

## Appendix O

### Laboratory Analytical Soil Samples

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Ms. Stephanie R Grillo  
Groundwater & Environmental Services Inc  
410 Eagleview Blvd., Suite 110  
Exton, Pennsylvania 19341-2577

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## JOB DESCRIPTION

SPLP - Washington Crossing

## JOB NUMBER

410-206485-1

# Eurofins Lancaster Laboratories Environment Testing, LLC

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Authorized for release by  
Amek Carter, Project Manager  
[Loran.Carter@et.eurofinsus.com](mailto:Loran.Carter@et.eurofinsus.com)  
(717)556-7252

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## Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.


- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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## Definitions/Glossary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

#### General Chemistry

Qualifier	Qualifier Description
!	Laboratory is not accredited for this parameter.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Groundwater & Environmental Services Inc  
Project: SPLP - Washington Crossing

Job ID: 410-206485-1

**Job ID: 410-206485-1**

**Eurofins Lancaster Laboratories Environment**

### **Job Narrative 410-206485-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### **Receipt**

The samples were received on 2/4/2025 6:38 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C.

#### **GC/MS VOA**

Method 8260D: The following sample needs to be re-prepped due to the submitted vials were not usable: PE-7 (410-206485-7)

Method 8260D: The following samples were diluted due to the nature of the sample matrix: PE-1 (410-206485-1), PE-4 (410-206485-4) and PE-7 (410-206485-7). Elevated reporting limits (RLs) are provided.

Method 8260D: Surrogate recovery for the following samples were outside control limits: PE-1 (410-206485-1) and PE-7 (410-206485-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8260D: Surrogate recovery for 4-Bromofluorobenzene (Surr) was outside acceptance criteria for the continuing calibration verification (CCV) on analytical batch 410-605912.

Method 8260D: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: PE-3 (410-206485-3), PE-5 (410-206485-5), PE-6 (410-206485-6) and PE-8 (410-206485-8). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### **Metals**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### **General Chemistry**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Detection Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

### Client Sample ID: PE-1

### Lab Sample ID: 410-206485-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	19000	cn	6400	510	ug/Kg	1000	✱	8260D	Total/NA
1,3,5-Trimethylbenzene	110000	cn	6400	640	ug/Kg	1000	✱	8260D	Total/NA
Toluene	15000	cn	6400	760	ug/Kg	1000	✱	8260D	Total/NA
Xylenes, Total	160000	cn	6400	1800	ug/Kg	1000	✱	8260D	Total/NA
Naphthalene	87000	cn	6400	2500	ug/Kg	1000	✱	8260D	Total/NA
1,2,4-Trimethylbenzene	290000	cn	6400	760	ug/Kg	1000	✱	8260D	Total/NA
Isopropylbenzene	16000	cn	6400	760	ug/Kg	1000	✱	8260D	Total/NA
Lead	25		0.22	0.085	mg/Kg	2	✱	6020B	Total/NA

### Client Sample ID: PE-2

### Lab Sample ID: 410-206485-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	12		6.1	1.8	ug/Kg	1	✱	8260D	Total/NA
Xylenes, Total	7.6	J	12	0.86	ug/Kg	1	✱	8260D	Total/NA
1,2,4-Trimethylbenzene	21		6.1	1.2	ug/Kg	1	✱	8260D	Total/NA
Lead	36		0.23	0.087	mg/Kg	2	✱	6020B	Total/NA

### Client Sample ID: PE-3

### Lab Sample ID: 410-206485-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	40		0.20	0.078	mg/Kg	2	✱	6020B	Total/NA

### Client Sample ID: PE-4

### Lab Sample ID: 410-206485-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	600	J cn	2900	290	ug/Kg	500	✱	8260D	Total/NA
1,2,4-Trimethylbenzene	1100	J cn	2900	340	ug/Kg	500	✱	8260D	Total/NA
Lead	22		0.20	0.075	mg/Kg	2	✱	6020B	Total/NA

### Client Sample ID: PE-5

### Lab Sample ID: 410-206485-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	45	J cn	310	31	ug/Kg	50	✱	8260D	Total/NA
Lead	15		0.17	0.064	mg/Kg	2	✱	6020B	Total/NA

### Client Sample ID: PE-6

### Lab Sample ID: 410-206485-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	24		0.21	0.081	mg/Kg	2	✱	6020B	Total/NA

### Client Sample ID: PE-7

### Lab Sample ID: 410-206485-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	5400	cn	3200	260	ug/Kg	500	✱	8260D	Total/NA
1,3,5-Trimethylbenzene	53000	cn	3200	320	ug/Kg	500	✱	8260D	Total/NA
Toluene	1900	J cn	3200	390	ug/Kg	500	✱	8260D	Total/NA
Xylenes, Total	51000	cn	3200	900	ug/Kg	500	✱	8260D	Total/NA
Naphthalene	5400	cn	3200	1300	ug/Kg	500	✱	8260D	Total/NA
1,2,4-Trimethylbenzene	120000	cn	3200	390	ug/Kg	500	✱	8260D	Total/NA
Isopropylbenzene	5500	cn	3200	390	ug/Kg	500	✱	8260D	Total/NA
Lead	28		0.22	0.083	mg/Kg	2	✱	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC



## Detection Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

**Client Sample ID: PE-8**

**Lab Sample ID: 410-206485-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	20		0.21	0.081	mg/Kg	2	☆	6020B	Total/NA

**Client Sample ID: Trip Blank**

**Lab Sample ID: 410-206485-9**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

Client Sample ID: PE-1

Lab Sample ID: 410-206485-1

Date Collected: 02/04/25 08:15

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 83.1

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	19000	cn	6400	510	ug/Kg	✱	02/07/25 16:03	02/14/25 00:20	1000
1,2-Dichloroethane	ND	cn	6400	760	ug/Kg	✱	02/07/25 16:03	02/14/25 00:20	1000
1,3,5-Trimethylbenzene	110000	cn	6400	640	ug/Kg	✱	02/07/25 16:03	02/14/25 00:20	1000
Toluene	15000	cn	6400	760	ug/Kg	✱	02/07/25 16:03	02/14/25 00:20	1000
Xylenes, Total	160000	cn	6400	1800	ug/Kg	✱	02/07/25 16:03	02/14/25 00:20	1000
Methyl tertiary butyl ether	ND	cn	6400	760	ug/Kg	✱	02/07/25 16:03	02/14/25 00:20	1000
Benzene	ND	cn	6400	640	ug/Kg	✱	02/07/25 16:03	02/14/25 00:20	1000
Naphthalene	87000	cn	6400	2500	ug/Kg	✱	02/07/25 16:03	02/14/25 00:20	1000
1,2,4-Trimethylbenzene	290000	cn	6400	760	ug/Kg	✱	02/07/25 16:03	02/14/25 00:20	1000
Isopropylbenzene	16000	cn	6400	760	ug/Kg	✱	02/07/25 16:03	02/14/25 00:20	1000
1,2-Dibromoethane	ND	cn	6400	760	ug/Kg	✱	02/07/25 16:03	02/14/25 00:20	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81	cn	54 - 135	02/07/25 16:03	02/14/25 00:20	1000
4-Bromofluorobenzene (Surr)	263	^c S1+ cn	50 - 131	02/07/25 16:03	02/14/25 00:20	1000
Dibromofluoromethane (Surr)	79	cn	50 - 141	02/07/25 16:03	02/14/25 00:20	1000
Toluene-d8 (Surr)	112	cn	52 - 141	02/07/25 16:03	02/14/25 00:20	1000

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	25		0.22	0.085	mg/Kg	✱	02/13/25 22:00	02/17/25 22:37	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	16.9	!	1.0	1.0	%	-		02/07/25 13:03	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

Client Sample ID: PE-2

Lab Sample ID: 410-206485-2

Date Collected: 02/04/25 08:25

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 84.2

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		6.1	1.2	ug/Kg	✱	02/07/25 15:36	02/10/25 19:03	1
1,2-Dichloroethane	ND		6.1	0.74	ug/Kg	✱	02/07/25 15:36	02/10/25 19:03	1
1,3,5-Trimethylbenzene	12		6.1	1.8	ug/Kg	✱	02/07/25 15:36	02/10/25 19:03	1
Toluene	ND		6.1	1.2	ug/Kg	✱	02/07/25 15:36	02/10/25 19:03	1
Xylenes, Total	7.6	J	12	0.86	ug/Kg	✱	02/07/25 15:36	02/10/25 19:03	1
Methyl tertiary butyl ether	ND		6.1	0.98	ug/Kg	✱	02/07/25 15:36	02/10/25 19:03	1
Benzene	ND		6.1	0.98	ug/Kg	✱	02/07/25 15:36	02/10/25 19:03	1
Naphthalene	ND		6.1	2.5	ug/Kg	✱	02/07/25 15:36	02/10/25 19:03	1
1,2,4-Trimethylbenzene	21		6.1	1.2	ug/Kg	✱	02/07/25 15:36	02/10/25 19:03	1
Isopropylbenzene	ND		6.1	1.8	ug/Kg	✱	02/07/25 15:36	02/10/25 19:03	1
1,2-Dibromoethane	ND		6.1	0.86	ug/Kg	✱	02/07/25 15:36	02/10/25 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		54 - 135	02/07/25 15:36	02/10/25 19:03	1
4-Bromofluorobenzene (Surr)	94		50 - 131	02/07/25 15:36	02/10/25 19:03	1
Dibromofluoromethane (Surr)	110		50 - 141	02/07/25 15:36	02/10/25 19:03	1
Toluene-d8 (Surr)	90		52 - 141	02/07/25 15:36	02/10/25 19:03	1

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	36		0.23	0.087	mg/Kg	✱	02/13/25 22:00	02/19/25 09:38	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	15.8	!	1.0	1.0	%	—		02/07/25 13:03	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

Client Sample ID: PE-3

Lab Sample ID: 410-206485-3

Date Collected: 02/04/25 08:30

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 81.4

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	cn	340	27	ug/Kg	✱	02/07/25 16:03	02/13/25 22:57	50
1,2-Dichloroethane	ND	cn	340	41	ug/Kg	✱	02/07/25 16:03	02/13/25 22:57	50
1,3,5-Trimethylbenzene	ND	cn	340	34	ug/Kg	✱	02/07/25 16:03	02/13/25 22:57	50
Toluene	ND	cn	340	41	ug/Kg	✱	02/07/25 16:03	02/13/25 22:57	50
Xylenes, Total	ND	cn	340	96	ug/Kg	✱	02/07/25 16:03	02/13/25 22:57	50
Methyl tertiary butyl ether	ND	cn	340	41	ug/Kg	✱	02/07/25 16:03	02/13/25 22:57	50
Benzene	ND	cn	340	34	ug/Kg	✱	02/07/25 16:03	02/13/25 22:57	50
Naphthalene	ND	cn	340	140	ug/Kg	✱	02/07/25 16:03	02/13/25 22:57	50
1,2,4-Trimethylbenzene	ND	cn	340	41	ug/Kg	✱	02/07/25 16:03	02/13/25 22:57	50
Isopropylbenzene	ND	cn	340	41	ug/Kg	✱	02/07/25 16:03	02/13/25 22:57	50
1,2-Dibromoethane	ND	cn	340	41	ug/Kg	✱	02/07/25 16:03	02/13/25 22:57	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93	cn	54 - 135	02/07/25 16:03	02/13/25 22:57	50
4-Bromofluorobenzene (Surr)	89	^c cn	50 - 131	02/07/25 16:03	02/13/25 22:57	50
Dibromofluoromethane (Surr)	93	cn	50 - 141	02/07/25 16:03	02/13/25 22:57	50
Toluene-d8 (Surr)	90	cn	52 - 141	02/07/25 16:03	02/13/25 22:57	50

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	40		0.20	0.078	mg/Kg	✱	02/13/25 22:00	02/17/25 23:06	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	18.6	!	1.0	1.0	%	—		02/07/25 13:03	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

Client Sample ID: PE-4

Lab Sample ID: 410-206485-4

Date Collected: 02/04/25 08:35

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 88.3

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	cn	2900	230	ug/Kg	✱	02/07/25 16:46	02/13/25 23:39	500
1,2-Dichloroethane	ND	cn	2900	340	ug/Kg	✱	02/07/25 16:46	02/13/25 23:39	500
1,3,5-Trimethylbenzene	600	J cn	2900	290	ug/Kg	✱	02/07/25 16:46	02/13/25 23:39	500
Toluene	ND	cn	2900	340	ug/Kg	✱	02/07/25 16:46	02/13/25 23:39	500
Xylenes, Total	ND	cn	2900	800	ug/Kg	✱	02/07/25 16:46	02/13/25 23:39	500
Methyl tertiary butyl ether	ND	cn	2900	340	ug/Kg	✱	02/07/25 16:46	02/13/25 23:39	500
Benzene	ND	cn	2900	290	ug/Kg	✱	02/07/25 16:46	02/13/25 23:39	500
Naphthalene	ND	cn	2900	1100	ug/Kg	✱	02/07/25 16:46	02/13/25 23:39	500
1,2,4-Trimethylbenzene	1100	J cn	2900	340	ug/Kg	✱	02/07/25 16:46	02/13/25 23:39	500
Isopropylbenzene	ND	cn	2900	340	ug/Kg	✱	02/07/25 16:46	02/13/25 23:39	500
1,2-Dibromoethane	ND	cn	2900	340	ug/Kg	✱	02/07/25 16:46	02/13/25 23:39	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92	cn	54 - 135	02/07/25 16:46	02/13/25 23:39	500
4-Bromofluorobenzene (Surr)	87	^c cn	50 - 131	02/07/25 16:46	02/13/25 23:39	500
Dibromofluoromethane (Surr)	87	cn	50 - 141	02/07/25 16:46	02/13/25 23:39	500
Toluene-d8 (Surr)	85	cn	52 - 141	02/07/25 16:46	02/13/25 23:39	500

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	22		0.20	0.075	mg/Kg	✱	02/13/25 22:00	02/17/25 23:02	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	11.7	!	1.0	1.0	%	—		02/07/25 13:03	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

Client Sample ID: PE-5

Lab Sample ID: 410-206485-5

Date Collected: 02/04/25 08:40

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 88.1

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	cn	310	25	ug/Kg	✱	02/07/25 16:46	02/13/25 23:18	50
1,2-Dichloroethane	ND	cn	310	37	ug/Kg	✱	02/07/25 16:46	02/13/25 23:18	50
1,3,5-Trimethylbenzene	45	J cn	310	31	ug/Kg	✱	02/07/25 16:46	02/13/25 23:18	50
Toluene	ND	cn	310	37	ug/Kg	✱	02/07/25 16:46	02/13/25 23:18	50
Xylenes, Total	ND	cn	310	87	ug/Kg	✱	02/07/25 16:46	02/13/25 23:18	50
Methyl tertiary butyl ether	ND	cn	310	37	ug/Kg	✱	02/07/25 16:46	02/13/25 23:18	50
Benzene	ND	cn	310	31	ug/Kg	✱	02/07/25 16:46	02/13/25 23:18	50
Naphthalene	ND	cn	310	120	ug/Kg	✱	02/07/25 16:46	02/13/25 23:18	50
1,2,4-Trimethylbenzene	ND	cn	310	37	ug/Kg	✱	02/07/25 16:46	02/13/25 23:18	50
Isopropylbenzene	ND	cn	310	37	ug/Kg	✱	02/07/25 16:46	02/13/25 23:18	50
1,2-Dibromoethane	ND	cn	310	37	ug/Kg	✱	02/07/25 16:46	02/13/25 23:18	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95	cn	54 - 135	02/07/25 16:46	02/13/25 23:18	50
4-Bromofluorobenzene (Surr)	90	^c cn	50 - 131	02/07/25 16:46	02/13/25 23:18	50
Dibromofluoromethane (Surr)	95	cn	50 - 141	02/07/25 16:46	02/13/25 23:18	50
Toluene-d8 (Surr)	92	cn	52 - 141	02/07/25 16:46	02/13/25 23:18	50

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	15		0.17	0.064	mg/Kg	✱	02/13/25 22:00	02/17/25 22:41	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	11.9	!	1.0	1.0	%	—		02/07/25 13:03	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

Client Sample ID: PE-6

Lab Sample ID: 410-206485-6

Date Collected: 02/04/25 08:45

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 84.3

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	cn	340	27	ug/Kg	✱	02/07/25 16:46	02/13/25 22:16	50
1,2-Dichloroethane	ND	cn	340	41	ug/Kg	✱	02/07/25 16:46	02/13/25 22:16	50
1,3,5-Trimethylbenzene	ND	cn	340	34	ug/Kg	✱	02/07/25 16:46	02/13/25 22:16	50
Toluene	ND	cn	340	41	ug/Kg	✱	02/07/25 16:46	02/13/25 22:16	50
Xylenes, Total	ND	cn	340	96	ug/Kg	✱	02/07/25 16:46	02/13/25 22:16	50
Methyl tertiary butyl ether	ND	cn	340	41	ug/Kg	✱	02/07/25 16:46	02/13/25 22:16	50
Benzene	ND	cn	340	34	ug/Kg	✱	02/07/25 16:46	02/13/25 22:16	50
Naphthalene	ND	cn	340	140	ug/Kg	✱	02/07/25 16:46	02/13/25 22:16	50
1,2,4-Trimethylbenzene	ND	cn	340	41	ug/Kg	✱	02/07/25 16:46	02/13/25 22:16	50
Isopropylbenzene	ND	cn	340	41	ug/Kg	✱	02/07/25 16:46	02/13/25 22:16	50
1,2-Dibromoethane	ND	cn	340	41	ug/Kg	✱	02/07/25 16:46	02/13/25 22:16	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98	cn	54 - 135	02/07/25 16:46	02/13/25 22:16	50
4-Bromofluorobenzene (Surr)	91	^c cn	50 - 131	02/07/25 16:46	02/13/25 22:16	50
Dibromofluoromethane (Surr)	98	cn	50 - 141	02/07/25 16:46	02/13/25 22:16	50
Toluene-d8 (Surr)	93	cn	52 - 141	02/07/25 16:46	02/13/25 22:16	50

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	24		0.21	0.081	mg/Kg	✱	02/13/25 22:00	02/17/25 22:49	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	15.7	!	1.0	1.0	%	—		02/07/25 13:03	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

Client Sample ID: PE-7

Lab Sample ID: 410-206485-7

Date Collected: 02/04/25 08:50

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 86.7

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	5400	cn	3200	260	ug/Kg	✱	02/11/25 22:35	02/13/25 23:59	500
1,2-Dichloroethane	ND	cn	3200	390	ug/Kg	✱	02/11/25 22:35	02/13/25 23:59	500
1,3,5-Trimethylbenzene	53000	cn	3200	320	ug/Kg	✱	02/11/25 22:35	02/13/25 23:59	500
Toluene	1900	J cn	3200	390	ug/Kg	✱	02/11/25 22:35	02/13/25 23:59	500
Xylenes, Total	51000	cn	3200	900	ug/Kg	✱	02/11/25 22:35	02/13/25 23:59	500
Methyl tertiary butyl ether	ND	cn	3200	390	ug/Kg	✱	02/11/25 22:35	02/13/25 23:59	500
Benzene	ND	cn	3200	320	ug/Kg	✱	02/11/25 22:35	02/13/25 23:59	500
Naphthalene	5400	cn	3200	1300	ug/Kg	✱	02/11/25 22:35	02/13/25 23:59	500
1,2,4-Trimethylbenzene	120000	cn	3200	390	ug/Kg	✱	02/11/25 22:35	02/13/25 23:59	500
Isopropylbenzene	5500	cn	3200	390	ug/Kg	✱	02/11/25 22:35	02/13/25 23:59	500
1,2-Dibromoethane	ND	cn	3200	390	ug/Kg	✱	02/11/25 22:35	02/13/25 23:59	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97	cn	54 - 135	02/11/25 22:35	02/13/25 23:59	500
4-Bromofluorobenzene (Surr)	213	^c S1+ cn	50 - 131	02/11/25 22:35	02/13/25 23:59	500
Dibromofluoromethane (Surr)	90	cn	50 - 141	02/11/25 22:35	02/13/25 23:59	500
Toluene-d8 (Surr)	115	cn	52 - 141	02/11/25 22:35	02/13/25 23:59	500

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	28		0.22	0.083	mg/Kg	✱	02/16/25 21:00	02/17/25 18:00	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	13.3	!	1.0	1.0	%	-		02/07/25 13:03	1



# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

Client Sample ID: PE-8

Lab Sample ID: 410-206485-8

Date Collected: 02/04/25 08:55

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 86.6

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	cn	300	24	ug/Kg	✱	02/07/25 16:46	02/13/25 22:37	50
1,2-Dichloroethane	ND	cn	300	36	ug/Kg	✱	02/07/25 16:46	02/13/25 22:37	50
1,3,5-Trimethylbenzene	ND	cn	300	30	ug/Kg	✱	02/07/25 16:46	02/13/25 22:37	50
Toluene	ND	cn	300	36	ug/Kg	✱	02/07/25 16:46	02/13/25 22:37	50
Xylenes, Total	ND	cn	300	83	ug/Kg	✱	02/07/25 16:46	02/13/25 22:37	50
Methyl tertiary butyl ether	ND	cn	300	36	ug/Kg	✱	02/07/25 16:46	02/13/25 22:37	50
Benzene	ND	cn	300	30	ug/Kg	✱	02/07/25 16:46	02/13/25 22:37	50
Naphthalene	ND	cn	300	120	ug/Kg	✱	02/07/25 16:46	02/13/25 22:37	50
1,2,4-Trimethylbenzene	ND	cn	300	36	ug/Kg	✱	02/07/25 16:46	02/13/25 22:37	50
Isopropylbenzene	ND	cn	300	36	ug/Kg	✱	02/07/25 16:46	02/13/25 22:37	50
1,2-Dibromoethane	ND	cn	300	36	ug/Kg	✱	02/07/25 16:46	02/13/25 22:37	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94	cn	54 - 135	02/07/25 16:46	02/13/25 22:37	50
4-Bromofluorobenzene (Surr)	89	^c cn	50 - 131	02/07/25 16:46	02/13/25 22:37	50
Dibromofluoromethane (Surr)	93	cn	50 - 141	02/07/25 16:46	02/13/25 22:37	50
Toluene-d8 (Surr)	89	cn	52 - 141	02/07/25 16:46	02/13/25 22:37	50

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	20		0.21	0.081	mg/Kg	✱	02/13/25 22:00	02/17/25 22:45	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	13.4	!	1.0	1.0	%	—		02/07/25 13:03	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

Client Sample ID: Trip Blank

Lab Sample ID: 410-206485-9

Date Collected: 02/03/25 00:00

Matrix: Water

Date Received: 02/04/25 18:38

## Method: SW846 8260D/UST - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.30	ug/L			02/12/25 12:48	1
Ethylbenzene	ND		1.0	0.40	ug/L			02/12/25 12:48	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			02/12/25 12:48	1
Toluene	ND		1.0	0.30	ug/L			02/12/25 12:48	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			02/12/25 12:48	1
Xylenes, Total	ND		6.0	0.40	ug/L			02/12/25 12:48	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			02/12/25 12:48	1
Benzene	ND		1.0	0.30	ug/L			02/12/25 12:48	1
Naphthalene	ND		5.0	1.0	ug/L			02/12/25 12:48	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			02/12/25 12:48	1
Isopropylbenzene	ND		5.0	0.30	ug/L			02/12/25 12:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120					02/12/25 12:48	1
4-Bromofluorobenzene (Surr)	93		80 - 120					02/12/25 12:48	1
Dibromofluoromethane (Surr)	107		80 - 120					02/12/25 12:48	1
Toluene-d8 (Surr)	97		80 - 120					02/12/25 12:48	1

# Surrogate Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-206485-1	PE-1	81 cn	263 ^c S1+ cn	79 cn	112 cn
410-206485-2	PE-2	113	94	110	90
410-206485-3	PE-3	93 cn	89 ^c cn	93 cn	90 cn
410-206485-4	PE-4	92 cn	87 ^c cn	87 cn	85 cn
410-206485-5	PE-5	95 cn	90 ^c cn	95 cn	92 cn
410-206485-6	PE-6	98 cn	91 ^c cn	98 cn	93 cn
410-206485-7	PE-7	97 cn	213 ^c S1+ cn	90 cn	115 cn
410-206485-8	PE-8	94 cn	89 ^c cn	93 cn	89 cn
LCS 410-604127/5	Lab Control Sample	112	94	109	94
LCS 410-605912/6	Lab Control Sample	103	95	103	96
LCSD 410-604127/6	Lab Control Sample Dup	110	93	108	92
LCSD 410-605912/8	Lab Control Sample Dup	104	97	102	96
MB 410-604127/7	Method Blank	110	90	108	90
MB 410-605912/7	Method Blank	102	90	97	94

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260D/UST - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-206485-9	Trip Blank	99	93	107	97
LCS 410-605184/4	Lab Control Sample	101	95	105	96
LCSD 410-605184/5	Lab Control Sample Dup	99	95	104	96
MB 410-605184/6	Method Blank	99	93	105	96

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-604127/7

Matrix: Solid

Analysis Batch: 604127

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	1.0	ug/Kg			02/10/25 13:14	1
1,2-Dichloroethane	ND		5.0	0.60	ug/Kg			02/10/25 13:14	1
1,3,5-Trimethylbenzene	ND		5.0	1.5	ug/Kg			02/10/25 13:14	1
Toluene	ND		5.0	1.0	ug/Kg			02/10/25 13:14	1
Xylenes, Total	ND		10	0.70	ug/Kg			02/10/25 13:14	1
Methyl tertiary butyl ether	ND		5.0	0.80	ug/Kg			02/10/25 13:14	1
Benzene	ND		5.0	0.80	ug/Kg			02/10/25 13:14	1
Naphthalene	ND		5.0	2.0	ug/Kg			02/10/25 13:14	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/Kg			02/10/25 13:14	1
Isopropylbenzene	ND		5.0	1.5	ug/Kg			02/10/25 13:14	1
1,2-Dibromoethane	ND		5.0	0.70	ug/Kg			02/10/25 13:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		54 - 135		02/10/25 13:14	1
4-Bromofluorobenzene (Surr)	90		50 - 131		02/10/25 13:14	1
Dibromofluoromethane (Surr)	108		50 - 141		02/10/25 13:14	1
Toluene-d8 (Surr)	90		52 - 141		02/10/25 13:14	1

Lab Sample ID: LCS 410-604127/5

Matrix: Solid

Analysis Batch: 604127

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	20.0	16.4		ug/Kg		82	72 - 118
1,2-Dichloroethane	20.0	18.3		ug/Kg		92	72 - 124
1,3,5-Trimethylbenzene	20.0	16.2		ug/Kg		81	73 - 120
Toluene	20.0	16.3		ug/Kg		81	71 - 120
Xylenes, Total	60.0	49.9		ug/Kg		83	75 - 120
Methyl tertiary butyl ether	20.0	17.3		ug/Kg		86	63 - 120
Benzene	20.0	17.2		ug/Kg		86	80 - 120
Naphthalene	20.0	17.5		ug/Kg		88	48 - 130
1,2,4-Trimethylbenzene	20.0	15.9		ug/Kg		79	73 - 120
Isopropylbenzene	20.0	18.0		ug/Kg		90	77 - 120
1,2-Dibromoethane	20.0	18.6		ug/Kg		93	76 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		54 - 135
4-Bromofluorobenzene (Surr)	94		50 - 131
Dibromofluoromethane (Surr)	109		50 - 141
Toluene-d8 (Surr)	94		52 - 141

Lab Sample ID: LCSD 410-604127/6

Matrix: Solid

Analysis Batch: 604127

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylbenzene	20.0	18.2		ug/Kg		91	72 - 118	10	30
1,2-Dichloroethane	20.0	20.7		ug/Kg		104	72 - 124	12	30

Eurofins Lancaster Laboratories Environment Testing, LLC

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-604127/6

Matrix: Solid

Analysis Batch: 604127

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	20.0	17.6		ug/Kg		88	73 - 120	8	30
Toluene	20.0	18.1		ug/Kg		91	71 - 120	11	30
Xylenes, Total	60.0	55.9		ug/Kg		93	75 - 120	11	30
Methyl tertiary butyl ether	20.0	19.3		ug/Kg		96	63 - 120	11	30
Benzene	20.0	19.4		ug/Kg		97	80 - 120	12	30
Naphthalene	20.0	18.8		ug/Kg		94	48 - 130	7	30
1,2,4-Trimethylbenzene	20.0	17.1		ug/Kg		86	73 - 120	8	30
Isopropylbenzene	20.0	19.8		ug/Kg		99	77 - 120	10	30
1,2-Dibromoethane	20.0	20.0		ug/Kg		100	76 - 120	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		54 - 135
4-Bromofluorobenzene (Surr)	93		50 - 131
Dibromofluoromethane (Surr)	108		50 - 141
Toluene-d8 (Surr)	92		52 - 141

Lab Sample ID: MB 410-605912/7

Matrix: Solid

Analysis Batch: 605912

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		250	20	ug/Kg			02/13/25 20:12	50
1,2-Dichloroethane	ND		250	30	ug/Kg			02/13/25 20:12	50
1,3,5-Trimethylbenzene	ND		250	25	ug/Kg			02/13/25 20:12	50
Toluene	ND		250	30	ug/Kg			02/13/25 20:12	50
Xylenes, Total	ND		250	70	ug/Kg			02/13/25 20:12	50
Methyl tertiary butyl ether	ND		250	30	ug/Kg			02/13/25 20:12	50
Benzene	ND		250	25	ug/Kg			02/13/25 20:12	50
Naphthalene	ND		250	100	ug/Kg			02/13/25 20:12	50
1,2,4-Trimethylbenzene	ND		250	30	ug/Kg			02/13/25 20:12	50
Isopropylbenzene	ND		250	30	ug/Kg			02/13/25 20:12	50
1,2-Dibromoethane	ND		250	30	ug/Kg			02/13/25 20:12	50

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		54 - 135		02/13/25 20:12	50
4-Bromofluorobenzene (Surr)	90		50 - 131		02/13/25 20:12	50
Dibromofluoromethane (Surr)	97		50 - 141		02/13/25 20:12	50
Toluene-d8 (Surr)	94		52 - 141		02/13/25 20:12	50

Lab Sample ID: LCS 410-605912/6

Matrix: Solid

Analysis Batch: 605912

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	1000	944		ug/Kg		94	72 - 118
1,2-Dichloroethane	1000	1010		ug/Kg		101	72 - 124
1,3,5-Trimethylbenzene	1000	929		ug/Kg		93	73 - 120
Toluene	1000	961		ug/Kg		96	71 - 120

Eurofins Lancaster Laboratories Environment Testing, LLC

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-605912/6

Matrix: Solid

Analysis Batch: 605912

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Xylenes, Total	3000	2890		ug/Kg		96	75 - 120
Methyl tertiary butyl ether	1000	921		ug/Kg		92	63 - 120
Benzene	1000	971		ug/Kg		97	80 - 120
Naphthalene	1000	898		ug/Kg		90	68 - 130
1,2,4-Trimethylbenzene	1000	905		ug/Kg		90	68 - 120
Isopropylbenzene	1000	1090		ug/Kg		109	77 - 120
1,2-Dibromoethane	1000	945		ug/Kg		94	76 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		54 - 135
4-Bromofluorobenzene (Surr)	95		50 - 131
Dibromofluoromethane (Surr)	103		50 - 141
Toluene-d8 (Surr)	96		52 - 141

Lab Sample ID: LCSD 410-605912/8

Matrix: Solid

Analysis Batch: 605912

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylbenzene	1000	939		ug/Kg		94	72 - 118	1	30
1,2-Dichloroethane	1000	1000		ug/Kg		100	72 - 124	1	30
1,3,5-Trimethylbenzene	1000	934		ug/Kg		93	73 - 120	0	30
Toluene	1000	953		ug/Kg		95	71 - 120	1	30
Xylenes, Total	3000	2900		ug/Kg		97	75 - 120	0	30
Methyl tertiary butyl ether	1000	931		ug/Kg		93	63 - 120	1	30
Benzene	1000	955		ug/Kg		95	80 - 120	2	30
Naphthalene	1000	926		ug/Kg		93	68 - 130	3	30
1,2,4-Trimethylbenzene	1000	921		ug/Kg		92	68 - 120	2	30
Isopropylbenzene	1000	1070		ug/Kg		107	77 - 120	1	30
1,2-Dibromoethane	1000	958		ug/Kg		96	76 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		54 - 135
4-Bromofluorobenzene (Surr)	97		50 - 131
Dibromofluoromethane (Surr)	102		50 - 141
Toluene-d8 (Surr)	96		52 - 141

## Method: 8260D/UST - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-605184/6

Matrix: Water

Analysis Batch: 605184

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.30	ug/L			02/12/25 12:24	1
Ethylbenzene	ND		1.0	0.40	ug/L			02/12/25 12:24	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			02/12/25 12:24	1
Toluene	ND		1.0	0.30	ug/L			02/12/25 12:24	1

Eurofins Lancaster Laboratories Environment Testing, LLC

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

## Method: 8260D/UST - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-605184/6

Matrix: Water

Analysis Batch: 605184

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			02/12/25 12:24	1
Xylenes, Total	ND		6.0	0.40	ug/L			02/12/25 12:24	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			02/12/25 12:24	1
Benzene	ND		1.0	0.30	ug/L			02/12/25 12:24	1
Naphthalene	ND		5.0	1.0	ug/L			02/12/25 12:24	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			02/12/25 12:24	1
Isopropylbenzene	ND		5.0	0.30	ug/L			02/12/25 12:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		02/12/25 12:24	1
4-Bromofluorobenzene (Surr)	93		80 - 120		02/12/25 12:24	1
Dibromofluoromethane (Surr)	105		80 - 120		02/12/25 12:24	1
Toluene-d8 (Surr)	96		80 - 120		02/12/25 12:24	1

Lab Sample ID: LCS 410-605184/4

Matrix: Water

Analysis Batch: 605184

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane	20.0	18.0		ug/L		90	77 - 120
Ethylbenzene	20.0	19.9		ug/L		99	80 - 120
1,2-Dichloroethane	20.0	19.8		ug/L		99	73 - 124
Toluene	20.0	19.5		ug/L		97	80 - 120
1,3,5-Trimethylbenzene	20.0	18.8		ug/L		94	75 - 120
Xylenes, Total	60.0	61.0		ug/L		102	80 - 120
Methyl tertiary butyl ether	20.0	19.7		ug/L		98	69 - 122
Benzene	20.0	20.1		ug/L		101	80 - 120
Naphthalene	20.0	17.3		ug/L		87	53 - 124
1,2,4-Trimethylbenzene	20.0	19.0		ug/L		95	75 - 120
Isopropylbenzene	20.0	20.6		ug/L		103	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	95		80 - 120
Dibromofluoromethane (Surr)	105		80 - 120
Toluene-d8 (Surr)	96		80 - 120

Lab Sample ID: LCSD 410-605184/5

Matrix: Water

Analysis Batch: 605184

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane	20.0	19.3		ug/L		97	77 - 120	7	30
Ethylbenzene	20.0	21.2		ug/L		106	80 - 120	6	30
1,2-Dichloroethane	20.0	20.8		ug/L		104	73 - 124	5	30
Toluene	20.0	21.1		ug/L		106	80 - 120	8	30
1,3,5-Trimethylbenzene	20.0	20.3		ug/L		102	75 - 120	8	30
Xylenes, Total	60.0	65.6		ug/L		109	80 - 120	7	30

Eurofins Lancaster Laboratories Environment Testing, LLC

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

## Method: 8260D/UST - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-605184/5

Matrix: Water

Analysis Batch: 605184

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methyl tertiary butyl ether	20.0	19.6		ug/L		98	69 - 122	0	30
Benzene	20.0	21.4		ug/L		107	80 - 120	6	30
Naphthalene	20.0	17.1		ug/L		85	53 - 124	1	30
1,2,4-Trimethylbenzene	20.0	20.5		ug/L		103	75 - 120	7	30
Isopropylbenzene	20.0	22.0		ug/L		110	80 - 120	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	95		80 - 120
Dibromofluoromethane (Surr)	104		80 - 120
Toluene-d8 (Surr)	96		80 - 120

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-605050/1-A ^2

Matrix: Solid

Analysis Batch: 607805

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 605050

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.20	0.076	mg/Kg		02/13/25 22:00	02/19/25 09:01	2

Lab Sample ID: LCS 410-605050/2-A ^2

Matrix: Solid

Analysis Batch: 607805

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 605050

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	5.00	5.53		mg/Kg		111	88 - 117

Lab Sample ID: MB 410-605051/1-A ^2

Matrix: Solid

Analysis Batch: 606990

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 605051

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.20	0.076	mg/Kg		02/13/25 22:00	02/17/25 20:36	2

Lab Sample ID: LCS 410-605051/2-A ^2

Matrix: Solid

Analysis Batch: 606990

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 605051

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	5.00	5.36		mg/Kg		107	88 - 117

Lab Sample ID: MB 410-606428/1-A ^2

Matrix: Solid

Analysis Batch: 606990

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 606428

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.20	0.076	mg/Kg		02/16/25 21:00	02/17/25 15:46	2



QC Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-606428/2-A ^2				Client Sample ID: Lab Control Sample			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 606990				Prep Batch: 606428			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	5.00	5.18		mg/Kg		104	88 - 117

# QC Association Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

## GC/MS VOA

### Prep Batch: 603750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-206485-2	PE-2	Total/NA	Solid	5035	

### Prep Batch: 603754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-206485-1	PE-1	Total/NA	Solid	5035	
410-206485-3	PE-3	Total/NA	Solid	5035	
410-206485-4	PE-4	Total/NA	Solid	5035	
410-206485-5	PE-5	Total/NA	Solid	5035	
410-206485-6	PE-6	Total/NA	Solid	5035	
410-206485-8	PE-8	Total/NA	Solid	5035	

### Analysis Batch: 604127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-206485-2	PE-2	Total/NA	Solid	8260D	603750
MB 410-604127/7	Method Blank	Total/NA	Solid	8260D	
LCS 410-604127/5	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 410-604127/6	Lab Control Sample Dup	Total/NA	Solid	8260D	

### Prep Batch: 605024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-206485-7	PE-7	Total/NA	Solid	5030C	

### Analysis Batch: 605184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-206485-9	Trip Blank	Total/NA	Water	8260D/UST	
MB 410-605184/6	Method Blank	Total/NA	Water	8260D/UST	
LCS 410-605184/4	Lab Control Sample	Total/NA	Water	8260D/UST	
LCSD 410-605184/5	Lab Control Sample Dup	Total/NA	Water	8260D/UST	

### Analysis Batch: 605912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-206485-1	PE-1	Total/NA	Solid	8260D	603754
410-206485-3	PE-3	Total/NA	Solid	8260D	603754
410-206485-4	PE-4	Total/NA	Solid	8260D	603754
410-206485-5	PE-5	Total/NA	Solid	8260D	603754
410-206485-6	PE-6	Total/NA	Solid	8260D	603754
410-206485-7	PE-7	Total/NA	Solid	8260D	605024
410-206485-8	PE-8	Total/NA	Solid	8260D	603754
MB 410-605912/7	Method Blank	Total/NA	Solid	8260D	
LCS 410-605912/6	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 410-605912/8	Lab Control Sample Dup	Total/NA	Solid	8260D	

## Metals

### Prep Batch: 605050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-206485-2	PE-2	Total/NA	Solid	3050B	
MB 410-605050/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCS 410-605050/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	

# QC Association Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

## Metals

### Prep Batch: 605051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-206485-1	PE-1	Total/NA	Solid	3050B	
410-206485-3	PE-3	Total/NA	Solid	3050B	
410-206485-4	PE-4	Total/NA	Solid	3050B	
410-206485-5	PE-5	Total/NA	Solid	3050B	
410-206485-6	PE-6	Total/NA	Solid	3050B	
410-206485-8	PE-8	Total/NA	Solid	3050B	
MB 410-605051/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCS 410-605051/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	

### Prep Batch: 606428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-206485-7	PE-7	Total/NA	Solid	3050B	
MB 410-606428/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCS 410-606428/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 606990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-206485-1	PE-1	Total/NA	Solid	6020B	605051
410-206485-3	PE-3	Total/NA	Solid	6020B	605051
410-206485-4	PE-4	Total/NA	Solid	6020B	605051
410-206485-5	PE-5	Total/NA	Solid	6020B	605051
410-206485-6	PE-6	Total/NA	Solid	6020B	605051
410-206485-7	PE-7	Total/NA	Solid	6020B	606428
410-206485-8	PE-8	Total/NA	Solid	6020B	605051
MB 410-605051/1-A ^2	Method Blank	Total/NA	Solid	6020B	605051
MB 410-606428/1-A ^2	Method Blank	Total/NA	Solid	6020B	606428
LCS 410-605051/2-A ^2	Lab Control Sample	Total/NA	Solid	6020B	605051
LCS 410-606428/2-A ^2	Lab Control Sample	Total/NA	Solid	6020B	606428

### Analysis Batch: 607805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-206485-2	PE-2	Total/NA	Solid	6020B	605050
MB 410-605050/1-A ^2	Method Blank	Total/NA	Solid	6020B	605050
LCS 410-605050/2-A ^2	Lab Control Sample	Total/NA	Solid	6020B	605050

## General Chemistry

### Analysis Batch: 603678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-206485-1	PE-1	Total/NA	Solid	Moisture	
410-206485-2	PE-2	Total/NA	Solid	Moisture	
410-206485-3	PE-3	Total/NA	Solid	Moisture	
410-206485-4	PE-4	Total/NA	Solid	Moisture	
410-206485-5	PE-5	Total/NA	Solid	Moisture	
410-206485-6	PE-6	Total/NA	Solid	Moisture	
410-206485-7	PE-7	Total/NA	Solid	Moisture	
410-206485-8	PE-8	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

**Client Sample ID: PE-1**

**Lab Sample ID: 410-206485-1**

Date Collected: 02/04/25 08:15

Matrix: Solid

Date Received: 02/04/25 18:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	603678	X4C8	ELLE	02/07/25 13:03

**Client Sample ID: PE-1**

**Lab Sample ID: 410-206485-1**

Date Collected: 02/04/25 08:15

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			603754	F2QS	ELLE	02/07/25 16:03
Total/NA	Analysis	8260D		1000	605912	S8BP	ELLE	02/14/25 00:20
Total/NA	Prep	3050B			605051	UAMX	ELLE	02/13/25 22:00
Total/NA	Analysis	6020B		2	606990	LHF4	ELLE	02/17/25 22:37

**Client Sample ID: PE-2**

**Lab Sample ID: 410-206485-2**

Date Collected: 02/04/25 08:25

Matrix: Solid

Date Received: 02/04/25 18:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	603678	X4C8	ELLE	02/07/25 13:03

**Client Sample ID: PE-2**

**Lab Sample ID: 410-206485-2**

Date Collected: 02/04/25 08:25

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 84.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			603750	F2QS	ELLE	02/07/25 15:36
Total/NA	Analysis	8260D		1	604127	DVW2	ELLE	02/10/25 19:03
Total/NA	Prep	3050B			605050	UAMX	ELLE	02/13/25 22:00
Total/NA	Analysis	6020B		2	607805	F7JF	ELLE	02/19/25 09:38

**Client Sample ID: PE-3**

**Lab Sample ID: 410-206485-3**

Date Collected: 02/04/25 08:30

Matrix: Solid

Date Received: 02/04/25 18:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	603678	X4C8	ELLE	02/07/25 13:03

**Client Sample ID: PE-3**

**Lab Sample ID: 410-206485-3**

Date Collected: 02/04/25 08:30

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 81.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			603754	F2QS	ELLE	02/07/25 16:03
Total/NA	Analysis	8260D		50	605912	S8BP	ELLE	02/13/25 22:57
Total/NA	Prep	3050B			605051	UAMX	ELLE	02/13/25 22:00
Total/NA	Analysis	6020B		2	606990	LHF4	ELLE	02/17/25 23:06

# Lab Chronicle

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

**Client Sample ID: PE-4**

**Lab Sample ID: 410-206485-4**

Date Collected: 02/04/25 08:35

Matrix: Solid

Date Received: 02/04/25 18:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	603678	X4C8	ELLE	02/07/25 13:03

**Client Sample ID: PE-4**

**Lab Sample ID: 410-206485-4**

Date Collected: 02/04/25 08:35

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			603754	F2QS	ELLE	02/07/25 16:46
Total/NA	Analysis	8260D		500	605912	S8BP	ELLE	02/13/25 23:39
Total/NA	Prep	3050B			605051	UAMX	ELLE	02/13/25 22:00
Total/NA	Analysis	6020B		2	606990	LHF4	ELLE	02/17/25 23:02

**Client Sample ID: PE-5**

**Lab Sample ID: 410-206485-5**

Date Collected: 02/04/25 08:40

Matrix: Solid

Date Received: 02/04/25 18:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	603678	X4C8	ELLE	02/07/25 13:03

**Client Sample ID: PE-5**

**Lab Sample ID: 410-206485-5**

Date Collected: 02/04/25 08:40

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			603754	F2QS	ELLE	02/07/25 16:46
Total/NA	Analysis	8260D		50	605912	S8BP	ELLE	02/13/25 23:18
Total/NA	Prep	3050B			605051	UAMX	ELLE	02/13/25 22:00
Total/NA	Analysis	6020B		2	606990	LHF4	ELLE	02/17/25 22:41

**Client Sample ID: PE-6**

**Lab Sample ID: 410-206485-6**

Date Collected: 02/04/25 08:45

Matrix: Solid

Date Received: 02/04/25 18:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	603678	X4C8	ELLE	02/07/25 13:03

**Client Sample ID: PE-6**

**Lab Sample ID: 410-206485-6**

Date Collected: 02/04/25 08:45

Matrix: Solid

Date Received: 02/04/25 18:38

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			603754	F2QS	ELLE	02/07/25 16:46
Total/NA	Analysis	8260D		50	605912	S8BP	ELLE	02/13/25 22:16
Total/NA	Prep	3050B			605051	UAMX	ELLE	02/13/25 22:00
Total/NA	Analysis	6020B		2	606990	LHF4	ELLE	02/17/25 22:49

# Lab Chronicle

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

## Client Sample ID: PE-7

Date Collected: 02/04/25 08:50

Date Received: 02/04/25 18:38

## Lab Sample ID: 410-206485-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	603678	X4C8	ELLE	02/07/25 13:03

## Client Sample ID: PE-7

Date Collected: 02/04/25 08:50

Date Received: 02/04/25 18:38

## Lab Sample ID: 410-206485-7

Matrix: Solid

Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			605024	UK3O	ELLE	02/11/25 22:35
Total/NA	Analysis	8260D		500	605912	S8BP	ELLE	02/13/25 23:59
Total/NA	Prep	3050B			606428	UAMX	ELLE	02/16/25 21:00
Total/NA	Analysis	6020B		2	606990	LHF4	ELLE	02/17/25 18:00

## Client Sample ID: PE-8

Date Collected: 02/04/25 08:55

Date Received: 02/04/25 18:38

## Lab Sample ID: 410-206485-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	603678	X4C8	ELLE	02/07/25 13:03

## Client Sample ID: PE-8

Date Collected: 02/04/25 08:55

Date Received: 02/04/25 18:38

## Lab Sample ID: 410-206485-8

Matrix: Solid

Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			603754	F2QS	ELLE	02/07/25 16:46
Total/NA	Analysis	8260D		50	605912	S8BP	ELLE	02/13/25 22:37
Total/NA	Prep	3050B			605051	UAMX	ELLE	02/13/25 22:00
Total/NA	Analysis	6020B		2	606990	LHF4	ELLE	02/17/25 22:45

## Client Sample ID: Trip Blank

Date Collected: 02/03/25 00:00

Date Received: 02/04/25 18:38

## Lab Sample ID: 410-206485-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D/UST		1	605184	P5AM	ELLE	02/12/25 12:48

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

### Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-26

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture

## Method Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	ELLE
8260D/UST	Volatile Organic Compounds by GC/MS	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



## Sample Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-206485-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-206485-1	PE-1	Solid	02/04/25 08:15	02/04/25 18:38
410-206485-2	PE-2	Solid	02/04/25 08:25	02/04/25 18:38
410-206485-3	PE-3	Solid	02/04/25 08:30	02/04/25 18:38
410-206485-4	PE-4	Solid	02/04/25 08:35	02/04/25 18:38
410-206485-5	PE-5	Solid	02/04/25 08:40	02/04/25 18:38
410-206485-6	PE-6	Solid	02/04/25 08:45	02/04/25 18:38
410-206485-7	PE-7	Solid	02/04/25 08:50	02/04/25 18:38
410-206485-8	PE-8	Solid	02/04/25 08:55	02/04/25 18:38
410-206485-9	Trip Blank	Water	02/03/25 00:00	02/04/25 18:38



410-206485 Chain of Custody

Page 1 of 1

Sunoco DUNS #:

N/A - Sun Pipeline / Logistics

Region:

State or Lead Regulatory Agency:

PADEP - Southeast Region

Requested Due Date (mm/dd/yy):

2 DAY TAT

COC Tracking Number:

On-site Time: Temp: 0.0  
 Off-site Time: Temp: 0.0  
 Sky Condition:  
 Meteorological:  
 Wind Speed: 0.0 Direction:

Lab Name: Lancaster Laboratories				Facility Addr: Washington Crossing				Consultant/C: GES, Inc.			
Address: 2425 New Holland Pike				Facility City: Washington Crossing PA				Addr: 410 Eagleview Blvd, Suite 110			
Lancaster, PA 17605				Site Lat/Long: 0.0 0.0				Exton, PA 19341			
Lab PM: Amek Carter				Sunoco PM Con: Brad Fish				Consultant/Contractor: 0225040-06-209			
Tele/Fax: (717) 656-2308 x 1501/(717) 656-6766				Address: 100 Green Street				Consultant/Contractor: Stephanie Grillo			
E-mail EDD To: No EOEDD needed				Marcus Hook, PA				Tele/Fax: (610) 458-1077 x 3064 / (610) 458-2300			
E-mail Report To: sgrillo@gesonline.com, gesinbox@gesonline.com				Tele/F: 610-212-6972				Invoic: ges-invoices@gesonline.com			
State where samples were collected: PA; For Compliance: No											

Report Type & QC Level:				Sample Type	Matrix		Preservative	Requested Analysis				Sample Point Lat/Long and Comments	
Item No.	Sample Description	Time	Date	G - Grab C - Composite	Soil Drinking Water Groundwater	Laboratory No.	No. of Containers	McOH/NAHISO4	None	EPA Method 8260D (PAUGL) - BTEX, MTBE, Cumene, Naphthalene, 1,2,4- TMB, 1,3,5-TMB, 1,2-Dichloroethane	Mastur		60208 - Lead
1	PE-1	0815	2/4/25	G	X	X	5	X	X	X	X	X	Standard
2	PE-2	0825	2/4/25	G	X	X	5	X	X	X	X	X	
3	PE-3	0830	2/4/25	G	X	X	5	X	X	X	X	X	
4	PE-4	0835	2/4/25	G	X	X	5	X	X	X	X	X	
5	PE-5	0840	2/4/25	G	X	X	5	X	X	X	X	X	
6	PE-6	0845	2/4/25	G	X	X	5	X	X	X	X	X	
7	PE-7	0850	2/4/25	G	X	X	5	X	X	X	X	X	
8	PE-8	0855	2/4/25	G	X	X	5	X	X	X	X	X	
9	Trip Blank		2/3/25	G	X		2	X	X	X			
10				G	X		4	X	X	X			

Sampler's Name: Jason Crane		Relinquished By / Affiliation		Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Comp: GES, Inc.		Jason Crane		2/4/25	1600	Attilio M. GES	2/4/25	1600
Shipment Date:		Attilio M. / GES		2/4/25	1838			
Shipment Metho: Laboratory Courier							2/4/25	1838
Shipment Track:								
Special Instruct: 2 DAY TAT		Standard TAT						

Custody Seals In Place Yes	No	Temp Blank Yes	No	Cooler Temperature on Receipt	OF/C
				12 : 2.1	C: 2.0

## Login Sample Receipt Checklist

Client: Groundwater & Environmental Services Inc

Job Number: 410-206485-1

Login Number: 206485

List Number: 1

Creator: Arroyo, Haley

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Ms. Stephanie R Grillo  
Groundwater & Environmental Services Inc  
410 Eagleview Blvd., Suite 110  
Exton, Pennsylvania 19341-2577

Generated 2/24/2025 10:28:59 AM

## JOB DESCRIPTION

SPLP - Washington Crossing

## JOB NUMBER

410-207370-1

# Eurofins Lancaster Laboratories Environment Testing, LLC

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Authorized for release by  
Amek Carter, Project Manager  
[Loran.Carter@et.eurofinsus.com](mailto:Loran.Carter@et.eurofinsus.com)  
(717)556-7252

Generated  
2/24/2025 10:28:59 AM

## Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
  - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
  - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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## Definitions/Glossary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.

#### General Chemistry

Qualifier	Qualifier Description
!	Laboratory is not accredited for this parameter.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
SQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



## Case Narrative

Client: Groundwater & Environmental Services Inc  
Project: SPLP - Washington Crossing

Job ID: 410-207370-1

**Job ID: 410-207370-1**

**Eurofins Lancaster Laboratories Environment**

### **Job Narrative 410-207370-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### **Receipt**

The samples were received on 2/11/2025 4:50 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.5°C and 1.3°C.

#### **GC/MS VOA**

Method 8260D: The following samples were diluted due to the nature of the sample matrix: PE-9 (410-207370-1), PE-10 (410-207370-2), PE-11 (410-207370-3), PE-12 (410-207370-4), PE-13 (410-207370-5), PE-14 (410-207370-6), PE-15 (410-207370-7) and PE-16 (410-207370-8). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### **Metals**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### **General Chemistry**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Detection Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

### Client Sample ID: PE-9

### Lab Sample ID: 410-207370-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	410	J cn	3200	260	ug/Kg	500	✱	8260D	Total/NA
1,3,5-Trimethylbenzene	2400	J cn	3200	320	ug/Kg	500	✱	8260D	Total/NA
Xylenes, Total	7800	cn	3200	910	ug/Kg	500	✱	8260D	Total/NA
1,2,4-Trimethylbenzene	4700	cn	3200	390	ug/Kg	500	✱	8260D	Total/NA
Lead	19	^2	0.21	0.079	mg/Kg	2	✱	6020B	Total/NA

### Client Sample ID: PE-10

### Lab Sample ID: 410-207370-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	520	J cn	2900	230	ug/Kg	500	✱	8260D	Total/NA
1,3,5-Trimethylbenzene	3100	cn	2900	290	ug/Kg	500	✱	8260D	Total/NA
Toluene	500	J cn	2900	350	ug/Kg	500	✱	8260D	Total/NA
Xylenes, Total	8900	cn	2900	810	ug/Kg	500	✱	8260D	Total/NA
1,2,4-Trimethylbenzene	5700	cn	2900	350	ug/Kg	500	✱	8260D	Total/NA
Lead	20	^2	0.22	0.085	mg/Kg	2	✱	6020B	Total/NA

### Client Sample ID: PE-11

### Lab Sample ID: 410-207370-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	390	J cn	3300	260	ug/Kg	500	✱	8260D	Total/NA
1,3,5-Trimethylbenzene	4800	cn	3300	330	ug/Kg	500	✱	8260D	Total/NA
Xylenes, Total	11000	cn	3300	910	ug/Kg	500	✱	8260D	Total/NA
1,2,4-Trimethylbenzene	8200	cn	3300	390	ug/Kg	500	✱	8260D	Total/NA
Lead	21	^2	0.21	0.082	mg/Kg	2	✱	6020B	Total/NA

### Client Sample ID: PE-12

### Lab Sample ID: 410-207370-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	1600	J cn	3100	310	ug/Kg	500	✱	8260D	Total/NA
Xylenes, Total	4600	cn	3100	860	ug/Kg	500	✱	8260D	Total/NA
1,2,4-Trimethylbenzene	3200	cn	3100	370	ug/Kg	500	✱	8260D	Total/NA
Lead	19	^2	0.22	0.083	mg/Kg	2	✱	6020B	Total/NA

### Client Sample ID: PE-13

### Lab Sample ID: 410-207370-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	780	J cn	3400	340	ug/Kg	500	✱	8260D	Total/NA
1,2,4-Trimethylbenzene	1500	J cn	3400	410	ug/Kg	500	✱	8260D	Total/NA
Lead	21	^2	0.23	0.088	mg/Kg	2	✱	6020B	Total/NA

### Client Sample ID: PE-14

### Lab Sample ID: 410-207370-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	750	J cn	3400	270	ug/Kg	500	✱	8260D	Total/NA
1,3,5-Trimethylbenzene	6200	cn	3400	340	ug/Kg	500	✱	8260D	Total/NA
Toluene	1300	J cn	3400	410	ug/Kg	500	✱	8260D	Total/NA
Xylenes, Total	14000	cn	3400	950	ug/Kg	500	✱	8260D	Total/NA
1,2,4-Trimethylbenzene	7400	cn	3400	410	ug/Kg	500	✱	8260D	Total/NA
Lead	24	^2	0.19	0.073	mg/Kg	2	✱	6020B	Total/NA

### Client Sample ID: PE-15

### Lab Sample ID: 410-207370-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	1100	J cn	3500	350	ug/Kg	500	✱	8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

## Detection Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

### Client Sample ID: PE-15 (Continued)

Lab Sample ID: 410-207370-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2300	J cn	3500	420	ug/Kg	500	✧	8260D	Total/NA
Lead	20	^2	0.17	0.063	mg/Kg	2	✧	6020B	Total/NA

### Client Sample ID: PE-16

Lab Sample ID: 410-207370-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	2400	J cn	3400	340	ug/Kg	500	✧	8260D	Total/NA
Xylenes, Total	3000	J cn	3400	950	ug/Kg	500	✧	8260D	Total/NA
1,2,4-Trimethylbenzene	3700	cn	3400	410	ug/Kg	500	✧	8260D	Total/NA
Lead	20	^2	0.21	0.080	mg/Kg	2	✧	6020B	Total/NA

### Client Sample ID: Trip Blank

Lab Sample ID: 410-207370-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

Client Sample ID: PE-9

Lab Sample ID: 410-207370-1

Date Collected: 02/11/25 09:45

Matrix: Solid

Date Received: 02/11/25 16:50

Percent Solids: 86.4

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	410	J cn	3200	260	ug/Kg	✱	02/17/25 14:20	02/21/25 05:49	500
1,2-Dichloroethane	ND	cn	3200	390	ug/Kg	✱	02/17/25 14:20	02/21/25 05:49	500
1,3,5-Trimethylbenzene	2400	J cn	3200	320	ug/Kg	✱	02/17/25 14:20	02/21/25 05:49	500
Toluene	ND	cn	3200	390	ug/Kg	✱	02/17/25 14:20	02/21/25 05:49	500
Xylenes, Total	7800	cn	3200	910	ug/Kg	✱	02/17/25 14:20	02/21/25 05:49	500
Methyl tertiary butyl ether	ND	cn	3200	390	ug/Kg	✱	02/17/25 14:20	02/21/25 05:49	500
Benzene	ND	cn	3200	320	ug/Kg	✱	02/17/25 14:20	02/21/25 05:49	500
Naphthalene	ND	cn	3200	1300	ug/Kg	✱	02/17/25 14:20	02/21/25 05:49	500
1,2,4-Trimethylbenzene	4700	cn	3200	390	ug/Kg	✱	02/17/25 14:20	02/21/25 05:49	500
Isopropylbenzene	ND	cn	3200	390	ug/Kg	✱	02/17/25 14:20	02/21/25 05:49	500
1,2-Dibromoethane	ND	cn	3200	390	ug/Kg	✱	02/17/25 14:20	02/21/25 05:49	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	74	cn	54 - 135	02/17/25 14:20	02/21/25 05:49	500
4-Bromofluorobenzene (Surr)	70	cn	50 - 131	02/17/25 14:20	02/21/25 05:49	500
Dibromofluoromethane (Surr)	76	cn	50 - 141	02/17/25 14:20	02/21/25 05:49	500
Toluene-d8 (Surr)	67	cn	52 - 141	02/17/25 14:20	02/21/25 05:49	500

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	19	^2	0.21	0.079	mg/Kg	✱	02/19/25 02:11	02/19/25 19:11	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	13.6	!	1.0	1.0	%	—		02/13/25 06:42	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

Client Sample ID: PE-10

Lab Sample ID: 410-207370-2

Date Collected: 02/11/25 09:50

Matrix: Solid

Date Received: 02/11/25 16:50

Percent Solids: 87.2

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	520	J cn	2900	230	ug/Kg	☼	02/17/25 14:20	02/21/25 06:11	500
1,2-Dichloroethane	ND	cn	2900	350	ug/Kg	☼	02/17/25 14:20	02/21/25 06:11	500
1,3,5-Trimethylbenzene	3100	cn	2900	290	ug/Kg	☼	02/17/25 14:20	02/21/25 06:11	500
Toluene	500	J cn	2900	350	ug/Kg	☼	02/17/25 14:20	02/21/25 06:11	500
Xylenes, Total	8900	cn	2900	810	ug/Kg	☼	02/17/25 14:20	02/21/25 06:11	500
Methyl tertiary butyl ether	ND	cn	2900	350	ug/Kg	☼	02/17/25 14:20	02/21/25 06:11	500
Benzene	ND	cn	2900	290	ug/Kg	☼	02/17/25 14:20	02/21/25 06:11	500
Naphthalene	ND	cn	2900	1200	ug/Kg	☼	02/17/25 14:20	02/21/25 06:11	500
1,2,4-Trimethylbenzene	5700	cn	2900	350	ug/Kg	☼	02/17/25 14:20	02/21/25 06:11	500
Isopropylbenzene	ND	cn	2900	350	ug/Kg	☼	02/17/25 14:20	02/21/25 06:11	500
1,2-Dibromoethane	ND	cn	2900	350	ug/Kg	☼	02/17/25 14:20	02/21/25 06:11	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	71	cn	54 - 135	02/17/25 14:20	02/21/25 06:11	500
4-Bromofluorobenzene (Surr)	69	cn	50 - 131	02/17/25 14:20	02/21/25 06:11	500
Dibromofluoromethane (Surr)	73	cn	50 - 141	02/17/25 14:20	02/21/25 06:11	500
Toluene-d8 (Surr)	71	cn	52 - 141	02/17/25 14:20	02/21/25 06:11	500

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	20	^2	0.22	0.085	mg/Kg	☼	02/19/25 02:11	02/19/25 19:39	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	12.8	!	1.0	1.0	%	—		02/13/25 06:42	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

Client Sample ID: PE-11

Lab Sample ID: 410-207370-3

Date Collected: 02/11/25 09:55

Matrix: Solid

Date Received: 02/11/25 16:50

Percent Solids: 86.3

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	390	J cn	3300	260	ug/Kg	✱	02/17/25 14:20	02/21/25 06:33	500
1,2-Dichloroethane	ND	cn	3300	390	ug/Kg	✱	02/17/25 14:20	02/21/25 06:33	500
1,3,5-Trimethylbenzene	4800	cn	3300	330	ug/Kg	✱	02/17/25 14:20	02/21/25 06:33	500
Toluene	ND	cn	3300	390	ug/Kg	✱	02/17/25 14:20	02/21/25 06:33	500
Xylenes, Total	11000	cn	3300	910	ug/Kg	✱	02/17/25 14:20	02/21/25 06:33	500
Methyl tertiary butyl ether	ND	cn	3300	390	ug/Kg	✱	02/17/25 14:20	02/21/25 06:33	500
Benzene	ND	cn	3300	330	ug/Kg	✱	02/17/25 14:20	02/21/25 06:33	500
Naphthalene	ND	cn	3300	1300	ug/Kg	✱	02/17/25 14:20	02/21/25 06:33	500
1,2,4-Trimethylbenzene	8200	cn	3300	390	ug/Kg	✱	02/17/25 14:20	02/21/25 06:33	500
Isopropylbenzene	ND	cn	3300	390	ug/Kg	✱	02/17/25 14:20	02/21/25 06:33	500
1,2-Dibromoethane	ND	cn	3300	390	ug/Kg	✱	02/17/25 14:20	02/21/25 06:33	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	64	cn	54 - 135	02/17/25 14:20	02/21/25 06:33	500
4-Bromofluorobenzene (Surr)	72	cn	50 - 131	02/17/25 14:20	02/21/25 06:33	500
Dibromofluoromethane (Surr)	78	cn	50 - 141	02/17/25 14:20	02/21/25 06:33	500
Toluene-d8 (Surr)	75	cn	52 - 141	02/17/25 14:20	02/21/25 06:33	500

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	21	^2	0.21	0.082	mg/Kg	✱	02/19/25 02:11	02/19/25 19:15	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	13.7	!	1.0	1.0	%	—		02/13/25 06:42	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

Client Sample ID: PE-12

Lab Sample ID: 410-207370-4

Date Collected: 02/11/25 10:00

Matrix: Solid

Date Received: 02/11/25 16:50

Percent Solids: 87.1

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	cn	3100	250	ug/Kg	✱	02/17/25 14:20	02/21/25 06:55	500
1,2-Dichloroethane	ND	cn	3100	370	ug/Kg	✱	02/17/25 14:20	02/21/25 06:55	500
<b>1,3,5-Trimethylbenzene</b>	<b>1600</b>	<b>J cn</b>	3100	310	ug/Kg	✱	02/17/25 14:20	02/21/25 06:55	500
Toluene	ND	cn	3100	370	ug/Kg	✱	02/17/25 14:20	02/21/25 06:55	500
<b>Xylenes, Total</b>	<b>4600</b>	<b>cn</b>	3100	860	ug/Kg	✱	02/17/25 14:20	02/21/25 06:55	500
Methyl tertiary butyl ether	ND	cn	3100	370	ug/Kg	✱	02/17/25 14:20	02/21/25 06:55	500
Benzene	ND	cn	3100	310	ug/Kg	✱	02/17/25 14:20	02/21/25 06:55	500
Naphthalene	ND	cn	3100	1200	ug/Kg	✱	02/17/25 14:20	02/21/25 06:55	500
<b>1,2,4-Trimethylbenzene</b>	<b>3200</b>	<b>cn</b>	3100	370	ug/Kg	✱	02/17/25 14:20	02/21/25 06:55	500
Isopropylbenzene	ND	cn	3100	370	ug/Kg	✱	02/17/25 14:20	02/21/25 06:55	500
1,2-Dibromoethane	ND	cn	3100	370	ug/Kg	✱	02/17/25 14:20	02/21/25 06:55	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	75	cn	54 - 135	02/17/25 14:20	02/21/25 06:55	500
4-Bromofluorobenzene (Surr)	78	cn	50 - 131	02/17/25 14:20	02/21/25 06:55	500
Dibromofluoromethane (Surr)	76	cn	50 - 141	02/17/25 14:20	02/21/25 06:55	500
Toluene-d8 (Surr)	73	cn	52 - 141	02/17/25 14:20	02/21/25 06:55	500

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>19</b>	<b>^2</b>	0.22	0.083	mg/Kg	✱	02/19/25 02:11	02/19/25 19:07	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Moisture (EPA Moisture)</b>	<b>12.9</b>	<b>!</b>	1.0	1.0	%	—		02/13/25 06:42	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

Client Sample ID: PE-13

Lab Sample ID: 410-207370-5

Date Collected: 02/11/25 10:05

Matrix: Solid

Date Received: 02/11/25 16:50

Percent Solids: 85.3

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	cn	3400	270	ug/Kg	☼	02/17/25 14:20	02/21/25 07:17	500
1,2-Dichloroethane	ND	cn	3400	410	ug/Kg	☼	02/17/25 14:20	02/21/25 07:17	500
<b>1,3,5-Trimethylbenzene</b>	<b>780</b>	<b>J cn</b>	3400	340	ug/Kg	☼	02/17/25 14:20	02/21/25 07:17	500
Toluene	ND	cn	3400	410	ug/Kg	☼	02/17/25 14:20	02/21/25 07:17	500
Xylenes, Total	ND	cn	3400	960	ug/Kg	☼	02/17/25 14:20	02/21/25 07:17	500
Methyl tertiary butyl ether	ND	cn	3400	410	ug/Kg	☼	02/17/25 14:20	02/21/25 07:17	500
Benzene	ND	cn	3400	340	ug/Kg	☼	02/17/25 14:20	02/21/25 07:17	500
Naphthalene	ND	cn	3400	1400	ug/Kg	☼	02/17/25 14:20	02/21/25 07:17	500
<b>1,2,4-Trimethylbenzene</b>	<b>1500</b>	<b>J cn</b>	3400	410	ug/Kg	☼	02/17/25 14:20	02/21/25 07:17	500
Isopropylbenzene	ND	cn	3400	410	ug/Kg	☼	02/17/25 14:20	02/21/25 07:17	500
1,2-Dibromoethane	ND	cn	3400	410	ug/Kg	☼	02/17/25 14:20	02/21/25 07:17	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	69	cn	54 - 135	02/17/25 14:20	02/21/25 07:17	500
4-Bromofluorobenzene (Surr)	68	cn	50 - 131	02/17/25 14:20	02/21/25 07:17	500
Dibromofluoromethane (Surr)	74	cn	50 - 141	02/17/25 14:20	02/21/25 07:17	500
Toluene-d8 (Surr)	67	cn	52 - 141	02/17/25 14:20	02/21/25 07:17	500

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>21</b>	<b>^2</b>	0.23	0.088	mg/Kg	☼	02/19/25 02:11	02/19/25 19:35	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Moisture (EPA Moisture)</b>	<b>14.7</b>	<b>!</b>	1.0	1.0	%	—		02/13/25 06:42	1



# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

Client Sample ID: PE-14

Lab Sample ID: 410-207370-6

Date Collected: 02/11/25 10:10

Matrix: Solid

Date Received: 02/11/25 16:50

Percent Solids: 81.8

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	750	J cn	3400	270	ug/Kg	☼	02/17/25 14:20	02/21/25 07:39	500
1,2-Dichloroethane	ND	cn	3400	410	ug/Kg	☼	02/17/25 14:20	02/21/25 07:39	500
1,3,5-Trimethylbenzene	6200	cn	3400	340	ug/Kg	☼	02/17/25 14:20	02/21/25 07:39	500
Toluene	1300	J cn	3400	410	ug/Kg	☼	02/17/25 14:20	02/21/25 07:39	500
Xylenes, Total	14000	cn	3400	950	ug/Kg	☼	02/17/25 14:20	02/21/25 07:39	500
Methyl tertiary butyl ether	ND	cn	3400	410	ug/Kg	☼	02/17/25 14:20	02/21/25 07:39	500
Benzene	ND	cn	3400	340	ug/Kg	☼	02/17/25 14:20	02/21/25 07:39	500
Naphthalene	ND	cn	3400	1400	ug/Kg	☼	02/17/25 14:20	02/21/25 07:39	500
1,2,4-Trimethylbenzene	7400	cn	3400	410	ug/Kg	☼	02/17/25 14:20	02/21/25 07:39	500
Isopropylbenzene	ND	cn	3400	410	ug/Kg	☼	02/17/25 14:20	02/21/25 07:39	500
1,2-Dibromoethane	ND	cn	3400	410	ug/Kg	☼	02/17/25 14:20	02/21/25 07:39	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77	cn	54 - 135	02/17/25 14:20	02/21/25 07:39	500
4-Bromofluorobenzene (Surr)	78	cn	50 - 131	02/17/25 14:20	02/21/25 07:39	500
Dibromofluoromethane (Surr)	84	cn	50 - 141	02/17/25 14:20	02/21/25 07:39	500
Toluene-d8 (Surr)	81	cn	52 - 141	02/17/25 14:20	02/21/25 07:39	500

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	24	^2	0.19	0.073	mg/Kg	☼	02/19/25 02:11	02/19/25 19:31	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	18.2	!	1.0	1.0	%	—		02/13/25 06:42	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

Client Sample ID: PE-15

Lab Sample ID: 410-207370-7

Date Collected: 02/11/25 10:15

Matrix: Solid

Date Received: 02/11/25 16:50

Percent Solids: 84.4

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	cn	3500	280	ug/Kg	☼	02/17/25 14:20	02/21/25 08:01	500
1,2-Dichloroethane	ND	cn	3500	420	ug/Kg	☼	02/17/25 14:20	02/21/25 08:01	500
<b>1,3,5-Trimethylbenzene</b>	<b>1100</b>	<b>J cn</b>	3500	350	ug/Kg	☼	02/17/25 14:20	02/21/25 08:01	500
Toluene	ND	cn	3500	420	ug/Kg	☼	02/17/25 14:20	02/21/25 08:01	500
Xylenes, Total	ND	cn	3500	980	ug/Kg	☼	02/17/25 14:20	02/21/25 08:01	500
Methyl tertiary butyl ether	ND	cn	3500	420	ug/Kg	☼	02/17/25 14:20	02/21/25 08:01	500
Benzene	ND	cn	3500	350	ug/Kg	☼	02/17/25 14:20	02/21/25 08:01	500
Naphthalene	ND	cn	3500	1400	ug/Kg	☼	02/17/25 14:20	02/21/25 08:01	500
<b>1,2,4-Trimethylbenzene</b>	<b>2300</b>	<b>J cn</b>	3500	420	ug/Kg	☼	02/17/25 14:20	02/21/25 08:01	500
Isopropylbenzene	ND	cn	3500	420	ug/Kg	☼	02/17/25 14:20	02/21/25 08:01	500
1,2-Dibromoethane	ND	cn	3500	420	ug/Kg	☼	02/17/25 14:20	02/21/25 08:01	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	75	cn	54 - 135	02/17/25 14:20	02/21/25 08:01	500
4-Bromofluorobenzene (Surr)	76	cn	50 - 131	02/17/25 14:20	02/21/25 08:01	500
Dibromofluoromethane (Surr)	77	cn	50 - 141	02/17/25 14:20	02/21/25 08:01	500
Toluene-d8 (Surr)	68	cn	52 - 141	02/17/25 14:20	02/21/25 08:01	500

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>20</b>	<b>^2</b>	0.17	0.063	mg/Kg	☼	02/19/25 02:11	02/19/25 19:56	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Moisture (EPA Moisture)</b>	<b>15.6</b>	<b>!</b>	1.0	1.0	%	—		02/13/25 06:42	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

Client Sample ID: PE-16

Lab Sample ID: 410-207370-8

Date Collected: 02/11/25 11:15

Matrix: Solid

Date Received: 02/11/25 16:50

Percent Solids: 81.7

## Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	cn	3400	270	ug/Kg	✱	02/17/25 14:20	02/21/25 08:23	500
1,2-Dichloroethane	ND	cn	3400	410	ug/Kg	✱	02/17/25 14:20	02/21/25 08:23	500
<b>1,3,5-Trimethylbenzene</b>	<b>2400</b>	<b>J cn</b>	3400	340	ug/Kg	✱	02/17/25 14:20	02/21/25 08:23	500
Toluene	ND	cn	3400	410	ug/Kg	✱	02/17/25 14:20	02/21/25 08:23	500
<b>Xylenes, Total</b>	<b>3000</b>	<b>J cn</b>	3400	950	ug/Kg	✱	02/17/25 14:20	02/21/25 08:23	500
Methyl tertiary butyl ether	ND	cn	3400	410	ug/Kg	✱	02/17/25 14:20	02/21/25 08:23	500
Benzene	ND	cn	3400	340	ug/Kg	✱	02/17/25 14:20	02/21/25 08:23	500
Naphthalene	ND	cn	3400	1400	ug/Kg	✱	02/17/25 14:20	02/21/25 08:23	500
<b>1,2,4-Trimethylbenzene</b>	<b>3700</b>	<b>cn</b>	3400	410	ug/Kg	✱	02/17/25 14:20	02/21/25 08:23	500
Isopropylbenzene	ND	cn	3400	410	ug/Kg	✱	02/17/25 14:20	02/21/25 08:23	500
1,2-Dibromoethane	ND	cn	3400	410	ug/Kg	✱	02/17/25 14:20	02/21/25 08:23	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	75	cn	54 - 135	02/17/25 14:20	02/21/25 08:23	500
4-Bromofluorobenzene (Surr)	72	cn	50 - 131	02/17/25 14:20	02/21/25 08:23	500
Dibromofluoromethane (Surr)	79	cn	50 - 141	02/17/25 14:20	02/21/25 08:23	500
Toluene-d8 (Surr)	73	cn	52 - 141	02/17/25 14:20	02/21/25 08:23	500

## Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>20</b>	<b>^2</b>	0.21	0.080	mg/Kg	✱	02/19/25 02:11	02/19/25 19:27	2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Moisture (EPA Moisture)</b>	<b>18.3</b>	<b>!</b>	1.0	1.0	%	—		02/13/25 06:42	1

# Client Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

Client Sample ID: Trip Blank

Lab Sample ID: 410-207370-9

Date Collected: 02/06/25 00:00

Matrix: Water

Date Received: 02/11/25 16:50

## Method: SW846 8260D/UST - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.30	ug/L			02/19/25 14:06	1
Ethylbenzene	ND		1.0	0.40	ug/L			02/19/25 14:06	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			02/19/25 14:06	1
Toluene	ND		1.0	0.30	ug/L			02/19/25 14:06	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			02/19/25 14:06	1
Xylenes, Total	ND		6.0	0.40	ug/L			02/19/25 14:06	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			02/19/25 14:06	1
Benzene	ND		1.0	0.30	ug/L			02/19/25 14:06	1
Naphthalene	ND		5.0	1.0	ug/L			02/19/25 14:06	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			02/19/25 14:06	1
Isopropylbenzene	ND		5.0	0.30	ug/L			02/19/25 14:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 120					02/19/25 14:06	1
4-Bromofluorobenzene (Surr)	92		80 - 120					02/19/25 14:06	1
Dibromofluoromethane (Surr)	109		80 - 120					02/19/25 14:06	1
Toluene-d8 (Surr)	97		80 - 120					02/19/25 14:06	1

## Surrogate Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

### Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-207370-1	PE-9	74 cn	70 cn	76 cn	67 cn
410-207370-2	PE-10	71 cn	69 cn	73 cn	71 cn
410-207370-3	PE-11	64 cn	72 cn	78 cn	75 cn
410-207370-4	PE-12	75 cn	78 cn	76 cn	73 cn
410-207370-5	PE-13	69 cn	68 cn	74 cn	67 cn
410-207370-6	PE-14	77 cn	78 cn	84 cn	81 cn
410-207370-7	PE-15	75 cn	76 cn	77 cn	68 cn
410-207370-8	PE-16	75 cn	72 cn	79 cn	73 cn
LCS 410-608548/6	Lab Control Sample	89	85	97	87
LCSD 410-608548/8	Lab Control Sample Dup	89	83	96	88
MB 410-608548/7	Method Blank	94	87	99	90

**Surrogate Legend**

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

### Method: 8260D/UST - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-207370-9	Trip Blank	100	92	109	97
LCS 410-607669/5	Lab Control Sample	101	95	106	97
LCSD 410-607669/6	Lab Control Sample Dup	101	94	106	96
MB 410-607669/7	Method Blank	99	93	106	97

**Surrogate Legend**

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-608548/7

Matrix: Solid

Analysis Batch: 608548

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		250	20	ug/Kg			02/20/25 23:56	50
1,2-Dichloroethane	ND		250	30	ug/Kg			02/20/25 23:56	50
1,3,5-Trimethylbenzene	ND		250	25	ug/Kg			02/20/25 23:56	50
Toluene	ND		250	30	ug/Kg			02/20/25 23:56	50
Xylenes, Total	ND		250	70	ug/Kg			02/20/25 23:56	50
Methyl tertiary butyl ether	ND		250	30	ug/Kg			02/20/25 23:56	50
Benzene	ND		250	25	ug/Kg			02/20/25 23:56	50
Naphthalene	ND		250	100	ug/Kg			02/20/25 23:56	50
1,2,4-Trimethylbenzene	ND		250	30	ug/Kg			02/20/25 23:56	50
Isopropylbenzene	ND		250	30	ug/Kg			02/20/25 23:56	50
1,2-Dibromoethane	ND		250	30	ug/Kg			02/20/25 23:56	50

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		54 - 135		02/20/25 23:56	50
4-Bromofluorobenzene (Surr)	87		50 - 131		02/20/25 23:56	50
Dibromofluoromethane (Surr)	99		50 - 141		02/20/25 23:56	50
Toluene-d8 (Surr)	90		52 - 141		02/20/25 23:56	50

Lab Sample ID: LCS 410-608548/6

Matrix: Solid

Analysis Batch: 608548

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	1000	980		ug/Kg		98	72 - 118
1,2-Dichloroethane	1000	1120		ug/Kg		112	72 - 124
1,3,5-Trimethylbenzene	1000	929		ug/Kg		93	73 - 120
Toluene	1000	983		ug/Kg		98	71 - 120
Xylenes, Total	3000	2870		ug/Kg		96	75 - 120
Methyl tertiary butyl ether	1000	1010		ug/Kg		101	63 - 120
Benzene	1000	1010		ug/Kg		101	80 - 120
Naphthalene	1000	822		ug/Kg		82	68 - 130
1,2,4-Trimethylbenzene	1000	901		ug/Kg		90	68 - 120
Isopropylbenzene	1000	1090		ug/Kg		109	77 - 120
1,2-Dibromoethane	1000	984		ug/Kg		98	76 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		54 - 135
4-Bromofluorobenzene (Surr)	85		50 - 131
Dibromofluoromethane (Surr)	97		50 - 141
Toluene-d8 (Surr)	87		52 - 141

Lab Sample ID: LCSD 410-608548/8

Matrix: Solid

Analysis Batch: 608548

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylbenzene	1000	951		ug/Kg		95	72 - 118	3	30
1,2-Dichloroethane	1000	1080		ug/Kg		108	72 - 124	4	30

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# QC Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-608548/8

Matrix: Solid

Analysis Batch: 608548

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	1000	896		ug/Kg		90	73 - 120	4	30
Toluene	1000	997		ug/Kg		100	71 - 120	1	30
Xylenes, Total	3000	2860		ug/Kg		95	75 - 120	0	30
Methyl tertiary butyl ether	1000	1010		ug/Kg		101	63 - 120	1	30
Benzene	1000	995		ug/Kg		99	80 - 120	2	30
Naphthalene	1000	807		ug/Kg		81	68 - 130	2	30
1,2,4-Trimethylbenzene	1000	876		ug/Kg		88	68 - 120	3	30
Isopropylbenzene	1000	1070		ug/Kg		107	77 - 120	1	30
1,2-Dibromoethane	1000	950		ug/Kg		95	76 - 120	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		54 - 135
4-Bromofluorobenzene (Surr)	83		50 - 131
Dibromofluoromethane (Surr)	96		50 - 141
Toluene-d8 (Surr)	88		52 - 141

## Method: 8260D/UST - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-607669/7

Matrix: Water

Analysis Batch: 607669

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.30	ug/L			02/19/25 12:55	1
Ethylbenzene	ND		1.0	0.40	ug/L			02/19/25 12:55	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			02/19/25 12:55	1
Toluene	ND		1.0	0.30	ug/L			02/19/25 12:55	1
1,3,5-Trimethylbenzene	ND		5.0	0.30	ug/L			02/19/25 12:55	1
Xylenes, Total	ND		6.0	0.40	ug/L			02/19/25 12:55	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			02/19/25 12:55	1
Benzene	ND		1.0	0.30	ug/L			02/19/25 12:55	1
Naphthalene	ND		5.0	1.0	ug/L			02/19/25 12:55	1
1,2,4-Trimethylbenzene	ND		5.0	1.0	ug/L			02/19/25 12:55	1
Isopropylbenzene	ND		5.0	0.30	ug/L			02/19/25 12:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		02/19/25 12:55	1
4-Bromofluorobenzene (Surr)	93		80 - 120		02/19/25 12:55	1
Dibromofluoromethane (Surr)	106		80 - 120		02/19/25 12:55	1
Toluene-d8 (Surr)	97		80 - 120		02/19/25 12:55	1

Lab Sample ID: LCS 410-607669/5

Matrix: Water

Analysis Batch: 607669

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane	20.0	18.7		ug/L		94	77 - 120
Ethylbenzene	20.0	20.7		ug/L		103	80 - 120

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# QC Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

## Method: 8260D/UST - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-607669/5

Matrix: Water

Analysis Batch: 607669

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloroethane	20.0	20.7		ug/L		104	73 - 124
Toluene	20.0	20.7		ug/L		103	80 - 120
1,3,5-Trimethylbenzene	20.0	19.6		ug/L		98	75 - 120
Xylenes, Total	60.0	64.5		ug/L		108	80 - 120
Methyl tertiary butyl ether	20.0	20.5		ug/L		102	69 - 122
Benzene	20.0	20.8		ug/L		104	80 - 120
Naphthalene	20.0	16.5		ug/L		83	53 - 124
1,2,4-Trimethylbenzene	20.0	19.7		ug/L		99	75 - 120
Isopropylbenzene	20.0	21.5		ug/L		107	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	95		80 - 120
Dibromofluoromethane (Surr)	106		80 - 120
Toluene-d8 (Surr)	97		80 - 120

Lab Sample ID: LCSD 410-607669/6

Matrix: Water

Analysis Batch: 607669

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromoethane	20.0	18.7		ug/L		94	77 - 120	0	30
Ethylbenzene	20.0	20.9		ug/L		105	80 - 120	1	30
1,2-Dichloroethane	20.0	20.7		ug/L		103	73 - 124	0	30
Toluene	20.0	20.7		ug/L		104	80 - 120	0	30
1,3,5-Trimethylbenzene	20.0	19.9		ug/L		99	75 - 120	2	30
Xylenes, Total	60.0	64.8		ug/L		108	80 - 120	0	30
Methyl tertiary butyl ether	20.0	20.7		ug/L		104	69 - 122	1	30
Benzene	20.0	21.4		ug/L		107	80 - 120	3	30
Naphthalene	20.0	16.5		ug/L		83	53 - 124	0	30
1,2,4-Trimethylbenzene	20.0	20.0		ug/L		100	75 - 120	1	30
Isopropylbenzene	20.0	21.8		ug/L		109	80 - 120	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	94		80 - 120
Dibromofluoromethane (Surr)	106		80 - 120
Toluene-d8 (Surr)	96		80 - 120

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-606435/1-A ^2

Matrix: Solid

Analysis Batch: 608022

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 606435

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.20	0.076	mg/Kg		02/19/25 02:11	02/19/25 17:29	2

Eurofins Lancaster Laboratories Environment Testing, LLC



# QC Sample Results

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-606435/2-A ^2				Client Sample ID: Lab Control Sample			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 608022				Prep Batch: 606435			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	5.00	5.38		mg/Kg		108	88 - 117

## QC Association Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

### GC/MS VOA

#### Prep Batch: 606812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-207370-1	PE-9	Total/NA	Solid	5035	
410-207370-2	PE-10	Total/NA	Solid	5035	
410-207370-3	PE-11	Total/NA	Solid	5035	
410-207370-4	PE-12	Total/NA	Solid	5035	
410-207370-5	PE-13	Total/NA	Solid	5035	
410-207370-6	PE-14	Total/NA	Solid	5035	
410-207370-7	PE-15	Total/NA	Solid	5035	
410-207370-8	PE-16	Total/NA	Solid	5035	

#### Analysis Batch: 607669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-207370-9	Trip Blank	Total/NA	Water	8260D/UST	
MB 410-607669/7	Method Blank	Total/NA	Water	8260D/UST	
LCS 410-607669/5	Lab Control Sample	Total/NA	Water	8260D/UST	
LCSD 410-607669/6	Lab Control Sample Dup	Total/NA	Water	8260D/UST	

#### Analysis Batch: 608548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-207370-1	PE-9	Total/NA	Solid	8260D	606812
410-207370-2	PE-10	Total/NA	Solid	8260D	606812
410-207370-3	PE-11	Total/NA	Solid	8260D	606812
410-207370-4	PE-12	Total/NA	Solid	8260D	606812
410-207370-5	PE-13	Total/NA	Solid	8260D	606812
410-207370-6	PE-14	Total/NA	Solid	8260D	606812
410-207370-7	PE-15	Total/NA	Solid	8260D	606812
410-207370-8	PE-16	Total/NA	Solid	8260D	606812
MB 410-608548/7	Method Blank	Total/NA	Solid	8260D	
LCS 410-608548/6	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 410-608548/8	Lab Control Sample Dup	Total/NA	Solid	8260D	

### Metals

#### Prep Batch: 606435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-207370-1	PE-9	Total/NA	Solid	3050B	
410-207370-2	PE-10	Total/NA	Solid	3050B	
410-207370-3	PE-11	Total/NA	Solid	3050B	
410-207370-4	PE-12	Total/NA	Solid	3050B	
410-207370-5	PE-13	Total/NA	Solid	3050B	
410-207370-6	PE-14	Total/NA	Solid	3050B	
410-207370-7	PE-15	Total/NA	Solid	3050B	
410-207370-8	PE-16	Total/NA	Solid	3050B	
MB 410-606435/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCS 410-606435/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	

#### Analysis Batch: 608022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-207370-1	PE-9	Total/NA	Solid	6020B	606435
410-207370-2	PE-10	Total/NA	Solid	6020B	606435
410-207370-3	PE-11	Total/NA	Solid	6020B	606435
410-207370-4	PE-12	Total/NA	Solid	6020B	606435

Eurofins Lancaster Laboratories Environment Testing, LLC

## QC Association Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

### Metals (Continued)

#### Analysis Batch: 608022 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-207370-5	PE-13	Total/NA	Solid	6020B	606435
410-207370-6	PE-14	Total/NA	Solid	6020B	606435
410-207370-7	PE-15	Total/NA	Solid	6020B	606435
410-207370-8	PE-16	Total/NA	Solid	6020B	606435
MB 410-606435/1-A ^2	Method Blank	Total/NA	Solid	6020B	606435
LCS 410-606435/2-A ^2	Lab Control Sample	Total/NA	Solid	6020B	606435

### General Chemistry

#### Analysis Batch: 605529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-207370-1	PE-9	Total/NA	Solid	Moisture	
410-207370-2	PE-10	Total/NA	Solid	Moisture	
410-207370-3	PE-11	Total/NA	Solid	Moisture	
410-207370-4	PE-12	Total/NA	Solid	Moisture	
410-207370-5	PE-13	Total/NA	Solid	Moisture	
410-207370-6	PE-14	Total/NA	Solid	Moisture	
410-207370-7	PE-15	Total/NA	Solid	Moisture	
410-207370-8	PE-16	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

**Client Sample ID: PE-9**

Date Collected: 02/11/25 09:45

Date Received: 02/11/25 16:50

**Lab Sample ID: 410-207370-1**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	605529	UGCW	ELLE	02/13/25 06:42

**Client Sample ID: PE-9**

Date Collected: 02/11/25 09:45

Date Received: 02/11/25 16:50

**Lab Sample ID: 410-207370-1**

Matrix: Solid

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			606812	WJ7F	ELLE	02/17/25 14:20
Total/NA	Analysis	8260D		500	608548	S8BP	ELLE	02/21/25 05:49
Total/NA	Prep	3050B			606435	UJL8	ELLE	02/19/25 02:11
Total/NA	Analysis	6020B		2	608022	LHF4	ELLE	02/19/25 19:11

**Client Sample ID: PE-10**

Date Collected: 02/11/25 09:50

Date Received: 02/11/25 16:50

**Lab Sample ID: 410-207370-2**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	605529	UGCW	ELLE	02/13/25 06:42

**Client Sample ID: PE-10**

Date Collected: 02/11/25 09:50

Date Received: 02/11/25 16:50

**Lab Sample ID: 410-207370-2**

Matrix: Solid

Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			606812	WJ7F	ELLE	02/17/25 14:20
Total/NA	Analysis	8260D		500	608548	S8BP	ELLE	02/21/25 06:11
Total/NA	Prep	3050B			606435	UJL8	ELLE	02/19/25 02:11
Total/NA	Analysis	6020B		2	608022	LHF4	ELLE	02/19/25 19:39

**Client Sample ID: PE-11**

Date Collected: 02/11/25 09:55

Date Received: 02/11/25 16:50

**Lab Sample ID: 410-207370-3**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	605529	UGCW	ELLE	02/13/25 06:42

**Client Sample ID: PE-11**

Date Collected: 02/11/25 09:55

Date Received: 02/11/25 16:50

**Lab Sample ID: 410-207370-3**

Matrix: Solid

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			606812	WJ7F	ELLE	02/17/25 14:20
Total/NA	Analysis	8260D		500	608548	S8BP	ELLE	02/21/25 06:33
Total/NA	Prep	3050B			606435	UJL8	ELLE	02/19/25 02:11
Total/NA	Analysis	6020B		2	608022	LHF4	ELLE	02/19/25 19:15

# Lab Chronicle

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

**Client Sample ID: PE-12**

**Lab Sample ID: 410-207370-4**

Date Collected: 02/11/25 10:00

Matrix: Solid

Date Received: 02/11/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	605529	UGCW	ELLE	02/13/25 06:42

**Client Sample ID: PE-12**

**Lab Sample ID: 410-207370-4**

Date Collected: 02/11/25 10:00

Matrix: Solid

Date Received: 02/11/25 16:50

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			606812	WJ7F	ELLE	02/17/25 14:20
Total/NA	Analysis	8260D		500	608548	S8BP	ELLE	02/21/25 06:55
Total/NA	Prep	3050B			606435	UJL8	ELLE	02/19/25 02:11
Total/NA	Analysis	6020B		2	608022	LHF4	ELLE	02/19/25 19:07

**Client Sample ID: PE-13**

**Lab Sample ID: 410-207370-5**

Date Collected: 02/11/25 10:05

Matrix: Solid

Date Received: 02/11/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	605529	UGCW	ELLE	02/13/25 06:42

**Client Sample ID: PE-13**

**Lab Sample ID: 410-207370-5**

Date Collected: 02/11/25 10:05

Matrix: Solid

Date Received: 02/11/25 16:50

Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			606812	WJ7F	ELLE	02/17/25 14:20
Total/NA	Analysis	8260D		500	608548	S8BP	ELLE	02/21/25 07:17
Total/NA	Prep	3050B			606435	UJL8	ELLE	02/19/25 02:11
Total/NA	Analysis	6020B		2	608022	LHF4	ELLE	02/19/25 19:35

**Client Sample ID: PE-14**

**Lab Sample ID: 410-207370-6**

Date Collected: 02/11/25 10:10

Matrix: Solid

Date Received: 02/11/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	605529	UGCW	ELLE	02/13/25 06:42

**Client Sample ID: PE-14**

**Lab Sample ID: 410-207370-6**

Date Collected: 02/11/25 10:10

Matrix: Solid

Date Received: 02/11/25 16:50

Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			606812	WJ7F	ELLE	02/17/25 14:20
Total/NA	Analysis	8260D		500	608548	S8BP	ELLE	02/21/25 07:39
Total/NA	Prep	3050B			606435	UJL8	ELLE	02/19/25 02:11
Total/NA	Analysis	6020B		2	608022	LHF4	ELLE	02/19/25 19:31

# Lab Chronicle

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

**Client Sample ID: PE-15**

**Lab Sample ID: 410-207370-7**

Date Collected: 02/11/25 10:15

Matrix: Solid

Date Received: 02/11/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	605529	UGCW	ELLE	02/13/25 06:42

**Client Sample ID: PE-15**

**Lab Sample ID: 410-207370-7**

Date Collected: 02/11/25 10:15

Matrix: Solid

Date Received: 02/11/25 16:50

Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			606812	WJ7F	ELLE	02/17/25 14:20
Total/NA	Analysis	8260D		500	608548	S8BP	ELLE	02/21/25 08:01
Total/NA	Prep	3050B			606435	UJL8	ELLE	02/19/25 02:11
Total/NA	Analysis	6020B		2	608022	LHF4	ELLE	02/19/25 19:56

**Client Sample ID: PE-16**

**Lab Sample ID: 410-207370-8**

Date Collected: 02/11/25 11:15

Matrix: Solid

Date Received: 02/11/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	605529	UGCW	ELLE	02/13/25 06:42

**Client Sample ID: PE-16**

**Lab Sample ID: 410-207370-8**

Date Collected: 02/11/25 11:15

Matrix: Solid

Date Received: 02/11/25 16:50

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			606812	WJ7F	ELLE	02/17/25 14:20
Total/NA	Analysis	8260D		500	608548	S8BP	ELLE	02/21/25 08:23
Total/NA	Prep	3050B			606435	UJL8	ELLE	02/19/25 02:11
Total/NA	Analysis	6020B		2	608022	LHF4	ELLE	02/19/25 19:27

**Client Sample ID: Trip Blank**

**Lab Sample ID: 410-207370-9**

Date Collected: 02/06/25 00:00

Matrix: Water

Date Received: 02/11/25 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D/UST		1	607669	P5AM	ELLE	02/19/25 14:06

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

### Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-26

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture

## Method Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	ELLE
8260D/UST	Volatile Organic Compounds by GC/MS	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



## Sample Summary

Client: Groundwater & Environmental Services Inc  
Project/Site: SPLP - Washington Crossing

Job ID: 410-207370-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-207370-1	PE-9	Solid	02/11/25 09:45	02/11/25 16:50
410-207370-2	PE-10	Solid	02/11/25 09:50	02/11/25 16:50
410-207370-3	PE-11	Solid	02/11/25 09:55	02/11/25 16:50
410-207370-4	PE-12	Solid	02/11/25 10:00	02/11/25 16:50
410-207370-5	PE-13	Solid	02/11/25 10:05	02/11/25 16:50
410-207370-6	PE-14	Solid	02/11/25 10:10	02/11/25 16:50
410-207370-7	PE-15	Solid	02/11/25 10:15	02/11/25 16:50
410-207370-8	PE-16	Solid	02/11/25 11:15	02/11/25 16:50
410-207370-9	Trip Blank	Water	02/06/25 00:00	02/11/25 16:50



410-207370 Chain of Custody

Client:  
Region:

State or Lead Regulatory Agency:

Chain of Custody Record  
Sunoco Pipeline LP

PADEP - Southeast Region

Requested Due Date (mm/dd/yy): ~~3 DAY TAT~~ Standard TAT

COC Tracking Number:

Page 1 of 1

On-site Time:	Temp: 0.0
Off-site Time:	Temp: 0.0
Sky Conditions:	
Meteorological:	
Wind Speed:	0.0 Direction:

Lab Name: Lancaster Laboratories				Facility Addr: Washington Crossing				Consultant/Cor: GES, Inc.							
Address: 2425 New Holland Pike				Facility City: Washington Crossing PA				Addr: 410 Eagleview Blvd, Suite 110							
Lancaster, PA 17605				Site Lat/Long: 0.0 0.0				Exton, PA 19341							
Lab PM: Amek Carter				Sunoco PM Con: Brad Fish				Consultant/Contractor Pr: 0225040-06-209							
Tele/Fax: (717) 656-2308 x 1501 / (717) 656-6766				Address: 100 Green Street				Consultant/Contractor PI: Stephanie Grillo							
E-mail EDD To: No EQEDD needed				Marcus Hook, PA				Tele/Fax: (610) 458-1077 x3064 / (610) 458-2300							
E-mail Report To: sgrillo@gesonline.com, gesinbox@gesonline.com				Tele/F: 610-212-6972				Invoi: ges-invoices@gesonline.com							
State where samples were collected: PA; For Compliance: No															
Report Type & QC Level:				Sample Type	Matrix	Preservative				Requested Analysis				Sample Point Lat/Long and Comments	
Item No	Sample Description	Time	Date	G - Grab C - Composite	Soil Drinking Water	Laboratory No.	No. of Containers	MeOH/NAHSO4 HCL HNO3	EPA Method 8260 - BTEX, MTBE, Cumene, Naphthalene, 1,2,4- TMB, 1,3,5-TMB, 1,2-Dichloroethane	EPA Method 8011 - 1,2-Dibromoethane	EPA Method 6020 - Lead (Dissolved)	Moisture			
1	PA-9	0945	2/11/25	G	X		5	X	X	X	X	X	X	Standard TAT	
2	PE-10	0950	2/11/25	G	X		5	X	X	X	X	X	X		
3	PE-11	0955	2/11/25	G	X		5	X	X	X	X	X	X		
4	PE-12	1000	2/11/25	G	X		5	X	X	X	X	X	X		
5	PE-13	1005	2/11/25	G	X		5	X	X	X	X	X	X		
6	PE-14	1010	2/11/25	G	X		5	X	X	X	X	X	X		
7	PE-15	1015	2/11/25	G	X		5	X	X	X	X	X	X		
8	PE-16	1115	2/11/25	G	X		5	X	X	X	X	X	X		
9				G	X		5	X	X	X	X	X	X		
10	Trip Blank		2/16/25					X							
Sampler's Name: Jason Crone				Relinquished By / Affiliation: Jason Crone				Date: 2/11/25		Time: 16:50		Accepted By / Affiliation: [Signature]		Date: 2/11/25	Time: 16:50
Sampler's Company: GES, Inc.															
Shipment Date:															
Shipment Method:															
Shipment Tracking No:															
Special Instructions: Standard TAT															
Custody Seals In Place Yes No				Temp Blank Yes No				Cooler Temperature on Receipt OF/C							

AK

R0.6-1.4  
C0.5-1.3

## Login Sample Receipt Checklist

Client: Groundwater & Environmental Services Inc

Job Number: 410-207370-1

Login Number: 207370

List Number: 1

Creator: Kanagy, Nicholas

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	



## ANALYTICAL REPORT

Lab Number:	L2538379
Client:	Groundwater & Environmental Services, Inc 410 Eagleview Blvd Exton, PA 19341
ATTN:	Stephanie Grillo
Phone:	(641) 458-1077
Project Name:	SUNOCO PIPELINE LP (SPLP)
Project Number:	PROJ-051861
Report Date:	07/14/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2538379  
**Report Date:** 07/14/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2538379-01	SS-1 @ 7'-8'	SOIL	E-25060-RL-25300050	06/17/25 10:55	06/18/25
L2538379-02	SS-2 @ 5'-6'	SOIL	E-25060-RL-25300050	06/17/25 10:25	06/18/25
L2538379-03	SS-3 @ 5'-6'	SOIL	E-25060-RL-25300050	06/17/25 10:00	06/18/25
L2538379-04	SS-4 @ 4'-5'	SOIL	E-25060-RL-25300050	06/17/25 10:40	06/18/25
L2538379-05	SS-5 @ 7'-7.5'	SOIL	E-25060-RL-25300050	06/17/25 11:45	06/18/25
L2538379-06	SS-6 @ 6'-6.5'	SOIL	E-25060-RL-25300050	06/17/25 12:10	06/18/25
L2538379-07	SS-7 @ 7'-8'	SOIL	E-25060-RL-25300050	06/17/25 12:30	06/18/25
L2538379-08	SS-8 @ 7'-8'	SOIL	E-25060-RL-25300050	06/17/25 13:10	06/18/25
L2538379-09	SS-9 @ 5'-6'	SOIL	E-25060-RL-25300050	06/17/25 13:30	06/18/25
L2538379-10	SS-10 @ 7'-8'	SOIL	E-25060-RL-25300050	06/17/25 13:00	06/18/25
L2538379-11	SS-11 @ 3'-4'	SOIL	E-25060-RL-25300050	06/17/25 13:40	06/18/25
L2538379-12	SS-12 @ 6'-7'	SOIL	E-25060-RL-25300050	06/17/25 13:55	06/18/25
L2538379-13	SS-13 @ 7'-8'	SOIL	E-25060-RL-25300050	06/17/25 11:55	06/18/25
L2538379-14	SS-14 @ 7'-8'	SOIL	E-25060-RL-25300050	06/17/25 12:45	06/18/25

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2538379  
**Report Date:** 07/14/25

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2538379  
**Report Date:** 07/14/25

### Case Narrative (continued)

#### Report Submission

July 14, 2025: This final report includes the results of all requested analyses.

July 02, 2025: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

#### Volatile Organics

L2538379-05: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (314%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

L2538379-06: The surrogate recovery was outside the acceptance criteria for 4-bromofluorobenzene (171%) in the Low Level analysis due to obvious interferences. A copy of the chromatogram is included as an attachment to this report. The sample was analyzed as a High Level Methanol dilution in order to quantitate result(s) within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial Low Level analysis. The results of both analyses are reported. Differences were noted between the results of the Volatile Organics by EPA Method 5035/8260 High and Low Level analyses which have been attributed to vial discrepancies.

L2538379-07: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (162%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

L2538379-10: The analysis of Volatile Organics by EPA Method 5035/8260 Low Level could not be performed due to the elevated concentrations of non-target compounds in the sample.

L2538379-10: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (138%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

L2538379-13: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (131%);

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**Case Narrative (continued)**


however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

L2538379-14: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (137%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

**Total Metals**

The WG2086802-4 Laboratory Duplicate RPD performed on L2538379-01 is outside the acceptance criteria for lead (22%) due to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

**Authorized Signature:** Melissa Sturgis**Title:** Technical Director/Representative**Date:** 07/14/25



# ORGANICS

# VOLATILES

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-01

Date Collected: 06/17/25 10:55

Client ID: SS-1 @ 7'-8'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260D

Analytical Date: 06/28/25 15:39

Analyst: JIC

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0021	0.00021	1
Benzene	ND		mg/kg	0.00053	0.00018	1
1,2-Dichloroethane	ND		mg/kg	0.0011	0.00027	1
Toluene	ND		mg/kg	0.0011	0.00058	1
1,2-Dibromoethane	ND		mg/kg	0.00053	0.00031	1
Ethylbenzene	ND		mg/kg	0.0011	0.00015	1
p/m-Xylene	ND		mg/kg	0.0021	0.00059	1
o-Xylene	ND		mg/kg	0.0011	0.00031	1
Xylenes, Total	ND		mg/kg	0.0011	0.00031	1
Isopropylbenzene	ND		mg/kg	0.0011	0.00012	1
1,3,5-Trimethylbenzene	ND		mg/kg	0.0021	0.00020	1
1,2,4-Trimethylbenzene	ND		mg/kg	0.0021	0.00035	1
Naphthalene	ND		mg/kg	0.0042	0.00069	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	87		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	101		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-02  
 Client ID: SS-2 @ 5'-6'  
 Sample Location: E-25060-RL-25300050

Date Collected: 06/17/25 10:25  
 Date Received: 06/18/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260D  
 Analytical Date: 06/28/25 16:01  
 Analyst: JIC  
 Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0024	0.00024	1
Benzene	ND		mg/kg	0.00061	0.00020	1
1,2-Dichloroethane	ND		mg/kg	0.0012	0.00031	1
Toluene	ND		mg/kg	0.0012	0.00066	1
1,2-Dibromoethane	ND		mg/kg	0.00061	0.00036	1
Ethylbenzene	ND		mg/kg	0.0012	0.00017	1
p/m-Xylene	ND		mg/kg	0.0024	0.00068	1
o-Xylene	ND		mg/kg	0.0012	0.00035	1
Xylenes, Total	ND		mg/kg	0.0012	0.00035	1
Isopropylbenzene	ND		mg/kg	0.0012	0.00013	1
1,3,5-Trimethylbenzene	ND		mg/kg	0.0024	0.00024	1
1,2,4-Trimethylbenzene	ND		mg/kg	0.0024	0.00041	1
Naphthalene	ND		mg/kg	0.0049	0.00079	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	83		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	104		70-130



**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2538379  
**Report Date:** 07/14/25

**SAMPLE RESULTS**

**Lab ID:** L2538379-03  
**Client ID:** SS-3 @ 5'-6'  
**Sample Location:** E-25060-RL-25300050

**Date Collected:** 06/17/25 10:00  
**Date Received:** 06/18/25  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8260D  
**Analytical Date:** 06/30/25 11:28  
**Analyst:** AJK  
**Percent Solids:** 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0027	0.00028	1
Benzene	ND		mg/kg	0.00068	0.00023	1
1,2-Dichloroethane	ND		mg/kg	0.0014	0.00035	1
Toluene	ND		mg/kg	0.0014	0.00074	1
1,2-Dibromoethane	ND		mg/kg	0.00068	0.00040	1
Ethylbenzene	0.00025	J	mg/kg	0.0014	0.00019	1
p/m-Xylene	0.0040		mg/kg	0.0027	0.00077	1
o-Xylene	0.013		mg/kg	0.0014	0.00040	1
Xylenes, Total	0.017		mg/kg	0.0014	0.00040	1
Isopropylbenzene	0.0011	J	mg/kg	0.0014	0.00015	1
1,3,5-Trimethylbenzene	0.041		mg/kg	0.0027	0.00026	1
1,2,4-Trimethylbenzene	0.050		mg/kg	0.0027	0.00046	1
Naphthalene	0.016		mg/kg	0.0055	0.00089	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	92		70-130



**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2538379  
**Report Date:** 07/14/25

**SAMPLE RESULTS**

**Lab ID:** L2538379-04  
**Client ID:** SS-4 @ 4'-5'  
**Sample Location:** E-25060-RL-25300050

**Date Collected:** 06/17/25 10:40  
**Date Received:** 06/18/25  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8260D  
**Analytical Date:** 06/28/25 16:23  
**Analyst:** JIC  
**Percent Solids:** 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0022	0.00022	1
Benzene	ND		mg/kg	0.00054	0.00018	1
1,2-Dichloroethane	ND		mg/kg	0.0011	0.00028	1
Toluene	ND		mg/kg	0.0011	0.00059	1
1,2-Dibromoethane	ND		mg/kg	0.00054	0.00032	1
Ethylbenzene	ND		mg/kg	0.0011	0.00015	1
p/m-Xylene	ND		mg/kg	0.0022	0.00061	1
o-Xylene	ND		mg/kg	0.0011	0.00032	1
Xylenes, Total	ND		mg/kg	0.0011	0.00032	1
Isopropylbenzene	ND		mg/kg	0.0011	0.00012	1
1,3,5-Trimethylbenzene	0.0014	J	mg/kg	0.0022	0.00021	1
1,2,4-Trimethylbenzene	0.00041	J	mg/kg	0.0022	0.00036	1
Naphthalene	0.0012	J	mg/kg	0.0044	0.00071	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	80		70-130
4-Bromofluorobenzene	123		70-130
Dibromofluoromethane	101		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-05  
 Client ID: SS-5 @ 7'-7.5'  
 Sample Location: E-25060-RL-25300050

Date Collected: 06/17/25 11:45  
 Date Received: 06/18/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260D  
 Analytical Date: 07/01/25 04:03  
 Analyst: JIC  
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0022	0.00022	1
Benzene	ND		mg/kg	0.00054	0.00018	1
1,2-Dichloroethane	ND		mg/kg	0.0011	0.00028	1
Toluene	0.0084		mg/kg	0.0011	0.00059	1
1,2-Dibromoethane	ND		mg/kg	0.00054	0.00032	1
Ethylbenzene	0.0039		mg/kg	0.0011	0.00015	1
p/m-Xylene	0.16		mg/kg	0.0022	0.00061	1
o-Xylene	0.14		mg/kg	0.0011	0.00032	1
Xylenes, Total	0.30		mg/kg	0.0011	0.00032	1
Isopropylbenzene	0.0024		mg/kg	0.0011	0.00012	1
1,3,5-Trimethylbenzene	0.24		mg/kg	0.0022	0.00021	1
1,2,4-Trimethylbenzene	0.18		mg/kg	0.0022	0.00036	1
Naphthalene	0.0073		mg/kg	0.0043	0.00070	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	117		70-130
4-Bromofluorobenzene	314	Q	70-130
Dibromofluoromethane	102		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-06  
 Client ID: SS-6 @ 6'-6.5'  
 Sample Location: E-25060-RL-25300050

Date Collected: 06/17/25 12:10  
 Date Received: 06/18/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260D  
 Analytical Date: 06/29/25 18:54  
 Analyst: JIC  
 Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0022	0.00023	1
Benzene	ND		mg/kg	0.00056	0.00019	1
1,2-Dichloroethane	ND		mg/kg	0.0011	0.00029	1
Toluene	0.0012		mg/kg	0.0011	0.00061	1
1,2-Dibromoethane	ND		mg/kg	0.00056	0.00033	1
Ethylbenzene	0.0022		mg/kg	0.0011	0.00016	1
p/m-Xylene	0.060		mg/kg	0.0022	0.00063	1
o-Xylene	0.093		mg/kg	0.0011	0.00033	1
Xylenes, Total	0.15		mg/kg	0.0011	0.00033	1
Isopropylbenzene	0.012		mg/kg	0.0011	0.00012	1
Naphthalene	0.17		mg/kg	0.0045	0.00073	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	171	Q	70-130
Dibromofluoromethane	98		70-130



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-06 D

Date Collected: 06/17/25 12:10

Client ID: SS-6 @ 6'-6.5'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260D

Analytical Date: 06/28/25 17:08

Analyst: JIC

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,3,5-Trimethylbenzene	2.6		mg/kg	0.26	0.025	2
1,2,4-Trimethylbenzene	6.6		mg/kg	0.26	0.043	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	84		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	91		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-07  
 Client ID: SS-7 @ 7'-8'  
 Sample Location: E-25060-RL-25300050

Date Collected: 06/17/25 12:30  
 Date Received: 06/18/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260D  
 Analytical Date: 06/29/25 19:16  
 Analyst: JIC  
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0021	0.00021	1
Benzene	ND		mg/kg	0.00052	0.00017	1
1,2-Dichloroethane	ND		mg/kg	0.0010	0.00026	1
Toluene	ND		mg/kg	0.0010	0.00056	1
1,2-Dibromoethane	ND		mg/kg	0.00052	0.00030	1
Ethylbenzene	0.00049	J	mg/kg	0.0010	0.00014	1
p/m-Xylene	0.010		mg/kg	0.0021	0.00058	1
o-Xylene	0.023		mg/kg	0.0010	0.00030	1
Xylenes, Total	0.033		mg/kg	0.0010	0.00030	1
Isopropylbenzene	0.0038		mg/kg	0.0010	0.00011	1
1,3,5-Trimethylbenzene	0.098		mg/kg	0.0021	0.00020	1
1,2,4-Trimethylbenzene	0.14		mg/kg	0.0021	0.00034	1
Naphthalene	0.012		mg/kg	0.0041	0.00067	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	162	Q	70-130
Dibromofluoromethane	87		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-08  
 Client ID: SS-8 @ 7'-8'  
 Sample Location: E-25060-RL-25300050

Date Collected: 06/17/25 13:10  
 Date Received: 06/18/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260D  
 Analytical Date: 06/29/25 16:40  
 Analyst: JIC  
 Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0023	0.00023	1
Benzene	ND		mg/kg	0.00057	0.00019	1
1,2-Dichloroethane	ND		mg/kg	0.0011	0.00029	1
Toluene	ND		mg/kg	0.0011	0.00062	1
1,2-Dibromoethane	ND		mg/kg	0.00057	0.00033	1
Ethylbenzene	ND		mg/kg	0.0011	0.00016	1
p/m-Xylene	ND		mg/kg	0.0023	0.00064	1
o-Xylene	ND		mg/kg	0.0011	0.00033	1
Xylenes, Total	ND		mg/kg	0.0011	0.00033	1
Isopropylbenzene	ND		mg/kg	0.0011	0.00012	1
1,3,5-Trimethylbenzene	0.0012	J	mg/kg	0.0023	0.00022	1
1,2,4-Trimethylbenzene	0.00078	J	mg/kg	0.0023	0.00038	1
Naphthalene	ND		mg/kg	0.0045	0.00074	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	93		70-130



**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2538379  
**Report Date:** 07/14/25

**SAMPLE RESULTS**

**Lab ID:** L2538379-09  
**Client ID:** SS-9 @ 5'-6'  
**Sample Location:** E-25060-RL-25300050

**Date Collected:** 06/17/25 13:30  
**Date Received:** 06/18/25  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8260D  
**Analytical Date:** 06/29/25 17:02  
**Analyst:** JIC  
**Percent Solids:** 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0025	0.00025	1
Benzene	ND		mg/kg	0.00062	0.00020	1
1,2-Dichloroethane	ND		mg/kg	0.0012	0.00032	1
Toluene	ND		mg/kg	0.0012	0.00067	1
1,2-Dibromoethane	ND		mg/kg	0.00062	0.00036	1
Ethylbenzene	ND		mg/kg	0.0012	0.00017	1
p/m-Xylene	ND		mg/kg	0.0025	0.00069	1
o-Xylene	ND		mg/kg	0.0012	0.00036	1
Xylenes, Total	ND		mg/kg	0.0012	0.00036	1
Isopropylbenzene	ND		mg/kg	0.0012	0.00014	1
1,3,5-Trimethylbenzene	ND		mg/kg	0.0025	0.00024	1
1,2,4-Trimethylbenzene	ND		mg/kg	0.0025	0.00041	1
Naphthalene	ND		mg/kg	0.0050	0.00081	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	94		70-130



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-10  
 Client ID: SS-10 @ 7'-8'  
 Sample Location: E-25060-RL-25300050

Date Collected: 06/17/25 13:00  
 Date Received: 06/18/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260D  
 Analytical Date: 06/29/25 19:38  
 Analyst: JIC  
 Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.13	0.013	1
Benzene	ND		mg/kg	0.032	0.011	1
1,2-Dichloroethane	ND		mg/kg	0.064	0.016	1
Toluene	ND		mg/kg	0.064	0.035	1
1,2-Dibromoethane	ND		mg/kg	0.032	0.019	1
Ethylbenzene	ND		mg/kg	0.064	0.0091	1
p/m-Xylene	0.16		mg/kg	0.13	0.036	1
o-Xylene	0.12		mg/kg	0.064	0.019	1
Xylenes, Total	0.28		mg/kg	0.064	0.019	1
Isopropylbenzene	0.015	J	mg/kg	0.064	0.0070	1
1,3,5-Trimethylbenzene	0.96		mg/kg	0.13	0.012	1
1,2,4-Trimethylbenzene	1.2		mg/kg	0.13	0.022	1
Naphthalene	0.20	J	mg/kg	0.26	0.042	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	138	Q	70-130
Dibromofluoromethane	88		70-130



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-11  
 Client ID: SS-11 @ 3'-4'  
 Sample Location: E-25060-RL-25300050

Date Collected: 06/17/25 13:40  
 Date Received: 06/18/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260D  
 Analytical Date: 06/29/25 17:25  
 Analyst: JIC  
 Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0023	0.00023	1
Benzene	ND		mg/kg	0.00058	0.00019	1
1,2-Dichloroethane	ND		mg/kg	0.0012	0.00030	1
Toluene	ND		mg/kg	0.0012	0.00062	1
1,2-Dibromoethane	ND		mg/kg	0.00058	0.00034	1
Ethylbenzene	ND		mg/kg	0.0012	0.00016	1
p/m-Xylene	ND		mg/kg	0.0023	0.00064	1
o-Xylene	ND		mg/kg	0.0012	0.00034	1
Xylenes, Total	ND		mg/kg	0.0012	0.00034	1
Isopropylbenzene	ND		mg/kg	0.0012	0.00012	1
1,3,5-Trimethylbenzene	ND		mg/kg	0.0023	0.00022	1
1,2,4-Trimethylbenzene	ND		mg/kg	0.0023	0.00038	1
Naphthalene	ND		mg/kg	0.0046	0.00075	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	74		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	94		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-12  
 Client ID: SS-12 @ 6'-7'  
 Sample Location: E-25060-RL-25300050

Date Collected: 06/17/25 13:55  
 Date Received: 06/18/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260D  
 Analytical Date: 06/29/25 20:01  
 Analyst: JIC  
 Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.20	0.020	1
Benzene	ND		mg/kg	0.051	0.017	1
1,2-Dichloroethane	ND		mg/kg	0.10	0.026	1
Toluene	ND		mg/kg	0.10	0.055	1
1,2-Dibromoethane	ND		mg/kg	0.051	0.030	1
Ethylbenzene	ND		mg/kg	0.10	0.014	1
p/m-Xylene	ND		mg/kg	0.20	0.057	1
o-Xylene	0.037	J	mg/kg	0.10	0.029	1
Xylenes, Total	0.037	J	mg/kg	0.10	0.029	1
Isopropylbenzene	0.025	J	mg/kg	0.10	0.011	1
1,3,5-Trimethylbenzene	2.1		mg/kg	0.20	0.020	1
1,2,4-Trimethylbenzene	5.5		mg/kg	0.20	0.034	1
Naphthalene	2.3		mg/kg	0.40	0.066	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	88		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-13  
 Client ID: SS-13 @ 7'-8'  
 Sample Location: E-25060-RL-25300050

Date Collected: 06/17/25 11:55  
 Date Received: 06/18/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260D  
 Analytical Date: 06/29/25 17:47  
 Analyst: JIC  
 Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0020	0.00021	1
Benzene	ND		mg/kg	0.00051	0.00017	1
1,2-Dichloroethane	ND		mg/kg	0.0010	0.00026	1
Toluene	ND		mg/kg	0.0010	0.00056	1
1,2-Dibromoethane	ND		mg/kg	0.00051	0.00030	1
Ethylbenzene	ND		mg/kg	0.0010	0.00014	1
p/m-Xylene	ND		mg/kg	0.0020	0.00057	1
o-Xylene	ND		mg/kg	0.0010	0.00030	1
Xylenes, Total	ND		mg/kg	0.0010	0.00030	1
Isopropylbenzene	ND		mg/kg	0.0010	0.00011	1
1,3,5-Trimethylbenzene	0.0015	J	mg/kg	0.0020	0.00020	1
1,2,4-Trimethylbenzene	0.0012	J	mg/kg	0.0020	0.00034	1
Naphthalene	ND		mg/kg	0.0041	0.00067	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	84		70-130
4-Bromofluorobenzene	131	Q	70-130
Dibromofluoromethane	84		70-130



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-14  
 Client ID: SS-14 @ 7'-8'  
 Sample Location: E-25060-RL-25300050

Date Collected: 06/17/25 12:45  
 Date Received: 06/18/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260D  
 Analytical Date: 06/29/25 20:23  
 Analyst: JIC  
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.12	0.012	1
Benzene	ND		mg/kg	0.031	0.010	1
1,2-Dichloroethane	ND		mg/kg	0.061	0.016	1
Toluene	ND		mg/kg	0.061	0.033	1
1,2-Dibromoethane	ND		mg/kg	0.031	0.018	1
Ethylbenzene	0.028	J	mg/kg	0.061	0.0087	1
p/m-Xylene	0.23		mg/kg	0.12	0.034	1
o-Xylene	0.42		mg/kg	0.061	0.018	1
Xylenes, Total	0.65		mg/kg	0.061	0.018	1
Isopropylbenzene	0.13		mg/kg	0.061	0.0067	1
1,3,5-Trimethylbenzene	2.6		mg/kg	0.12	0.012	1
1,2,4-Trimethylbenzene	3.7		mg/kg	0.12	0.020	1
Naphthalene	0.42		mg/kg	0.24	0.040	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	137	Q	70-130
Dibromofluoromethane	86		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2538379  
**Report Date:** 07/14/25

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D  
 Analytical Date: 06/29/25 12:56  
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 06-09,11,13 Batch: WG2085305-5					
Methyl tert butyl ether	ND		mg/kg	0.0020	0.00020
Benzene	ND		mg/kg	0.00050	0.00017
1,2-Dichloroethane	ND		mg/kg	0.0010	0.00026
Toluene	ND		mg/kg	0.0010	0.00054
1,2-Dibromoethane	ND		mg/kg	0.00050	0.00029
Ethylbenzene	ND		mg/kg	0.0010	0.00014
p/m-Xylene	ND		mg/kg	0.0020	0.00056
o-Xylene	ND		mg/kg	0.0010	0.00029
Xylenes, Total	ND		mg/kg	0.0010	0.00029
Isopropylbenzene	ND		mg/kg	0.0010	0.00011
1,3,5-Trimethylbenzene	ND		mg/kg	0.0020	0.00019
1,2,4-Trimethylbenzene	ND		mg/kg	0.0020	0.00033
Naphthalene	ND		mg/kg	0.0040	0.00065

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	89		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2538379  
**Report Date:** 07/14/25

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260D  
 Analytical Date: 06/29/25 12:56  
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 10,12,14 Batch: WG2085307-5					
Methyl tert butyl ether	ND		mg/kg	0.10	0.010
Benzene	ND		mg/kg	0.025	0.0083
1,2-Dichloroethane	ND		mg/kg	0.050	0.013
Toluene	ND		mg/kg	0.050	0.027
1,2-Dibromoethane	ND		mg/kg	0.025	0.015
Ethylbenzene	ND		mg/kg	0.050	0.0070
p/m-Xylene	ND		mg/kg	0.10	0.028
o-Xylene	ND		mg/kg	0.050	0.014
Xylenes, Total	ND		mg/kg	0.050	0.014
Isopropylbenzene	ND		mg/kg	0.050	0.0054
1,3,5-Trimethylbenzene	ND		mg/kg	0.10	0.0096
1,2,4-Trimethylbenzene	ND		mg/kg	0.10	0.017
Naphthalene	ND		mg/kg	0.20	0.032

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	89		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2538379  
**Report Date:** 07/14/25

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D  
 Analytical Date: 06/28/25 10:28  
 Analyst: MNF

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02,04 Batch: WG2085333-5					
Methyl tert butyl ether	ND		mg/kg	0.0020	0.00020
Benzene	ND		mg/kg	0.00050	0.00017
1,2-Dichloroethane	ND		mg/kg	0.0010	0.00026
Toluene	ND		mg/kg	0.0010	0.00054
1,2-Dibromoethane	ND		mg/kg	0.00050	0.00029
Ethylbenzene	ND		mg/kg	0.0010	0.00014
p/m-Xylene	ND		mg/kg	0.0020	0.00056
o-Xylene	ND		mg/kg	0.0010	0.00029
Xylenes, Total	ND		mg/kg	0.0010	0.00029
Isopropylbenzene	ND		mg/kg	0.0010	0.00011
1,3,5-Trimethylbenzene	ND		mg/kg	0.0020	0.00019
1,2,4-Trimethylbenzene	ND		mg/kg	0.0020	0.00033
Naphthalene	ND		mg/kg	0.0040	0.00065

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	86		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	95		70-130



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D  
 Analytical Date: 06/28/25 10:28  
 Analyst: MNF

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06 Batch: WG2085334-5					
Methyl tert butyl ether	ND		mg/kg	0.10	0.010
Benzene	ND		mg/kg	0.025	0.0083
1,2-Dichloroethane	ND		mg/kg	0.050	0.013
Toluene	ND		mg/kg	0.050	0.027
1,2-Dibromoethane	ND		mg/kg	0.025	0.015
Ethylbenzene	ND		mg/kg	0.050	0.0070
p/m-Xylene	ND		mg/kg	0.10	0.028
o-Xylene	ND		mg/kg	0.050	0.014
Xylenes, Total	ND		mg/kg	0.050	0.014
Isopropylbenzene	ND		mg/kg	0.050	0.0054
1,3,5-Trimethylbenzene	ND		mg/kg	0.10	0.0096
1,2,4-Trimethylbenzene	ND		mg/kg	0.10	0.017
Naphthalene	ND		mg/kg	0.20	0.032

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	86		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	95		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2538379  
**Report Date:** 07/14/25

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D  
 Analytical Date: 06/30/25 09:19  
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 03 Batch: WG2085700-5					
Methyl tert butyl ether	ND		mg/kg	0.0020	0.00020
Benzene	ND		mg/kg	0.00050	0.00017
1,2-Dichloroethane	ND		mg/kg	0.0010	0.00026
Toluene	ND		mg/kg	0.0010	0.00054
1,2-Dibromoethane	ND		mg/kg	0.00050	0.00029
Ethylbenzene	ND		mg/kg	0.0010	0.00014
p/m-Xylene	ND		mg/kg	0.0020	0.00056
o-Xylene	ND		mg/kg	0.0010	0.00029
Xylenes, Total	ND		mg/kg	0.0010	0.00029
Isopropylbenzene	ND		mg/kg	0.0010	0.00011
1,3,5-Trimethylbenzene	ND		mg/kg	0.0020	0.00019
1,2,4-Trimethylbenzene	ND		mg/kg	0.0020	0.00033
Naphthalene	ND		mg/kg	0.0040	0.00065

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	92		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2538379  
**Report Date:** 07/14/25

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D  
 Analytical Date: 06/30/25 21:46  
 Analyst: TMH

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 05 Batch: WG2085858-5					
Methyl tert butyl ether	ND		mg/kg	0.0020	0.00020
Benzene	ND		mg/kg	0.00050	0.00017
1,2-Dichloroethane	ND		mg/kg	0.0010	0.00026
Toluene	ND		mg/kg	0.0010	0.00054
1,2-Dibromoethane	ND		mg/kg	0.00050	0.00029
Ethylbenzene	ND		mg/kg	0.0010	0.00014
p/m-Xylene	ND		mg/kg	0.0020	0.00056
o-Xylene	ND		mg/kg	0.0010	0.00029
Xylenes, Total	ND		mg/kg	0.0010	0.00029
Isopropylbenzene	ND		mg/kg	0.0010	0.00011
1,3,5-Trimethylbenzene	ND		mg/kg	0.0020	0.00019
1,2,4-Trimethylbenzene	ND		mg/kg	0.0020	0.00033
Naphthalene	ND		mg/kg	0.0040	0.00065

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	127		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	115		70-130

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Lab Number:** L2538379

**Project Number:** PROJ-051861

**Report Date:** 07/14/25

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 06-09,11,13 Batch: WG2085305-3 WG2085305-4								
Methyl tert butyl ether	86		80		66-130	7		30
Benzene	90		78		70-130	14		30
1,2-Dichloroethane	93		85		70-130	9		30
Toluene	88		84		70-130	5		30
1,2-Dibromoethane	85		84		70-130	1		30
Ethylbenzene	89		82		70-130	8		30
p/m-Xylene	91		86		70-130	6		30
o-Xylene	87		80		70-130	8		30
Isopropylbenzene	89		74		70-130	18		30
1,3,5-Trimethylbenzene	90		69	Q	70-130	26		30
1,2,4-Trimethylbenzene	90		78		70-130	14		30
Naphthalene	81		76		70-130	6		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	91		90		70-130
Toluene-d8	89		96		70-130
4-Bromofluorobenzene	91		89		70-130
Dibromofluoromethane	94		88		70-130



# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Lab Number:** L2538379

**Project Number:** PROJ-051861

**Report Date:** 07/14/25

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 10,12,14 Batch: WG2085307-3 WG2085307-4								
Methyl tert butyl ether	86		80		66-130	7		30
Benzene	90		78		70-130	14		30
1,2-Dichloroethane	93		85		70-130	9		30
Toluene	88		84		70-130	5		30
1,2-Dibromoethane	85		84		70-130	1		30
Ethylbenzene	89		82		70-130	8		30
p/m-Xylene	91		86		70-130	6		30
o-Xylene	87		80		70-130	8		30
Isopropylbenzene	89		74		70-130	18		30
1,3,5-Trimethylbenzene	90		69	Q	70-130	26		30
1,2,4-Trimethylbenzene	90		78		70-130	14		30
Naphthalene	81		76		70-130	6		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	91		91		70-130
Toluene-d8	89		96		70-130
4-Bromofluorobenzene	91		89		70-130
Dibromofluoromethane	94		88		70-130

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Lab Number:** L2538379

**Project Number:** PROJ-051861

**Report Date:** 07/14/25

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02,04 Batch: WG2085333-3 WG2085333-4								
Methyl tert butyl ether	94		93		66-130	1		30
Benzene	97		86		70-130	12		30
1,2-Dichloroethane	104		100		70-130	4		30
Toluene	91		82		70-130	10		30
1,2-Dibromoethane	89		90		70-130	1		30
Ethylbenzene	93		84		70-130	10		30
p/m-Xylene	92		84		70-130	9		30
o-Xylene	90		83		70-130	8		30
Isopropylbenzene	88		81		70-130	8		30
1,3,5-Trimethylbenzene	90		83		70-130	8		30
1,2,4-Trimethylbenzene	92		85		70-130	8		30
Naphthalene	83		88		70-130	6		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	100		103		70-130
Toluene-d8	89		88		70-130
4-Bromofluorobenzene	94		94		70-130
Dibromofluoromethane	92		94		70-130

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Lab Number:** L2538379

**Project Number:** PROJ-051861

**Report Date:** 07/14/25

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG2085334-3 WG2085334-4								
Methyl tert butyl ether	94		93		66-130	1		30
Benzene	97		86		70-130	12		30
1,2-Dichloroethane	104		100		70-130	4		30
Toluene	91		82		70-130	10		30
1,2-Dibromoethane	89		90		70-130	1		30
Ethylbenzene	93		84		70-130	10		30
p/m-Xylene	92		84		70-130	9		30
o-Xylene	90		83		70-130	8		30
Isopropylbenzene	88		81		70-130	8		30
1,3,5-Trimethylbenzene	90		83		70-130	8		30
1,2,4-Trimethylbenzene	92		85		70-130	8		30
Naphthalene	83		88		70-130	6		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	100		103		70-130
Toluene-d8	89		88		70-130
4-Bromofluorobenzene	94		94		70-130
Dibromofluoromethane	92		94		70-130

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Lab Number:** L2538379

**Project Number:** PROJ-051861

**Report Date:** 07/14/25

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 03 Batch: WG2085700-3 WG2085700-4								
Methyl tert butyl ether	87		82		66-130	6		30
Benzene	97		90		70-130	7		30
1,2-Dichloroethane	85		81		70-130	5		30
Toluene	94		89		70-130	5		30
1,2-Dibromoethane	95		92		70-130	3		30
Ethylbenzene	98		92		70-130	6		30
p/m-Xylene	100		95		70-130	5		30
o-Xylene	98		91		70-130	7		30
Isopropylbenzene	95		91		70-130	4		30
1,3,5-Trimethylbenzene	95		90		70-130	5		30
1,2,4-Trimethylbenzene	95		90		70-130	5		30
Naphthalene	67	Q	68	Q	70-130	1		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	88		86		70-130
Toluene-d8	94		93		70-130
4-Bromofluorobenzene	98		88		70-130
Dibromofluoromethane	93		91		70-130

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Lab Number:** L2538379

**Project Number:** PROJ-051861

**Report Date:** 07/14/25

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05 Batch: WG2085858-3 WG2085858-4								
Methyl tert butyl ether	94		101		66-130	7		30
Benzene	99		98		70-130	1		30
1,2-Dichloroethane	95		98		70-130	3		30
Toluene	81		79		70-130	3		30
1,2-Dibromoethane	93		99		70-130	6		30
Ethylbenzene	92		91		70-130	1		30
p/m-Xylene	96		95		70-130	1		30
o-Xylene	96		96		70-130	0		30
Isopropylbenzene	95		91		70-130	4		30
1,3,5-Trimethylbenzene	96		93		70-130	3		30
1,2,4-Trimethylbenzene	97		94		70-130	3		30
Naphthalene	78		83		70-130	6		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	96		102		70-130
Toluene-d8	98		99		70-130
4-Bromofluorobenzene	103		101		70-130
Dibromofluoromethane	97		98		70-130

## METALS

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-01

Date Collected: 06/17/25 10:55

Client ID: SS-1 @ 7'-8'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	12		mg/kg	0.66	0.06	10	07/03/25 15:56	07/14/25 09:27	EPA 3050B	1,6020B	BLR



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-02

Date Collected: 06/17/25 10:25

Client ID: SS-2 @ 5'-6'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	22		mg/kg	0.74	0.06	10	07/03/25 15:56	07/14/25 09:51	EPA 3050B	1,6020B	BLR





**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-03

Date Collected: 06/17/25 10:00

Client ID: SS-3 @ 5'-6'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	43		mg/kg	0.63	0.05	10	07/03/25 15:56	07/14/25 09:56	EPA 3050B	1,6020B	BLR



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-04

Date Collected: 06/17/25 10:40

Client ID: SS-4 @ 4'-5'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	15		mg/kg	0.65	0.06	10	07/03/25 15:56	07/14/25 10:36	EPA 3050B	1,6020B	BLR



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-05

Date Collected: 06/17/25 11:45

Client ID: SS-5 @ 7'-7.5'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	8.7		mg/kg	0.66	0.06	10	07/03/25 15:56	07/14/25 10:41	EPA 3050B	1,6020B	BLR



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-06

Date Collected: 06/17/25 12:10

Client ID: SS-6 @ 6'-6.5'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	26		mg/kg	0.65	0.06	10	07/03/25 15:56	07/14/25 10:46	EPA 3050B	1,6020B	BLR



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-07

Date Collected: 06/17/25 12:30

Client ID: SS-7 @ 7'-8'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	21		mg/kg	0.64	0.06	10	07/03/25 15:56	07/14/25 10:51	EPA 3050B	1,6020B	BLR



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-08

Date Collected: 06/17/25 13:10

Client ID: SS-8 @ 7'-8'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	18		mg/kg	0.64	0.06	10	07/03/25 15:56	07/14/25 10:56	EPA 3050B	1,6020B	BLR



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-09

Date Collected: 06/17/25 13:30

Client ID: SS-9 @ 5'-6'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	19		mg/kg	0.67	0.06	10	07/03/25 15:56	07/14/25 11:01	EPA 3050B	1,6020B	BLR



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-10

Date Collected: 06/17/25 13:00

Client ID: SS-10 @ 7'-8'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	20		mg/kg	0.69	0.06	10	07/03/25 15:56	07/14/25 11:06	EPA 3050B	1,6020B	BLR





**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-11

Date Collected: 06/17/25 13:40

Client ID: SS-11 @ 3'-4'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	22		mg/kg	0.69	0.06	10	07/03/25 15:56	07/14/25 11:11	EPA 3050B	1,6020B	BLR



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-12

Date Collected: 06/17/25 13:55

Client ID: SS-12 @ 6'-7'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	12		mg/kg	0.69	0.06	10	07/03/25 15:56	07/14/25 11:16	EPA 3050B	1,6020B	BLR



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-13

Date Collected: 06/17/25 11:55

Client ID: SS-13 @ 7'-8'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	22		mg/kg	0.67	0.06	10	07/03/25 15:56	07/14/25 11:21	EPA 3050B	1,6020B	BLR



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS**

Lab ID: L2538379-14

Date Collected: 06/17/25 12:45

Client ID: SS-14 @ 7'-8'

Date Received: 06/18/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	21		mg/kg	0.63	0.05	10	07/03/25 15:56	07/14/25 11:48	EPA 3050B	1,6020B	BLR



Project Name: SUNOCO PIPELINE LP (SPLP)

Lab Number: L2538379

Project Number: PROJ-051861

Report Date: 07/14/25

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-14 Batch: WG2086802-1										
Lead, Total	ND		mg/kg	0.60	0.05	10	07/03/25 15:56	07/14/25 09:12	1,6020B	BLR

### Prep Information

Digestion Method: EPA 3050B



# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Project Number:** PROJ-051861

**Lab Number:** L2538379

**Report Date:** 07/14/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-14 Batch: WG2086802-2								
Lead, Total	111		-		80-120	-		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2538379  
**Report Date:** 07/14/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-14    QC Batch ID: WG2086802-3    QC Sample: L2538379-01    Client ID: SS-1 @ 7'-8'												
Lead, Total	12	44.9	61	109		-	-		75-125	-		20

**Lab Duplicate Analysis**  
*Batch Quality Control***Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2538379**Report Date:** 07/14/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-14 QC Batch ID: WG2086802-4 QC Sample: L2538379-01 Client ID: SS-1 @ 7'-8'						
Lead, Total	12	15	mg/kg	22	Q	20



# **INORGANICS & MISCELLANEOUS**

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2538379**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-01**Client ID:** SS-1 @ 7'-8'**Sample Location:** E-25060-RL-25300050**Date Collected:** 06/17/25 10:55**Date Received:** 06/18/25**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.1		%	0.100	NA	1	-	06/28/25 02:43	121,2540G	JMN
Moisture	10.9		%	0.100	NA	1	-	06/28/25 02:43	121,2540G	JMN



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2538379**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-02**Client ID:** SS-2 @ 5'-6'**Sample Location:** E-25060-RL-25300050**Date Collected:** 06/17/25 10:25**Date Received:** 06/18/25**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	79.6		%	0.100	NA	1	-	06/28/25 02:43	121,2540G	JMN
Moisture	20.4		%	0.100	NA	1	-	06/28/25 02:43	121,2540G	JMN



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2538379**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-03**Client ID:** SS-3 @ 5'-6'**Sample Location:** E-25060-RL-25300050**Date Collected:** 06/17/25 10:00**Date Received:** 06/18/25**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.6		%	0.100	NA	1	-	06/28/25 02:43	121,2540G	JMN
Moisture	10.4		%	0.100	NA	1	-	06/28/25 02:43	121,2540G	JMN



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2538379**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-04**Client ID:** SS-4 @ 4'-5'**Sample Location:** E-25060-RL-25300050**Date Collected:** 06/17/25 10:40**Date Received:** 06/18/25**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.9		%	0.100	NA	1	-	06/28/25 02:43	121,2540G	JMN
Moisture	9.10		%	0.100	NA	1	-	06/28/25 02:43	121,2540G	JMN



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-05**Date Collected:** 06/17/25 11:45**Client ID:** SS-5 @ 7'-7.5'**Date Received:** 06/18/25**Sample Location:** E-25060-RL-25300050**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.6		%	0.100	NA	1	-	06/28/25 02:43	121,2540G	JMN
Moisture	10.4		%	0.100	NA	1	-	06/28/25 02:43	121,2540G	JMN



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2538379**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-06**Client ID:** SS-6 @ 6'-6.5'**Sample Location:** E-25060-RL-25300050**Date Collected:** 06/17/25 12:10**Date Received:** 06/18/25**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.3		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN
Moisture	10.7		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2538379**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-07**Client ID:** SS-7 @ 7'-8'**Sample Location:** E-25060-RL-25300050**Date Collected:** 06/17/25 12:30**Date Received:** 06/18/25**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.8		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN
Moisture	10.2		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN





**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-08**Date Collected:** 06/17/25 13:10**Client ID:** SS-8 @ 7'-8'**Date Received:** 06/18/25**Sample Location:** E-25060-RL-25300050**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.4		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN
Moisture	11.6		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2538379**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-09**Client ID:** SS-9 @ 5'-6'**Sample Location:** E-25060-RL-25300050**Date Collected:** 06/17/25 13:30**Date Received:** 06/18/25**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.6		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN
Moisture	14.4		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-10**Date Collected:** 06/17/25 13:00**Client ID:** SS-10 @ 7'-8'**Date Received:** 06/18/25**Sample Location:** E-25060-RL-25300050**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.5		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN
Moisture	14.5		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2538379**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-11**Client ID:** SS-11 @ 3'-4'**Sample Location:** E-25060-RL-25300050**Date Collected:** 06/17/25 13:40**Date Received:** 06/18/25**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.1		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN
Moisture	15.9		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-12**Date Collected:** 06/17/25 13:55**Client ID:** SS-12 @ 6'-7'**Date Received:** 06/18/25**Sample Location:** E-25060-RL-25300050**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.7		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN
Moisture	14.3		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-13**Date Collected:** 06/17/25 11:55**Client ID:** SS-13 @ 7'-8'**Date Received:** 06/18/25**Sample Location:** E-25060-RL-25300050**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.8		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN
Moisture	13.2		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2538379**Report Date:** 07/14/25**SAMPLE RESULTS****Lab ID:** L2538379-14**Client ID:** SS-14 @ 7'-8'**Sample Location:** E-25060-RL-25300050**Date Collected:** 06/17/25 12:45**Date Received:** 06/18/25**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.6		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN
Moisture	10.4		%	0.100	NA	1	-	06/28/25 02:05	121,2540G	JMN



## Lab Duplicate Analysis

*Batch Quality Control*

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Project Number:** PROJ-051861

**Lab Number:** L2538379

**Report Date:** 07/14/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 06-14 QC Batch ID: WG2084591-1 QC Sample: L2538379-06 Client ID: SS-6 @ 6'-6.5'						
Solids, Total	89.3	89.6	%	0		20
Moisture	10.7	10.4	%	3		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2084605-1 QC Sample: L2538379-01 Client ID: SS-1 @ 7'-8'						
Solids, Total	89.1	89.5	%	0		20
Moisture	10.9	10.5	%	4		20



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

Cooler	Custody Seal
A	Absent
B	Absent

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2538379-01A	Vial MeOH preserved	A	NA		2.0	Y	Absent		PA-8260HLW(14)
L2538379-01B	Vial water preserved	A	NA		2.0	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-01C	Vial water preserved	A	NA		2.0	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-01D	Plastic 120ml unpreserved	A	NA		2.0	Y	Absent		TS(7),MOISTURE(7)
L2538379-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		PB-6020T(180)
L2538379-01F	Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		MOISTURE(7)
L2538379-02A	Vial MeOH preserved	A	NA		2.0	Y	Absent		PA-8260HLW(14)
L2538379-02B	Vial water preserved	A	NA		2.0	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-02C	Vial water preserved	A	NA		2.0	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-02D	Plastic 120ml unpreserved	A	NA		2.0	Y	Absent		TS(7),MOISTURE(7)
L2538379-02E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		PB-6020T(180)
L2538379-02F	Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		MOISTURE(7)
L2538379-03A	Vial MeOH preserved	A	NA		2.0	Y	Absent		PA-8260HLW(14)
L2538379-03B	Vial water preserved	A	NA		2.0	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-03C	Vial water preserved	A	NA		2.0	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-03D	Plastic 120ml unpreserved	A	NA		2.0	Y	Absent		TS(7),MOISTURE(7)
L2538379-03E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		PB-6020T(180)
L2538379-03F	Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		MOISTURE(7)
L2538379-04A	Vial MeOH preserved	A	NA		2.0	Y	Absent		PA-8260HLW(14)
L2538379-04B	Vial water preserved	A	NA		2.0	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-04C	Vial water preserved	A	NA		2.0	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-04D	Plastic 120ml unpreserved	A	NA		2.0	Y	Absent		TS(7),MOISTURE(7)

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2538379-04E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		PB-6020T(180)
L2538379-04F	Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		MOISTURE(7)
L2538379-05A	Vial MeOH preserved	B	NA		2.5	Y	Absent		PA-8260HLW(14)
L2538379-05B	Vial water preserved	B	NA		2.5	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-05C	Vial water preserved	B	NA		2.5	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-05D	Plastic 120ml unpreserved	B	NA		2.5	Y	Absent		TS(7),MOISTURE(7)
L2538379-05E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		PB-6020T(180)
L2538379-05F	Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		MOISTURE(7)
L2538379-06A	Vial MeOH preserved	B	NA		2.5	Y	Absent		PA-8260H(14),PA-8260HLW(14)
L2538379-06B	Vial water preserved	B	NA		2.5	Y	Absent	19-JUN-25 08:35	PA-8260H(14),PA-8260HLW(14)
L2538379-06C	Vial water preserved	B	NA		2.5	Y	Absent	19-JUN-25 08:35	PA-8260H(14),PA-8260HLW(14)
L2538379-06D	Plastic 120ml unpreserved	B	NA		2.5	Y	Absent		TS(7),MOISTURE(7)
L2538379-06E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		PB-6020T(180)
L2538379-06F	Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		MOISTURE(7)
L2538379-07A	Vial MeOH preserved	B	NA		2.5	Y	Absent		PA-8260HLW(14)
L2538379-07B	Vial water preserved	B	NA		2.5	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-07C	Vial water preserved	B	NA		2.5	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-07D	Plastic 120ml unpreserved	B	NA		2.5	Y	Absent		TS(7),MOISTURE(7)
L2538379-07E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		PB-6020T(180)
L2538379-07F	Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		MOISTURE(7)
L2538379-08A	Vial MeOH preserved	B	NA		2.5	Y	Absent		PA-8260HLW(14)
L2538379-08B	Vial water preserved	B	NA		2.5	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-08C	Vial water preserved	B	NA		2.5	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-08D	Plastic 120ml unpreserved	B	NA		2.5	Y	Absent		TS(7),MOISTURE(7)
L2538379-08E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		PB-6020T(180)
L2538379-08F	Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		MOISTURE(7)
L2538379-09A	Vial MeOH preserved	A	NA		2.0	Y	Absent		PA-8260HLW(14)
L2538379-09B	Vial water preserved	A	NA		2.0	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2538379-09C	Vial water preserved	A	NA		2.0	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-09D	Plastic 120ml unpreserved	B	NA		2.5	Y	Absent		TS(7),MOISTURE(7)
L2538379-09E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		PB-6020T(180)
L2538379-09F	Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		MOISTURE(7)
L2538379-10A	Vial MeOH preserved	A	NA		2.0	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-10B	Vial water preserved	A	NA		2.0	Y	Absent		PA-8260HLW(14)
L2538379-10C	Vial water preserved	A	NA		2.0	Y	Absent		PA-8260HLW(14)
L2538379-10D	Plastic 120ml unpreserved	A	NA		2.0	Y	Absent		TS(7),MOISTURE(7)
L2538379-10E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent	19-JUN-25 08:35	PB-6020T(180)
L2538379-10F	Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		MOISTURE(7)
L2538379-11A	Vial MeOH preserved	B	NA		2.5	Y	Absent		PA-8260HLW(14)
L2538379-11B	Vial water preserved	B	NA		2.5	Y	Absent		PA-8260HLW(14)
L2538379-11C	Vial water preserved	B	NA		2.5	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-11D	Plastic 120ml unpreserved	B	NA		2.5	Y	Absent		TS(7),MOISTURE(7)
L2538379-11E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		PB-6020T(180)
L2538379-11F	Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		MOISTURE(7)
L2538379-12A	Vial MeOH preserved	B	NA		2.5	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-12B	Vial water preserved	B	NA		2.5	Y	Absent		PA-8260HLW(14)
L2538379-12C	Vial water preserved	B	NA		2.5	Y	Absent		PA-8260HLW(14)
L2538379-12D	Plastic 120ml unpreserved	B	NA		2.5	Y	Absent		TS(7),MOISTURE(7)
L2538379-12E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent	19-JUN-25 08:35	PB-6020T(180)
L2538379-12F	Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		MOISTURE(7)
L2538379-13A	Vial MeOH preserved	A	NA		2.0	Y	Absent		PA-8260HLW(14)
L2538379-13B	Vial water preserved	A	NA		2.0	Y	Absent		PA-8260HLW(14)
L2538379-13C	Vial water preserved	A	NA		2.0	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-13D	Plastic 120ml unpreserved	A	NA		2.0	Y	Absent		TS(7),MOISTURE(7)
L2538379-13E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		PB-6020T(180)
L2538379-13F	Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		MOISTURE(7)

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2538379-14A	Vial MeOH preserved	B	NA		2.5	Y	Absent		PA-8260HLW(14)
L2538379-14B	Vial water preserved	B	NA		2.5	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-14C	Vial water preserved	B	NA		2.5	Y	Absent	19-JUN-25 08:35	PA-8260HLW(14)
L2538379-14D	Plastic 120ml unpreserved	B	NA		2.5	Y	Absent		TS(7),MOISTURE(7)
L2538379-14E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		PB-6020T(180)
L2538379-14F	Glass 60mL/2oz unpreserved	B	NA		2.5	Y	Absent		MOISTURE(7)

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

*Report Format: DU Report with 'J' Qualifiers*

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**Footnotes**

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

**Terms**

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenzo(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Data Qualifiers**

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2538379**Project Number:** PROJ-051861**Report Date:** 07/14/25**Data Qualifiers**

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2538379  
**Report Date:** 07/14/25

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

## LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.





**Pace Analytical Services LLC**Facility: **Northeast**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

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**Certification Information**

The following analytes are not included in our Primary NELAP Scope of Accreditation:

**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581****EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**MADEP-APH.****Nonpotable Water:** EPA RSK-175 Dissolved Gases**Biological Tissue Matrix:** EPA 3050B**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048****EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Nonpotable Water:** EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)**

The following analytes are included in our Massachusetts DEP Scope of Accreditation

**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables).**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

**Pace Analytical Services LLC**ID No.: **17873**Facility: **Northeast**

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**Certification IDs:****Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048**




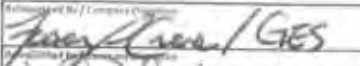
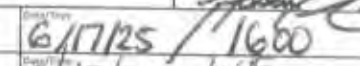
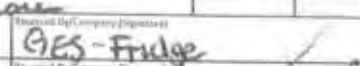
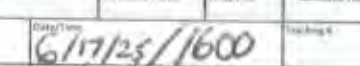

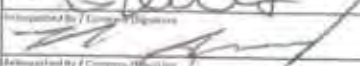
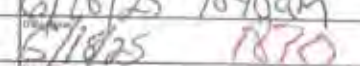

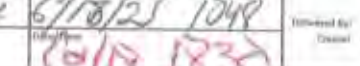
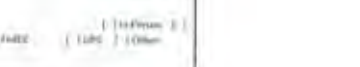
CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048**

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

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For a complete listing of analytes and methods, please contact your Project Manager.

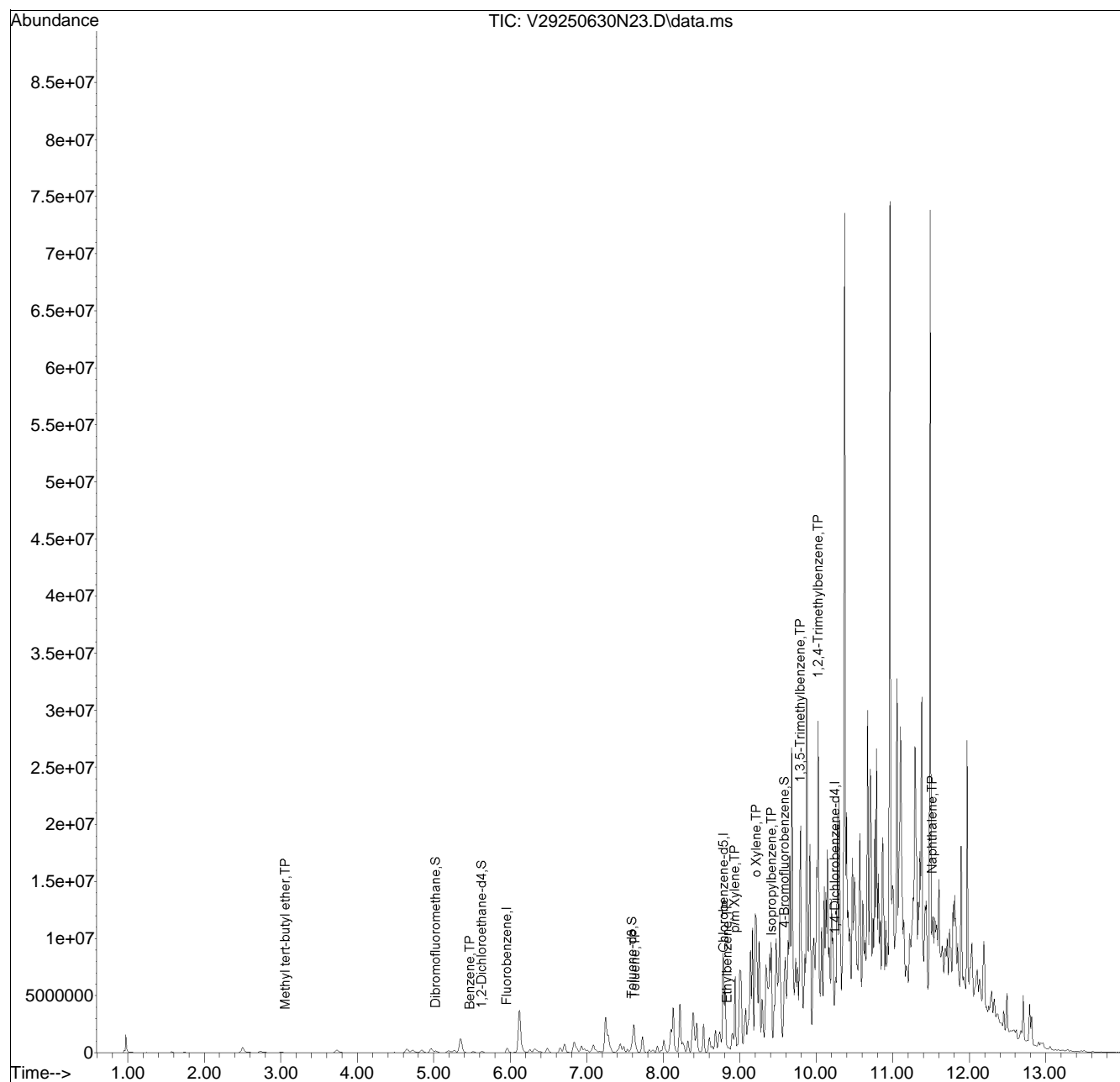
 <b>CHAIN-OF-CUSTODY Analytical Request Document</b> <small>Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Analytical Conditions found at: <a href="http://info.paceanalytical.com/training-standard-forms.pdf">http://info.paceanalytical.com/training-standard-forms.pdf</a>  Chain of Custody is a SECURE DOCUMENT - Lockdown all relevant fields.</small>										<b>L2538379</b> <b>GES - PA - ER</b> 							
Company Name: GES, Inc.			Contact/Report To: Stephanie Grillo														
Street Address: 410 Eagleview Blvd, Suite 120 Eatons, PA 19541			Phone #: (610) 458-1077 x3064 / (610) 458-2300														
			E-mail: <a href="mailto:sgriilo@gesonline.com">sgriilo@gesonline.com</a> ; <a href="mailto:gesinbox@gesonline.com">gesinbox@gesonline.com</a>														
			CUST_Deliverables@gesonline.com; <a href="mailto:stgrillo@del.com">stgrillo@del.com</a> ; <a href="mailto:gesa@gesonline.com">gesa@gesonline.com</a>														
Customer Project #: _____			Invoice To: Energy Transfer														
Project Name: Sunoco Pipeline LP (SPLP) Washington Crossing			Invoice E-Mail: <a href="mailto:spencer@sunoco.com">spencer@sunoco.com</a>														
Site Collection Info/Facility ID (if applicable): Washington Crossing, Upper Makefield Township, PA			Purchase Order #: (if applicable) 112703289														
			Quote #: _____														
Time Zone Collected: J Ak J PT J MCT J CT J XET			County/State origin of sample(s): PA														
<b>Date Deliverable:</b> <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input checked="" type="checkbox"/> EQUIS <input type="checkbox"/> Other: _____			Regulatory Program (DNR, RCRA, etc.) or applicable: DNR <b>Flush (Pre-approval Required):</b> <input type="checkbox"/> 12 day <input type="checkbox"/> 1 day <input type="checkbox"/> 15 day <input type="checkbox"/> Other: Normal TAT <b>Date Results Requested:</b> ASAP DNR PWSID # or WQ Permit # if applicable: _____ Field # used (if applicable): <input type="checkbox"/> Yes <input type="checkbox"/> No Analysis: _____														
*Matrix Orders (ground or above) include: Drinking Water (DW), Ground Water (GW), Wastewater (WW), Industrial (I), Sewerage (S), Stormwater (SW), Air (A), Noise (N), Soil (S), Sediment (SD), Surface Water (SW), Sediment (SD), Sludge (SL), Coal (C).																	
Customer Sample ID	Matrix	Depth	Depth	Collected (Start)		Composited End		# Cont.	Number & Type of Containers		PA Leaded gasoline (EPA 8260) - BTEX, MTBE, cumene, naphthalene, 1,2,4-TMB, 1,3,5-TMB, EDC	Lead (EPA 8208)	1,2-Dichloroethane (ED8) (EPA 8260)	Moisture	Total Solids (SM 2540)	Sample Comment	Responsible for maintenance identified lab system
				Date	Time	Date	Time		Plastic	Other							
01 SS-1 @ 7'-8'	SS	G		6/17/2025	1055	-	-	6	1	5	X	X	X	X	X		
02 SS-2 @ 5'-6'	SS	G		6/17/2025	1025	-	-	6	1	5	X	X	X	X	X		
03 SS-3 @ 5'-6'	SS	G		6/17/2025	1000	-	-	6	1	5	X	X	X	X	X		
04 SS-4 @ 4'-5'	SS	G		6/17/2025	1040	-	-	6	1	5	X	X	X	X	X		
05 SS-5 @ 7'-7.5'	SS	G		6/17/2025	1145	-	-	6	1	5	X	X	X	X	X		
06 SS-6 @ 6'-6.5'	SS	G		6/17/2025	1210	-	-	6	1	5	X	X	X	X	X		
07 SS-7 @ 7'-8'	SS	G		6/17/2025	1230	-	-	6	1	5	X	X	X	X	X		
08 SS-8 @ 7'-8'	SS	G		6/17/2025	1310	-	-	6	1	5	X	X	X	X	X		
09 SS-9 @ 5'-6'	SS	G		6/17/2025	1330	-	-	6	1	5	X	X	X	X	X		
10 SS-10 @ 7'-8'	SS	G		6/17/2025	1300	-	-	6	1	5	X	X	X	X	X		
11 SS-11 @ 3'-4'	SS	G		6/17/2025	1340	-	-	6	1	5	X	X	X	X	X		
12 SS-12 @ 6'-7'	SS	G		6/17/2025	1355	-	-	6	1	5	X	X	X	X	X		
13 SS-13 @ 7'-8'	SS	G		6/17/2025	1155	-	-	6	1	5	X	X	X	X	X		
14 SS-14 @ 7'-8'	SS	G		6/17/2025	1245	-	-	6	1	5	X	X	X	X	X		
Additional volatiles from PAC: Target VOCs by EPA/MDL list: BTEX, tripropylbenzene, MTBE, naphthalene, 1,2,4-Trichlorobenzene, 1,3,5-Trichlorobenzene, 1,3-Dichloroethane, EDC.										Collected By: <b>Jason Green</b> Signature:  Customer Name & Special Conditions / Possible Hazards: _____ # Containers: _____ Method/ID: _____ Container Factor: _____ Temp (°C): _____ Corrected Temp (°C): _____							
Relinquished By / Company Signature:  Date/Time: 6/17/25 / 1600			Relinquished By / Company Signature:  Date/Time: 6/18/25 / 1048am			Relinquished By / Company Signature:  Date/Time: 6/18/25 / 1048am			Relinquished By / Company Signature:  Date/Time: 6/18/25 / 1830			Relinquished By / Company Signature:  Date/Time: JUN 18 2025 0340			Tracking #: _____ Delivered By: _____ ( ) Fuel ( ) ( ) Other: _____		
Relinquished By / Company Signature:  Date/Time: 6/18/25 / 1830			Relinquished By / Company Signature:  Date/Time: 6/19/25 / 0340			Relinquished By / Company Signature:  Date/Time: 6/19/25 / 0340			Relinquished By / Company Signature:  Date/Time: 6/19/25 / 0340			Relinquished By / Company Signature:  Date/Time: 6/19/25 / 0340			Page: 1 of 1		

## Quantitation Report (QT Reviewed)

Data Path : K:\VOA129\2025\250630N\  
Data File : V29250630N23.D  
Acq On : 01 Jul 2025 04:03 am  
Operator : VOA129:JIC  
Sample : L2538379-05,31,5.14,5,,C,32.38,38.02,0.50  
Misc : WG2085858,ICAL22427  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 01 14:30:19 2025  
Quant Method : K:\VOA129\2025\250630N\V129\_250626A\_8260.m  
Quant Title : VOLATILES BY GC/MS  
QLast Update : Fri Jun 27 09:03:12 2025  
Response via : Initial Calibration

Sub List : 8260-PA\_ShortList - PA Short list630N01.D•

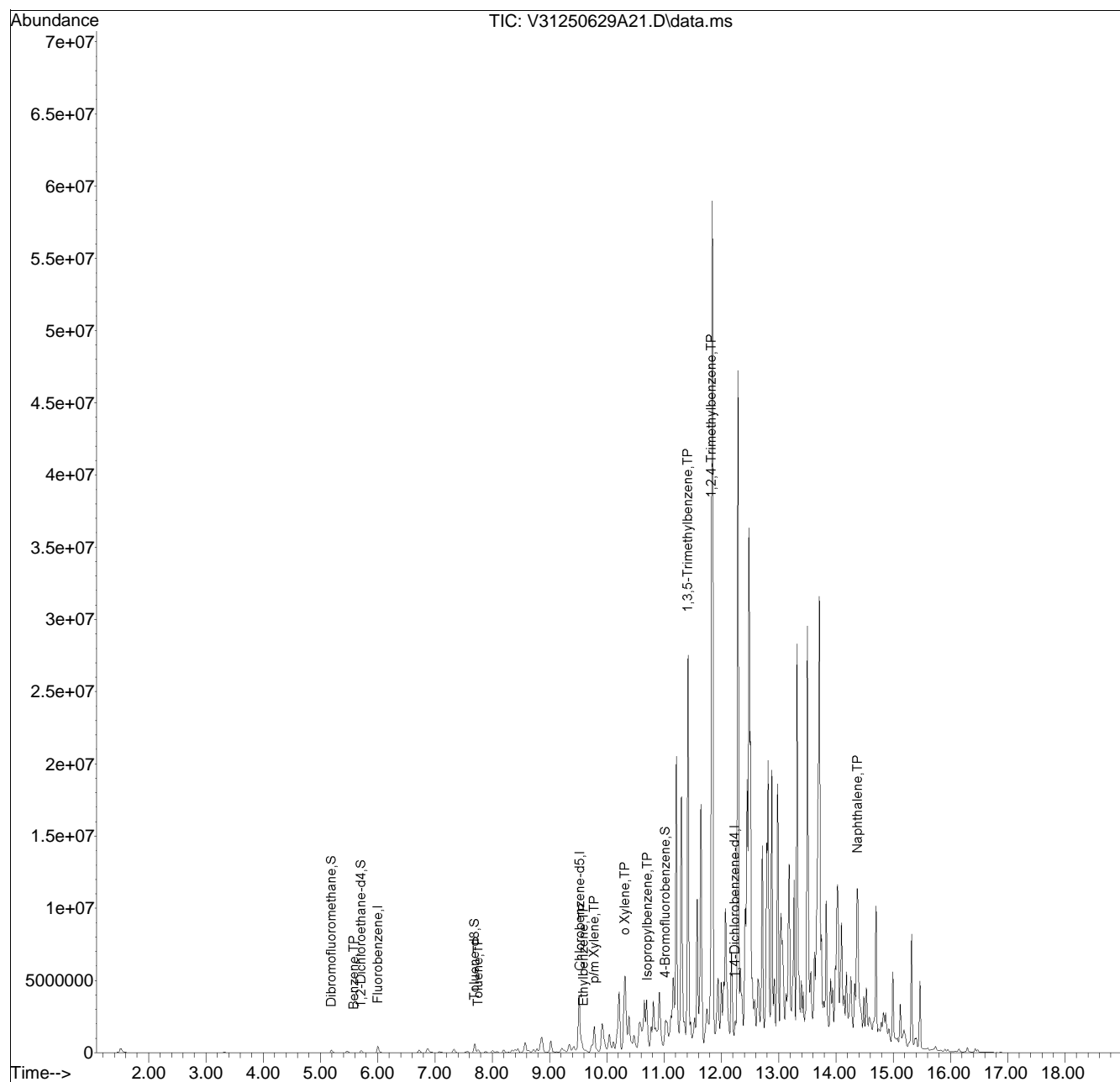


## Quantitation Report (QT Reviewed)

Data Path : K:\VOA131\2025\250629A\  
Data File : V31250629A21.D  
Acq On : 29 Jun 2025 06:54 pm  
Operator : VOA131:JIC  
Sample : 12538379-06,31,4.97,5,,b,32.59,37.81,0.25  
Misc : WG2085305,ICAL22246  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 30 08:29:16 2025  
Quant Method : K:\VOA131\2025\250629A\V131\_250502A\_8260.m  
Quant Title : VOLATILES BY GC/MS  
QLast Update : Sat May 03 08:26:58 2025  
Response via : Initial Calibration

Sub List : 8260-PA\_ShortList - PA Short list629A01.D•

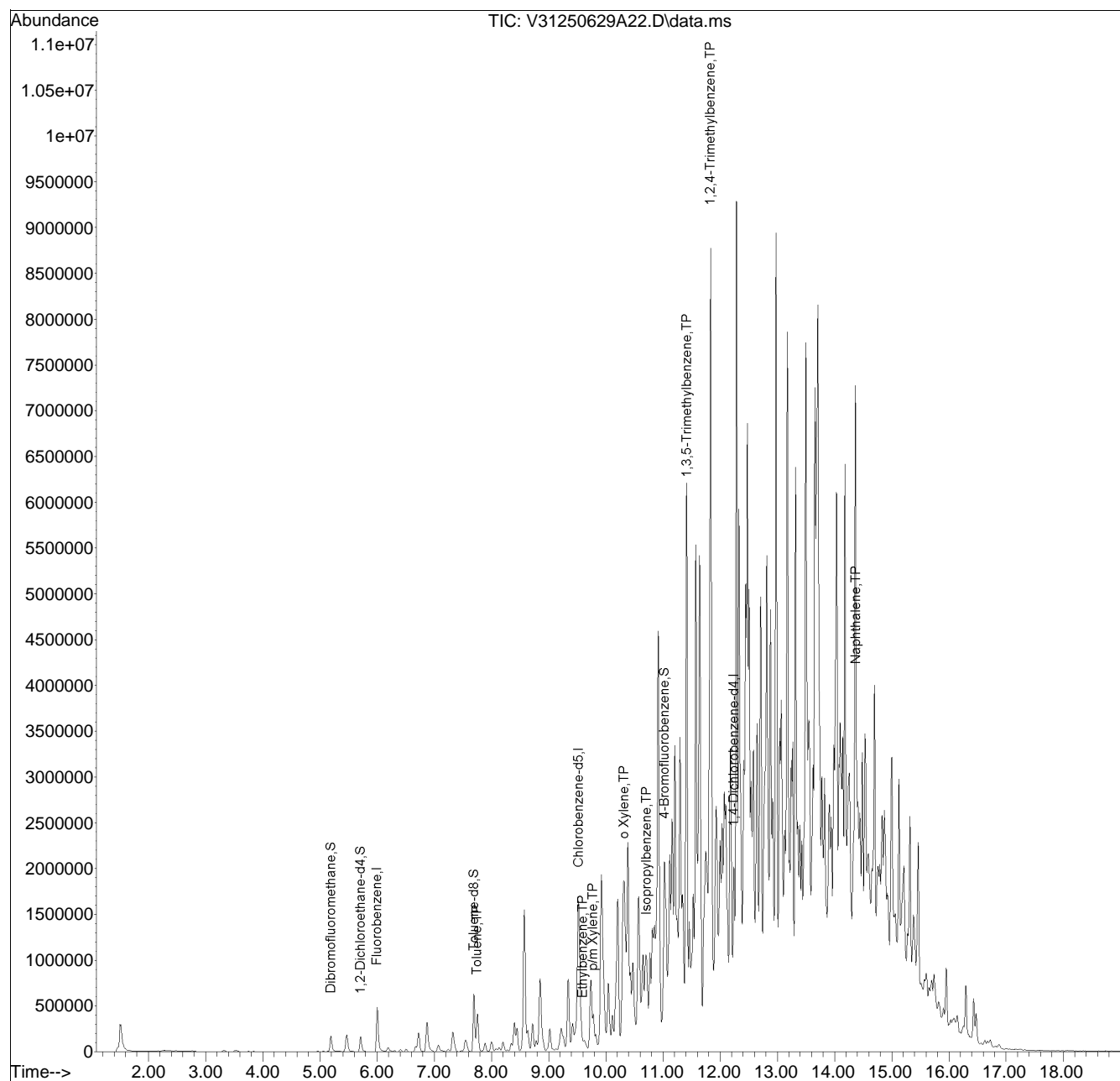


## Quantitation Report (QT Reviewed)

Data Path : K:\VOA131\2025\250629A\  
Data File : V31250629A22.D  
Acq On : 29 Jun 2025 07:16 pm  
Operator : VOA131:JIC  
Sample : 12538379-07,31,5.40,5,,b,32.38,38.03,0.25  
Misc : WG2085305,ICAL22246  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 30 08:29:27 2025  
Quant Method : K:\VOA131\2025\250629A\V131\_250502A\_8260.m  
Quant Title : VOLATILES BY GC/MS  
QLast Update : Sat May 03 08:26:58 2025  
Response via : Initial Calibration

Sub List : 8260-PA\_ShortList - PA Short list629A01.D•

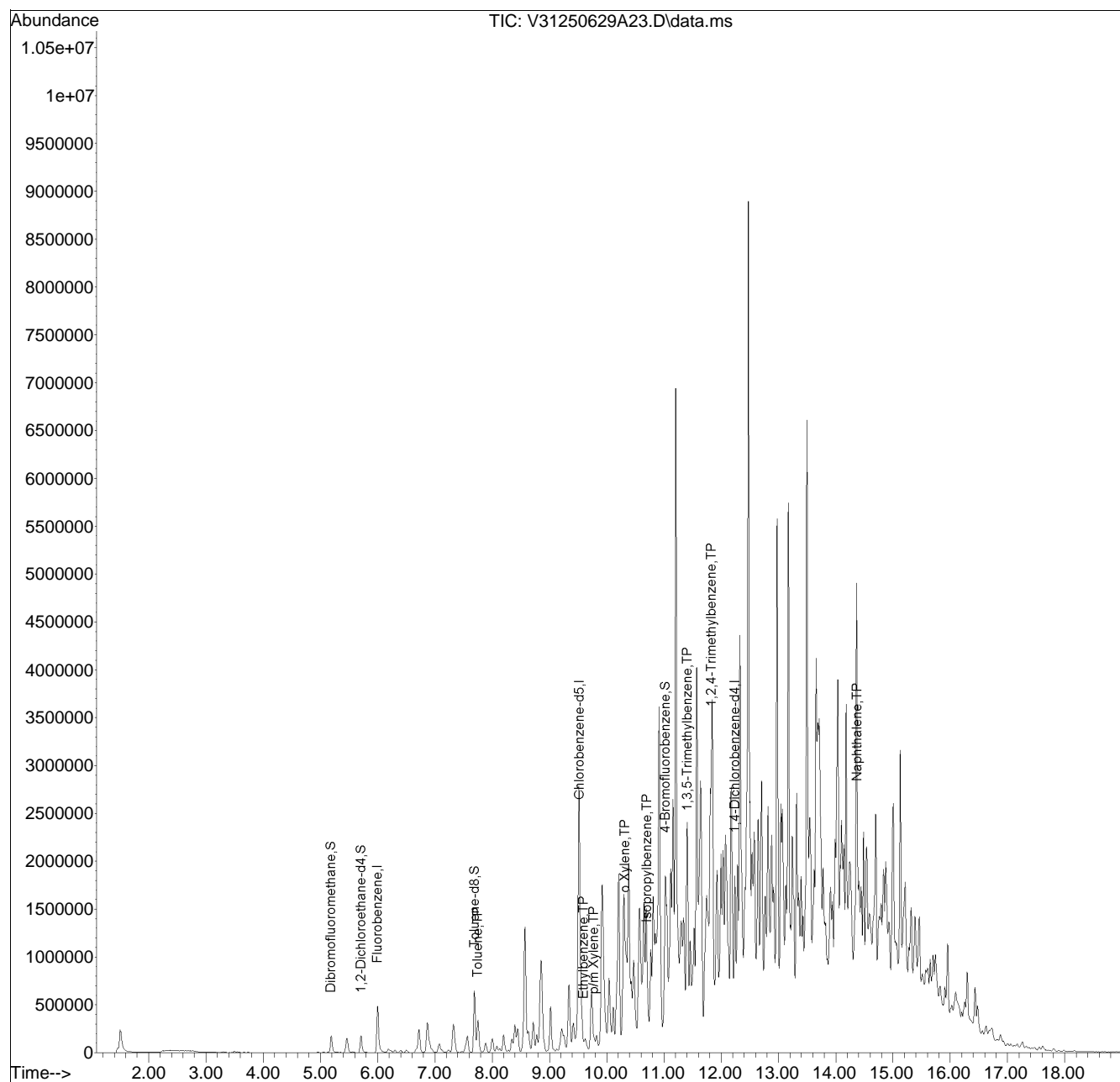


## Quantitation Report (QT Reviewed)

Data Path : K:\VOA131\2025\250629A\  
Data File : V31250629A23.D  
Acq On : 29 Jun 2025 07:38 pm  
Operator : VOA131:JIC  
Sample : 12538379-10,31h,5.22,5,0.100,,a,29.98,35.70,0  
Misc : WG2085307,ICAL22246  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 30 06:05:41 2025  
Quant Method : K:\VOA131\2025\250629A\V131\_250502A\_8260.m  
Quant Title : VOLATILES BY GC/MS  
QLast Update : Sat May 03 08:26:58 2025  
Response via : Initial Calibration

Sub List : 8260-PA\_ShortList - PA Short list629A01.D•

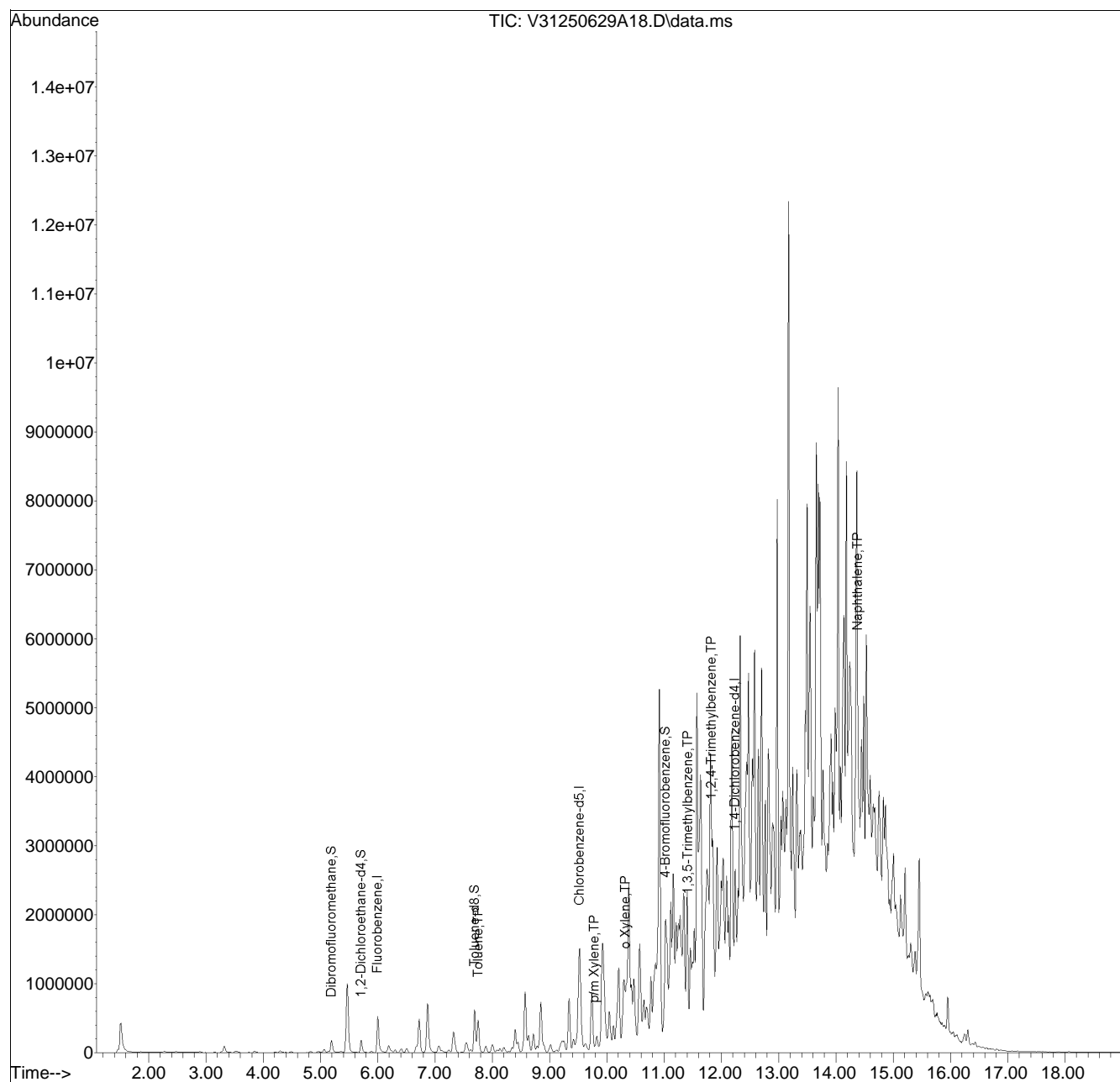


## Quantitation Report (QT Reviewed)

Data Path : K:\VOA131\2025\250629A\  
Data File : V31250629A18.D  
Acq On : 29 Jun 2025 05:47 pm  
Operator : VOA131:JIC  
Sample : 12538379-13,31,5.62,5,,b,32.72,38.59,0.25  
Misc : WG2085305,ICAL22246  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 30 08:27:31 2025  
Quant Method : K:\VOA131\2025\250629A\V131\_250502A\_8260.m  
Quant Title : VOLATILES BY GC/MS  
QLast Update : Sat May 03 08:26:58 2025  
Response via : Initial Calibration

Sub List : 8260-PA\_ShortList - PA Short list629A01.D•



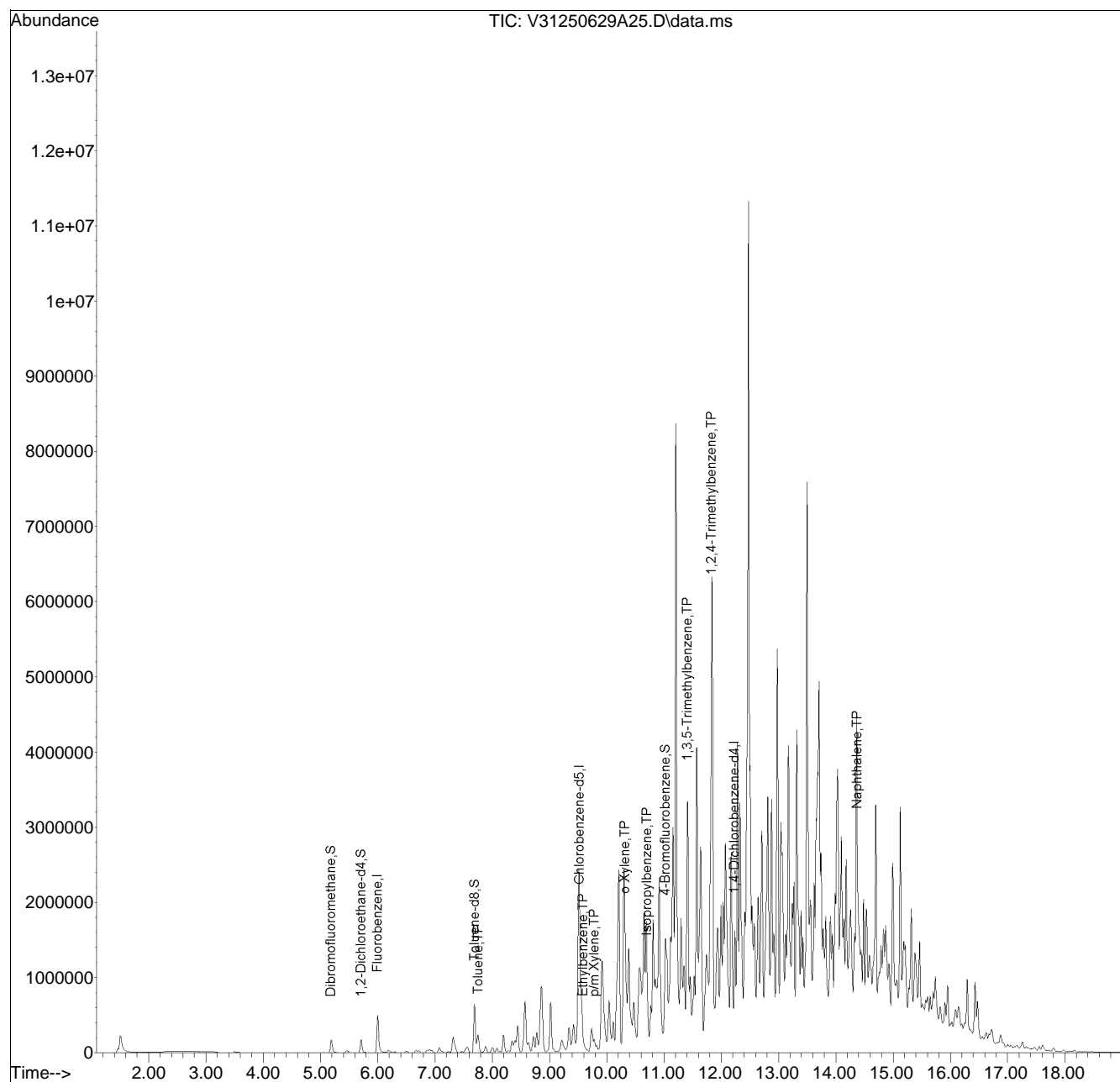


## Quantitation Report (QT Reviewed)

Data Path : K:\VOA131\2025\250629A\  
Data File : V31250629A25.D  
Acq On : 29 Jun 2025 08:23 pm  
Operator : VOA131:JIC  
Sample : 12538379-14,31h,5.01,5,0.100,,a,30.06,35.57,0  
Misc : WG2085307,ICAL22246  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 30 08:30:31 2025  
Quant Method : K:\VOA131\2025\250629A\V131\_250502A\_8260.m  
Quant Title : VOLATILES BY GC/MS  
QLast Update : Sat May 03 08:26:58 2025  
Response via : Initial Calibration

Sub List : 8260-PA\_ShortList - PA Short list629A01.D•





## Sample Delivery Group Summary

Pace Job Number : L2538379

Received : 18-JUN-2025

Reviewer : Monique Irving

Account Name : Groundwater & Environmental Service

Project Number : PROJ-051861

Project Name : SUNOCO PIPELINE LP (SPLP)

### Delivery Information

Samples Delivered By : Pace Courier

Chain of Custody : Present

### Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	2.0	
B	Absent/	Ice	2.5	

### Condition Information

1) All samples on COC received?	<b>YES</b>
2) Extra samples received?	<b>NO</b>
3) Are there any sample container discrepancies?	<b>NO</b>
4) Are there any discrepancies between COC & sample labels?	<b>NO</b>
5) Are samples in appropriate containers for requested analysis?	<b>YES</b>
6) Are samples properly preserved for requested analysis?	<b>YES</b>
7) Are samples within holding time for requested analysis?	<b>YES</b>
8) All sampling equipment returned?	<b>NA</b>

### Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	<b>NO</b>
--	-----------



## ANALYTICAL REPORT

Lab Number:	L2515726
Client:	Groundwater & Environmental Services, Inc 410 Eagleview Blvd Exton, PA 19341
ATTN:	Stephanie Grillo
Phone:	(641) 458-1077
Project Name:	SUNOCO PIPELINE LP (SPLP)
Project Number:	Not Specified
Report Date:	03/21/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** Not Specified

**Lab Number:** L2515726  
**Report Date:** 03/21/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2515726-01	RW-1@1'-2'	SOIL	WASHINGTON CROSSING, PA	03/18/25 14:40	03/18/25
L2515726-02	RW-1@4'-5'	SOIL	WASHINGTON CROSSING, PA	03/18/25 14:45	03/18/25

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** Not Specified

**Lab Number:** L2515726  
**Report Date:** 03/21/25

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

---

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** Not Specified

**Lab Number:** L2515726  
**Report Date:** 03/21/25

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Kelly O'Neill

Title: Technical Director/Representative

Date: 03/21/25

# ORGANICS

# **VOLATILES**



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2515726**Project Number:** Not Specified**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2515726-01  
 Client ID: RW-1 @ 1'-2'  
 Sample Location: WASHINGTON CROSSING, PA

Date Collected: 03/18/25 14:40  
 Date Received: 03/18/25  
 Field Prep: None

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260D  
 Analytical Date: 03/21/25 13:22  
 Analyst: JIC  
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0022	0.00023	1
Benzene	ND		mg/kg	0.00056	0.00019	1
1,2-Dichloroethane	ND		mg/kg	0.0011	0.00029	1
Toluene	ND		mg/kg	0.0011	0.00061	1
1,2-Dibromoethane	ND		mg/kg	0.00056	0.00033	1
Ethylbenzene	ND		mg/kg	0.0011	0.00016	1
p/m-Xylene	ND		mg/kg	0.0022	0.00063	1
o-Xylene	ND		mg/kg	0.0011	0.00033	1
Xylenes, Total	ND		mg/kg	0.0011	0.00033	1
Isopropylbenzene	ND		mg/kg	0.0011	0.00012	1
1,3,5-Trimethylbenzene	ND		mg/kg	0.0022	0.00022	1
1,2,4-Trimethylbenzene	ND		mg/kg	0.0022	0.00038	1
Naphthalene	ND		mg/kg	0.0045	0.00073	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	87		70-130
4-Bromofluorobenzene	84		70-130
Dibromofluoromethane	96		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2515726**Project Number:** Not Specified**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2515726-02  
 Client ID: RW-1 @4'-5'  
 Sample Location: WASHINGTON CROSSING, PA

Date Collected: 03/18/25 14:45  
 Date Received: 03/18/25  
 Field Prep: None

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260D  
 Analytical Date: 03/21/25 13:48  
 Analyst: JIC  
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0024	0.00024	1
Benzene	ND		mg/kg	0.00059	0.00020	1
1,2-Dichloroethane	ND		mg/kg	0.0012	0.00030	1
Toluene	ND		mg/kg	0.0012	0.00064	1
1,2-Dibromoethane	ND		mg/kg	0.00059	0.00035	1
Ethylbenzene	ND		mg/kg	0.0012	0.00017	1
p/m-Xylene	ND		mg/kg	0.0024	0.00066	1
o-Xylene	ND		mg/kg	0.0012	0.00034	1
Xylenes, Total	ND		mg/kg	0.0012	0.00034	1
Isopropylbenzene	ND		mg/kg	0.0012	0.00013	1
1,3,5-Trimethylbenzene	ND		mg/kg	0.0024	0.00023	1
1,2,4-Trimethylbenzene	ND		mg/kg	0.0024	0.00040	1
Naphthalene	ND		mg/kg	0.0047	0.00077	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	97		70-130



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2515726**Project Number:** Not Specified**Report Date:** 03/21/25

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D  
 Analytical Date: 03/21/25 11:34  
 Analyst: MNF

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG2043574-5					
Methyl tert butyl ether	ND		mg/kg	0.0020	0.00020
Benzene	ND		mg/kg	0.00050	0.00017
1,2-Dichloroethane	ND		mg/kg	0.0010	0.00026
Toluene	ND		mg/kg	0.0010	0.00054
1,2-Dibromoethane	ND		mg/kg	0.00050	0.00029
Ethylbenzene	ND		mg/kg	0.0010	0.00014
p/m-Xylene	ND		mg/kg	0.0020	0.00056
o-Xylene	ND		mg/kg	0.0010	0.00029
Xylenes, Total	ND		mg/kg	0.0010	0.00029
Isopropylbenzene	ND		mg/kg	0.0010	0.00011
1,3,5-Trimethylbenzene	ND		mg/kg	0.0020	0.00019
1,2,4-Trimethylbenzene	ND		mg/kg	0.0020	0.00033
Naphthalene	ND		mg/kg	0.0040	0.00065

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	91		70-130



# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Lab Number:** L2515726

**Project Number:** Not Specified

**Report Date:** 03/21/25

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG2043574-3 WG2043574-4								
Methyl tert butyl ether	95		91		66-130	4		30
Benzene	86		83		70-130	4		30
1,2-Dichloroethane	99		96		70-130	3		30
Toluene	82		80		70-130	2		30
1,2-Dibromoethane	90		90		70-130	0		30
Ethylbenzene	85		84		70-130	1		30
p/m-Xylene	88		86		70-130	2		30
o-Xylene	88		87		70-130	1		30
Isopropylbenzene	87		86		70-130	1		30
1,3,5-Trimethylbenzene	86		84		70-130	2		30
1,2,4-Trimethylbenzene	86		85		70-130	1		30
Naphthalene	106		108		70-130	2		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	93		94		70-130
Toluene-d8	88		89		70-130
4-Bromofluorobenzene	91		91		70-130
Dibromofluoromethane	92		92		70-130

## METALS

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2515726**Project Number:** Not Specified**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2515726-01

Date Collected: 03/18/25 14:40

Client ID: RW-1@1'-2'

Date Received: 03/18/25

Sample Location: WASHINGTON CROSSING, PA

Field Prep: None

Sample Depth:

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	ND		mg/kg	0.71	0.06	10	03/20/25 14:31	03/20/25 18:13	EPA 3050B	1,6020B	NTB



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2515726**Project Number:** Not Specified**Report Date:** 03/21/25**SAMPLE RESULTS**

Lab ID: L2515726-02

Date Collected: 03/18/25 14:45

Client ID: RW-1 @4'-5'

Date Received: 03/18/25

Sample Location: WASHINGTON CROSSING, PA

Field Prep: None

Sample Depth:

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	14		mg/kg	0.73	0.06	10	03/20/25 14:31	03/20/25 18:36	EPA 3050B	1,6020B	NTB



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2515726**Project Number:** Not Specified**Report Date:** 03/21/25

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG2043052-1										
Lead, Total	ND		mg/kg	0.60	0.05	10	03/20/25 14:31	03/20/25 18:04	1,6020B	NTB

### Prep Information

Digestion Method: EPA 3050B





**Lab Control Sample Analysis**  
**Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** Not Specified

**Lab Number:** L2515726  
**Report Date:** 03/21/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG2043052-2								
Lead, Total	90		-		80-120	-		20



# **Matrix Spike Analysis** Batch Quality Control

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Lab Number:** L2515726

**Project Number:** Not Specified

**Report Date:** 03/21/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02    QC Batch ID: WG2043052-3    QC Sample: L2515726-01    Client ID: RW-1@1'-2'												
Lead, Total	ND	51.4	57	111		-	-		75-125	-		20

**Lab Duplicate Analysis**  
*Batch Quality Control*

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** Not Specified

**Lab Number:** L2515726  
**Report Date:** 03/21/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG2043052-4 QC Sample: L2515726-01 Client ID: RW-1 @ 1'-2'						
Lead, Total	ND	8.9	mg/kg	NC		20



# **INORGANICS & MISCELLANEOUS**

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** Not Specified

**Lab Number:** L2515726  
**Report Date:** 03/21/25

**SAMPLE RESULTS**

**Lab ID:** L2515726-01  
**Client ID:** RW-1 @ 1'-2'  
**Sample Location:** WASHINGTON CROSSING, PA

**Date Collected:** 03/18/25 14:40  
**Date Received:** 03/18/25  
**Field Prep:** None

**Sample Depth:**  
**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.5		%	0.100	NA	1	-	03/19/25 20:56	121,2540G	SJB



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** Not Specified**Lab Number:** L2515726**Report Date:** 03/21/25**SAMPLE RESULTS****Lab ID:** L2515726-02**Client ID:** RW-1 @4'-5'**Sample Location:** WASHINGTON CROSSING, PA**Date Collected:** 03/18/25 14:45**Date Received:** 03/18/25**Field Prep:** None**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.8		%	0.100	NA	1	-	03/19/25 20:56	121,2540G	SJB



**Lab Duplicate Analysis**  
*Batch Quality Control***Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** Not Specified**Lab Number:** L2515726**Report Date:** 03/21/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2042688-1 QC Sample: L2515418-02 Client ID: DUP Sample						
Solids, Total	84.6	85.2	%	1		20

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2515726**Project Number:** Not Specified**Report Date:** 03/21/25**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information****Cooler Custody Seal**

A	Absent
B	Absent
C	Absent
D	Absent
E	Absent

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2515726-01A	Vial MeOH preserved	A	NA		3.3	Y	Absent		PA-8260HLW(14)
L2515726-01B	Vial water preserved	A	NA		3.3	Y	Absent	19-MAR-25 06:15	PA-8260HLW(14)
L2515726-01C	Vial water preserved	A	NA		3.3	Y	Absent		ARCHIVE()
L2515726-01D	Plastic 120ml unpreserved	A	NA		3.3	Y	Absent		TS(7)
L2515726-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.3	Y	Absent		PB-6020T(180)
L2515726-02A	Vial MeOH preserved	A	NA		3.3	Y	Absent		PA-8260HLW(14)
L2515726-02B	Vial water preserved	A	NA		3.3	Y	Absent	19-MAR-25 06:15	PA-8260HLW(14)
L2515726-02C	Vial water preserved	A	NA		3.3	Y	Absent	19-MAR-25 06:15	PA-8260HLW(14)
L2515726-02D	Plastic 120ml unpreserved	A	NA		3.3	Y	Absent		TS(7)
L2515726-02E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.3	Y	Absent		PB-6020T(180)

**Container Comments**

L2515726-01C Container Received Empty.



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2515726**Project Number:** Not Specified**Report Date:** 03/21/25

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

*Report Format: DU Report with 'J' Qualifiers*

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2515726**Project Number:** Not Specified**Report Date:** 03/21/25**Footnotes**

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

**Terms**

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenzo(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Data Qualifiers**

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2515726**Project Number:** Not Specified**Report Date:** 03/21/25**Data Qualifiers**

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2515726**Project Number:** Not Specified**Report Date:** 03/21/25

### REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

### LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Pace Analytical Services LLC**Facility: **Northeast**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 27

Published Date: 01/24/2025

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**Certification Information****The following analytes are not included in our Primary NELAP Scope of Accreditation:****Westborough Facility – 8 Walkup Dr. Westborough, MA 01581****EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**MADEP-APH.****Nonpotable Water:** EPA RSK-175 Dissolved Gases**Biological Tissue Matrix:** EPA 3050B**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048****EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Nonpotable Water:** EPA RSK-175 Dissolved Gases**The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:****Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)****The following analytes are included in our Massachusetts DEP Scope of Accreditation****Westborough Facility – 8 Walkup Dr. Westborough, MA 01581*****Drinking Water*****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.***Non-Potable Water*****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables).**Microbiology:** SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048*****Drinking Water*****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522, EPA 537.1.*****Non-Potable Water*****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

**Pace Analytical Services LLC**ID No.: **17873**Facility: **Northeast**

Revision 27

Department: **Quality Assurance**

Published Date: 01/24/2025

**Title: Certificate/Approval Program Summary**

Page 2 of 2

**Certification IDs:****Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048**

CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048**

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

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For a complete listing of analytes and methods, please contact your Project Manager.





Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions located at <https://info.pacelabs.com/india/usa-standard-terms.pdf>



## ANALYTICAL REPORT

Lab Number:	L2516006
Client:	Groundwater & Environmental Services, Inc 410 Eagleview Blvd Exton, PA 19341
ATTN:	Stephanie Grillo
Phone:	(641) 458-1077
Project Name:	SUNOCO PIPELINE LP (SPLP)
Project Number:	Not Specified
Report Date:	03/24/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)





**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** Not Specified

**Lab Number:** L2516006  
**Report Date:** 03/24/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2516006-01	RW-1@10'-11'	SOIL	WASHINGTON CROSSING, PA	03/19/25 14:55	03/19/25

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** Not Specified

**Lab Number:** L2516006  
**Report Date:** 03/24/25

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** Not Specified

**Lab Number:** L2516006  
**Report Date:** 03/24/25

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

*Melissa Sturgis* Melissa Sturgis

Title: Technical Director/Representative

Date: 03/24/25

# ORGANICS

# VOLATILES

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2516006**Project Number:** Not Specified**Report Date:** 03/24/25**SAMPLE RESULTS**

Lab ID: L2516006-01  
 Client ID: RW-1 @10'-11'  
 Sample Location: WASHINGTON CROSSING, PA

Date Collected: 03/19/25 14:55  
 Date Received: 03/19/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260D  
 Analytical Date: 03/24/25 02:37  
 Analyst: AJK  
 Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0019	0.00020	1
Benzene	0.00025	J	mg/kg	0.00048	0.00016	1
1,2-Dichloroethane	ND		mg/kg	0.00097	0.00025	1
Toluene	ND		mg/kg	0.00097	0.00053	1
1,2-Dibromoethane	ND		mg/kg	0.00048	0.00028	1
Ethylbenzene	ND		mg/kg	0.00097	0.00014	1
p/m-Xylene	ND		mg/kg	0.0019	0.00054	1
o-Xylene	ND		mg/kg	0.00097	0.00028	1
Xylenes, Total	ND		mg/kg	0.00097	0.00028	1
Isopropylbenzene	ND		mg/kg	0.00097	0.00010	1
1,3,5-Trimethylbenzene	ND		mg/kg	0.0019	0.00019	1
1,2,4-Trimethylbenzene	ND		mg/kg	0.0019	0.00032	1
Naphthalene	ND		mg/kg	0.0039	0.00063	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	134	Q	70-130
Dibromofluoromethane	108		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2516006**Project Number:** Not Specified**Report Date:** 03/24/25

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D  
 Analytical Date: 03/24/25 02:11  
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG2044491-5					
Methyl tert butyl ether	ND		mg/kg	0.0020	0.00020
Benzene	ND		mg/kg	0.00050	0.00017
1,2-Dichloroethane	ND		mg/kg	0.0010	0.00026
Toluene	ND		mg/kg	0.0010	0.00054
1,2-Dibromoethane	ND		mg/kg	0.00050	0.00029
Ethylbenzene	ND		mg/kg	0.0010	0.00014
p/m-Xylene	ND		mg/kg	0.0020	0.00056
o-Xylene	ND		mg/kg	0.0010	0.00029
Xylenes, Total	ND		mg/kg	0.0010	0.00029
Isopropylbenzene	ND		mg/kg	0.0010	0.00011
1,3,5-Trimethylbenzene	ND		mg/kg	0.0020	0.00019
1,2,4-Trimethylbenzene	ND		mg/kg	0.0020	0.00033
Naphthalene	ND		mg/kg	0.0040	0.00065

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Lab Number:** L2516006

**Project Number:** Not Specified

**Report Date:** 03/24/25

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG2044491-3 WG2044491-4								
Methyl tert butyl ether	111		114		66-130	3		30
Benzene	101		105		70-130	4		30
1,2-Dichloroethane	112		113		70-130	1		30
Toluene	80		81		70-130	1		30
1,2-Dibromoethane	95		98		70-130	3		30
Ethylbenzene	80		82		70-130	2		30
p/m-Xylene	85		86		70-130	1		30
o-Xylene	87		89		70-130	2		30
Isopropylbenzene	78		80		70-130	3		30
1,3,5-Trimethylbenzene	80		83		70-130	4		30
1,2,4-Trimethylbenzene	81		84		70-130	4		30
Naphthalene	91		92		70-130	1		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	107		108		70-130
Toluene-d8	92		92		70-130
4-Bromofluorobenzene	100		101		70-130
Dibromofluoromethane	104		102		70-130



## METALS

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2516006**Project Number:** Not Specified**Report Date:** 03/24/25**SAMPLE RESULTS**

Lab ID: L2516006-01

Date Collected: 03/19/25 14:55

Client ID: RW-1@10'-11'

Date Received: 03/19/25

Sample Location: WASHINGTON CROSSING, PA

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	14		mg/kg	0.61	0.05	10	03/20/25 14:31	03/20/25 20:31	EPA 3050B	1,6020B	NTB



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2516006**Project Number:** Not Specified**Report Date:** 03/24/25

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG2043052-1										
Lead, Total	ND		mg/kg	0.60	0.05	10	03/20/25 14:31	03/20/25 18:04	1,6020B	NTB

### Prep Information

Digestion Method: EPA 3050B



**Lab Control Sample Analysis**  
**Batch Quality Control****Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** Not Specified**Lab Number:** L2516006**Report Date:** 03/24/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG2043052-2								
Lead, Total	90		-		80-120	-		20

Matrix Spike Analysis  
Batch Quality Control

Project Name: SUNOCO PIPELINE LP (SPLP)  
Project Number: Not Specified

Lab Number: L2516006  
Report Date: 03/24/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG2043052-3    QC Sample: L2515726-01    Client ID: MS Sample												
Lead, Total	ND	51.4	57	111		-	-		75-125	-		20



**Lab Duplicate Analysis**  
*Batch Quality Control*

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** Not Specified

**Lab Number:** L2516006  
**Report Date:** 03/24/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG2043052-4 QC Sample: L2515726-01 Client ID: DUP Sample						
Lead, Total	ND	8.9	mg/kg	NC		20



# **INORGANICS & MISCELLANEOUS**

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** Not Specified**Lab Number:** L2516006**Report Date:** 03/24/25**SAMPLE RESULTS****Lab ID:** L2516006-01**Client ID:** RW-1 @10'-11'**Sample Location:** WASHINGTON CROSSING, PA**Date Collected:** 03/19/25 14:55**Date Received:** 03/19/25**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.0		%	0.100	NA	1	-	03/20/25 14:49	121,2540G	KJL





**Lab Duplicate Analysis**  
*Batch Quality Control***Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** Not Specified**Lab Number:** L2516006**Report Date:** 03/24/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG2043090-1 QC Sample: L2515411-01 Client ID: DUP Sample						
Solids, Total	96.4	96.1	%	0		20

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2516006**Project Number:** Not Specified**Report Date:** 03/24/25**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information****Cooler**                      **Custody Seal**

A                                  Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2516006-01A	Vial MeOH preserved	A	NA		3.3	Y	Absent		PA-8260HLW(14)
L2516006-01B	Vial water preserved	A	NA		3.3	Y	Absent	20-MAR-25 06:27	PA-8260HLW(14)
L2516006-01C	Vial water preserved	A	NA		3.3	Y	Absent	20-MAR-25 06:27	PA-8260HLW(14)
L2516006-01D	Plastic 120ml unpreserved	A	NA		3.3	Y	Absent		TS(7)
L2516006-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.3	Y	Absent		PB-6020T(180)

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2516006**Project Number:** Not Specified**Report Date:** 03/24/25

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

*Report Format: DU Report with 'J' Qualifiers*

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2516006**Project Number:** Not Specified**Report Date:** 03/24/25**Footnotes**

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

**Terms**

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenzo(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Data Qualifiers**

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2516006**Project Number:** Not Specified**Report Date:** 03/24/25**Data Qualifiers**

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2516006**Project Number:** Not Specified**Report Date:** 03/24/25

### REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

### LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Pace Analytical Services LLC**Facility: **Northeast**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**Revision **27**Published Date: **01/24/2025**Page **1** of **2****Certification Information**

The following analytes are not included in our Primary NELAP Scope of Accreditation:

**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581****EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**MADEP-APH.****Nonpotable Water:** EPA RSK-175 Dissolved Gases**Biological Tissue Matrix:** EPA 3050B**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048****EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Nonpotable Water:** EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)**

The following analytes are included in our Massachusetts DEP Scope of Accreditation

**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables).**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

**Pace Analytical Services LLC**ID No.: **17873**Facility: **Northeast**

Revision 27

Department: **Quality Assurance**

Published Date: 01/24/2025

**Title: Certificate/Approval Program Summary**

Page 2 of 2

**Certification IDs:****Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048**

CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048**

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

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For a complete listing of analytes and methods, please contact your Project Manager.



125/8006

CHAIN-OF-CUSTODY Analytical Request Document										
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <a href="https://info.pacelabs.com/hubfs/pac-standard-terms.pdf">https://info.pacelabs.com/hubfs/pac-standard-terms.pdf</a> Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields										
Company Name: GES, Inc.				Contact/Report To: Stephanie Grillo						
Street Address: 410 Eagleview Blvd, Suite 110 Exton, PA 19341				Phone #: (610) 458-1077x3064 / (610) 458-2300						
				E-mail: Sgrillo@gesonline.com; gesinbox@gesonline.com						
				CTEH_Deliverables@enrwd.com; labresults@cteh.com; jwilson@cteh.com; ges@gesonline.com						
Customer Project #:				Invoice To: ges-invoices@gesonline.com						
Project Name: Sunoco Pipeline LP (SPLP) Washington Crossing				Invoice E-Mail: ges-invoices@gesonline.com						
Site Collection Info/Facility ID (if applicable): Washington Crossing, PA				Purchase Order # (if applicable): 0225040-06-160				Specify Container Size **		
				Quote #:				6   6   3 Identify Container Preservative Type***		
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET				County/State origin of sample(s): PA				4   8   2 Analysis Requested		
Data Deliverables:		Regulatory Program (DW, RCRA, etc.) as applicable: DW		Rush (Pre-approval Required): [ ] 2 day [ ] 3 day [ ] 5 day [X] Other: 24						
[ ] Level II [ ] Level III [ ] Level IV		Date Results Requested: ASAP		Field Filtered (if applicable): [X] Yes [ ] No						
[X] EQUIS				Analysis Lead:						
[ ] Other: _____										
*Matrix Codes (insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (O), Wipe (WP), Tissue (T), Biosay (B), Vapor (V), Other (OT), Surface Water (SW), Sediment (SD), Sludge (SL), Corrosive (C)										
Customer Sample ID	Matrix	Comp/Grab	Collected (Start)		Composite End		# cont.	Number & Type of Containers		
			Date	Time	Date	Time		Plastic	Glass	
01 RU-1 @ 10'-11"	DW SS	G	3/19/25	1455	-	-	58	1	84	
Additional Instructions from Pace: Target VOCs by EPA 524.2 list: BTEX, Isopropylbenzene, MTBE, Naphthalene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, 1,2-Dichloroethane			Collected By:			Customer Remarks/Special Conditions / Possible Hazards:				
			Signature:							
Relinquished By / Company (Signature)			Date/Time		Received By / Company (Signature)		Date/Time		Tracking #	
[Signature] / GES			3/19/25 1520		[Signature] PA13		3/19/25 1520			
Relinquished By / Company (Signature)			Date/Time		Received By / Company (Signature)		Date/Time		Delivered By: [ ] In Person [ ] Courier [ ] FedEx [ ] UPS [ ] Other	
[Signature] PACB			3/19/25 1840		[Signature]		3/19 1840			
Relinquished By / Company (Signature)			Date/Time		Received By / Company (Signature)		Date/Time			
[Signature]			3/19		Anthony Green		MAR 19 2025 2230			
Relinquished By / Company (Signature)			Date/Time		Received By / Company (Signature)		Date/Time		Page: of	
Anthony Green					[Signature]		3/20 0405			



## ANALYTICAL REPORT

Lab Number:	L2532282
Client:	Groundwater & Environmental Services, Inc 410 Eagleview Blvd Exton, PA 19341
ATTN:	Stephanie Grillo
Phone:	(641) 458-1077
Project Name:	SUNOCO PIPELINE LP (SPLP)
Project Number:	PROJ-051861
Report Date:	06/02/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532282  
**Report Date:** 06/02/25

<b>Lab Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2532282-01	RW-2-0708	SOIL	E-25060-RL-25300050	05/20/25 10:00	05/22/25

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532282  
**Report Date:** 06/02/25

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

---

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532282  
**Report Date:** 06/02/25

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

The water-preserved VOA vials for Volatile Organics Low-Level analysis were received at the laboratory beyond the 48 hour holding time required for freezing. The client was notified and the results of the analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Melissa Sturgis

Title: Technical Director/Representative

Date: 06/02/25

# ORGANICS

# **VOLATILES**

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532282**Project Number:** PROJ-051861**Report Date:** 06/02/25**SAMPLE RESULTS**

Lab ID: L2532282-01

Date Collected: 05/20/25 10:00

Client ID: RW-2-0708

Date Received: 05/22/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260D

Analytical Date: 05/30/25 13:52

Analyst: JIC

Percent Solids: 77%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0031	0.00031	1
Benzene	ND		mg/kg	0.00077	0.00026	1
1,2-Dichloroethane	ND		mg/kg	0.0015	0.00040	1
Toluene	ND		mg/kg	0.0015	0.00084	1
1,2-Dibromoethane	ND		mg/kg	0.00077	0.00045	1
Ethylbenzene	ND		mg/kg	0.0015	0.00022	1
p/m-Xylene	ND		mg/kg	0.0031	0.00087	1
o-Xylene	ND		mg/kg	0.0015	0.00045	1
Xylenes, Total	ND		mg/kg	0.0015	0.00045	1
Isopropylbenzene	ND		mg/kg	0.0015	0.00017	1
1,3,5-Trimethylbenzene	ND		mg/kg	0.0031	0.00030	1
1,2,4-Trimethylbenzene	ND		mg/kg	0.0031	0.00052	1
Naphthalene	ND		mg/kg	0.0062	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	104		70-130



**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532282  
**Report Date:** 06/02/25

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D  
 Analytical Date: 05/30/25 09:21  
 Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG2073162-5					
Methyl tert butyl ether	ND		mg/kg	0.0020	0.00020
Benzene	ND		mg/kg	0.00050	0.00017
1,2-Dichloroethane	ND		mg/kg	0.0010	0.00026
Toluene	ND		mg/kg	0.0010	0.00054
1,2-Dibromoethane	ND		mg/kg	0.00050	0.00029
Ethylbenzene	ND		mg/kg	0.0010	0.00014
p/m-Xylene	ND		mg/kg	0.0020	0.00056
o-Xylene	ND		mg/kg	0.0010	0.00029
Xylenes, Total	ND		mg/kg	0.0010	0.00029
Isopropylbenzene	ND		mg/kg	0.0010	0.00011
1,3,5-Trimethylbenzene	ND		mg/kg	0.0020	0.00019
1,2,4-Trimethylbenzene	ND		mg/kg	0.0020	0.00033
Naphthalene	ND		mg/kg	0.0040	0.00065

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	97		70-130



# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Lab Number:** L2532282

**Project Number:** PROJ-051861

**Report Date:** 06/02/25

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG2073162-3 WG2073162-4								
Methyl tert butyl ether	92		87		66-130	6		30
Benzene	88		89		70-130	1		30
1,2-Dichloroethane	87		85		70-130	2		30
Toluene	88		88		70-130	0		30
1,2-Dibromoethane	90		88		70-130	2		30
Ethylbenzene	91		91		70-130	0		30
p/m-Xylene	92		92		70-130	0		30
o-Xylene	91		92		70-130	1		30
Isopropylbenzene	94		95		70-130	1		30
1,3,5-Trimethylbenzene	95		96		70-130	1		30
1,2,4-Trimethylbenzene	95		96		70-130	1		30
Naphthalene	93		91		70-130	2		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	95		94		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	104		104		70-130
Dibromofluoromethane	97		97		70-130

## METALS

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532282**Project Number:** PROJ-051861**Report Date:** 06/02/25**SAMPLE RESULTS**

Lab ID: L2532282-01

Date Collected: 05/20/25 10:00

Client ID: RW-2-0708

Date Received: 05/22/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 77%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	21		mg/kg	0.76	0.07	10	06/02/25 10:07	06/02/25 12:41	EPA 3050B	1,6020B	SMV



Project Name: SUNOCO PIPELINE LP (SPLP)

Lab Number: L2532282

Project Number: PROJ-051861

Report Date: 06/02/25

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG2073853-1										
Lead, Total	ND		mg/kg	0.60	0.05	10	06/02/25 10:07	06/02/25 12:08	1,6020B	SMV

### Prep Information

Digestion Method: EPA 3050B



**Lab Control Sample Analysis**  
**Batch Quality Control****Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2532282**Report Date:** 06/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG2073853-2								
Lead, Total	101		-		80-120	-		20

**Matrix Spike Analysis**  
**Batch Quality Control****Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532282**Project Number:** PROJ-051861**Report Date:** 06/02/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG2073853-3    QC Sample: L2532281-01    Client ID: MS Sample												
Lead, Total	12	49	58	94		-	-		75-125	-		20

**Lab Duplicate Analysis**  
*Batch Quality Control***Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2532282**Report Date:** 06/02/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG2073853-4 QC Sample: L2532281-01 Client ID: DUP Sample						
Lead, Total	12	16	mg/kg	29	Q	20



# **INORGANICS & MISCELLANEOUS**

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2532282**Report Date:** 06/02/25**SAMPLE RESULTS****Lab ID:** L2532282-01**Client ID:** RW-2-0708**Sample Location:** E-25060-RL-25300050**Date Collected:** 05/20/25 10:00**Date Received:** 05/22/25**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	76.6		%	0.100	NA	1	-	05/24/25 02:41	121,2540G	JMN



**Lab Duplicate Analysis**  
*Batch Quality Control***Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2532282**Report Date:** 06/02/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG2070700-1 QC Sample: L2531079-01 Client ID: DUP Sample						
Solids, Total	83.6	85.0	%	2		20

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532282**Project Number:** PROJ-051861**Report Date:** 06/02/25**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information****Cooler**                      **Custody Seal**

A                                  Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2532282-01A	Vial MeOH preserved	A	NA		2.2	Y	Absent		PA-8260HLW(14)
L2532282-01B	Vial water preserved	A	NA		2.2	Y	Absent	<b>23-MAY-25 10:40</b>	PA-8260HLW(14)
L2532282-01C	Vial water preserved	A	NA		2.2	Y	Absent	<b>23-MAY-25 10:40</b>	PA-8260HLW(14)
L2532282-01D	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		TS(7)
L2532282-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		PB-6020T(180)

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532282**Project Number:** PROJ-051861**Report Date:** 06/02/25

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

*Report Format: DU Report with 'J' Qualifiers*

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532282**Project Number:** PROJ-051861**Report Date:** 06/02/25**Footnotes**

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

**Terms**

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenzo(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Data Qualifiers**

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532282**Project Number:** PROJ-051861**Report Date:** 06/02/25**Data Qualifiers**

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532282  
**Report Date:** 06/02/25

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

## LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.





**Pace Analytical Services LLC**Facility: **Northeast**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 27

Published Date: 01/24/2025

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**Certification Information**

The following analytes are not included in our Primary NELAP Scope of Accreditation:

**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581****EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**MADEP-APH.****Nonpotable Water:** EPA RSK-175 Dissolved Gases**Biological Tissue Matrix:** EPA 3050B**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048****EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Nonpotable Water:** EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)**

The following analytes are included in our Massachusetts DEP Scope of Accreditation

**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables).**Microbiology:** SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

**Pace Analytical Services LLC**ID No.: **17873**Facility: **Northeast**

Revision 27

Department: **Quality Assurance**

Published Date: 01/24/2025

Title: **Certificate/Approval Program Summary**

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**Certification IDs:****Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048**

CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048**

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

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For a complete listing of analytes and methods, please contact your Project Manager.

[illegible]



## ANALYTICAL REPORT

Lab Number:	L2532283
Client:	Groundwater & Environmental Services, Inc 410 Eagleview Blvd Exton, PA 19341
ATTN:	Stephanie Grillo
Phone:	(641) 458-1077
Project Name:	SUNOCO PIPELINE LP (SPLP)
Project Number:	PROJ-051861
Report Date:	06/02/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532283  
**Report Date:** 06/02/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2532283-01	RW-3-0203	SOIL	E-25060-RL-25300050	05/19/25 14:00	05/22/25

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532283  
**Report Date:** 06/02/25

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532283**Project Number:** PROJ-051861**Report Date:** 06/02/25**Case Narrative (continued)**

## Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

## Volatile Organics

The water-preserved VOA vials for Volatile Organics Low-Level analysis were received at the laboratory beyond the 48 hour holding time required for freezing. The client was notified and the results of the analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Melissa Sturgis

Title: Technical Director/Representative

Date: 06/02/25

# ORGANICS



# **VOLATILES**

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532283**Project Number:** PROJ-051861**Report Date:** 06/02/25**SAMPLE RESULTS**

Lab ID: L2532283-01

Date Collected: 05/19/25 14:00

Client ID: RW-3-0203

Date Received: 05/22/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260D

Analytical Date: 05/31/25 15:39

Analyst: JIC

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0021	0.00021	1
Benzene	ND		mg/kg	0.00053	0.00018	1
1,2-Dichloroethane	ND		mg/kg	0.0010	0.00027	1
Toluene	ND		mg/kg	0.0010	0.00057	1
1,2-Dibromoethane	ND		mg/kg	0.00053	0.00031	1
Ethylbenzene	0.00029	J	mg/kg	0.0010	0.00015	1
p/m-Xylene	0.0015	J	mg/kg	0.0021	0.00059	1
o-Xylene	0.0012		mg/kg	0.0010	0.00031	1
Xylenes, Total	0.0027	J	mg/kg	0.0010	0.00031	1
Isopropylbenzene	0.00068	J	mg/kg	0.0010	0.00011	1
1,3,5-Trimethylbenzene	0.016		mg/kg	0.0021	0.00020	1
1,2,4-Trimethylbenzene	0.043		mg/kg	0.0021	0.00035	1
Naphthalene	0.068		mg/kg	0.0042	0.00068	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	97		70-130



**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532283  
**Report Date:** 06/02/25

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D  
 Analytical Date: 05/31/25 14:49  
 Analyst: MNF

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG2073640-5					
Methyl tert butyl ether	ND		mg/kg	0.0020	0.00020
Benzene	ND		mg/kg	0.00050	0.00017
1,2-Dichloroethane	ND		mg/kg	0.0010	0.00026
Toluene	ND		mg/kg	0.0010	0.00054
1,2-Dibromoethane	ND		mg/kg	0.00050	0.00029
Ethylbenzene	ND		mg/kg	0.0010	0.00014
p/m-Xylene	ND		mg/kg	0.0020	0.00056
o-Xylene	ND		mg/kg	0.0010	0.00029
Xylenes, Total	ND		mg/kg	0.0010	0.00029
Isopropylbenzene	ND		mg/kg	0.0010	0.00011
1,3,5-Trimethylbenzene	ND		mg/kg	0.0020	0.00019
1,2,4-Trimethylbenzene	ND		mg/kg	0.0020	0.00033
Naphthalene	ND		mg/kg	0.0040	0.00065

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	92		70-130

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Lab Number:** L2532283

**Project Number:** PROJ-051861

**Report Date:** 06/02/25

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG2073640-3 WG2073640-4								
Methyl tert butyl ether	95		90		66-130	5		30
Benzene	108		97		70-130	11		30
1,2-Dichloroethane	104		96		70-130	8		30
Toluene	108		99		70-130	9		30
1,2-Dibromoethane	96		93		70-130	3		30
Ethylbenzene	112		102		70-130	9		30
p/m-Xylene	116		105		70-130	10		30
o-Xylene	113		104		70-130	8		30
Isopropylbenzene	118		103		70-130	14		30
1,3,5-Trimethylbenzene	117		104		70-130	12		30
1,2,4-Trimethylbenzene	118		105		70-130	12		30
Naphthalene	100		93		70-130	7		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	99		103		70-130
Toluene-d8	104		103		70-130
4-Bromofluorobenzene	98		96		70-130
Dibromofluoromethane	98		98		70-130

## METALS

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532283**Project Number:** PROJ-051861**Report Date:** 06/02/25**SAMPLE RESULTS**

Lab ID: L2532283-01

Date Collected: 05/19/25 14:00

Client ID: RW-3-0203

Date Received: 05/22/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	29		mg/kg	0.65	0.06	10	06/02/25 10:07	06/02/25 12:45	EPA 3050B	1,6020B	SMV



Project Name: SUNOCO PIPELINE LP (SPLP)

Lab Number: L2532283

Project Number: PROJ-051861

Report Date: 06/02/25

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG2073853-1										
Lead, Total	ND		mg/kg	0.60	0.05	10	06/02/25 10:07	06/02/25 12:08	1,6020B	SMV

### Prep Information

Digestion Method: EPA 3050B



**Lab Control Sample Analysis**  
**Batch Quality Control****Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2532283**Report Date:** 06/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG2073853-2								
Lead, Total	101		-		80-120	-		20



Matrix Spike Analysis  
Batch Quality Control

Project Name: SUNOCO PIPELINE LP (SPLP)  
Project Number: PROJ-051861

Lab Number: L2532283  
Report Date: 06/02/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG2073853-3    QC Sample: L2532281-01    Client ID: MS Sample												
Lead, Total	12	49	58	94		-	-		75-125	-		20



**Lab Duplicate Analysis**  
*Batch Quality Control***Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2532283**Report Date:** 06/02/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG2073853-4 QC Sample: L2532281-01 Client ID: DUP Sample						
Lead, Total	12	16	mg/kg	29	Q	20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2532283**Report Date:** 06/02/25**SAMPLE RESULTS****Lab ID:** L2532283-01**Client ID:** RW-3-0203**Sample Location:** E-25060-RL-25300050**Date Collected:** 05/19/25 14:00**Date Received:** 05/22/25**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.6		%	0.100	NA	1	-	05/24/25 02:41	121,2540G	JMN



**Lab Duplicate Analysis**  
*Batch Quality Control***Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2532283**Report Date:** 06/02/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG2070700-1 QC Sample: L2531079-01 Client ID: DUP Sample						
Solids, Total	83.6	85.0	%	2		20

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532283**Project Number:** PROJ-051861**Report Date:** 06/02/25**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information****Cooler**                      **Custody Seal**

A                                  Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2532283-01A	Vial MeOH preserved	A	NA		2.2	Y	Absent		PA-8260HLW(14)
L2532283-01B	Vial water preserved	A	NA		2.2	Y	Absent	<b>23-MAY-25 10:40</b>	PA-8260HLW(14)
L2532283-01C	Vial water preserved	A	NA		2.2	Y	Absent	<b>23-MAY-25 10:40</b>	PA-8260HLW(14)
L2532283-01D	Plastic 120ml unpreserved	A	NA		2.2	Y	Absent		TS(7)
L2532283-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		PB-6020T(180)

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532283**Project Number:** PROJ-051861**Report Date:** 06/02/25

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

*Report Format: DU Report with 'J' Qualifiers*

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532283**Project Number:** PROJ-051861**Report Date:** 06/02/25**Footnotes**

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

**Terms**

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Data Qualifiers**

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers





**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532283**Project Number:** PROJ-051861**Report Date:** 06/02/25**Data Qualifiers**

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532283  
**Report Date:** 06/02/25

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

## LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Pace Analytical Services LLC**Facility: **Northeast**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**Revision **27**Published Date: **01/24/2025**Page **1** of **2****Certification Information**

The following analytes are not included in our Primary NELAP Scope of Accreditation:

**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581****EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**MADEP-APH.****Nonpotable Water:** EPA RSK-175 Dissolved Gases**Biological Tissue Matrix:** EPA 3050B**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048****EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Nonpotable Water:** EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)**

The following analytes are included in our Massachusetts DEP Scope of Accreditation

**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables).**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

**Pace Analytical Services LLC**ID No.: **17873**Facility: **Northeast**

Revision 27

Department: **Quality Assurance**

Published Date: 01/24/2025

Title: **Certificate/Approval Program Summary**

Page 2 of 2

**Certification IDs:****Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048**



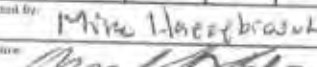

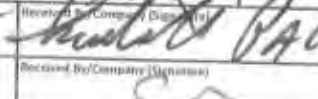
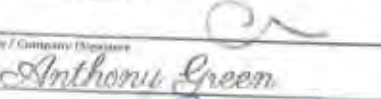



CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048**

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

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For a complete listing of analytes and methods, please contact your Project Manager.

 <b>CHAIN-OF-CUSTODY Analytical Request Document</b> Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <a href="https://info.pacelabs.com/biobio/pac-standard-terms.pdf">https://info.pacelabs.com/biobio/pac-standard-terms.pdf</a> Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields.										<b>L2532283</b> <b>GES - PA - ER</b> 																																																																																																																																																																																																							
Company Name: GES, Inc				Contact/Report To: Stephanie Grillo				Specify Container Size ** 6 6 5 5 Identify Container Preservative Type *** 10 1 1 1																																																																																																																																																																																																									
Street Address: 410 Eagleview Blvd, Suite 110 Exton, PA 19341				Phone #: (610) 458-1077x3064 / (610) 458-2300																																																																																																																																																																																																													
				E-mail: Sgrillo@gesonline.com; gesinbox@gesonline.com																																																																																																																																																																																																													
				C/TEH_Deliverables@envsrd.com; labresults@cteh.com; ges@gesonline.com																																																																																																																																																																																																													
Customer Project #:				Invoice To: Energy Transfer				**Container Size: (2) 2L, (3) 500 mL, (4) 250 mL, (5) 125 mL, (6) 60 mL vial, (7) 10 mL vial, (8) 5 mL vial, (9) 1.5 mL vial, (10) 0.5 mL vial *** (1) None, (2) HNO <sub>3</sub> , (3) H <sub>2</sub> SO <sub>4</sub> , (4) HCl, (5) HAcOH, (6) 40 mL vial, (7) NaHSO <sub>4</sub> , (8) 30% Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other																																																																																																																																																																																																									
Project Name: Sunoco Pipeline LP (SPLP) Washington Crossing				Invoice E-Mail: aaron@energytransfer.com																																																																																																																																																																																																													
Site Collection Info/Facility ID (if applicable): Washington Crossing, Upper Makefield Township, PA				Purchase Order # (if applicable): 112203239																																																																																																																																																																																																													
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET				Quote #:				County/State origin of sample(s): PA																																																																																																																																																																																																									
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [X] EQUIS [ ] Other:				Regulatory Program (DW, RCRA, etc.) as applicable: DW Rush (Pre-approval Required): [ ] 2 day [ ] 3 day [ ] 5 day [X] Other: 24 Date Results Requested: ASAP Field Filtered (if applicable): [X] Yes [ ] No Analysis: Lead				Analysis Requested PA Leaded gasoline (EPA 8260) - BTEX, MTBE, cumene, naphthalene, 1,2,4-TMB, 1,3,5-TMB, EDC Lead (EPA 7420 or 6010) 1,2-Dibromoethane (EDB) (EPA 8260) Moisture																																																																																																																																																																																																									
*Name Code Invert to Match the Instrument: Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioreactor (B), Vapor (V), Other (OT), Surface Water (SW), Sediment (SM), Sludge (SL), Gase (G)								Prop. Mgr. Acc/Plan/Chart ID Table # Profile/Template Sample Comment																																																																																																																																																																																																									
<table border="1"> <thead> <tr> <th rowspan="2">Customer Sample ID</th> <th rowspan="2">Matrix</th> <th rowspan="2">Comp/Grab</th> <th colspan="2">Collected (Start)</th> <th colspan="2">Composite End</th> <th rowspan="2"># cont.</th> <th colspan="2">Bottle &amp; Type of Containers</th> <th rowspan="2">PA Leaded gasoline (EPA 8260) - BTEX, MTBE, cumene, naphthalene, 1,2,4-TMB, 1,3,5-TMB, EDC</th> <th rowspan="2">Lead (EPA 7420 or 6010)</th> <th rowspan="2">1,2-Dibromoethane (EDB) (EPA 8260)</th> <th rowspan="2">Moisture</th> <th rowspan="2">Lab Use Only</th> <th rowspan="2">Preservation non-conformance identified for sample</th> </tr> <tr> <th>Date</th> <th>Time</th> <th>Date</th> <th>Time</th> <th>Plastic</th> <th>Glass</th> </tr> </thead> <tbody> <tr> <td>RW-3 - 0203</td> <td>SO</td> <td>G</td> <td>5/15/25</td> <td>1400</td> <td>-</td> <td>-</td> <td>5</td> <td>0</td> <td>5</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>RW-3</td> <td>SO</td> <td>G</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>5</td> <td>0</td> <td>5</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>MTT</td> <td></td> </tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>				Customer Sample ID	Matrix	Comp/Grab	Collected (Start)		Composite End		# cont.	Bottle & Type of Containers		PA Leaded gasoline (EPA 8260) - BTEX, MTBE, cumene, naphthalene, 1,2,4-TMB, 1,3,5-TMB, EDC	Lead (EPA 7420 or 6010)	1,2-Dibromoethane (EDB) (EPA 8260)	Moisture	Lab Use Only	Preservation non-conformance identified for sample	Date	Time	Date	Time	Plastic	Glass	RW-3 - 0203	SO	G	5/15/25	1400	-	-	5	0	5	X	X	X	X			RW-3	SO	G	-	-	-	-	5	0	5	X	X	X	X	MTT																																																																																																																																																		Collected By: Mike Haeffbrach Signature: 				Customer Remarks / Special Conditions / Possible Hazards: # coolers Thermometer ID: _____ Current Date Factor: _____ Temp (°C): _____ Current Temp (°C): _____ ( ) on ice			
Customer Sample ID	Matrix	Comp/Grab	Collected (Start)				Composite End		# cont.	Bottle & Type of Containers		PA Leaded gasoline (EPA 8260) - BTEX, MTBE, cumene, naphthalene, 1,2,4-TMB, 1,3,5-TMB, EDC	Lead (EPA 7420 or 6010)							1,2-Dibromoethane (EDB) (EPA 8260)	Moisture	Lab Use Only	Preservation non-conformance identified for sample																																																																																																																																																																																										
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## ANALYTICAL REPORT

Lab Number:	L2532281
Client:	Groundwater & Environmental Services, Inc 410 Eagleview Blvd Exton, PA 19341
ATTN:	Stephanie Grillo
Phone:	(641) 458-1077
Project Name:	SUNOCO PIPELINE LP (SPLP)
Project Number:	PROJ-051861
Report Date:	06/02/25

The original project report/data package is held by Pace Analytical Services. This report/data package is paginated and should be reproduced only in its entirety. Pace Analytical Services holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532281  
**Report Date:** 06/02/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2532281-01	RW-4-0405	SOIL	E-25060-RL-25300050	05/19/25 16:00	05/22/25



**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532281  
**Report Date:** 06/02/25

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

---



**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532281  
**Report Date:** 06/02/25

### Case Narrative (continued)

#### Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

#### Volatile Organics

The water-preserved VOA vials for Volatile Organics Low-Level analysis were received at the laboratory beyond the 48 hour holding time required for freezing. The client was notified and the results of the analysis are reported.

#### Total Metals

The WG2073853-4 Laboratory Duplicate RPD performed on L2532281-01 is outside the acceptance criteria for lead (29%) due to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Melissa Sturgis

Title: Technical Director/Representative

Date: 06/02/25

# ORGANICS

# **VOLATILES**

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532281**Project Number:** PROJ-051861**Report Date:** 06/02/25**SAMPLE RESULTS**

Lab ID: L2532281-01

Date Collected: 05/19/25 16:00

Client ID: RW-4-0405

Date Received: 05/22/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260D

Analytical Date: 05/30/25 13:13

Analyst: JIC

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methyl tert butyl ether	ND		mg/kg	0.0025	0.00025	1
Benzene	ND		mg/kg	0.00063	0.00021	1
1,2-Dichloroethane	ND		mg/kg	0.0013	0.00032	1
Toluene	ND		mg/kg	0.0013	0.00068	1
1,2-Dibromoethane	ND		mg/kg	0.00063	0.00037	1
Ethylbenzene	ND		mg/kg	0.0013	0.00018	1
p/m-Xylene	ND		mg/kg	0.0025	0.00070	1
o-Xylene	ND		mg/kg	0.0013	0.00037	1
Xylenes, Total	ND		mg/kg	0.0013	0.00037	1
Isopropylbenzene	ND		mg/kg	0.0013	0.00014	1
1,3,5-Trimethylbenzene	ND		mg/kg	0.0025	0.00024	1
1,2,4-Trimethylbenzene	ND		mg/kg	0.0025	0.00042	1
Naphthalene	ND		mg/kg	0.0050	0.00082	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	99		70-130

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532281  
**Report Date:** 06/02/25

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D  
 Analytical Date: 05/30/25 09:21  
 Analyst: JIC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG2073162-5					
Methyl tert butyl ether	ND		mg/kg	0.0020	0.00020
Benzene	ND		mg/kg	0.00050	0.00017
1,2-Dichloroethane	ND		mg/kg	0.0010	0.00026
Toluene	ND		mg/kg	0.0010	0.00054
1,2-Dibromoethane	ND		mg/kg	0.00050	0.00029
Ethylbenzene	ND		mg/kg	0.0010	0.00014
p/m-Xylene	ND		mg/kg	0.0020	0.00056
o-Xylene	ND		mg/kg	0.0010	0.00029
Xylenes, Total	ND		mg/kg	0.0010	0.00029
Isopropylbenzene	ND		mg/kg	0.0010	0.00011
1,3,5-Trimethylbenzene	ND		mg/kg	0.0020	0.00019
1,2,4-Trimethylbenzene	ND		mg/kg	0.0020	0.00033
Naphthalene	ND		mg/kg	0.0040	0.00065

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	97		70-130

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)

**Lab Number:** L2532281

**Project Number:** PROJ-051861

**Report Date:** 06/02/25

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG2073162-3 WG2073162-4								
Methyl tert butyl ether	92		87		66-130	6		30
Benzene	88		89		70-130	1		30
1,2-Dichloroethane	87		85		70-130	2		30
Toluene	88		88		70-130	0		30
1,2-Dibromoethane	90		88		70-130	2		30
Ethylbenzene	91		91		70-130	0		30
p/m-Xylene	92		92		70-130	0		30
o-Xylene	91		92		70-130	1		30
Isopropylbenzene	94		95		70-130	1		30
1,3,5-Trimethylbenzene	95		96		70-130	1		30
1,2,4-Trimethylbenzene	95		96		70-130	1		30
Naphthalene	93		91		70-130	2		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	95		94		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	104		104		70-130
Dibromofluoromethane	97		97		70-130

## METALS

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532281**Project Number:** PROJ-051861**Report Date:** 06/02/25**SAMPLE RESULTS**

Lab ID: L2532281-01

Date Collected: 05/19/25 16:00

Client ID: RW-4-0405

Date Received: 05/22/25

Sample Location: E-25060-RL-25300050

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	12		mg/kg	0.71	0.06	10	06/02/25 10:07	06/02/25 12:18	EPA 3050B	1,6020B	SMV





Project Name: SUNOCO PIPELINE LP (SPLP)

Lab Number: L2532281

Project Number: PROJ-051861

Report Date: 06/02/25

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG2073853-1										
Lead, Total	ND		mg/kg	0.60	0.05	10	06/02/25 10:07	06/02/25 12:08	1,6020B	SMV

### Prep Information

Digestion Method: EPA 3050B



**Lab Control Sample Analysis**  
**Batch Quality Control****Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2532281**Report Date:** 06/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG2073853-2								
Lead, Total	101		-		80-120	-		20

**Matrix Spike Analysis**  
**Batch Quality Control**

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532281  
**Report Date:** 06/02/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG2073853-3    QC Sample: L2532281-01    Client ID: RW-4-0405												
Lead, Total	12	49	58	94		-	-		75-125	-		20



**Lab Duplicate Analysis**  
*Batch Quality Control***Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2532281**Report Date:** 06/02/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG2073853-4 QC Sample: L2532281-01 Client ID: RW-4-0405						
Lead, Total	12	16	mg/kg	29	Q	20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2532281**Report Date:** 06/02/25**SAMPLE RESULTS****Lab ID:** L2532281-01**Client ID:** RW-4-0405**Sample Location:** E-25060-RL-25300050**Date Collected:** 05/19/25 16:00**Date Received:** 05/22/25**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.5		%	0.100	NA	1	-	05/24/25 02:41	121,2540G	JMN



**Lab Duplicate Analysis**  
*Batch Quality Control***Project Name:** SUNOCO PIPELINE LP (SPLP)**Project Number:** PROJ-051861**Lab Number:** L2532281**Report Date:** 06/02/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG2070700-1 QC Sample: L2531079-01 Client ID: DUP Sample						
Solids, Total	83.6	85.0	%	2		20

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532281**Project Number:** PROJ-051861**Report Date:** 06/02/25**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information****Cooler**                      **Custody Seal**

A                                  Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2532281-01A	Vial MeOH preserved	A	NA		2.2	Y	Absent		PA-8260HLW(14)
L2532281-01B	Vial water preserved	A	NA		2.2	Y	Absent	<b>23-MAY-25 10:40</b>	PA-8260HLW(14)
L2532281-01C	Vial water preserved	A	NA		2.2	Y	Absent	<b>23-MAY-25 10:40</b>	PA-8260HLW(14)
L2532281-01D	Plastic 120ml unpreserved	A	NA		2.2	Y	Absent		TS(7)
L2532281-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		PB-6020T(180)



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532281**Project Number:** PROJ-051861**Report Date:** 06/02/25

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

*Report Format: DU Report with 'J' Qualifiers*

**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532281**Project Number:** PROJ-051861**Report Date:** 06/02/25**Footnotes**

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

**Terms**

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Data Qualifiers**

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



**Project Name:** SUNOCO PIPELINE LP (SPLP)**Lab Number:** L2532281**Project Number:** PROJ-051861**Report Date:** 06/02/25**Data Qualifiers**

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** SUNOCO PIPELINE LP (SPLP)  
**Project Number:** PROJ-051861

**Lab Number:** L2532281  
**Report Date:** 06/02/25

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

## LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Pace Analytical Services LLC**

ID No.:17873

Facility: **Northeast**

Revision 27

Department: **Quality Assurance**

Published Date: 01/24/2025

Title: **Certificate/Approval Program Summary**

Page 1 of 2

**Certification Information**

The following analytes are not included in our Primary NELAP Scope of Accreditation:

**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581****EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**MADEP-APH.****Nonpotable Water:** EPA RSK-175 Dissolved Gases**Biological Tissue Matrix:** EPA 3050B**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048****EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Nonpotable Water:** EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)**

The following analytes are included in our Massachusetts DEP Scope of Accreditation

**Westborough Facility – 8 Walkup Dr. Westborough, MA 01581****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables).**Microbiology:** SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

**Pace Analytical Services LLC**ID No.: **17873**Facility: **Northeast**

Revision 27

Department: **Quality Assurance**

Published Date: 01/24/2025

Title: **Certificate/Approval Program Summary**

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**Certification IDs:****Westborough Facility – 8 Walkup Dr. Westborough, MA 01581**

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

**Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048**



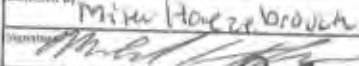
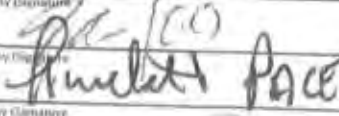
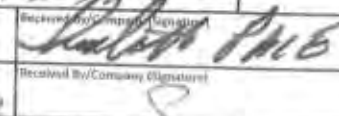

CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

**Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048**

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

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For a complete listing of analytes and methods, please contact your Project Manager.

 <b>CHAIN-OF-CUSTODY Analytical Request Document</b> Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <a href="https://info.paceanalytical.com/hubfs/pace-standard-terms.pdf">https://info.paceanalytical.com/hubfs/pace-standard-terms.pdf</a> Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields.										<b>L2532281</b> <b>GES - PA - ER</b> 											
Company Name: GES, Inc.					Contact/Report To: Stephanie Grillo					Specify Container Size ** 6 6 5 5 Identify Container Preservative Type*** 10 1 1 1											
Street Address: 410 Eagleview Blvd, Suite 110 Exton, PA 19341					Phone #: (610) 458-1077x3064 / (610) 458-2300																
					E-mail: Sgrillo@gesonline.com; gesinlax@gesonline.com																
					CTEH_Deliverables@envetd.com; labresults@cteh.com; ges@gesonline.com																
Customer Project #:					Invoice To: Energy Transfer					*** (1) None, (2) HNO <sub>3</sub> , (3) H <sub>2</sub> SO <sub>4</sub> , (4) HCl, (5) NaOH, (6) 40 mL vial, (7) H <sub>2</sub> SO <sub>4</sub> , (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other											
Project Name: Sunoco Pipeline LP (SPLP) Washington Crossing					Invoice E-Mail: apm@energytransfer.com																
Site Collection Info/Facility ID (if applicable): Washington Crossing, Upper Makefield Township, PA					Purchase Order # (if applicable): 112203239																
					Quote #:																
Time Zone Collected: JAK   JPE   JME   JCT   X   JT					County/State origin of sample(s): PA					Analysis Requested PA Leaded gasoline (EPA 8260) - BTEX, MTBE, cumene, naphthalene, 1,2,4-TMB, 1,3,5-TMB, EDC Lead (EPA 7420 or 6010) 1,2-Dibromoethane (EDB) (EPA 8260) Moisture											
Data Deliverables:					Regulatory Program (DW, RCRA, etc.) as applicable: DW																
I   Level II     Level III     Level IV   X   EQUIS     Other:					Rush (Pre-approval Required):     2 day     3 day     5 day   X   Other: 24																
					Date Results Requested: ASAP Field Filtered (if applicable):   X   Yes     No Analysts: Lead																
*Matrix Codes (Insert in Matrix box): Drinking Water (DW), Ground Water (GW), Surface Water (SW), Product (PL), Soil/Sediment (SS), Oil (OL), Wastewater (WW), Tissue (TS), Sludge (SL), Yarns (Y), Other (OT)										Lab Use Only Pres. Mgr. Acc#/Client ID Table # Profile/Template Sample Comment											
Customer Sample ID		Matrix	Comp/Grab	Collected (Start)		Composite End		# Cont.	Number & Type of Containers		PA Leaded gasoline (EPA 8260) - BTEX, MTBE, cumene, naphthalene, 1,2,4-TMB, 1,3,5-TMB, EDC Lead (EPA 7420 or 6010) 1,2-Dibromoethane (EDB) (EPA 8260) Moisture										
				Date	Time	Date	Time		Plastic	Glass											
RW-4 - 0405		SO	G	5/19/25	1600			5	0	5											
RW-4		SO	G					5	0	5											
Additional instructions from Pace: Target VOCs by EPA8260 list: BTEX, Isopropylbenzene, MTBE, Naphthalene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, 1,2-Dichloroethane												Collected By: Mike Hovze Signature:  Customer Remarks / Special Conditions / Possible Hazards:									
Relinquished By / Company Signature: 				Date/Time: 5/22/25 PM 1:30		Received By/Company Signature: 				Date/Time: 5-22-2025 2330		Tracking # Delivered by: in Person     Courier     FedEx     UPS     Other:									
Relinquished By / Company Signature: Anthony Green				Date/Time: 5-22-2025 2330		Received By/Company Signature: 				Date/Time: 5/23/25 0200		Page: vii									