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MEMORANDUM

TO: Lisa Hanusiak, Remedial Project Manager
Site Cleanup Section 3, SFD-7-3

THROUGH: Rose Fong, ESAT Task Order Project Officer (TOPO) RF
Quality Assurance (QA) Program, PMD-3

FROM: Doug Lindelof, Data Review Task Manager DLaiD for DL
Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: 68-W-01-028
Technical Direction Form No.: 00905030

DATE: May 23, 2005

SUBJECT: Review of Analytical Data, Tier 3

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Alhambra
Site Account No.:	09 ES LA01
CERCLIS ID No.:	CAD980818579
Case No.:	34003
SDG No.:	Y1TG1
Laboratory:	Liberty (LIBRTY)
Analysis:	Volatiles
Samples:	10 Water Samples (see Case Summary)
Collection Date:	March 30 and 31, 2005
Reviewer:	Santiago Lee, ESAT/Laboratory Data Consultants

This report has been reviewed by the EPA TOPO for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

cc: Edward Messer, CLP PO USEPA Region 4
Steve Remaley, CLP PO USEPA Region 9

CLP PO: [X] Attention [ ] Action

SAMPLING ISSUES: [X] Yes [ ] No

Data Validation Report

Case No.: 34003
SDG No.: Y1TG1
Site: Alhambra
Laboratory: Liberty
Reviewer: Santiago Lee, ESAT/LDC
Date: May 23, 2005

I. CASE SUMMARY

Sample Information

Samples:	Y1TG1 through Y1TH0
Concentration and Matrix:	Low Concentration Water
Analysis:	Volatile
SOW:	OLC03.2 – Modification Reference No. 1125.0
Collection Date:	March 30 and 31, 2005
Sample Receipt Date:	March 31, 2005 and April 1, 2005
Extraction Date:	Not Applicable
Analysis Date:	April 6 and 7, 2005

Field QC

Field Blanks (FB):	Not Provided
Equipment Blanks (EB):	Y1TG9 and Y1TH0
Background Samples (BG):	Not Provided
Field Duplicates (D1):	Y1TG6 and Y1TG7

Laboratory QC
Method Blanks & Associated Samples:

VBLKWJ:	Y1TG1 through Y1TG5, Y1TG7, and Y1TG9
VBLKTS:	Y1TG6, Y1TG8, Y1TH0, Y1TG3MS, Y1TG3MSD, and storage blank VHBLKYQ

TABLES

1A: Analytical Results with Qualifications
1B: Data Qualifier Definitions for Organic Data Review
2: Calibration Summary

CLP PO Action

None.

CLP PO Attention

1. Detected results for acetone, cis-1,3-dichloropropene, and toluene in some samples are qualified as nondetected and estimated (U,J) due to method blank and equipment blank contamination (see Comment B).

2. Results for some analytes are qualified as estimated (J) due to calibration problems (see Comments C and D).

Sampling Issues

1. Detected results for acetone, cis-1,3-dichloropropene, and toluene in some samples are qualified as nondetected and estimated (U,J) due to equipment blank contamination (see Comment B).

2. For sample Y1TG4, one vial was broken when received by the laboratory. There was enough sample volume in the other two vials for analysis.

3. The laboratory indicated on the Traffic Report & Chain of Custody Record (TR/COC) that there was no temperature blank in the cooler for samples received on March 31, 2005. The temperature was recorded using an IR gun.

Additional Comments

Other than laboratory artifacts (approximate retention times of 3.9, 4.1, 5.0, 10.7, and 12.5 minutes), a tentatively identified compound (retention time = 3.9 minutes) was found in samples Y1TG1 through Y1TG5.

Manual integrations were performed on calibration standards and samples due to incorrect auto integration. Manual integrations were reviewed and found to be satisfactory and in compliance with proper integration techniques.

This report was prepared in accordance with the following documents:

- ESAT Region 9 Standard Operating Procedure 901, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Volatile and Semivolatile Data Packages*;

- *USEPA Contract Laboratory Program Statement of Work for Analysis of Low Concentration Organic,* OLC03.2, December 2000; and

- USEPA Contract Laboratory Program National Functional Guidelines for Low Concentration Organic Data Review, June 2001.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	Parameter	Acceptable	Comment
1.	Holding Time/Preservation	Yes	
2.	GC/MS Tune/GC Performance	Yes	
3.	Initial Calibration	No	C, D
4.	Continuing Calibration	No	C
5.	Laboratory Blanks	No	B
6.	Field Blanks	No	B
7.	Deuterated Monitoring Compounds	Yes	E
8.	Matrix Spike/Matrix Spike Duplicates	No	F
9.	Laboratory Control Samples/Duplicates	N/A	
10.	Internal Standards	Yes	
11.	Compound Identification	Yes	G
12.	Compound Quantitation	Yes	A
13.	System Performance	Yes	
14.	Field Duplicate Sample Analysis	Yes	

N/A = Not Applicable

III. VALIDITY AND COMMENTS

A. The following results, denoted with an "L" qualifier, are estimated and flagged "J" in Table 1A.

- All detected results below the contract required quantitation limits

Results below the contract required quantitation limits (CRQLs) are considered to be qualitatively acceptable, but quantitatively unreliable, due to the uncertainty in analytical precision near the limit of detection.

B. The following results are qualified as nondetected and estimated due to method blank and equipment blank contamination and are flagged "U,J" in Table 1A.

- Acetone in samples Y1TG1 and Y1TG2, equipment blank Y1TH0, and storage blank VHBLKYQ

- cis-1,3-Dichloropropene in samples Y1TG1, Y1TG2, and Y1TG8; equipment blank Y1TH0; and storage blank VHBLKYQ

- Toluene in samples Y1TG1, Y1TG2, and Y1TG8

Acetone and cis-1,3-dichloropropene were found in method blank VBLKTS and equipment blank Y1TG9 (see Table 1A for concentrations). Toluene was found in equipment blanks Y1TG9 and Y1TH0 (see Table 1A for concentrations). Results for the samples listed above are considered nondetected and estimated (U,J) and

quantitation limits have been raised according to blank qualification rules presented below.

No positive results are reported unless the concentration of the compound in the sample exceeds 10 times the amount in any associated blank for common laboratory contaminants or 5 times the amount for other compounds. If the sample result is greater than the CRQL, the quantitation limit is raised to the sample result and reported as nondetected. If the sample result is less than the CRQL, the result is reported as nondetected at the CRQL.

Acetone results for samples Y1TG4 (2.6 μg/L), Y1TG5 (2.5 μg/L), and Y1TG7 (2.4 μg/L) and cis-1,3-dichloropropene results for samples Y1TG4 (0.11 μg/L) and Y1TG7 (0.11 μg/L) are not qualified as nondetected and estimated because these analytes are not detected in the associated method blank VBLKWJ and equipment blank Y1TH0. Users should note that acetone and cis-1,3-dichloropropene may be artifacts because they were found in the method blank VBLKTS and equipment blank Y1TG9.

A laboratory method blank is laboratory reagent water or baked sand analyzed with all reagents, deuterated monitoring compounds, and internal standards and carried through the same sample preparation and analytical procedures as the field samples. The laboratory method blank is used to determine the level of contamination introduced by the laboratory during analysis.

An equipment blank is clean water that has been collected as a sample using decontaminated sampling equipment. The intent of an equipment blank is to monitor for contamination introduced by the sampling activity, although any laboratory introduced contamination will also be present.

C. Results for the following analytes are qualified as estimated due to low relative response factors (RRFs) in the initial and continuing calibrations and are flagged "J" in Table 1A.

- 2-Butanone and tertiary butyl alcohol in all samples, all method blanks, and storage blank VHBLKYQ

- Acetone in samples Y1TG1 through Y1TG5 and Y1TG7, equipment blank Y1TG9, and method blank VBLKWJ

Average RRFs of 0.048 and 0.011 were reported for 2-butanone and tertiary butyl alcohol, respectively, in the April 6, 2005 initial calibration. RRFs were below the 0.05 validation criterion for acetone, 2-butanone, and tertiary butyl alcohol in the April 6, 2005 continuing calibration and for 2-butanone and tertiary butyl alcohol in the April 7, 2005 continuing calibration (see Table 2).

Detected results for the analytes listed above should be considered as the minimum concentrations at which these analytes are present in the samples. Where results are nondetected, false negatives may exist.

Deuterated monitoring compounds (DMCs) 2-butanone-d5, trans-1,3-dichloropropene-d4, and 2-hexanone-d5 also had RRFs below the 0.05 validation criterion in the initial calibration and continuing calibrations (see Table 2). Quantitation of the analytes associated with these DMCs may have been affected by the low RRFs (see attached Table 9 from the Functional Guidelines).

The RRF evaluates instrument sensitivity and is used in the quantitation of target analytes.

D. Results for the following analyte are qualified as estimated due to a large percent relative standard deviation (RSD) in the initial calibration and are flagged "J" in Table 1A.

- Methyl acetate in all samples, all method blanks, and storage blank VHBLKYQ

A percent RSD of 30.4% was reported for methyl acetate in the April 6, 2005 initial calibration. This value exceeds the ≤30.0% validation criterion.

The initial calibration demonstrates that the instrument is capable of acceptable performance in the beginning of the analytical run and of producing a linear calibration curve.

E. The DMC benzene-d6 recovery for equipment blank Y1TG9 (122%) was above the QC limit of 78-121%. No data are qualified since the associated analyte (benzene) was not detected in equipment blank Y1TG9.

Surrogates (e.g., deuterated monitoring compounds (DMCs)) are organic compounds which are similar to the target analytes in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples. All samples are spiked with DMCs prior to purging. DMCs provide information about both the laboratory performance on individual samples and the possible effects of the sample matrix on the analytical results.

F. Recoveries for 1,1-dichloroethene in the matrix spike duplicate Y1TG3MSD (146%) and trichloroethene in the matrix spike Y1TG3MS (122%) exceeded the QC limits of 61-145% and 71-120%, respectively. Since these recoveries are only slightly outside the QC limits, no adverse effect on data quality is expected.

G. The laboratory initially reported detected results for tertiary butyl alcohol in samples Y1TG1, Y1TG3MS, Y1TG3MSD, Y1TG4, Y1TG5, and Y1TG8 and equipment blank Y1TH0. However, the mass spectra do not meet the specified functional guideline criteria. The laboratory indicated that tertiary butyl alcohol should not be reported as detects for samples Y1TG1, Y1TG3MS, Y1TG3MSD, Y1TG4, Y1TG5,

and Y1TG8 and submitted revised Form 1LCs (attached) and revised quantitation reports. In the reviewer's professional judgment, tertiary butyl alcohol in equipment blank Y1TH0 also should not be reported as a detect because the characteristic ions m/z 84, 86, and 88 are missing in the mass spectrum (see attached mass spectra, p. 183 in data package). Tertiary butyl alcohol results for samples Y1TG1, Y1TG4, Y1TG5, and Y1TG8 and equipment blank Y1TH0 are reported in Table 1A as nondetected (5.0U).

trans-1,3-Dichloropropene was incorrectly reported as a detect for sample Y1TG1. The laboratory submitted a revised Form 1LCB (attached) and a revised quantitation report with the nondetected result. The trans-1,3-dichloropropene result for sample Y1TG1 is reported in Table 1A as nondetected (0.50U).

ANALYTICAL RESULTS
Table 1A

Case No. : 34003 SDG No. : Y1TG1
Site : ALHAMBRA
Lab : LIBERTY ANALYTICAL CORPORATION
Reviewer : Santiago Lee, ESAT/LDC
Date : May 23, 2005

QUALIFIED DATA
Concentration in ug/L

Analysis Type : Low Level Water Samples
For Volatiles

Station Location :	1			2			3			4			5			6			7		
Sample ID :	Y1TG1			Y1TG2			Y1TG3			Y1TG4			Y1TG5			Y1TG6		D1	Y1TG7		D1
Collection Date :	3/30/2005			3/30/2005			3/30/2005			3/31/2005			3/31/2005			3/31/2005			3/31/2005		
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0			1.0		
Volatile Compound	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
Dichlorodifluoromethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Chloromethane	0.50U			0.30L	J	A	0.40L	J	A	0.12L	J	A	0.24L	J	A	0.50U			0.50U		
Vinyl Chloride	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Bromomethane	0.58			0.50U			0.31L	J	A	0.50U			0.50U			0.50U			0.50U		
Chloroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Trichlorofluoromethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
1,1-Dichloroethene	0.50U			0.50U			0.50U		F	0.50U			0.50U			0.50U			0.50U		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Acetone	5.0U	J	BC	5.0U	J	BC	5.0U	J	C	2.6L	J	AC	2.5L	J	AC	5.0U			2.4L	J	AC
Carbon Disulfide	0.50U			0.10L	J	A	0.50U			0.50U			0.50U			0.50U			0.50U		
Methyl Acetate	0.50U	J	D	0.50U	J	D	0.50U	J	D	0.50U	J	D	0.50U	J	D	0.50U	J	D	0.50U	J	D
Methylene Chloride	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
trans-1,2-Dichloroethene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Methyl tert-Butyl Ether	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
1,1-Dichloroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
cis-1,2-Dichloroethene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
2-Butanone	5.0U	J	C	5.0U	J	C	5.0U	J	C	5.0U	J	C	5.0U	J	C	5.0U	J	C	5.0U	J	C
Bromochloromethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Chloroform	0.11L	J	A	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
1,1,1-Trichloroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Cyclohexane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Carbon Tetrachloride	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Benzene	0.19L	J	A	0.18L	J	A	0.17L	J	A	0.50U			0.16L	J	A	0.50U			0.50U		
1,2-Dichloroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Trichloroethene	0.26L	J	A	0.13L	J	A	0.50U		F	0.50U			0.14J			0.50U			0.50U		
Methylcyclohexane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
1,2-Dichloropropane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Bromodichloromethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
cis-1,3-Dichloropropene	0.50U	J	B	0.50U	J	B	0.50U			0.11L	J	A	0.50U			0.50U			0.11L	J	A
4-Methyl-2-pentanone	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U			5.0U		
Toluene	0.50U	J	B	0.50U	J	B	0.50U			0.50U			0.50U			0.50U			0.50U		
trans-1,3-Dichloropropene	0.50U		G	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
1,1,2-Trichloroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Tetrachloroethene	0.50U			0.50U			0.50U			0.50U			0.23L	J	A	0.14L	J	A	0.20L	J	A
2-Hexanone	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U			5.0U		
Dibromochloromethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
1,2-Dibromoethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		

ANALYTICAL RESULTS
Table 1A

Case No. : 34003 SDG No. : Y1TG1
Site : ALHAMBRA
Lab : LIBERTY ANALYTICAL CORPORATION
Reviewer : Santiago Lee, ESAT/LDC
Date : May 23, 2005

QUALIFIED DATA
Concentration in ug/L

Analysis Type : Low Level Water Samples For Volatiles

Station Location :	1			2			3			4			5			6			7		
Sample ID :	Y1TG1			Y1TG2			Y1TG3			Y1TG4			Y1TG5			Y1TG6		D1	Y1TG7		D1
Collection Date :	3/30/2005			3/30/2005			3/30/2005			3/31/2005			3/31/2005			3/31/2005			3/31/2005		
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0			1.0		
Volatile Compound	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
Chlorobenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Ethylbenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Xylenes (total)	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Styrene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Bromoform	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Isopropylbenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
1,1,2,2-Tetrachloroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
1,3-Dichlorobenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
1,4-Dichlorobenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
1,2-Dichlorobenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
1,2-Dibromo-3-chloropropane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
1,2,4-Trichlorobenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
1,2,3-Trichlorobenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50U		
Tertiary Butyl Alcohol	5.0U	J	CG	5.0U	J	C	5.0U	J	C	5.0U	J	CG	5.0U	J	CG	5.0U	J	C	5.0U	J	C

Val - Validity. Refer to Data Qualifiers in Table 1B.
Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.
CRQL - Contract Required Quantitation Limit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs
FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

ANALYTICAL RESULTS
Table 1A

Case No. : 34003 SDG No. : Y1TG1
Site : ALHAMBRA
Lab : LIBERTY ANALYTICAL CORPORATION
Reviewer : Santiago Lee, ESAT/LDC
Date : May 23, 2005

QUALIFIED DATA
Concentration in ug/L

Analysis Type : Low Level Water Samples For Volatiles

Station Location :	8			9			10			Method Blank			Method Blank			Storage Blank					
Sample ID :	Y1TG8			Y1TG9		EB	Y1TH0		EB	VBLKTS			VBLKWJ			VHBLKYQ			CRQL		
Collection Date :	3/31/2005			3/30/2005			3/31/2005														
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0					
Volatile Compound	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
Dichlorodifluoromethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Chloromethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Vinyl Chloride	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Bromomethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Chloroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Trichlorofluoromethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,1-Dichloroethene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Acetone	5.0U			3.7L	J	AC	5.0U	J	B	4.5L	J	A	5.0U	J	C	5.0U	J	B	5.0		
Carbon Disulfide	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Methyl Acetate	0.50U	J	D	0.50U	J	D	0.50U	J	D	0.50U	J	D	0.50U	J	D	0.50U	J	D	0.50		
Methylene Chloride	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
trans-1,2-Dichloroethene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Methyl tert-Butyl Ether	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,1-Dichloroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
cis-1,2-Dichloroethene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
2-Butanone	5.0U	J	C	5.0U	J	C	5.0U	J	C	5.0U	J	C	5.0U	J	C	5.0U	J	C	5.0		
Bromochloromethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Chloroform	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,1,1-Trichloroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Cyclohexane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Carbon Tetrachloride	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Benzene	0.50U			0.50U		E	0.50U			0.50U			0.50U			0.50U			0.50		
1,2-Dichloroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Trichloroethene	0.23L	J	A	0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Methylcyclohexane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,2-Dichloropropane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Bromodichloromethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
cis-1,3-Dichloropropene	0.50U	J	B	0.12L	J	A	0.50U	J	B	0.10L	J	A	0.50U			0.50U	J	B	0.50		
4-Methyl-2-pentanone	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U			5.0		
Toluene	0.50U	J	B	0.13L	J	A	0.12L	J	A	0.50U			0.50U			0.50U			0.50		
trans-1,3-Dichloropropene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,1,2-Trichloroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Tetrachloroethene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
2-Hexanone	5.0U			5.0U			5.0U			5.0U			5.0U			5.0U			5.0		
Dibromochloromethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,2-Dibromoethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		

ANALYTICAL RESULTS
Table 1A

Case No. : 34003 SDG No. : Y1TG1
Site : ALHAMBRA
Lab : LIBERTY ANALYTICAL CORPORATION
Reviewer : Santiago Lee, ESAT/LDC
Date : May 23, 2005

QUALIFIED DATA
Concentration in ug/L

Analysis Type : Low Level Water Samples For Volatiles

Station Location :	8			9			10			Method Blank			Method Blank			Storage Blank					
Sample ID :	Y1TG8			Y1TG9		EB	Y1TH0		EB	VBLKTS			VBLKWJ			VHBLKYQ			CRQL		
Collection Date :	3/31/2005			3/30/2005			3/31/2005														
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0					
Volatile Compound	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
Chlorobenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Ethylbenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Xylenes (total)	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Styrene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Bromoform	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Isopropylbenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,1,2,2-Tetrachloroethane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,3-Dichlorobenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,4-Dichlorobenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,2-Dichlorobenzene	0.11L	J	A	0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,2-Dibromo-3-chloropropane	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,2,4-Trichlorobenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
1,2,3-Trichlorobenzene	0.50U			0.50U			0.50U			0.50U			0.50U			0.50U			0.50		
Tertiary Butyl Alcohol	5.0U	J	CG	5.0U	J	C	5.0U	J	CG	5.0U	J	C	5.0U	J	C	5.0U	J	C	5.0		

Val - Validity. Refer to Data Qualifiers in Table 1B.
Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.
CRQL - Contract Required Quantitation Limit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs
FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999.

U The analyte was analyzed for but was not detected above the reported sample quantitation limit.

L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Table 2
Calibration Summary

Case No.: 34003 SDG No.: Y1TG1
Site: Alhambra
Laboratory: Liberty
Reviewer: Santiago Lee, ESAT/LDC
Date: May 23, 2005

RELATIVE RESPONSE FACTORS

	RRF	RRF	RRF
Analysis date:	04/06/05	04/06/05	04/07/05
Analysis time:	14:04-	14:59	09:14
GC/MS I.D.:	5972HP73	5972HP73	5972HP73
Analyte	Init.	Cont.	Cont.
Acetone	-----	0.049	-----
2-Butanone	0.048	0.047	0.047
Tertiary butyl alcohol	0.011	0.010	0.013
2-Butanone-d5	0.045	0.044	0.047
trans-1,3-Dichloropropene-d4	0.043	0.045	0.044
2-Hexanone-d5	0.039	0.041	0.043

ASSOCIATED SAMPLES AND METHOD BLANKS

Initial, 04/06/05:	All samples, all method blanks, and storage blank VHBLKYQ
Continuing, 04/06/05:	Y1TG1 through Y1TG5, Y1TG7, Y1TG9; VBLKWJ
Continuing, 04/07/05:	Y1TG6, Y1TG8, Y1TH0, Y1TG3MS, Y1TG3MSD; VBLKTS; VHBLKYQ.

1LCF
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y1TG1

Lab Name: COMPUCHEM Contract: 68W01043

Lab Code: LIBRTY Case No.: 34003 Client No.: 1125 SDG No.: Y1TG1

Lab Sample ID: 613101 Date Received: 03/31/2005

Lab File ID: 613101B73 Date Analyzed: 04/06/2005

Purge Volume: 25.0(ML) Dilution Factor: 1.0

GC Column: SPB-624 ID: 0.32(MM) Length: 60.0(M)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01		UNKNOWN	3.94	38	J
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
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19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

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1LCF
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y1TG2

Lab Name: COMPUCHEM Contract: 68W01043

Lab Code: LIBRTY Case No.: 34003 Client No.: 1125 SDG No.: Y1TG1

Lab Sample ID: 613102 Date Received: 03/31/2005

Lab File ID: 613102B73 Date Analyzed: 04/06/2005

Purge Volume: 25.0(ML) Dilution Factor: 1.0

GC Column: SPB-624 ID: 0.32(MM) Length: 60.0(M)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01		UNKNOWN	3.93	13	J
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
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22					
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24					
25					
26					
27					
28					
29					
30					

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1LCF
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y1TG3

Lab Name: COMPUCHEM Contract: 68W01043

Lab Code: LIBRTY Case No.: 34003 Client No.: 1125 SDG No.: Y1TG1

Lab Sample ID: 613103 Date Received: 03/31/2005

Lab File ID: 613103B73 Date Analyzed: 04/06/2005

Purge Volume: 25.0(ML) Dilution Factor: 1.0

GC Column: SPB-624 ID: 0.32(MM) Length: 60.0(M)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01		UNKNOWN	3.94	27	J
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
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30					

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1LCF
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y1TG4

Lab Name: COMPUCHEM Contract: 68W01043

Lab Code: LIBRTY Case No.: 34003 Client No.: 1125 SDG No.: Y1TG1

Lab Sample ID: 613106 Date Received: 04/01/2005

Lab File ID: 613106B73 Date Analyzed: 04/06/2005

Purge Volume: 25.0(ML) Dilution Factor: 1.0

GC Column: SPB-624 ID: 0.32(MM) Length: 60.0(M)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01		UNKNOWN	3.94	5.8	J
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
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30					

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1LCF
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y1TG5

Lab Name: COMPUCHEM Contract: 68W01043

Lab Code: LIBRTY Case No.: 34003 Client No.: 1125 SDG No.: Y1TG1

Lab Sample ID: 613107 Date Received: 04/01/2005

Lab File ID: 613107B73 Date Analyzed: 04/06/2005

Purge Volume: 25.0(ML) Dilution Factor: 1.0

GC Column: SPB-624 ID: 0.32(MM) Length: 60.0(M)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01		UNKNOWN	3.93	22	J
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
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30					

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Table 9. Volatile Deuterated Monitoring Compounds and the Associated Target Compounds

Chloroethane-d5 (DMC)	1,2-Dichloropropane-d6 (DMC)	1,2-Dichlorobenzene-d4 (DMC)
Dichlorodifluoromethane	Cyclohexane	Chorobenzene
Chloromethane	Methylcyclohexane	1,3-Dichlorobenzene
Bromomethane	1,2-Dichloropropane	1,4-Dichlorobenzene
Chloroethane	Bromodichloromethane	1,2-Dichlorobenzene
Carbon Disulfide		1,2,4-Trichlorobenzene
		1,2,3-Trichlorobenzene

Bromoform-d (DMC)	trans-1,3-Dichloropropene-d4 (DMC)	Chloroform-d (DMC)
Dibromochloromethane	cis-1,3-Dichloropropene	1,1-Dichloroethane
1,2-Dibromoethane	trans-1,3-Dichloropropene	Bromochloromethane
Bromoform	1,1,2-Trichloroethane	Chloroform

2-Butanone-d5 (DMC)	1,1-Dichloroethene-d2 (DMC)	2-Hexanone-d5 (DMC)
Acetone	trans-1,2-Dichloroethene	4-Methyl-2-pentanone
2-Butanone	cis-1,2-Dichloroethene	2-Hexanone

Vinyl Chloride-d3 (DMC)	Benzene-d6 (DMC)	1,1,2,2-Tetrachloroethane-d2 (DMC)
Vinyl Chloride	Benzene	1,1,2,2,-Tetrachlororethane
		1,2-Dibromo-3-chloropropane

1,2-Dichloroethane-d4 (DMC)	Toulene-d8 (DMC)
Trichlorofluoromethane	Trichloroethene
1,1-Dichloroethene	Toluene
1,1,2-Trichloro-1,2,2-trifluoroethane	Tetrachloroethene
Methyl Acetate	Ethylbenzene
Methylene Chloride	Xylenes (total)
Methyl tert-Butyl Ether	Styrene
1,1,1-Trichloroethane	Isopropylbenzene
Carbon Tetrachloride	
1,2-Dichloroethane	

USEPA Contract Laboratory Program National Functional Guidelines for Low Concentration Organic Data Review (EPA-540-R-00-006, June 2001)

1LC
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

Y1TG1

Lab Name: COMPUCHEM Contract: 68W01043

Lab Code: LIBRTY Case No.: 34003 Client No.: 1125 SDG No.: Y1TG1

Lab Sample ID: 613101 Date Received: 03/31/2005

Lab File ID: 613101B73 Date Analyzed: 04/06/2005

Purge Volume: 25.0(ML) Dilution Factor: 1.0

GC Column: SPB-624 ID: 0.32(MM) Length: 60.0(M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-65-0	tert butyl alcohol	5.0	U

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AMENDED DATA 5-17-05

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LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

Y1TG3MS

Lab Name: COMPUCHEM Contract: 68W01043

Lab Code: LIBRTY Case No.: 34003 Client No.: 1125 SDG No.: Y1TG1

Lab Sample ID: 64669 Date Received: 03/31/2005

Lab File ID: 64669A73 Date Analyzed: 04/07/2005

Purge Volume: 25.0(ML) Dilution Factor: 1.0

GC Column: SPB-624 ID: 0.32(MM) Length: 60.0(M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-65-0	tert butyl alcohol	5.0	U

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AMENDED DATA 5-17-05

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DATA SHEET

EPA SAMPLE NO.

Y1TG3MSD

Lab Name: COMPUCHEM Contract: 68W01043

Lab Code: LIBRTY Case No.: 34003 Client No.: 1125 SDG No.: Y1TG1

Lab Sample ID: 64670 Date Received: 03/31/2005

Lab File ID: 64670A73 Date Analyzed: 04/07/2005

Purge Volume: 25.0(ML) Dilution Factor: 1.0

GC Column: SPB-624 ID: 0.32(MM) Length: 60.0(M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-65-0	tert butyl alcohol	5.0	U

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AMENDED DATA Dw 5-17-05

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1LC
LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET

EPA SAMPLE NO.

Y1TG4

Lab Name: COMPUCHEM Contract: 68W01043

Lab Code: LIBRTY Case No.: 34003 Client No.: 1125 SDG No.: Y1TG1

Lab Sample ID: 613106 Date Received: 04/01/2005

Lab File ID: 613106B73 Date Analyzed: 04/06/2005

Purge Volume: 25.0(ML) Dilution Factor: 1.0

GC Column: SPB-624 ID: 0.32(MM) Length: 60.0(M)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
75-65-0	tert butyl alcohol	5.0	U

FORM I LCV-3 OLC03.2

AMENDED DATA 5-17-05