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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 6/3/94

SUBJECT: Review of Region V CLP Data
Received for Review on May 24, 1994

FROM: Charles T. Elly, Director (SL-10C) MSP for CTE
Central Regional Laboratory

TO: Data User: BTV

We have reviewed the data for the following case.

SITE NAME: Ave. D & 118th ST (IL)

CASE and/or SAS NUMBER: 21882 SDG NUMBER: EWW46

Number and Type of Samples: 19 (Water/Soil)

CLP Sample Numbers: EWT 72, 80 EWT 93-98, EWW 46-47, 49-5
EWX82, EWX 84-89

CLP Laboratory: AATS (LA) Hrs. for Review 18 1/2

Following are our findings:

The data are acceptable for use with qualification.

Mumtaz Pasha
6/3/94

US EPA RECORDS CENTER REGION 5
412405

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

Case Number 21882

CONTRACTOR; AATSLA
SITE: Ave. O & 118 St. (IL)

This case consisted of 15 soil samples and 4 water samples which were submitted for routine analysis. These samples were received by the laboratory, after a delay by the shipper, several coolers were received at 55°C, and run with some problems.

This reviewers comments are contained in the following pages of this narrative.

Reviewed by M. Kaminsky Lockheed/ESAT
May 5,1994

NARRATIVE

Case Number 21882

CONTRACTOR; AATSLA
SITE: Ave. O & 118 St. (IL)

1. Holding Times:
This case consisted of 15 soil samples and 4 water samples. All of the samples were received on April 13 and 15,1994; the volatile samples were analyzed and the semi-volatile and pesticides were extracted and run by the laboratory in time to meet the required holding time criteria, except for volatile samples EWX82, EWX82RE, and EWX88. The positive detects for these samples should be considered as estimated (J) and all non-detects as estimated (UJ). For the remainder of the samples in this case all results are acceptable.

2.GC/MS Tuning and GC Instrument Performance:
Both the tuning and the instrument performance were satisfactory. However, the semi-volatile and pesticide baseline did exhibit some problems with excessive rise.

3.Calibration:
Initial and continuing calibrations of VOC, Semi-Voc, and Pesticide standards were evaluated for the target compound list(TCL) and TICs and outliers were recorded on the outlier forms included as part of this narrative.

4.Method Blank:
The volatile blanks VBLK01, VBLK03, VBLK04, VBLK05, VBLK06, and VBLK07 were found to be clean. VBLK02 contained the common laboratory chemical acetone and 4 TICs, while VBLK08 only contained acetone. Concentrations of this common laboratory chemical must be at least 10x higher in the associated samples to be considered usable while the TICs must be 5x the blank concentration to be considered usable.
The semi-volatile blank SBLK01 was clean while SBLK02 contained the common laboratory chemical bis(2-ethylhexyl)phthalate and 5 TICs. SBLK03 contained the chemical pyrene and 5 TICs. SBLK04 contained the common laboratory chemical bis(2-ethylhexyl)phthalate and 2 TICs. Concentration of the common laboratory chemical must be at least 10x higher in the associated samples to be usable, while the concentration of chrysene in the associated samples must be at least 5x the blank concentration to be considered usable.
The Pesticide blanks PBLK1, PBLK2, PBLK3, and PBLK4 were found to be clean.
Associated samples are included on form (IV).

Reviewed by M. Kaminsky Lockheed/ESAT
May 5,1994

CONTRACTOR; AATSLA
SITE: Ave. O & 118 St. (IL)

5.Suggogate Recoveries:
The volatile water samples had no system monitoring compounds out side of QC limits. In the volatile soil fraction EWT94RE had SMC2 (bromofluorobenzene) out of control and sample EWX87 had SMC3 (1,2-dichloroethane-d4) out of control. All positive hits of the associated compounds in these samples should be considered as estimated (J) and non-detects as estimated (UJ).
In the semi-volatile fraction there are no surrogate recovery problems. However the Form II for the soil recoveries, the laboratory inappropriately used the 'D' qualifier. This qualifier needs to be removed from this form.
In the pesticide fraction, no problems were encountered with the water samples. With the soil surrogates, DCB(decachlorobiphenyl) was in control for the following samples; EWT93, EWT94, EWT98, EWX84, EWX84MS, EWX84MSD. EWX86, and EWX89. Both detects and non-detects for the associated compounds should be considered estimated (J).
DCB had 0% recovery in samples EWT80 and EWT96 for these samples all hits of associated compounds should be considered as estimated (J) and all non-detects as unusable (R).

6.MS/MSD and RPD (LABORATORY CONTROL SAMPLE):
Sample EWX84 was used for spiking for the VOA, Semi-VOA and Pesticide/PCB soil samples.
In the volatile fraction the MS %REC and the MSD %REC were high for 1,1-dichloroethene, benzene, toluene, and chlorobenzene. The %RPD was also out for 1,1-dichloroethene.
In the Semi-volatile soil spike sample the MS %REC and the %RPD were out of control for acenapthene, pentachlorophenol and pyrene. The MSD %REC was out of control for pentachlorophenol and pyrene. All associated compounds in the unspiked sample are to be considered as estimated (J) for all detects and (UJ) for all non-detects.
In the pesticide fraction no problems were encountered.

7.Field blanks and Field Duplicates and other QC:
The COC indicated that EWW46 and EWW47 were trip blanks. EWW49 and EWW50 were indicated to be rinsate blanks. However, the laboratory only in the volatile fraction, chose to run EWW47 and EWW50 as soils. Volatile soils are run via a heated purge while volatile waters are run off of a non-heated purge. The calibrations for soils and waters are both done from a water sample, and the purge is either heated or not depending if it is a soil or water. As there is really no problem with the quantitation of these two water samples no additional

qualification is needed, however the units on the Form I need to be changed from ug/Kg to ug/L.

8.Internal Standards:
All internal standards met QC requirements.

9.Compound Quantification and Reported Detection Limits:
All target compounds and TICs were properly reported in the volatile, semi-volatile, and pesticide fractions; therefore data is acceptable.
In the volatile fraction naphthalene is reported as a TIC in sample EWT95. This needs to be removed as it is inappropiate to have a TCL called a TIC in a different fraction.
In the semi-volatile fraction samples EWT72, EWT93, EWT94, EWT96, EWT98, and EWX88 had TCL compounds that were over range and qualified by the laboratory 'E'. The values for these compounds should be taken from the diluted samples.
In the pesticide fraction samples EWT93, EWT94, EWT98, and EWX87 received 5:1 dilutions. Samples EWX85 and EWX86 received 2:1 dilutions. All of these samples should also have been run undiluted as well. Therefore all nondetects in these samples are to be considered as unusable (R). In sample EWX89 the 4,4'-DDE needs to be qualified as 'E' and the value for this compound should be taken from the diluted extract.

10.Compound Identification:
Target compounds and TICs were identified by 'best fit' library search method and appear to be correct, except in the pesticide fraction where it is not known, for sure what and how much is present due to the large differences of concentrations reported between the two columns. Much of the pesticide data bears the 'P' qualifier as a result of these differences. However, upon review of the raw data none of these differences can be attributed to poor integration of the samples. It should be also noted that these pesticide samples did exhibit severe baseline and contamination problems.

11.System Performance:
Base line indicated acceptable performance; therefore data is acceptable in the volatile and semi-volatile fractions. In the semi-volatile and pesticide fractions, base line conditions indicate major contamination of the samples.

12.Overall Case Assessment:
The coolers containing volatile samples EWW47, EWW50, EWT80, EWT93, EWT94, EWT95, EWT96, EWT97, EWT98, EWT72, EWX82, and EWX88

Reviewed by M. Kaminsky Lockheed/ESAT
May 5,1994

NARRATIVE

CONTRACTOR; AATSLA
SITE: Ave. O & 118 St. (IL)

Case Number 21882

were received by the laboratory one day late through no fault of the laboratory, and was at 55°F. This temperature at time of receipt was not noted on the COC but was conveyed to SMO. The results for these volatile samples for all detects may be biased low and therefore should be qualified as 'J' while all non-detects may be also biased low and should be qualified as 'UJ'. This reviewer found no other apparent case problems to be noted at this time.

Reviewed by M. Kaminsky Lockheed/ESAT
May 5,1994

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 21882
COLUMN: Y

CONTRACTOR: AATSLA
SITE NAME: Ave O

Instrument# HP2		Initial Cal			Contin Cal			Contin Cal			Contin Cal.			Contin Cal		
Date/Time:		4-19 0842			4-24 0854			4-25 0615			4-28 0740			5-02 1021		
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01	1.231			0.914	25.8	J									
Bromomethane	0.10	.956			1.084	25.6	J									
Vinyl chloride	0.10															
Chloroethane	0.01	0.77	30.5	J	0.531	33.4	J									
Methylene chloride	0.01	1.703												1.244	27.0	J
Acetone	0.01	0.216												0.443	105.1	J
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
1,2-Dichloroethene (total)																
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01	0.415												0.763	83.9	J
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane																
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01	0.321			0.212	34.0	J									
2-Hexanone	0.01	0.226			0.156	31.0	J							0.428	89.4	J
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
Toluene-d8																
Bromofluorobenzene																
1,2-Dichloroethane-d4																

Samples affected					
	VBLK02	VBLK05	VBLK06	VBLK07	VBLK08
	EWX 85	EWT 80	EWT 72	EWX 82	EWX 88
	EWX 86 RE	EWT 93	EWT 80 RE	EWX 82 RE	
	EWX 87 RE	EWT 94	EWT 94 RE		
	EWX 89 RE	EWT 95	EWT 95 RE		
	EWX 89 ms	EWT 96	EWT 96 RE		
			EWT 97		
			EWT 98 98 RE		
			EWW 47, 50		

Reviewer's Init/Date: MK 5-25-91

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIERS
HIGH CONCENTRATION VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 21882
COLUMN:
HEATED PURGE (Y/N): N

CONTRACTOR: CAT SLA
SITE NAME: Ore

Instrument#: HP1		Initial Calibration			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		4-21 0811			4-22 1100											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01															
Bromomethane	0.10															
Vinyl chloride	0.10															
Chloroethane	0.01															
Methylene chloride	0.01															
Acetone	0.01															
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
1,2-Dichloroethene (total)																
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01															
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane																
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01															
2-Hexanone	0.01															
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
Toluene-d8																
Bromofluorobenzene																
1,2-Dichloroethane-d4																

Samples affected:

VBLK03	VBLK04
EWW49	EWW46

Reviewer's Initials/Date: MK 5-25-94

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 21882
COLUMN: Y

CONTRACTOR: AATSLA
SITE NAME: Ave O

Instrument# HP2		Initial Cal			Contin Cal			Contin Cal			Contin. Cal.			Contin Cal		
Date/Time		4-18 1221														
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01															
Bromomethane	0.10															
Vinyl chloride	0.10															
Chloroethane	0.01	0.379	49.1	S												
Methylene chloride	0.01															
Acetone	0.01	0.206	46.8	S												
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
1,2-Dichloroethene (total)																
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01	0.661	31.4	S												
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane																
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01															
2-Hexanone	0.01															
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
Toluene-d8																
Bromofluorobenzene																
1,2-Dichloroethane-d4																

Samples affected:
- VBLK01
- EWX 84
- EWX 86
- EWX 87
- EWX 89
- EWX 84MSD

Reviewer's Init/Date: MK 5-25-94

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 21882
COLUMN:

CONTRACTOR: AATSLA
SITE NAME: Ope O

Instrument# HP6		Initial Cal			Contin Cal.			Contin Cal			Contin Cal			Contin Cal		
Date/Time:		3-25 2116			4-18 1626			4-29 1340								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(2-chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
1,3-Dichlorobenzene																
1,4-Dichlorobenzene																
1,2-Dichlorobenzene																
2-Methylphenol	0.70															
2,2'-Oxybis(1-chloropropane)	0.01															
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxy)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20															
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01	0.280						0.168	32.8							
4-Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															
Affected samples					SBLK01			SBLK04								
					EWW45			EWW50								

Reviewer's Init/Date MK 5-26-94

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\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 21882
COLUMN:

CONTRACTOR: AATSLA
SITE NAME: Ave O

Instrument# HPG		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		3-25	2116		4-18	1626		4-29	1340							
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01															
4,6-Dinitro-2-methylphenol	0.01	1.50			0.207	34.0	J									
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0 05															
Phenanthrene	0.70															
Anthracene	0.70															
Carbazole																
Di-n-butylphthalate	0 01															
Fluoranthene	0 60															
Pyrene	0.60															
Butylbenzylphthalate	0.01															
3,3'-Dichlorobenzidine	0.01															
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0 01															
Di-n-octyl phthalate	0.01															
Benzo(b)fluoranthene	0.70															
Benzo(k)fluoranthene	0.70	0.854	37.4	J												
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthrancene	0 40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0 50															
Phenol-d5	0.80															
2-Fluorophenol	0.60															
2,4,6-Tribromophenol	0 01															
2-Chlorophenol-d4																
1,2-Dichlorobenzene-d4																

Reviewer's Initials/Date: MK 5-26-94

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\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 21882
COLUMN:

CONTRACTOR: AATSLA
SITE NAME: One O

Instrument# HP6		Initial Cal			Contin Cal			Contin Cal			Contin Cal			Contin Cal		
Date/Time:		5/13 1614			5/15 1152			5/16 1342			5/17 1414			5/18 1042		
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(2-chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
1,3-Dichlorobenzene																
1,4-Dichlorobenzene																
1,2-Dichlorobenzene																
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01															
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxy)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01	0.489												0.317	35.2	J
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20															
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01															
4-Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															
Affected samples					SBLK03			EWT 72			EWT 72DL			SBLK02		
					EWT 80			EWT 80 DL			EWT 93DL			EWX 84		
								EWT 93						EWX 85		
								EWT 93 DL						EWX 86		
								EWT 94						EWX 87		
								EWT 94 DL						EWX 87DL		
								EWT 95,96,96DL						EWX 89		
								EWT 97 98						EWX 84MS		
								EWX 82 88						EWX 84MSD		

Reviewer's Init/Date MK 5-26-94

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\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 21882
COLUMN:

CONTRACTOR: ATSLA
SITE NAME: Ame C

Instrument# HP6		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		5/13 1614			5/15 1157			5/16 1347			5/17 1444			5/18 1042		
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01															
4,6-Dinitro-2-methylphenol	0.01															
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0.05															
Phenanthrene	0.70															
Anthracene	0.70															
Carbazole																
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01															
3,3'-Dichlorobenzidine	0.01	0.362												0.062	82.9	J
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01															
Di-n-octyl phthalate	0.01															
Benzo(b)fluoranthene	0.70															
Benzo(k)fluoranthene	0.70	0.997												1.256	26.0	J
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthrancene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60															
2,4,6-Tribromophenol	0.01															
2-Chlorophenol-d4																
1,2-Dichlorobenzene-d4																

Reviewer's Initials/Date: MK 5-26-94

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIER
PESTICIDE/PCB TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 21882
COLUMN: RTX35

CONTRACTOR: AATS6A
SITE NAME: Area O

Instrument# HP3F		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin Cal			Contin. Cal.		
Date/Time:		4-27 2028			5/02 1020			5/03 0836			5/06 1006					
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
alpha-BHC	0.01															
beta-BHC	0.40															
delta-BHC	0.90															
gamma-BHC	0.01															
Heptachlor	0.01															
Aldrin	0.01															
Heptachlor epoxide	0.10															
Endosulfan I	0.10															
Dieldrin	0.05															
4, 4'-DDE	0.70															
Endrin	0.70															
Endosulfan II	0.01															
4, 4'-DDD	0.60															
Endosulfan sulfate	0.60															
4, 4'-DDT	0.01															
Methoxychlor	0.01															
Endrin ketone	0.80															
Endrin aldehyde	0.70															
alpha chlordane	0.01															
gamma chlordane	0.01															
Arochlor 1016																
Arochlor 1221																
Arochlor 1232																
Arochlor 1242																
Arochlor 1248																
Arochlor 1254																
Arochlor 1260																

Affected samples:

EWW49	PBLK1	EWX 87	
PBLK 2	EWX85	EWT 72	
EWX 89DL	EWX 86	EWX 82	
EWX87	PBLK 3		
EWX 89	EWW50		
EWX 84	PBLK4		
EWX 84MS	EWT 80		
EWX84MSD	EWT 93		
	EWT 94		
	EWT 95		
	EWT 96		
	EWT 97		
	EWT 98		

Reviewer's Init/Date: MK 5-26-94

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIER
PESTICIDE/PCB TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 21882
COLUMN: RTX 1701

CONTRACTOR: ATSLA
SITE NAME: Che O

Instrument# HP 3R		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		4-27 2028			5/02 1020			5/03 0836			5/06 1006					
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
alpha-BHC	0.01															
beta-BHC	0.40															
delta-BHC	0.90															
gamma-BHC	0.01															
Heptachlor	0.01															
Aldrin	0.01															
Heptachlor epoxide	0.10															
Endosulfan I	0.10															
Dieldrin	0.05															
4, 4'-DDE	0.70															
Endrin	0.70															
Endosulfan II	0.01															
4, 4'-DDD	0.60															
Endosulfan sulfate	0.60															
4, 4'-DDT	0.01															
Methoxychlor	0.01															
Endrin ketone	0.80															
Endrin aldehyde	0.70															
alpha chlordane	0.01															
gamma chlordane	0.01															
Arochlor 1016																
Arochlor 1221																
Arochlor 1232																
Arochlor 1242																
Arochlor 1248																
Arochlor 1254																
Arochlor 1260																

Affected samples:

EWW 49	PBLK 1	EWX 88	
PBLK 2	EWX 85	EWT 72	
EWX 89DL	EWX 86	EWX 82	
EWX 87	PBLK 3		
EWX 89	EWW 50		
EWX 84	PBLK 4		
EWX 84MS	EWT 86		
EWX 84MSD	EWT 93		
	EWT 94		
	EWT 95		
	EWT 96		
	EWT 97		
	EWT98		

Reviewer's Init/Date: MMK 5-26-94

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utinized in this document, the following code letters and associated definitions are provide:

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL).

U Indicates that the compound was analyzed, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.

J Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound but the result is less than the sample quantitation limit, but greater than zero.

R Indicates the data are unusable. (Note: The analyte may or may not be present.)

N Indicates presumptive evidence of a compound. This flag is only used for a tentatively identified compound, where the identification is based on a mass spectral library search.

P Indicates a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.

C Indicates pesticide results that have been confirmed by GC/MS.

B Indicates the analyte is detected in the associated blank as well as the sample.

E Indicates compounds whose concentrations exceed the calibration range of the instrument.

D Indicates an identified compound in an analysis has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.

A Indicates tentatively identified compounds that are suspected to be aldol condensation products.

X Indicates a manual adjustment was made to the program by the operator. The flag is automactically assigned by the computer and has no significance to the analysis result.

G Indicates the TCLP Matrix Spike Recovery was greater than the upper limit of the analytical method.

L Indicates the TCLP Matrix Spike Recovery was less than the lower limit of the analytical method.

T Indicates the analyte is found in the associated TCLP extraction blank as well as in the sample.