

CASE NARRATIVE

Roman E&G Corp

Project Name: AQUA Woolwich Pump Station 22-531

Project # N/A Order ID # Q3725

Test Name: VOCGCMS NJ CleanGroup New,SVOCMS NJ CleanGroup

New, EPH_NF, PCB, PESTICIDE NJCLEAN Group New, Mercury, Metals NJClean

Group New, Cyanide

A. Number of Samples and Date of Receipt:

1 Solid sample was received on 11/25/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOCGCMS NJ CleanGroup New,SVOCMS NJ CleanGroup

New,EPH_NF,PCB,PESTICIDE NJCLEAN Group New,Mercury,Metals NJClean Group New,Cyanide. This data package contains results for VOCGCMS NJ CleanGroup New(8260D),SVOCMS NJ CleanGroup

New(8270E), EPH_NF(NJEPH), PCB(8082A), PESTICIDE NJCLEAN Group New(8081B), Mercury(7471B), Metals NJClean Group New(6010D), Cyanide(9012).

C. Analytical Techniques:

VOCGCMS NJ CleanGroup New: 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 VOCGCMS NJ CleanGroup New was based on method 8260D.

SVOCMS NJ CleanGroup New: 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 analysis of SVOCMS NJ CleanGroup New was based on method 8270E and extraction was done based on method 3541.

PCB : 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 μ m; Catalogue # 7HM-G017-11.The analysis of PCBs was based on method 8082A and extraction was done based on method 3541.

EPH_NF: The analysis were performed on instrument FID_E. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 10224. The analysis of EPH_NFs was based on method NJEPH and extraction was done based on method 3541.



PESTICIDE NJCLEAN Group New: 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 of PESTICIDE NJCLEAN Group News was based on method 8081B and extraction was done based on method 3541.

Mercury,Metals NJClean Group New: The analysis of Metals NJClean Group New was based on method 6010D, digestion based on method 3050 (soils). The analysis and digestion of Mercury was based on method 7471B.

Wetchem: The analysis of Cyanide was based on method 9012B and extraction was done based on method 9014.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis except following VOCGCMS NJ CleanGroup New: STOCKPILE-SAMPLES [4-Bromofluorobenzene - 67%] this compound did not meet the NJDKQP criteria but met the in-house criteria.

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 SVOCMS NJ CleanGroup New: The MS {Q3735-01MS} with File ID: BF144392.D recoveries met the requirements for all compounds except for 3,3-Dichlorobenzidine[63%] and 4,6-Dinitro-2-methylphenol[52%]. These compounds did not meet the NJDKQP criteria but met the in-house criteria.

Mercury, Metals NJClean Group New: The Matrix Spike (WC1MS) analysis met criteria for all compounds except for Antimony and Vanadium due to Chemical Interference during Digestion Process.

The MSD recoveries met the requirements for all compounds except following SVOCMS NJ CleanGroup New: The MSD {Q3735-01MSD} with File ID: BF144393.D recoveries met the requirements for all compounds except for 3,3-Dichlorobenzidine[68%] and 4,6-Dinitro-2-methylphenol[43%]. These compounds did not meet the NJDKQP criteria but met the in-house criteria.

Mercury, Metals NJClean Group New: The Matrix Spike Duplicate (WC1MSD) analysis met criteria for all compounds except for Antimony due to Chemical Interference during Digestion Process.



The RPD were met for all analysis except following SVOCMS NJ CleanGroup New: The RPD for {Q3735-01MSD} with File ID: BF144393.D met criteria except for 2,4-Dinitrophenol[38%], Hexachlorocyclopentadiene[21%]. Due to difference in MS and MSD concentrations.

The Blank Spike met requirements for all compounds except following SVOCMS NJ CleanGroup New: The Blank Spike for {PB170763BS} with File ID: BF144386.D met requirements for all compounds except for Benzidine[19%]. This compound did not meet the NJDKQP criteria but met the in-house criteria.

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
SVOCMS NJ CleanGroup New: The %RSD is greater than 20% in the Method 8270-BF110525.M for Hexachlorocyclopentadiene, this compound is passing on Quadratic regression.

The Continuous Calibration met the requirements except following SVOCMS NJ CleanGroup New: The Continuous Calibration File ID BF144382.D met the requirements except for Benzaldehyde and Benzidine. But associated samples have no positive hit therefore no corrective action was taken.

PCB: The Continuous Calibration File ID PO115479.D met the requirements except for Aroclor-1260(Peak-02) is failing in 2nd column, however it is passed in 1st column therefore no corrective action was taken.

The Continuous Calibration File ID PO115493.D met the requirements except for Aroclor-1016(Peak-04) is failing in 2nd column, however it is passed in 1st column therefore no corrective action was taken.

The Tuning criteria met requirements.

Mercury, Metals NJClean Group New: The Duplicate analysis met criteria for all samples. The Serial Dilution met the acceptable requirements.

E. Additional Comments:

The soil samples results are based on a dry weight basis. The temperature of the samples at the time of receipt was 16.1°C.

Mercury,Metals NJClean Group New: The Post Digest Spike (WC1A) analysis met criteria for all compounds except for Antimony 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 Q3725-04 has unknown interferences from the soil which can suppress the actual concentration without dilution and also can effect the path of sample probe and tubes and the nebulizer can be blocked to make the small orifice and hence can effect QC failure. So straight 5X dilution was necessary for analyze sample.

VOCGCMS NJ CleanGroup New: 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 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.

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