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CASE NARRATIVE

Langan Engineering and Environmental Services, Inc
Project Name: Con Edison Richmond Terrace
Project # N/A
Order ID # Q3323
Test Name: VOC-TCLVOA-10,SVOC-TCL BNA -20,PCB,Pesticide-TCL,Mercury,Metals ICP-TAL

A. Number of Samples and Date of Receipt:
7 Solid samples were received on 10/09/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10,SVOC-TCL BNA -20,PCB,Pesticide-TCL,Mercury,Metals ICP-TAL. This data package contains results for VOC-TCLVOA-10(8260D),SVOC-TCL BNA -20(8270E),PCB(8082A),Pesticide-TCL(8081B),Mercury(7471B),Metals ICP-TAL(6010D).

C. Analytical Techniques:
VOC-TCLVOA-10 : The analysis performed on instrument MSVOA_Y were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868.The analysis of VOC-TCLVOA-10 was based on method 8260D.

SVOC-TCL BNA -20 : The samples were analyzed on instrument BNA_F using GC Column DB-UI 8270D which is 20 meters, 0.18 mm ID, 0.36 um df. The samples were analyzed on instrument BNA_P using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA. The analysis of SVOC-TCL BNA -20 was based on method 8270E and extraction was done based on method 3541.

Pesticide-TCL : The analysis was performed on instrument ECD_D. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0. 5 um df,: Catalog # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 7HMG017- 11.The analysis was performed on instrument ECD_L. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0. 5 um df,: Catalog # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 7HMG017- 11.The analysis of Pesticide-TCLs was based on method 8081B and extraction was done based on method 3541.

PCB : The analyses were performed on instrument GCECD_P. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalogue # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 µm; Catalogue # 7HM-G017-

11.The analyses were performed on instrument GCECD_O. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalogue # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 µm; Catalogue # 7HM-G017-11.The analysis of PCBs was based on method 8082A and extraction was done based on method 3541.

Mercury,Metals ICP-TAL : The analysis of Metals ICP-TAL was based on method 6010D, digestion based on method 3050 (soils). The analysis and digestion of Mercury was based on method 7471B.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries were met for all analysis except following
PCB : SED-05-0-2 [Tetrachloro-m-xylene(2)154%].
As per method one surrogate allowed to fail to meet the criteria per column. No further corrective action was taken.

The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds except following
Mercury,Metals ICP-TAL : The Matrix Spike (HADLEY-ROAD-TPMS) analysis met criteria for all compounds except for Antimony, Arsenic, Beryllium, Chromium, Cobalt, Copper, Selenium, Silver and Vanadium due to Chemical interference during Digestion Process.

The MSD recoveries met the requirements for all compounds except following
Mercury,Metals ICP-TAL : The Matrix Spike Duplicate (HADLEY-ROAD-TPMSD) analysis met criteria for all compounds except for Antimony, Arsenic, Beryllium, Chromium, Cobalt, Selenium, Silver and Vanadium due to Chemical interference during Digestion Process.

The RPD recoveries met criteria.
The Blank Spike met requirements for all compounds.
The Blank Spike Duplicate met requirements for all compounds.
The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements except following
SVOC-TCL BNA -20 : The %RSD is greater than 20% in the Initial Calibration (Method 8270-BF100625.M) for 2,4-Dinitrophenol, this Compounds is passing on Linear regression.

The Continuous Calibration met the requirements except following

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SVOC-TCL BNA -20 : The Continuous Calibration File ID BF143931.D met the requirements except for Bis(2-ethylhexyl)phthalate and Di-n-octyl phthalate. But associated samples have no positive hit for these compounds therefore no corrective action was taken.

PCB : The Continuous Calibration File ID PP075732.D met the requirements except for Aroclor-1260(Peak-04) is failing in 1st column, however it is passed in 2nd column therefore no corrective action was taken. AND Tetrachloro-m-xylene is failing in 2nd column, however it is passed in 1st column therefore no corrective action was taken.

The Continuous Calibration File ID PP075747.D met the requirements except for Decachlorobiphenyl is failing in 2nd column, however it is passed in 1st column therefore no corrective action was taken.
The Tuning criteria met requirements.

The Duplicate analysis met criteria for all samples.

The Serial Dilution met criteria for all compounds except following
Mercury,Metals ICP-TAL : The Serial Dilution (HADLEY-ROAD-TPL) met criteria for all compounds except for Aluminum, Chromium, Copper, Iron, Magnesium, Manganese and Zinc due to unknow sample matrix interference.

E. Additional Comments:
The soil samples results are based on a dry weight basis.

Mercury,Metals ICP-TAL : The Post Digest Spike (HADLEY-ROAD-TPA) analysis met criteria for all compounds except for Antimony, Arsenic, Beryllium, Chromium, Selenium, Silver and Vanadium due to unknown chemical interference of matrix with the addition of spike amount after digestion and before analysis; matrix has suppression effect during addition of spike.
Sample Q3323-06 , Silver parameter Oversaturated so its reported from its 5X Dilution.

VOC-TCLVOA-10 : Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.
Trip Blank was not provided with this set of samples.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed

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above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____