007	
2-Butanone (MEK)	< 1.0	1.0	< 3.0	3.0	1	8/26/2007	
2-Hexanone	< 1.0	1.0	< 4.2	4.2	1	8/26/2007	
2-Propanol	< 2.0	2.0	< 5.0	5.0	1	8/26/2007	
4-Ethyltoluene	3.6	0.50	16	2.2	1	8/26/2007	
4-Methyl-2-pentanone	< 1.0	1.0	< 4.2	4.2	1	8/26/2007	
Acetone	7.0	5.0	17	12	1	8/26/2007	
Allyl chloride	< 0.50	0.50	< 0.80	0.80	1	8/26/2007	
Benzene	1.1	0.50	3.6	1.6	1	8/26/2007	
Benzyl chloride	< 2.0	2.0	< 11	11	1	8/26/2007	
Bromodichloromethane	1.3	0.50	8.8	3.4	1	8/26/2007	

Qualifiers:
 ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 29-Aug-07

CLIENT:	Mactec	Client Sample ID:	VW-7C
Lab Order:	07080720	Tag Number:	0315
Project:	Southwest Mesa/4972-07-2050 4.5	Collection Date:	8/17/2007 10:15:00 AM
Lab ID:	07080720-01A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 0.50	0.50	< 1.1	1.1	1	8/26/2007	
Bromoform	< 0.50	0.50	< 5.2	5.2	1	8/26/2007	
Bromomethane	< 0.50	0.50	< 2.0	2.0	1	8/26/2007	
Carbon disulfide	< 0.50	0.50	< 1.6	1.6	1	8/26/2007	
Carbon tetrachloride	< 0.50	0.50	< 3.2	3.2	1	8/26/2007	
Chlorobenzene	< 0.50	0.50	< 2.4	2.4	1	8/26/2007	
Chloroethane	< 0.50	0.50	< 1.3	1.3	1	8/26/2007	
Chloroform	10	0.50	50	2.5	1	8/26/2007	
Chloromethane	< 0.50	0.50	< 1.0	1.0	1	8/26/2007	
cis-1,2-Dichloroethene	2.8	0.50	11	2.0	1	8/26/2007	
cis-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	8/26/2007	
Cyclohexane	< 0.50	0.50	< 1.7	1.7	1	8/26/2007	
Dibromochloromethane	< 0.50	0.50	< 4.3	4.3	1	8/26/2007	
Dichlorodifluoromethane(F-12)	< 0.50	0.50	< 2.5	2.5	1	8/26/2007	
Dichlorotetrafluoroethane(F-114)	0.51	0.50	3.6	3.6	1	8/26/2007	
Ethyl Acetate	2.1	0.50	7.7	1.8	1	8/26/2007	
Ethylbenzene	4.2	0.50	18	2.2	1	8/26/2007	
Heptane	2.3	0.50	9.6	2.1	1	8/26/2007	
Hexachlorobutadiene	< 1.0	1.0	< 11	11	1	8/26/2007	
Hexane	0.62	0.50	2.2	1.8	1	8/26/2007	
m&p-Xylene	19	1.0	84	4.4	1	8/26/2007	
Methyl tert-butyl ether	< 1.0	1.0	< 3.7	3.7	1	8/26/2007	
Methylene chloride	< 0.50	0.50	< 1.8	1.8	1	8/26/2007	
o-Xylene	7.3	0.50	32	2.2	1	8/26/2007	
Propene (Propylene)	< 0.50	0.50	< 0.88	0.88	1	8/26/2007	
Styrene	0.98	0.50	4.2	2.2	1	8/26/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 29-Aug-07

CLIENT: Mactec
Lab Order: 07080720
Project: Southwest Mesa/4972-07-2050 4.5
Lab ID: 07080720-01A

Client Sample ID: VW-7C
Tag Number: 0315
Collection Date: 8/17/2007 10:15:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	48	0.50	330	3.4	1	8/26/2007	
Tetrahydrofuran	< 2.0	2.0	< 6.0	6.0	1	8/26/2007	
Toluene	17	0.50	65	1.9	1	8/26/2007	
trans-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	8/26/2007	
trans-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	8/26/2007	
Trichloroethene	6.2	0.50	34	2.8	1	8/26/2007	
Trichlorofluoromethane(F-11)	9.8	0.50	56	2.8	1	8/26/2007	
Trichlorotrifluoroethane(F-113)	0.86	0.50	6.7	3.9	1	8/26/2007	
Vinyl acetate	< 0.50	0.50	< 1.8	1.8	1	8/26/2007	
Vinyl chloride	< 0.50	0.50	< 1.3	1.3	1	8/26/2007	
Surr: 4-Bromofluorobenzene	96.7 %REC	70-130	-	-	1	8/26/2007	

Qualifiers:
 ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 29-Aug-07

CLIENT:	Mactec	Client Sample ID:	VW-5C
Lab Order:	07080720	Tag Number:	0741
Project:	Southwest Mesa/4972-07-2050 4.5	Collection Date:	8/17/2007 10:35:00 AM
Lab ID:	07080720-02A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 10	10	< 55	55	20	8/25/2007	
1,1,2,2-Tetrachloroethane	< 10	10	< 70	70	20	8/25/2007	
1,1,2-Trichloroethane	< 10	10	< 55	55	20	8/25/2007	
1,1-Dichloroethane	< 10	10	< 41	41	20	8/25/2007	
1,1-Dichloroethene	< 10	10	< 40	40	20	8/25/2007	
1,2,4-Trichlorobenzene	< 40	40	< 300	300	20	8/25/2007	
1,2,4-Trimethylbenzene	< 10	10	< 50	50	20	8/25/2007	
1,2-Dibromoethane	< 10	10	< 78	78	20	8/25/2007	
1,2-Dichlorobenzene	< 10	10	< 61	61	20	8/25/2007	
1,2-Dichloroethane	< 10	10	< 41	41	20	8/25/2007	
1,2-Dichloropropane	< 10	10	< 47	47	20	8/25/2007	
1,3,5-Trimethylbenzene	< 10	10	< 50	50	20	8/25/2007	
1,3-Butadiene	< 10	10	< 22	22	20	8/25/2007	
1,3-Dichlorobenzene	< 10	10	< 61	61	20	8/25/2007	
1,4-Dichlorobenzene	< 10	10	< 61	61	20	8/25/2007	
2,2,4-Trimethylpentane	< 10	10	< 47	47	20	8/25/2007	
2-Butanone (MEK)	< 20	20	< 60	60	20	8/25/2007	
2-Hexanone	< 20	20	< 83	83	20	8/25/2007	
2-Propanol	< 40	40	< 100	100	20	8/25/2007	
4-Ethyltoluene	< 10	10	< 44	44	20	8/25/2007	
4-Methyl-2-pentanone	< 20	20	< 83	83	20	8/25/2007	
Acetone	< 100	100	< 240	240	20	8/25/2007	
Allyl chloride	< 10	10	< 16	16	20	8/25/2007	
Benzene	< 10	10	< 32	32	20	8/25/2007	
Benzyl chloride	< 40	40	< 210	210	20	8/25/2007	
Bromodichloromethane	< 10	10	< 68	68	20	8/25/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 29-Aug-07

CLIENT:	Mactec	Client Sample ID:	VW-5C
Lab Order:	07080720	Tag Number:	0741
Project:	Southwest Mesa/4972-07-2050 4.5	Collection Date:	8/17/2007 10:35:00 AM
Lab ID:	07080720-02A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 10	10	< 22	22	20	8/25/2007	
Bromoform	< 10	10	< 100	100	20	8/25/2007	
Bromomethane	< 10	10	< 40	40	20	8/25/2007	
Carbon disulfide	< 10	10	< 32	32	20	8/25/2007	
Carbon tetrachloride	< 10	10	< 64	64	20	8/25/2007	
Chlorobenzene	< 10	10	< 47	47	20	8/25/2007	
Chloroethane	< 10	10	< 27	27	20	8/25/2007	
Chloroform	15	10	74	50	20	8/25/2007	
Chloromethane	< 10	10	< 21	21	20	8/25/2007	
cis-1,2-Dichloroethene	< 10	10	< 40	40	20	8/25/2007	
cis-1,3-Dichloropropene	< 10	10	< 46	46	20	8/25/2007	
Cyclohexane	< 10	10	< 35	35	20	8/25/2007	
Dibromochloromethane	< 10	10	< 86	86	20	8/25/2007	
Dichlorodifluoromethane(F-12)	< 10	10	< 50	50	20	8/25/2007	
Dichlorotetrafluoroethane(F-114)	< 10	10	< 71	71	20	8/25/2007	
Ethyl Acetate	< 10	10	< 37	37	20	8/25/2007	
Ethylbenzene	< 10	10	< 44	44	20	8/25/2007	
Heptane	< 10	10	< 42	42	20	8/25/2007	
Hexachlorobutadiene	< 20	20	< 220	220	20	8/25/2007	
Hexane	< 10	10	< 36	36	20	8/25/2007	
m&p-Xylene	< 20	20	< 88	88	20	8/25/2007	
Methyl tert-butyl ether	< 20	20	< 73	73	20	8/25/2007	
Methylene chloride	< 10	10	< 35	35	20	8/25/2007	
o-Xylene	< 10	10	< 44	44	20	8/25/2007	
Propene (Propylene)	< 10	10	< 18	18	20	8/25/2007	
Styrene	< 10	10	< 43	43	20	8/25/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 29-Aug-07

CLIENT: Mactec
Lab Order: 07080720
Project: Southwest Mesa/4972-07-2050 4.5
Lab ID: 07080720-02A

Client Sample ID: VW-5C
Tag Number: 0741
Collection Date: 8/17/2007 10:35:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	880	20	6100	140	D2	40	8/27/2007
Tetrahydrofuran	< 40	40	< 120	120		20	8/25/2007
Toluene	13	10	50	38		20	8/25/2007
trans-1,2-Dichloroethene	< 10	10	< 40	40		20	8/25/2007
trans-1,3-Dichloropropene	< 10	10	< 46	46		20	8/25/2007
Trichloroethene	< 10	10	< 55	55		20	8/25/2007
Trichlorofluoromethane(F-11)	< 10	10	< 57	57		20	8/25/2007
Trichlorotrifluoroethane(F-113)	< 10	10	< 78	78		20	8/25/2007
Vinyl acetate	< 10	10	< 36	36		20	8/25/2007
Vinyl chloride	< 10	10	< 26	26		20	8/25/2007
Surr: 4-Bromofluorobenzene	86.8 %REC	70-130	-	-		20	8/25/2007

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 28-Aug-07

CLIENT:

Mactec

Work Order:

07080720

Project:

Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R90455		SampType: MBLK		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 90455	
Client ID:		Batch ID: R90455		TestNo: TO15				Analysis Date: 8/25/2007		SeqNo: 1071063	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	<0.50	0.50									
1,1,2,2-Tetrachloroethane	<0.50	0.50									
1,1,2-Trichloroethane	<0.50	0.50									
1,1-Dichloroethane	<0.50	0.50									
1,1-Dichloroethene	<0.50	0.50									
1,2,4-Trichlorobenzene	<2.0	2.0									
1,2,4-Trimethylbenzene	<0.50	0.50									
1,2-Dibromoethane	<0.50	0.50									
1,2-Dichlorobenzene	<0.50	0.50									
1,2-Dichloroethane	<0.50	0.50									
1,2-Dichloropropane	<0.50	0.50									
1,3,5-Trimethylbenzene	<0.50	0.50									
1,3-Butadiene	<0.50	0.50									
1,3-Dichlorobenzene	<0.50	0.50									
1,4-Dichlorobenzene	<0.50	0.50									
2,2,4-Trimethylpentane	<0.50	0.50									
2-Butanone (MEK)	<1.0	1.0									
2-Hexanone	<1.0	1.0									
2-Propanol	<2.0	2.0									
4-Ethyltoluene	<0.50	0.50									
4-Methyl-2-pentanone	<1.0	1.0									
Acetone	<5.0	5.0									
Allyl chloride	<0.50	0.50									
Benzene	<0.50	0.50									
Benzyl chloride	<2.0	2.0									

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 28-Aug-07

CLIENT:

Mactec

Work Order:

07080720

Project:

Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R90455	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90455			
Client ID:	Batch ID: R90455	TestNo: TO15		Analysis Date: 8/25/2007	SeqNo: 1071063			
Analyte	Result	PQL	SPK Ref Val	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	<0.50	0.50						
Bromoethene(Vinyl Bromide)	<0.50	0.50						
Bromoform	<0.50	0.50						
Bromomethane	<0.50	0.50						
Carbon disulfide	<0.50	0.50						
Carbon tetrachloride	<0.50	0.50						
Chlorobenzene	<0.50	0.50						
Chloroethane	<0.50	0.50						
Chloroform	<0.50	0.50						
Chloromethane	<0.50	0.50						
cis-1,2-Dichloroethene	<0.50	0.50						
cis-1,3-Dichloropropene	<0.50	0.50						
Cyclohexane	<0.50	0.50						
Dibromochloromethane	<0.50	0.50						
Dichlorodifluoromethane(F-12)	<0.50	0.50						
Dichlorotetrafluoroethane(F-114)	<0.50	0.50						
Ethyl Acetate	<0.50	0.50						
Ethylbenzene	<0.50	0.50						
Heptane	<0.50	0.50						
Hexachlorobutadiene	<1.0	1.0						
Hexane	<0.50	0.50						
m&p-Xylene	<1.0	1.0						
Methyl tert-butyl ether	<1.0	1.0						
Methylene chloride	<0.50	0.50						
o-Xylene	<0.50	0.50						

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 28-Aug-07

CLIENT:

Mactec

Work Order: 07080720

Project: Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R90455	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90455					
Client ID:	Batch ID: R90455	TestNo: TO15		Analysis Date: 8/25/2007	SeqNo: 1071063					
Analyte	Result	PQL	SPK value	SPK Ref Val	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Propene (Propylene)

<0.50

Styrene

<0.50

Tetrachloroethene

<0.50

Tetrahydrofuran

<2.0

Toluene

<0.50

trans-1,2-Dichloroethene

<0.50

trans-1,3-Dichloropropene

<0.50

Trichloroethene

<0.50

Trichlorofluoromethane(F-11)

<0.50

Trichlorotrifluoroethane(F-113)

<0.50

Vinyl acetate

<0.50

Vinyl chloride

<0.50

Surr: 4-Bromofluorobenzene

10

0

70

130

91.9

Sample ID: MB-R90499	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90499					
Client ID:	Batch ID: R90499	TestNo: TO15		Analysis Date: 8/26/2007	SeqNo: 1071586					
Analyte	Result	PQL	SPK value	SPK Ref Val	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1-Trichloroethane

<0.50

1,1,2,2-Tetrachloroethane

<0.50

1,1,2-Trichloroethane

<0.50

1,1-Dichloroethane

<0.50

1,1-Dichloroethene

<0.50

1,2,4-Trichlorobenzene

<2.0

1,2,4-Trimethylbenzene

<0.50

Qualifiers:

* Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 28-Aug-07

CLIENT:

Mactec

Work Order:

07080720

Project:

Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R90499	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90499						
Client ID:	Batch ID: R90499	TestNo: TO15		Analysis Date: 8/26/2007	SeqNo: 1071586						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane	<0.50	0.50									
1,2-Dichlorobenzene	<0.50	0.50									
1,2-Dichloroethane	<0.50	0.50									
1,2-Dichloropropane	<0.50	0.50									
1,3,5-Trimethylbenzene	<0.50	0.50									
1,3-Butadiene	<0.50	0.50									
1,3-Dichlorobenzene	<0.50	0.50									
1,4-Dichlorobenzene	<0.50	0.50									
2,2,4-Trimethylpentane	<0.50	0.50									
2-Butanone (MEK)	<1.0	1.0									
2-Hexanone	<1.0	1.0									
2-Propanol	<2.0	2.0									
4-Ethyltoluene	<0.50	0.50									
4-Methyl-2-pentanone	<1.0	1.0									
Acetone	<5.0	5.0									
Allyl chloride	<0.50	0.50									
Benzene	<0.50	0.50									
Benzyl chloride	<2.0	2.0									
Bromodichloromethane	<0.50	0.50									
Bromoethene(Vinyl Bromide)	<0.50	0.50									
Bromoform	<0.50	0.50									
Bromomethane	<0.50	0.50									
Carbon disulfide	<0.50	0.50									
Carbon tetrachloride	<0.50	0.50									
Chlorobenzene	<0.50	0.50									

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 28-Aug-07

CLIENT: Mactec
Work Order: 07080720
Project: Southwest Mesa/4972-07-2050 4.5
TestCode: TO15

ANALYTICAL QC SUMMARY REPORT

Sample ID: MB-R90499	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90499						
Client ID:	Batch ID: R90499	TestNo: TO15		Analysis Date: 8/26/2007	SeqNo: 1071586						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane	<0.50	0.50									
Chloroform	<0.50	0.50									
Chloromethane	<0.50	0.50									
cis-1,2-Dichloroethene	<0.50	0.50									
cis-1,3-Dichloropropene	<0.50	0.50									
Cyclohexane	<0.50	0.50									
Dibromochloromethane	<0.50	0.50									
Dichlorodifluoromethane(F-12)	<0.50	0.50									
Dichlorotetrafluoroethane(F-114)	<0.50	0.50									
Ethyl Acetate	<0.50	0.50									
Ethylbenzene	<0.50	0.50									
Heptane	<0.50	0.50									
Hexachlorobutadiene	<1.0	1.0									
Hexane	<0.50	0.50									
m&p-Xylene	<1.0	1.0									
Methyl tert-butyl ether	<1.0	1.0									
Methylene chloride	<0.50	0.50									
o-Xylene	<0.50	0.50									
Propene (Propylene)	<0.50	0.50									
Styrene	<0.50	0.50									
Tetrachloroethene	<0.50	0.50									
Tetrahydrofuran	<2.0	2.0									
Toluene	<0.50	0.50									
trans-1,2-Dichloroethene	<0.50	0.50									
trans-1,3-Dichloropropene	<0.50	0.50									

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 28-Aug-07

CLIENT:

Mactec

Work Order:

07080720

Project:

Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R90499	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90499
Client ID:	Batch ID: R90499	TestNo: TO15		Analysis Date: 8/26/2007	SeqNo: 1071586
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Trichloroethene	<0.50	0.50			
Trichlorofluoromethane(F-11)	<0.50	0.50			
Trichlorotrifluoroethane(F-113)	<0.50	0.50			
Vinyl acetate	<0.50	0.50			
Vinyl chloride	<0.50	0.50			
Surr: 4-Bromofluorobenzene	8.580	0.50	10	0	85.8
				70	130

Sample ID: LCS-R90455	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90455
Client ID:	Batch ID: R90455	TestNo: TO15		Analysis Date: 8/25/2007	SeqNo: 1071254
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
1,1,1-Trichloroethane	10.91	0.50	10	0	109
1,1,2,2-Tetrachloroethane	10.09	0.50	10	0	101
1,1,2-Trichloroethane	10.34	0.50	10	0	103
1,1-Dichloroethane	10.79	0.50	10	0	108
1,1-Dichloroethene	10.50	0.50	10	0	105
1,2,4-Trichlorobenzene	9.740	2.0	10	0	97.4
1,2,4-Trimethylbenzene	10.73	0.50	10	0	107
1,2-Dibromoethane	10.38	0.50	10	0	104
1,2-Dichlorobenzene	10.06	0.50	10	0	101
1,2-Dichloroethane	10.65	0.50	10	0	106
1,2-Dichloropropane	10.50	0.50	10	0	105
1,3,5-Trimethylbenzene	10.59	0.50	10	0	106
1,3-Butadiene	10.30	0.50	10	0	103
1,3-Dichlorobenzene	10.20	0.50	10	0	102

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 28-Aug-07

CLIENT: Mactec

Work Order: 07080720

Project: Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R90455		SampType: LCS		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 90455	
Client ID:	Batch ID: R90455	Result	PQL	SPK value	SPK Ref Val	%REC	Analysis Date: 8/25/2007	LowLimit	HighLimit	RPD Ref Val	SeqNo: 1071254
Analyte											
1,4-Dichlorobenzene		10.11	0.50	10	0	101		65	135		
2,2,4-Trimethylpentane		10.84	0.50	10	0	108		65	135		
2-Butanone (MEK)		10.22	1.0	10	0	102		65	135		
2-Hexanone		9.560	1.0	10	0	95.6		65	135		
2-Propanol		10.61	2.0	10	0	106		65	135		
4-Ethyltoluene		10.68	0.50	10	0	107		65	135		
4-Methyl-2-pentanone		10.00	1.0	10	0	100		65	135		
Acetone		9.640	5.0	10	0	96.4		65	135		
Allyl chloride		10.82	0.50	10	0	108		65	135		
Benzene		11.21	0.50	10	0	112		65	135		
Benzyl chloride		9.590	2.0	10	0	95.9		65	135		
Bromodichloromethane		10.46	0.50	10	0	105		65	135		
Bromoethene(Vinyl Bromide)		10.55	0.50	10	0	106		65	135		
Bromoform		10.28	0.50	10	0	103		65	135		
Bromomethane		10.57	0.50	10	0	106		65	135		
Carbon disulfide		10.50	0.50	10	0	105		65	135		
Carbon tetrachloride		10.89	0.50	10	0	109		65	135		
Chlorobenzene		10.25	0.50	10	0	103		65	135		
Chloroethane		10.60	0.50	10	0	106		65	135		
Chloroform		10.62	0.50	10	0	106		65	135		
Chloromethane		10.58	0.50	10	0	106		65	135		
cis-1,2-Dichloroethene		11.17	0.50	10	0	112		65	135		
cis-1,3-Dichloropropene		10.89	0.50	10	0	109		65	135		
Cyclohexane		11.42	0.50	10	0	114		65	135		
Dibromochloromethane		10.43	0.50	10	0	104		65	135		

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 28-Aug-07

CLIENT: Mactec
Work Order: 07080720
Project: Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R90455		SampType: LCS		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 90455	
Client ID:		Batch ID: R90455		TestNo: TO15				Analysis Date: 8/25/2007		SeqNo: 1071254	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane(F-12)	10.45	0.50	10	0	104	65	135				
Dichlorotetrafluoroethane(F-114)	10.69	0.50	10	0	107	65	135				
Ethyl Acetate	10.71	0.50	10	0	107	65	135				
Ethylbenzene	10.70	0.50	10	0	107	65	135				
Heptane	10.27	0.50	10	0	103	65	135				
Hexachlorobutadiene	10.53	1.0	10	0	105	65	135				
Hexane	11.51	0.50	10	0	115	65	135				
m&p-Xylene	21.49	1.0	20	0	107	65	135				
Methyl tert-butyl ether	10.86	1.0	10	0	109	65	135				
Methylene chloride	10.26	0.50	10	0	103	65	135				
o-Xylene	10.55	0.50	10	0	106	65	135				
Propene (Propylene)	10.20	0.50	10	0	102	65	135				
Styrene	10.85	0.50	10	0	108	65	135				
Tetrachloroethene	10.39	0.50	10	0	104	65	135				
Tetrahydrofuran	10.46	2.0	10	0	105	65	135				
Toluene	11.03	0.50	10	0	110	65	135				
trans-1,2-Dichloroethene	10.76	0.50	10	0	108	65	135				
trans-1,3-Dichloropropene	10.75	0.50	10	0	108	65	135				
Trichloroethene	10.37	0.50	10	0	104	65	135				
Trichlorofluoromethane(F-11)	10.58	0.50	10	0	106	65	135				
Trichlorotrifluoroethane(F-113)	10.74	0.50	10	0	107	65	135				
Vinyl acetate	10.81	0.50	10	0	108	65	135				
Vinyl chloride	10.37	0.50	10	0	104	65	135				
Surr: 4-Bromofluorobenzene	9.700	0.50	10	0	97.0	70	130				

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 28-Aug-07

CLIENT:

Mactec

Work Order:

07080720

Project:

Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R90499		SampType: LCS		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 90499	
Client ID:		Batch ID: R90499		TestNo: TO15				Analysis Date: 8/26/2007		SeqNo: 1071603	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.76	0.50	10	0	108	65	135				
1,1,2,2-Tetrachloroethane	10.07	0.50	10	0	101	65	135				
1,1,2-Trichloroethane	10.04	0.50	10	0	100	65	135				
1,1-Dichloroethane	10.41	0.50	10	0	104	65	135				
1,1-Dichloroethene	10.06	0.50	10	0	101	65	135				
1,2,4-Trichlorobenzene	9.890	2.0	10	0	98.9	65	135				
1,2,4-Trimethylbenzene	10.61	0.50	10	0	106	65	135				
1,2-Dibromoethane	10.20	0.50	10	0	102	65	135				
1,2-Dichlorobenzene	10.09	0.50	10	0	101	65	135				
1,2-Dichloroethane	10.36	0.50	10	0	104	65	135				
1,2-Dichloropropane	10.05	0.50	10	0	100	65	135				
1,3,5-Trimethylbenzene	10.63	0.50	10	0	106	65	135				
1,3-Butadiene	9.800	0.50	10	0	98.0	65	135				
1,3-Dichlorobenzene	10.25	0.50	10	0	103	65	135				
1,4-Dichlorobenzene	10.26	0.50	10	0	103	65	135				
2,2,4-Trimethylpentane	10.46	0.50	10	0	105	65	135				
2-Butanone (MEK)	10.01	1.0	10	0	100	65	135				
2-Hexanone	9.230	1.0	10	0	92.3	65	135				
2-Propanol	10.09	2.0	10	0	101	65	135				
4-Ethyltoluene	10.73	0.50	10	0	107	65	135				
4-Methyl-2-pentanone	9.600	1.0	10	0	96.0	65	135				
Acetone	9.250	5.0	10	0	92.5	65	135				
Allyl chloride	10.48	0.50	10	0	105	65	135				
Benzene	10.81	0.50	10	0	108	65	135				
Benzyl chloride	9.660	2.0	10	0	96.6	65	135				

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 28-Aug-07

CLIENT:

Mactec

Work Order:

07080720

Project:

Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R90499		SampType: LCS		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 90499			
Client ID:		Batch ID: R90499		TestNo: TO15		Analysis Date: 8/26/2007						SeqNo: 1071603	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Bromodichloromethane	10.20	0.50	10	0	102	65	135						
Bromoethene(Vinyl Bromide)	10.33	0.50	10	0	103	65	135						
Bromoform	10.39	0.50	10	0	104	65	135						
Bromomethane	10.25	0.50	10	0	103	65	135						
Carbon disulfide	10.14	0.50	10	0	101	65	135						
Carbon tetrachloride	10.64	0.50	10	0	106	65	135						
Chlorobenzene	10.35	0.50	10	0	104	65	135						
Chloroethane	10.34	0.50	10	0	103	65	135						
Chloroform	10.38	0.50	10	0	104	65	135						
Chloromethane	9.970	0.50	10	0	99.7	65	135						
cis-1,2-Dichloroethene	10.83	0.50	10	0	108	65	135						
cis-1,3-Dichloropropene	10.69	0.50	10	0	107	65	135						
Cyclohexane	10.89	0.50	10	0	109	65	135						
Dibromochloromethane	10.19	0.50	10	0	102	65	135						
Dichlorodifluoromethane(F-12)	10.13	0.50	10	0	101	65	135						
Dichlorotetrafluoroethane(F-114)	10.37	0.50	10	0	104	65	135						
Ethyl Acetate	10.26	0.50	10	0	103	65	135						
Ethylbenzene	10.78	0.50	10	0	108	65	135						
Heptane	9.920	0.50	10	0	99.2	65	135						
Hexachlorobutadiene	12.29	1.0	10	0	123	65	135						
Hexane	11.05	0.50	10	0	110	65	135						
m&p-Xylene	21.62	1.0	20	0	108	65	135						
Methyl tert-butyl ether	10.64	1.0	10	0	106	65	135						
Methylene chloride	9.810	0.50	10	0	98.1	65	135						
o-Xylene	10.63	0.50	10	0	106	65	135						

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Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R90499	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90499						
Client ID:	Batch ID: R90499	TestNo: TO15		Analysis Date: 8/26/2007	SeqNo: 1071603						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Propene (Propylene)

Styrene

Tetrachloroethene

Tetrahydrofuran

Toluene

trans-1,2-Dichloroethene

trans-1,3-Dichloropropene

Trichloroethene

Trichlorofluoromethane(F-11)

Trichlorotrifluoroethane(F-113)

Vinyl acetate

Vinyl chloride

Surr: 4-Bromofluorobenzene

Sample ID: LCSD-R90455

SampType: LCSD

Batch ID: R90455

Client ID:

Analyte

1,1,1-Trichloroethane

1,1,2,2-Tetrachloroethane

1,1,2-Trichloroethane

1,1-Dichloroethane

1,1-Dichloroethene

1,2,4-Trichlorobenzene

1,2,4-Trimethylbenzene

Sample ID: LCSD-R90455	SampType: LCSD	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90455						
Client ID:	Batch ID: R90455	TestNo: TO15		Analysis Date: 8/25/2007	SeqNo: 1071255						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1-Trichloroethane

1,1,2,2-Tetrachloroethane

1,1,2-Trichloroethane

1,1-Dichloroethane

1,1-Dichloroethene

1,2,4-Trichlorobenzene

1,2,4-Trimethylbenzene

Qualifiers:

* Value exceeds Maximum Contaminant Level

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Aerotech Environmental Laboratories

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Date: 28-Aug-07

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Project:

Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R90455		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 90455	
Client ID:		Batch ID: R90455		TestNo: TO15				Analysis Date: 8/25/2007		SeqNo: 1071255	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane	10.29	0.50	10	0	103	65	135	10.38	0.871	25	
1,2-Dichlorobenzene	9.990	0.50	10	0	99.9	65	135	10.06	0.698	25	
1,2-Dichloroethane	10.44	0.50	10	0	104	65	135	10.65	1.99	25	
1,2-Dichloropropane	10.32	0.50	10	0	103	65	135	10.50	1.73	25	
1,3,5-Trimethylbenzene	10.40	0.50	10	0	104	65	135	10.59	1.81	25	
1,3-Butadiene	10.01	0.50	10	0	100	65	135	10.30	2.86	25	
1,3-Dichlorobenzene	10.03	0.50	10	0	100	65	135	10.20	1.68	25	
1,4-Dichlorobenzene	10.12	0.50	10	0	101	65	135	10.11	0.0989	25	
2,2,4-Trimethylpentane	10.70	0.50	10	0	107	65	135	10.84	1.30	25	
2-Butanone (MEK)	10.45	1.0	10	0	104	65	135	10.22	2.23	25	
2-Hexanone	9.890	1.0	10	0	98.9	65	135	9.560	3.39	25	
2-Propanol	10.54	2.0	10	0	105	65	135	10.61	0.662	25	
4-Ethyltoluene	10.54	0.50	10	0	105	65	135	10.68	1.32	25	
4-Methyl-2-pentanone	9.980	1.0	10	0	99.8	65	135	10.00	0.200	25	
Acetone	8.870	5.0	10	0	88.7	65	135	9.640	8.32	25	
Allyl chloride	10.92	0.50	10	0	109	65	135	10.82	0.920	25	
Benzene	11.05	0.50	10	0	110	65	135	11.21	1.44	25	
Benzyl chloride	9.780	2.0	10	0	97.8	65	135	9.590	1.96	25	
Bromodichloromethane	10.31	0.50	10	0	103	65	135	10.46	1.44	25	
Bromoethene(Vinyl Bromide)	10.34	0.50	10	0	103	65	135	10.55	2.01	25	
Bromoform	10.16	0.50	10	0	102	65	135	10.28	1.17	25	
Bromomethane	10.34	0.50	10	0	103	65	135	10.57	2.20	25	
Carbon disulfide	10.30	0.50	10	0	103	65	135	10.50	1.92	25	
Carbon tetrachloride	10.74	0.50	10	0	107	65	135	10.89	1.39	25	
Chlorobenzene	9.970	0.50	10	0	99.7	65	135	10.25	2.77	25	

Qualifiers: * Value exceeds Maximum Contaminant Level

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Project:

Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R90455		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 90455	
Client ID:		Batch ID: R90455		TestNo: TO15				Analysis Date: 8/25/2007		SeqNo: 1071255	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane	10.20	0.50	10	0	102	65	135	10.60	3.85	25	
Chloroform	10.43	0.50	10	0	104	65	135	10.62	1.81	25	
Chloromethane	10.23	0.50	10	0	102	65	135	10.58	3.36	25	
cis-1,2-Dichloroethene	10.98	0.50	10	0	110	65	135	11.17	1.72	25	
cis-1,3-Dichloropropene	10.80	0.50	10	0	108	65	135	10.89	0.830	25	
Cyclohexane	11.17	0.50	10	0	112	65	135	11.42	2.21	25	
Dibromochloromethane	10.41	0.50	10	0	104	65	135	10.43	0.192	25	
Dichlorodifluoromethane(F-12)	10.29	0.50	10	0	103	65	135	10.45	1.54	25	
Dichlorotetrafluoroethane(F-114)	10.54	0.50	10	0	105	65	135	10.69	1.41	25	
Ethyl Acetate	10.61	0.50	10	0	106	65	135	10.71	0.938	25	
Ethylbenzene	10.56	0.50	10	0	106	65	135	10.70	1.32	25	
Heptane	10.14	0.50	10	0	101	65	135	10.27	1.27	25	
Hexachlorobutadiene	9.500	1.0	10	0	95.0	65	135	10.53	10.3	25	
Hexane	11.32	0.50	10	0	113	65	135	11.51	1.66	25	
m&p-Xylene	20.55	1.0	20	0	103	65	135	21.49	4.47	25	
Methyl tert-butyl ether	10.88	1.0	10	0	109	65	135	10.86	0.184	25	
Methylene chloride	10.12	0.50	10	0	101	65	135	10.26	1.37	25	
o-Xylene	10.38	0.50	10	0	104	65	135	10.55	1.62	25	
Propene (Propylene)	10.25	0.50	10	0	103	65	135	10.20	0.489	25	
Styrene	10.73	0.50	10	0	107	65	135	10.85	1.11	25	
Tetrachloroethene	10.17	0.50	10	0	102	65	135	10.39	2.14	25	
Tetrahydrofuran	10.42	2.0	10	0	104	65	135	10.46	0.383	25	
Toluene	10.82	0.50	10	0	108	65	135	11.03	1.92	25	
trans-1,2-Dichloroethene	10.79	0.50	10	0	108	65	135	10.76	0.278	25	
trans-1,3-Dichloropropene	10.52	0.50	10	0	105	65	135	10.75	2.16	25	

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Mactec

Work Order:

07080720

Project:

Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R90455		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 90455	
Client ID:		Batch ID: R90455		TestNo: TO15				Analysis Date: 8/25/2007		SeqNo: 1071255	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	10.24	0.50	10	0	102	65	135	10.37	1.26	25	
Trichlorofluoromethane(F-11)	10.37	0.50	10	0	104	65	135	10.58	2.00	25	
Trichlorotrifluoroethane(F-113)	10.57	0.50	10	0	106	65	135	10.74	1.60	25	
Vinyl acetate	10.89	0.50	10	0	109	65	135	10.81	0.737	25	
Vinyl chloride	10.10	0.50	10	0	101	65	135	10.37	2.64	25	
Surr: 4-Bromofluorobenzene	9.620	0.50	10	0	96.2	70	130	9.700	0	0	

Sample ID: LCSD-R90499		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 90499	
Client ID:		Batch ID: R90499		TestNo: TO15				Analysis Date: 8/26/2007		SeqNo: 1071606	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.61	0.50	10	0	106	65	135	10.76	1.40	25	
1,1,2,2-Tetrachloroethane	9.790	0.50	10	0	97.9	65	135	10.07	2.82	25	
1,1,2-Trichloroethane	10.11	0.50	10	0	101	65	135	10.04	0.695	25	
1,1-Dichloroethane	10.45	0.50	10	0	104	65	135	10.41	0.384	25	
1,1-Dichloroethene	10.02	0.50	10	0	100	65	135	10.06	0.398	25	
1,2,4-Trichlorobenzene	9.690	2.0	10	0	96.9	65	135	9.890	2.04	25	
1,2,4-Trimethylbenzene	10.46	0.50	10	0	105	65	135	10.61	1.42	25	
1,2-Dibromoethane	10.20	0.50	10	0	102	65	135	10.20	0	25	
1,2-Dichlorobenzene	9.950	0.50	10	0	99.5	65	135	10.09	1.40	25	
1,2-Dichloroethane	10.22	0.50	10	0	102	65	135	10.36	1.36	25	
1,2-Dichloropropane	10.18	0.50	10	0	102	65	135	10.05	1.29	25	
1,3,5-Trimethylbenzene	10.49	0.50	10	0	105	65	135	10.63	1.33	25	
1,3-Butadiene	9.620	0.50	10	0	96.2	65	135	9.800	1.85	25	
1,3-Dichlorobenzene	10.14	0.50	10	0	101	65	135	10.25	1.08	25	

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 28-Aug-07

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

CLIENT: Mactec

Work Order: 07080720

Project: Southwest Mesa/4972-07-2050 4.5

Sample ID: LCSD-R90499		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:				RunNo: 90499	
Client ID:		Batch ID: R90499		TestNo: TO15				Analysis Date: 8/26/2007				SeqNo: 1071606	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
1,4-Dichlorobenzene	10.08	0.50	10	0	101	65	135	10.26	1.77	25			
2,2,4-Trimethylpentane	10.52	0.50	10	0	105	65	135	10.46	0.572	25			
2-Butanone (MEK)	9.870	1.0	10	0	98.7	65	135	10.01	1.41	25			
2-Hexanone	9.610	1.0	10	0	96.1	65	135	9.230	4.03	25			
2-Propanol	9.950	2.0	10	0	99.5	65	135	10.09	1.40	25			
4-Ethyltoluene	10.56	0.50	10	0	106	65	135	10.73	1.60	25			
4-Methyl-2-pentanone	9.810	1.0	10	0	98.1	65	135	9.600	2.16	25			
Acetone	9.050	5.0	10	0	90.5	65	135	9.250	2.19	25			
Allyl chloride	10.37	0.50	10	0	104	65	135	10.48	1.06	25			
Benzene	10.86	0.50	10	0	109	65	135	10.81	0.461	25			
Benzyl chloride	9.480	2.0	10	0	94.8	65	135	9.660	1.88	25			
Bromodichloromethane	10.36	0.50	10	0	104	65	135	10.20	1.56	25			
Bromoethene(Vinyl Bromide)	10.19	0.50	10	0	102	65	135	10.33	1.36	25			
Bromoform	10.21	0.50	10	0	102	65	135	10.39	1.75	25			
Bromomethane	10.25	0.50	10	0	103	65	135	10.25	0	25			
Carbon disulfide	10.11	0.50	10	0	101	65	135	10.14	0.296	25			
Carbon tetrachloride	10.65	0.50	10	0	106	65	135	10.64	0.0939	25			
Chlorobenzene	10.17	0.50	10	0	102	65	135	10.35	1.75	25			
Chloroethane	9.910	0.50	10	0	99.1	65	135	10.34	4.25	25			
Chloroform	10.34	0.50	10	0	103	65	135	10.38	0.386	25			
Chloromethane	9.920	0.50	10	0	99.2	65	135	9.970	0.503	25			
cis-1,2-Dichloroethene	10.84	0.50	10	0	108	65	135	10.83	0.0923	25			
cis-1,3-Dichloropropene	10.82	0.50	10	0	108	65	135	10.69	1.21	25			
Cyclohexane	10.92	0.50	10	0	109	65	135	10.89	0.275	25			
Dibromochloromethane	10.31	0.50	10	0	103	65	135	10.19	1.17	25			

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

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Project:

Southwest Mesa/4972-07-2050 4.5

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R90499	SampType: LCSD	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 90499						
Client ID:	Batch ID: R90499	TestNo: TO15		Analysis Date: 8/26/2007	SeqNo: 1071606						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane(F-12)	10.04	0.50	10	0	100	65	135	10.13	0.892	25	
Dichlorotetrafluoroethane(F-114)	10.27	0.50	10	0	103	65	135	10.37	0.969	25	
Ethyl Acetate	10.25	0.50	10	0	103	65	135	10.26	0.0975	25	
Ethylbenzene	10.54	0.50	10	0	105	65	135	10.78	2.25	25	
Heptane	9.810	0.50	10	0	98.1	65	135	9.920	1.12	25	
Hexachlorobutadiene	10.99	1.0	10	0	110	65	135	12.29	11.2	25	
Hexane	11.02	0.50	10	0	110	65	135	11.05	0.272	25	
m&p-Xylene	20.64	1.0	20	0	103	65	135	21.62	4.64	25	
Methyl tert-butyl ether	10.58	1.0	10	0	106	65	135	10.64	0.566	25	
Methylene chloride	9.830	0.50	10	0	98.3	65	135	9.810	0.204	25	
o-Xylene	10.43	0.50	10	0	104	65	135	10.63	1.90	25	
Propene (Propylene)	9.740	0.50	10	0	97.4	65	135	9.960	2.23	25	
Styrene	10.79	0.50	10	0	108	65	135	10.86	0.647	25	
Tetrachloroethene	10.23	0.50	10	0	102	65	135	10.17	0.588	25	
Tetrahydrofuran	9.840	2.0	10	0	98.4	65	135	9.920	0.810	25	
Toluene	10.75	0.50	10	0	108	65	135	10.72	0.279	25	
trans-1,2-Dichloroethene	10.48	0.50	10	0	105	65	135	10.42	0.574	25	
trans-1,3-Dichloropropene	10.46	0.50	10	0	105	65	135	10.32	1.35	25	
Trichloroethene	10.39	0.50	10	0	104	65	135	10.29	0.967	25	
Trichlorofluoromethane(F-11)	10.17	0.50	10	0	102	65	135	10.17	0	25	
Trichlorotrifluoroethane(F-113)	10.40	0.50	10	0	104	65	135	10.49	0.862	25	
Vinyl acetate	10.37	0.50	10	0	104	65	135	10.54	1.63	25	
Vinyl chloride	9.930	0.50	10	0	99.3	65	135	10.07	1.40	25	
Surr: 4-Bromofluorobenzene	9.830	0.50	10	0	98.3	70	130	9.490	0	0	

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories Sample Receipt Checklist

Project Checked By:

Laboratory Number: <u>07-080720</u>	Completed By/On: <u>Karen McGonick 8/14</u>
Client Name: <u>Mac+ec</u>	Date/Time Rec'd: <u>8/17/07 12:46</u> By: <u>PF</u>
Matrix: <u>(Air)</u> Soil Aqueous Oil Sludge Solid WW DW	Carrier Name: <u>-Client</u>

Temperature	Cooler #1 <u>Amb</u> °C	Cooler #2 °C	Cooler #3 °C	Cooler #4 °C
Temp. Read With	Thermometer IR	Thermometer IR	Thermometer IR	Thermometer IR

Client or PM made aware of temp. out of range? Yes No Circle one: Blue Ice Wet Ice Not Present

	Yes	No*	Not Present	Soil Containers:
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>			Brass Sleeve
Custody seals intact on shipping container/cooler?			<input checked="" type="checkbox"/>	Glass Jar
Custody seals intact on sample containers?			<input checked="" type="checkbox"/>	Methanol
Chain of Custody present and relinquished/received properly?	<input checked="" type="checkbox"/>			Plastic Bag
Chain of Custody agrees with sample labels?	<input checked="" type="checkbox"/>			Encore Samplers
Samples in proper containers/bottles?	<input checked="" type="checkbox"/>			Sterile Plastic
Sample containers intact?	<input checked="" type="checkbox"/>			
All samples received within holding time?	<input checked="" type="checkbox"/>			
Is there sufficient sample volume to perform the tests?	<input checked="" type="checkbox"/>			**See Comments about Chlorine and pH
40mL vials for volatiles & SOCs received with zero headspace?			<input checked="" type="checkbox"/>	

Total number of bottles received: 2 IH sample media: Entered - IL 8/21/07If applicable, how many sample bottles were shipped from AEL-Tucson? N/A

Number of containers received by preservative and by sample number: (If more than 10 samples are rec'd, please continue on separate sheet(s)).

Preservative	Simple***	1	2	3	4	5	6	7	8	9	10	
A-General	<u>2</u>											
B-HNO3												
C-H2SO4												
D-HCl												
E-Na2S2O3												
F-NaOH												
G-Sulfide												
H-Na Sulfite												
I-MCAA												
J-Methanol												
K-HAA												
L-Other												

*Any No response must be detailed in the comments section. Contact the PM immediately to determine how to proceed. Refer to SOP 11-001 and continue on back if additional space is needed.

**The holding time for pH and Total Residual Chlorine analysis is immediate. For the most accurate results, the pH and Total Residual Chlorine should be taken in the field within 15 minutes of sampling.

***The Simple box is only to be used when there is one bottle per preservative in equal sample sets.

Water-pH acceptable upon receipt? Yes No N/A X

Preservative & pH	pH of samples upon receipt	If pH requires adjustment, list sample number and reagent I.D. number.
Metals	<2	
H2SO4	<2	
1664	<2	
Cyanide	>12	
Sulfide	>9	

Comments:



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Aerotech Laboratories, Inc.

[] Main Lab - 4645 E. Cotton Center Blvd., Building 3, Suite 189, Phoenix, AZ 85040 602.437.3340 - FAX 602.445.6192

[] North Phoenix - 1501 W. Knudsen, Phoenix, AZ 85027 623.780.4800 - FAX 623.445.6216

[] Tucson - 4455 S. Park Ave. Suite 110. Tucson, AZ 85714 520.807.3801 - FAX 520.807.3803

www.aerovirolabs.com or call toll-free 866 772.5227

Customer Number:		Page 1 of 1
Customer:	Mactec	Sampler: Mark Hammer
Address:	3630 E. WIER AVE	Project Name: SouthWest Mesa
City, State, Zip:	PHOENIX, AZ	Project Number: 4972-07-2050 45
Contact:	JIM CLARK	P.O. Number:
Phone:	602-437-0750	Fax Results: Y N
E-Mail Address:	TINC@mactec.com	E-Mail Results: Y N

[illegible]

Date:	Time:	Samples Relinquished By:	Received By:
8-17-07	12:46	E. M. L.	[Signature]

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Monday, October 01, 2007

Jim Clarke
Mactec
3630 East Wier Avenue
Phoenix, AZ 85040

TEL: (602) 437-0250

FAX (602) 437-3675

RE: South Mesa/4972-07-2050 4.6

Order No.: 07090422

Dear Jim Clarke:

Aerotech Environmental Laboratories received 5 sample(s) on 9/12/2007 for the analyses presented in the following report.

This report includes the following information:

- Case Narrative.
- Analytical Report: includes test results, report limit (Limit), any applicable data qualifier (Qual), units, dilution factor (DF), and date analyzed.
- QC Summary Report.

This communication is intended only for the individual or entity to whom it is directed. It may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. Dissemination, distribution, or copying of this communication by anyone other than the intended recipient, or a duly designated employee or agent of such recipient, is prohibited. If you have received this communication in error, please notify us immediately and destroy this message and all attachments thereto. If you have any questions regarding these test results, please do not hesitate to call.

Sincerely,



Tim Trestrail

Project Manager

inc

CLIENT: Mactec
Project: South Mesa/4972-07-2050 4.6
Lab Order: 07090422

CASE NARRATIVE

Analyses included in this report were performed by Aerotech Environmental Laboratories (AEL), 4645 E. Cotton Center Boulevard, Building 3, Suite 189, Phoenix, AZ.

AEL is licensed through the State of Arizona (License No. AZ0610), and holds NELAC accreditation (OR100001) through the State of Oregon for the analytical techniques noted on the scope of accreditation.

AEL is also accredited by the American Industrial Hygiene Association (AIHA) in the industrial hygiene program for the analytical techniques noted on the scope of accreditation.

Samples were analyzed using methods outlined in references such as:

- Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.
- 40 CFR, Part 136, July 2006. Appendix A to Part 136 - Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater.
- Methods for the Chemical Analysis of Water and Wastes, EPA/600/4-79-020, Revised March 1983.
- Methods for the Determination of Organic Compounds in Drinking Water: Supplement III, August 1995, EPA/600/R-95/131.
- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA, 3rd Edition 1986, and Updates.
- Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA, Second Edition, 1999.
- NIOSH Manual of Analytical Methods, Fourth Edition, 1994. NIOSH Method 7300 analyses are performed using a modified digestion procedure to eliminate the use of perchloric acid.

Analytical Comments:

All method blanks and laboratory control spikes met method and/or laboratory quality control objectives for the analyses included in this report.

Data Qualifiers:

Listed below are the data qualifiers used in your analytical report to explain any analytical or quality control issues. You will find them noted in your report under the column header "QUAL". Any quality control deficiencies that cannot be adequately described by these qualifiers will be addressed in the analytical comments section of this case narrative.

- D2 Sample required dilution due to high concentration of target analyte.
- L1 The associated blank spike recovery was above laboratory acceptance limits.
- V1 CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT:	Mactec	Client Sample ID:	EFF
Lab Order:	07090422	Tag Number:	
Project:	South Mesa/4972-07-2050 4.6	Collection Date:	9/12/2007 1:48:00 PM
Lab ID:	07090422-01A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J				
1,1,1-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	9/27/2007	
1,1,2,2-Tetrachloroethane	< 0.50	0.50	< 3.5	3.5	1	9/27/2007	
1,1,2-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	9/27/2007	
1,1-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	9/27/2007	
1,1-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	9/27/2007	
1,2,4-Trichlorobenzene	< 2.0	2.0	< 15	15	1	9/27/2007	
1,2,4-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	9/27/2007	
1,2-Dibromoethane	< 0.50	0.50	< 3.9	3.9	1	9/27/2007	
1,2-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	9/27/2007	
1,2-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	9/27/2007	
1,2-Dichloropropane	< 0.50	0.50	< 2.4	2.4	1	9/27/2007	
1,3,5-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	9/27/2007	
1,3-Butadiene	< 0.50	0.50	< 1.1	1.1	1	9/27/2007	
1,3-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	9/27/2007	
1,4-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	9/27/2007	
2,2,4-Trimethylpentane	< 0.50	0.50	< 2.4	2.4	1	9/27/2007	
2-Butanone (MEK)	< 1.0	1.0	< 3.0	3.0	1	9/27/2007	
2-Hexanone	< 1.0	1.0	< 4.2	4.2	V1L1 1	9/27/2007	
2-Propanol	< 2.0	2.0	< 5.0	5.0	1	9/27/2007	
4-Ethyltoluene	< 0.50	0.50	< 2.2	2.2	1	9/27/2007	
4-Methyl-2-pentanone	< 1.0	1.0	< 4.2	4.2	V1L1 1	9/27/2007	
Acetone	12	5.0	29	12	1	9/27/2007	
Allyl chloride	< 0.50	0.50	< 0.80	0.80	1	9/27/2007	
Benzene	< 0.50	0.50	< 1.6	1.6	1	9/27/2007	
Benzyl chloride	< 2.0	2.0	< 11	11	1	9/27/2007	
Bromodichloromethane	< 0.50	0.50	< 3.4	3.4	1	9/27/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT: Mactec
Lab Order: 07090422
Project: South Mesa/4972-07-2050 4.6
Lab ID: 07090422-01A

Client Sample ID: EFF
Tag Number:
Collection Date: 9/12/2007 1:48:00 PM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 0.50	0.50	< 1.1	1.1	1	9/27/2007	
Bromoform	< 0.50	0.50	< 5.2	5.2	1	9/27/2007	
Bromomethane	< 0.50	0.50	< 2.0	2.0	1	9/27/2007	
Carbon disulfide	< 0.50	0.50	< 1.6	1.6	1	9/27/2007	
Carbon tetrachloride	< 0.50	0.50	< 3.2	3.2	1	9/27/2007	
Chlorobenzene	< 0.50	0.50	< 2.4	2.4	1	9/27/2007	
Chloroethane	< 0.50	0.50	< 1.3	1.3	1	9/27/2007	
Chloroform	< 0.50	0.50	< 2.5	2.5	1	9/27/2007	
Chloromethane	0.67	0.50	1.4	1.0	1	9/27/2007	
cis-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	9/27/2007	
cis-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	9/27/2007	
Cyclohexane	< 0.50	0.50	< 1.7	1.7	1	9/27/2007	
Dibromochloromethane	< 0.50	0.50	< 4.3	4.3	1	9/27/2007	
Dichlorodifluoromethane(F-12)	0.79	0.50	4.0	2.5	1	9/27/2007	
Dichlorotetrafluoroethane(F-114)	< 0.50	0.50	< 3.6	3.6	1	9/27/2007	
Ethyl Acetate	< 0.50	0.50	< 1.8	1.8	1	9/27/2007	
Ethylbenzene	< 0.50	0.50	< 2.2	2.2	1	9/27/2007	
Heptane	< 0.50	0.50	< 2.1	2.1	1	9/27/2007	
Hexachlorobutadiene	< 1.0	1.0	< 11	11	1	9/27/2007	
Hexane	< 0.50	0.50	< 1.8	1.8	1	9/27/2007	
m&p-Xylene	< 1.0	1.0	< 4.4	4.4	1	9/27/2007	
Methyl tert-butyl ether	< 1.0	1.0	< 3.7	3.7	1	9/27/2007	
Methylene chloride	< 0.50	0.50	< 1.8	1.8	1	9/27/2007	
o-Xylene	< 0.50	0.50	< 2.2	2.2	1	9/27/2007	
Propene (Propylene)	< 0.50	0.50	< 0.88	0.88	1	9/27/2007	
Styrene	< 0.50	0.50	< 2.2	2.2	1	9/27/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT:	Mactec	Client Sample ID:	EFF
Lab Order:	07090422	Tag Number:	
Project:	South Mesa/4972-07-2050 4.6	Collection Date:	9/12/2007 1:48:00 PM
Lab ID:	07090422-01A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	2.1	0.50	14	3.4	1	9/27/2007	
Tetrahydrofuran	< 2.0	2.0	< 6.0	6.0	1	9/27/2007	
Toluene	< 0.50	0.50	< 1.9	1.9	1	9/27/2007	
trans-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	9/27/2007	
trans-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	9/27/2007	
Trichloroethene	< 0.50	0.50	< 2.8	2.8	1	9/27/2007	
Trichlorofluoromethane(F-11)	< 0.50	0.50	< 2.8	2.8	1	9/27/2007	
Trichlorotrifluoroethane(F-113)	< 0.50	0.50	< 3.9	3.9	1	9/27/2007	
Vinyl acetate	< 0.50	0.50	< 1.8	1.8	1	9/27/2007	
Vinyl chloride	< 0.50	0.50	< 1.3	1.3	1	9/27/2007	
Surr: 4-Bromofluorobenzene	91.3 %REC	70-130	-	-	1	9/27/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT:	Mactec	Client Sample ID:	INT
Lab Order:	07090422	Tag Number:	
Project:	South Mesa/4972-07-2050 4.6	Collection Date:	9/12/2007 2:02:00 PM
Lab ID:	07090422-02A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J				
1,1,1-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	9/28/2007	
1,1,2,2-Tetrachloroethane	< 0.50	0.50	< 3.5	3.5	1	9/28/2007	
1,1,2-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	9/28/2007	
1,1-Dichloroethane	8.1	0.50	33	2.1	1	9/28/2007	
1,1-Dichloroethene	2.3	0.50	9.3	2.0	1	9/28/2007	
1,2,4-Trichlorobenzene	< 2.0	2.0	< 15	15	1	9/28/2007	
1,2,4-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	9/28/2007	
1,2-Dibromoethane	< 0.50	0.50	< 3.9	3.9	1	9/28/2007	
1,2-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	9/28/2007	
1,2-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	9/28/2007	
1,2-Dichloropropane	< 0.50	0.50	< 2.4	2.4	1	9/28/2007	
1,3,5-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	9/28/2007	
1,3-Butadiene	< 0.50	0.50	< 1.1	1.1	1	9/28/2007	
1,3-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	9/28/2007	
1,4-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	9/28/2007	
2,2,4-Trimethylpentane	< 0.50	0.50	< 2.4	2.4	1	9/28/2007	
2-Butanone (MEK)	< 1.0	1.0	< 3.0	3.0	1	9/28/2007	
2-Hexanone	< 1.0	1.0	< 4.2	4.2	V1L1 1	9/28/2007	
2-Propanol	< 2.0	2.0	< 5.0	5.0	1	9/28/2007	
4-Ethyltoluene	< 0.50	0.50	< 2.2	2.2	1	9/28/2007	
4-Methyl-2-pentanone	< 1.0	1.0	< 4.2	4.2	V1L1 1	9/28/2007	
Acetone	9.3	5.0	22	12	1	9/28/2007	
Allyl chloride	< 0.50	0.50	< 0.80	0.80	1	9/28/2007	
Benzene	< 0.50	0.50	< 1.6	1.6	1	9/28/2007	
Benzyl chloride	< 2.0	2.0	< 11	11	1	9/28/2007	
Bromodichloromethane	< 0.50	0.50	< 3.4	3.4	1	9/28/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT:	Mactec	Client Sample ID:	INT
Lab Order:	07090422	Tag Number:	
Project:	South Mesa/4972-07-2050 4.6	Collection Date:	9/12/2007 2:02:00 PM
Lab ID:	07090422-02A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			

VOLATILE ORGANICS IN AIR			TO15		Analyst: J.J.		
Bromoethene(Vinyl Bromide)	< 0.50	0.50	< 1.1	1.1	1	9/28/2007	
Bromoform	< 0.50	0.50	< 5.2	5.2	1	9/28/2007	
Bromomethane	< 0.50	0.50	< 2.0	2.0	1	9/28/2007	
Carbon disulfide	< 0.50	0.50	< 1.6	1.6	1	9/28/2007	
Carbon tetrachloride	< 0.50	0.50	< 3.2	3.2	1	9/28/2007	
Chlorobenzene	< 0.50	0.50	< 2.4	2.4	1	9/28/2007	
Chloroethane	< 0.50	0.50	< 1.3	1.3	1	9/28/2007	
Chloroform	2.9	0.50	14	2.5	1	9/28/2007	
Chloromethane	< 0.50	0.50	< 1.0	1.0	1	9/28/2007	
cis-1,2-Dichloroethene	2.2	0.50	8.8	2.0	1	9/28/2007	
cis-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	9/28/2007	
Cyclohexane	< 0.50	0.50	< 1.7	1.7	1	9/28/2007	
Dibromochloromethane	< 0.50	0.50	< 4.3	4.3	1	9/28/2007	
Dichlorodifluoromethane(F-12)	0.53	0.50	2.7	2.5	1	9/28/2007	
Dichlorotetrafluoroethane(F-114)	< 0.50	0.50	< 3.6	3.6	1	9/28/2007	
Ethyl Acetate	< 0.50	0.50	< 1.8	1.8	1	9/28/2007	
Ethylbenzene	< 0.50	0.50	< 2.2	2.2	1	9/28/2007	
Heptane	< 0.50	0.50	< 2.1	2.1	1	9/28/2007	
Hexachlorobutadiene	< 1.0	1.0	< 11	11	1	9/28/2007	
Hexane	< 0.50	0.50	< 1.8	1.8	1	9/28/2007	
m&p-Xylene	< 1.0	1.0	< 4.4	4.4	1	9/28/2007	
Methyl tert-butyl ether	< 1.0	1.0	< 3.7	3.7	1	9/28/2007	
Methylene chloride	< 0.50	0.50	< 1.8	1.8	1	9/28/2007	
o-Xylene	< 0.50	0.50	< 2.2	2.2	1	9/28/2007	
Propene (Propylene)	< 0.50	0.50	< 0.88	0.88	1	9/28/2007	
Styrene	< 0.50	0.50	< 2.2	2.2	1	9/28/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT:	Mactec	Client Sample ID:	INT
Lab Order:	07090422	Tag Number:	
Project:	South Mesa/4972-07-2050 4.6	Collection Date:	9/12/2007 2:02:00 PM
Lab ID:	07090422-02A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	18	0.50	120	3.4	1	9/28/2007	
Tetrahydrofuran	< 2.0	2.0	< 6.0	6.0	1	9/28/2007	
Toluene	< 0.50	0.50	< 1.9	1.9	1	9/28/2007	
trans-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	9/28/2007	
trans-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	9/28/2007	
Trichloroethene	< 0.50	0.50	< 2.8	2.8	1	9/28/2007	
Trichlorofluoromethane(F-11)	3.5	0.50	20	2.8	1	9/28/2007	
Trichlorotrifluoroethane(F-113)	< 0.50	0.50	< 3.9	3.9	1	9/28/2007	
Vinyl acetate	< 0.50	0.50	< 1.8	1.8	1	9/28/2007	
Vinyl chloride	< 0.50	0.50	< 1.3	1.3	1	9/28/2007	
Surr: 4-Bromofluorobenzene	97.1 %REC	70-130	-	-	1	9/28/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT:	Mactec	Client Sample ID:	INF
Lab Order:	07090422	Tag Number:	
Project:	South Mesa/4972-07-2050 4.6	Collection Date:	9/12/2007 2:07:00 PM
Lab ID:	07090422-03A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			

VOLATILE ORGANICS IN AIR

TO15

Analyst: J.J.

1,1,1-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	9/28/2007
1,1,2,2-Tetrachloroethane	< 0.50	0.50	< 3.5	3.5	1	9/28/2007
1,1,2-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	9/28/2007
1,1-Dichloroethane	1.8	0.50	7.4	2.1	1	9/28/2007
1,1-Dichloroethene	0.91	0.50	3.7	2.0	1	9/28/2007
1,2,4-Trichlorobenzene	< 2.0	2.0	< 15	15	1	9/28/2007
1,2,4-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	9/28/2007
1,2-Dibromoethane	< 0.50	0.50	< 3.9	3.9	1	9/28/2007
1,2-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	9/28/2007
1,2-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	9/28/2007
1,2-Dichloropropane	< 0.50	0.50	< 2.4	2.4	1	9/28/2007
1,3,5-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	9/28/2007
1,3-Butadiene	< 0.50	0.50	< 1.1	1.1	1	9/28/2007
1,3-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	9/28/2007
1,4-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	9/28/2007
2,2,4-Trimethylpentane	< 0.50	0.50	< 2.4	2.4	1	9/28/2007
2-Butanone (MEK)	< 1.0	1.0	< 3.0	3.0	1	9/28/2007
2-Hexanone	< 1.0	1.0	< 4.2	4.2	V1L1 1	9/28/2007
2-Propanol	< 2.0	2.0	< 5.0	5.0	1	9/28/2007
4-Ethyltoluene	< 0.50	0.50	< 2.2	2.2	1	9/28/2007
4-Methyl-2-pentanone	< 1.0	1.0	< 4.2	4.2	V1L1 1	9/28/2007
Acetone	17	5.0	41	12	1	9/28/2007
Allyl chloride	< 0.50	0.50	< 0.80	0.80	1	9/28/2007
Benzene	< 0.50	0.50	< 1.6	1.6	1	9/28/2007
Benzyl chloride	< 2.0	2.0	< 11	11	1	9/28/2007
Bromodichloromethane	< 0.50	0.50	< 3.4	3.4	1	9/28/2007

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT: Mactec
Lab Order: 07090422
Project: South Mesa/4972-07-2050 4.6
Lab ID: 07090422-03A

Client Sample ID: INF
Tag Number:
Collection Date: 9/12/2007 2:07:00 PM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 0.50	0.50	< 1.1	1.1	1	9/28/2007	
Bromoform	< 0.50	0.50	< 5.2	5.2	1	9/28/2007	
Bromomethane	< 0.50	0.50	< 2.0	2.0	1	9/28/2007	
Carbon disulfide	< 0.50	0.50	< 1.6	1.6	1	9/28/2007	
Carbon tetrachloride	< 0.50	0.50	< 3.2	3.2	1	9/28/2007	
Chlorobenzene	< 0.50	0.50	< 2.4	2.4	1	9/28/2007	
Chloroethane	< 0.50	0.50	< 1.3	1.3	1	9/28/2007	
Chloroform	1.1	0.50	5.4	2.5	1	9/28/2007	
Chloromethane	0.63	0.50	1.3	1.0	1	9/28/2007	
cis-1,2-Dichloroethene	0.54	0.50	2.2	2.0	1	9/28/2007	
cis-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	9/28/2007	
Cyclohexane	< 0.50	0.50	< 1.7	1.7	1	9/28/2007	
Dibromochloromethane	< 0.50	0.50	< 4.3	4.3	1	9/28/2007	
Dichlorodifluoromethane(F-12)	0.59	0.50	3.0	2.5	1	9/28/2007	
Dichlorotetrafluoroethane(F-114)	< 0.50	0.50	< 3.6	3.6	1	9/28/2007	
Ethyl Acetate	< 0.50	0.50	< 1.8	1.8	1	9/28/2007	
Ethylbenzene	< 0.50	0.50	< 2.2	2.2	1	9/28/2007	
Heptane	< 0.50	0.50	< 2.1	2.1	1	9/28/2007	
Hexachlorobutadiene	< 1.0	1.0	< 11	11	1	9/28/2007	
Hexane	< 0.50	0.50	< 1.8	1.8	1	9/28/2007	
m&p-Xylene	< 1.0	1.0	< 4.4	4.4	1	9/28/2007	
Methyl tert-butyl ether	< 1.0	1.0	< 3.7	3.7	1	9/28/2007	
Methylene chloride	< 0.50	0.50	< 1.8	1.8	1	9/28/2007	
o-Xylene	< 0.50	0.50	< 2.2	2.2	1	9/28/2007	
Propene (Propylene)	< 0.50	0.50	< 0.88	0.88	1	9/28/2007	
Styrene	< 0.50	0.50	< 2.2	2.2	1	9/28/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT:	Mactec	Client Sample ID:	INF
Lab Order:	07090422	Tag Number:	
Project:	South Mesa/4972-07-2050 4.6	Collection Date:	9/12/2007 2:07:00 PM
Lab ID:	07090422-03A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	22	0.50	150	3.4	1	9/28/2007	
Tetrahydrofuran	< 2.0	2.0	< 6.0	6.0	1	9/28/2007	
Toluene	< 0.50	0.50	< 1.9	1.9	1	9/28/2007	
trans-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	9/28/2007	
trans-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	9/28/2007	
Trichloroethene	< 0.50	0.50	< 2.8	2.8	1	9/28/2007	
Trichlorofluoromethane(F-11)	1.5	0.50	8.6	2.8	1	9/28/2007	
Trichlorotrifluoroethane(F-113)	< 0.50	0.50	< 3.9	3.9	1	9/28/2007	
Vinyl acetate	< 0.50	0.50	< 1.8	1.8	1	9/28/2007	
Vinyl chloride	< 0.50	0.50	< 1.3	1.3	1	9/28/2007	
Surr: 4-Bromofluorobenzene	90.8 %REC	70-130	-	-	1	9/28/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT: Mactec
Lab Order: 07090422
Project: South Mesa/4972-07-2050 4.6
Lab ID: 07090422-04A

Client Sample ID: VW-5C
Tag Number:
Collection Date: 9/12/2007 2:20:00 PM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 10	10	< 55	55	20	9/27/2007	
1,1,2,2-Tetrachloroethane	< 10	10	< 70	70	20	9/27/2007	
1,1,2-Trichloroethane	< 10	10	< 55	55	20	9/27/2007	
1,1-Dichloroethane	< 10	10	< 41	41	20	9/27/2007	
1,1-Dichloroethene	< 10	10	< 40	40	20	9/27/2007	
1,2,4-Trichlorobenzene	< 40	40	< 300	300	20	9/27/2007	
1,2,4-Trimethylbenzene	15	10	75	50	20	9/27/2007	
1,2-Dibromoethane	< 10	10	< 78	78	20	9/27/2007	
1,2-Dichlorobenzene	< 10	10	< 61	61	20	9/27/2007	
1,2-Dichloroethane	< 10	10	< 41	41	20	9/27/2007	
1,2-Dichloropropane	< 10	10	< 47	47	20	9/27/2007	
1,3,5-Trimethylbenzene	< 10	10	< 50	50	20	9/27/2007	
1,3-Butadiene	< 10	10	< 22	22	20	9/27/2007	
1,3-Dichlorobenzene	< 10	10	< 61	61	20	9/27/2007	
1,4-Dichlorobenzene	< 10	10	< 61	61	20	9/27/2007	
2,2,4-Trimethylpentane	< 10	10	< 47	47	20	9/27/2007	
2-Butanone (MEK)	< 20	20	< 60	60	20	9/27/2007	
2-Hexanone	< 20	20	< 83	83	V1L1 20	9/27/2007	
2-Propanol	< 40	40	< 100	100	20	9/27/2007	
4-Ethyltoluene	< 10	10	< 44	44	20	9/27/2007	
4-Methyl-2-pentanone	< 20	20	< 83	83	V1L1 20	9/27/2007	
Acetone	< 100	100	< 240	240	20	9/27/2007	
Allyl chloride	< 10	10	< 16	16	20	9/27/2007	
Benzene	< 10	10	< 32	32	20	9/27/2007	
Benzyl chloride	< 40	40	< 210	210	20	9/27/2007	
Bromodichloromethane	< 10	10	< 68	68	20	9/27/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT: Mactec
Lab Order: 07090422
Project: South Mesa/4972-07-2050 4.6
Lab ID: 07090422-04A

Client Sample ID: VW-5C
Tag Number:
Collection Date: 9/12/2007 2:20:00 PM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 10	10	< 22	22	20	9/27/2007	
Bromoform	< 10	10	< 100	100	20	9/27/2007	
Bromomethane	< 10	10	< 40	40	20	9/27/2007	
Carbon disulfide	< 10	10	< 32	32	20	9/27/2007	
Carbon tetrachloride	< 10	10	< 64	64	20	9/27/2007	
Chlorobenzene	< 10	10	< 47	47	20	9/27/2007	
Chloroethane	< 10	10	< 27	27	20	9/27/2007	
Chloroform	< 10	10	< 50	50	20	9/27/2007	
Chloromethane	< 10	10	< 21	21	20	9/27/2007	
cis-1,2-Dichloroethene	< 10	10	< 40	40	20	9/27/2007	
cis-1,3-Dichloropropene	< 10	10	< 46	46	20	9/27/2007	
Cyclohexane	< 10	10	< 35	35	20	9/27/2007	
Dibromochloromethane	< 10	10	< 86	86	20	9/27/2007	
Dichlorodifluoromethane(F-12)	< 10	10	< 50	50	20	9/27/2007	
Dichlorotetrafluoroethane(F-114)	< 10	10	< 71	71	20	9/27/2007	
Ethyl Acetate	< 10	10	< 37	37	20	9/27/2007	
Ethylbenzene	< 10	10	< 44	44	20	9/27/2007	
Heptane	< 10	10	< 42	42	20	9/27/2007	
Hexachlorobutadiene	< 20	20	< 220	220	20	9/27/2007	
Hexane	< 10	10	< 36	36	20	9/27/2007	
m&p-Xylene	< 20	20	< 88	88	20	9/27/2007	
Methyl tert-butyl ether	< 20	20	< 73	73	20	9/27/2007	
Methylene chloride	< 10	10	< 35	35	20	9/27/2007	
o-Xylene	< 10	10	< 44	44	20	9/27/2007	
Propene (Propylene)	< 10	10	< 18	18	20	9/27/2007	
Styrene	< 10	10	< 43	43	20	9/27/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT: Mactec
Lab Order: 07090422
Project: South Mesa/4972-07-2050 4.6
Lab ID: 07090422-04A

Client Sample ID: VW-5C
Tag Number:
Collection Date: 9/12/2007 2:20:00 PM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	250	10	1700	69	D2	20	9/27/2007
Tetrahydrofuran	< 40	40	< 120	120		20	9/27/2007
Toluene	< 10	10	< 38	38		20	9/27/2007
trans-1,2-Dichloroethene	< 10	10	< 40	40		20	9/27/2007
trans-1,3-Dichloropropene	< 10	10	< 46	46		20	9/27/2007
Trichloroethene	< 10	10	< 55	55		20	9/27/2007
Trichlorofluoromethane(F-11)	< 10	10	< 57	57		20	9/27/2007
Trichlorotrifluoroethane(F-113)	< 10	10	< 78	78		20	9/27/2007
Vinyl acetate	< 10	10	< 36	36		20	9/27/2007
Vinyl chloride	< 10	10	< 26	26		20	9/27/2007
Surr: 4-Bromofluorobenzene	89.6 %REC	70-130	-	-		20	9/27/2007

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT: Mactec
Lab Order: 07090422
Project: South Mesa/4972-07-2050 4.6
Lab ID: 07090422-05A

Client Sample ID: VW-7C
Tag Number:
Collection Date: 9/12/2007 2:27:00 PM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	1.2	0.50	6.6	2.8	1	9/27/2007	
1,1,2,2-Tetrachloroethane	< 0.50	0.50	< 3.5	3.5	1	9/27/2007	
1,1,2-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	9/27/2007	
1,1-Dichloroethane	13	0.50	54	2.1	1	9/27/2007	
1,1-Dichloroethene	4.8	0.50	19	2.0	1	9/27/2007	
1,2,4-Trichlorobenzene	< 2.0	2.0	< 15	15	1	9/27/2007	
1,2,4-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	9/27/2007	
1,2-Dibromoethane	< 0.50	0.50	< 3.9	3.9	1	9/27/2007	
1,2-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	9/27/2007	
1,2-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	9/27/2007	
1,2-Dichloropropane	4.2	0.50	20	2.4	1	9/27/2007	
1,3,5-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	9/27/2007	
1,3-Butadiene	< 0.50	0.50	< 1.1	1.1	1	9/27/2007	
1,3-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	9/27/2007	
1,4-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	9/27/2007	
2,2,4-Trimethylpentane	2.0	0.50	9.5	2.4	1	9/27/2007	
2-Butanone (MEK)	< 1.0	1.0	< 3.0	3.0	1	9/27/2007	
2-Hexanone	< 1.0	1.0	< 4.2	4.2	V1L1 1	9/27/2007	
2-Propanol	< 2.0	2.0	< 5.0	5.0	1	9/27/2007	
4-Ethyltoluene	< 0.50	0.50	< 2.2	2.2	1	9/27/2007	
4-Methyl-2-pentanone	< 1.0	1.0	< 4.2	4.2	V1L1 1	9/27/2007	
Acetone	7.9	5.0	19	12	1	9/27/2007	
Allyl chloride	< 0.50	0.50	< 0.80	0.80	1	9/27/2007	
Benzene	< 0.50	0.50	< 1.6	1.6	1	9/27/2007	
Benzyl chloride	< 2.0	2.0	< 11	11	1	9/27/2007	
Bromodichloromethane	0.63	0.50	4.3	3.4	1	9/27/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT: Mactec
Lab Order: 07090422
Project: South Mesa/4972-07-2050 4.6
Lab ID: 07090422-05A

Client Sample ID: VW-7C
Tag Number:
Collection Date: 9/12/2007 2:27:00 PM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 0.50	0.50	< 1.1	1.1	1	9/27/2007	
Bromoform	< 0.50	0.50	< 5.2	5.2	1	9/27/2007	
Bromomethane	< 0.50	0.50	< 2.0	2.0	1	9/27/2007	
Carbon disulfide	< 0.50	0.50	< 1.6	1.6	1	9/27/2007	
Carbon tetrachloride	< 0.50	0.50	< 3.2	3.2	1	9/27/2007	
Chlorobenzene	< 0.50	0.50	< 2.4	2.4	1	9/27/2007	
Chloroethane	< 0.50	0.50	< 1.3	1.3	1	9/27/2007	
Chloroform	5.0	0.50	25	2.5	1	9/27/2007	
Chloromethane	< 0.50	0.50	< 1.0	1.0	1	9/27/2007	
cis-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	9/27/2007	
cis-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	9/27/2007	
Cyclohexane	< 0.50	0.50	< 1.7	1.7	1	9/27/2007	
Dibromochloromethane	< 0.50	0.50	< 4.3	4.3	1	9/27/2007	
Dichlorodifluoromethane(F-12)	< 0.50	0.50	< 2.5	2.5	1	9/27/2007	
Dichlorotetrafluoroethane(F-114)	< 0.50	0.50	< 3.6	3.6	1	9/27/2007	
Ethyl Acetate	18	0.50	66	1.8	1	9/27/2007	
Ethylbenzene	< 0.50	0.50	< 2.2	2.2	1	9/27/2007	
Heptane	< 0.50	0.50	< 2.1	2.1	1	9/27/2007	
Hexachlorobutadiene	< 1.0	1.0	< 11	11	1	9/27/2007	
Hexane	< 0.50	0.50	< 1.8	1.8	1	9/27/2007	
m&p-Xylene	< 1.0	1.0	< 4.4	4.4	1	9/27/2007	
Methyl tert-butyl ether	< 1.0	1.0	< 3.7	3.7	1	9/27/2007	
Methylene chloride	0.58	0.50	2.0	1.8	1	9/27/2007	
o-Xylene	< 0.50	0.50	< 2.2	2.2	1	9/27/2007	
Propene (Propylene)	< 0.50	0.50	< 0.88	0.88	1	9/27/2007	
Styrene	< 0.50	0.50	< 2.2	2.2	1	9/27/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 02-Oct-07

CLIENT: Mactec
Lab Order: 07090422
Project: South Mesa/4972-07-2050 4.6
Lab ID: 07090422-05A

Client Sample ID: VW-7C
Tag Number:
Collection Date: 9/12/2007 2:27:00 PM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	41	0.50	280	3.4	1	9/27/2007	
Tetrahydrofuran	< 2.0	2.0	< 6.0	6.0	1	9/27/2007	
Toluene	0.56	0.50	2.1	1.9	1	9/27/2007	
trans-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	9/27/2007	
trans-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	9/27/2007	
Trichloroethene	0.99	0.50	5.5	2.8	1	9/27/2007	
Trichlorofluoromethane(F-11)	6.6	0.50	38	2.8	1	9/27/2007	
Trichlorotrifluoroethane(F-113)	0.52	0.50	4.0	3.9	1	9/27/2007	
Vinyl acetate	< 0.50	0.50	< 1.8	1.8	1	9/27/2007	
Vinyl chloride	< 0.50	0.50	< 1.3	1.3	1	9/27/2007	
Surr: 4-Bromofluorobenzene	94.6 %REC	70-130	-	-	1	9/27/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 01-Oct-07

CLIENT:

Mactec

Work Order:

07090422

Project:

South Mesa/4972-07-2050 4.6

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R01544		SampType: MBLK		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 91544	
Client ID:		Batch ID: R01544		TestNo: TO15				Analysis Date: 9/27/2007		SeqNo: 1083893	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	<0.50	0.50									
1,1,2,2-Tetrachloroethane	<0.50	0.50									
1,1,2-Trichloroethane	<0.50	0.50									
1,1-Dichloroethane	<0.50	0.50									
1,1-Dichloroethene	<0.50	0.50									
1,2,4-Trichlorobenzene	<2.0	2.0									
1,2,4-Trimethylbenzene	<0.50	0.50									
1,2-Dibromoethane	<0.50	0.50									
1,2-Dichlorobenzene	<0.50	0.50									
1,2-Dichloroethane	<0.50	0.50									
1,2-Dichloropropane	<0.50	0.50									
1,3,5-Trimethylbenzene	<0.50	0.50									
1,3-Butadiene	<0.50	0.50									
1,3-Dichlorobenzene	<0.50	0.50									
1,4-Dichlorobenzene	<0.50	0.50									
2,2,4-Trimethylpentane	<0.50	0.50									
2-Butanone (MEK)	<1.0	1.0									V1
2-Hexanone	<1.0	1.0									
2-Propanol	<2.0	2.0									
4-Ethyltoluene	<0.50	0.50									
4-Methyl-2-pentanone	<1.0	1.0									V1
Acetone	<5.0	5.0									
Allyl chloride	<0.50	0.50									
Benzene	<0.50	0.50									
Benzyl chloride	<2.0	2.0									

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 01-Oct-07

CLIENT:

Mactec

Work Order:

07090422

Project:

South Mesa/4972-07-2050 4.6

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R91544	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 91544						
Client ID:	Batch ID: R91544	TestNo: TO15		Analysis Date: 9/27/2007	SeqNo: 1083893						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Bromodichloromethane	<0.50	0.50									
Bromoethene(Vinyl Bromide)	<0.50	0.50									
Bromoform	<0.50	0.50									
Bromomethane	<0.50	0.50									
Carbon disulfide	<0.50	0.50									
Carbon tetrachloride	<0.50	0.50									
Chlorobenzene	<0.50	0.50									
Chloroethane	<0.50	0.50									
Chloroform	<0.50	0.50									
Chloromethane	<0.50	0.50									
cis-1,2-Dichloroethene	<0.50	0.50									
cis-1,3-Dichloropropene	<0.50	0.50									
Cyclohexane	<0.50	0.50									
Dibromochloromethane	<0.50	0.50									
Dichlorodifluoromethane(F-12)	<0.50	0.50									
Dichlorotetrafluoroethane(F-114)	<0.50	0.50									
Ethyl Acetate	<0.50	0.50									
Ethylbenzene	<0.50	0.50									
Heptane	<0.50	0.50									
Hexachlorobutadiene	<1.0	1.0									
Hexane	<0.50	0.50									
m&p-Xylene	<1.0	1.0									
Methyl tert-butyl ether	<1.0	1.0									
Methylene chloride	<0.50	0.50									
o-Xylene	<0.50	0.50									

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 01-Oct-07

CLIENT:

Mactec

Work Order:

07090422

Project:

South Mesa/4972-07-2050 4.6

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R91544	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 91544						
Client ID:	Batch ID: R91544	TestNo: TO15		Analysis Date: 9/27/2007	SeqNo: 1083893						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Propene (Propylene)	<0.50	0.50									
Styrene	<0.50	0.50									
Tetrachloroethene	<0.50	0.50									
Tetrahydrofuran	<2.0	2.0									
Toluene	<0.50	0.50									
trans-1,2-Dichloroethene	<0.50	0.50									
trans-1,3-Dichloropropene	<0.50	0.50									
Trichloroethene	<0.50	0.50									
Trichlorofluoromethane(F-11)	<0.50	0.50									
Trichlorotrifluoroethane(F-113)	<0.50	0.50									
Vinyl acetate	<0.50	0.50									
Vinyl chloride	<0.50	0.50									
Surr: 4-Bromofluorobenzene	9.320	0.50	10	0	93.2	70	130				

Sample ID: LCS-R91544	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 91544						
Client ID:	Batch ID: R91544	TestNo: TO15		Analysis Date: 9/27/2007	SeqNo: 1083894						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1-Trichloroethane	9.240	0.50	10	0	92.4	65	135				
1,1,2,2-Tetrachloroethane	9.520	0.50	10	0	95.2	65	135				
1,1,2-Trichloroethane	9.580	0.50	10	0	95.8	65	135				
1,1-Dichloroethane	9.780	0.50	10	0	97.8	65	135				
1,1-Dichloroethene	9.440	0.50	10	0	94.4	65	135				
1,2,4-Trichlorobenzene	9.650	2.0	10	0	96.5	65	135				
1,2,4-Trimethylbenzene	10.90	0.50	10	0	109	65	135				

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 01-Oct-07

CLIENT:

Mactec

Work Order:

07090422

Project:

South Mesa/4972-07-2050 4.6

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R91544	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 91544						
Client ID:	Batch ID: R91544	TestNo: TO15		Analysis Date: 9/27/2007	SeqNo: 1083894						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane	9.910	0.50	10	0	99.1	65	135				
1,2-Dichlorobenzene	10.14	0.50	10	0	101	65	135				
1,2-Dichloroethane	9.640	0.50	10	0	96.4	65	135				
1,2-Dichloropropane	9.720	0.50	10	0	97.2	65	135				
1,3,5-Trimethylbenzene	10.90	0.50	10	0	109	65	135				
1,3-Butadiene	9.620	0.50	10	0	96.2	65	135				
1,3-Dichlorobenzene	9.940	0.50	10	0	99.4	65	135				
1,4-Dichlorobenzene	10.18	0.50	10	0	102	65	135				
2,2,4-Trimethylpentane	10.39	0.50	10	0	104	65	135				
2-Butanone (MEK)	11.15	1.0	10	0	112	65	135				L1
2-Hexanone	17.35	1.0	10	0	174	65	135				
2-Propanol	7.250	2.0	10	0	72.5	65	135				
4-Ethyltoluene	9.550	0.50	10	0	95.5	65	135				
4-Methyl-2-pentanone	17.57	1.0	10	0	176	65	135				L1
Acetone	9.690	5.0	10	0	96.9	65	135				
Allyl chloride	8.940	0.50	10	0	89.4	65	135				
Benzene	10.35	0.50	10	0	104	65	135				
Benzyl chloride	9.660	2.0	10	0	96.6	65	135				
Bromodichloromethane	9.700	0.50	10	0	97.0	65	135				
Bromoethene(Vinyl Bromide)	9.270	0.50	10	0	92.7	65	135				
Bromoform	9.700	0.50	10	0	97.0	65	135				
Bromomethane	9.320	0.50	10	0	93.2	65	135				
Carbon disulfide	9.390	0.50	10	0	93.9	65	135				
Carbon tetrachloride	9.700	0.50	10	0	97.0	65	135				
Chlorobenzene	9.740	0.50	10	0	97.4	65	135				

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 01-Oct-07

ANALYTICAL QC SUMMARY REPORT

CLIENT: Mactec
Work Order: 07090422
Project: South Mesa/4972-07-2050 4.6

TestCode: TO15

Sample ID: LCS-R91544	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 91544						
Client ID:	Batch ID: R91544	TestNo: TO15		Analysis Date: 9/27/2007	SeqNo: 1083894						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane	9.470	0.50	10	0	94.7	65	135				
Chloroform	8.860	0.50	10	0	88.6	65	135				
Chloromethane	9.400	0.50	10	0	94.0	65	135				
cis-1,2-Dichloroethene	10.08	0.50	10	0	101	65	135				
cis-1,3-Dichloropropene	9.000	0.50	10	0	90.0	65	135				
Cyclohexane	7.970	0.50	10	0	79.7	65	135				
Dibromochloromethane	9.690	0.50	10	0	96.9	65	135				
Dichlorodifluoromethane(F-12)	9.440	0.50	10	0	94.4	65	135				
Dichlorotetrafluoroethane(F-114)	9.620	0.50	10	0	96.2	65	135				
Ethyl Acetate	12.34	0.50	10	0	123	65	135				
Ethylbenzene	8.820	0.50	10	0	88.2	65	135				
Heptane	10.13	0.50	10	0	101	65	135				
Hexachlorobutadiene	10.23	1.0	10	0	102	65	135				
Hexane	9.280	0.50	10	0	92.8	65	135				
m&p-Xylene	18.44	1.0	20	0	92.2	65	135				
Methyl tert-butyl ether	10.53	1.0	10	0	105	65	135				
Methylene chloride	9.440	0.50	10	0	94.4	65	135				
o-Xylene	9.970	0.50	10	0	99.7	65	135				
Propene (Propylene)	9.490	0.50	10	0	94.9	65	135				
Styrene	8.900	0.50	10	0	89.0	65	135				
Tetrachloroethene	9.470	0.50	10	0	94.7	65	135				
Tetrahydrofuran	11.42	2.0	10	0	114	65	135				
Toluene	9.310	0.50	10	0	93.1	65	135				
trans-1,2-Dichloroethene	9.710	0.50	10	0	97.1	65	135				
trans-1,3-Dichloropropene	8.630	0.50	10	0	86.3	65	135				

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 01-Oct-07

CLIENT:

Mactec

Work Order:

07090422

Project:

South Mesa/4972-07-2050 4.6

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R91544	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 91544						
Client ID:	Batch ID: R91544	TestNo: TO15		Analysis Date: 9/27/2007	SeqNo: 1083894						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	9.390	0.50	10	0	93.9	65	135				
Trichlorofluoromethane(F-11)	9.580	0.50	10	0	95.8	65	135				
Trichlorotrifluoroethane(F-113)	9.790	0.50	10	0	97.9	65	135				
Vinyl acetate	8.850	0.50	10	0	88.5	65	135				
Vinyl chloride	9.230	0.50	10	0	92.3	65	135				
Surr: 4-Bromofluorobenzene	9.780	0.50	10	0	97.8	70	130				

Sample ID: LCSD-R91544		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 91544			
Client ID:		Batch ID: R91544		TestNo: TO15		Analysis Date: 9/27/2007						SeqNo: 1083895	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
1,1,1-Trichloroethane	9.160	0.50	10	0	91.6	65	135	9.240	0.870	25			
1,1,2,2-Tetrachloroethane	9.410	0.50	10	0	94.1	65	135	9.520	1.16	25			
1,1,2-Trichloroethane	9.450	0.50	10	0	94.5	65	135	9.580	1.37	25			
1,1-Dichloroethane	9.750	0.50	10	0	97.5	65	135	9.780	0.307	25			
1,1-Dichloroethene	9.450	0.50	10	0	94.5	65	135	9.440	0.106	25			
1,2,4-Trichlorobenzene	9.840	2.0	10	0	98.4	65	135	9.650	1.95	25			
1,2,4-Trimethylbenzene	10.71	0.50	10	0	107	65	135	10.90	1.76	25			
1,2-Dibromoethane	9.750	0.50	10	0	97.5	65	135	9.910	1.63	25			
1,2-Dichlorobenzene	10.02	0.50	10	0	100	65	135	10.14	1.19	25			
1,2-Dichloroethane	9.420	0.50	10	0	94.2	65	135	9.640	2.31	25			
1,2-Dichloropropane	9.560	0.50	10	0	95.6	65	135	9.720	1.66	25			
1,3,5-Trimethylbenzene	10.75	0.50	10	0	108	65	135	10.90	1.39	25			
1,3-Butadiene	9.320	0.50	10	0	93.2	65	135	9.620	3.17	25			
1,3-Dichlorobenzene	9.790	0.50	10	0	97.9	65	135	9.940	1.52	25			

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 01-Oct-07

CLIENT: Mactec
Work Order: 07090422
Project: South Mesa/4972-07-2050 4.6

ANALYTICAL QC SUMMARY REPORT
TestCode: TO15

Sample ID: LCSD-R91544	SampType: LCSD	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 91544						
Client ID:	Batch ID: R91544	TestNo: TO15		Analysis Date: 9/27/2007	SeqNo: 1083895						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	10.13	0.50	10	0	101	65	135	10.18	0.492	25	
2,2,4-Trimethylpentane	10.14	0.50	10	0	101	65	135	10.39	2.44	25	
2-Butanone (MEK)	11.20	1.0	10	0	112	65	135	11.15	0.447	25	
2-Hexanone	18.05	1.0	10	0	180	65	135	17.35	3.95	25	L1
2-Propanol	7.610	2.0	10	0	76.1	65	135	7.250	4.85	25	
4-Ethyltoluene	9.380	0.50	10	0	93.8	65	135	9.550	1.80	25	
4-Methyl-2-pentanone	18.01	1.0	10	0	180	65	135	17.57	2.47	25	L1
Acetone	9.690	5.0	10	0	96.9	65	135	9.690	0	25	
Allyl chloride	8.940	0.50	10	0	89.4	65	135	8.940	0	25	
Benzene	10.43	0.50	10	0	104	65	135	10.35	0.770	25	
Benzyl chloride	9.790	2.0	10	0	97.9	65	135	9.660	1.34	25	
Bromodichloromethane	9.460	0.50	10	0	94.6	65	135	9.700	2.51	25	
Bromoethene(Vinyl Bromide)	9.260	0.50	10	0	92.6	65	135	9.270	0.108	25	
Bromoform	9.530	0.50	10	0	95.3	65	135	9.700	1.77	25	
Bromomethane	9.350	0.50	10	0	93.5	65	135	9.320	0.321	25	
Carbon disulfide	9.360	0.50	10	0	93.6	65	135	9.390	0.320	25	
Carbon tetrachloride	9.570	0.50	10	0	95.7	65	135	9.700	1.35	25	
Chlorobenzene	9.630	0.50	10	0	96.3	65	135	9.740	1.14	25	
Chloroethane	9.450	0.50	10	0	94.5	65	135	9.470	0.211	25	
Chloroform	8.780	0.50	10	0	87.8	65	135	8.860	0.907	25	
Chloromethane	9.270	0.50	10	0	92.7	65	135	9.400	1.39	25	
cis-1,2-Dichloroethene	10.22	0.50	10	0	102	65	135	10.08	1.38	25	
cis-1,3-Dichloropropene	8.930	0.50	10	0	89.3	65	135	9.000	0.781	25	
Cyclohexane	7.970	0.50	10	0	79.7	65	135	7.970	0	25	
Dibromochloromethane	9.430	0.50	10	0	94.3	65	135	9.690	2.72	25	

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 01-Oct-07

CLIENT:

Mactec

Work Order:

07090422

Project:

South Mesa/4972-07-2050 4.6

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R91544	SampType: LCSD	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 91544						
Client ID:	Batch ID: R91544	TestNo: TO15		Analysis Date: 9/27/2007	SeqNo: 1083895						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane(F-12)	9.280	0.50	10	0	92.8	65	135	9.440	1.71	25	
Dichlorotetrafluoroethane(F-114)	9.550	0.50	10	0	95.5	65	135	9.620	0.730	25	
Ethyl Acetate	12.40	0.50	10	0	124	65	135	12.34	0.485	25	
Ethylbenzene	8.830	0.50	10	0	88.3	65	135	8.820	0.113	25	
Heptane	9.790	0.50	10	0	97.9	65	135	10.13	3.41	25	
Hexachlorobutadiene	9.530	1.0	10	0	95.3	65	135	10.23	7.09	25	
Hexane	9.170	0.50	10	0	91.7	65	135	9.280	1.19	25	
m&p-Xylene	17.69	1.0	20	0	88.4	65	135	18.44	4.15	25	
Methyl tert-butyl ether	11.06	1.0	10	0	111	65	135	10.53	4.91	25	
Methylene chloride	9.200	0.50	10	0	92.0	65	135	9.440	2.58	25	
o-Xylene	9.800	0.50	10	0	98.0	65	135	9.970	1.72	25	
Propene (Propylene)	9.830	0.50	10	0	98.3	65	135	9.490	3.52	25	
Styrene	8.860	0.50	10	0	88.6	65	135	8.900	0.450	25	
Tetrachloroethene	9.290	0.50	10	0	92.9	65	135	9.470	1.92	25	
Tetrahydrofuran	11.53	2.0	10	0	115	65	135	11.42	0.959	25	
Toluene	9.210	0.50	10	0	92.1	65	135	9.310	1.08	25	
trans-1,2-Dichloroethene	10.01	0.50	10	0	100	65	135	9.710	3.04	25	
trans-1,3-Dichloropropene	8.480	0.50	10	0	84.8	65	135	8.630	1.75	25	
Trichloroethene	9.360	0.50	10	0	93.6	65	135	9.390	0.320	25	
Trichlorofluoromethane(F-11)	9.330	0.50	10	0	93.3	65	135	9.580	2.64	25	
Trichlorotrifluoroethane(F-113)	9.620	0.50	10	0	96.2	65	135	9.790	1.75	25	
Vinyl acetate	9.060	0.50	10	0	90.6	65	135	8.850	2.35	25	
Vinyl chloride	9.240	0.50	10	0	92.4	65	135	9.230	0.108	25	
Surr: 4-Bromofluorobenzene	9.730	0.50	10	0	97.3	70	130	9.780	0	0	

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories Sample Receipt Checklist

Project Checked By: _____

Laboratory Number: <u>07-09-0422</u>	Completed By/On: <u>as</u>
Client Name: <u>Mactec</u>	Date/Time Rec'd: <u>9/12/07 15:53</u> By: <u>pf</u>
Matrix: <u>(Air)</u> Soil Aqueous Oil Sludge Solid WW DW	Carrier Name: <u>Client</u>

Temperature	Cooler #1 <u>Amb</u> °C	Cooler #2 °C	Cooler #3 °C	Cooler #4 °C
Temp. Read With	Thermometer IR	Thermometer IR	Thermometer IR	Thermometer IR

Client or PM made aware of temp. out of range? Yes No Circle one: Blue Ice Wet Ice Not Present

	Yes	No*	Not Present	Soil Containers:
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>			Brass Sleeve_____
Custody seals intact on shipping container/cooler?			<input checked="" type="checkbox"/>	Glass Jar_____
Custody seals intact on sample containers?			<u>a</u>	Methanol_____
Chain of Custody present and relinquished/received properly?	<input checked="" type="checkbox"/>			Plastic Bag_____
Chain of Custody agrees with sample labels?	<input checked="" type="checkbox"/>			Encore Samplers_____
Samples in proper containers/bottles?	<input checked="" type="checkbox"/>			Sterile Plastic_____
Sample containers intact?	<input checked="" type="checkbox"/>			
All samples received within holding time?	<input checked="" type="checkbox"/>		**See Comments about Chlorine and pH	
Is there sufficient sample volume to perform the tests?	<input checked="" type="checkbox"/>			
40mL vials for volatiles & SOCs received with zero headspace?			<input checked="" type="checkbox"/>	

Total number of bottles received: <u>1</u>	IH sample media: <u>1 Liter can</u>
If applicable, how many sample bottles were shipped from AEL-Tucson?	<u>N/A</u>

Number of containers received by preservative and by sample number: (If more than 10 samples are rec'd, please continue on separate sheet(s)).

Preservative	Simple***	1	2	3	4	5	6	7	8	9	10	
A-General		<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>						*Any <u>No</u> response must be detailed in the comments section. Contact the PM immediately to determine how to proceed. Refer to SOP 11-001 and continue on back if additional space is needed.
B-HNO3												
C-H2SO4												
D-HCl												
E-Na2S2O3												
F-NaOH												**The holding time for pH and Total Residual Chlorine analysis is immediate. For the most accurate results, the pH and Total Residual Chlorine should be taken in the field within 15 minutes of sampling.
G-Sulfide												
H-Na Sulfite												***The Simple box is only to be used when there is one bottle per preservative in equal sample sets.
I-MCAA												
J-Methanol												
K-HAA												
L-Other												

Water-pH acceptable upon receipt? Yes No N/A ☒

Preservative & pH	pH of samples upon receipt	
Metals <2		
H2SO4 <2		
1664 <2		
Cyanide >12		
Sulfide >9		

If pH requires adjustment, list sample number and reagent I.D. number. _____

Comments: _____



Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Aerotech Laboratories, Inc.

- [] Main Lab - 4645 E. Colton Center Blvd., Building 3, Suite 189, Phoenix, AZ 85040 602.437.3340 - FAX 623.445.6192
[] North Phoenix - 1501 W. Knudsen, Phoenix, AZ 85027 623.780.4800 - FAX 623.445.6216
[] Tucson - 4455 S. Park Ave, Suite 110, Tucson, AZ 85714 520.807.3801 - FAX 520.807.3803
www.aerotechlabs.com or call toll-free 866.772.5227

Lab Number:

07090422

Customer Number:	Page 1 of 1
Customer:	Modtec
Address:	3630 E WIER AVE
City, State, Zip:	Phoenix, AZ
Contact:	Jim Clark
Phone:	
E-Mail Address:	
Fax:	
Fax Results:	Y N
E-Mail Results:	Y N

Sample Receipt		Turn Around Request	
Temperature	40°C	24 Hours	48 Hours
Custody Seals: Yes	No	72 Hours	
Custody Seals Intact: Yes	No	5 working Day	
Total # of Containers:	5	Standard 10 Working Days	
Subject to scheduling and availability (surcharges apply)			

Sample Information

Lab #	Canister Serial #	Model	Sample Identification	Date	Time	Type	Final	Receipt	TO-14 List of TO-15	TO-15 list	PCE Only by TO-15	Analyses Requested
1		6, 1, 0.4	EFF	9.12.07	13:48	AIR						
2		6, 1, 0.4	INT		14:02							
3		6, 1, 0.4	INF		14:07							
4		6, 1, 0.4	VW-5C		14:20							
5		6, 1, 0.4	VW-7C		14:27							
		6, 1, 0.4										
		6, 1, 0.4										
		6, 1, 0.4										
		6, 1, 0.4										
		6, 1, 0.4										
		6, 1, 0.4										
		6, 1, 0.4										
		6, 1, 0.4										

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
9.12.07	15:53	S.M.L.	

Analysis performed is subject to the Terms & Conditions available at www.aerotechlabs.com or call 866.772.5227 to request a copy.

Chain of Custody, Page 1 of 1, REV 02, 111803, VPQAS

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Wednesday, November 07, 2007

Jim Clarke
Mactec
3630 East Wier Avenue
Phoenix, AZ 85040

TEL: (602) 437-0250

FAX (602) 437-3675

RE: South Mesa/4972-07-2050

Order No.: 07100569

Dear Jim Clarke:

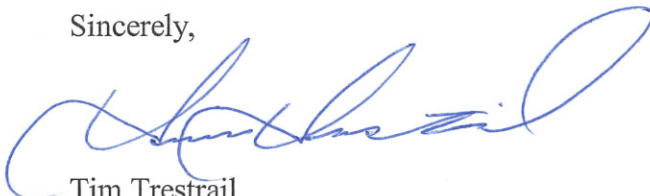
Aerotech Environmental Laboratories received 5 sample(s) on 10/12/2007 for the analyses presented in the following report.

This report includes the following information:

- Case Narrative.
- Analytical Report: includes test results, report limit (Limit), any applicable data qualifier (Qual), units, dilution factor (DF), and date analyzed.
- QC Summary Report.

This communication is intended only for the individual or entity to whom it is directed. It may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. Dissemination, distribution, or copying of this communication by anyone other than the intended recipient, or a duly designated employee or agent of such recipient, is prohibited. If you have received this communication in error, please notify us immediately and destroy this message and all attachments thereto. If you have any questions regarding these test results, please do not hesitate to call.

Sincerely,



Tim Trestrail
Project Manager

Jmt 11/12/07

CLIENT: Mactec
Project: South Mesa/4972-07-2050
Lab Order: 07100569

CASE NARRATIVE

Analyses included in this report were performed by Aerotech Environmental Laboratories (AEL), 4645 E. Cotton Center Boulevard, Building 3, Suite 189, Phoenix, AZ.

AEL is licensed through the State of Arizona (License No. AZ0610), and holds NELAC accreditation (OR100001) through the State of Oregon for the analytical techniques noted on the scope of accreditation.

AEL is also accredited by the American Industrial Hygiene Association (AIHA) in the industrial hygiene program for the analytical techniques noted on the scope of accreditation.

Samples were analyzed using methods outlined in references such as:

- Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.
- 40 CFR, Part 136, July 2006. Appendix A to Part 136 - Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater.
- Methods for the Chemical Analysis of Water and Wastes, EPA/600/4-79-020, Revised March 1983.
- Methods for the Determination of Organic Compounds in Drinking Water: Supplement III, August 1995, EPA/600/R-95/131.
- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA, 3rd Edition 1986, and Updates.
- Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA, Second Edition, 1999.
- NIOSH Manual of Analytical Methods, Fourth Edition, 1994.

Analytical Comments:

All method blanks and laboratory control spikes met method and/or laboratory quality control objectives for the analyses included in this report.

Data Qualifiers:

Listed below are the data qualifiers used in your analytical report to explain any analytical or quality control issues. You will find them noted in your report under the column header "QUAL". Any quality control deficiencies that cannot be adequately described by these qualifiers will be addressed in the analytical comments section of this case narrative.

- D2 Sample required dilution due to high concentration of target analyte.
L1 The associated blank spike recovery was above laboratory acceptance limits.

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT:	Mactec	Client Sample ID:	EFF
Lab Order:	07100569	Tag Number:	1620
Project:	South Mesa/4972-07-2050	Collection Date:	10/12/2007 8:42:00 AM
Lab ID:	07100569-01A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	10/31/2007	
1,1,2,2-Tetrachloroethane	< 0.50	0.50	< 3.5	3.5	1	10/31/2007	
1,1,2-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	10/31/2007	
1,1-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	10/31/2007	
1,1-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	10/31/2007	
1,2,4-Trichlorobenzene	< 2.0	2.0	< 15	15	1	10/31/2007	
1,2,4-Trimethylbenzene	0.55	0.50	2.7	2.5	1	10/31/2007	
1,2-Dibromoethane	< 0.50	0.50	< 3.9	3.9	1	10/31/2007	
1,2-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	10/31/2007	
1,2-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	10/31/2007	
1,2-Dichloropropane	< 0.50	0.50	< 2.4	2.4	1	10/31/2007	
1,3,5-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	10/31/2007	
1,3-Butadiene	< 0.50	0.50	< 1.1	1.1	1	10/31/2007	
1,3-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	10/31/2007	
1,4-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	10/31/2007	
2,2,4-Trimethylpentane	2.0	0.50	9.5	2.4	1	10/31/2007	
2-Butanone (MEK)	1.0	1.0	3.0	3.0	1	10/31/2007	
2-Hexanone	< 1.0	1.0	< 4.2	4.2	1	10/31/2007	
2-Propanol	2.0	2.0	5.0	5.0	1	10/31/2007	
4-Ethyltoluene	< 0.50	0.50	< 2.2	2.2	1	10/31/2007	
4-Methyl-2-pentanone	< 1.0	1.0	< 4.2	4.2	1	10/31/2007	
Acetone	15	5.0	36	12	1	10/31/2007	
Allyl chloride	< 0.50	0.50	< 0.80	0.80	1	10/31/2007	
Benzene	1.1	0.50	3.6	1.6	1	10/31/2007	
Benzyl chloride	< 2.0	2.0	< 11	11	1	10/31/2007	
Bromodichloromethane	< 0.50	0.50	< 3.4	3.4	1	10/31/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT: Mactec
Lab Order: 07100569
Project: South Mesa/4972-07-2050
Lab ID: 07100569-01A

Client Sample ID: EFF
Tag Number: 1620
Collection Date: 10/12/2007 8:42:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 0.50	0.50	< 1.1	1.1	1	10/31/2007	
Bromoform	< 0.50	0.50	< 5.2	5.2	1	10/31/2007	
Bromomethane	< 0.50	0.50	< 2.0	2.0	1	10/31/2007	
Carbon disulfide	< 0.50	0.50	< 1.6	1.6	1	10/31/2007	
Carbon tetrachloride	< 0.50	0.50	< 3.2	3.2	1	10/31/2007	
Chlorobenzene	< 0.50	0.50	< 2.4	2.4	1	10/31/2007	
Chloroethane	< 0.50	0.50	< 1.3	1.3	1	10/31/2007	
Chloroform	< 0.50	0.50	< 2.5	2.5	1	10/31/2007	
Chloromethane	0.69	0.50	1.4	1.0	1	10/31/2007	
cis-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	10/31/2007	
cis-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	L1 1	10/31/2007	
Cyclohexane	< 0.50	0.50	< 1.7	1.7	L1 1	10/31/2007	
Dibromochloromethane	< 0.50	0.50	< 4.3	4.3	1	10/31/2007	
Dichlorodifluoromethane(F-12)	0.75	0.50	3.8	2.5	1	10/31/2007	
Dichlorotetrafluoroethane(F-114)	< 0.50	0.50	< 3.6	3.6	1	10/31/2007	
Ethyl Acetate	< 0.50	0.50	< 1.8	1.8	1	10/31/2007	
Ethylbenzene	0.63	0.50	2.8	2.2	1	10/31/2007	
Heptane	0.56	0.50	2.3	2.1	1	10/31/2007	
Hexachlorobutadiene	< 1.0	1.0	< 11	11	1	10/31/2007	
Hexane	< 0.50	0.50	< 1.8	1.8	1	11/1/2007	
m&p-Xylene	2.1	1.0	9.2	4.4	1	10/31/2007	
Methyl tert-butyl ether	< 1.0	1.0	< 3.7	3.7	1	10/31/2007	
Methylene chloride	< 0.50	0.50	< 1.8	1.8	1	10/31/2007	
o-Xylene	0.73	0.50	3.2	2.2	1	10/31/2007	
Propene (Propylene)	< 0.50	0.50	< 0.88	0.88	1	10/31/2007	
Styrene	< 0.50	0.50	< 2.2	2.2	1	10/31/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT: Mactec
Lab Order: 07100569
Project: South Mesa/4972-07-2050
Lab ID: 07100569-01A

Client Sample ID: EFF
Tag Number: 1620
Collection Date: 10/12/2007 8:42:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	< 0.50	0.50	< 3.4	3.4	1	10/31/2007	
Tetrahydrofuran	< 2.0	2.0	< 6.0	6.0	1	10/31/2007	
Toluene	3.6	0.50	14	1.9	1	10/31/2007	
trans-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	10/31/2007	
trans-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	10/31/2007	
Trichloroethene	1.2	0.50	6.6	2.8	1	10/31/2007	
Trichlorofluoromethane(F-11)	< 0.50	0.50	< 2.8	2.8	1	10/31/2007	
Trichlorotrifluoroethane(F-113)	< 0.50	0.50	< 3.9	3.9	1	10/31/2007	
Vinyl acetate	< 0.50	0.50	< 1.8	1.8	1	10/31/2007	
Vinyl chloride	< 0.50	0.50	< 1.3	1.3	1	10/31/2007	
Surr: 4-Bromofluorobenzene	110 %REC	70-130	-	-	1	10/31/2007	

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT: Mactec
Lab Order: 07100569
Project: South Mesa/4972-07-2050
Lab ID: 07100569-02A

Client Sample ID: INT
Tag Number: 673
Collection Date: 10/12/2007 8:49:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	10/31/2007	
1,1,2,2-Tetrachloroethane	< 0.50	0.50	< 3.5	3.5	1	10/31/2007	
1,1,2-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	10/31/2007	
1,1-Dichloroethane	3.4	0.50	14	2.1	1	10/31/2007	
1,1-Dichloroethene	0.53	0.50	2.1	2.0	1	10/31/2007	
1,2,4-Trichlorobenzene	< 2.0	2.0	< 15	15	1	10/31/2007	
1,2,4-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	10/31/2007	
1,2-Dibromoethane	< 0.50	0.50	< 3.9	3.9	1	10/31/2007	
1,2-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	10/31/2007	
1,2-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	10/31/2007	
1,2-Dichloropropane	< 0.50	0.50	< 2.4	2.4	1	10/31/2007	
1,3,5-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	10/31/2007	
1,3-Butadiene	< 0.50	0.50	< 1.1	1.1	1	10/31/2007	
1,3-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	10/31/2007	
1,4-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	10/31/2007	
2,2,4-Trimethylpentane	1.6	0.50	7.6	2.4	1	10/31/2007	
2-Butanone (MEK)	1.6	1.0	4.8	3.0	1	10/31/2007	
2-Hexanone	< 1.0	1.0	< 4.2	4.2	1	10/31/2007	
2-Propanol	2.4	2.0	6.0	5.0	1	10/31/2007	
4-Ethyltoluene	< 0.50	0.50	< 2.2	2.2	1	10/31/2007	
4-Methyl-2-pentanone	< 1.0	1.0	< 4.2	4.2	1	10/31/2007	
Acetone	12	5.0	29	12	1	10/31/2007	
Allyl chloride	< 0.50	0.50	< 0.80	0.80	1	10/31/2007	
Benzene	0.83	0.50	2.7	1.6	1	10/31/2007	
Benzyl chloride	< 2.0	2.0	< 11	11	1	10/31/2007	
Bromodichloromethane	< 0.50	0.50	< 3.4	3.4	1	10/31/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT:	Mactec	Client Sample ID:	INT
Lab Order:	07100569	Tag Number:	673
Project:	South Mesa/4972-07-2050	Collection Date:	10/12/2007 8:49:00 AM
Lab ID:	07100569-02A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 0.50	0.50	< 1.1	1.1	1		10/31/2007
Bromoform	< 0.50	0.50	< 5.2	5.2	1		10/31/2007
Bromomethane	< 0.50	0.50	< 2.0	2.0	1		10/31/2007
Carbon disulfide	< 0.50	0.50	< 1.6	1.6	1		10/31/2007
Carbon tetrachloride	< 0.50	0.50	< 3.2	3.2	1		10/31/2007
Chlorobenzene	< 0.50	0.50	< 2.4	2.4	1		10/31/2007
Chloroethane	< 0.50	0.50	< 1.3	1.3	1		10/31/2007
Chloroform	3.4	0.50	17	2.5	1		10/31/2007
Chloromethane	0.58	0.50	1.2	1.0	1		10/31/2007
cis-1,2-Dichloroethene	0.84	0.50	3.4	2.0	1		10/31/2007
cis-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	L1	1	10/31/2007
Cyclohexane	< 0.50	0.50	< 1.7	1.7	L1	1	10/31/2007
Dibromochloromethane	< 0.50	0.50	< 4.3	4.3	1		10/31/2007
Dichlorodifluoromethane(F-12)	0.68	0.50	3.4	2.5	1		10/31/2007
Dichlorotetrafluoroethane(F-114)	< 0.50	0.50	< 3.6	3.6	1		10/31/2007
Ethyl Acetate	6.4	0.50	23	1.8	1		10/31/2007
Ethylbenzene	< 0.50	0.50	< 2.2	2.2	1		10/31/2007
Heptane	< 0.50	0.50	< 2.1	2.1	1		10/31/2007
Hexachlorobutadiene	< 1.0	1.0	< 11	11	1		10/31/2007
Hexane	0.62	0.50	2.2	1.8	1		11/1/2007
m&p-Xylene	< 1.0	1.0	< 4.4	4.4	1		10/31/2007
Methyl tert-butyl ether	< 1.0	1.0	< 3.7	3.7	1		10/31/2007
Methylene chloride	0.79	0.50	2.8	1.8	1		10/31/2007
o-Xylene	0.52	0.50	2.3	2.2	1		10/31/2007
Propene (Propylene)	< 0.50	0.50	< 0.88	0.88	1		10/31/2007
Styrene	< 0.50	0.50	< 2.2	2.2	1		10/31/2007

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT: Mactec
Lab Order: 07100569
Project: South Mesa/4972-07-2050
Lab ID: 07100569-02A

Client Sample ID: INT
Tag Number: 673
Collection Date: 10/12/2007 8:49:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	14	0.50	97	3.4	1	10/31/2007	
Tetrahydrofuran	< 2.0	2.0	< 6.0	6.0	1	10/31/2007	
Toluene	3.3	0.50	13	1.9	1	10/31/2007	
trans-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	10/31/2007	
trans-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	10/31/2007	
Trichloroethene	56	2.5	310	14	D2 5	11/1/2007	
Trichlorofluoromethane(F-11)	1.7	0.50	9.7	2.8	1	10/31/2007	
Trichlorotrifluoroethane(F-113)	< 0.50	0.50	< 3.9	3.9	1	10/31/2007	
Vinyl acetate	< 0.50	0.50	< 1.8	1.8	1	10/31/2007	
Vinyl chloride	< 0.50	0.50	< 1.3	1.3	1	10/31/2007	
Surr: 4-Bromofluorobenzene	102 %REC	70-130	-	-	1	10/31/2007	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT: Mactec
Lab Order: 07100569
Project: South Mesa/4972-07-2050
Lab ID: 07100569-03A

Client Sample ID: INF
Tag Number: 1614
Collection Date: 10/12/2007 8:55:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 1.0	1.0	< 5.5	5.5	2	10/31/2007	
1,1,2,2-Tetrachloroethane	< 1.0	1.0	< 7.0	7.0	2	10/31/2007	
1,1,2-Trichloroethane	< 1.0	1.0	< 5.5	5.5	2	10/31/2007	
1,1-Dichloroethane	7.4	1.0	30	4.1	2	10/31/2007	
1,1-Dichloroethene	2.6	1.0	10	4.0	2	10/31/2007	
1,2,4-Trichlorobenzene	< 4.0	4.0	< 30	30	2	10/31/2007	
1,2,4-Trimethylbenzene	< 1.0	1.0	< 5.0	5.0	2	10/31/2007	
1,2-Dibromoethane	< 1.0	1.0	< 7.8	7.8	2	10/31/2007	
1,2-Dichlorobenzene	< 1.0	1.0	< 6.1	6.1	2	10/31/2007	
1,2-Dichloroethane	< 1.0	1.0	< 4.1	4.1	2	10/31/2007	
1,2-Dichloropropane	2.8	1.0	13	4.7	2	10/31/2007	
1,3,5-Trimethylbenzene	< 1.0	1.0	< 5.0	5.0	2	10/31/2007	
1,3-Butadiene	< 1.0	1.0	< 2.2	2.2	2	10/31/2007	
1,3-Dichlorobenzene	< 1.0	1.0	< 6.1	6.1	2	10/31/2007	
1,4-Dichlorobenzene	< 1.0	1.0	< 6.1	6.1	2	10/31/2007	
2,2,4-Trimethylpentane	< 1.0	1.0	< 4.7	4.7	2	10/31/2007	
2-Butanone (MEK)	4.7	2.0	14	6.0	2	10/31/2007	
2-Hexanone	< 2.0	2.0	< 8.3	8.3	2	10/31/2007	
2-Propanol	< 4.0	4.0	< 10	10	2	10/31/2007	
4-Ethyltoluene	< 1.0	1.0	< 4.4	4.4	2	10/31/2007	
4-Methyl-2-pentanone	< 2.0	2.0	< 8.3	8.3	2	10/31/2007	
Acetone	57	10	140	24	2	10/31/2007	
Allyl chloride	< 1.0	1.0	< 1.6	1.6	2	10/31/2007	
Benzene	< 1.0	1.0	< 3.2	3.2	2	10/31/2007	
Benzyl chloride	< 4.0	4.0	< 21	21	2	10/31/2007	
Bromodichloromethane	1.6	1.0	11	6.8	2	10/31/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT:	Mactec	Client Sample ID:	INF
Lab Order:	07100569	Tag Number:	1614
Project:	South Mesa/4972-07-2050	Collection Date:	10/12/2007 8:55:00 AM
Lab ID:	07100569-03A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			

VOLATILE ORGANICS IN AIR

TO15

Analyst: J.J.

Bromoethene(Vinyl Bromide)	< 1.0	1.0	< 2.2	2.2	2	10/31/2007
Bromoform	< 1.0	1.0	< 10	10	2	10/31/2007
Bromomethane	< 1.0	1.0	< 4.0	4.0	2	10/31/2007
Carbon disulfide	< 1.0	1.0	< 3.2	3.2	2	10/31/2007
Carbon tetrachloride	< 1.0	1.0	< 6.4	6.4	2	10/31/2007
Chlorobenzene	< 1.0	1.0	< 4.7	4.7	2	10/31/2007
Chloroethane	< 1.0	1.0	< 2.7	2.7	2	10/31/2007
Chloroform	8.1	1.0	40	5.0	2	10/31/2007
Chloromethane	< 1.0	1.0	< 2.1	2.1	2	10/31/2007
cis-1,2-Dichloroethene	2.3	1.0	9.2	4.0	2	10/31/2007
cis-1,3-Dichloropropene	< 1.0	1.0	< 4.6	4.6	L1 2	10/31/2007
Cyclohexane	< 1.0	1.0	< 3.5	3.5	L1 2	10/31/2007
Dibromochloromethane	< 1.0	1.0	< 8.6	8.6	2	10/31/2007
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 5.0	5.0	2	10/31/2007
Dichlorotetrafluoroethane(F-114)	< 1.0	1.0	< 7.1	7.1	2	10/31/2007
Ethyl Acetate	< 1.0	1.0	< 3.7	3.7	2	10/31/2007
Ethylbenzene	< 1.0	1.0	< 4.4	4.4	2	10/31/2007
Heptane	< 1.0	1.0	< 4.2	4.2	2	10/31/2007
Hexachlorobutadiene	< 2.0	2.0	< 22	22	2	10/31/2007
Hexane	< 1.0	1.0	< 3.6	3.6	L1 2	10/31/2007
m&p-Xylene	< 2.0	2.0	< 8.8	8.8	2	10/31/2007
Methyl tert-butyl ether	< 2.0	2.0	< 7.3	7.3	2	10/31/2007
Methylene chloride	< 1.0	1.0	< 3.5	3.5	2	10/31/2007
o-Xylene	< 1.0	1.0	< 4.4	4.4	2	10/31/2007
Propene (Propylene)	< 1.0	1.0	< 1.8	1.8	2	10/31/2007
Styrene	< 1.0	1.0	< 4.3	4.3	2	10/31/2007

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT: Mactec
Lab Order: 07100569
Project: South Mesa/4972-07-2050
Lab ID: 07100569-03A

Client Sample ID: INF
Tag Number: 1614
Collection Date: 10/12/2007 8:55:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	160	5.0	1100	34	D2	10	10/31/2007
Tetrahydrofuran	< 4.0	4.0	< 12	12		2	10/31/2007
Toluene	1.3	1.0	5.0	3.8		2	10/31/2007
trans-1,2-Dichloroethene	< 1.0	1.0	< 4.0	4.0		2	10/31/2007
trans-1,3-Dichloropropene	< 1.0	1.0	< 4.6	4.6		2	10/31/2007
Trichloroethene	8.6	1.0	48	5.5		2	10/31/2007
Trichlorofluoromethane(F-11)	6.1	1.0	35	5.7		2	10/31/2007
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.8	7.8		2	10/31/2007
Vinyl acetate	< 1.0	1.0	< 3.6	3.6		2	10/31/2007
Vinyl chloride	< 1.0	1.0	< 2.6	2.6		2	10/31/2007
Surr: 4-Bromofluorobenzene	97.1 %REC	70-130	-	-		2	10/31/2007

Qualifiers:
 ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT: Mactec
Lab Order: 07100569
Project: South Mesa/4972-07-2050
Lab ID: 07100569-04A

Client Sample ID: VW-5C
Tag Number: 752
Collection Date: 10/12/2007 9:06:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 10	10	< 55	55	20	10/31/2007	
1,1,2,2-Tetrachloroethane	< 10	10	< 70	70	20	10/31/2007	
1,1,2-Trichloroethane	< 10	10	< 55	55	20	10/31/2007	
1,1-Dichloroethane	< 10	10	< 41	41	20	10/31/2007	
1,1-Dichloroethene	< 10	10	< 40	40	20	10/31/2007	
1,2,4-Trichlorobenzene	< 40	40	< 300	300	20	10/31/2007	
1,2,4-Trimethylbenzene	< 10	10	< 50	50	20	10/31/2007	
1,2-Dibromoethane	< 10	10	< 78	78	20	10/31/2007	
1,2-Dichlorobenzene	< 10	10	< 61	61	20	10/31/2007	
1,2-Dichloroethane	< 10	10	< 41	41	20	10/31/2007	
1,2-Dichloropropane	< 10	10	< 47	47	20	10/31/2007	
1,3,5-Trimethylbenzene	< 10	10	< 50	50	20	10/31/2007	
1,3-Butadiene	< 10	10	< 22	22	20	10/31/2007	
1,3-Dichlorobenzene	< 10	10	< 61	61	20	10/31/2007	
1,4-Dichlorobenzene	< 10	10	< 61	61	20	10/31/2007	
2,2,4-Trimethylpentane	< 10	10	< 47	47	20	10/31/2007	
2-Butanone (MEK)	< 20	20	< 60	60	20	10/31/2007	
2-Hexanone	< 20	20	< 83	83	20	10/31/2007	
2-Propanol	< 40	40	< 100	100	20	10/31/2007	
4-Ethyltoluene	< 10	10	< 44	44	20	10/31/2007	
4-Methyl-2-pentanone	< 20	20	< 83	83	20	10/31/2007	
Acetone	< 100	100	< 240	240	20	10/31/2007	
Allyl chloride	< 10	10	< 16	16	20	10/31/2007	
Benzene	< 10	10	< 32	32	20	10/31/2007	
Benzyl chloride	< 40	40	< 210	210	20	10/31/2007	
Bromodichloromethane	< 10	10	< 68	68	20	10/31/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT: Mactec
Lab Order: 07100569
Project: South Mesa/4972-07-2050
Lab ID: 07100569-04A

Client Sample ID: VW-5C
Tag Number: 752
Collection Date: 10/12/2007 9:06:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 10	10	< 22	22		20	10/31/2007
Bromoform	< 10	10	< 100	100		20	10/31/2007
Bromomethane	< 10	10	< 40	40		20	10/31/2007
Carbon disulfide	< 10	10	< 32	32		20	10/31/2007
Carbon tetrachloride	< 10	10	< 64	64		20	10/31/2007
Chlorobenzene	< 10	10	< 47	47		20	10/31/2007
Chloroethane	< 10	10	< 27	27		20	10/31/2007
Chloroform	11	10	54	50	D2	20	10/31/2007
Chloromethane	< 10	10	< 21	21		20	10/31/2007
cis-1,2-Dichloroethene	< 10	10	< 40	40		20	10/31/2007
cis-1,3-Dichloropropene	< 10	10	< 46	46	L1	20	10/31/2007
Cyclohexane	< 10	10	< 35	35	L1	20	10/31/2007
Dibromochloromethane	< 10	10	< 86	86		20	10/31/2007
Dichlorodifluoromethane(F-12)	< 10	10	< 50	50		20	10/31/2007
Dichlorotetrafluoroethane(F-114)	< 10	10	< 71	71		20	10/31/2007
Ethyl Acetate	< 10	10	< 37	37		20	10/31/2007
Ethylbenzene	< 10	10	< 44	44		20	10/31/2007
Heptane	< 10	10	< 42	42		20	10/31/2007
Hexachlorobutadiene	< 20	20	< 220	220		20	10/31/2007
Hexane	< 10	10	< 36	36	L1	20	10/31/2007
m&p-Xylene	< 20	20	< 88	88		20	10/31/2007
Methyl tert-butyl ether	< 20	20	< 73	73		20	10/31/2007
Methylene chloride	< 10	10	< 35	35		20	10/31/2007
o-Xylene	< 10	10	< 44	44		20	10/31/2007
Propene (Propylene)	< 10	10	< 18	18		20	10/31/2007
Styrene	< 10	10	< 43	43		20	10/31/2007

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT: Mactec
Lab Order: 07100569
Project: South Mesa/4972-07-2050
Lab ID: 07100569-04A

Client Sample ID: VW-5C
Tag Number: 752
Collection Date: 10/12/2007 9:06:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	360	10	2500	69	D2	20	10/31/2007
Tetrahydrofuran	< 40	40	< 120	120		20	10/31/2007
Toluene	< 10	10	< 38	38		20	10/31/2007
trans-1,2-Dichloroethene	< 10	10	< 40	40		20	10/31/2007
trans-1,3-Dichloropropene	< 10	10	< 46	46		20	10/31/2007
Trichloroethene	< 10	10	< 55	55		20	10/31/2007
Trichlorofluoromethane(F-11)	< 10	10	< 57	57		20	10/31/2007
Trichlorotrifluoroethane(F-113)	< 10	10	< 78	78		20	10/31/2007
Vinyl acetate	< 10	10	< 36	36		20	10/31/2007
Vinyl chloride	< 10	10	< 26	26		20	10/31/2007
Surr: 4-Bromofluorobenzene	103 %REC	70-130	-	-		20	10/31/2007

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT: Mactec
Lab Order: 07100569
Project: South Mesa/4972-07-2050
Lab ID: 07100569-05A

Client Sample ID: VW-7C
Tag Number: 315
Collection Date: 10/12/2007 9:13:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	10/31/2007	
1,1,2,2-Tetrachloroethane	< 0.50	0.50	< 3.5	3.5	1	10/31/2007	
1,1,2-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	10/31/2007	
1,1-Dichloroethane	11	0.50	45	2.1	1	10/31/2007	
1,1-Dichloroethene	3.5	0.50	14	2.0	1	10/31/2007	
1,2,4-Trichlorobenzene	< 2.0	2.0	< 15	15	1	10/31/2007	
1,2,4-Trimethylbenzene	0.87	0.50	4.3	2.5	1	10/31/2007	
1,2-Dibromoethane	< 0.50	0.50	< 3.9	3.9	1	10/31/2007	
1,2-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	10/31/2007	
1,2-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	10/31/2007	
1,2-Dichloropropane	4.3	0.50	20	2.4	1	10/31/2007	
1,3,5-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	10/31/2007	
1,3-Butadiene	< 0.50	0.50	< 1.1	1.1	1	10/31/2007	
1,3-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	10/31/2007	
1,4-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	10/31/2007	
2,2,4-Trimethylpentane	< 0.50	0.50	< 2.4	2.4	1	10/31/2007	
2-Butanone (MEK)	< 1.0	1.0	< 3.0	3.0	1	10/31/2007	
2-Hexanone	< 1.0	1.0	< 4.2	4.2	1	10/31/2007	
2-Propanol	< 2.0	2.0	< 5.0	5.0	1	10/31/2007	
4-Ethyltoluene	< 0.50	0.50	< 2.2	2.2	1	10/31/2007	
4-Methyl-2-pentanone	< 1.0	1.0	< 4.2	4.2	1	10/31/2007	
Acetone	5.8	5.0	14	12	1	10/31/2007	
Allyl chloride	< 0.50	0.50	< 0.80	0.80	1	10/31/2007	
Benzene	< 0.50	0.50	< 1.6	1.6	1	10/31/2007	
Benzyl chloride	< 2.0	2.0	< 11	11	1	10/31/2007	
Bromodichloromethane	0.88	0.50	6.0	3.4	1	10/31/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT: Mactec
Lab Order: 07100569
Project: South Mesa/4972-07-2050
Lab ID: 07100569-05A

Client Sample ID: VW-7C
Tag Number: 315
Collection Date: 10/12/2007 9:13:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Bromoethene(Vinyl Bromide)	< 0.50	0.50	< 1.1	1.1	1		10/31/2007
Bromoform	< 0.50	0.50	< 5.2	5.2	1		10/31/2007
Bromomethane	< 0.50	0.50	< 2.0	2.0	1		10/31/2007
Carbon disulfide	< 0.50	0.50	< 1.6	1.6	1		10/31/2007
Carbon tetrachloride	< 0.50	0.50	< 3.2	3.2	1		10/31/2007
Chlorobenzene	< 0.50	0.50	< 2.4	2.4	1		10/31/2007
Chloroethane	< 0.50	0.50	< 1.3	1.3	1		10/31/2007
Chloroform	5.7	0.50	28	2.5	1		10/31/2007
Chloromethane	< 0.50	0.50	< 1.0	1.0	1		10/31/2007
cis-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1		10/31/2007
cis-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	L1	1	10/31/2007
Cyclohexane	< 0.50	0.50	< 1.7	1.7	L1	1	10/31/2007
Dibromochloromethane	< 0.50	0.50	< 4.3	4.3	1		10/31/2007
Dichlorodifluoromethane(F-12)	< 0.50	0.50	< 2.5	2.5	1		10/31/2007
Dichlorotetrafluoroethane(F-114)	< 0.50	0.50	< 3.6	3.6	1		10/31/2007
Ethyl Acetate	< 0.50	0.50	< 1.8	1.8	1		10/31/2007
Ethylbenzene	< 0.50	0.50	< 2.2	2.2	1		10/31/2007
Heptane	< 0.50	0.50	< 2.1	2.1	1		10/31/2007
Hexachlorobutadiene	< 1.0	1.0	< 11	11	1		10/31/2007
Hexane	< 0.50	0.50	< 1.8	1.8	L1	1	10/31/2007
m&p-Xylene	< 1.0	1.0	< 4.4	4.4	1		10/31/2007
Methyl tert-butyl ether	< 1.0	1.0	< 3.7	3.7	1		10/31/2007
Methylene chloride	< 0.50	0.50	< 1.8	1.8	1		10/31/2007
o-Xylene	0.54	0.50	2.4	2.2	1		10/31/2007
Propene (Propylene)	< 0.50	0.50	< 0.88	0.88	1		10/31/2007
Styrene	< 0.50	0.50	< 2.2	2.2	1		10/31/2007

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 07-Nov-07

CLIENT: Mactec
Lab Order: 07100569
Project: South Mesa/4972-07-2050
Lab ID: 07100569-05A

Client Sample ID: VW-7C
Tag Number: 315
Collection Date: 10/12/2007 9:13:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15					Analyst: J.J.
Tetrachloroethene	53	2.5	370	17	D2	5	10/31/2007
Tetrahydrofuran	< 2.0	2.0	< 6.0	6.0		1	10/31/2007
Toluene	1.3	0.50	5.0	1.9		1	10/31/2007
trans-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0		1	10/31/2007
trans-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3		1	10/31/2007
Trichloroethene	4.1	0.50	23	2.8		1	10/31/2007
Trichlorofluoromethane(F-11)	6.2	0.50	35	2.8		1	10/31/2007
Trichlorotrifluoroethane(F-113)	< 0.50	0.50	< 3.9	3.9		1	10/31/2007
Vinyl acetate	< 0.50	0.50	< 1.8	1.8		1	10/31/2007
Vinyl chloride	< 0.50	0.50	< 1.3	1.3		1	10/31/2007
Surr: 4-Bromofluorobenzene	107 %REC	70-130	-	-		1	10/31/2007

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

CLIENT:

Mactec

Work Order:

07100569

Project:

South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R92773	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 92773					
Client ID:	Batch ID: R92773	TestNo: TO15		Analysis Date: 10/30/2007	SeqNo: 1098660					
Analyte	Result	PQL	SPK value	SPK Ref Val	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1-Trichloroethane	<0.50	0.50								
1,1,2,2-Tetrachloroethane	<0.50	0.50								
1,1,2-Trichloroethane	<0.50	0.50								
1,1-Dichloroethane	<0.50	0.50								
1,1-Dichloroethene	<0.50	0.50								
1,2,4-Trichlorobenzene	<2.0	2.0								
1,2,4-Trimethylbenzene	<0.50	0.50								
1,2-Dibromoethane	<0.50	0.50								
1,2-Dichlorobenzene	<0.50	0.50								
1,2-Dichloroethane	<0.50	0.50								
1,2-Dichloropropane	<0.50	0.50								
1,3,5-Trimethylbenzene	<0.50	0.50								
1,3-Butadiene	<0.50	0.50								
1,3-Dichlorobenzene	<0.50	0.50								
1,4-Dichlorobenzene	<0.50	0.50								
2,2,4-Trimethylpentane	<0.50	0.50								
2-Butanone (MEK)	<1.0	1.0								
2-Hexanone	<1.0	1.0								
2-Propanol	<2.0	2.0								
4-Ethyltoluene	<0.50	0.50								
4-Methyl-2-pentanone	<1.0	1.0								
Acetone	<5.0	5.0								
Allyl chloride	<0.50	0.50								
Benzene	<0.50	0.50								
Benzyl chloride	<2.0	2.0								

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

CLIENT:

Mactec

Work Order:

07100569

Project:

South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R92773	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 92773						
Client ID:	Batch ID: R92773	TestNo: TO15		Analysis Date: 10/30/2007	SeqNo: 1098660						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	<0.50	0.50									
Bromoethene(Vinyl Bromide)	<0.50	0.50									
Bromoform	<0.50	0.50									
Bromomethane	<0.50	0.50									
Carbon disulfide	<0.50	0.50									
Carbon tetrachloride	<0.50	0.50									
Chlorobenzene	<0.50	0.50									
Chloroethane	<0.50	0.50									
Chloroform	<0.50	0.50									
Chloromethane	<0.50	0.50									
cis-1,2-Dichloroethene	<0.50	0.50									
cis-1,3-Dichloropropene	<0.50	0.50									
Cyclohexane	<0.50	0.50									
Dibromochloromethane	<0.50	0.50									
Dichlorodifluoromethane(F-12)	<0.50	0.50									
Dichlorotetrafluoroethane(F-114)	<0.50	0.50									
Ethyl Acetate	<0.50	0.50									
Ethylbenzene	<0.50	0.50									
Heptane	<0.50	0.50									
Hexachlorobutadiene	<1.0	1.0									
Hexane	<0.50	0.50									
m&p-Xylene	<1.0	1.0									
Methyl tert-butyl ether	<1.0	1.0									
Methylene chloride	<0.50	0.50									
o-Xylene	<0.50	0.50									

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

CLIENT:

Mactec

Work Order:

07100569

Project:

South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R92773	SampleType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 92773						
Client ID:	Batch ID: R92773	TestNo: TO15		Analysis Date: 10/30/2007	SeqNo: 1098660						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Propene (Propylene)

<0.50

Styrene

<0.50

Tetrachloroethene

<0.50

Tetrahydrofuran

<2.0

Toluene

<0.50

trans-1,2-Dichloroethene

<0.50

trans-1,3-Dichloropropene

<0.50

Trichloroethene

<0.50

Trichlorofluoromethane(F-11)

<0.50

Trichlorotrifluoroethane(F-113)

<0.50

Vinyl acetate

<0.50

Vinyl chloride

<0.50

Surr: 4-Bromofluorobenzene

10

0

102

70

130

Sample ID: MB-R92848	SampleType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 92848						
Client ID:	Batch ID: R92848	TestNo: TO15		Analysis Date: 11/1/2007	SeqNo: 1099417						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1-Trichloroethane

<0.50

1,1,2,2-Tetrachloroethane

<0.50

1,1,2-Trichloroethane

<0.50

1,1-Dichloroethane

<0.50

1,1-Dichloroethene

<0.50

1,2,4-Trichlorobenzene

<2.0

1,2,4-Trimethylbenzene

<0.50

Qualifiers:

* Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

CLIENT: Mactec

Work Order: 07100569

Project: South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R92848		SampType: MBLK		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 92848	
Client ID:		Batch ID: R92848		TestNo: TO15				Analysis Date: 11/1/2007		SeqNo: 1099417	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane	<0.50	0.50									
1,2-Dichlorobenzene	<0.50	0.50									
1,2-Dichloroethane	<0.50	0.50									
1,2-Dichloropropane	<0.50	0.50									
1,3,5-Trimethylbenzene	<0.50	0.50									
1,3-Butadiene	<0.50	0.50									
1,3-Dichlorobenzene	<0.50	0.50									
1,4-Dichlorobenzene	<0.50	0.50									
2,2,4-Trimethylpentane	<0.50	0.50									
2-Butanone (MEK)	<1.0	1.0									
2-Hexanone	<1.0	1.0									
2-Propanol	<2.0	2.0									
4-Ethyltoluene	<0.50	0.50									
4-Methyl-2-pentanone	<1.0	1.0									
Acetone	<5.0	5.0									
Allyl chloride	<0.50	0.50									
Benzene	<0.50	0.50									
Benzyl chloride	<2.0	2.0									
Bromodichloromethane	<0.50	0.50									
Bromoethene(Vinyl Bromide)	<0.50	0.50									
Bromoform	<0.50	0.50									
Bromomethane	<0.50	0.50									
Carbon disulfide	<0.50	0.50									
Carbon tetrachloride	<0.50	0.50									
Chlorobenzene	<0.50	0.50									

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

CLIENT:

Mactec

Work Order:

07100569

Project:

South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R92848	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 92848						
Client ID:	Batch ID: R92848	TestNo: TO15		Analysis Date: 11/1/2007	SeqNo: 1099417						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloroethane	<0.50	0.50									
Chloroform	<0.50	0.50									
Chloromethane	<0.50	0.50									
cis-1,2-Dichloroethene	<0.50	0.50									
cis-1,3-Dichloropropene	<0.50	0.50									
Cyclohexane	<0.50	0.50									
Dibromochloromethane	<0.50	0.50									
Dichlorodifluoromethane(F-12)	<0.50	0.50									
Dichlorotetrafluoroethane(F-114)	<0.50	0.50									
Ethyl Acetate	<0.50	0.50									
Ethylbenzene	<0.50	0.50									
Heptane	<0.50	0.50									
Hexachlorobutadiene	<1.0	1.0									
Hexane	<0.50	0.50									
m&p-Xylene	<1.0	1.0									
Methyl tert-butyl ether	<1.0	1.0									
Methylene chloride	<0.50	0.50									
o-Xylene	<0.50	0.50									
Propene (Propylene)	<0.50	0.50									
Styrene	<0.50	0.50									
Tetrachloroethene	<0.50	0.50									
Tetrahydrofuran	<2.0	2.0									
Toluene	<0.50	0.50									
trans-1,2-Dichloroethene	<0.50	0.50									
trans-1,3-Dichloropropene	<0.50	0.50									

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

CLIENT:

Mactec

Work Order:

07100569

Project:

South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: MB-R92848	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 92848						
Client ID:	Batch ID: R92848	TestNo: TO15		Analysis Date: 11/1/2007	SeqNo: 1099417						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Trichloroethene
Trichlorofluoromethane(F-11)
Trichlorotrifluoroethane(F-113)
Vinyl acetate
Vinyl chloride
Surr: 4-Bromofluorobenzene

70 130

Sample ID: LCS-R92773

SampType: LCS

Client ID:

Batch ID: R92773

TestCode: TO15

TestNo: TO15

Prep Date:

RunNo: 92773

SeqNo: 1098661

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,2-Dibromoethane
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,3,5-Trimethylbenzene
1,3-Butadiene
1,3-Dichlorobenzene

10.83
11.01
10.39
10.27
11.17
12.22
12.88
10.66
11.43
10.26
10.81
12.61
9.980
11.50

0.50
0.50
0.50
0.50
0.50
2.0
0.50
0.50
0.50
0.50
0.50
0.50
0.50
0.50

10
10
10
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108
110
104
103
112
122
129
107
114
103
108
126
99.8
115

65
65
65
65
65
65
65
65
65
65
65
65
65
65

135
135
135
135
135
135
135
135
135
135
135
135
135
135

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

CLIENT: Mactec

Work Order: 07100569

Project: South Mesa/4972-07-2050

Sample ID: LCS-R92773		SampType: LCS		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 92773	
Client ID:		Batch ID: R92773		TestNo: TO15				Analysis Date: 10/30/2007		SeqNo: 1098661	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	11.59	0.50	10	0	116	65	135				
2,2,4-Trimethylpentane	11.56	0.50	10	0	116	65	135				
2-Butanone (MEK)	10.85	1.0	10	0	108	65	135				
2-Hexanone	10.99	1.0	10	0	110	65	135				
2-Propanol	9.280	2.0	10	0	92.8	65	135				
4-Ethyltoluene	12.95	0.50	10	0	130	65	135				
4-Methyl-2-pentanone	11.05	1.0	10	0	110	65	135				
Acetone	8.890	5.0	10	0	88.9	65	135				
Allyl chloride	11.01	0.50	10	0	110	65	135				
Benzene	11.00	0.50	10	0	110	65	135				
Benzyl chloride	10.81	2.0	10	0	108	65	135				
Bromodichloromethane	10.70	0.50	10	0	107	65	135				
Bromoethene(Vinyl Bromide)	9.860	0.50	10	0	98.6	65	135				
Bromoform	10.95	0.50	10	0	110	65	135				
Bromomethane	9.920	0.50	10	0	99.2	65	135				
Carbon disulfide	10.03	0.50	10	0	100	65	135				
Carbon tetrachloride	10.09	0.50	10	0	101	65	135				
Chlorobenzene	11.15	0.50	10	0	112	65	135				
Chloroethane	9.760	0.50	10	0	97.6	65	135				
Chloroform	10.45	0.50	10	0	104	65	135				
Chloromethane	9.930	0.50	10	0	99.3	65	135				
cis-1,2-Dichloroethene	10.93	0.50	10	0	109	65	135				
cis-1,3-Dichloropropene	12.36	0.50	10	0	124	65	135				
Cyclohexane	12.14	0.50	10	0	121	65	135				
Dibromochloromethane	10.32	0.50	10	0	103	65	135				

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

CLIENT: Mactec

Work Order: 07100569

Project: South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R92773	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 92773						
Client ID:	Batch ID: R92773	TestNo: TO15		Analysis Date: 10/30/2007	SeqNo: 1098661						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane(F-12)	10.20	0.50	10	0	102	65	135				
Dichlorotetrafluoroethane(F-114)	10.23	0.50	10	0	102	65	135				
Ethyl Acetate	11.21	0.50	10	0	112	65	135				
Ethylbenzene	12.46	0.50	10	0	125	65	135				
Heptane	11.27	0.50	10	0	113	65	135				
Hexachlorobutadiene	12.13	1.0	10	0	121	65	135				
Hexane	12.27	0.50	10	0	123	65	135				
m&p-Xylene	25.16	1.0	20	0	126	65	135				
Methyl tert-butyl ether	10.44	1.0	10	0	104	65	135				
Methylene chloride	9.710	0.50	10	0	97.1	65	135				
o-Xylene	11.99	0.50	10	0	120	65	135				
Propene (Propylene)	10.24	0.50	10	0	102	65	135				
Styrene	12.87	0.50	10	0	129	65	135				
Tetrachloroethene	11.41	0.50	10	0	114	65	135				
Tetrahydrofuran	11.33	2.0	10	0	113	65	135				
Toluene	11.85	0.50	10	0	118	65	135				
trans-1,2-Dichloroethene	10.33	0.50	10	0	103	65	135				
trans-1,3-Dichloropropene	11.48	0.50	10	0	115	65	135				
Trichloroethene	11.51	0.50	10	0	115	65	135				
Trichlorofluoromethane(F-11)	10.07	0.50	10	0	101	65	135				
Trichlorotrifluoroethane(F-113)	9.940	0.50	10	0	99.4	65	135				
Vinyl acetate	11.72	0.50	10	0	117	65	135				
Vinyl chloride	10.01	0.50	10	0	100	65	135				
Surr: 4-Bromofluorobenzene	10.47	0.50	10	0	105	70	130				

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

CLIENT: Mactec

Work Order: 07100569

Project: South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R92848	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 92848						
Client ID:	Batch ID: R92848	TestNo: TO15		Analysis Date: 11/1/2007	SeqNo: 1099420						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	10.96	0.50	10	0	110	65	135				
1,1,2,2-Tetrachloroethane	10.96	0.50	10	0	110	65	135				
1,1,2-Trichloroethane	10.34	0.50	10	0	103	65	135				
1,1-Dichloroethane	10.56	0.50	10	0	106	65	135				
1,1-Dichloroethene	11.20	0.50	10	0	112	65	135				
1,2,4-Trichlorobenzene	10.31	2.0	10	0	103	65	135				
1,2,4-Trimethylbenzene	12.73	0.50	10	0	127	65	135				
1,2-Dibromoethane	10.64	0.50	10	0	106	65	135				
1,2-Dichlorobenzene	11.23	0.50	10	0	112	65	135				
1,2-Dichloroethane	10.53	0.50	10	0	105	65	135				
1,2-Dichloropropane	10.92	0.50	10	0	109	65	135				
1,3,5-Trimethylbenzene	12.45	0.50	10	0	125	65	135				
1,3-Butadiene	9.900	0.50	10	0	99.0	65	135				
1,3-Dichlorobenzene	11.22	0.50	10	0	112	65	135				
1,4-Dichlorobenzene	11.40	0.50	10	0	114	65	135				
2,2,4-Trimethylpentane	11.58	0.50	10	0	116	65	135				
2-Butanone (MEK)	11.10	1.0	10	0	111	65	135				
2-Hexanone	11.35	1.0	10	0	114	65	135				
2-Propanol	9.460	2.0	10	0	94.6	65	135				
4-Ethyltoluene	12.74	0.50	10	0	127	65	135				
4-Methyl-2-pentanone	11.35	1.0	10	0	114	65	135				
Acetone	9.030	5.0	10	0	90.3	65	135				
Allyl chloride	11.36	0.50	10	0	114	65	135				
Benzene	11.29	0.50	10	0	113	65	135				
Benzyl chloride	11.03	2.0	10	0	110	65	135				

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

CLIENT:

Mactec

Work Order:

07100569

Project:

South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R92848	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 92848						
Client ID:	Batch ID: R92848	TestNo: TO15		Analysis Date: 11/1/2007	SeqNo: 1099420						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	10.71	0.50	10	0	107	65	135				
Bromoethene(Vinyl Bromide)	9.800	0.50	10	0	98.0	65	135				
Bromoform	10.68	0.50	10	0	107	65	135				
Bromomethane	9.780	0.50	10	0	97.8	65	135				
Carbon disulfide	9.870	0.50	10	0	98.7	65	135				
Carbon tetrachloride	10.24	0.50	10	0	102	65	135				
Chlorobenzene	11.06	0.50	10	0	111	65	135				
Chloroethane	9.870	0.50	10	0	98.7	65	135				
Chloroform	10.67	0.50	10	0	107	65	135				
Chloromethane	9.780	0.50	10	0	97.8	65	135				
cis-1,2-Dichloroethene	11.04	0.50	10	0	110	65	135				
cis-1,3-Dichloropropene	12.72	0.50	10	0	127	65	135				
Cyclohexane	12.53	0.50	10	0	125	65	135				
Dibromochloromethane	10.18	0.50	10	0	102	65	135				
Dichlorodifluoromethane(F-12)	10.01	0.50	10	0	100	65	135				
Dichlorotetrafluoroethane(F-114)	10.13	0.50	10	0	101	65	135				
Ethyl Acetate	11.76	0.50	10	0	118	65	135				
Ethylbenzene	12.44	0.50	10	0	124	65	135				
Heptane	11.41	0.50	10	0	114	65	135				
Hexachlorobutadiene	10.19	1.0	10	0	102	65	135				
Hexane	12.74	0.50	10	0	127	65	135				
m&p-Xylene	25.03	1.0	20	0	125	65	135				
Methyl tert-butyl ether	10.56	1.0	10	0	106	65	135				
Methylene chloride	9.960	0.50	10	0	99.6	65	135				
o-Xylene	11.90	0.50	10	0	119	65	135				

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

CLIENT:

Mactec

Work Order:

07100569

Project:

South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCS-R92848	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 92848						
Client ID:	Batch ID: R92848	TestNo: TO15		Analysis Date: 11/1/2007	SeqNo: 1099420						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Propene (Propylene)

103

135

65

10

0

Styrene

127

135

65

10

0

Tetrachloroethene

112

135

65

10

0

Tetrahydrofuran

118

135

65

10

0

Toluene

118

135

65

10

0

trans-1,2-Dichloroethene

106

135

65

10

0

trans-1,3-Dichloropropene

117

135

65

10

0

Trichloroethene

114

135

65

10

0

Trichlorofluoromethane(F-11)

100

135

65

10

0

Trichlorotrifluoroethane(F-113)

100

135

65

10

0

Vinyl acetate

124

135

65

10

0

Vinyl chloride

98.5

135

65

10

0

Surr: 4-Bromofluorobenzene

101

130

70

10

0

Sample ID: LCSD-R92773

SampType: LCSD

Batch ID: R92773

TestCode: TO15

Units: ppbv

Prep Date:

RunNo: 92773

Client ID:

TestNo: TO15

Analysis Date: 10/30/2007

SeqNo: 1098662

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	11.87	0.50	10	0	119	65	135	10.83	9.16	25	25
1,1,2,2-Tetrachloroethane	11.11	0.50	10	0	111	65	135	11.01	0.904	25	25
1,1,2-Trichloroethane	11.47	0.50	10	0	115	65	135	10.39	9.88	25	25
1,1-Dichloroethane	11.44	0.50	10	0	114	65	135	10.27	10.8	25	25
1,1-Dichloroethene	12.28	0.50	10	0	123	65	135	11.17	9.47	25	25
1,2,4-Trichlorobenzene	12.62	2.0	10	0	126	65	135	12.22	3.22	25	25
1,2,4-Trimethylbenzene	12.98	0.50	10	0	130	65	135	12.88	0.773	25	25

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

CLIENT:

Mactec

Work Order: 07100569

Project: South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R92773		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 92773	
Client ID:		Batch ID: R92773		TestNo: TO15				Analysis Date: 10/30/2007		SeqNo: 1098662	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane	11.83	0.50	10	0	118	65	135	10.66	10.4	25	
1,2-Dichlorobenzene	11.62	0.50	10	0	116	65	135	11.43	1.65	25	
1,2-Dichloroethane	11.33	0.50	10	0	113	65	135	10.26	9.91	25	
1,2-Dichloropropane	11.96	0.50	10	0	120	65	135	10.81	10.1	25	
1,3,5-Trimethylbenzene	12.65	0.50	10	0	126	65	135	12.61	0.317	25	
1,3-Butadiene	10.74	0.50	10	0	107	65	135	9.980	7.34	25	
1,3-Dichlorobenzene	11.69	0.50	10	0	117	65	135	11.50	1.64	25	
1,4-Dichlorobenzene	11.82	0.50	10	0	118	65	135	11.59	1.96	25	
2,2,4-Trimethylpentane	12.71	0.50	10	0	127	65	135	11.56	9.48	25	
2-Butanone (MEK)	12.29	1.0	10	0	123	65	135	10.85	12.4	25	
2-Hexanone	12.70	1.0	10	0	127	65	135	10.99	14.4	25	
2-Propanol	10.56	2.0	10	0	106	65	135	9.280	12.9	25	
4-Ethyltoluene	13.11	0.50	10	0	131	65	135	12.95	1.23	25	
4-Methyl-2-pentanone	12.58	1.0	10	0	126	65	135	11.05	12.9	25	
Acetone	9.930	5.0	10	0	99.3	65	135	8.890	11.1	25	
Allyl chloride	12.57	0.50	10	0	126	65	135	11.01	13.2	25	
Benzene	12.28	0.50	10	0	123	65	135	11.00	11.0	25	
Benzyl chloride	11.44	2.0	10	0	114	65	135	10.81	5.66	25	
Bromodichloromethane	11.67	0.50	10	0	117	65	135	10.70	8.67	25	
Bromoethene(Vinyl Bromide)	10.82	0.50	10	0	108	65	135	9.860	9.28	25	
Bromoform	11.08	0.50	10	0	111	65	135	10.95	1.18	25	
Bromomethane	10.79	0.50	10	0	108	65	135	9.920	8.40	25	
Carbon disulfide	10.84	0.50	10	0	108	65	135	10.03	7.76	25	
Carbon tetrachloride	11.07	0.50	10	0	111	65	135	10.09	9.26	25	
Chlorobenzene	11.31	0.50	10	0	113	65	135	11.15	1.42	25	

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

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Date: 07-Nov-07

CLIENT:

Mactec

Work Order:

07100569

Project:

South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R92773		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 92773	
Client ID:	Batch ID: R92773			TestNo: TO15				Analysis Date: 10/30/2007		SeqNo: 1098662	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane	10.66	0.50	10	0	107	65	135	9.760	8.81	25	
Chloroform	11.49	0.50	10	0	115	65	135	10.45	9.48	25	
Chloromethane	10.65	0.50	10	0	106	65	135	9.930	7.00	25	
cis-1,2-Dichloroethene	12.36	0.50	10	0	124	65	135	10.93	12.3	25	
cis-1,3-Dichloropropene	13.92	0.50	10	0	139	65	135	12.36	11.9	25	L1
Cyclohexane	13.54	0.50	10	0	135	65	135	12.14	10.9	25	L1
Dibromochloromethane	11.45	0.50	10	0	114	65	135	10.32	10.4	25	
Dichlorodifluoromethane(F-12)	10.76	0.50	10	0	108	65	135	10.20	5.34	25	
Dichlorotetrafluoroethane(F-114)	10.98	0.50	10	0	110	65	135	10.23	7.07	25	
Ethyl Acetate	12.72	0.50	10	0	127	65	135	11.21	12.6	25	
Ethylbenzene	12.76	0.50	10	0	128	65	135	12.46	2.38	25	
Heptane	12.28	0.50	10	0	123	65	135	11.27	8.58	25	
Hexachlorobutadiene	12.00	1.0	10	0	120	65	135	12.13	1.08	25	L1
Hexane	13.70	0.50	10	0	137	65	135	12.27	11.0	25	
m&p-Xylene	25.71	1.0	20	0	129	65	135	25.16	2.16	25	
Methyl tert-butyl ether	11.96	1.0	10	0	120	65	135	10.44	13.6	25	
Methylene chloride	10.69	0.50	10	0	107	65	135	9.710	9.61	25	
o-Xylene	12.07	0.50	10	0	121	65	135	11.99	0.665	25	
Propene (Propylene)	11.64	0.50	10	0	116	65	135	10.24	12.8	25	
Styrene	13.11	0.50	10	0	131	65	135	12.87	1.85	25	
Tetrachloroethene	12.66	0.50	10	0	127	65	135	11.41	10.4	25	
Tetrahydrofuran	12.74	2.0	10	0	127	65	135	11.33	11.7	25	
Toluene	13.18	0.50	10	0	132	65	135	11.85	10.6	25	
trans-1,2-Dichloroethene	11.83	0.50	10	0	118	65	135	10.33	13.5	25	
trans-1,3-Dichloropropene	13.03	0.50	10	0	130	65	135	11.48	12.6	25	

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

CLIENT:

Mactec

Work Order:

07100569

Project:

South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R92773	SampType: LCSD	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 92773						
Client ID:	Batch ID: R92773	TestNo: TO15		Analysis Date: 10/30/2007	SeqNo: 1098662						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	12.70	0.50	10	0	127	65	135	11.51	9.83	25	
Trichlorofluoromethane(F-11)	10.86	0.50	10	0	109	65	135	10.07	7.55	25	
Trichlorotrifluoroethane(F-113)	10.99	0.50	10	0	110	65	135	9.940	10.0	25	
Vinyl acetate	13.32	0.50	10	0	133	65	135	11.72	12.8	25	
Vinyl chloride	10.81	0.50	10	0	108	65	135	10.01	7.68	25	
Surr: 4-Bromofluorobenzene	10.97	0.50	10	0	110	70	130	10.47	0	0	

Sample ID: LCSD-R92848		SampType: LCSD		TestCode: TO15		Units: ppbv		Prep Date:		RunNo: 92848	
Client ID:		Batch ID: R92848		TestNo: TO15				Analysis Date: 11/1/2007		SeqNo: 1099421	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	11.18	0.50	10	0	112	65	135	10.96	1.99	25	
1,1,2,2-Tetrachloroethane	11.11	0.50	10	0	111	65	135	10.96	1.36	25	
1,1,2-Trichloroethane	10.26	0.50	10	0	103	65	135	10.34	0.777	25	
1,1-Dichloroethane	10.73	0.50	10	0	107	65	135	10.56	1.60	25	
1,1-Dichloroethene	11.55	0.50	10	0	116	65	135	11.20	3.08	25	
1,2,4-Trichlorobenzene	12.15	2.0	10	0	122	65	135	10.31	16.4	25	
1,2,4-Trimethylbenzene	12.82	0.50	10	0	128	65	135	12.73	0.705	25	
1,2-Dibromoethane	10.58	0.50	10	0	106	65	135	10.64	0.566	25	
1,2-Dichlorobenzene	11.43	0.50	10	0	114	65	135	11.23	1.77	25	
1,2-Dichloroethane	10.50	0.50	10	0	105	65	135	10.53	0.285	25	
1,2-Dichloropropane	10.83	0.50	10	0	108	65	135	10.92	0.828	25	
1,3,5-Trimethylbenzene	12.56	0.50	10	0	126	65	135	12.45	0.880	25	
1,3-Butadiene	10.11	0.50	10	0	101	65	135	9.900	2.10	25	
1,3-Dichlorobenzene	11.51	0.50	10	0	115	65	135	11.22	2.55	25	

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 07-Nov-07

CLIENT:

Mactec

Work Order:

07100569

Project:

South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R92848	SampType: LCSD	TestCode: TO15		Units: ppbv	Prep Date:		RunNo: 92848				
Client ID:	Batch ID: R92848	TestNo: TO15			Analysis Date: 11/1/2007		SeqNo: 1099421				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	11.62	0.50	10	0	116	65	135	11.40	1.91	25	
2,2,4-Trimethylpentane	11.56	0.50	10	0	116	65	135	11.58	0.173	25	
2-Butanone (MEK)	11.34	1.0	10	0	113	65	135	11.10	2.14	25	
2-Hexanone	11.84	1.0	10	0	118	65	135	11.35	4.23	25	
2-Propanol	10.01	2.0	10	0	100	65	135	9.460	5.65	25	
4-Ethyltoluene	12.92	0.50	10	0	129	65	135	12.74	1.40	25	
4-Methyl-2-pentanone	11.57	1.0	10	0	116	65	135	11.35	1.92	25	
Acetone	9.380	5.0	10	0	93.8	65	135	9.030	3.80	25	
Allyl chloride	11.88	0.50	10	0	119	65	135	11.36	4.48	25	
Benzene	11.47	0.50	10	0	115	65	135	11.29	1.58	25	
Benzyl chloride	11.52	2.0	10	0	115	65	135	11.03	4.35	25	
Bromodichloromethane	10.55	0.50	10	0	106	65	135	10.71	1.51	25	
Bromoethene(Vinyl Bromide)	10.13	0.50	10	0	101	65	135	9.800	3.31	25	
Bromoform	10.76	0.50	10	0	108	65	135	10.68	0.746	25	
Bromomethane	10.00	0.50	10	0	100	65	135	9.780	2.22	25	
Carbon disulfide	10.04	0.50	10	0	100	65	135	9.870	1.71	25	
Carbon tetrachloride	10.21	0.50	10	0	102	65	135	10.24	0.293	25	
Chlorobenzene	11.18	0.50	10	0	112	65	135	11.06	1.08	25	
Chloroethane	10.00	0.50	10	0	100	65	135	9.870	1.31	25	
Chloroform	10.70	0.50	10	0	107	65	135	10.67	0.281	25	
Chloromethane	9.820	0.50	10	0	98.2	65	135	9.780	0.408	25	
cis-1,2-Dichloroethene	11.30	0.50	10	0	113	65	135	11.04	2.33	25	
cis-1,3-Dichloropropene	12.70	0.50	10	0	127	65	135	12.72	0.157	25	
Cyclohexane	12.64	0.50	10	0	126	65	135	12.53	0.874	25	
Dibromochloromethane	10.11	0.50	10	0	101	65	135	10.18	0.690	25	

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

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South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID: LCSD-R92848	SampType: LCSD	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 92848						
Client ID:	Batch ID: R92848	TestNo: TO15		Analysis Date: 11/1/2007	SeqNo: 1099421						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane(F-12)	9.950	0.50	10	0	99.5	65	135	10.01	0.601	25	
Dichlorotetrafluoroethane(F-114)	10.21	0.50	10	0	102	65	135	10.13	0.787	25	
Ethyl Acetate	12.13	0.50	10	0	121	65	135	11.76	3.10	25	
Ethylbenzene	12.66	0.50	10	0	127	65	135	12.44	1.75	25	
Heptane	11.18	0.50	10	0	112	65	135	11.41	2.04	25	
Hexachlorobutadiene	10.28	1.0	10	0	103	65	135	10.19	0.879	25	
Hexane	12.94	0.50	10	0	129	65	135	12.74	1.56	25	
m&p-Xylene	25.35	1.0	20	0	127	65	135	25.03	1.27	25	
Methyl tert-butyl ether	11.12	1.0	10	0	111	65	135	10.56	5.17	25	
Methylene chloride	10.02	0.50	10	0	100	65	135	9.960	0.601	25	
o-Xylene	11.96	0.50	10	0	120	65	135	11.90	0.503	25	
Propene (Propylene)	11.25	0.50	10	0	112	65	135	10.29	8.91	25	
Styrene	12.97	0.50	10	0	130	65	135	12.73	1.87	25	
Tetrachloroethene	11.19	0.50	10	0	112	65	135	11.17	0.179	25	
Tetrahydrofuran	12.11	2.0	10	0	121	65	135	11.83	2.34	25	
Toluene	11.76	0.50	10	0	118	65	135	11.82	0.509	25	
trans-1,2-Dichloroethene	10.89	0.50	10	0	109	65	135	10.61	2.60	25	
trans-1,3-Dichloropropene	11.75	0.50	10	0	118	65	135	11.71	0.341	25	
Trichloroethene	11.29	0.50	10	0	113	65	135	11.36	0.618	25	
Trichlorofluoromethane(F-11)	10.03	0.50	10	0	100	65	135	10.02	0.0998	25	
Trichlorotrifluoroethane(F-113)	10.15	0.50	10	0	102	65	135	10.01	1.39	25	
Vinyl acetate	12.78	0.50	10	0	128	65	135	12.38	3.18	25	
Vinyl chloride	10.13	0.50	10	0	101	65	135	9.850	2.80	25	
Surr: 4-Bromofluorobenzene	10.24	0.50	10	0	102	70	130	10.07	0	0	

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories Sample Receipt Checklist

Project Checked By: _____

Laboratory Number: 07-10-0569	Completed By/On: <u>ad</u>
Client Name: <u>Macter</u>	Date/Time Rec'd: <u>10/12/07 10:25</u> By: <u>AG</u>
Matrix: <u>(Air)</u> Soil Aqueous Oil Sludge Solid WW DW	Carrier Name: <u>Client</u>

Temperature	Cooler #1 <u>Amb</u> °C	Cooler #2 °C	Cooler #3 °C	Cooler #4 °C
Temp. Read With	Thermometer IR	Thermometer IR	Thermometer IR	Thermometer IR

Client or PM made aware of temp. out of range? Yes No Circle one: Blue Ice Wet Ice Not Present

	Yes	No*	Not Present	Soil Containers:
Shipping container/cooler in good condition?	<u>X</u>			Brass Sleeve _____
Custody seals intact on shipping container/cooler?			<u>X</u>	Glass Jar _____
Custody seals intact on sample containers?			<u>X</u>	Methanol _____
Chain of Custody present and relinquished/received properly?	<u>X</u>			Plastic Bag _____
Chain of Custody agrees with sample labels?	<u>X</u>			Encore Samplers _____
Samples in proper containers/bottles?	<u>X</u>			Sterile Plastic _____
Sample containers intact?	<u>X</u>			
All samples received within holding time?	<u>X</u>			
Is there sufficient sample volume to perform the tests?	<u>X</u>			
40mL vials for volatiles & SOC's received with zero headspace?			<u>X</u>	

Total number of bottles received: S IH sample media: 1 Liter canIf applicable, how many sample bottles were shipped from AEL-Tucson? N/A X

Number of containers received by preservative and by sample number: (If more than 10 samples are rec'd, please continue on separate sheet(s)).

Preservative	Simple***	1	2	3	4	5	6	7	8	9	10	
A-General	<u>S</u>											*Any No response must be detailed in the comments section. Contact the PM immediately to determine how to proceed. Refer to SOP 11-001 and continue on back if additional space is needed.
B-HNO3												
C-H2SO4												
D-HCl												
E-Na2S2O3												**The holding time for pH and Total Residual Chlorine analysis is immediate. For the most accurate results, the pH and Total Residual Chlorine should be taken in the field within 15 minutes of sampling.
F-NaOH												
G-Sulfide												
H-Na Sulfite												***The Simple box is only to be used when there is one bottle per preservative in equal sample sets.
I-MCAA												
J-Methanol												
K-HAA												
L-Other												

Water-pH acceptable upon receipt? Yes No N/A X

Preservative & pH	pH of samples upon receipt	If pH requires adjustment, list sample number and reagent I.D. number.
Metals <2		
H2SO4 <2		
1664 <2		
Cyanide >12		
Sulfide >9		

Comments: _____



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1 North Phoenix - 1501 W. Knudsen, Phoenix, AZ 85027 623.780.4800 - FAX 623.445.6216

11 Tucson - 4455 S. Park Ave. Suite 110. Tucson. AZ 85714 520.807.3801 - FAX 520.807.3803

www.aerovirolabs.com or call toll-free 866 772 5227

Lab Number:

07-10-0569

[illegible]

Instructions / Special Requirements:

Date: _____ Time: _____

Samples Relinquished By:

Received By:

Analysis performed is subject to the Terms & Conditions available at www.aeroenvirolabs.com or call 866.772.5227 to request a copy.

Chain of Custody, Page 1 of 1, REV 02, 111803, VPQAS

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Wednesday, December 05, 2007

Jim Clarke
Mactec
3630 East Wier Avenue
Phoenix, AZ 85040

TEL: (602) 437-0250

FAX (602) 437-3675

RE: South Mesa/4972-07-2050

Dear Jim Clarke:

Order No.: 07110717

Aerotech Environmental Laboratories received 1 sample(s) on 11/21/2007 for the analyses presented in the following report.

This report includes the following information:

- Case Narrative.
- Analytical Report: includes test results, report limit (Limit), any applicable data qualifier (Qual), units, dilution factor (DF), and date analyzed.
- QC Summary Report.

This communication is intended only for the individual or entity to whom it is directed. It may contain information that is privileged, confidential, or otherwise exempt from disclosure under applicable law. Dissemination, distribution, or copying of this communication by anyone other than the intended recipient, or a duly designated employee or agent of such recipient, is prohibited. If you have received this communication in error, please notify us immediately and destroy this message and all attachments thereto. If you have any questions regarding these test results, please do not hesitate to call.

Sincerely,



Tim Trestrail
Project Manager

CLIENT: Mactec
Project: South Mesa/4972-07-2050
Lab Order: 07110717

CASE NARRATIVE

Analyses included in this report were performed by Aerotech Environmental Laboratories (AEL), 4645 E. Cotton Center Boulevard, Building 3, Suite 189, Phoenix, AZ.

AEL is licensed through the State of Arizona (License No. AZ0610), and holds NELAC accreditation (OR100001) through the State of Oregon for the analytical techniques noted on the scope of accreditation.

AEL is also accredited by the American Industrial Hygiene Association (AIHA) in the industrial hygiene program for the analytical techniques noted on the scope of accreditation.

Samples were analyzed using methods outlined in references such as:

- Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998.
- 40 CFR, Part 136, July 2006. Appendix A to Part 136 - Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater.
- Methods for the Chemical Analysis of Water and Wastes, EPA/600/4-79-020, Revised March 1983.
- Methods for the Determination of Organic Compounds in Drinking Water: Supplement III, August 1995, EPA/600/R-95/131.
- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA, 3rd Edition 1986, and Updates.
- Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA, Second Edition, 1999.
- NIOSH Manual of Analytical Methods, Fourth Edition, 1994.

Analytical Comments:

All method blanks and laboratory control spikes met method and/or laboratory quality control objectives for the analyses included in this report.

Aerotech Environmental Laboratories

Date: 05-Dec-07

CLIENT:	Mactec	Client Sample ID:	IAQ-1
Lab Order:	07110717	Tag Number:	5876
Project:	South Mesa/4972-07-2050	Collection Date:	11/21/2007 8:02:00 AM
Lab ID:	07110717-01A	Matrix:	AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
1,1,1-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	11/27/2007	
1,1,2,2-Tetrachloroethane	< 0.50	0.50	< 3.5	3.5	1	11/27/2007	
1,1,2-Trichloroethane	< 0.50	0.50	< 2.8	2.8	1	11/27/2007	
1,1-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	11/27/2007	
1,1-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	11/27/2007	
1,2,4-Trichlorobenzene	< 2.0	2.0	< 15	15	1	11/27/2007	
1,2,4-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	11/27/2007	
1,2-Dibromoethane	< 0.50	0.50	< 3.9	3.9	1	11/27/2007	
1,2-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	11/27/2007	
1,2-Dichloroethane	< 0.50	0.50	< 2.1	2.1	1	11/27/2007	
1,2-Dichloropropane	< 0.50	0.50	< 2.4	2.4	1	11/27/2007	
1,3,5-Trimethylbenzene	< 0.50	0.50	< 2.5	2.5	1	11/27/2007	
1,3-Butadiene	< 0.50	0.50	< 1.1	1.1	1	11/27/2007	
1,3-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	11/27/2007	
1,4-Dichlorobenzene	< 0.50	0.50	< 3.1	3.1	1	11/27/2007	
2,2,4-Trimethylpentane	5.1	0.50	24	2.4	1	11/27/2007	
2-Butanone (MEK)	8.2	1.0	25	3.0	1	11/27/2007	
2-Hexanone	< 1.0	1.0	< 4.2	4.2	1	11/27/2007	
2-Propanol	< 2.0	2.0	< 5.0	5.0	1	11/27/2007	
4-Ethyltoluene	< 0.50	0.50	< 2.2	2.2	1	11/27/2007	
4-Methyl-2-pentanone	< 1.0	1.0	< 4.2	4.2	1	11/27/2007	
Acetone	10	5.0	24	12	1	11/27/2007	
Allyl chloride	< 0.50	0.50	< 0.80	0.80	1	11/27/2007	
Benzene	2.2	0.50	7.2	1.6	1	11/27/2007	
Benzyl chloride	< 2.0	2.0	< 11	11	1	11/27/2007	
Bromodichloromethane	< 0.50	0.50	< 3.4	3.4	1	11/27/2007	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Aerotech Environmental Laboratories

Date: 05-Dec-07

CLIENT: Mactec
Lab Order: 07110717
Project: South Mesa/4972-07-2050
Lab ID: 07110717-01A

Client Sample ID: IAQ-1
Tag Number: 5876
Collection Date: 11/21/2007 8:02:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J				
Bromoethene(Vinyl Bromide)	< 0.50	0.50	< 1.1	1.1	1	11/27/2007	
Bromoform	< 0.50	0.50	< 5.2	5.2	1	11/27/2007	
Bromomethane	< 0.50	0.50	< 2.0	2.0	1	11/27/2007	
Carbon disulfide	< 0.50	0.50	< 1.6	1.6	1	11/27/2007	
Carbon tetrachloride	< 0.50	0.50	< 3.2	3.2	1	11/27/2007	
Chlorobenzene	< 0.50	0.50	< 2.4	2.4	1	11/27/2007	
Chloroethane	< 0.50	0.50	< 1.3	1.3	1	11/27/2007	
Chloroform	< 0.50	0.50	< 2.5	2.5	1	11/27/2007	
Chloromethane	0.60	0.50	1.3	1.0	1	11/27/2007	
cis-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	11/27/2007	
cis-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	11/27/2007	
Cyclohexane	2.6	0.50	9.1	1.7	1	11/27/2007	
Dibromochloromethane	< 0.50	0.50	< 4.3	4.3	1	11/27/2007	
Dichlorodifluoromethane(F-12)	6.7	0.50	34	2.5	1	11/27/2007	
Dichlorotetrafluoroethane(F-114)	< 0.50	0.50	< 3.6	3.6	1	11/27/2007	
Ethyl Acetate	< 0.50	0.50	< 1.8	1.8	1	11/27/2007	
Ethylbenzene	0.52	0.50	2.3	2.2	1	11/27/2007	
Heptane	2.1	0.50	8.7	2.1	1	11/27/2007	
Hexachlorobutadiene	< 1.0	1.0	< 11	11	1	11/27/2007	
Hexane	3.5	0.50	12	1.8	1	11/27/2007	
m&p-Xylene	1.5	1.0	6.6	4.4	1	11/27/2007	
Methyl tert-butyl ether	< 1.0	1.0	< 3.7	3.7	1	11/27/2007	
Methylene chloride	9.2	0.50	32	1.8	1	11/27/2007	
o-Xylene	0.88	0.50	3.9	2.2	1	11/27/2007	
Propene (Propylene)	4.8	0.50	8.4	0.88	1	11/27/2007	
Styrene	< 0.50	0.50	< 2.2	2.2	1	11/27/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

Date: 05-Dec-07

CLIENT: Mactec
Lab Order: 07110717
Project: South Mesa/4972-07-2050
Lab ID: 07110717-01A

Client Sample ID: IAQ-1
Tag Number: 5876
Collection Date: 11/21/2007 8:02:00 AM
Matrix: AIR

Analyses	ppbv		µg/m³		Qual	DF	Date Analyzed
	Result	Limit	Result	Limit			
VOLATILE ORGANICS IN AIR		TO15	Analyst: J.J.				
Tetrachloroethene	0.85	0.50	5.9	3.4	1	11/27/2007	
Tetrahydrofuran	< 2.0	2.0	< 6.0	6.0	1	11/27/2007	
Toluene	7.2	0.50	28	1.9	1	11/27/2007	
trans-1,2-Dichloroethene	< 0.50	0.50	< 2.0	2.0	1	11/27/2007	
trans-1,3-Dichloropropene	< 0.50	0.50	< 2.3	2.3	1	11/27/2007	
Trichloroethene	< 0.50	0.50	< 2.8	2.8	1	11/27/2007	
Trichlorofluoromethane(F-11)	< 0.50	0.50	< 2.8	2.8	1	11/27/2007	
Trichlorotrifluoroethane(F-113)	< 0.50	0.50	< 3.9	3.9	1	11/27/2007	
Vinyl acetate	< 0.50	0.50	< 1.8	1.8	1	11/27/2007	
Vinyl chloride	< 0.50	0.50	< 1.3	1.3	1	11/27/2007	
Surr: 4-Bromofluorobenzene	106 %REC	70-130	-	-	1	11/27/2007	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 05-Dec-07

CLIENT: Mactec
Work Order: 07110717
Project: South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT
TestCode: TO15

Sample ID	MB-R93591	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 93591
Client ID:	R93591	Batch ID:	TestNo: TO15		Analysis Date: 11/26/2007	SeqNo: 1107774
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

1,1,1-Trichloroethane	<0.50	0.50				
1,1,2,2-Tetrachloroethane	<0.50	0.50				
1,1,2-Trichloroethane	<0.50	0.50				
1,1-Dichloroethane	<0.50	0.50				
1,1-Dichloroethene	<0.50	0.50				
1,2,4-Trichlorobenzene	<2.0	2.0				
1,2,4-Trimethylbenzene	<0.50	0.50				
1,2-Dibromoethane	<0.50	0.50				
1,2-Dichlorobenzene	<0.50	0.50				
1,2-Dichloroethane	<0.50	0.50				
1,2-Dichloropropane	<0.50	0.50				
1,3,5-Trimethylbenzene	<0.50	0.50				
1,3-Butadiene	<0.50	0.50				
1,3-Dichlorobenzene	<0.50	0.50				
1,4-Dichlorobenzene	<0.50	0.50				
2,2,4-Trimethylpentane	<0.50	0.50				
2-Butanone (MEK)	<1.0	1.0				
2-Hexanone	<1.0	1.0				
2-Propanol	<2.0	2.0				
4-Ethyltoluene	<0.50	0.50				
4-Methyl-2-pentanone	<1.0	1.0				
Acetone	<5.0	5.0				
Allyl chloride	<0.50	0.50				
Benzene	<0.50	0.50				
Benzyl chloride	<2.0	2.0				

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 05-Dec-07

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

CLIENT: Mactec
Work Order: 07110717
Project: South Mesa/4972-07-2050

Sample ID	MB-R93591	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 93591						
Client ID:		Batch ID: R93591	TestNo: TO15		Analysis Date: 11/26/2007	SeqNo: 1107774						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane		<0.50	0.50									
Bromoethene(Vinyl Bromide)		<0.50	0.50									
Bromoform		<0.50	0.50									
Bromomethane		<0.50	0.50									
Carbon disulfide		<0.50	0.50									
Carbon tetrachloride		<0.50	0.50									
Chlorobenzene		<0.50	0.50									
Chloroethane		<0.50	0.50									
Chloroform		<0.50	0.50									
Chloromethane		<0.50	0.50									
cis-1,2-Dichloroethene		<0.50	0.50									
cis-1,3-Dichloropropene		<0.50	0.50									
Cyclohexane		<0.50	0.50									
Dibromochloromethane		<0.50	0.50									
Dichlorodifluoromethane(F-12)		<0.50	0.50									
Dichlorotetrafluoroethane(F-114)		<0.50	0.50									
Ethyl Acetate		<0.50	0.50									
Ethylbenzene		<0.50	0.50									
Heptane		<0.50	0.50									
Hexachlorobutadiene		<1.0	1.0									
Hexane		<0.50	0.50									
m&p-Xylene		<1.0	1.0									
Methyl tert-butyl ether		<1.0	1.0									
Methylene chloride		<0.50	0.50									
o-Xylene		<0.50	0.50									

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 05-Dec-07

ANALYTICAL QC SUMMARY REPORT

CLIENT: Mactec

Work Order: 07110717

Project: South Mesa/4972-07-2050

TestCode: TO15

Sample ID	MB-R93591	SampType: MBLK	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 93591						
Client ID:		Batch ID: R93591	TestNo: TO15		Analysis Date: 11/26/2007	SeqNo: 1107774						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Propene (Propylene)		<0.50	0.50									
Styrene		<0.50	0.50									
Tetrachloroethene		<0.50	0.50									
Tetrahydrofuran		<2.0	2.0									
Toluene		<0.50	0.50									
trans-1,2-Dichloroethene		<0.50	0.50									
trans-1,3-Dichloropropene		<0.50	0.50									
Trichloroethene		<0.50	0.50									
Trichlorofluoromethane(F-11)		<0.50	0.50									
Trichlorotrifluoroethane(F-113)		<0.50	0.50									
Vinyl acetate		<0.50	0.50									
Vinyl chloride		<0.50	0.50									
Surr: 4-Bromofluorobenzene		10.49	0.50	10	0	105		70	130			

Sample ID	LCS-R93591	SampType: LCS	TestCode: TO15		Units: ppbv	Prep Date:		RunNo: 93591				
Client ID:		Batch ID: R93591	TestNo: TO15			Analysis Date: 11/26/2007		SeqNo: 1107792				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane		9.960	0.50	10	0	99.6	65		135			
1,1,2,2-Tetrachloroethane		8.910	0.50	10	0	89.1	65		135			
1,1,2-Trichloroethane		10.37	0.50	10	0	104	65		135			
1,1-Dichloroethane		10.01	0.50	10	0	100	65		135			
1,1-Dichloroethene		10.22	0.50	10	0	102	65		135			
1,2,4-Trichlorobenzene		9.320	2.0	10	0	93.2	65		135			
1,2,4-Trimethylbenzene		9.670	0.50	10	0	96.7	65		135			

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 05-Dec-07

CLIENT: Mactec
Work Order: 07110717
Project: South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT
TestCode: TO15

Sample ID	LCS-R93591	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 93591					
Client ID:		Batch ID: R93591	TestNo: TO15		Analysis Date: 11/26/2007	SeqNo: 1107792					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane	10.82	0.50	10	0	108	65	135				
1,2-Dichlorobenzene	9.950	0.50	10	0	99.5	65	135				
1,2-Dichloroethane	9.930	0.50	10	0	99.3	65	135				
1,2-Dichloropropane	10.53	0.50	10	0	105	65	135				
1,3,5-Trimethylbenzene	9.550	0.50	10	0	95.5	65	135				
1,3-Butadiene	9.750	0.50	10	0	97.5	65	135				
1,3-Dichlorobenzene	10.14	0.50	10	0	101	65	135				
1,4-Dichlorobenzene	9.920	0.50	10	0	99.2	65	135				
2,2,4-Trimethylpentane	11.06	0.50	10	0	111	65	135				
2-Butanone (MEK)	10.14	1.0	10	0	101	65	135				
2-Hexanone	10.42	1.0	10	0	104	65	135				
2-Propanol	8.850	2.0	10	0	88.5	65	135				
4-Ethyltoluene	9.560	0.50	10	0	95.6	65	135				
4-Methyl-2-pentanone	10.35	1.0	10	0	104	65	135				
Acetone	9.370	5.0	10	0	93.7	65	135				
Allyl chloride	10.71	0.50	10	0	107	65	135				
Benzene	10.67	0.50	10	0	107	65	135				
Benzyl chloride	9.340	2.0	10	0	93.4	65	135				
Bromodichloromethane	10.30	0.50	10	0	103	65	135				
Bromoethene(Vinyl Bromide)	9.510	0.50	10	0	95.1	65	135				
Bromoform	8.720	0.50	10	0	87.2	65	135				
Bromomethane	9.430	0.50	10	0	94.3	65	135				
Carbon disulfide	9.770	0.50	10	0	97.7	65	135				
Carbon tetrachloride	9.740	0.50	10	0	97.4	65	135				
Chlorobenzene	8.890	0.50	10	0	88.9	65	135				

Qualifiers: * Value exceeds Maximum Contaminant Level

ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 05-Dec-07

CLIENT:

Mactec

Work Order:

07110717

Project:

South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID	LCS-R93591	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 93591				
Client ID:	Batch ID: R93591	Result	TestNo: TO15	SPK Ref Val	Analysis Date: 11/26/2007	SeqNo: 1107792				
Analyte		Result	PQL	SPK value	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroethane		9.460	0.50	10	0	65	135			
Chloroform		9.830	0.50	10	0	65	135			
Chloromethane		9.630	0.50	10	0	65	135			
cis-1,2-Dichloroethene		10.63	0.50	10	0	65	135			
cis-1,3-Dichloropropene		10.33	0.50	10	0	65	135			
Cyclohexane		10.43	0.50	10	0	65	135			
Dibromochloromethane		10.27	0.50	10	0	65	135			
Dichlorodifluoromethane(F-12)		9.350	0.50	10	0	65	135			
Dichlorotetrafluoroethane(F-114)		9.700	0.50	10	0	65	135			
Ethyl Acetate		10.92	0.50	10	0	65	135			
Ethylbenzene		9.230	0.50	10	0	65	135			
Heptane		10.81	0.50	10	0	65	135			
Hexachlorobutadiene		8.800	1.0	10	0	65	135			
Hexane		10.19	0.50	10	0	65	135			
m&p-Xylene		18.66	1.0	20	0	65	135			
Methyl tert-butyl ether		10.19	1.0	10	0	65	135			
Methylene chloride		9.460	0.50	10	0	65	135			
o-Xylene		10.03	0.50	10	0	65	135			
Propene (Propylene)		9.800	0.50	10	0	65	135			
Styrene		9.260	0.50	10	0	65	135			
Tetrachloroethene		11.09	0.50	10	0	65	135			
Tetrahydrofuran		10.64	2.0	10	0	65	135			
Toluene		11.67	0.50	10	0	65	135			
trans-1,2-Dichloroethene		10.21	0.50	10	0	65	135			
trans-1,3-Dichloropropene		9.850	0.50	10	0	65	135			

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 05-Dec-07

CLIENT:

Mactec

Work Order:

07110717

Project:

South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID	LCS-R93591	SampType: LCS	TestCode: TO15	Units: ppbv	Prep Date:	RunNo: 93591					
Client ID:		Batch ID: R93591	TestNo: TO15		Analysis Date: 11/26/2007	SeqNo: 1107792					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	10.90	0.50	10	0	109	65	135				
Trichlorofluoromethane(F-11)	9.670	0.50	10	0	96.7	65	135				
Trichlorotrifluoroethane(F-113)	9.720	0.50	10	0	97.2	65	135				
Vinyl acetate	11.52	0.50	10	0	115	65	135				
Vinyl chloride	9.600	0.50	10	0	96.0	65	135				
Surr: 4-Bromofluorobenzene	11.01	0.50	10	0	110	70	130				

Sample ID	LCSD-R93591	SampType: LCSD	TestCode: TO15		Units: ppbv	Prep Date:		RunNo: 93591				
Client ID:		Batch ID: R93591	TestNo: TO15			Analysis Date: 11/26/2007		SeqNo: 1107793				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane		9.880	0.50	10	0	98.8	65	135	9.960	0.806	25	
1,1,2,2-Tetrachloroethane		8.870	0.50	10	0	88.7	65	135	8.910	0.450	25	
1,1,2-Trichloroethane		10.21	0.50	10	0	102	65	135	10.37	1.55	25	
1,1-Dichloroethane		9.980	0.50	10	0	99.8	65	135	10.01	0.300	25	
1,1-Dichloroethene		10.35	0.50	10	0	104	65	135	10.22	1.26	25	
1,2,4-Trichlorobenzene		9.150	2.0	10	0	91.5	65	135	9.320	1.84	25	
1,2,4-Trimethylbenzene		9.580	0.50	10	0	95.8	65	135	9.670	0.935	25	
1,2-Dibromoethane		10.57	0.50	10	0	106	65	135	10.82	2.34	25	
1,2-Dichlorobenzene		9.990	0.50	10	0	99.9	65	135	9.950	0.401	25	
1,2-Dichloroethane		9.900	0.50	10	0	99.0	65	135	9.930	0.303	25	
1,2-Dichloropropane		10.45	0.50	10	0	104	65	135	10.53	0.763	25	
1,3,5-Trimethylbenzene		9.450	0.50	10	0	94.5	65	135	9.550	1.05	25	
1,3-Butadiene		10.00	0.50	10	0	100	65	135	9.750	2.53	25	
1,3-Dichlorobenzene		10.08	0.50	10	0	101	65	135	10.14	0.593	25	

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: 05-Dec-07

CLIENT:

Mactec

Work Order:

07110717

Project:

South Mesa/4972-07-2050

ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID	LCSD-R93591	SampType: LCSD	TestCode: TO15		Units: ppbv	Prep Date:		RunNo: 93591					
Client ID:	Batch ID: R93591	Result	PQL	SPK value	SPK Ref Val	%REC	Analysis Date: 11/26/2007	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte													
1,4-Dichlorobenzene		9.850	0.50	10	0	98.5		65	135	9.920	0.708	25	
2,2,4-Trimethylpentane		10.95	0.50	10	0	110		65	135	11.06	1.00	25	
2-Butanone (MEK)		10.13	1.0	10	0	101		65	135	10.14	0.0987	25	
2-Hexanone		10.46	1.0	10	0	105		65	135	10.42	0.383	25	
2-Propanol		9.280	2.0	10	0	92.8		65	135	8.850	4.74	25	
4-Ethyltoluene		9.500	0.50	10	0	95.0		65	135	9.560	0.630	25	
4-Methyl-2-pentanone		10.45	1.0	10	0	104		65	135	10.35	0.962	25	
Acetone		9.710	5.0	10	0	97.1		65	135	9.370	3.56	25	
Allyl chloride		11.04	0.50	10	0	110		65	135	10.71	3.03	25	
Benzene		10.67	0.50	10	0	107		65	135	10.67	0	25	
Benzyl chloride		9.380	2.0	10	0	93.8		65	135	9.340	0.427	25	
Bromodichloromethane		10.12	0.50	10	0	101		65	135	10.30	1.76	25	
Bromoethene(Vinyl Bromide)		9.580	0.50	10	0	95.8		65	135	9.510	0.733	25	
Bromoform		8.670	0.50	10	0	86.7		65	135	8.720	0.575	25	
Bromomethane		9.530	0.50	10	0	95.3		65	135	9.430	1.05	25	
Carbon disulfide		9.770	0.50	10	0	97.7		65	135	9.770	0	25	
Carbon tetrachloride		9.550	0.50	10	0	95.5		65	135	9.740	1.97	25	
Chlorobenzene		8.880	0.50	10	0	88.8		65	135	8.890	0.113	25	
Chloroethane		9.760	0.50	10	0	97.6		65	135	9.460	3.12	25	
Chloroform		9.750	0.50	10	0	97.5		65	135	9.830	0.817	25	
Chloromethane		9.690	0.50	10	0	96.9		65	135	9.630	0.621	25	
cis-1,2-Dichloroethene		10.77	0.50	10	0	108		65	135	10.63	1.31	25	
cis-1,3-Dichloropropene		10.25	0.50	10	0	103		65	135	10.33	0.777	25	
Cyclohexane		10.41	0.50	10	0	104		65	135	10.43	0.192	25	
Dibromochloromethane		10.11	0.50	10	0	101		65	135	10.27	1.57	25	

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

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ANALYTICAL QC SUMMARY REPORT

TestCode: TO15

Sample ID	LCSD-R93591	SampType: LCSD	TestCode: TO15		Units: ppbv	Prep Date:		RunNo: 93591				
Client ID:		Batch ID: R93591	TestNo: TO15			Analysis Date: 11/26/2007		SeqNo: 1107793				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane(F-12)		9.280	0.50	10	0	92.8	65	135	9.350	0.751	25	
Dichlorotetrafluoroethane(F-114)		9.590	0.50	10	0	95.9	65	135	9.700	1.14	25	
Ethyl Acetate		10.81	0.50	10	0	108	65	135	10.92	1.01	25	
Ethylbenzene		9.150	0.50	10	0	91.5	65	135	9.230	0.871	25	
Heptane		10.56	0.50	10	0	106	65	135	10.81	2.34	25	
Hexachlorobutadiene		8.830	1.0	10	0	88.3	65	135	8.800	0.340	25	
Hexane		10.28	0.50	10	0	103	65	135	10.19	0.879	25	
m&p-Xylene		18.61	1.0	20	0	93.0	65	135	18.66	0.268	25	
Methyl tert-butyl ether		10.22	1.0	10	0	102	65	135	10.19	0.294	25	
Methylene chloride		9.470	0.50	10	0	94.7	65	135	9.460	0.106	25	
o-Xylene		9.950	0.50	10	0	99.5	65	135	10.03	0.801	25	
Propene (Propylene)		10.40	0.50	10	0	104	65	135	9.800	5.94	25	
Styrene		9.230	0.50	10	0	92.3	65	135	9.260	0.324	25	
Tetrachloroethene		10.90	0.50	10	0	109	65	135	11.09	1.73	25	
Tetrahydrofuran		10.73	2.0	10	0	107	65	135	10.64	0.842	25	
Toluene		11.50	0.50	10	0	115	65	135	11.67	1.47	25	
trans-1,2-Dichloroethene		10.44	0.50	10	0	104	65	135	10.21	2.23	25	
trans-1,3-Dichloropropene		9.840	0.50	10	0	98.4	65	135	9.850	0.102	25	
Trichloroethene		10.77	0.50	10	0	108	65	135	10.90	1.20	25	
Trichlorofluoromethane(F-11)		9.570	0.50	10	0	95.7	65	135	9.670	1.04	25	
Trichlorotrifluoroethane(F-113)		9.750	0.50	10	0	97.5	65	135	9.720	0.308	25	
Vinyl acetate		11.81	0.50	10	0	118	65	135	11.52	2.49	25	
Vinyl chloride		9.690	0.50	10	0	96.9	65	135	9.600	0.933	25	
Surr: 4-Bromofluorobenzene		10.84	0.50	10	0	108	70	130	11.01	0	0	

Qualifiers: * Value exceeds Maximum Contaminant Level ND Not Detected at the Reporting Limit

Aerotech Environmental Laboratories Sample Receipt Checklist

Project Checked By: _____

Laboratory Number: <u>07-11-0717</u>	Completed By/On: <u>_____</u>
Client Name: <u>Mactec</u>	Date/Time Rec'd: <u>11/21/07 8:31</u> By: <u>T.T</u>
Matrix: <u>(Air)</u> Soil Aqueous Oil Sludge Solid WW DW	Carrier Name: <u>Client</u>

Temperature	Cooler #1 <u>Amb</u> °C	Cooler #2 °C	Cooler #3 °C	Cooler #4 °C
Temp. Read With	Thermometer IR	Thermometer IR	Thermometer IR	Thermometer IR

Client or PM made aware of temp. out of range? Yes No Circle one: Blue Ice Wet Ice (Not Present)

	Yes	No*	Not Present	Soil Containers:
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>			Brass Sleeve _____
Custody seals intact on shipping container/cooler?			<input checked="" type="checkbox"/>	Glass Jar _____
Custody seals intact on sample containers?			<input checked="" type="checkbox"/>	Methanol _____
Chain of Custody present and relinquished/received properly?	<input checked="" type="checkbox"/>			Plastic Bag _____
Chain of Custody agrees with sample labels?	<input checked="" type="checkbox"/>			Encore Samplers _____
Samples in proper containers/bottles?	<input checked="" type="checkbox"/>			Sterile Plastic _____
Sample containers intact?	<input checked="" type="checkbox"/>			
All samples received within holding time?	<input checked="" type="checkbox"/>		**See Comments about Chlorine and pH	
Is there sufficient sample volume to perform the tests?	<input checked="" type="checkbox"/>			
40mL vials for volatiles & SOCs received with zero headspace?			<input checked="" type="checkbox"/>	
Total number of bottles received: <u>1</u>	IH sample media: <u>6 L.</u>			
If applicable, how many sample bottles were shipped from AEL-Tucson?				<u>N/A</u>

Number of containers received by preservative and by sample number: (If more than 10 samples are rec'd, please continue on separate sheet(s)).

Preservative	Simple***	1	2	3	4	5	6	7	8	9	10	
A-General		<input checked="" type="checkbox"/>										<p>* Any No response must be detailed in the comments section. Contact the PM immediately to determine how to proceed. Refer to SOP 11-001 and continue on back if additional space is needed.</p> <p>**The holding time for pH and Total Residual Chlorine analysis is immediate. For the most accurate results, the pH and Total Residual Chlorine should be taken in the field within 15 minutes of sampling.</p> <p>***The Simple box is only to be used when there is one bottle per preservative in equal sample sets.</p>
B-HNO3												
C-H2SO4												
D-HCl												
E-Na2S2O3												
F-NaOH												
G-Sulfide												
H-Na Sulfite												
I-MCAA												
J-Methanol												
K-HAA												
L-Other												

Water-pH acceptable upon receipt? Yes No N/A ☒

Preservative & pH	pH of samples upon receipt	
Metals <2		If pH requires adjustment, list sample number and reagent I.D. number.
H2SO4 <2		
1664 <2		
Cyanide >12		
Sulfide >9		

Comments: _____



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Acrotech Laboratories, Inc.

[] Main Lab - 4645 E. Cotton Center Blvd., Building 3, Suite 189, Phoenix, AZ 85040 602.437.3340 - FAX 623.445.6192

[] North Phoenix - 1501 W. Knudsen, Phoenix, AZ 85027 623.780.4800 - FAX 623.445.6216

[] Tucson - 4455 S. Park Ave, Suite 110, Tucson, AZ 85714 520.807.3801 - FAX 520.807.3803

www.aeroenvirolabs.com or call toll-free 866.772.5227

Instructions / Special Requirements:

Date: _____ Time: _____

Time:

WALK

Samples Relinquished By:

Received By:

APPENDIX O

RESPONSIVENESS SUMMARY



**RESPONSIVENESS SUMMARY'
DRAFT REMEDIAL INVESTIGATION REPORT
SOUTH MESA WQARF SITE
PHOENIX, ARIZONA**

January 24, 2012

COMMENT

This report presents a responsiveness summary to comments received on the *Draft Remedial Investigation Report, South Mesa WQARF Site, Phoenix, Arizona* (RI Report). The Remedial Projects Unit (RPU) has prepared this Responsiveness Summary for all comments received regarding the RI Report. Comments were received from two parties, Ms. Karol Wolf (hydrogeologist) with the Salt River Project (SRP) and Mr. Scott Bouchie (Deputy Director) with the City of Mesa.

SPECIFIC COMMENTS FROM THE CITY OF MESA-

Comment 1: The Draft Report states on page 110, that "Considering the minimal usage of the UAU in the area as a water supply aquifer and that the PCE plume is apparently stable, further investigation does not appear to be warranted at this time."

The City does not agree with this statement. The original contaminant Tetrachloroethylene (PCE) is a very mobile contaminant within both the groundwater and soil systems moving easily in groundwater and unsaturated soils as a dissolved compound or vapor. The original PCE mother contaminant has/will undergo dehalogenation processes that will cause the compound of PCE to change into different daughter products of which some may be more toxic than the mother contaminant. PCE has several potential daughter products that consist of Trichloroethylene (TCE), Dichloroethylene (DCE), Vinyl Chloride (VC), Ethene, Ethane, Dichloroethane (DCA), and Chloroethane (CA).

Amounts of TCE have been detected within the SMWRS even though TCE was never used as a chemical at the original site indicating that amounts of PCE potentially have chemically dehalogenated into daughter products. However, the radial extent or plume of initial TCE or other daughter product(s) are not known nor have they been aerially and temporally mapped at this time. Beyond the City's water production wells which are tested regularly for these known contaminants, it is not known where some daughter products, if any, could have migrated.

In addition, the regional groundwater flow direction at the SMWRS was originally northeastern from the 1990s to 2004. However, due to reduced groundwater pumping and increased recharge and river flow events occurring together from 2005 – 2011, the groundwater table at the SMWRS has increased significantly and altered the original groundwater flow direction to the Southwest. This change in groundwater flow along with the fact that much of data used to delineate the PCE plume in the report was collected years ago may not represent current/actual conditions at the Site. It is concerning that no groundwater data more recent than September 2008 was presented in the report.

Response 1: The RI has defined the nature and extent of PCE impact in the UAU within the boundaries of the South Mesa WQARF Registry Site. Therefore, no additional investigation, such as installation of additional monitoring wells, is planned as part of the RI. There will be

future groundwater monitoring events of existing wells in support of the FS and the Record of Decision.

Dissolved PCE concentrations in the SM wells that have historically been detected with PCE have been steadily decreasing with time. This is attributed to the Early Response Actions that have been performed to remove dissolved and vapor phase PCE mass and natural attenuation by physical processes. The only monitoring wells recently detected with PCE above the AWQS of 5.0 µg/L are Applied Metallics Inc. (AMI) wells MW-AM-8S, MW-9-130, MW-9-175, MW-9-235, MW-10-130, and MW-11-200 and regional monitoring wells MW-5D and MW-7D, with PCE concentrations less than 12 µg/L. The dissolved PCE plume in the UAU has been demonstrated to be actually shrinking, possibly related to the change in groundwater flow direction. Nested well MW-14 was installed south of the AMI site to monitor any migration of PCE in this direction.

The City of Mesa's concern regarding PCE 'dehalogenation' to daughter products such as TCE, DCE, VC, ethene, ethane, DCA, and chloroethane is noted. However, under anaerobic conditions where hydrogen from organic carbon is present, certain electron acceptors are present (i.e. nitrate, sulfate, ferrous iron, manganese, or carbon dioxide), and naturally occurring anaerobic reducing bacteria are present, PCE has been shown to dehalogenate to TCE, TCE to c-1,2-DCE, c-1,2-DCE to VC, and VC to ethene. In Arizona where subsurface soils contain minimal naturally occurring organic carbon, these conditions are generally associated locally with landfills or petroleum releases where anthropogenic organic carbon is available. The only wells where TCE has ever been detected above AWQSs is in the early 1990's at SRP Well 28E-0N prior to the early response action (ERA) at that well and in Applied Metallics Inc. (AMI) well MW-AM-8S. TCE has not been detected above the AWQS in SRP well 28E-0N since 1990 (includes depth-specific sampling) and in well MW-AM-8S since March 2001. TCE was detected at a concentration of 5.7 µg/L in well MW-9-175 on September 10, 2008. C-1,2-DCE has never been detected above the AWQS of 70 µg/L and if it is detected it is at concentrations less than 10 µg/L. The highest concentrations have been detected in wells MW-10-130 and MW-10-170, which are located next to a septic tank and in a localized area where anaerobic reductive dehalogenation may be occurring. C-1,2-DCE is not extensive and is not considered a compound of potential concern (COPC). VC has never been detected in groundwater samples and is not listed in the summary analytical tables. Additionally, natural attenuation studies performed as part of the RI concluded that reductive dechlorination was not occurring on a regional basis and if it was occurring, it was only occurring locally near the AMI septic tank. Additionally, PCE is not known to dehalogenate to DCA, chloroethane, and ethane. These "daughter compounds" are typically associated with trichlorethane and 1,2-DCA was used as a lead scavenger in gasoline and is typically associated with older gasoline releases. Therefore, DCA, chloroethane, and ethane are not COPCs.

Comment 2: The Draft Report states on page 111, "Mesa Well No. 14 is a municipal drinking water supply well and vertical contaminant profile sampling has been proposed. If PCE is not detected in the well, the exposure pathway for Mesa Well No. 14 will be considered incomplete. If PCE is detected in the well, the exposure pathway will be considered complete and additional assessment will be required."

The City does not agree that a non-detection of PCE would indicate an incomplete exposure pathway. The City of Mesa reviewed Water Quality sampling records of drinking water wells in the area. This review revealed detectable levels of PCE and TCE. The levels of PCE and TCE detected were below the Maximum Contaminant levels, but this could suggest that TCE, a potential daughter product of PCE, originating from the SMWRS could have migrated to City wells due to the change in the groundwater flow direction. There are no other documented contamination sites between SMWRS and CW22 to suggest another source for TCE contaminants. Therefore, all known degradation compounds of PCE should be analyzed to determine presence/absence and concentration of these chemical of concern (COCs).

Response 2: The City of Mesa's comment is noted. ADEQ has requested sampling access to or analytical results from Mesa well CW14. The City of Mesa has not granted sampling access to the well or provided analytical results for sampling performed by the City. .

Comment 3: The Draft Report refers to the City wells primarily as back-up water supply wells. While one function of the City's groundwater wells is to provide back-up for canal dry-up or surface water treatment plant outage events, they become one of the principal sources of potable water for the City during extended periods of surface water shortages caused by the Colorado River and/or Salt River shortages.

Response 3: This language has been added to the report.

Comment 4: Metals were detected in groundwater at the SMWRS that exceeded the Aquifer Water Quality Standards (AWQS) that included: arsenic, chromium, manganese, and nickel. Some of these metals are extensively used in metal plating practices. Metals should continue to be monitored at the site.

Response 4: Comment noted. Analysis for arsenic, chromium, iron, manganese, and nickel was performed for seven sampling events from October 1998 until December 2001. Historic results indicate that metals do not pose a risk to groundwater and no further analysis is warranted. Based on this, these metals were eliminated through risk assessment as COPCs and no further analysis of groundwater samples was warranted.

Comment 5: It is important to note that Draft Report indicates analyses for vinyl chloride is not warranted, the City of Mesa does not agree with this statement. PCE is likely to degrade into vinyl chloride which has an even more stringent AWQS level of 2.0 µg/L. Sampling and analyses for vinyl chloride should be included in all groundwater sampling events.

Response 5: As indicated previously, there is no evidence of extensive reductive dehalogenation occurring at the SMWRS. Groundwater samples that are collected are analyzed for full list VOCs by EPA Method 8260B (low), which reports VC to a detection limit of 1.0 µg/L. Analysis for VC will continue. However, VC has never been detected in groundwater samples collected from the SMWRS wells.

Comment 6: There are several private and SRP groundwater wells located in and around the estimated extent of PCE plume. The City of Mesa also has several groundwater wells located in close proximity to the estimated extent of the PCE plume. Therefore, the City requests comprehensive groundwater monitor well sampling be performed to complete delineation of the PCE plume and its daughter products. Groundwater monitoring should then be performed on a regular basis until clean up goals are achieved.


Response 6: Groundwater monitoring will be a component of the selected remedy that meets the requirements of the remedial objectives.

SPECIFIC COMMENTS FROM THE SALT RIVER PROJECT (Karol O. Wolf)

Comment 1: Section 10.0, second bullet states that 'Remedial actions may not be necessary for the UAU groundwater because UAU groundwater is not currently used for drinking water.' SRP expects to retain and operate its production wells located within or near the South Mesa WQARF Site to provide water for its share holders. Some of the SRP wells draw water from the Upper Alluvial Unit (UAU) and are at risk as long as it is contaminated. While currently the wells provide water for irrigation, SRP anticipates that the wells will transition to drinking water supply in the reasonably foreseeable future, either by directly connecting the wells to municipal water distribution systems or piping to municipal water treatment plants located on the SRP canal system as a drought supply. Therefore, it is critical that contamination in the UAU be addressed.

Response 1: SRP's future use of wells has been noted in the Land & Water Use report and will be taken into consideration when developing ROs.

Comment 2: The Final RI Report should include the current water quality data for the SRP wells, 28E0N and 28.5E1N, located within the site. For 2009, PCE concentrations at both wells were less than 5 µg/L.

Response 2: ADEQ appreciates  data and will add it to the final RI report. Vinyl chloride (VC) has never been detected in any sample collected at South Mesa. If it hasn't been detected, it is not a compound of potential concern (COPC) and has not been discussed. The conditions for VC to be generated aren't present at the South Mesa WQARF site. If a massive release of petroleum occurred there, then the conditions for generation of VC may exist.

VOCs that have been detected are COPCs. Since only PCE and TCE have been detected and have exceeded the AWQS, they are the only compounds of interest.