



SPS Technologies Abington PA  
March 2, 2025 Daily Surface Water and  
Outfall Sampling Results Report

SPS Technologies

2025-03-05



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## 1. Executive Summary

WSP USA Inc. (WSP), on behalf of SPS Technologies Abington PA (SPS), collected five surface water samples and one outfall sample in accordance with SPS's Sampling Plan, which was submitted to the Philadelphia Water Department (PWD), the Pennsylvania Department of Environmental Protection (PADEP), and the United States Environmental Protection Agency (EPA). The samples were submitted to a Pennsylvania-certified analytical laboratory for analysis. The sample locations are shown in the attached **Figures 1** and **2** and the results of the analysis are shown below.

### Surface Water Samples:

		Upstream Offsite SW Sample Location 1	Upstream Offsite SW Sample Location 2	SW Sample Location 3	High School Road Sample Location	High School Road Sample Location Duplicate	Downstream SW Sample Location
Parameter	Units	Result	Result	Result	Result	Result	Result
Toluene	mg/L	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	mg/L	ND	ND	ND	ND	ND	ND
Chromium, Trivalent	mg/L	ND	ND	ND	ND	ND	ND
Chromium, Hexavalent	mg/L	ND	ND	0.003	ND	ND	ND
Total Cyanide	mg/L	ND	ND	0.006	0.002	ND	ND
Free Cyanide	mg/L	ND	ND	ND	0.004	ND	ND
Oil & Grease	mg/L	ND	ND	ND	ND	ND	ND
Total Chromium	mg/L	0.00035	0.00039	0.00023	0.00027	ND	ND
Total Nickel	mg/L	0.00091	0.00145	0.00277	0.00343	0.00235	0.00185
Dissolved Chromium	mg/L	0.0003	ND	ND	ND	ND	ND
Dissolved Nickel	mg/L	0.0007	0.0012	0.0032	0.0029	0.0027	0.0020
Hardness	mg/L	226.9	263.6	235	219.6	205	197.7
pH	SU	8.16	7.96	7.64	7.47	7.47	6.57

### Outfall Samples:

		Outfall 006
Parameter	Units	Result
Toluene	mg/L	ND
2-Butanone (MEK)	mg/L	ND
Chromium, Trivalent	mg/L	ND
Chromium, Hexavalent	mg/L	ND
Total Cyanide	mg/L	ND
Free Cyanide	mg/L	ND
Oil & Grease	mg/L	5.6
Total Suspended Solids	mg/L	ND
Nitrate/Nitrite as Nitrogen	mg/L	3.5
Chemical Oxygen Demand	mg/L	ND
Total Aluminum	mg/L	0.02008
Total Chromium	mg/L	0.00018
Total Copper	mg/L	0.00121
Total Iron	mg/L	0.2226
Total Lead	mg/L	ND
Total Nickel	mg/L	0.00136

Total Zinc	mg/L	0.02621
Dissolved Chromium	mg/L	ND
Dissolved Nickel	mg/L	0.0019
Hardness	mg/L	207.9
pH	SU	7.39

A detailed description of the sampling procedure, results, and data evaluation are included in this Report. The laboratory data validation reports and the complete laboratory analytical reports, including Quality Assurance/Quality Control (QA/QC) are attached to the Report.

## 2. Introduction

This Daily Surface Water and Outfall Sampling Results Report (Report) has been prepared by WSP USA Inc. (WSP) on behalf of SPS Technologies Abington PA (SPS), which operates the facility located at 301 Highland Ave, Jenkintown, Pennsylvania, 19046 (the Facility). The purpose of the Report is to provide off-site surface water and outfall sampling results collected in accordance with SPS's Sampling Plan, as prepared by WSP, which was submitted to the Philadelphia Water Department (PWD), the Pennsylvania Department of Environmental Protection (PADEP), and the United States Environmental Protection Agency (EPA) on February 21, 2025 and revised on February 25, 2025 (Sampling Plan). Refer to Sampling Plan **Figures 1** and **2** for sampling locations.

## 3. Site Background

SPS Technologies currently owns the Site. Operations at the Site consist of manufacturing bolts, nuts, screws, rivets, washers, furniture, and fixtures. Tookany Creek is located south of the SPS building and north of Paxson Ave.

## 4. Tookany Creek Offsite Investigation

### 4.1 Sampling Locations

The sampling locations displayed on **Figure 1** and **Figure 2** were selected based on discussions with PWD and PADEP and were identified in the Sampling Plan.

### 4.2 Surface Water and Outfall Sampling Field Methodology

The surface water and outfall sampling methodology was in accordance with the Sampling Plan.

The surface water and outfall field data collected for the surface water and outfall samples at each sampling location included the following:

- Water depth (for surface water samples only)
- Weather conditions
- Water velocity (if visibly flowing)
- Sample characteristics (clarity, appearance, color, odor, etc.)
- Water quality measurements (DO, pH, salinity, ORP, turbidity, conductivity, and temperature)
- Additional observations (e.g., wildlife sightings)

This data is documented on the daily surface water sampling forms attached in **Appendix A**. The in-field measurements of pH are provided on **Table 1** and **2**.



### 4.3 Sample Analysis

All samples were submitted to Pace Analytical in Westborough, Massachusetts (Certification No. 68-03671) and Pace Analytical in Mansfield, Massachusetts (Certification No. 68-02089), following chain-of-custody protocols.

### 4.4 Surface Water Sampling Daily Results

In accordance with the Sampling Plan, surface water samples were analyzed for the following parameters.

- pH (in-field measurement)
- Oil & grease
- Free cyanide
- Total cyanide
- Total nickel
- Dissolved nickel
- Total chromium
- Dissolved chromium
- Hexavalent chromium (speciated)
- Methyl ethyl ketone (MEK)
- Toluene
- Total hardness

The validated daily analytical results from surface water sampling are presented in **Table 1**.

### 4.5 Outfall Sampling Daily Results

In accordance with the Sampling Plan and PADEP's comments, outfall samples were analyzed for the following parameters:

- pH (in-field measurement)
- Chemical Oxygen Demand
- Total Suspended Solids
- Nitrate-Nitrite as N
- Total aluminum
- Total copper
- Total iron
- Total lead
- Toluene
- Methyl ethyl ketone (MEK)
- Hexavalent chromium (speciated)
- Total cyanide
- Free cyanide
- Oil & grease
- Total chromium

- Total nickel
- Total zinc
- Dissolved chromium
- Dissolved nickel
- Hardness

The validated daily analytical results from outfall sampling are presented in **Table 2**.

## 5. Daily Quality Assurance/Quality Control and Management

### 5.1 Field Quality Assurance/Quality Control Requirements

Field personnel performed data quality control (QC) verification of field measurements in consultation with the Pennsylvania Department of Environmental Protection Sampling and Analysis Plan (PADEP, 2023). This process included reviewing calibration records and duplicate readings to ensure data accuracy. Field measurements were documented in notebooks or field information forms. pH readings are also summarized in **Table 1**.

All hand equipment used during the sampling event was cleaned with Alconox and distilled water. Disposable sampling cups were used to collect the samples. Field personnel wore disposable nitrile sampling gloves. Sampling gloves were discarded after processing at each sample location and replaced before handling decontaminated equipment or work surfaces.

### 5.2 Analytical QA/QC Samples

All quality assurance/quality control (QA/QC), field duplicates (FD), and matrix spikes/matrix spike duplicates (MS/MSD) were collected in accordance with the Sampling Plan.

Trip blanks (TBs) accompanied each shipment of toluene and MEK samples at a rate of one per day. The following QA/QC samples were collected at a rate of 1 per 20 primary samples during each monitoring event: field duplicates (FD) and matrix spikes/matrix spike duplicates (MS/MSD). No field (rinsate) blanks were collected because single-use sample cups were used to collect the samples.

### 5.3 Data Evaluation

The reliability of the analytical data were evaluated to assess its suitability for use in the monitoring. In particular, the data's precision, accuracy, and sensitivity were evaluated based on field sampling documentation, adherence to sample holding times, and analysis of the QC samples (duplicates, spikes, and blanks). Data validation of the laboratory data was in accordance with the Sampling Plan. The data validation report is attached as **Appendix B**.

## 6. References

1. SPS Technologies, Sampling Plan. 25 Feb. 2025.
2. Pennsylvania Department of Environmental Protection. Water Quality Monitoring Protocols for Surface Waters. 2023.

## FIGURES & TABLES & APPENDICES





**SOURCE**  
NEARMAP IMAGERY, JUNE 16, 2024.

**LEGEND**  
 SW = SURFACE WATER  
 ● SURFACE WATER SAMPLE LOCATION  
 ● APPROXIMATE OUTFALL SAMPLE LOCATION



WSP USA Inc.  
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Blue Bell, PA 19422  
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PROJECTION / DATUM: PA83-SF  
 PREPARED BY: PJC  
 CHECKED BY: KM  
 REVIEWED BY: TK

CLIENT

PROJECT

**SURFACE WATER AND  
OUTFALL SAMPLING  
RESULTS REPORT**

PROJECT NO.:  
US0043268.2150

REVISION NO.:  
0

DATE:  
FEBRUARY 2025

FIGURE NO.:

**SURFACE WATER AND  
OUTFALL SAMPLE LOCATIONS**

**1**





**SOURCE**  
 GEOMAP IMAGERY, 2025.

**LEGEND**  
 SW = SURFACE WATER  
 ● SURFACE WATER SAMPLE LOCATION



WSP USA Inc.  
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 www.wsp.com

PROJECTION / DATUM: PA83-SF  
 PREPARED BY: PJC  
 CHECKED BY: KM  
 REVIEWED BY: TK  
 SCALE: 1" = 3,000'

CLIENT

PROJECT  
**SURFACE WATER AND  
 OUTFALL SAMPLING  
 RESULTS REPORT**

TITLE  
**OFF-SITE SURFACE WATER SAMPLE LOCATIONS**

PROJECT NO.: US0043268.2150  
 REVISION NO.: 0  
 DATE: FEBRUARY 2025  
 FIGURE NO.:



**Table 1**  
**Surface Water Analytical Results**  
**Daily Surface Water Sampling Results Report**  
**SPS Technologies**  
**Jenkintown, Pennsylvania**

Sample Location	Upstream Offsite SW Sample Location 1			Upstream Offsite SW Sample Location 2			SW Sample Location 3			High School Road Sample Location			High School Road Sample Location Duplicate			Downstream SW Sample Location			
	Field Sample ID	Lab Sample ID	Sampling Date	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	
Matrix	Water			Water			Water			Water			Water			Water			
Parameter	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL
<b>Volatile Organic Compounds</b>																			
Toluene	mg/L	ND		0.001	ND		0.001	ND		0.001	ND		0.001	ND		0.001	ND		0.001
2-Butanone (MEK)	mg/L	ND		0.01	ND		0.01	ND		0.01	ND		0.01	ND		0.01	ND		0.01
<b>General Chemistry</b>																			
Chromium, Trivalent	mg/L	ND		0.01	ND		0.01	ND		0.01	ND		0.01	ND		0.01	ND		0.01
Chromium, Hexavalent	mg/L	ND		0.01	ND		0.01	0.003	J	0.01	ND		0.01	ND		0.01	ND		0.01
Total Cyanide	mg/L	ND		0.005	ND		0.005	0.006		0.005	0.002	J	0.005	ND		0.005	ND		0.005
Free Cyanide	mg/L	ND		0.01	ND		0.01	ND		0.01	0.004	J	0.01	ND		0.01	ND		0.01
Oil & Grease	mg/L	ND		4	ND		4	ND		4	ND		4	ND		4	ND		4
<b>Total Metals</b>																			
Total Chromium	mg/L	0.00035	J	0.001	0.00039	J	0.001	0.00023	J	0.001	0.00027	J	0.001	ND		0.001	ND		0.001
Total Nickel	mg/L	0.00091	J	0.002	0.00145	J	0.002	0.00277		0.002	0.00343	J	0.002	0.00235	J	0.002	0.00185	J	0.002
<b>Dissolved Metals</b>																			
Dissolved Chromium	mg/L	0.0003	J	0.001	ND		0.001	ND		0.001	ND		0.001	ND		0.001	ND		0.001
Dissolved Nickel	mg/L	0.0007	J	0.002	0.0012	J	0.002	0.0032		0.002	0.0029		0.002	0.0027		0.002	0.002	J	0.002
<b>Total Hardness</b>																			
Hardness	mg/L	226.9		0.54	263.6		0.54	235		0.54	219.6		0.54	205		0.54	197.7		0.54
<b>Field Parameters</b>																			
pH <sup>1</sup>	SU	8.16			7.96			7.64			7.47			7.47			6.57		

**Notes:**

- 1.) Field measurements for pH were performed by WSP field personnel prior to sample collection using a Horiba U-52. Field measurements were not validated.
- 2.) Field duplicate sample FDSW\_030225 was collected from the High School Road SW4 sampling location.

**Abbreviations:**

mg/L: milligrams per liter  
 ND: Non-Detect  
 Q: Qualifier  
 RL: Reporting Limit  
 SU: Standard Units

**Qualifiers:**

J - Estimated Result



**Table 2**  
**Outfall Analytical Results**  
**Daily Surface Water Sampling Results Report**  
**SPS Technologies**  
**Jenkintown, Pennsylvania**

<b>Sample Location</b>	Outfall 006			
<b>Field Sample ID</b>	OF006_030225			
<b>Lab Sample ID</b>	L2511391-01			
<b>Sampling Date</b>	3/2/2025			
<b>Matrix</b>	Water			
<b>Parameter</b>	<b>Units</b>	<b>Result</b>	<b>Q</b>	<b>RL</b>
<b>Volatile Organic Compounds</b>				
Toluene	mg/L	ND		0.001
2-Butanone (MEK)	mg/L	ND		0.01
<b>General Chemistry</b>				
Chromium, Trivalent	mg/L	ND		0.01
Chromium, Hexavalent	mg/L	ND		0.01
Total Cyanide	mg/L	ND		0.005
Free Cyanide	mg/L	ND		0.01
Oil & Grease	mg/L	5.6		4
Total Suspended Solids	mg/L	ND		5
Nitrate/Nitrite as Nitrogen	mg/L	3.5		0.1
Chemical Oxygen Demand	mg/L	ND		20
<b>Total Metals</b>				
Total Aluminum	mg/L	0.02008		0.01
Total Chromium	mg/L	0.00018	J	0.001
Total Copper	mg/L	0.00121		0.001
Total Iron	mg/L	0.2226		0.05
Total Lead	mg/L	ND		0.001
Total Nickel	mg/L	0.00136	J	0.002
Total Zinc	mg/L	0.02621		0.005
<b>Dissolved Metals</b>				
Dissolved Chromium	mg/L	ND		0.001
Dissolved Nickel	mg/L	0.0019	J	0.002
<b>Total Hardness</b>				
Hardness	mg/L	207.9		0.54
<b>Field Parameters</b>				
pH <sup>1</sup>	SU	7.39		

**Notes:**

1.) Field measurements for pH were performed by WSP field personnel prior to sample collection using a Horiba U-52. Field measurements were not validated.

**Abbreviations:**

mg/L: milligrams per liter  
 ND: Non-Detect  
 Q: Qualifier  
 RL: Reporting Limit  
 SU: Standard Units

**Qualifiers:**

J - Estimated Result



**APPENDIX A – DAILY SURFACE WATER AND OUTFALL SAMPLING LOGS**



**SURFACE WATER/OUTFALL SAMPLE FIELD INFORMATION FORM**

Site: SPS  
 Location: Asington  
 Project Number: W0043268.2150  
 Meter/Type/Serial #: **Horiba U-52 #** SVSR3576 S/N: SVSR3576  
 Meter Calibrated @: 0820 3/2/25  
 Flow Meter **FH950 Meter #** S/N:  
 Sampling Date/Time: 0945, 1050, 1215, 1305, 1335 3/2/2025  
 Sampler(s): RC, CBS, MSS, JAP  
 Sampling Device: telescope pole + dipper ladle  
 Sample Characteristics: @ SW 1, 2, 4, 5: clear, no odor. @ SW 3: clear, no odor, sheen.  
 Analytical Parameters:

**Additional Notes:** SW3-030225 sheen present,  
pid = 0.0 ppm @ all locations.

Weather Conditions: 20° clear

STATION / SAMPLE	STATION DESCRIPTION (stream/lake/river)	DATE mm/dd/yy	TIME hr:min	TOTAL DEPTH inches	SAMPLE DEPTH in.	WATER TEMP Celsius	SALINITY ppt	pH SU	COND mS/cm	ORP mV	TURBIDITY NTU	DO mg/L	VELOCITY ft/sec
SW5-030225	Creek	3/2/25	0945	13"	6.5"	5.59	0.4	6.57	0.716	242	0.0	17.33	0.22
Sample Characteristics: <u>3/2/25 (H) clear, no odor</u>													
SW4-030225	Creek	3/2/25	1050	72"	36"	2.90	0.4	7.47	0.853	214	0.0	13.44	0.50
Sample Characteristics: <u>3/2/25 clear, no odor</u>													
SW3-030225	Creek	3/2/25	1215	20"	10"	4.15	0.3	7.64	0.701	148	0.0	16.15	0.50
Sample Characteristics: <u>clear, no odor, sheen</u>													
SW2-030225	Creek	3/2/25	1305	5.5"	2.75"	5.86	0.3	8.16	0.689	163	0.0	18.62	0.28
Sample Characteristics: <u>clear, no odor.</u>													
SW1-030225	Creek	3/2/25	1335	13"	6.5"	6.87	0.5	7.96	0.966	188	1.0	16.02	0.28
Sample Characteristics:													

*[Handwritten signatures and initials]*

Page 1 of 1

**WSP**

**SURFACE WATER/OUTFALL SAMPLE FIELD INFORMATION FORM**

Site: SPS  
 Location: Arlington  
 Project Number: US0043268 250  
 Meter/Type/Serial #: Horiba U-52 # S/N: JVSR3JTG  
 Meter Calibrated @: 0820 3/2/25  
 Flow Meter: FH950 Meter # S/N:  
 Sampling Date/Time: 3/2/25 @ 12:35  
 Sampler(s): BL, CBS, MJS, JAP  
 Sampling Device: dipper bottle  
 Sample Characteristics: clear, no odor @ OF006  
 Analytical Parameters:

Additional Notes: PIP @ OF006 = 0.0 ppm

Weather Conditions: 20s, clear

STATION / SAMPLE	STATION DESCRIPTION (stream/lake/river)	DATE	TIME	TOTAL DEPTH	SAMPLE DEPTH	WATER TEMP	SALINITY	pH	COND	ORP	TURBIDITY	DO	VELOCITY
		mm/dd/yy	hr:min	inches		Celsius	ppt	SU	mS/cm	mV	NTU	mg/L	ft/sec
OF006-030225	Outfall	03/02/25	12:35	—	—	6.91	0.3	7.39	0.712	115	0.0	17.84	1.12
Sample Characteristics:													
Sample Characteristics:													
Sample Characteristics:													
Sample Characteristics:													
Sample Characteristics:													
Sample Characteristics:													
Sample Characteristics:													
Sample Characteristics:													
Sample Characteristics:													
Sample Characteristics:													
Sample Characteristics:													



## **APPENDIX B – DATA VALIDATION REPORT**

**QA LEVEL 2A - DATA VERIFICATION/DATA VALIDATION CHECKLIST**

---

**Project Name:** SPS Technologies

**Project Number/Phase/Task:** US0043268.2150-US-SPS Client Support. Task 01

**Reviewing Company:** WSP USA

**Project Manager:** Tovah Karl

**Data Evaluator:** Julia Campbell

**Data Evaluation Date:** March 4, 2025

**Checked by:** Michael Shadle

**Review Date:** March 5, 2025

**Laboratory:** Pace Analytical LLC

**Lab SDG #:** L2511391

**Matrix:**  Aqueous  Soil  Sediment  Waste  Air  Other:

**Analytical Methods:** See Table B-1

**Sample Information:** See Table B-1

**Work Plan or QAPP:** SPS Technologies Abington PA Surface Water and Outfall Sampling Plan (WSP, 2025)

**Data Validation Guidance:**

USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (Nov. 2020)

USEPA NFG for Inorganic Superfund Methods Data Review (Nov. 2020)

<b>COC and Sample Receipt</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) COC complete and correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) COC documents release of custody (signed and dated)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c) Field QC types provided (note types)?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	TB; See Table B-1
d) Did the cooler contents match the COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e) Were samples received in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
f) Were cooler temperatures within control limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

<b>Data Package Information</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Laboratory name and location documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) All samples on COC reported in data package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c) Requested analytical methods used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
d) Requested sample preparation methods used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e) Requested analyte list reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
f) Requested units reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
g) Did the laboratory define the qualifiers used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
h) Data package contains all information necessary to complete the data quality review?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

<b>Analytical Assessment</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Solid samples reported on a dry-weight basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b) Were solid samples percent moisture criteria acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c) Were sample dilutions noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

<b>Analytical Assessment</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
d) Were detected concentrations less than the QL qualified by the laboratory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e) Were detected concentrations above the calibration range reported by the laboratory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
f) Did the laboratory satisfy the requested sensitivity requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

<b>Laboratory Case Narrative</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Do the laboratory narrative or laboratory qualifiers indicate deficiencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b) Were all deficiencies noted in the laboratory qualifiers or narrative?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<b>Sample Preservation and Holding Time</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Were samples properly preserved?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) Were holding times met for sample preparation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Were holding times met for sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

<b>Blanks</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
a) Were blanks analyzed at the appropriate frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) Were any analytes detected in the associated preparation/method blank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
c) Were any analytes detected in the associated trip blanks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d) Were any analytes detected in the associated field or equipment/rinsate blanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e) Were any analytes detected in the associated storage blanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

<b>Surrogates or Deuterated Monitoring Compounds</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
a) Were the correct surrogate compounds added to each sample?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Were surrogate recoveries within control limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If not, were samples analyzed at dilution factors of 20x or greater?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

<b>LCS/LCSD</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
a) Were LCS/LCSD reported at the appropriate frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) Were proper analytes included in the LCS/LCSD?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c) Were LCS/LCSD recoveries within control limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
d) Were RPD values within control limits (if LCSD was analyzed)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

<b>MS/MSDs</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
a) Were project-specific MS (and MSD) reported?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
b) Were proper analytes reported in the MS/MSD?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

MS/MSDs	YES	NO	NA	COMMENTS
c) Were project-specific MS/MSD recoveries within control limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d) If not, were sample concentrations greater than 4x the spiking concentration?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e) Was the RPD or absolute difference within control limits (if project-specific MSD analyzed)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f) Were project-specific post-digestion spikes analyzed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
g) Were project-specific post-digestion spike recoveries within control limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Duplicates	YES	NO	NA	COMMENTS
a) Were project-specific laboratory duplicates reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	OF006_030225 (COD, nitrate-nitrite as N, hex chrom)
b) Was laboratory duplicate RPD or absolute difference criteria acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Were field duplicates reported?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d) Was field duplicate RPD or absolute difference criteria acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
ICP Serial Dilution (SD)	YES	NO	NA	COMMENTS
a) Was project-specific ICP SD data provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b) Were project-specific ICP SD within acceptable criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Overall Evaluation	YES	NO	NA	COMMENTS
a) Were there any other technical problems not previously addressed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
b) Were data acceptable and usable, except where noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

**Comments/Notes:**

The reliability of the analytical data was evaluated to assess its suitability for use. In particular, a Stage 2A data validation was performed, which evaluates the data's precision, accuracy, and sensitivity based on adherence to sample holding times and analysis of the QC samples (duplicates, spikes, and blanks). Where appropriate, data qualifiers were applied following USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (Nov. 2020) and USEPA NFG for Inorganic Superfund Methods Data Review (Nov. 2020), as applicable to the analytical methods used by the laboratory. Based on the data review, the data was deemed suitable for project decision making as reported by the laboratory.

**Data Qualification:** See Table B-2



**Table B-1  
Sample Collection and Analysis Summary  
SPS Technologies  
Jenkintown, PA**

Laboratory Job	Field Identification	Matrix	Lab Identification	QC Samples	Collection Date	Analyses/Parameters											
						MEK and Toluene	Chemical Oxygen Demand	Total Suspended Solids	Nitrate-Nitrite as N	Oil and Grease	Total Metals	Dissolved Metals	Total Hardness	Free Cyanide	Total Cyanide	Trivalent Chromium	Hexavalent Chromium
						E624.1	E410.4	SM 2540D	E353.2	E1664 B	200.8	200.8	200.8	4500C N-E(M)	4500C N-CE	SM 3500	3500C R-B
L2511391	OF006_030225	WS	L2511391-01	--	3/2/2025	X	X	X	X	X	X	X	X	X	X	X	X
L2511391	TBOF_030225	WQ	L2511391-02	TB	3/2/2025	X	--	--	--	--	--	--	--	--	--	--	--

**Notes:**

- 1) Metal analyses were performed by Pace Analytical Mansfield Lab, all other parameters were performed at Pace Analytical Westborough Lab.
- 2) Total Metals include: aluminum, copper, chromium, iron, lead, nickel, and zinc
- 3) Dissolved Metals include: chromium and nickel

**Abbreviations:**

MEK: methyl ethyl ketone (2-butanone)  
 MS/MSD: Matrix Spike/Matrix Spike Duplicate  
 QC: Quality Control  
 SM: Standard Methods  
 TB: Trip Blank  
 WS: Surface Water  
 WQ: Quality Control Water

**Table B-2  
Qualifier Summary Table  
SPS Technologies  
Jenkintown, PA**

<i>Laboratory Job</i>	<i>Sample Name</i>	<i>Analyte</i>	<i>New Result</i>	<i>New MDL</i>	<i>New RL</i>	<i>Qualifier</i>	<i>Reason</i>
L2511391	No Qualifiers Required						
L2511391	All samples	--	--	--	--	--	Laboratory applied U-qualifiers indicating non-detect results and J-qualifiers indicating results below the reporting limit are retained unless other qualifications are indicated in this table. All other laboratory qualifiers are removed.

**Abbreviations:**

MDL: Method Detection Limit  
 RL: Reporting Limit  
 RPD: Relative Percent Difference  
 SDG: Sample Delivery Group

**Qualifiers:**



## QA LEVEL 2A - DATA VERIFICATION/DATA VALIDATION CHECKLIST

**Project Name:** SPS Technologies

**Project Number/Phase/Task:** US0043268.2150-US-SPS Client Support. Task 01

**Reviewing Company:** WSP USA

**Project Manager:** Tovah Karl

**Data Evaluator:** Julia Campbell

**Data Evaluation Date:** March 4, 2025

**Checked by:** Michael Shadle

**Review Date:** March 5, 2025

**Laboratory:** Pace Analytical LLC

**Lab SDG #:** L2511392

**Matrix:**  Aqueous    Soil    Sediment    Waste    Air    Other:

**Analytical Methods:** See Table B-1

**Sample Information:** See Table B-1

**Work Plan or QAPP:** SPS Technologies Abington PA Surface Water and Outfall Sampling Plan (WSP, 2025)

### Data Validation Guidance:

USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (Nov. 2020)

USEPA NFG for Inorganic Superfund Methods Data Review (Nov. 2020)

### COC and Sample Receipt

YES NO NA

COMMENT

- |   |                                     |                                     |                          |                               |
|---|-------------------------------------|-------------------------------------|--------------------------|-------------------------------|
| a) COC complete and correct?                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                          | See Note 1                    |
| b) COC documents release of custody (signed and dated)? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |                               |
| c) Field QC types provided (note types)?                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | TB, FD, MS/MSD; See Table B-1 |
| d) Did the cooler contents match the COC?               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |                               |
| e) Were samples received in good condition?             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |                               |
| f) Were cooler temperatures within control limits?      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |                               |

### Data Package Information

YES NO NA

COMMENT

- |   |                                     |                          |                          |  |
|---|-------------------------------------|--------------------------|--------------------------|--|
| a) Laboratory name and location documented?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |  |
| b) All samples on COC reported in data package?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |  |
| c) Requested analytical methods used?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |  |
| d) Requested sample preparation methods used?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |
| e) Requested analyte list reported?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |  |
| f) Requested units reported?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |
| g) Did the laboratory define the qualifiers used?                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |  |
| h) Data package contains all information necessary to complete the data quality review? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |  |

### Analytical Assessment

YES NO NA

COMMENT

- |   |                                     |                          |                                     |  |
|---|-------------------------------------|--------------------------|-------------------------------------|--|
| a) Solid samples reported on a dry-weight basis?            | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |  |
| b) Were solid samples percent moisture criteria acceptable? | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |  |
| c) Were sample dilutions noted?                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |  |

<b>Analytical Assessment</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
d) Were detected concentrations less than the QL qualified by the laboratory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
e) Were detected concentrations above the calibration range reported by the laboratory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
f) Did the laboratory satisfy the requested sensitivity requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

<b>Laboratory Case Narrative</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Do the laboratory narrative or laboratory qualifiers indicate deficiencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Notes below
b) Were all deficiencies noted in the laboratory qualifiers or narrative?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<b>Sample Preservation and Holding Time</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENT</b>
a) Were samples properly preserved?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) Were holding times met for sample preparation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Were holding times met for sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

<b>Blanks</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
a) Were blanks analyzed at the appropriate frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) Were any analytes detected in the associated preparation/method blank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
c) Were any analytes detected in the associated trip blanks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d) Were any analytes detected in the associated field or equipment/rinsate blanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e) Were any analytes detected in the associated storage blanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

<b>Surrogates or Deuterated Monitoring Compounds</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
a) Were the correct surrogate compounds added to each sample?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Were surrogate recoveries within control limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) If not, were samples analyzed at dilution factors of 20x or greater?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

<b>LCS/LCSD</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
a) Were LCS/LCSD reported at the appropriate frequency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b) Were proper analytes included in the LCS/LCSD?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c) Were LCS/LCSD recoveries within control limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
d) Were RPD values within control limits (if LCSD was analyzed)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

<b>MS/MSDs</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>	<b>COMMENTS</b>
a) Were project-specific MS (and MSD) reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		SW5_030225
b) Were proper analytes reported in the MS/MSD?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

MS/MSDs	YES	NO	NA	COMMENTS
c) Were project-specific MS/MSD recoveries within control limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) If not, were sample concentrations greater than 4x the spiking concentration?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e) Was the RPD or absolute difference within control limits (if project-specific MSD analyzed)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f) Were project-specific post-digestion spikes analyzed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
g) Were project-specific post-digestion spike recoveries within control limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Duplicates	YES	NO	NA	COMMENTS
a) Were project-specific laboratory duplicates reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SW5_030225 (oil and grease, cyanide, hex chrom)
b) Was laboratory duplicate RPD or absolute difference criteria acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Were field duplicates reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SW4_030225 / FDSW_030225
d) Was field duplicate RPD or absolute difference criteria acceptable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Note 2 30% RPD for results >5x RL
ICP Serial Dilution (SD)	YES	NO	NA	COMMENTS
a) Was project-specific ICP SD data provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b) Were project-specific ICP SD within acceptable criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Overall Evaluation	YES	NO	NA	COMMENTS
a) Were there any other technical problems not previously addressed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
b) Were data acceptable and usable, except where noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

**Comments/Notes:**

The reliability of the analytical data was evaluated to assess its suitability for use. In particular, a Stage 2A data validation was performed, which evaluates the data's precision, accuracy, and sensitivity based on adherence to sample holding times and analysis of the QC samples (duplicates, spikes, and blanks). Where appropriate, data qualifiers were applied following USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (Nov. 2020) and USEPA NFG for Inorganic Superfund Methods Data Review (Nov. 2020), as applicable to the analytical methods used by the laboratory. Based on the data review, while estimated qualifiers were applied to certain data as detailed in Table B-2, all data was deemed suitable for project decision making. Further detail can be found in the comments below and in Table B-2.

1. On the COC, sample identified as SW2\_030225 on the chain of custody was identified as SW02\_030225 on the container label. The lab was notified to report the sample ID as SW2\_030225. The sample identified as FDSW\_030225 on the chain of custody was identified as FDGW\_030225 on the container label. The lab was notified to report the sample ID as FDSW\_030225. No further action was required.
2. Total nickel exceeded the QC criteria relative percent difference (RPD) of 30%. Following NFG and using professional judgement for inorganics, when the QC criteria RPD is exceeded, associated detected samples were qualified as estimated (J).

**Data Qualification:** See Table B-2

**Table B-1  
Sample Collection and Analysis Summary  
SPS Technologies  
Jenkintown, PA**

Laboratory Job	Field Identification	Matrix	Lab Identification	QC Samples	Collection Date	Analyses/Parameters								
						MEK and Toluene	Oil and Grease	Total Metals	Dissolved Metals	Total Hardness	Free Cyanide	Total Cyanide	Trivalent Chromium	Hexavalent Chromium
						E624.1	E1664B	200.8	200.8	200.8	4500C N-E(M)	4500C N-CE	SM 3500	3500C R-B
L2511392	SW5_030225	WS	L2511392-01	MS/MSD	3/2/2025	X	X	X	X	X	X	X	X	X
L2511392	SW4_030225	WS	L2511392-02	--	3/2/2025	X	X	X	X	X	X	X	X	X
L2511392	SW3_030225	WS	L2511392-03	--	3/2/2025	X	X	X	X	X	X	X	X	X
L2511392	SW2_030225	WS	L2511392-04	--	3/2/2025	X	X	X	X	X	X	X	X	X
L2511392	SW1_030225	WS	L2511392-05	--	3/2/2025	X	X	X	X	X	X	X	X	X
L2511392	FDSW_030225	WS	L2511392-06	FD (SW4_030225)	3/2/2025	X	X	X	X	X	X	X	X	X
L2511392	TBSW_030225	WQ	L2511392-07	TB	3/2/2025	X	--	--	--	--	--	--	--	--

**Notes:**

- 1) Metal analyses were performed by Pace Analytical Mansfield Lab, all other parameters were performed at Pace Analytical Westborough Lab.
- 2) Total Metals include: chromium and nickel
- 3) Dissolved Metals include: chromium and nickel

**Abbreviations:**

- FD: Field duplicate
- MEK: methyl ethyl ketone (2-butanone)
- MS/MSD: Matrix Spike/Matrix Spike Duplicate
- QC: Quality Control
- SM: Standard Methods
- TB: Trip Blank
- WS: Surface Water
- WQ: Quality Control Water

**Table B-2  
Qualifier Summary Table  
SPS Technologies  
Jenkintown, PA**

<i>Laboratory Job</i>	<i>Sample Name</i>	<i>Analyte</i>	<i>New Result</i>	<i>New MDL</i>	<i>New RL</i>	<i>Qualifier</i>	<i>Reason</i>
L2511392	SW4_030225	Total Nickel	--	--	--	J	Field duplicate QC criteria RPD is exceeded
L2511392	FDSW_030225	Total Nickel	--	--	--	J	Field duplicate QC criteria RPD is exceeded
L2511392	All samples	--	--	--	--	--	Laboratory applied U-qualifiers indicating non-detect results and J-qualifiers indicating results below the reporting limit are retained unless other qualifications are indicated in this table. All other laboratory qualifiers are removed.

**Abbreviations:**

MDL: Method Detection Limit  
 RL: Reporting Limit  
 RPD: Relative Percent Difference  
 SDG: Sample Delivery Group

**Qualifiers:**

J: Estimated

**APPENDIX C – LABORATORY ANALYTICAL REPORTS**



## ANALYTICAL REPORT

Lab Number:	L2511391
Client:	WSP USA Inc. 10 Lake Center Drive Suite 205 Marlton, NJ 08053
ATTN:	Julie Lehrman
Phone:	(856) 793-2005
Project Name:	SPS TECHNOLOGIES
Project Number:	US0043268.2150
Report Date:	03/04/25

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:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

<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>
L2511391-01	OF006_030225	WATER	JENKINTOWN, PA	03/02/25 12:35	03/02/25
L2511391-02	TBOF_030225	WATER	JENKINTOWN, PA	03/02/25 00:00	03/02/25

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

### 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:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

**Case Narrative (continued)**

Report Submission

March 04, 2025: This final report includes the results of all requested analyses.

March 03, 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.

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: 03/04/25

# ORGANICS

# VOLATILES

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

Lab ID: L2511391-01  
 Client ID: OF006\_030225  
 Sample Location: JENKINTOWN, PA

Date Collected: 03/02/25 12:35  
 Date Received: 03/02/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 128,624.1  
 Analytical Date: 03/03/25 10:01  
 Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	87		60-140
Fluorobenzene	76		60-140
4-Bromofluorobenzene	115		60-140

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

Lab ID: L2511391-02  
 Client ID: TBOF\_030225  
 Sample Location: JENKINTOWN, PA

Date Collected: 03/02/25 00:00  
 Date Received: 03/02/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 128,624.1  
 Analytical Date: 03/03/25 09:28  
 Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	91		60-140
Fluorobenzene	79		60-140
4-Bromofluorobenzene	114		60-140

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 128,624.1  
Analytical Date: 03/03/25 08:45  
Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG2036087-4					
Toluene	ND		mg/l	0.0010	0.00031
2-Butanone	ND		mg/l	0.010	0.0010

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	95		60-140
Fluorobenzene	81		60-140
4-Bromofluorobenzene	112		60-140



### Lab Control Sample Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES

Project Number: US0043268.2150

Lab Number: L2511391

Report Date: 03/04/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG2036087-3								
Toluene	110		-		70-130	-		41
2-Butanone	84		-		60-140	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	99				60-140
Fluorobenzene	95				60-140
4-Bromofluorobenzene	113				60-140

# METALS



**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

Lab ID: L2511391-01  
 Client ID: OF006\_030225  
 Sample Location: JENKINTOWN, PA

Date Collected: 03/02/25 12:35  
 Date Received: 03/02/25  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	0.02008		mg/l	0.01000	0.00327	1	03/03/25 06:25	03/03/25 10:16	EPA 3005A	3,200.8	NTB
Chromium, Total	0.00018	J	mg/l	0.00100	0.00017	1	03/03/25 06:25	03/03/25 10:16	EPA 3005A	3,200.8	NTB
Copper, Total	0.00121		mg/l	0.00100	0.00038	1	03/03/25 06:25	03/03/25 10:16	EPA 3005A	3,200.8	NTB
Iron, Total	0.2226		mg/l	0.05000	0.01910	1	03/03/25 06:25	03/03/25 10:16	EPA 3005A	3,200.8	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/03/25 06:25	03/03/25 10:16	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00136	J	mg/l	0.00200	0.00055	1	03/03/25 06:25	03/03/25 10:16	EPA 3005A	3,200.8	NTB
Zinc, Total	0.02621		mg/l	0.00500	0.00341	1	03/03/25 06:25	03/03/25 10:16	EPA 3005A	3,200.8	NTB
<b>Total Hardness (by calculation) - Mansfield Lab</b>											
Hardness	207.9		mg/l	0.5400	NA	1	03/03/25 06:25	03/03/25 10:16	EPA 3005A	3,200.8	NTB
<b>General Chemistry - Mansfield Lab</b>											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/03/25 10:16	NA	107,-	
<b>Dissolved Metals - Mansfield Lab</b>											
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	03/04/25 00:42	03/04/25 09:22	EPA 3005A	3,200.8	BLR
Nickel, Dissolved	0.0019	J	mg/l	0.0020	0.0006	1	03/04/25 00:42	03/04/25 09:22	EPA 3005A	3,200.8	BLR



**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab for sample(s): 01 Batch: WG2035843-1</b>									
Aluminum, Total	ND	mg/l	0.01000	0.00327	1	03/03/25 06:25	03/03/25 09:53	3,200.8	NTB
Chromium, Total	ND	mg/l	0.00100	0.00017	1	03/03/25 06:25	03/03/25 09:53	3,200.8	NTB
Copper, Total	ND	mg/l	0.00100	0.00038	1	03/03/25 06:25	03/03/25 09:53	3,200.8	NTB
Iron, Total	ND	mg/l	0.05000	0.01910	1	03/03/25 06:25	03/03/25 09:53	3,200.8	NTB
Lead, Total	ND	mg/l	0.00100	0.00034	1	03/03/25 06:25	03/03/25 09:53	3,200.8	NTB
Nickel, Total	ND	mg/l	0.00200	0.00055	1	03/03/25 06:25	03/03/25 09:53	3,200.8	NTB
Zinc, Total	ND	mg/l	0.00500	0.00341	1	03/03/25 06:25	03/03/25 09:53	3,200.8	NTB

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Hardness (by calculation) - Mansfield Lab for sample(s): 01 Batch: WG2035843-1</b>									
Hardness	ND	mg/l	0.5400	NA	1	03/03/25 06:25	03/03/25 09:53	3,200.8	NTB

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Dissolved Metals - Mansfield Lab for sample(s): 01 Batch: WG2035894-1</b>									
Chromium, Dissolved	ND	mg/l	0.0010	0.0002	1	03/04/25 00:42	03/04/25 08:58	3,200.8	BLR
Nickel, Dissolved	ND	mg/l	0.0020	0.0006	1	03/04/25 00:42	03/04/25 08:58	3,200.8	BLR

### Prep Information

Digestion Method: EPA 3005A



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SPS TECHNOLOGIES

**Project Number:** US0043268.2150

**Lab Number:** L2511391

**Report Date:** 03/04/25

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
<b>Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG2035843-2</b>								
Aluminum, Total	94		-		85-115	-		
Chromium, Total	88		-		85-115	-		
Copper, Total	91		-		85-115	-		
Iron, Total	98		-		85-115	-		
Lead, Total	94		-		85-115	-		
Nickel, Total	92		-		85-115	-		
Zinc, Total	88		-		85-115	-		
<b>Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01 Batch: WG2035843-2</b>								
Hardness	98		-		85-115	-		
<b>Dissolved Metals - Mansfield Lab Associated sample(s): 01 Batch: WG2035894-2</b>								
Chromium, Dissolved	110		-		85-115	-		
Nickel, Dissolved	110		-		85-115	-		

### Matrix Spike Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES

Lab Number: L2511391

Project Number: US0043268.2150

Report Date: 03/04/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG2035843-3    WG2035843-4    QC Sample: L2511392-01    Client ID: MS Sample												
Aluminum, Total	0.0115	2	1.870	93		1.937	96		70-130	4		20
Chromium, Total	ND	0.2	0.1895	95		0.1741	87		70-130	8		20
Copper, Total	0.0020	0.25	0.2096	83		0.2219	88		70-130	6		20
Iron, Total	0.1189	1	0.9802	86		1.004	88		70-130	2		20
Lead, Total	ND	0.53	0.5046	95		0.5146	97		70-130	2		20
Nickel, Total	0.00185J	0.5	0.5217	104		0.4462	89		70-130	16		20
Zinc, Total	0.0085	0.5	0.4047	79		0.4314	84		70-130	6		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG2035843-3    WG2035843-4    QC Sample: L2511392-01    Client ID: MS Sample												
Hardness	197.7	66.2	262.6	98		254.4	86		70-130	3		20
Dissolved Metals - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG2035894-3    WG2035894-4    QC Sample: L2511392-01    Client ID: MS Sample												
Chromium, Dissolved	ND	0.2	0.2151	108		0.2098	105		70-130	2		20
Nickel, Dissolved	0.0020J	0.5	0.5391	108		0.5328	106		70-130	1		20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

**Lab ID:** L2511391-01  
**Client ID:** OF006\_030225  
**Sample Location:** JENKINTOWN, PA

**Date Collected:** 03/02/25 12:35  
**Date Received:** 03/02/25  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	03/03/25 06:17	121,2540D	BAY
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/03/25 02:30	03/03/25 11:34	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/03/25 08:35	121,4500CN-E(M)	MRM
Nitrogen, Nitrate/Nitrite	3.5		mg/l	0.10	0.046	1	-	03/03/25 09:18	44,353.2	MRM
Chemical Oxygen Demand	ND		mg/l	20	6.0	1	03/03/25 09:23	03/03/25 11:33	44,410.4	MRW
Oil & Grease, Hem-Grav	5.6		mg/l	4.0	4.0	1	03/03/25 07:43	03/03/25 10:30	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/03/25 07:55	03/03/25 08:21	121,3500CR-B	MRM





**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

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

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG2035822-1									
Cyanide, Total	ND	mg/l	0.005	0.001	1	03/03/25 02:30	03/03/25 11:30	121,4500CN-CE	JER
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG2035849-1									
Solids, Total Suspended	ND	mg/l	5.0	NA	1	-	03/03/25 06:17	121,2540D	BAY
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG2035876-1									
Chromium, Hexavalent	ND	mg/l	0.010	0.003	1	03/03/25 07:55	03/03/25 08:19	121,3500CR-B	MRM
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG2035878-1									
Nitrogen, Nitrate/Nitrite	ND	mg/l	0.10	0.046	1	-	03/03/25 09:15	44,353.2	MRM
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG2035887-1									
Cyanide, Free	ND	mg/l	0.010	0.003	1	-	03/03/25 08:35	121,4500CN-E(M)	MRM
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG2035893-1									
Oil & Grease, Hem-Grav	ND	mg/l	4.0	4.0	1	03/03/25 07:43	03/03/25 09:24	140,1664B	TPR
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG2035938-1									
Chemical Oxygen Demand	ND	mg/l	20	6.0	1	03/03/25 09:23	03/03/25 11:32	44,410.4	MRW



### Lab Control Sample Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES

Lab Number: L2511391

Project Number: US0043268.2150

Report Date: 03/04/25

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG2035822-2								
Cyanide, Total	94		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG2035849-2								
Solids, Total Suspended	90		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG2035876-2								
Chromium, Hexavalent	91		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG2035878-2								
Nitrogen, Nitrate/Nitrite	102		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG2035887-2								
Cyanide, Free	93		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG2035893-2								
Oil & Grease, Hem-Grav	88		-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG2035938-2								
Chemical Oxygen Demand	95		-		90-110	-		

## Matrix Spike Analysis

### Batch Quality Control

Project Name: SPS TECHNOLOGIES

Lab Number: L2511391

Project Number: US0043268.2150

Report Date: 03/04/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG2035822-3 WG2035822-4 QC Sample: L2511392-01 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.208	104		0.207	104		90-110	0		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG2035876-4 QC Sample: L2511391-01 Client ID: OF006_030225												
Chromium, Hexavalent	ND	0.1	0.086	86		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG2035878-4 QC Sample: L2511391-01 Client ID: OF006_030225												
Nitrogen, Nitrate/Nitrite	3.5	4	7.4	98		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG2035887-4 WG2035887-5 QC Sample: L2511392-01 Client ID: MS Sample												
Cyanide, Free	ND	0.25	0.219	88		0.222	88		80-120	0		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG2035893-4 WG2035893-5 QC Sample: L2511392-01 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	39.2	37	95		35	89		78-114	7		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG2035938-4 QC Sample: L2511391-01 Client ID: OF006_030225												
Chemical Oxygen Demand	ND	238	250	105		-	-		90-110	-		20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: SPS TECHNOLOGIES

Project Number: US0043268.2150

Lab Number: L2511391

Report Date: 03/04/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab	Associated sample(s): 01	QC Batch ID: WG2035822-5	QC Sample: L2511392-01	Client ID: DUP Sample		
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab	Associated sample(s): 01	QC Batch ID: WG2035849-3	QC Sample: L2469027-92	Client ID: DUP Sample		
Solids, Total Suspended	2000	2000	mg/l	0		32
General Chemistry - Westborough Lab	Associated sample(s): 01	QC Batch ID: WG2035876-3	QC Sample: L2511391-01	Client ID: OF006_030225		
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab	Associated sample(s): 01	QC Batch ID: WG2035878-3	QC Sample: L2511391-01	Client ID: OF006_030225		
Nitrogen, Nitrate/Nitrite	3.5	3.5	mg/l	0		20
General Chemistry - Westborough Lab	Associated sample(s): 01	QC Batch ID: WG2035887-3	QC Sample: L2511392-01	Client ID: DUP Sample		
Cyanide, Free	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab	Associated sample(s): 01	QC Batch ID: WG2035893-3	QC Sample: L2511392-01	Client ID: DUP Sample		
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab	Associated sample(s): 01	QC Batch ID: WG2035938-3	QC Sample: L2511391-01	Client ID: OF006_030225		
Chemical Oxygen Demand	ND	ND	mg/l	NC		20

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

Serial\_No:03042515:47  
**Lab Number:** L2511391  
**Report Date:** 03/04/25

**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Present/Intact
B	Present/Intact
C	Present/Intact
D	Present/Intact

**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>
L2511391-01A	Vial Na2S2O3 preserved	B	NA		5.1	Y	Present/Intact		624.1-PPM(7)
L2511391-01B	Vial Na2S2O3 preserved	B	NA		5.1	Y	Present/Intact		624.1-PPM(7)
L2511391-01C	Vial Na2S2O3 preserved	B	NA		5.1	Y	Present/Intact		624.1-PPM(7)
L2511391-01D	Plastic 250ml HNO3 preserved	B	<2	<2	5.1	Y	Present/Intact		AL-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),HARDT-2008(180),FE-2008T(180),PB-2008T(180),CR-2008T(180)
L2511391-01E	Plastic 250ml unpreserved	B	6	6	5.1	Y	Present/Intact		-
L2511391-01F	Plastic 250ml H2SO4 preserved	B	<2	<2	5.1	Y	Present/Intact		NO3/NO2-353(28),COD-410(28)
L2511391-01G	Plastic 250ml NaOH preserved	B	>12	>12	5.1	Y	Present/Intact		TCN-4500(14)
L2511391-01H	Plastic 500ml unpreserved	B	6	6	5.1	Y	Present/Intact		HEXCR-3500(1),FCN(1)
L2511391-01J	Plastic 950ml unpreserved	B	6	6	5.1	Y	Present/Intact		TSS-2540(7)
L2511391-01K	Amber 1L HCl preserved	B	NA		5.1	Y	Present/Intact		OG-1664(28)
L2511391-01L	Amber 1L HCl preserved	B	NA		5.1	Y	Present/Intact		OG-1664(28)
L2511391-01W	Plastic 120ml HNO3 preserved Filtrates	B	NA		5.1	Y	Present/Intact		CR-2008S(180),NI-2008S(180)
L2511391-02A	Vial Na2S2O3 preserved	B	NA		5.1	Y	Present/Intact		624.1-PPM(7)
L2511391-02B	Vial Na2S2O3 preserved	B	NA		5.1	Y	Present/Intact		624.1-PPM(7)



**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

## 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:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

### 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:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

#### 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:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511391  
**Report Date:** 03/04/25

## REFERENCES

- 3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 107 Calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.
- 140 Method 1664, Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

## 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 its 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.



## 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.



# CHAIN OF CUSTODY

PAGE 1 OF 2

WESTBORO, MA  
 TEL: 508-898-9220  
 FAX: 508-898-9193

MANSFIELD, MA  
 TEL: 508-822-9300  
 FAX: 508-822-3288

Date Rec'd in Lab: 3/2/25

ALPHA Job #: L2511391

**Project Information**

Project Name: SPS technologies

Project Location: Jenkintown, PA

Project #: V50043268.2150

Project Manager: Tovah Karl

ALPHA Quote #:

**Report Information - Data Deliverables**

FAX  EMAIL

ADEX  Add'l Deliverables

**Billing Information**

Same as Client info  PO #:

**Client Information**

Client: WSP USA Inc

Address: 10 Lake center Dr.  
svite 205, Marilton, NJ, 08053

Phone: 856-793-2005

Fax: 856-793-2006

Email: Tovah.Karl@wsp.com  
stacy.manson@wsp.com

These samples have been previously analyzed by Alpha

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved)

Date Due:                      Time: 1 Day

**Regulatory Requirements/Report Limits**

State /Fed Program	Criteria
<u>PA</u>	

Other Project Specific Requirements/Comments/Detection Limits:

\* Attorney-Client Privileged + confidential

All VOAs are in one cooler

Dissolved Metals will be lab filtered

ANALYSIS	RESULTS	UNITS	REMARKS
Oil & Grease	<u>E1674.1</u>	mg/L	
Free Chloride	<u>E1674.1</u>	mg/L	
Total Nickel	<u>E200.8</u>	mg/L	
Total Chromium	<u>E200.8</u>	mg/L	
Dissolved Nickel	<u>E200.8</u>	mg/L	
Dissolved Chromium	<u>E200.8</u>	mg/L	
MEK	<u>E1674.1</u>	mg/L	
TOLUENE	<u>E1674.1</u>	mg/L	
Total Hardness	<u>E1674.1</u>	mg/L	
Total Zinc	<u>E200.8</u>	mg/L	
Total Sulfate	<u>E200.8</u>	mg/L	
Total Solids	<u>E200.8</u>	mg/L	
Cyanide	<u>E1674.1</u>	mg/L	

**SAMPLE HANDLING**

Filtration \_\_\_\_\_

Done

Not needed

Lab to do

Preservation \_\_\_\_\_

Lab to do

(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS										Sample Specific Comments	TOTAL # BOTTLES					
		Date	Time			Oil & Grease	Free Chloride	Total Nickel	Total Chromium	Dissolved Nickel	Dissolved Chromium	MEK	TOLUENE	Total Hardness	Total Zinc			Total Sulfate	Total Solids			
<u>11391 -01</u>	<u>0F006-030225</u>	<u>03/02/25</u>	<u>12:35</u>	<u>SW</u>	<u>BL</u>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	<u>PH: 6.41</u>	<u>11</u>
	<u>TBOF-022825</u>																					
<u>-02</u>	<u>TBOF-030225</u>	<u>03/02/25</u>	<u>-</u>	<u>W</u>	<u>-</u>																	<u>2</u>

Relinquished By:	Date/Time	Received By:	Date/Time
<u>[Signature]</u>	<u>3/2/25 14:35</u>	<u>[Signature]</u>	<u>3/2/25 14:35</u>
<u>[Signature]</u>	<u>3/2/25 20:40</u>	<u>[Signature]</u>	<u>3/2/25 20:40</u>

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.





# CHAIN OF CUSTODY

PAGE 2 OF 2

WESTBORO, MA  
TEL: 508-898-9220  
FAX: 508-898-9193

MANSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-822-3288

### Project Information

Project Name: SPS Technologies  
Project Location: Jenkintown, PA  
Project #: VS0043268, 2150  
Project Manager: Tovah Karl  
ALPHA Quote #:

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)  
Date Due: \_\_\_\_\_ Time: 1 Day

Date Rec'd in Lab: 3/2/25  
Report Information - Data Deliverables

FAX  EMAIL  
 ADEx  Add'l Deliverables

### Regulatory Requirements/Report Limits

State /Fed Program: PA Criteria: \_\_\_\_\_

ALPHA Job #: L2511391

### Billing Information

Same as Client info PO #: \_\_\_\_\_

### Client Information

Client: WSP USA INC  
Address: 10 Lake Center Dr. Suite 205, Marlton, NJ, eBoss  
Phone: 856-793-2005  
Fax: 856-793-2006  
Email: Tovah.Karl@wsp.com  
stacy.mason@wsp.com  
 These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:  
\* Attorney-Client privileged + confidential  
All VOAs are in one cooler  
Assigned Metals will be lab filtered

ANALYSIS	Chrom. (Pb)	<input checked="" type="checkbox"/>
	Chrom. (Cd)	<input checked="" type="checkbox"/>
	Chrom. (Cu)	<input checked="" type="checkbox"/>
	Chrom. (Ni)	<input checked="" type="checkbox"/>
	Chrom. (Mn)	<input checked="" type="checkbox"/>
	Chrom. (Zn)	<input checked="" type="checkbox"/>
	Total Alumin. (µM)	<input checked="" type="checkbox"/>
	Total Copper (µg/g)	<input checked="" type="checkbox"/>
	Total Iron (µg/g)	<input checked="" type="checkbox"/>
	Specime Her. (µg/g)	<input checked="" type="checkbox"/>

**SAMPLE HANDLING**

Filtration \_\_\_\_\_

Done

Not needed

Lab to do

Preservation \_\_\_\_\_

Lab to do

(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS								Sample Specific Comments	TOTAL # BOTTLES
		Date	Time			Chrom. (Pb)	Chrom. (Cd)	Chrom. (Cu)	Chrom. (Ni)	Chrom. (Mn)	Chrom. (Zn)	Total Alumin. (µM)	Total Copper (µg/g)		
11391 -01	QF006-030225	03/02/25	12:35	SW	BL	X	X	X	X	X	X	X	X		11
-02	TBOF-030225	03/02/25	-	W	-										2

	Container Type	P	P	P	P	P	P	P	P
	Preservative	D	D	C	C	C	C	C	A
Relinquished By: <u>[Signature]</u>	Date/Time: <u>3/2/25 14:35</u>	Received By: <u>[Signature]</u>	Date/Time: <u>3/2/25 14:35</u>	Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.					
<u>[Signature]</u>	<u>3/2/25 20:40</u>	<u>[Signature]</u>	<u>3/2/25 20:40</u>						

# ALPHA ANALYTICAL

Custody Seal received intact from Client.  
Seal broken by Alpha Representative to add ice

Apply this label over or close to original seal

## CUSTODY SEAL

Date 03/02/25  
Signature [Signature]

**T**  
S

**thermo**  
SCIENTIFIC

90009

## CUSTODY SEAL

Date 03/02/25  
Signature [Signature]

**Thermo**  
SCIENTIFIC

90009

**ALPHA ANALYTICAL**  
Custody Seal received intact from Client.  
Seal broken by Alpha Representative to add ice  
Apply this label over or close to original seal

**CUSTODY SEAL**

Date 3/2/25  
Signature [Signature]

**CUSTODY SEAL**

Date 3/2/25  
Signature [Signature]

**Thermo**  
SCIENTIFIC

90009

**Thermo**  
SCIENTIFIC

90009

# ALPHA ANALYTICAL

Custody Seal received intact from Client.  
Seal broken by Alpha Representative to add ice

Apply this label over or close to original seal

## CUSTODY SEAL

Date 03/02/25  
Signature CA

**Thermo**  
SCIENTIFIC

90009

## CUSTODY SEAL

Date 03/02/25  
Signature CA

**Thermo**  
SCIENTIFIC

90009



# ALPHA ANALYTICAL

Custody Seal received intact from Client.  
Seal broken by Alpha Representative to add ice

Apply this label over or close to original seal

## CUSTODY SEAL

Date 3/2/25

Signature [Handwritten Signature]



90009

## CUSTODY SEAL

Date 3/2/25

Signature [Handwritten Signature]



90009



## ANALYTICAL REPORT

Lab Number:	L2511392
Client:	WSP USA Inc. 10 Lake Center Drive Suite 205 Marlton, NJ 08053
ATTN:	Julie Lehrman
Phone:	(856) 793-2005
Project Name:	SPS TECHNOLOGIES
Project Number:	US0043268.2150
Report Date:	03/04/25

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).

---

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:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

<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>
L2511392-01	SW5_030225	WATER	JENKINTOWN, PA	03/02/25 09:45	03/02/25
L2511392-02	SW4_030225	WATER	JENKINTOWN, PA	03/02/25 10:50	03/02/25
L2511392-03	SW3_030225	WATER	JENKINTOWN, PA	03/02/25 12:15	03/02/25
L2511392-04	SW2_030225	WATER	JENKINTOWN, PA	03/02/25 13:05	03/02/25
L2511392-05	SW1_030225	WATER	JENKINTOWN, PA	03/02/25 13:35	03/02/25
L2511392-06	FDSW_030225	WATER	JENKINTOWN, PA	03/02/25 00:00	03/02/25
L2511392-07	TBSW_030225	WATER	JENKINTOWN, PA	03/02/25 00:00	03/02/25

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

### 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:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

### Case Narrative (continued)

#### Report Submission

March 04, 2025: This final report includes the results of all requested analyses.

March 03, 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.

#### Sample Receipt

L2511392-04: The sample identified as "SW2\_030225" on the chain of custody was identified as "SW02\_030225" on the container label. At the client's request, the sample is reported as "SW2\_030225".

L2511392-06: The sample identified as "FDSW\_030225" on the chain of custody was identified as "FDGW\_030225" on the container label. At the client's request, the sample is reported as "FDSW\_030225".

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: 03/04/25



# ORGANICS

# VOLATILES

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

Lab ID: L2511392-01  
 Client ID: SW5\_030225  
 Sample Location: JENKINTOWN, PA

Date Collected: 03/02/25 09:45  
 Date Received: 03/02/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 128,624.1  
 Analytical Date: 03/03/25 10:32  
 Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	89		60-140
Fluorobenzene	79		60-140
4-Bromofluorobenzene	115		60-140

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

Lab ID: L2511392-02  
 Client ID: SW4\_030225  
 Sample Location: JENKINTOWN, PA

Date Collected: 03/02/25 10:50  
 Date Received: 03/02/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 128,624.1  
 Analytical Date: 03/03/25 11:04  
 Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	81		60-140
Fluorobenzene	74		60-140
4-Bromofluorobenzene	113		60-140

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

Lab ID: L2511392-03  
 Client ID: SW3\_030225  
 Sample Location: JENKINTOWN, PA

Date Collected: 03/02/25 12:15  
 Date Received: 03/02/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 128,624.1  
 Analytical Date: 03/03/25 11:36  
 Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	88		60-140
Fluorobenzene	74		60-140
4-Bromofluorobenzene	111		60-140



**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

Lab ID: L2511392-04  
 Client ID: SW2\_030225  
 Sample Location: JENKINTOWN, PA

Date Collected: 03/02/25 13:05  
 Date Received: 03/02/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 128,624.1  
 Analytical Date: 03/03/25 12:07  
 Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	84		60-140
Fluorobenzene	74		60-140
4-Bromofluorobenzene	110		60-140

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

Lab ID: L2511392-05  
 Client ID: SW1\_030225  
 Sample Location: JENKINTOWN, PA

Date Collected: 03/02/25 13:35  
 Date Received: 03/02/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 128,624.1  
 Analytical Date: 03/03/25 12:39  
 Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	84		60-140
Fluorobenzene	75		60-140
4-Bromofluorobenzene	110		60-140

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

Lab ID: L2511392-06  
 Client ID: FDSW\_030225  
 Sample Location: JENKINTOWN, PA

Date Collected: 03/02/25 00:00  
 Date Received: 03/02/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 128,624.1  
 Analytical Date: 03/03/25 13:12  
 Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	83		60-140
Fluorobenzene	75		60-140
4-Bromofluorobenzene	114		60-140

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

Lab ID: L2511392-07  
 Client ID: TBSW\_030225  
 Sample Location: JENKINTOWN, PA

Date Collected: 03/02/25 00:00  
 Date Received: 03/02/25  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 128,624.1  
 Analytical Date: 03/03/25 13:46  
 Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	86		60-140
Fluorobenzene	75		60-140
4-Bromofluorobenzene	111		60-140

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

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

Analytical Method: 128,624.1  
Analytical Date: 03/03/25 08:45  
Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG2036087-4					
Toluene	ND		mg/l	0.0010	0.00031
2-Butanone	ND		mg/l	0.010	0.0010

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	95		60-140
Fluorobenzene	81		60-140
4-Bromofluorobenzene	112		60-140

**Lab Control Sample Analysis**  
Batch Quality Control

Project Name: SPS TECHNOLOGIES

Lab Number: L2511392

Project Number: US0043268.2150

Report Date: 03/04/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG2036087-3								
Toluene	110		-		70-130	-		41
2-Butanone	84		-		60-140	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	99				60-140
Fluorobenzene	95				60-140
4-Bromofluorobenzene	113				60-140



**Matrix Spike Analysis**  
**Batch Quality Control**

**Project Name:** SPS TECHNOLOGIES

**Lab Number:** L2511392

**Project Number:** US0043268.2150

**Report Date:** 03/04/25

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG2036087-5 WG2036087-6 QC Sample: L2511392-01 Client ID: SW5_030225												
Toluene	ND	0.00002	0.028	140		0.027	135		47-150	4		41
2-Butanone	ND	0.00005	0.038	76		0.035	70		60-140	8		30

<b>Surrogate</b>	<b>MS % Recovery</b>	<b>Qualifier</b>	<b>MSD % Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>
4-Bromofluorobenzene	113		121		60-140
Fluorobenzene	81		80		60-140
Pentafluorobenzene	82		88		60-140

# METALS



**Project Name:** SPS TECHNOLOGIES**Lab Number:** L2511392**Project Number:** US0043268.2150**Report Date:** 03/04/25**SAMPLE RESULTS**

Lab ID: L2511392-01

Date Collected: 03/02/25 09:45

Client ID: SW5\_030225

Date Received: 03/02/25

Sample Location: JENKINTOWN, PA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Chromium, Total	ND		mg/l	0.00100	0.00017	1	03/03/25 06:25	03/03/25 10:03	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00185	J	mg/l	0.00200	0.00055	1	03/03/25 06:25	03/03/25 10:03	EPA 3005A	3,200.8	NTB
<b>Total Hardness (by calculation) - Mansfield Lab</b>											
Hardness	197.7		mg/l	0.5400	NA	1	03/03/25 06:25	03/03/25 10:03	EPA 3005A	3,200.8	NTB
<b>General Chemistry - Mansfield Lab</b>											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/03/25 10:03	NA	107,-	
<b>Dissolved Metals - Mansfield Lab</b>											
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	03/04/25 00:42	03/04/25 09:08	EPA 3005A	3,200.8	BLR
Nickel, Dissolved	0.0020	J	mg/l	0.0020	0.0006	1	03/04/25 00:42	03/04/25 09:08	EPA 3005A	3,200.8	BLR



**Project Name:** SPS TECHNOLOGIES**Lab Number:** L2511392**Project Number:** US0043268.2150**Report Date:** 03/04/25**SAMPLE RESULTS**

Lab ID: L2511392-02

Date Collected: 03/02/25 10:50

Client ID: SW4\_030225

Date Received: 03/02/25

Sample Location: JENKINTOWN, PA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Chromium, Total	0.00027	J	mg/l	0.00100	0.00017	1	03/03/25 06:25	03/03/25 10:21	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00343		mg/l	0.00200	0.00055	1	03/03/25 06:25	03/03/25 10:21	EPA 3005A	3,200.8	NTB
<b>Total Hardness (by calculation) - Mansfield Lab</b>											
Hardness	219.6		mg/l	0.5400	NA	1	03/03/25 06:25	03/03/25 10:21	EPA 3005A	3,200.8	NTB
<b>General Chemistry - Mansfield Lab</b>											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/03/25 10:21	NA	107,-	
<b>Dissolved Metals - Mansfield Lab</b>											
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	03/04/25 00:42	03/04/25 09:26	EPA 3005A	3,200.8	BLR
Nickel, Dissolved	0.0029		mg/l	0.0020	0.0006	1	03/04/25 00:42	03/04/25 09:26	EPA 3005A	3,200.8	BLR



**Project Name:** SPS TECHNOLOGIES**Lab Number:** L2511392**Project Number:** US0043268.2150**Report Date:** 03/04/25**SAMPLE RESULTS**

Lab ID: L2511392-03

Date Collected: 03/02/25 12:15

Client ID: SW3\_030225

Date Received: 03/02/25

Sample Location: JENKINTOWN, PA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Chromium, Total	0.00023	J	mg/l	0.00100	0.00017	1	03/03/25 06:25	03/03/25 10:25	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00277		mg/l	0.00200	0.00055	1	03/03/25 06:25	03/03/25 10:25	EPA 3005A	3,200.8	NTB
<b>Total Hardness (by calculation) - Mansfield Lab</b>											
Hardness	235.0		mg/l	0.5400	NA	1	03/03/25 06:25	03/03/25 10:25	EPA 3005A	3,200.8	NTB
<b>General Chemistry - Mansfield Lab</b>											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/03/25 10:25	NA	107,-	
<b>Dissolved Metals - Mansfield Lab</b>											
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	03/04/25 00:42	03/04/25 09:31	EPA 3005A	3,200.8	BLR
Nickel, Dissolved	0.0032		mg/l	0.0020	0.0006	1	03/04/25 00:42	03/04/25 09:31	EPA 3005A	3,200.8	BLR



**Project Name:** SPS TECHNOLOGIES**Lab Number:** L2511392**Project Number:** US0043268.2150**Report Date:** 03/04/25**SAMPLE RESULTS**

Lab ID: L2511392-04

Date Collected: 03/02/25 13:05

Client ID: SW2\_030225

Date Received: 03/02/25

Sample Location: JENKINTOWN, PA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Chromium, Total	0.00035	J	mg/l	0.00100	0.00017	1	03/03/25 06:25	03/03/25 10:30	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00091	J	mg/l	0.00200	0.00055	1	03/03/25 06:25	03/03/25 10:30	EPA 3005A	3,200.8	NTB
<b>Total Hardness (by calculation) - Mansfield Lab</b>											
Hardness	226.9		mg/l	0.5400	NA	1	03/03/25 06:25	03/03/25 10:30	EPA 3005A	3,200.8	NTB
<b>General Chemistry - Mansfield Lab</b>											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/03/25 10:30	NA	107,-	
<b>Dissolved Metals - Mansfield Lab</b>											
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/04/25 00:42	03/04/25 09:36	EPA 3005A	3,200.8	BLR
Nickel, Dissolved	0.0007	J	mg/l	0.0020	0.0006	1	03/04/25 00:42	03/04/25 09:36	EPA 3005A	3,200.8	BLR





**Project Name:** SPS TECHNOLOGIES**Lab Number:** L2511392**Project Number:** US0043268.2150**Report Date:** 03/04/25**SAMPLE RESULTS**

Lab ID: L2511392-05

Date Collected: 03/02/25 13:35

Client ID: SW1\_030225

Date Received: 03/02/25

Sample Location: JENKINTOWN, PA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Chromium, Total	0.00039	J	mg/l	0.00100	0.00017	1	03/03/25 06:25	03/03/25 10:34	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00145	J	mg/l	0.00200	0.00055	1	03/03/25 06:25	03/03/25 10:34	EPA 3005A	3,200.8	NTB
<b>Total Hardness (by calculation) - Mansfield Lab</b>											
Hardness	263.6		mg/l	0.5400	NA	1	03/03/25 06:25	03/03/25 10:34	EPA 3005A	3,200.8	NTB
<b>General Chemistry - Mansfield Lab</b>											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/03/25 10:34	NA	107,-	
<b>Dissolved Metals - Mansfield Lab</b>											
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	03/04/25 00:42	03/04/25 09:41	EPA 3005A	3,200.8	BLR
Nickel, Dissolved	0.0012	J	mg/l	0.0020	0.0006	1	03/04/25 00:42	03/04/25 09:41	EPA 3005A	3,200.8	BLR



**Project Name:** SPS TECHNOLOGIES**Lab Number:** L2511392**Project Number:** US0043268.2150**Report Date:** 03/04/25**SAMPLE RESULTS**

Lab ID: L2511392-06

Date Collected: 03/02/25 00:00

Client ID: FDSW\_030225

Date Received: 03/02/25

Sample Location: JENKINTOWN, PA

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Chromium, Total	ND		mg/l	0.00100	0.00017	1	03/03/25 06:25	03/03/25 11:03	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00235		mg/l	0.00200	0.00055	1	03/03/25 06:25	03/03/25 11:03	EPA 3005A	3,200.8	NTB
<b>Total Hardness (by calculation) - Mansfield Lab</b>											
Hardness	205.0		mg/l	0.5400	NA	1	03/03/25 06:25	03/03/25 11:03	EPA 3005A	3,200.8	NTB
<b>General Chemistry - Mansfield Lab</b>											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/03/25 11:03	NA	107,-	
<b>Dissolved Metals - Mansfield Lab</b>											
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	03/04/25 00:42	03/04/25 10:03	EPA 3005A	3,200.8	BLR
Nickel, Dissolved	0.0027		mg/l	0.0020	0.0006	1	03/04/25 00:42	03/04/25 10:03	EPA 3005A	3,200.8	BLR



**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

## 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): 01-06 Batch: WG2035843-1									
Chromium, Total	ND	mg/l	0.00100	0.00017	1	03/03/25 06:25	03/03/25 09:53	3,200.8	NTB
Nickel, Total	ND	mg/l	0.00200	0.00055	1	03/03/25 06:25	03/03/25 09:53	3,200.8	NTB

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab for sample(s): 01-06 Batch: WG2035843-1									
Hardness	ND	mg/l	0.5400	NA	1	03/03/25 06:25	03/03/25 09:53	3,200.8	NTB

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-06 Batch: WG2035894-1									
Chromium, Dissolved	ND	mg/l	0.0010	0.0002	1	03/04/25 00:42	03/04/25 08:58	3,200.8	BLR
Nickel, Dissolved	ND	mg/l	0.0020	0.0006	1	03/04/25 00:42	03/04/25 08:58	3,200.8	BLR

### Prep Information

Digestion Method: EPA 3005A



### Lab Control Sample Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES

Project Number: US0043268.2150

Lab Number: L2511392

Report Date: 03/04/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG2035843-2								
Chromium, Total	88		-		85-115	-		
Nickel, Total	92		-		85-115	-		
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-06 Batch: WG2035843-2								
Hardness	98		-		85-115	-		
Dissolved Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG2035894-2								
Chromium, Dissolved	110		-		85-115	-		
Nickel, Dissolved	110		-		85-115	-		

### Matrix Spike Analysis Batch Quality Control

**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

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): 01-06 QC Batch ID: WG2035843-3 WG2035843-4 QC Sample: L2511392-01 Client ID: SW5_030225												
Chromium, Total	ND	0.2	0.1895	95		0.1741	87		70-130	8		20
Nickel, Total	0.00185J	0.5	0.5217	104		0.4462	89		70-130	16		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG2035843-3 WG2035843-4 QC Sample: L2511392-01 Client ID: SW5_030225												
Hardness	197.7	66.2	262.6	98		254.4	86		70-130	3		20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG2035894-3 WG2035894-4 QC Sample: L2511392-01 Client ID: SW5_030225												
Chromium, Dissolved	ND	0.2	0.2151	108		0.2098	105		70-130	2		20
Nickel, Dissolved	0.0020J	0.5	0.5391	108		0.5328	106		70-130	1		20



# **INORGANICS & MISCELLANEOUS**



**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

**Lab ID:** L2511392-01  
**Client ID:** SW5\_030225  
**Sample Location:** JENKINTOWN, PA

**Date Collected:** 03/02/25 09:45  
**Date Received:** 03/02/25  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/03/25 02:30	03/03/25 11:35	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/03/25 08:35	121,4500CN-E(M)	MRM
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/03/25 07:43	03/03/25 09:33	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/03/25 07:55	03/03/25 08:22	121,3500CR-B	MRM



**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

**Lab ID:** L2511392-02  
**Client ID:** SW4\_030225  
**Sample Location:** JENKINTOWN, PA

**Date Collected:** 03/02/25 10:50  
**Date Received:** 03/02/25  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	03/03/25 02:30	03/03/25 11:41	121,4500CN-CE	JER
Cyanide, Free	0.004	J	mg/l	0.010	0.003	1	-	03/03/25 08:35	121,4500CN-E(M)	MRM
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/03/25 07:43	03/03/25 10:31	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/03/25 07:55	03/03/25 08:22	121,3500CR-B	MRM



**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

**Lab ID:** L2511392-03  
**Client ID:** SW3\_030225  
**Sample Location:** JENKINTOWN, PA

**Date Collected:** 03/02/25 12:15  
**Date Received:** 03/02/25  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	0.006		mg/l	0.005	0.001	1	03/03/25 02:30	03/03/25 11:42	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/03/25 08:35	121,4500CN-E(M)	MRM
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/03/25 07:43	03/03/25 10:32	140,1664B	TPR
Chromium, Hexavalent	0.003	J	mg/l	0.010	0.003	1	03/03/25 07:55	03/03/25 08:23	121,3500CR-B	MRM



**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

**Lab ID:** L2511392-04  
**Client ID:** SW2\_030225  
**Sample Location:** JENKINTOWN, PA

**Date Collected:** 03/02/25 13:05  
**Date Received:** 03/02/25  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/03/25 02:30	03/03/25 11:43	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/03/25 08:35	121,4500CN-E(M)	MRM
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/03/25 07:43	03/03/25 11:40	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/03/25 07:55	03/03/25 08:23	121,3500CR-B	MRM



**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

**Lab ID:** L2511392-05  
**Client ID:** SW1\_030225  
**Sample Location:** JENKINTOWN, PA

**Date Collected:** 03/02/25 13:35  
**Date Received:** 03/02/25  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/03/25 02:30	03/03/25 11:44	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/03/25 08:35	121,4500CN-E(M)	MRM
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/03/25 07:43	03/03/25 11:40	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/03/25 07:55	03/03/25 08:23	121,3500CR-B	MRM



**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

**SAMPLE RESULTS**

**Lab ID:** L2511392-06  
**Client ID:** FDSW\_030225  
**Sample Location:** JENKINTOWN, PA

**Date Collected:** 03/02/25 00:00  
**Date Received:** 03/02/25  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/03/25 02:30	03/03/25 11:45	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/03/25 08:35	121,4500CN-E(M)	MRM
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/03/25 07:43	03/03/25 11:41	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/03/25 07:55	03/03/25 08:23	121,3500CR-B	MRM





**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

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

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG2035822-1									
Cyanide, Total	ND	mg/l	0.005	0.001	1	03/03/25 02:30	03/03/25 11:30	121,4500CN-CE	JER
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG2035877-1									
Chromium, Hexavalent	ND	mg/l	0.010	0.003	1	03/03/25 07:55	03/03/25 08:19	121,3500CR-B	MRM
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG2035887-1									
Cyanide, Free	ND	mg/l	0.010	0.003	1	-	03/03/25 08:35	121,4500CN-E(M)	MRM
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG2035893-1									
Oil & Grease, Hem-Grav	ND	mg/l	4.0	4.0	1	03/03/25 07:43	03/03/25 09:24	140,1664B	TPR



### Lab Control Sample Analysis Batch Quality Control

**Project Name:** SPS TECHNOLOGIES

**Lab Number:** L2511392

**Project Number:** US0043268.2150

**Report Date:** 03/04/25

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG2035822-2								
Cyanide, Total	94		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG2035877-2								
Chromium, Hexavalent	91		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG2035887-2								
Cyanide, Free	93		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG2035893-2								
Oil & Grease, Hem-Grav	88		-		78-114	-		18

### Matrix Spike Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES

Lab Number: L2511392

Project Number: US0043268.2150

Report Date: 03/04/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2035822-3 WG2035822-4 QC Sample: L2511392-01 Client ID: SW5_030225												
Cyanide, Total	ND	0.2	0.208	104		0.207	104		90-110	0		30
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2035877-4 WG2035877-5 QC Sample: L2511392-01 Client ID: SW5_030225												
Chromium, Hexavalent	ND	0.1	0.090	90		0.090	90		85-115	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2035887-4 WG2035887-5 QC Sample: L2511392-01 Client ID: SW5_030225												
Cyanide, Free	ND	0.25	0.219	88		0.222	88		80-120	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2035893-4 WG2035893-5 QC Sample: L2511392-01 Client ID: SW5_030225												
Oil & Grease, Hem-Grav	ND	39.2	37	95		35	89		78-114	7		18

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: SPS TECHNOLOGIES

Project Number: US0043268.2150

Lab Number: L2511392

Report Date: 03/04/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2035822-5 QC Sample: L2511392-01 Client ID: SW5_030225						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2035877-3 QC Sample: L2511392-01 Client ID: SW5_030225						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2035887-3 QC Sample: L2511392-01 Client ID: SW5_030225						
Cyanide, Free	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2035893-3 QC Sample: L2511392-01 Client ID: SW5_030225						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18

**Project Name:** SPS TECHNOLOGIES**Lab Number:** L2511392**Project Number:** US0043268.2150**Report Date:** 03/04/25**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Present/Intact
B	Present/Intact
C	Present/Intact
D	Present/Intact

**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>
L2511392-01A	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-01A1	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-01A2	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-01B	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-01B1	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-01B2	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-01C	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-01C1	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-01C2	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-01D	Plastic 250ml HNO3 preserved	D	<2	<2	5.5	Y	Present/Intact		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2511392-01D1	Plastic 250ml HNO3 preserved	D	<2	<2	5.5	Y	Present/Intact		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2511392-01D2	Plastic 250ml HNO3 preserved	D	<2	<2	5.5	Y	Present/Intact		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2511392-01E	Plastic 250ml unpreserved	D	7	7	5.5	Y	Present/Intact		-
L2511392-01E1	Plastic 250ml unpreserved	D	7	7	5.5	Y	Present/Intact		-
L2511392-01E2	Plastic 250ml unpreserved	D	7	7	5.5	Y	Present/Intact		-
L2511392-01F	Plastic 250ml NaOH preserved	D	>12	>12	5.5	Y	Present/Intact		TCN-4500(14)
L2511392-01F1	Plastic 250ml NaOH preserved	D	>12	>12	5.5	Y	Present/Intact		TCN-4500(14)
L2511392-01F2	Plastic 250ml NaOH preserved	D	>12	>12	5.5	Y	Present/Intact		TCN-4500(14)

**Project Name:** SPS TECHNOLOGIES**Lab Number:** L2511392**Project Number:** US0043268.2150**Report Date:** 03/04/25**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>
L2511392-01G	Plastic 500ml unpreserved	D	7	7	5.5	Y	Present/Intact		HEXCR-3500(1),FCN(1)
L2511392-01G1	Plastic 500ml unpreserved	D	7	7	5.5	Y	Present/Intact		HEXCR-3500(1),FCN(1)
L2511392-01G2	Plastic 500ml unpreserved	D	7	7	5.5	Y	Present/Intact		HEXCR-3500(1),FCN(1)
L2511392-01H	Amber 1L HCl preserved	D	NA		5.5	Y	Present/Intact		OG-1664(28)
L2511392-01H1	Amber 1L HCl preserved	D	NA		5.5	Y	Present/Intact		OG-1664(28)
L2511392-01H2	Amber 1L HCl preserved	D	NA		5.5	Y	Present/Intact		OG-1664(28)
L2511392-01J	Amber 1L HCl preserved	D	NA		5.5	Y	Present/Intact		OG-1664(28)
L2511392-01J1	Amber 1L HCl preserved	D	NA		5.5	Y	Present/Intact		OG-1664(28)
L2511392-01J2	Amber 1L HCl preserved	D	NA		5.5	Y	Present/Intact		OG-1664(28)
L2511392-01W	Plastic 120ml HNO3 preserved Filtrates	D	NA		5.5	Y	Present/Intact		CR-2008S(180),NI-2008S(180)
L2511392-02A	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-02B	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-02C	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-02D	Plastic 250ml HNO3 preserved	C	<2	<2	5.7	Y	Present/Intact		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2511392-02E	Plastic 250ml unpreserved	C	7	7	5.7	Y	Present/Intact		-
L2511392-02F	Plastic 250ml NaOH preserved	C	>12	>12	5.7	Y	Present/Intact		TCN-4500(14)
L2511392-02G	Plastic 500ml unpreserved	C	7	7	5.7	Y	Present/Intact		HEXCR-3500(1),FCN(1)
L2511392-02H	Amber 1L HCl preserved	C	NA		5.7	Y	Present/Intact		OG-1664(28)
L2511392-02J	Amber 1L HCl preserved	C	NA		5.7	Y	Present/Intact		OG-1664(28)
L2511392-02W	Plastic 120ml HNO3 preserved Filtrates	C	NA		5.7	Y	Present/Intact		CR-2008S(180),NI-2008S(180)
L2511392-03A	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-03B	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-03C	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-03D	Plastic 250ml HNO3 preserved	C	<2	<2	5.7	Y	Present/Intact		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2511392-03E	Plastic 250ml unpreserved	C	7	7	5.7	Y	Present/Intact		-
L2511392-03F	Plastic 250ml NaOH preserved	C	>12	>12	5.7	Y	Present/Intact		TCN-4500(14)
L2511392-03G	Plastic 500ml unpreserved	C	7	7	5.7	Y	Present/Intact		HEXCR-3500(1),FCN(1)

**Project Name:** SPS TECHNOLOGIES**Lab Number:** L2511392**Project Number:** US0043268.2150**Report Date:** 03/04/25**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>
L2511392-03H	Amber 1L HCl preserved	C	NA		5.7	Y	Present/Intact		OG-1664(28)
L2511392-03J	Amber 1L HCl preserved	C	NA		5.7	Y	Present/Intact		OG-1664(28)
L2511392-03W	Plastic 120ml HNO3 preserved Filtrates	C	NA		5.7	Y	Present/Intact		CR-2008S(180),NI-2008S(180)
L2511392-04A	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-04B	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-04C	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-04D	Plastic 250ml HNO3 preserved	A	<2	<2	2.5	Y	Present/Intact		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2511392-04E	Plastic 250ml unpreserved	A	7	7	2.5	Y	Present/Intact		-
L2511392-04F	Plastic 250ml NaOH preserved	A	>12	>12	2.5	Y	Present/Intact		TCN-4500(14)
L2511392-04G	Plastic 500ml unpreserved	A	7	7	2.5	Y	Present/Intact		HEXCR-3500(1),FCN(1)
L2511392-04H	Amber 1L HCl preserved	A	NA		2.5	Y	Present/Intact		OG-1664(28)
L2511392-04J	Amber 1L HCl preserved	A	NA		2.5	Y	Present/Intact		OG-1664(28)
L2511392-04W	Plastic 120ml HNO3 preserved Filtrates	A	NA		2.5	Y	Present/Intact		CR-2008S(180),NI-2008S(180)
L2511392-05A	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-05B	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-05C	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-05D	Plastic 250ml HNO3 preserved	A	<2	<2	2.5	Y	Present/Intact		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2511392-05E	Plastic 250ml unpreserved	A	7	7	2.5	Y	Present/Intact		-
L2511392-05F	Plastic 250ml NaOH preserved	A	>12	>12	2.5	Y	Present/Intact		TCN-4500(14)
L2511392-05G	Plastic 500ml unpreserved	A	7	7	2.5	Y	Present/Intact		HEXCR-3500(1),FCN(1)
L2511392-05H	Amber 1L HCl preserved	A	NA		2.5	Y	Present/Intact		OG-1664(28)
L2511392-05J	Amber 1L HCl preserved	A	NA		2.5	Y	Present/Intact		OG-1664(28)
L2511392-05W	Plastic 120ml HNO3 preserved Filtrates	A	NA		2.5	Y	Present/Intact		CR-2008S(180),NI-2008S(180)
L2511392-06A	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-06B	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-06C	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-06D	Plastic 250ml HNO3 preserved	C	<2	<2	5.7	Y	Present/Intact		NI-2008T(180),HARDT-2008(180),CR-2008T(180)



**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

Serial\_No:03042515:47  
**Lab Number:** L2511392  
**Report Date:** 03/04/25

**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>
L2511392-06E	Plastic 250ml unpreserved	C	7	7	5.7	Y	Present/Intact		-
L2511392-06F	Plastic 250ml NaOH preserved	C	>12	>12	5.7	Y	Present/Intact		TCN-4500(14)
L2511392-06G	Plastic 500ml unpreserved	C	7	7	5.7	Y	Present/Intact		HEXCR-3500(1),FCN(1)
L2511392-06H	Amber 1L HCl preserved	C	NA		5.7	Y	Present/Intact		OG-1664(28)
L2511392-06J	Amber 1L HCl preserved	C	NA		5.7	Y	Present/Intact		OG-1664(28)
L2511392-06W	Plastic 120ml HNO3 preserved Filtrates	C	NA		5.7	Y	Present/Intact		CR-2008S(180),NI-2008S(180)
L2511392-07A	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)
L2511392-07B	Vial Na2S2O3 preserved	D	NA		5.5	Y	Present/Intact		624.1-PPM(7)



**Project Name:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

## 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:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

### 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:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

#### 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:** SPS TECHNOLOGIES  
**Project Number:** US0043268.2150

**Lab Number:** L2511392  
**Report Date:** 03/04/25

## REFERENCES

- 3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
- 107 Calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.
- 140 Method 1664, Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

## 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 its 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.



## 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.





# CHAIN OF CUSTODY

PAGE 1 OF 1

WESTBORO, MA  
TEL: 508-898-9220  
FAX: 508-898-9193

MANSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-822-3288

## Client Information

Client: **WSP USA Inc**  
Address: **10 Lake center drive  
suite 205 marlton, NJ, 08053**  
Phone: **856-793-2005**  
Fax: **856-793-2006**  
Email: **JOYAH.KIM@WSP.COM  
STACY.MASON@WSP.COM**  
 These samples have been previously analyzed by Alpha

## Project Information

Project Name: **SPS Technologies**  
Project Location: **Jenkitown, PA**  
Project #: **VS00432682150**  
Project Manager: **Tarah Kim**  
ALPHA Quote #:

## Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)  
Date Due: **Time: 1 Day**

Date Rec'd in Lab: **3/2/25**

ALPHA Job #: **L2511392**

## Report Information - Data Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

## Billing Information

Same as Client info PO #:

## Regulatory Requirements/Report Limits

State / Fed Program: **PA** Criteria:

Other Project Specific Requirements/Comments/Detection Limits:  
**\* Attorney Client privileged + confidential**  
**All VOAs in one cooler**  
**Dissolved metals will be filtered**

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
11392-01	SW5-030225	3/2/25	0945	SW	BL
-02	SW4-030225	3/2/25	1050	SW	BL
-03	SW3-030225	3/2/25	1215	SW	BL
-04	SW2-030225	3/2/25	1305	SW	BL
-05	SW1-030225	3/2/25	1335	SW	BL
-06	FOSW-030225	3/2/25	-	SW	BL
-07	TBSW-030225	3/2/25	-	W	BL

ANALYSIS	SAMPLE HANDLING										TOTAL # BOTTLES		
	Oil and Grease E14413	Free Cyanide S14500-14-MOD	Speciate Hex Cyanide S14500-14-MOD	Total SIM 3500-CR B	Total Nickel E200.8	Dissolved Chromium E200.8	Dissolved Nickel E200.8	MEK E624.1	Toluene E624.1	Total Hardness E200.8		Total Cyanide S14500-14	
	X	X	X	X	X	X	X	X	X	X	X	Filtration _____ <input type="checkbox"/> Done <input type="checkbox"/> Not needed <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please specify below)	
	X	X	X	X	X	X	X	X	X	X	X	MS/MSD PH=6.57	27
	X	X	X	X	X	X	X	X	X	X	X	PH=7.47	9
	X	X	X	X	X	X	X	X	X	X	X	PH=7.64	9
	X	X	X	X	X	X	X	X	X	X	X	PH=8.16	9
	X	X	X	X	X	X	X	X	X	X	X	PH=7.96	9
	X	X	X	X	X	X	X	X	X	X	X		9
							X	X					2

Relinquished By:		Date/Time	Received By:		Date/Time
<i>[Signature]</i>		3/2/25 14:35	<i>[Signature]</i>		3/2/25 14:35
<i>[Signature]</i>		3/2/25	<i>[Signature]</i>		3/2/25 20:40
<i>[Signature]</i>		3/2/25 20:40	<i>[Signature]</i>		3/2/25 20:40

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

# ALPHA ANALYTICAL

Custody Seal received intact from Client.  
Seal broken by Alpha Representative to add ice

Apply this label over or close to original seal

## CUSTODY SEAL

Date 03/02/25  
Signature [Signature]

**T**  
**S**

**thermo**  
SCIENTIFIC

90009

## CUSTODY SEAL

Date 03/02/25  
Signature [Signature]

**Thermo**  
SCIENTIFIC

90009

# ALPHA ANALYTICAL

Custody Seal received intact from Client.  
Seal broken by Alpha Representative to add ice

Apply this label over or close to original seal

## CUSTODY SEAL

Date 3/2/25  
Signature [Signature]

## CUSTODY SEAL

Date 3/2/25  
Signature [Signature]

**Thermo**  
SCIENTIFIC

90009

**Thermo**  
SCIENTIFIC

90009

# ALPHA ANALYTICAL

Custody Seal received intact from Client.  
Seal broken by Alpha Representative to add ice

Apply this label over or close to original seal

## CUSTODY SEAL

Date 03/02/25  
Signature CA

**Thermo**  
SCIENTIFIC

90009

## CUSTODY SEAL

Date 03/02/25  
Signature CA

**Thermo**  
SCIENTIFIC

90009



# ALPHA ANALYTICAL

Custody Seal received intact from Client.  
Seal broken by Alpha Representative to add ice

Apply this label over or close to original seal

## CUSTODY SEAL

Date 3/2/25

Signature [Handwritten Signature]

**Thermo**  
SCIENTIFIC

90009

## CUSTODY SEAL

Date 3/2/25

Signature [Handwritten Signature]

**Thermo**  
SCIENTIFIC

90009