

August 22, 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.: 119384

RE: Metro Westside Extension, 4953101561

Attention: Matt Fraychineaud

Enclosed are the results for sample(s) received on August 12, 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 "E. Rodriguez".

Eddie F. Rodriguez
Laboratory Director

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



Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 22-Aug-11

CLIENT: Mactec **Client Sample ID:** E-126-25'
Lab Order: 119384 **Collection Date:** 8/11/2011 10:25:00 AM
Project: Metro Westside Extension, 4953101561 **Matrix:** SOIL
Lab ID: 119384-004B

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

EPA 8260B

RunID:	MS5_110815B	QC Batch:	T11VS149	PrepDate:	8/11/2011	Analyst:	DDL
1,1,1,2-Tetrachloroethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,1,1-Trichloroethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,1,2,2-Tetrachloroethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,1,2-Trichloroethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,1-Dichloroethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,1-Dichloroethene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,1-Dichloropropene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,2,3-Trichlorobenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,2,3-Trichloropropane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,2,4-Trichlorobenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,2,4-Trimethylbenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,2-Dibromo-3-chloropropane	ND	12	µg/Kg	1	8/16/2011 01:51 AM		
1,2-Dibromoethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,2-Dichlorobenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,2-Dichloroethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,2-Dichloropropane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,3,5-Trimethylbenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,3-Dichlorobenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,3-Dichloropropane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
1,4-Dichlorobenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
2,2-Dichloropropane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
2-Chlorotoluene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
4-Chlorotoluene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
4-Isopropyltoluene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
Benzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
Bromobenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
Bromodichloromethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
Bromoform	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
Bromomethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
Carbon tetrachloride	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
Chlorobenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
Chloroethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
Chloroform	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
Chloromethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM		
cis-1,2-Dichloroethene	ND	5.8	µg/Kg	1	8/16/2011 01:51 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: 22-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-126-25'
Lab Order:	119384	Collection Date:	8/11/2011 10:25:00 AM
Project:	Metro Westside Extension, 4953101561	Matrix:	SOIL
Lab ID:	119384-004B		

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

EPA 8260B

RunID: MS5_110815B	QC Batch: T11VS149	PrepDate: 8/11/2011	Analyst: DDL		
cis-1,3-Dichloropropene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Di-isopropyl ether	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Dibromochloromethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Dibromomethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Dichlorodifluoromethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Ethyl Tert-butyl ether	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Ethylbenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Hexachlorobutadiene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Isopropylbenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
m,p-Xylene	ND	12	µg/Kg	1	8/16/2011 01:51 AM
Methylene chloride	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
MTBE	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
n-Butylbenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
n-Propylbenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Naphthalene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
o-Xylene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
sec-Butylbenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Styrene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Tert-amyl methyl ether	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Tert-Butanol	ND	120	µg/Kg	1	8/16/2011 01:51 AM
tert-Butylbenzene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Tetrachloroethene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Toluene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
trans-1,2-Dichloroethene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Trichloroethene	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Trichlorofluoromethane	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Vinyl chloride	ND	5.8	µg/Kg	1	8/16/2011 01:51 AM
Surr: 1,2-Dichloroethane-d4	93.3	65-141	%REC	1	8/16/2011 01:51 AM
Surr: 4-Bromofluorobenzene	90.6	57-134	%REC	1	8/16/2011 01:51 AM
Surr: Dibromofluoromethane	94.2	70-128	%REC	1	8/16/2011 01:51 AM
Surr: Toluene-d8	92.4	72-123	%REC	1	8/16/2011 01:51 AM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
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	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: 22-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-126-30'
Lab Order:	119384	Collection Date:	8/11/2011 10:35:00 AM
Project:	Metro Westside Extension, 4953101561	Matrix:	SOIL
Lab ID:	119384-005A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP METALS

		EPA 3050B		EPA 6010B		
RunID:	ICP8_110817B	QC Batch:	74967	PrepDate:	8/17/2011	Analyst: IL
Antimony	ND	2.0	mg/Kg	1	8/17/2011 01:07 PM	
Arsenic	9.6	1.0	mg/Kg	1	8/17/2011 01:07 PM	
Barium	89	1.0	mg/Kg	1	8/17/2011 01:07 PM	
Beryllium	ND	1.0	mg/Kg	1	8/17/2011 01:07 PM	
Cadmium	1.3	1.0	mg/Kg	1	8/17/2011 01:07 PM	
Chromium	26	1.0	mg/Kg	1	8/17/2011 01:07 PM	
Cobalt	11	1.0	mg/Kg	1	8/17/2011 01:07 PM	
Copper	17	2.0	mg/Kg	1	8/17/2011 01:07 PM	
Lead	4.7	1.0	mg/Kg	1	8/17/2011 01:07 PM	
Molybdenum	ND	1.0	mg/Kg	1	8/17/2011 01:07 PM	
Nickel	24	1.0	mg/Kg	1	8/17/2011 01:07 PM	
Selenium	ND	1.0	mg/Kg	1	8/17/2011 01:07 PM	
Silver	ND	1.0	mg/Kg	1	8/17/2011 01:07 PM	
Thallium	ND	1.0	mg/Kg	1	8/17/2011 01:07 PM	
Vanadium	45	1.0	mg/Kg	1	8/17/2011 01:07 PM	
Zinc	46	1.0	mg/Kg	1	8/17/2011 01:07 PM	

MERCURY BY COLD VAPOR TECHNIQUE

		EPA 7471A				
RunID:	AA1_110817B	QC Batch:	74969	PrepDate:	8/17/2011	Analyst: VV
Mercury	ND	0.10	mg/Kg	1	8/17/2011 05:36 PM	

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
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ANALYTICAL RESULTS

Print Date: 22-Aug-11

CLIENT: Mactec **Client Sample ID:** E-126-45'
Lab Order: 119384 **Collection Date:** 8/11/2011 12:20:00 PM
Project: Metro Westside Extension, 4953101561 **Matrix:** SOIL
Lab ID: 119384-007B

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

EPA 8260B

RunID:	MS5_110815B	QC Batch:	T11VS149	PrepDate:	8/11/2011	Analyst:	DDL
1,1,1,2-Tetrachloroethane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,1,1-Trichloroethane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,1,2,2-Tetrachloroethane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,1,2-Trichloroethane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,1-Dichloroethane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,1-Dichloroethene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,1-Dichloropropene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,2,3-Trichlorobenzene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,2,3-Trichloropropane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,2,4-Trichlorobenzene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,2,4-Trimethylbenzene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,2-Dibromo-3-chloropropane	ND	13	µg/Kg	1		8/16/2011 02:10 AM	
1,2-Dibromoethane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,2-Dichlorobenzene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,2-Dichloroethane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,2-Dichloropropane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,3,5-Trimethylbenzene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,3-Dichlorobenzene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,3-Dichloropropane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
1,4-Dichlorobenzene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
2,2-Dichloropropane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
2-Chlorotoluene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
4-Chlorotoluene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
4-Isopropyltoluene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
Benzene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
Bromobenzene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
Bromodichloromethane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
Bromoform	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
Bromomethane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
Carbon tetrachloride	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
Chlorobenzene	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
Chloroethane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
Chloroform	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
Chloromethane	ND	6.7	µg/Kg	1		8/16/2011 02:10 AM	
cis-1,2-Dichloroethene	ND	6.7	µg/Kg	1		8/16/2011 02:10 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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ANALYTICAL RESULTS

Print Date: 22-Aug-11

CLIENT: Mactec **Client Sample ID:** E-126-45'
Lab Order: 119384 **Collection Date:** 8/11/2011 12:20:00 PM
Project: Metro Westside Extension, 4953101561 **Matrix:** SOIL
Lab ID: 119384-007B

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

EPA 8260B

RunID:	MS5_110815B	QC Batch:	T11VS149	PrepDate:	8/11/2011	Analyst:	DDL
cis-1,3-Dichloropropene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Di-isopropyl ether	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Dibromochloromethane	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Dibromomethane	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Dichlorodifluoromethane	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Ethyl Tert-butyl ether	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Ethylbenzene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Hexachlorobutadiene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Isopropylbenzene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
m,p-Xylene	ND	13	µg/Kg	1	8/16/2011 02:10 AM		
Methylene chloride	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
MTBE	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
n-Butylbenzene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
n-Propylbenzene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Naphthalene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
o-Xylene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
sec-Butylbenzene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Styrene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Tert-amyl methyl ether	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Tert-Butanol	ND	130	µg/Kg	1	8/16/2011 02:10 AM		
tert-Butylbenzene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Tetrachloroethene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Toluene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
trans-1,2-Dichloroethene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Trichloroethene	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Trichlorofluoromethane	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Vinyl chloride	ND	6.7	µg/Kg	1	8/16/2011 02:10 AM		
Surr: 1,2-Dichloroethane-d4	90.8	65-141	%REC	1	8/16/2011 02:10 AM		
Surr: 4-Bromofluorobenzene	88.4	57-134	%REC	1	8/16/2011 02:10 AM		
Surr: Dibromofluoromethane	96.2	70-128	%REC	1	8/16/2011 02:10 AM		
Surr: Toluene-d8	96.4	72-123	%REC	1	8/16/2011 02:10 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: 22-Aug-11

CLIENT: Mactec **Client Sample ID:** E-126-70'
Lab Order: 119384 **Collection Date:** 8/11/2011 2:15:00 PM
Project: Metro Westside Extension, 4953101561 **Matrix:** SOIL
Lab ID: 119384-012B

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

EPA 8260B

RunID:	MS5_110815B	QC Batch:	T11VS149	PrepDate:	8/11/2011	Analyst:	DDL
1,1,1,2-Tetrachloroethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,1,1-Trichloroethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,1,2,2-Tetrachloroethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,1,2-Trichloroethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,1-Dichloroethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,1-Dichloroethene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,1-Dichloropropene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,2,3-Trichlorobenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,2,3-Trichloropropane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,2,4-Trichlorobenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,2,4-Trimethylbenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,2-Dibromo-3-chloropropane	ND	18	µg/Kg	1	8/16/2011 02:29 AM		
1,2-Dibromoethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,2-Dichlorobenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,2-Dichloroethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,2-Dichloropropane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,3,5-Trimethylbenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,3-Dichlorobenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,3-Dichloropropane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
1,4-Dichlorobenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
2,2-Dichloropropane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
2-Chlorotoluene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
4-Chlorotoluene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
4-Isopropyltoluene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Benzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Bromobenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Bromodichloromethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Bromoform	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Bromomethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Carbon tetrachloride	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Chlorobenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Chloroethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Chloroform	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Chloromethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
cis-1,2-Dichloroethene	ND	9.0	µg/Kg	1	8/16/2011 02:29 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
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3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 22-Aug-11

CLIENT: Mactec **Client Sample ID:** E-126-70'
Lab Order: 119384 **Collection Date:** 8/11/2011 2:15:00 PM
Project: Metro Westside Extension, 4953101561 **Matrix:** SOIL
Lab ID: 119384-012B

Analyses Result PQL Qual Units DF Date Analyzed

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID:	MS5_110815B	QC Batch:	T11VS149	PrepDate:	8/11/2011	Analyst:	DDL
cis-1,3-Dichloropropene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Di-isopropyl ether	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Dibromochloromethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Dibromomethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Dichlorodifluoromethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Ethyl Tert-butyl ether	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Ethylbenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Hexachlorobutadiene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Isopropylbenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
m,p-Xylene	ND	18	µg/Kg	1	8/16/2011 02:29 AM		
Methylene chloride	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
MTBE	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
n-Butylbenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
n-Propylbenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Naphthalene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
o-Xylene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
sec-Butylbenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Styrene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Tert-amyl methyl ether	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Tert-Butanol	ND	180	µg/Kg	1	8/16/2011 02:29 AM		
tert-Butylbenzene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Tetrachloroethene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Toluene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
trans-1,2-Dichloroethene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Trichloroethene	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Trichlorofluoromethane	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Vinyl chloride	ND	9.0	µg/Kg	1	8/16/2011 02:29 AM		
Surr: 1,2-Dichloroethane-d4	87.2	65-141	%REC	1	8/16/2011 02:29 AM		
Surr: 4-Bromofluorobenzene	85.8	57-134	%REC	1	8/16/2011 02:29 AM		
Surr: Dibromofluoromethane	92.2	70-128	%REC	1	8/16/2011 02:29 AM		
Surr: Toluene-d8	91.5	72-123	%REC	1	8/16/2011 02:29 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: 22-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-126-GW
Lab Order:	119384	Collection Date:	8/11/2011 2:40:00 PM
Project:	Metro Westside Extension, 4953101561	Matrix:	GROUNDWATER
Lab ID:	119384-013A		

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

EPA 8260B

RunID: MS2_110818A	QC Batch: Q11VW153	PrepDate:	Analyst: BD		
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,1,1-Trichloroethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,1,2-Trichloroethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,1-Dichloroethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,1-Dichloroethene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,1-Dichloropropene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,2,3-Trichlorobenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,2,3-Trichloropropane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,2,4-Trichlorobenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,2-Dibromo-3-chloropropane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,2-Dibromoethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,2-Dichlorobenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,2-Dichloroethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,2-Dichloropropane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,3-Dichlorobenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,3-Dichloropropane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
1,4-Dichlorobenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
2,2-Dichloropropane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
2-Chlorotoluene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
4-Chlorotoluene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
4-Isopropyltoluene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Benzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Bromobenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Bromodichloromethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Bromoform	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Bromomethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Carbon tetrachloride	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Chlorobenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Chloroethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Chloroform	0.60	0.50	µg/L	1	8/18/2011 05:25 PM
Chloromethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
cis-1,2-Dichloroethene	ND	0.50	µg/L	1	8/18/2011 05:25 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: 22-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-126-GW
Lab Order:	119384	Collection Date:	8/11/2011 2:40:00 PM
Project:	Metro Westside Extension, 4953101561	Matrix:	GROUNDWATER
Lab ID:	119384-013A		

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

EPA 8260B

RunID: MS2_110818A	QC Batch: Q11VW153	PrepDate:	Analyst: BD		
cis-1,3-Dichloropropene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Di-isopropyl ether	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Dibromochloromethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Dibromomethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Dichlorodifluoromethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Ethyl tert-butyl ether	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Ethylbenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Hexachlorobutadiene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Isopropylbenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
m,p-Xylene	ND	1.0	µg/L	1	8/18/2011 05:25 PM
Methylene chloride	ND	1.0	µg/L	1	8/18/2011 05:25 PM
MTBE	ND	0.50	µg/L	1	8/18/2011 05:25 PM
n-Butylbenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
n-Propylbenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Naphthalene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
o-Xylene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
sec-Butylbenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Styrene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Tert-amyl methyl ether	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Tert-Butanol	ND	10	µg/L	1	8/18/2011 05:25 PM
tert-Butylbenzene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Tetrachloroethene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Toluene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
trans-1,2-Dichloroethene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Trichloroethene	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Trichlorofluoromethane	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Vinyl chloride	ND	0.50	µg/L	1	8/18/2011 05:25 PM
Surr: 1,2-Dichloroethane-d4	101	70-130	%REC	1	8/18/2011 05:25 PM
Surr: 4-Bromofluorobenzene	98.4	70-130	%REC	1	8/18/2011 05:25 PM
Surr: Dibromofluoromethane	96.8	70-130	%REC	1	8/18/2011 05:25 PM
Surr: Toluene-d8	92.8	70-130	%REC	1	8/18/2011 05:25 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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CLIENT: Mactec
Work Order: 119384
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: MB-74967	SampType: MBLK	TestCode: 6010_S	Units: mg/Kg	Prep Date: 8/17/2011	RunNo: 135882						
Client ID: PBS	Batch ID: 74967	TestNo: EPA 6010B EPA 3050B		Analysis Date: 8/17/2011	SeqNo: 2226294						
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-74967	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 8/17/2011	RunNo: 135882						
Client ID: LCSS	Batch ID: 74967	TestNo: EPA 6010B EPA 3050B		Analysis Date: 8/17/2011	SeqNo: 2226295						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	47.649	2.0	50.00	0	95.3	80	120				
Arsenic	47.241	1.0	50.00	0	94.5	80	120				
Barium	48.799	1.0	50.00	0	97.6	80	120				
Beryllium	48.168	1.0	50.00	0	96.3	80	120				
Cadmium	47.486	1.0	50.00	0	95.0	80	120				
Chromium	44.996	1.0	50.00	0	90.0	80	120				
Cobalt	48.955	1.0	50.00	0	97.9	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: 119384
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: LCS-74967		SampType: LCS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 8/17/2011		RunNo: 135882		
Client ID: LCSS		Batch ID: 74967		TestNo: EPA 6010B EPA 3050B				Analysis Date: 8/17/2011		SeqNo: 2226295		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Copper	48.807	2.0	50.00	0	97.6	80	120					
Lead	48.948	1.0	50.00	0	97.9	80	120					
Molybdenum	51.030	1.0	50.00	0	102	80	120					
Nickel	47.829	1.0	50.00	0	95.7	80	120					
Selenium	45.544	1.0	50.00	0	91.1	80	120					
Silver	48.144	1.0	50.00	0	96.3	80	120					
Thallium	47.070	1.0	50.00	0	94.1	80	120					
Vanadium	48.442	1.0	50.00	0	96.9	80	120					
Zinc	48.690	1.0	50.00	0	97.4	80	120					

Sample ID: 119297-015A-MS		SampType: MS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 8/17/2011		RunNo: 135882		
Client ID: ZZZZZZ		Batch ID: 74967		TestNo: EPA 6010B EPA 3050B				Analysis Date: 8/17/2011		SeqNo: 2226297		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony	94.945	2.0	125.0	0.2939	75.7	32	105					
Arsenic	102.682	1.0	125.0	1.383	81.0	49	106					
Barium	162.464	1.0	125.0	59.09	82.7	31	133					
Beryllium	103.496	1.0	125.0	0	82.8	56	106					
Cadmium	97.177	1.0	125.0	0.8498	77.1	51	103					
Chromium	106.839	1.0	125.0	8.448	78.7	45	114					
Cobalt	109.113	1.0	125.0	3.916	84.2	52	106					
Copper	118.548	2.0	125.0	6.663	89.5	54	125					
Lead	106.293	1.0	125.0	4.707	81.3	34	126					
Molybdenum	105.089	1.0	125.0	0.5549	83.6	54	106					
Nickel	111.331	1.0	125.0	9.124	81.8	45	111					
Selenium	98.364	1.0	125.0	0	78.7	47	104					
Silver	105.481	1.0	125.0	0	84.4	56	112					
Thallium	97.613	1.0	125.0	0	78.1	46	101					
Vanadium	122.770	1.0	125.0	17.10	84.5	54	114					
Zinc	134.540	1.0	125.0	34.57	80.0	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: 119384
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: 119297-015A-MSD		SampType: MSD		TestCode: 6010_S		Units: mg/Kg		Prep Date: 8/17/2011		RunNo: 135882	
Client ID: ZZZZZZ		Batch ID: 74967		TestNo: EPA 6010B EPA 3050B		Analysis Date: 8/17/2011		SeqNo: 2226298			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	93.745	2.0	125.0	0.2939	74.8	32	105	94.95	1.27	20	
Arsenic	101.068	1.0	125.0	1.383	79.7	49	106	102.7	1.58	20	
Barium	163.866	1.0	125.0	59.09	83.8	31	133	162.5	0.860	20	
Beryllium	100.542	1.0	125.0	0	80.4	56	106	103.5	2.90	20	
Cadmium	96.231	1.0	125.0	0.8498	76.3	51	103	97.18	0.978	20	
Chromium	105.721	1.0	125.0	8.448	77.8	45	114	106.8	1.05	20	
Cobalt	108.061	1.0	125.0	3.916	83.3	52	106	109.1	0.968	20	
Copper	117.823	2.0	125.0	6.663	88.9	54	125	118.5	0.613	20	
Lead	104.105	1.0	125.0	4.707	79.5	34	126	106.3	2.08	20	
Molybdenum	105.724	1.0	125.0	0.5549	84.1	54	106	105.1	0.603	20	
Nickel	109.941	1.0	125.0	9.124	80.7	45	111	111.3	1.26	20	
Selenium	96.995	1.0	125.0	0	77.6	47	104	98.36	1.40	20	
Silver	104.433	1.0	125.0	0	83.5	56	112	105.5	0.998	20	
Thallium	95.917	1.0	125.0	0	76.7	46	101	97.61	1.75	20	
Vanadium	122.413	1.0	125.0	17.10	84.3	54	114	122.8	0.291	20	
Zinc	132.354	1.0	125.0	34.57	78.2	28	125	134.5	1.64	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: 119384
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S

Sample ID: MB-74969	SampType: MBLK	TestCode: 7471_S	Units: mg/Kg	Prep Date: 8/17/2011	RunNo: 135903						
Client ID: PBS	Batch ID: 74969	TestNo: EPA 7471A		Analysis Date: 8/17/2011	SeqNo: 2226838						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.10

Sample ID: LCS-74969	SampType: LCS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 8/17/2011	RunNo: 135903						
Client ID: LCSS	Batch ID: 74969	TestNo: EPA 7471A		Analysis Date: 8/17/2011	SeqNo: 2226839						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.817 0.10 0.8300 0 98.4 80 120

Sample ID: 119415-020A-MS	SampType: MS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 8/17/2011	RunNo: 135903						
Client ID: ZZZZZZ	Batch ID: 74969	TestNo: EPA 7471A		Analysis Date: 8/17/2011	SeqNo: 2226840						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.793 0.10 0.8300 0.05109 89.3 70 130

Sample ID: 119415-020A-MSD	SampType: MSD	TestCode: 7471_S	Units: mg/Kg	Prep Date: 8/17/2011	RunNo: 135903						
Client ID: ZZZZZZ	Batch ID: 74969	TestNo: EPA 7471A		Analysis Date: 8/17/2011	SeqNo: 2226841						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.835 0.10 0.8300 0.05109 94.5 70 130 0.7926 5.26 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: 119384
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: T110815LCS2		SampType: LCS		TestCode: 8260_S_5035 Units: µg/Kg		Prep Date:		RunNo: 135827			
Client ID: LCSS		Batch ID: T11VS149		TestNo: EPA 8260B		Analysis Date: 8/15/2011		SeqNo: 2226876			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	43.500	5.0	50.00	0	87.0	70	130				
Benzene	94.170	5.0	100.0	0	94.2	70	130				
Chlorobenzene	52.520	5.0	50.00	0	105	70	130				
MTBE	50.510	5.0	50.00	0	101	70	130				
Toluene	99.060	5.0	100.0	0	99.1	70	130				
Trichloroethene	49.130	5.0	50.00	0	98.3	70	130				
Surr: 1,2-Dichloroethane-d4	42.910		50.00		85.8	65	141				
Surr: 4-Bromofluorobenzene	43.650		50.00		87.3	57	134				
Surr: Dibromofluoromethane	50.260		50.00		101	70	128				
Surr: Toluene-d8	48.580		50.00		97.2	72	123				

Sample ID: T110815MB2MS		SampType: MS		TestCode: 8260_S_5035 Units: µg/Kg		Prep Date:		RunNo: 135827			
Client ID: ZZZZZ		Batch ID: T11VS149		TestNo: EPA 8260B		Analysis Date: 8/15/2011		SeqNo: 2226878			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	42.290	5.0	50.00	0	84.6	70	130				
Benzene	95.890	5.0	100.0	0	95.9	70	130				
Chlorobenzene	54.270	5.0	50.00	0	109	70	130				
MTBE	49.700	5.0	50.00	0	99.4	70	130				
Toluene	100.960	5.0	100.0	0	101	70	130				
Trichloroethene	51.630	5.0	50.00	0	103	70	130				
Surr: 1,2-Dichloroethane-d4	43.020		50.00		86.0	65	141				
Surr: 4-Bromofluorobenzene	43.090		50.00		86.2	57	134				
Surr: Dibromofluoromethane	48.220		50.00		96.4	70	128				
Surr: Toluene-d8	47.070		50.00		94.1	72	123				

Sample ID: T110815MB2MSD		SampType: MSD		TestCode: 8260_S_5035 Units: µg/Kg		Prep Date:		RunNo: 135827			
Client ID: ZZZZZ		Batch ID: T11VS149		TestNo: EPA 8260B		Analysis Date: 8/15/2011		SeqNo: 2226879			
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: 119384
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: T110815MB2MSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135827	
Client ID: ZZZZZZ		Batch ID: T11VS149		TestNo: EPA 8260B		Analysis Date: 8/15/2011				SeqNo: 2226879	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	42.940	5.0	50.00	0	85.9	70	130	42.29	1.53	20	
Benzene	92.820	5.0	100.0	0	92.8	70	130	95.89	3.25	20	
Chlorobenzene	51.300	5.0	50.00	0	103	70	130	54.27	5.63	20	
MTBE	48.040	5.0	50.00	0	96.1	70	130	49.70	3.40	20	
Toluene	99.230	5.0	100.0	0	99.2	70	130	101.0	1.73	20	
Trichloroethene	48.220	5.0	50.00	0	96.4	70	130	51.63	6.83	20	
Surr: 1,2-Dichloroethane-d4	42.390		50.00		84.8	65	141		0	0	
Surr: 4-Bromofluorobenzene	44.690		50.00		89.4	57	134		0	0	
Surr: Dibromofluoromethane	47.900		50.00		95.8	70	128		0	0	
Surr: Toluene-d8	48.130		50.00		96.3	72	123		0	0	

Sample ID: T110815MB2		SampType: MBLK		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135827	
Client ID: PBS		Batch ID: T11VS149		TestNo: EPA 8260B		Analysis Date: 8/15/2011				SeqNo: 2226880	
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: 119384
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: T110815MB2		SampType: MBLK		TestCode: 8260_S_5035 Units: µg/Kg		Prep Date:		RunNo: 135827			
Client ID: PBS		Batch ID: T11VS149		TestNo: EPA 8260B		Analysis Date: 8/15/2011		SeqNo: 2226880			
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 | |



CLIENT: Mactec
Work Order: 119384
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: T110815MB2		SampType: MBLK		TestCode: 8260_S_5035 Units: µg/Kg		Prep Date:		RunNo: 135827			
Client ID: PBS		Batch ID: T11VS149		TestNo: EPA 8260B		Analysis Date: 8/15/2011		SeqNo: 2226880			
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	42.510		50.00		85.0	65	141				
Surr: 4-Bromofluorobenzene	42.600		50.00		85.2	57	134				
Surr: Dibromofluoromethane	46.800		50.00		93.6	70	128				
Surr: Toluene-d8	47.110		50.00		94.2	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 | |



CLIENT: Mactec
Work Order: 119384
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: Q110818LCS1		SampType: LCS		TestCode: 8260_WP_LL Units: µg/L		Prep Date:		RunNo: 135939			
Client ID: LCSW		Batch ID: Q11VW153		TestNo: EPA 8260B		Analysis Date: 8/18/2011		SeqNo: 2227552			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	17.260	0.50	20.00	0	86.3	70	130				
Benzene	37.510	0.50	40.00	0	93.8	70	130				
Chlorobenzene	19.830	0.50	20.00	0	99.2	70	130				
MTBE	21.000	0.50	20.00	0	105	70	130				
Toluene	39.950	0.50	40.00	0	99.9	70	130				
Trichloroethene	19.370	0.50	20.00	0	96.9	70	130				
Surr: 1,2-Dichloroethane-d4	23.740		25.00		95.0	70	130				
Surr: 4-Bromofluorobenzene	23.980		25.00		95.9	70	130				
Surr: Dibromofluoromethane	23.220		25.00		92.9	70	130				
Surr: Toluene-d8	24.040		25.00		96.2	70	130				

Sample ID: Q110818MB3MS		SampType: MS		TestCode: 8260_WP_LL Units: µg/L		Prep Date:		RunNo: 135939			
Client ID: ZZZZZ		Batch ID: Q11VW153		TestNo: EPA 8260B		Analysis Date: 8/18/2011		SeqNo: 2227553			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	16.750	0.50	20.00	0	83.8	70	130				
Benzene	37.400	0.50	40.00	0	93.5	70	130				
Chlorobenzene	20.320	0.50	20.00	0	102	70	130				
MTBE	21.300	0.50	20.00	0	106	70	130				
Toluene	40.290	0.50	40.00	0	101	70	130				
Trichloroethene	19.000	0.50	20.00	0	95.0	70	130				
Surr: 1,2-Dichloroethane-d4	23.330		25.00		93.3	70	130				
Surr: 4-Bromofluorobenzene	24.300		25.00		97.2	70	130				
Surr: Dibromofluoromethane	22.650		25.00		90.6	70	130				
Surr: Toluene-d8	23.720		25.00		94.9	70	130				

Sample ID: Q110818MB3MSD		SampType: MSD		TestCode: 8260_WP_LL Units: µg/L		Prep Date:		RunNo: 135939			
Client ID: ZZZZZ		Batch ID: Q11VW153		TestNo: EPA 8260B		Analysis Date: 8/18/2011		SeqNo: 2227554			
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: 119384
 Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: Q110818MB3MSD		SampType: MSD		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 135939		
Client ID: ZZZZZ		Batch ID: Q11VW153		TestNo: EPA 8260B		Analysis Date: 8/18/2011		SeqNo: 2227554				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	17.650	0.50	20.00	0	88.2	70	130	16.75	5.23	20		
Benzene	38.860	0.50	40.00	0	97.2	70	130	37.40	3.83	20		
Chlorobenzene	20.950	0.50	20.00	0	105	70	130	20.32	3.05	20		
MTBE	22.320	0.50	20.00	0	112	70	130	21.30	4.68	20		
Toluene	41.120	0.50	40.00	0	103	70	130	40.29	2.04	20		
Trichloroethene	20.160	0.50	20.00	0	101	70	130	19.00	5.92	20		
Surr: 1,2-Dichloroethane-d4	23.180		25.00		92.7	70	130		0	0		
Surr: 4-Bromofluorobenzene	23.940		25.00		95.8	70	130		0	0		
Surr: Dibromofluoromethane	22.680		25.00		90.7	70	130		0	0		
Surr: Toluene-d8	23.490		25.00		94.0	70	130		0	0		

Sample ID: Q110818MB3		SampType: MBLK		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 135939		
Client ID: PBW		Batch ID: Q11VW153		TestNo: EPA 8260B		Analysis Date: 8/18/2011		SeqNo: 2227555				
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: 119384
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: Q110818MB3		SampType: MBLK		TestCode: 8260_WP_LL Units: µg/L		Prep Date:		RunNo: 135939			
Client ID: PBW		Batch ID: Q11VW153		TestNo: EPA 8260B		Analysis Date: 8/18/2011		SeqNo: 2227555			
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 | |



CLIENT: Mactec
Work Order: 119384
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: Q110818MB3		SampType: MBLK		TestCode: 8260_WP_LL Units: µg/L		Prep Date:		RunNo: 135939			
Client ID: PBW		Batch ID: Q11VW153		TestNo: EPA 8260B		Analysis Date: 8/18/2011		SeqNo: 2227555			
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	26.590		25.00		106	70	130				
Surr: 4-Bromofluorobenzene	24.400		25.00		97.6	70	130				
Surr: Dibromofluoromethane	25.160		25.00		101	70	130				
Surr: Toluene-d8	23.150		25.00		92.6	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 | |



August 26, 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.: 119468

RE: Metro Westside Extension, 4953101561

Attention: Matt Fraychineaud

Enclosed are the results for sample(s) received on August 19, 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, 4953101561
Lab Order: 119468

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

The date of collection for all samples were taken from the sample container labels.

Analytical Comments for EPA 6010B

Samples 119477-045A-MS and 119477-045A-MSD, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).



Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 26-Aug-11

CLIENT: Mactec
Lab Order: 119468
Project: Metro Westside Extension, 4953101561
Lab ID: 119468-005A

Client Sample ID: E-127-120'
Collection Date: 8/18/2011 1:00:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP METALS

EPA 3050B

EPA 6010B

RunID:	ICP8_110824B	QC Batch:	75071	PrepDate:	8/24/2011	Analyst:	IL
Antimony	ND	2.0	mg/Kg	1	8/24/2011 11:49 AM		
Arsenic	6.4	1.0	mg/Kg	1	8/24/2011 11:49 AM		
Barium	62	1.0	mg/Kg	1	8/24/2011 11:49 AM		
Beryllium	ND	1.0	mg/Kg	1	8/24/2011 11:49 AM		
Cadmium	ND	1.0	mg/Kg	1	8/24/2011 11:49 AM		
Chromium	22	1.0	mg/Kg	1	8/24/2011 11:49 AM		
Cobalt	6.8	1.0	mg/Kg	1	8/24/2011 11:49 AM		
Copper	16	2.0	mg/Kg	1	8/24/2011 11:49 AM		
Lead	3.2	1.0	mg/Kg	1	8/24/2011 11:49 AM		
Molybdenum	ND	1.0	mg/Kg	1	8/24/2011 11:49 AM		
Nickel	16	1.0	mg/Kg	1	8/24/2011 11:49 AM		
Selenium	ND	1.0	mg/Kg	1	8/24/2011 11:49 AM		
Silver	ND	1.0	mg/Kg	1	8/24/2011 11:49 AM		
Thallium	ND	1.0	mg/Kg	1	8/24/2011 11:49 AM		
Vanadium	35	1.0	mg/Kg	1	8/24/2011 11:49 AM		
Zinc	59	1.0	mg/Kg	1	8/24/2011 11:49 AM		

DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID

LUFT

EPA 8015B(M)

RunID:	GC16_110822A	QC Batch:	75034	PrepDate:	8/22/2011	Analyst:	CBR
DRO	ND	10	mg/Kg	1	8/22/2011 12:08 PM		
ORO	ND	10	mg/Kg	1	8/22/2011 12:08 PM		
Surr: p-Terphenyl	79.1	63-152	%REC	1	8/22/2011 12:08 PM		

MERCURY BY COLD VAPOR TECHNIQUE

EPA 7471A

RunID:	AA1_110824B	QC Batch:	75060	PrepDate:	8/24/2011	Analyst:	VV
Mercury	ND	0.10	mg/Kg	1	8/24/2011 11:24 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: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-127-120'
Lab Order: 119468	Collection Date: 8/18/2011 1:00:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 119468-005B	

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

EPA 8260B

RunID: MS5_110822A	QC Batch: T11VS154	PrepDate: 8/18/2011	Analyst: DDL
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Compound	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,1,1-Trichloroethane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,1,2,2-Tetrachloroethane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,1,2-Trichloroethane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,1-Dichloroethane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,1-Dichloroethene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,1-Dichloropropene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,2,3-Trichlorobenzene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,2,3-Trichloropropane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,2,4-Trichlorobenzene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,2,4-Trimethylbenzene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,2-Dibromo-3-chloropropane	ND	18		µg/Kg	1	8/22/2011 05:25 PM
1,2-Dibromoethane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,2-Dichlorobenzene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,2-Dichloroethane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,2-Dichloropropane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,3,5-Trimethylbenzene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,3-Dichlorobenzene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,3-Dichloropropane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
1,4-Dichlorobenzene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
2,2-Dichloropropane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
2-Chlorotoluene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
4-Chlorotoluene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
4-Isopropyltoluene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
Benzene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
Bromobenzene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
Bromodichloromethane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
Bromoform	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
Bromomethane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
Carbon tetrachloride	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
Chlorobenzene	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
Chloroethane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
Chloroform	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
Chloromethane	ND	9.1		µg/Kg	1	8/22/2011 05:25 PM
cis-1,2-Dichloroethene	ND	9.1		µg/Kg	1	8/22/2011 05:25 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: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-127-120'
Lab Order: 119468	Collection Date: 8/18/2011 1:00:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 119468-005B	

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

EPA 8260B

RunID: MS5_110822A	QC Batch: T11VS154	PrepDate: 8/18/2011	Analyst: DDL		
cis-1,3-Dichloropropene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Di-isopropyl ether	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Dibromochloromethane	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Dibromomethane	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Dichlorodifluoromethane	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Ethyl Tert-butyl ether	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Ethylbenzene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Hexachlorobutadiene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Isopropylbenzene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
m,p-Xylene	ND	18	µg/Kg	1	8/22/2011 05:25 PM
Methylene chloride	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
MTBE	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
n-Butylbenzene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
n-Propylbenzene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Naphthalene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
o-Xylene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
sec-Butylbenzene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Styrene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Tert-amyl methyl ether	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Tert-Butanol	ND	180	µg/Kg	1	8/22/2011 05:25 PM
tert-Butylbenzene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Tetrachloroethene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Toluene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
trans-1,2-Dichloroethene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Trichloroethene	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Trichlorofluoromethane	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Vinyl chloride	ND	9.1	µg/Kg	1	8/22/2011 05:25 PM
Surr: 1,2-Dichloroethane-d4	106	65-141	%REC	1	8/22/2011 05:25 PM
Surr: 4-Bromofluorobenzene	89.7	57-134	%REC	1	8/22/2011 05:25 PM
Surr: Dibromofluoromethane	111	70-128	%REC	1	8/22/2011 05:25 PM
Surr: Toluene-d8	97.4	72-123	%REC	1	8/22/2011 05:25 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: 26-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-127-120'
Lab Order:	119468	Collection Date:	8/18/2011 1:00:00 PM
Project:	Metro Westside Extension, 4953101561	Matrix:	SOIL
Lab ID:	119468-005E		

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

EPA 8015B(M)

RunID: GC2_110824A	QC Batch: E11VS307	PrepDate: 8/18/2011	Analyst: TP		
GRO	ND	0.81	mg/Kg	1	8/24/2011 12:02 PM
Surr: Bromofluorobenzene (FID)	114	51-161	%REC	1	8/24/2011 12:02 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: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-127-125'
Lab Order: 119468	Collection Date: 8/18/2011 1:10:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 119468-006A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID						
	LUFT			EPA 8015B(M)		
RunID: GC16_110822A	QC Batch: 75034			PrepDate: 8/22/2011		Analyst: CBR
DRO	ND	10		mg/Kg	1	8/22/2011 12:18 PM
ORO	ND	10		mg/Kg	1	8/22/2011 12:18 PM
Surr: p-Terphenyl	79.0	63-152		%REC	1	8/22/2011 12:18 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: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-127-125'
Lab Order: 119468	Collection Date: 8/18/2011 1:10:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 119468-006B	

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

EPA 8260B

RunID: MS5_110822A	QC Batch: T11VS154	PrepDate: 8/18/2011	Analyst: DDL
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Compound	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,1,1-Trichloroethane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,1,2,2-Tetrachloroethane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,1,2-Trichloroethane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,1-Dichloroethane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,1-Dichloroethene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,1-Dichloropropene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,2,3-Trichlorobenzene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,2,3-Trichloropropane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,2,4-Trichlorobenzene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,2,4-Trimethylbenzene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,2-Dibromo-3-chloropropane	ND	9.4		µg/Kg	1	8/22/2011 05:43 PM
1,2-Dibromoethane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,2-Dichlorobenzene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,2-Dichloroethane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,2-Dichloropropane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,3,5-Trimethylbenzene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,3-Dichlorobenzene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,3-Dichloropropane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
1,4-Dichlorobenzene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
2,2-Dichloropropane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
2-Chlorotoluene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
4-Chlorotoluene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
4-Isopropyltoluene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
Benzene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
Bromobenzene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
Bromodichloromethane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
Bromoform	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
Bromomethane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
Carbon tetrachloride	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
Chlorobenzene	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
Chloroethane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
Chloroform	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
Chloromethane	ND	4.7		µg/Kg	1	8/22/2011 05:43 PM
cis-1,2-Dichloroethene	ND	4.7		µg/Kg	1	8/22/2011 05:43 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: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-127-125'
Lab Order: 119468	Collection Date: 8/18/2011 1:10:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 119468-006B	

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

EPA 8260B

RunID: MS5_110822A	QC Batch: T11VS154	PrepDate: 8/18/2011	Analyst: DDL		
cis-1,3-Dichloropropene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Di-isopropyl ether	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Dibromochloromethane	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Dibromomethane	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Dichlorodifluoromethane	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Ethyl Tert-butyl ether	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Ethylbenzene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Hexachlorobutadiene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Isopropylbenzene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
m,p-Xylene	ND	9.4	µg/Kg	1	8/22/2011 05:43 PM
Methylene chloride	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
MTBE	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
n-Butylbenzene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
n-Propylbenzene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Naphthalene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
o-Xylene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
sec-Butylbenzene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Styrene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Tert-amyl methyl ether	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Tert-Butanol	ND	94	µg/Kg	1	8/22/2011 05:43 PM
tert-Butylbenzene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Tetrachloroethene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Toluene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
trans-1,2-Dichloroethene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Trichloroethene	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Trichlorofluoromethane	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Vinyl chloride	ND	4.7	µg/Kg	1	8/22/2011 05:43 PM
Surr: 1,2-Dichloroethane-d4	104	65-141	%REC	1	8/22/2011 05:43 PM
Surr: 4-Bromofluorobenzene	90.7	57-134	%REC	1	8/22/2011 05:43 PM
Surr: Dibromofluoromethane	109	70-128	%REC	1	8/22/2011 05:43 PM
Surr: Toluene-d8	96.4	72-123	%REC	1	8/22/2011 05:43 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: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-127-125'
Lab Order: 119468	Collection Date: 8/18/2011 1:10:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 119468-006E	

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

EPA 8015B(M)

RunID: GC2_110824A	QC Batch: E11VS307	PrepDate: 8/18/2011	Analyst: TP		
GRO	ND	0.81	mg/Kg	1	8/24/2011 12:18 PM
Surr: Bromofluorobenzene (FID)	129	51-161	%REC	1	8/24/2011 12:18 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: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-127-130'
Lab Order: 119468	Collection Date: 8/18/2011 1:20:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 119468-007A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID						
	LUFT			EPA 8015B(M)		
RunID: GC16_110822A	QC Batch: 75034			PrepDate: 8/22/2011		Analyst: CBR
DRO	ND	10		mg/Kg	1	8/22/2011 12:28 PM
ORO	ND	10		mg/Kg	1	8/22/2011 12:28 PM
Surr: p-Terphenyl	80.3	63-152		%REC	1	8/22/2011 12:28 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: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-127-130'
Lab Order: 119468	Collection Date: 8/18/2011 1:20:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 119468-007B	

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

EPA 8260B

RunID: MS5_110822A	QC Batch: T11VS154	PrepDate: 8/18/2011	Analyst: DDL
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Compound	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,1,1-Trichloroethane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,1,2,2-Tetrachloroethane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,1,2-Trichloroethane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,1-Dichloroethane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,1-Dichloroethene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,1-Dichloropropene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,2,3-Trichlorobenzene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,2,3-Trichloropropane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,2,4-Trichlorobenzene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,2,4-Trimethylbenzene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,2-Dibromo-3-chloropropane	ND	8.1		µg/Kg	1	8/22/2011 06:02 PM
1,2-Dibromoethane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,2-Dichlorobenzene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,2-Dichloroethane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,2-Dichloropropane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,3,5-Trimethylbenzene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,3-Dichlorobenzene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,3-Dichloropropane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
1,4-Dichlorobenzene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
2,2-Dichloropropane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
2-Chlorotoluene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
4-Chlorotoluene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
4-Isopropyltoluene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
Benzene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
Bromobenzene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
Bromodichloromethane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
Bromoform	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
Bromomethane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
Carbon tetrachloride	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
Chlorobenzene	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
Chloroethane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
Chloroform	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
Chloromethane	ND	4.1		µg/Kg	1	8/22/2011 06:02 PM
cis-1,2-Dichloroethene	ND	4.1		µg/Kg	1	8/22/2011 06:02 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: 26-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-127-130'
Lab Order:	119468	Collection Date:	8/18/2011 1:20:00 PM
Project:	Metro Westside Extension, 4953101561	Matrix:	SOIL
Lab ID:	119468-007B		

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

EPA 8260B

RunID: MS5_110822A	QC Batch: T11VS154	PrepDate: 8/18/2011	Analyst: DDL		
cis-1,3-Dichloropropene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Di-isopropyl ether	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Dibromochloromethane	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Dibromomethane	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Dichlorodifluoromethane	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Ethyl Tert-butyl ether	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Ethylbenzene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Hexachlorobutadiene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Isopropylbenzene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
m,p-Xylene	ND	8.1	µg/Kg	1	8/22/2011 06:02 PM
Methylene chloride	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
MTBE	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
n-Butylbenzene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
n-Propylbenzene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Naphthalene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
o-Xylene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
sec-Butylbenzene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Styrene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Tert-amyl methyl ether	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Tert-Butanol	ND	81	µg/Kg	1	8/22/2011 06:02 PM
tert-Butylbenzene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Tetrachloroethene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Toluene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
trans-1,2-Dichloroethene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Trichloroethene	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Trichlorofluoromethane	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Vinyl chloride	ND	4.1	µg/Kg	1	8/22/2011 06:02 PM
Surr: 1,2-Dichloroethane-d4	103	65-141	%REC	1	8/22/2011 06:02 PM
Surr: 4-Bromofluorobenzene	87.8	57-134	%REC	1	8/22/2011 06:02 PM
Surr: Dibromofluoromethane	106	70-128	%REC	1	8/22/2011 06:02 PM
Surr: Toluene-d8	91.1	72-123	%REC	1	8/22/2011 06:02 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: 26-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-127-130'
Lab Order:	119468	Collection Date:	8/18/2011 1:20:00 PM
Project:	Metro Westside Extension, 4953101561	Matrix:	SOIL
Lab ID:	119468-007E		

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

EPA 8015B(M)

RunID: GC2_110824A	QC Batch: E11VS307	PrepDate: 8/18/2011	Analyst: TP		
GRO	ND	0.74	mg/Kg	1	8/24/2011 12:34 PM
Surr: Bromofluorobenzene (FID)	125	51-161	%REC	1	8/24/2011 12:34 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: 26-Aug-11

CLIENT: Mactec
Lab Order: 119468
Project: Metro Westside Extension, 4953101561
Lab ID: 119468-008A

Client Sample ID: E-127-GW
Collection Date: 8/18/2011 2:55:00 PM
Matrix: GROUNDWATER

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

EPA 8260B

RunID:	MS2_110822A	QC Batch:	Q11VW159	PrepDate:	Analyst:	BD
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,1,1-Trichloroethane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,1,2-Trichloroethane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,1-Dichloroethane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,1-Dichloroethene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,1-Dichloropropene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,2,3-Trichlorobenzene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,2,3-Trichloropropane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,2,4-Trichlorobenzene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,2-Dibromo-3-chloropropane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,2-Dibromoethane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,2-Dichlorobenzene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,2-Dichloroethane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,2-Dichloropropane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,3-Dichlorobenzene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,3-Dichloropropane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
1,4-Dichlorobenzene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
2,2-Dichloropropane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
2-Chlorotoluene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
4-Chlorotoluene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
4-Isopropyltoluene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
Benzene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
Bromobenzene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
Bromodichloromethane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
Bromoform	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
Bromomethane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
Carbon tetrachloride	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
Chlorobenzene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
Chloroethane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
Chloroform	0.64	0.50	µg/L	1	8/22/2011 09:05 PM	
Chloromethane	ND	0.50	µg/L	1	8/22/2011 09:05 PM	
cis-1,2-Dichloroethene	ND	0.50	µg/L	1	8/22/2011 09:05 PM	

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: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-127-GW
Lab Order: 119468	Collection Date: 8/18/2011 2:55:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: GROUNDWATER
Lab ID: 119468-008A	

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

EPA 8260B

RunID: MS2_110822A	QC Batch: Q11VW159	PrepDate:	Analyst: BD
cis-1,3-Dichloropropene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Di-isopropyl ether	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Dibromochloromethane	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Dibromomethane	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Dichlorodifluoromethane	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Ethyl tert-butyl ether	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Ethylbenzene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Hexachlorobutadiene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Isopropylbenzene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
m,p-Xylene	ND	1.0	µg/L 1 8/22/2011 09:05 PM
Methylene chloride	ND	1.0	µg/L 1 8/22/2011 09:05 PM
MTBE	ND	0.50	µg/L 1 8/22/2011 09:05 PM
n-Butylbenzene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
n-Propylbenzene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Naphthalene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
o-Xylene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
sec-Butylbenzene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Styrene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Tert-amyl methyl ether	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Tert-Butanol	ND	10	µg/L 1 8/22/2011 09:05 PM
tert-Butylbenzene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Tetrachloroethene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Toluene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
trans-1,2-Dichloroethene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Trichloroethene	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Trichlorofluoromethane	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Vinyl chloride	ND	0.50	µg/L 1 8/22/2011 09:05 PM
Surr: 1,2-Dichloroethane-d4	86.7	70-130	%REC 1 8/22/2011 09:05 PM
Surr: 4-Bromofluorobenzene	98.3	70-130	%REC 1 8/22/2011 09:05 PM
Surr: Dibromofluoromethane	90.2	70-130	%REC 1 8/22/2011 09:05 PM
Surr: Toluene-d8	87.8	70-130	%REC 1 8/22/2011 09:05 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: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-127-GW
Lab Order: 119468	Collection Date: 8/18/2011 2:55:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: GROUNDWATER
Lab ID: 119468-008B	

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

EPA 8015B(M)

RunID: GC19_110822A	QC Batch: M11VW162	PrepDate:	Analyst: BB		
GRO	ND	0.20	mg/L	1	8/22/2011 02:23 PM
Surr: Bromofluorobenzene (FID)	87.5	70-130	%REC	1	8/22/2011 02:23 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: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-127-GW
Lab Order: 119468	Collection Date: 8/18/2011 2:55:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: GROUNDWATER
Lab ID: 119468-008C	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID						
	EPA 3510C		EPA 8015B(M)			
RunID: GC16_110822B	QC Batch: 75038			PrepDate: 8/22/2011		Analyst: CBR
DRO	0.87	0.20		mg/L	1	8/22/2011 03:08 PM
ORO	1.1	0.20		mg/L	1	8/22/2011 03:08 PM
Surr: p-Terphenyl	86.4	36-126		%REC	1	8/22/2011 03:08 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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CLIENT: Mactec
Work Order: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

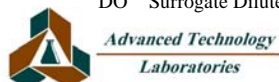
TestCode: 6010_S

Sample ID: MB-75071	SampType: MBLK	TestCode: 6010_S	Units: mg/Kg	Prep Date: 8/24/2011	RunNo: 136028						
Client ID: PBS	Batch ID: 75071	TestNo: EPA 6010B EPA 3050B		Analysis Date: 8/24/2011	SeqNo: 2229012						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.269	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	0.165	1.0									
Vanadium	ND	1.0									
Zinc	ND	1.0									

Sample ID: LCS-75071	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 8/24/2011	RunNo: 136028						
Client ID: LCSS	Batch ID: 75071	TestNo: EPA 6010B EPA 3050B		Analysis Date: 8/24/2011	SeqNo: 2229013						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	47.008	2.0	50.00	0.2694	93.5	80	120				
Arsenic	46.371	1.0	50.00	0	92.7	80	120				
Barium	48.954	1.0	50.00	0	97.9	80	120				
Beryllium	47.272	1.0	50.00	0	94.5	80	120				
Cadmium	46.750	1.0	50.00	0	93.5	80	120				
Chromium	44.979	1.0	50.00	0	90.0	80	120				
Cobalt	48.656	1.0	50.00	0	97.3	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: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

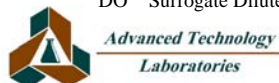
TestCode: 6010_S

Sample ID: LCS-75071		SampType: LCS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 8/24/2011		RunNo: 136028		
Client ID: LCSS		Batch ID: 75071		TestNo: EPA 6010B EPA 3050B				Analysis Date: 8/24/2011		SeqNo: 2229013		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Copper	48.210	2.0	50.00	0	96.4	80	120					
Lead	48.341	1.0	50.00	0	96.7	80	120					
Molybdenum	50.078	1.0	50.00	0	100	80	120					
Nickel	47.170	1.0	50.00	0	94.3	80	120					
Selenium	44.132	1.0	50.00	0	88.3	80	120					
Silver	47.141	1.0	50.00	0	94.3	80	120					
Thallium	46.538	1.0	50.00	0.1647	92.7	80	120					
Vanadium	48.566	1.0	50.00	0	97.1	80	120					
Zinc	47.273	1.0	50.00	0	94.5	80	120					

Sample ID: 119477-045A-MS		SampType: MS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 8/24/2011		RunNo: 136028		
Client ID: ZZZZZZ		Batch ID: 75071		TestNo: EPA 6010B EPA 3050B				Analysis Date: 8/24/2011		SeqNo: 2229015		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony	76.680	2.0	125.0	0.2335	61.2	32	105					
Arsenic	66.439	1.0	125.0	0	53.2	49	106					
Barium	153.537	1.0	125.0	64.53	71.2	31	133					
Beryllium	85.486	1.0	125.0	0	68.4	56	106					
Cadmium	79.549	1.0	125.0	1.234	62.7	51	103					
Chromium	121.129	1.0	125.0	36.92	67.4	45	114					
Cobalt	114.076	1.0	125.0	26.19	70.3	52	106					
Copper	145.521	2.0	125.0	41.36	83.3	54	125					
Lead	87.001	1.0	125.0	3.626	66.7	34	126					
Molybdenum	86.784	1.0	125.0	0	69.4	54	106					
Nickel	125.805	1.0	125.0	38.56	69.8	45	111					
Selenium	77.285	1.0	125.0	0	61.8	47	104					
Silver	92.190	1.0	125.0	0	73.8	56	112					
Thallium	49.524	1.0	125.0	0	39.6	46	101				S	
Vanadium	197.362	1.0	125.0	104.3	74.5	54	114					
Zinc	137.069	1.0	125.0	61.95	60.1	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: 119468
Project: Metro Westside Extension, 4953101561

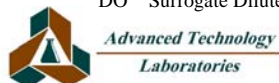
ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: 119477-045A-MSD		SampType: MSD		TestCode: 6010_S		Units: mg/Kg		Prep Date: 8/24/2011		RunNo: 136028	
Client ID: ZZZZZZ		Batch ID: 75071		TestNo: EPA 6010B EPA 3050B		Analysis Date: 8/24/2011		SeqNo: 2229016			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	78.978	2.0	125.0	0.2335	63.0	32	105	76.68	2.95	20	
Arsenic	68.842	1.0	125.0	0	55.1	49	106	66.44	3.55	20	
Barium	159.323	1.0	125.0	64.53	75.8	31	133	153.5	3.70	20	
Beryllium	85.687	1.0	125.0	0	68.5	56	106	85.49	0.235	20	
Cadmium	83.026	1.0	125.0	1.234	65.4	51	103	79.55	4.28	20	
Chromium	126.747	1.0	125.0	36.92	71.9	45	114	121.1	4.53	20	
Cobalt	117.597	1.0	125.0	26.19	73.1	52	106	114.1	3.04	20	
Copper	150.347	2.0	125.0	41.36	87.2	54	125	145.5	3.26	20	
Lead	91.977	1.0	125.0	3.626	70.7	34	126	87.00	5.56	20	
Molybdenum	90.500	1.0	125.0	0	72.4	54	106	86.78	4.19	20	
Nickel	129.876	1.0	125.0	38.56	73.1	45	111	125.8	3.18	20	
Selenium	80.772	1.0	125.0	0	64.6	47	104	77.29	4.41	20	
Silver	96.601	1.0	125.0	0	77.3	56	112	92.19	4.67	20	
Thallium	50.236	1.0	125.0	0	40.2	46	101	49.52	1.43	20	S
Vanadium	206.626	1.0	125.0	104.3	81.9	54	114	197.4	4.59	20	
Zinc	143.614	1.0	125.0	61.95	65.3	28	125	137.1	4.66	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: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S

Sample ID: MB-75060	SampType: MBLK	TestCode: 7471_S	Units: mg/Kg	Prep Date: 8/24/2011	RunNo: 136027						
Client ID: PBS	Batch ID: 75060	TestNo: EPA 7471A		Analysis Date: 8/24/2011	SeqNo: 2229002						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.10

Sample ID: LCS-75060	SampType: LCS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 8/24/2011	RunNo: 136027						
Client ID: LCSS	Batch ID: 75060	TestNo: EPA 7471A		Analysis Date: 8/24/2011	SeqNo: 2229003						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.832 0.10 0.8300 0 100 80 120

Sample ID: 119468-005A-MS	SampType: MS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 8/24/2011	RunNo: 136027						
Client ID: E-127-120'	Batch ID: 75060	TestNo: EPA 7471A		Analysis Date: 8/24/2011	SeqNo: 2229004						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

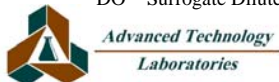
Mercury 0.706 0.10 0.8300 0.01931 82.8 70 130

Sample ID: 119468-005A-MSD	SampType: MSD	TestCode: 7471_S	Units: mg/Kg	Prep Date: 8/24/2011	RunNo: 136027						
Client ID: E-127-120'	Batch ID: 75060	TestNo: EPA 7471A		Analysis Date: 8/24/2011	SeqNo: 2229005						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.711 0.10 0.8300 0.01931 83.4 70 130 0.7064 0.720 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: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_DM H

Sample ID: LCS-75034	SampType: LCS	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 8/22/2011	RunNo: 135973						
Client ID: LCSS	Batch ID: 75034	TestNo: EPA 8015B(M LUFT		Analysis Date: 8/22/2011	SeqNo: 2228122						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	928.390	10	1000	0	92.8	76	139				
Surr: p-Terphenyl	74.400		80.00		93.0	63	152				

Sample ID: 119466-001AMS	SampType: MS	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 8/22/2011	RunNo: 135973						
Client ID: ZZZZZ	Batch ID: 75034	TestNo: EPA 8015B(M LUFT		Analysis Date: 8/22/2011	SeqNo: 2228123						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	860.860	10	1000	0	86.1	60	158				
Surr: p-Terphenyl	75.070		80.00		93.8	63	152				

Sample ID: 119466-001AMSD	SampType: MSD	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 8/22/2011	RunNo: 135973						
Client ID: ZZZZZ	Batch ID: 75034	TestNo: EPA 8015B(M LUFT		Analysis Date: 8/22/2011	SeqNo: 2228124						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

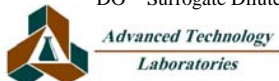
DRO	847.470	10	1000	0	84.7	60	158	860.9	1.57	20	
Surr: p-Terphenyl	73.580		80.00		92.0	63	152		0	0	

Sample ID: MB-75034	SampType: MBLK	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 8/22/2011	RunNo: 135973						
Client ID: PBS	Batch ID: 75034	TestNo: EPA 8015B(M LUFT		Analysis Date: 8/22/2011	SeqNo: 2228127						
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	63.660		80.00		79.6	63	152				

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: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: E110824LC1	SampType: LCS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 136058						
Client ID: LCSS	Batch ID: E11VS307	TestNo: EPA 8015B(M)	Analysis Date: 8/24/2011	SeqNo: 2229734							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	5.069	1.0	5.000	0	101	70	130				
Surr: Bromofluorobenzene (FID)	124.803		100.0		125	51	161				

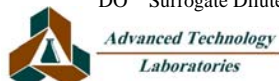
Sample ID: E110824MB1MS	SampType: MS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 136058						
Client ID: ZZZZZ	Batch ID: E11VS307	TestNo: EPA 8015B(M)	Analysis Date: 8/24/2011	SeqNo: 2229735							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	5.182	1.0	5.000	0	104	41	146				
Surr: Bromofluorobenzene (FID)	106.662		100.0		107	51	161				

Sample ID: E110824MB1MSD	SampType: MSD	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 136058						
Client ID: ZZZZZ	Batch ID: E11VS307	TestNo: EPA 8015B(M)	Analysis Date: 8/24/2011	SeqNo: 2229736							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	5.227	1.0	5.000	0	105	41	146	5.182	0.865	20	
Surr: Bromofluorobenzene (FID)	108.159		100.0		108	51	161		0	0	

Sample ID: E110824MB1	SampType: MBLK	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 136058						
Client ID: PBS	Batch ID: E11VS307	TestNo: EPA 8015B(M)	Analysis Date: 8/24/2011	SeqNo: 2229737							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	1.0									
Surr: Bromofluorobenzene (FID)	89.530		100.0		89.5	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: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_DM

Sample ID: MB-75038	SampType: MBLK	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 8/22/2011	RunNo: 135984						
Client ID: PBW	Batch ID: 75038	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 8/22/2011	SeqNo: 2228373						
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	0.060		0.08000		75.2	36	126				

Sample ID: LCS-75038	SampType: LCS	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 8/22/2011	RunNo: 135984						
Client ID: LCSW	Batch ID: 75038	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 8/22/2011	SeqNo: 2228374						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.644	0.20	1.000	0	64.4	52	128				
Surr: p-Terphenyl	0.071		0.08000		88.7	36	126				

Sample ID: MB-75038MS	SampType: MS	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 8/22/2011	RunNo: 135984						
Client ID: ZZZZZ	Batch ID: 75038	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 8/22/2011	SeqNo: 2228375						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

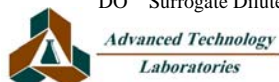
DRO	0.648	0.20	1.000	0	64.8	52	128				
Surr: p-Terphenyl	0.064		0.08000		79.5	36	126				

Sample ID: MB-75038MSD	SampType: MSD	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 8/22/2011	RunNo: 135984						
Client ID: ZZZZZ	Batch ID: 75038	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 8/22/2011	SeqNo: 2228376						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.559	0.20	1.000	0	55.9	52	128	0.6478	14.6	20	
Surr: p-Terphenyl	0.064		0.08000		79.4	36	126		0	0	

Qualifiers:

- | | | |
|---|--|--|
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| 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: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_G PRES

Sample ID: M110822LCS2	SampType: LCS	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 135989						
Client ID: LCSW	Batch ID: M11VW162	TestNo: EPA 8015B(M)	Analysis Date: 8/22/2011	SeqNo: 2228492							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.009	0.20	1.000	0	101	70	130				
Surr: Bromofluorobenzene (FID)	91.309		100.0		91.3	70	130				

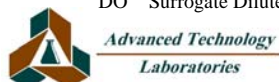
Sample ID: M110822MB1MS	SampType: MS	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 135989						
Client ID: ZZZZZZ	Batch ID: M11VW162	TestNo: EPA 8015B(M)	Analysis Date: 8/22/2011	SeqNo: 2228494							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.035	0.20	1.000	0	104	70	130				
Surr: Bromofluorobenzene (FID)	92.408		100.0		92.4	70	130				

Sample ID: M110822MB1MSD	SampType: MSD	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 135989						
Client ID: ZZZZZZ	Batch ID: M11VW162	TestNo: EPA 8015B(M)	Analysis Date: 8/22/2011	SeqNo: 2228495							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.039	0.20	1.000	0	104	70	130	1.035	0.386	20	
Surr: Bromofluorobenzene (FID)	93.112		100.0		93.1	70	130		0	0	

Sample ID: M110822MB1	SampType: MBLK	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 135989						
Client ID: PBW	Batch ID: M11VW162	TestNo: EPA 8015B(M)	Analysis Date: 8/22/2011	SeqNo: 2228496							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	0.20									
Surr: Bromofluorobenzene (FID)	89.015		100.0		89.0	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 | |



CLIENT: Mactec
Work Order: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

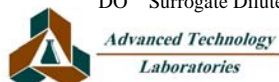
Sample ID: T110822LCS1		SampType: LCS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135975	
Client ID: LCSS		Batch ID: T11VS154		TestNo: EPA 8260B		Analysis Date: 8/22/2011				SeqNo: 2229081	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	41.470	5.0	50.00	0	82.9	70	130				
Benzene	90.530	5.0	100.0	0	90.5	70	130				
Chlorobenzene	51.970	5.0	50.00	0	104	70	130				
MTBE	50.710	5.0	50.00	0	101	70	130				
Toluene	96.040	5.0	100.0	0	96.0	70	130				
Trichloroethene	49.550	5.0	50.00	0	99.1	70	130				
Surr: 1,2-Dichloroethane-d4	45.040		50.00		90.1	65	141				
Surr: 4-Bromofluorobenzene	43.090		50.00		86.2	57	134				
Surr: Dibromofluoromethane	53.330		50.00		107	70	128				
Surr: Toluene-d8	47.020		50.00		94.0	72	123				

Sample ID: T110822MB1MS		SampType: MS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135975	
Client ID: ZZZZZ		Batch ID: T11VS154		TestNo: EPA 8260B		Analysis Date: 8/22/2011				SeqNo: 2229082	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	44.950	5.0	50.00	0	89.9	70	130				
Benzene	96.580	5.0	100.0	0	96.6	70	130				
Chlorobenzene	53.450	5.0	50.00	0	107	70	130				
MTBE	53.630	5.0	50.00	0	107	70	130				
Toluene	104.210	5.0	100.0	0	104	70	130				
Trichloroethene	51.020	5.0	50.00	0	102	70	130				
Surr: 1,2-Dichloroethane-d4	43.770		50.00		87.5	65	141				
Surr: 4-Bromofluorobenzene	45.490		50.00		91.0	57	134				
Surr: Dibromofluoromethane	50.780		50.00		102	70	128				
Surr: Toluene-d8	48.890		50.00		97.8	72	123				

Sample ID: T110822MB1MSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135975	
Client ID: ZZZZZ		Batch ID: T11VS154		TestNo: EPA 8260B		Analysis Date: 8/22/2011				SeqNo: 2229083	
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: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

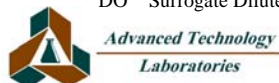
TestCode: 8260_S_5035

Sample ID: T110822MB1MSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135975	
Client ID: ZZZZZ		Batch ID: T11VS154		TestNo: EPA 8260B		Analysis Date: 8/22/2011				SeqNo: 2229083	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	44.180	5.0	50.00	0	88.4	70	130	44.95	1.73	20	
Benzene	92.160	5.0	100.0	0	92.2	70	130	96.58	4.68	20	
Chlorobenzene	52.680	5.0	50.00	0	105	70	130	53.45	1.45	20	
MTBE	51.200	5.0	50.00	0	102	70	130	53.63	4.64	20	
Toluene	98.630	5.0	100.0	0	98.6	70	130	104.2	5.50	20	
Trichloroethene	48.770	5.0	50.00	0	97.5	70	130	51.02	4.51	20	
Surr: 1,2-Dichloroethane-d4	45.840		50.00		91.7	65	141		0	0	
Surr: 4-Bromofluorobenzene	44.200		50.00		88.4	57	134		0	0	
Surr: Dibromofluoromethane	52.840		50.00		106	70	128		0	0	
Surr: Toluene-d8	46.850		50.00		93.7	72	123		0	0	

Sample ID: T110822MB1		SampType: MBLK		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135975	
Client ID: PBS		Batch ID: T11VS154		TestNo: EPA 8260B		Analysis Date: 8/22/2011				SeqNo: 2229084	
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: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: T110822MB1	SampType: MBLK	TestCode: 8260_S_5035	Units: µg/Kg	Prep Date:	RunNo: 135975						
Client ID: PBS	Batch ID: T11VS154	TestNo: EPA 8260B		Analysis Date: 8/22/2011	SeqNo: 2229084						
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 | |



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CLIENT: Mactec
Work Order: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: T110822MB1	SampType: MBLK	TestCode: 8260_S_5035	Units: µg/Kg	Prep Date:	RunNo: 135975						
Client ID: PBS	Batch ID: T11VS154	TestNo: EPA 8260B		Analysis Date: 8/22/2011	SeqNo: 2229084						
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	46.680		50.00		93.4	65	141				
Surr: 4-Bromofluorobenzene	42.270		50.00		84.5	57	134				
Surr: Dibromofluoromethane	49.940		50.00		99.9	70	128				
Surr: Toluene-d8	48.340		50.00		96.7	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: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

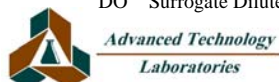
Sample ID: Q110822LCS1		SampType: LCS		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 136001		
Client ID: LCSW		Batch ID: Q11VW159		TestNo: EPA 8260B		Analysis Date: 8/22/2011		SeqNo: 2228571				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	18.720	0.50	20.00	0	93.6	70	130					
Benzene	38.700	0.50	40.00	0	96.8	70	130					
Chlorobenzene	20.260	0.50	20.00	0	101	70	130					
MTBE	21.010	0.50	20.00	0	105	70	130					
Toluene	40.750	0.50	40.00	0	102	70	130					
Trichloroethene	20.000	0.50	20.00	0	100	70	130					
Surr: 1,2-Dichloroethane-d4	22.860		25.00		91.4	70	130					
Surr: 4-Bromofluorobenzene	25.080		25.00		100	70	130					
Surr: Dibromofluoromethane	22.740		25.00		91.0	70	130					
Surr: Toluene-d8	23.560		25.00		94.2	70	130					

Sample ID: Q110822MB3MS		SampType: MS		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 136001		
Client ID: ZZZZZ		Batch ID: Q11VW159		TestNo: EPA 8260B		Analysis Date: 8/22/2011		SeqNo: 2228572				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	19.750	0.50	20.00	0	98.8	70	130					
Benzene	39.700	0.50	40.00	0	99.2	70	130					
Chlorobenzene	21.000	0.50	20.00	0	105	70	130					
MTBE	22.790	0.50	20.00	0	114	70	130					
Toluene	41.640	0.50	40.00	0	104	70	130					
Trichloroethene	20.770	0.50	20.00	0	104	70	130					
Surr: 1,2-Dichloroethane-d4	23.520		25.00		94.1	70	130					
Surr: 4-Bromofluorobenzene	25.040		25.00		100	70	130					
Surr: Dibromofluoromethane	23.420		25.00		93.7	70	130					
Surr: Toluene-d8	23.170		25.00		92.7	70	130					

Sample ID: Q110822MB3MSD		SampType: MSD		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 136001		
Client ID: ZZZZZ		Batch ID: Q11VW159		TestNo: EPA 8260B		Analysis Date: 8/22/2011		SeqNo: 2228573				
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: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

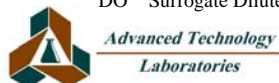
TestCode: 8260_WP_LL

Sample ID: Q110822MB3MSD	SampType: MSD	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 136001						
Client ID: ZZZZZZ	Batch ID: Q11VW159	TestNo: EPA 8260B		Analysis Date: 8/22/2011	SeqNo: 2228573						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18.510	0.50	20.00	0	92.6	70	130	19.75	6.48	20	
Benzene	38.930	0.50	40.00	0	97.3	70	130	39.70	1.96	20	
Chlorobenzene	20.840	0.50	20.00	0	104	70	130	21.00	0.765	20	
MTBE	22.640	0.50	20.00	0	113	70	130	22.79	0.660	20	
Toluene	40.900	0.50	40.00	0	102	70	130	41.64	1.79	20	
Trichloroethene	19.990	0.50	20.00	0	100	70	130	20.77	3.83	20	
Surr: 1,2-Dichloroethane-d4	22.670		25.00		90.7	70	130		0	0	
Surr: 4-Bromofluorobenzene	25.210		25.00		101	70	130		0	0	
Surr: Dibromofluoromethane	23.030		25.00		92.1	70	130		0	0	
Surr: Toluene-d8	23.040		25.00		92.2	70	130		0	0	

Sample ID: Q110822MB3	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 136001						
Client ID: PBW	Batch ID: Q11VW159	TestNo: EPA 8260B		Analysis Date: 8/22/2011	SeqNo: 2228574						
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: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: Q110822MB3	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 136001
Client ID: PBW	Batch ID: Q11VW159	TestNo: EPA 8260B		Analysis Date: 8/22/2011	SeqNo: 2228574

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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CLIENT: Mactec
Work Order: 119468
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: Q110822MB3	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 136001						
Client ID: PBW	Batch ID: Q11VW159	TestNo: EPA 8260B		Analysis Date: 8/22/2011	SeqNo: 2228574						
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	27.030		25.00		108	70	130				
Surr: 4-Bromofluorobenzene	25.880		25.00		104	70	130				
Surr: Dibromofluoromethane	25.900		25.00		104	70	130				
Surr: Toluene-d8	22.700		25.00		90.8	70	130				

Qualifiers:

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