

II A. GC/MS INSTRUMENT PERFORMANCE CHECK – (TUNING)

Note: NOT for Selected Ion Monitoring (SIM) Analysis

List all Instrument Performance Checks that are outside method QC tuning acceptance criteria.

VOA Instrument Performance Check (Compound Name)	Analysis Date and Time	Instrument	Ions Affected	Percent Relative Abundance	QC Limits	Samples Affected	Action

Comments:

SV Instrument Performance Check (Compound Name)	Analysis Date and Time	Instrument	Ions Affected	Percent Relative Abundance	QC Limits	Samples Affected	Action

Comments:

If tuning compounds and criteria are different from those specified in CLP SOW SFAM01.X, the validator should include a copy of the method-specific tuning criteria with this worksheet.

Validator: _____ Date: _____

Case: _____ SDG: _____

II A. GC/ECD INSTRUMENT PERFORMANCE CHECK - Resolution - List all analytes that are outside resolution criteria.

RCM (Section II)	Date/Time	Instr.	Column	Compound	% Resolution	Samples Affected	Action
PEM (Section II and IV)							
INDA & B (Section III)							
INDA & B (Section IV)							

Validator: _____ Date: _____

Case: _____ SDG: _____

II B. GC/ECD INSTRUMENT PERFORMANCE CHECK - Retention Times - List all analytes that exceed retention time criteria.

PEM (Section II and IV)	Date/Time	Instr.	Column	Compound	RT Window	RT	Samples Affected	Action
INDA & B (Section IV)								

Validator: _____ Date: _____

Case: _____ SDG: _____

II D. GC/ECD INSTRUMENT PERFORMANCE CHECK - Pesticide Degradation - List all analytes that exceed degradation criteria.

PEM (Section II)	Date/Time	Instr.	Column	DDT, Endrin, or Combined	% Breakdown	DDD, DDE, Endrin ketone, Endrin aldehyde Present	Samples Affected	Action
PEM (Section IV)								

Validator: _____ Date: _____

Case: _____ SDG: _____

IV A. CALIBRATION VERIFICATION - Accuracy Check (%D) - List all analytes that are outside calibration criteria.

Standard ID	Date	Time	Instrument	Column	Analyte	%D	Samples Affected	Action (Detect/ND)

Validator: _____ Date: _____

Case: _____ SDG: _____

IV B. CALIBRATION VERIFICATION – Time Elapsed - List all non-compliant standards.

Fraction (PEST or PCB)	Instrument and Column ID	Instrument Blank or Sample ID	Injection Date and Time	Time Elapsed (hours)	Samples Affected	Action (Detect/ND)

Validator: _____ Date: _____

Case: _____ SDG: _____

V A. BLANK ANALYSIS - List the blank contamination below. Concentration Level: _____

Sampler: _____ Company: _____ Contacted: Yes No Date: _____

1. Laboratory: Method, Storage and Instrument Blanks

Fraction/ Matrix	Sample ID (Blank Type)	Date Extracted	Date Analyzed	Instrument/ Column	Compound	Conc. (units)

2. Field: Equipment (Rinsate), Trip and Bottle Blanks

Fraction/ Matrix	Sample ID (Blank Type)	Date Extracted	Date Analyzed	Instrument/ Column	Compound	Conc. (units)

Validator: _____ Date: _____

Case: _____ SDG: _____

VI. SURROGATE COMPOUNDS: Spike Recoveries and Retention Time Shift

List all surrogate analytes that are outside the percent recovery and retention time criteria.

Method		% Recovery QC Limits				Retention Time Windows				
		Column 1		Column 2		Column 1		Column 2		
		TCX	DCB	TCX	DCB	TCX	DCB	TCX	DCB	
SFAM01.X		30-150	30-150	30-150	30-150					
Other:										
Sample Number/Matrix	Date/Time	% Recovery				Retention Time Shift				Action

Note: Refer to NFG for guidance on actions required for failures in surrogate recoveries.

Validator: _____ Date: _____

Case: _____ SDG: _____

VII. SEMIVOLATILE CLEANUP - GPC Calibration and Verification– List all analytes that are outside method cleanup QC criteria.

Type of Cleanup	Instrument # or Lot #	Date/Time GPC Calibrated or Check Solution Analyzed	Compound	% Rec	QC Limits	Samples Affected	Action

- Did the GPC column meet: resolution requirements? Y N
- Peak shape requirements? Y N
- Retention time shift requirements? Y N
- Was the GPC calibration, Silica Gel cleanup checked at the method required frequency with correct compounds and concentrations? Y N
- Were all compounds less than QL for the GPC/Silica Gel/Acid-Partition blank? Y N
- Did the blank surrogate recoveries and IS area counts and RTs (if added) meet method QC acceptance criteria? Y N

Comments:

Validator: _____ Date: _____

Case: _____ SDG: _____

VII A. PESTICIDE/PCB CLEANUP - GPC Calibration and Verification

The GPC Calibration data and GPC Calibration Verification Solution recovery data were reviewed and found to meet criteria.

Y N NA

If no, list the compounds and samples affected by the unacceptable GPC performance.

Date/Time of GPC Calibration or Calib. Verification	GC Analysis Date	Analyte	GPC % Resolution or RT Shift	% Rec	QC Limits	Samples Affected	Action

Were all target compounds less than QL for the GPC blank? **Y N**

Were acceptable GPC Calibration Verifications performed at the correct frequency? **Y N**

Were Aroclor patterns similar to those corresponding Aroclor standards of the Initial Calibration sequence? **Y N**

Action: Refer to NFG for the appropriate action to be taken. Comment on any action taken below:

Validator: _____ Date: _____

Case: _____ SDG: _____

VII B. PESTICIDE/PCB CLEANUP - Florisil Cartridge Performance Check

The Florisil Cartridge Performance Check recovery data were reviewed and found to meet criteria.

Y N

If no, list the analytes and samples affected by the unacceptable Florisil Cartridge Check.

Florisil Cartridge Lot #	Date of Florisil Cartridge Check	GC Analysis Date	Analyte	% Rec.	QC Limits	Samples Affected	Action

Were acceptable Florisil Cartridge Performance Checks performed at the correct frequency?

Y N

Action: Refer to NFG for the appropriate action to be taken. Comment on any action taken below:

Validator: _____ Date: _____

Case: _____ SDG: _____

VII C. PESTICIDE/PCB CLEANUP - Sulfur Cleanup

Sample chromatograms were reviewed and found to be free from interfering sulfur peaks.

Y N

If no, list the compounds and samples affected by the unacceptable sulfur cleanup.

Samples Affected	Sulfur Interference (Major/Minor/Limited)	Action

Were all target compounds less than QL for the Sulfur blank?

Y N

Action: Refer to EPA R1 DR Supplement guidance (Section 2.9) for actions to be taken for deficient sulfur cleanup. Comment on any action taken below.

Validator: _____ Date: _____

Case: _____ SDG: _____

VII D. PESTICIDE/PCB CLEANUP - Other Cleanup Procedures

Cleanup Procedure: _____, appropriate for samples? **Y N**

Cleanup also performed for associated QC samples? **Y N**

Sample chromatograms were reviewed and found to be free from interferences. **Y N**

If no, list the analytes and samples affected by the unacceptable cleanup procedure.

Samples Affected	Description and Degree of Interference (Major/Minor/Limited)	Action

Comments:

Validator: _____ Date: _____

Case: _____ SDG: _____

IX. FIELD DUPLICATE PRECISION - List all field duplicate analytes that are outside criteria.
 Use a separate worksheet for each field duplicate pair.

Sample Number _____ Duplicate Sample Number _____ Matrix _____

Fraction	Compound	Sample Conc.	Sample QL		Duplicate Conc.	Duplicate QL		RPD	QC Acceptance Criteria RPD or NA*	Action
			SQL	2xSQL		SQL	2xSQL			

*For instances where one duplicate result is ND (or reported less than the sample QL).

Does the MS/MSD data indicate acceptable laboratory precision? **Y** **N**

Refer to EPA R1 DR Supplement guidance for field duplicate actions (Section 2.7).

Comments: _____

Sampler Name: _____ Contractor Name: _____ Date Contacted: _____

Reason for Contact and resolution obtained: _____

Validator: _____ Date: _____

Case: _____ SDG: _____

XII. TARGET COMPOUND IDENTIFICATION – List the analytes that are outside the acceptance criteria.

Sample Number	Compound	MS Ions	RRT	Action

Validator: _____ Date: _____

Case: _____ SDG: _____

XIII. SAMPLE QUANTITATION AND % SOLIDS

Recalculate, from the raw data, the concentrations for one positive detect and one reported sample quantitation limit for a non-detect in a diluted sample or soil sample per fraction. (Note: Although NFG requires that one calculation for each fraction in each sample be performed, the validator is only required to reproduce an example, for each fraction, of one positive detect and one sample quantitation limit calculation on this worksheet.)

Do all soil/sediment samples have % solids greater than or equal to 30%?

Y N

If no, list sample numbers _____

Refer to EPA R1 DR Supplement guidance for actions related to %solids (Section 2.8).

Fraction		Calculation
VOA		
Sample No.:		
Reported Compound:		
Reported Value:		
Not Detected Compound:		
Reported Quantitation Limit:		
BNA		
Sample No.:		
Reported Compound:		
Reported Value:		
Not Detected Compound:		
Reported Quantitation Limit:		

Validator: _____ Date: _____

Case: _____ SDG: _____

XIII. SAMPLE QUANTITATION AND %SOLIDS

Recalculate, from the raw data, the concentrations for one positive detect and one reported sample quantitation limit for a non-detect in a diluted sample or soil sample per fraction. (Note: Although NFG requires that one calculation for each fraction in each sample be performed, the validator is only required to reproduce an example, for each fraction, of one positive detect and one sample quantitation limit calculation on this worksheet.)

Do all soil/sediment samples have % solids greater than or equal to 30%?

Y N

If no, list sample numbers _____

Refer to EPA R1 DR Supplement guidance for actions related to %solids (Section 2.8).

Fraction		Calculation
Pesticides		
Sample No.:		
Reported Compound:		
Reported Value:		
Not Detected Compound:		
Reported Quantitation Limit:		
Aroclors		
Sample No.:		
Reported Compound:		
Reported Value:		
Not Detected Compound:		
Reported Quantitation Limit:		

Validator: _____ Date: _____

