



284 Sheffield Street, Mountainside, NJ 7092, Phone: 908 789 8900, Fax: 908 789 8922

CASE NARRATIVE

Remington & Vernick Engineers

Project Name: Edison Landfill

Project # N/A

Order ID # Q3534

Test Name: VOC-TCLVOA-10,SVOC-SIMGroup1,SVOC-TCL BNA -

20,PCB,Pesticide-TCL,Mercury,Metals ICP-TAL,Anions

Group1,BOD5,COD,Cyanide,Hexavalent Chromium,Oil and Grease,pH,TDS,TKN

A. Number of Samples and Date of Receipt:

9 Water samples were received on 11/04/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10,SVOC-SIMGroup1,SVOC-TCL BNA -20,PCB,Pesticide-TCL,Mercury,Metals ICP-TAL,Anions Group1,BOD5,COD,Cyanide,Hexavalent Chromium,Oil and Grease,pH,TDS,TKN. This data package contains results for VOC-TCLVOA-10(8260D),SVOC-SIMGroup1(8270-Modified),SVOC-TCL BNA -20(8270E),PCB(8082A),Pesticide-TCL(8081B),Mercury(7470A),Metals ICP-TAL(6010D),Anions Group1(300.0),BOD5(SM5210 B),COD(SM5220 D),Cyanide(9012B),Hexavalent Chromium(7196A),Oil and Grease(1664A),pH(9040C),TDS(SM2540 C),TKN(SM4500 N Org B or C).

C. Analytical Techniques:

VOC-TCLVOA-10 : The analysis performed on instrument MSVOA_V were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI. The analysis of VOC-TCLVOA-10 was based on method 8260D.

SVOC-SIMGroup1 : The samples were analyzed on instrument BNA_N 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-SIMGroup1 was based on method 8270-Modified and extraction was done based on method 3510.

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_G using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA. 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 3510.



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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 μ m 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 analyses were performed on instrument GCECD_O. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 μ m 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 3510.

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 μ m df, Catalog # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 μ m df, Catalog #: 7HMG017- 11. The analysis of Pesticide-TCLs was based on method 8081B and extraction was done based on method 3510.

Mercury, Metals ICP-TAL : The analysis of Metals ICP-TAL was based on method 6010D, digestion based on method 3010 (waters). The analysis and digestion of Mercury was based on method 7470A.

Wetchem : The analysis of Oil and Grease was based on method 1664A, The analysis of Anions Group1 was based on method 300.0, The analysis of Hexavalent Chromium was based on method 7196A, The analysis of Cyanide was based on method 9012B, The analysis of pH was based on method 9040C, The analysis of TDS was based on method SM2540 C, The analysis of TKN was based on method SM4500 N Org B or C, The analysis of BOD5 was based on method SM5210 B and The analysis of COD was based on method SM5220 D.

D. QA/ QC Samples:

The Holding Times were met for all analysis except following Wetchem : MW-1 of pH, for MW-11 of pH, for MW-5 of pH, for MW-6 of pH, for MW-EB-1 of pH, for MW-EB-2 of pH and for MW-EB-3 of pH as samples were receive out of holding time.

The Surrogate recoveries were met for all analysis except following SVOC-SIMGroup1 :

MW-6 [Terphenyl-d14 - 131%],
MW-11 [Terphenyl-d14 - 138%],
MW-5 [Terphenyl-d14 - 135%],
MW-EB-1 [Terphenyl-d14 - 136%],
MW-EB-3 [Terphenyl-d14 - 135%],
EB-1 [Terphenyl-d14 - 142%].
MW-6DL [Nitrobenzene-d5 - 132%],
MW-1DL [Terphenyl-d14 - 173%],
MW-11DL [Terphenyl-d14 - 134%],



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MW-EB-1DL [Terphenyl-d14 - 138%], This compound did not meet the NJDKQP criteria but met the in-house criteria.

And,

MW-6DL [2-Fluorobiphenyl - 165%, Terphenyl-d14 - 210%],
MW-1DL [2-Fluorobiphenyl - 233%, Nitrobenzene-d5 - 165%], This compound did not meet the NJDKQP criteria and in-house criteria. Due to high concentration of compounds, this sample required dilution. Therefore, sample was reanalyzed with dilution and reported

SVOC-TCL BNA -20 : PB170424BL [2,4,6-Tribromophenol - 113%], MW-6 [2,4,6-Tribromophenol - 126%], MW-11 [2,4,6-Tribromophenol - 125%], MW-5 [2,4,6-Tribromophenol - 116%], MW-EB-3 [2,4 and 6-Tribromophenol - 113%]. This compound did not meet the NJDKQP criteria but met the in-house criteria.

The Surrogate recoveries were met for all analysis except following
PCB : EB-1 [Tetrachloro-m-xylene(1)163%]this compound did not meet the NJDKQP criteria but met the in-house criteria

Pesticide-TCL : MW-6 [Decachlorobiphenyl(2)1410%]this compound did not meet the NJDKQP criteria and in-house criteria, AS per method one surrogate allowed to fail to meet the criteria per column. No further corrective action was taken.

The Internal Standards Areas were met for all analysis except following SVOC-SIMGroup1 : MW-6, MW-EB-1, Due to high concentration of compounds, this sample required dilution. Therefore, sample was reanalyzed with dilution and reported and MW-EB-1DL failed internal standard is not associated with reporting list, Therefor no further corrective action was taken.

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 (AUD-25-182-194MS) analysis met criteria for all compounds except for Potassium due to Chemical Interference during Digestion process.

The MSD recoveries met the acceptable requirements.
The RPD recoveries met criteria.

The Blank Spike met requirements for all compounds except following
SVOC-TCL BNA -20 : The Blank Spike for {PB170424BS} with File ID: BP026078.D met requirements for all compounds except for 4-Chloroaniline[60%]. This compound did not meet the NJDKQP criteria but met the in-house criteria.



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The Blank Spike Duplicate met requirements for all compounds except following SVOC-TCL BNA -20 : The Blank Spike Duplicate for {PB170424BSD} with File ID: BP026079.D met requirements for all compounds except for 4-Chloroaniline[59%]. This compound did not meet the NJDKQP criteria but met the in-house criteria.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements except following VOC-TCLVOA-10 : The %RSD is greater than 20% in the Initial Calibration method (82V100725W.M) for Chloroethane, Acetone, Methylene Chloride passing on Linear Regression.

SVOC-TCL BNA -20 : The %RSD is greater than 20% in the Method 8270-BF110525.M for Hexachlorocyclopentadiene is passing on Quadratic regression.

The %RSD is greater than 20% in the Method 8270-BG102421.M for 2-Nitrophenol 2-Nitroaniline, 2,6-Dinitrotoluene, 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 4,6-Dinitro-2-methylphenol these Compounds are passing on Linear regression.

The %RSD is greater than 20% in the Initial Calibration (Method 8270-BP102925.M) for 26) 2-Nitrophenol, 2-Nitroaniline, 2,6-Dinitrotoluene, 3-Nitroaniline, 2,4-Dinitrotoluene, Butylbenzylphthalate, Bis(2-ethylhexyl)phthalate. These Compounds are passing on Linear regression 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphthalate are passing on Quadratic regression.

The Continuous Calibration met the requirements except following VOC-TCLVOA-10 : The Continuous Calibration File ID VV039306.D met the requirements except for Dichlorodifluoromethane is failing marginally low while Methylene Chloride is failing high but no positive hit in associate sample therefore no corrective action taken.

The Continuous Calibration File ID VV039328.D met the requirements except for Bromomethane and Dichlorodifluoromethane are failing marginally low while Styrene is failing high but no positive hit in associate sample therefore no corrective action taken.

SVOC-SIMGroup1 : The Continuous Calibration File ID BN038174.D met the requirements except for 2,4,6-Tribromophenol. Failed surrogate is not associated with reporting list, Therefore no further corrective action was taken.

SVOC-TCL BNA -20 : The Continuous Calibration File ID BG064699.D met the requirements except for 2,3,4,6-Tetrachlorophenol, 2,4,6-Trichlorophenol, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-Nitrophenol, 4,6-Dinitro-2-methylphenol, Hexachlorobutadiene, 2,4,6-Tribromophenol and Nitrobenzene-d5,



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Associated samples does not have hit for these compounds, Therefor no further corrective action was taken.

The Continuous Calibration File ID BP026076.D met the requirements except for 2,3,4,6-Tetrachlorophenol,2,4-Dinitrophenol,2,4-Dinitrotoluene,2,6-Dinitrotoluene,2-Nitroaniline,2-Nitrophenol,3-Nitroaniline,4,6-Dinitro-2-methylphenol, ,Butylbenzylphthalate,Di-n-octyl phthalate,Hexachlorocyclopentadiene,Pentachlorophenol and 2,4,6-Tribromophenol. Associated samples does not have hit for these compounds, Therefor no further corrective action was taken,

The Tuning criteria met requirements.

SVOC-SIMGroup1 : Samples MW-6, MW-1, MW-11 and MW-EB-1 were diluted due to high concentrations.

Pesticide-TCL : Sample MW-EB-1 was diluted due to high concentration.

Mercury,Metals ICP-TAL : Sample MW-1 was diluted due to high concentrations for Sodium & Sample MW-11 was diluted due to high concentrations for Sodium & Sample MW-EB-2 was diluted due to high concentrations for Sodium & Sample MW-EB-3 was diluted due to high concentrations for Sodium.

Wetchem : Sample MW-6 was diluted due to high concentrations for TKN & Sample MW-5 was diluted due to high concentrations for TKN & Sample MW-EB-1 was diluted due to high concentrations for TKN.

The Duplicate analysis met criteria for all samples.
The Serial Dilution met the acceptable requirements.

E. Additional Comments:

SEMI-VOA : The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

Anions Group1,BOD5,COD,Cyanide,Hexavalent Chromium,Oil and Grease,pH,TDS,TKN : As per method 1664A, MS/MSD is required to be performed with the sample analysis. However, Lab did not receive sufficient volume to perform the MS/MSD for Q3534 therefore Lab reported MS-MSD from Q3551 and Q3554.

Mercury,Metals ICP-TAL : In analytical sequence LB137798, The % recovery was outside of acceptance limit for Sodium of CCV06 but, no any sample associated under this CCV.



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In analytical sequence LB137798, The Result was outside of acceptance limit for Potassium and Sodium of CCB06 but, no any sample associated under this CCB.

PCB : All samples were received with limited volume for PCB.

Pesticide-TCL : All samples were received with limited volume for Pesticide.

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 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_____