

# SPS Technologies Abington PA March 5, 2025 Supplemental Outfall Sampling Results Report

SPS Technologies

2025-03-11



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# 1. Executive Summary

WSP USA Inc. (WSP), on behalf of SPS Technologies Abington PA (SPS), collected one outfall sample in response to a rainfall event on March 5, 2025 and 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 sample was 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.

## Outfall Samples:

		Outfall 009
Parameter	Units	Result
Toluene	mg/L	ND
2-Butanone (MEK)	mg/L	ND
Chromium, Trivalent	mg/L	0.006
Chromium, Hexavalent	mg/L	0.005
Total Cyanide	mg/L	0.008
Free Cyanide	mg/L	ND
Oil & Grease	mg/L	ND
Total Suspended Solids	mg/L	69
Nitrate/Nitrite as Nitrogen	mg/L	0.18
Chemical Oxygen Demand	mg/L	55
Total Aluminum	mg/L	1.598
Total Chromium	mg/L	0.01196
Total Copper	mg/L	0.01664
Total Iron	mg/L	2.002
Total Lead	mg/L	0.03292
Total Nickel	mg/L	0.00587
Total Zinc	mg/L	0.2355
Dissolved Chromium	mg/L	0.0016
Dissolved Nickel	mg/L	0.0011
Hardness	mg/L	52
рН	SU	8.15

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 Supplemental Outfall Sampling Results Report (Supplemental Outfall 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 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.

In accordance with the SPS Sampling Plan, SPS has been collecting daily surface water and outfall samples since February 22 and 25, respectively. The results of the daily surface water and outfall

sampling for March 5, 2025 (Outfall 006 only) were provided under separate cover in a report dated March 8, 2025. This Supplemental Outfall Report documents supplemental outfall sampling (Outfall 009) conducted on the same day, but after the daily sampling had occurred, in response to the rainfall event on March 5, 2025.<sup>1</sup>

# 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. Outfall Sampling

# 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 Outfall Sampling Field Methodology

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

The 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 surface water and outfall 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 Outfall Sampling 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

<sup>&</sup>lt;sup>1</sup> Outfalls 002 and 004 were also observed to have flow at the time of the supplemental sampling in the afternoon of March 5, 2025; however, the sample locations were inaccessible due to health and safety concerns (high volume and velocity of the flow).

- 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 analytical results from outfall sampling are presented in **Table 1**.

# 5. 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.

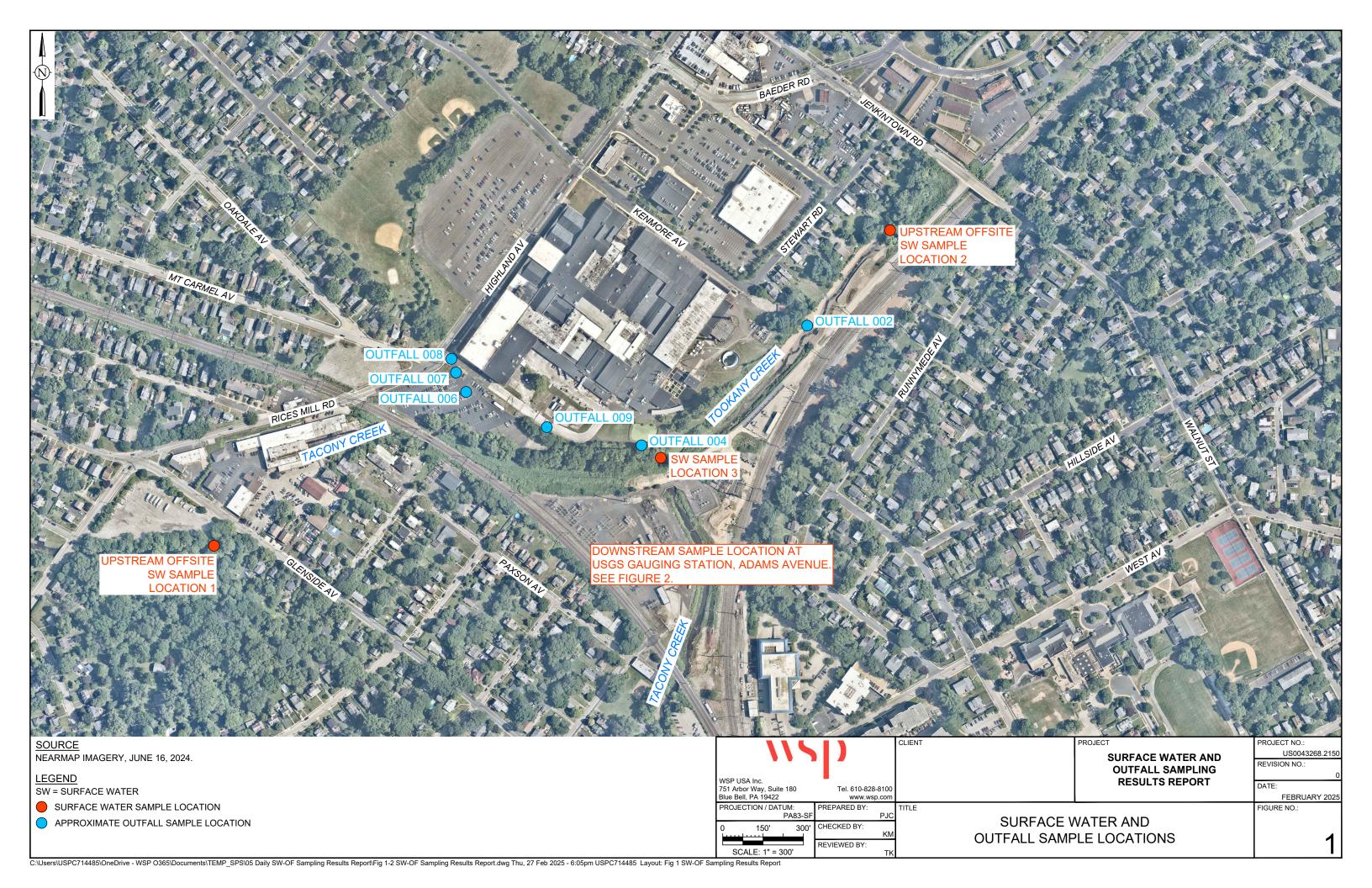
### 5.3 Data Evaluation

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



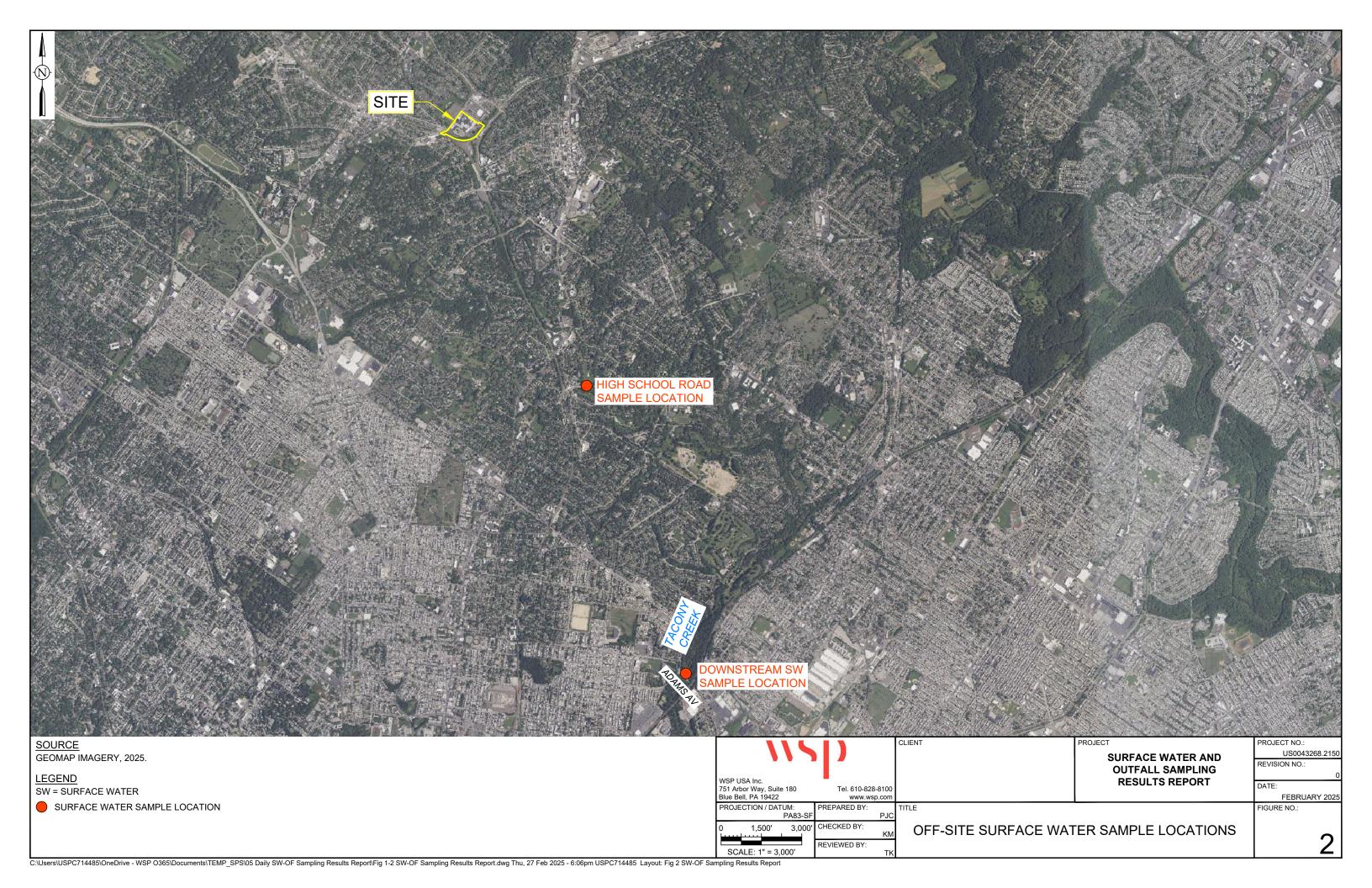


Table 1 March 2025 Project Number: US0043268.2150

# **Outfall Analytical Results - Rain Event Daily Surface Water Sampling Results Report SPS Technologies** Jenkintown, Pennsylvania

Field Sample ID		F				
Lab Sample ID Sample ID Sampling Date Matrix   Water		Sample Location				
Sampling Date Matrix         3/5/2025           Parameter         Units         Result         Q         RL           Volatile Organic Compounds         Toluene         mg/L         ND         0.001           2-Butanone (MEK)         mg/L         ND         0.001           2-Butanone (MEK)         mg/L         ND         0.001           General Chemistry         Chromium, Trivalent         mg/L         0.006         J         0.01           Chromium, Hexavalent         mg/L         0.005         J         0.01           Chromium, Hexavalent         mg/L         0.005         J         0.01           Chromium, Hexavalent         mg/L         0.005         J         0.01           Chromium, Hexavalent         mg/L         0.008         0.005           Free Cyanide         mg/L         0.008         0.005           Free Cyanide         mg/L         ND         U         0.01           Gerase         mg/L         ND         U         0.01           Free Cyanide         mg/L         ND         U         0.01           Oil & Grease         mg/L         ND         U         0.01		·		_		
Parameter         Units         Result         Q         RL           Volatile Organic Compounds         Toluene         mg/L         ND         0.001           2-Butanone (MEK)         mg/L         ND         0.001           2-Butanone (MEK)         mg/L         ND         0.001           General Chemistry         Chromium, Trivalent         mg/L         0.006         J         0.01           Chromium, Hexavalent         mg/L         0.005         J         0.01           Chromium, Hexavalent         mg/L         0.005         J         0.01           Total Cyanide         mg/L         0.008         0.005         J         0.01           Total Cyanide         mg/L         ND         J         0.01         0.005         J         0.01         0.001         0.001         0.001         0.001         0.001         0.001         0.001         0.001         0.001         0.001         0.001         0.001         0.001         0.001         0.001         0.001         0.001						
Note						
Volatile Organic Compounds   Toluene						
Toluene         mg/L         ND         0.001           2-Butanone (MEK)         mg/L         ND         0.01           General Chemistry         Chromium, Trivalent         mg/L         0.006         J         0.01           Chromium, Hexavalent         mg/L         0.005         J         0.01           Chromium, Hexavalent         mg/L         0.005         J         0.01           Total Cyanide         mg/L         0.008         0.005         F         0.005         J         0.01         0.005         Free Cyanide         mg/L         ND         UJ         0.01		Units	Result	Q	RL	
2-Butanone (MEK)     mg/L     ND     0.01       General Chemistry       Chromium, Trivalent     mg/L     0.006     J     0.01       Chromium, Hexavalent     mg/L     0.005     J     0.01       Total Cyanide     mg/L     0.008     0.005       Free Cyanide     mg/L     ND     UJ     0.01       Oil & Grease     mg/L     ND     4       Total Suspended Solids     mg/L     69     10       Nitrate/Nitrite as Nitrogen     mg/L     0.18     0.1       Chemical Oxygen Demand     mg/L     55     20       Total Metals       Total Aluminum     mg/L     1.598     0.01       Total Chromium     mg/L     0.01196     0.001       Total Copper     mg/L     0.01664     0.001       Total Iron     mg/L     0.03292     0.005       Total Lead     mg/L     0.03292     0.001       Total Nickel     mg/L     0.2355     0.002       Total Zinc     mg/L     0.2355     0.005       Dissolved Metals       Dissolved Chromium     mg/L     0.0011     J     0.002       Total Hardness     mg/L     52     0.54       Field Parameters	,					
General Chemistry         mg/L         0.006         J         0.01           Chromium, Trivalent         mg/L         0.005         J         0.01           Chromium, Hexavalent         mg/L         0.005         J         0.01           Total Cyanide         mg/L         0.008         0.005           Free Cyanide         mg/L         ND         UJ         0.01           Oil & Grease         mg/L         ND         4         4           Total Suspended Solids         mg/L         69         10         NItrate/Nitrite as Nitrogen         mg/L         69         10         NItrate/Nitrite as Nitrogen         0.1         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0 <t< td=""><td></td><td>mg/L</td><td></td><td></td><td>0.001</td></t<>		mg/L			0.001	
Chromium, Trivalent         mg/L         0.006         J         0.01           Chromium, Hexavalent         mg/L         0.005         J         0.01           Total Cyanide         mg/L         0.008         0.005           Free Cyanide         mg/L         ND         UJ         0.01           Oil & Grease         mg/L         ND         UJ         0.01           Total Suspended Solids         mg/L         69         10           Nitrate/Nitrite as Nitrogen         mg/L         0.18         0.1           Chemical Oxygen Demand         mg/L         55         20           Total Metals           Total Aluminum         mg/L         1.598         0.01           Total Chromium         mg/L         0.01196         0.001           Total Copper         mg/L         0.0196         0.001           Total Iron         mg/L         2.002         0.05           Total Lead         mg/L         0.03292         0.001           Total Nickel         mg/L         0.00587         0.002           Total Zinc         mg/L         0.0016         0.005           Dissolved Metals         mg/L         0.0016         0.001 <td></td> <td>mg/L</td> <td>ND</td> <td></td> <td>0.01</td>		mg/L	ND		0.01	
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Total Cyanide         mg/L         0.008         0.005           Free Cyanide         mg/L         ND         UJ         0.01           Oil & Grease         mg/L         ND         4           Total Suspended Solids         mg/L         69         10           Nitrate/Nitrite as Nitrogen         mg/L         0.18         0.1           Chemical Oxygen Demand         mg/L         55         20           Total Metals         Total Aluminum         mg/L         1.598         0.01           Total Chromium         mg/L         0.01196         0.001           Total Copper         mg/L         0.01664         0.001           Total Iron         mg/L         2.002         0.05           Total Lead         mg/L         0.03292         0.001           Total Nickel         mg/L         0.00587         0.002           Total Zinc         mg/L         0.2355         0.005           Dissolved Metals         0.0016         0.001         0.001           Dissolved Nickel         mg/L         0.0011         J         0.002           Total Hardness         mg/L         52         0.54           Field Parameters	Chromium, Trivalent	mg/L	0.006	J	0.01	
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Nitrate/Nitrite as Nitrogen         mg/L         0.18         0.1           Chemical Oxygen Demand         mg/L         55         20           Total Metals         Total Aluminum         mg/L         1.598         0.01           Total Chromium         mg/L         0.01196         0.001           Total Copper         mg/L         0.01664         0.001           Total Iron         mg/L         2.002         0.05           Total Lead         mg/L         0.03292         0.001           Total Nickel         mg/L         0.00587         0.002           Total Zinc         mg/L         0.2355         0.005           Dissolved Metals         0.001         0.001         0.001           Dissolved Nickel         mg/L         0.0011         J         0.002           Total Hardness         mg/L         52         0.54           Field Parameters	Oil & Grease	mg/L	ND		4	
Chemical Oxygen Demand         mg/L         55         20           Total Metals         Total Aluminum         mg/L         1.598         0.01           Total Chromium         mg/L         0.01196         0.001           Total Copper         mg/L         0.01664         0.001           Total Iron         mg/L         2.002         0.05           Total Lead         mg/L         0.03292         0.001           Total Nickel         mg/L         0.00587         0.002           Total Zinc         mg/L         0.2355         0.005           Dissolved Metals         mg/L         0.0016         0.001           Dissolved Nickel         mg/L         0.0011         J         0.002           Total Hardness         mg/L         52         0.54           Field Parameters	Total Suspended Solids	mg/L	69		10	
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Total Aluminum         mg/L         1.598         0.01           Total Chromium         mg/L         0.01196         0.001           Total Copper         mg/L         0.01664         0.001           Total Iron         mg/L         2.002         0.05           Total Lead         mg/L         0.03292         0.001           Total Nickel         mg/L         0.00587         0.002           Total Zinc         mg/L         0.2355         0.005           Dissolved Metals           Dissolved Chromium         mg/L         0.0016         0.001           Dissolved Nickel         mg/L         0.0011         J         0.002           Total Hardness         mg/L         52         0.54           Field Parameters	Chemical Oxygen Demand	mg/L	55		20	
Total Chromium         mg/L         0.01196         0.001           Total Copper         mg/L         0.01664         0.001           Total Iron         mg/L         2.002         0.05           Total Lead         mg/L         0.03292         0.001           Total Nickel         mg/L         0.00587         0.002           Total Zinc         mg/L         0.2355         0.005           Dissolved Metals           Dissolved Chromium         mg/L         0.0016         0.001           Dissolved Nickel         mg/L         0.0011         J         0.002           Total Hardness         mg/L         52         0.54           Field Parameters	Total Metals					
Total Copper         mg/L         0.01664         0.001           Total Iron         mg/L         2.002         0.05           Total Lead         mg/L         0.03292         0.001           Total Nickel         mg/L         0.00587         0.002           Total Zinc         mg/L         0.2355         0.005           Dissolved Metals           Dissolved Chromium         mg/L         0.0016         0.001           Dissolved Nickel         mg/L         0.0011         J         0.002           Total Hardness         mg/L         52         0.54           Field Parameters	Total Aluminum	mg/L	1.598		0.01	
Total Iron         mg/L         2.002         0.05           Total Lead         mg/L         0.03292         0.001           Total Nickel         mg/L         0.00587         0.002           Total Zinc         mg/L         0.2355         0.005           Dissolved Metals           Dissolved Chromium         mg/L         0.0016         0.001           Dissolved Nickel         mg/L         0.0011         J         0.002           Total Hardness           Hardness         mg/L         52         0.54           Field Parameters	Total Chromium	mg/L	0.01196		0.001	
Total Lead         mg/L         0.03292         0.001           Total Nickel         mg/L         0.00587         0.002           Total Zinc         mg/L         0.2355         0.005           Dissolved Metals           Dissolved Chromium         mg/L         0.0016         0.001           Dissolved Nickel         mg/L         0.0011         J         0.002           Total Hardness           Hardness         mg/L         52         0.54           Field Parameters	Total Copper	mg/L	0.01664		0.001	
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Dissolved Metals           Dissolved Chromium         mg/L         0.0016         0.001           Dissolved Nickel         mg/L         0.0011         J         0.002           Total Hardness           Hardness         mg/L         52         0.54           Field Parameters	Total Nickel	mg/L	0.00587		0.002	
Dissolved Chromium         mg/L         0.0016         0.001           Dissolved Nickel         mg/L         0.0011         J         0.002           Total Hardness           Hardness         mg/L         52         0.54           Field Parameters	Total Zinc	mg/L	0.2355		0.005	
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Total Hardness         mg/L         52         0.54           Field Parameters         Field Parameters         52         0.54	Dissolved Chromium	mg/L	0.0016		0.001	
Hardness         mg/L         52         0.54           Field Parameters	Dissolved Nickel	mg/L	0.0011	J	0.002	
Field Parameters	Total Hardness					
	Hardness	mg/L	52		0.54	
1	Field Parameters					
pH   SU   8.15	pH <sup>1</sup>	SU	8.15			

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

UJ - Non-Detect Result, RL is Estimated

APPENDIX A – DAILY SURFACE WATER AND OUTFALL SAMPLING LOGS

Project Number: US0043268.2150

# SURFACE WATER/OUTFALL SAMPLE FIELD INFORMATION FORM

Site:	CPC	Egg.			4
Location:	Jenkintown, PA	1.5%	P. 45*	Additional Notes:	
Project Number:	Us0043268.2150			246	
Meter/Type/Serial #: I	loriba U-52 # 24321 S/N: SV5	2CT-2	N. /6	PlD; 0-0 ppm.	
Meter Calibrated @:	0900	KSJTG			A. 12
Flow Meter	H950 Meter # 631376 S/N: 192	641004154			
Sampling Date/Time:	3/5/25 A (050	124100 4124	4	40	
Sampler(s):	BL, ATM, EMR, AUM		*	12	
Sampling Device:	dipper lidle	н .	3		TA.
Sample Characteristic	s: Clear, no ndor @ 05006 03	0575	70		3 54
Analytical Parameters	11 1	C.1 111	tal Cr. Dissolver No		9
	total suspended solids, chemic		1 01:00 000 101	DASOIVED Cr., MELL, TOLU	ene, total hardness, total In
	S Cherrie	Oxogen dentition,	pointie-laimage of 10)	Total AL, Total Cu, Total	Fe Total Pb, Speciate Cr6+
Weather Conditions:	overast, 50s °F			,	Alle Alle

	W.								Selling.				
STATION / SAMPLE	STATION DESCRIPTION (stream/lake/river)	DATE mm/dd/yy 3/5/25	TIME hr:min	TOTAL DEPTH inches	SAMPLE DEPTH	TEMP Celsius	SALINITY ppt	pH SU	COND mS/cm	ORP mV	TURBIDITY	DO **	VELOCIT ft/sec
	nple Characteristics:				,	11.58	0-3	7.31	0.593	127	0.0	6.39	0.66
0F009-030525		3/5/25	1615	1	-	14.13	1.3	8.15	2.51	131	175+7	6.01	0.67
Sam	ple Characteristics:		0.000										
						16-3							
Sam	ple Characteristics:							~	-				
											9 9		
Sam	ple Characteristics:	ACCUPATION MADE						1					
	· M						3						
Sam	ple Characteristics:					Я							
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Sinuel Coxwilling Page 1 of 1

usb



Pro	oject Name: SPS Technologies		•		<b>nber/Phase/Task:</b> US0043268.2150-US Support. Task 01				
Re	viewing Company: WSP USA		Project Manager: Tovah Karl						
Da	ta Evaluator: Candace Cocca		<b>Data Evaluation Date:</b> March 8, 2025, revised Mar 11, 2025						
Ch	ecked by: Julie Lehrman		Revi	ew Dat	<b>e:</b> March 11, 2025				
La	boratory: Pace Analytical LLC		Lab \$	SDG #:	L2512806				
Ма	trix: ⊠ Aqueous □ Soil □ Sediment □	∃ Was	te	□ Air	☐ Other:				
An	alytical Methods: See Table B-1								
Sa	mple Information: See Table B-1								
Wo	ork Plan or QAPP: SPS Technologies Abington Pa	A Surf	ace \	Nater a	and Outfall Sampling Plan (WSP, 2025)				
Da	ta Validation Guidance:								
	USEPA National Functional Guidelines (NFG)	for O	rgani	c Supe	rfund Methods Data Review (Nov. 2020)				
	USEPA NFG for Inorganic Superfund Methods	s Data	Rev	iew (No	ov. 2020)				
CC	OC and Sample Receipt	YES	NO	NA	COMMENT				
a)	COC complete and correct?	$\boxtimes$							
b)	COC documents release of custody (signed and dated)?				See Note 1				
c)	Field QC types provided (note types)?	$\boxtimes$			ТВ				
d)	Did the cooler contents match the COC?	$\boxtimes$							
e)	Were samples received in good condition?	$\boxtimes$							
f)	Were cooler temperatures within control limits?	$\boxtimes$							
Da	ta Package Information	YES	NO	NA	COMMENT				
a)	Laboratory name and location documented?	$\boxtimes$							
b)	All samples on COC reported in data package?		$\boxtimes$		See Note 2				
c)	Requested analytical methods used?	$\boxtimes$							
d)	Requested sample preparation methods used?	$\boxtimes$							
e)	Requested analyte list reported?	$\boxtimes$							
f)	Requested units reported?	$\boxtimes$							
g)	Did the laboratory define the qualifiers used?	$\boxtimes$							
h)	Data package contains all information necessary to complete the data quality review?	$\boxtimes$							
An	alytical Assessment	YES	NO	NA	COMMENT				
a)	Solid samples reported on a dry-weight basis?			$\boxtimes$					
b)	Were solid samples percent moisture criteria acceptable?			$\boxtimes$					
c)	Were sample dilutions noted?	$\boxtimes$							

An	alytical Assessment	YES	NO	NA	COMMENT
d)	Were detected concentrations less than the QL qualified by the laboratory?	$\boxtimes$			
e)	Were detected concentrations above the calibration range reported by the laboratory?		$\boxtimes$		
f)	Did the laboratory satisfy the requested sensitivity requirements?	$\boxtimes$			
Lal	boratory Case Narrative	YES	NO	NA	COMMENT
a)	Do the laboratory narrative or laboratory qualifiers indicate deficiencies?	$\boxtimes$			See Notes below
b)	Were all deficiencies noted in the laboratory qualifiers or narrative?	$\boxtimes$			
Sa	mple Preservation and Holding Time	YES	NO	NA	COMMENT
a)	Were samples properly preserved?	$\boxtimes$			
b)	Were holding times met for sample preparation?	$\boxtimes$			
c)	Were holding times met for sample analysis?		$\boxtimes$		See Notes 3 and 4
Bla	anks	YES	NO	NA	COMMENTS
a)	Were blanks analyzed at the appropriate frequency?	$\boxtimes$			
b)	Were any analytes detected in the associated preparation/method blank?		$\boxtimes$		
c)	Were any analytes detected in the associated trip blanks?		$\boxtimes$		
d)	Were any analytes detected in the associated field or equipment/rinsate blanks?			$\boxtimes$	
e)	Were any analytes detected in the associated storage blanks?			$\boxtimes$	
	rrogates or Deuterated Monitoring mpounds	YES	NO	NA	COMMENTS
a)	Were the correct surrogate compounds added to each sample?	$\boxtimes$			
b)	Were surrogate recoveries within control limits?	$\boxtimes$			
c)	If not, were samples analyzed at dilution factors of 20x or greater?			$\boxtimes$	
LC	S/LCSD	YES	NO	NA	COMMENTS
a)	Were LCS/LCSD reported at the appropriate frequency?	$\boxtimes$			
b)	Were proper analytes included in the LCS/LCSD?				
c)	Were LCS/LCSD recoveries within control limits?				
d)	Were RPD values within control limits (if LCSD was analyzed)?			$\boxtimes$	

MS	S/MSDs	YES	NO	NA	COMMENTS
a)	Were project-specific MS (and MSD) reported?	$\boxtimes$			OF009_030525 (chemical oxygen demand only)
b)	Were proper analytes reported in the MS/MSD?	$\boxtimes$			
c)	Were project-specific MS/MSD recoveries within control limits?	$\boxtimes$			
d)	If not, were sample concentrations greater than 4x the spiking concentration?			$\boxtimes$	
e)	Was the RPD or absolute difference within control limits (if project-specific MSD analyzed)?			$\boxtimes$	
f)	Were project-specific post-digestion spikes analyzed?			$\boxtimes$	
g)	Were project-specific post-digestion spike recoveries within control limits?			$\boxtimes$	
Du	plicates	YES	NO	NA	COMMENTS
a)	Were project-specific laboratory duplicates reported?	$\boxtimes$			OF009_030525 (TSS only)
b)	Was laboratory duplicate RPD or absolute difference criteria acceptable?	$\boxtimes$			
c)	Were field duplicates reported?			$\boxtimes$	
d)	Was field duplicate RPD or absolute difference criteria acceptable?			$\boxtimes$	
ICI	P Serial Dilution (SD)	YES	NO	NA	COMMENTS
a)	Was project-specific ICP SD data provided?			$\boxtimes$	
b)	Were project-specific ICP SD within acceptable criteria?			$\boxtimes$	
Ov	erall Evaluation	YES	NO	NA	COMMENTS
a)	Were there any other technical problems not previously addressed?		$\boxtimes$		
b)	Were data acceptable and usable, except where noted?	$\boxtimes$			

### 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. The laboratory narrative noted that "The samples were logged in accordance with the chain of custody provided by the client at the time of pick up. The original chain of custody was misplaced during transit, and a copy from the initial pickup has been provided at the back of the report. The samples were in the continuous possession of Pace staff until delivered to the laboratory on 3/7/2025." As documented in the data package, a chain of custody was provided and signed by WSP and the laboratory courier at 16:15 on 3/6/2025 when

custody of the samples was initially transferred from WSP to Pace. The scanned copy of this chain of custody was used to log in the samples.

Following project practice, WSP placed custody seals on the coolers prior to giving them to the laboratory courier. The Sample Receipt and Container Information form included in the data package documents that the custody seals on coolers A, B, and C were intact. While the chain of custody was not signed to document transfer of custody from the Pace courier to the Pace laboratory staff, the presence of the cooler custody seals provides corroborating evidence that the samples were not compromised during shipment. There is no action other than to note.

- 2. The chain of custody includes samples collected on March 5, 2025 and March 6, 2025. The preliminary laboratory report included all 4 samples on the chain of custody. WSP requested that separate data packages be issued for each sampling date. A revised laboratory report for Laboratory Job # L2512806 was received March 11, 2025 with only the samples collected March 5, 2025. The March 6, 2025 samples, OF002 030625 and OF006 030625, were reported in Laboratory Job # L2513323.
- 3. The holding time for the analysis of hexavalent chromium is 24 hours. Certain samples, collected following the 3/5/2025 precipitation event, were analyzed more than 24 but less than 48 hours after sampling (2x the holding time). Following Inorganic Guidelines, detected results were qualified as estimated (J). Trivalent chromium is calculated from the difference between total chromium and hexavalent chromium. Using professional judgement, the trivalent chromium results were qualified as estimated (J) due to the uncertainty in the hexavalent chromium analysis.
- **4.** The laboratory performs the analysis of free cyanide from unpreserved samples via method SM4500CN-E(M). The holding time for the analysis of unpreserved samples for free cyanide is 24 hours. Certain samples, collected following the 3/5/2025 precipitation event, were analyzed more than 24 hours after sampling but before 48 hours (2x the holding time) had elapsed. Following Inorganic Guidelines non-detect results analyzed outside the required holding times were qualified as estimated (UJ).

Data Qualification: See Table B-2

# Sample Collection and Analysis Summary SPS Technologies Jenkintown, PA

						Analyses/Parameters											
						마					xavale romiur						
Laboratory			Lab		Collection			SM						4500CN-	4500CN-		3500CR-
Job	Field Identification	Matrix	Identification	QC Samples	Date	E624.1	E410.4	2540D	E353.2	E1664B	200.8	200.8	200.8	E(M)	CE	SM 3500	В
L2512806	OF009_030525	WS	L2512806-01	==	3/5/2025	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
L 2512806	TBOF 030525	WQ	L2512806-02	TB	3/5/2025	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, nickel, and zinc
- 3) Dissovled 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

# Qualifier Summary Table

Laboratory Job	Sample Name	Analyte	New Result	New MDL	New RL	Qualifier	Reason
L2512806	OF009 030525						Analysis Holding Time: exceeds criteria by less than
L2312000	01 009_030323	Free Cyanide				UJ	2x
L2512806	OF009 030525						Analysis Holding Time: exceeds criteria by less than
L2312000	OF009_030323	Hexavalent Chromium				J	2x
L2512806	OF009 030525						Qualified due to uncertainty in hexavalent chromium
L2312000	OF009_030323	Trivalent Chromium				J	analysis
							Laboratory applied U-qualifiers indicating non-detect
							results and J-qualifiers indicating results below the
L2512806	All samples						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

UJ: Estimated, non-detect



# APPENDIX C – LABORATORY ANALYTICAL REPORTS



### ANALYTICAL REPORT

Lab Number: L2512806

Client: WSP USA Inc.

401 Route 73 North

Suite 205

Marlton, NJ 08053

ATTN: Stacy Mason
Phone: (856) 793-2005

Project Name: SPS TECHNOLOGIES

Project Number: US0043268.2150

Report Date: 03/11/25

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).

Pace

**Project Name:** SPS TECHNOLOGIES

Project Number: US0043268.2150

 Lab Number:
 L2512806

 Report Date:
 03/11/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2512806-01	OF009_030525	WATER	JENKINTOWN, PA	03/05/25 16:15	03/06/25
L2512806-02	TBOF_030525	WATER	JENKINTOWN, PA	03/05/25 00:00	03/06/25



Project Name:SPS TECHNOLOGIESLab Number:L2512806Project Number:US0043268.2150Report Date:03/11/25

### **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 TECHNOLOGIESLab Number:L2512806Project Number:US0043268.2150Report Date:03/11/25

# **Case Narrative (continued)**

# Report Revision

March 11, 2025: L2512806-03 and -04 as well as all narrative references to these samples have been removed.

March 11, 2025: The Sample Receipt narrative has been updated.

March 11, 2025: At the client's request, the sample receipt narrative has been changed and L2512806-03 and -04 have been removed from this report.

# Report Submission

March 08, 2025: This final report includes the results of all requested analyses.

March 07, 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

The samples were logged in accordance with the chain of custody provided by the client at the time of pick up. The original chain of custody was misplaced during transit, and a copy from the initial pickup has been provided at the back of the report. The samples were in continuous possession of Pace staff until delivered to the laboratory on 3/7/2025.

# Cyanide, Free

L2512806-01: The sample was analyzed with the method required holding time exceeded.

### Chromium, Hexavalent

L2512806-01: The sample was analyzed with the method required holding time exceeded.

Chemical Oxygen Demand



Serial\_No:03112519:15

Project Name:SPS TECHNOLOGIESLab Number:L2512806Project Number:US0043268.2150Report Date:03/11/25

# **Case Narrative (continued)**

WG2037727: A Matrix Spike and Laboratory Duplicate were prepared with the sample batch, however, the native sample was not available for reporting and the QC results could not be reported.

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

Authorized Signature:

Title: Technical Director/Representative Date: 03/11/25

600 Jewson Kelly Stenstrom

Pace

# **ORGANICS**



# **VOLATILES**



Serial\_No:03112519:15

**Project Name:** SPS TECHNOLOGIES

**Project Number:** US0043268.2150

**SAMPLE RESULTS** 

Lab Number: L2512806

Report Date: 03/11/25

Lab ID: L2512806-01 Date Collected: 03/05/25 16:15

Client ID: Date Received: OF009\_030525 03/06/25 Field Prep: Sample Location: JENKINTOWN, PA Not Specified

Sample Depth:

Matrix: Water Analytical Method: 128,624.1 Analytical Date: 03/07/25 08:54

Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - W	estborough Lab						
Toluene	ND		mg/l	0.0010	0.00031	1	
2-Butanone	ND		mg/l	0.010	0.0010	1	
2			a. =		Acce	ptance	

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	80		60-140
Fluorobenzene	73		60-140
4-Bromofluorobenzene	114		60-140



Serial\_No:03112519:15

**Project Name:** SPS TECHNOLOGIES

**Project Number:** US0043268.2150

**SAMPLE RESULTS** 

L2512806

Report Date:

Lab Number:

03/11/25

Lab ID: L2512806-02

TBOF\_030525 Client ID: Sample Location:

Date Collected: 03/05/25 00:00 Date Received: 03/06/25

JENKINTOWN, PA

Field Prep: Not Specified

Sample Depth:

Matrix: Water Analytical Method: 128,624.1 Analytical Date: 03/07/25 09:28

Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - Westboro	ugh Lab						
Toluene	ND		mg/l	0.0010	0.00031	1	
2-Butanone	ND		mg/l	0.010	0.0010	1	
Surrogate			% Recovery	Qualif		eptance iteria	

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	85		60-140
Fluorobenzene	76		60-140
4-Bromofluorobenzene	114		60-140



Project Name: SPS TECHNOLOGIES Lab Number: L2512806

> Method Blank Analysis Batch Quality Control

Analytical Method: 128,624.1 Analytical Date: 03/07/25 08:17

Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL	
Volatile Organics by GC/MS - Westl	oorough Lab	o for sampl	e(s): 01-04	Batch:	WG2037807-4	
Toluene	ND		mg/l	0.0010	0.00031	
2-Butanone	ND		mg/l	0.010	0.0010	

Surrogate	%Recovery	Acceptance Qualifier Criteria
Pentafluorobenzene	88	60-140
Fluorobenzene	73	60-140
4-Bromofluorobenzene	116	60-140



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** SPS TECHNOLOGIES

**Project Number:** 

US0043268.2150

Lab Number:

L2512806

03/11/25

Report Date:

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics by GC/MS - Westborou	gh Lab Associat	ed sample(s)	: 01-04 Batch	n: WG20	37807-3				
Toluene	100		-		70-130	-		41	
2-Butanone	72		-		60-140	-		30	

Surrogate	LCS %Recovery Qual	LCSD %Recovery Qual	Acceptance Criteria
Pentafluorobenzene	91		60-140
Fluorobenzene	86		60-140
4-Bromofluorobenzene	112		60-140



# **METALS**



Project Name:SPS TECHNOLOGIESLab Number:L2512806Project Number:US0043268.2150Report Date:03/11/25

SAMPLE RESULTS

 Lab ID:
 L2512806-01
 Date Collected:
 03/05/25 16:15

 Client ID:
 OF009\_030525
 Date Received:
 03/06/25

 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
Total Metals - Mans	field Lab										
Aluminum, Total	1.598		mg/l	0.01000	0.00327	1	03/07/25 08:06	03/07/25 11:45	EPA 3005A	3,200.8	BLR
Chromium, Total	0.01196		mg/l	0.00100	0.00017	1	03/07/25 08:06	03/07/25 11:45	EPA 3005A	3,200.8	BLR
Copper, Total	0.01664		mg/l	0.00100	0.00038	1	03/07/25 08:06	03/07/25 11:45	EPA 3005A	3,200.8	BLR
Iron, Total	2.002		mg/l	0.05000	0.01910	1	03/07/25 08:06	03/07/25 11:45	EPA 3005A	3,200.8	BLR
Lead, Total	0.03292		mg/l	0.00100	0.00034	1	03/07/25 08:06	03/07/25 11:45	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00587		mg/l	0.00200	0.00055	1	03/07/25 08:06	03/07/25 11:45	EPA 3005A	3,200.8	BLR
Zinc, Total	0.2355		mg/l	0.00500	0.00341	1	03/07/25 08:06	03/07/25 11:45	EPA 3005A	3,200.8	BLR
Total Hardness (by	calculation	n) - Mansfi	eld Lab								
Hardness	52.00		mg/l	0.5400	NA	1	03/07/25 08:06	03/07/25 11:45	EPA 3005A	3,200.8	BLR
General Chemistry -	Mansfield	d Lab									
Chromium, Trivalent	0.006	J	mg/l	0.010	0.003	1		03/07/25 11:45	NA	107,-	
Dissolved Metals - N	/lansfield l	_ab									
Chromium, Dissolved	0.0016		mg/l	0.0010	0.0002	1	03/08/25 07:15	03/08/25 11:10	EPA 3005A	3,200.8	MRC
Nickel, Dissolved	0.0011	J	mg/l	0.0020	0.0006	1	03/08/25 07:15	03/08/25 11:10	EPA 3005A	3,200.8	MRC



Serial\_No:03112519:15

Project Name: SPS TECHNOLOGIES

Project Number: US0043268.2150

Lab Number:

L2512806

Report Date:

03/11/25

# Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield	d Lab for sample(s):	01,03-04	Batch:	WG203	37631-1				
Aluminum, Total	ND	mg/l	0.01000	0.00327	7 1	03/07/25 08:06	03/07/25 11:22	3,200.8	BLR
Chromium, Total	ND	mg/l	0.00100	0.00017	7 1	03/07/25 08:06	03/07/25 11:22	3,200.8	BLR
Copper, Total	ND	mg/l	0.00100	0.00038	3 1	03/07/25 08:06	03/07/25 11:22	3,200.8	BLR
Iron, Total	ND	mg/l	0.05000	0.01910	) 1	03/07/25 08:06	03/07/25 11:22	3,200.8	BLR
Lead, Total	ND	mg/l	0.00100	0.00034	1	03/07/25 08:06	03/07/25 11:22	3,200.8	BLR
Nickel, Total	ND	mg/l	0.00200	0.00055	5 1	03/07/25 08:06	03/07/25 11:22	3,200.8	BLR
Zinc, Total	ND	mg/l	0.00500	0.00341	1	03/07/25 08:06	03/07/25 11:22	3,200.8	BLR

**Prep Information** 

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness (by ca	alculation) - Mansfield L	ab for sa	ample(s):	01,03-0	4 Batch:	WG2037631-1			
Hardness	ND	mg/l	0.5400	NA	1	03/07/25 08:06	03/07/25 11:22	3,200.8	BLR

# **Prep Information**

Digestion Method: EPA 3005A

Parameter	Result Qual	ifier Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytica Method	l Analyst
Dissolved Metals - Ma	ansfield Lab for s	ample(s): 01,0	)3-04 Ba	atch: W	G2037915-	1			
Chromium, Dissolved	ND	mg/l	0.0010	0.0002	1	03/08/25 07:15	03/08/25 10:41	3,200.8	MRC
Nickel, Dissolved	ND	mg/l	0.0020	0.0006	1	03/08/25 07:15	03/08/25 10:41	3,200.8	MRC

**Prep Information** 

Digestion Method: EPA 3005A



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** SPS TECHNOLOGIES

Project Number: US0043268.2150

Lab Number:

L2512806

Report Date:

03/11/25

Parameter	LCS %Recovery Qual	LCSD %Recovery	%Recovery Qual Limits	RPD	Qual	RPD Limits						
tal Metals - Mansfield Lab Associated sample(s): 01,03-04 Batch: WG2037631-2												
Aluminum, Total	100	-	85-115	-								
Chromium, Total	96	-	85-115	-								
Copper, Total	92	-	85-115	-								
Iron, Total	101	-	85-115	-								
Lead, Total	97	-	85-115	-								
Nickel, Total	93	-	85-115	-								
Zinc, Total	100	-	85-115	-								
otal Hardness (by calculation) - Mansfield La	ab Associated sample(	s): 01,03-04 Batch: \	WG2037631-2									
Hardness	104	-	85-115	-								
Dissolved Metals - Mansfield Lab Associated	sample(s): 01,03-04	Batch: WG2037915-2										
Chromium, Dissolved	91	-	85-115	-								
Nickel, Dissolved	96	-	85-115	-								



# Matrix Spike Analysis Batch Quality Control

**Project Name:** SPS TECHNOLOGIES

Project Number: US0043268.2150

Lab Number:

L2512806

**Report Date:** 03/11/25

arameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual Found	MSD %Recovery	Recovery Qual Limits	RPD	RPD Qual Limits
otal Metals - Mansfield La Sample	ab Associated sam	ple(s): 01,0	03-04 QC E	Batch ID: WG2	2037631-3 WG2037	631-4 QC S	Sample: L2512807-	01 Cli	ent ID: MS
Aluminum, Total	0.5082	2	2.529	101	2.607	105	70-130	3	20
Chromium, Total	0.00115	0.2	0.1855	92	0.2076	103	70-130	11	20
Copper, Total	0.005	0.25	0.2256	88	0.2572	101	70-130	13	20
Iron, Total	0.5426	1	1.387	84	1.538	100	70-130	10	20
Lead, Total	0.0022	0.53	0.5018	94	0.5402	102	70-130	7	20
Nickel, Total	0.00162J	0.5	0.4470	89	0.4874	97	70-130	9	20
Zinc, Total	0.0150	0.5	0.5007	97	0.5436	106	70-130	8	20
otal Hardness (by calcula Client ID: MS Sample	ation) - Mansfield L	ab Associa	ted sample(s	s): 01,03-04	QC Batch ID: WG20	37631-3 W	G2037631-4 QC S	Sample:	L2512807-01
Hardness	90.11	66.2	153.2	95	164.7	113	70-130	7	20
Dissolved Metals - Mansfie Sample	eld Lab Associated	sample(s):	: 01,03-04	QC Batch ID:	WG2037915-3 WG	2037915-4	QC Sample: L2512	807-01	Client ID: MS
Chromium, Dissolved	0.0006J	0.2	0.1846	92	0.1851	92	70-130	0	20
Nickel, Dissolved	0.0015J	0.5	0.4821	96	0.4788	96	70-130	1	20



# INORGANICS & MISCELLANEOUS



Lab Number:

**Project Name:** SPS TECHNOLOGIES

L2512806 **Project Number: Report Date:** US0043268.2150 03/11/25

**SAMPLE RESULTS** 

Lab ID: Date Collected: L2512806-01 03/05/25 16:15

03/06/25 Client ID: OF009\_030525 Date Received: Not Specified Sample Location: JENKINTOWN, PA Field Prep:

Sample Depth:

Matrix: Water

Resul	t Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
tborough La	ab								
69.		mg/l	10	NA	2	-	03/07/25 08:12	121,2540D	CVN
0.008		mg/l	0.005	0.001	1	03/07/25 11:00	03/07/25 13:35	121,4500CN-CE	JER
ND		mg/l	0.010	0.003	1	-	03/07/25 08:07	121,4500CN-	KAF
0.18		mg/l	0.10	0.046	1	-	03/07/25 07:53	44,353.2	KAF
55.		mg/l	20	6.0	1	03/07/25 09:30	03/07/25 13:02	44,410.4	CVN
ND		mg/l	4.0	4.0	1	03/07/25 07:19	03/07/25 09:56	140,1664B	TPR
0.005	J	mg/l	0.010	0.003	1	03/07/25 09:11	03/07/25 09:40	121,3500CR-B	DMO
	tborough La 69. 0.008 ND 0.18 55.	tborough Lab 69. 0.008 ND 0.18 55. ND	tborough Lab  69. mg/l 0.008 mg/l ND mg/l 0.18 mg/l 55. mg/l ND mg/l	tborough Lab  69. mg/l 10  0.008 mg/l 0.005  ND mg/l 0.010  0.18 mg/l 0.10  55. mg/l 20  ND mg/l 4.0	tborough Lab  69. mg/l 10 NA  0.008 mg/l 0.005 0.001  ND mg/l 0.010 0.003  0.18 mg/l 0.10 0.046  55. mg/l 20 6.0  ND mg/l 4.0 4.0	Result         Qualifier         Units         RL         MDL         Factor           tborough Lab           69.         mg/l         10         NA         2           0.008         mg/l         0.005         0.001         1           ND         mg/l         0.010         0.003         1           0.18         mg/l         0.10         0.046         1           55.         mg/l         20         6.0         1           ND         mg/l         4.0         4.0         1	Result         Qualifier         Units         RL         MDL         Factor         Prepared           tborough Lab           69.         mg/l         10         NA         2         -           0.008         mg/l         0.005         0.001         1         03/07/25 11:00           ND         mg/l         0.010         0.003         1         -           0.18         mg/l         0.10         0.046         1         -           55.         mg/l         20         6.0         1         03/07/25 09:30           ND         mg/l         4.0         4.0         1         03/07/25 07:19	Result         Qualifier         Units         RL         MDL         Factor         Prepared         Analyzed           tborough Lab           69.         mg/l         10         NA         2         -         03/07/25 08:12           0.008         mg/l         0.005         0.001         1         03/07/25 11:00         03/07/25 13:35           ND         mg/l         0.010         0.003         1         -         03/07/25 08:07           0.18         mg/l         0.10         0.046         1         -         03/07/25 07:53           55.         mg/l         20         6.0         1         03/07/25 09:30         03/07/25 13:02           ND         mg/l         4.0         4.0         1         03/07/25 07:19         03/07/25 09:56	Result         Qualifier         Units         RL         MDL         Factor         Prepared         Analyzed         Method           tborough Lab           69.         mg/l         10         NA         2         -         03/07/25 08:12         121,2540D           0.008         mg/l         0.005         0.001         1         03/07/25 11:00         03/07/25 13:35         121,4500CN-CE           ND         mg/l         0.010         0.003         1         -         03/07/25 08:07         121,4500CN-E(M)           0.18         mg/l         0.10         0.046         1         -         03/07/25 07:53         44,353.2           55.         mg/l         20         6.0         1         03/07/25 09:30         03/07/25 13:02         44,410.4           ND         mg/l         4.0         4.0         1         03/07/25 07:19         03/07/25 09:56         140,1664B



L2512806

Lab Number:

**Project Name:** SPS TECHNOLOGIES

Project Number: US0043268.2150 **Report Date:** 03/11/25

# Method Blank Analysis Batch Quality Control

Parameter	Result Q	ualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry -	Westborough Lab	for sam	ple(s):	01,03-04	Batch:	WG20375	94-1			
Nitrogen, Nitrate/Nitrite	ND		mg/l	0.10	0.046	1	-	03/07/25 03:21	44,353.2	KAF
General Chemistry -	Westborough Lab	for sam	ple(s):	01,03-04	Batch:	WG20376	64-1			
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/07/25 07:19	03/07/25 08:55	140,1664B	TPR
General Chemistry -	Westborough Lab	for sam	ple(s):	01,03-04	Batch:	WG20376	80-1			
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/07/25 09:11	03/07/25 09:38	121,3500CR-B	DMO
General Chemistry -	Westborough Lab	for sam	ple(s):	01,03-04	Batch:	WG20376	84-1			
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	03/07/25 08:12	121,2540D	CVN
General Chemistry -	Westborough Lab	for sam	ple(s):	01,03-04	Batch:	WG20376	85-1			
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/07/25 08:07	121,4500CN-E(N	I) KAF
General Chemistry -	Westborough Lab	for sam	ple(s):	01,03-04	Batch:	WG20377	27-1			
Chemical Oxygen Demand	d ND		mg/l	20	6.0	1	03/07/25 09:30	03/07/25 13:00	44,410.4	CVN
General Chemistry -	Westborough Lab	for sam	ple(s):	01,03-04	Batch:	WG20377	75-1			
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/07/25 11:00	03/07/25 13:25	121,4500CN-CE	JER



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** SPS TECHNOLOGIES

Project Number: US0043268.2150

Lab Number:

L2512806

Report Date:

03/11/25

Parameter	LCS %Recovery Q	tual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab	Associated sample(s): 0	1,03-04	Batch: WG20	37594-2				
Nitrogen, Nitrate/Nitrite	100		-		90-110	-		
General Chemistry - Westborough Lab	Associated sample(s): 0	1,03-04	Batch: WG20	37664-2				
Oil & Grease, Hem-Grav	92		-		78-114	-		18
General Chemistry - Westborough Lab	Associated sample(s): 0	1,03-04	Batch: WG20	37680-2				
Chromium, Hexavalent	99		-		85-115	-		20
General Chemistry - Westborough Lab	Associated sample(s): 0	1,03-04	Batch: WG20	37684-2				
Solids, Total Suspended	102		-		80-120	-		
General Chemistry - Westborough Lab	Associated sample(s): 0	1,03-04	Batch: WG20	37685-2				
Cyanide, Free	94		-		90-110	-		
General Chemistry - Westborough Lab	Associated sample(s): 0	1,03-04	Batch: WG20	37727-2				
Chemical Oxygen Demand	99		-		90-110	-		
General Chemistry - Westborough Lab	Associated sample(s): 0	1,03-04	Batch: WG20	37775-2				
Cyanide, Total	98		-		90-110	-		



## Matrix Spike Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES

Project Number: US0043268.2150

Lab Number:

L2512806

Report Date:

03/11/25

Parameter	Native Sample	MS Added	MS Found %	MS Recovery	Qual	MSD Found	MSD %Recovery		overy nits RPI	D Qual	RPD Limits
General Chemistry - Westbo	orough Lab Assoc	iated sam	ole(s): 01,03-0	4 QC Batc	h ID: W	G2037594-4	QC Samp	le: L251249	2-01 Clien	t ID: MS	S Sample
Nitrogen, Nitrate/Nitrite	0.28	4	4.3	100		-	-	80	-120 -		20
General Chemistry - Westbo MS Sample	orough Lab Assoc	iated sam	ole(s): 01,03-0	4 QC Bato	h ID: W	G2037664-4	WG2037664	4-5 QC Sai	mple: L2512	807-01	Client ID:
Oil & Grease, Hem-Grav	ND	42.1	40	94		39	93	78	-114 2		18
General Chemistry - Westbo MS Sample	orough Lab Assoc	iated sam	ole(s): 01,03-0	4 QC Bato	h ID: W	G2037680-4	WG2037680	0-5 QC Sai	mple: L2512	807-01	Client ID:
Chromium, Hexavalent	0.004J	0.1	0.092	92		0.090	90	85	-115 2		20
General Chemistry - Westbo MS Sample	orough Lab Assoc	iated sam	ole(s): 01,03-0	4 QC Bato	h ID: W	G2037685-4	WG2037685	5-5 QC Sai	mple: L2512	807-01	Client ID:
Cyanide, Free	0.006J	0.25	0.256	102		0.260	104	80	-120 2		20
General Chemistry - Westbo MS Sample	orough Lab Assoc	iated sam	ole(s): 01,03-0	4 QC Bato	h ID: W	G2037775-3	WG2037775	5-4 QC Sai	mple: L2512	807-01	Client ID:
Cyanide, Total	0.002J	0.2	0.212	106		0.210	105	90	-110 1		30



L2512806

# Lab Duplicate Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Banart Data

**Report Date:** 03/11/25

Lab Number:

Parameter	Nat	ive Sample	Dup	licate Sample	Units	RPD	Qual R	PD Limits
General Chemistry - Westborough Lab	Associated sample(s):	01,03-04	QC Batch ID:	WG2037594-3	QC Sample:	L2512492-01	Client ID:	DUP Sample
Nitrogen, Nitrate/Nitrite		0.28		0.28	mg/l	0		20
General Chemistry - Westborough Lab	Associated sample(s):	01,03-04	QC Batch ID:	WG2037664-3	QC Sample:	L2512807-01	Client ID:	DUP Sample
Oil & Grease, Hem-Grav		ND		ND	mg/l	NC		18
General Chemistry - Westborough Lab	Associated sample(s):	01,03-04	QC Batch ID:	WG2037680-3	QC Sample:	L2512807-01	Client ID:	DUP Sample
Chromium, Hexavalent		0.004J		0.004J	mg/l	NC		20
General Chemistry - Westborough Lab	Associated sample(s):	01,03-04	QC Batch ID:	WG2037684-3	QC Sample:	L2512806-01	Client ID:	OF009_030525
Solids, Total Suspended		69.		66	mg/l	4		32
General Chemistry - Westborough Lab	Associated sample(s):	01,03-04	QC Batch ID:	WG2037685-3	QC Sample:	L2512807-01	Client ID:	DUP Sample
Cyanide, Free		0.006J		0.005J	mg/l	NC		20
General Chemistry - Westborough Lab	Associated sample(s):	01,03-04	QC Batch ID:	WG2037775-5	QC Sample:	L2512807-01	Client ID:	DUP Sample
Cyanide, Total		0.002J		ND	mg/l	NC		30



SPS TECHNOLOGIES Lab Number: L2512806 **Project Number:** US0043268.2150

Report Date: 03/11/25

## Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

### **Cooler Information**

Project Name:

Cooler	Custody Seal
A	Present/Intact
В	Present/Intact
С	Present/Intact
D	Present/Intact

Container Info	rmation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	pН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2512806-01A	Plastic 250ml H2SO4 preserved	D	<2	<2	2.7	Υ	Absent		NO3/NO2-353(28),COD-410(28)
L2512806-01B	Plastic 250ml NaOH preserved	D	>12	>12	2.7	Υ	Absent		TCN-4500(14)
L2512806-01C	Plastic 250ml unpreserved	D	7	7	2.7	Υ	Absent		-
L2512806-01D	Plastic 250ml HNO3 preserved	D	<2	<2	2.7	Υ	Absent		AL-2008T(180),NI-2008T(180),ZN- 2008T(180),HARDT-2008(180),CU- 2008T(180),FE-2008T(180),PB- 2008T(180),CR-2008T(180)
L2512806-01E	Plastic 500ml unpreserved	D	7	7	2.7	Υ	Absent		HEXCR-3500(1),FCN(1)
L2512806-01F	Plastic 950ml unpreserved	D	7	7	2.7	Υ	Absent		TSS-2540(7)
L2512806-01G	Amber 1L HCl preserved	D	NA		2.7	Υ	Absent		OG-1664(28)
L2512806-01H	Amber 1L HCl preserved	D	NA		2.7	Υ	Absent		OG-1664(28)
L2512806-01R	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2512806-01S	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2512806-01T	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2512806-01X	Plastic 120ml HNO3 preserved Filtrates	D	NA		2.7	Υ	Absent		CR-2008S(180),NI-2008S(180)
L2512806-02A	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2512806-02B	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2512806-03A	Plastic 250ml H2SO4 preserved	D	<2	<2	2.7	Υ	Absent		-
L2512806-03B	Plastic 250ml NaOH preserved	D	>12	>12	2.7	Υ	Absent		-
L2512806-03C	Plastic 250ml unpreserved	D	7	7	2.7	Υ	Absent		-
L2512806-03D	Plastic 250ml HNO3 preserved	D	<2	<2	2.7	Υ	Absent		-



**Lab Number:** L2512806

**Report Date:** 03/11/25

Project Name: SPS TECHNOLOGIESProject Number: US0043268.2150

Container Info	rmation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2512806-03E	Plastic 500ml unpreserved	D	7	7	2.7	Υ	Absent		-
L2512806-03F	Plastic 950ml unpreserved	D	7	7	2.7	Υ	Absent		-
L2512806-03G	Amber 1L HCl preserved	D	NA		2.7	Υ	Absent		-
L2512806-03H	Amber 1L HCl preserved	D	NA		2.7	Υ	Absent		-
L2512806-03R	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		-
L2512806-03S	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		-
L2512806-03T	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		-
L2512806-03X	Plastic 120ml HNO3 preserved Filtrates	D	NA		2.7	Υ	Absent		-
L2512806-04A	Plastic 250ml H2SO4 preserved	D	<2	<2	2.7	Υ	Absent		-
L2512806-04B	Plastic 250ml NaOH preserved	D	>12	>12	2.7	Υ	Absent		-
L2512806-04C	Plastic 250ml unpreserved	D	7	7	2.7	Υ	Absent		-
L2512806-04D	Plastic 250ml HNO3 preserved	D	<2	<2	2.7	Υ	Absent		-
L2512806-04E	Plastic 500ml unpreserved	D	7	7	2.7	Υ	Absent		-
L2512806-04F	Plastic 950ml unpreserved	D	7	7	2.7	Υ	Absent		-
L2512806-04G	Amber 1L HCl preserved	D	NA		2.7	Υ	Absent		-
L2512806-04H	Amber 1L HCl preserved	D	NA		2.7	Υ	Absent		-
L2512806-04R	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		-
L2512806-04S	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		-
L2512806-04T	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		-
L2512806-04X	Plastic 120ml HNO3 preserved Filtrates	D	NA		2.7	Υ	Absent		-



#### **GLOSSARY**

#### **Acronyms**

**EDL** 

**EPA** 

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.)

- 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.

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.

Environmental Protection Agency.

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



#### **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

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

receipt, if applicable.

- A -Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- 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 concentrations of the analyte at less than ten times (10x) the 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).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- 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.
- 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



#### **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.
- 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.)

Report Format: DU Report with 'J' Qualifiers



#### **REFERENCES**

- Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
- 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.
- 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 it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

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



**Pace Analytical Services LLC** 

Facility: Northeast

Department: Quality Assurance

Title: Certificate/Approval Program Summary

ID No.:**17873** Revision 27

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Published Date: 01/24/2025

### **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: lodomethane (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, NO2, NO3.

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,

 ${\sf EPA~180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B}$ 

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 II, 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

Document Type: Form Pre-Qualtrax Document ID: 08-113

**Pace Analytical Services LLC** 

Facility: Northeast

Department: Quality Assurance

Title: Certificate/Approval Program Summary

ID No.:17873

Revision 27

Published Date: 01/24/2025

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#### **Certification 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

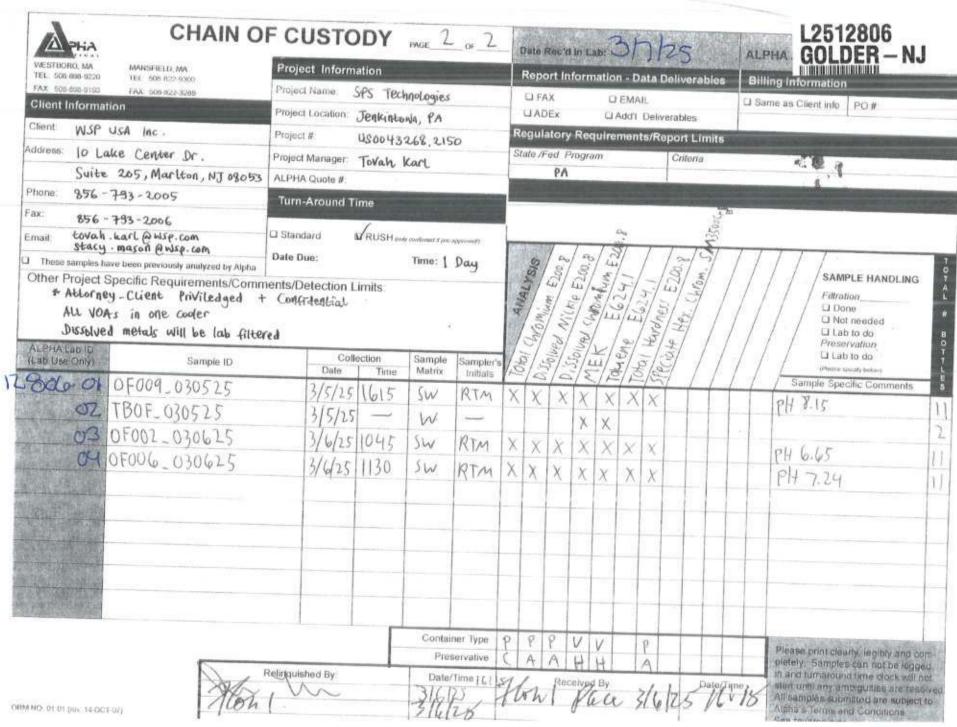
ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

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

Document Type: Form

Pre-Qualtrax Document ID: 08-113

FAX 508-898-9220 FAX Client Information	NSFIELD, MA 508-802-9000 C 508-802-9288	Project	Location:	SPS Tecl Jenkinto	wa, PA			Rep U F	DEx	forn	natio	EMA	IL Deliv	erab	les			Billi	ng Info	orma		
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