

July 01, 2011



Matt Fraychineaud
Mactec
5628 E. Slauson Avenue,
Los Angeles, CA 90040-2922
TEL: (323) 889-5300
FAX:

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
Workorder No.: 118647

RE: Metro Westside Extension, 4953101561


Attention: Matt Fraychineaud

Enclosed are the results for sample(s) received on June 24, 2011 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,


for Eddie F. Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.

CLIENT: Mactec
Project: Metro Westside Extension, 4953101561
Lab Order: 118647

CASE NARRATIVE

All volatile analyses were performed using 5035 preservation requirements. Any high level dilutions were performed on a preserved methanol sample unless otherwise noted.

Analytical Comments for EPA 8021B

Samples 118658-009AMS and 118658-009AMSD, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).

Sample 118658-009AMSD, RPD for Matrix Spike Duplicate (MSD) is outside criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).



Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-104-40
Lab Order: 118647	Collection Date: 6/23/2011 11:00:00 AM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 118647-001A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110627A	QC Batch: K11VS180	PrepDate: 6/24/2011	Analyst: BD
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1,1,1,2-Tetrachloroethane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,1,1-Trichloroethane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,1,2,2-Tetrachloroethane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,1,2-Trichloroethane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,1-Dichloroethane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,1-Dichloroethene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,1-Dichloropropene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,2,3-Trichlorobenzene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,2,3-Trichloropropane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,2,4-Trichlorobenzene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,2,4-Trimethylbenzene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,2-Dibromo-3-chloropropane	ND	15	µg/Kg	1	6/27/2011 10:13 PM
1,2-Dibromoethane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,2-Dichlorobenzene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,2-Dichloroethane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,2-Dichloropropane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,3,5-Trimethylbenzene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,3-Dichlorobenzene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,3-Dichloropropane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
1,4-Dichlorobenzene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
2,2-Dichloropropane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
2-Chlorotoluene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
4-Chlorotoluene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
4-Isopropyltoluene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
Benzene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
Bromobenzene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
Bromodichloromethane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
Bromoform	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
Bromomethane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
Carbon tetrachloride	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
Chlorobenzene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
Chloroethane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
Chloroform	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
Chloromethane	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM
cis-1,2-Dichloroethene	ND	7.6	µg/Kg	1	6/27/2011 10:13 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-104-40
Lab Order: 118647	Collection Date: 6/23/2011 11:00:00 AM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 118647-001A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110627A	QC Batch: K11VS180	PrepDate: 6/24/2011	Analyst: BD
cis-1,3-Dichloropropene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Di-isopropyl ether	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Dibromochloromethane	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Dibromomethane	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Dichlorodifluoromethane	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Ethyl Tert-butyl ether	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Ethylbenzene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Hexachlorobutadiene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Isopropylbenzene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
m,p-Xylene	ND	15	µg/Kg 1 6/27/2011 10:13 PM
Methylene chloride	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
MTBE	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
n-Butylbenzene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
n-Propylbenzene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Naphthalene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
o-Xylene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
sec-Butylbenzene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Styrene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Tert-amyl methyl ether	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Tert-Butanol	ND	150	µg/Kg 1 6/27/2011 10:13 PM
tert-Butylbenzene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Tetrachloroethene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Toluene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
trans-1,2-Dichloroethene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Trichloroethene	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Trichlorofluoromethane	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Vinyl chloride	ND	7.6	µg/Kg 1 6/27/2011 10:13 PM
Surr: 1,2-Dichloroethane-d4	116	65-141	%REC 1 6/27/2011 10:13 PM
Surr: 4-Bromofluorobenzene	100	57-134	%REC 1 6/27/2011 10:13 PM
Surr: Dibromofluoromethane	106	70-128	%REC 1 6/27/2011 10:13 PM
Surr: Toluene-d8	103	72-123	%REC 1 6/27/2011 10:13 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-104-40
Lab Order:	118647	Collection Date:	6/23/2011 11:00:00 AM
Project:	Metro Westside Extension, 4953101561	Matrix:	SOIL
Lab ID:	118647-001D		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC2_110628A	QC Batch: E11VS239	PrepDate: 6/23/2011	Analyst: TP		
GRO	ND	0.94	mg/Kg	1	6/28/2011 11:09 AM
Surr: Bromofluorobenzene (FID)	117	51-161	%REC	1	6/28/2011 11:09 AM

VOLATILE ORGANIC COMPOUNDS BY GC/PID

EPA 8021B

RunID: GC2_110628A	QC Batch: E11VS239	PrepDate: 6/23/2011	Analyst: TP		
Benzene	ND	4.7	µg/Kg	1	6/28/2011 11:09 AM
Ethylbenzene	ND	4.7	µg/Kg	1	6/28/2011 11:09 AM
m,p-Xylene	ND	9.4	µg/Kg	1	6/28/2011 11:09 AM
o-Xylene	ND	4.7	µg/Kg	1	6/28/2011 11:09 AM
Toluene	ND	4.7	µg/Kg	1	6/28/2011 11:09 AM
Surr: Bromofluorobenzene (PID)	95.8	33-163	%REC	1	6/28/2011 11:09 AM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-104-40
Lab Order:	118647	Collection Date:	6/23/2011 11:00:00 AM
Project:	Metro Westside Extension, 4953101561	Matrix:	SOIL
Lab ID:	118647-001G		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS BY GC/FID						
	LUFT	EPA 8015B(M)				
RunID: GC16_110628B	QC Batch: 73941				PrepDate: 6/28/2011	Analyst: CBR
DRO	ND	10		mg/Kg	1	6/28/2011 04:38 PM
Surr: p-Terphenyl	113	63-152		%REC	1	6/28/2011 04:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-104-50
Lab Order: 118647	Collection Date: 6/23/2011 11:30:00 AM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 118647-002A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110627A	QC Batch: K11VS180	PrepDate: 6/24/2011	Analyst: BD
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1,1,1,2-Tetrachloroethane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,1,1-Trichloroethane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,1,2,2-Tetrachloroethane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,1,2-Trichloroethane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,1-Dichloroethane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,1-Dichloroethene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,1-Dichloropropene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,2,3-Trichlorobenzene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,2,3-Trichloropropane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,2,4-Trichlorobenzene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,2,4-Trimethylbenzene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,2-Dibromo-3-chloropropane	ND	11		µg/Kg	1	6/27/2011 10:30 PM
1,2-Dibromoethane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,2-Dichlorobenzene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,2-Dichloroethane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,2-Dichloropropane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,3,5-Trimethylbenzene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,3-Dichlorobenzene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,3-Dichloropropane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
1,4-Dichlorobenzene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
2,2-Dichloropropane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
2-Chlorotoluene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
4-Chlorotoluene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
4-Isopropyltoluene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
Benzene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
Bromobenzene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
Bromodichloromethane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
Bromoform	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
Bromomethane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
Carbon tetrachloride	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
Chlorobenzene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
Chloroethane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
Chloroform	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
Chloromethane	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM
cis-1,2-Dichloroethene	ND	5.4		µg/Kg	1	6/27/2011 10:30 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-104-50
Lab Order: 118647	Collection Date: 6/23/2011 11:30:00 AM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 118647-002A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110627A	QC Batch: K11VS180	PrepDate: 6/24/2011	Analyst: BD		
cis-1,3-Dichloropropene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Di-isopropyl ether	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Dibromochloromethane	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Dibromomethane	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Dichlorodifluoromethane	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Ethyl Tert-butyl ether	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Ethylbenzene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Hexachlorobutadiene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Isopropylbenzene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
m,p-Xylene	ND	11	µg/Kg	1	6/27/2011 10:30 PM
Methylene chloride	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
MTBE	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
n-Butylbenzene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
n-Propylbenzene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Naphthalene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
o-Xylene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
sec-Butylbenzene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Styrene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Tert-amyl methyl ether	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Tert-Butanol	ND	110	µg/Kg	1	6/27/2011 10:30 PM
tert-Butylbenzene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Tetrachloroethene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Toluene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
trans-1,2-Dichloroethene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Trichloroethene	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Trichlorofluoromethane	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Vinyl chloride	ND	5.4	µg/Kg	1	6/27/2011 10:30 PM
Surr: 1,2-Dichloroethane-d4	102	65-141	%REC	1	6/27/2011 10:30 PM
Surr: 4-Bromofluorobenzene	91.8	57-134	%REC	1	6/27/2011 10:30 PM
Surr: Dibromofluoromethane	96.5	70-128	%REC	1	6/27/2011 10:30 PM
Surr: Toluene-d8	93.6	72-123	%REC	1	6/27/2011 10:30 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
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Advanced Technology Laboratories

ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-104-50
Lab Order: 118647	Collection Date: 6/23/2011 11:30:00 AM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 118647-002D	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC2_110628A	QC Batch: E11VS239	PrepDate: 6/23/2011	Analyst: TP		
GRO	ND	1.4	mg/Kg	1	6/28/2011 11:25 AM
Surr: Bromofluorobenzene (FID)	87.2	51-161	%REC	1	6/28/2011 11:25 AM

VOLATILE ORGANIC COMPOUNDS BY GC/PID

EPA 8021B

RunID: GC2_110628A	QC Batch: E11VS239	PrepDate: 6/23/2011	Analyst: TP		
Benzene	ND	6.8	µg/Kg	1	6/28/2011 11:25 AM
Ethylbenzene	ND	6.8	µg/Kg	1	6/28/2011 11:25 AM
m,p-Xylene	ND	14	µg/Kg	1	6/28/2011 11:25 AM
o-Xylene	ND	6.8	µg/Kg	1	6/28/2011 11:25 AM
Toluene	ND	6.8	µg/Kg	1	6/28/2011 11:25 AM
Surr: Bromofluorobenzene (PID)	70.3	33-163	%REC	1	6/28/2011 11:25 AM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec
Lab Order: 118647
Project: Metro Westside Extension, 4953101561
Lab ID: 118647-002G

Client Sample ID: E-104-50
Collection Date: 6/23/2011 11:30:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP METALS

EPA 3050B

EPA 6010B

RunID:	ICP8_110629A	QC Batch:	73935	PrepDate:	6/28/2011	Analyst:	IL
Antimony	ND	2.0	mg/Kg	1	6/29/2011 10:53 AM		
Arsenic	8.0	1.0	mg/Kg	1	6/29/2011 10:53 AM		
Barium	60	1.0	mg/Kg	1	6/29/2011 10:53 AM		
Beryllium	ND	1.0	mg/Kg	1	6/29/2011 10:53 AM		
Cadmium	1.9	1.0	mg/Kg	1	6/29/2011 10:53 AM		
Chromium	20	1.0	mg/Kg	1	6/29/2011 10:53 AM		
Cobalt	9.6	1.0	mg/Kg	1	6/29/2011 10:53 AM		
Copper	3.9	2.0	mg/Kg	1	6/29/2011 10:53 AM		
Lead	1.7	1.0	mg/Kg	1	6/29/2011 10:53 AM		
Molybdenum	ND	1.0	mg/Kg	1	6/29/2011 10:53 AM		
Nickel	24	1.0	mg/Kg	1	6/29/2011 10:53 AM		
Selenium	ND	1.0	mg/Kg	1	6/29/2011 10:53 AM		
Silver	ND	1.0	mg/Kg	1	6/29/2011 10:53 AM		
Thallium	ND	1.0	mg/Kg	1	6/29/2011 10:53 AM		
Vanadium	22	1.0	mg/Kg	1	6/29/2011 10:53 AM		
Zinc	24	1.0	mg/Kg	1	6/29/2011 10:53 AM		

DIESEL RANGE ORGANICS BY GC/FID

LUFT

EPA 8015B(M)

RunID:	GC16_110628B	QC Batch:	73941	PrepDate:	6/28/2011	Analyst:	CBR
DRO	ND	10	mg/Kg	1	6/28/2011 04:49 PM		
Surr: p-Terphenyl	101	63-152	%REC	1	6/28/2011 04:49 PM		

MERCURY BY COLD VAPOR TECHNIQUE

EPA 7471A

RunID:	AA1_110629A	QC Batch:	73932	PrepDate:	6/28/2011	Analyst:	VV
Mercury	ND	0.10	mg/Kg	1	6/29/2011 11:23 AM		

Qualifiers: B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 S Spike/Surrogate outside of limits due to matrix interference
 DO Surrogate Diluted Out
 E Value above quantitation range
 ND Not Detected at the Reporting Limit
 Results are wet unless otherwise specified



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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-104-60
Lab Order: 118647	Collection Date: 6/23/2011 12:00:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 118647-003A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110627A	QC Batch: K11VS180	PrepDate: 6/24/2011	Analyst: BD
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Compound Name	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,1,1-Trichloroethane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,1,2,2-Tetrachloroethane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,1,2-Trichloroethane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,1-Dichloroethane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,1-Dichloroethene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,1-Dichloropropene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,2,3-Trichlorobenzene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,2,3-Trichloropropane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,2,4-Trichlorobenzene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,2,4-Trimethylbenzene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	6/27/2011 10:48 PM
1,2-Dibromoethane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,2-Dichlorobenzene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,2-Dichloroethane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,2-Dichloropropane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,3,5-Trimethylbenzene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,3-Dichlorobenzene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,3-Dichloropropane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
1,4-Dichlorobenzene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
2,2-Dichloropropane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
2-Chlorotoluene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
4-Chlorotoluene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
4-Isopropyltoluene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
Benzene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
Bromobenzene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
Bromodichloromethane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
Bromoform	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
Bromomethane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
Carbon tetrachloride	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
Chlorobenzene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
Chloroethane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
Chloroform	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
Chloromethane	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM
cis-1,2-Dichloroethene	ND	5.1		µg/Kg	1	6/27/2011 10:48 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-104-60
Lab Order: 118647	Collection Date: 6/23/2011 12:00:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 118647-003A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110627A	QC Batch: K11VS180	PrepDate: 6/24/2011	Analyst: BD		
cis-1,3-Dichloropropene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Di-isopropyl ether	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Dibromochloromethane	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Dibromomethane	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Dichlorodifluoromethane	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Ethyl Tert-butyl ether	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Ethylbenzene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Hexachlorobutadiene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Isopropylbenzene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
m,p-Xylene	ND	10	µg/Kg	1	6/27/2011 10:48 PM
Methylene chloride	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
MTBE	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
n-Butylbenzene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
n-Propylbenzene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Naphthalene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
o-Xylene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
sec-Butylbenzene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Styrene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Tert-amyl methyl ether	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Tert-Butanol	ND	100	µg/Kg	1	6/27/2011 10:48 PM
tert-Butylbenzene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Tetrachloroethene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Toluene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
trans-1,2-Dichloroethene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Trichloroethene	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Trichlorofluoromethane	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Vinyl chloride	ND	5.1	µg/Kg	1	6/27/2011 10:48 PM
Surr: 1,2-Dichloroethane-d4	101	65-141	%REC	1	6/27/2011 10:48 PM
Surr: 4-Bromofluorobenzene	91.1	57-134	%REC	1	6/27/2011 10:48 PM
Surr: Dibromofluoromethane	93.7	70-128	%REC	1	6/27/2011 10:48 PM
Surr: Toluene-d8	95.7	72-123	%REC	1	6/27/2011 10:48 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec

Client Sample ID: E-104-60

Lab Order: 118647

Collection Date: 6/23/2011 12:00:00 PM

Project: Metro Westside Extension, 4953101561

Matrix: SOIL

Lab ID: 118647-003D

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC2_110628A	QC Batch: E11VS239	PrepDate: 6/23/2011	Analyst: TP		
GRO	ND	0.90	mg/Kg	1	6/28/2011 11:41 AM
Surr: Bromofluorobenzene (FID)	90.5	51-161	%REC	1	6/28/2011 11:41 AM

VOLATILE ORGANIC COMPOUNDS BY GC/PID

EPA 8021B

RunID: GC2_110628A	QC Batch: E11VS239	PrepDate: 6/23/2011	Analyst: TP		
Benzene	ND	4.5	µg/Kg	1	6/28/2011 11:41 AM
Ethylbenzene	ND	4.5	µg/Kg	1	6/28/2011 11:41 AM
m,p-Xylene	ND	9.0	µg/Kg	1	6/28/2011 11:41 AM
o-Xylene	ND	4.5	µg/Kg	1	6/28/2011 11:41 AM
Toluene	ND	4.5	µg/Kg	1	6/28/2011 11:41 AM
Surr: Bromofluorobenzene (PID)	73.7	33-163	%REC	1	6/28/2011 11:41 AM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified
DO Surrogate Diluted Out



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ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-104-60
Lab Order:	118647	Collection Date:	6/23/2011 12:00:00 PM
Project:	Metro Westside Extension, 4953101561	Matrix:	SOIL
Lab ID:	118647-003G		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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DIESEL RANGE ORGANICS BY GC/FID

LUFT		EPA 8015B(M)				
RunID: GC16_110628B	QC Batch: 73941				PrepDate: 6/28/2011	Analyst: CBR
DRO	ND	10		mg/Kg	1	6/28/2011 04:59 PM
Surr: p-Terphenyl	92.5	63-152		%REC	1	6/28/2011 04:59 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-104-GW
Lab Order: 118647	Collection Date: 6/23/2011 12:45:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: GROUNDWATER
Lab ID: 118647-004A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS11_110628A	QC Batch: A11VW109	PrepDate:	Analyst: SLL
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,1,1-Trichloroethane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,1,2-Trichloroethane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,1-Dichloroethane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,1-Dichloroethene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,1-Dichloropropene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,2,3-Trichlorobenzene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,2,3-Trichloropropane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,2,4-Trichlorobenzene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,2,4-Trimethylbenzene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,2-Dibromo-3-chloropropane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,2-Dibromoethane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,2-Dichlorobenzene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,2-Dichloroethane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,2-Dichloropropane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,3,5-Trimethylbenzene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,3-Dichlorobenzene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,3-Dichloropropane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
1,4-Dichlorobenzene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
2,2-Dichloropropane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
2-Chlorotoluene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
4-Chlorotoluene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
4-Isopropyltoluene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
Benzene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
Bromobenzene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
Bromodichloromethane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
Bromoform	ND	0.50	µg/L 1 6/28/2011 03:06 PM
Bromomethane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
Carbon tetrachloride	ND	0.50	µg/L 1 6/28/2011 03:06 PM
Chlorobenzene	ND	0.50	µg/L 1 6/28/2011 03:06 PM
Chloroethane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
Chloroform	ND	0.50	µg/L 1 6/28/2011 03:06 PM
Chloromethane	ND	0.50	µg/L 1 6/28/2011 03:06 PM
cis-1,2-Dichloroethene	ND	0.50	µg/L 1 6/28/2011 03:06 PM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified
DO Surrogate Diluted Out



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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-104-GW
Lab Order: 118647	Collection Date: 6/23/2011 12:45:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: GROUNDWATER
Lab ID: 118647-004A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS11_110628A	QC Batch: A11VW109	PrepDate:	Analyst: SLL		
cis-1,3-Dichloropropene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Di-isopropyl ether	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Dibromochloromethane	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Dibromomethane	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Dichlorodifluoromethane	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Ethyl tert-butyl ether	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Ethylbenzene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Hexachlorobutadiene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Isopropylbenzene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
m,p-Xylene	ND	1.0	µg/L	1	6/28/2011 03:06 PM
Methylene chloride	ND	1.0	µg/L	1	6/28/2011 03:06 PM
MTBE	ND	0.50	µg/L	1	6/28/2011 03:06 PM
n-Butylbenzene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
n-Propylbenzene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Naphthalene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
o-Xylene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
sec-Butylbenzene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Styrene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Tert-amyl methyl ether	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Tert-Butanol	ND	10	µg/L	1	6/28/2011 03:06 PM
tert-Butylbenzene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Tetrachloroethene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Toluene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
trans-1,2-Dichloroethene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Trichloroethene	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Trichlorofluoromethane	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Vinyl chloride	ND	0.50	µg/L	1	6/28/2011 03:06 PM
Surr: 1,2-Dichloroethane-d4	91.6	70-130	%REC	1	6/28/2011 03:06 PM
Surr: 4-Bromofluorobenzene	93.8	70-130	%REC	1	6/28/2011 03:06 PM
Surr: Dibromofluoromethane	95.3	70-130	%REC	1	6/28/2011 03:06 PM
Surr: Toluene-d8	103	70-130	%REC	1	6/28/2011 03:06 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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Advanced Technology Laboratories

ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-104-GW
Lab Order: 118647	Collection Date: 6/23/2011 12:45:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: GROUNDWATER
Lab ID: 118647-004B	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC19_110629A	QC Batch: M11VW129	PrepDate:	Analyst: TP		
GRO	ND	0.20	mg/L	1	6/30/2011 01:10 AM
Surr: Bromofluorobenzene (FID)	94.8	70-130	%REC	1	6/30/2011 01:10 AM

VOLATILE ORGANIC COMPOUNDS BY GC/PID

EPA 8021B

RunID: GC19_110629A	QC Batch: M11VW129	PrepDate:	Analyst: TP		
Benzene	ND	0.50	µg/L	1	6/30/2011 01:10 AM
Ethylbenzene	ND	0.50	µg/L	1	6/30/2011 01:10 AM
m,p-Xylene	ND	1.0	µg/L	1	6/30/2011 01:10 AM
o-Xylene	ND	0.50	µg/L	1	6/30/2011 01:10 AM
Toluene	ND	0.50	µg/L	1	6/30/2011 01:10 AM
Surr: Bromofluorobenzene (PID)	87.5	70-130	%REC	1	6/30/2011 01:10 AM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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Advanced Technology Laboratories

ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-104-GW
Lab Order: 118647	Collection Date: 6/23/2011 12:45:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: GROUNDWATER
Lab ID: 118647-004C	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS BY GC/FID						
	EPA 3510C		EPA 8015B(M)			
RunID: GC16_110628A	QC Batch: 73912				PrepDate: 6/27/2011	Analyst: CBR
DRO	ND	0.20		mg/L	1	6/28/2011 10:55 AM
Surr: p-Terphenyl	87.8	36-126		%REC	1	6/28/2011 10:55 AM

Qualifiers: B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 S Spike/Surrogate outside of limits due to matrix interference
 DO Surrogate Diluted Out
 E Value above quantitation range
 ND Not Detected at the Reporting Limit
 Results are wet unless otherwise specified



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CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

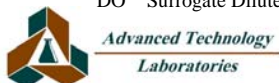
TestCode: 6010_S

Sample ID: MB-73935	SampType: MBLK	TestCode: 6010_S	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134499						
Client ID: PBS	Batch ID: 73935	TestNo: EPA 6010B EPA 3050B		Analysis Date: 6/29/2011	SeqNo: 2199100						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	2.0									
Arsenic	ND	1.0									
Barium	ND	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	ND	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	ND	1.0									
Molybdenum	ND	1.0									
Nickel	ND	1.0									
Selenium	ND	1.0									
Silver	ND	1.0									
Thallium	ND	1.0									
Vanadium	ND	1.0									
Zinc	0.212	1.0									

Sample ID: LCS-73935	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134499						
Client ID: LCSS	Batch ID: 73935	TestNo: EPA 6010B EPA 3050B		Analysis Date: 6/29/2011	SeqNo: 2199101						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	47.163	2.0	50.00	0	94.3	80	120				
Arsenic	47.469	1.0	50.00	0	94.9	80	120				
Barium	48.281	1.0	50.00	0	96.6	80	120				
Beryllium	47.321	1.0	50.00	0	94.6	80	120				
Cadmium	46.939	1.0	50.00	0	93.9	80	120				
Chromium	44.770	1.0	50.00	0	89.5	80	120				
Cobalt	48.562	1.0	50.00	0	97.1	80	120				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

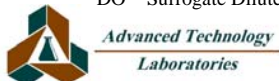
TestCode: 6010_S

Sample ID: LCS-73935		SampType: LCS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 6/28/2011		RunNo: 134499	
Client ID: LCSS		Batch ID: 73935		TestNo: EPA 6010B EPA 3050B				Analysis Date: 6/29/2011		SeqNo: 2199101	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	48.530	2.0	50.00	0	97.1	80	120				
Lead	47.797	1.0	50.00	0	95.6	80	120				
Molybdenum	49.718	1.0	50.00	0	99.4	80	120				
Nickel	47.117	1.0	50.00	0	94.2	80	120				
Selenium	44.660	1.0	50.00	0	89.3	80	120				
Silver	47.861	1.0	50.00	0	95.7	80	120				
Thallium	45.663	1.0	50.00	0	91.3	80	120				
Vanadium	48.861	1.0	50.00	0	97.7	80	120				
Zinc	47.972	1.0	50.00	0.2116	95.5	80	120				

Sample ID: 118606-005A-MS		SampType: MS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 6/28/2011		RunNo: 134499	
Client ID: ZZZZZZ		Batch ID: 73935		TestNo: EPA 6010B EPA 3050B				Analysis Date: 6/29/2011		SeqNo: 2199103	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	85.126	2.0	125.0	0.9440	67.3	32	105				
Arsenic	105.631	1.0	125.0	1.583	83.2	49	106				
Barium	225.784	1.0	125.0	127.2	78.9	31	133				
Beryllium	104.889	1.0	125.0	0	83.9	56	106				
Cadmium	100.148	1.0	125.0	0.6001	79.6	51	103				
Chromium	133.015	1.0	125.0	37.03	76.8	45	114				
Cobalt	110.853	1.0	125.0	10.46	80.3	52	106				
Copper	129.634	2.0	125.0	18.50	88.9	54	125				
Lead	106.275	1.0	125.0	6.342	79.9	34	126				
Molybdenum	105.169	1.0	125.0	0	84.1	54	106				
Nickel	148.852	1.0	125.0	73.93	59.9	45	111				
Selenium	99.770	1.0	125.0	0	79.8	47	104				
Silver	109.012	1.0	125.0	0	87.2	56	112				
Thallium	94.677	1.0	125.0	0	75.7	46	101				
Vanadium	135.921	1.0	125.0	30.15	84.6	54	114				
Zinc	136.681	1.0	125.0	35.91	80.6	28	125				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: 118606-005A-MSD		SampType: MSD		TestCode: 6010_S		Units: mg/Kg		Prep Date: 6/28/2011		RunNo: 134499	
Client ID: ZZZZZZ		Batch ID: 73935		TestNo: EPA 6010B EPA 3050B		Analysis Date: 6/29/2011				SeqNo: 2199104	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	82.156	2.0	125.0	0.9440	65.0	32	105	85.13	3.55	20	
Arsenic	104.421	1.0	125.0	1.583	82.3	49	106	105.6	1.15	20	
Barium	253.610	1.0	125.0	127.2	101	31	133	225.8	11.6	20	
Beryllium	105.409	1.0	125.0	0	84.3	56	106	104.9	0.495	20	
Cadmium	100.020	1.0	125.0	0.6001	79.5	51	103	100.1	0.127	20	
Chromium	137.258	1.0	125.0	37.03	80.2	45	114	133.0	3.14	20	
Cobalt	111.469	1.0	125.0	10.46	80.8	52	106	110.9	0.554	20	
Copper	131.544	2.0	125.0	18.50	90.4	54	125	129.6	1.46	20	
Lead	105.108	1.0	125.0	6.342	79.0	34	126	106.3	1.10	20	
Molybdenum	103.785	1.0	125.0	0	83.0	54	106	105.2	1.32	20	
Nickel	153.487	1.0	125.0	73.93	63.6	45	111	148.9	3.07	20	
Selenium	97.866	1.0	125.0	0	78.3	47	104	99.77	1.93	20	
Silver	109.474	1.0	125.0	0	87.6	56	112	109.0	0.423	20	
Thallium	94.136	1.0	125.0	0	75.3	46	101	94.68	0.573	20	
Vanadium	137.507	1.0	125.0	30.15	85.9	54	114	135.9	1.16	20	
Zinc	137.550	1.0	125.0	35.91	81.3	28	125	136.7	0.634	20	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



*Advanced Technology
Laboratories*

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S

Sample ID: MB-73932	SampType: MBLK	TestCode: 7471_S	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134510						
Client ID: PBS	Batch ID: 73932	TestNo: EPA 7471A		Analysis Date: 6/29/2011	SeqNo: 2199223						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.10

Sample ID: LCS-73932	SampType: LCS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134510						
Client ID: LCSS	Batch ID: 73932	TestNo: EPA 7471A		Analysis Date: 6/29/2011	SeqNo: 2199224						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.796 0.10 0.8300 0 95.9 80 120

Sample ID: 118606-005A-MS	SampType: MS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134510						
Client ID: ZZZZZ	Batch ID: 73932	TestNo: EPA 7471A		Analysis Date: 6/29/2011	SeqNo: 2199225						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

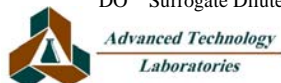
Mercury 0.891 0.10 0.8300 0.05640 101 70 130

Sample ID: 118606-005A-MSD	SampType: MSD	TestCode: 7471_S	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134510						
Client ID: ZZZZZ	Batch ID: 73932	TestNo: EPA 7471A		Analysis Date: 6/29/2011	SeqNo: 2199226						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.857 0.10 0.8300 0.05640 96.5 70 130 0.8910 3.89 20

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_DSL H

Sample ID: MB-73941	SampType: MBLK	TestCode: 8015_S_DSL	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134496						
Client ID: PBS	Batch ID: 73941	TestNo: EPA 8015B(M LUFT		Analysis Date: 6/28/2011	SeqNo: 2198952						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	ND	10									
Surr: p-Terphenyl	101.280		80.00		127	63	152				

Sample ID: LCS-73941	SampType: LCS	TestCode: 8015_S_DSL	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134496						
Client ID: LCSS	Batch ID: 73941	TestNo: EPA 8015B(M LUFT		Analysis Date: 6/28/2011	SeqNo: 2198953						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	1077.800	10	1000	0	108	76	139				
Surr: p-Terphenyl	100.940		80.00		126	63	152				

Sample ID: 118666-002AMS	SampType: MS	TestCode: 8015_S_DSL	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134496						
Client ID: ZZZZZ	Batch ID: 73941	TestNo: EPA 8015B(M LUFT		Analysis Date: 6/28/2011	SeqNo: 2198954						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

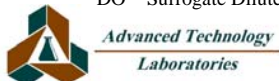
DRO	1344.440	10	1000	291.7	105	60	158				
Surr: p-Terphenyl	83.500		80.00		104	63	152				

Sample ID: 118666-002AMSD	SampType: MSD	TestCode: 8015_S_DSL	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134496						
Client ID: ZZZZZ	Batch ID: 73941	TestNo: EPA 8015B(M LUFT		Analysis Date: 6/28/2011	SeqNo: 2198955						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	1429.670	10	1000	291.7	114	60	158	1344	6.14	20	
Surr: p-Terphenyl	98.830		80.00		124	63	152		0	0	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: E110628LC1		SampType: LCS		TestCode: 8015_S_G 50		Units: mg/Kg		Prep Date:		RunNo: 134491		
Client ID: LCSS		Batch ID: E11VS239		TestNo: EPA 8015B(M)		Analysis Date: 6/28/2011		SeqNo: 2198994				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	5.302	1.0	5.000	0	106	70	130					
Surr: Bromofluorobenzene (FID)	121.052		100.0		121	51	161					

Sample ID: E110628MB1MS		SampType: MS		TestCode: 8015_S_G 50		Units: mg/Kg		Prep Date:		RunNo: 134491		
Client ID: ZZZZZ		Batch ID: E11VS239		TestNo: EPA 8015B(M)		Analysis Date: 6/28/2011		SeqNo: 2198995				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	5.224	1.0	5.000	0	104	41	146					
Surr: Bromofluorobenzene (FID)	119.011		100.0		119	51	161					

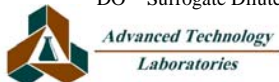
Sample ID: E110628MB1MSD		SampType: MSD		TestCode: 8015_S_G 50		Units: mg/Kg		Prep Date:		RunNo: 134491		
Client ID: ZZZZZ		Batch ID: E11VS239		TestNo: EPA 8015B(M)		Analysis Date: 6/28/2011		SeqNo: 2198996				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	5.292	1.0	5.000	0	106	41	146	5.224	1.29	20		
Surr: Bromofluorobenzene (FID)	118.146		100.0		118	51	161		0	0		

Sample ID: E110628MB1		SampType: MBLK		TestCode: 8015_S_G 50		Units: mg/Kg		Prep Date:		RunNo: 134491		
Client ID: PBS		Batch ID: E11VS239		TestNo: EPA 8015B(M)		Analysis Date: 6/28/2011		SeqNo: 2198997				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	ND	1.0										
Surr: Bromofluorobenzene (FID)	101.699		100.0		102	51	161					

Sample ID: 118658-009AMS		SampType: MS		TestCode: 8015_S_G 50		Units: mg/Kg		Prep Date:		RunNo: 134491		
Client ID: ZZZZZ		Batch ID: E11VS239		TestNo: EPA 8015B(M)		Analysis Date: 6/28/2011		SeqNo: 2199010				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	4.005	1.0	5.000	0	80.1	41	146					

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: 118658-009AMS	SampType: MS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 134491						
Client ID: ZZZZZZ	Batch ID: E11VS239	TestNo: EPA 8015B(M)	Analysis Date: 6/28/2011	SeqNo: 2199010							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

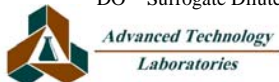
Surr: Bromofluorobenzene (FID)	129.992		100.0		130	51	161				
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Sample ID: 118658-009AMSD	SampType: MSD	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 134491						
Client ID: ZZZZZZ	Batch ID: E11VS239	TestNo: EPA 8015B(M)	Analysis Date: 6/28/2011	SeqNo: 2199011							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	4.839	1.0	5.000	0	96.8	41	146	4.005	18.9	20	
Surr: Bromofluorobenzene (FID)	129.251		100.0		129	51	161		0	0	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



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CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_DSL H

Sample ID: MB-73912	SampType: MBLK	TestCode: 8015_W_DSL	Units: mg/L	Prep Date: 6/27/2011	RunNo: 134463						
Client ID: PBW	Batch ID: 73912	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 6/28/2011	SeqNo: 2198409						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	ND	0.20									
Surr: p-Terphenyl	0.050		0.08000		62.4	36	126				

Sample ID: LCS-73912	SampType: LCS	TestCode: 8015_W_DSL	Units: mg/L	Prep Date: 6/27/2011	RunNo: 134463						
Client ID: LCSW	Batch ID: 73912	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 6/28/2011	SeqNo: 2198410						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.630	0.20	1.000	0	63.0	52	128				
Surr: p-Terphenyl	0.063		0.08000		79.2	36	126				

Sample ID: MB-73912MS	SampType: MS	TestCode: 8015_W_DSL	Units: mg/L	Prep Date: 6/27/2011	RunNo: 134463						
Client ID: ZZZZZZ	Batch ID: 73912	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 6/28/2011	SeqNo: 2198411						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

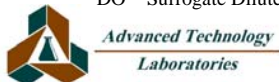
DRO	0.663	0.20	1.000	0	66.3	52	128				
Surr: p-Terphenyl	0.060		0.08000		75.4	36	126				

Sample ID: MB-73912MSD	SampType: MSD	TestCode: 8015_W_DSL	Units: mg/L	Prep Date: 6/27/2011	RunNo: 134463						
Client ID: ZZZZZZ	Batch ID: 73912	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 6/28/2011	SeqNo: 2198412						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.693	0.20	1.000	0	69.3	52	128	0.6628	4.50	20	
Surr: p-Terphenyl	0.064		0.08000		79.7	36	126		0	0	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_G PRES

Sample ID: M110629LC1	SampType: LCS	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 134575						
Client ID: LCSW	Batch ID: M11VW129	TestNo: EPA 8015B(M)	Analysis Date: 6/29/2011	SeqNo: 2200400							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.844	0.20	1.000	0	84.4	70	130				
Surr: Bromofluorobenzene (FID)	97.396		100.0		97.4	70	130				

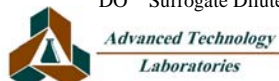
Sample ID: M110629MB1MS	SampType: MS	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 134575						
Client ID: ZZZZZZ	Batch ID: M11VW129	TestNo: EPA 8015B(M)	Analysis Date: 6/29/2011	SeqNo: 2200401							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.911	0.20	1.000	0	91.1	70	130				
Surr: Bromofluorobenzene (FID)	97.334		100.0		97.3	70	130				

Sample ID: M110629MB1MSD	SampType: MSD	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 134575						
Client ID: ZZZZZZ	Batch ID: M11VW129	TestNo: EPA 8015B(M)	Analysis Date: 6/29/2011	SeqNo: 2200402							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.896	0.20	1.000	0	89.6	70	130	0.9110	1.66	20	
Surr: Bromofluorobenzene (FID)	97.774		100.0		97.8	70	130		0	0	

Sample ID: M110629MB1MS	SampType: MBLK	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 134575						
Client ID: PBW	Batch ID: M11VW129	TestNo: EPA 8015B(M)	Analysis Date: 6/29/2011	SeqNo: 2200403							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	0.20									
Surr: Bromofluorobenzene (FID)	94.717		100.0		94.7	70	130				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021_S_B 5035P

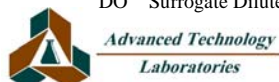
Sample ID: E110628LC2	SampType: LCS	TestCode: 8021_S_B 50	Units: µg/Kg	Prep Date:	RunNo: 134491						
Client ID: LCSS	Batch ID: E11VS239	TestNo: EPA 8021B	Analysis Date: 6/28/2011	SeqNo: 2199054							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	94.337	5.0	100.0	0	94.3	70	130				
Ethylbenzene	96.658	5.0	100.0	0	96.7	70	130				
m,p-Xylene	195.503	10	200.0	0	97.8	70	130				
o-Xylene	100.010	5.0	100.0	0	100	70	130				
Toluene	96.928	5.0	100.0	0	96.9	70	130				
Surr: Bromofluorobenzene (PID)	90.946		100.0		90.9	33	163				

Sample ID: E110628LC2	SampType: LCSD	TestCode: 8021_S_B 50	Units: µg/Kg	Prep Date:	RunNo: 134491						
Client ID: LCSS02	Batch ID: E11VS239	TestNo: EPA 8021B	Analysis Date: 6/28/2011	SeqNo: 2199055							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	91.832	5.0	100.0	0	91.8	70	130	94.34	2.69	20	
Ethylbenzene	94.472	5.0	100.0	0	94.5	70	130	96.66	2.29	20	
m,p-Xylene	190.858	10	200.0	0	95.4	70	130	195.5	2.40	20	
o-Xylene	97.445	5.0	100.0	0	97.4	70	130	100.0	2.60	20	
Toluene	94.693	5.0	100.0	0	94.7	70	130	96.93	2.33	20	
Surr: Bromofluorobenzene (PID)	89.120		100.0		89.1	33	163		0	0	

Sample ID: E110628MB1	SampType: MBLK	TestCode: 8021_S_B 50	Units: µg/Kg	Prep Date:	RunNo: 134491						
Client ID: PBS	Batch ID: E11VS239	TestNo: EPA 8021B	Analysis Date: 6/28/2011	SeqNo: 2199058							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	5.0									
Ethylbenzene	ND	5.0									
m,p-Xylene	ND	10									
o-Xylene	ND	5.0									
Toluene	ND	5.0									
Surr: Bromofluorobenzene (PID)	82.520		100.0		82.5	33	163				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

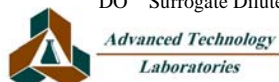
TestCode: 8021_S_B 5035P

Sample ID: 118658-009AMS	SampType: MS	TestCode: 8021_S_B 50	Units: µg/Kg	Prep Date:	RunNo: 134491						
Client ID: ZZZZZZ	Batch ID: E11VS239	TestNo: EPA 8021B	Analysis Date: 6/28/2011	SeqNo: 2199071							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	26.567	5.0	22.15	0	120	44	115				S
Ethylbenzene	38.951	5.0	42.30	0	92.1	49	95				
m,p-Xylene	132.828	10	180.2	0	73.7	55	98				
o-Xylene	50.760	5.0	64.80	0	78.3	50	93				
Toluene	130.255	5.0	172.6	0	75.4	46	113				
Surr: Bromofluorobenzene (PID)	105.279		100.0		105	33	163				

Sample ID: 118658-009AMSD	SampType: MSD	TestCode: 8021_S_B 50	Units: µg/Kg	Prep Date:	RunNo: 134491						
Client ID: ZZZZZZ	Batch ID: E11VS239	TestNo: EPA 8021B	Analysis Date: 6/28/2011	SeqNo: 2199072							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	31.500	5.0	22.15	0	142	44	115	26.57	17.0	20	S
Ethylbenzene	47.924	5.0	42.30	0	113	49	95	38.95	20.7	20	SR
m,p-Xylene	163.790	10	180.2	0	90.9	55	98	132.8	20.9	20	R
o-Xylene	63.270	5.0	64.80	0	97.6	50	93	50.76	21.9	20	SR
Toluene	155.697	5.0	172.6	0	90.2	46	113	130.3	17.8	20	
Surr: Bromofluorobenzene (PID)	105.250		100.0		105	33	163		0	0	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021_WP_BTEX

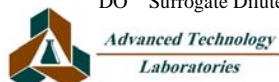
Sample ID: M110629LC2		SampType: LCS		TestCode: 8021_WP_BT		Units: µg/L		Prep Date:		RunNo: 134575		
Client ID: LCSW		Batch ID: M11VW129		TestNo: EPA 8021B				Analysis Date: 6/29/2011		SeqNo: 2200443		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	93.838	0.50	100.0	0	93.8	70	130					
Toluene	95.667	0.50	100.0	0	95.7	70	130					
Ethylbenzene	93.767	0.50	100.0	0	93.8	70	130					
m,p-Xylene	188.496	1.0	200.0	0	94.2	70	130					
o-Xylene	97.213	0.50	100.0	0	97.2	70	130					
Surr: Bromofluorobenzene (PID)	89.209		100.0		89.2	70	130					

Sample ID: M110629LC2		SampType: LCS		TestCode: 8021_WP_BT		Units: µg/L		Prep Date:		RunNo: 134575		
Client ID: LCSW		Batch ID: M11VW129		TestNo: EPA 8021B				Analysis Date: 6/29/2011		SeqNo: 2200444		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	94.306	0.50	100.0	0	94.3	70	130	93.84	0.497	20		
Toluene	95.388	0.50	100.0	0	95.4	70	130	95.67	0.292	20		
Ethylbenzene	94.285	0.50	100.0	0	94.3	70	130	93.77	0.551	20		
m,p-Xylene	189.514	1.0	200.0	0	94.8	70	130	188.5	0.539	20		
o-Xylene	97.668	0.50	100.0	0	97.7	70	130	97.21	0.467	20		
Surr: Bromofluorobenzene (PID)	89.182		100.0		89.2	70	130		0	0		

Sample ID: M110629MB1MS		SampType: MS		TestCode: 8021_WP_BT		Units: µg/L		Prep Date:		RunNo: 134575		
Client ID: ZZZZZ		Batch ID: M11VW129		TestNo: EPA 8021B				Analysis Date: 6/29/2011		SeqNo: 2200445		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	6.945	0.50	6.400	0	109	70	130					
Toluene	37.036	0.50	33.85	0	109	70	130					
Ethylbenzene	11.466	0.50	10.95	0	105	70	130					
m,p-Xylene	40.454	1.0	42.40	0	95.4	70	130					
o-Xylene	15.910	0.50	13.35	0	119	70	130					
Surr: Bromofluorobenzene (PID)	89.764		100.0		89.8	70	130					

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

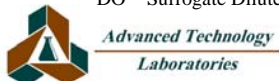
TestCode: 8021_WP_BTEX

Sample ID: M110629MB1MSD		SampType: MSD		TestCode: 8021_WP_BT		Units: µg/L		Prep Date:		RunNo: 134575	
Client ID: ZZZZZZ		Batch ID: M11VW129		TestNo: EPA 8021B		Analysis Date: 6/29/2011				SeqNo: 2200446	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	6.656	0.50	6.400	0	104	70	130	6.945	4.25	20	
Toluene	36.430	0.50	33.85	0	108	70	130	37.04	1.65	20	
Ethylbenzene	11.098	0.50	10.95	0	101	70	130	11.47	3.26	20	
m,p-Xylene	39.600	1.0	42.40	0	93.4	70	130	40.45	2.13	20	
o-Xylene	15.476	0.50	13.35	0	116	70	130	15.91	2.77	20	
Surr: Bromofluorobenzene (PID)	88.949		100.0		88.9	70	130		0	0	

Sample ID: M110629MB1		SampType: MBLK		TestCode: 8021_WP_BT		Units: µg/L		Prep Date:		RunNo: 134575	
Client ID: PBW		Batch ID: M11VW129		TestNo: EPA 8021B		Analysis Date: 6/29/2011				SeqNo: 2200447	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
o-Xylene	ND	0.50									
Surr: Bromofluorobenzene (PID)	87.272		100.0		87.3	70	130				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

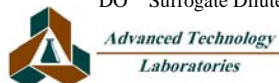
Sample ID: K110627LCS2		SampType: LCS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466		
Client ID: LCSS		Batch ID: K11VS180		TestNo: EPA 8260B				Analysis Date: 6/27/2011		SeqNo: 2198426		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	48.260	5.0	50.00	0	96.5	70	130					
Benzene	105.010	5.0	100.0	0	105	70	130					
Chlorobenzene	54.670	5.0	50.00	0	109	70	130					
MTBE	54.440	5.0	50.00	0	109	70	130					
Toluene	108.490	5.0	100.0	0	108	70	130					
Trichloroethene	51.610	5.0	50.00	0	103	70	130					
Surr: 1,2-Dichloroethane-d4	46.850		50.00		93.7	65	141					
Surr: 4-Bromofluorobenzene	46.920		50.00		93.8	57	134					
Surr: Dibromofluoromethane	45.450		50.00		90.9	70	128					
Surr: Toluene-d8	48.250		50.00		96.5	72	123					

Sample ID: 118639-001AMS		SampType: MS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466		
Client ID: ZZZZZ		Batch ID: K11VS180		TestNo: EPA 8260B				Analysis Date: 6/27/2011		SeqNo: 2198427		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	45.550	5.0	50.00	0	91.1	70	130					
Benzene	98.910	5.0	100.0	0	98.9	70	130					
Chlorobenzene	52.100	5.0	50.00	0	104	70	130					
MTBE	49.320	5.0	50.00	0	98.6	70	130					
Toluene	101.360	5.0	100.0	0	101	70	130					
Trichloroethene	48.990	5.0	50.00	0	98.0	70	130					
Surr: 1,2-Dichloroethane-d4	43.660		50.00		87.3	65	141					
Surr: 4-Bromofluorobenzene	45.880		50.00		91.8	57	134					
Surr: Dibromofluoromethane	44.400		50.00		88.8	70	128					
Surr: Toluene-d8	46.060		50.00		92.1	72	123					

Sample ID: 118639-001AMSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466		
Client ID: ZZZZZ		Batch ID: K11VS180		TestNo: EPA 8260B				Analysis Date: 6/27/2011		SeqNo: 2198428		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

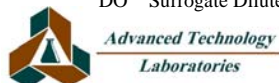
Sample ID: 118639-001AMSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466	
Client ID: ZZZZZ		Batch ID: K11VS180		TestNo: EPA 8260B		Analysis Date: 6/27/2011				SeqNo: 2198428	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	45.780	5.0	50.00	0	91.6	70	130	45.55	0.504	20	
Benzene	99.710	5.0	100.0	0	99.7	70	130	98.91	0.806	20	
Chlorobenzene	51.380	5.0	50.00	0	103	70	130	52.10	1.39	20	
MTBE	50.020	5.0	50.00	0	100	70	130	49.32	1.41	20	
Toluene	102.620	5.0	100.0	0	103	70	130	101.4	1.24	20	
Trichloroethene	50.480	5.0	50.00	0	101	70	130	48.99	3.00	20	
Surr: 1,2-Dichloroethane-d4	42.330		50.00		84.7	65	141		0	0	
Surr: 4-Bromofluorobenzene	46.670		50.00		93.3	57	134		0	0	
Surr: Dibromofluoromethane	44.220		50.00		88.4	70	128		0	0	
Surr: Toluene-d8	45.590		50.00		91.2	72	123		0	0	

Sample ID: K110627MB4MS		SampType: MS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466	
Client ID: ZZZZZ		Batch ID: K11VS180		TestNo: EPA 8260B		Analysis Date: 6/27/2011				SeqNo: 2198429	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	40.370	5.0	50.00	0	80.7	70	130				
Benzene	83.190	5.0	100.0	0	83.2	70	130				
Chlorobenzene	40.750	5.0	50.00	0	81.5	70	130				
MTBE	41.650	5.0	50.00	0	83.3	70	130				
Toluene	83.950	5.0	100.0	0	84.0	70	130				
Trichloroethene	41.570	5.0	50.00	0	83.1	70	130				
Surr: 1,2-Dichloroethane-d4	43.760		50.00		87.5	65	141				
Surr: 4-Bromofluorobenzene	45.600		50.00		91.2	57	134				
Surr: Dibromofluoromethane	44.050		50.00		88.1	70	128				
Surr: Toluene-d8	43.840		50.00		87.7	72	123				

Sample ID: K110627MB4MSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466	
Client ID: ZZZZZ		Batch ID: K11VS180		TestNo: EPA 8260B		Analysis Date: 6/27/2011				SeqNo: 2198430	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

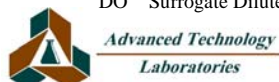
TestCode: 8260_S_5035

Sample ID: K110627MB4MSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466	
Client ID: ZZZZZZ		Batch ID: K11VS180		TestNo: EPA 8260B		Analysis Date: 6/27/2011				SeqNo: 2198430	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	40.210	5.0	50.00	0	80.4	70	130	40.37	0.397	20	
Benzene	84.010	5.0	100.0	0	84.0	70	130	83.19	0.981	20	
Chlorobenzene	41.900	5.0	50.00	0	83.8	70	130	40.75	2.78	20	
MTBE	41.930	5.0	50.00	0	83.9	70	130	41.65	0.670	20	
Toluene	85.360	5.0	100.0	0	85.4	70	130	83.95	1.67	20	
Trichloroethene	40.850	5.0	50.00	0	81.7	70	130	41.57	1.75	20	
Surr: 1,2-Dichloroethane-d4	45.120		50.00		90.2	65	141		0	0	
Surr: 4-Bromofluorobenzene	49.640		50.00		99.3	57	134		0	0	
Surr: Dibromofluoromethane	46.620		50.00		93.2	70	128		0	0	
Surr: Toluene-d8	47.110		50.00		94.2	72	123		0	0	

Sample ID: K110627MB4		SampType: MBLK		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466	
Client ID: PBS		Batch ID: K11VS180		TestNo: EPA 8260B		Analysis Date: 6/27/2011				SeqNo: 2198431	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: K110627MB4	SampType: MBLK	TestCode: 8260_S_5035	Units: µg/Kg	Prep Date:	RunNo: 134466						
Client ID: PBS	Batch ID: K11VS180	TestNo: EPA 8260B		Analysis Date: 6/27/2011	SeqNo: 2198431						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Di-isopropyl ether	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethyl Tert-butyl ether	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	10									

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



*Advanced Technology
Laboratories*

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: K110627MB4	SampType: MBLK	TestCode: 8260_S_5035	Units: µg/Kg	Prep Date:	RunNo: 134466						
Client ID: PBS	Batch ID: K11VS180	TestNo: EPA 8260B	Analysis Date: 6/27/2011	SeqNo: 2198431							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	5.0									
MTBE	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
Tert-amyl methyl ether	ND	5.0									
Tert-Butanol	ND	100									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	45.270		50.00		90.5	65	141				
Surr: 4-Bromofluorobenzene	44.110		50.00		88.2	57	134				
Surr: Dibromofluoromethane	44.680		50.00		89.4	70	128				
Surr: Toluene-d8	44.550		50.00		89.1	72	123				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



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CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

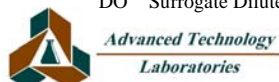
Sample ID: A110628LCS1		SampType: LCS		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 134538		
Client ID: LCSW		Batch ID: A11VW109		TestNo: EPA 8260B		Analysis Date: 6/28/2011		SeqNo: 2199743				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	18.040	0.50	20.00	0	90.2	70	130					
Benzene	37.990	0.50	40.00	0	95.0	70	130					
Chlorobenzene	20.000	0.50	20.00	0	100	70	130					
MTBE	20.470	0.50	20.00	0	102	70	130					
Toluene	38.870	0.50	40.00	0	97.2	70	130					
Trichloroethene	19.490	0.50	20.00	0	97.5	70	130					
Surr: 1,2-Dichloroethane-d4	23.860		25.00		95.4	70	130					
Surr: 4-Bromofluorobenzene	24.290		25.00		97.2	70	130					
Surr: Dibromofluoromethane	25.530		25.00		102	70	130					
Surr: Toluene-d8	25.730		25.00		103	70	130					

Sample ID: A110628MB2MS		SampType: MS		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 134538		
Client ID: ZZZZZ		Batch ID: A11VW109		TestNo: EPA 8260B		Analysis Date: 6/28/2011		SeqNo: 2199744				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	18.070	0.50	20.00	0	90.4	70	130					
Benzene	38.400	0.50	40.00	0	96.0	70	130					
Chlorobenzene	20.470	0.50	20.00	0	102	70	130					
MTBE	20.690	0.50	20.00	0	103	70	130					
Toluene	39.500	0.50	40.00	0	98.8	70	130					
Trichloroethene	19.680	0.50	20.00	0	98.4	70	130					
Surr: 1,2-Dichloroethane-d4	23.460		25.00		93.8	70	130					
Surr: 4-Bromofluorobenzene	24.210		25.00		96.8	70	130					
Surr: Dibromofluoromethane	25.100		25.00		100	70	130					
Surr: Toluene-d8	25.450		25.00		102	70	130					

Sample ID: A110628MB2MSD		SampType: MSD		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 134538		
Client ID: ZZZZZ		Batch ID: A11VW109		TestNo: EPA 8260B		Analysis Date: 6/28/2011		SeqNo: 2199745				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

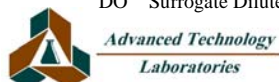
TestCode: 8260_WP_LL

Sample ID: A110628MB2MSD	SampType: MSD	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 134538						
Client ID: ZZZZZZ	Batch ID: A11VW109	TestNo: EPA 8260B		Analysis Date: 6/28/2011	SeqNo: 2199745						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18.360	0.50	20.00	0	91.8	70	130	18.07	1.59	20	
Benzene	38.460	0.50	40.00	0	96.2	70	130	38.40	0.156	20	
Chlorobenzene	20.590	0.50	20.00	0	103	70	130	20.47	0.585	20	
MTBE	20.690	0.50	20.00	0	103	70	130	20.69	0	20	
Toluene	39.530	0.50	40.00	0	98.8	70	130	39.50	0.0759	20	
Trichloroethene	19.700	0.50	20.00	0	98.5	70	130	19.68	0.102	20	
Surr: 1,2-Dichloroethane-d4	23.530		25.00		94.1	70	130		0	0	
Surr: 4-Bromofluorobenzene	24.280		25.00		97.1	70	130		0	0	
Surr: Dibromofluoromethane	23.610		25.00		94.4	70	130		0	0	
Surr: Toluene-d8	25.660		25.00		103	70	130		0	0	

Sample ID: A110628MB2	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 134538						
Client ID: PBW	Batch ID: A11VW109	TestNo: EPA 8260B		Analysis Date: 6/28/2011	SeqNo: 2199746						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

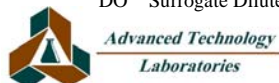
TestCode: 8260_WP_LL

Sample ID: A110628MB2	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 134538						
Client ID: PBW	Batch ID: A11VW109	TestNo: EPA 8260B		Analysis Date: 6/28/2011	SeqNo: 2199746						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Di-isopropyl ether	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethyl tert-butyl ether	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

CLIENT: Mactec
Work Order: 118647
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: A110628MB2	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 134538						
Client ID: PBW	Batch ID: A11VW109	TestNo: EPA 8260B	Analysis Date: 6/28/2011	SeqNo: 2199746							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	1.0									
MTBE	ND	0.50									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
Tert-amyl methyl ether	ND	0.50									
Tert-Butanol	ND	10									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	22.560		25.00		90.2	70	130				
Surr: 4-Bromofluorobenzene	23.390		25.00		93.6	70	130				
Surr: Dibromofluoromethane	25.620		25.00		102	70	130				
Surr: Toluene-d8	25.460		25.00		102	70	130				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



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July 01, 2011



Matt Fraychineaud
Mactec
5628 E. Slauson Avenue,
Los Angeles, CA 90040-2922
TEL: (323) 889-5300
FAX:

ELAP No.:1838
NELAP No.:02107CA
CSDLAC No.:10196
ORELAP No.:CA300003
Workorder No.: 118648

RE: Metro Westside Extension, 4953-10-1561


Attention: Matt Fraychineaud

Enclosed are the results for sample(s) received on June 24, 2011 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,


Eddie F. Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.

CLIENT: Mactec
Project: Metro Westside Extension, 4953-10-1561
Lab Order: 118648

CASE NARRATIVE

All volatile analyses were performed using 5035 preservation requirements. Any high level dilutions were performed on a preserved methanol sample unless otherwise noted.

Sample Receiving / General Comments

Headspace <5-6mm was noted on 4 voa vials of sample E-105-GW.

Analytical Comments for EPA 8021B

Samples 118658-009AMS and 118658-009AMSD, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).

Sample 118658-009AMSD, RPD for Matrix Spike Duplicate (MSD) is outside criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).



Advanced Technology Laboratories

ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-105-40
Lab Order: 118648	Collection Date: 6/24/2011 10:29:00 AM
Project: Metro Westside Extension, 4953-10-1561	Matrix: SOIL
Lab ID: 118648-002A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110627A	QC Batch: K11VS180	PrepDate: 6/24/2011	Analyst: BD
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Compound	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,1,1-Trichloroethane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,1,2,2-Tetrachloroethane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,1,2-Trichloroethane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,1-Dichloroethane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,1-Dichloroethene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,1-Dichloropropene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,2,3-Trichlorobenzene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,2,3-Trichloropropane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,2,4-Trichlorobenzene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,2,4-Trimethylbenzene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,2-Dibromo-3-chloropropane	ND	11		µg/Kg	1	6/27/2011 11:06 PM
1,2-Dibromoethane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,2-Dichlorobenzene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,2-Dichloroethane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,2-Dichloropropane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,3,5-Trimethylbenzene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,3-Dichlorobenzene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,3-Dichloropropane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
1,4-Dichlorobenzene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
2,2-Dichloropropane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
2-Chlorotoluene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
4-Chlorotoluene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
4-Isopropyltoluene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
Benzene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
Bromobenzene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
Bromodichloromethane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
Bromoform	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
Bromomethane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
Carbon tetrachloride	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
Chlorobenzene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
Chloroethane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
Chloroform	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
Chloromethane	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM
cis-1,2-Dichloroethene	ND	5.4		µg/Kg	1	6/27/2011 11:06 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-105-40
Lab Order: 118648	Collection Date: 6/24/2011 10:29:00 AM
Project: Metro Westside Extension, 4953-10-1561	Matrix: SOIL
Lab ID: 118648-002A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110627A	QC Batch: K11VS180	PrepDate: 6/24/2011	Analyst: BD		
cis-1,3-Dichloropropene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Di-isopropyl ether	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Dibromochloromethane	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Dibromomethane	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Dichlorodifluoromethane	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Ethyl Tert-butyl ether	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Ethylbenzene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Hexachlorobutadiene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Isopropylbenzene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
m,p-Xylene	ND	11	µg/Kg	1	6/27/2011 11:06 PM
Methylene chloride	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
MTBE	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
n-Butylbenzene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
n-Propylbenzene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Naphthalene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
o-Xylene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
sec-Butylbenzene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Styrene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Tert-amyl methyl ether	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Tert-Butanol	ND	110	µg/Kg	1	6/27/2011 11:06 PM
tert-Butylbenzene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Tetrachloroethene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Toluene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
trans-1,2-Dichloroethene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Trichloroethene	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Trichlorofluoromethane	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Vinyl chloride	ND	5.4	µg/Kg	1	6/27/2011 11:06 PM
Surr: 1,2-Dichloroethane-d4	98.3	65-141	%REC	1	6/27/2011 11:06 PM
Surr: 4-Bromofluorobenzene	91.8	57-134	%REC	1	6/27/2011 11:06 PM
Surr: Dibromofluoromethane	92.5	70-128	%REC	1	6/27/2011 11:06 PM
Surr: Toluene-d8	90.7	72-123	%REC	1	6/27/2011 11:06 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-105-40
Lab Order:	118648	Collection Date:	6/24/2011 10:29:00 AM
Project:	Metro Westside Extension, 4953-10-1561	Matrix:	SOIL
Lab ID:	118648-002D		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC2_110628A	QC Batch: E11VS239	PrepDate: 6/24/2011	Analyst: TP		
GRO	ND	1.2	mg/Kg	1	6/28/2011 11:56 AM
Surr: Bromofluorobenzene (FID)	139	51-161	%REC	1	6/28/2011 11:56 AM

VOLATILE ORGANIC COMPOUNDS BY GC/PID

EPA 8021B

RunID: GC2_110628A	QC Batch: E11VS239	PrepDate: 6/24/2011	Analyst: TP		
Benzene	ND	6.0	µg/Kg	1	6/28/2011 11:56 AM
Ethylbenzene	ND	6.0	µg/Kg	1	6/28/2011 11:56 AM
m,p-Xylene	ND	12	µg/Kg	1	6/28/2011 11:56 AM
o-Xylene	ND	6.0	µg/Kg	1	6/28/2011 11:56 AM
Toluene	ND	6.0	µg/Kg	1	6/28/2011 11:56 AM
Surr: Bromofluorobenzene (PID)	113	33-163	%REC	1	6/28/2011 11:56 AM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-105-40
Lab Order:	118648	Collection Date:	6/24/2011 10:29:00 AM
Project:	Metro Westside Extension, 4953-10-1561	Matrix:	SOIL
Lab ID:	118648-002G		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS BY GC/FID						
	LUFT	EPA 8015B(M)				
RunID: GC16_110628B	QC Batch: 73941				PrepDate: 6/28/2011	Analyst: CBR
DRO	ND	10		mg/Kg	1	6/28/2011 05:09 PM
Surr: p-Terphenyl	102	63-152		%REC	1	6/28/2011 05:09 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		



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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-105-60
Lab Order: 118648	Collection Date: 6/24/2011 10:54:00 AM
Project: Metro Westside Extension, 4953-10-1561	Matrix: SOIL
Lab ID: 118648-004A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110627A	QC Batch: K11VS180	PrepDate: 6/24/2011	Analyst: BD
1,1,1,2-Tetrachloroethane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,1,1-Trichloroethane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,1,2,2-Tetrachloroethane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,1,2-Trichloroethane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,1-Dichloroethane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,1-Dichloroethene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,1-Dichloropropene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,2,3-Trichlorobenzene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,2,3-Trichloropropane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,2,4-Trichlorobenzene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,2,4-Trimethylbenzene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,2-Dibromo-3-chloropropane	ND	10	µg/Kg 1 6/27/2011 11:23 PM
1,2-Dibromoethane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,2-Dichlorobenzene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,2-Dichloroethane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,2-Dichloropropane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,3,5-Trimethylbenzene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,3-Dichlorobenzene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,3-Dichloropropane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
1,4-Dichlorobenzene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
2,2-Dichloropropane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
2-Chlorotoluene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
4-Chlorotoluene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
4-Isopropyltoluene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
Benzene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
Bromobenzene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
Bromodichloromethane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
Bromoform	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
Bromomethane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
Carbon tetrachloride	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
Chlorobenzene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
Chloroethane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
Chloroform	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
Chloromethane	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM
cis-1,2-Dichloroethene	ND	5.0	µg/Kg 1 6/27/2011 11:23 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-105-60
Lab Order: 118648	Collection Date: 6/24/2011 10:54:00 AM
Project: Metro Westside Extension, 4953-10-1561	Matrix: SOIL
Lab ID: 118648-004A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110627A	QC Batch: K11VS180	PrepDate: 6/24/2011	Analyst: BD		
cis-1,3-Dichloropropene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Di-isopropyl ether	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Dibromochloromethane	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Dibromomethane	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Dichlorodifluoromethane	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Ethyl Tert-butyl ether	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Ethylbenzene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Hexachlorobutadiene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Isopropylbenzene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
m,p-Xylene	ND	10	µg/Kg	1	6/27/2011 11:23 PM
Methylene chloride	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
MTBE	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
n-Butylbenzene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
n-Propylbenzene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Naphthalene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
o-Xylene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
sec-Butylbenzene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Styrene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Tert-amyl methyl ether	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Tert-Butanol	ND	100	µg/Kg	1	6/27/2011 11:23 PM
tert-Butylbenzene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Tetrachloroethene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Toluene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
trans-1,2-Dichloroethene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Trichloroethene	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Trichlorofluoromethane	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Vinyl chloride	ND	5.0	µg/Kg	1	6/27/2011 11:23 PM
Surr: 1,2-Dichloroethane-d4	102	65-141	%REC	1	6/27/2011 11:23 PM
Surr: 4-Bromofluorobenzene	90.6	57-134	%REC	1	6/27/2011 11:23 PM
Surr: Dibromofluoromethane	93.9	70-128	%REC	1	6/27/2011 11:23 PM
Surr: Toluene-d8	90.7	72-123	%REC	1	6/27/2011 11:23 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-105-60
Lab Order:	118648	Collection Date:	6/24/2011 10:54:00 AM
Project:	Metro Westside Extension, 4953-10-1561	Matrix:	SOIL
Lab ID:	118648-004D		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC2_110628A	QC Batch: E11VS239	PrepDate: 6/24/2011	Analyst: TP		
GRO	ND	0.83	mg/Kg	1	6/28/2011 12:12 PM
Surr: Bromofluorobenzene (FID)	142	51-161	%REC	1	6/28/2011 12:12 PM

VOLATILE ORGANIC COMPOUNDS BY GC/PID

EPA 8021B

RunID: GC2_110628A	QC Batch: E11VS239	PrepDate: 6/24/2011	Analyst: TP		
Benzene	ND	4.1	µg/Kg	1	6/28/2011 12:12 PM
Ethylbenzene	ND	4.1	µg/Kg	1	6/28/2011 12:12 PM
m,p-Xylene	ND	8.3	µg/Kg	1	6/28/2011 12:12 PM
o-Xylene	ND	4.1	µg/Kg	1	6/28/2011 12:12 PM
Toluene	ND	4.1	µg/Kg	1	6/28/2011 12:12 PM
Surr: Bromofluorobenzene (PID)	115	33-163	%REC	1	6/28/2011 12:12 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-105-60
Lab Order:	118648	Collection Date:	6/24/2011 10:54:00 AM
Project:	Metro Westside Extension, 4953-10-1561	Matrix:	SOIL
Lab ID:	118648-004G		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS BY GC/FID						
	LUFT	EPA 8015B(M)				
RunID: GC16_110628B	QC Batch: 73941				PrepDate: 6/28/2011	Analyst: CBR
DRO	ND	10		mg/Kg	1	6/28/2011 05:19 PM
Surr: p-Terphenyl	100	63-152		%REC	1	6/28/2011 05:19 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-105-65
Lab Order: 118648	Collection Date: 6/24/2011 11:11:00 AM
Project: Metro Westside Extension, 4953-10-1561	Matrix: SOIL
Lab ID: 118648-005A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP METALS

EPA 3050B		EPA 6010B				
RunID: ICP8_110629A	QC Batch: 73935				PrepDate: 6/28/2011	Analyst: IL
Antimony	ND	2.0		mg/Kg	1	6/29/2011 10:57 AM
Arsenic	2.7	1.0		mg/Kg	1	6/29/2011 10:57 AM
Barium	19	1.0		mg/Kg	1	6/29/2011 10:57 AM
Beryllium	ND	1.0		mg/Kg	1	6/29/2011 10:57 AM
Cadmium	ND	1.0		mg/Kg	1	6/29/2011 10:57 AM
Chromium	16	1.0		mg/Kg	1	6/29/2011 10:57 AM
Cobalt	4.6	1.0		mg/Kg	1	6/29/2011 10:57 AM
Copper	6.5	2.0		mg/Kg	1	6/29/2011 10:57 AM
Lead	1.7	1.0		mg/Kg	1	6/29/2011 10:57 AM
Molybdenum	1.9	1.0		mg/Kg	1	6/29/2011 10:57 AM
Nickel	15	1.0		mg/Kg	1	6/29/2011 10:57 AM
Selenium	ND	1.0		mg/Kg	1	6/29/2011 10:57 AM
Silver	ND	1.0		mg/Kg	1	6/29/2011 10:57 AM
Thallium	ND	1.0		mg/Kg	1	6/29/2011 10:57 AM
Vanadium	15	1.0		mg/Kg	1	6/29/2011 10:57 AM
Zinc	19	1.0		mg/Kg	1	6/29/2011 10:57 AM

MERCURY BY COLD VAPOR TECHNIQUE

EPA 7471A			
RunID: AA1_110629A	QC Batch: 73932	PrepDate: 6/28/2011	Analyst: VV
Mercury	ND	0.10	mg/Kg

Qualifiers: B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 S Spike/Surrogate outside of limits due to matrix interference
 DO Surrogate Diluted Out
 E Value above quantitation range
 ND Not Detected at the Reporting Limit
 Results are wet unless otherwise specified



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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-105-70
Lab Order: 118648	Collection Date: 6/24/2011 11:28:00 AM
Project: Metro Westside Extension, 4953-10-1561	Matrix: SOIL
Lab ID: 118648-006A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110627A	QC Batch: K11VS180	PrepDate: 6/24/2011	Analyst: BD
1,1,1,2-Tetrachloroethane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,1,1-Trichloroethane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,1,2,2-Tetrachloroethane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,1,2-Trichloroethane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,1-Dichloroethane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,1-Dichloroethene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,1-Dichloropropene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,2,3-Trichlorobenzene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,2,3-Trichloropropane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,2,4-Trichlorobenzene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,2,4-Trimethylbenzene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,2-Dibromo-3-chloropropane	ND	7.5	µg/Kg 1 6/27/2011 11:41 PM
1,2-Dibromoethane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,2-Dichlorobenzene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,2-Dichloroethane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,2-Dichloropropane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,3,5-Trimethylbenzene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,3-Dichlorobenzene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,3-Dichloropropane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
1,4-Dichlorobenzene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
2,2-Dichloropropane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
2-Chlorotoluene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
4-Chlorotoluene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
4-Isopropyltoluene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
Benzene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
Bromobenzene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
Bromodichloromethane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
Bromoform	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
Bromomethane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
Carbon tetrachloride	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
Chlorobenzene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
Chloroethane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
Chloroform	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
Chloromethane	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM
cis-1,2-Dichloroethene	ND	3.8	µg/Kg 1 6/27/2011 11:41 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-105-70
Lab Order: 118648	Collection Date: 6/24/2011 11:28:00 AM
Project: Metro Westside Extension, 4953-10-1561	Matrix: SOIL
Lab ID: 118648-006A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110627A	QC Batch: K11VS180	PrepDate: 6/24/2011	Analyst: BD		
cis-1,3-Dichloropropene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Di-isopropyl ether	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Dibromochloromethane	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Dibromomethane	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Dichlorodifluoromethane	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Ethyl Tert-butyl ether	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Ethylbenzene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Hexachlorobutadiene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Isopropylbenzene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
m,p-Xylene	ND	7.5	µg/Kg	1	6/27/2011 11:41 PM
Methylene chloride	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
MTBE	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
n-Butylbenzene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
n-Propylbenzene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Naphthalene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
o-Xylene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
sec-Butylbenzene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Styrene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Tert-amyl methyl ether	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Tert-Butanol	ND	75	µg/Kg	1	6/27/2011 11:41 PM
tert-Butylbenzene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Tetrachloroethene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Toluene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
trans-1,2-Dichloroethene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Trichloroethene	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Trichlorofluoromethane	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Vinyl chloride	ND	3.8	µg/Kg	1	6/27/2011 11:41 PM
Surr: 1,2-Dichloroethane-d4	101	65-141	%REC	1	6/27/2011 11:41 PM
Surr: 4-Bromofluorobenzene	92.8	57-134	%REC	1	6/27/2011 11:41 PM
Surr: Dibromofluoromethane	98.0	70-128	%REC	1	6/27/2011 11:41 PM
Surr: Toluene-d8	96.8	72-123	%REC	1	6/27/2011 11:41 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-105-70
Lab Order: 118648	Collection Date: 6/24/2011 11:28:00 AM
Project: Metro Westside Extension, 4953-10-1561	Matrix: SOIL
Lab ID: 118648-006D	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC2_110628A	QC Batch: E11VS239	PrepDate: 6/24/2011	Analyst: TP		
GRO	ND	0.86	mg/Kg	1	6/28/2011 01:15 PM
Surr: Bromofluorobenzene (FID)	112	51-161	%REC	1	6/28/2011 01:15 PM

VOLATILE ORGANIC COMPOUNDS BY GC/PID

EPA 8021B

RunID: GC2_110628A	QC Batch: E11VS239	PrepDate: 6/24/2011	Analyst: TP		
Benzene	ND	4.3	µg/Kg	1	6/28/2011 01:15 PM
Ethylbenzene	ND	4.3	µg/Kg	1	6/28/2011 01:15 PM
m,p-Xylene	ND	8.6	µg/Kg	1	6/28/2011 01:15 PM
o-Xylene	ND	4.3	µg/Kg	1	6/28/2011 01:15 PM
Toluene	ND	4.3	µg/Kg	1	6/28/2011 01:15 PM
Surr: Bromofluorobenzene (PID)	90.4	33-163	%REC	1	6/28/2011 01:15 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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Advanced Technology Laboratories

ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-105-70
Lab Order:	118648	Collection Date:	6/24/2011 11:28:00 AM
Project:	Metro Westside Extension, 4953-10-1561	Matrix:	SOIL
Lab ID:	118648-006G		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS BY GC/FID						
	LUFT	EPA 8015B(M)				
RunID: GC16_110628B	QC Batch: 73941				PrepDate: 6/28/2011	Analyst: CBR
DRO	ND	10		mg/Kg	1	6/28/2011 05:29 PM
Surr: p-Terphenyl	94.0	63-152		%REC	1	6/28/2011 05:29 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		



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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-105-GW
Lab Order: 118648	Collection Date: 6/24/2011 12:30:00 PM
Project: Metro Westside Extension, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118648-007A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS11_110628A	QC Batch: A11VW109	PrepDate:	Analyst: SLL
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,1,1-Trichloroethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,1,2-Trichloroethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,1-Dichloroethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,1-Dichloroethene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,1-Dichloropropene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,2,3-Trichlorobenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,2,3-Trichloropropane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,2,4-Trichlorobenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,2,4-Trimethylbenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,2-Dibromo-3-chloropropane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,2-Dibromoethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,2-Dichlorobenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,2-Dichloroethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,2-Dichloropropane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,3,5-Trimethylbenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,3-Dichlorobenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,3-Dichloropropane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
1,4-Dichlorobenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
2,2-Dichloropropane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
2-Chlorotoluene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
4-Chlorotoluene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
4-Isopropyltoluene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Benzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Bromobenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Bromodichloromethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Bromoform	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Bromomethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Carbon tetrachloride	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Chlorobenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Chloroethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Chloroform	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Chloromethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
cis-1,2-Dichloroethene	ND	0.50	µg/L 1 6/28/2011 03:26 PM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified
DO Surrogate Diluted Out



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ANALYTICAL RESULTS

Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-105-GW
Lab Order: 118648	Collection Date: 6/24/2011 12:30:00 PM
Project: Metro Westside Extension, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118648-007A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS11_110628A	QC Batch: A11VW109	PrepDate:	Analyst: SLL
cis-1,3-Dichloropropene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Di-isopropyl ether	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Dibromochloromethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Dibromomethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Dichlorodifluoromethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Ethyl tert-butyl ether	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Ethylbenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Hexachlorobutadiene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Isopropylbenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
m,p-Xylene	ND	1.0	µg/L 1 6/28/2011 03:26 PM
Methylene chloride	ND	1.0	µg/L 1 6/28/2011 03:26 PM
MTBE	ND	0.50	µg/L 1 6/28/2011 03:26 PM
n-Butylbenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
n-Propylbenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Naphthalene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
o-Xylene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
sec-Butylbenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Styrene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Tert-amyl methyl ether	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Tert-Butanol	ND	10	µg/L 1 6/28/2011 03:26 PM
tert-Butylbenzene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Tetrachloroethene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Toluene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
trans-1,2-Dichloroethene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Trichloroethene	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Trichlorofluoromethane	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Vinyl chloride	ND	0.50	µg/L 1 6/28/2011 03:26 PM
Surr: 1,2-Dichloroethane-d4	92.2	70-130	%REC 1 6/28/2011 03:26 PM
Surr: 4-Bromofluorobenzene	94.1	70-130	%REC 1 6/28/2011 03:26 PM
Surr: Dibromofluoromethane	95.8	70-130	%REC 1 6/28/2011 03:26 PM
Surr: Toluene-d8	103	70-130	%REC 1 6/28/2011 03:26 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT: Mactec	Client Sample ID: E-105-GW
Lab Order: 118648	Collection Date: 6/24/2011 12:30:00 PM
Project: Metro Westside Extension, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118648-007B	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC19_110630A	QC Batch: M11VW130	PrepDate:	Analyst: TP		
GRO	ND	0.20	mg/L	1	6/30/2011 02:11 PM
Surr: Bromofluorobenzene (FID)	97.0	70-130	%REC	1	6/30/2011 02:11 PM

VOLATILE ORGANIC COMPOUNDS BY GC/PID

EPA 8021B

RunID: GC19_110630A	QC Batch: M11VW130	PrepDate:	Analyst: TP		
Benzene	ND	0.50	µg/L	1	6/30/2011 02:11 PM
Ethylbenzene	ND	0.50	µg/L	1	6/30/2011 02:11 PM
m,p-Xylene	ND	1.0	µg/L	1	6/30/2011 02:11 PM
o-Xylene	ND	0.50	µg/L	1	6/30/2011 02:11 PM
Toluene	ND	0.50	µg/L	1	6/30/2011 02:11 PM
Surr: Bromofluorobenzene (PID)	89.1	70-130	%REC	1	6/30/2011 02:11 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 01-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-105-GW
Lab Order:	118648	Collection Date:	6/24/2011 12:30:00 PM
Project:	Metro Westside Extension, 4953-10-1561	Matrix:	GROUNDWATER
Lab ID:	118648-007C		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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DIESEL RANGE ORGANICS BY GC/FID

EPA 3510C

EPA 8015B(M)

RunID: GC16_110628A	QC Batch: 73912	PrepDate: 6/27/2011	Analyst: CBR
DRO	ND	0.20	mg/L
Surr: p-Terphenyl	79.4	36-126	%REC

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

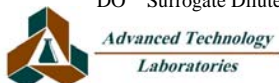
TestCode: 6010_S

Sample ID: MB-73935	SampType: MBLK	TestCode: 6010_S	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134499						
Client ID: PBS	Batch ID: 73935	TestNo: EPA 6010B EPA 3050B		Analysis Date: 6/29/2011	SeqNo: 2199100						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	2.0									
Arsenic	ND	1.0									
Barium	ND	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	ND	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	ND	1.0									
Molybdenum	ND	1.0									
Nickel	ND	1.0									
Selenium	ND	1.0									
Silver	ND	1.0									
Thallium	ND	1.0									
Vanadium	ND	1.0									
Zinc	0.212	1.0									

Sample ID: LCS-73935	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134499						
Client ID: LCSS	Batch ID: 73935	TestNo: EPA 6010B EPA 3050B		Analysis Date: 6/29/2011	SeqNo: 2199101						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	47.163	2.0	50.00	0	94.3	80	120				
Arsenic	47.469	1.0	50.00	0	94.9	80	120				
Barium	48.281	1.0	50.00	0	96.6	80	120				
Beryllium	47.321	1.0	50.00	0	94.6	80	120				
Cadmium	46.939	1.0	50.00	0	93.9	80	120				
Chromium	44.770	1.0	50.00	0	89.5	80	120				
Cobalt	48.562	1.0	50.00	0	97.1	80	120				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

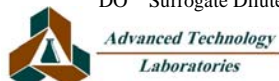
TestCode: 6010_S

Sample ID: LCS-73935		SampType: LCS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 6/28/2011		RunNo: 134499		
Client ID: LCSS		Batch ID: 73935		TestNo: EPA 6010B EPA 3050B				Analysis Date: 6/29/2011		SeqNo: 2199101		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Copper	48.530	2.0	50.00	0	97.1	80	120					
Lead	47.797	1.0	50.00	0	95.6	80	120					
Molybdenum	49.718	1.0	50.00	0	99.4	80	120					
Nickel	47.117	1.0	50.00	0	94.2	80	120					
Selenium	44.660	1.0	50.00	0	89.3	80	120					
Silver	47.861	1.0	50.00	0	95.7	80	120					
Thallium	45.663	1.0	50.00	0	91.3	80	120					
Vanadium	48.861	1.0	50.00	0	97.7	80	120					
Zinc	47.972	1.0	50.00	0.2116	95.5	80	120					

Sample ID: 118606-005A-MS		SampType: MS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 6/28/2011		RunNo: 134499		
Client ID: ZZZZZZ		Batch ID: 73935		TestNo: EPA 6010B EPA 3050B				Analysis Date: 6/29/2011		SeqNo: 2199103		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony	85.126	2.0	125.0	0.9440	67.3	32	105					
Arsenic	105.631	1.0	125.0	1.583	83.2	49	106					
Barium	225.784	1.0	125.0	127.2	78.9	31	133					
Beryllium	104.889	1.0	125.0	0	83.9	56	106					
Cadmium	100.148	1.0	125.0	0.6001	79.6	51	103					
Chromium	133.015	1.0	125.0	37.03	76.8	45	114					
Cobalt	110.853	1.0	125.0	10.46	80.3	52	106					
Copper	129.634	2.0	125.0	18.50	88.9	54	125					
Lead	106.275	1.0	125.0	6.342	79.9	34	126					
Molybdenum	105.169	1.0	125.0	0	84.1	54	106					
Nickel	148.852	1.0	125.0	73.93	59.9	45	111					
Selenium	99.770	1.0	125.0	0	79.8	47	104					
Silver	109.012	1.0	125.0	0	87.2	56	112					
Thallium	94.677	1.0	125.0	0	75.7	46	101					
Vanadium	135.921	1.0	125.0	30.15	84.6	54	114					
Zinc	136.681	1.0	125.0	35.91	80.6	28	125					

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



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CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

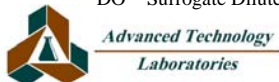
ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: 118606-005A-MSD		SampType: MSD		TestCode: 6010_S		Units: mg/Kg		Prep Date: 6/28/2011		RunNo: 134499	
Client ID: ZZZZZZ		Batch ID: 73935		TestNo: EPA 6010B EPA 3050B		Analysis Date: 6/29/2011		SeqNo: 2199104			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	82.156	2.0	125.0	0.9440	65.0	32	105	85.13	3.55	20	
Arsenic	104.421	1.0	125.0	1.583	82.3	49	106	105.6	1.15	20	
Barium	253.610	1.0	125.0	127.2	101	31	133	225.8	11.6	20	
Beryllium	105.409	1.0	125.0	0	84.3	56	106	104.9	0.495	20	
Cadmium	100.020	1.0	125.0	0.6001	79.5	51	103	100.1	0.127	20	
Chromium	137.258	1.0	125.0	37.03	80.2	45	114	133.0	3.14	20	
Cobalt	111.469	1.0	125.0	10.46	80.8	52	106	110.9	0.554	20	
Copper	131.544	2.0	125.0	18.50	90.4	54	125	129.6	1.46	20	
Lead	105.108	1.0	125.0	6.342	79.0	34	126	106.3	1.10	20	
Molybdenum	103.785	1.0	125.0	0	83.0	54	106	105.2	1.32	20	
Nickel	153.487	1.0	125.0	73.93	63.6	45	111	148.9	3.07	20	
Selenium	97.866	1.0	125.0	0	78.3	47	104	99.77	1.93	20	
Silver	109.474	1.0	125.0	0	87.6	56	112	109.0	0.423	20	
Thallium	94.136	1.0	125.0	0	75.3	46	101	94.68	0.573	20	
Vanadium	137.507	1.0	125.0	30.15	85.9	54	114	135.9	1.16	20	
Zinc	137.550	1.0	125.0	35.91	81.3	28	125	136.7	0.634	20	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S

Sample ID: MB-73932	SampType: MBLK	TestCode: 7471_S	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134510						
Client ID: PBS	Batch ID: 73932	TestNo: EPA 7471A		Analysis Date: 6/29/2011	SeqNo: 2199223						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.10

Sample ID: LCS-73932	SampType: LCS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134510						
Client ID: LCSS	Batch ID: 73932	TestNo: EPA 7471A		Analysis Date: 6/29/2011	SeqNo: 2199224						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.796 0.10 0.8300 0 95.9 80 120

Sample ID: 118606-005A-MS	SampType: MS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134510						
Client ID: ZZZZZ	Batch ID: 73932	TestNo: EPA 7471A		Analysis Date: 6/29/2011	SeqNo: 2199225						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

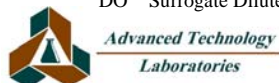
Mercury 0.891 0.10 0.8300 0.05640 101 70 130

Sample ID: 118606-005A-MSD	SampType: MSD	TestCode: 7471_S	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134510						
Client ID: ZZZZZ	Batch ID: 73932	TestNo: EPA 7471A		Analysis Date: 6/29/2011	SeqNo: 2199226						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.857 0.10 0.8300 0.05640 96.5 70 130 0.8910 3.89 20

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_DSL H

Sample ID: MB-73941	SampType: MBLK	TestCode: 8015_S_DSL	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134496						
Client ID: PBS	Batch ID: 73941	TestNo: EPA 8015B(M LUFT		Analysis Date: 6/28/2011	SeqNo: 2198952						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	ND	10									
Surr: p-Terphenyl	101.280		80.00		127	63	152				

Sample ID: LCS-73941	SampType: LCS	TestCode: 8015_S_DSL	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134496						
Client ID: LCSS	Batch ID: 73941	TestNo: EPA 8015B(M LUFT		Analysis Date: 6/28/2011	SeqNo: 2198953						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	1077.800	10	1000	0	108	76	139				
Surr: p-Terphenyl	100.940		80.00		126	63	152				

Sample ID: 118666-002AMS	SampType: MS	TestCode: 8015_S_DSL	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134496						
Client ID: ZZZZZ	Batch ID: 73941	TestNo: EPA 8015B(M LUFT		Analysis Date: 6/28/2011	SeqNo: 2198954						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

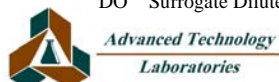
DRO	1344.440	10	1000	291.7	105	60	158				
Surr: p-Terphenyl	83.500		80.00		104	63	152				

Sample ID: 118666-002AMSD	SampType: MSD	TestCode: 8015_S_DSL	Units: mg/Kg	Prep Date: 6/28/2011	RunNo: 134496						
Client ID: ZZZZZ	Batch ID: 73941	TestNo: EPA 8015B(M LUFT		Analysis Date: 6/28/2011	SeqNo: 2198955						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	1429.670	10	1000	291.7	114	60	158	1344	6.14	20	
Surr: p-Terphenyl	98.830		80.00		124	63	152		0	0	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: E110628LC1	SampType: LCS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 134491						
Client ID: LCSS	Batch ID: E11VS239	TestNo: EPA 8015B(M)	Analysis Date: 6/28/2011	SeqNo: 2198994							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	5.302	1.0	5.000	0	106	70	130				
Surr: Bromofluorobenzene (FID)	121.052		100.0		121	51	161				

Sample ID: E110628MB1MS	SampType: MS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 134491						
Client ID: ZZZZZ	Batch ID: E11VS239	TestNo: EPA 8015B(M)	Analysis Date: 6/28/2011	SeqNo: 2198995							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	5.224	1.0	5.000	0	104	41	146				
Surr: Bromofluorobenzene (FID)	119.011		100.0		119	51	161				

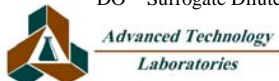
Sample ID: E110628MB1MSD	SampType: MSD	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 134491						
Client ID: ZZZZZ	Batch ID: E11VS239	TestNo: EPA 8015B(M)	Analysis Date: 6/28/2011	SeqNo: 2198996							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	5.292	1.0	5.000	0	106	41	146	5.224	1.29	20	
Surr: Bromofluorobenzene (FID)	118.146		100.0		118	51	161		0	0	

Sample ID: E110628MB1	SampType: MBLK	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 134491						
Client ID: PBS	Batch ID: E11VS239	TestNo: EPA 8015B(M)	Analysis Date: 6/28/2011	SeqNo: 2198997							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	1.0									
Surr: Bromofluorobenzene (FID)	101.699		100.0		102	51	161				

Sample ID: 118658-009AMS	SampType: MS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 134491						
Client ID: ZZZZZ	Batch ID: E11VS239	TestNo: EPA 8015B(M)	Analysis Date: 6/28/2011	SeqNo: 2199010							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.005	1.0	5.000	0	80.1	41	146				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: 118658-009AMS	SampType: MS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 134491						
Client ID: ZZZZZZ	Batch ID: E11VS239	TestNo: EPA 8015B(M)	Analysis Date: 6/28/2011	SeqNo: 2199010							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

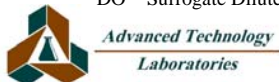
Surr: Bromofluorobenzene (FID)	129.992	100.0	130	51	161
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Sample ID: 118658-009AMSD	SampType: MSD	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 134491						
Client ID: ZZZZZZ	Batch ID: E11VS239	TestNo: EPA 8015B(M)	Analysis Date: 6/28/2011	SeqNo: 2199011							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	4.839	1.0	5.000	0	96.8	41	146	4.005	18.9	20
Surr: Bromofluorobenzene (FID)	129.251		100.0		129	51	161		0	0

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



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CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_DSL H

Sample ID: MB-73912	SampType: MBLK	TestCode: 8015_W_DSL	Units: mg/L	Prep Date: 6/27/2011	RunNo: 134463						
Client ID: PBW	Batch ID: 73912	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 6/28/2011	SeqNo: 2198409						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	ND	0.20									
Surr: p-Terphenyl	0.050		0.08000		62.4	36	126				

Sample ID: LCS-73912	SampType: LCS	TestCode: 8015_W_DSL	Units: mg/L	Prep Date: 6/27/2011	RunNo: 134463						
Client ID: LCSW	Batch ID: 73912	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 6/28/2011	SeqNo: 2198410						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.630	0.20	1.000	0	63.0	52	128				
Surr: p-Terphenyl	0.063		0.08000		79.2	36	126				

Sample ID: MB-73912MS	SampType: MS	TestCode: 8015_W_DSL	Units: mg/L	Prep Date: 6/27/2011	RunNo: 134463						
Client ID: ZZZZZZ	Batch ID: 73912	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 6/28/2011	SeqNo: 2198411						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

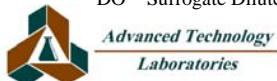
DRO	0.663	0.20	1.000	0	66.3	52	128				
Surr: p-Terphenyl	0.060		0.08000		75.4	36	126				

Sample ID: MB-73912MSD	SampType: MSD	TestCode: 8015_W_DSL	Units: mg/L	Prep Date: 6/27/2011	RunNo: 134463						
Client ID: ZZZZZZ	Batch ID: 73912	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 6/28/2011	SeqNo: 2198412						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.693	0.20	1.000	0	69.3	52	128	0.6628	4.50	20	
Surr: p-Terphenyl	0.064		0.08000		79.7	36	126		0	0	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_G PRES

Sample ID: M110630LC1	SampType: LCS	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 134577						
Client ID: LCSW	Batch ID: M11VW130	TestNo: EPA 8015B(M)	Analysis Date: 6/30/2011	SeqNo: 2200562							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.902	0.20	1.000	0	90.2	70	130				
Surr: Bromofluorobenzene (FID)	98.071		100.0		98.1	70	130				

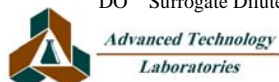
Sample ID: M110630MB1MS	SampType: MS	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 134577						
Client ID: ZZZZZ	Batch ID: M11VW130	TestNo: EPA 8015B(M)	Analysis Date: 6/30/2011	SeqNo: 2200565							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.886	0.20	1.000	0	88.6	70	130				
Surr: Bromofluorobenzene (FID)	97.429		100.0		97.4	70	130				

Sample ID: M110630MB1MSD	SampType: MSD	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 134577						
Client ID: ZZZZZ	Batch ID: M11VW130	TestNo: EPA 8015B(M)	Analysis Date: 6/30/2011	SeqNo: 2200566							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.889	0.20	1.000	0	88.9	70	130	0.8860	0.338	20	
Surr: Bromofluorobenzene (FID)	97.762		100.0		97.8	70	130		0	0	

Sample ID: M110630MB1	SampType: MBLK	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 134577						
Client ID: PBW	Batch ID: M11VW130	TestNo: EPA 8015B(M)	Analysis Date: 6/30/2011	SeqNo: 2200567							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	0.20									
Surr: Bromofluorobenzene (FID)	96.046		100.0		96.0	70	130				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



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CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021_S_B 5035P

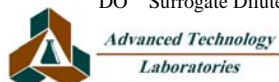
Sample ID: E110628LC2	SampType: LCS	TestCode: 8021_S_B 50	Units: µg/Kg	Prep Date:	RunNo: 134491						
Client ID: LCSS	Batch ID: E11VS239	TestNo: EPA 8021B	Analysis Date: 6/28/2011	SeqNo: 2199054							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	94.337	5.0	100.0	0	94.3	70	130				
Ethylbenzene	96.658	5.0	100.0	0	96.7	70	130				
m,p-Xylene	195.503	10	200.0	0	97.8	70	130				
o-Xylene	100.010	5.0	100.0	0	100	70	130				
Toluene	96.928	5.0	100.0	0	96.9	70	130				
Surr: Bromofluorobenzene (PID)	90.946		100.0		90.9	33	163				

Sample ID: E110628LC2	SampType: LCSD	TestCode: 8021_S_B 50	Units: µg/Kg	Prep Date:	RunNo: 134491						
Client ID: LCSS02	Batch ID: E11VS239	TestNo: EPA 8021B	Analysis Date: 6/28/2011	SeqNo: 2199055							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	91.832	5.0	100.0	0	91.8	70	130	94.34	2.69	20	
Ethylbenzene	94.472	5.0	100.0	0	94.5	70	130	96.66	2.29	20	
m,p-Xylene	190.858	10	200.0	0	95.4	70	130	195.5	2.40	20	
o-Xylene	97.445	5.0	100.0	0	97.4	70	130	100.0	2.60	20	
Toluene	94.693	5.0	100.0	0	94.7	70	130	96.93	2.33	20	
Surr: Bromofluorobenzene (PID)	89.120		100.0		89.1	33	163		0	0	

Sample ID: E110628MB1	SampType: MBLK	TestCode: 8021_S_B 50	Units: µg/Kg	Prep Date:	RunNo: 134491						
Client ID: PBS	Batch ID: E11VS239	TestNo: EPA 8021B	Analysis Date: 6/28/2011	SeqNo: 2199058							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	5.0									
Ethylbenzene	ND	5.0									
m,p-Xylene	ND	10									
o-Xylene	ND	5.0									
Toluene	ND	5.0									
Surr: Bromofluorobenzene (PID)	82.520		100.0		82.5	33	163				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

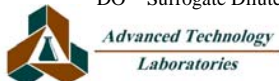
TestCode: 8021_S_B 5035P

Sample ID: 118658-009AMS	SampType: MS	TestCode: 8021_S_B 50	Units: µg/Kg	Prep Date:	RunNo: 134491						
Client ID: ZZZZZZ	Batch ID: E11VS239	TestNo: EPA 8021B	Analysis Date: 6/28/2011	SeqNo: 2199071							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	26.567	5.0	22.15	0	120	44	115				S
Ethylbenzene	38.951	5.0	42.30	0	92.1	49	95				
m,p-Xylene	132.828	10	180.2	0	73.7	55	98				
o-Xylene	50.760	5.0	64.80	0	78.3	50	93				
Toluene	130.255	5.0	172.6	0	75.4	46	113				
Surr: Bromofluorobenzene (PID)	105.279		100.0		105	33	163				

Sample ID: 118658-009AMSD	SampType: MSD	TestCode: 8021_S_B 50	Units: µg/Kg	Prep Date:	RunNo: 134491						
Client ID: ZZZZZZ	Batch ID: E11VS239	TestNo: EPA 8021B	Analysis Date: 6/28/2011	SeqNo: 2199072							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	31.500	5.0	22.15	0	142	44	115	26.57	17.0	20	S
Ethylbenzene	47.924	5.0	42.30	0	113	49	95	38.95	20.7	20	SR
m,p-Xylene	163.790	10	180.2	0	90.9	55	98	132.8	20.9	20	R
o-Xylene	63.270	5.0	64.80	0	97.6	50	93	50.76	21.9	20	SR
Toluene	155.697	5.0	172.6	0	90.2	46	113	130.3	17.8	20	
Surr: Bromofluorobenzene (PID)	105.250		100.0		105	33	163		0	0	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021_WP_BTEX

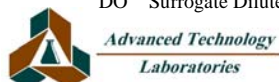
Sample ID: M110630LC2	SampType: LCS	TestCode: 8021_WP_BT	Units: µg/L	Prep Date:	RunNo: 134577						
Client ID: LCSW	Batch ID: M11VW130	TestNo: EPA 8021B		Analysis Date: 6/30/2011	SeqNo: 2200592						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	94.552	0.50	100.0	0	94.6	70	130				
Toluene	95.763	0.50	100.0	0	95.8	70	130				
Ethylbenzene	94.565	0.50	100.0	0	94.6	70	130				
m,p-Xylene	190.216	1.0	200.0	0	95.1	70	130				
o-Xylene	98.150	0.50	100.0	0	98.2	70	130				
Surr: Bromofluorobenzene (PID)	90.399		100.0		90.4	70	130				

Sample ID: M110630LC2	SampType: LCS	TestCode: 8021_WP_BT	Units: µg/L	Prep Date:	RunNo: 134577						
Client ID: LCSW	Batch ID: M11VW130	TestNo: EPA 8021B		Analysis Date: 6/30/2011	SeqNo: 2200592						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	93.912	0.50	100.0	0	93.9	70	130	94.55	0.679	20	
Toluene	94.864	0.50	100.0	0	94.9	70	130	95.76	0.943	20	
Ethylbenzene	92.886	0.50	100.0	0	92.9	70	130	94.56	1.79	20	
m,p-Xylene	186.977	1.0	200.0	0	93.5	70	130	190.2	1.72	20	
o-Xylene	96.680	0.50	100.0	0	96.7	70	130	98.15	1.51	20	
Surr: Bromofluorobenzene (PID)	89.953		100.0		90.0	70	130		0	0	

Sample ID: M110630MB1MS	SampType: MS	TestCode: 8021_WP_BT	Units: µg/L	Prep Date:	RunNo: 134577						
Client ID: ZZZZZ	Batch ID: M11VW130	TestNo: EPA 8021B		Analysis Date: 6/30/2011	SeqNo: 2200594						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	6.704	0.50	6.400	0	105	70	130				
Toluene	36.104	0.50	33.85	0	107	70	130				
Ethylbenzene	11.216	0.50	10.95	0	102	70	130				
m,p-Xylene	39.712	1.0	42.40	0	93.7	70	130				
o-Xylene	15.620	0.50	13.35	0	117	70	130				
Surr: Bromofluorobenzene (PID)	89.310		100.0		89.3	70	130				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

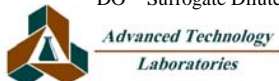
TestCode: 8021_WP_BTEX

Sample ID: M110630MB1MSD		SampType: MSD		TestCode: 8021_WP_BT		Units: µg/L		Prep Date:		RunNo: 134577	
Client ID: ZZZZZZ		Batch ID: M11VW130		TestNo: EPA 8021B		Analysis Date: 6/30/2011				SeqNo: 2200595	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	6.636	0.50	6.400	0	104	70	130	6.704	1.02	20	
Toluene	36.601	0.50	33.85	0	108	70	130	36.10	1.37	20	
Ethylbenzene	11.213	0.50	10.95	0	102	70	130	11.22	0.0268	20	
m,p-Xylene	39.956	1.0	42.40	0	94.2	70	130	39.71	0.613	20	
o-Xylene	15.646	0.50	13.35	0	117	70	130	15.62	0.166	20	
Surr: Bromofluorobenzene (PID)	89.103		100.0		89.1	70	130		0	0	

Sample ID: M110630MB1		SampType: MBLK		TestCode: 8021_WP_BT		Units: µg/L		Prep Date:		RunNo: 134577	
Client ID: PBW		Batch ID: M11VW130		TestNo: EPA 8021B		Analysis Date: 6/30/2011				SeqNo: 2200596	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
o-Xylene	ND	0.50									
Surr: Bromofluorobenzene (PID)	88.066		100.0		88.1	70	130				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

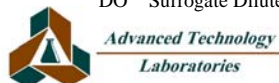
Sample ID: K110627LCS2		SampType: LCS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466	
Client ID: LCSS		Batch ID: K11VS180		TestNo: EPA 8260B		Analysis Date: 6/27/2011				SeqNo: 2198426	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	48.260	5.0	50.00	0	96.5	70	130				
Benzene	105.010	5.0	100.0	0	105	70	130				
Chlorobenzene	54.670	5.0	50.00	0	109	70	130				
MTBE	54.440	5.0	50.00	0	109	70	130				
Toluene	108.490	5.0	100.0	0	108	70	130				
Trichloroethene	51.610	5.0	50.00	0	103	70	130				
Surr: 1,2-Dichloroethane-d4	46.850		50.00		93.7	65	141				
Surr: 4-Bromofluorobenzene	46.920		50.00		93.8	57	134				
Surr: Dibromofluoromethane	45.450		50.00		90.9	70	128				
Surr: Toluene-d8	48.250		50.00		96.5	72	123				

Sample ID: 118639-001AMS		SampType: MS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466	
Client ID: ZZZZZ		Batch ID: K11VS180		TestNo: EPA 8260B		Analysis Date: 6/27/2011				SeqNo: 2198427	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	45.550	5.0	50.00	0	91.1	70	130				
Benzene	98.910	5.0	100.0	0	98.9	70	130				
Chlorobenzene	52.100	5.0	50.00	0	104	70	130				
MTBE	49.320	5.0	50.00	0	98.6	70	130				
Toluene	101.360	5.0	100.0	0	101	70	130				
Trichloroethene	48.990	5.0	50.00	0	98.0	70	130				
Surr: 1,2-Dichloroethane-d4	43.660		50.00		87.3	65	141				
Surr: 4-Bromofluorobenzene	45.880		50.00		91.8	57	134				
Surr: Dibromofluoromethane	44.400		50.00		88.8	70	128				
Surr: Toluene-d8	46.060		50.00		92.1	72	123				

Sample ID: 118639-001AMSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466	
Client ID: ZZZZZ		Batch ID: K11VS180		TestNo: EPA 8260B		Analysis Date: 6/27/2011				SeqNo: 2198428	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

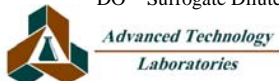
Sample ID: 118639-001AMSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466	
Client ID: ZZZZZ		Batch ID: K11VS180		TestNo: EPA 8260B		Analysis Date: 6/27/2011				SeqNo: 2198428	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	45.780	5.0	50.00	0	91.6	70	130	45.55	0.504	20	
Benzene	99.710	5.0	100.0	0	99.7	70	130	98.91	0.806	20	
Chlorobenzene	51.380	5.0	50.00	0	103	70	130	52.10	1.39	20	
MTBE	50.020	5.0	50.00	0	100	70	130	49.32	1.41	20	
Toluene	102.620	5.0	100.0	0	103	70	130	101.4	1.24	20	
Trichloroethene	50.480	5.0	50.00	0	101	70	130	48.99	3.00	20	
Surr: 1,2-Dichloroethane-d4	42.330		50.00		84.7	65	141		0	0	
Surr: 4-Bromofluorobenzene	46.670		50.00		93.3	57	134		0	0	
Surr: Dibromofluoromethane	44.220		50.00		88.4	70	128		0	0	
Surr: Toluene-d8	45.590		50.00		91.2	72	123		0	0	

Sample ID: K110627MB4MS		SampType: MS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466	
Client ID: ZZZZZ		Batch ID: K11VS180		TestNo: EPA 8260B		Analysis Date: 6/27/2011				SeqNo: 2198429	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	40.370	5.0	50.00	0	80.7	70	130				
Benzene	83.190	5.0	100.0	0	83.2	70	130				
Chlorobenzene	40.750	5.0	50.00	0	81.5	70	130				
MTBE	41.650	5.0	50.00	0	83.3	70	130				
Toluene	83.950	5.0	100.0	0	84.0	70	130				
Trichloroethene	41.570	5.0	50.00	0	83.1	70	130				
Surr: 1,2-Dichloroethane-d4	43.760		50.00		87.5	65	141				
Surr: 4-Bromofluorobenzene	45.600		50.00		91.2	57	134				
Surr: Dibromofluoromethane	44.050		50.00		88.1	70	128				
Surr: Toluene-d8	43.840		50.00		87.7	72	123				

Sample ID: K110627MB4MSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466	
Client ID: ZZZZZ		Batch ID: K11VS180		TestNo: EPA 8260B		Analysis Date: 6/27/2011				SeqNo: 2198430	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

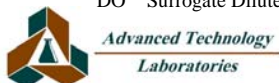
TestCode: 8260_S_5035

Sample ID: K110627MB4MSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466	
Client ID: ZZZZZ		Batch ID: K11VS180		TestNo: EPA 8260B		Analysis Date: 6/27/2011				SeqNo: 2198430	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	40.210	5.0	50.00	0	80.4	70	130	40.37	0.397	20	
Benzene	84.010	5.0	100.0	0	84.0	70	130	83.19	0.981	20	
Chlorobenzene	41.900	5.0	50.00	0	83.8	70	130	40.75	2.78	20	
MTBE	41.930	5.0	50.00	0	83.9	70	130	41.65	0.670	20	
Toluene	85.360	5.0	100.0	0	85.4	70	130	83.95	1.67	20	
Trichloroethene	40.850	5.0	50.00	0	81.7	70	130	41.57	1.75	20	
Surr: 1,2-Dichloroethane-d4	45.120		50.00		90.2	65	141		0	0	
Surr: 4-Bromofluorobenzene	49.640		50.00		99.3	57	134		0	0	
Surr: Dibromofluoromethane	46.620		50.00		93.2	70	128		0	0	
Surr: Toluene-d8	47.110		50.00		94.2	72	123		0	0	

Sample ID: K110627MB4		SampType: MBLK		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 134466	
Client ID: PBS		Batch ID: K11VS180		TestNo: EPA 8260B		Analysis Date: 6/27/2011				SeqNo: 2198431	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									

Qualifiers:

- | | | |
|---|--|--|
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CLIENT: Mactec
Work Order: 118648
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: K110627MB4	SampType: MBLK	TestCode: 8260_S_5035	Units: µg/Kg	Prep Date:	RunNo: 134466						
Client ID: PBS	Batch ID: K11VS180	TestNo: EPA 8260B		Analysis Date: 6/27/2011	SeqNo: 2198431						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Di-isopropyl ether	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethyl Tert-butyl ether	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	10									

Qualifiers:

- | | | |
|---|--|--|
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| DO Surrogate Diluted Out | Calculations are based on raw values | |



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Laboratories*

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Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: K110627MB4	SampType: MBLK	TestCode: 8260_S_5035	Units: µg/Kg	Prep Date:	RunNo: 134466						
Client ID: PBS	Batch ID: K11VS180	TestNo: EPA 8260B	Analysis Date: 6/27/2011	SeqNo: 2198431							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	5.0									
MTBE	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
Tert-amyl methyl ether	ND	5.0									
Tert-Butanol	ND	100									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	45.270		50.00		90.5	65	141				
Surr: 4-Bromofluorobenzene	44.110		50.00		88.2	57	134				
Surr: Dibromofluoromethane	44.680		50.00		89.4	70	128				
Surr: Toluene-d8	44.550		50.00		89.1	72	123				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
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| DO Surrogate Diluted Out | Calculations are based on raw values | |



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CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

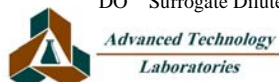
Sample ID: A110628LCS1		SampType: LCS		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 134538	
Client ID: LCSW		Batch ID: A11VW109		TestNo: EPA 8260B		Analysis Date: 6/28/2011				SeqNo: 2199743	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18.040	0.50	20.00	0	90.2	70	130				
Benzene	37.990	0.50	40.00	0	95.0	70	130				
Chlorobenzene	20.000	0.50	20.00	0	100	70	130				
MTBE	20.470	0.50	20.00	0	102	70	130				
Toluene	38.870	0.50	40.00	0	97.2	70	130				
Trichloroethene	19.490	0.50	20.00	0	97.5	70	130				
Surr: 1,2-Dichloroethane-d4	23.860		25.00		95.4	70	130				
Surr: 4-Bromofluorobenzene	24.290		25.00		97.2	70	130				
Surr: Dibromofluoromethane	25.530		25.00		102	70	130				
Surr: Toluene-d8	25.730		25.00		103	70	130				

Sample ID: A110628MB2MS		SampType: MS		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 134538	
Client ID: ZZZZZ		Batch ID: A11VW109		TestNo: EPA 8260B		Analysis Date: 6/28/2011				SeqNo: 2199744	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18.070	0.50	20.00	0	90.4	70	130				
Benzene	38.400	0.50	40.00	0	96.0	70	130				
Chlorobenzene	20.470	0.50	20.00	0	102	70	130				
MTBE	20.690	0.50	20.00	0	103	70	130				
Toluene	39.500	0.50	40.00	0	98.8	70	130				
Trichloroethene	19.680	0.50	20.00	0	98.4	70	130				
Surr: 1,2-Dichloroethane-d4	23.460		25.00		93.8	70	130				
Surr: 4-Bromofluorobenzene	24.210		25.00		96.8	70	130				
Surr: Dibromofluoromethane	25.100		25.00		100	70	130				
Surr: Toluene-d8	25.450		25.00		102	70	130				

Sample ID: A110628MB2MSD		SampType: MSD		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 134538	
Client ID: ZZZZZ		Batch ID: A11VW109		TestNo: EPA 8260B		Analysis Date: 6/28/2011				SeqNo: 2199745	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

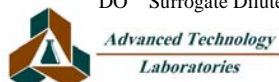
TestCode: 8260_WP_LL

Sample ID: A110628MB2MSD	SampType: MSD	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 134538						
Client ID: ZZZZZZ	Batch ID: A11VW109	TestNo: EPA 8260B	Analysis Date: 6/28/2011			SeqNo: 2199745					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18.360	0.50	20.00	0	91.8	70	130	18.07	1.59	20	
Benzene	38.460	0.50	40.00	0	96.2	70	130	38.40	0.156	20	
Chlorobenzene	20.590	0.50	20.00	0	103	70	130	20.47	0.585	20	
MTBE	20.690	0.50	20.00	0	103	70	130	20.69	0	20	
Toluene	39.530	0.50	40.00	0	98.8	70	130	39.50	0.0759	20	
Trichloroethene	19.700	0.50	20.00	0	98.5	70	130	19.68	0.102	20	
Surr: 1,2-Dichloroethane-d4	23.530		25.00		94.1	70	130		0	0	
Surr: 4-Bromofluorobenzene	24.280		25.00		97.1	70	130		0	0	
Surr: Dibromofluoromethane	23.610		25.00		94.4	70	130		0	0	
Surr: Toluene-d8	25.660		25.00		103	70	130		0	0	

Sample ID: A110628MB2	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 134538						
Client ID: PBW	Batch ID: A11VW109	TestNo: EPA 8260B	Analysis Date: 6/28/2011			SeqNo: 2199746					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: A110628MB2	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 134538						
Client ID: PBW	Batch ID: A11VW109	TestNo: EPA 8260B		Analysis Date: 6/28/2011	SeqNo: 2199746						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Di-isopropyl ether	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethyl tert-butyl ether	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



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CLIENT: Mactec
Work Order: 118648
Project: Metro Westside Extension, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: A110628MB2	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 134538						
Client ID: PBW	Batch ID: A11VW109	TestNo: EPA 8260B	Analysis Date: 6/28/2011	SeqNo: 2199746							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	1.0									
MTBE	ND	0.50									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
Tert-amyl methyl ether	ND	0.50									
Tert-Butanol	ND	10									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	22.560		25.00		90.2	70	130				
Surr: 4-Bromofluorobenzene	23.390		25.00		93.6	70	130				
Surr: Dibromofluoromethane	25.620		25.00		102	70	130				
Surr: Toluene-d8	25.460		25.00		102	70	130				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



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July 27, 2011



Matt Fraychineaud
Mactec
5628 E. Slauson Avenue,
Los Angeles, CA 90040-2922
TEL: (323) 889-5300
FAX:

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
Workorder No.: 119041

RE: METRO WESTSIDE EXTENSION, 4953-10-1

Attention: Matt Fraychineaud

Enclosed are the results for sample(s) received on July 20, 2011 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie F. Rodriguez".

Eddie F. Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.



CLIENT: Mactec
Project: METRO WESTSIDE EXTENSION, 4953-10-1
Lab Order: 119041

CASE NARRATIVE

All volatile analyses were performed using 5035 preservation requirements. Any high level dilutions were performed on a preserved methanol sample unless otherwise noted.

Analytical Comments for EPA 8015B(M) DRO

Samples 118979-002AMS and 118979-002AMSD, surrogate recovery biased high possibly due to matrix interferences.

Sample 118979-002AMSD, Matrix Spike Duplicate (MSD) is outside recovery criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).

Sample 118979-002AMSD, RPD for Matrix Spike Duplicate (MSD) is outside criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).



Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 27-Jul-11

CLIENT: Mactec **Client Sample ID:** E-106-55
Lab Order: 119041 **Collection Date:** 7/19/2011 11:40:00 AM
Project: METRO WESTSIDE EXTENSION, 4953-10 **Matrix:** SOIL
Lab ID: 119041-001A

Analyses Result PQL Qual Units DF Date Analyzed

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID:	MS4_110721A	QC Batch:	K11VS194	PrepDate:	7/19/2011	Analyst:	DDL
1,1,1,2-Tetrachloroethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,1,1-Trichloroethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,1,2,2-Tetrachloroethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,1,2-Trichloroethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,1-Dichloroethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,1-Dichloroethene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,1-Dichloropropene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,2,3-Trichlorobenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,2,3-Trichloropropane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,2,4-Trichlorobenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,2,4-Trimethylbenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,2-Dibromo-3-chloropropane	ND	7.1	µg/Kg	1	7/21/2011 05:24 PM		
1,2-Dibromoethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,2-Dichlorobenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,2-Dichloroethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,2-Dichloropropane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,3,5-Trimethylbenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,3-Dichlorobenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,3-Dichloropropane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
1,4-Dichlorobenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
2,2-Dichloropropane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
2-Chlorotoluene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
4-Chlorotoluene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
4-Isopropyltoluene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Benzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Bromobenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Bromodichloromethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Bromoform	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Bromomethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Carbon tetrachloride	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Chlorobenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Chloroethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Chloroform	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Chloromethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
cis-1,2-Dichloroethene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified
DO Surrogate Diluted Out



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ANALYTICAL RESULTS
 Print Date: 27-Jul-11

CLIENT: Mactec **Client Sample ID:** E-106-55
Lab Order: 119041 **Collection Date:** 7/19/2011 11:40:00 AM
Project: METRO WESTSIDE EXTENSION, 4953-10 **Matrix:** SOIL
Lab ID: 119041-001A

Analyses Result PQL Qual Units DF Date Analyzed

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID:	MS4_110721A	QC Batch:	K11VS194	PrepDate:	7/19/2011	Analyst:	DDL
cis-1,3-Dichloropropene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Di-isopropyl ether	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Dibromochloromethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Dibromomethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Dichlorodifluoromethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Ethyl Tert-butyl ether	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Ethylbenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Hexachlorobutadiene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Isopropylbenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
m,p-Xylene	ND	7.1	µg/Kg	1	7/21/2011 05:24 PM		
Methylene chloride	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
MTBE	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
n-Butylbenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
n-Propylbenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Naphthalene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
o-Xylene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
sec-Butylbenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Styrene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Tert-amyl methyl ether	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Tert-Butanol	ND	71	µg/Kg	1	7/21/2011 05:24 PM		
tert-Butylbenzene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Tetrachloroethene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Toluene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
trans-1,2-Dichloroethene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Trichloroethene	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Trichlorofluoromethane	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Vinyl chloride	ND	3.5	µg/Kg	1	7/21/2011 05:24 PM		
Surr: 1,2-Dichloroethane-d4	119	65-141	%REC	1	7/21/2011 05:24 PM		
Surr: 4-Bromofluorobenzene	94.0	57-134	%REC	1	7/21/2011 05:24 PM		
Surr: Dibromofluoromethane	113	70-128	%REC	1	7/21/2011 05:24 PM		
Surr: Toluene-d8	102	72-123	%REC	1	7/21/2011 05:24 PM		

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range
 H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit
 S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified
 DO Surrogate Diluted Out



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ANALYTICAL RESULTS
 Print Date: 27-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-106-55
Lab Order:	119041	Collection Date:	7/19/2011 11:40:00 AM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119041-001D		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC6_110722A	QC Batch: 111VS019	PrepDate: 7/19/2011	Analyst: TP		
GRO	ND	0.70	mg/Kg	1	7/22/2011 01:12 PM
Surr: Bromofluorobenzene (FID)	110	51-161	%REC	1	7/22/2011 01:12 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		



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ANALYTICAL RESULTS

Print Date: 27-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-106-55
Lab Order:	119041	Collection Date:	7/19/2011 11:40:00 AM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119041-001G		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP METALS

EPA 3050B

EPA 6010B

RunID: ICP8_110722J	QC Batch: 74487			PrepDate: 7/22/2011	Analyst: CBB
Antimony	ND	2.0		mg/Kg	1 7/25/2011 10:23 AM
Arsenic	ND	1.0		mg/Kg	1 7/25/2011 10:23 AM
Barium	14	1.0		mg/Kg	1 7/25/2011 10:23 AM
Beryllium	ND	1.0		mg/Kg	1 7/25/2011 10:23 AM
Cadmium	ND	1.0		mg/Kg	1 7/25/2011 10:23 AM
Chromium	15	1.0		mg/Kg	1 7/25/2011 10:23 AM
Cobalt	2.5	1.0		mg/Kg	1 7/25/2011 10:23 AM
Copper	3.8	2.0		mg/Kg	1 7/25/2011 10:23 AM
Lead	1.3	1.0		mg/Kg	1 7/25/2011 10:23 AM
Molybdenum	ND	1.0		mg/Kg	1 7/25/2011 10:23 AM
Nickel	9.8	1.0		mg/Kg	1 7/25/2011 10:23 AM
Selenium	1.1	1.0		mg/Kg	1 7/25/2011 10:23 AM
Silver	ND	1.0		mg/Kg	1 7/25/2011 10:23 AM
Thallium	ND	1.0		mg/Kg	1 7/25/2011 10:23 AM
Vanadium	29	1.0		mg/Kg	1 7/25/2011 10:23 AM
Zinc	11	1.0		mg/Kg	1 7/25/2011 10:23 AM

DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID

LUFT

EPA 8015B(M)

RunID: GC16_110721C	QC Batch: 74470			PrepDate: 7/21/2011	Analyst: HL
DRO	ND	10		mg/Kg	1 7/23/2011 06:40 PM
ORO	ND	10		mg/Kg	1 7/23/2011 06:40 PM
Surr: p-Terphenyl	86.4	63-152		%REC	1 7/23/2011 06:40 PM

MERCURY BY COLD VAPOR TECHNIQUE

EPA 7471A

RunID: AA5_110721B	QC Batch: 74448			PrepDate: 7/21/2011	Analyst: VV
Mercury	ND	0.10		mg/Kg	1 7/21/2011 05:27 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS

Print Date: 27-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-106-60
Lab Order:	119041	Collection Date:	7/19/2011 1:00:00 PM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119041-002A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110721A	QC Batch: K11VS194	PrepDate: 7/19/2011	Analyst: DDL
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Compound	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,1,1-Trichloroethane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,1,2,2-Tetrachloroethane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,1,2-Trichloroethane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,1-Dichloroethane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,1-Dichloroethene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,1-Dichloropropene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,2,3-Trichlorobenzene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,2,3-Trichloropropane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,2,4-Trichlorobenzene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,2,4-Trimethylbenzene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,2-Dibromo-3-chloropropane	ND	7.3		µg/Kg	1	7/21/2011 05:41 PM
1,2-Dibromoethane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,2-Dichlorobenzene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,2-Dichloroethane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,2-Dichloropropane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,3,5-Trimethylbenzene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,3-Dichlorobenzene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,3-Dichloropropane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
1,4-Dichlorobenzene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
2,2-Dichloropropane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
2-Chlorotoluene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
4-Chlorotoluene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
4-Isopropyltoluene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
Benzene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
Bromobenzene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
Bromodichloromethane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
Bromoform	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
Bromomethane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
Carbon tetrachloride	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
Chlorobenzene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
Chloroethane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
Chloroform	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
Chloromethane	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM
cis-1,2-Dichloroethene	ND	3.6		µg/Kg	1	7/21/2011 05:41 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS

Print Date: 27-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-106-60
Lab Order:	119041	Collection Date:	7/19/2011 1:00:00 PM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119041-002A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110721A	QC Batch: K11VS194	PrepDate: 7/19/2011	Analyst: DDL		
cis-1,3-Dichloropropene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Di-isopropyl ether	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Dibromochloromethane	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Dibromomethane	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Dichlorodifluoromethane	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Ethyl Tert-butyl ether	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Ethylbenzene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Hexachlorobutadiene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Isopropylbenzene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
m,p-Xylene	ND	7.3	µg/Kg	1	7/21/2011 05:41 PM
Methylene chloride	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
MTBE	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
n-Butylbenzene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
n-Propylbenzene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Naphthalene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
o-Xylene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
sec-Butylbenzene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Styrene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Tert-amyl methyl ether	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Tert-Butanol	ND	73	µg/Kg	1	7/21/2011 05:41 PM
tert-Butylbenzene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Tetrachloroethene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Toluene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
trans-1,2-Dichloroethene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Trichloroethene	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Trichlorofluoromethane	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Vinyl chloride	ND	3.6	µg/Kg	1	7/21/2011 05:41 PM
Surr: 1,2-Dichloroethane-d4	112	65-141	%REC	1	7/21/2011 05:41 PM
Surr: 4-Bromofluorobenzene	87.8	57-134	%REC	1	7/21/2011 05:41 PM
Surr: Dibromofluoromethane	107	70-128	%REC	1	7/21/2011 05:41 PM
Surr: Toluene-d8	94.8	72-123	%REC	1	7/21/2011 05:41 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
Print Date: 27-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-106-60
Lab Order:	119041	Collection Date:	7/19/2011 1:00:00 PM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119041-002D		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC6_110722A	QC Batch: 111VS019	PrepDate: 7/19/2011	Analyst: TP		
GRO	ND	0.69	mg/Kg	1	7/22/2011 01:35 PM
Surr: Bromofluorobenzene (FID)	97.2	51-161	%REC	1	7/22/2011 01:35 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		



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ANALYTICAL RESULTS
 Print Date: 27-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-106-60
Lab Order:	119041	Collection Date:	7/19/2011 1:00:00 PM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119041-002G		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID						
	LUFT			EPA 8015B(M)		
RunID: GC16_110721C	QC Batch: 74470			PrepDate: 7/21/2011		Analyst: HL
DRO	ND	10		mg/Kg	1	7/23/2011 06:50 PM
ORO	ND	10		mg/Kg	1	7/23/2011 06:50 PM
Surr: p-Terphenyl	84.3	63-152		%REC	1	7/23/2011 06:50 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		



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ANALYTICAL RESULTS

Print Date: 27-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-106-65
Lab Order:	119041	Collection Date:	7/19/2011 1:45:00 PM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119041-003A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110721A	QC Batch: K11VS194	PrepDate: 7/19/2011	Analyst: DDL
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1,1,1,2-Tetrachloroethane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,1,1-Trichloroethane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,1,2,2-Tetrachloroethane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,1,2-Trichloroethane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,1-Dichloroethane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,1-Dichloroethene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,1-Dichloropropene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,2,3-Trichlorobenzene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,2,3-Trichloropropane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,2,4-Trichlorobenzene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,2,4-Trimethylbenzene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,2-Dibromo-3-chloropropane	ND	7.5		µg/Kg	1	7/21/2011 05:59 PM
1,2-Dibromoethane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,2-Dichlorobenzene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,2-Dichloroethane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,2-Dichloropropane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,3,5-Trimethylbenzene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,3-Dichlorobenzene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,3-Dichloropropane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
1,4-Dichlorobenzene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
2,2-Dichloropropane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
2-Chlorotoluene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
4-Chlorotoluene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
4-Isopropyltoluene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
Benzene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
Bromobenzene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
Bromodichloromethane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
Bromoform	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
Bromomethane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
Carbon tetrachloride	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
Chlorobenzene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
Chloroethane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
Chloroform	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
Chloromethane	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM
cis-1,2-Dichloroethene	ND	3.7		µg/Kg	1	7/21/2011 05:59 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS

Print Date: 27-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-106-65
Lab Order:	119041	Collection Date:	7/19/2011 1:45:00 PM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119041-003A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110721A	QC Batch: K11VS194	PrepDate: 7/19/2011	Analyst: DDL		
cis-1,3-Dichloropropene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Di-isopropyl ether	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Dibromochloromethane	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Dibromomethane	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Dichlorodifluoromethane	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Ethyl Tert-butyl ether	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Ethylbenzene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Hexachlorobutadiene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Isopropylbenzene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
m,p-Xylene	ND	7.5	µg/Kg	1	7/21/2011 05:59 PM
Methylene chloride	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
MTBE	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
n-Butylbenzene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
n-Propylbenzene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Naphthalene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
o-Xylene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
sec-Butylbenzene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Styrene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Tert-amyl methyl ether	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Tert-Butanol	ND	75	µg/Kg	1	7/21/2011 05:59 PM
tert-Butylbenzene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Tetrachloroethene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Toluene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
trans-1,2-Dichloroethene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Trichloroethene	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Trichlorofluoromethane	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Vinyl chloride	ND	3.7	µg/Kg	1	7/21/2011 05:59 PM
Surr: 1,2-Dichloroethane-d4	115	65-141	%REC	1	7/21/2011 05:59 PM
Surr: 4-Bromofluorobenzene	92.3	57-134	%REC	1	7/21/2011 05:59 PM
Surr: Dibromofluoromethane	108	70-128	%REC	1	7/21/2011 05:59 PM
Surr: Toluene-d8	98.2	72-123	%REC	1	7/21/2011 05:59 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 27-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-106-65
Lab Order:	119041	Collection Date:	7/19/2011 1:45:00 PM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119041-003D		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC6_110722A	QC Batch: 111VS019	PrepDate: 7/19/2011	Analyst: TP		
GRO	ND	0.73	mg/Kg	1	7/22/2011 01:58 PM
Surr: Bromofluorobenzene (FID)	93.0	51-161	%REC	1	7/22/2011 01:58 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 27-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-106-65
Lab Order:	119041	Collection Date:	7/19/2011 1:45:00 PM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119041-003G		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID						
	LUFT			EPA 8015B(M)		
RunID: GC16_110721C	QC Batch: 74470			PrepDate: 7/21/2011		Analyst: HL
DRO	ND	10		mg/Kg	1	7/23/2011 07:00 PM
ORO	ND	10		mg/Kg	1	7/23/2011 07:00 PM
Surr: p-Terphenyl	87.0	63-152		%REC	1	7/23/2011 07:00 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 27-Jul-11

CLIENT: Mactec	Client Sample ID: E-106-GW
Lab Order: 119041	Collection Date: 7/19/2011 12:00:00 PM
Project: METRO WESTSIDE EXTENSION, 4953-10	Matrix: GROUNDWATER
Lab ID: 119041-004A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS11_110722A	QC Batch: A11VW124	PrepDate:	Analyst: BD
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,1,1-Trichloroethane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,1,2-Trichloroethane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,1-Dichloroethane	0.61	0.50	µg/L 1 7/22/2011 01:12 PM
1,1-Dichloroethene	2.2	0.50	µg/L 1 7/22/2011 01:12 PM
1,1-Dichloropropene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,2,3-Trichlorobenzene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,2,3-Trichloropropane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,2,4-Trichlorobenzene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,2,4-Trimethylbenzene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,2-Dibromo-3-chloropropane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,2-Dibromoethane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,2-Dichlorobenzene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,2-Dichloroethane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,2-Dichloropropane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,3,5-Trimethylbenzene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,3-Dichlorobenzene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,3-Dichloropropane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
1,4-Dichlorobenzene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
2,2-Dichloropropane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
2-Chlorotoluene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
4-Chlorotoluene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
4-Isopropyltoluene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
Benzene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
Bromobenzene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
Bromodichloromethane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
Bromoform	ND	0.50	µg/L 1 7/22/2011 01:12 PM
Bromomethane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
Carbon tetrachloride	ND	0.50	µg/L 1 7/22/2011 01:12 PM
Chlorobenzene	ND	0.50	µg/L 1 7/22/2011 01:12 PM
Chloroethane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
Chloroform	ND	0.50	µg/L 1 7/22/2011 01:12 PM
Chloromethane	ND	0.50	µg/L 1 7/22/2011 01:12 PM
cis-1,2-Dichloroethene	0.75	0.50	µg/L 1 7/22/2011 01:12 PM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range
 H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit
 S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified
 DO Surrogate Diluted Out



Advanced Technology
 Laboratories

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 27-Jul-11

CLIENT: Mactec	Client Sample ID: E-106-GW
Lab Order: 119041	Collection Date: 7/19/2011 12:00:00 PM
Project: METRO WESTSIDE EXTENSION, 4953-10	Matrix: GROUNDWATER
Lab ID: 119041-004A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS11_110722A	QC Batch: A11VW124	PrepDate:	Analyst: BD		
cis-1,3-Dichloropropene	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Di-isopropyl ether	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Dibromochloromethane	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Dibromomethane	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Dichlorodifluoromethane	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Ethyl tert-butyl ether	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Ethylbenzene	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Hexachlorobutadiene	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Isopropylbenzene	ND	0.50	µg/L	1	7/22/2011 01:12 PM
m,p-Xylene	ND	1.0	µg/L	1	7/22/2011 01:12 PM
Methylene chloride	ND	1.0	µg/L	1	7/22/2011 01:12 PM
MTBE	ND	0.50	µg/L	1	7/22/2011 01:12 PM
n-Butylbenzene	ND	0.50	µg/L	1	7/22/2011 01:12 PM
n-Propylbenzene	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Naphthalene	ND	0.50	µg/L	1	7/22/2011 01:12 PM
o-Xylene	ND	0.50	µg/L	1	7/22/2011 01:12 PM
sec-Butylbenzene	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Styrene	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Tert-amyl methyl ether	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Tert-Butanol	ND	10	µg/L	1	7/22/2011 01:12 PM
tert-Butylbenzene	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Tetrachloroethene	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Toluene	0.52	0.50	µg/L	1	7/22/2011 01:12 PM
trans-1,2-Dichloroethene	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Trichloroethene	1.3	0.50	µg/L	1	7/22/2011 01:12 PM
Trichlorofluoromethane	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Vinyl chloride	ND	0.50	µg/L	1	7/22/2011 01:12 PM
Surr: 1,2-Dichloroethane-d4	87.2	70-130	%REC	1	7/22/2011 01:12 PM
Surr: 4-Bromofluorobenzene	100	70-130	%REC	1	7/22/2011 01:12 PM
Surr: Dibromofluoromethane	98.9	70-130	%REC	1	7/22/2011 01:12 PM
Surr: Toluene-d8	100	70-130	%REC	1	7/22/2011 01:12 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS
 Print Date: 27-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-106-GW
Lab Order:	119041	Collection Date:	7/19/2011 12:00:00 PM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	GROUNDWATER
Lab ID:	119041-004B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC19_110721A	QC Batch: M11VW142	PrepDate:	Analyst: DDL		
GRO	ND	0.20	mg/L	1	7/21/2011 02:30 PM
Surr: Bromofluorobenzene (FID)	85.2	70-130	%REC	1	7/21/2011 02:30 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		



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Advanced Technology Laboratories

ANALYTICAL RESULTS
 Print Date: 27-Jul-11

CLIENT:	Mactec	Client Sample ID:	E-106-GW
Lab Order:	119041	Collection Date:	7/19/2011 12:00:00 PM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	GROUNDWATER
Lab ID:	119041-004C		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID						
	EPA 3510C		EPA 8015B(M)			
RunID: GC16_110726B	QC Batch: 74531			PrepDate: 7/26/2011		Analyst: CBR
DRO	1.2	0.25		mg/L	1	7/26/2011 12:26 PM
ORO	0.63	0.25		mg/L	1	7/26/2011 12:26 PM
Surr: p-Terphenyl	71.7	36-126		%REC	1	7/26/2011 12:26 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



*Advanced Technology
Laboratories*

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

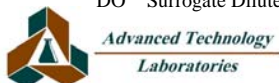
TestCode: 6010_S

Sample ID: MB-74487	SampType: MBLK	TestCode: 6010_S	Units: mg/Kg	Prep Date: 7/22/2011	RunNo: 135281						
Client ID: PBS	Batch ID: 74487	TestNo: EPA 6010B EPA 3050B		Analysis Date: 7/22/2011	SeqNo: 2214700						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	2.0									
Arsenic	ND	1.0									
Barium	ND	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	ND	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	ND	1.0									
Molybdenum	ND	1.0									
Nickel	ND	1.0									
Selenium	ND	1.0									
Silver	ND	1.0									
Thallium	ND	1.0									
Vanadium	ND	1.0									
Zinc	ND	1.0									

Sample ID: LCS-74487	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 7/22/2011	RunNo: 135281						
Client ID: LCSS	Batch ID: 74487	TestNo: EPA 6010B EPA 3050B		Analysis Date: 7/22/2011	SeqNo: 2214701						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	46.758	2.0	50.00	0	93.5	80	120				
Arsenic	44.962	1.0	50.00	0	89.9	80	120				
Barium	48.827	1.0	50.00	0	97.7	80	120				
Beryllium	47.862	1.0	50.00	0	95.7	80	120				
Cadmium	44.984	1.0	50.00	0	90.0	80	120				
Chromium	44.091	1.0	50.00	0	88.2	80	120				
Cobalt	47.172	1.0	50.00	0	94.3	80	120				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

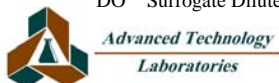
TestCode: 6010_S

Sample ID: LCS-74487		SampType: LCS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 7/22/2011		RunNo: 135281		
Client ID: LCSS		Batch ID: 74487		TestNo: EPA 6010B EPA 3050B				Analysis Date: 7/22/2011		SeqNo: 2214701		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Copper	49.154	2.0	50.00	0	98.3	80	120					
Lead	45.422	1.0	50.00	0	90.8	80	120					
Molybdenum	48.596	1.0	50.00	0	97.2	80	120					
Nickel	45.592	1.0	50.00	0	91.2	80	120					
Selenium	42.795	1.0	50.00	0	85.6	80	120					
Silver	49.157	1.0	50.00	0	98.3	80	120					
Thallium	45.259	1.0	50.00	0	90.5	80	120					
Vanadium	46.726	1.0	50.00	0	93.5	80	120					
Zinc	45.678	1.0	50.00	0	91.4	80	120					

Sample ID: 119042-003A-MS		SampType: MS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 7/22/2011		RunNo: 135281		
Client ID: ZZZZZZ		Batch ID: 74487		TestNo: EPA 6010B EPA 3050B				Analysis Date: 7/22/2011		SeqNo: 2214711		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony	83.260	2.0	125.0	0.8865	65.9	32	105					
Arsenic	98.044	1.0	125.0	4.075	75.2	49	106					
Barium	220.494	1.0	125.0	126.2	75.4	31	133					
Beryllium	97.653	1.0	125.0	0	78.1	56	106					
Cadmium	90.441	1.0	125.0	0.8168	71.7	51	103					
Chromium	131.512	1.0	125.0	43.47	70.4	45	114					
Cobalt	112.520	1.0	125.0	16.29	77.0	52	106					
Copper	131.096	2.0	125.0	18.17	90.3	54	125					
Lead	94.118	1.0	125.0	4.182	71.9	34	126					
Molybdenum	94.629	1.0	125.0	0	75.7	54	106					
Nickel	115.383	1.0	125.0	23.45	73.6	45	111					
Selenium	88.166	1.0	125.0	0	70.5	47	104					
Silver	106.177	1.0	125.0	0	84.9	56	112					
Thallium	79.456	1.0	125.0	0	63.6	46	101					
Vanadium	165.147	1.0	125.0	73.32	73.5	54	114					
Zinc	146.694	1.0	125.0	59.97	69.4	28	125					

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

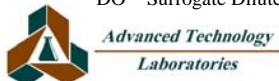
ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: 119042-003A-MSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 7/22/2011	RunNo: 135281						
Client ID: ZZZZZZ	Batch ID: 74487	TestNo: EPA 6010B	EPA 3050B	Analysis Date: 7/22/2011	SeqNo: 2214712						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	84.038	2.0	125.0	0.8865	66.5	32	105	83.26	0.931	20	
Arsenic	98.425	1.0	125.0	4.075	75.5	49	106	98.04	0.388	20	
Barium	225.586	1.0	125.0	126.2	79.5	31	133	220.5	2.28	20	
Beryllium	99.773	1.0	125.0	0	79.8	56	106	97.65	2.15	20	
Cadmium	91.353	1.0	125.0	0.8168	72.4	51	103	90.44	1.00	20	
Chromium	133.464	1.0	125.0	43.47	72.0	45	114	131.5	1.47	20	
Cobalt	113.317	1.0	125.0	16.29	77.6	52	106	112.5	0.705	20	
Copper	132.463	2.0	125.0	18.17	91.4	54	125	131.1	1.04	20	
Lead	94.664	1.0	125.0	4.182	72.4	34	126	94.12	0.579	20	
Molybdenum	95.098	1.0	125.0	0	76.1	54	106	94.63	0.494	20	
Nickel	116.718	1.0	125.0	23.45	74.6	45	111	115.4	1.15	20	
Selenium	87.424	1.0	125.0	0	69.9	47	104	88.17	0.845	20	
Silver	107.940	1.0	125.0	0	86.4	56	112	106.2	1.65	20	
Thallium	79.968	1.0	125.0	0	64.0	46	101	79.46	0.642	20	
Vanadium	170.174	1.0	125.0	73.32	77.5	54	114	165.1	3.00	20	
Zinc	152.091	1.0	125.0	59.97	73.7	28	125	146.7	3.61	20	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



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CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S

Sample ID: MB-74448	SampType: MBLK	TestCode: 7471_S	Units: mg/Kg	Prep Date: 7/21/2011	RunNo: 135232						
Client ID: PBS	Batch ID: 74448	TestNo: EPA 7471A		Analysis Date: 7/21/2011	SeqNo: 2213722						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.10

Sample ID: LCS-74448	SampType: LCS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 7/21/2011	RunNo: 135232						
Client ID: LCSS	Batch ID: 74448	TestNo: EPA 7471A		Analysis Date: 7/21/2011	SeqNo: 2213723						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.893 0.10 0.8300 0 108 80 120

Sample ID: 119005-001A-MS	SampType: MS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 7/21/2011	RunNo: 135232						
Client ID: ZZZZZ	Batch ID: 74448	TestNo: EPA 7471A		Analysis Date: 7/21/2011	SeqNo: 2213724						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

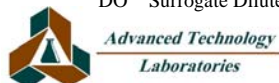
Mercury 1.001 0.10 0.8300 0.09211 109 70 130

Sample ID: 119005-001A-MSD	SampType: MSD	TestCode: 7471_S	Units: mg/Kg	Prep Date: 7/21/2011	RunNo: 135232						
Client ID: ZZZZZ	Batch ID: 74448	TestNo: EPA 7471A		Analysis Date: 7/21/2011	SeqNo: 2213725						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.996 0.10 0.8300 0.09211 109 70 130 1.001 0.421 20

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_DM H

Sample ID: LCS-74470		SampType: LCS		TestCode: 8015_S_DM H Units: mg/Kg		Prep Date: 7/21/2011		RunNo: 135258			
Client ID: LCSS		Batch ID: 74470		TestNo: EPA 8015B(M LUFT		Analysis Date: 7/22/2011		SeqNo: 2214131			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	873.150	10	1000	0	87.3	76	139				
Surr: p-Terphenyl	85.250		80.00		107	63	152				

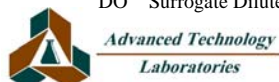
Sample ID: MB-74470		SampType: MBLK		TestCode: 8015_S_DM H Units: mg/Kg		Prep Date: 7/21/2011		RunNo: 135258			
Client ID: PBS		Batch ID: 74470		TestNo: EPA 8015B(M LUFT		Analysis Date: 7/22/2011		SeqNo: 2214132			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	ND	10									
ORO	ND	10									
Surr: p-Terphenyl	59.030		80.00		73.8	63	152				

Sample ID: 118979-002AMS		SampType: MS		TestCode: 8015_S_DM H Units: mg/Kg		Prep Date: 7/21/2011		RunNo: 135258			
Client ID: ZZZZZ		Batch ID: 74470		TestNo: EPA 8015B(M LUFT		Analysis Date: 7/22/2011		SeqNo: 2214138			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	1876.360	10	1000	354.3	152	60	158				
Surr: p-Terphenyl	122.370		80.00		153	63	152				S

Sample ID: 118979-002AMSD		SampType: MSD		TestCode: 8015_S_DM H Units: mg/Kg		Prep Date: 7/21/2011		RunNo: 135258			
Client ID: ZZZZZ		Batch ID: 74470		TestNo: EPA 8015B(M LUFT		Analysis Date: 7/22/2011		SeqNo: 2214139			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	2466.230	10	1000	354.3	211	60	158	1876	27.2	20	SR
Surr: p-Terphenyl	126.940		80.00		159	63	152		0	0	S

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: I110722LC2	SampType: LCS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135288						
Client ID: LCSS	Batch ID: I11VS019	TestNo: EPA 8015B(M)	Analysis Date: 7/22/2011	SeqNo: 2215439							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	4.575	1.0	5.000	0	91.5	70	130				
Surr: Bromofluorobenzene (FID)	95.783		100.0		95.8	51	161				

Sample ID: I110722MB2MS	SampType: MS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135288						
Client ID: ZZZZZZ	Batch ID: I11VS019	TestNo: EPA 8015B(M)	Analysis Date: 7/22/2011	SeqNo: 2215441							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	4.822	1.0	5.000	0	96.4	41	146				
Surr: Bromofluorobenzene (FID)	99.690		100.0		99.7	51	161				

Sample ID: I110722MB2MSD	SampType: MSD	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135288						
Client ID: ZZZZZZ	Batch ID: I11VS019	TestNo: EPA 8015B(M)	Analysis Date: 7/22/2011	SeqNo: 2215442							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

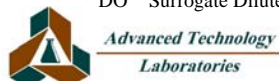
GRO	4.737	1.0	5.000	0	94.7	41	146	4.822	1.78	20	
Surr: Bromofluorobenzene (FID)	99.271		100.0		99.3	51	161		0	0	

Sample ID: I110722MB2	SampType: MBLK	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135288						
Client ID: PBS	Batch ID: I11VS019	TestNo: EPA 8015B(M)	Analysis Date: 7/22/2011	SeqNo: 2215443							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	ND	1.0									
Surr: Bromofluorobenzene (FID)	98.391		100.0		98.4	51	161				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_DM

Sample ID: MB-74531	SampType: MBLK	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 7/26/2011	RunNo: 135340						
Client ID: PBW	Batch ID: 74531	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 7/26/2011	SeqNo: 2215981						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	ND	0.20									
ORO	ND	0.20									
Surr: p-Terphenyl	0.043		0.08000		53.9	36	126				

Sample ID: LCS-74531	SampType: LCS	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 7/26/2011	RunNo: 135340						
Client ID: LCSW	Batch ID: 74531	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 7/26/2011	SeqNo: 2215982						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.532	0.20	1.000	0	53.2	52	128				
Surr: p-Terphenyl	0.050		0.08000		62.6	36	126				

Sample ID: MB-74531MS	SampType: MS	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 7/26/2011	RunNo: 135340						
Client ID: ZZZZZ	Batch ID: 74531	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 7/26/2011	SeqNo: 2215983						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

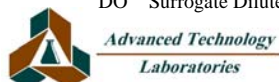
DRO	0.593	0.20	1.000	0	59.3	52	128				
Surr: p-Terphenyl	0.052		0.08000		65.6	36	126				

Sample ID: MB-74531MSD	SampType: MSD	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 7/26/2011	RunNo: 135340						
Client ID: ZZZZZ	Batch ID: 74531	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 7/26/2011	SeqNo: 2215999						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.629	0.20	1.000	0	62.9	52	128	0.5926	5.89	20	
Surr: p-Terphenyl	0.045		0.08000		56.0	36	126		0	0	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_G PRES

Sample ID: M110721LCS2		SampType: LCS		TestCode: 8015_W_G P		Units: mg/L		Prep Date:		RunNo: 135229		
Client ID: LCSW		Batch ID: M11VW142		TestNo: EPA 8015B(M)		Analysis Date: 7/21/2011		SeqNo: 2213681				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	1.089	0.20	1.000	0	109	70	130					
Surr: Bromofluorobenzene (FID)	90.531		100.0		90.5	70	130					

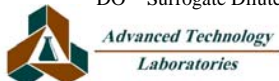
Sample ID: M110721MB1MS		SampType: MS		TestCode: 8015_W_G P		Units: mg/L		Prep Date:		RunNo: 135229		
Client ID: ZZZZZ		Batch ID: M11VW142		TestNo: EPA 8015B(M)		Analysis Date: 7/21/2011		SeqNo: 2213682				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	1.115	0.20	1.000	0	112	70	130					
Surr: Bromofluorobenzene (FID)	89.651		100.0		89.7	70	130					

Sample ID: M110721MB1MSD		SampType: MSD		TestCode: 8015_W_G P		Units: mg/L		Prep Date:		RunNo: 135229		
Client ID: ZZZZZ		Batch ID: M11VW142		TestNo: EPA 8015B(M)		Analysis Date: 7/21/2011		SeqNo: 2213683				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	1.123	0.20	1.000	0	112	70	130	1.115	0.715	20		
Surr: Bromofluorobenzene (FID)	91.368		100.0		91.4	70	130		0	0		

Sample ID: M110721MB1		SampType: MBLK		TestCode: 8015_W_G P		Units: mg/L		Prep Date:		RunNo: 135229		
Client ID: PBW		Batch ID: M11VW142		TestNo: EPA 8015B(M)		Analysis Date: 7/21/2011		SeqNo: 2213684				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	ND	0.20										
Surr: Bromofluorobenzene (FID)	87.509		100.0		87.5	70	130					

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

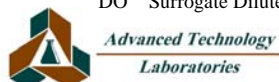
Sample ID: K110721LCS1		SampType: LCS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135240	
Client ID: LCSS		Batch ID: K11VS194		TestNo: EPA 8260B		Analysis Date: 7/21/2011				SeqNo: 2214303	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	48.840	5.0	50.00	0	97.7	70	130				
Benzene	104.910	5.0	100.0	0	105	70	130				
Chlorobenzene	55.460	5.0	50.00	0	111	70	130				
MTBE	58.230	5.0	50.00	0	116	70	130				
Toluene	104.470	5.0	100.0	0	104	70	130				
Trichloroethene	54.430	5.0	50.00	0	109	70	130				
Surr: 1,2-Dichloroethane-d4	52.870		50.00		106	65	141				
Surr: 4-Bromofluorobenzene	47.780		50.00		95.6	57	134				
Surr: Dibromofluoromethane	52.300		50.00		105	70	128				
Surr: Toluene-d8	51.210		50.00		102	72	123				

Sample ID: K110721MB1MS		SampType: MS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135240	
Client ID: ZZZZZ		Batch ID: K11VS194		TestNo: EPA 8260B		Analysis Date: 7/21/2011				SeqNo: 2214304	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	50.660	5.0	50.00	0	101	70	130				
Benzene	104.960	5.0	100.0	0	105	70	130				
Chlorobenzene	55.490	5.0	50.00	0	111	70	130				
MTBE	59.640	5.0	50.00	0	119	70	130				
Toluene	105.390	5.0	100.0	0	105	70	130				
Trichloroethene	53.610	5.0	50.00	0	107	70	130				
Surr: 1,2-Dichloroethane-d4	52.340		50.00		105	65	141				
Surr: 4-Bromofluorobenzene	47.460		50.00		94.9	57	134				
Surr: Dibromofluoromethane	53.190		50.00		106	70	128				
Surr: Toluene-d8	51.000		50.00		102	72	123				

Sample ID: K110721MB1MSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135240	
Client ID: ZZZZZ		Batch ID: K11VS194		TestNo: EPA 8260B		Analysis Date: 7/21/2011				SeqNo: 2214305	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

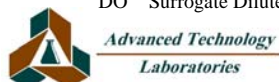
TestCode: 8260_S_5035

Sample ID: K110721MB1MSD	SampType: MSD	TestCode: 8260_S_5035	Units: µg/Kg	Prep Date:	RunNo: 135240						
Client ID: ZZZZZZ	Batch ID: K11VS194	TestNo: EPA 8260B		Analysis Date: 7/21/2011	SeqNo: 2214305						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	46.820	5.0	50.00	0	93.6	70	130	50.66	7.88	20	
Benzene	97.070	5.0	100.0	0	97.1	70	130	105.0	7.81	20	
Chlorobenzene	51.410	5.0	50.00	0	103	70	130	55.49	7.63	20	
MTBE	54.870	5.0	50.00	0	110	70	130	59.64	8.33	20	
Toluene	97.270	5.0	100.0	0	97.3	70	130	105.4	8.01	20	
Trichloroethene	50.090	5.0	50.00	0	100	70	130	53.61	6.79	20	
Surr: 1,2-Dichloroethane-d4	49.240		50.00		98.5	65	141		0	0	
Surr: 4-Bromofluorobenzene	45.060		50.00		90.1	57	134		0	0	
Surr: Dibromofluoromethane	48.920		50.00		97.8	70	128		0	0	
Surr: Toluene-d8	48.020		50.00		96.0	72	123		0	0	

Sample ID: K110721MB1	SampType: MBLK	TestCode: 8260_S_5035	Units: µg/Kg	Prep Date:	RunNo: 135240						
Client ID: PBS	Batch ID: K11VS194	TestNo: EPA 8260B		Analysis Date: 7/21/2011	SeqNo: 2214320						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: K110721MB1	SampType: MBLK	TestCode: 8260_S_5035	Units: µg/Kg	Prep Date:	RunNo: 135240						
Client ID: PBS	Batch ID: K11VS194	TestNo: EPA 8260B		Analysis Date: 7/21/2011	SeqNo: 2214320						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Di-isopropyl ether	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethyl Tert-butyl ether	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	10									

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
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| DO Surrogate Diluted Out | Calculations are based on raw values | |



*Advanced Technology
Laboratories*

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

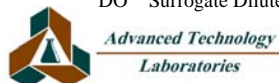
ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: K110721MB1	SampType: MBLK	TestCode: 8260_S_5035	Units: µg/Kg	Prep Date:	RunNo: 135240						
Client ID: PBS	Batch ID: K11VS194	TestNo: EPA 8260B	Analysis Date: 7/21/2011	SeqNo: 2214320							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	5.0									
MTBE	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
Tert-amyl methyl ether	ND	5.0									
Tert-Butanol	ND	100									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	53.070		50.00		106	65	141				
Surr: 4-Bromofluorobenzene	46.320		50.00		92.6	57	134				
Surr: Dibromofluoromethane	52.110		50.00		104	70	128				
Surr: Toluene-d8	50.150		50.00		100	72	123				

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

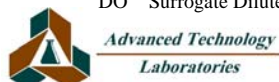
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Client ID: LCSW		Batch ID: A11VW124		TestNo: EPA 8260B		Analysis Date: 7/22/2011		SeqNo: 2214810				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	19.150	0.50	20.00	0	95.8	70	130					
Benzene	40.180	0.50	40.00	0	100	70	130					
Chlorobenzene	20.570	0.50	20.00	0	103	70	130					
MTBE	21.770	0.50	20.00	0	109	70	130					
Toluene	40.690	0.50	40.00	0	102	70	130					
Trichloroethene	19.180	0.50	20.00	0	95.9	70	130					
Surr: 1,2-Dichloroethane-d4	22.710		25.00		90.8	70	130					
Surr: 4-Bromofluorobenzene	25.450		25.00		102	70	130					
Surr: Dibromofluoromethane	24.950		25.00		99.8	70	130					
Surr: Toluene-d8	25.200		25.00		101	70	130					

Sample ID: A110722MB3MS		SampType: MS		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 135290		
Client ID: ZZZZZ		Batch ID: A11VW124		TestNo: EPA 8260B		Analysis Date: 7/22/2011		SeqNo: 2214811				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	20.590	0.50	20.00	0	103	70	130					
Benzene	41.310	0.50	40.00	0	103	70	130					
Chlorobenzene	20.970	0.50	20.00	0	105	70	130					
MTBE	22.060	0.50	20.00	0	110	70	130					
Toluene	42.150	0.50	40.00	0	105	70	130					
Trichloroethene	20.170	0.50	20.00	0	101	70	130					
Surr: 1,2-Dichloroethane-d4	22.670		25.00		90.7	70	130					
Surr: 4-Bromofluorobenzene	25.300		25.00		101	70	130					
Surr: Dibromofluoromethane	24.830		25.00		99.3	70	130					
Surr: Toluene-d8	25.030		25.00		100	70	130					

Sample ID: A110722MB3MSD		SampType: MSD		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 135290		
Client ID: ZZZZZ		Batch ID: A11VW124		TestNo: EPA 8260B		Analysis Date: 7/22/2011		SeqNo: 2214812				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

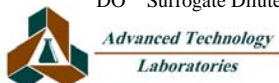
TestCode: 8260_WP_LL

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Client ID: ZZZZZZ		Batch ID: A11VW124		TestNo: EPA 8260B		Analysis Date: 7/22/2011				SeqNo: 2214812	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19.260	0.50	20.00	0	96.3	70	130	20.59	6.68	20	
Benzene	40.580	0.50	40.00	0	101	70	130	41.31	1.78	20	
Chlorobenzene	20.770	0.50	20.00	0	104	70	130	20.97	0.958	20	
MTBE	21.790	0.50	20.00	0	109	70	130	22.06	1.23	20	
Toluene	41.150	0.50	40.00	0	103	70	130	42.15	2.40	20	
Trichloroethene	19.750	0.50	20.00	0	98.8	70	130	20.17	2.10	20	
Surr: 1,2-Dichloroethane-d4	22.100		25.00		88.4	70	130		0	0	
Surr: 4-Bromofluorobenzene	25.390		25.00		102	70	130		0	0	
Surr: Dibromofluoromethane	24.860		25.00		99.4	70	130		0	0	
Surr: Toluene-d8	24.900		25.00		99.6	70	130		0	0	

Sample ID: A110722MB3		SampType: MBLK		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 135290	
Client ID: PBW		Batch ID: A11VW124		TestNo: EPA 8260B		Analysis Date: 7/22/2011				SeqNo: 2214813	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Mactec

Work Order: 119041

Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: A110722MB3	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 135290						
Client ID: PBW	Batch ID: A11VW124	TestNo: EPA 8260B		Analysis Date: 7/22/2011	SeqNo: 2214813						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Di-isopropyl ether	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethyl tert-butyl ether	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									

Qualifiers:

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- E Value above quantitation range
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- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



Advanced Technology
Laboratories

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

CLIENT: Mactec
Work Order: 119041
Project: METRO WESTSIDE EXTENSION, 4953-10-1

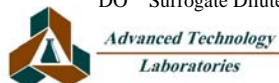
ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: A110722MB3	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 135290						
Client ID: PBW	Batch ID: A11VW124	TestNo: EPA 8260B		Analysis Date: 7/22/2011	SeqNo: 2214813						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	1.0									
MTBE	ND	0.50									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
Tert-amyl methyl ether	ND	0.50									
Tert-Butanol	ND	10									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	22.020		25.00		88.1	70	130				
Surr: 4-Bromofluorobenzene	24.420		25.00		97.7	70	130				
Surr: Dibromofluoromethane	24.990		25.00		100	70	130				
Surr: Toluene-d8	25.030		25.00		100	70	130				

Qualifiers:

- | | | |
|---|--|--|
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