SPS Technologies - Abington PA
Daily Surface Water and Outfall Sampling Results Report for March 20, 2025

Prepared For:
SPS Technologies

Prepared By:
TRC Environmental Corporation, Inc
1617 JFK Boulevard, Suite 510
Philadelphia, PA 19103

March 24, 2025

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Appendices

1.0 EXECUTIVE SUMMARY

TRC Environmental Corporation, on behalf of SPS Technologies Abington PA (SPS), collected five surface water samples, two outfall samples and one sheet flow surface water sample in accordance with WSP USA Inc. Surface Water and Outfall Sampling Plan revised on March 5, 2025 (Sampling Plan). The samples were collected on March 20, 2025 and 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		**Upstream Offsite SW Sample Location 1**	**Upstream Offsite SW Sample Location 2**	**SW Sample Location 3**	**SW Sample Location 3 (Duplicate)**	**High School Road Sample Location 4**	**Downstream SW Sample Location 5**
Parameter	**Units**	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds							
Toluene	mg/L	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	mg/L	ND	ND	ND	ND	ND	ND
General Chemistry							
Chromium, Trivalent	mg/L	ND	ND	ND	ND	ND	ND
Chromium, Hexavalent	mg/L	ND	ND	ND	ND	ND	ND
Total Cyanide	mg/L	ND UJ	ND UJ	ND UJ	ND UJ	ND UJ	ND UJ
Free Cyanide	mg/L	ND	ND	ND	ND	ND	ND
Oil & Grease	mg/L	ND	ND	ND	ND	ND	ND
Total Metals							
Total Chromium	mg/L	ND	ND	ND	0.00150 J+	ND	ND
Total Nickel	mg/L	0.00154 J	0.00091 J	0.00100 J	0.00145 J	0.00180 J	0.00116 J
Dissolved Metals							
Dissolved Chromium	mg/L	0.0003 J	0.0003 J	0.0002 J	0.0002 J	ND	0.0006 J
Dissolved Nickel	mg/L	0.0016 J	0.0007 J	0.0010 J	0.0009 J	0.0016 J	0.0013 J
Total Hardness							
Hardness	mg/L	254.8	208.2	241.6	238.6	227.3	184.0
Field Parameters							
pH	SU	7.97	8.05	8.00	8.00	6.82	6.40

Outfall and Sheet Flow		Outfall 002	Outfall 002 (Duplicate)	Outfall 006	Outfall 009	Sheet Flow
Parameter	**Units**	Result	Result	Result	Result	Result
Volatile Organic Compounds						
Toluene	mg/L	ND	ND	ND	ND	ND
2-Butanone (MEK)	mg/L	0.0012 J	0.0011 J	ND	ND	ND
General Chemistry						
Chromium, Trivalent	mg/L	ND	ND	ND	0.014	ND
Chromium, Hexavalent	mg/L	ND	ND	ND	ND	ND
Total Cyanide	mg/L	0.002 J	ND	0.002 J	0.003 J	0.003 J
Free Cyanide	mg/L	ND	0.004 J	ND	ND	ND
Oil & Grease	mg/L	ND	ND	ND	ND	ND
Total Suspended Solids	mg/L	18 J	10 J	23 J	32 J	17 J
Nitrate/Nitrite as Nitrogen	mg/L	0.37 J	0.23 J	0.35 J	0.20 J	0.42 J
Chemical Oxygen Demand	mg/L	45	29	34	52	36
Total Metals						
Total Aluminum	mg/L	0.4982	0.4096	0.4509	1.014	0.1802
Total Chromium	mg/L	0.00104	0.00081 J	0.00157	0.01433	0.00158
Total Copper	mg/L	0.01680	0.01312	0.00652	0.01731	0.00596
Total Iron	mg/L	0.2110	0.1612	0.6166	1.764	0.4688
Total Lead	mg/L	0.00434	0.00368	0.00404	0.01992	0.00393
Total Nickel	mg/L	0.00241	0.00197 J	0.00099 J	0.00459	0.00192 J
Total Zinc	mg/L	0.1552	0.1197	0.02347	0.1313	0.03394
Dissolved Metals						
Dissolved Chromium	mg/L	0.0003 J	0.0003 J	0.0006 J	0.0025	0.0010
Dissolved Nickel	mg/L	0.0018 J	0.0017 J	ND	0.0008 J	0.0014 J
Total Hardness						
Hardness	mg/L	11.84	9.467	20.44	36.92	173.0
Field Parameters						
pH	SU	5.13	5.13	6.19	5.88	6.47

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

2.0 INTRODUCTION

This Daily Surface Water and Outfall Sampling Results Report for March 20, 2025 (Sampling Report) was prepared by TRC Environmental Corporation, Inc., (TRC) on behalf of SPS Technologies Abington PA (SPS). The SPS facility is located at 301 Highland Avenue, Jenkintown, PA 19046 (Site). This Sampling Report was prepared to provide the off-Site surface water, outfall, and sheet flow surface water sampling results from March 20, 2025, which were collected in accordance with WSP USA Inc. Surface Water and Outfall Sampling Plan revised on March 5, 2025.

2.1 Background

The Site is currently owned by SPS Technologies. On February 17, 2025, a fire broke out at the facility causing major damage and a cessation of operation. Prior to the fire, facility operations consisted of manufacturing of bolts, nuts, screws, rivets, washers, furniture, and fixtures.

3.0 OFF-SITE SURFACE WATER INVESTIGATION

TRC collected five surface water samples at the approved upstream and downstream sampling locations along the Tookany and Tacony Creeks on March 20, 2025. The locations are located northeast and west from the facility, and downstream from the conjoined stream south from the facility. TRC collected two outfall samples and one sheet flow sample during this event as a result of the precipitation on March 20, 2025.

3.1 Surface Water, Outfall and Sheet Flow Sampling Methodology

TRC collected the surface water, outfall and sheet flow samples in accordance with the Sampling Plan. Field data collected from each location during the sampling include:

- Water depth
- Weather conditions
- Physical characteristics (clarity, appearance, odor)
- Water Quality (DO, pH, OPR, turbidity, conductivity, and temperature)
- Water velocity (visibly moving)
- Additional observations (e.g. wildlife sightings)

The field data is documented in the daily field sampling forms included as **Appendix A**, except for the in-field pH measurement, which is summarized in **Table 1** for surface water samples and in **Table 2** for outfall and sheet flow samples.

3.2 Surface Water, Outfall and Sheet Flow Sampling

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.

3.3 Surface Water Sampling Results

Surface water samples were collected from the five approved locations in accordance with Sampling Plan for the following parameters:

- Oil & Grease
- Free Cyanide
- Total Cyanide
- Total Nickel
- Dissolved Nickel
- Total Chromium
- Dissolved Chromium
- Hexavalent Chromium (calculated for Trivalent Chromium)
- Methyl ethyl ketone (2-Butanone)
- Toluene

- Total Hardness

The validated analytical results from surface water sampling are summarized in **Table 1**. The sampling locations are shown on **Figures 1** and **2**.

Outfall samples were collected from two approved locations and one sheet flow sample was collected in accordance with Sampling Plan for the following parameters:

- Chemical Oxygen Demand
- Total Suspended Solids
- Nitrate-Nitrite as N
- Hexavalent Chromium (calculated for Trivalent Chromium)
- Total Aluminum
- Total Copper
- Total Iron
- Total Lead
- Total Zinc
- Oil & Grease
- Free Cyanide
- Total Cyanide
- Total Nickel
- Dissolved Nickel
- Total Chromium
- Dissolved Chromium
- Methyl ethyl ketone (2-Butanone)
- Toluene
- Hardness

The validated analytical results from outfall and sheet flow sampling are summarized in **Table 2**. The sampling locations are shown on **Figure 1**.

4.0 DATA QUALITY ASSURANCE/QUALITY CONTROL MANAGEMENT

4.1 Field Quality Assurance/Quality Control Requirements.

Field personnel performed data quality control (QC) verification of field measurements. This process includes equipment calibration, reviewing calibration records, and duplicate readings to ensure data accuracy. Field measurements were documented in the field information forms included as **Appendix A** and pH readings are summarized in **Table 1** and **Table 2**.

All hand equipment used during the sampling event was cleaned with Alconox and distilled water. Disposable equipment was used for sample collection and processing as appropriate. Field personnel wore disposable nitrile sampling gloves during sampling activities. Sampling gloves were discarded following collection at each sample location and replaced before handling decontaminated equipment or work surfaces.

4.2 Analytical QA/QC Samples

All quality assurance and quality control (QA/QC), field duplicates and matrix spikes/matrix spike duplicates (MS/MSD) were collected in accordance with the Sampling Plan at a rate of 1 per 20 samples per day. A trip blank was included daily for volatile organic compounds (VOCs). A field blank was not collected because single-use disposable ladles were used to collect samples.

4.3 Data Evaluation

The reliability of the analytical data was evaluated to assess its suitability for use in off-Site surface water 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 was performed in accordance with the Sampling Plan. The data validation reports are included as **Appendix B**. The laboratory analytical reports are included as **Appendix C**.

4.4 References

- SPS Technologies Sampling Plan, revised on March 5, 2025

SOURCE

NEARMAP IMAGERY, JUNE 16, 2024.

LEGEND

SW = SURFACE WATER

- SURFACE WATER SAMPLE LOCATION
- APPROXIMATE OUTFALL SAMPLE LOCATION

WSP USA Inc.
751 Arbor Way, Suite 180
Blue Bell, PA 19422
Tel. 610-828-8100
www.wsp.com

PROJECTION / DATUM: PA83-SF

0 150' 300'

SCALE: 1" = 300'

PREPARED BY: PJC

CHECKED BY: KM

REVIEWED BY: TK

CLIENT

PROJECT

SURFACE WATER AND OUTFALL SAMPLING PLAN

PROJECT NO.: US0043268.2150

REVISION NO.: 0

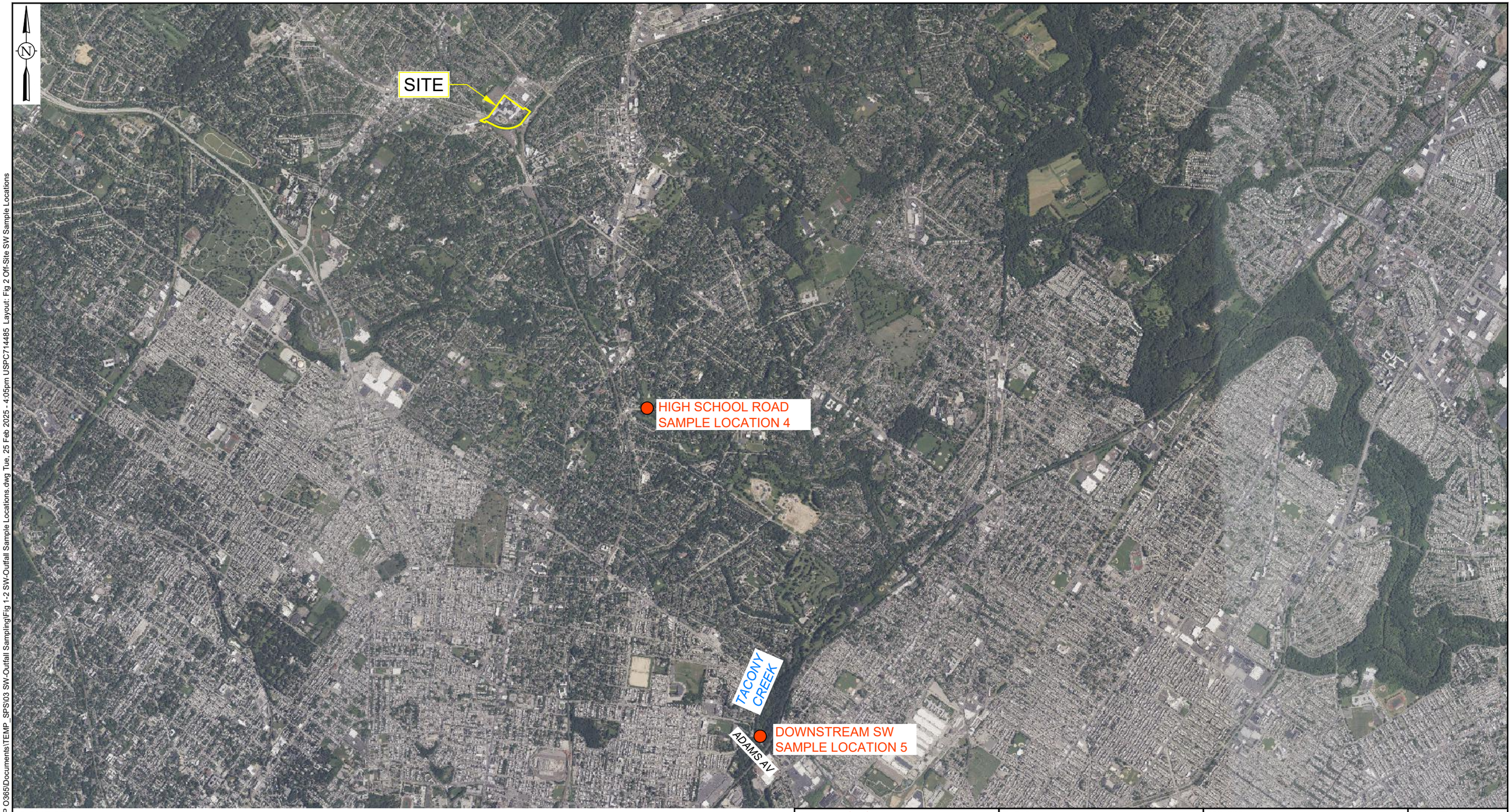
DATE: FEBRUARY 2025

TITLE

ON-SITE INVESTIGATION SURFACE WATER AND OUTFALL SAMPLE LOCATIONS

FIGURE NO.: 1

C:\Users\USPC714485\OneDrive - WSP O365\Documents\TEMP_SPS\03 SW-Outfall Sampling\Fig 1-2 SW-Outfall Sample Locations.dwg Tue, 25 Feb 2025 - 4:03pm USPC714485 Layout: Fig 1 On-Site SW-Outfall Sample Locations



SOURCE

GEOMAP IMAGERY, 2025.

LEGEND

SW = SURFACE WATER

SURFACE WATER SAMPLE LOCATION

WSP USA Inc.
751 Arbor Way, Suite 180
Blue Bell, PA 19422
Tel. 610-828-8100
www.wsp.com

PROJECTION / DATUM: PA83-SF

0 1,500' 3,000'

SCALE: 1" = 3,000'

PREPARED BY: PJC

CHECKED BY: KM

REVIEWED BY: TK

CLIENT

PROJECT

SURFACE WATER AND OUTFALL SAMPLING PLAN

PROJECT NO.: US0043268.2150

REVISION NO.: 0

DATE: FEBRUARY 2025

TITLE

OFF-SITE INVESTIGATION SURFACE WATER SAMPLE LOCATIONS

FIGURE NO.: 2

March 2025

Table 1

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

Project Number: 658978

Sample Location		Upstream Offsite SW Sample Location 1			Upstream Offsite SW Sample Location 2			SW Sample Location 3			SW Sample Location 3 (Duplicate)			High School Road Sample Location 4			Downstream SW Sample Location 5		
Field Sample ID		SW2-032025			SW1-032025			SW3-032025			DUP-032025			SW4-032025			SW5-032025		
Lab Sample ID		L2516324-02			L2516324-01			L2516324-03			L2516324-06			L2516324-04			L2516324-05		
Sampling Date		3/20/2025			3/20/2025			3/20/2025			3/20/2025			3/20/2025			3/20/2025		
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
Volatile Organic Compounds																			
Toluene	mg/L	ND		0.0010	ND		0.0010	ND		0.0010	ND		0.0010	ND		0.0010	ND		0.0010
2-Butanone (MEK)	mg/L	ND		0.010	ND		0.010	ND		0.010	ND		0.010	ND		0.010	ND		0.010
General Chemistry																			
Chromium, Trivalent	mg/L	ND		0.010	ND		0.010	ND		0.010	ND		0.010	ND		0.010	ND		0.010
Chromium, Hexavalent	mg/L	ND		0.010	ND		0.010	ND		0.010	ND		0.010	ND		0.010	ND		0.010
Total Cyanide	mg/L	ND	UJ	0.005	ND	UJ	0.005	ND	UJ	0.005	ND	UJ	0.005	ND	UJ	0.005	ND	UJ	0.005
Free Cyanide	mg/L	ND		0.010	ND		0.010	ND		0.010	ND		0.010	ND		0.010	ND		0.010
Oil & Grease	mg/L	ND		4.0	ND		4.0	ND		4.0	ND		4.0	ND		4.0	ND		4.0
Total Metals																			
Total Chromium	mg/L	ND		0.00100	ND		0.00100	ND		0.00100	0.00150	J+	0.00100	ND		0.00100	ND		0.00100
Total Nickel	mg/L	0.00154	J	0.00200	0.00091	J	0.00200	0.00100	J	0.00200	0.00145	J	0.00200	0.00180	J	0.00200	0.00116	J	0.00200
Dissolved Metals																			
Dissolved Chromium	mg/L	0.0003	J	0.0010	0.0003	J	0.0010	0.0002	J	0.0010	0.0002	J	0.0010	ND		0.0010	0.0006	J	0.0010
Dissolved Nickel	mg/L	0.0016	J	0.0020	0.0007	J	0.0020	0.0010	J	0.0020	0.0009	J	0.0020	0.0016	J	0.0020	0.0013	J	0.0020
Total Hardness																			
Hardness	mg/L	254.8		0.5400	208.2		0.5400	241.6		0.5400	238.6		0.5400	227.3		0.5400	184.0		0.5400
Field Parameters																			
pH[1]	SU	7.97			8.05			8.00			8.00			6.82			6.40		

Notes:
1.) Field measurements for pH were performed by TRC 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
J+ - Estimated Result, Potential High Bias
U: Estimated RL

Created By: JM 3/22/2025 Checked By: JA

March 2025

Table 2

Surface Water Analytical Results
Daily Outfall and Sheet Flow Sampling Results Report SPS Technologies
Jenkintown, Pennsylvania

Project Number: 658978

Sample Location		Outfall 002			Outfall 002 (Duplicate)			Outfall 006			Outfall 009			Sheet Flow		
Field Sample ID		OF2-032025			DUP-02-032025			OF6-032025			OF9-032025			SF1-032025		
Lab Sample ID		L2516684-01			L2516684-05			L2516684-03			L2516684-02			L2516684-04		
Sampling Date		3/20/2025			3/20/2025			3/20/2025			3/20/2025			3/20/2025		
Matrix		Water			Water			Water			Water			Water		
Parameter	**Units**	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL
Volatile Organic Compounds																
Toluene	mg/L	ND		0.0010	ND		0.0010	ND		0.0010	ND		0.0010	ND		0.0010
2-Butanone (MEK)	mg/L	0.0012	J	0.010	0.0011	J	0.010	ND		0.010	ND		0.010	ND		0.010
General Chemistry																
Chromium, Trivalent	mg/L	ND		0.010	ND		0.010	ND		0.010	0.014		0.010	ND		0.010
Chromium, Hexavalent	mg/L	ND		0.010	ND		0.010	ND		0.010	ND		0.010	ND		0.010
Total Cyanide	mg/L	0.002	J	0.005	ND		0.005	0.002	J	0.005	0.003	J	0.005	0.003	J	0.005
Free Cyanide	mg/L	ND		0.010	0.004	J	0.010	ND		0.010	ND		0.010	ND		0.010
Oil & Grease	mg/L	ND		4.0	ND		4.0	ND		4.0	ND		4.0	ND		4.0
Total Suspended Solids	mg/L	18	J	5.0	10	J	5.0	23	J	5.0	32	J	10	17	J	5.0
Nitrate/Nitrite as Nitrogen	mg/L	0.37	J	0.10	0.23	J	0.10	0.35	J	0.10	0.20	J	0.10	0.42	J	0.10
Chemical Oxygen Demand	mg/L	45		20	29		20	34		20	52		20	36		20
Total Metals																
Total Aluminum	mg/L	0.4982		0.01000	0.4096		0.01000	0.4509		0.01000	1.014		0.01000	0.1802		0.01000
Total Chromium	mg/L	0.00104		0.00100	0.00081	J	0.00100	0.00157		0.00100	0.01433		0.00100	0.00158		0.00100
Total Copper	mg/L	0.01680		0.00100	0.01312		0.00100	0.00652		0.00100	0.01731		0.00100	0.00596		0.00100
Total Iron	mg/L	0.2110		0.05000	0.1612		0.05000	0.6166		0.05000	1.764		0.05000	0.4688		0.05000
Total Lead	mg/L	0.00434		0.00100	0.00368		0.00100	0.00404		0.00100	0.01992		0.00100	0.00393		0.00100
Total Nickel	mg/L	0.00241		0.00200	0.00197	J	0.00200	0.00099	J	0.00200	0.00459		0.00200	0.00192	J	0.00200
Total Zinc	mg/L	0.1552		0.00500	0.1197		0.00500	0.02347		0.00500	0.1313		0.00500	0.03394		0.00500
Dissolved Metals																
Dissolved Chromium	mg/L	0.0003	J		0.0003	J	0.0010	0.0006	J	0.0010	0.0025		0.0010	0.0010		0.0010
Dissolved Nickel	mg/L	0.0018	J		0.0017	J	0.0020	ND		0.0020	0.0008	J	0.0020	0.0014	J	0.0020
Total Hardness																
Hardness	mg/L	11.84			9.467		0.5400	20.44		0.5400	36.92		0.5400	173.0		0.5400
Field Parameters																
pH[1]	SU	5.13			5.13			6.19			5.88			6.47		

Notes:
1.) Field measurements for pH were performed by TRC 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

Created By: JM 3/23/2025 Checked By: JA

Date: 3/20/2025

Project Number: 658978

SURFACE WATER SAMPLE FIELD INFORMATION FORM

Site: SPS
Location: Abington PA
Project Number: 658978 658978
Water Quality Meter: Horiba U-50 S/N: U1103I2X
Meter Calibrated @: 3/20/2025 @ 0845
Flow Meter: OTT MF pro S/N: 336387
Sampling Date/Time: SW5 @ 0935 SW4 @ 1025 SW1 @ 11:05 SW2 @ 1140 SW3 @ 1225
Sampler(s): J. Soulen C Graham
Sampling Device: Telestopic Dipper pole
Sample Characteristics: Clear NO odor
Analytical Parameters:

Additional Notes:
SW5 collect MS/MSD
SW3 collect DUP-03202025 (00:00)
PID 0.0 at all locations
SW4 fish observed
SW3 fish observed
SW2 minnows observed

Weather Conditions: Cloudy H 65 L43 Wind 10mph SE

SAMPLE / STATION	STATION DESCRIPTION (stream, lake river)	DATE MM/DD/YY	TIME hr:min	TOTAL DEPTH inches	SAMPLE DEPTH	WATER TEMP Celsius	SALINITY ppt	pH SU	COND mS/cm	ORP mV	TURBIDITY NTU	DO mg/L	VELOCITY ft/sec
SW5-032025	Creek	03/20/25	09:35	12	6	10.28	0.2	6.40	0.445	329	0.0	5.65	0.262
Sample Characteristics:		Clear	NO	odor									
SW4-032025	Creek	03/20/25	10:25	42.5	22.25	10.81	0.2	6.82	0.494	291	0.0	9.23	0.072
Sample Characteristics:													
SW1-032025	Creek	03/20/25	11:05	8.5	4.25	11.25	0.2	8.05	0.457	250	0.0	10.37	~~0.0~~ 0.336
Sample Characteristics:		NO	odor	clear									
SW2-032025	Creek	03/20/25	11:40	18.5	9.25	11.98	0.3	7.97	0.584	263	0.0	10.37	0.138
Sample Characteristics:		clear	NO	odor									
SW3-032025	Creek	03/20/25	12:25	30	15	12.54	0.2	8.00	0.464	220	0.0	8.68	0.032
Sample Characteristics:		clear	NO	odor									
Sample Characteristics:													
Staff Gauge Reading													

TRC

Date: 3/20/2025

Project Number: 658978

SURFACE WATER SAMPLE FIELD INFORMATION FORM

Site: SPS
Location: Ashington PA
Project Number: 658978
Water Quality Meter: Horiba U-50 S/N: U1103I2X
Meter Calibrated @: 3/20/2025 @ 2035
Flow Meter: OTT MF Pro S/N: 336387
Sampling Date/Time: OF2 @ 2040 OF9 @ 2150
OF6 @ 2230 SF1 @ 2250
Sampler(s): J. Sorgen C Graham
Sampling Device: Dipper pole
Sample Characteristics: Turbid Brown
Analytical Parameters:
Weather Conditions: Rain 56°F Wind 7mph S

Additional Notes:
Collect Dup-02-032025 on OF2 (2050)
Collect MS/MSD from OF9
Minnows observed @ SF1

SAMPLE / STATION	STATION DESCRIPTION (stream/lake river)	DATE MM/DD/YY	TIME hr:min	TOTAL DEPTH inches	SAMPLE DEPTH	WATER TEMP Celsius	SALINITY ppt	pH SU	COND mS/cm	ORP mV	TURBIDITY NTU	DO mg/L	VELOCITY ft/sec
OF2-032025	~~Outfall~~ (3)	03/20/25	2040	2	1	13.02	0.0	5.13	0.095	386	29.1	7.34	1.960
Sample Characteristics:		Turbid Brown NO Odor											
OF9-032025	~~Outfall~~ (1)	03/20/25	2150	3	1.5	12.46	0.2	5.88	0.492	365	~~254~~ (3) 254	7.47	0.245
Sample Characteristics:		Turbid Brown NO odor											
OF6-032025	~~Outfall~~ (1)	03/20/25	2230	9	4.5	11.80	0.1	6.19	0.197	333	69.9	11.86	2.830
Sample Characteristics:		Turbid Brown NO odor											
SF1-032025	~~Effluent~~ (3) Short Flow	03/20/25	2250	1	0.5	10.64	0.3	6.47	0.604	323	37.8	5.98	—
Sample Characteristics:		Slightly turbid Brown NO odor											
Sample Characteristics:													
Sample Characteristics:													
Staff Gauge Reading													

TRC

Data Validation Report

Site: SPS Technologies, Surface Water Sampling
Laboratory: Pace Analytical, Westborough and Mansfield, MA
SDG No.: L2516324
Parameters: Select Volatile Organic Compounds (VOCs), Select Metals, Hardness, Total Cyanide, Free Cyanide, Oil & Grease, Hexavalent Chromium, Trivalent Chromium
Data Reviewer: Jessica Esser/TRC
Peer Reviewer: Kristen Morin/TRC
Date: March 21, 2025

Samples Reviewed and Evaluation Summary

6 Surface Water Samples: SW1-032025, SW2-032025, SW3-032025, SW4-032025, SW5-032025, DUP-032025[1]

1 Trip Blank: TRIP BLANK-032025

[1]Field duplicate of SW3-032025

The above-listed samples were collected on March 20, 2025 and were analyzed for one or more of the following parameters.

- Select VOCs (toluene, 2-butanone) using EPA Method 624.1
- Select total and dissolved metals (chromium, nickel) using EPA Method 200.8
- Total hardness (by calculation) using EPA Method 200.8
- Total cyanide using Standard Methods (SM) 4500 CN-CE
- Free cyanide using SM 4500 CN-E (M)
- Oil and grease using EPA Method 1664B
- Hexavalent chromium using SM 3500 CR-B
- Trivalent chromium by calculation

Limited data validation was performed in accordance with *USEPA National Functional Guidelines for Organic Superfund Methods Data Review (EPA-540-R-20-005),* November 2020 and *USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA-542-R-20-006),* November 2020, modified for the methodologies utilized.

The data were evaluated based on the following parameters:

- Overall Evaluation of Data and Potential Usability Issues
- Data Completeness
- * Holding Times and Sample Preservation
- Blanks
- * Surrogate Recoveries (VOCs only)
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- * Laboratory Duplicate Results
- * Laboratory Control Sample (LCS) Results
- * Field Duplicate Results
- Sample Results and Reported Quantitation Limits (QLs)

* - All criteria were met.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives. Qualification of the data as a result of sampling error was not required. Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select metals results that were below the lowest calibration standard and QL. These results were qualified as estimated (J) by the laboratory in the associated samples. These results can be used for project objectives as estimated values, which may have a minor impact on the data usability.

- The positive results for total chromium were qualified as nondetect (U) in samples SW1-032025, SW2-032025, SW3-032025, SW4-032025, and SW5-032025 due to method blank contamination. These results can be used for project objectives as nondetects, which should not have an impact on the data usability.

- The positive result for total chromium was qualified as estimated with a potential high bias (J+) in sample DUP-032025 due to method blank contamination. This result can be used for project objectives as an estimated value, which may have a minor impact on the data usability.

- The nondetect results for total cyanide in all samples in this data set were qualified as estimated (UJ) due to a low MS percent recovery (%R). These results can be used for project objectives as nondetects with an estimated QL, which may have a minor impact on the data usability.

Data Completeness

The data package was a complete Level 2 data package. It should be noted that the date of collection for the trip blank was listed as 3/17/25 on the chain-of-custody (COC). For purposes of this assessment, it was assumed the date of collection was the same as the associated samples.

Holding Times and Sample Preservation

All holding time and preservation criteria were met for all parameters.

Blanks

Target VOCs were not detected in the trip blank. A field blank was not submitted with the data set. With the exception of total chromium, target analytes were not detected in the associated laboratory method blanks. Total chromium was detected in the laboratory method blank associated with all samples in this data set at a concentration of 0.00025 J mg/L. The positive results for total chromium in samples SW1-032025, SW2-032025, SW3-032025, SW4-032025, and SW5-032025 were qualified as nondetect (U) at the QL since the results were < the QL. The positive result for total chromium in sample DUP-032025 was qualified as estimated with a potential high bias (J+) since the result was ≥ the QL but < 10x the amount detected in the method blank.

Surrogate Recoveries (VOCs only)

All criteria were met.

MS/MSD Results

MS/MSD analyses were performed on sample SW5-032025 for VOCs, total and dissolved metals, hardness, total cyanide, free cyanide, oil and grease, and hexavalent chromium. With the exception of total cyanide, all criteria were met. The %R for total cyanide in the MS (89%) performed on sample SW5-032025 was below the laboratory acceptance criteria (90-110%). Therefore, the nondetect results for total cyanide in all samples in this data set were qualified as estimated (UJ).

Laboratory Duplicate Results

Laboratory duplicate analyses were performed on sample SW5-032025 for total cyanide, free cyanide, oil and grease, and hexavalent chromium. All criteria were met.

LCS Results

All criteria were met for all parameters.

Field Duplicate Results

Samples SW3-032025 and DUP-032025 were submitted as the field duplicate pair with this sample set. The following table summarizes the relative percent differences (RPDs) and/or absolute differences (AbsDs), where applicable, of the detected analytes after validation. The QL was used in the calculation of the AbsD for nondetect (ND) results. All criteria were met.

Analyte	QLs (mg/L)	SW3-032025 (mg/L)	DUP-032025 (mg/L)	RPD (%) or AbsD (mg/L)	Validation Action
Total Chromium	0.001	ND	0.0015 J+	AbsD = 0.0005	None; all criteria were met.
Total Nickel	0.002	0.00100 J	0.00145 J	AbsD = 0.00045	
Hardness	0.54	241.6	238.6	RPD = 1.2	
Dissolved Chromium	0.001	0.0002 J	0.0002 J	AbsD = 0	
Dissolved Nickel	0.002	0.0010 J	0.0009 J	AbsD = 0.0001	

Field duplicate criteria are as follows:

- RPD ≤ 30 when positive results for both samples are ≥ 5x QL
- AbsD ≤ QL when one or both results are < 5x QL

Sample Results and Reported Quantitation Limits

Select metals results were reported that were below the lowest calibration standard level and QL. These results were qualified as estimated (J) in the associated samples by the laboratory.

There were no dilutions performed on the samples in this data set.

The total and dissolved metal results were evaluated during data validation to identify any dissolved concentrations that were significantly higher than the associated total concentration. The evaluation was based on the following criteria to determine significance: percent difference (%D) should be ≤ 20% when dissolved results are greater than total results and both results are ≥ 5x the QL. If the dissolved result was > the total and one or both results were < 5x the QL, then the AbsD should be ≤ 2x the QL. These criteria were met for all samples.

QUALIFIED FORM 1s

VOLATILES

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-01
Client ID: SW1-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 11:05
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/21/25 11:44
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	115		60-140

Project Name: SPS TECHNOLOGIES **Lab Number:** L2516324

Project Number: 658978 **Report Date:** 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-02 Date Collected: 03/20/25 11:40

Client ID: SW2-032025 Date Received: 03/20/25

Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Analytical Method: 128,624.1

Analytical Date: 03/21/25 12:16

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	72		60-140
4-Bromofluorobenzene	116		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-03
Client ID: SW3-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 12:25
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/21/25 12:48
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	79		60-140
Fluorobenzene	72		60-140
4-Bromofluorobenzene	117		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-04
Client ID: SW4-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 10:25
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/21/25 13:20
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	77		60-140
Fluorobenzene	70		60-140
4-Bromofluorobenzene	115		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-05
Client ID: SW5-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 09:35
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/21/25 13:52
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	77		60-140
Fluorobenzene	73		60-140
4-Bromofluorobenzene	116		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-06
Client ID: DUP-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 00:00
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/21/25 14:24
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	77		60-140
Fluorobenzene	72		60-140
4-Bromofluorobenzene	123		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-07
Client ID: TRIP BLANK-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/17/25 00:00
Date Received: 03/20/25
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/21/25 14:56
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	76		60-140
Fluorobenzene	69		60-140
4-Bromofluorobenzene	119		60-140

METALS

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-01
Client ID: SW1-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 11:05
Date Received: 03/20/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	~~0.00043~~ ND	~~J~~	mg/l	0.00100	0.00017	1	03/21/25 08:14	03/21/25 12:08	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00091	J	mg/l	0.00200	0.00055	1	03/21/25 08:14	03/21/25 12:08	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	208.2		mg/l	0.5400	NA	1	03/21/25 08:14	03/21/25 12:08	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/21/25 12:08	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/21/25 08:14	03/21/25 12:46	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0007	J	mg/l	0.0020	0.0006	1	03/21/25 08:14	03/21/25 12:46	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-02
Client ID: SW2-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 11:40
Date Received: 03/20/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	~~0.00021~~ ND	~~J~~	mg/l	0.00100	0.00017	1	03/21/25 08:14	03/21/25 12:12	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00154	J	mg/l	0.00200	0.00055	1	03/21/25 08:14	03/21/25 12:12	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	254.8		mg/l	0.5400	NA	1	03/21/25 08:14	03/21/25 12:12	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/21/25 12:12	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/21/25 08:14	03/21/25 12:51	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0016	J	mg/l	0.0020	0.0006	1	03/21/25 08:14	03/21/25 12:51	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-03
Client ID: SW3-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 12:25
Date Received: 03/20/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	~~0.00028~~ ND	~~J~~	mg/l	0.00100	0.00017	1	03/21/25 08:14	03/21/25 14:01	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00100	J	mg/l	0.00200	0.00055	1	03/21/25 08:14	03/21/25 14:01	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	241.6		mg/l	0.5400	NA	1	03/21/25 08:14	03/21/25 14:01	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/21/25 14:01	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0002	J	mg/l	0.0010	0.0002	1	03/21/25 08:14	03/21/25 12:55	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0010	J	mg/l	0.0020	0.0006	1	03/21/25 08:14	03/21/25 12:55	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-04
Client ID: SW4-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 10:25
Date Received: 03/20/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	~~0.00018~~ ND	~~J~~	mg/l	0.00100	0.00017	1	03/21/25 08:14	03/21/25 14:05	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00180	J	mg/l	0.00200	0.00055	1	03/21/25 08:14	03/21/25 14:05	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	227.3		mg/l	0.5400	NA	1	03/21/25 08:14	03/21/25 14:05	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/21/25 14:05	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	03/21/25 08:14	03/21/25 13:00	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0016	J	mg/l	0.0020	0.0006	1	03/21/25 08:14	03/21/25 13:00	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-05
Client ID: SW5-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 09:35
Date Received: 03/20/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	~~0.00020~~ ND	~~J~~	mg/l	0.00100	0.00017	1	03/21/25 08:14	03/21/25 11:54	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00116	J	mg/l	0.00200	0.00055	1	03/21/25 08:14	03/21/25 11:54	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	184.0		mg/l	0.5400	NA	1	03/21/25 08:14	03/21/25 11:54	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/21/25 11:54	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0006	J	mg/l	0.0010	0.0002	1	03/21/25 08:14	03/21/25 12:32	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0013	J	mg/l	0.0020	0.0006	1	03/21/25 08:14	03/21/25 12:32	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-06
Client ID: DUP-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 00:00
Date Received: 03/20/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	0.00150	J+	mg/l	0.00100	0.00017	1	03/21/25 08:14	03/21/25 12:26	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00145	J	mg/l	0.00200	0.00055	1	03/21/25 08:14	03/21/25 12:26	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	238.6		mg/l	0.5400	NA	1	03/21/25 08:14	03/21/25 12:26	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/21/25 12:26	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0002	J	mg/l	0.0010	0.0002	1	03/21/25 08:14	03/21/25 13:05	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0009	J	mg/l	0.0020	0.0006	1	03/21/25 08:14	03/21/25 13:05	EPA 3005A	3,200.8	NTB

INORGANICS
&
MISCELLANEOUS

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-01
Client ID: SW1-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 11:05
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND	UJ	mg/l	0.005	0.001	1	03/21/25 11:40	03/21/25 16:06	121,4500CN-CE	JRO
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 07:13	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/21/25 07:26	03/21/25 11:00	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 08:50	03/21/25 09:32	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-02
Client ID: SW2-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 11:40
Date Received: 03/20/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND	UJ	mg/l	0.005	0.001	1	03/21/25 11:40	03/21/25 16:07	121,4500CN-CE	JRO
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 07:13	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/21/25 07:26	03/21/25 10:58	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 08:50	03/21/25 09:34	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-03
Client ID: SW3-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 12:25
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND	UJ	mg/l	0.005	0.001	1	03/21/25 11:40	03/21/25 16:08	121,4500CN-CE	JRO
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 07:13	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/21/25 07:26	03/21/25 11:01	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 08:50	03/21/25 09:35	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-04
Client ID: SW4-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 10:25
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND	UJ	mg/l	0.005	0.001	1	03/21/25 11:40	03/21/25 16:09	121,4500CN-CE	JRO
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 07:13	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/21/25 07:26	03/21/25 11:05	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 08:50	03/21/25 09:35	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-05
Client ID: SW5-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 09:35
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND	UJ	mg/l	0.005	0.001	1	03/21/25 11:40	03/21/25 16:10	121,4500CN-CE	JRO
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 07:13	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/21/25 07:26	03/21/25 08:43	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 08:50	03/21/25 09:30	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-06
Client ID: DUP-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 00:00
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND	UJ	mg/l	0.005	0.001	1	03/21/25 11:40	03/21/25 16:16	121,4500CN-CE	JRO
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 07:13	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/21/25 07:26	03/21/25 11:09	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 08:50	03/21/25 09:36	121,3500CR-B	DMO

Data Validation Report

Site:	SPS Technologies, Outfall and Sheet Flow Sampling
Laboratory:	Pace Analytical, Westborough and Mansfield, MA
SDG No.:	L2516684
Parameters:	Select Volatile Organic Compounds (VOCs), Select Metals, Hardness, Total Suspended Solids (TSS), Total Cyanide, Free Cyanide, Nitrate/Nitrite, Chemical Oxygen Demand (COD), Oil & Grease, Hexavalent Chromium, Trivalent Chromium
Data Reviewer:	Jessica Esser/TRC
Peer Reviewer:	Nancy Bergstrom/TRC
Date:	March 22, 2025

Samples Reviewed and Evaluation Summary

4 Outfall Samples:	OF2-032025, OF6-032025, OF9-032025, DUP-02-032025[1]
1 Sheet Flow Sample:	SF1-032025
1 Trip Blank:	TRIP BLANK-02-032025

[1]Field duplicate of OF2-032025

The above-listed samples were collected on March 20, 2025 and were analyzed for one or more of the following parameters.

- Select VOCs (toluene, 2-butanone) using EPA Method 624.1
- Select total metals (aluminum, chromium, copper, iron, lead, nickel, zinc) using EPA Method 200.8
- Select dissolved metals (chromium, nickel) using EPA Method 200.8
- Total hardness (by calculation) using EPA Method 200.8
- TSS using Standard Methods (SM) 2540D
- Total cyanide using SM 4500 CN-CE
- Free cyanide using SM 4500 CN-E (M)
- Nitrate/nitrite using EPA Method 353.2
- COD using EPA Method 410.4
- Oil and grease using EPA Method 1664B
- Hexavalent chromium using SM 3500 CR-B
- Trivalent chromium by calculation

Limited data validation was performed in accordance with *USEPA National Functional Guidelines for Organic Superfund Methods Data Review (EPA-540-R-20-005),* November 2020 and *USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA-542-R-20-006),* November 2020, modified for the methodologies utilized.

The data were evaluated based on the following parameters:

- Overall Evaluation of Data and Potential Usability Issues
- Data Completeness
- * Holding Times and Sample Preservation
- * Blanks

* • Surrogate Recoveries (VOCs only)
* • Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
* • Laboratory Duplicate Results
* • Laboratory Control Sample (LCS) Results
• Field Duplicate Results
• Sample Results and Reported Quantitation Limits (QLs)

* - All criteria were met.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives. Qualifications applied to the data as a result of sampling error are discussed below.

- The positive results for TSS and nitrate/nitrite in all samples in this data set were qualified as estimated (J) due to field duplicate variability. These results can be used for project objectives as estimated values, which may have a minor impact on the data usability.

Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select VOC, metals, total cyanide and free cyanide results that were below the lowest calibration standard and QL. These results were qualified as estimated (J) by the laboratory in the associated samples. These results can be used for project objectives as estimated values, which may have a minor impact on the data usability.

Data Completeness

The data package was a complete Level 2 data package with the following exceptions/notes.

- The date of collection for the trip blank was listed as 3/16/25 on the chain-of-custody (COC); the laboratory logged in the collection date for this sample as 3/20/25 (i.e., the same date of collection as the associated samples). For purposes of this assessment, it was assumed the date of collection was the same as the associated samples and the laboratory was not contacted about this discrepancy.
- Total dissolved solids (TDS) by SM 2540D was requested on the COC; however, TSS by SM 2540D was reported. It was confirmed with the project team during this validation that TSS by SM 2540D was the correct analysis.
- The laboratory performed MS/laboratory duplicate analyses on sample OF9-032025 for nitrate/nitrite and COD rather than MS/MSD analyses as requested on the COC.
- MS/MSD analyses were not performed on sample OF9-032025 for SM 2540D as requested on the COC; a laboratory duplicate analysis was performed instead due to the nature of the analysis.

There is no impact on the data usability due to these issues and no validation actions were taken on this basis.

Holding Times and Sample Preservation

All holding time and preservation criteria were met for all parameters.

Blanks

Target analytes were not detected in the associated laboratory method blanks. Target VOCs were not detected in the trip blank. A field blank was not submitted with the data set.

Surrogate Recoveries (VOCs only)

All criteria were met.

MS/MSD Results

MS/MSD analyses were performed on sample OF9-032025 for VOCs, total and dissolved metals, hardness, total cyanide, free cyanide, oil and grease, and hexavalent chromium. MS analyses were performed on sample OF9-032025 for nitrate/nitrite and COD. All criteria were met.

Laboratory Duplicate Results

Laboratory duplicate analyses were performed on sample OF9-032025 for hexavalent chromium, TSS, free cyanide, total cyanide, nitrate/nitrite, COD, and oil and grease. All criteria were met.

LCS Results

All criteria were met for all parameters.

Field Duplicate Results

Samples OF2-032025 and DUP-02-032025 were submitted as the field duplicate pair with this sample set. The following table summarizes the relative percent differences (RPDs) and/or absolute differences (AbsDs), where applicable, of the detected analytes after validation. The QL was used in the calculation of the AbsD for nondetect (ND) results. With the exceptions listed in the table below, all criteria were met.

Analyte	QLs (mg/L)	OF2-032025 (mg/L)	DUP-02-032025 (mg/L)	RPD (%) or AbsD (mg/L)	Validation Action
TSS	5.0	18	10	AbsD = 8 (≥QL)	The positive results for TSS and nitrate/nitrite in all samples in this data set were qualified as estimated (J).
Nitrate/Nitrite	0.10	0.37	0.23	AbsD = 0.14 (≥QL)	
2-Butanone	0.010	0.0012 J	0.0011 J	AbsD = 0.0004	None; all criteria were met.
Total Aluminum	0.010	0.4982	0.4096	RPD = 19.5	
Total Chromium	0.001	0.00104	0.00081 J	AbsD = 0.00023	
Total Copper	0.001	0.0168	0.01312	RPD = 24.6	
Total Iron	0.050	0.211	0.1612	AbsD = 0.0498	
Total Lead	0.001	0.00434	0.00368	AbsD = 0.00066	
Total Nickel	0.002	0.00241	0.00197 J	AbsD = 0.00044	
Total Zinc	0.005	0.1552	0.1197	RPD = 25.8	
Hardness	0.54	11.84	9.467	RPD = 22.3	
Dissolved Chromium	0.001	0.0003 J	0.00003	AbsD = 0	
Dissolved Nickel	0.002	0.0018 J	0.0017	AbsD = 0.0001	
Total Cyanide	0.005	0.002 J	ND	AbsD = 0.003	

Analyte	QLs (mg/L)	OF2-032025 (mg/L)	DUP-02-032025 (mg/L)	RPD (%) or AbsD (mg/L)	Validation Action
Free Cyanide	0.010	ND	0.004 J	AbsD = 0.006	None; all criteria were met.
COD	20	45	29	AbsD = 16	

Field duplicate criteria are as follows:

- RPD ≤ 30 when positive results for both samples are ≥ 5x QL
- AbsD ≤ QL when one or both results are < 5x QL

Sample Results and Reported Quantitation Limits

Select VOC, metals, total cyanide, and free cyanide results were reported that were below the lowest calibration standard level and QL. These results were qualified as estimated (J) in the associated samples by the laboratory.

There was one dilution performed on the samples in this data set. Sample OF9-032025 was diluted 2-fold for the analysis of TSS. The QL was elevated accordingly, and the dilution was associated with a positive detection above the QL.

The total and dissolved metal results were evaluated during data validation to identify any dissolved concentrations that were significantly higher than the associated total concentration. The evaluation was based on the following criteria to determine significance: percent difference (%D) should be ≤ 20% when dissolved results are greater than total results and both results are ≥ 5x the QL. If the dissolved result was > the total and one or both results were < 5x the QL, then the AbsD should be ≤ 2x the QL. These criteria were met for all samples.

QUALIFIED FORM 1s

VOLATILES

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-01
Client ID: OF2-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 20:40
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/22/25 11:49
Analyst: JKH

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	0.0012	J	mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	89		60-140
Fluorobenzene	71		60-140
4-Bromofluorobenzene	92		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-02
Client ID: OF9-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 21:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/22/25 11:15
Analyst: JKH

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	69		60-140
4-Bromofluorobenzene	93		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-03
Client ID: OF6-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 22:30
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/22/25 10:40
Analyst: JKH

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	70		60-140
4-Bromofluorobenzene	92		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-04
Client ID: SF1-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 22:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/22/25 10:06
Analyst: JKH

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	71		60-140
4-Bromofluorobenzene	93		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-05
Client ID: DUP-02-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 20:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/22/25 09:32
Analyst: JKH

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	0.0011	J	mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	91		60-140
Fluorobenzene	71		60-140
4-Bromofluorobenzene	95		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-06
Client ID: TRIP BLANK-02-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 00:00
Date Received: 03/21/25
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/22/25 08:58
Analyst: JKH

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	90		60-140
Fluorobenzene	71		60-140
4-Bromofluorobenzene	94		60-140

METALS

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-01
Client ID: OF2-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 20:40
Date Received: 03/21/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.4982		mg/l	0.01000	0.00327	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Chromium, Total	0.00104		mg/l	0.00100	0.00017	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Copper, Total	0.01680		mg/l	0.00100	0.00038	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Iron, Total	0.2110		mg/l	0.05000	0.01910	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Lead, Total	0.00434		mg/l	0.00100	0.00034	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Nickel, Total	0.00241		mg/l	0.00200	0.00055	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Zinc, Total	0.1552		mg/l	0.00500	0.00341	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	11.84		mg/l	0.5400	NA	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/22/25 12:15	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/22/25 08:06	03/22/25 13:37	EPA 3005A	3,200.8	MRC
Nickel, Dissolved	0.0018	J	mg/l	0.0020	0.0006	1	03/22/25 08:06	03/22/25 13:37	EPA 3005A	3,200.8	MRC

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-02
Client ID: OF9-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 21:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	1.014		mg/l	0.01000	0.00327	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Chromium, Total	0.01433		mg/l	0.00100	0.00017	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Copper, Total	0.01731		mg/l	0.00100	0.00038	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Iron, Total	1.764		mg/l	0.05000	0.01910	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Lead, Total	0.01992		mg/l	0.00100	0.00034	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Nickel, Total	0.00459		mg/l	0.00200	0.00055	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Zinc, Total	0.1313		mg/l	0.00500	0.00341	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	36.92		mg/l	0.5400	NA	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	0.014		mg/l	0.010	0.003	1		03/22/25 12:01	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0025		mg/l	0.0010	0.0002	1	03/22/25 08:06	03/22/25 13:23	EPA 3005A	3,200.8	MRC
Nickel, Dissolved	0.0008	J	mg/l	0.0020	0.0006	1	03/22/25 08:06	03/22/25 13:23	EPA 3005A	3,200.8	MRC

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-03
Client ID: OF6-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 22:30
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.4509		mg/l	0.01000	0.00327	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Chromium, Total	0.00157		mg/l	0.00100	0.00017	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Copper, Total	0.00652		mg/l	0.00100	0.00038	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Iron, Total	0.6166		mg/l	0.05000	0.01910	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Lead, Total	0.00404		mg/l	0.00100	0.00034	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Nickel, Total	0.00099	J	mg/l	0.00200	0.00055	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Zinc, Total	0.02347		mg/l	0.00500	0.00341	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	20.44		mg/l	0.5400	NA	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/22/25 12:19	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0006	J	mg/l	0.0010	0.0002	1	03/22/25 08:06	03/22/25 13:41	EPA 3005A	3,200.8	MRC
Nickel, Dissolved	ND		mg/l	0.0020	0.0006	1	03/22/25 08:06	03/22/25 13:41	EPA 3005A	3,200.8	MRC

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-04
Client ID: SF1-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 22:50
Date Received: 03/21/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.1802		mg/l	0.01000	0.00327	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Chromium, Total	0.00158		mg/l	0.00100	0.00017	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Copper, Total	0.00596		mg/l	0.00100	0.00038	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Iron, Total	0.4688		mg/l	0.05000	0.01910	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Lead, Total	0.00393		mg/l	0.00100	0.00034	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Nickel, Total	0.00192	J	mg/l	0.00200	0.00055	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Zinc, Total	0.03394		mg/l	0.00500	0.00341	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	173.0		mg/l	0.5400	NA	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/22/25 12:24	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0010		mg/l	0.0010	0.0002	1	03/22/25 08:06	03/22/25 13:46	EPA 3005A	3,200.8	MRC
Nickel, Dissolved	0.0014	J	mg/l	0.0020	0.0006	1	03/22/25 08:06	03/22/25 13:46	EPA 3005A	3,200.8	MRC

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-05
Client ID: DUP-02-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 20:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.4096		mg/l	0.01000	0.00327	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Chromium, Total	0.00081	J	mg/l	0.00100	0.00017	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Copper, Total	0.01312		mg/l	0.00100	0.00038	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Iron, Total	0.1612		mg/l	0.05000	0.01910	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Lead, Total	0.00368		mg/l	0.00100	0.00034	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Nickel, Total	0.00197	J	mg/l	0.00200	0.00055	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Zinc, Total	0.1197		mg/l	0.00500	0.00341	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	9.467		mg/l	0.5400	NA	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/22/25 12:48	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/22/25 08:06	03/22/25 13:50	EPA 3005A	3,200.8	MRC
Nickel, Dissolved	0.0017	J	mg/l	0.0020	0.0006	1	03/22/25 08:06	03/22/25 13:50	EPA 3005A	3,200.8	MRC

INORGANICS
&
MISCELLANEOUS

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-01
Client ID: OF2-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 20:40
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	18.	J	mg/l	5.0	NA	1	-	03/21/25 20:47	121,2540D	REM
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	03/22/25 02:25	03/22/25 14:08	121,4500CN-CE	SRM
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 18:50	121,4500CN-E(M)	MRM
Nitrogen, Nitrate/Nitrite	0.37	J	mg/l	0.10	0.046	1	-	03/22/25 06:58	44,353.2	KAF
Chemical Oxygen Demand	45.		mg/l	20	6.0	1	03/22/25 09:20	03/22/25 12:52	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/22/25 11:18	03/22/25 15:06	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 18:00	03/21/25 18:15	121,3500CR-B	MRM

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-02
Client ID: OF9-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 21:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	32.	J	mg/l	10	NA	2	-	03/21/25 20:47	121,2540D	REM
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	03/22/25 02:25	03/22/25 14:09	121,4500CN-CE	SRM
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 18:50	121,4500CN-E(M)	MRM
Nitrogen, Nitrate/Nitrite	0.20	J	mg/l	0.10	0.046	1	-	03/22/25 06:59	44,353.2	KAF
Chemical Oxygen Demand	52.		mg/l	20	6.0	1	03/22/25 09:20	03/22/25 12:52	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/22/25 11:18	03/22/25 15:08	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 18:00	03/21/25 18:15	121,3500CR-B	MRM

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-03
Client ID: OF6-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 22:30
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	23.	J	mg/l	5.0	NA	1	-	03/21/25 20:47	121,2540D	REM
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	03/22/25 02:25	03/22/25 14:13	121,4500CN-CE	SRM
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 18:50	121,4500CN-E(M)	MRM
Nitrogen, Nitrate/Nitrite	0.35	J	mg/l	0.10	0.046	1	-	03/22/25 07:06	44,353.2	KAF
Chemical Oxygen Demand	34.		mg/l	20	6.0	1	03/22/25 09:20	03/22/25 12:52	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/22/25 11:18	03/22/25 15:42	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 18:00	03/21/25 18:15	121,3500CR-B	MRM

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-04
Client ID: SF1-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 22:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	17.	J	mg/l	5.0	NA	1	-	03/21/25 20:47	121,2540D	REM
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	03/22/25 02:25	03/22/25 14:14	121,4500CN-CE	SRM
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 18:50	121,4500CN-E(M)	MRM
Nitrogen, Nitrate/Nitrite	0.42	J	mg/l	0.10	0.046	1	-	03/22/25 07:07	44,353.2	KAF
Chemical Oxygen Demand	36.		mg/l	20	6.0	1	03/22/25 09:20	03/22/25 12:53	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/22/25 11:18	03/22/25 15:43	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 18:00	03/21/25 18:15	121,3500CR-B	MRM

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-05
Client ID: DUP-02-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 20:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	10.	J	mg/l	5.0	NA	1	-	03/21/25 20:47	121,2540D	REM
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/22/25 02:25	03/22/25 14:15	121,4500CN-CE	SRM
Cyanide, Free	0.004	J	mg/l	0.010	0.003	1	-	03/21/25 18:50	121,4500CN-E(M)	MRM
Nitrogen, Nitrate/Nitrite	0.23	J	mg/l	0.10	0.046	1	-	03/22/25 07:08	44,353.2	KAF
Chemical Oxygen Demand	29.		mg/l	20	6.0	1	03/22/25 09:20	03/22/25 12:53	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/22/25 11:18	03/22/25 15:44	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 18:00	03/21/25 18:15	121,3500CR-B	MRM

ANALYTICAL REPORT

Lab Number:	L2516324
Client:	TRC Environmental 1617 JFK Blvd. Suite 510 Philadelphia, PA 19103
ATTN:	Julie Acton
Phone:	(215) 563-2122
Project Name:	SPS TECHNOLOGIES
Project Number:	658978
Report Date:	03/21/25

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

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2516324-01	SW1-032025	WATER	JENKINTOWN, PA	03/20/25 11:05	03/20/25
L2516324-02	SW2-032025	WATER	JENKINTOWN, PA	03/20/25 11:40	03/20/25
L2516324-03	SW3-032025	WATER	JENKINTOWN, PA	03/20/25 12:25	03/20/25
L2516324-04	SW4-032025	WATER	JENKINTOWN, PA	03/20/25 10:25	03/20/25
L2516324-05	SW5-032025	WATER	JENKINTOWN, PA	03/20/25 09:35	03/20/25
L2516324-06	DUP-032025	WATER	JENKINTOWN, PA	03/20/25 00:00	03/20/25
L2516324-07	TRIP BLANK-032025	WATER	JENKINTOWN, PA	03/17/25 00:00	03/20/25

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2516324
Project Number:	658978	**Report Date:**	03/21/25

Case Narrative

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

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

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

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

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

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

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2516324
Project Number:	658978	**Report Date:**	03/21/25

Case Narrative (continued)

Report Submission

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

Cyanide, Total

The WG2043613-4 MS recovery performed on L2516324-05 is outside the acceptance criteria for cyanide, total (89%); however, the associated LCS recovery is within criteria. No further action was taken.

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 Stenstrom

Title: Technical Director/Representative Date: 03/21/25

ORGANICS

VOLATILES

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-01
Client ID: SW1-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 11:05
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/21/25 11:44
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	115		60-140

Project Name: SPS TECHNOLOGIES **Lab Number:** L2516324

Project Number: 658978 **Report Date:** 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-02 Date Collected: 03/20/25 11:40

Client ID: SW2-032025 Date Received: 03/20/25

Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Analytical Method: 128,624.1

Analytical Date: 03/21/25 12:16

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	72		60-140
4-Bromofluorobenzene	116		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-03
Client ID: SW3-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 12:25
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/21/25 12:48
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	79		60-140
Fluorobenzene	72		60-140
4-Bromofluorobenzene	117		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-04
Client ID: SW4-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 10:25
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/21/25 13:20
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	77		60-140
Fluorobenzene	70		60-140
4-Bromofluorobenzene	115		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-05
Client ID: SW5-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 09:35
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/21/25 13:52
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	77		60-140
Fluorobenzene	73		60-140
4-Bromofluorobenzene	116		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-06
Client ID: DUP-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 00:00
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/21/25 14:24
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	77		60-140
Fluorobenzene	72		60-140
4-Bromofluorobenzene	123		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-07
Client ID: TRIP BLANK-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/17/25 00:00
Date Received: 03/20/25
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/21/25 14:56
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	76		60-140
Fluorobenzene	69		60-140
4-Bromofluorobenzene	119		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 03/21/25 10:01
Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG2043604-4					
Toluene	ND		mg/l	0.0010	0.00031
2-Butanone	ND		mg/l	0.010	0.0010

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	88		60-140
Fluorobenzene	74		60-140
4-Bromofluorobenzene	112		60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

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: WG2043604-3								
Toluene	115		-		70-130	-		41
2-Butanone	72		-		60-140	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	93				60-140
Fluorobenzene	87				60-140
4-Bromofluorobenzene	116				60-140

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG2043604-5 WG2043604-6 QC Sample: L2516324-05 Client ID: SW5-032025												
Toluene	ND	0.00002	0.024	120		0.025	125		47-150	4		41
2-Butanone	ND	0.00005	0.030	60		0.031	62		60-140	3		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
4-Bromofluorobenzene	116		119		60-140
Fluorobenzene	82		81		60-140
Pentafluorobenzene	85		85		60-140

METALS

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-01
Client ID: SW1-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 11:05
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	0.00043	J	mg/l	0.00100	0.00017	1	03/21/25 08:14	03/21/25 12:08	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00091	J	mg/l	0.00200	0.00055	1	03/21/25 08:14	03/21/25 12:08	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	208.2		mg/l	0.5400	NA	1	03/21/25 08:14	03/21/25 12:08	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/21/25 12:08	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/21/25 08:14	03/21/25 12:46	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0007	J	mg/l	0.0020	0.0006	1	03/21/25 08:14	03/21/25 12:46	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-02
Client ID: SW2-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 11:40
Date Received: 03/20/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	0.00021	J	mg/l	0.00100	0.00017	1	03/21/25 08:14	03/21/25 12:12	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00154	J	mg/l	0.00200	0.00055	1	03/21/25 08:14	03/21/25 12:12	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	254.8		mg/l	0.5400	NA	1	03/21/25 08:14	03/21/25 12:12	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/21/25 12:12	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/21/25 08:14	03/21/25 12:51	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0016	J	mg/l	0.0020	0.0006	1	03/21/25 08:14	03/21/25 12:51	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-03
Client ID: SW3-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 12:25
Date Received: 03/20/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	0.00028	J	mg/l	0.00100	0.00017	1	03/21/25 08:14	03/21/25 14:01	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00100	J	mg/l	0.00200	0.00055	1	03/21/25 08:14	03/21/25 14:01	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	241.6		mg/l	0.5400	NA	1	03/21/25 08:14	03/21/25 14:01	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/21/25 14:01	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0002	J	mg/l	0.0010	0.0002	1	03/21/25 08:14	03/21/25 12:55	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0010	J	mg/l	0.0020	0.0006	1	03/21/25 08:14	03/21/25 12:55	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-04
Client ID: SW4-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 10:25
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	0.00018	J	mg/l	0.00100	0.00017	1	03/21/25 08:14	03/21/25 14:05	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00180	J	mg/l	0.00200	0.00055	1	03/21/25 08:14	03/21/25 14:05	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	227.3		mg/l	0.5400	NA	1	03/21/25 08:14	03/21/25 14:05	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/21/25 14:05	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	03/21/25 08:14	03/21/25 13:00	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0016	J	mg/l	0.0020	0.0006	1	03/21/25 08:14	03/21/25 13:00	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-05
Client ID: SW5-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 09:35
Date Received: 03/20/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	0.00020	J	mg/l	0.00100	0.00017	1	03/21/25 08:14	03/21/25 11:54	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00116	J	mg/l	0.00200	0.00055	1	03/21/25 08:14	03/21/25 11:54	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	184.0		mg/l	0.5400	NA	1	03/21/25 08:14	03/21/25 11:54	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/21/25 11:54	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0006	J	mg/l	0.0010	0.0002	1	03/21/25 08:14	03/21/25 12:32	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0013	J	mg/l	0.0020	0.0006	1	03/21/25 08:14	03/21/25 12:32	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-06
Client ID: DUP-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 00:00
Date Received: 03/20/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	0.00150		mg/l	0.00100	0.00017	1	03/21/25 08:14	03/21/25 12:26	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00145	J	mg/l	0.00200	0.00055	1	03/21/25 08:14	03/21/25 12:26	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	238.6		mg/l	0.5400	NA	1	03/21/25 08:14	03/21/25 12:26	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/21/25 12:26	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0002	J	mg/l	0.0010	0.0002	1	03/21/25 08:14	03/21/25 13:05	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0009	J	mg/l	0.0020	0.0006	1	03/21/25 08:14	03/21/25 13:05	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES **Lab Number:** L2516324

Project Number: 658978 **Report Date:** 03/21/25

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG2043304-1										
Chromium, Total	0.00025	J	mg/l	0.00100	0.00017	1	03/21/25 08:14	03/21/25 11:45	3,200.8	NTB
Nickel, Total	ND		mg/l	0.00200	0.00055	1	03/21/25 08:14	03/21/25 11:45	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: WG2043304-1										
Hardness	ND		mg/l	0.5400	NA	1	03/21/25 08:14	03/21/25 11:45	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: WG2043305-1										
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	03/21/25 08:14	03/21/25 12:23	3,200.8	NTB
Nickel, Dissolved	ND		mg/l	0.0020	0.0006	1	03/21/25 08:14	03/21/25 12:23	3,200.8	NTB

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG2043304-2								
Chromium, Total	99		-		85-115	-		
Nickel, Total	103		-		85-115	-		
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-06 Batch: WG2043304-2								
Hardness	96		-		85-115	-		
Dissolved Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG2043305-2								
Chromium, Dissolved	96		-		85-115	-		
Nickel, Dissolved	99		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG2043304-3 WG2043304-4 QC Sample: L2516324-05 Client ID: SW5-032025												
Chromium, Total	0.00020J	0.2	0.1971	98		0.1906	95		70-130	3		20
Nickel, Total	0.00116J	0.5	0.5201	104		0.5006	100		70-130	4		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG2043304-3 WG2043304-4 QC Sample: L2516324-05 Client ID: SW5-032025												
Hardness	184.0	66.2	255.4	108		248.5	98		70-130	3		20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG2043305-3 WG2043305-4 QC Sample: L2516324-05 Client ID: SW5-032025												
Chromium, Dissolved	0.0006J	0.2	0.1826	91		0.1916	96		70-130	5		20
Nickel, Dissolved	0.0013J	0.5	0.4910	98		0.5069	101		70-130	3		20

INORGANICS
&
MISCELLANEOUS

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-01
Client ID: SW1-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 11:05
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/21/25 11:40	03/21/25 16:06	121,4500CN-CE	JRO
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 07:13	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/21/25 07:26	03/21/25 11:00	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 08:50	03/21/25 09:32	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-02
Client ID: SW2-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 11:40
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/21/25 11:40	03/21/25 16:07	121,4500CN-CE	JRO
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 07:13	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/21/25 07:26	03/21/25 10:58	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 08:50	03/21/25 09:34	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-03
Client ID: SW3-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 12:25
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/21/25 11:40	03/21/25 16:08	121,4500CN-CE	JRO
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 07:13	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/21/25 07:26	03/21/25 11:01	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 08:50	03/21/25 09:35	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-04
Client ID: SW4-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 10:25
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/21/25 11:40	03/21/25 16:09	121,4500CN-CE	JRO
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 07:13	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/21/25 07:26	03/21/25 11:05	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 08:50	03/21/25 09:35	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-05
Client ID: SW5-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 09:35
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/21/25 11:40	03/21/25 16:10	121,4500CN-CE	JRO
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 07:13	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/21/25 07:26	03/21/25 08:43	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 08:50	03/21/25 09:30	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

SAMPLE RESULTS

Lab ID: L2516324-06
Client ID: DUP-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 00:00
Date Received: 03/20/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/21/25 11:40	03/21/25 16:16	121,4500CN-CE	JRO
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 07:13	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/21/25 07:26	03/21/25 11:09	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 08:50	03/21/25 09:36	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516324
Report Date: 03/21/25

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG2043320-1										
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 07:13	121,4500CN-E(M)	KAF
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG2043323-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 08:50	03/21/25 09:29	121,3500CR-B	DMO
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG2043347-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/21/25 07:26	03/21/25 08:42	140,1664B	TPR
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG2043613-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/21/25 11:40	03/21/25 16:03	121,4500CN-CE	JRO

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG2043320-2								
Cyanide, Free	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG2043323-2								
Chromium, Hexavalent	103		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG2043347-2								
Oil & Grease, Hem-Grav	96		-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG2043613-2								
Cyanide, Total	93		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2043320-4 WG2043320-5 QC Sample: L2516324-05 Client ID: SW5-032025												
Cyanide, Free	ND	0.25	0.242	97		0.248	99		80-120	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2043323-4 WG2043323-5 QC Sample: L2516324-05 Client ID: SW5-032025												
Chromium, Hexavalent	ND	0.1	0.099	99		0.096	96		85-115	3		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2043347-4 WG2043347-5 QC Sample: L2516324-05 Client ID: SW5-032025												
Oil & Grease, Hem-Grav	ND	39.2	38	96		36	92		78-114	4		18
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2043613-4 WG2043613-5 QC Sample: L2516324-05 Client ID: SW5-032025												
Cyanide, Total	ND	0.2	0.178	**89**	Q	0.192	96		90-110	8		30

Lab Duplicate Analysis

Batch Quality Control

Project Name: SPS TECHNOLOGIES

Project Number: 658978

Lab Number: L2516324

Report Date: 03/21/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2043320-3 QC Sample: L2516324-05 Client ID: SW5-032025						
Cyanide, Free	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2043323-3 QC Sample: L2516324-05 Client ID: SW5-032025						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2043347-3 QC Sample: L2516324-05 Client ID: SW5-032025						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2043613-3 QC Sample: L2516324-05 Client ID: SW5-032025						
Cyanide, Total	ND	ND	mg/l	NC		30

Project Name: SPS TECHNOLOGIES
Project Number: 658978

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Report Date: 03/21/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent
D	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516324-01A	Vial Na2S2O3 preserved	A	NA		3.7	Y	Absent		624.1-PPM(7)
L2516324-01B	Vial Na2S2O3 preserved	A	NA		3.7	Y	Absent		624.1-PPM(7)
L2516324-01C	Vial Na2S2O3 preserved	A	NA		3.7	Y	Absent		624.1-PPM(7)
L2516324-01D	Plastic 250ml HNO3 preserved	A	<2	<2	3.7	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516324-01E	Plastic 250ml HNO3 preserved	A	<2	<2	3.7	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2516324-01F	Plastic 250ml NaOH preserved	A	>12	>12	3.7	Y	Absent		TCN-4500(14)
L2516324-01G	Plastic 500ml unpreserved	A	7	7	3.7	Y	Absent		HEXCR-3500(1),FCN(1)
L2516324-01H	Amber 1L HCl preserved	A	NA		3.7	Y	Absent		OG-1664(28)
L2516324-01J	Amber 1L HCl preserved	A	NA		3.7	Y	Absent		OG-1664(28)
L2516324-02A	Vial Na2S2O3 preserved	A	NA		3.7	Y	Absent		624.1-PPM(7)
L2516324-02B	Vial Na2S2O3 preserved	A	NA		3.7	Y	Absent		624.1-PPM(7)
L2516324-02C	Vial Na2S2O3 preserved	A	NA		3.7	Y	Absent		624.1-PPM(7)
L2516324-02D	Plastic 250ml HNO3 preserved	A	<2	<2	3.7	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516324-02E	Plastic 250ml HNO3 preserved	A	<2	<2	3.7	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2516324-02F	Plastic 250ml NaOH preserved	A	>12	>12	3.7	Y	Absent		TCN-4500(14)
L2516324-02G	Plastic 500ml unpreserved	A	7	7	3.7	Y	Absent		HEXCR-3500(1),FCN(1)
L2516324-02H	Amber 1L HCl preserved	A	NA		3.7	Y	Absent		OG-1664(28)
L2516324-02J	Amber 1L HCl preserved	A	NA		3.7	Y	Absent		OG-1664(28)
L2516324-03A	Vial Na2S2O3 preserved	B	NA		3.6	Y	Absent		624.1-PPM(7)

*Values in parentheses indicate holding time in days

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516324-03B	Vial Na2S2O3 preserved	B	NA		3.6	Y	Absent		624.1-PPM(7)
L2516324-03C	Vial Na2S2O3 preserved	B	NA		3.6	Y	Absent		624.1-PPM(7)
L2516324-03D	Plastic 250ml HNO3 preserved	B	<2	<2	3.6	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516324-03E	Plastic 250ml HNO3 preserved	B	<2	<2	3.6	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2516324-03F	Plastic 250ml NaOH preserved	B	>12	>12	3.6	Y	Absent		TCN-4500(14)
L2516324-03G	Plastic 500ml unpreserved	B	7	7	3.6	Y	Absent		HEXCR-3500(1),FCN(1)
L2516324-03H	Amber 1L HCl preserved	B	NA		3.6	Y	Absent		OG-1664(28)
L2516324-03J	Amber 1L HCl preserved	B	NA		3.6	Y	Absent		OG-1664(28)
L2516324-04A	Vial Na2S2O3 preserved	B	NA		3.6	Y	Absent		624.1-PPM(7)
L2516324-04B	Vial Na2S2O3 preserved	B	NA		3.6	Y	Absent		624.1-PPM(7)
L2516324-04C	Vial Na2S2O3 preserved	B	NA		3.6	Y	Absent		624.1-PPM(7)
L2516324-04D	Plastic 250ml HNO3 preserved	B	<2	<2	3.6	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516324-04E	Plastic 250ml HNO3 preserved	B	<2	<2	3.6	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2516324-04F	Plastic 250ml NaOH preserved	B	>12	>12	3.6	Y	Absent		TCN-4500(14)
L2516324-04G	Plastic 500ml unpreserved	B	7	7	3.6	Y	Absent		HEXCR-3500(1),FCN(1)
L2516324-04H	Amber 1L HCl preserved	B	NA		3.6	Y	Absent		OG-1664(28)
L2516324-04J	Amber 1L HCl preserved	B	NA		3.6	Y	Absent		OG-1664(28)
L2516324-05A	Vial Na2S2O3 preserved	C	NA		3.3	Y	Absent		624.1-PPM(7)
L2516324-05A1	Vial Na2S2O3 preserved	C	NA		3.3	Y	Absent		624.1-PPM(7)
L2516324-05A2	Vial Na2S2O3 preserved	C	NA		3.3	Y	Absent		624.1-PPM(7)
L2516324-05B	Vial Na2S2O3 preserved	C	NA		3.3	Y	Absent		624.1-PPM(7)
L2516324-05B1	Vial Na2S2O3 preserved	C	NA		3.3	Y	Absent		624.1-PPM(7)
L2516324-05B2	Vial Na2S2O3 preserved	C	NA		3.3	Y	Absent		624.1-PPM(7)
L2516324-05C	Vial Na2S2O3 preserved	C	NA		3.3	Y	Absent		624.1-PPM(7)
L2516324-05C1	Vial Na2S2O3 preserved	C	NA		3.3	Y	Absent		624.1-PPM(7)
L2516324-05C2	Vial Na2S2O3 preserved	C	NA		3.3	Y	Absent		624.1-PPM(7)
L2516324-05D	Plastic 250ml HNO3 preserved	C	<2	<2	3.3	Y	Absent		CR-2008S(180),NI-2008S(180)

*Values in parentheses indicate holding time in days

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516324-05D1	Plastic 250ml HNO3 preserved	C	<2	<2	3.3	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516324-05D2	Plastic 250ml HNO3 preserved	C	<2	<2	3.3	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516324-05E	Plastic 250ml HNO3 preserved	C	<2	<2	3.3	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2516324-05E1	Plastic 250ml HNO3 preserved	C	<2	<2	3.3	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2516324-05E2	Plastic 250ml HNO3 preserved	C	<2	<2	3.3	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2516324-05F	Plastic 250ml NaOH preserved	C	>12	>12	3.3	Y	Absent		TCN-4500(14)
L2516324-05F1	Plastic 250ml NaOH preserved	C	>12	>12	3.3	Y	Absent		TCN-4500(14)
L2516324-05F2	Plastic 250ml NaOH preserved	C	>12	>12	3.3	Y	Absent		TCN-4500(14)
L2516324-05G	Plastic 500ml unpreserved	C	7	7	3.3	Y	Absent		HEXCR-3500(1),FCN(1)
L2516324-05G1	Plastic 500ml unpreserved	C	7	7	3.3	Y	Absent		HEXCR-3500(1),FCN(1)
L2516324-05G2	Plastic 500ml unpreserved	C	7	7	3.3	Y	Absent		HEXCR-3500(1),FCN(1)
L2516324-05H	Amber 1L HCl preserved	C	NA		3.3	Y	Absent		OG-1664(28)
L2516324-05H1	Amber 1L HCl preserved	C	NA		3.3	Y	Absent		OG-1664(28)
L2516324-05H2	Amber 1L HCl preserved	C	NA		3.3	Y	Absent		OG-1664(28)
L2516324-05J	Amber 1L HCl preserved	C	NA		3.3	Y	Absent		OG-1664(28)
L2516324-05J1	Amber 1L HCl preserved	C	NA		3.3	Y	Absent		OG-1664(28)
L2516324-05J2	Amber 1L HCl preserved	C	NA		3.3	Y	Absent		OG-1664(28)
L2516324-06A	Vial Na2S2O3 preserved	D	NA		4.3	Y	Absent		624.1-PPM(7)
L2516324-06B	Vial Na2S2O3 preserved	D	NA		4.3	Y	Absent		624.1-PPM(7)
L2516324-06C	Vial Na2S2O3 preserved	D	NA		4.3	Y	Absent		624.1-PPM(7)
L2516324-06D	Plastic 250ml HNO3 preserved	D	<2	<2	4.3	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516324-06E	Plastic 250ml HNO3 preserved	D	<2	<2	4.3	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2516324-06F	Plastic 250ml NaOH preserved	D	>12	>12	4.3	Y	Absent		TCN-4500(14)
L2516324-06G	Plastic 500ml unpreserved	D	7	7	4.3	Y	Absent		HEXCR-3500(1),FCN(1)
L2516324-06H	Amber 1L HCl preserved	D	NA		4.3	Y	Absent		OG-1664(28)
L2516324-06J	Amber 1L HCl preserved	D	NA		4.3	Y	Absent		OG-1664(28)
L2516324-07A	Vial Na2S2O3 preserved	A	NA		3.7	Y	Absent		624.1-PPM(7)

*Values in parentheses indicate holding time in days

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516324
Report Date: 03/21/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516324-07B	Vial Na2S2O3 preserved	A	NA		3.7	Y	Absent		624.1-PPM(7)

*Values in parentheses indicate holding time in days

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2516324
Project Number:	658978	**Report Date:**	03/21/25

GLOSSARY

Acronyms

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

Report Format: DU Report with 'J' Qualifiers

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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

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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 **Lab Number:** L2516324

Project Number: 658978 **Report Date:** 03/21/25

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 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.

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, 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, 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

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.

Serial_No:03212517:35

L2516324
TRC – PA – ER

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/21/25

ALPHA Job #:

Project Information

Project Name: SPS Technologies

Project Location: Jenkintown, PA

Project #: 658978

Project Manager: Julie Acton

ALPHA Quote #:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #: 228588

Regulatory Requirements/Report Limits

State/Fed Program: PA

Criteria:

Client Information

Client: TRC Environmental Corporation

Address: 1617 John F. Kennedy Blvd.

Suite 510, Philadelphia, PA 19103

Phone: 267-679-6728

Fax: 215-563-2339

Email: JActon@trccompanies.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Due Date: Time: 1-Day

Other Project Specific Requirements/Comments/Detection Limits:

"Attorney-Client Privileged & Confidential"
All VOAs in 1 Cooler
ER Project

Dissolved Metals field filtered

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Oil and Grease E1664B	Free Cyanide SM4500CN-E(M)	Total Cyanide SM4500CN-CE	Speciated Hex Chrome SM3500-CrB	ToTal Chromium E200.8	Dissolved Chromium E200.8	Total Nickel E200.8	Dissolved Nickel E200.8	MEK E624.1	Toluene E624.1	Total Hardness E200.8		Sample Specific Comments	TOTAL # BOTTLES
16324-01	SW1 - 032025	3/20/25	1105	SW	JS	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐		9
02	SW2 - 032025	3/20/25	1140	SW	JS	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐		9
03	SW3 - 032025	3/20/25	1225	SW	JS	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐		9
04	SW4 - 032025	3/20/25	1025	SW	JS	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐		9
05	SW5 - 032025	3/20/25	0935	SW	JS	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	Performance MSD	9
06	DUP - 032025	3/20/25	0000	SW	JS	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐		9
07	TRIP BLANK - 032025	3/17/25	—	W	~~JS~~	☐	☐	☐	☐	☐	☐	☐	☐	☐	☒	☐	☐		2
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

SAMPLE HANDLING
Filtration
☒ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Container Type	A	P	P	P	P	P	P	P	V	V	-	-
Preservative	B	A	E	A	C	A	C	C	H	H	-	-

Relinquished By:	Date/Time	Received By:	Date/Time
Christopher Graham	3/20/25 1345	D. Robinson PACE	3/20/25 1345
D. Robinson PACE	3/20/25 1825	Anthony Green	MAR 20 2025 2355
Anthony Green	3/21/25 0415		

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 Payment Terms.

FORM NO: 01-01(I)-R9 (rev. 5-JAN-12)

ANALYTICAL REPORT

Lab Number:	L2516684
Client:	TRC Environmental 1617 JFK Blvd. Suite 510 Philadelphia, PA 19103
ATTN:	Julie Acton
Phone:	(215) 563-2122
Project Name:	SPS TECHNOLOGIES
Project Number:	658978
Report Date:	03/22/25

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).

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2516684-01	OF2-032025	WATER	JENKINTOWN, PA	03/20/25 20:40	03/21/25
L2516684-02	OF9-032025	WATER	JENKINTOWN, PA	03/20/25 21:50	03/21/25
L2516684-03	OF6-032025	WATER	JENKINTOWN, PA	03/20/25 22:30	03/21/25
L2516684-04	SF1-032025	WATER	JENKINTOWN, PA	03/20/25 22:50	03/21/25
L2516684-05	DUP-02-032025	WATER	JENKINTOWN, PA	03/20/25 20:50	03/21/25
L2516684-06	TRIP BLANK-02-032025	WATER	JENKINTOWN, PA	03/20/25 00:00	03/21/25

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2516684
Project Number:	658978	**Report Date:**	03/22/25

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	**Lab Number:**	L2516684
Project Number:	658978	**Report Date:**	03/22/25

Case Narrative (continued)

Report Submission

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

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

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 03/22/25

ORGANICS

VOLATILES

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-01
Client ID: OF2-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 20:40
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/22/25 11:49
Analyst: JKH

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	0.0012	J	mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	89		60-140
Fluorobenzene	71		60-140
4-Bromofluorobenzene	92		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-02
Client ID: OF9-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 21:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/22/25 11:15
Analyst: JKH

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	69		60-140
4-Bromofluorobenzene	93		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-03
Client ID: OF6-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 22:30
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/22/25 10:40
Analyst: JKH

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	70		60-140
4-Bromofluorobenzene	92		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-04
Client ID: SF1-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 22:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/22/25 10:06
Analyst: JKH

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	71		60-140
4-Bromofluorobenzene	93		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-05
Client ID: DUP-02-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 20:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/22/25 09:32
Analyst: JKH

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	0.0011	J	mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	91		60-140
Fluorobenzene	71		60-140
4-Bromofluorobenzene	95		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-06
Client ID: TRIP BLANK-02-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 00:00
Date Received: 03/21/25
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/22/25 08:58
Analyst: JKH

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	90		60-140
Fluorobenzene	71		60-140
4-Bromofluorobenzene	94		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 03/22/25 08:14
Analyst: JKH

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG2043861-4					
Toluene	ND		mg/l	0.0010	0.00031
2-Butanone	ND		mg/l	0.010	0.0010

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	96		60-140
Fluorobenzene	70		60-140
4-Bromofluorobenzene	87		60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG2043861-3								
Toluene	90		-		70-130	-		41
2-Butanone	76		-		60-140	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	105				60-140
Fluorobenzene	82				60-140
4-Bromofluorobenzene	84				60-140

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2043861-5 WG2043861-6 QC Sample: L2516684-02 Client ID: OF9-032025												
Toluene	ND	0.00002	0.020	100		0.021	105		47-150	5		41
2-Butanone	ND	0.00005	0.041	80		0.042	82		60-140	2		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
4-Bromofluorobenzene	88		85		60-140
Fluorobenzene	78		80		60-140
Pentafluorobenzene	101		102		60-140

METALS

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-01
Client ID: OF2-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 20:40
Date Received: 03/21/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.4982		mg/l	0.01000	0.00327	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Chromium, Total	0.00104		mg/l	0.00100	0.00017	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Copper, Total	0.01680		mg/l	0.00100	0.00038	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Iron, Total	0.2110		mg/l	0.05000	0.01910	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Lead, Total	0.00434		mg/l	0.00100	0.00034	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Nickel, Total	0.00241		mg/l	0.00200	0.00055	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Zinc, Total	0.1552		mg/l	0.00500	0.00341	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	11.84		mg/l	0.5400	NA	1	03/22/25 08:06	03/22/25 12:15	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/22/25 12:15	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/22/25 08:06	03/22/25 13:37	EPA 3005A	3,200.8	MRC
Nickel, Dissolved	0.0018	J	mg/l	0.0020	0.0006	1	03/22/25 08:06	03/22/25 13:37	EPA 3005A	3,200.8	MRC

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-02
Client ID: OF9-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 21:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	1.014		mg/l	0.01000	0.00327	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Chromium, Total	0.01433		mg/l	0.00100	0.00017	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Copper, Total	0.01731		mg/l	0.00100	0.00038	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Iron, Total	1.764		mg/l	0.05000	0.01910	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Lead, Total	0.01992		mg/l	0.00100	0.00034	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Nickel, Total	0.00459		mg/l	0.00200	0.00055	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Zinc, Total	0.1313		mg/l	0.00500	0.00341	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	36.92		mg/l	0.5400	NA	1	03/22/25 08:06	03/22/25 12:01	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	0.014		mg/l	0.010	0.003	1		03/22/25 12:01	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0025		mg/l	0.0010	0.0002	1	03/22/25 08:06	03/22/25 13:23	EPA 3005A	3,200.8	MRC
Nickel, Dissolved	0.0008	J	mg/l	0.0020	0.0006	1	03/22/25 08:06	03/22/25 13:23	EPA 3005A	3,200.8	MRC

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-03
Client ID: OF6-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 22:30
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.4509		mg/l	0.01000	0.00327	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Chromium, Total	0.00157		mg/l	0.00100	0.00017	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Copper, Total	0.00652		mg/l	0.00100	0.00038	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Iron, Total	0.6166		mg/l	0.05000	0.01910	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Lead, Total	0.00404		mg/l	0.00100	0.00034	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Nickel, Total	0.00099	J	mg/l	0.00200	0.00055	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Zinc, Total	0.02347		mg/l	0.00500	0.00341	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	20.44		mg/l	0.5400	NA	1	03/22/25 08:06	03/22/25 12:19	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/22/25 12:19	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0006	J	mg/l	0.0010	0.0002	1	03/22/25 08:06	03/22/25 13:41	EPA 3005A	3,200.8	MRC
Nickel, Dissolved	ND		mg/l	0.0020	0.0006	1	03/22/25 08:06	03/22/25 13:41	EPA 3005A	3,200.8	MRC

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-04
Client ID: SF1-032025
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 03/20/25 22:50
Date Received: 03/21/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.1802		mg/l	0.01000	0.00327	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Chromium, Total	0.00158		mg/l	0.00100	0.00017	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Copper, Total	0.00596		mg/l	0.00100	0.00038	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Iron, Total	0.4688		mg/l	0.05000	0.01910	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Lead, Total	0.00393		mg/l	0.00100	0.00034	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Nickel, Total	0.00192	J	mg/l	0.00200	0.00055	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Zinc, Total	0.03394		mg/l	0.00500	0.00341	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	173.0		mg/l	0.5400	NA	1	03/22/25 08:06	03/22/25 12:24	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/22/25 12:24	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0010		mg/l	0.0010	0.0002	1	03/22/25 08:06	03/22/25 13:46	EPA 3005A	3,200.8	MRC
Nickel, Dissolved	0.0014	J	mg/l	0.0020	0.0006	1	03/22/25 08:06	03/22/25 13:46	EPA 3005A	3,200.8	MRC

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-05
Client ID: DUP-02-032025
Sample Location: JENKINTOWN, PA
Date Collected: 03/20/25 20:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.4096		mg/l	0.01000	0.00327	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Chromium, Total	0.00081	J	mg/l	0.00100	0.00017	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Copper, Total	0.01312		mg/l	0.00100	0.00038	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Iron, Total	0.1612		mg/l	0.05000	0.01910	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Lead, Total	0.00368		mg/l	0.00100	0.00034	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Nickel, Total	0.00197	J	mg/l	0.00200	0.00055	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Zinc, Total	0.1197		mg/l	0.00500	0.00341	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	9.467		mg/l	0.5400	NA	1	03/22/25 08:06	03/22/25 12:48	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/22/25 12:48	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/22/25 08:06	03/22/25 13:50	EPA 3005A	3,200.8	MRC
Nickel, Dissolved	0.0017	J	mg/l	0.0020	0.0006	1	03/22/25 08:06	03/22/25 13:50	EPA 3005A	3,200.8	MRC

Project Name: SPS TECHNOLOGIES **Lab Number:** L2516684

Project Number: 658978 **Report Date:** 03/22/25

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): 01-05 Batch: WG2043764-1										
Aluminum, Total	ND		mg/l	0.01000	0.00327	1	03/22/25 08:06	03/22/25 11:48	3,200.8	MRC
Chromium, Total	ND		mg/l	0.00100	0.00017	1	03/22/25 08:06	03/22/25 11:48	3,200.8	MRC
Copper, Total	ND		mg/l	0.00100	0.00038	1	03/22/25 08:06	03/22/25 11:48	3,200.8	MRC
Iron, Total	ND		mg/l	0.05000	0.01910	1	03/22/25 08:06	03/22/25 11:48	3,200.8	MRC
Lead, Total	ND		mg/l	0.00100	0.00034	1	03/22/25 08:06	03/22/25 11:48	3,200.8	MRC
Nickel, Total	ND		mg/l	0.00200	0.00055	1	03/22/25 08:06	03/22/25 11:48	3,200.8	MRC
Zinc, Total	ND		mg/l	0.00500	0.00341	1	03/22/25 08:06	03/22/25 11:48	3,200.8	MRC

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): 01-05 Batch: WG2043764-1										
Hardness	ND		mg/l	0.5400	NA	1	03/22/25 08:06	03/22/25 11:48	3,200.8	MRC

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): 01-05 Batch: WG2043765-1										
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	03/22/25 08:06	03/22/25 11:52	3,200.8	MRC
Nickel, Dissolved	ND		mg/l	0.0020	0.0006	1	03/22/25 08:06	03/22/25 11:52	3,200.8	MRC

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG2043764-2								
Aluminum, Total	99		-		85-115	-		
Chromium, Total	102		-		85-115	-		
Copper, Total	108		-		85-115	-		
Iron, Total	107		-		85-115	-		
Lead, Total	100		-		85-115	-		
Nickel, Total	106		-		85-115	-		
Zinc, Total	105		-		85-115	-		
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-05 Batch: WG2043764-2								
Hardness	101		-		85-115	-		
Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG2043765-2								
Chromium, Dissolved	104		-		85-115	-		
Nickel, Dissolved	110		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

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): 01-05 QC Batch ID: WG2043764-3 WG2043764-4 QC Sample: L2516684-02 Client ID: OF9-032025												
Aluminum, Total	1.014	2	3.048	102		3.068	103		70-130	1		20
Chromium, Total	0.01433	0.2	0.2159	101		0.2125	99		70-130	2		20
Copper, Total	0.01731	0.25	0.2830	106		0.2842	107		70-130	0		20
Iron, Total	1.764	1	2.609	84		2.660	90		70-130	2		20
Lead, Total	0.01992	0.53	0.5603	102		0.5761	105		70-130	3		20
Nickel, Total	0.00459	0.5	0.5391	107		0.5366	106		70-130	0		20
Zinc, Total	0.1313	0.5	0.6518	104		0.6620	106		70-130	2		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG2043764-3 WG2043764-4 QC Sample: L2516684-02 Client ID: OF9-032025												
Hardness	36.92	66.2	102.6	99		102.1	98		70-130	0		20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG2043765-3 WG2043765-4 QC Sample: L2516684-02 Client ID: OF9-032025												
Chromium, Dissolved	0.0025	0.2	0.2041	101		0.2090	103		70-130	2		20
Nickel, Dissolved	0.0008J	0.5	0.5297	106		0.5410	108		70-130	2		20

INORGANICS
&
MISCELLANEOUS

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-01
Client ID: OF2-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 20:40
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	18.		mg/l	5.0	NA	1	-	03/21/25 20:47	121,2540D	REM
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	03/22/25 02:25	03/22/25 14:08	121,4500CN-CE	SRM
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 18:50	121,4500CN-E(M)	MRM
Nitrogen, Nitrate/Nitrite	0.37		mg/l	0.10	0.046	1	-	03/22/25 06:58	44,353.2	KAF
Chemical Oxygen Demand	45.		mg/l	20	6.0	1	03/22/25 09:20	03/22/25 12:52	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/22/25 11:18	03/22/25 15:06	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 18:00	03/21/25 18:15	121,3500CR-B	MRM

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-02
Client ID: OF9-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 21:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	32.		mg/l	10	NA	2	-	03/21/25 20:47	121,2540D	REM
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	03/22/25 02:25	03/22/25 14:09	121,4500CN-CE	SRM
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 18:50	121,4500CN-E(M)	MRM
Nitrogen, Nitrate/Nitrite	0.20		mg/l	0.10	0.046	1	-	03/22/25 06:59	44,353.2	KAF
Chemical Oxygen Demand	52.		mg/l	20	6.0	1	03/22/25 09:20	03/22/25 12:52	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/22/25 11:18	03/22/25 15:08	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 18:00	03/21/25 18:15	121,3500CR-B	MRM

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-03
Client ID: OF6-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 22:30
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	23.		mg/l	5.0	NA	1	-	03/21/25 20:47	121,2540D	REM
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	03/22/25 02:25	03/22/25 14:13	121,4500CN-CE	SRM
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 18:50	121,4500CN-E(M)	MRM
Nitrogen, Nitrate/Nitrite	0.35		mg/l	0.10	0.046	1	-	03/22/25 07:06	44,353.2	KAF
Chemical Oxygen Demand	34.		mg/l	20	6.0	1	03/22/25 09:20	03/22/25 12:52	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/22/25 11:18	03/22/25 15:42	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 18:00	03/21/25 18:15	121,3500CR-B	MRM

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-04
Client ID: SF1-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 22:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	17.		mg/l	5.0	NA	1	-	03/21/25 20:47	121,2540D	REM
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	03/22/25 02:25	03/22/25 14:14	121,4500CN-CE	SRM
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 18:50	121,4500CN-E(M)	MRM
Nitrogen, Nitrate/Nitrite	0.42		mg/l	0.10	0.046	1	-	03/22/25 07:07	44,353.2	KAF
Chemical Oxygen Demand	36.		mg/l	20	6.0	1	03/22/25 09:20	03/22/25 12:53	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/22/25 11:18	03/22/25 15:43	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 18:00	03/21/25 18:15	121,3500CR-B	MRM

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

SAMPLE RESULTS

Lab ID: L2516684-05
Client ID: DUP-02-032025
Sample Location: JENKINTOWN, PA

Date Collected: 03/20/25 20:50
Date Received: 03/21/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	10.		mg/l	5.0	NA	1	-	03/21/25 20:47	121,2540D	REM
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/22/25 02:25	03/22/25 14:15	121,4500CN-CE	SRM
Cyanide, Free	0.004	J	mg/l	0.010	0.003	1	-	03/21/25 18:50	121,4500CN-E(M)	MRM
Nitrogen, Nitrate/Nitrite	0.23		mg/l	0.10	0.046	1	-	03/22/25 07:08	44,353.2	KAF
Chemical Oxygen Demand	29.		mg/l	20	6.0	1	03/22/25 09:20	03/22/25 12:53	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/22/25 11:18	03/22/25 15:44	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 18:00	03/21/25 18:15	121,3500CR-B	MRM

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2516684
Report Date: 03/22/25

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): 01-05 Batch: WG2043658-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/21/25 18:00	03/21/25 18:15	121,3500CR-B	MRM
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG2043659-1										
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/21/25 18:50	121,4500CN-E(M)	MRM
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG2043692-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	03/21/25 20:47	121,2540D	REM
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG2043722-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	03/22/25 02:25	03/22/25 13:53	121,4500CN-CE	SRM
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG2043731-1										
Nitrogen, Nitrate/Nitrite	ND		mg/l	0.10	0.046	1	-	03/22/25 05:34	44,353.2	KAF
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG2043780-1										
Chemical Oxygen Demand	ND		mg/l	20	6.0	1	03/22/25 09:20	03/22/25 12:50	44,410.4	CVN
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG2043825-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/22/25 11:18	03/22/25 14:32	140,1664B	IYM

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG2043658-2								
Chromium, Hexavalent	105		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG2043659-2								
Cyanide, Free	101		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG2043692-2								
Solids, Total Suspended	81		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG2043722-2								
Cyanide, Total	96		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG2043731-2								
Nitrogen, Nitrate/Nitrite	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG2043780-2								
Chemical Oxygen Demand	103		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG2043825-2								
Oil & Grease, Hem-Grav	87		-		78-114	-		18

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043658-4 WG2043658-5 QC Sample: L2516684-02 Client ID: OF9-032025												
Chromium, Hexavalent	ND	0.1	0.104	104		0.105	105		85-115	1		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043659-4 WG2043659-5 QC Sample: L2516684-02 Client ID: OF9-032025												
Cyanide, Free	ND	0.25	0.237	95		0.233	93		80-120	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043722-3 WG2043722-4 QC Sample: L2516684-02 Client ID: OF9-032025												
Cyanide, Total	0.003J	0.2	0.188	94		0.187	94		90-110	1		30
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043731-4 QC Sample: L2516684-02 Client ID: OF9-032025												
Nitrogen, Nitrate/Nitrite	0.20	4	4.3	102		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043780-3 QC Sample: L2516684-02 Client ID: OF9-032025												
Chemical Oxygen Demand	52.	238	300	104		-	-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043825-4 WG2043825-5 QC Sample: L2516684-02 Client ID: OF9-032025												
Oil & Grease, Hem-Grav	ND	38.8	38	98		35	90		78-114	9		18
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043825-6 WG2043825-7 QC Sample: L2516850-05 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	39.2	34	87		32	83		78-114	5		18

Lab Duplicate Analysis

Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043658-3 QC Sample: L2516684-02 Client ID: OF9-032025						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043659-3 QC Sample: L2516684-02 Client ID: OF9-032025						
Cyanide, Free	ND	0.004J	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043692-3 QC Sample: L2516684-02 Client ID: OF9-032025						
Solids, Total Suspended	32.	37	mg/l	14		32
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043722-5 QC Sample: L2516684-02 Client ID: OF9-032025						
Cyanide, Total	0.003J	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043731-3 QC Sample: L2516684-02 Client ID: OF9-032025						
Nitrogen, Nitrate/Nitrite	0.20	0.19	mg/l	5		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043780-4 QC Sample: L2516684-02 Client ID: OF9-032025						
Chemical Oxygen Demand	52.	47	mg/l	10		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2043825-3 QC Sample: L2516684-02 Client ID: OF9-032025						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent
D	Absent
E	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516684-01A	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-01B	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-01C	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-01D	Plastic 250ml HNO3 preserved	A	<2	<2	2.0	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516684-01E	Plastic 250ml HNO3 preserved	A	<2	<2	2.0	Y	Absent		AL-2008T(180),NI-2008T(180),ZN-2008T(180),HARDT-2008(180),CU-2008T(180),FE-2008T(180),CR-2008T(180),PB-2008T(180)
L2516684-01F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.0	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2516684-01G	Plastic 250ml NaOH preserved	A	>12	>12	2.0	Y	Absent		TCN-4500(14)
L2516684-01H	Plastic 950ml unpreserved	A	7	7	2.0	Y	Absent		HEXCR-3500(1),FCN(1)
L2516684-01I	Plastic 950ml unpreserved	A	7	7	2.0	Y	Absent		TSS-2540(7)
L2516684-01J	Amber 1L HCl preserved	A	NA		2.0	Y	Absent		OG-1664(28)
L2516684-01K	Amber 1L HCl preserved	A	NA		2.0	Y	Absent		OG-1664(28)
L2516684-02A	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-02A1	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-02A2	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-02B	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-02B1	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-02B2	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)

*Values in parentheses indicate holding time in days

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516684-02C	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-02C1	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-02C2	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-02D	Plastic 250ml HNO3 preserved	C	<2	<2	2.1	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516684-02D1	Plastic 250ml HNO3 preserved	D	<2	<2	2.3	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516684-02D2	Plastic 250ml HNO3 preserved	D	<2	<2	2.3	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516684-02E	Plastic 250ml HNO3 preserved	C	<2	<2	2.1	Y	Absent		AL-2008T(180),NI-2008T(180),ZN-2008T(180),HARDT-2008(180),CU-2008T(180),FE-2008T(180),CR-2008T(180),PB-2008T(180)
L2516684-02E1	Plastic 250ml HNO3 preserved	D	<2	<2	2.3	Y	Absent		AL-2008T(180),NI-2008T(180),HARDT-2008(180),CU-2008T(180),FE-2008T(180),CR-2008T(180),PB-2008T(180)
L2516684-02E2	Plastic 250ml HNO3 preserved	D	<2	<2	2.3	Y	Absent		AL-2008T(180),NI-2008T(180),HARDT-2008(180),CU-2008T(180),FE-2008T(180),CR-2008T(180),PB-2008T(180)
L2516684-02F	Plastic 250ml H2SO4 preserved	C	<2	<2	2.1	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2516684-02F1	Plastic 250ml H2SO4 preserved	D	<2	<2	2.3	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2516684-02F2	Plastic 250ml H2SO4 preserved	D	<2	<2	2.3	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2516684-02G	Plastic 250ml NaOH preserved	C	>12	>12	2.1	Y	Absent		TCN-4500(14)
L2516684-02G1	Plastic 250ml NaOH preserved	D	>12	>12	2.3	Y	Absent		TCN-4500(14)
L2516684-02G2	Plastic 250ml NaOH preserved	D	>12	>12	2.3	Y	Absent		TCN-4500(14)
L2516684-02H	Plastic 950ml unpreserved	C	7	7	2.1	Y	Absent		HEXCR-3500(1),FCN(1)
L2516684-02H1	Plastic 950ml unpreserved	D	7	7	2.3	Y	Absent		HEXCR-3500(1),FCN(1)
L2516684-02H2	Plastic 950ml unpreserved	D	7	7	2.3	Y	Absent		HEXCR-3500(1),FCN(1)
L2516684-02I	Plastic 950ml unpreserved	C	7	7	2.1	Y	Absent		TSS-2540(7)
L2516684-02I1	Plastic 950ml unpreserved	D	7	7	2.3	Y	Absent		TSS-2540(7)
L2516684-02I2	Plastic 950ml unpreserved	D	7	7	2.3	Y	Absent		TSS-2540(7)
L2516684-02J	Amber 1L HCl preserved	C	NA		2.1	Y	Absent		OG-1664(28)
L2516684-02J1	Amber 1L HCl preserved	D	NA		2.3	Y	Absent		OG-1664(28)
L2516684-02J2	Amber 1L HCl preserved	D	NA		2.3	Y	Absent		OG-1664(28)
L2516684-02K	Amber 1L HCl preserved	C	NA		2.1	Y	Absent		OG-1664(28)

*Values in parentheses indicate holding time in days

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516684-02K1	Amber 1L HCl preserved	D	NA		2.3	Y	Absent		OG-1664(28)
L2516684-02K2	Amber 1L HCl preserved	D	NA		2.3	Y	Absent		OG-1664(28)
L2516684-03A	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-03B	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-03C	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-03D	Plastic 250ml HNO3 preserved	C	<2	<2	2.1	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516684-03E	Plastic 250ml HNO3 preserved	C	<2	<2	2.1	Y	Absent		AL-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),HARDT-2008(180),FE-2008T(180),CR-2008T(180),PB-2008T(180)
L2516684-03F	Plastic 250ml H2SO4 preserved	C	<2	<2	2.1	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2516684-03G	Plastic 250ml NaOH preserved	C	>12	>12	2.1	Y	Absent		TCN-4500(14)
L2516684-03H	Plastic 950ml unpreserved	C	7	7	2.1	Y	Absent		HEXCR-3500(1),FCN(1)
L2516684-03I	Plastic 950ml unpreserved	C	7	7	2.1	Y	Absent		TSS-2540(7)
L2516684-03J	Amber 1L HCl preserved	C	NA		2.1	Y	Absent		OG-1664(28)
L2516684-03K	Amber 1L HCl preserved	C	NA		2.1	Y	Absent		OG-1664(28)
L2516684-04A	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-04B	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-04C	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-04D	Plastic 250ml HNO3 preserved	B	<2	<2	5.3	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516684-04E	Plastic 250ml HNO3 preserved	B	<2	<2	5.3	Y	Absent		AL-2008T(180),NI-2008T(180),ZN-2008T(180),HARDT-2008(180),CU-2008T(180),FE-2008T(180),CR-2008T(180),PB-2008T(180)
L2516684-04F	Plastic 250ml H2SO4 preserved	B	<2	<2	5.3	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2516684-04G	Plastic 250ml NaOH preserved	B	>12	>12	5.3	Y	Absent		TCN-4500(14)
L2516684-04H	Plastic 950ml unpreserved	B	7	7	5.3	Y	Absent		HEXCR-3500(1),FCN(1)
L2516684-04I	Plastic 950ml unpreserved	B	7	7	5.3	Y	Absent		TSS-2540(7)
L2516684-04J	Amber 1L HCl preserved	B	NA		5.3	Y	Absent		OG-1664(28)
L2516684-04K	Amber 1L HCl preserved	B	NA		5.3	Y	Absent		OG-1664(28)
L2516684-05A	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)

*Values in parentheses indicate holding time in days

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2516684
Report Date: 03/22/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2516684-05B	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-05C	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-05D	Plastic 250ml HNO3 preserved	A	<2	<2	2.0	Y	Absent		CR-2008S(180),NI-2008S(180)
L2516684-05E	Plastic 250ml HNO3 preserved	A	<2	<2	2.0	Y	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)
L2516684-05F	Plastic 250ml H2SO4 preserved	A	<2	<2	2.0	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2516684-05G	Plastic 250ml NaOH preserved	A	>12	>12	2.0	Y	Absent		TCN-4500(14)
L2516684-05H	Plastic 950ml unpreserved	A	7	7	2.0	Y	Absent		HEXCR-3500(1),FCN(1)
L2516684-05I	Plastic 950ml unpreserved	A	7	7	2.0	Y	Absent		TSS-2540(7)
L2516684-05J	Amber 1L HCl preserved	A	NA		2.0	Y	Absent		OG-1664(28)
L2516684-05K	Amber 1L HCl preserved	A	NA		2.0	Y	Absent		OG-1664(28)
L2516684-06A	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)
L2516684-06B	Vial Na2S2O3 preserved	E	NA		4.4	Y	Absent		624.1-PPM(7)

*Values in parentheses indicate holding time in days

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2516684
Project Number:	658978	**Report Date:**	03/22/25

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	**Lab Number:**	L2516684
Project Number:	658978	**Report Date:**	03/22/25

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	**Lab Number:**	L2516684
Project Number:	658978	**Report Date:**	03/22/25

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 **Lab Number:** L2516684

Project Number: 658978 **Report Date:** 03/22/25

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 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.

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, 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, 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

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.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/21/25

ALPHA Job #: L2516684

Client Information

Client: TRC Environmental Corporation
Address: 1617 John F. Kennedy Blvd.
Suite 510, Philadelphia, PA 19103
Phone: 267-679-6728
Fax: 215-563-2339
Email: JActon@trccompanies.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: SPS Technologies
Project Location: Jenkintown, PA
Project #: 658978
Project Manager: Julie Acton
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Due Date: Time: 1-Day

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #: 228588

Regulatory Requirements/Report Limits

State/Fed Program: PA
Criteria:

Other Project Specific Requirements/Comments/Detection Limits:

Attorney-Client Privileged & Confidential
All VOAs in 1 Cooler
ER Project
Dissolved Metals - Field Filtered

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Oil and Grease E1664B	Free Cyanide SM4500CN-E(M)	Total Cyanide SM4500CN-CE	Speciated Hex Chrome SM3500-CrB	Total Chromium, Nickel E200.8	Dissolved Chromium, Nickel E200.8	Total Al, Fe, Pb, Zn, Cu E200.8	Chemical Oxygn Demand E410.4	MEK, Toluene E624.1	Nitrate-Nitrite as N E353.2	Total Hardness E200.8	Total Dissolved Solics SM 2540 D	Sample Specific Comments	TOTAL # BOTTLES
L6684-01	~~OF002~~ OF2-032025	3/20/25	2040	SW	JS	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		11
02	~~OF004~~ OF9-032025	3/20/25	2150	SW	JS	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	Perform MS/MSD	33
03	~~OF006~~ OF6-032025	3/20/25	2230	SW	JS	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		11
04	~~OF009~~ SF1-032025	3/20/25	2250	SW	JS	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		11
05	DUP-02-032025	3/20/25	2050	SW	JS	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		11
06	TRIP BLANK-02-032025	3/16/25	—	W	—	☐	☐	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐		2
	~~SF~~			SW		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		
	~~SF~~			SW		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

SAMPLE HANDLING
Filtration
☒ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Container Type	A	P	P	P	P	P	P	P	V	P	P	P
Preservative	B	A	E	A	C	A	C	-	H	-	-	-

Relinquished By:	Date/Time	Received By:	Date/Time
James Soulsby TRC	3/21/25 0840		3/21/25 84[illegible]
	3/21/25 1127		3-21-25 12:45
	3-21-25 1630		3/21/25 1830

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 Payment Terms.

FORM NO: 01-01(I) (rev. 5-JAN-12)