# ADEC Contaminated Sites Program Laboratory Data Review Checklist

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| --- | --- | --- | --- | --- | --- |
| **Completed By:** |        | **CS Site Name:**  |       | **Lab Name:**  |       |
| **Title:** |       | **ADEC File No.:**  |       | **Lab Report No.:** |       |
| **Consulting Firm:**  |       | **Hazard ID No.:**  |       | **Lab Report Date:** |       |

***Note:*** *Any N/A or No box checked must have an explanation in the comments box.*

## Laboratory

### Did an ADEC Contaminated Sites Laboratory Approval Program (CS-LAP) approved laboratory receive and perform all of the submitted sample analyses?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses CS-LAP approved?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

## Chain of Custody (CoC)

### Is the CoC information completed, signed, and dated (including released/received by)?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Were the correct analyses requested?

Yes [ ]  No [ ]  N/A [ ]

Analyses requested: Click or tap here to enter text.

Comments: Click or tap here to enter text.

## Laboratory Sample Receipt Documentation

### Is the sample/cooler temperature documented and within range at receipt (0° to 6° C)?

Yes [ ]  No [ ]  N/A [ ]

Cooler temperature(s): Click or tap here to enter text.

Sample temperature(s): Click or tap here to enter text.

Comments: Click or tap here to enter text.

### Is the sample preservation acceptable – acidified waters, methanol preserved soil (GRO, BTEX, VOCs, etc.)?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Is the sample condition documented – broken, leaking, zero headspace (VOA vials); canister vacuum/pressure checked and no open valves, etc.?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, canister not holding a vacuum, etc.?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Is the data quality or usability affected?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

## Case Narrative

### Is the case narrative present and understandable?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Are there discrepancies, errors, or QC failures identified by the lab?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Were all the corrective actions documented?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### What is the effect on data quality/usability according to the case narrative?

Comments: Click or tap here to enter text.

## Sample Results

### Are the correct analyses performed/reported as requested on CoC?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Are all applicable holding times met?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Are all soils reported on a dry weight basis?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Are the reported limits of quantitation (LoQ) or limits of detections (LOD), or reporting limits (RL) less than the Cleanup Level or the action level for the project?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Is the data quality or usability affected?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

## QC Samples

### Method Blank

* + 1. Was one method blank reported per matrix, analysis, and 20 samples?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Are all method blank results less than LOQ (or RL)?

Yes [ ]  No [ ]

Comments: Click or tap here to enter text.

* + 1. If above LoQ or RL, what samples are affected?

Comments: Click or tap here to enter text.

* + 1. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Data quality or usability affected?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Laboratory Control Sample/Duplicate (LCS/LCSD)

* + 1. Organics – Are one LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Metals/Inorganics – Are one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Accuracy – Are all percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Precision – Are all relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? Was the RPD reported from LCS/LCSD, and or sample/sample duplicate? (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments: Click or tap here to enter text.

* + 1. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Is the data quality or usability affected?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Matrix Spike/Matrix Spike Duplicate (MS/MSD)

* + 1. Organics – Are one MS/MSD reported per matrix, analysis and 20 samples?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Metals/Inorganics – Are one MS/MSD reported per matrix, analysis and 20 samples?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Accuracy – Are all percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Precision – Are all relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? RPD reported from MS/MSD, and or sample/sample duplicate.

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments: Click or tap here to enter text.

* + 1. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Is the data quality or usability affected?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Surrogates – Organics Only or Isotope Dilution Analytes (IDA) – Isotope Dilution Methods Only

* + 1. Are surrogate/IDA recoveries reported for organic analyses – field, QC, and laboratory samples?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Accuracy – Are all percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods 50-150 %R for field samples and 60-120 %R for QC samples; all other analyses see the laboratory report pages)

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Do the sample results with failed surrogate/IDA recoveries have data flags? If so, are the data flags clearly defined?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Is the data quality or usability affected?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Trip Blanks

* + 1. Is one trip blank reported per matrix, analysis, and for each cooler containing volatile samples? Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Are all results less than LoQ or RL?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. If above LoQ or RL, what samples are affected?

Comments: Click or tap here to enter text.

* + 1. Is the data quality or usability affected?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Field Duplicate

* + 1. Are one field duplicate submitted per matrix, analysis, and 10 project samples?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Was the duplicate submitted blind to lab?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Precision – All relative percent differences (RPD) less than specified project objectives? (Recommended: 30% water or air, 50% soil)

$$RPD \left(\%\right)= \left|\frac{R\_{1}-R\_{2}}{\left(\frac{R\_{1}+R\_{2}}{2}\right)}\right| X 100$$

Where R1 = Sample Concentration

 R2 = Field Duplicate Concentration

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Is the data quality or usability affected? (Explain)

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

### Decontamination or Equipment Blanks

* + 1. Were decontamination or equipment blanks collected?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. Are all results less than LoQ or RL?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

* + 1. If above LoQ or RL, specify what samples are affected.

Comments: Click or tap here to enter text.

* + 1. Are data quality or usability affected?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.

## Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

### Are they defined and appropriate?

Yes [ ]  No [ ]  N/A [ ]

Comments: Click or tap here to enter text.