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L O C K H E E D M A R T I N 

DATE: January 23, 2008
TO: R. Singhvi, EPA/ERT Analytical Work Assignment Manager
FROM: V. Kansal, REAC Analytical Section Leader 
SUBJECT: DOCUMENT TRANSMITTAL UNDER WORK ASSIGNMENT # 0-296

Attached please find the following document prepared under this work assignment:

Mills Gap Road Site - Analytical Report

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Central File	WA # 0-296 (w/attachment)



ANALYTICAL REPORT

Prepared by
LOCKHEED MARTIN, Inc.

Mills Gap Road
Asheville, NC

January 2008

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Introduction

REAC, in response to WA# 0-296, provided analytical support for environmental samples collected from the Mills Gap Road Site in Asheville, NC as described in the following table. The support also included QA/QC, data review and preparation of an analytical report containing analytical and QA/QC results.

The samples were treated with procedures consistent with those specified in REAC SOP # 1008.

COC #	Number of Samples	Sampling Date	Date Received	Matrix	Analysis/ Method	Laboratory	Data Package
0-296-12/13/07-0001	2	12/12/07	12/17/07	Air	VOC/Modified REAC SOP 1814	REAC ¹	T 009
0-296-12/13/07-0002	1	12/13/07	12/12/07				
	1						
0-296-12/13/07-0003	2						
0-296-12/13/07-0004	2						
0-296-12/13/07-0005	2						
0-296-12/13/07-0006	2						
0-296-12/13/07-0007	2						
0-296-12/13/07-0008	1						

¹ REAC is NELAC certified for TO-15 analysis.

Case Narrative

The laboratory reported the data to three significant figures. Any other representation of the data is the responsibility of the user. Results less than 25 percent of the reporting limit are not reported by the laboratory. All data validation flags have been inserted into the results tables. At the request of the WAM, the laboratory reported only seventeen chlorinated compounds for the TO-15 analysis.

VOC in Air Package T 009

No special sample or certification RLs were requested for this project. The RL was based on the low standard of 0.04 ppbv from the calibration curve.

Chloromethane, chloroethane, trichlorofluoromethane, methylene chloride, carbon tetrachloride and tetrachloroethene were detected during the certification process in the SUMMA® canister used for sample 4507. Chloromethane, trichlorofluoromethane, methylene chloride and carbon tetrachloride results for sample 4507 were less than 5 times the certification result and are qualified estimated (J). The chloromethane, trichlorofluoromethane and methylene chloride certification results were above the sample RL; the RL was raised to the certification concentration for these compounds.

Summary of Abbreviations

BFB	Bromofluorobenzene
C	Centigrade
CLP	Contract Laboratory Program
COC	Chain of Custody
conc	concentration
cont	continued
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
D	(Surrogate Table) value is from a diluted sample and was not calculated
Dioxin	Polychlorinated dibenzo-p-dioxins (PCDD) and Polychlorinated dibenzofurans (PCDF)
DFTPP	Decafluorotriphenylphosphine
EMPC	Estimated maximum possible concentration
GC/MS	Gas Chromatography/ Mass Spectrometry
IS	Internal Standard
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MS (BS)	Matrix Spike (Blank Spike)
MSD (BSD)	Matrix Spike Duplicate (Blank Spike Duplicate)
MW	Molecular Weight
NA	Not Applicable or Not Available
NAD	Normalized Absolute Difference
NC	Not Calculated
NR	Not Requested\Not Reported
NS	Not Spiked
% D	Percent Difference
% REC	Percent Recovery
SOP	Standard Operating Procedure
ppbv	parts per billion by volume
ppm	parts per million
pptv	parts per trillion by volume
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/Quality Control
QL	Quantitation Limit
REAC	Response Engineering and Analytical Contract
RL	Reporting Limit
RPD	Relative Percent Difference
RSD	Selected Ion Monitoring
Sur	Surrogate
TIC	Tentatively Identified Compound
TCLP	Toxicity Characteristic Leaching Procedure
VOC	Volatile Organic Compound
*	Value exceeds the acceptable QC limits.

m ³	cubic meter	g	gram	kg	kilogram	L	liter
µg	microgram	µL	microliter	mg	milligram	mL	milliliter
ng	nanogram	pg	picogram	pCi	picocurie	s	sigma

Data Validation Flags

J	Value is estimated	R	Value is unusable
J+	Value is estimated high (metals only)	U	Not detected
J-	Value is estimated low (metals only)	UJ	Not detected and RL is estimated

Rev. 01/10/08

Section I

Table 1.1a Results of the Analysis for VOC (ppbv) in Air
WA # 0-296 Mills Gap Road Site

Method Modified REAC SOP 1814

Page 1 of 2

Sample No. Location	Method Blank 071224-1		4514 Trip Blank		4502 Ambient		4513 Ambient		4500 MGSC12	
	Result ppbv	RL ppbv	Result ppbv	RL ppbv	Result ppbv	RL ppbv	Result ppbv	RL ppbv	Result ppbv	RL ppbv
Chloromethane	U	0.0400	U	0.0400	0.553	0.0500	0.506	0.0500	0.589	0.0500
Vinyl Chloride	U	0.0400	U	0.0400	U	0.0500	U	0.0500	U	0.0500
Chloroethane	U	0.0400	U	0.0400	U	0.0500	U	0.0500	U	0.0500
Trichlorofluoromethane	U	0.0400	U	0.0400	0.227	0.0500	0.229	0.0500	0.270	0.0500
1,1-Dichloroethene	U	0.0400	U	0.0400	U	0.0500	U	0.0500	U	0.0500
Methylene Chloride	U	0.0400	U	0.0400	0.0549	0.0500	0.0842	0.0500	0.0746	0.0500
trans-1,2-Dichloroethene	U	0.0400	U	0.0400	U	0.0500	U	0.0500	U	0.0500
1,1-Dichloroethane	U	0.0400	U	0.0400	U	0.0500	U	0.0500	U	0.0500
cis-1,2-Dichloroethene	U	0.0400	U	0.0400	U	0.0500	0.178	0.0500	U	0.0500
Chloroform	U	0.0400	U	0.0400	U	0.0500	U	0.0500	0.124	0.0500
1,2-Dichloroethane	U	0.0400	U	0.0400	U	0.0500	U	0.0500	0.0230 J	0.0500
1,1,1-Trichloroethane	U	0.0400	U	0.0400	U	0.0500	0.0236 J	0.0500	U	0.0500
Carbon Tetrachloride	U	0.0400	U	0.0400	0.0794	0.0500	0.0716	0.0500	0.0875	0.0500
Trichloroethene	U	0.0400	U	0.0400	0.0230 J	0.0500	0.607	0.0500	0.0494 J	0.0500
1,1,2-Trichloroethane	U	0.0400	U	0.0400	U	0.0500	U	0.0500	U	0.0500
Tetrachloroethene	U	0.0400	U	0.0400	0.0297 J	0.0500	0.0354 J	0.0500	0.0336 J	0.0500
1,1,2,2-Tetrachloroethane	U	0.0400	U	0.0400	U	0.0500	U	0.0500	0.0441 J	0.0500

Table 1.1a (cont) Results of the Analysis for VOC (ppbv) in Air
WA # 0-296 Mills Gap Road Site

Method Modified REAC SOP 1814

Sample No. Location	4507 MGSC01		4503 MGSC119		4504 MGSC113		4505 MGSC14		4506 MGSC15	
	Result ppbv	RL ppbv	Result ppbv	RL ppbv	Result ppbv	RL ppbv	Result ppbv	RL ppbv	Result ppbv	RL ppbv
Chloromethane	0.529 J	0.235	0.585	0.0500	0.510	0.0500	0.538	0.0500	0.544	0.0500
Vinyl Chloride	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500
Chloroethane	U	0.0500	0.0584	0.0500	U	0.0500	U	0.0500	U	0.0500
Trichlorofluoromethane	0.231 J	0.123	0.237	0.0500	0.235	0.0500	0.235	0.0500	0.231	0.0500
1,1-Dichloroethene	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500
Methylene Chloride	0.0636 J	0.0542	2.45	0.0500	0.125	0.0500	0.0563	0.0500	0.0645	0.0500
trans-1,2-Dichloroethene	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500
1,1-Dichloroethane	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500
cis-1,2-Dichloroethene	0.0381 J	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500
Chloroform	U	0.0500	0.0365 J	0.0500	0.0483 J	0.0500	U	0.0500	U	0.0500
1,2-Dichloroethane	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500
1,1,1-Trichloroethane	U	0.0500	U	0.0500	0.0279 J	0.0500	U	0.0500	U	0.0500
Carbon Tetrachloride	0.0760 J	0.0500	0.0706	0.0500	0.0779	0.0500	0.0792	0.0500	0.0729	0.0500
Trichloroethene	0.161	0.0500	0.0303 J	0.0500	0.0317 J	0.0500	U	0.0500	0.0230 J	0.0500
1,1,2-Trichloroethane	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500
Tetrachloroethene	U	0.0500	0.0456 J	0.0500	0.0265 J	0.0500	U	0.0500	0.0306 J	0.0500
1,1,2,2-Tetrachloroethane	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500

Table 1.1a (cont) Results of the Analysis for VOC (ppbv) in Air
WA # 0-296 Mills Gap Road Site

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Method Modified REAC SOP 1814

Sample No. Location	4501 MGSC10		4508 MGSC23		4509 MGSC25		4510 MGSC38		4511 MGSC10OW	
	Result ppbv	RL ppbv	Result ppbv	RL ppbv	Result ppbv	RL ppbv	Result ppbv	RL ppbv	Result ppbv	RL ppbv
Chloromethane	0.527	0.0500	0.518	0.0500	0.268	0.0500	0.430	0.0500	0.332	0.0500
Vinyl Chloride	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500
Chloroethane	U	0.0500	0.0471 J	0.0500	U	0.0500	U	0.0500	U	0.0500
Trichlorofluoromethane	0.243	0.0500	0.244	0.0500	0.294	0.0500	0.272	0.0500	0.387	0.0500
1,1-Dichloroethene	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500
Methylene Chloride	0.0590	0.0500	0.0719	0.0500	0.111	0.0500	0.130	0.0500	0.0839	0.0500
trans-1,2-Dichloroethene	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500
1,1-Dichloroethane	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500
cis-1,2-Dichloroethene	U	0.0500	0.217	0.0500	1.43	0.0500	0.139	0.0500	0.107	0.0500
Chloroform	0.0226 J	0.0500	0.0820	0.0500	U	0.0500	0.0335 J	0.0500	0.0247 J	0.0500
1,2-Dichloroethane	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500
1,1,1-Trichloroethane	U	0.0500	0.0269 J	0.0500	0.0998	0.0500	0.0234 J	0.0500	0.0285 J	0.0500
Carbon Tetrachloride	0.0758	0.0500	0.0825	0.0500	0.0785	0.0500	0.0793	0.0500	0.0844	0.0500
Trichloroethene	0.0453 J	0.0500	0.489	0.0500	3.78	0.0500	0.526	0.0500	0.397	0.0500
1,1,2-Trichloroethane	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500
Tetrachloroethene	U	0.0500	U	0.0500	U	0.0500	0.0311 J	0.0500	0.133	0.0500
1,1,2,2-Tetrachloroethane	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500

Table 1.1a (cont) Results of the Analysis for VOC (ppbv) in Air
WA # 0-296 Mills Gap Road Site

Method Modified REAC SOP 1814

Sample No. Location	4512 MGS10RE	
	Result ppbv	RL ppbv
Chloromethane	0.353	0.0500
Vinyl Chloride	U	0.0500
Chloroethane	U	0.0500
Trichlorofluoromethane	0.234	0.0500
1,1-Dichloroethene	U	0.0500
Methylene Chloride	0.0815	0.0500
trans-1,2-Dichloroethene	U	0.0500
1,1-Dichloroethane	U	0.0500
cis-1,2-Dichloroethene	0.186	0.0500
Chloroform	U	0.0500
1,2-Dichloroethane	U	0.0500
1,1,1-Trichloroethane	0.0260 J	0.0500
Carbon Tetrachloride	0.0791	0.0500
Trichloroethene	0.729	0.0500
1,1,2-Trichloroethane	U	0.0500
Tetrachloroethene	0.0913	0.0500
1,1,2,2-Tetrachloroethane	U	0.0500

**Table 1.1b Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA # 0-296 Mills Gap Road Site**

Method Modified REAC SOP 1814

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Sample No. Location	Method Blank 071224-1		4514 Trip Blank		4502 Ambient		4513 Ambient		4500 MGSC12	
	Result $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Chloromethane	U	0.0826	U	0.0826	1.14	0.103	1.04	0.103	1.22	0.103
Vinyl Chloride	U	0.102	U	0.102	U	0.128	U	0.128	U	0.128
Chloroethane	U	0.106	U	0.106	U	0.132	U	0.132	U	0.132
Trichlorofluoromethane	U	0.225	U	0.225	1.28	0.281	1.29	0.281	1.52	0.281
1,1-Dichloroethene	U	0.159	U	0.159	U	0.198	U	0.198	U	0.198
Methylene Chloride	U	0.139	U	0.139	0.191	0.174	0.292	0.174	0.259	0.174
trans-1,2-Dichloroethene	U	0.159	U	0.159	U	0.198	U	0.198	U	0.198
1,1-Dichloroethane	U	0.162	U	0.162	U	0.202	U	0.202	U	0.202
cis-1,2-Dichloroethene	U	0.159	U	0.159	U	0.198	0.706	0.198	U	0.198
Chloroform	U	0.195	U	0.195	U	0.244	U	0.244	0.605	0.244
1,2-Dichloroethane	U	0.162	U	0.162	U	0.202	U	0.202	0.0931 J	0.202
1,1,1-Trichloroethane	U	0.218	U	0.218	U	0.273	0.129 J	0.273	U	0.273
Carbon Tetrachloride	U	0.252	U	0.252	0.500	0.315	0.450	0.315	0.550	0.315
Trichloroethene	U	0.215	U	0.215	0.124 J	0.269	3.26	0.269	0.265 J	0.269
1,1,2-Trichloroethane	U	0.218	U	0.218	U	0.273	U	0.273	U	0.273
Tetrachloroethene	U	0.271	U	0.271	0.201 J	0.339	0.240 J	0.339	0.228 J	0.339
1,1,2,2-Tetrachloroethane	U	0.275	U	0.275	U	0.343	U	0.343	0.303 J	0.343

**Table 1.1b (cont) Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA # 0-296 Mills Gap Road Site**

Method Modified REAC SOP 1814

Sample No. Location	4507 MGSC01		4503 MGSC119		4504 MGSC113		4505 MGSC14		4506 MGSC15	
	Result $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Chloromethane	1.09 J	0.484	1.21	0.103	1.05	0.103	1.11	0.103	1.12	0.103
Vinyl Chloride	U	0.128								
Chloroethane	U	0.132	0.154	0.132	U	0.132	U	0.132	U	0.132
Trichlorofluoromethane	1.30 J	0.691	1.33	0.281	1.32	0.281	1.32	0.281	1.30	0.281
1,1-Dichloroethene	U	0.198								
Methylene Chloride	0.221 J	0.189	8.51	0.174	0.434	0.174	0.196	0.174	0.224	0.174
trans-1,2-Dichloroethene	U	0.198								
1,1-Dichloroethane	U	0.202								
cis-1,2-Dichloroethene	0.151 J	0.198	U	0.198	U	0.198	U	0.198	U	0.198
Chloroform	U	0.244	0.178 J	0.244	0.236 J	0.244	U	0.244	U	0.198
1,2-Dichloroethane	U	0.202	U	0.202	U	0.202	U	0.202	U	0.244
1,1,1-Trichloroethane	U	0.273	U	0.273	0.152 J	0.273	U	0.273	U	0.202
Carbon Tetrachloride	0.478 J	0.315	0.444	0.315	0.490	0.315	0.498	0.315	0.459	0.315
Trichloroethene	0.865	0.269	0.163 J	0.269	0.170 J	0.269	U	0.269	0.124 J	0.269
1,1,2-Trichloroethane	U	0.273								
Tetrachloroethene	U	0.339	0.309 J	0.339	0.180 J	0.339	U	0.339	0.208 J	0.339
1,1,2,2-Tetrachloroethane	U	0.343								

Table 1.1b (cont) Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA # 0-296 Mills Gap Road Site

Method Modified REAC SOP 1814

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Sample No. Location	4501 MGSC10		4508 MGSC23		4509 MGSC25		4510 MGSC38		4511 MGSC10OW	
	Result $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Analyte										
Chloromethane	1.09	0.103	1.07	0.103	0.553	0.103	0.888	0.103	0.686	0.103
Vinyl Chloride	U	0.128								
Chloroethane	U	0.132	0.124 J	0.132	U	0.132	U	0.132	U	0.132
Trichlorofluoromethane	1.37	0.281	1.37	0.281	1.65	0.281	1.53	0.281	2.17	0.281
1,1-Dichloroethene	U	0.198								
Methylene Chloride	0.205	0.174	0.250	0.174	0.386	0.174	0.452	0.174	0.291	0.174
trans-1,2-Dichloroethene	U	0.198								
cis-1,2-Dichloroethene	U	0.202								
Chloroform	0.110 J	0.244	0.400	0.244	U	0.244	0.164 J	0.244	0.121 J	0.244
1,2-Dichloroethane	U	0.202								
1,1,1-Trichloroethane	U	0.273	0.147 J	0.273	0.545	0.273	0.128 J	0.273	0.155 J	0.273
Carbon Tetrachloride	0.477	0.315	0.519	0.315	0.494	0.315	0.499	0.315	0.531	0.315
Trichloroethene	0.243 J	0.269	2.63	0.269	20.3	0.269	2.83	0.269	2.13	0.269
1,1,2-Trichloroethane	U	0.273								
Tetrachloroethene	U	0.339	U	0.339	U	0.339	0.211 J	0.339	0.902	0.339
1,1,2,2-Tetrachloroethane	U	0.343								

Table 1.1b (cont) Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA # 0-296 Mills Gap Road Site

Method Modified REAC SOP 1814

Sample No.
Location

4512
MGS10RE

Analyte	Result $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Chloromethane	0.729	0.103
Vinyl Chloride	U	0.128
Chloroethane	U	0.132
Trichlorofluoromethane	1.31	0.281
1,1-Dichloroethene	U	0.198
Methylene Chloride	0.283	0.174
trans-1,2-Dichloroethene	U	0.198
1,1-Dichloroethane	U	0.202
cis-1,2-Dichloroethene	0.737	0.198
Chloroform	U	0.244
1,2-Dichloroethane	U	0.202
1,1,1-Trichloroethane	0.142 J	0.273
Carbon Tetrachloride	0.498	0.315
Trichloroethene	3.92	0.269
1,1,2-Trichloroethane	U	0.273
Tetrachloroethene	0.619	0.339
1,1,2,2-Tetrachloroethane	U	0.343

Section II

Table 2.1 Results of the LCS Analysis for VOC in Air
WA # 0-296 Mills Gap Road Site

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Sample No. LCS: TO15E55LCS AT 99

Analyte	LCS Spike Added ppbv	LCS Result ppbv	% Recovery	QC Limits % Recovery
Chloromethane	1.03	1.04	101	70-130
Vinyl Chloride	1.03	1.00	97	70-130
Chloroethane	1.05	1.03	98	70-130
Trichlorofluoromethane	1.06	1.09	103	70-130
1,1-Dichloroethene	1.05	1.12	106	70-130
Methylene Chloride	1.05	1.11	106	70-130
trans-1,2-Dichloroethene	1.05	1.07	102	70-130
1,1-Dichloroethane	1.05	1.12	106	70-130
cis-1,2-Dichloroethene	1.05	0.881	84	70-130
Chloroform	1.02	0.909	89	70-130
1,2-Dichloroethane	1.05	0.922	88	70-130
1,1,1-Trichloroethane	1.05	0.984	94	70-130
Carbon Tetrachloride	1.04	0.956	92	70-130
Trichloroethene	1.04	0.951	91	70-130
1,1,2-Trichloroethane	1.03	0.945	92	70-130
Tetrachloroethene	1.04	0.818	79	70-130
1,1,2,2-Tetrachloroethane	1.01	0.794	79	70-130

Table 2.2 Results of the Duplicate Analysis for VOC in Air
WA # 0-296 Mills Gap Road Site

Page 1 of 1

Sample Number 4501

Analyte	Initial Analysis Results ppbv	Duplicate Analysis Results ppbv	RPD	QC Limit RPD≤*
Chloromethane	0.527	0.540	2	25
Vinyl Chloride	U	U	NC	25
Chloroethane	U	U	NC	25
Trichlorofluoromethane	0.243	0.245	1	25
1,1-Dichloroethene	U	U	NC	25
Methylene Chloride	0.0590	0.0596	1	25
trans-1,2-Dichloroethene	U	U	NC	25
1,1-Dichloroethane	U	U	NC	25
cis-1,2-Dichloroethene	U	U	NC	25
Chloroform	0.0226 J	0.0234 J	NC	25
1,2-Dichloroethane	U	U	NC	25
1,1,1-Trichloroethane	U	U	NC	25
Carbon Tetrachloride	0.0758	0.0796	5	25
Trichloroethene	0.0453 J	0.0478 J	NC	25
1,1,2-Trichloroethane	U	U	NC	25
Tetrachloroethene	U	U	NC	25
1,1,2,2-Tetrachloroethane	U	U	NC	25

Sample Number 4507

Analyte	Initial Analysis Results ppbv	Duplicate Analysis Results ppbv	RPD	QC Limit RPD≤*
Chloromethane	0.529	0.565	7	25
Vinyl Chloride	U	U	NC	25
Chloroethane	U	U	NC	25
Trichlorofluoromethane	0.231	0.236	2	25
1,1-Dichloroethene	U	U	NC	25
Methylene Chloride	0.0636	0.0654	3	25
trans-1,2-Dichloroethene	U	U	NC	25
1,1-Dichloroethane	U	U	NC	25
cis-1,2-Dichloroethene	0.0381J	0.0407 J	NC	25
Chloroform	U	U	NC	25
1,2-Dichloroethane	U	U	NC	25
1,1,1-Trichloroethane	U	U	NC	25
Carbon Tetrachloride	0.0760	0.0739	3	25
Trichloroethene	0.161	0.152	6	25
1,1,2-Trichloroethane	U	U	NC	25
Tetrachloroethene	U	U	NC	25
1,1,2,2-Tetrachloroethane	U	U	NC	25

* Applies to results>RL

Section III

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REAC, Edison, NJ
(732) 321-4200

CHAIN OF CUSTODY RECORD

Site #: 0-296

Contact Name: John Johnson

EP-C-04-032

Lab: REAC
Lab Phone: 732-494-4000

No.: 0-296-1213/07-0001

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Boiler #: 383

Lab: REAC

Lab #	Sample #	Location	Analyses	Matrix	Collected	Numb Cont	Container	Preservative	SUMMA	OrificeID	Stop Pressure
IS916	4500	MGSC12	VOCS (volatiles)	Air	12/12/2007	1	Summa Canister	None	000180	001061	-14
IS917	4501	MGSC10	VOCS (volatiles)	Air	12/12/2007	1	Summa Canister	None	000163	001015	-3

Special Instructions: TO-15 / TCE detection limit as requested by PWA

**SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #**

0296-DAR-012308

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REAC, Edison, NJ
(732) 321-4200

EP-C-04-032

CHAIN OF CUSTODY RECORD

Site #: 0-296

Contact Name: John Johnson

NO.: 0-2996-12/13/07-0002

Conter #: 6651

Jah: BEAC

Lab #	Sample #	Location	Analyses	Matrix	Collected	Numb Cont	Container	Preservative	SUMMA	OrificeID	Stop Pressure
15918	4502	Ambient	VOCS (volatiles)	Air	12/12/2007	1	Summa Canister	None	001055		-10
15919	4514	Trip Blank	VOCS (volatiles)	Air	12/13/2007	1	Summa Canister	None	000138		

Special Instructions: TO-15 / TCE detection limit as requested by PWA

**SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #**

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All analyses	Duncall	12/4/07	Jerry Wayne	12/17/07	10:25	All/Abdys's	Jerry Wayne	12/17/07	Jerry Wayne	12/17/07	10:00

REAC, Edison, NJ
(732) 321-4200

EP-C-04-032

CHAIN OF CUSTODY RECORD

Site #: 0-296

Contact Name: John Johnson

No: 0-296-12/13/07-0003

Cooler #: 414

Lab: REAC

Lab Phone: 732-484-4000

Lab #	Sample #	Location	Analyses	Matrix	Collected	Numb Cont	Container	Preservative	SUMMA	OrificeID	Stop Pressure
ISQO	4503	MGSC119	VOCS (volatiles)	Air	12/12/2007	1	Summa Canister	None	000072	001045	-8.5
ISQI	4504	MGSC113	VOCS (volatiles)	Air	12/12/2007	1	Summa Canister	None	000197	013093	-8

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #											
Special Instructions: TO-15 / TCE detection limit as requested by PWA											
Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Date	Received by	Date
All analyses	<i>Jerry Borin</i>	12/17/07	<i>John Johnson</i>	12/17/07	10:25	All Analysis	<i>Tony Morris</i>	12/17/07	<i>Jerry Borin</i>	<i>John Johnson</i>	12/17/07

REAC, Edison, NJ
(732) 321-4200

EP-C-04-032

CHAIN OF CUSTODY RECORD

Site #: 0-296

Contact Name: John Johnson

No: 0-296-12/13/07-0004
Coder #: 389
Lab: REAC
Lab Phone: 732-494-4000

Lab #	Sample #	Location	Analyses	Matrix	Collected	Numb Container Cont	Preservative	SUMMA	OrificeID	Stop Pressure
15922	4505	MGSC14	VOCS (volatiles)	Air	12/12/2007	1	Summa Canister	None	000062	013107
15923	4506	MGSC15	VOCS (volatiles)	Air	12/12/2007	1	Summa Canister	None	000176	001053

Special Instructions: TO-15 / TCE detection limit as requested by PWA

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All analyses	John Johnson	12/17/07	Tonya Thomas	12/17/07	10:25	All Analysis	John Johnson	12/17/07	John Johnson	12/17/07	10:25

REAC, Edison, NJ
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EP-C-04-032

CHAIN OF CUSTODY RECORD

Site #: 0-296

Contact Name: John Johnson

No: 0-296-12/13/07-0005

Cooler #: 6659

Lab: REAC

Lab Phone: 732-494-4000

Lab #	Sample #	Location	Analyses	Matrix	Collected	Numb Cont	Container	Preservative	SUMMA	OrificeID	Stop Pressure
IS914	4507	MGSC01	VOCS (volatiles)	Air	12/13/2007	1	Summa Canister	None	000134	001023	0
IS915	4508	MGSC23	VOCS (volatiles)	Air	12/13/2007	1	Summa Canister	None	000198	001039	-7

Special Instructions:

70-15 / TCE detection limit as requested by PWA

**SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #**

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All analyses	Amber	12/14/07	Zeng	12/17/07	10:25	All Analyses	Zeng	12/17/07	John	12/17/07	11:00

REAC, Edison, NJ
(732) 321-4200

EP-C-04-032

CHAIN OF CUSTODY RECORD

Site #: 0-296

Contact Name: John Johnson

No: 0-296-12/13/07-0006

Cooler #: 377

Lab: REAC

Lab Phone: 732-494-4000

Lab #	Sample #	Location	Analyses	Matrix	Collected	Numb Cont	Container	Preservative	SUMMA	OrificeID	Stop Pressure
IS126	4509	MGSC25	VOCS (volatiles)	Air	12/13/2007	1	Summa Canister	None	000067	001032	-8.5
IS127	4510	MGSC38	VOCS (volatiles)	Air	12/13/2007	1	Summa Canister	None	000133	001026	-6

Special Instructions: TO-15 / TCE detection limit as requested by PWA

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

015

0296-DAR-012308

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REAC, Edison, NJ
(732) 321-4200

EB C 04 032

CHAIN OF CUSTODY RECORD

Site # 0-296

Contact Name: John Johnson

No: 0-296-12/13/07-0007

Conter #: 375

Lab: BEAC

Lab Phone: 732-494-4000

Lab #	Sample #	Location	Analyses	Matrix	Collected	Numb Cont	Container	Preservative	SUMMA	OrificeID	Stop Pressure
15928	4511	MGSC10OW	VOCS (volatiles)	Air	12/13/2007	1	Summa Canister	None	000244	001062	-7
15929	4512	MGSC10RE	VOCS (volatiles)	Air	12/13/2007	1	Summa Canister	None	000144	001047	-11.5

