

APPENDIX A

FORMAT CHARACTERISTICS FOR PRELIMINARY RESULTS DATA

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FORMAT CHARACTERISTICS FOR PRELIMINARY RESULTS DATA

The Preliminary Results (PR) data deliverable consists of a Comma-Separated Values (CSV) file containing all the following columns (Table 1 - Preliminary Results Data Deliverable) in the order specified and reported based on the provided specifications. All numeric values shall be reported as numeric values, not equations.

The PR data for each sample and method does not need to be reported in separate files. All PR data with the same data due date, for a given Sample Delivery Group (SDG), can be included in one file. The Portable Document Format (PDF) file of the Traffic Report/Chain of Custody (TR/COC) Records can be uploaded once, with the first set of PR data delivered for the SDG.

The Contractor shall deliver the files to the recipients specified in Table 1 - Deliverable Schedule of Exhibit B - Reporting and Deliverables Requirements. The Contractor will be notified of the email address(es) of the Regional recipient(s) at the time of scheduling.

The format for the file name shall be PR_Case Number_SDG Number_Contract Number.csv.

TABLE 1. PRELIMINARY RESULTS DATA DELIVERABLE

| Column | Instruction |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LabID | Report the Agency-assigned Lab Code. |
| LabName | Report the Lab Name per the instructions for Header/LabName. |
| SOW | Report the SOW per the instructions for SamplePlusMethod/ClientMethodSource. |
| LabContract | Report the Lab Contract Number per the instructions for Header/LabContract. |
| Case | Report the Case Number per the instructions for Header/ProjectID. |
| SDGNumber | Report the SDG number per the instructions for Header/LabDataPackageID. |
| AnalyticalMethod | Report the analytical method per the instructions for SamplePlusMethod/ClientMethodID. |
| ClientMethodModificationID | Report the MA Number per the instructions for SamplePlusMethod/ClientMethodModificationID if applicable. Otherwise leave null. |
| EPASampleNumber | Report the EPA Sample Number per the instructions for SamplePlusMethod/ClientSampleID. |
| Matrix | Report the sample matrix per the instructions for SamplePlusMethod/MatrixID. |
| Level | Report the sample level per the instructions for SamplePlusMethod/MethodLevel if applicable. Otherwise leave null. |
| LabSampleID | Report per the instructions for SamplePlusMethod/LabSampleID. |
| SampleWeightOrVolume | Report the sample volume or mass prepared per the instructions for PreparationPlusCleanup/AliquotAmount for the preparation from which the result is reported. |
| SampleWeightVolumeUnits | Report per the instructions for PreparationPlusCleanup/AliquotAmountUnits. |
| PercentSolids | Report the Percent Solids per the instructions for Characteristic/CharacteristicValue when Characteristic/CharacteristicType is "Percent_Solids". |
| LabReceiptDate | Report per the instructions for SamplePlusMethod/LabReceiptDate. |
| GCColumn | For GC/MS and GC methods, report the column the result is reported from per the instructions for Analysis/Column. |
| DatePrepared | Report the date samples began extraction, digestion, or distillation per the instructions for PreparationPlusCleanup/PreparedDate for the preparation from which the result is reported. |
| DateAnalyzed | Report the analysis date and time per the instructions for Analysis/AnalyzedDate for the analysis from which the result is reported. |
| FinalVolume | Report the final volume of the extract, digestate, or distillate per the instructions for PreparationPlusCleanup/FinalAmount. |
| FinalVolumeUnits | Report the units for the final volume per the instructions for PreparationPlusCleanup/FinalAmountUnits. |

TABLE 1. PRELIMINARY RESULTS DATA DELIVERABLE (CON'T)

| Column | Instruction |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AnalyzedAmount | For medium VOA soils, report the soil aliquot volume per the instructions for Analysis/AnalyzedAmount. For Semivolatiles, Pesticides, and Aroclors report the volume of extract taken for analysis. Otherwise leave null. |
| AnalyzedAmountUnits | Report the units for the Analyzed Amount per the instructions for Analysis/AnalyzedAmountUnits. |
| HeatedPurge | For VOA analysis, report per the instructions for Analysis/HeatedPurge. Otherwise leave null. |
| PreparationMethod | Report the sample preparation method per the instructions in PreparationPlusMethod/ClientMethodID. |
| InjectionVolume | For GC/MC and GC methods, report the volume purged or injected per the requirements for Analysis/InjectionVolume. Otherwise leave null. |
| InjectionVolumeUnits | Report per the instructions for Analysis/InjectionVolumeUnits. |
| pH | Report the aqueous/water sample pH at time of receipt per the instructions for Characteristic/CharacteristicValue when Characteristic/CharacteristicType is "pH" under the SamplePlusMethod node. |
| DilutionFactor | Report the dilution factor per the instructions for Analysis/DilutionFactor for the analysis the result is reported from. |
| CleanupType1 | As applicable, report the first cleanup procedure used per the instructions in PreparationPlusCleanup/CleanupType. Otherwise leave null. |
| CleanupFactor1 | As applicable, report the cleanup factor determined in Exhibit D for the analysis for the first cleanup. Otherwise leave null. |
| CleanupType2 | As applicable, report the second cleanup procedure used per the instructions in PreparationPlusCleanup/CleanupType. Otherwise leave null. |
| CleanupFactor2 | As applicable, report the cleanup factor determined in Exhibit D for the analysis for the second cleanup. Otherwise leave null. |
| CleanupType3 | As applicable, report the third cleanup procedure used per the instructions in PreparationPlusCleanup/CleanupType. Otherwise leave null. |
| CleanupFactor3 | As applicable, report the cleanup factor determined in Exhibit D for the analysis for the third cleanup. Otherwise leave null. |
| CASNumber | Report the CAS Registry Number per the instructions for ReportedResult/CASRegistryNumber. |
| AnalyteName | Report the Analyte Name per the instructions for ReportedResult/AnalyteName. |
| AnalyteType | Report the analyte type per the instructions for ReportedResult/AnalyteType. |

TABLE 1. PRELIMINARY RESULTS DATA DELIVERABLE (CON'T)

| Column | Instruction |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Result | Report the result for detects per the instructions for ReportedResult/Result. For non-detects, report the adjusted CRQL per the instructions for ReportedResult/QuantitationLimit. |
| ResultUnits | Report per the instructions for ReportedResult/ResultUnits. |
| QuantitationLimit | Report the adjusted CRQL per the instructions for ReportedResult/QuantitationLimit. |
| QuantitationLimitUnits | Report per the instructions for ReportedResult/QuantitationLimitUnits. |
| LabQualifiers | Report all required qualifiers per the instructions for ReportedResult/LabQualifiers if applicable, otherwise leave null. |

APPENDIX B
CODES FOR LABELING DATA

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TABLE 1. CODES FOR LABELING VOLATILE, SEMIVOLATILE, PESTICIDE,
AND AROCLOR DATA

| Name | Sample Number |
|-----------------------------------------------------------------------------------------------------------------------------|---------------|
| Sample in SDG (TCLP/SPLP Leachate included) | XXXXX |
| Sample or Laboratory QC Not Part of the SDG ¹ | ZZZZZ |
| Matrix Spike ² | XXXXXMS |
| Matrix Spike Duplicate ² | XXXXXMSD |
| Re-extracted and reanalyzed Sample | XXXXXR |
| Re-extracted and reanalyzed Sample at a dilution | XXXXXRDL |
| Reanalyzed (re-injected) Sample | XXXXXRE |
| Reanalyzed (re-injected) Sample at a dilution | XXXXXREDL |
| Sample analyzed at a dilution | XXXXXDL |
| Sample analyzed at a secondary dilution | XXXXXDL2 |
| Sample analyzed at a third dilution | XXXXXDL3 |
| Soil/sediment samples analyzed using the medium-level method when the low-level analysis of the same sample is also present | XXXXXME |
| Instrument Calibration Standards: | |
| Volatile Instrument Performance Checks | BFB### |
| Semivolatile Instrument Performance Checks | DFTPP### |
| Volatile Standard ³ | VSTD* * *### |
| Semivolatile Standard ³ | SSTD* * *### |
| Volatile Initial Calibration Verification | VICV### |
| Semivolatile Initial Calibration Verification | SICV### |
| Pesticides Resolution Check | RESC### |
| Pesticides Performance Evaluation Mixture | PEM### |
| Pesticides Individual Mixture A (CS*) ⁴ | INDA*### |
| Pesticides Individual Mixture B (CS*) ⁴ | INDB*### |
| Pesticides Individual Mixture C (CS*) ⁴ | INDC*### |
| Toxaphene (CS*) ⁴ | TOXAPH*### |
| Aroclor 1016 (CS*) ⁴ | AR1016*### |
| Aroclor 1221 (CS*) ⁴ | AR1221*### |
| Aroclor 1232 (CS*) ⁴ | AR1232*### |
| Aroclor 1242 (CS*) ⁴ | AR1242*### |
| Aroclor 1248 (CS*) ⁴ | AR1248*### |
| Aroclor 1254 (CS*) ⁴ | AR1254*### |
| Aroclor 1260 (CS*) ⁴ | AR1260*### |
| Aroclor 1262 (CS*) ⁴ | AR1262*### |
| Aroclor 1268 (CS*) ⁴ | AR1268*### |
| Aroclor 1016/1260 Mixture (CS*) ⁴ | AR1660*### |
| QC Samples: | |
| Volatile Method Blank | VBLK### |
| Volatile Instrument Blank | VIBLK### |
| Volatile Storage Blank | VHBLK### |
| Volatile Leachate Extraction Blank | VLEB### |

Appendix B

TABLE 1. CODES FOR LABELING VOLATILE, SEMIVOLATILE, PESTICIDE,
AND AROCLOR DATA (CON'T)

| Name | Sample Number |
|----------------------------------------------------------|---------------|
| Semivolatile Method Blank | SBLK### |
| Semivolatile Leachate Extraction Blank | SLEB### |
| Pesticide Method Blank ² | PBLK### |
| Pesticide Instrument Blank ² | PIBLK### |
| Pesticide Sulfur Blank ² | PSBLK### |
| Pesticide Leachate Extraction Blank ² | PLEB### |
| Pesticide Laboratory Control Sample ² | PLCS### |
| Aroclor Method Blank ² | ABLK### |
| Aroclor Instrument Blank ² | AIBLK### |
| Aroclor Sulfur Blank ² | ASBLK### |
| Aroclor Laboratory Control Sample ² | ALCS### |
| Florisil Cleanup Sample ⁵ | FLO##### |
| Gel Permeation Chromatograph Cleanup Sample ⁶ | GPC##### |

Footnotes:

¹ Instrument Quality Control (QC) samples must not be reported as ZZZZZ.

² When reporting results, 1 or 2 is appended to the EPA Sample Number indicating that the results are from Gas Chromatograph (GC) column (1) or column (2) [e.g., PLCS01(1) for the first column and PLCS01(2) for the second column].

³ *** = concentration of the standards in µg/L (e.g., 005, 010, etc.). When standard concentrations for semivolatile analysis are in nanograms/microliter (ng/µL), use 005, 010, 020, 040, and 080. Use values of 0.10, 0.20, 0.40, 0.80, and 1.6 for the Selected Ion Monitoring (SIM) analysis of Polynuclear Aromatic Hydrocarbon analytes and pentachlorophenol.

is the identifier with one to three characters or numbers, or a combination of both.

⁴ * = standard level for Gas Chromatograph/Electron Capture Detector (GC/ECD) analyses, where numbers 1-5 usually represent the standard levels analyzed from low to high as specified in Exhibit D. For example, INDA1### represents the lowest level initial calibration (ICAL) standard and INDA5### represents the highest level.

⁵ ##### is the Florisil cartridge lot number.

⁶ ##### is the Gel Permeation Chromatography (GPC) column ID.

TABLE 2. CODES FOR LABELING ICP-AES, ICP-MS, MERCURY, CYANIDE, ANIONS, HEXAVALENT CHROMIUM, AND TOTAL ORGANIC CARBON DATA

| Name | Sample Number |
|----------------------------------------------------------|---------------|
| Sample in SDG (TCLP/SPLP Leachate included) | XXXXXX |
| Sample or Laboratory QC Not Part of the SDG ¹ | ZZZZZ |
| Duplicate | XXXXXD |
| Matrix Spike | XXXXXS |
| Serial Dilution | XXXXXL |
| Post-Digestion/Distillation Spike | XXXXXA |
| Instrument Calibration Blank | S0 |
| Instrument Calibration Standards ² | S## |
| Initial Calibration Verification ³ | ICV### |
| Initial Calibration Blank ³ | ICB### |
| Continuing Calibration Verification ³ | CCV### |
| Continuing Calibration Blank ³ | CCB### |
| Interference Check Samples: | |
| Solution A ³ | ICSA### |
| Solution AB ³ | ICSAB### |
| Laboratory Control Sample ³ | LCS### |
| Preparation Blank (Aqueous/Water) ³ | PBW### |
| Preparation Blank (Soil/Sediment/Waste) ³ | PBS### |
| Preparation Blank (Wipe) ³ | PBF### |
| Leachate Extraction Blank ³ | LEB### |
| ICP-MS Tune Check ³ | TUNE### |

Footnotes:

- ¹ Instrument QC samples must not be reported as ZZZZZ.
- ² The suffix that follows the "S" for the standards indicates the sequence number of the standard analysis, beginning with S01 and continuing to the last standard analyzed.
- ³ Within an analytical method, the three-character suffix (###) shall be unique for each instance of each sample type within a Sample Delivery Group (SDG). The Contractor may achieve this by replacing the suffix with one to three alpha-numeric characters.

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APPENDIX C

FORMAT CHARACTERISTICS FOR METHOD DETECTION LIMIT STUDY DATA

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FORMAT CHARACTERISTICS FOR METHOD DETECTION LIMIT STUDY DATA

The Method Detection Limit (MDL) study data deliverable consists of a Comma-Separated Values (CSV) file containing the following columns (Table 1 - Method Detection Limit Study Data Deliverable) in the order specified and reported based on the provided specifications.

All fields must be reported. Report contents per the instructions. All numeric values shall be reported as numeric values, not equations.

The Contractor shall provide one file for each combination of analytical method, preparation method, instrument, and column type and dimensions used to report MDLs under this contract.

The Contractor shall deliver the files to the recipients specified in Table 1 - Deliverable Schedule of Exhibit B - Reporting and Deliverables Requirements.

The format for the file name shall be MDL_#.csv, where # can be any naming convention selected by the Contractor.

TABLE 1. METHOD DETECTION LIMIT STUDY DATA DELIVERABLE

| Column | Instruction |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LabID | Report the Agency-assigned Lab Code. |
| LabContract | Report the Lab Contract Number per the instructions for Header/LabContract. |
| MethodSource | Report the SOW per the instructions for SamplePlusMethod/ClientMethodSource. |
| Method | Report the analytical method per the instructions for SamplePlusMethod/ClientMethodID. |
| PreparationMethod | Report the preparation method per the instructions for PreparationPlusCleanup/ClientMethodID. |
| ClientMethodCategory | Report the subset analyzed per the instructions for SamplePlusMethod/ClientMethodCategory if applicable. Otherwise leave null. |
| ClientMethodModificationID | Report the MA number per the instructions for SamplePlusMethod/ClientMethodModificationID if applicable. Otherwise leave null. |
| Level | Report the sample level per the instructions for SamplePlusMethod/MethodLevel if applicable. Otherwise leave null. |
| Matrix | Report the sample matrix per the instructions for SamplePlusMethod/MatrixID. |
| InstrumentID | Report the instrument ID per the instructions for Analysis/InstrumentID. |
| ColumnID | Report the column ID per the instructions for Analysis/Column if applicable. Otherwise leave null. |
| ClientAnalyteID | Report the analyte per the instructions for ReportedResult/ClientAnalyteID. |
| DetectionLimit | Report the Detection Limit for each analyte calculated from the spike replicates or from the Method or Preparation Blank analyses per the instructions for ReportedResult/ClientDetectionLimit. The unadjusted MDL value shall always be rounded up from the value calculated from the MDL study data. For example, a calculated MDL value of 22.43 shall be reported as 23. This requirement is to prevent values less than the actual detection limit being reported as detects. |
| DetectionLimitUnits | Report the appropriate units for the matrix and preparation method per the instructions for ReportedResult/ClientDetectionLimitUnits. |
| DetectionLimitMethod | Report "Spike" if the MDL is determined from the analysis of spiked samples. Report "Blank" if the MDL is determined from analyzed Method or Preparation Blanks. |
| EffectiveDate | Report the date on which the Laboratory began to use the MDL for reporting sample results for that analyte and method formatted per the instructions for Header/DateFormat. |

APPENDIX D

FORMAT CHARACTERISTICS FOR SAMPLE DELIVERY GROUP TRAFFIC REPORT/CHAIN OF
CUSTODY RECORDS DATA

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FORMAT CHARACTERISTICS FOR SAMPLE DELIVERY GROUP TRAFFIC REPORT/CHAIN OF
CUSTODY RECORDS DATA

The Sample Delivery Group (SDG) Traffic Report/Chain of Custody (TR/COC) Records data deliverable consists of a Comma-Separated Values (CSV) file containing the following columns (Table 1 - SDG TR/COC Records Data Deliverable) in the order specified and reported based on the provided specifications, and a Portable Document Format (PDF) file of the corresponding SDG Cover Page and TR/COC Records.

All fields in the CSV file must be reported, but not all fields will require content in all cases (e.g., ModifiedAnalysisNumber is only reported when a Modified Analysis has been solicited for the scheduled analysis). Report contents per the instructions.

The Contractor shall provide one file for each SDG.

The Contractor shall deliver the file to the recipients specified in Table 1 - Deliverable Schedule of Exhibit B - Reporting and Deliverables Requirements.

The format for the file name shall be
TRCOC_CaseNumber_SDGNumber_ContractNumber.csv.

TABLE 1. SDG TR/COC RECORDS DATA DELIVERABLE

| Column | Instruction |
|---------------------|----------------------------------------------------------------------------------------------------------------|
| SDGNumber | Report the laboratory-generated Sample Delivery Group (SDG) Number. |
| CaseNumber | Report the assigned Case Number. |
| LabCode | Report the Agency-assigned Lab Code. |
| SDGComments | Enter any comments. May leave null if none. |
| SampleNumber | Report the EPA Sample Number from the TR/COC. |
| DeliverableType | Report "2a", "2b", or "3" for SEDD Stage as applicable. |
| SampleTypeCode | Report "Field_Sample", "Field_Blank", or "PT_Sample" as applicable. |
| SampleShipDate | Report the date and time the sample was shipped to the laboratory. Format as YYYYMMDDTHH:MM. |
| SampleReceiptDate | Report the date and time this sample was received by the laboratory. Format as YYYYMMDDTHH:MM. |
| StationLocation | Report the Station Location from the TR/COC. |
| CollectionStartDate | Report the date and time this sample was collected or sample collection was started. Format as YYYYMMDDTHH:MM. |
| CollectionEndDate | Report the date and time sample collection ended if provided. Otherwise leave null. Format as YYYYMMDDTHH:MM. |
| COCIIdentifier | Report the TR/COC Record Form Number. |
| TurnaroundTime | Enter the Turnaround Time per the contract. |
| MatrixName | Report the Matrix (Water, Soil, Waste, Wipe) as applicable. |
| AnalysisName | Report the Analysis Name. |
| SolicitationNumber | Report the Solicitation ID Number, if applicable. Otherwise leave null. |
| MANumber | Report the MA Number, if applicable. Otherwise leave null. |
| PRRequired | Report "Y" or "N" as applicable if Preliminary Results required. |