

CHAIN OF CUSTODY RECORD

ADVANCED TECHNOLOGY LABORATORIES
 3275 Walnut Ave., Signal Hill, CA 90755
 Tel: (562) 989-4045 • Fax: (562) 989-4040

P.O.#: 201106374 Quote #: 1476
 Logged By: [Signature] Date: 8/19/11

Method of Transport
 Client ATL
 FedEx OnTrac
 GSO
 Other: _____

FOR LABORATORY USE ONLY:
 Sample Condition Upon Receipt
 1. CHILLED Y N 4. SEALED Y N
 2. HEADSPACE (VOA) Y N 5. # OF SPLS MATCH COC Y N
 3. CONTAINER INTACT Y N 6. PRESERVED Y N

Client: MACTEC Address: 5628 E. Slawson Ave State: CA Zip Code: 90040 TEL: 323-889-5300
 Attn: Matt Fraychinead City: LA State: CA Zip Code: 90040 FAX: _____

Project Name: Matsco Westside Extension Project #: 4953101561 Sampler: [Signature]
 Relinquished by: (Signature and Printed Name) Date: 8/19/11 Time: 0700 Received by: (Signature and Printed Name) Date: 8/19/11 Time: 0700
 Relinquished by: (Signature and Printed Name) Date: 8/19/11 Time: 512 Received by: (Signature and Printed Name) Date: 8/19/11 Time: 8:12
 Relinquished by: (Signature and Printed Name) Date: 8/19/11 Time: 1430 Received by: (Signature and Printed Name) Date: 8/19/11 Time: 1430

I hereby authorize ATL to perform the work indicated below:
 Project Mgr./Submitter: Matt Fraychinead Co: _____
 Print Name: Matt Fraychinead Date: 8/19/11
 Signature: [Signature]

Special Instructions/Comments: _____

Bill To:
 Attn: _____
 Co: _____
 Address: _____
 City: _____ State: _____ Zip: _____

Circle or Add Analysis(es) Requested:
 8081A (Pesticides) _____
 8208 (PCB) _____
 8208B (Nitrates) _____
 8270C (BNA) _____
 6010B (Total Metal) _____
 8015B (GRO) / 8021 (BTEX) _____
 8015B (DRO) / 8021 (CO2) _____
 TITLE 22 / CAM 17 (6010 / 7000) _____

Sample/Records - Archival & Disposal
 Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.
Storage Fees (applies when storage is requested):
 • Sample : \$2.00 / sample / mo (after 45 days)
 • Records : \$1.00 / ATL workorder / mo (after 1 year)

ITEM	LAB USE ONLY:		Sample Description	Date	Time
	Batch #:	Lab No.			
	<u>119468</u>	<u>007</u>	<u>E-127-60'</u>	<u>1125</u>	
			<u>E-127-80'</u>	<u>1155</u>	
			<u>E-127-100'</u>	<u>1220</u>	
			<u>E-127-110'</u>	<u>1235</u>	
			<u>E-127-120'</u>	<u>1300</u>	
			<u>E-127-125'</u>	<u>1310</u>	
			<u>E-127-130'</u>	<u>1320</u>	
			<u>E-127-GW</u>	<u>1455</u>	

Q A / Q C
 RTNE CT Legal
 SWRCB Logcode OTHER _____
 REMARKS: Hold

SPECIFY APPROPRIATE MATRIX

	Container(s)	TAT #	Type
SEDIMENT			
SOLID			
GROUND WATER			
WASTEWATER			
STORMWATER			
AQUEOUS			

Container(s): 1 T
 Type: Hold

Container(s): 7 T
 Type: N4H2SO4 MeOH

Preservatives:
 H=HCl N=HNO₃ S=H₂SO₄ C=4°C
 Z=Zn(AC)₂ O=NaOH T=Na₂S₂O₃

TAT: A= Overnight ≤ 24 hrs B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Bedlar G=Glass P=Plastic M=Metal

Figure I-1.960

August 23, 2011



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

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
Workorder No.: 119413

RE:

Attention: Matt Fraychineaud

Enclosed are the results for sample(s) received on August 15, 2011 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

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

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

Sincerely,

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

Eddie F. Rodriguez
Laboratory Director

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



CLIENT: Mactec
Project:
Lab Order: 119413

CASE NARRATIVE

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

Sample Receiving / General Comments

One sodium bisulfate preserved sample labeled as E-132-15' was found bagged together with the sample labelled as E-132-30'.

Analytical Comments for EPA 8015B(M) (GRO)

Samples 119407-003AMS and 119407-003AMSD, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).

Sample 119407-003AMSD, RPD for Matrix Spike Duplicate (MSD) is outside criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).



Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 23-Aug-11

CLIENT: Mactec **Client Sample ID:** E-132-15'
Lab Order: 119413 **Collection Date:** 8/12/2011 10:00:00 AM
Project: **Matrix:** SOIL
Lab ID: 119413-002A

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID						
LUFT			EPA 8015B(M)			
RunID: GC16_110816G	QC Batch: 74985			PrepDate: 8/17/2011		Analyst: CBR
DRO	ND	10		mg/Kg	1	8/17/2011 10:46 PM
ORO	ND	10		mg/Kg	1	8/17/2011 10:46 PM
Surr: p-Terphenyl	87.2	63-152		%REC	1	8/17/2011 10:46 PM
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B			EPA 8270C			
RunID: MS 13_110822A	QC Batch: 75003			PrepDate: 8/18/2011		Analyst: DMP
1,2,4-Trichlorobenzene	ND	330		µg/Kg	1	8/22/2011 03:17 PM
1,2-Dichlorobenzene	ND	330		µg/Kg	1	8/22/2011 03:17 PM
1,3-Dichlorobenzene	ND	330		µg/Kg	1	8/22/2011 03:17 PM
1,4-Dichlorobenzene	ND	330		µg/Kg	1	8/22/2011 03:17 PM
2,4,5-Trichlorophenol	ND	330		µg/Kg	1	8/22/2011 03:17 PM
2,4,6-Trichlorophenol	ND	330		µg/Kg	1	8/22/2011 03:17 PM
2,4-Dichlorophenol	ND	1600		µg/Kg	1	8/22/2011 03:17 PM
2,4-Dimethylphenol	ND	330		µg/Kg	1	8/22/2011 03:17 PM
2,4-Dinitrophenol	ND	1600		µg/Kg	1	8/22/2011 03:17 PM
2,4-Dinitrotoluene	ND	330		µg/Kg	1	8/22/2011 03:17 PM
2,6-Dinitrotoluene	ND	330		µg/Kg	1	8/22/2011 03:17 PM
2-Chloronaphthalene	ND	330		µg/Kg	1	8/22/2011 03:17 PM
2-Chlorophenol	ND	330		µg/Kg	1	8/22/2011 03:17 PM
2-Methylnaphthalene	ND	330		µg/Kg	1	8/22/2011 03:17 PM
2-Methylphenol	ND	330		µg/Kg	1	8/22/2011 03:17 PM
2-Nitroaniline	ND	1600		µg/Kg	1	8/22/2011 03:17 PM
2-Nitrophenol	ND	330		µg/Kg	1	8/22/2011 03:17 PM
3,3'-Dichlorobenzidine	ND	660		µg/Kg	1	8/22/2011 03:17 PM
3-Nitroaniline	ND	1600		µg/Kg	1	8/22/2011 03:17 PM
4,6-Dinitro-2-methylphenol	ND	1600		µg/Kg	1	8/22/2011 03:17 PM
4-Bromophenyl-phenylether	ND	330		µg/Kg	1	8/22/2011 03:17 PM
4-Chloro-3-methylphenol	ND	660		µg/Kg	1	8/22/2011 03:17 PM
4-Chloroaniline	ND	660		µg/Kg	1	8/22/2011 03:17 PM
4-Chlorophenyl-phenylether	ND	330		µg/Kg	1	8/22/2011 03:17 PM
4-Methylphenol	ND	330		µg/Kg	1	8/22/2011 03:17 PM
4-Nitroaniline	ND	1600		µg/Kg	1	8/22/2011 03:17 PM
4-Nitrophenol	ND	1600		µg/Kg	1	8/22/2011 03:17 PM
Acenaphthene	ND	330		µg/Kg	1	8/22/2011 03:17 PM
Acenaphthylene	ND	330		µg/Kg	1	8/22/2011 03:17 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: 23-Aug-11

CLIENT: Mactec **Client Sample ID:** E-132-15'
Lab Order: 119413 **Collection Date:** 8/12/2011 10:00:00 AM
Project: **Matrix:** SOIL
Lab ID: 119413-002A

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

EPA 3550B

EPA 8270C

RunID:	MS 13_110822A	QC Batch:	75003	PrepDate:	8/18/2011	Analyst:	DMP
Anthracene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Benzidine (M)	ND	1600	µg/Kg	1	8/22/2011 03:17 PM		
Benzo(a)anthracene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Benzo(a)pyrene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Benzo(b)fluoranthene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Benzo(g,h,i)perylene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Benzo(k)fluoranthene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Benzoic acid	ND	1600	µg/Kg	1	8/22/2011 03:17 PM		
Benzyl alcohol	ND	660	µg/Kg	1	8/22/2011 03:17 PM		
Bis(2-chloroethoxy)methane	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Bis(2-chloroethyl)ether	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Bis(2-chloroisopropyl)ether	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Bis(2-ethylhexyl)phthalate	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Butylbenzylphthalate	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Chrysene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Di-n-butylphthalate	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Di-n-octylphthalate	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Dibenz(a,h)anthracene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Dibenzofuran	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Diethylphthalate	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Dimethylphthalate	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Fluoranthene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Fluorene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Hexachlorobenzene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Hexachlorobutadiene	ND	660	µg/Kg	1	8/22/2011 03:17 PM		
Hexachlorocyclopentadiene	ND	660	µg/Kg	1	8/22/2011 03:17 PM		
Hexachloroethane	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Indeno(1,2,3-cd)pyrene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Isophorone	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
N-Nitrosodi-n-propylamine	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
N-Nitrosodiphenylamine	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Naphthalene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Nitrobenzene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		
Pentachlorophenol	ND	1600	µg/Kg	1	8/22/2011 03:17 PM		
Phenanthrene	ND	330	µg/Kg	1	8/22/2011 03:17 PM		

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S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified
DO Surrogate Diluted Out



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ANALYTICAL RESULTS

Print Date: 23-Aug-11

CLIENT: Mactec
Lab Order: 119413
Project:
Lab ID: 119413-002A

Client Sample ID: E-132-15'
Collection Date: 8/12/2011 10:00:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
	EPA 3550B			EPA 8270C		
RunID: MS 13_110822A	QC Batch: 75003			PrepDate: 8/18/2011		Analyst: DMP
Phenol	ND	330		µg/Kg	1	8/22/2011 03:17 PM
Pyrene	ND	330		µg/Kg	1	8/22/2011 03:17 PM
Surr: 1,2-Dichlorobenzene-d4	80.6	45-105		%REC	1	8/22/2011 03:17 PM
Surr: 2,4,6-Tribromophenol	84.9	41-129		%REC	1	8/22/2011 03:17 PM
Surr: 2-Chlorophenol-d4	83.4	55-108		%REC	1	8/22/2011 03:17 PM
Surr: 2-Fluorobiphenyl	86.0	56-114		%REC	1	8/22/2011 03:17 PM
Surr: 2-Fluorophenol	85.5	50-108		%REC	1	8/22/2011 03:17 PM
Surr: 4-Terphenyl-d14	82.0	59-141		%REC	1	8/22/2011 03:17 PM
Surr: Nitrobenzene-d5	84.8	45-114		%REC	1	8/22/2011 03:17 PM
Surr: Phenol-d5	87.9	46-118		%REC	1	8/22/2011 03:17 PM

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ANALYTICAL RESULTS

Print Date: 23-Aug-11

CLIENT: Mactec **Client Sample ID:** E-132-15'
Lab Order: 119413 **Collection Date:** 8/12/2011 10:00:00 AM
Project: **Matrix:** SOIL
Lab ID: 119413-002B

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

EPA 8260B

RunID:	MS5_110816A	QC Batch:	T11VS150	PrepDate:	8/12/2011	Analyst:	DDL
1,1,1,2-Tetrachloroethane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,1,1-Trichloroethane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,1,2,2-Tetrachloroethane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,1,2-Trichloroethane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,1-Dichloroethane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,1-Dichloroethene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,1-Dichloropropene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,2,3-Trichlorobenzene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,2,3-Trichloropropane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,2,4-Trichlorobenzene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,2,4-Trimethylbenzene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,2-Dibromo-3-chloropropane	ND	20	µg/Kg	1		8/16/2011 03:34 PM	
1,2-Dibromoethane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,2-Dichlorobenzene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,2-Dichloroethane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,2-Dichloropropane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,3,5-Trimethylbenzene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,3-Dichlorobenzene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,3-Dichloropropane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
1,4-Dichlorobenzene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
2,2-Dichloropropane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
2-Chlorotoluene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
4-Chlorotoluene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
4-Isopropyltoluene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
Benzene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
Bromobenzene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
Bromodichloromethane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
Bromoform	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
Bromomethane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
Carbon tetrachloride	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
Chlorobenzene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
Chloroethane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
Chloroform	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
Chloromethane	ND	10	µg/Kg	1		8/16/2011 03:34 PM	
cis-1,2-Dichloroethene	ND	10	µg/Kg	1		8/16/2011 03:34 PM	

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DO Surrogate Diluted Out



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Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 23-Aug-11

CLIENT: Mactec **Client Sample ID:** E-132-15'
Lab Order: 119413 **Collection Date:** 8/12/2011 10:00:00 AM
Project: **Matrix:** SOIL
Lab ID: 119413-002B

Analyses Result PQL Qual Units DF Date Analyzed

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID:	MS5_110816A	QC Batch:	T11VS150	PrepDate:	8/12/2011	Analyst:	DDL
cis-1,3-Dichloropropene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Di-isopropyl ether	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Dibromochloromethane	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Dibromomethane	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Dichlorodifluoromethane	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Ethyl Tert-butyl ether	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Ethylbenzene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Hexachlorobutadiene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Isopropylbenzene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
m,p-Xylene	ND	20	µg/Kg	1	8/16/2011 03:34 PM		
Methylene chloride	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
MTBE	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
n-Butylbenzene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
n-Propylbenzene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Naphthalene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
o-Xylene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
sec-Butylbenzene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Styrene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Tert-amyl methyl ether	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Tert-Butanol	ND	200	µg/Kg	1	8/16/2011 03:34 PM		
tert-Butylbenzene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Tetrachloroethene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Toluene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
trans-1,2-Dichloroethene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Trichloroethene	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Trichlorofluoromethane	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Vinyl chloride	ND	10	µg/Kg	1	8/16/2011 03:34 PM		
Surr: 1,2-Dichloroethane-d4	90.6	65-141	%REC	1	8/16/2011 03:34 PM		
Surr: 4-Bromofluorobenzene	89.3	57-134	%REC	1	8/16/2011 03:34 PM		
Surr: Dibromofluoromethane	99.5	70-128	%REC	1	8/16/2011 03:34 PM		
Surr: Toluene-d8	94.5	72-123	%REC	1	8/16/2011 03:34 PM		

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DO Surrogate Diluted Out



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Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 23-Aug-11

CLIENT: Mactec	Client Sample ID: E-132-15'
Lab Order: 119413	Collection Date: 8/12/2011 10:00:00 AM
Project:	Matrix: SOIL
Lab ID: 119413-002E	

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

EPA 8015B(M)

RunID: GC2_110816A	QC Batch: E11VS300	PrepDate: 8/12/2011	Analyst: TP		
GRO	ND	0.90	mg/Kg	1	8/16/2011 03:07 PM
Surr: Bromofluorobenzene (FID)	109	51-161	%REC	1	8/16/2011 03:07 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: 23-Aug-11

CLIENT: Mactec **Client Sample ID:** E-132-30'
Lab Order: 119413 **Collection Date:** 8/12/2011 10:20:00 AM
Project: **Matrix:** SOIL
Lab ID: 119413-005A

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID						
LUFT			EPA 8015B(M)			
RunID: GC16_110816G	QC Batch: 74985			PrepDate: 8/17/2011		Analyst: CBR
DRO	ND	10		mg/Kg	1	8/17/2011 10:55 PM
ORO	ND	10		mg/Kg	1	8/17/2011 10:55 PM
Surr: p-Terphenyl	82.8	63-152		%REC	1	8/17/2011 10:55 PM
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B			EPA 8270C			
RunID: MS 13_110822A	QC Batch: 75003			PrepDate: 8/18/2011		Analyst: DMP
1,2,4-Trichlorobenzene	ND	330		µg/Kg	1	8/22/2011 03:48 PM
1,2-Dichlorobenzene	ND	330		µg/Kg	1	8/22/2011 03:48 PM
1,3-Dichlorobenzene	ND	330		µg/Kg	1	8/22/2011 03:48 PM
1,4-Dichlorobenzene	ND	330		µg/Kg	1	8/22/2011 03:48 PM
2,4,5-Trichlorophenol	ND	330		µg/Kg	1	8/22/2011 03:48 PM
2,4,6-Trichlorophenol	ND	330		µg/Kg	1	8/22/2011 03:48 PM
2,4-Dichlorophenol	ND	1600		µg/Kg	1	8/22/2011 03:48 PM
2,4-Dimethylphenol	ND	330		µg/Kg	1	8/22/2011 03:48 PM
2,4-Dinitrophenol	ND	1600		µg/Kg	1	8/22/2011 03:48 PM
2,4-Dinitrotoluene	ND	330		µg/Kg	1	8/22/2011 03:48 PM
2,6-Dinitrotoluene	ND	330		µg/Kg	1	8/22/2011 03:48 PM
2-Chloronaphthalene	ND	330		µg/Kg	1	8/22/2011 03:48 PM
2-Chlorophenol	ND	330		µg/Kg	1	8/22/2011 03:48 PM
2-Methylnaphthalene	ND	330		µg/Kg	1	8/22/2011 03:48 PM
2-Methylphenol	ND	330		µg/Kg	1	8/22/2011 03:48 PM
2-Nitroaniline	ND	1600		µg/Kg	1	8/22/2011 03:48 PM
2-Nitrophenol	ND	330		µg/Kg	1	8/22/2011 03:48 PM
3,3'-Dichlorobenzidine	ND	660		µg/Kg	1	8/22/2011 03:48 PM
3-Nitroaniline	ND	1600		µg/Kg	1	8/22/2011 03:48 PM
4,6-Dinitro-2-methylphenol	ND	1600		µg/Kg	1	8/22/2011 03:48 PM
4-Bromophenyl-phenylether	ND	330		µg/Kg	1	8/22/2011 03:48 PM
4-Chloro-3-methylphenol	ND	660		µg/Kg	1	8/22/2011 03:48 PM
4-Chloroaniline	ND	660		µg/Kg	1	8/22/2011 03:48 PM
4-Chlorophenyl-phenylether	ND	330		µg/Kg	1	8/22/2011 03:48 PM
4-Methylphenol	ND	330		µg/Kg	1	8/22/2011 03:48 PM
4-Nitroaniline	ND	1600		µg/Kg	1	8/22/2011 03:48 PM
4-Nitrophenol	ND	1600		µg/Kg	1	8/22/2011 03:48 PM
Acenaphthene	ND	330		µg/Kg	1	8/22/2011 03:48 PM
Acenaphthylene	ND	330		µg/Kg	1	8/22/2011 03:48 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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Laboratories

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

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ANALYTICAL RESULTS

Print Date: 23-Aug-11

CLIENT: Mactec **Client Sample ID:** E-132-30'
Lab Order: 119413 **Collection Date:** 8/12/2011 10:20:00 AM
Project: **Matrix:** SOIL
Lab ID: 119413-005A

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

EPA 3550B		EPA 8270C				
RunID:	MS 13_110822A	QC Batch:	75003	PrepDate:	8/18/2011	Analyst: DMP
Anthracene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Benzidine (M)	ND	1600	µg/Kg	1	8/22/2011 03:48 PM	
Benzo(a)anthracene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Benzo(a)pyrene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Benzo(b)fluoranthene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Benzo(g,h,i)perylene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Benzo(k)fluoranthene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Benzoic acid	ND	1600	µg/Kg	1	8/22/2011 03:48 PM	
Benzyl alcohol	ND	660	µg/Kg	1	8/22/2011 03:48 PM	
Bis(2-chloroethoxy)methane	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Bis(2-chloroethyl)ether	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Bis(2-chloroisopropyl)ether	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Bis(2-ethylhexyl)phthalate	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Butylbenzylphthalate	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Chrysene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Di-n-butylphthalate	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Di-n-octylphthalate	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Dibenz(a,h)anthracene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Dibenzofuran	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Diethylphthalate	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Dimethylphthalate	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Fluoranthene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Fluorene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Hexachlorobenzene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Hexachlorobutadiene	ND	660	µg/Kg	1	8/22/2011 03:48 PM	
Hexachlorocyclopentadiene	ND	660	µg/Kg	1	8/22/2011 03:48 PM	
Hexachloroethane	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Indeno(1,2,3-cd)pyrene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Isophorone	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
N-Nitrosodi-n-propylamine	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
N-Nitrosodiphenylamine	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Naphthalene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Nitrobenzene	ND	330	µg/Kg	1	8/22/2011 03:48 PM	
Pentachlorophenol	ND	1600	µg/Kg	1	8/22/2011 03:48 PM	
Phenanthrene	ND	330	µg/Kg	1	8/22/2011 03:48 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: 23-Aug-11

CLIENT: Mactec
Lab Order: 119413
Project:
Lab ID: 119413-005A

Client Sample ID: E-132-30'
Collection Date: 8/12/2011 10:20:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
	EPA 3550B			EPA 8270C		
RunID: MS 13_110822A	QC Batch: 75003			PrepDate: 8/18/2011		Analyst: DMP
Phenol	ND	330		µg/Kg	1	8/22/2011 03:48 PM
Pyrene	ND	330		µg/Kg	1	8/22/2011 03:48 PM
Surr: 1,2-Dichlorobenzene-d4	71.9	45-105		%REC	1	8/22/2011 03:48 PM
Surr: 2,4,6-Tribromophenol	90.2	41-129		%REC	1	8/22/2011 03:48 PM
Surr: 2-Chlorophenol-d4	76.7	55-108		%REC	1	8/22/2011 03:48 PM
Surr: 2-Fluorobiphenyl	80.3	56-114		%REC	1	8/22/2011 03:48 PM
Surr: 2-Fluorophenol	76.3	50-108		%REC	1	8/22/2011 03:48 PM
Surr: 4-Terphenyl-d14	81.2	59-141		%REC	1	8/22/2011 03:48 PM
Surr: Nitrobenzene-d5	76.6	45-114		%REC	1	8/22/2011 03:48 PM
Surr: Phenol-d5	82.1	46-118		%REC	1	8/22/2011 03:48 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: 23-Aug-11

CLIENT: Mactec **Client Sample ID:** E-132-30'
Lab Order: 119413 **Collection Date:** 8/12/2011 10:20:00 AM
Project: **Matrix:** SOIL
Lab ID: 119413-005B

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

EPA 8260B

RunID:	MS5_110816A	QC Batch:	T11VS150	PrepDate:	8/12/2011	Analyst:	DDL
1,1,1,2-Tetrachloroethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,1,1-Trichloroethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,1,2,2-Tetrachloroethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,1,2-Trichloroethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,1-Dichloroethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,1-Dichloroethene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,1-Dichloropropene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,2,3-Trichlorobenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,2,3-Trichloropropane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,2,4-Trichlorobenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,2,4-Trimethylbenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,2-Dibromo-3-chloropropane	ND	13	µg/Kg	1	8/16/2011 03:53 PM		
1,2-Dibromoethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,2-Dichlorobenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,2-Dichloroethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,2-Dichloropropane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,3,5-Trimethylbenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,3-Dichlorobenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,3-Dichloropropane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
1,4-Dichlorobenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
2,2-Dichloropropane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
2-Chlorotoluene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
4-Chlorotoluene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
4-Isopropyltoluene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Benzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Bromobenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Bromodichloromethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Bromoform	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Bromomethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Carbon tetrachloride	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Chlorobenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Chloroethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Chloroform	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Chloromethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
cis-1,2-Dichloroethene	ND	6.4	µg/Kg	1	8/16/2011 03:53 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: 23-Aug-11

CLIENT: Mactec **Client Sample ID:** E-132-30'
Lab Order: 119413 **Collection Date:** 8/12/2011 10:20:00 AM
Project: **Matrix:** SOIL
Lab ID: 119413-005B

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

EPA 8260B

RunID:	MS5_110816A	QC Batch:	T11VS150	PrepDate:	8/12/2011	Analyst:	DDL
cis-1,3-Dichloropropene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Di-isopropyl ether	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Dibromochloromethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Dibromomethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Dichlorodifluoromethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Ethyl Tert-butyl ether	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Ethylbenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Hexachlorobutadiene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Isopropylbenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
m,p-Xylene	ND	13	µg/Kg	1	8/16/2011 03:53 PM		
Methylene chloride	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
MTBE	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
n-Butylbenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
n-Propylbenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Naphthalene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
o-Xylene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
sec-Butylbenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Styrene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Tert-amyl methyl ether	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Tert-Butanol	ND	130	µg/Kg	1	8/16/2011 03:53 PM		
tert-Butylbenzene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Tetrachloroethene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Toluene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
trans-1,2-Dichloroethene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Trichloroethene	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Trichlorofluoromethane	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Vinyl chloride	ND	6.4	µg/Kg	1	8/16/2011 03:53 PM		
Surr: 1,2-Dichloroethane-d4	92.5	65-141	%REC	1	8/16/2011 03:53 PM		
Surr: 4-Bromofluorobenzene	88.3	57-134	%REC	1	8/16/2011 03:53 PM		
Surr: Dibromofluoromethane	96.4	70-128	%REC	1	8/16/2011 03:53 PM		
Surr: Toluene-d8	92.6	72-123	%REC	1	8/16/2011 03:53 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: 23-Aug-11

CLIENT: Mactec	Client Sample ID: E-132-30'
Lab Order: 119413	Collection Date: 8/12/2011 10:20:00 AM
Project:	Matrix: SOIL
Lab ID: 119413-005E	

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

EPA 8015B(M)

RunID: GC2_110816A	QC Batch: E11VS300	PrepDate: 8/12/2011	Analyst: TP		
GRO	ND	1.1	mg/Kg	1	8/16/2011 03:23 PM
Surr: Bromofluorobenzene (FID)	95.6	51-161	%REC	1	8/16/2011 03:23 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: 23-Aug-11

CLIENT: Mactec
Lab Order: 119413
Project:
Lab ID: 119413-006A

Client Sample ID: E-132-35'
Collection Date: 8/12/2011 10:35:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP METALS

		EPA 3050B		EPA 6010B		
RunID:	ICP8_110817B	QC Batch:	74967	PrepDate:	8/17/2011	Analyst: IL
Antimony	ND	2.0	mg/Kg	1	8/17/2011 01:49 PM	
Arsenic	1.3	1.0	mg/Kg	1	8/17/2011 01:49 PM	
Barium	59	1.0	mg/Kg	1	8/17/2011 01:49 PM	
Beryllium	ND	1.0	mg/Kg	1	8/17/2011 01:49 PM	
Cadmium	ND	1.0	mg/Kg	1	8/17/2011 01:49 PM	
Chromium	19	1.0	mg/Kg	1	8/17/2011 01:49 PM	
Cobalt	5.4	1.0	mg/Kg	1	8/17/2011 01:49 PM	
Copper	14	2.0	mg/Kg	1	8/17/2011 01:49 PM	
Lead	3.0	1.0	mg/Kg	1	8/17/2011 01:49 PM	
Molybdenum	ND	1.0	mg/Kg	1	8/17/2011 01:49 PM	
Nickel	17	1.0	mg/Kg	1	8/17/2011 01:49 PM	
Selenium	ND	1.0	mg/Kg	1	8/17/2011 01:49 PM	
Silver	ND	1.0	mg/Kg	1	8/17/2011 01:49 PM	
Thallium	ND	1.0	mg/Kg	1	8/17/2011 01:49 PM	
Vanadium	30	1.0	mg/Kg	1	8/17/2011 01:49 PM	
Zinc	50	1.0	mg/Kg	1	8/17/2011 01:49 PM	

MERCURY BY COLD VAPOR TECHNIQUE

		EPA 7471A				
RunID:	AA1_110817B	QC Batch:	74969	PrepDate:	8/17/2011	Analyst: VV
Mercury	ND	0.10	mg/Kg	1	8/17/2011 05:48 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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Laboratories

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CLIENT: Mactec
 Work Order: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

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

Antimony	ND	2.0									
Arsenic	ND	1.0									
Barium	ND	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	ND	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	ND	1.0									
Molybdenum	ND	1.0									
Nickel	ND	1.0									
Selenium	ND	1.0									
Silver	ND	1.0									
Thallium	ND	1.0									
Vanadium	ND	1.0									
Zinc	ND	1.0									

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

Antimony	47.649	2.0	50.00	0	95.3	80	120				
Arsenic	47.241	1.0	50.00	0	94.5	80	120				
Barium	48.799	1.0	50.00	0	97.6	80	120				
Beryllium	48.168	1.0	50.00	0	96.3	80	120				
Cadmium	47.486	1.0	50.00	0	95.0	80	120				
Chromium	44.996	1.0	50.00	0	90.0	80	120				
Cobalt	48.955	1.0	50.00	0	97.9	80	120				

Qualifiers:

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



CLIENT: Mactec
 Work Order: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

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

Sample ID: 119297-015A-MS		SampType: MS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 8/17/2011		RunNo: 135882		
Client ID: ZZZZZZ		Batch ID: 74967		TestNo: EPA 6010B EPA 3050B				Analysis Date: 8/17/2011		SeqNo: 2226297		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony	94.945	2.0	125.0	0.2939	75.7	32	105					
Arsenic	102.682	1.0	125.0	1.383	81.0	49	106					
Barium	162.464	1.0	125.0	59.09	82.7	31	133					
Beryllium	103.496	1.0	125.0	0	82.8	56	106					
Cadmium	97.177	1.0	125.0	0.8498	77.1	51	103					
Chromium	106.839	1.0	125.0	8.448	78.7	45	114					
Cobalt	109.113	1.0	125.0	3.916	84.2	52	106					
Copper	118.548	2.0	125.0	6.663	89.5	54	125					
Lead	106.293	1.0	125.0	4.707	81.3	34	126					
Molybdenum	105.089	1.0	125.0	0.5549	83.6	54	106					
Nickel	111.331	1.0	125.0	9.124	81.8	45	111					
Selenium	98.364	1.0	125.0	0	78.7	47	104					
Silver	105.481	1.0	125.0	0	84.4	56	112					
Thallium	97.613	1.0	125.0	0	78.1	46	101					
Vanadium	122.770	1.0	125.0	17.10	84.5	54	114					
Zinc	134.540	1.0	125.0	34.57	80.0	28	125					

Qualifiers:

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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: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

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

Qualifiers:

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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: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S

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

Mercury ND 0.10

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

Mercury 0.817 0.10 0.8300 0 98.4 80 120

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

Mercury 0.793 0.10 0.8300 0.05109 89.3 70 130

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

Mercury 0.835 0.10 0.8300 0.05109 94.5 70 130 0.7926 5.26 20

Qualifiers:

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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: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_DM H

Sample ID: MB-74985	SampType: MBLK	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 8/17/2011	RunNo: 135896						
Client ID: PBS	Batch ID: 74985	TestNo: EPA 8015B(M LUFT		Analysis Date: 8/17/2011	SeqNo: 2226605						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	ND	10									
ORO	ND	10									
Surr: p-Terphenyl	72.230		80.00		90.3	63	152				

Sample ID: LCS-74985	SampType: LCS	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 8/17/2011	RunNo: 135896						
Client ID: LCSS	Batch ID: 74985	TestNo: EPA 8015B(M LUFT		Analysis Date: 8/17/2011	SeqNo: 2226606						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	911.880	10	1000	0	91.2	76	139				
Surr: p-Terphenyl	87.200		80.00		109	63	152				

Sample ID: 119413-002AMS	SampType: MS	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 8/17/2011	RunNo: 135896						
Client ID: E-132-15'	Batch ID: 74985	TestNo: EPA 8015B(M LUFT		Analysis Date: 8/17/2011	SeqNo: 2226607						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	838.400	10	1000	0	83.8	60	158				
Surr: p-Terphenyl	81.050		80.00		101	63	152				

Sample ID: 119413-002AMSD	SampType: MSD	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 8/17/2011	RunNo: 135896						
Client ID: E-132-15'	Batch ID: 74985	TestNo: EPA 8015B(M LUFT		Analysis Date: 8/17/2011	SeqNo: 2226608						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	935.690	10	1000	0	93.6	60	158	838.4	11.0	20	
Surr: p-Terphenyl	77.650		80.00		97.1	63	152		0	0	

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: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: E110816LC1	SampType: LCS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135875						
Client ID: LCSS	Batch ID: E11VS300	TestNo: EPA 8015B(M)	Analysis Date: 8/16/2011	SeqNo: 2227661							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	5.016	1.0	5.000	0	100	70	130				
Surr: Bromofluorobenzene (FID)	114.972		100.0		115	51	161				

Sample ID: E110816MB1MS	SampType: MS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135875						
Client ID: ZZZZZ	Batch ID: E11VS300	TestNo: EPA 8015B(M)	Analysis Date: 8/16/2011	SeqNo: 2227662							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.927	1.0	5.000	0	98.5	41	146				
Surr: Bromofluorobenzene (FID)	104.726		100.0		105	51	161				

Sample ID: E110816MB1MSD	SampType: MSD	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135875						
Client ID: ZZZZZ	Batch ID: E11VS300	TestNo: EPA 8015B(M)	Analysis Date: 8/16/2011	SeqNo: 2227663							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.786	1.0	5.000	0	95.7	41	146	4.927	2.90	20	
Surr: Bromofluorobenzene (FID)	114.614		100.0		115	51	161		0	0	

Sample ID: E110816MB1	SampType: MBLK	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135875						
Client ID: PBS	Batch ID: E11VS300	TestNo: EPA 8015B(M)	Analysis Date: 8/16/2011	SeqNo: 2227664							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	1.0									
Surr: Bromofluorobenzene (FID)	81.205		100.0		81.2	51	161				

Sample ID: 119407-003AMS	SampType: MS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135875						
Client ID: ZZZZZ	Batch ID: E11VS300	TestNo: EPA 8015B(M)	Analysis Date: 8/16/2011	SeqNo: 2227668							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.992	1.0	5.000	0.5100	29.6	41	146				S

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: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: 119407-003AMS		SampType: MS		TestCode: 8015_S_G 50		Units: mg/Kg		Prep Date:		RunNo: 135875		
Client ID: ZZZZZZ		Batch ID: E11VS300		TestNo: EPA 8015B(M)		Analysis Date: 8/16/2011		SeqNo: 2227668				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Surr: Bromofluorobenzene (FID)	94.440		100.0		94.4	51	161					

Sample ID: 119407-003AMSD		SampType: MSD		TestCode: 8015_S_G 50		Units: mg/Kg		Prep Date:		RunNo: 135875		
Client ID: ZZZZZZ		Batch ID: E11VS300		TestNo: EPA 8015B(M)		Analysis Date: 8/16/2011		SeqNo: 2227669				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	1.187	1.0	5.000	0.5100	13.5	41	146	1.992	50.6	20	SR	
Surr: Bromofluorobenzene (FID)	84.697		100.0		84.7	51	161		0	0		

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: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: T110816LCS1		SampType: LCS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135848		
Client ID: LCSS		Batch ID: T11VS150		TestNo: EPA 8260B				Analysis Date: 8/16/2011		SeqNo: 2226892		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	44.550	5.0	50.00	0	89.1	70	130					
Benzene	95.820	5.0	100.0	0	95.8	70	130					
Chlorobenzene	54.700	5.0	50.00	0	109	70	130					
MTBE	50.080	5.0	50.00	0	100	70	130					
Toluene	100.220	5.0	100.0	0	100	70	130					
Trichloroethene	51.650	5.0	50.00	0	103	70	130					
Surr: 1,2-Dichloroethane-d4	43.170		50.00		86.3	65	141					
Surr: 4-Bromofluorobenzene	44.400		50.00		88.8	57	134					
Surr: Dibromofluoromethane	49.740		50.00		99.5	70	128					
Surr: Toluene-d8	47.910		50.00		95.8	72	123					

Sample ID: T110816MB1MS		SampType: MS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135848		
Client ID: ZZZZZ		Batch ID: T11VS150		TestNo: EPA 8260B				Analysis Date: 8/16/2011		SeqNo: 2226894		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	39.520	5.0	50.00	0	79.0	70	130					
Benzene	92.080	5.0	100.0	0	92.1	70	130					
Chlorobenzene	50.640	5.0	50.00	0	101	70	130					
MTBE	45.410	5.0	50.00	0	90.8	70	130					
Toluene	97.810	5.0	100.0	0	97.8	70	130					
Trichloroethene	48.590	5.0	50.00	0	97.2	70	130					
Surr: 1,2-Dichloroethane-d4	40.290		50.00		80.6	65	141					
Surr: 4-Bromofluorobenzene	42.850		50.00		85.7	57	134					
Surr: Dibromofluoromethane	45.370		50.00		90.7	70	128					
Surr: Toluene-d8	46.720		50.00		93.4	72	123					

Sample ID: T110816MB1MSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135848		
Client ID: ZZZZZ		Batch ID: T11VS150		TestNo: EPA 8260B				Analysis Date: 8/16/2011		SeqNo: 2226895		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

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: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: T110816MB1MSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135848	
Client ID: ZZZZZZ		Batch ID: T11VS150		TestNo: EPA 8260B		Analysis Date: 8/16/2011				SeqNo: 2226895	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	41.590	5.0	50.00	0	83.2	70	130	39.52	5.10	20	
Benzene	94.680	5.0	100.0	0	94.7	70	130	92.08	2.78	20	
Chlorobenzene	53.610	5.0	50.00	0	107	70	130	50.64	5.70	20	
MTBE	49.420	5.0	50.00	0	98.8	70	130	45.41	8.46	20	
Toluene	100.910	5.0	100.0	0	101	70	130	97.81	3.12	20	
Trichloroethene	49.200	5.0	50.00	0	98.4	70	130	48.59	1.25	20	
Surr: 1,2-Dichloroethane-d4	41.900		50.00		83.8	65	141		0	0	
Surr: 4-Bromofluorobenzene	43.200		50.00		86.4	57	134		0	0	
Surr: Dibromofluoromethane	46.670		50.00		93.3	70	128		0	0	
Surr: Toluene-d8	46.980		50.00		94.0	72	123		0	0	

Sample ID: T110816MB1		SampType: MBLK		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135848	
Client ID: PBS		Batch ID: T11VS150		TestNo: EPA 8260B		Analysis Date: 8/16/2011				SeqNo: 2226896	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									

Qualifiers:

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



CLIENT: Mactec
 Work Order: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: T110816MB1		SampType: MBLK		TestCode: 8260_S_5035 Units: µg/Kg		Prep Date:		RunNo: 135848			
Client ID: PBS		Batch ID: T11VS150		TestNo: EPA 8260B		Analysis Date: 8/16/2011		SeqNo: 2226896			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Di-isopropyl ether	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethyl Tert-butyl ether	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	10									

Qualifiers:

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



CLIENT: Mactec
 Work Order: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: T110816MB1		SampType: MBLK		TestCode: 8260_S_5035 Units: µg/Kg		Prep Date:		RunNo: 135848			
Client ID: PBS		Batch ID: T11VS150		TestNo: EPA 8260B		Analysis Date: 8/16/2011		SeqNo: 2226896			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	5.0									
MTBE	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
Tert-amyl methyl ether	ND	5.0									
Tert-Butanol	ND	100									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	40.880		50.00		81.8	65	141				
Surr: 4-Bromofluorobenzene	42.440		50.00		84.9	57	134				
Surr: Dibromofluoromethane	45.750		50.00		91.5	70	128				
Surr: Toluene-d8	47.550		50.00		95.1	72	123				

Qualifiers:

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

CLIENT: Mactec
 Work Order: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: MB-75003	SampType: MBLK	TestCode: 8270_S_FULL Units: µg/Kg	Prep Date: 8/18/2011	RunNo: 135998							
Client ID: PBS	Batch ID: 75003	TestNo: EPA 8270C EPA 3550B	Analysis Date: 8/22/2011	SeqNo: 2228550							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	330									
1,2-Dichlorobenzene	ND	330									
1,3-Dichlorobenzene	ND	330									
1,4-Dichlorobenzene	ND	330									
2,4,5-Trichlorophenol	ND	330									
2,4,6-Trichlorophenol	ND	330									
2,4-Dichlorophenol	ND	1600									
2,4-Dimethylphenol	ND	330									
2,4-Dinitrophenol	ND	1600									
2,4-Dinitrotoluene	ND	330									
2,6-Dinitrotoluene	ND	330									
2-Chloronaphthalene	ND	330									
2-Chlorophenol	ND	330									
2-Methylnaphthalene	ND	330									
2-Methylphenol	ND	330									
2-Nitroaniline	ND	1600									
2-Nitrophenol	ND	330									
3,3'-Dichlorobenzidine	ND	660									
3-Nitroaniline	ND	1600									
4,6-Dinitro-2-methylphenol	ND	1600									
4-Bromophenyl-phenylether	ND	330									
4-Chloro-3-methylphenol	ND	660									
4-Chloroaniline	ND	660									
4-Chlorophenyl-phenylether	ND	330									
4-Methylphenol	ND	330									
4-Nitroaniline	ND	1600									
4-Nitrophenol	ND	1600									
Acenaphthene	ND	330									
Acenaphthylene	ND	330									
Anthracene	ND	330									

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: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: MB-75003	SampType: MBLK	TestCode: 8270_S_FULL Units: µg/Kg	Prep Date: 8/18/2011	RunNo: 135998							
Client ID: PBS	Batch ID: 75003	TestNo: EPA 8270C EPA 3550B	Analysis Date: 8/22/2011	SeqNo: 2228550							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzidine (M)	ND	1600									
Benzo(a)anthracene	ND	330									
Benzo(a)pyrene	ND	330									
Benzo(b)fluoranthene	ND	330									
Benzo(g,h,i)perylene	ND	330									
Benzo(k)fluoranthene	ND	330									
Benzoic acid	ND	1600									
Benzyl alcohol	ND	660									
Bis(2-chloroethoxy)methane	ND	330									
Bis(2-chloroethyl)ether	ND	330									
Bis(2-chloroisopropyl)ether	ND	330									
Bis(2-ethylhexyl)phthalate	ND	330									
Butylbenzylphthalate	ND	330									
Chrysene	ND	330									
Di-n-butylphthalate	ND	330									
Di-n-octylphthalate	ND	330									
Dibenz(a,h)anthracene	ND	330									
Dibenzofuran	ND	330									
Diethylphthalate	ND	330									
Dimethylphthalate	ND	330									
Fluoranthene	ND	330									
Fluorene	ND	330									
Hexachlorobenzene	ND	330									
Hexachlorobutadiene	ND	660									
Hexachlorocyclopentadiene	ND	660									
Hexachloroethane	ND	330									
Indeno(1,2,3-cd)pyrene	ND	330									
Isophorone	ND	330									
N-Nitrosodi-n-propylamine	ND	330									
N-Nitrosodiphenylamine	ND	330									

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: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: MB-75003		SampType: MBLK		TestCode: 8270_S_FULL Units: µg/Kg			Prep Date: 8/18/2011		RunNo: 135998		
Client ID: PBS		Batch ID: 75003		TestNo: EPA 8270C EPA 3550B			Analysis Date: 8/22/2011		SeqNo: 2228550		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	330									
Nitrobenzene	ND	330									
Pentachlorophenol	ND	1600									
Phenanthrene	ND	330									
Phenol	ND	330									
Pyrene	ND	330									
Surr: 1,2-Dichlorobenzene-d4	2527.667		3330		75.9	45	105				
Surr: 2,4,6-Tribromophenol	2311.000		3330		69.4	41	129				
Surr: 2-Chlorophenol-d4	2615.667		3330		78.5	55	108				
Surr: 2-Fluorobiphenyl	2663.333		3330		80.0	56	114				
Surr: 2-Fluorophenol	2691.000		3330		80.8	50	108				
Surr: 4-Terphenyl-d14	2636.667		3330		79.2	59	141				
Surr: Nitrobenzene-d5	2642.000		3330		79.3	45	114				
Surr: Phenol-d5	2789.667		3330		83.8	46	118				

Sample ID: LCS-75003		SampType: LCS		TestCode: 8270_S_FULL Units: µg/Kg			Prep Date: 8/18/2011		RunNo: 135998		
Client ID: LCSS		Batch ID: 75003		TestNo: EPA 8270C EPA 3550B			Analysis Date: 8/22/2011		SeqNo: 2228551		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	2682.000	330	3330	0	80.5	67	107				
1,4-Dichlorobenzene	2667.333	330	3330	0	80.1	64	99				
2,4-Dinitrotoluene	3240.000	330	3330	0	97.3	81	122				
2-Chlorophenol	2624.333	330	3330	0	78.8	62	112				
4-Chloro-3-methylphenol	2986.000	660	3330	0	89.7	64	138				
4-Nitrophenol	3165.667	1600	3330	0	95.1	60	142				
Acenaphthene	2966.667	330	3330	0	89.1	70	116				
N-Nitrosodi-n-propylamine	2797.000	330	3330	0	84.0	73	115				
Pentachlorophenol	2518.333	1600	3330	0	75.6	59	135				
Phenol	2859.667	330	3330	0	85.9	61	120				
Pyrene	3235.000	330	3330	0	97.1	75	117				

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: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: LCS-75003		SampType: LCS		TestCode: 8270_S_FULL Units: µg/Kg		Prep Date: 8/18/2011		RunNo: 135998			
Client ID: LCSS		Batch ID: 75003		TestNo: EPA 8270C EPA 3550B		Analysis Date: 8/22/2011		SeqNo: 2228551			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichlorobenzene-d4	2724.667		3330		81.8	45	105				
Surr: 2,4,6-Tribromophenol	3048.333		3330		91.5	41	129				
Surr: 2-Chlorophenol-d4	2906.667		3330		87.3	55	108				
Surr: 2-Fluorobiphenyl	2793.667		3330		83.9	56	114				
Surr: 2-Fluorophenol	2917.000		3330		87.6	50	108				
Surr: 4-Terphenyl-d14	2573.667		3330		77.3	59	141				
Surr: Nitrobenzene-d5	2943.333		3330		88.4	45	114				
Surr: Phenol-d5	3026.667		3330		90.9	46	118				

Sample ID: 119413-002AMS		SampType: MS		TestCode: 8270_S_FULL Units: µg/Kg		Prep Date: 8/18/2011		RunNo: 135998			
Client ID: E-132-15'		Batch ID: 75003		TestNo: EPA 8270C EPA 3550B		Analysis Date: 8/22/2011		SeqNo: 2228552			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	2604.000	330	3330	0	78.2	62	109				
1,4-Dichlorobenzene	2535.667	330	3330	0	76.1	57	99				
2,4-Dinitrotoluene	3308.000	330	3330	0	99.3	76	126				
2-Chlorophenol	2547.667	330	3330	0	76.5	52	120				
4-Chloro-3-methylphenol	2943.000	660	3330	0	88.4	63	137				
4-Nitrophenol	3234.000	1600	3330	0	97.1	52	144				
Acenaphthene	2985.000	330	3330	0	89.6	61	121				
N-Nitrosodi-n-propylamine	2783.667	330	3330	0	83.6	67	116				
Pentachlorophenol	2647.000	1600	3330	0	79.5	47	143				
Phenol	2768.333	330	3330	0	83.1	54	126				
Pyrene	3316.333	330	3330	0	99.6	68	121				
Surr: 1,2-Dichlorobenzene-d4	2622.667		3330		78.8	45	105				
Surr: 2,4,6-Tribromophenol	3141.000		3330		94.3	41	129				
Surr: 2-Chlorophenol-d4	2801.667		3330		84.1	55	108				
Surr: 2-Fluorobiphenyl	2764.667		3330		83.0	56	114				
Surr: 2-Fluorophenol	2726.333		3330		81.9	50	108				
Surr: 4-Terphenyl-d14	2606.333		3330		78.3	59	141				

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: 119413
 Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: 119413-002AMS		SampType: MS		TestCode: 8270_S_FULL Units: µg/Kg		Prep Date: 8/18/2011		RunNo: 135998			
Client ID: E-132-15'		Batch ID: 75003		TestNo: EPA 8270C EPA 3550B		Analysis Date: 8/22/2011		SeqNo: 2228552			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	2821.667		3330		84.7	45	114				
Surr: Phenol-d5	2919.000		3330		87.7	46	118				

Sample ID: 119413-002AMSD		SampType: MSD		TestCode: 8270_S_FULL Units: µg/Kg		Prep Date: 8/18/2011		RunNo: 135998			
Client ID: E-132-15'		Batch ID: 75003		TestNo: EPA 8270C EPA 3550B		Analysis Date: 8/22/2011		SeqNo: 2228553			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	2595.667	330	3330	0	77.9	62	109	2604	0.321	20	
1,4-Dichlorobenzene	2481.000	330	3330	0	74.5	57	99	2536	2.18	20	
2,4-Dinitrotoluene	3426.333	330	3330	0	103	76	126	3308	3.51	20	
2-Chlorophenol	2462.333	330	3330	0	73.9	52	120	2548	3.41	20	
4-Chloro-3-methylphenol	3033.000	660	3330	0	91.1	63	137	2943	3.01	20	
4-Nitrophenol	3432.333	1600	3330	0	103	52	144	3234	5.95	20	
Acenaphthene	3110.667	330	3330	0	93.4	61	121	2985	4.12	20	
N-Nitrosodi-n-propylamine	2785.333	330	3330	0	83.6	67	116	2784	0.0599	20	
Pentachlorophenol	2587.667	1600	3330	0	77.7	47	143	2647	2.27	20	
Phenol	2720.000	330	3330	0	81.7	54	126	2768	1.76	20	
Pyrene	3415.000	330	3330	0	103	68	121	3316	2.93	20	
Surr: 1,2-Dichlorobenzene-d4	2563.333		3330		77.0	45	105		0	0	
Surr: 2,4,6-Tribromophenol	3262.000		3330		98.0	41	129		0	0	
Surr: 2-Chlorophenol-d4	2701.667		3330		81.1	55	108		0	0	
Surr: 2-Fluorobiphenyl	2826.000		3330		84.9	56	114		0	0	
Surr: 2-Fluorophenol	2654.667		3330		79.7	50	108		0	0	
Surr: 4-Terphenyl-d14	2648.667		3330		79.5	59	141		0	0	
Surr: Nitrobenzene-d5	2817.667		3330		84.6	45	114		0	0	
Surr: Phenol-d5	2830.667		3330		85.0	46	118		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 | |



CHAIN OF CUSTODY RECORD

ADVANCED TECHNOLOGY LABORATORIES
 3275 Walnut Ave., Signal Hill, CA 90755
 Tel: (562) 989-4045 • Fax: (562) 989-4040

P.O.#: 301106374 Quote #: 1476
 Logged By: [Signature] Date: 8/16/11

Method of Transport:
 Client ATL
 FedEx OnTrac
 GSO Other: _____

Sample Condition Upon Receipt:
 1. CHILLED Y N 4. SEALED N
 2. HEADSPACE (VOA) Y N 5. # OF SPLS MATCH COC Y N
 3. CONTAINER INTACT Y N 6. PRESERVED Y N

NOTE: Please include your Quote No. to ensure proper pricing of your project.

Client: MACTEC Address: 5628 E. Slawson Ave TEL: 373-889-5300
 Attn: Math Fraychineaud City: LA State: CA Zip Code: 90040 FAX: _____

Project Name: _____
 Project #: _____
 Relinquished by: (Signature and Printed Name) [Signature] Date: 8/15/11 Time: 0730
 Relinquished to: (Signature and Printed Name) Paul Kane Date: 8/15/11 Time: 0730
 Relinquished by: (Signature and Printed Name) Math Fraychineaud Date: 8/15/11 Time: 1315
 Relinquished to: (Signature and Printed Name) [Signature] Date: 8/15/11 Time: 1650

I hereby authorize ATL to perform the work indicated below:
 Project Mgr /Submitter: Math Fraychineaud
 Bill To: _____
 Attn: _____
 Co: _____
 Address: _____
 City: _____ State: _____ Zip: _____

Sample/Records - Archival & Disposal
 Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.
 Storage Fees (applies when storage is requested):
 • Sample : \$2.00 / sample / mo (after 45 days)
 • Records : \$1.00 / ATL workorder / mo (after 1 year)

LAB USE ONLY: Batch #:	Lab No.	Sample Description	Sample I.D. / Location		Date	Time
			Sample I.D. / Location	Date		
	119413-21		E-132-10'	✓	8/12/11	0758
	2		E-132-15'	✓		1000
	3		E-132-20'	✓		1008
	4		E-132-25'	✓		1015
	5		E-132-30'	✓		1020
	6		E-132-35'	✓		1035
	7		E-132-40'	✓		1045

Special Instructions/Comments: _____

Circle or Add Analysis(es) Requested:
 8081A (Pesticides) 8260B (PCB) 8270C (Volatiles) 8010B (Total Metal) 8015B (GRO) 8015B (DRO) TITLE 22 / CAM 17 (6010 / 7000)

Container(s) # Type: 1 T Hold
 7 T V NaHSO4
 1 T Hold
 1 T n
 7 T V NaHSO4
 1 T Hold

QA/QC:
 RTNE CT Legal
 SWRCB Logcode OTHER _____

REMARKS: Hold

FOR LABORATORY USE ONLY:
 Sample Condition Upon Receipt:
 1. CHILLED Y N 4. SEALED Y N
 2. HEADSPACE (VOA) Y N 5. # OF SPLS MATCH COC Y N
 3. CONTAINER INTACT Y N 6. PRESERVED Y N

Method of Transport:
 Client ATL
 FedEx OnTrac
 GSO Other: _____

Preservatives:
 H=HCl N=HNO3 S=H2SO4 C=4°C
 Z=Zn(AC)2 O=NaOH T=Na2S2O3

TAT: A= Overnight ≤ 24 hrs B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pin J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Figure I-1.992

August 26, 2011



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

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

Workorder No.: 119469

RE: Metro Westside Extension, 4953101561

Attention: Matt Fraychineaud

Enclosed are the results for sample(s) received on August 19, 2011 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

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

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

Sincerely,

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

Eddie F. Rodriguez
Laboratory Director

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



CLIENT: Mactec
Project: Metro Westside Extension, 4953101561
Lab Order: 119469

CASE NARRATIVE

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

Analytical Comments for EPA 8270C

Samples 119481-003GMS and 119481-003GMSD, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).



Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 26-Aug-11

CLIENT: Mactec
Lab Order: 119469
Project: Metro Westside Extension, 4953101561
Lab ID: 119469-001A

Client Sample ID: E-133-GW @ 25'
Collection Date: 8/19/2011 11:30:00 AM
Matrix: GROUNDWATER

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

EPA 8260B

RunID: MS2_110822A	QC Batch: Q11VW159	PrepDate:	Analyst: BD		
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,1,1-Trichloroethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,1,2-Trichloroethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,1-Dichloroethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,1-Dichloroethene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,1-Dichloropropene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,2,3-Trichlorobenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,2,3-Trichloropropane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,2,4-Trichlorobenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,2-Dibromo-3-chloropropane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,2-Dibromoethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,2-Dichlorobenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,2-Dichloroethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,2-Dichloropropane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,3-Dichlorobenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,3-Dichloropropane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
1,4-Dichlorobenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
2,2-Dichloropropane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
2-Chlorotoluene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
4-Chlorotoluene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
4-Isopropyltoluene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
Benzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
Bromobenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
Bromodichloromethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
Bromoform	ND	0.50	µg/L	1	8/22/2011 09:26 PM
Bromomethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
Carbon tetrachloride	ND	0.50	µg/L	1	8/22/2011 09:26 PM
Chlorobenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM
Chloroethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
Chloroform	ND	0.50	µg/L	1	8/22/2011 09:26 PM
Chloromethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM
cis-1,2-Dichloroethene	ND	0.50	µg/L	1	8/22/2011 09:26 PM

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



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ANALYTICAL RESULTS

Print Date: 26-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-133-GW @ 25'
Lab Order:	119469	Collection Date:	8/19/2011 11:30:00 AM
Project:	Metro Westside Extension, 4953101561	Matrix:	GROUNDWATER
Lab ID:	119469-001A		

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

EPA 8260B

RunID:	MS2_110822A	QC Batch:	Q11VW159	PrepDate:	Analyst:	BD
cis-1,3-Dichloropropene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Di-isopropyl ether	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Dibromochloromethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Dibromomethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Dichlorodifluoromethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Ethyl tert-butyl ether	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Ethylbenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Hexachlorobutadiene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Isopropylbenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
m,p-Xylene	ND	1.0	µg/L	1	8/22/2011 09:26 PM	
Methylene chloride	ND	1.0	µg/L	1	8/22/2011 09:26 PM	
MTBE	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
n-Butylbenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
n-Propylbenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Naphthalene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
o-Xylene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
sec-Butylbenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Styrene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Tert-amyl methyl ether	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Tert-Butanol	ND	10	µg/L	1	8/22/2011 09:26 PM	
tert-Butylbenzene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Tetrachloroethene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Toluene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
trans-1,2-Dichloroethene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Trichloroethene	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Trichlorofluoromethane	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Vinyl chloride	ND	0.50	µg/L	1	8/22/2011 09:26 PM	
Surr: 1,2-Dichloroethane-d4	87.8	70-130	%REC	1	8/22/2011 09:26 PM	
Surr: 4-Bromofluorobenzene	98.3	70-130	%REC	1	8/22/2011 09:26 PM	
Surr: Dibromofluoromethane	88.5	70-130	%REC	1	8/22/2011 09:26 PM	
Surr: Toluene-d8	87.2	70-130	%REC	1	8/22/2011 09:26 PM	

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



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ANALYTICAL RESULTS
 Print Date: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-133-GW @ 25'
Lab Order: 119469	Collection Date: 8/19/2011 11:30:00 AM
Project: Metro Westside Extension, 4953101561	Matrix: GROUNDWATER
Lab ID: 119469-001B	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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GASOLINE RANGE ORGANICS BY GC/FID				EPA 8015B(M)		
RunID: GC19_110822A	QC Batch: M11VW162			PrepDate:		Analyst: BB
GRO	ND	0.20		mg/L	1	8/22/2011 02:42 PM
Surr: Bromofluorobenzene (FID)	89.0	70-130		%REC	1	8/22/2011 02:42 PM

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



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ANALYTICAL RESULTS
 Print Date: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-133-GW @ 25'
Lab Order: 119469	Collection Date: 8/19/2011 11:30:00 AM
Project: Metro Westside Extension, 4953101561	Matrix: GROUNDWATER
Lab ID: 119469-001C	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID						
EPA 3510C			EPA 8015B(M)			
RunID: GC16_110822B	QC Batch: 75038			PrepDate: 8/22/2011		Analyst: CBR
DRO	0.21	0.20		mg/L	1	8/22/2011 03:29 PM
ORO	0.24	0.20		mg/L	1	8/22/2011 03:29 PM
Surr: p-Terphenyl	68.2	36-126		%REC	1	8/22/2011 03:29 PM

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



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ANALYTICAL RESULTS

Print Date: 26-Aug-11

CLIENT: Mactec
Lab Order: 119469
Project: Metro Westside Extension, 4953101561
Lab ID: 119469-002A

Client Sample ID: E-133-35'
Collection Date: 8/19/2011 1:20:00 PM
Matrix: SOIL

Analyses Result PQL Qual Units DF Date Analyzed

DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID

LUFT

EPA 8015B(M)

RunID: GC16_110822A QC Batch: 75034 PrepDate: 8/22/2011 Analyst: **CBR**
 DRO ND 10 mg/Kg 1 8/22/2011 12:38 PM
 ORO ND 10 mg/Kg 1 8/22/2011 12:38 PM
 Surr: p-Terphenyl 81.5 63-152 %REC 1 8/22/2011 12:38 PM

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 3550B

EPA 8270C

RunID: MS 13_110823A QC Batch: 75073 PrepDate: 8/23/2011 Analyst: **DMP**
 1,2,4-Trichlorobenzene ND 330 µg/Kg 1 8/23/2011 12:35 PM
 1,2-Dichlorobenzene ND 330 µg/Kg 1 8/23/2011 12:35 PM
 1,3-Dichlorobenzene ND 330 µg/Kg 1 8/23/2011 12:35 PM
 1,4-Dichlorobenzene ND 330 µg/Kg 1 8/23/2011 12:35 PM
 2,4,5-Trichlorophenol ND 330 µg/Kg 1 8/23/2011 12:35 PM
 2,4,6-Trichlorophenol ND 330 µg/Kg 1 8/23/2011 12:35 PM
 2,4-Dichlorophenol ND 1600 µg/Kg 1 8/23/2011 12:35 PM
 2,4-Dimethylphenol ND 330 µg/Kg 1 8/23/2011 12:35 PM
 2,4-Dinitrophenol ND 1600 µg/Kg 1 8/23/2011 12:35 PM
 2,4-Dinitrotoluene ND 330 µg/Kg 1 8/23/2011 12:35 PM
 2,6-Dinitrotoluene ND 330 µg/Kg 1 8/23/2011 12:35 PM
 2-Chloronaphthalene ND 330 µg/Kg 1 8/23/2011 12:35 PM
 2-Chlorophenol ND 330 µg/Kg 1 8/23/2011 12:35 PM
 2-Methylnaphthalene ND 330 µg/Kg 1 8/23/2011 12:35 PM
 2-Methylphenol ND 330 µg/Kg 1 8/23/2011 12:35 PM
 2-Nitroaniline ND 1600 µg/Kg 1 8/23/2011 12:35 PM
 2-Nitrophenol ND 330 µg/Kg 1 8/23/2011 12:35 PM
 3,3'-Dichlorobenzidine ND 660 µg/Kg 1 8/23/2011 12:35 PM
 3-Nitroaniline ND 1600 µg/Kg 1 8/23/2011 12:35 PM
 4,6-Dinitro-2-methylphenol ND 1600 µg/Kg 1 8/23/2011 12:35 PM
 4-Bromophenyl-phenylether ND 330 µg/Kg 1 8/23/2011 12:35 PM
 4-Chloro-3-methylphenol ND 660 µg/Kg 1 8/23/2011 12:35 PM
 4-Chloroaniline ND 660 µg/Kg 1 8/23/2011 12:35 PM
 4-Chlorophenyl-phenylether ND 330 µg/Kg 1 8/23/2011 12:35 PM
 4-Methylphenol ND 330 µg/Kg 1 8/23/2011 12:35 PM
 4-Nitroaniline ND 1600 µg/Kg 1 8/23/2011 12:35 PM
 4-Nitrophenol ND 1600 µg/Kg 1 8/23/2011 12:35 PM
 Acenaphthene ND 330 µg/Kg 1 8/23/2011 12:35 PM
 Acenaphthylene ND 330 µg/Kg 1 8/23/2011 12:35 PM

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



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ANALYTICAL RESULTS

Print Date: 26-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-133-35'
Lab Order:	119469	Collection Date:	8/19/2011 1:20:00 PM
Project:	Metro Westside Extension, 4953101561	Matrix:	SOIL
Lab ID:	119469-002A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
	EPA 3550B			EPA 8270C		
RunID: MS 13_110823A	QC Batch: 75073			PrepDate:	8/23/2011	Analyst: DMP
Anthracene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Benzidine (M)	ND	1600		µg/Kg	1	8/23/2011 12:35 PM
Benzo(a)anthracene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Benzo(a)pyrene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Benzo(b)fluoranthene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Benzo(g,h,i)perylene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Benzo(k)fluoranthene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Benzoic acid	ND	1600		µg/Kg	1	8/23/2011 12:35 PM
Benzyl alcohol	ND	660		µg/Kg	1	8/23/2011 12:35 PM
Bis(2-chloroethoxy)methane	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Bis(2-chloroethyl)ether	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Bis(2-chloroisopropyl)ether	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Bis(2-ethylhexyl)phthalate	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Butylbenzylphthalate	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Chrysene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Di-n-butylphthalate	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Di-n-octylphthalate	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Dibenz(a,h)anthracene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Dibenzofuran	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Diethylphthalate	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Dimethylphthalate	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Fluoranthene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Fluorene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Hexachlorobenzene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Hexachlorobutadiene	ND	660		µg/Kg	1	8/23/2011 12:35 PM
Hexachlorocyclopentadiene	ND	660		µg/Kg	1	8/23/2011 12:35 PM
Hexachloroethane	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Indeno(1,2,3-cd)pyrene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Isophorone	ND	330		µg/Kg	1	8/23/2011 12:35 PM
N-Nitrosodi-n-propylamine	ND	330		µg/Kg	1	8/23/2011 12:35 PM
N-Nitrosodiphenylamine	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Naphthalene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Nitrobenzene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Pentachlorophenol	ND	1600		µg/Kg	1	8/23/2011 12:35 PM
Phenanthrene	ND	330		µg/Kg	1	8/23/2011 12:35 PM

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



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ANALYTICAL RESULTS

Print Date: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-133-35'
Lab Order: 119469	Collection Date: 8/19/2011 1:20:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 119469-002A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
	EPA 3550B		EPA 8270C			
RunID: MS 13_110823A	QC Batch: 75073			PrepDate: 8/23/2011		Analyst: DMP
Phenol	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Pyrene	ND	330		µg/Kg	1	8/23/2011 12:35 PM
Surr: 1,2-Dichlorobenzene-d4	73.6	45-105		%REC	1	8/23/2011 12:35 PM
Surr: 2,4,6-Tribromophenol	69.3	41-129		%REC	1	8/23/2011 12:35 PM
Surr: 2-Chlorophenol-d4	78.3	55-108		%REC	1	8/23/2011 12:35 PM
Surr: 2-Fluorobiphenyl	82.2	56-114		%REC	1	8/23/2011 12:35 PM
Surr: 2-Fluorophenol	80.2	50-108		%REC	1	8/23/2011 12:35 PM
Surr: 4-Terphenyl-d14	89.2	59-141		%REC	1	8/23/2011 12:35 PM
Surr: Nitrobenzene-d5	75.1	45-114		%REC	1	8/23/2011 12:35 PM
Surr: Phenol-d5	84.1	46-118		%REC	1	8/23/2011 12:35 PM

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



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ANALYTICAL RESULTS

Print Date: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-133-35'
Lab Order: 119469	Collection Date: 8/19/2011 1:20:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 119469-002B	

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

EPA 8260B

RunID: MS5_110822A	QC Batch: T11VS154	PrepDate: 8/19/2011	Analyst: DDL		
1,1,1,2-Tetrachloroethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,1,1-Trichloroethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,1,2,2-Tetrachloroethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,1,2-Trichloroethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,1-Dichloroethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,1-Dichloroethene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,1-Dichloropropene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,2,3-Trichlorobenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,2,3-Trichloropropane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,2,4-Trichlorobenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,2,4-Trimethylbenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,2-Dibromo-3-chloropropane	ND	9.5	µg/Kg	1	8/22/2011 05:06 PM
1,2-Dibromoethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,2-Dichlorobenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,2-Dichloroethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,2-Dichloropropane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,3,5-Trimethylbenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,3-Dichlorobenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,3-Dichloropropane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
1,4-Dichlorobenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
2,2-Dichloropropane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
2-Chlorotoluene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
4-Chlorotoluene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
4-Isopropyltoluene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Benzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Bromobenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Bromodichloromethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Bromoform	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Bromomethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Carbon tetrachloride	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Chlorobenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Chloroethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Chloroform	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Chloromethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
cis-1,2-Dichloroethene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM

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



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ANALYTICAL RESULTS

Print Date: 26-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-133-35'
Lab Order:	119469	Collection Date:	8/19/2011 1:20:00 PM
Project:	Metro Westside Extension, 4953101561	Matrix:	SOIL
Lab ID:	119469-002B		

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

EPA 8260B

RunID: MS5_110822A	QC Batch: T11VS154	PrepDate: 8/19/2011	Analyst: DDL		
cis-1,3-Dichloropropene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Di-isopropyl ether	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Dibromochloromethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Dibromomethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Dichlorodifluoromethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Ethyl Tert-butyl ether	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Ethylbenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Hexachlorobutadiene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Isopropylbenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
m,p-Xylene	ND	9.5	µg/Kg	1	8/22/2011 05:06 PM
Methylene chloride	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
MTBE	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
n-Butylbenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
n-Propylbenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Naphthalene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
o-Xylene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
sec-Butylbenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Styrene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Tert-amyl methyl ether	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Tert-Butanol	ND	95	µg/Kg	1	8/22/2011 05:06 PM
tert-Butylbenzene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Tetrachloroethene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Toluene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
trans-1,2-Dichloroethene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Trichloroethene	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Trichlorofluoromethane	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Vinyl chloride	ND	4.8	µg/Kg	1	8/22/2011 05:06 PM
Surr: 1,2-Dichloroethane-d4	102	65-141	%REC	1	8/22/2011 05:06 PM
Surr: 4-Bromofluorobenzene	87.9	57-134	%REC	1	8/22/2011 05:06 PM
Surr: Dibromofluoromethane	112	70-128	%REC	1	8/22/2011 05:06 PM
Surr: Toluene-d8	96.2	72-123	%REC	1	8/22/2011 05:06 PM

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



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: 26-Aug-11

CLIENT: Mactec	Client Sample ID: E-133-35'
Lab Order: 119469	Collection Date: 8/19/2011 1:20:00 PM
Project: Metro Westside Extension, 4953101561	Matrix: SOIL
Lab ID: 119469-002E	

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

EPA 8015B(M)

RunID: GC2_110824A	QC Batch: E11VS307	PrepDate: 8/19/2011	Analyst: TP		
GRO	ND	0.95	mg/Kg	1	8/24/2011 12:49 PM
Surr: Bromofluorobenzene (FID)	106	51-161	%REC	1	8/24/2011 12:49 PM

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



*Advanced Technology
 Laboratories*

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

CLIENT: Mactec
Work Order: 119469
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_DM H

Sample ID: LCS-75034	SampType: LCS	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 8/22/2011	RunNo: 135973						
Client ID: LCSS	Batch ID: 75034	TestNo: EPA 8015B(M LUFT		Analysis Date: 8/22/2011	SeqNo: 2228122						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	928.390	10	1000	0	92.8	76	139				
Surr: p-Terphenyl	74.400		80.00		93.0	63	152				

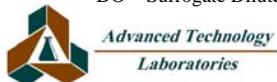
Sample ID: 119466-001AMS	SampType: MS	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 8/22/2011	RunNo: 135973						
Client ID: ZZZZZ	Batch ID: 75034	TestNo: EPA 8015B(M LUFT		Analysis Date: 8/22/2011	SeqNo: 2228123						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	860.860	10	1000	0	86.1	60	158				
Surr: p-Terphenyl	75.070		80.00		93.8	63	152				

Sample ID: 119466-001AMSD	SampType: MSD	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 8/22/2011	RunNo: 135973						
Client ID: ZZZZZ	Batch ID: 75034	TestNo: EPA 8015B(M LUFT		Analysis Date: 8/22/2011	SeqNo: 2228124						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	847.470	10	1000	0	84.7	60	158	860.9	1.57	20	
Surr: p-Terphenyl	73.580		80.00		92.0	63	152		0	0	

Sample ID: MB-75034	SampType: MBLK	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 8/22/2011	RunNo: 135973						
Client ID: PBS	Batch ID: 75034	TestNo: EPA 8015B(M LUFT		Analysis Date: 8/22/2011	SeqNo: 2228127						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	ND	10									
ORO	ND	10									
Surr: p-Terphenyl	63.660		80.00		79.6	63	152				

Qualifiers:

- B Analyte detected in the associated Method Blank
- 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: 119469
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

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

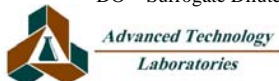
Sample ID: E110824MB1MS		SampType: MS		TestCode: 8015_S_G 50		Units: mg/Kg		Prep Date:		RunNo: 136058		
Client ID: ZZZZZZ		Batch ID: E11VS307		TestNo: EPA 8015B(M)		Analysis Date: 8/24/2011		SeqNo: 2229735				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit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

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

Sample ID: E110824MB1		SampType: MBLK		TestCode: 8015_S_G 50		Units: mg/Kg		Prep Date:		RunNo: 136058		
Client ID: PBS		Batch ID: E11VS307		TestNo: EPA 8015B(M)		Analysis Date: 8/24/2011		SeqNo: 2229737				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	ND	1.0										
Surr: Bromofluorobenzene (FID)	89.530		100.0		89.5	51	161					

Qualifiers:

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



CLIENT: Mactec
Work Order: 119469
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_DM

Sample ID: MB-75038	SampType: MBLK	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 8/22/2011	RunNo: 135984						
Client ID: PBW	Batch ID: 75038	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 8/22/2011	SeqNo: 2228373						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	ND	0.20									
ORO	ND	0.20									
Surr: p-Terphenyl	0.060		0.08000		75.2	36	126				

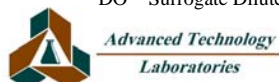
Sample ID: LCS-75038	SampType: LCS	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 8/22/2011	RunNo: 135984						
Client ID: LCSW	Batch ID: 75038	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 8/22/2011	SeqNo: 2228374						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	0.644	0.20	1.000	0	64.4	52	128				
Surr: p-Terphenyl	0.071		0.08000		88.7	36	126				

Sample ID: MB-75038MS	SampType: MS	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 8/22/2011	RunNo: 135984						
Client ID: ZZZZZ	Batch ID: 75038	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 8/22/2011	SeqNo: 2228375						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	0.648	0.20	1.000	0	64.8	52	128				
Surr: p-Terphenyl	0.064		0.08000		79.5	36	126				

Sample ID: MB-75038MSD	SampType: MSD	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 8/22/2011	RunNo: 135984						
Client ID: ZZZZZ	Batch ID: 75038	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 8/22/2011	SeqNo: 2228376						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	0.559	0.20	1.000	0	55.9	52	128	0.6478	14.6	20	
Surr: p-Terphenyl	0.064		0.08000		79.4	36	126		0	0	

Qualifiers:

- | | | |
|---|--|--|
| 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: 119469
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_G PRES

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

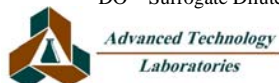
Sample ID: M110822MB1MS	SampType: MS	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 135989						
Client ID: ZZZZZ	Batch ID: M11VW162	TestNo: EPA 8015B(M)		Analysis Date: 8/22/2011	SeqNo: 2228494						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual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

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

Sample ID: M110822MB1	SampType: MBLK	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 135989						
Client ID: PBW	Batch ID: M11VW162	TestNo: EPA 8015B(M)		Analysis Date: 8/22/2011	SeqNo: 2228496						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	0.20									
Surr: Bromofluorobenzene (FID)	89.015		100.0		89.0	70	130				

Qualifiers:

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



CLIENT: Mactec
Work Order: 119469
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

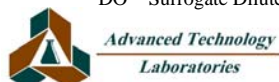
Sample ID: T110822LCS1		SampType: LCS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135975		
Client ID: LCSS		Batch ID: T11VS154		TestNo: EPA 8260B				Analysis Date: 8/22/2011		SeqNo: 2229081		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual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

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

Sample ID: T110822MB1MSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135975		
Client ID: ZZZZZ		Batch ID: T11VS154		TestNo: EPA 8260B				Analysis Date: 8/22/2011		SeqNo: 2229083		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Qualifiers:

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



CLIENT: Mactec
Work Order: 119469
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

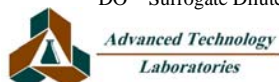
TestCode: 8260_S_5035

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

Sample ID: T110822MB1		SampType: MBLK		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135975	
Client ID: PBS		Batch ID: T11VS154		TestNo: EPA 8260B		Analysis Date: 8/22/2011				SeqNo: 2229084	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									

Qualifiers:

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



CLIENT: Mactec
Work Order: 119469
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

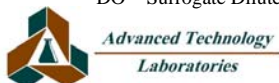
TestCode: 8260_S_5035

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

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Di-isopropyl ether	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethyl Tert-butyl ether	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	10									

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| 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: 119469
Project: Metro Westside Extension, 4953101561

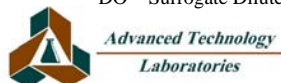
ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: T110822MB1	SampType: MBLK	TestCode: 8260_S_5035	Units: µg/Kg	Prep Date:	RunNo: 135975						
Client ID: PBS	Batch ID: T11VS154	TestNo: EPA 8260B		Analysis Date: 8/22/2011	SeqNo: 2229084						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	5.0									
MTBE	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
Tert-amyl methyl ether	ND	5.0									
Tert-Butanol	ND	100									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	46.680		50.00		93.4	65	141				
Surr: 4-Bromofluorobenzene	42.270		50.00		84.5	57	134				
Surr: Dibromofluoromethane	49.940		50.00		99.9	70	128				
Surr: Toluene-d8	48.340		50.00		96.7	72	123				

Qualifiers:

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



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Work Order: 119469
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

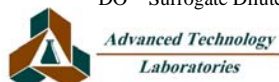
Sample ID: Q110822LCS1		SampType: LCS		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 136001		
Client ID: LCSW		Batch ID: Q11VW159		TestNo: EPA 8260B		Analysis Date: 8/22/2011				SeqNo: 2228571		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene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

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

Sample ID: Q110822MB3MSD		SampType: MSD		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 136001		
Client ID: ZZZZZ		Batch ID: Q11VW159		TestNo: EPA 8260B		Analysis Date: 8/22/2011				SeqNo: 2228573		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Qualifiers:

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



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ANALYTICAL QC SUMMARY REPORT

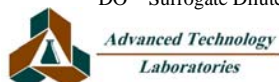
TestCode: 8260_WP_LL

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

Sample ID: Q110822MB3		SampType: MBLK		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 136001	
Client ID: PBW		Batch ID: Q11VW159		TestNo: EPA 8260B		Analysis Date: 8/22/2011				SeqNo: 2228574	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									

Qualifiers:

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



CLIENT: Mactec
Work Order: 119469
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

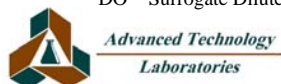
TestCode: 8260_WP_LL

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

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Di-isopropyl ether	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethyl tert-butyl ether	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									

Qualifiers:

- | | | |
|---|--|--|
| 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: 119469
Project: Metro Westside Extension, 4953101561

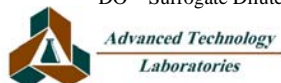
ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: Q110822MB3	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 136001						
Client ID: PBW	Batch ID: Q11VW159	TestNo: EPA 8260B		Analysis Date: 8/22/2011	SeqNo: 2228574						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	1.0									
MTBE	ND	0.50									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
Tert-amyl methyl ether	ND	0.50									
Tert-Butanol	ND	10									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	27.030		25.00		108	70	130				
Surr: 4-Bromofluorobenzene	25.880		25.00		104	70	130				
Surr: Dibromofluoromethane	25.900		25.00		104	70	130				
Surr: Toluene-d8	22.700		25.00		90.8	70	130				

Qualifiers:

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



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CLIENT: Mactec
Work Order: 119469
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: MB-75073	SampType: MBLK	TestCode: 8270_S_FULL	Units: µg/Kg	Prep Date: 8/23/2011	RunNo: 136040
Client ID: PBS	Batch ID: 75073	TestNo: EPA 8270C EPA 3550B		Analysis Date: 8/23/2011	SeqNo: 2229226

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	330									
1,2-Dichlorobenzene	ND	330									
1,3-Dichlorobenzene	ND	330									
1,4-Dichlorobenzene	ND	330									
2,4,5-Trichlorophenol	ND	330									
2,4,6-Trichlorophenol	ND	330									
2,4-Dichlorophenol	ND	1600									
2,4-Dimethylphenol	ND	330									
2,4-Dinitrophenol	ND	1600									
2,4-Dinitrotoluene	ND	330									
2,6-Dinitrotoluene	ND	330									
2-Chloronaphthalene	ND	330									
2-Chlorophenol	ND	330									
2-Methylnaphthalene	ND	330									
2-Methylphenol	ND	330									
2-Nitroaniline	ND	1600									
2-Nitrophenol	ND	330									
3,3'-Dichlorobenzidine	ND	660									
3-Nitroaniline	ND	1600									
4,6-Dinitro-2-methylphenol	ND	1600									
4-Bromophenyl-phenylether	ND	330									
4-Chloro-3-methylphenol	ND	660									
4-Chloroaniline	ND	660									
4-Chlorophenyl-phenylether	ND	330									
4-Methylphenol	ND	330									
4-Nitroaniline	ND	1600									
4-Nitrophenol	ND	1600									
Acenaphthene	ND	330									
Acenaphthylene	ND	330									
Anthracene	ND	330									

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: 8270_S_FULL

Sample ID: MB-75073	SampType: MBLK	TestCode: 8270_S_FULL	Units: µg/Kg	Prep Date: 8/23/2011	RunNo: 136040
Client ID: PBS	Batch ID: 75073	TestNo: EPA 8270C	EPA 3550B	Analysis Date: 8/23/2011	SeqNo: 2229226

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzidine (M)	ND	1600									
Benzo(a)anthracene	ND	330									
Benzo(a)pyrene	ND	330									
Benzo(b)fluoranthene	ND	330									
Benzo(g,h,i)perylene	ND	330									
Benzo(k)fluoranthene	ND	330									
Benzoic acid	ND	1600									
Benzyl alcohol	ND	660									
Bis(2-chloroethoxy)methane	ND	330									
Bis(2-chloroethyl)ether	ND	330									
Bis(2-chloroisopropyl)ether	ND	330									
Bis(2-ethylhexyl)phthalate	ND	330									
Butylbenzylphthalate	ND	330									
Chrysene	ND	330									
Di-n-butylphthalate	ND	330									
Di-n-octylphthalate	ND	330									
Dibenz(a,h)anthracene	ND	330									
Dibenzofuran	ND	330									
Diethylphthalate	ND	330									
Dimethylphthalate	ND	330									
Fluoranthene	ND	330									
Fluorene	ND	330									
Hexachlorobenzene	ND	330									
Hexachlorobutadiene	ND	660									
Hexachlorocyclopentadiene	ND	660									
Hexachloroethane	ND	330									
Indeno(1,2,3-cd)pyrene	ND	330									
Isophorone	ND	330									
N-Nitrosodi-n-propylamine	ND	330									
N-Nitrosodiphenylamine	ND	330									

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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ANALYTICAL QC SUMMARY REPORT

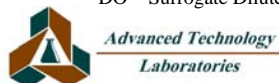
TestCode: 8270_S_FULL

Sample ID: MB-75073	SampType: MBLK	TestCode: 8270_S_FULL	Units: µg/Kg	Prep Date: 8/23/2011	RunNo: 136040						
Client ID: PBS	Batch ID: 75073	TestNo: EPA 8270C EPA 3550B		Analysis Date: 8/23/2011	SeqNo: 2229226						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	330									
Nitrobenzene	ND	330									
Pentachlorophenol	ND	1600									
Phenanthrene	ND	330									
Phenol	ND	330									
Pyrene	ND	330									
Surr: 1,2-Dichlorobenzene-d4	2826.667		3330		84.9	45	105				
Surr: 2,4,6-Tribromophenol	1658.000		3330		49.8	41	129				
Surr: 2-Chlorophenol-d4	2927.333		3330		87.9	55	108				
Surr: 2-Fluorobiphenyl	3009.333		3330		90.4	56	114				
Surr: 2-Fluorophenol	2936.667		3330		88.2	50	108				
Surr: 4-Terphenyl-d14	3045.667		3330		91.5	59	141				
Surr: Nitrobenzene-d5	2806.000		3330		84.3	45	114				
Surr: Phenol-d5	3038.000		3330		91.2	46	118				

Sample ID: LCS-75073	SampType: LCS	TestCode: 8270_S_FULL	Units: µg/Kg	Prep Date: 8/23/2011	RunNo: 136040						
Client ID: LCSS	Batch ID: 75073	TestNo: EPA 8270C EPA 3550B		Analysis Date: 8/23/2011	SeqNo: 2229227						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	2795.333	330	3330	0	83.9	67	107				
1,4-Dichlorobenzene	2732.000	330	3330	0	82.0	64	99				
2,4-Dinitrotoluene	3352.333	330	3330	0	101	81	122				
2-Chlorophenol	2691.333	330	3330	0	80.8	62	112				
4-Chloro-3-methylphenol	3116.000	660	3330	0	93.6	64	138				
4-Nitrophenol	3074.000	1600	3330	0	92.3	60	142				
Acenaphthene	3334.000	330	3330	0	100	70	116				
N-Nitrosodi-n-propylamine	2953.000	330	3330	0	88.7	73	115				
Pentachlorophenol	2173.000	1600	3330	0	65.3	59	135				
Phenol	2904.333	330	3330	0	87.2	61	120				
Pyrene	3581.000	330	3330	0	108	75	117				

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: 119469
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

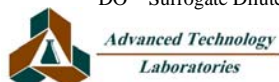
TestCode: 8270_S_FULL

Sample ID: LCS-75073		SampType: LCS		TestCode: 8270_S_FULL Units: µg/Kg		Prep Date: 8/23/2011		RunNo: 136040			
Client ID: LCSS		Batch ID: 75073		TestNo: EPA 8270C EPA 3550B		Analysis Date: 8/23/2011		SeqNo: 2229227			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichlorobenzene-d4	2851.667		3330		85.6	45	105				
Surr: 2,4,6-Tribromophenol	3310.000		3330		99.4	41	129				
Surr: 2-Chlorophenol-d4	2967.000		3330		89.1	55	108				
Surr: 2-Fluorobiphenyl	3197.667		3330		96.0	56	114				
Surr: 2-Fluorophenol	3008.000		3330		90.3	50	108				
Surr: 4-Terphenyl-d14	3107.000		3330		93.3	59	141				
Surr: Nitrobenzene-d5	2980.333		3330		89.5	45	114				
Surr: Phenol-d5	3106.667		3330		93.3	46	118				

Sample ID: 119481-003GMS		SampType: MS		TestCode: 8270_S_FULL Units: µg/Kg		Prep Date: 8/23/2011		RunNo: 136040			
Client ID: ZZZZZZ		Batch ID: 75073		TestNo: EPA 8270C EPA 3550B		Analysis Date: 8/23/2011		SeqNo: 2229229			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	2340.000	1600	3330	0	70.3	62	109				
1,4-Dichlorobenzene	2288.333	1600	3330	0	68.7	57	99				
2,4-Dinitrotoluene	1978.333	1600	3330	0	59.4	76	126				S
2-Chlorophenol	2170.000	1600	3330	0	65.2	52	120				
4-Chloro-3-methylphenol	2675.000	3300	3330	0	80.3	63	137				
4-Nitrophenol	1561.667	8200	3330	0	46.9	52	144				S
Acenaphthene	3143.333	1600	3330	0	94.4	61	121				
N-Nitrosodi-n-propylamine	2541.667	1600	3330	0	76.3	67	116				
Pentachlorophenol	ND	8200	3330	0	0	47	143				S
Phenol	2521.667	1600	3330	0	75.7	54	126				
Pyrene	3336.667	1600	3330	0	100	68	121				
Surr: 1,2-Dichlorobenzene-d4	2306.667		3330		69.3	45	105				
Surr: 2,4,6-Tribromophenol	2036.667		3330		61.2	41	129				
Surr: 2-Chlorophenol-d4	2230.000		3330		67.0	55	108				
Surr: 2-Fluorobiphenyl	2790.000		3330		83.8	56	114				
Surr: 2-Fluorophenol	2233.333		3330		67.1	50	108				
Surr: 4-Terphenyl-d14	2685.000		3330		80.6	59	141				

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: 119469
Project: Metro Westside Extension, 4953101561

ANALYTICAL QC SUMMARY REPORT

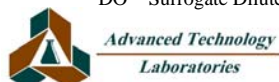
TestCode: 8270_S_FULL

Sample ID: 119481-003GMS	SampType: MS	TestCode: 8270_S_FULL	Units: µg/Kg	Prep Date: 8/23/2011	RunNo: 136040						
Client ID: ZZZZZZ	Batch ID: 75073	TestNo: EPA 8270C EPA 3550B	Analysis Date: 8/23/2011	SeqNo: 2229229							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	2113.333		3330		63.5	45	114				
Surr: Phenol-d5	2473.333		3330		74.3	46	118				

Sample ID: 119481-003GMSD	SampType: MSD	TestCode: 8270_S_FULL	Units: µg/Kg	Prep Date: 8/23/2011	RunNo: 136040						
Client ID: ZZZZZZ	Batch ID: 75073	TestNo: EPA 8270C EPA 3550B	Analysis Date: 8/23/2011	SeqNo: 2229230							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	2316.667	1600	3330	0	69.6	62	109	2340	1.00	20	
1,4-Dichlorobenzene	2235.000	1600	3330	0	67.1	57	99	2288	2.36	20	
2,4-Dinitrotoluene	1918.333	1600	3330	0	57.6	76	126	1978	3.08	20	S
2-Chlorophenol	2110.000	1600	3330	0	63.4	52	120	2170	2.80	20	
4-Chloro-3-methylphenol	2725.000	3300	3330	0	81.8	63	137	2675	0	20	
4-Nitrophenol	1560.000	8200	3330	0	46.8	52	144	1562	0	20	S
Acenaphthene	3186.667	1600	3330	0	95.7	61	121	3143	1.37	20	
N-Nitrosodi-n-propylamine	2536.667	1600	3330	0	76.2	67	116	2542	0.197	20	
Pentachlorophenol	ND	8200	3330	0	0	47	143	0	0	20	S
Phenol	2540.000	1600	3330	0	76.3	54	126	2522	0.724	20	
Pyrene	3416.667	1600	3330	0	103	68	121	3337	2.37	20	
Surr: 1,2-Dichlorobenzene-d4	2275.000		3330		68.3	45	105		0	0	
Surr: 2,4,6-Tribromophenol	1978.333		3330		59.4	41	129		0	0	
Surr: 2-Chlorophenol-d4	2221.667		3330		66.7	55	108		0	0	
Surr: 2-Fluorobiphenyl	2781.667		3330		83.5	56	114		0	0	
Surr: 2-Fluorophenol	2193.333		3330		65.9	50	108		0	0	
Surr: 4-Terphenyl-d14	2650.000		3330		79.6	59	141		0	0	
Surr: Nitrobenzene-d5	2091.667		3330		62.8	45	114		0	0	
Surr: Phenol-d5	2521.667		3330		75.7	46	118		0	0	

Qualifiers:

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



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CHAIN OF CUSTODY RECORD

ADVANCED TECHNOLOGY LABORATORIES
 3275 Walnut Ave., Signal Hill, CA 90755
 Tel: (562) 989-4045 • Fax: (562) 989-4040

Quote #: 201106374
 Logged By: [Signature] Date: 8/19/11
 NOTE: Please include your Quote No. to ensure proper pricing of your project.

FOR LABORATORY USE ONLY:
 Method of Transport: Client, ATL, FedEx, OnTrac, GSO, Other:
 Sample Condition Upon Receipt: 1. CHILLED, 2. HEADSPACE (VOA), 3. CONTAINER INTACT, 4. SEALED, 5. # OF SPLS MATCH COC, 6. PRESERVED

Client: MACTEC Address: 5678 C. Slavson Ave TEL: 383-889-5300
 Attn: Matt Fraychineard City: LA State: CA Zip Code: 90040 FAX:
 Project Name: metco westside Extension Project #: 4953101561 Sampler: Paul Kane (Signature)
 Relinquished by: Rachel Mills (Signature and Printed Name) Date: 8/19/11 Time: 16:21 Received by: [Signature] (Signature and Printed Name) Date: 8/19/11 Time: 16:21
 Relinquished by: Rachel Mills (Signature and Printed Name) Date: _____ Time: _____ Received by: _____ (Signature and Printed Name) Date: _____ Time: _____
 Relinquished by: _____ (Signature and Printed Name) Date: _____ Time: _____ Received by: _____ (Signature and Printed Name) Date: _____ Time: _____

Special Instructions/Comments:
 Bill To: _____
 Attn: Same as above
 Co: _____
 Addr: _____
 City: _____ State: _____ Zip: _____

Send Report To:
 Attn: Matt Fraychineard
 Co: _____
 Addr: _____
 City: _____ State: _____ Zip: _____

Sample/Records - Archival & Disposal
 Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.
Storage Fees (applies when storage is requested):
 • Sample : \$2.00 / sample / mo (after 45 days)
 • Records : \$1.00 / ATL workorder / mo (after 1 year)

LAB USE ONLY: Batch #:	LAB No.	Sample I.D. / Location	Sample Description	Date	Time	SPECIFY APPROPRIATE MATRIX		TAT	Type	Container(s)	REMARKS
						DRINKING WATER	GROUND WATER				
119469-017		E-133-6W @ 25'		8/19/11	11:30						
	2	E-133-35'			13:20						
	3	E-133-10'			9:55						
	4	E-133-15'			10:20						
	5	E-133-20'			10:30						
	6	E-133-30'			12:30						

Circle or Add Analysis(es) Requested:
 8081A (Pesticides) 8250B (PCB) 8270C (BMT - Swabs) 8010B (Total Metal) 8015B (GRO) / 8021 (Pb) 8015B (DPO) (0.020) TITLE 22 / CAM 17 (6010 / 7000)

QA/QC: RTNE CT Legal SWRCB Logcode OTHER _____

Preservatives:
 H=HCl N=HNO₃ S=H₂SO₄ C=4°C
 Z=Zn(AC)₂ O=NaOH T=Na₂S₂O₃

Figure I-1.1022

September 14, 2011



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

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

Workorder No.: 119710

RE: Metro Westside Extention, 4953101567

Attention: Matt Fraychineaud

Enclosed are the results for sample(s) received on September 07, 2011 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "E. Rodriguez", is written over the printed name and title.

Eddie F. Rodriguez
Laboratory Director

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



CLIENT: Mactec
Project: Metro Westside Extention, 4953101567
Lab Order: 119710

CASE NARRATIVE

Analytical Comments for EPA 6010B

Samples 119704-001A-MS and 119704-001A-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 7471A

Samples 119706-001A-MS and 119706-001A-MSD, are specific samples that belong to a different work order were used as Matrix Spike (MS) and Matrix Spike Duplicate (MSD) and were analyzed beyond hold time.



Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 14-Sep-11

CLIENT: Mactec	Client Sample ID: E-134-20'
Lab Order: 119710	Collection Date: 9/6/2011 12:05:00 PM
Project: Metro Westside Extention, 4953101567	Matrix: SOIL
Lab ID: 119710-003A	

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

LUFT

EPA 8015B(M)

RunID: GC16_110913B	QC Batch: 75465	PrepDate: 9/12/2011	Analyst: CBR		
DRO	ND	10	mg/Kg	1	9/13/2011 10:30 AM
ORO	ND	10	mg/Kg	1	9/13/2011 10:30 AM
Surr: p-Terphenyl	71.0	63-152	%REC	1	9/13/2011 10:30 AM

GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC2_110908A	QC Batch: E11VS320	PrepDate:	Analyst: TP		
GRO	ND	1.0	mg/Kg	1	9/8/2011 01:03 PM
Surr: Bromofluorobenzene (FID)	83.5	62-153	%REC	1	9/8/2011 01:03 PM

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110908A	QC Batch: K11VS212	PrepDate:	Analyst: DDL		
1,1,1,2-Tetrachloroethane	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,1,1-Trichloroethane	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,1,2,2-Tetrachloroethane	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,1,2-Trichloroethane	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,1-Dichloroethane	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,1-Dichloroethene	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,1-Dichloropropene	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,2,3-Trichlorobenzene	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,2,3-Trichloropropane	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,2,4-Trichlorobenzene	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,2,4-Trimethylbenzene	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,2-Dibromo-3-chloropropane	ND	10	µg/Kg	1	9/8/2011 09:19 PM
1,2-Dibromoethane	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,2-Dichlorobenzene	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,2-Dichloroethane	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,2-Dichloropropane	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,3,5-Trimethylbenzene	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,3-Dichlorobenzene	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,3-Dichloropropane	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
1,4-Dichlorobenzene	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
2,2-Dichloropropane	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
2-Chlorotoluene	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM
4-Chlorotoluene	ND	5.0	µg/Kg	1	9/8/2011 09:19 PM

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



Advanced Technology
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Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 14-Sep-11

CLIENT: Mactec	Client Sample ID: E-134-20'
Lab Order: 119710	Collection Date: 9/6/2011 12:05:00 PM
Project: Metro Westside Extention, 4953101567	Matrix: SOIL
Lab ID: 119710-003A	

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

EPA 8260B

RunID: MS4_110908A	QC Batch: K11VS212	PrepDate:	Analyst: DDL
4-Isopropyltoluene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Benzene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Bromobenzene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Bromodichloromethane	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Bromoform	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Bromomethane	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Carbon tetrachloride	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Chlorobenzene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Chloroethane	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Chloroform	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Chloromethane	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
cis-1,2-Dichloroethene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
cis-1,3-Dichloropropene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Di-isopropyl ether	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Dibromochloromethane	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Dibromomethane	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Dichlorodifluoromethane	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Ethyl Tert-butyl ether	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Ethylbenzene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Hexachlorobutadiene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Isopropylbenzene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
m,p-Xylene	ND	10	µg/Kg 1 9/8/2011 09:19 PM
Methylene chloride	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
MTBE	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
n-Butylbenzene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
n-Propylbenzene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Naphthalene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
o-Xylene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
sec-Butylbenzene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Styrene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Tert-amyl methyl ether	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Tert-Butanol	ND	100	µg/Kg 1 9/8/2011 09:19 PM
tert-Butylbenzene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Tetrachloroethene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Toluene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM

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



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Advanced Technology Laboratories

ANALYTICAL RESULTS
 Print Date: 14-Sep-11

CLIENT: Mactec	Client Sample ID: E-134-20'
Lab Order: 119710	Collection Date: 9/6/2011 12:05:00 PM
Project: Metro Westside Extention, 4953101567	Matrix: SOIL
Lab ID: 119710-003A	

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

EPA 8260B

RunID: MS4_110908A	QC Batch: K11VS212	PrepDate:	Analyst: DDL
trans-1,2-Dichloroethene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Trichloroethene	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Trichlorofluoromethane	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Vinyl chloride	ND	5.0	µg/Kg 1 9/8/2011 09:19 PM
Surr: 1,2-Dichloroethane-d4	96.7	70-130	%REC 1 9/8/2011 09:19 PM
Surr: 4-Bromofluorobenzene	91.8	70-130	%REC 1 9/8/2011 09:19 PM
Surr: Dibromofluoromethane	93.7	70-130	%REC 1 9/8/2011 09:19 PM
Surr: Toluene-d8	94.9	70-130	%REC 1 9/8/2011 09:19 PM

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



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ANALYTICAL RESULTS
 Print Date: 14-Sep-11

CLIENT: Mactec	Client Sample ID: E-134-25'
Lab Order: 119710	Collection Date: 9/6/2011 12:17:00 PM
Project: Metro Westside Extention, 4953101567	Matrix: SOIL
Lab ID: 119710-004A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP METALS

EPA 3050B

EPA 6010B

RunID: ICP8_110912A	QC Batch: 75418			PrepDate: 9/9/2011		Analyst: SRB
Antimony	ND	2.0		mg/Kg	1	9/12/2011 02:01 PM
Arsenic	7.2	1.0		mg/Kg	1	9/12/2011 02:01 PM
Barium	85	1.0		mg/Kg	1	9/12/2011 02:01 PM
Beryllium	ND	1.0		mg/Kg	1	9/12/2011 02:01 PM
Cadmium	ND	1.0		mg/Kg	1	9/12/2011 02:01 PM
Chromium	24	1.0		mg/Kg	1	9/12/2011 02:01 PM
Cobalt	6.7	1.0		mg/Kg	1	9/12/2011 02:01 PM
Copper	14	2.0		mg/Kg	1	9/12/2011 02:01 PM
Lead	4.8	1.0		mg/Kg	1	9/12/2011 02:01 PM
Molybdenum	ND	1.0		mg/Kg	1	9/12/2011 02:01 PM
Nickel	17	1.0		mg/Kg	1	9/12/2011 02:01 PM
Selenium	ND	1.0		mg/Kg	1	9/12/2011 02:01 PM
Silver	ND	1.0		mg/Kg	1	9/12/2011 02:01 PM
Thallium	ND	1.0		mg/Kg	1	9/12/2011 02:01 PM
Vanadium	45	1.0		mg/Kg	1	9/12/2011 02:01 PM
Zinc	36	1.0		mg/Kg	1	9/12/2011 02:01 PM

MERCURY BY COLD VAPOR TECHNIQUE

EPA 7471A

RunID: AA1_110912A	QC Batch: 75419			PrepDate: 9/9/2011		Analyst: VV
Mercury	ND	0.10		mg/Kg	1	9/12/2011 11:32 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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 Laboratories

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Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 14-Sep-11

CLIENT: Mactec
Lab Order: 119710
Project: Metro Westside Extention, 4953101567
Lab ID: 119710-007A

Client Sample ID: E-134-40'
Collection Date: 9/6/2011 12:57:00 PM
Matrix: SOIL

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

LUFT

EPA 8015B(M)

RunID: GC16_110913B	QC Batch: 75465				PrepDate: 9/12/2011	Analyst: CBR
DRO	ND	10		mg/Kg	1	9/13/2011 10:40 AM
ORO	ND	10		mg/Kg	1	9/13/2011 10:40 AM
Surr: p-Terphenyl	70.8	63-152		%REC	1	9/13/2011 10:40 AM

GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B(M)

RunID: GC2_110908A	QC Batch: E11VS320				PrepDate:	Analyst: TP
GRO	ND	1.0		mg/Kg	1	9/8/2011 01:19 PM
Surr: Bromofluorobenzene (FID)	95.6	62-153		%REC	1	9/8/2011 01:19 PM

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS4_110908A	QC Batch: K11VS212				PrepDate:	Analyst: DDL
1,1,1,2-Tetrachloroethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,1,1-Trichloroethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,1,2-Trichloroethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,1-Dichloroethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,1-Dichloroethene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,1-Dichloropropene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,2,3-Trichloropropane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	9/8/2011 09:37 PM
1,2-Dibromoethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,2-Dichlorobenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,2-Dichloroethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,2-Dichloropropane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,3-Dichlorobenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,3-Dichloropropane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
1,4-Dichlorobenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
2,2-Dichloropropane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
2-Chlorotoluene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
4-Chlorotoluene	ND	5.0		µg/Kg	1	9/8/2011 09:37 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: 14-Sep-11

CLIENT: Mactec	Client Sample ID: E-134-40'
Lab Order: 119710	Collection Date: 9/6/2011 12:57:00 PM
Project: Metro Westside Extention, 4953101567	Matrix: SOIL
Lab ID: 119710-007A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 8260B						
RunID: MS4_110908A	QC Batch: K11VS212			PrepDate:		Analyst: DDL
4-Isopropyltoluene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Benzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Bromobenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Bromodichloromethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Bromoform	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Bromomethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Carbon tetrachloride	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Chlorobenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Chloroethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Chloroform	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Chloromethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
cis-1,2-Dichloroethene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
cis-1,3-Dichloropropene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Di-isopropyl ether	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Dibromochloromethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Dibromomethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Dichlorodifluoromethane	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Ethyl Tert-butyl ether	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Ethylbenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Hexachlorobutadiene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Isopropylbenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
m,p-Xylene	ND	10		µg/Kg	1	9/8/2011 09:37 PM
Methylene chloride	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
MTBE	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
n-Butylbenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
n-Propylbenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Naphthalene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
o-Xylene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
sec-Butylbenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Styrene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Tert-amyl methyl ether	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Tert-Butanol	ND	100		µg/Kg	1	9/8/2011 09:37 PM
tert-Butylbenzene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Tetrachloroethene	ND	5.0		µg/Kg	1	9/8/2011 09:37 PM
Toluene	ND	5.0		µg/Kg	1	9/8/2011 09:37 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: 14-Sep-11

CLIENT: Mactec	Client Sample ID: E-134-40'
Lab Order: 119710	Collection Date: 9/6/2011 12:57:00 PM
Project: Metro Westside Extention, 4953101567	Matrix: SOIL
Lab ID: 119710-007A	

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

EPA 8260B

RunID: MS4_110908A	QC Batch: K11VS212	PrepDate:	Analyst: DDL
trans-1,2-Dichloroethene	ND	5.0	µg/Kg 1 9/8/2011 09:37 PM
Trichloroethene	ND	5.0	µg/Kg 1 9/8/2011 09:37 PM
Trichlorofluoromethane	ND	5.0	µg/Kg 1 9/8/2011 09:37 PM
Vinyl chloride	ND	5.0	µg/Kg 1 9/8/2011 09:37 PM
Surr: 1,2-Dichloroethane-d4	94.5	70-130	%REC 1 9/8/2011 09:37 PM
Surr: 4-Bromofluorobenzene	94.0	70-130	%REC 1 9/8/2011 09:37 PM
Surr: Dibromofluoromethane	94.2	70-130	%REC 1 9/8/2011 09:37 PM
Surr: Toluene-d8	93.8	70-130	%REC 1 9/8/2011 09:37 PM

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



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CLIENT: Mactec
Work Order: 119710
Project: Metro Westside Extention, 4953101567

ANALYTICAL QC SUMMARY REPORT

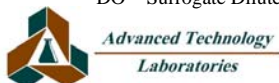
TestCode: 6010_S

Sample ID: MB-75418	SampType: MBLK	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/9/2011	RunNo: 136534						
Client ID: PBS	Batch ID: 75418	TestNo: EPA 6010B EPA 3050B		Analysis Date: 9/12/2011	SeqNo: 2238701						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	2.0									
Arsenic	ND	1.0									
Barium	0.121	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	ND	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	ND	1.0									
Molybdenum	ND	1.0									
Nickel	ND	1.0									
Selenium	ND	1.0									
Silver	ND	1.0									
Thallium	ND	1.0									
Vanadium	ND	1.0									
Zinc	ND	1.0									

Sample ID: LCS-75418	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/9/2011	RunNo: 136534						
Client ID: LCSS	Batch ID: 75418	TestNo: EPA 6010B EPA 3050B		Analysis Date: 9/12/2011	SeqNo: 2238702						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	46.070	2.0	50.00	0	92.1	80	120				
Arsenic	44.984	1.0	50.00	0	90.0	80	120				
Barium	47.452	1.0	50.00	0.1215	94.7	80	120				
Beryllium	46.558	1.0	50.00	0	93.1	80	120				
Cadmium	45.572	1.0	50.00	0	91.1	80	120				
Chromium	43.696	1.0	50.00	0	87.4	80	120				
Cobalt	46.977	1.0	50.00	0	94.0	80	120				

Qualifiers:

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



CLIENT: Mactec
Work Order: 119710
Project: Metro Westside Extention, 4953101567

ANALYTICAL QC SUMMARY REPORT

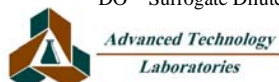
TestCode: 6010_S

Sample ID: LCS-75418		SampType: LCS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 9/9/2011		RunNo: 136534		
Client ID: LCSS		Batch ID: 75418		TestNo: EPA 6010B EPA 3050B				Analysis Date: 9/12/2011		SeqNo: 2238702		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Copper	46.761	2.0	50.00	0	93.5	80	120					
Lead	47.051	1.0	50.00	0	94.1	80	120					
Molybdenum	48.585	1.0	50.00	0	97.2	80	120					
Nickel	46.501	1.0	50.00	0	93.0	80	120					
Selenium	43.067	1.0	50.00	0	86.1	80	120					
Silver	46.126	1.0	50.00	0	92.3	80	120					
Thallium	44.603	1.0	50.00	0	89.2	80	120					
Vanadium	47.253	1.0	50.00	0	94.5	80	120					
Zinc	45.706	1.0	50.00	0	91.4	80	120					

Sample ID: 119704-001A-MS		SampType: MS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 9/9/2011		RunNo: 136534		
Client ID: ZZZZZZ		Batch ID: 75418		TestNo: EPA 6010B EPA 3050B				Analysis Date: 9/12/2011		SeqNo: 2238705		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony	83.831	2.0	125.0	0.1776	66.9	32	105					
Arsenic	94.608	1.0	125.0	2.051	74.0	49	106					
Barium	233.157	1.0	125.0	210.1	18.5	31	133				S	
Beryllium	98.335	1.0	125.0	0.1592	78.5	56	106					
Cadmium	92.095	1.0	125.0	0.1944	73.5	51	103					
Chromium	97.724	1.0	125.0	4.854	74.3	45	114					
Cobalt	100.283	1.0	125.0	3.841	77.2	52	106					
Copper	108.650	2.0	125.0	5.454	82.6	54	125					
Lead	97.500	1.0	125.0	4.073	74.7	34	126					
Molybdenum	94.712	1.0	125.0	0	75.8	54	106					
Nickel	96.432	1.0	125.0	2.157	75.4	45	111					
Selenium	89.764	1.0	125.0	0	71.8	47	104					
Silver	98.164	1.0	125.0	0	78.5	56	112					
Thallium	91.215	1.0	125.0	0	73.0	46	101					
Vanadium	116.818	1.0	125.0	17.32	79.6	54	114					
Zinc	114.271	1.0	125.0	15.16	79.3	28	125					

Qualifiers:

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



CLIENT: Mactec
Work Order: 119710
Project: Metro Westside Extention, 4953101567

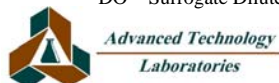
ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: 119704-001A-MSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 9/9/2011	RunNo: 136534						
Client ID: ZZZZZZ	Batch ID: 75418	TestNo: EPA 6010B	EPA 3050B	Analysis Date: 9/12/2011	SeqNo: 2238706						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	86.429	2.0	125.0	0.1776	69.0	32	105	83.83	3.05	20	
Arsenic	99.197	1.0	125.0	2.051	77.7	49	106	94.61	4.74	20	
Barium	219.804	1.0	125.0	210.1	7.78	31	133	233.2	5.90	20	S
Beryllium	102.434	1.0	125.0	0.1592	81.8	56	106	98.33	4.08	20	
Cadmium	95.706	1.0	125.0	0.1944	76.4	51	103	92.09	3.85	20	
Chromium	102.226	1.0	125.0	4.854	77.9	45	114	97.72	4.50	20	
Cobalt	104.625	1.0	125.0	3.841	80.6	52	106	100.3	4.24	20	
Copper	114.850	2.0	125.0	5.454	87.5	54	125	108.7	5.55	20	
Lead	102.249	1.0	125.0	4.073	78.5	34	126	97.50	4.75	20	
Molybdenum	99.285	1.0	125.0	0	79.4	54	106	94.71	4.71	20	
Nickel	100.906	1.0	125.0	2.157	79.0	45	111	96.43	4.53	20	
Selenium	93.205	1.0	125.0	0	74.6	47	104	89.76	3.76	20	
Silver	102.510	1.0	125.0	0	82.0	56	112	98.16	4.33	20	
Thallium	95.317	1.0	125.0	0	76.3	46	101	91.22	4.40	20	
Vanadium	124.036	1.0	125.0	17.32	85.4	54	114	116.8	5.99	20	
Zinc	118.215	1.0	125.0	15.16	82.4	28	125	114.3	3.39	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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| DO Surrogate Diluted Out | Calculations are based on raw values | |



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