APPENDIX J
Data Usability Summary Report

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Technical Memorandum

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To: Albert Tashji, Langan Senior Project Manager

From: Joe Conboy, Langan Senior Staff Chemist

Date: April 4, 2024

Re: Data Usability Summary Report
For UHP - 1095 SOUTHERN BLVD
October 2023 Groundwater Samples
Langan Project No.: 170199904

This memorandum presents the findings of an analytical data validation from the analysis of groundwater samples collected in October 2023 by Langan Engineering and Environmental Services at UHP - 1095 SOUTHERN BLVD. The samples were analyzed by York Analytical Laboratories, Inc. (NYSDOH NELAP registration #10854 and 12058) for volatile organic compounds (VOCs) by the methods specified below.

- VOCs by SW-846 Method 8260C

Table 1, attached, summarizes the laboratory and client sample identification numbers, sample collection dates, level of data validation, and analytical parameters subject to review.

Validation Overview

This data validation was performed in accordance with the following guidelines, where applicable:

- USEPA Region II Standard Operating Procedures (SOPs) for Data Validation
- USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020)
- USEPA Contract Laboratory Program "National Functional Guidelines for Inorganic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020), and
- published analytical methodologies.

The following acronyms may be used in the discussion of data-quality issues:

%D	Percent Difference	MB	Method Blank
CCV	Continuing Calibration Verification	MDL	Method Detection Limit
FB	Field Blank	MS	Matrix Spike
FD	Field Duplicate	MSD	Matrix Spike Duplicate
ICAL	Initial Calibration	RF	Response Factor
ICV	Initial Calibration Verification	RL	Reporting Limit

ISTD	Internal Standard	RPD	Relative Percent Difference
LCL	Lower Control Limit	RSD	Relative Standard Deviation
LCS	Laboratory Control Sample	TB	Trip Blank
LCSD	Laboratory Control Sample Duplicate	UCL	Upper Control Limit

Tier 1 data validation is based on completeness and compliance checks of sample-related QC results including: sample receipt documentation; analytical holding times; sample preservation; blank results (method, field, and trip); surrogate recoveries; MS/MSD recoveries and RPDs values; field duplicate RPDs, laboratory duplicate RPDs, and LCS/LCSD recoveries and RPDs. The SDG 23J1154 underwent Tier 1 validation review.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA guidelines and our best professional judgment:

- **R –** The sample results are unusable because certain criteria were not met when generating the data. The analyte may or may not be present in the sample.
- **J –** The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- **UJ –** The analyte was not detected at a level greater than or equal to the reporting limit; however, the reported reporting limit is approximate and may be inaccurate or imprecise.
- **U –** The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- **NJ –** The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned, these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are considered invalid and are not technically usable for data interpretation. Data that is otherwise qualified because of minor data-quality anomalies are usable, as qualified in Table 2 (attached).

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by SW-846 Method 8260C

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The FB (FB01_101723) exhibited a detection of acetone (4.46 ug/l). The associated detected results in samples GWDUP01_101723, PMW01_D_101723, PMW01_S_101723, PMW02_D_101723, and PMW02_S_101723 are qualified as U at the higher of the sample concentration and the reporting limit because of potential blank contamination.

The TB (TB01_101723) exhibited detections of acetone (1.85 ug/l) and methylene chloride (0.750 ug/l). The associated detected results in samples GWDUP01_101723, PMW01_D_101723, PMW01_S_101723, PMW02_D_101723, and PMW02_S_101723 are qualified as U at the higher of the sample concentration and the reporting limit because of potential blank contamination.

The LCS/LCSD for batch BJ31344 exhibited percent recoveries below the LCL for bromoform (70%) and cyclohexane (49.9%, 47.5%). The associated results in samples GWDUP01_101723, PMW01_D_101723, PMW01_S_101723, PMW02_D_101723, and PMW02_S_101723 are qualified as UJ because of potential low bias.

The LCS/LCSD for batch BJ31344 exhibited a percent recovery above the UCL for acetone (321%, 398%). The associated results were previously qualified because of blank contamination. No further action is necessary.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

VOCs by SW-846 Method 8260C

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The MS performed on sample PMW02_D_101723 exhibited a percent recovery below the LCL for cyclohexane (52.5%, 52.9%). Organic results are not qualified on the basis of MS recoveries alone. No qualification is necessary.

CONCLUSION:

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above,

that means that all specified criteria were met for that parameter. All of the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:

Joe Conboy
Senior Staff Chemist