**Laboratory Data Review Checklist**

|  |
| --- |
| Completed By:  |
|  |
| Title: |
|  |
| Date: |
|  |
| CS Report Name: |
|  |
| Report Date: |
|  |
| Consultant Firm: |
|  |
| Laboratory Name: |
|  |
| Laboratory Report Number: |
|  |
| ADEC File Number: |
|  |
| Hazard Identification Number: |
|  |
| 1. Laboratory
 |
| * 1. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

 |
|  |
| * 1. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

 |
|  |
| 1. Chain of Custody (CoC)
 |
| * 1. CoC information completed, signed, and dated (including released/received by)?

 |
|  |
| * 1. Correct Analyses requested?

 |
|  |
| 1. Laboratory Sample Receipt Documentation
 |
| * 1. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?

 |
|  |
|  |
|  |
| * 1. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

 |
|  |
|  |
|  |
|  |
| * 1. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

 |
|  |
|  |
|  |
| * 1. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

 |
|  |
|  |
|  |
| * 1. Data quality or usability affected? Comments:
 |
|  |
|  |
|  |
| 1. Case Narrative
 |
| * 1. Present and understandable?

 |
|  |
|  |
|  |
| * 1. Discrepancies, errors, or QC failures identified by the lab?

 |
|  |
|  |
|  |
| * 1. Were all corrective actions documented?

 |
|  |
|  |
|  |
| * 1. What is the effect on data quality/usability according to the case narrative? Comments:
 |
|  |
|  |
|  |
| 1. Samples Results
 |
| * 1. Correct analyses performed/reported as requested on COC?

 |
|  |
|  |
|  |
| * 1. All applicable holding times met?

 |
|  |
|  |
|  |
| * 1. All soils reported on a dry weight basis?

 |
|  |
|  |
|  |
| * 1. Are the reported LOQs less than the Cleanup Level or the minimum required detection level for the project?

 |
|  |
|  |
|  |
| * 1. Data quality or usability affected?

 |
|  |
|  |
|  |
| 1. QC Samples
 |
| * 1. Method Blank
 |
| * + 1. One method blank reported per matrix, analysis and 20 samples?

 |
|  |
|  |
|  |
| * + 1. All method blank results less than limit of quantitation (LOQ)?

 |
|  |
|  |
|  |
| * + 1. If above LOQ, what samples are affected? Comments:
 |
|  |
|  |
|  |
| * + 1. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

 |
|  |
|  |
|  |
| * + 1. Data quality or usability affected? Comments:
 |
|  |
|  |
|  |
| * 1. Laboratory Control Sample/Duplicate (LCS/LCSD)
 |
| * + 1. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

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

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

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

 |
|  |
|  |
|  |
| * + 1. If %R or RPD is outside of acceptable limits, what samples are affected? Comments:
 |
|  |
|  |
|  |
| * + 1. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

 |
|  |
|  |
|  |
| * + 1. Data quality or usability affected? (Use comment box to explain.) Comments:
 |
|  |
|  |
|  |
| * 1. Surrogates – Organics Only
 |
| * + 1. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

 |
|  |
|  |
|  |
| * + 1. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

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

 |
|  |
|  |
|  |
| * + 1. Data quality or usability affected?Comments:
 |
|  |
|  |
|  |
| * 1. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil
 |
| * + 1. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

 |
|  |
|  |
|  |
| * + 1. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

 |
|  |
|  |
|  |
| * + 1. All results less than LOQ?

 |
|  |
|  |
|  |
| * + 1. If above LOQ, what samples are affected? Comments:
 |
|  |
|  |
|  |
| * + 1. Data quality or usability affected? Comments:
 |
|  |
|  |
|  |
| * 1. Field Duplicate
 |
| * + 1. One field duplicate submitted per matrix, analysis and 10 project samples?

 |
|  |
|  |
|  |
| * + 1. Submitted blind to lab?

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

x 100RPD (%) = Absolute value of: (R1-R2)  ((R1+R2)/2)Where R1 = Sample Concentration R2 = Field Duplicate Concentration |
|  |
|  |
|  |
| * + 1. Data quality or usability affected? (Use the comment box to explain why or why not.) Comments:
 |
|  |
|  |
|  |
| * 1. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below).

 |
|  |
|  |
|  |
|  |
|  |
| * + 1. All results less than LOQ?

 |
|  |
|  |
|  |
| * + 1. If above LOQ, what samples are affected? Comments:
 |
|  |
|  |
|  |
| * + 1. Data quality or usability affected? Comments:
 |
|  |
|  |
|  |
| 1. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)
 |
| * 1. Defined and appropriate?

 |
|  |
|  |
|  |