


QC Batch No.: 110712GC3A1
 Matrix: Air
 Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank	LCS	LCSD					
Date Analyzed:	07/12/11	07/12/11	07/12/11					
Analyst Initials:	ZK	ZK	ZK					
Datafile:	12jul003	12jul001	12jul002					
Dilution Factor:	1.0	1.0	1.0					
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	103	70-130%	101	70-130%	2.0	<30

ND = Not Detected (Below RL)
 RL = Reporting Limit

Reviewed/Approved By: 
 Mark J. Johnson
 Operations Manager

Date: 7-20-12

The cover letter is an integral part of this analytical report.





Advanced Technology Laboratories

3275 Walnut Avenue, Signal Hill, CA 90755-5225
www.atlglobal.com
TEL: (562) 989-4045 FAX: (562) 989-4040

CHAIN-OF-CUSTODY RECORD

C071201-01

Page 1 of 1

QC Level: RTNE

Subcontractor:

Air Technology Laboratories
18501 E. Gale Ave, Suite 130
City of Industry, CA 91748

TEL: (626) 964-4032
FAX: (626) 964-5832
Acct #:

Field Sampler: Rachel Mills

11-Jul-11

Sample ID	Matrix	Date Collected	Bottle Type	Requested Tests	
				H2S	
118863-001B / M-114-25'	Soil Air Vapor	7/11/2011 10:00:00 AM	TEDLAR BAG	1	

General Comments: Please email sample receipt acknowledgement to the PM. *(RM)*
 Please use PO#: SC06550 Please fax results by: Normal TAT
 Analyze the sample for H2S by EPA 1516.
 Please send report to Rachelle Arada.

Relinquished by: <i>[Signature]</i>	Date/Time: 7/11/11	Received by: <i>[Signature]</i>	Date/Time: 7/12/11 1136
Relinquished by: <i>[Signature]</i>	Date/Time: 7/12/11 1236	Received by: <i>[Signature]</i>	Date/Time: 7/12/11 1236

G-3.9

MTA Westside Extension PE Phase

Vapor Sample Data

Location: M-122

July 27, 2011



Anthony Marino
MACTEC
2171 Campus Drive, Suite 100
Irvine, CA 92612
TEL: (949) 224-0050
FAX:

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
Workorder No.: 119037

RE: MTA Westside Extention, 4953101561 / 5.2

Attention: Anthony Marino

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

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

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

Sincerely,

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.



Advanced Technology Laboratories

Date: 27-Jul-11

CLIENT: MACTEC
Project: MTA Westside Extention, 4953101561 / 5.2
Lab Order: 119037

CASE NARRATIVE

The sample for EPA 1516 analysis was subcontracted to Air Technology Lab.



Advanced Technology Laboratories

ANALYTICAL RESULTS
Print Date: 02-Aug-11

CLIENT: MACTEC	Client Sample ID: M-122 probe at 40'
Lab Order: 119037	Collection Date: 7/20/2011 9:45:00 AM
Project: MTA Westside Extention, 4953101561 / 5.2	Matrix: AIR
Lab ID: 119037-001A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASES BY GAS CHROMATOGRAPHY

ASTM D1946

RunID: GC18_110720A	QC Batch: Z11A035	PrepDate:	Analyst: DMP	
Methane	ND	10 ppmv	1	7/20/2011 05:41 PM

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



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Laboratories*

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

CLIENT: MACTEC
Work Order: 119037
Project: MTA Westside Extention, 4953101561 / 5.2

ANALYTICAL QC SUMMARY REPORT

TestCode: D1946

Sample ID: MB-Z11A035	SampType: MBLK	TestCode: D1946	Units: ppmv	Prep Date:	RunNo: 135224						
Client ID: ZZZZZZ	Batch ID: Z11A035	TestNo: ASTM D1946		Analysis Date: 7/20/2011	SeqNo: 2213607						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane ND 10

Sample ID: LCS-Z11A035	SampType: LCS	TestCode: D1946	Units: ppmv	Prep Date:	RunNo: 135224						
Client ID: ZZZZZZ	Batch ID: Z11A035	TestNo: ASTM D1946		Analysis Date: 7/20/2011	SeqNo: 2213610						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

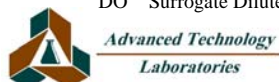
Methane 999.450 10 1000 0 99.9 70 130

Sample ID: LCSD-Z11A035	SampType: LCSD	TestCode: D1946	Units: ppmv	Prep Date:	RunNo: 135224						
Client ID: ZZZZZZ	Batch ID: Z11A035	TestNo: ASTM D1946		Analysis Date: 7/20/2011	SeqNo: 2213611						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane 1012.047 10 1000 0 101 70 130 999.4 1.25 20

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





August 3, 2011

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO-3,
TO14A, TO15 SIM & Scan,
ASTM D1946



FL Cert E8784/LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-09-TX
EPA Methods TO14A, TO15

LABORATORY TEST RESULTS

Project Reference: 119037
Lab Number: C072102-01

Enclosed are **revised** results for sample(s) received 7/21/11 by Air Technology Laboratories. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Report **revised** to correct the sample identification, per client's request.
- Sample analyses were performed within method performance criteria, and meet all requirements of the NELAC Standards.
- All results are reported without qualifications unless otherwise noted.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 119037
Date Received: 07/21/11
Matrix: Air
Reporting Units: ppmv

EPA 15/16							
Lab No.:	C072102-01						
Client Sample I.D.:	119037-001B / M-122 probe at 40'						
Date Sampled:	07/20/11						
Date Analyzed:	07/21/11						
QC Batch No.:	110721GC3A1						
Analyst Initials:	ZK						
Dilution Factor:	1.0						
ANALYTE	Result ppmv	RL ppmv					
Hydrogen Sulfide	ND	0.20					

ND = Not Detected (below RL)
 RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 8-3-11

The cover letter is an integral part of this analytical report




QC Batch No.: 110721GC3A1
 Matrix: Air
 Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank	LCS	LCSD					
Date Analyzed:	07/21/11	07/21/11	07/21/11					
Analyst Initials:	ZK	ZK	ZK					
Datafile:	21jul004	21jul001	21jul003					
Dilution Factor:	1.0	1.0	1.0					
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	119	70-130%	121	70-130%	1.8	<30

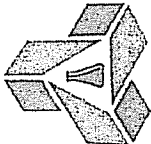
ND = Not Detected (Below RL)
 RL = Reporting Limit

Reviewed/Approved By: 
 Mark J. Johnson
 Operations Manager

Date: 8-3-11

The cover letter is an integral part of this analytical report





Advanced Technology Laboratories
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COTAID 2-01

CHAIN-OF-CUSTODY RECORD

QC Level: RTNE

Subcontractor:

Air Technology Laboratories
 18501 E. Gale Ave, Suite 130
 City of Industry, CA 91748

TEL: (626) 964-4032
 FAX: (626) 964-5832
 Acct #:

Field Sampler: ANTHONY MARINO

20-Jul-11

Sample ID	Matrix	Date Collected	Bottle Type	H2S	Requested Tests
119037-001B / W-172 / M-442 probe at 40'	Air	7/20/2011 9:45:00 AM	TEDLAR BAG	1	

0 1

General Comments: Please email sample receipt acknowledgement to the PM. (BY)
 Please use PO#: SC06569 Please fax results by: Normal TAT
 Please analyze sample for H2S by EPA 1516
 Please send report to Rachelle Arada

Relinquished by:	Date/Time	Received by:	Date/Time
	7/20/11 10:56		7/21/11 9:16
Relinquished by:		Received by:	

G-3.10

MTA Westside Extension PE Phase

Vapor Sample Data

Location: M-124 & M-108

July 22, 2011



Jay Neuhaus
MACTEC
2171 Campus Drive, Suite 100
Irvine, CA 92612
TEL: (949) 224-0050
FAX:

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
Workorder No.: 118907

RE: MTA Westside, 4953-10-1561

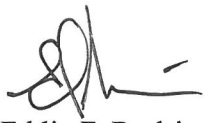
Attention: Jay Neuhaus

Enclosed are the results for sample(s) received on July 13, 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

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CLIENT: MACTEC
Project: MTA Westside, 4953-10-1561
Lab Order: 118907

CASE NARRATIVE

The sample for EPA 1516 analysis was subcontracted to Air Technology Lab.

Sample Receiving / General Comments

Sample received beyond holding time for SM4500-H+B (pH) analysis.

The following are the calculated results for Total Sulfide as Hydrogen Sulfide:

Lab ID/Sample ID	Results (mg/L)	PQL (mg/L)
118601-001F/M-124	0.026	0.01
118601-001L/M-124	ND	0.01

Analytical Comments for SM4500-S=D

Samples 118833-001F-MS and 118833-001F-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).

Analytical Comments for EPA 8270C

Sample 118907-001J, surrogate recovery biased low possibly due to matrix interferences.



Advanced Technology Laboratories

ANALYTICAL RESULTS
 Print Date: 22-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 9:15:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001A	

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

EPA 8260B

RunID: MS11_110714A	QC Batch: A11VW118	PrepDate:	Analyst: SLL
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,1,1-Trichloroethane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,1,2-Trichloroethane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,1-Dichloroethane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,1-Dichloroethene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,1-Dichloropropene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,2,3-Trichlorobenzene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,2,3-Trichloropropane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,2,4-Trichlorobenzene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,2,4-Trimethylbenzene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,2-Dibromo-3-chloropropane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,2-Dibromoethane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,2-Dichlorobenzene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,2-Dichloroethane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,2-Dichloropropane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,3,5-Trimethylbenzene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,3-Dichlorobenzene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,3-Dichloropropane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
1,4-Dichlorobenzene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
2,2-Dichloropropane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
2-Chlorotoluene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
4-Chlorotoluene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
4-Isopropyltoluene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
Benzene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
Bromobenzene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
Bromodichloromethane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
Bromoform	ND	0.50	µg/L 1 7/14/2011 04:14 PM
Bromomethane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
Carbon tetrachloride	ND	0.50	µg/L 1 7/14/2011 04:14 PM
Chlorobenzene	ND	0.50	µg/L 1 7/14/2011 04:14 PM
Chloroethane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
Chloroform	ND	0.50	µg/L 1 7/14/2011 04:14 PM
Chloromethane	ND	0.50	µg/L 1 7/14/2011 04:14 PM
cis-1,2-Dichloroethene	ND	0.50	µg/L 1 7/14/2011 04:14 PM

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



Advanced Technology
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Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 22-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 9:15:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001A	

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

EPA 8260B

RunID:	MS11_110714A	QC Batch:	A11VW118	PrepDate:	Analyst:	SLL
cis-1,3-Dichloropropene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Dibromochloromethane	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Dibromomethane	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Dichlorodifluoromethane	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Ethylbenzene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Hexachlorobutadiene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Isopropylbenzene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
m,p-Xylene	ND	1.0	µg/L	1	7/14/2011 04:14 PM	
Methylene chloride	ND	1.0	µg/L	1	7/14/2011 04:14 PM	
n-Butylbenzene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
n-Propylbenzene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Naphthalene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
o-Xylene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
sec-Butylbenzene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Styrene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
tert-Butylbenzene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Tetrachloroethene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Toluene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
trans-1,2-Dichloroethene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Trichloroethene	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Trichlorofluoromethane	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Vinyl chloride	ND	0.50	µg/L	1	7/14/2011 04:14 PM	
Hexane	ND	1.0	µg/L	1	7/14/2011 04:14 PM	
Surr: 1,2-Dichloroethane-d4	90.4	70-130	%REC	1	7/14/2011 04:14 PM	
Surr: 4-Bromofluorobenzene	97.8	70-130	%REC	1	7/14/2011 04:14 PM	
Surr: Dibromofluoromethane	90.5	70-130	%REC	1	7/14/2011 04:14 PM	
Surr: Toluene-d8	103	70-130	%REC	1	7/14/2011 04:14 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: 22-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 9:15:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001B	

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

EPA 8015B(M)

RunID: GC19_110714A	QC Batch: M11VW137	PrepDate:	Analyst: DDL		
GRO	0.71	0.050	mg/L	1	7/14/2011 01:21 PM
Surr: Bromofluorobenzene (FID)	89.1	70-130	%REC	1	7/14/2011 01:21 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: 22-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 9:15:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001C	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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DISSOLVED GASES IN WATER

RSK175

RunID: GC18_110721A	QC Batch: Z11A037	PrepDate:	Analyst: DMP	
Methane	ND	1.0 ug/L	1	7/21/2011 03:14 PM

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



*Advanced Technology
Laboratories*

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

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 22-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 9:30:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001D	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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ANIONS BY ION CHROMATOGRAPHY

EPA 300.0

RunID: IC3_110714A	QC Batch: R134965	PrepDate:	Analyst: PT
Chloride	160	25	mg/L
		50	7/14/2011 12:46 PM

ANIONS BY ION CHROMATOGRAPHY

EPA 300.0

RunID: IC3_110714A	QC Batch: R134965	PrepDate:	Analyst: PT
Nitrogen, Nitrate (As N)	2.7	0.20	mg/L
		2	7/14/2011 12:00 PM

ANIONS BY ION CHROMATOGRAPHY

EPA 300.0

RunID: IC3_110714A	QC Batch: R134965	PrepDate:	Analyst: PT
Sulfate	430	50	mg/L
		50	7/14/2011 12:46 PM

PH

SM4500-H+B

RunID: PH4_110713A	QC Batch: R135064	PrepDate:	Analyst: FD
pH	6.9	0.10	H pH Units
		1	7/13/2011

TOTAL FILTERABLE RESIDUE

SM2540C

RunID: WETCHEM_110715B	QC Batch: 74281	PrepDate: 7/14/2011	Analyst: PT
Total Dissolved Solids (Residue, Filterable)	1400	11	mg/L
		1	7/14/2011 04:30 PM

TOTAL NON-FILTERABLE RESIDUE

SM2540D

RunID: WETCHEM_110714A	QC Batch: 74266	PrepDate: 7/14/2011	Analyst: PT
Suspended Solids (Residue, Non-Filterable)	110	11	mg/L
		1	7/14/2011 04:30 PM

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



Advanced Technology
Laboratories

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

Advanced Technology Laboratories

ANALYTICAL RESULTS
 Print Date: 22-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 9:30:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001E	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP METALS

	EPA 3010A		EPA 6010B		
RunID: ICP8_110720B	QC Batch: 74390		PrepDate: 7/20/2011	Analyst: CBB	
Antimony	ND	0.0050	mg/L	1	7/20/2011 02:12 PM
Arsenic	ND	0.010	mg/L	1	7/20/2011 02:12 PM
Barium	0.059	0.0030	mg/L	1	7/20/2011 02:12 PM
Beryllium	ND	0.0030	mg/L	1	7/20/2011 02:12 PM
Cadmium	ND	0.0030	mg/L	1	7/20/2011 02:12 PM
Chromium	0.0092	0.0030	mg/L	1	7/20/2011 02:12 PM
Cobalt	ND	0.0030	mg/L	1	7/20/2011 02:12 PM
Copper	0.0063	0.0050	mg/L	1	7/20/2011 02:12 PM
Lead	ND	0.0050	mg/L	1	7/20/2011 02:12 PM
Molybdenum	0.0066	0.0050	mg/L	1	7/20/2011 02:12 PM
Nickel	0.0077	0.0050	mg/L	1	7/20/2011 02:12 PM
Selenium	ND	0.010	mg/L	1	7/20/2011 02:12 PM
Silver	ND	0.0030	mg/L	1	7/20/2011 02:12 PM
Thallium	ND	0.015	mg/L	1	7/20/2011 02:12 PM
Vanadium	0.012	0.0030	mg/L	1	7/20/2011 02:12 PM
Zinc	0.020	0.010	mg/L	1	7/20/2011 02:12 PM

MERCURY BY COLD VAPOR TECHNIQUE

	EPA 7470A				
RunID: AA1_110719A	QC Batch: 74308		PrepDate: 7/18/2011	Analyst: admin	
Mercury	ND	0.20	µg/L	1	7/19/2011 11:53 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-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 9:30:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001F	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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SULFIDE, TOTAL

SM4500-S= D

RunID: WETCHEM3_110714F	QC Batch: R134984	PrepDate:	Analyst: AAG
Sulfide	0.024	0.010 mg/L	1 7/14/2011

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-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 9:45:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001G	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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OIL & GREASE

EPA 1664 _HEM

RunID: WETCHEM2_110715C	QC Batch: 74277	PrepDate: 7/15/2011	Analyst: AAG
Oil & Grease	ND	4.0 mg/L	1
			7/15/2011

TOTAL PETROLEUM HYDROCARBONS

EPA 1664_SGT/HEM

RunID: WETCHEM2_110718B	QC Batch: 74332	PrepDate: 7/18/2011	Analyst: AAG
Total Petroleum Hydrocarbons	ND	2.0 mg/L	1
			7/18/2011

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
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	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS

Print Date: 22-Jul-11

CLIENT:	MACTEC	Client Sample ID:	M-124
Lab Order:	118907	Collection Date:	7/13/2011 9:50:00 AM
Project:	MTA Westside, 4953-10-1561	Matrix:	GROUNDWATER
Lab ID:	118907-001H		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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ORGANOCHLORINE PESTICIDES BY GC/ECD

EPA 3510C		EPA 8081A				
RunID: GC10_110719A	QC Batch: 74383	PrepDate: 7/19/2011	Analyst: HL			
4,4'-DDD	ND	0.050		µg/L	1	7/19/2011 06:18 PM
4,4'-DDE	ND	0.050		µg/L	1	7/19/2011 06:18 PM
4,4'-DDT	ND	0.050		µg/L	1	7/19/2011 06:18 PM
Aldrin	ND	0.025		µg/L	1	7/19/2011 06:18 PM
alpha-BHC	ND	0.025		µg/L	1	7/19/2011 06:18 PM
alpha-Chlordane	ND	0.025		µg/L	1	7/19/2011 06:18 PM
beta-BHC	ND	0.025		µg/L	1	7/19/2011 06:18 PM
Chlordane	ND	0.25		µg/L	1	7/19/2011 06:18 PM
delta-BHC	ND	0.025		µg/L	1	7/19/2011 06:18 PM
Dieldrin	ND	0.050		µg/L	1	7/19/2011 06:18 PM
Endosulfan I	ND	0.025		µg/L	1	7/19/2011 06:18 PM
Endosulfan II	ND	0.050		µg/L	1	7/19/2011 06:18 PM
Endosulfan sulfate	ND	0.050		µg/L	1	7/19/2011 06:18 PM
Endrin	ND	0.050		µg/L	1	7/19/2011 06:18 PM
Endrin aldehyde	ND	0.050		µg/L	1	7/19/2011 06:18 PM
Endrin ketone	ND	0.050		µg/L	1	7/19/2011 06:18 PM
gamma-BHC	ND	0.025		µg/L	1	7/19/2011 06:18 PM
gamma-Chlordane	ND	0.025		µg/L	1	7/19/2011 06:18 PM
Heptachlor	ND	0.025		µg/L	1	7/19/2011 06:18 PM
Heptachlor epoxide	ND	0.025		µg/L	1	7/19/2011 06:18 PM
Methoxychlor	ND	0.25		µg/L	1	7/19/2011 06:18 PM
Toxaphene	ND	2.5		µg/L	1	7/19/2011 06:18 PM
Surr: Decachlorobiphenyl	87.0	36-102		%REC	1	7/19/2011 06:18 PM
Surr: Tetrachloro-m-xylene	68.5	48-108		%REC	1	7/19/2011 06:18 PM

PCBS BY GC/ECD

EPA 3510C		EPA 8082				
RunID: GC4_110720A	QC Batch: 74383	PrepDate: 7/19/2011	Analyst: BB			
Aroclor 1016	ND	0.50		µg/L	1	7/20/2011 11:47 PM
Aroclor 1221	ND	1.0		µg/L	1	7/20/2011 11:47 PM
Aroclor 1232	ND	0.50		µg/L	1	7/20/2011 11:47 PM
Aroclor 1242	ND	0.50		µg/L	1	7/20/2011 11:47 PM
Aroclor 1248	ND	0.50		µg/L	1	7/20/2011 11:47 PM
Aroclor 1254	ND	0.50		µg/L	1	7/20/2011 11:47 PM
Aroclor 1260	ND	0.50		µg/L	1	7/20/2011 11:47 PM
Aroclor 1262	ND	0.50		µg/L	1	7/20/2011 11:47 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-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 9:50:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001H	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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PCBS BY GC/ECD

	EPA 3510C		EPA 8082			
RunID: GC4_110720A	QC Batch: 74383		PrepDate: 7/19/2011			Analyst: BB
Aroclor 1268	ND	0.50	µg/L	1		7/20/2011 11:47 PM
Surr: Decachlorobiphenyl	79.0	26-132	%REC	1		7/20/2011 11:47 PM
Surr: Tetrachloro-m-xylene	76.3	43-119	%REC	1		7/20/2011 11:47 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-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 9:50:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001I	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID						
	EPA 3510C		EPA 8015B(M)			
RunID: GC16_110719A	QC Batch: 74351				PrepDate: 7/19/2011	Analyst: CBR
DRO	ND	0.050		mg/L	1	7/19/2011 03:19 PM
ORO	ND	0.050		mg/L	1	7/19/2011 03:19 PM
Surr: p-Terphenyl	124	36-126		%REC	1	7/19/2011 03:19 PM

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
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	DO Surrogate Diluted Out	



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ANALYTICAL RESULTS

Print Date: 22-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 9:55:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001J	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
	EPA 3510C			EPA 8270C		
RunID: MS6_110721A	QC Batch: 74403			PrepDate: 7/20/2011		Analyst: JSD
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/21/2011 06:23 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	7/21/2011 06:23 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	7/21/2011 06:23 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	7/21/2011 06:23 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/21/2011 06:23 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/21/2011 06:23 PM
2,4-Dichlorophenol	ND	10		µg/L	1	7/21/2011 06:23 PM
2,4-Dimethylphenol	ND	10		µg/L	1	7/21/2011 06:23 PM
2,4-Dinitrophenol	ND	50		µg/L	1	7/21/2011 06:23 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	7/21/2011 06:23 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	7/21/2011 06:23 PM
2-Chloronaphthalene	ND	10		µg/L	1	7/21/2011 06:23 PM
2-Chlorophenol	ND	10		µg/L	1	7/21/2011 06:23 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/21/2011 06:23 PM
2-Methylphenol	ND	10		µg/L	1	7/21/2011 06:23 PM
2-Nitroaniline	ND	50		µg/L	1	7/21/2011 06:23 PM
2-Nitrophenol	ND	10		µg/L	1	7/21/2011 06:23 PM
3,3'-Dichlorobenzidine	ND	20		µg/L	1	7/21/2011 06:23 PM
3-Nitroaniline	ND	50		µg/L	1	7/21/2011 06:23 PM
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	7/21/2011 06:23 PM
4-Bromophenyl-phenylether	ND	10		µg/L	1	7/21/2011 06:23 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	7/21/2011 06:23 PM
4-Chloroaniline	ND	20		µg/L	1	7/21/2011 06:23 PM
4-Chlorophenyl-phenylether	ND	10		µg/L	1	7/21/2011 06:23 PM
4-Methylphenol	ND	10		µg/L	1	7/21/2011 06:23 PM
4-Nitroaniline	ND	20		µg/L	1	7/21/2011 06:23 PM
4-Nitrophenol	ND	50		µg/L	1	7/21/2011 06:23 PM
Acenaphthene	ND	10		µg/L	1	7/21/2011 06:23 PM
Acenaphthylene	ND	10		µg/L	1	7/21/2011 06:23 PM
Anthracene	ND	10		µg/L	1	7/21/2011 06:23 PM
Benzdine (M)	ND	50		µg/L	1	7/21/2011 06:23 PM
Benzo(a)anthracene	ND	10		µg/L	1	7/21/2011 06:23 PM
Benzo(a)pyrene	ND	10		µg/L	1	7/21/2011 06:23 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	7/21/2011 06:23 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/21/2011 06:23 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: 22-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 9:55:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001J	

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

EPA 3510C		EPA 8270C				
RunID: MS6_110721A	QC Batch: 74403	PrepDate: 7/20/2011	Analyst: JSD			
Benzo(k)fluoranthene	ND	10		µg/L	1	7/21/2011 06:23 PM
Benzoic acid	ND	50		µg/L	1	7/21/2011 06:23 PM
Benzyl alcohol	ND	20		µg/L	1	7/21/2011 06:23 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/21/2011 06:23 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/21/2011 06:23 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/21/2011 06:23 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/21/2011 06:23 PM
Butylbenzylphthalate	ND	10		µg/L	1	7/21/2011 06:23 PM
Chrysene	ND	10		µg/L	1	7/21/2011 06:23 PM
Di-n-butylphthalate	ND	10		µg/L	1	7/21/2011 06:23 PM
Di-n-octylphthalate	ND	10		µg/L	1	7/21/2011 06:23 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/21/2011 06:23 PM
Dibenzofuran	ND	10		µg/L	1	7/21/2011 06:23 PM
Diethylphthalate	ND	10		µg/L	1	7/21/2011 06:23 PM
Dimethylphthalate	ND	10		µg/L	1	7/21/2011 06:23 PM
Fluoranthene	ND	10		µg/L	1	7/21/2011 06:23 PM
Fluorene	ND	10		µg/L	1	7/21/2011 06:23 PM
Hexachlorobenzene	ND	10		µg/L	1	7/21/2011 06:23 PM
Hexachlorobutadiene	ND	20		µg/L	1	7/21/2011 06:23 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/21/2011 06:23 PM
Hexachloroethane	ND	10		µg/L	1	7/21/2011 06:23 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/21/2011 06:23 PM
Isophorone	ND	10		µg/L	1	7/21/2011 06:23 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/21/2011 06:23 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/21/2011 06:23 PM
Naphthalene	ND	10		µg/L	1	7/21/2011 06:23 PM
Nitrobenzene	ND	10		µg/L	1	7/21/2011 06:23 PM
Pentachlorophenol	ND	50		µg/L	1	7/21/2011 06:23 PM
Phenanthrene	ND	10		µg/L	1	7/21/2011 06:23 PM
Phenol	ND	10		µg/L	1	7/21/2011 06:23 PM
Pyrene	ND	10		µg/L	1	7/21/2011 06:23 PM
Surr: 1,2-Dichlorobenzene-d4	45.2	46-97	S	%REC	1	7/21/2011 06:23 PM
Surr: 2,4,6-Tribromophenol	60.4	59-124		%REC	1	7/21/2011 06:23 PM
Surr: 2-Chlorophenol-d4	41.5	49-93	S	%REC	1	7/21/2011 06:23 PM
Surr: 2-Fluorobiphenyl	50.8	57-107	S	%REC	1	7/21/2011 06:23 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: 22-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 9:55:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001J	

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

	EPA 3510C		EPA 8270C		
RunID: MS6_110721A	QC Batch: 74403		PrepDate: 7/20/2011	Analyst: JSD	
Surr: 2-Fluorophenol	27.8	27-60	%REC	1	7/21/2011 06:23 PM
Surr: 4-Terphenyl-d14	73.3	69-132	%REC	1	7/21/2011 06:23 PM
Surr: Nitrobenzene-d5	53.2	52-107	%REC	1	7/21/2011 06:23 PM
Surr: Phenol-d5	20.5	15-50	%REC	1	7/21/2011 06:23 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: 22-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 10:30:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001K	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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DISSOLVED GASES IN WATER

RSK175

RunID: GC18_110721A	QC Batch: Z11A037	PrepDate:	Analyst: DMP
Carbon dioxide	24000	2000	ug/L 10 7/21/2011 03:01 PM
Ethane	ND	2.0	ug/L 1 7/21/2011 02:48 PM
Ethylene	ND	3.0	ug/L 1 7/21/2011 02:48 PM
Methane	ND	1.0	ug/L 1 7/21/2011 02:48 PM

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



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ANALYTICAL RESULTS
 Print Date: 22-Jul-11

CLIENT: MACTEC	Client Sample ID: M-124
Lab Order: 118907	Collection Date: 7/13/2011 10:30:00 AM
Project: MTA Westside, 4953-10-1561	Matrix: GROUNDWATER
Lab ID: 118907-001L	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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SULFIDE, TOTAL

SM4500-S= D

RunID: WETCHEM3_110714F	QC Batch: R134984	PrepDate:	Analyst: AAG
Sulfide	ND	0.010 mg/L	1
			7/14/2011

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: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 150.1_4500H+B_W

Sample ID: 118907-001DDUP	SampType: DUP	TestCode: 150.1_4500H+	Units: pH Units	Prep Date:	RunNo: 135064						
Client ID: M-124	Batch ID: R135064	TestNo: SM4500-H+B	Analysis Date: 7/13/2011	SeqNo: 2210633							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	6.900	0.10						6.890	0.145	10	H

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: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.1_2540C_W

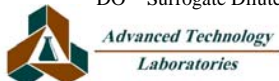
Sample ID: 118926-001A-DUP	SampType: DUP	TestCode: 160.1_2540C_ Units: mg/L	Prep Date: 7/14/2011	RunNo: 135002							
Client ID: ZZZZZZ	Batch ID: 74281	TestNo: SM2540C	Analysis Date: 7/14/2011	SeqNo: 2209289							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera		35720.000	100					35140	1.64	10	

Sample ID: LCS-74281	SampType: LCS	TestCode: 160.1_2540C_ Units: mg/L	Prep Date: 7/14/2011	RunNo: 135002							
Client ID: LCSW	Batch ID: 74281	TestNo: SM2540C	Analysis Date: 7/14/2011	SeqNo: 2209290							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera		997.000	10	970.0	0	103	80	120			

Sample ID: MB-74281	SampType: MBLK	TestCode: 160.1_2540C_ Units: mg/L	Prep Date: 7/14/2011	RunNo: 135002							
Client ID: PBW	Batch ID: 74281	TestNo: SM2540C	Analysis Date: 7/14/2011	SeqNo: 2209291							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera		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: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.2_2540D_W

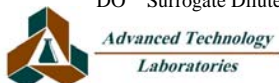
Sample ID: 118926-001A-DUP	SampType: DUP	TestCode: 160.2_2540D_	Units: mg/L	Prep Date: 7/14/2011	RunNo: 134986						
Client ID: ZZZZZZ	Batch ID: 74266	TestNo: SM2540D	Analysis Date: 7/14/2011	SeqNo: 2208908							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter)	ND	100						0	0	10	

Sample ID: LCS-74266	SampType: LCS	TestCode: 160.2_2540D_	Units: mg/L	Prep Date: 7/14/2011	RunNo: 134986						
Client ID: LCSW	Batch ID: 74266	TestNo: SM2540D	Analysis Date: 7/14/2011	SeqNo: 2208909							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter)	96.000	10	96.60	0	99.4	80	120				

Sample ID: MB-74266	SampType: MBLK	TestCode: 160.2_2540D_	Units: mg/L	Prep Date: 7/14/2011	RunNo: 134986						
Client ID: PBW	Batch ID: 74266	TestNo: SM2540D	Analysis Date: 7/14/2011	SeqNo: 2208910							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter)	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: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 1664_SGT/HEM_W

Sample ID: LCS-R135033	SampType: LCS	TestCode: 1664_SGT/HE	Units: mg/L	Prep Date: 7/18/2011	RunNo: 135033						
Client ID: LCSW	Batch ID: 74332	TestNo: EPA 1664_SG		Analysis Date: 7/18/2011	SeqNo: 2209875						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons	18.300	2.0	20.00	0	91.5	78	114				
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Sample ID: MB-R135033	SampType: MBLK	TestCode: 1664_SGT/HE	Units: mg/L	Prep Date: 7/18/2011	RunNo: 135033						
Client ID: PBW	Batch ID: 74332	TestNo: EPA 1664_SG		Analysis Date: 7/18/2011	SeqNo: 2209876						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons	ND	2.0									
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Sample ID: MBLK-R135033MS	SampType: MS	TestCode: 1664_SGT/HE	Units: mg/L	Prep Date: 7/18/2011	RunNo: 135033						
Client ID: ZZZZZ	Batch ID: 74332	TestNo: EPA 1664_SG		Analysis Date: 7/18/2011	SeqNo: 2209877						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

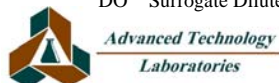
Total Petroleum Hydrocarbons	18.700	2.0	20.00	0	93.5	78	114				
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Sample ID: MBLK-R135033MSD	SampType: MSD	TestCode: 1664_SGT/HE	Units: mg/L	Prep Date: 7/18/2011	RunNo: 135033						
Client ID: ZZZZZ	Batch ID: 74332	TestNo: EPA 1664_SG		Analysis Date: 7/18/2011	SeqNo: 2209878						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons	18.300	2.0	20.00	0	91.5	78	114	18.70	2.16	20	
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Qualifiers:

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|---|--|--|
| 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: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_CL

Sample ID: MB-R134965	SampType: MBLK	TestCode: 300_W_CL	Units: mg/L	Prep Date:	RunNo: 134965						
Client ID: PBW	Batch ID: R134965	TestNo: EPA 300.0		Analysis Date: 7/14/2011	SeqNo: 2208599						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	ND	0.50									
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Sample ID: LCS-R134965	SampType: LCS	TestCode: 300_W_CL	Units: mg/L	Prep Date:	RunNo: 134965						
Client ID: LCSW	Batch ID: R134965	TestNo: EPA 300.0		Analysis Date: 7/14/2011	SeqNo: 2208600						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	1.011	0.50	1.000	0	101	90	110				
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Sample ID: 118907-001D-DUP	SampType: DUP	TestCode: 300_W_CL	Units: mg/L	Prep Date:	RunNo: 134965						
Client ID: M-124	Batch ID: R134965	TestNo: EPA 300.0		Analysis Date: 7/14/2011	SeqNo: 2208603						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	161.415	25						158.0	2.16	20	
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Sample ID: 118907-001D-MS	SampType: MS	TestCode: 300_W_CL	Units: mg/L	Prep Date:	RunNo: 134965						
Client ID: M-124	Batch ID: R134965	TestNo: EPA 300.0		Analysis Date: 7/14/2011	SeqNo: 2208604						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

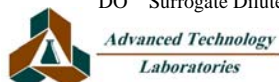
Chloride	276.170	25	125.0	158.0	94.6	80	120				
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Sample ID: 118907-001D-MSD	SampType: MSD	TestCode: 300_W_CL	Units: mg/L	Prep Date:	RunNo: 134965						
Client ID: M-124	Batch ID: R134965	TestNo: EPA 300.0		Analysis Date: 7/14/2011	SeqNo: 2208605						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	284.715	25	125.0	158.0	101	80	120	276.2	3.05	20	
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Qualifiers:

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|---|--|--|
| 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: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4

Sample ID: MB-R134965	SampType: MBLK	TestCode: 300_W_SO4	Units: mg/L	Prep Date:	RunNo: 134965						
Client ID: PBW	Batch ID: R134965	TestNo: EPA 300.0		Analysis Date: 7/14/2011	SeqNo: 2208614						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate	ND	1.0									
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Sample ID: LCS-R134965	SampType: LCS	TestCode: 300_W_SO4	Units: mg/L	Prep Date:	RunNo: 134965						
Client ID: LCSW	Batch ID: R134965	TestNo: EPA 300.0		Analysis Date: 7/14/2011	SeqNo: 2208615						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate	1.849	1.0	2.000	0	92.4	90	110				
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Sample ID: 118907-001D-DUP	SampType: DUP	TestCode: 300_W_SO4	Units: mg/L	Prep Date:	RunNo: 134965						
Client ID: M-124	Batch ID: R134965	TestNo: EPA 300.0		Analysis Date: 7/14/2011	SeqNo: 2208617						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate	428.580	50						427.3	0.290	20	
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Sample ID: 118907-001D-MS	SampType: MS	TestCode: 300_W_SO4	Units: mg/L	Prep Date:	RunNo: 134965						
Client ID: M-124	Batch ID: R134965	TestNo: EPA 300.0		Analysis Date: 7/14/2011	SeqNo: 2208618						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

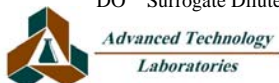
Sulfate	689.710	50	250.0	427.3	105	80	120				
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Sample ID: 118907-001D-MSD	SampType: MSD	TestCode: 300_W_SO4	Units: mg/L	Prep Date:	RunNo: 134965						
Client ID: M-124	Batch ID: R134965	TestNo: EPA 300.0		Analysis Date: 7/14/2011	SeqNo: 2208619						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate	712.395	50	250.0	427.3	114	80	120	689.7	3.24	20	
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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: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 376.2_4500S2_WT

Sample ID: 118833-001F-MS	SampType: MS	TestCode: 376.2_4500S2	Units: mg/L	Prep Date:	RunNo: 134984						
Client ID: ZZZZZZ	Batch ID: R134984	TestNo: SM4500-S= D	Analysis Date: 7/14/2011	SeqNo: 2208876							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	ND	0.010	0.1000	0	0	70	120				S

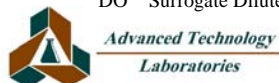
Sample ID: 118833-001F-MSD	SampType: MSD	TestCode: 376.2_4500S2	Units: mg/L	Prep Date:	RunNo: 134984						
Client ID: ZZZZZZ	Batch ID: R134984	TestNo: SM4500-S= D	Analysis Date: 7/14/2011	SeqNo: 2208877							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	ND	0.010	0.1000	0	0	70	120	0	0	20	S

Sample ID: LCS-R134984	SampType: LCS	TestCode: 376.2_4500S2	Units: mg/L	Prep Date:	RunNo: 134984						
Client ID: LCSW	Batch ID: R134984	TestNo: SM4500-S= D	Analysis Date: 7/14/2011	SeqNo: 2208880							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	0.107	0.010	0.1000	0	107	80	120				

Sample ID: MB-R134984	SampType: MBLK	TestCode: 376.2_4500S2	Units: mg/L	Prep Date:	RunNo: 134984						
Client ID: PBW	Batch ID: R134984	TestNo: SM4500-S= D	Analysis Date: 7/14/2011	SeqNo: 2208881							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	ND	0.010									

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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CLIENT: MACTEC
Work Order: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

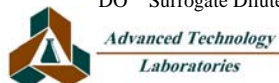
TestCode: 6010_W

Sample ID: MB-74390		SampType: MBLK		TestCode: 6010_W		Units: mg/L		Prep Date: 7/20/2011		RunNo: 135162	
Client ID: PBW		Batch ID: 74390		TestNo: EPA 6010B EPA 3010A				Analysis Date: 7/20/2011		SeqNo: 2212560	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.0050									
Arsenic	ND	0.010									
Barium	ND	0.0030									
Beryllium	ND	0.0030									
Cadmium	ND	0.0030									
Chromium	ND	0.0030									
Cobalt	ND	0.0030									
Copper	ND	0.0050									
Lead	ND	0.0050									
Molybdenum	ND	0.0050									
Nickel	ND	0.0050									
Selenium	ND	0.010									
Silver	ND	0.0030									
Thallium	ND	0.015									
Vanadium	ND	0.0030									
Zinc	0.006	0.010									

Sample ID: LCS-74390		SampType: LCS		TestCode: 6010_W		Units: mg/L		Prep Date: 7/20/2011		RunNo: 135162	
Client ID: LCSW		Batch ID: 74390		TestNo: EPA 6010B EPA 3010A				Analysis Date: 7/20/2011		SeqNo: 2212561	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	1.062	0.0050	1.000	0	106	85	115				
Arsenic	1.051	0.010	1.000	0	105	85	115				
Barium	1.053	0.0030	1.000	0	105	85	115				
Beryllium	1.042	0.0030	1.000	0	104	85	115				
Cadmium	1.043	0.0030	1.000	0	104	85	115				
Chromium	0.959	0.0030	1.000	0	95.9	85	115				
Cobalt	1.059	0.0030	1.000	0	106	85	115				
Copper	1.036	0.0050	1.000	0	104	85	115				
Lead	1.065	0.0050	1.000	0	106	85	115				

Qualifiers:

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



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CLIENT: MACTEC
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Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

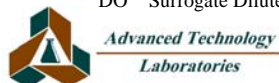
TestCode: 6010_W

Sample ID: LCS-74390	SampType: LCS	TestCode: 6010_W	Units: mg/L	Prep Date: 7/20/2011	RunNo: 135162						
Client ID: LCSW	Batch ID: 74390	TestNo: EPA 6010B	EPA 3010A	Analysis Date: 7/20/2011	SeqNo: 2212561						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	1.081	0.0050	1.000	0	108	85	115				
Nickel	1.017	0.0050	1.000	0	102	85	115				
Selenium	1.023	0.010	1.000	0	102	85	115				
Silver	1.034	0.0030	1.000	0	103	85	115				
Thallium	1.024	0.015	1.000	0	102	85	115				
Vanadium	1.026	0.0030	1.000	0	103	85	115				
Zinc	1.086	0.010	1.000	0.006165	108	85	115				

Sample ID: 118907-001E-MS	SampType: MS	TestCode: 6010_W	Units: mg/L	Prep Date: 7/20/2011	RunNo: 135162						
Client ID: M-124	Batch ID: 74390	TestNo: EPA 6010B	EPA 3010A	Analysis Date: 7/20/2011	SeqNo: 2212563						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	2.452	0.0050	2.500	0	98.1	73	128				
Arsenic	2.407	0.010	2.500	0	96.3	79	121				
Barium	2.356	0.0030	2.500	0.05918	91.9	82	118				
Beryllium	2.310	0.0030	2.500	0	92.4	84	119				
Cadmium	2.234	0.0030	2.500	0	89.4	79	117				
Chromium	2.137	0.0030	2.500	0.009219	85.1	78	115				
Cobalt	2.211	0.0030	2.500	0	88.4	80	118				
Copper	2.349	0.0050	2.500	0.006338	93.7	81	127				
Lead	2.241	0.0050	2.500	0	89.7	80	118				
Molybdenum	2.328	0.0050	2.500	0.006625	92.9	81	118				
Nickel	2.145	0.0050	2.500	0.007704	85.5	78	120				
Selenium	2.355	0.010	2.500	0	94.2	78	120				
Silver	2.385	0.0030	2.500	0	95.4	79	125				
Thallium	2.257	0.015	2.500	0	90.3	74	115				
Vanadium	2.345	0.0030	2.500	0.01215	93.3	84	119				
Zinc	2.289	0.010	2.500	0.01987	90.8	75	122				

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
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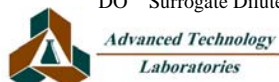
ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_W

Sample ID: 118907-001E-MSD	SampType: MSD	TestCode: 6010_W	Units: mg/L	Prep Date: 7/20/2011	RunNo: 135162						
Client ID: M-124	Batch ID: 74390	TestNo: EPA 6010B	EPA 3010A	Analysis Date: 7/20/2011	SeqNo: 2212564						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	2.448	0.0050	2.500	0	97.9	73	128	2.452	0.128	20	
Arsenic	2.402	0.010	2.500	0	96.1	79	121	2.407	0.207	20	
Barium	2.347	0.0030	2.500	0.05918	91.5	82	118	2.356	0.406	20	
Beryllium	2.288	0.0030	2.500	0	91.5	84	119	2.310	0.947	20	
Cadmium	2.230	0.0030	2.500	0	89.2	79	117	2.234	0.177	20	
Chromium	2.135	0.0030	2.500	0.009219	85.0	78	115	2.137	0.105	20	
Cobalt	2.206	0.0030	2.500	0	88.2	80	118	2.211	0.238	20	
Copper	2.343	0.0050	2.500	0.006338	93.4	81	127	2.349	0.281	20	
Lead	2.242	0.0050	2.500	0	89.7	80	118	2.241	0.0181	20	
Molybdenum	2.325	0.0050	2.500	0.006625	92.7	81	118	2.328	0.154	20	
Nickel	2.149	0.0050	2.500	0.007704	85.7	78	120	2.145	0.187	20	
Selenium	2.341	0.010	2.500	0	93.6	78	120	2.355	0.626	20	
Silver	2.378	0.0030	2.500	0	95.1	79	125	2.385	0.298	20	
Thallium	2.249	0.015	2.500	0	90.0	74	115	2.257	0.329	20	
Vanadium	2.340	0.0030	2.500	0.01215	93.1	84	119	2.345	0.233	20	
Zinc	2.295	0.010	2.500	0.01987	91.0	75	122	2.289	0.250	20	

Qualifiers:

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



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CLIENT: MACTEC
Work Order: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 7470_W

Sample ID: MB-74308	SampType: MBLK	TestCode: 7470_W	Units: µg/L	Prep Date: 7/18/2011	RunNo: 135069						
Client ID: PBW	Batch ID: 74308	TestNo: EPA 7470A		Analysis Date: 7/19/2011	SeqNo: 2210656						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.20

Sample ID: LCS-74308	SampType: LCS	TestCode: 7470_W	Units: µg/L	Prep Date: 7/18/2011	RunNo: 135069						
Client ID: LCSW	Batch ID: 74308	TestNo: EPA 7470A		Analysis Date: 7/19/2011	SeqNo: 2210657						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 9.755 0.20 10.00 0 97.5 85 115

Sample ID: 118974-017B-MS	SampType: MS	TestCode: 7470_W	Units: µg/L	Prep Date: 7/18/2011	RunNo: 135069						
Client ID: ZZZZZZ	Batch ID: 74308	TestNo: EPA 7470A		Analysis Date: 7/19/2011	SeqNo: 2210658						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

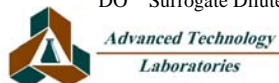
Mercury 9.769 0.20 10.00 0.04319 97.3 70 130

Sample ID: 118974-017B-MSD	SampType: MSD	TestCode: 7470_W	Units: µg/L	Prep Date: 7/18/2011	RunNo: 135069						
Client ID: ZZZZZZ	Batch ID: 74308	TestNo: EPA 7470A		Analysis Date: 7/19/2011	SeqNo: 2210659						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 9.701 0.20 10.00 0.04319 96.6 70 130 9.769 0.701 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: 118907
 Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_DM_LL

Sample ID: MB-74351	SampType: MBLK	TestCode: 8015_W_DM_ Units: mg/L	Prep Date: 7/19/2011	RunNo: 135094							
Client ID: PBW	Batch ID: 74351	TestNo: EPA 8015B(M EPA 3510C	Analysis Date: 7/19/2011	SeqNo: 2211038							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	ND	0.050									
ORO	ND	0.050									
Surr: p-Terphenyl	0.065		0.08000		81.7	36	126				

Sample ID: LCS-74351	SampType: LCS	TestCode: 8015_W_DM_ Units: mg/L	Prep Date: 7/19/2011	RunNo: 135094							
Client ID: LCSW	Batch ID: 74351	TestNo: EPA 8015B(M EPA 3510C	Analysis Date: 7/19/2011	SeqNo: 2211039							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.814	0.050	1.000	0	81.4	52	128				
Surr: p-Terphenyl	0.070		0.08000		87.8	36	126				

Sample ID: MB-74351MS	SampType: MS	TestCode: 8015_W_DM_ Units: mg/L	Prep Date: 7/19/2011	RunNo: 135094							
Client ID: ZZZZZ	Batch ID: 74351	TestNo: EPA 8015B(M EPA 3510C	Analysis Date: 7/19/2011	SeqNo: 2211040							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

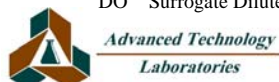
DRO	0.782	0.050	1.000	0	78.2	52	128				
Surr: p-Terphenyl	0.065		0.08000		81.8	36	126				

Sample ID: MB-74351MSD	SampType: MSD	TestCode: 8015_W_DM_ Units: mg/L	Prep Date: 7/19/2011	RunNo: 135094							
Client ID: ZZZZZ	Batch ID: 74351	TestNo: EPA 8015B(M EPA 3510C	Analysis Date: 7/19/2011	SeqNo: 2211041							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.841	0.050	1.000	0	84.1	52	128	0.7817	7.33	20	
Surr: p-Terphenyl	0.075		0.08000		93.8	36	126		0	0	

Qualifiers:

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



CLIENT: MACTEC
Work Order: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_GP LL

Sample ID: M110714LCS2		SampType: LCS		TestCode: 8015_W_GP		Units: mg/L		Prep Date:		RunNo: 134992		
Client ID: LCSW		Batch ID: M11VW137		TestNo: EPA 8015B(M)		Analysis Date: 7/14/2011		SeqNo: 2209126				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	1.018	0.050	1.000	0	102	70	130					
Surr: Bromofluorobenzene (FID)	91.901		100.0		91.9	70	130					

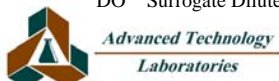
Sample ID: M110714MB1MS		SampType: MS		TestCode: 8015_W_GP		Units: mg/L		Prep Date:		RunNo: 134992		
Client ID: ZZZZZZ		Batch ID: M11VW137		TestNo: EPA 8015B(M)		Analysis Date: 7/14/2011		SeqNo: 2209128				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	1.054	0.050	1.000	0	105	70	130					
Surr: Bromofluorobenzene (FID)	91.662		100.0		91.7	70	130					

Sample ID: M110714MB1MSD		SampType: MSD		TestCode: 8015_W_GP		Units: mg/L		Prep Date:		RunNo: 134992		
Client ID: ZZZZZZ		Batch ID: M11VW137		TestNo: EPA 8015B(M)		Analysis Date: 7/14/2011		SeqNo: 2209129				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	1.038	0.050	1.000	0	104	70	130	1.054	1.53	20		
Surr: Bromofluorobenzene (FID)	91.776		100.0		91.8	70	130		0	0		

Sample ID: M110714MB1		SampType: MBLK		TestCode: 8015_W_GP		Units: mg/L		Prep Date:		RunNo: 134992		
Client ID: PBW		Batch ID: M11VW137		TestNo: EPA 8015B(M)		Analysis Date: 7/14/2011		SeqNo: 2209130				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	ND	0.050										
Surr: Bromofluorobenzene (FID)	87.905		100.0		87.9	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: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

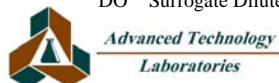
TestCode: 8081_W

Sample ID: MB-74383	SampType: MBLK	TestCode: 8081_W	Units: µg/L	Prep Date: 7/19/2011	RunNo: 135112						
Client ID: PBW	Batch ID: 74383	TestNo: EPA 8081A	EPA 3510C	Analysis Date: 7/19/2011	SeqNo: 2211510						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	0.050									
4,4'-DDE	ND	0.050									
4,4'-DDT	ND	0.050									
Aldrin	ND	0.025									
alpha-BHC	ND	0.025									
alpha-Chlordane	ND	0.025									
beta-BHC	ND	0.025									
Chlordane	ND	0.25									
delta-BHC	ND	0.025									
Dieldrin	ND	0.050									
Endosulfan I	ND	0.025									
Endosulfan II	ND	0.050									
Endosulfan sulfate	ND	0.050									
Endrin	ND	0.050									
Endrin aldehyde	ND	0.050									
Endrin ketone	ND	0.050									
gamma-BHC	ND	0.025									
gamma-Chlordane	ND	0.025									
Heptachlor	ND	0.025									
Heptachlor epoxide	ND	0.025									
Methoxychlor	ND	0.25									
Toxaphene	ND	2.5									
Surr: Tetrachloro-m-xylene	0.373		0.5000		74.5	48	108				
Surr: Decachlorobiphenyl	0.395		0.5000		79.0	36	102				

Sample ID: LCS-74383	SampType: LCS	TestCode: 8081_W	Units: µg/L	Prep Date: 7/19/2011	RunNo: 135112						
Client ID: LCSW	Batch ID: 74383	TestNo: EPA 8081A	EPA 3510C	Analysis Date: 7/19/2011	SeqNo: 2211511						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aldrin	0.409	0.025	0.5000	0	81.7	59	108				

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 | |



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CLIENT: MACTEC
Work Order: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_W

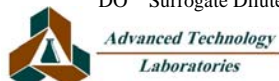
Sample ID: LCS-74383		SampType: LCS		TestCode: 8081_W		Units: µg/L		Prep Date: 7/19/2011		RunNo: 135112		
Client ID: LCSW		Batch ID: 74383		TestNo: EPA 8081A		EPA 3510C		Analysis Date: 7/19/2011		SeqNo: 2211511		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Dieldrin	0.432	0.050	0.5000	0	86.4	54	117					
Endrin	0.433	0.050	0.5000	0	86.6	50	122					
gamma-BHC	0.419	0.025	0.5000	0	83.7	60	112					
Heptachlor	0.412	0.025	0.5000	0	82.5	54	124					
Surr: Tetrachloro-m-xylene	0.396		0.5000		79.1	48	108					
Surr: Decachlorobiphenyl	0.419		0.5000		83.8	36	102					

Sample ID: MB-74383MS		SampType: MS		TestCode: 8081_W		Units: µg/L		Prep Date: 7/19/2011		RunNo: 135112		
Client ID: ZZZZZ		Batch ID: 74383		TestNo: EPA 8081A		EPA 3510C		Analysis Date: 7/19/2011		SeqNo: 2211512		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
4,4'-DDT	0.437	0.050	0.5000	0	87.3	41	135					
Aldrin	0.409	0.025	0.5000	0	81.7	59	108					
Dieldrin	0.432	0.050	0.5000	0	86.5	54	117					
Endrin	0.433	0.050	0.5000	0	86.5	50	122					
gamma-BHC	0.419	0.025	0.5000	0	83.8	60	112					
Heptachlor	0.411	0.025	0.5000	0	82.2	54	124					
Surr: Tetrachloro-m-xylene	0.397		0.5000		79.4	48	108					
Surr: Decachlorobiphenyl	0.419		0.5000		83.8	36	102					

Sample ID: MB-74383MSD		SampType: MSD		TestCode: 8081_W		Units: µg/L		Prep Date: 7/19/2011		RunNo: 135112		
Client ID: ZZZZZ		Batch ID: 74383		TestNo: EPA 8081A		EPA 3510C		Analysis Date: 7/19/2011		SeqNo: 2211513		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
4,4'-DDT	0.430	0.050	0.5000	0	86.0	41	135	0.4367	1.60	20		
Aldrin	0.403	0.025	0.5000	0	80.5	59	108	0.4086	1.50	20		
Dieldrin	0.425	0.050	0.5000	0	85.0	54	117	0.4323	1.73	20		
Endrin	0.425	0.050	0.5000	0	85.0	50	122	0.4326	1.73	20		
gamma-BHC	0.413	0.025	0.5000	0	82.6	60	112	0.4192	1.53	20		
Heptachlor	0.406	0.025	0.5000	0	81.2	54	124	0.4108	1.18	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: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_W

Sample ID: MB-74383MSD	SampType: MSD	TestCode: 8081_W	Units: µg/L	Prep Date: 7/19/2011	RunNo: 135112						
Client ID: ZZZZZZ	Batch ID: 74383	TestNo: EPA 8081A	EPA 3510C	Analysis Date: 7/19/2011	SeqNo: 2211513						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Tetrachloro-m-xylene	0.391		0.5000		78.1	48	108		0	0	
Surr: Decachlorobiphenyl	0.418		0.5000		83.6	36	102		0	0	

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: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8082_W

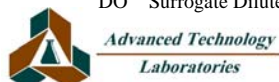
Sample ID: MB-74383		SampType: MBLK		TestCode: 8082_W		Units: µg/L		Prep Date: 7/19/2011		RunNo: 135163	
Client ID: PBW		Batch ID: 74383		TestNo: EPA 8082		EPA 3510C		Analysis Date: 7/20/2011		SeqNo: 2212567	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.50									
Aroclor 1221	ND	1.0									
Aroclor 1232	ND	0.50									
Aroclor 1242	ND	0.50									
Aroclor 1248	ND	0.50									
Aroclor 1254	ND	0.50									
Aroclor 1260	ND	0.50									
Aroclor 1262	ND	0.50									
Aroclor 1268	ND	0.50									
Surr: Decachlorobiphenyl	0.405		0.5000		81.0	26	132				
Surr: Tetrachloro-m-xylene	0.454		0.5000		90.8	43	119				

Sample ID: LCSA-74383		SampType: LCS		TestCode: 8082_W		Units: µg/L		Prep Date: 7/19/2011		RunNo: 135163	
Client ID: LCSW		Batch ID: 74383		TestNo: EPA 8082		EPA 3510C		Analysis Date: 7/20/2011		SeqNo: 2212568	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	4.126	0.50	5.000	0	82.5	53	115				
Aroclor 1260	4.424	0.50	5.000	0	88.5	52	125				
Surr: Decachlorobiphenyl	0.368		0.5000		73.6	26	132				
Surr: Tetrachloro-m-xylene	0.421		0.5000		84.2	43	119				

Sample ID: MB-74383MSA		SampType: MS		TestCode: 8082_W		Units: µg/L		Prep Date: 7/19/2011		RunNo: 135163	
Client ID: ZZZZZZ		Batch ID: 74383		TestNo: EPA 8082		EPA 3510C		Analysis Date: 7/20/2011		SeqNo: 2212569	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	4.099	0.50	5.000	0	82.0	54	97				
Aroclor 1260	4.370	0.50	5.000	0	87.4	56	103				
Surr: Decachlorobiphenyl	0.365		0.5000		72.9	52	125				
Surr: Tetrachloro-m-xylene	0.417		0.5000		83.3	53	115				

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: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8082_W

Sample ID: MB-74383MSDA	SampType: MSD	TestCode: 8082_W	Units: µg/L	Prep Date: 7/19/2011	RunNo: 135163						
Client ID: ZZZZZZ	Batch ID: 74383	TestNo: EPA 8082	EPA 3510C	Analysis Date: 7/20/2011	SeqNo: 2212570						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	4.012	0.50	5.000	0	80.2	54	97	4.099	2.15	20	
Aroclor 1260	4.320	0.50	5.000	0	86.4	56	103	4.370	1.15	20	
Surr: Decachlorobiphenyl	0.364		0.5000		72.9	26	132		0	0	
Surr: Tetrachloro-m-xylene	0.412		0.5000		82.5	43	119		0	0	

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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CLIENT: MACTEC
Work Order: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP+HEX_LL

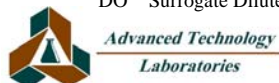
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Client ID: LCSW		Batch ID: A11VW118		TestNo: EPA 8260B		Analysis Date: 7/14/2011		SeqNo: 2209109				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	16.870	0.50	20.00	0	84.4	70	130					
Benzene	37.930	0.50	40.00	0	94.8	70	130					
Chlorobenzene	20.370	0.50	20.00	0	102	70	130					
Toluene	38.620	0.50	40.00	0	96.6	70	130					
Trichloroethene	17.940	0.50	20.00	0	89.7	70	130					
Surr: 1,2-Dichloroethane-d4	22.170		25.00		88.7	70	130					
Surr: 4-Bromofluorobenzene	24.650		25.00		98.6	70	130					
Surr: Dibromofluoromethane	23.770		25.00		95.1	70	130					
Surr: Toluene-d8	25.820		25.00		103	70	130					

Sample ID: A110714MB3MS		SampType: MS		TestCode: 8260_WP+HE		Units: µg/L		Prep Date:		RunNo: 134985		
Client ID: ZZZZZ		Batch ID: A11VW118		TestNo: EPA 8260B		Analysis Date: 7/14/2011		SeqNo: 2209110				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	16.810	0.50	20.00	0	84.0	70	130					
Benzene	37.730	0.50	40.00	0	94.3	70	130					
Chlorobenzene	19.920	0.50	20.00	0	99.6	70	130					
Toluene	38.110	0.50	40.00	0	95.3	70	130					
Trichloroethene	17.970	0.50	20.00	0	89.8	70	130					
Surr: 1,2-Dichloroethane-d4	22.360		25.00		89.4	70	130					
Surr: 4-Bromofluorobenzene	24.620		25.00		98.5	70	130					
Surr: Dibromofluoromethane	24.640		25.00		98.6	70	130					
Surr: Toluene-d8	25.760		25.00		103	70	130					

Sample ID: A110714MB3MSD		SampType: MSD		TestCode: 8260_WP+HE		Units: µg/L		Prep Date:		RunNo: 134985		
Client ID: ZZZZZ		Batch ID: A11VW118		TestNo: EPA 8260B		Analysis Date: 7/14/2011		SeqNo: 2209111				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	18.120	0.50	20.00	0	90.6	70	130	16.81	7.50	20		
Benzene	38.760	0.50	40.00	0	96.9	70	130	37.73	2.69	20		

Qualifiers:

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



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CLIENT: MACTEC
Work Order: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

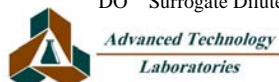
TestCode: 8260_WP+HEX_LL

Sample ID: A110714MB3MSD	SampType: MSD	TestCode: 8260_WP+HE	Units: µg/L	Prep Date:	RunNo: 134985						
Client ID: ZZZZZ	Batch ID: A11VW118	TestNo: EPA 8260B	Analysis Date: 7/14/2011	SeqNo: 2209111							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	20.420	0.50	20.00	0	102	70	130	19.92	2.48	20	
Toluene	39.340	0.50	40.00	0	98.4	70	130	38.11	3.18	20	
Trichloroethene	18.900	0.50	20.00	0	94.5	70	130	17.97	5.04	20	
Surr: 1,2-Dichloroethane-d4	22.320		25.00		89.3	70	130		0	0	
Surr: 4-Bromofluorobenzene	24.490		25.00		98.0	70	130		0	0	
Surr: Dibromofluoromethane	23.830		25.00		95.3	70	130		0	0	
Surr: Toluene-d8	25.800		25.00		103	70	130		0	0	

Sample ID: A110714MB3	SampType: MBLK	TestCode: 8260_WP+HE	Units: µg/L	Prep Date:	RunNo: 134985						
Client ID: PBW	Batch ID: A11VW118	TestNo: EPA 8260B	Analysis Date: 7/14/2011	SeqNo: 2209112							
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									
1,1,1,2-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									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									

Qualifiers:

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|---|--|--|
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CLIENT: MACTEC
Work Order: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP+HEX_LL

Sample ID: A110714MB3	SampType: MBLK	TestCode: 8260_WP+HE	Units: µg/L	Prep Date:	RunNo: 134985						
Client ID: PBW	Batch ID: A11VW118	TestNo: EPA 8260B		Analysis Date: 7/14/2011	SeqNo: 2209112						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

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									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	1.0									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									

Qualifiers:

- | | | |
|---|--|--|
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Work Order: 118907
Project: MTA Westside, 4953-10-1561

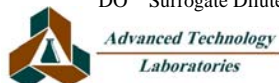
ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP+HEX_LL

Sample ID: A110714MB3	SampType: MBLK	TestCode: 8260_WP+HE	Units: µg/L	Prep Date:	RunNo: 134985						
Client ID: PBW	Batch ID: A11VW118	TestNo: EPA 8260B	Analysis Date: 7/14/2011	SeqNo: 2209112							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
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									
Hexane	ND	1.0									
Surr: 1,2-Dichloroethane-d4	21.940		25.00		87.8	70	130				
Surr: 4-Bromofluorobenzene	24.400		25.00		97.6	70	130				
Surr: Dibromofluoromethane	24.490		25.00		98.0	70	130				
Surr: Toluene-d8	26.010		25.00		104	70	130				

Qualifiers:

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|---|--|--|
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CLIENT: MACTEC
Work Order: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_W_FULL

Sample ID: MB-74403	SampType: MBLK	TestCode: 8270_W_FUL	Units: µg/L	Prep Date: 7/20/2011	RunNo: 135222
Client ID: PBW	Batch ID: 74403	TestNo: EPA 8270C	EPA 3510C	Analysis Date: 7/21/2011	SeqNo: 2213691

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	10									
1,2-Dichlorobenzene	ND	10									
1,3-Dichlorobenzene	ND	10									
1,4-Dichlorobenzene	ND	10									
2,4,5-Trichlorophenol	ND	10									
2,4,6-Trichlorophenol	ND	10									
2,4-Dichlorophenol	ND	10									
2,4-Dimethylphenol	ND	10									
2,4-Dinitrophenol	ND	50									
2,4-Dinitrotoluene	ND	10									
2,6-Dinitrotoluene	ND	10									
2-Chloronaphthalene	ND	10									
2-Chlorophenol	ND	10									
2-Methylnaphthalene	ND	10									
2-Methylphenol	ND	10									
2-Nitroaniline	ND	50									
2-Nitrophenol	ND	10									
3,3'-Dichlorobenzidine	ND	20									
3-Nitroaniline	ND	50									
4,6-Dinitro-2-methylphenol	ND	50									
4-Bromophenyl-phenylether	ND	10									
4-Chloro-3-methylphenol	ND	50									
4-Chloroaniline	ND	20									
4-Chlorophenyl-phenylether	ND	10									
4-Methylphenol	ND	10									
4-Nitroaniline	ND	20									
4-Nitrophenol	ND	50									
Acenaphthene	ND	10									
Acenaphthylene	ND	10									
Anthracene	ND	10									

Qualifiers:

- | | | |
|---|--|--|
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Work Order: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

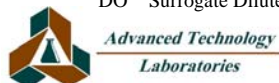
TestCode: 8270_W_FULL

Sample ID: MB-74403	SampType: MBLK	TestCode: 8270_W_FUL	Units: µg/L	Prep Date: 7/20/2011	RunNo: 135222
Client ID: PBW	Batch ID: 74403	TestNo: EPA 8270C	EPA 3510C	Analysis Date: 7/21/2011	SeqNo: 2213691

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzidine (M)	ND	50									
Benzo(a)anthracene	ND	10									
Benzo(a)pyrene	ND	10									
Benzo(b)fluoranthene	ND	10									
Benzo(g,h,i)perylene	ND	10									
Benzo(k)fluoranthene	ND	10									
Benzoic acid	ND	50									
Benzyl alcohol	ND	20									
Bis(2-chloroethoxy)methane	ND	10									
Bis(2-chloroethyl)ether	ND	10									
Bis(2-chloroisopropyl)ether	ND	10									
Bis(2-ethylhexyl)phthalate	ND	10									
Butylbenzylphthalate	ND	10									
Chrysene	ND	10									
Di-n-butylphthalate	ND	10									
Di-n-octylphthalate	ND	10									
Dibenz(a,h)anthracene	ND	10									
Dibenzofuran	ND	10									
Diethylphthalate	ND	10									
Dimethylphthalate	ND	10									
Fluoranthene	ND	10									
Fluorene	ND	10									
Hexachlorobenzene	ND	10									
Hexachlorobutadiene	ND	20									
Hexachlorocyclopentadiene	ND	10									
Hexachloroethane	ND	10									
Indeno(1,2,3-cd)pyrene	ND	10									
Isophorone	ND	10									
N-Nitrosodi-n-propylamine	ND	10									
N-Nitrosodiphenylamine	ND	10									

Qualifiers:

- | | | |
|---|--|--|
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Work Order: 118907
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ANALYTICAL QC SUMMARY REPORT

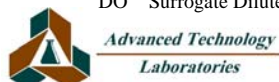
TestCode: 8270_W_FULL

Sample ID: MB-74403	SampType: MBLK	TestCode: 8270_W_FUL	Units: µg/L	Prep Date: 7/20/2011	RunNo: 135222						
Client ID: PBW	Batch ID: 74403	TestNo: EPA 8270C EPA 3510C		Analysis Date: 7/21/2011	SeqNo: 2213691						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	10									
Nitrobenzene	ND	10									
Pentachlorophenol	ND	50									
Phenanthrene	ND	10									
Phenol	ND	10									
Pyrene	ND	10									
Surr: 1,2-Dichlorobenzene-d4	58.390		100.0		58.4	46	97				
Surr: 2,4,6-Tribromophenol	67.080		100.0		67.1	59	124				
Surr: 2-Chlorophenol-d4	53.990		100.0		54.0	49	93				
Surr: 2-Fluorobiphenyl	64.980		100.0		65.0	57	107				
Surr: 2-Fluorophenol	36.610		100.0		36.6	27	60				
Surr: 4-Terphenyl-d14	85.330		100.0		85.3	69	132				
Surr: Nitrobenzene-d5	69.100		100.0		69.1	52	107				
Surr: Phenol-d5	28.080		100.0		28.1	15	50				

Sample ID: LCS-74403	SampType: LCS	TestCode: 8270_W_FUL	Units: µg/L	Prep Date: 7/20/2011	RunNo: 135222						
Client ID: LCSW	Batch ID: 74403	TestNo: EPA 8270C EPA 3510C		Analysis Date: 7/21/2011	SeqNo: 2213692						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	63.480	10	100.0	0	63.5	60	106				
1,4-Dichlorobenzene	56.860	10	100.0	0	56.9	52	98				
2,4-Dinitrotoluene	100.220	10	100.0	0	100	81	123				
2-Chlorophenol	50.670	10	100.0	0	50.7	46	105				
4-Chloro-3-methylphenol	80.110	50	100.0	0	80.1	51	140				
4-Nitrophenol	52.530	50	100.0	0	52.5	20	74				
Acenaphthene	74.290	10	100.0	0	74.3	64	119				
N-Nitrosodi-n-propylamine	74.780	10	100.0	0	74.8	65	117				
Pentachlorophenol	81.810	50	100.0	0	81.8	55	142				
Phenol	27.760	10	100.0	0	27.8	18	52				
Pyrene	94.000	10	100.0	0	94.0	73	120				

Qualifiers:

- | | | |
|---|--|--|
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ANALYTICAL QC SUMMARY REPORT

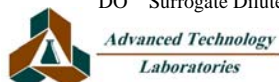
TestCode: 8270_W_FULL

Sample ID: LCS-74403	SampType: LCS	TestCode: 8270_W_FUL	Units: µg/L	Prep Date: 7/20/2011	RunNo: 135222						
Client ID: LCSW	Batch ID: 74403	TestNo: EPA 8270C EPA 3510C		Analysis Date: 7/21/2011	SeqNo: 2213692						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichlorobenzene-d4	53.000		100.0		53.0	46	97				
Surr: 2,4,6-Tribromophenol	86.650		100.0		86.6	59	124				
Surr: 2-Chlorophenol-d4	50.260		100.0		50.3	49	93				
Surr: 2-Fluorobiphenyl	64.200		100.0		64.2	57	107				
Surr: 2-Fluorophenol	33.790		100.0		33.8	27	60				
Surr: 4-Terphenyl-d14	86.470		100.0		86.5	69	132				
Surr: Nitrobenzene-d5	65.450		100.0		65.4	52	107				
Surr: Phenol-d5	27.270		100.0		27.3	15	50				

Sample ID: LCSD-74403	SampType: LCSD	TestCode: 8270_W_FUL	Units: µg/L	Prep Date: 7/20/2011	RunNo: 135222						
Client ID: LCSS02	Batch ID: 74403	TestNo: EPA 8270C EPA 3510C		Analysis Date: 7/21/2011	SeqNo: 2213693						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	66.120	10	100.0	0	66.1	60	106	63.48	4.07	20	
1,4-Dichlorobenzene	60.070	10	100.0	0	60.1	52	98	56.86	5.49	20	
2,4-Dinitrotoluene	101.000	10	100.0	0	101	81	123	100.2	0.775	20	
2-Chlorophenol	54.320	10	100.0	0	54.3	46	105	50.67	6.95	20	
4-Chloro-3-methylphenol	81.220	50	100.0	0	81.2	51	140	80.11	1.38	20	
4-Nitrophenol	52.800	50	100.0	0	52.8	20	74	52.53	0.513	20	
Acenaphthene	76.580	10	100.0	0	76.6	64	119	74.29	3.04	20	
N-Nitrosodi-n-propylamine	76.960	10	100.0	0	77.0	65	117	74.78	2.87	20	
Pentachlorophenol	83.430	50	100.0	0	83.4	55	142	81.81	1.96	20	
Phenol	30.020	10	100.0	0	30.0	18	52	27.76	7.82	20	
Pyrene	92.310	10	100.0	0	92.3	73	120	94.00	1.81	20	
Surr: 1,2-Dichlorobenzene-d4	55.280		100.0		55.3	46	97		0	0	
Surr: 2,4,6-Tribromophenol	85.260		100.0		85.3	59	124		0	0	
Surr: 2-Chlorophenol-d4	53.180		100.0		53.2	49	93		0	0	
Surr: 2-Fluorobiphenyl	65.720		100.0		65.7	57	107		0	0	
Surr: 2-Fluorophenol	35.590		100.0		35.6	27	60		0	0	
Surr: 4-Terphenyl-d14	85.660		100.0		85.7	69	132		0	0	

Qualifiers:

- | | | |
|---|--|--|
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CLIENT: MACTEC
Work Order: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_W_FULL

Sample ID: LCSD-74403	SampType: LCSD	TestCode: 8270_W_FUL	Units: µg/L	Prep Date: 7/20/2011	RunNo: 135222						
Client ID: LCSS02	Batch ID: 74403	TestNo: EPA 8270C EPA 3510C	Analysis Date: 7/21/2011	SeqNo: 2213693							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	67.280		100.0		67.3	52	107		0	0	
Surr: Phenol-d5	28.790		100.0		28.8	15	50		0	0	

Qualifiers:

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



Advanced Technology
 Laboratories

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

CLIENT: MACTEC
Work Order: 118907
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: RSK175_ATL

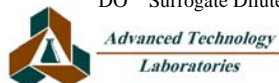
Sample ID: MB-Z11A037		SampType: MBLK		TestCode: RSK175_ATL		Units: ug/L		Prep Date:		RunNo: 135225	
Client ID: PBW		Batch ID: Z11A037		TestNo: RSK175		Analysis Date: 7/21/2011				SeqNo: 2213624	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	ND	200									
Ethane	ND	2.0									
Ethylene	ND	3.0									
Methane	ND	1.0									

Sample ID: LCS-Z11A037		SampType: LCS		TestCode: RSK175_ATL		Units: ug/L		Prep Date:		RunNo: 135225	
Client ID: LCSW		Batch ID: Z11A037		TestNo: RSK175		Analysis Date: 7/21/2011				SeqNo: 2213625	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	625.920	200	810.0	0	77.3	70	130				
Ethane	156.830	2.0	171.0	0	91.7	70	130				
Ethylene	195.040	3.0	212.0	0	92.0	70	130				
Methane	97.290	1.0	98.00	0	99.3	70	130				

Sample ID: LCSD-Z11A037		SampType: LCSD		TestCode: RSK175_ATL		Units: ug/L		Prep Date:		RunNo: 135225	
Client ID: LCSS02		Batch ID: Z11A037		TestNo: RSK175		Analysis Date: 7/21/2011				SeqNo: 2213626	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	629.430	200	810.0	0	77.7	70	130	625.9	0.559	20	
Ethane	160.520	2.0	171.0	0	93.9	70	130	156.8	2.33	20	
Ethylene	194.110	3.0	212.0	0	91.6	70	130	195.0	0.478	20	
Methane	99.750	1.0	98.00	0	102	70	130	97.29	2.50	20	

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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July 21, 2011

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



D&D ELAP
ADE-1461
EPA Methods TO-3,
TO14A, TO15 SIM & Scan,
ASTM D1946



FL Cert E8784/LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-09-TX
EPA Methods TO14A, TO15

LABORATORY TEST RESULTS

Project Reference: 118907
Lab Number: C071405-01

Enclosed are results for sample(s) received 7/14/11 by Air Technology Laboratories. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Sample analyses were performed within method performance criteria, and meet all requirements of the NELAC Standards.
- All results are reported without qualifications unless otherwise noted.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
 Attn: Rachelle Arada
 Project Name: NA
 Project No.: 118907
 Date Received: 07/14/11
 Matrix: Air
 Reporting Units: ppmv

EPA 15/16

Lab No.:	C071405-01						
Client Sample I.D.:	118907-002A / M-124-35'						
Date Sampled:	07/13/11						
Date Analyzed:	07/14/11						
QC Batch No.:	110713GC3A2						
Analyst Initials:	ZK						
Dilution Factor:	1.0						
ANALYTE	Result ppmv	RL ppmv					
Hydrogen Sulfide	ND	0.20					

ND = Not Detected (below RL)
 RL = Reporting Limit

Reviewed/Approved By: *Mark Johnson*
 Mark Johnson
 Operations Manager

Date 7/21/11

The cover letter is an integral part of this analytical report

QC Batch No.: 110713GC3A2
 Matrix: Air
 Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank	LCS	LCSD					
Date Analyzed:	07/13/11	07/13/11	07/13/11					
Analyst Initials:	ZK	ZK	ZK					
Datafile:	13jul012	13jul010	13jul011					
Dilution Factor:	1.0	1.0	1.0					
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	92	70-130%	81	70-130%	12	<30

ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark J. Johnson
 Mark J. Johnson
 Operations Manager

Date: _____

7/21/11

The cover letter is an integral part of this analytical report.

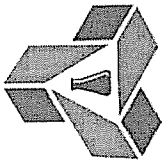


C07405-01

CHAIN-OF-CUSTODY RECORD

Advanced Technology Laboratories

3275 Walnut Avenue, Signal Hill, CA 90755-5225
www.atlglobal.com
TEL: (562) 989-4045 FAX: (562) 989-4040



QC Level: RTNE

Subcontractor:

Air Technology Laboratories
18501 E. Gale Ave, Suite 130
City of Industry, CA 91748

TEL: (626) 964-4032
FAX: (626) 964-5832
Acct #:

Field Sampler: Rachel Mills/Diego

13-Jul-11

Sample ID	Matrix	Date Collected	Bottle Type	H2S	Requested Tests
118907-002A / M-124-35	Soil Vapor	7/13/2011 7:10:00 AM	TEDLAR BAG	1	

General Comments: Please email sample receipt acknowledgement to the PM. ^(RA)
 Please use PO#: SC06559 Please fax results by: Normal TAT
 Analyze the sample for H2S by EPA 1516.
 Please send report to Rachelle Arada.

Relinquished by:	Date/Time	Received by:	Date/Time
	7/13/11		7/14/11 940
	7/14/11 1117		7/14/11 1117