SPS TECHNOLOGIES - ABINGTON PA
DAILY SURFACE WATER AND OUTFALL SAMPLING RESULTS REPORT FOR APRIL 1, 2025

PREPARED FOR:
SPS TECHNOLOGIES

PREPARED BY:
TRC ENVIRONMENTAL CORPORATION, INC
1617 JFK BOULEVARD, SUITE 510
PHILADELPHIA, PA 19103

APRIL 4, 2025

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1.0 EXECUTIVE SUMMARY

TRC Environmental Corporation, on behalf of SPS Technologies Abington PA (SPS), collected five surface water samples and three outfall samples in accordance with WSP USA Inc. Surface Water and Outfall Sampling Plan revised on March 5, 2025 (Sampling Plan). The samples were collected on April 1, 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	0.002 J	ND	0.002 J	0.001 J	0.002 J	0.002 J
Free Cyanide	mg/L	0.004 J	ND	0.004 J	ND	ND	0.005 J
Oil & Grease	mg/L	ND	ND	ND	ND	ND	ND
Total Metals							
Total Chromium	mg/L	0.00051 J	0.00056 J	0.00052 J	0.00058 J	0.00068 J	0.00086 J
Total Nickel	mg/L	0.00332	0.00135 J	0.00144 J	0.00128 J	0.00174 J	0.00193 J
Dissolved Metals							
Dissolved Chromium	mg/L	0.0003	0.0004 J	0.0004 J	0.0004 J	0.0004	0.0004 J
Dissolved Nickel	mg/L	0.0031	0.0011 J	0.0013 J	0.0014 J	0.0016 J	0.0011 J
Total Hardness							
Hardness	mg/L	168.4	163.5	170.3	162.9	103.4	63.22
Field Parameters							
pH	SU	7.39	7.49	7.41	7.41	7.08	6.98

Outfall		Outfall 002	Outfall 006	Outfall 006 (Duplicate)	Outfall 009
Parameter	**Units**	Result	Result	Result	Result
Volatile Organic Compounds					
Toluene	mg/L	ND	ND	ND	ND
2-Butanone (MEK)	mg/L	ND	ND	ND	ND
General Chemistry					
Chromium, Trivalent	mg/L	0.007 J	ND	ND	ND
Chromium, Hexavalent	mg/L	0.009 J	ND	ND	0.005 J
Total Cyanide	mg/L	0.008 J-	ND UJ	ND UJ	0.008 J-
Free Cyanide	mg/L	0.005 J	ND	ND	0.005 J
Oil & Grease	mg/L	ND	ND	ND	ND
Total Suspended Solids	mg/L	ND UJ	11 J	ND UJ	8.1 J
Nitrate/Nitrite as Nitrogen	mg/L	1.7	3.6	3.6	0.49
Chemical Oxygen Demand	mg/L	73	28	17 J	30
Total Metals					
Total Aluminum	mg/L	0.279	0.2047	0.2067	0.2195
Total Chromium	mg/L	0.01645	0.00078 J	0.00077 J	0.00553
Total Copper	mg/L	0.00762	0.00611	0.00563	0.01038
Total Iron	mg/L	0.2432	0.3018	0.2965	0.2998
Total Lead	mg/L	0.00164	0.0015	0.00147	0.00495
Total Nickel	mg/L	0.0091	0.00152 J	0.00147 J	0.00244
Total Zinc	mg/L	0.09217	0.01778	0.0177	0.0795
Dissolved Metals					
Dissolved Chromium	mg/L	0.0153	0.0005 J	0.0005 J	0.0039
Dissolved Nickel	mg/L	0.0087	0.0012 J	0.0012 J	0.0016 J
Total Hardness					
Hardness	mg/L	263.7	173.9	175	35.98
Field Parameters					
pH	SU	6.25	6.77	6.77	6.98

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 April 1, 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 and outfall sampling results from April 1, 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 April 1, 2025. The locations are located northeast and west from the facility, and downstream from the conjoined stream south from the facility. TRC collected three outfall samples during this event as a result of the precipitation on April 1, 2025.

3.1 Surface Water and Outfall Sampling Methodology

TRC collected the surface water and outfall 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 samples.

3.2 Surface Water and Outfall 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 three approved locations 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 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

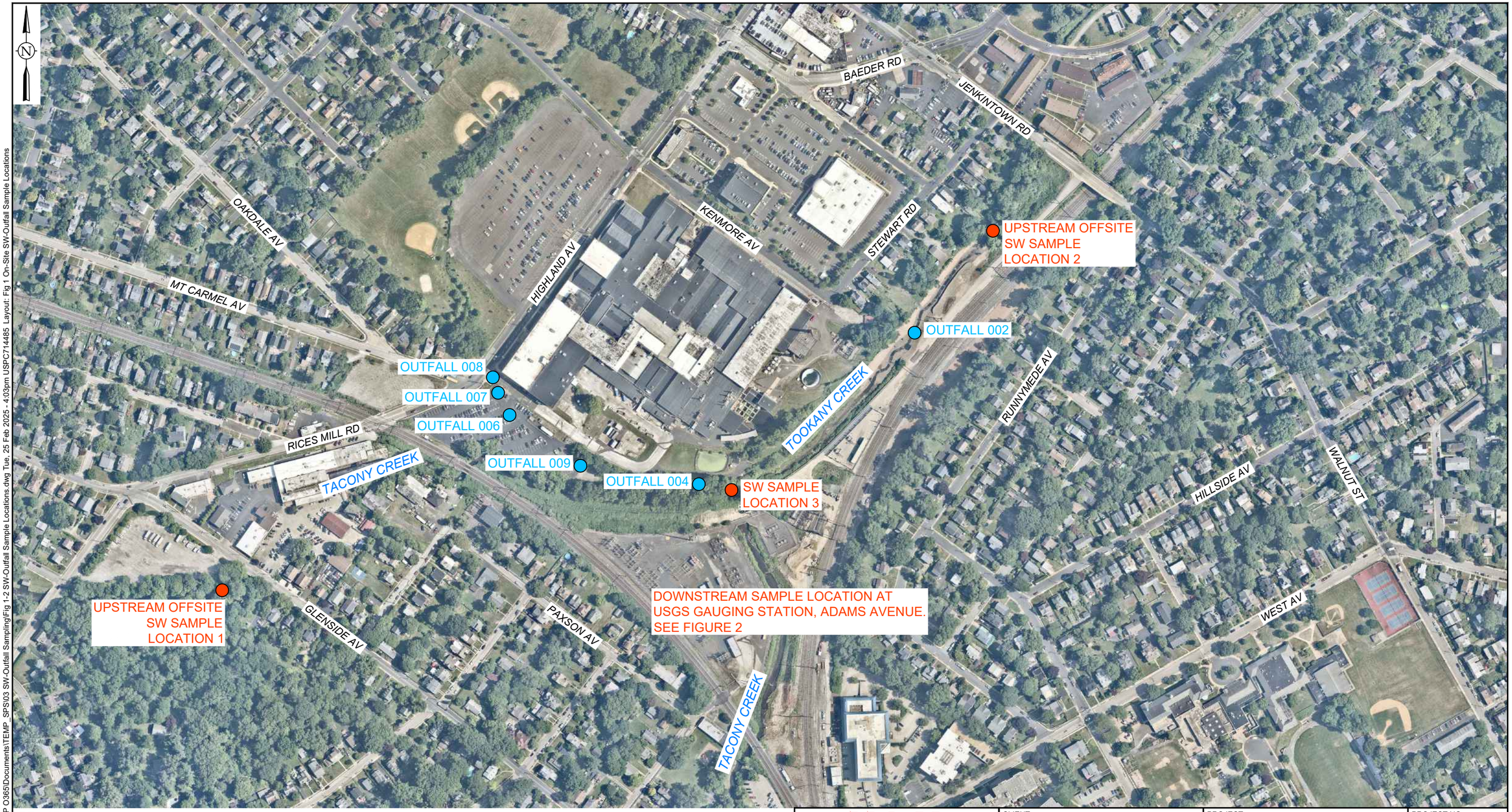
All quality assurance and quality control (QA/QC), field duplicates and matrix spikes/matrix spike duplicates (MS/MSD) were collected in accordance with the Sampling Plan at a rate of 1 per 20 samples per day. A trip blank was included daily for volatile organic compounds (VOCs). A field blank was not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

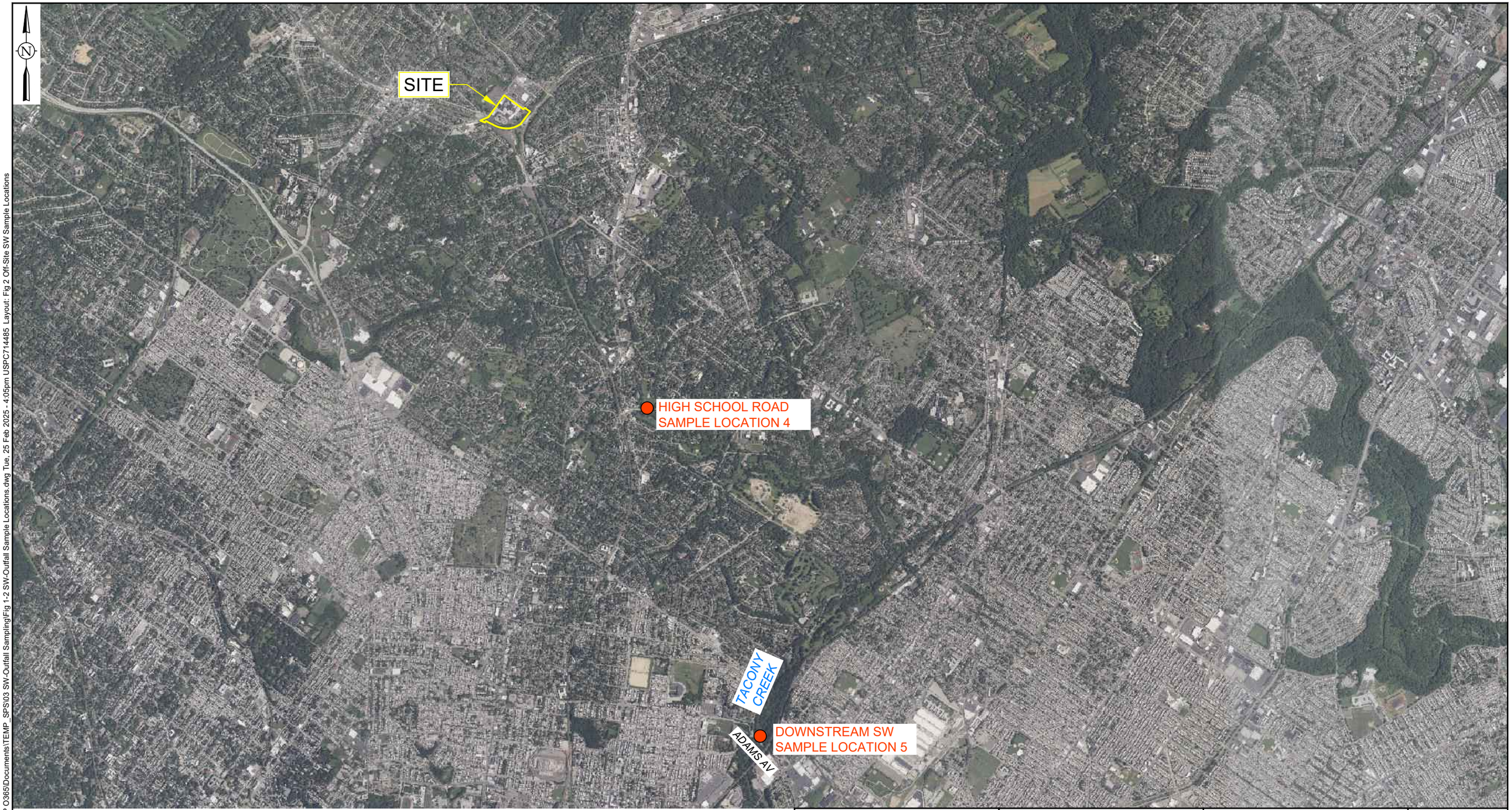
REVISION NO.: 0

DATE: FEBRUARY 2025

TITLE

ON-SITE INVESTIGATION SURFACE WATER AND OUTFALL SAMPLE LOCATIONS

FIGURE NO.: 1



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

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 - 4:05pm USPC714485 Layout: Fig 2 Off-Site SW Sample Locations

April 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		SW2-040125			SW1-040125			SW3-040125			DUP-040125			SW4-040125			SW5-040125		
Lab Sample ID		L2519376-02			L2519376-01			L2519376-03			L2519376-06			L2519376-04			L2519376-05		
Sampling Date		4/01/2025			4/01/2025			4/01/2025			4/01/2025			4/01/2025			4/01/2025		
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	UJ	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	0.002	J	0.005	ND		0.005	0.002	J	0.005	0.001	J	0.005	0.002	J	0.005	0.002	J	0.005
Free Cyanide	mg/L	0.004	J	0.010	ND		0.010	0.004	J	0.010	ND		0.010	ND		0.010	0.005	J	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	0.00051	J	0.00100	0.00056	J	0.00100	0.00052	J	0.00100	0.00058	J	0.00100	0.00068	J	0.00100	0.00086	J	0.00100
Total Nickel	mg/L	0.00332		0.00200	0.00135	J	0.00200	0.00144	J	0.00200	0.00128	J	0.00200	0.00174	J	0.00200	0.00193	J	0.00200
Dissolved Metals																			
Dissolved Chromium	mg/L	0.0003		0.0010	0.0004	J	0.0010	0.0004	J	0.0010	0.0004	J	0.0010	0.0004		0.0010	0.0004	J	0.0010
Dissolved Nickel	mg/L	0.0031		0.0020	0.0011	J	0.0020	0.0013	J	0.0020	0.0014	J	0.0020	0.0016	J	0.0020	0.0011	J	0.0020
Total Hardness																			
Hardness	mg/L	168.4		0.5400	163.5		0.5400	170.3		0.5400	162.9		0.5400	103.4		0.5400	63.22		0.5400
Field Parameters																			
pH[1]	SU	7.39			7.49			7.41			7.41			7.08			6.98		

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
U: Estimated RL

Created By: JM 4/3/2025 Checked By:MO 4/3/2025

April 2025

Table 2

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

Project Number: 658978

Sample Location		Outfall 002			Outfall 006			Outfall 006 (Duplicate)			Outfall 009		
Field Sample ID		OF002-040125			OF006-040125			DUP-040125			OF009-040125		
Lab Sample ID		L2519385-01			L2519835-02			L2519385-04			L2519385-03		
Sampling Date		4/01/2025			4/01/2025			4/01/2025			4/01/2025		
Matrix		Water			Water			Water			Water		
Parameter	**Units**	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
2-Butanone (MEK)	mg/L	ND		0.010	ND		0.010	ND		0.010	ND		0.010
General Chemistry													
Chromium, Trivalent	mg/L	0.007	J	0.010	ND		0.010	ND		0.010	ND		0.010
Chromium, Hexavalent	mg/L	0.009	J	0.010	ND		0.010	ND		0.010	0.005	J	0.010
Total Cyanide	mg/L	0.008	J-	0.005	ND	UJ	0.005	ND	UJ	0.005	0.008	J-	0.005
Free Cyanide	mg/L	0.005	J	0.010	ND		0.010	ND		0.010	0.005	J	0.010
Oil & Grease	mg/L	ND		4.0	ND		4.0	ND		4.0	ND		4.0
Total Suspended Solids	mg/L	ND	UJ	5.0	11	J	5.0	ND	UJ	5.5	8.1	J	12
Nitrate/Nitrite as Nitrogen	mg/L	1.7		0.10	3.6		0.10	3.6		0.10	0.49		0.10
Chemical Oxygen Demand	mg/L	73		20	28		20	17	J	20	30		20
Total Metals													
Total Aluminum	mg/L	0.2790		0.01000	0.2047		0.01000	0.2067		0.01000	0.2195		0.01000
Total Chromium	mg/L	0.01645		0.00100	0.00078	J	0.00100	0.00077	J	0.00100	0.00553		0.00100
Total Copper	mg/L	0.00762		0.00100	0.00611		0.00100	0.00563		0.00100	0.01038		0.00100
Total Iron	mg/L	0.2432		0.05000	0.3018		0.05000	0.2965		0.05000	0.2998		0.05000
Total Lead	mg/L	0.00164		0.00100	0.00150		0.00100	0.00147		0.00100	0.00495		0.00100
Total Nickel	mg/L	0.00910		0.00200	0.00152	J	0.00200	0.00147	J	0.00200	0.00244		0.00200
Total Zinc	mg/L	0.09217		0.00500	0.01778		0.00500	0.01770		0.00500	0.07950		0.00500
Dissolved Metals													
Dissolved Chromium	mg/L	0.0153		0.0010	0.0005	J	0.0010	0.0005	J	0.0010	0.0039		0.0010
Dissolved Nickel	mg/L	0.0087		0.0020	0.0012	J	0.0020	0.0012	J	0.0020	0.0016	J	0.0020
Total Hardness													
Hardness	mg/L	263.7			173.9		0.5400	175.0		0.5400	35.98		0.5400
Field Parameters													
pH[1]	SU	6.25			6.77			6.77			6.98		

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 Low Bias
U: Estimated RL

Created By: JM 4/3/2025 Checked By:MO 4/3/2025

Date 4/1/25

Project Number 658978

SURFACE WATER/OUTFALL SAMPLE FIELD INFORMATION FORM

Site SPS
Location Monaca, PA
Project Number 658978
Water Quality Meter Horiba U-50 S/N U12B1093X
Meter Calibrated @ 4/1/25 @ 0655
Flow Meter QIT MF PRO S/N 3374686
Sampling Date/Time SW5 @ 1030 SW4 @ 1130 SW1 @ 1205
SW2 @ 1240 SW3 @ 1315
Sample(s) Amber Foreman, Chris Graham
Sampling Device Trowel, dipper pole
Sample Characteristics clear, no odor
Analytical Parameters

Additional Notes:
SW5 - collect MS/MSD
SW3 - collect Dup-040125
ID 0.0 at all locations
Utilized single use disposable sampling method (cups) so no field blanks were collected

Weather Conditions overcast then sunny H 51 L 41 wind 21 mph SSE

SAMPLE / STATION	STATION DESCRIPTION (stream, lake/river)	DATE MM/DD/YY	TIME hr min	TOTAL DEPTH inches	SAMPLE DEPTH	WATER TEMP Celsius	SALINITY ppt		COND mS/cm	ORP mV	TURBIDITY NTU	DO mg/L	VELOCITY ft/sec
SW5-040125	Creek	4/1/25	10:30	18	9	11.96	0.15	6.98	0.323	343	16.1	5.11	1.058
Sample Characteristics													
SW4-040125	Creek	4/1/25	11:30	59	29.5	12.18	0.25	7.08	0.522		35		0.479
Sample Characteristics													
SW1-040125	Creek	4/1/25	12:05	8.5	4.25	12.99	0.36	7.49	0.73		44		0.387
Sample Characteristics													
SW2-040125	Creek	4/1/25	12:40	19	9.5	13.24	0.41	7.39	0.		.64		0.853
Sample Characteristics	yellow tint												
SW3-040125	Creek	4/1/25	13:15	29.5	14.75	14.88	0.36	7.41	0		.30		0.443
Sample Characteristics													
Sample Characteristics													

	351	5.9	5
6	341	0.0	6
841	341	2.1	4
792	344	0.0	5

TRC

Date: 4/1/25

Project Number: 658978

SURFACE WATER/OUTFALL SAMPLE FIELD INFORMATION FORM

Site: SPS
Location: [illegible], PA
Project Number: 658978
Water Quality Meter: Horiba U-50 S/N: U1286085X
Meter Calibrated @: 4/1/25 @ 0655
Flow Meter: OTT MF PRO S/N: 337466
Sampling Date/Time: OF002 @ 0740 OF009 @ 0830
OF006 @ 0905
Sampler(s): [illegible]
Sampling Device: Telescoping dipper pole/cups
Sample Characteristics:
Analytical Parameters:

Additional Notes:
OF2 - velocity measured via timing filling graduated cylinder. Flow meter could not detect flow.
OF9 - collect MS/MSD
OF6 - collect Dup-040125 (0800)

Utilized single use disposable sampling method (cups) so no field blanks were collected

Weather Conditions: overcast then sunny H51 L41 wind 22 mph SSE
[illegible]

[illegible]	[illegible]	DATE	[illegible]	TOTAL DEPTH	SAMPLE DEPTH	[illegible]	[illegible]	pH	COND	ORP	[illegible]	DO	VELOCITY
		[illegible]	[illegible]	inches		[illegible]	[illegible]	SU	[illegible]	[illegible]	NTU	[illegible]	ft/sec
OF002-040125	Outfall	4/1/25	[illegible]	0.25	0.125	9.45	0.78	6.25	1.57	369	2.4	9.30	[illegible] mL/sec
	Sample Characteristics	[illegible]											
OF009-040125	Outfall	4/1/25	08:30	1.75	0.875	10.07	0.41	6.98	0.899	345	[illegible]	9.67	[illegible]
	Sample Characteristics	[illegible]											
OF006-040125	Outfall	4/1/25	09:05	3	1.5	9.74	0.39	6.77	[illegible]	284	1.0	[illegible]	1.239
	Sample Characteristics	[illegible]											
	Sample Characteristics												
	Sample Characteristics												
	Sample Characteristics												

TRC

Data Validation Report

Site: SPS Technologies, Surface Water Sampling
Laboratory: Pace Analytical, Westborough and Mansfield, MA
SDG No.: L2519376
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: April 2, 2025

Samples Reviewed and Evaluation Summary

6 Surface Water Samples: SW1-040125, SW2-040125, SW3-040125, SW4-040125, SW5-040125, DUP-040125[1]

1 Trip Blank: TRIP BLANK-SW-040125

[1]Field duplicate of SW3-040125

The above-listed samples were collected on April 1, 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, 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.

- The nondetect result for 2-butanone in sample SW5-040125 was qualified as estimated (UJ) due to low MS/MSD percent recoveries (%Rs). This result can be used for project objectives as a nondetect 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 3/23/25 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 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 SW5-040125 for VOCs, total and dissolved metals, hardness, total cyanide, free cyanide, oil and grease, and hexavalent chromium. With the exception of 2-butanone, all criteria were met. The %Rs for 2-butanone in the MS/MSD (56%/58%) performed on sample SW5-040125 were below the laboratory acceptance criteria (60-140%). Therefore, the nondetect result for 2-butanone in sample SW5-040125 was qualified as estimated (UJ).

Laboratory Duplicate Results

Laboratory duplicate analyses were performed on sample SW5-040125 for oil and grease, total cyanide, and free cyanide, and on sample SW4-040125 for hexavalent chromium. All criteria were met.

LCS Results

All criteria were met for all parameters.

Field Duplicate Results

Samples SW3-040125 and DUP-040125 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	QL(s) (mg/L)	SW3-040125 (mg/L)	DUP-040125 (mg/L)	RPD (%) or AbsD (mg/L)	Validation Action
Total Chromium	0.001	0.00052 J	0.00058 J	AbsD = 0.00006	None; all criteria were met.
Total Nickel	0.002	0.00144 J	0.00128 J	AbsD = 0.00016	
Hardness	0.54	170.3	162.9	RPD = 4.4	
Dissolved Chromium	0.001	0.0004 J	0.0004 J	AbsD = 0	
Dissolved Nickel	0.002	0.0013 J	0.0014 J	AbsD = 0.0001	
Total Cyanide	0.005	0.002 J	0.001 J	AbsD = 0.001	
Free Cyanide	0.010	0.004 J	ND	AbsD = 0.006	

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, 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 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: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-01
Client ID: SW1-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 12:05
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 06:56
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	79		60-140
Fluorobenzene	70		60-140
4-Bromofluorobenzene	111		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-02
Client ID: SW2-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 12:40
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 07:29
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	75		60-140
Fluorobenzene	71		60-140
4-Bromofluorobenzene	120		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-03
Client ID: SW3-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 13:15
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 08:00
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	75		60-140
Fluorobenzene	69		60-140
4-Bromofluorobenzene	121		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-04
Client ID: SW4-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 11:30
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 08:33
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	67		60-140
4-Bromofluorobenzene	118		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-05
Client ID: SW5-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 10:30
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 09:06
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	UJ	mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	77		60-140
Fluorobenzene	67		60-140
4-Bromofluorobenzene	120		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-06
Client ID: DUP-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 12:00
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 09:39
Analyst: GMT

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	70		60-140
Fluorobenzene	66		60-140
4-Bromofluorobenzene	120		60-140

Project Name: SPS TECHNOLOGIES **Lab Number:** L2519376

Project Number: 658978 **Report Date:** 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-07
Client ID: TRIP BLANK-SW-040125
Sample Location: JENKINTOWN, PA

Date Collected: 03/23/25 00:00
Date Received: 04/01/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 10:13
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	73		60-140
Fluorobenzene	67		60-140
4-Bromofluorobenzene	116		60-140

METALS

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-01
Client ID: SW1-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 12:05
Date Received: 04/01/25
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	0.00056	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:17	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00135	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:17	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	163.5		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:17	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:17	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 12:34	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0011	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 12:34	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-02
Client ID: SW2-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 12:40
Date Received: 04/01/25
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	0.00051	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:21	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00332		mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:21	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	168.4		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:21	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:21	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 12:39	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0031		mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 12:39	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-03
Client ID: SW3-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 13:15
Date Received: 04/01/25
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	0.00052	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:36	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00144	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:36	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	170.3		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:36	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:36	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 12:53	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0013	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 12:53	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-04
Client ID: SW4-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 11:30
Date Received: 04/01/25
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	0.00068	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 13:03	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00174	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 13:03	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	103.4		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 13:03	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 13:03	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0016	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-05
Client ID: SW5-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 10:30
Date Received: 04/01/25
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	0.00086	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 11:50	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00193	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 11:50	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	63.22		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 11:50	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 11:50	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 12:06	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0011	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 12:06	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-06
Client ID: DUP-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 12:00
Date Received: 04/01/25
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	0.00058	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:45	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00128	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:45	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	162.9		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:45	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:45	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 13:02	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0014	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 13:02	EPA 3005A	3,200.8	NTB

INORGANICS
&
MISCELLANEOUS

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-01
Client ID: SW1-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 12:05
Date Received: 04/01/25
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	04/02/25 07:10	04/02/25 12:07	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 12:41	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 07:10	04/02/25 07:28	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-02
Client ID: SW2-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 12:40
Date Received: 04/01/25
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	0.002	J	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:08	121,4500CN-CE	JER
Cyanide, Free	0.004	J	mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 12:48	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 07:10	04/02/25 07:28	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-03
Client ID: SW3-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 13:15
Date Received: 04/01/25
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	0.002	J	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:11	121,4500CN-CE	JER
Cyanide, Free	0.004	J	mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 13:29	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 07:10	04/02/25 07:28	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-04
Client ID: SW4-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 11:30
Date Received: 04/01/25
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	0.002	J	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:12	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 13:31	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 07:10	04/02/25 07:28	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-05
Client ID: SW5-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 10:30
Date Received: 04/01/25
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	0.002	J	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:13	121,4500CN-CE	JER
Cyanide, Free	0.005	J	mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 11:04	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 07:10	04/02/25 07:29	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-06
Client ID: DUP-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 12:00
Date Received: 04/01/25
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	0.001	J	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:17	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 13:32	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 07:10	04/02/25 07:29	121,3500CR-B	CAR

Data Validation Report

Site: SPS Technologies, Outfall Sampling
Laboratory: Pace Analytical, Westborough and Mansfield, MA
SDG No.: L2519385
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: Kristen Morin/TRC
Date: April 2, 2025

Samples Reviewed and Evaluation Summary

4 Outfall Samples: OF002-040125, OF006-040125, OF009-040125, DUP-040125[1]

1 Trip Blank: TB-OF-040125

[1]Field duplicate of OF006-040125

The above-listed samples were collected on April 1, 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 and nondetect (ND) results for TSS in all outfall samples in this data set were qualified as estimated (J/UJ) due field duplicate variability. These results can be used for project objectives as estimated values and as NDs with estimated QLs, 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 metals, trivalent chromium, hexavalent chromium, free cyanide, and COD 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 and ND results for total cyanide in all outfall samples in this data set were qualified as estimated with a potential low bias (J-/UJ) due to a low MSD percent recovery (%R). These results can be used for project objectives as estimated values and as NDs with estimated QLs, which may have a minor impact on the data usability.

- The positive results for TSS in samples OF006-040125 and OF009-040125 were qualified as estimated (J) due to laboratory duplicate variability. 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 3/24/25 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.
- The laboratory performed MS/laboratory duplicate analyses on sample OF009-040125 for nitrate/nitrite and COD rather than MS/MSD analyses as requested on the COC.
- MS/MSD analyses were not performed on sample OF009-040125 for TSS 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 VOCs were not detected in the trip blank. A field blank was not submitted with the data set. With the exception of total aluminum, target analytes were not detected in the associated laboratory method blanks. Total aluminum was detected in the laboratory method blank associated with all samples in this data set at a concentration of 0.00540 J mg/L. No qualification was required on this basis since the results for total aluminum in all associated samples were ≥ the QL and ≥ 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 OF009-040125 for VOCs, total and dissolved metals, hardness, total cyanide, free cyanide, oil and grease, and hexavalent chromium. MS analyses were performed on sample OF009-040125 for nitrate/nitrite and COD. With the exception of total cyanide, all criteria were met. The %R for total cyanide in the MSD (82%) performed on sample OF009-040125 was below the laboratory acceptance criteria (90-110%). Therefore, the positive and ND results for total cyanide in all outfall samples in this data set were qualified as estimated with a potential low bias (J-/UJ).

Laboratory Duplicate Results

Laboratory duplicate analyses were performed on sample OF009-040125 for TSS, free cyanide, total cyanide, nitrate/nitrite, and COD, and on sample OF006-040125 for hexavalent chromium. With the exception of TSS, all criteria were met. The relative percent difference (RPD) for TSS (133%) in the laboratory duplicate analysis performed on sample OF009-040125 was above the laboratory acceptance criteria (32%). Since the parent sample result was <5x the QL, an absolute difference (AbsD) was also evaluated; the AbsD (31.9 mg/L) was > the QL (5.0 mg/L). Therefore, the positive results for TSS in samples OF006-040125 and OF009-040125 were qualified as estimated (J). No qualification was required on this basis for the ND results for TSS in samples OF002-040125 and DUP-040125.

LCS Results

All criteria were met for all parameters.

Field Duplicate Results

Samples OF006-040125 and DUP-040125 were submitted as the field duplicate pair with this sample set. The following table summarizes the RPDs and/or AbsDs, where applicable, of the detected analytes after validation. The QL was used in the calculation of the AbsD for ND results. With the exceptions listed in the table below, all criteria were met.

Analyte	QLs (mg/L)	OF006-040125 (mg/L)	DUP-040125 (mg/L)	RPD (%) or AbsD (mg/L)	Validation Action
TSS	5.0	11	ND	AbsD = 6 (≥QL)	The positive and ND results for TSS in all outfall samples in this data set were qualified as estimated (J/UJ).
Total Aluminum	0.010	0.2047	0.2067	RPD = 1.0	None; all criteria were met.
Total Chromium	0.001	0.00078 J	0.00077 J	AbsD = 0.00001	
Total Copper	0.001	0.00611	0.00563	RPD = 8.2	
Total Iron	0.050	0.3018	0.2965	RPD = 1.8	
Total Lead	0.001	0.00150	0.00147	AbsD = 0.00003	
Total Nickel	0.002	0.00152 J	0.00147 J	AbsD = 0.00005	
Total Zinc	0.005	0.01778	0.01770	AbsD = 0.00008	
Hardness	0.54	173.9	175.0	RPD = 0.6	
Dissolved Chromium	0.001	0.0005 J	0.0005 J	AbsD = 0	
Dissolved Nickel	0.002	0.0012 J	0.0012 J	AbsD = 0	
Nitrate/Nitrite	0.10	3.6	3.6	RPD = 0	
COD	20	28	17	AbsD = 11	

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, trivalent chromium, hexavalent chromium, free cyanide, and COD 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
Lab Number: L2519385
Project Number: 658978
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-01
Client ID: OF002-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 07:40
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 10:46
Analyst: GMT

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	76		60-140
Fluorobenzene	69		60-140
4-Bromofluorobenzene	115		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-02
Client ID: OF006-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 09:05
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 11:18
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	70		60-140
Fluorobenzene	66		60-140
4-Bromofluorobenzene	126		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-03
Client ID: OF009-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 08:30
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 10:49
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	96		60-140
Fluorobenzene	80		60-140
4-Bromofluorobenzene	88		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-04
Client ID: DUP-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 08:00
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 11:23
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	96		60-140
Fluorobenzene	73		60-140
4-Bromofluorobenzene	98		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-05
Client ID: TB-OF-040125
Sample Location: JENKINTOWN, PA
Date Collected: 03/24/25 00:00
Date Received: 04/01/25
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 11:58
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	69		60-140
4-Bromofluorobenzene	97		60-140

METALS

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-01
Client ID: OF002-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 07:40
Date Received: 04/01/25
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	0.2790		mg/l	0.01000	0.00327	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Chromium, Total	0.01645		mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Copper, Total	0.00762		mg/l	0.00100	0.00038	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Iron, Total	0.2432		mg/l	0.05000	0.01910	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Lead, Total	0.00164		mg/l	0.00100	0.00034	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00910		mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Zinc, Total	0.09217		mg/l	0.00500	0.00341	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	263.7		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	0.007	J	mg/l	0.010	0.003	1		04/02/25 12:49	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0153		mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 13:07	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0087		mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 13:07	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-02
Client ID: OF006-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 09:05
Date Received: 04/01/25
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	0.2047		mg/l	0.01000	0.00327	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Chromium, Total	0.00078	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Copper, Total	0.00611		mg/l	0.00100	0.00038	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Iron, Total	0.3018		mg/l	0.05000	0.01910	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Lead, Total	0.00150		mg/l	0.00100	0.00034	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00152	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Zinc, Total	0.01778		mg/l	0.00500	0.00341	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	173.9		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:54	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0005	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 13:12	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0012	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 13:12	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-03
Client ID: OF009-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 08:30
Date Received: 04/01/25
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	0.2195		mg/l	0.01000	0.00327	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Chromium, Total	0.00553		mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Copper, Total	0.01038		mg/l	0.00100	0.00038	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Iron, Total	0.2998		mg/l	0.05000	0.01910	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Lead, Total	0.00495		mg/l	0.00100	0.00034	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00244		mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Zinc, Total	0.07950		mg/l	0.00500	0.00341	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	35.98		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:04	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0039		mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 12:20	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0016	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 12:20	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-04
Client ID: DUP-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 08:00
Date Received: 04/01/25
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	0.2067		mg/l	0.01000	0.00327	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Chromium, Total	0.00077	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Copper, Total	0.00563		mg/l	0.00100	0.00038	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Iron, Total	0.2965		mg/l	0.05000	0.01910	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Lead, Total	0.00147		mg/l	0.00100	0.00034	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00147	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Zinc, Total	0.01770		mg/l	0.00500	0.00341	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	175.0		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:58	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0005	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 13:16	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0012	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 13:16	EPA 3005A	3,200.8	NTB

INORGANICS
&
MISCELLANEOUS

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-01
Client ID: OF002-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 07:40
Date Received: 04/01/25
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	ND	UJ	mg/l	5.0	NA	1	-	04/02/25 06:40	121,2540D	BAY
Cyanide, Total	0.008	J-	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:18	121,4500CN-CE	JER
Cyanide, Free	0.005	J	mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Nitrogen, Nitrate/Nitrite	1.7		mg/l	0.10	0.046	1	-	04/02/25 06:37	44,353.2	KAF
Chemical Oxygen Demand	73.		mg/l	20	6.0	1	04/02/25 09:30	04/02/25 12:41	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 13:33	140,1664B	TPR
Chromium, Hexavalent	0.009	J	mg/l	0.010	0.003	1	04/02/25 06:15	04/02/25 06:42	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-02
Client ID: OF006-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 09:05
Date Received: 04/01/25
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	11.	J	mg/l	5.0	NA	1	-	04/02/25 06:40	121,2540D	BAY
Cyanide, Total	ND	UJ	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:19	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Nitrogen, Nitrate/Nitrite	3.6		mg/l	0.10	0.046	1	-	04/02/25 06:38	44,353.2	KAF
Chemical Oxygen Demand	28.		mg/l	20	6.0	1	04/02/25 09:30	04/02/25 12:41	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 13:33	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 06:15	04/02/25 06:42	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-03
Client ID: OF009-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 08:30
Date Received: 04/01/25
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	8.1	J	mg/l	5.0	NA	1	-	04/02/25 06:40	121,2540D	BAY
Cyanide, Total	0.008	J-	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:20	121,4500CN-CE	JER
Cyanide, Free	0.005	J	mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Nitrogen, Nitrate/Nitrite	0.49		mg/l	0.10	0.046	1	-	04/02/25 06:39	44,353.2	KAF
Chemical Oxygen Demand	30.		mg/l	20	6.0	1	04/02/25 09:30	04/02/25 12:42	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 13:27	140,1664B	TPR
Chromium, Hexavalent	0.005	J	mg/l	0.010	0.003	1	04/02/25 06:15	04/02/25 06:43	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-04
Client ID: DUP-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 08:00
Date Received: 04/01/25
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	ND	UJ	mg/l	5.0	NA	1	-	04/02/25 06:40	121,2540D	BAY
Cyanide, Total	ND	UJ	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:26	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Nitrogen, Nitrate/Nitrite	3.6		mg/l	0.10	0.046	1	-	04/02/25 06:43	44,353.2	KAF
Chemical Oxygen Demand	17.	J	mg/l	20	6.0	1	04/02/25 09:30	04/02/25 12:42	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 14:13	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 06:15	04/02/25 06:43	121,3500CR-B	CAR

ANALYTICAL REPORT

Lab Number:	L2519376
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:	04/02/25

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: L2519376
Report Date: 04/02/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2519376-01	SW1-040125	WATER	JENKINTOWN, PA	04/01/25 12:05	04/01/25
L2519376-02	SW2-040125	WATER	JENKINTOWN, PA	04/01/25 12:40	04/01/25
L2519376-03	SW3-040125	WATER	JENKINTOWN, PA	04/01/25 13:15	04/01/25
L2519376-04	SW4-040125	WATER	JENKINTOWN, PA	04/01/25 11:30	04/01/25
L2519376-05	SW5-040125	WATER	JENKINTOWN, PA	04/01/25 10:30	04/01/25
L2519376-06	DUP-040125	WATER	JENKINTOWN, PA	04/01/25 12:00	04/01/25
L2519376-07	TRIP BLANK-SW-040125	WATER	JENKINTOWN, PA	03/23/25 00:00	04/01/25

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2519376
Project Number:	658978	**Report Date:**	04/02/25

Case Narrative

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

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

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

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

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

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

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2519376
Project Number:	658978	**Report Date:**	04/02/25

Case Narrative (continued)

Report Submission

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

Volatile Organics by Method 624

The WG2048620-5/-6 MS/MSD recoveries performed on L2519376-05 are below the acceptance criteria for 2-butanone (56%/58%); however, the associated LCS recovery is within overall method allowances. The results of the native sample are considered to have a potentially low bias for this compound.

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

Authorized Signature: Kelly O'Neill

Title: Technical Director/Representative Date: 04/02/25

ORGANICS

VOLATILES

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-01
Client ID: SW1-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 12:05
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 06:56
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	79		60-140
Fluorobenzene	70		60-140
4-Bromofluorobenzene	111		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-02
Client ID: SW2-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 12:40
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 07:29
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	75		60-140
Fluorobenzene	71		60-140
4-Bromofluorobenzene	120		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-03
Client ID: SW3-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 13:15
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 08:00
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	75		60-140
Fluorobenzene	69		60-140
4-Bromofluorobenzene	121		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-04
Client ID: SW4-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 11:30
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 08:33
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	67		60-140
4-Bromofluorobenzene	118		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-05
Client ID: SW5-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 10:30
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 09:06
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	67		60-140
4-Bromofluorobenzene	120		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-06
Client ID: DUP-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 12:00
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 09:39
Analyst: GMT

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	70		60-140
Fluorobenzene	66		60-140
4-Bromofluorobenzene	120		60-140

Project Name: SPS TECHNOLOGIES **Lab Number:** L2519376

Project Number: 658978 **Report Date:** 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-07
Client ID: TRIP BLANK-SW-040125
Sample Location: JENKINTOWN, PA

Date Collected: 03/23/25 00:00
Date Received: 04/01/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 10:13
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	73		60-140
Fluorobenzene	67		60-140
4-Bromofluorobenzene	116		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 04/02/25 06:25
Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG2048620-4					
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	75		60-140
4-Bromofluorobenzene	112		60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

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: WG2048620-3								
Toluene	115		-		70-130	-		41
2-Butanone	70		-		60-140	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	92				60-140
Fluorobenzene	89				60-140
4-Bromofluorobenzene	108				60-140

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

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: WG2048620-5 WG2048620-6 QC Sample: L2519376-05 Client ID: SW5-040125												
Toluene	ND	0.02	0.023	115		0.023	115		47-150	0		41
2-Butanone	ND	0.05	0.028	**56**	Q	0.029	**58**	Q	60-140	4		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
4-Bromofluorobenzene	114		115		60-140
Fluorobenzene	81		81		60-140
Pentafluorobenzene	84		87		60-140

METALS

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-01
Client ID: SW1-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 12:05
Date Received: 04/01/25
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	0.00056	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:17	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00135	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:17	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	163.5		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:17	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:17	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 12:34	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0011	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 12:34	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-02
Client ID: SW2-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 12:40
Date Received: 04/01/25
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	0.00051	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:21	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00332		mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:21	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	168.4		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:21	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:21	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 12:39	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0031		mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 12:39	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-03
Client ID: SW3-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 13:15
Date Received: 04/01/25
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	0.00052	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:36	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00144	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:36	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	170.3		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:36	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:36	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 12:53	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0013	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 12:53	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-04
Client ID: SW4-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 11:30
Date Received: 04/01/25
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	0.00068	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 13:03	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00174	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 13:03	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	103.4		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 13:03	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 13:03	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0016	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-05
Client ID: SW5-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 10:30
Date Received: 04/01/25
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	0.00086	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 11:50	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00193	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 11:50	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	63.22		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 11:50	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 11:50	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 12:06	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0011	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 12:06	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-06
Client ID: DUP-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 12:00
Date Received: 04/01/25
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	0.00058	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:45	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00128	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:45	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	162.9		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:45	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:45	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 13:02	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0014	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 13:02	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES **Lab Number:** L2519376

Project Number: 658978 **Report Date:** 04/02/25

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-06 Batch: WG2048283-1										
Chromium, Total	ND		mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 11:41	3,200.8	NTB
Nickel, Total	ND		mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 11:41	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: WG2048283-1										
Hardness	ND		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 11:41	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: WG2048285-1										
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 11:57	3,200.8	NTB
Nickel, Dissolved	ND		mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 11:57	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: L2519376
Report Date: 04/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG2048283-2								
Chromium, Total	97		-		85-115	-		
Nickel, Total	99		-		85-115	-		
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-06 Batch: WG2048283-2								
Hardness	98		-		85-115	-		
Dissolved Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG2048285-2								
Chromium, Dissolved	104		-		85-115	-		
Nickel, Dissolved	106		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG2048283-3 WG2048283-4 QC Sample: L2519376-05 Client ID: SW5-040125												
Chromium, Total	0.00086J	0.2	0.1933	97		0.1978	99		70-130	2		20
Nickel, Total	0.00193J	0.5	0.5109	102		0.5168	103		70-130	1		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG2048283-3 WG2048283-4 QC Sample: L2519376-05 Client ID: SW5-040125												
Hardness	63.22	66.2	124.0	92		124.0	92		70-130	0		20
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG2048283-5 WG2048283-6 QC Sample: L2519385-03 Client ID: MS Sample												
Chromium, Total	0.00553	0.2	0.2042	99		0.2010	98		70-130	2		20
Nickel, Total	0.00244	0.5	0.5021	100		0.5044	100		70-130	0		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG2048283-5 WG2048283-6 QC Sample: L2519385-03 Client ID: MS Sample												
Hardness	35.98	66.2	98.51	94		95.88	90		70-130	3		20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG2048285-3 WG2048285-4 QC Sample: L2519376-05 Client ID: SW5-040125												
Chromium, Dissolved	0.0004J	0.2	0.2043	102		0.2103	105		70-130	3		20
Nickel, Dissolved	0.0011J	0.5	0.5186	104		0.5439	109		70-130	5		20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG2048285-5 WG2048285-6 QC Sample: L2519385-03 Client ID: MS Sample												
Chromium, Dissolved	0.0039	0.2	0.2068	101		0.2001	98		70-130	3		20
Nickel, Dissolved	0.0016J	0.5	0.5151	103		0.5094	102		70-130	1		20

INORGANICS
&
MISCELLANEOUS

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-01
Client ID: SW1-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 12:05
Date Received: 04/01/25
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	04/02/25 07:10	04/02/25 12:07	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 12:41	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 07:10	04/02/25 07:28	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-02
Client ID: SW2-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 12:40
Date Received: 04/01/25
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	0.002	J	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:08	121,4500CN-CE	JER
Cyanide, Free	0.004	J	mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 12:48	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 07:10	04/02/25 07:28	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-03
Client ID: SW3-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 13:15
Date Received: 04/01/25
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	0.002	J	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:11	121,4500CN-CE	JER
Cyanide, Free	0.004	J	mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 13:29	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 07:10	04/02/25 07:28	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-04
Client ID: SW4-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 11:30
Date Received: 04/01/25
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	0.002	J	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:12	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 13:31	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 07:10	04/02/25 07:28	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-05
Client ID: SW5-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 10:30
Date Received: 04/01/25
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	0.002	J	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:13	121,4500CN-CE	JER
Cyanide, Free	0.005	J	mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 11:04	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 07:10	04/02/25 07:29	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519376-06
Client ID: DUP-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 12:00
Date Received: 04/01/25
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	0.001	J	mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:17	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 13:32	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 07:10	04/02/25 07:29	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519376
Report Date: 04/02/25

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: WG2048291-1										
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG2048303-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:04	121,4500CN-CE	JER
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG2048332-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 07:10	04/02/25 07:27	121,3500CR-B	CAR
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG2048454-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 11:05	140,1664B	TPR

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG2048291-2								
Cyanide, Free	98		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG2048303-2								
Cyanide, Total	90		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG2048332-2								
Chromium, Hexavalent	100		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG2048454-2								
Oil & Grease, Hem-Grav	98		-		78-114	-		18

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

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: WG2048291-4 WG2048291-5 QC Sample: L2519376-05 Client ID: SW5-040125												
Cyanide, Free	0.005J	0.25	0.265	106		0.266	106		80-120	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2048303-3 WG2048303-4 QC Sample: L2519376-05 Client ID: SW5-040125												
Cyanide, Total	0.002J	0.2	0.195	98		0.202	101		90-110	5		30
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2048303-6 WG2048303-7 QC Sample: L2519385-03 Client ID: MS Sample												
Cyanide, Total	0.008	0.2	0.212	102		0.173	**82**	Q	90-110	20		30
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2048332-4 WG2048332-5 QC Sample: L2519376-05 Client ID: SW5-040125												
Chromium, Hexavalent	ND	0.1	0.095	95		0.093	93		85-115	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2048454-4 WG2048454-5 QC Sample: L2519376-05 Client ID: SW5-040125												
Oil & Grease, Hem-Grav	ND	39.6	39	98		38	95		78-114	4		18
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2048454-6 WG2048454-7 QC Sample: L2519385-03 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	39.2	36	92		34	88		78-114	4		18

Lab Duplicate Analysis

Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2048291-3 QC Sample: L2519376-05 Client ID: SW5-040125						
Cyanide, Free	0.005J	0.004J	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2048303-5 QC Sample: L2519376-05 Client ID: SW5-040125						
Cyanide, Total	0.002J	0.001J	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2048303-8 QC Sample: L2519385-03 Client ID: DUP Sample						
Cyanide, Total	0.008	0.008	mg/l	1		30
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2048332-3 QC Sample: L2519376-04 Client ID: SW4-040125						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG2048454-3 QC Sample: L2519376-05 Client ID: SW5-040125						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

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
F	Absent
G	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2519376-01A	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-01B	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-01C	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-01D	Plastic 250ml NaOH preserved	F	>12	>12	3.1	Y	Absent		TCN-4500(14)
L2519376-01E	Plastic 250ml HNO3 preserved	F	<2	<2	3.1	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519376-01F	Plastic 250ml HNO3 preserved	F	<2	<2	3.1	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2519376-01G	Plastic 500ml unpreserved	F	7	7	3.1	Y	Absent		HEXCR-3500(1),FCN(1)
L2519376-01H	Amber 1L HCl preserved	F	NA		3.1	Y	Absent		OG-1664(28)
L2519376-01J	Amber 1L HCl preserved	F	NA		3.1	Y	Absent		OG-1664(28)
L2519376-02A	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-02B	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-02C	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-02D	Plastic 250ml NaOH preserved	F	>12	>12	3.1	Y	Absent		TCN-4500(14)
L2519376-02E	Plastic 250ml HNO3 preserved	F	<2	<2	3.1	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519376-02F	Plastic 250ml HNO3 preserved	F	<2	<2	3.1	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)

*Values in parentheses indicate holding time in days

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2519376-02G	Plastic 500ml unpreserved	F	7	7	3.1	Y	Absent		HEXCR-3500(1),FCN(1)
L2519376-02H	Amber 1L HCl preserved	F	NA		3.1	Y	Absent		OG-1664(28)
L2519376-02J	Amber 1L HCl preserved	F	NA		3.1	Y	Absent		OG-1664(28)
L2519376-03A	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-03B	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-03C	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-03D	Plastic 250ml NaOH preserved	D	>12	>12	2.2	Y	Absent		TCN-4500(14)
L2519376-03E	Plastic 250ml HNO3 preserved	D	<2	<2	2.2	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519376-03F	Plastic 250ml HNO3 preserved	D	<2	<2	2.2	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2519376-03G	Plastic 500ml unpreserved	D	7	7	2.2	Y	Absent		HEXCR-3500(1),FCN(1)
L2519376-03H	Amber 1L HCl preserved	D	NA		2.2	Y	Absent		OG-1664(28)
L2519376-03J	Amber 1L HCl preserved	D	NA		2.2	Y	Absent		OG-1664(28)
L2519376-04A	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-04B	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-04C	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-04D	Plastic 250ml NaOH preserved	F	>12	>12	3.1	Y	Absent		TCN-4500(14)
L2519376-04E	Plastic 250ml HNO3 preserved	F	<2	<2	3.1	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519376-04F	Plastic 250ml HNO3 preserved	F	<2	<2	3.1	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2519376-04G	Plastic 500ml unpreserved	F	7	7	3.1	Y	Absent		HEXCR-3500(1),FCN(1)
L2519376-04H	Amber 1L HCl preserved	F	NA		3.1	Y	Absent		OG-1664(28)
L2519376-04J	Amber 1L HCl preserved	F	NA		3.1	Y	Absent		OG-1664(28)
L2519376-05A	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-05A1	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-05A2	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-05B	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-05B1	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-05B2	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)

*Values in parentheses indicate holding time in days

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2519376-05C	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-05C1	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-05C2	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-05D	Plastic 250ml NaOH preserved	G	>12	>12	3.1	Y	Absent		TCN-4500(14)
L2519376-05D1	Plastic 250ml NaOH preserved	G	>12	>12	3.1	Y	Absent		TCN-4500(14)
L2519376-05D2	Plastic 250ml NaOH preserved	G	>12	>12	3.1	Y	Absent		TCN-4500(14)
L2519376-05E	Plastic 250ml HNO3 preserved	G	<2	<2	3.1	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519376-05E1	Plastic 250ml HNO3 preserved	G	<2	<2	3.1	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519376-05E2	Plastic 250ml HNO3 preserved	G	<2	<2	3.1	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519376-05F	Plastic 250ml HNO3 preserved	G	<2	<2	3.1	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2519376-05F1	Plastic 250ml HNO3 preserved	G	<2	<2	3.1	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2519376-05F2	Plastic 250ml HNO3 preserved	G	<2	<2	3.1	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)
L2519376-05G	Plastic 500ml unpreserved	G	7	7	3.1	Y	Absent		HEXCR-3500(1),FCN(1)
L2519376-05G1	Plastic 500ml unpreserved	G	7	7	3.1	Y	Absent		HEXCR-3500(1),FCN(1)
L2519376-05G2	Plastic 500ml unpreserved	G	7	7	3.1	Y	Absent		HEXCR-3500(1),FCN(1)
L2519376-05H	Amber 1L HCl preserved	G	NA		3.1	Y	Absent		OG-1664(28)
L2519376-05H1	Amber 1L HCl preserved	G	NA		3.1	Y	Absent		OG-1664(28)
L2519376-05H2	Amber 1L HCl preserved	G	NA		3.1	Y	Absent		OG-1664(28)
L2519376-05J	Amber 1L HCl preserved	G	NA		3.1	Y	Absent		OG-1664(28)
L2519376-05J1	Amber 1L HCl preserved	G	NA		3.1	Y	Absent		OG-1664(28)
L2519376-05J2	Amber 1L HCl preserved	G	NA		3.1	Y	Absent		OG-1664(28)
L2519376-06A	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-06B	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-06C	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-06D	Plastic 250ml NaOH preserved	D	>12	>12	2.2	Y	Absent		TCN-4500(14)
L2519376-06E	Plastic 250ml HNO3 preserved	D	<2	<2	2.2	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519376-06F	Plastic 250ml HNO3 preserved	D	<2	<2	2.2	Y	Absent		NI-2008T(180),HARDT-2008(180),CR-2008T(180)

*Values in parentheses indicate holding time in days

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519376
Report Date: 04/02/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2519376-06G	Plastic 500ml unpreserved	D	7	7	2.2	Y	Absent		HEXCR-3500(1),FCN(1)
L2519376-06H	Amber 1L HCl preserved	D	NA		2.2	Y	Absent		OG-1664(28)
L2519376-06J	Amber 1L HCl preserved	D	NA		2.2	Y	Absent		OG-1664(28)
L2519376-07A	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519376-07B	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)

*Values in parentheses indicate holding time in days

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2519376
Project Number:	658978	**Report Date:**	04/02/25

GLOSSARY

Acronyms

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

Report Format: DU Report with 'J' Qualifiers

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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

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2519376
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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:** L2519376

Project Number: 658978 **Report Date:** 04/02/25

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.

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: 4/2/25

ALPHA Job #: L2519376

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 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
19376-01	SW1 - 040125	4/1/25	1205	SW	AF	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐		9
-02	SW2 - 040125	4/1/25	1240	SW	AF	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐		9
-03	SW3 - 040125	4/1/25	1315	SW	AF	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐		9
-04	SW4 - 040125	4/1/25	1130	SW	AF	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐		9
-05	SW5 040125	4/1/25	1030	SW	AF	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	MS/MSD	27
-06	DUP - 040125	4/1/25	1200	SW	AF	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐		9
-07	TRIP BLANK - SW - 040125	3/23/25	—	W		☐	☐	☐	☐	☐	☐	☐	☐	☒	☒	☐	☐		2
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

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

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

Relinquished By:	Date/Time	Received By:	Date/Time
Amber Johnson	4/1/25 1450	Rachel Pace	4/1/25 1450
Anthony Green		Anthony Green APR 02 2025 2345	
Rachel Pace 4/1/25 0405			4/2/25 0230
		4/2/25 0405	

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(R) (REV. 9-JAN-12)

ANALYTICAL REPORT

Lab Number:	L2519385
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:	04/02/25

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: L2519385
Report Date: 04/02/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2519385-01	OF002-040125	WATER	JENKINTOWN, PA	04/01/25 07:40	04/01/25
L2519385-02	OF006-040125	WATER	JENKINTOWN, PA	04/01/25 09:05	04/01/25
L2519385-03	OF009-040125	WATER	JENKINTOWN, PA	04/01/25 08:30	04/01/25
L2519385-04	DUP-040125	WATER	JENKINTOWN, PA	04/01/25 08:00	04/01/25
L2519385-05	TB-OF-040125	WATER	JENKINTOWN, PA	03/24/25 00:00	04/01/25

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2519385
Project Number:	658978	**Report Date:**	04/02/25

Case Narrative

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

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

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

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

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

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

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2519385
Project Number:	658978	**Report Date:**	04/02/25

Case Narrative (continued)

Report Submission

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

Cyanide, Total

The WG2048303-7 MSD recovery performed on L2519385-03 is outside the acceptance criteria for cyanide, total (82%); however, the associated LCS recovery is within criteria. No further action was taken.

Solids, Total Suspended

The WG2048306-3 Laboratory Duplicate RPD performed on L2519385-03 is outside the acceptance criteria for solids, total suspended (133%) due to the non-homogeneous nature of the native sample. The native sample and Duplicate were prepared using two separate containers.

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: Caitlin Walukevich

Title: Technical Director/Representative Date: 04/02/25

ORGANICS

VOLATILES

Project Name: SPS TECHNOLOGIES
Lab Number: L2519385
Project Number: 658978
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-01
Client ID: OF002-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 07:40
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 10:46
Analyst: GMT

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	76		60-140
Fluorobenzene	69		60-140
4-Bromofluorobenzene	115		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-02
Client ID: OF006-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 09:05
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 11:18
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	70		60-140
Fluorobenzene	66		60-140
4-Bromofluorobenzene	126		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-03
Client ID: OF009-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 08:30
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 10:49
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	96		60-140
Fluorobenzene	80		60-140
4-Bromofluorobenzene	88		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-04
Client ID: DUP-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 08:00
Date Received: 04/01/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 11:23
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	96		60-140
Fluorobenzene	73		60-140
4-Bromofluorobenzene	98		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-05
Client ID: TB-OF-040125
Sample Location: JENKINTOWN, PA
Date Collected: 03/24/25 00:00
Date Received: 04/01/25
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 04/02/25 11:58
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	69		60-140
4-Bromofluorobenzene	97		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 04/02/25 06:25
Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG2048620-4					
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	75		60-140
4-Bromofluorobenzene	112		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 04/02/25 10:15
Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03-05 Batch: WG2048641-4					
Toluene	ND		mg/l	0.0010	0.00031
2-Butanone	ND		mg/l	0.010	0.0010

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	94		60-140
Fluorobenzene	81		60-140
4-Bromofluorobenzene	87		60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG2048620-3								
Toluene	115		-		70-130	-		41
2-Butanone	70		-		60-140	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	92				60-140
Fluorobenzene	89				60-140
4-Bromofluorobenzene	108				60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03-05 Batch: WG2048641-3								
Toluene	95		-		70-130	-		41
2-Butanone	78		-		60-140	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	100				60-140
Fluorobenzene	82				60-140
4-Bromofluorobenzene	86				60-140

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

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): 03-05 QC Batch ID: WG2048641-5 WG2048641-6 QC Sample: L2519385-03 Client ID: OF009-040125												
Toluene	ND	0.02	0.022	110		0.022	110		47-150	0		41
2-Butanone	ND	0.05	0.044	88		0.043	86		60-140	2		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
4-Bromofluorobenzene	85		85		60-140
Fluorobenzene	77		78		60-140
Pentafluorobenzene	86		90		60-140

METALS

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-01
Client ID: OF002-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 07:40
Date Received: 04/01/25
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	0.2790		mg/l	0.01000	0.00327	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Chromium, Total	0.01645		mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Copper, Total	0.00762		mg/l	0.00100	0.00038	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Iron, Total	0.2432		mg/l	0.05000	0.01910	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Lead, Total	0.00164		mg/l	0.00100	0.00034	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00910		mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Zinc, Total	0.09217		mg/l	0.00500	0.00341	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	263.7		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:49	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	0.007	J	mg/l	0.010	0.003	1		04/02/25 12:49	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0153		mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 13:07	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0087		mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 13:07	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-02
Client ID: OF006-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 09:05
Date Received: 04/01/25
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	0.2047		mg/l	0.01000	0.00327	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Chromium, Total	0.00078	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Copper, Total	0.00611		mg/l	0.00100	0.00038	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Iron, Total	0.3018		mg/l	0.05000	0.01910	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Lead, Total	0.00150		mg/l	0.00100	0.00034	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00152	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Zinc, Total	0.01778		mg/l	0.00500	0.00341	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	173.9		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:54	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:54	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0005	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 13:12	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0012	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 13:12	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-03
Client ID: OF009-040125
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 04/01/25 08:30
Date Received: 04/01/25
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	0.2195		mg/l	0.01000	0.00327	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Chromium, Total	0.00553		mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Copper, Total	0.01038		mg/l	0.00100	0.00038	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Iron, Total	0.2998		mg/l	0.05000	0.01910	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Lead, Total	0.00495		mg/l	0.00100	0.00034	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00244		mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Zinc, Total	0.07950		mg/l	0.00500	0.00341	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	35.98		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:04	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:04	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0039		mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 12:20	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0016	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 12:20	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-04
Client ID: DUP-040125
Sample Location: JENKINTOWN, PA
Date Collected: 04/01/25 08:00
Date Received: 04/01/25
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	0.2067		mg/l	0.01000	0.00327	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Chromium, Total	0.00077	J	mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Copper, Total	0.00563		mg/l	0.00100	0.00038	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Iron, Total	0.2965		mg/l	0.05000	0.01910	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Lead, Total	0.00147		mg/l	0.00100	0.00034	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Nickel, Total	0.00147	J	mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Zinc, Total	0.01770		mg/l	0.00500	0.00341	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
Total Hardness (by calculation) - Mansfield Lab											
Hardness	175.0		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 12:58	EPA 3005A	3,200.8	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		04/02/25 12:58	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0005	J	mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 13:16	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0012	J	mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 13:16	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES **Lab Number:** L2519385

Project Number: 658978 **Report Date:** 04/02/25

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG2048283-1										
Aluminum, Total	0.00540	J	mg/l	0.01000	0.00327	1	04/02/25 08:06	04/02/25 11:41	3,200.8	NTB
Chromium, Total	ND		mg/l	0.00100	0.00017	1	04/02/25 08:06	04/02/25 11:41	3,200.8	NTB
Copper, Total	ND		mg/l	0.00100	0.00038	1	04/02/25 08:06	04/02/25 11:41	3,200.8	NTB
Iron, Total	ND		mg/l	0.05000	0.01910	1	04/02/25 08:06	04/02/25 11:41	3,200.8	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	04/02/25 08:06	04/02/25 11:41	3,200.8	NTB
Nickel, Total	ND		mg/l	0.00200	0.00055	1	04/02/25 08:06	04/02/25 11:41	3,200.8	NTB
Zinc, Total	ND		mg/l	0.00500	0.00341	1	04/02/25 08:06	04/02/25 11:41	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): 01-04 Batch: WG2048283-1										
Hardness	ND		mg/l	0.5400	NA	1	04/02/25 08:06	04/02/25 11:41	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): 01-04 Batch: WG2048285-1										
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	04/02/25 08:06	04/02/25 11:57	3,200.8	NTB
Nickel, Dissolved	ND		mg/l	0.0020	0.0006	1	04/02/25 08:06	04/02/25 11:57	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: L2519385
Report Date: 04/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG2048283-2								
Aluminum, Total	94		-		85-115	-		
Chromium, Total	97		-		85-115	-		
Copper, Total	101		-		85-115	-		
Iron, Total	105		-		85-115	-		
Lead, Total	97		-		85-115	-		
Nickel, Total	99		-		85-115	-		
Zinc, Total	100		-		85-115	-		
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-04 Batch: WG2048283-2								
Hardness	98		-		85-115	-		
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG2048285-2								
Chromium, Dissolved	104		-		85-115	-		
Nickel, Dissolved	106		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG2048283-3 WG2048283-4 QC Sample: L2519376-05 Client ID: MS Sample												
Aluminum, Total	0.2912	2	2.151	93		2.225	97		70-130	3		20
Chromium, Total	0.00086J	0.2	0.1933	97		0.1978	99		70-130	2		20
Copper, Total	0.00490	0.25	0.2592	102		0.2623	103		70-130	1		20
Iron, Total	0.3898	1	1.363	97		1.315	92		70-130	4		20
Lead, Total	0.0021	0.53	0.5186	97		0.5284	99		70-130	2		20
Nickel, Total	0.00193J	0.5	0.5109	102		0.5168	103		70-130	1		20
Zinc, Total	0.0095	0.5	0.5224	102		0.5271	104		70-130	1		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG2048283-3 WG2048283-4 QC Sample: L2519376-05 Client ID: MS Sample												
Hardness	63.22	66.2	124.0	92		124.0	92		70-130	0		20
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG2048283-5 WG2048283-6 QC Sample: L2519385-03 Client ID: OF009-040125												
Aluminum, Total	0.2195	2	2.121	95		2.178	98		70-130	3		20
Chromium, Total	0.00553	0.2	0.2042	99		0.2010	98		70-130	2		20
Copper, Total	0.01038	0.25	0.2666	102		0.2652	102		70-130	1		20
Iron, Total	0.2998	1	1.256	96		1.310	101		70-130	4		20
Lead, Total	0.00495	0.53	0.5269	98		0.5240	98		70-130	1		20
Nickel, Total	0.00244	0.5	0.5021	100		0.5044	100		70-130	0		20
Zinc, Total	0.07950	0.5	0.5932	103		0.5950	103		70-130	0		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG2048283-5 WG2048283-6 QC Sample: L2519385-03 Client ID: OF009-040125												
Hardness	35.98	66.2	98.51	94		95.88	90		70-130	3		20

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG2048285-3 WG2048285-4 QC Sample: L2519376-05 Client ID: MS Sample									
Chromium, Dissolved	0.0004J	0.2	0.2043	102	0.2103	105	70-130	3	20
Nickel, Dissolved	0.0011J	0.5	0.5186	104	0.5439	109	70-130	5	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG2048285-5 WG2048285-6 QC Sample: L2519385-03 Client ID: OF009-040125									
Chromium, Dissolved	0.0039	0.2	0.2068	101	0.2001	98	70-130	3	20
Nickel, Dissolved	0.0016J	0.5	0.5151	103	0.5094	102	70-130	1	20

INORGANICS
&
MISCELLANEOUS

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-01
Client ID: OF002-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 07:40
Date Received: 04/01/25
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	ND		mg/l	5.0	NA	1	-	04/02/25 06:40	121,2540D	BAY
Cyanide, Total	0.008		mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:18	121,4500CN-CE	JER
Cyanide, Free	0.005	J	mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Nitrogen, Nitrate/Nitrite	1.7		mg/l	0.10	0.046	1	-	04/02/25 06:37	44,353.2	KAF
Chemical Oxygen Demand	73.		mg/l	20	6.0	1	04/02/25 09:30	04/02/25 12:41	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 13:33	140,1664B	TPR
Chromium, Hexavalent	0.009	J	mg/l	0.010	0.003	1	04/02/25 06:15	04/02/25 06:42	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-02
Client ID: OF006-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 09:05
Date Received: 04/01/25
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	11.		mg/l	5.0	NA	1	-	04/02/25 06:40	121,2540D	BAY
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:19	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Nitrogen, Nitrate/Nitrite	3.6		mg/l	0.10	0.046	1	-	04/02/25 06:38	44,353.2	KAF
Chemical Oxygen Demand	28.		mg/l	20	6.0	1	04/02/25 09:30	04/02/25 12:41	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 13:33	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 06:15	04/02/25 06:42	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-03
Client ID: OF009-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 08:30
Date Received: 04/01/25
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	8.1		mg/l	5.0	NA	1	-	04/02/25 06:40	121,2540D	BAY
Cyanide, Total	0.008		mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:20	121,4500CN-CE	JER
Cyanide, Free	0.005	J	mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Nitrogen, Nitrate/Nitrite	0.49		mg/l	0.10	0.046	1	-	04/02/25 06:39	44,353.2	KAF
Chemical Oxygen Demand	30.		mg/l	20	6.0	1	04/02/25 09:30	04/02/25 12:42	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 13:27	140,1664B	TPR
Chromium, Hexavalent	0.005	J	mg/l	0.010	0.003	1	04/02/25 06:15	04/02/25 06:43	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2519385-04
Client ID: DUP-040125
Sample Location: JENKINTOWN, PA

Date Collected: 04/01/25 08:00
Date Received: 04/01/25
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	ND		mg/l	5.0	NA	1	-	04/02/25 06:40	121,2540D	BAY
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:26	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
Nitrogen, Nitrate/Nitrite	3.6		mg/l	0.10	0.046	1	-	04/02/25 06:43	44,353.2	KAF
Chemical Oxygen Demand	17.	J	mg/l	20	6.0	1	04/02/25 09:30	04/02/25 12:42	44,410.4	CVN
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 14:13	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 06:15	04/02/25 06:43	121,3500CR-B	CAR

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2519385
Report Date: 04/02/25

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): 01-04 Batch: WG2048234-1										
Nitrogen, Nitrate/Nitrite	ND		mg/l	0.10	0.046	1	-	04/02/25 03:52	44,353.2	KAF
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG2048282-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/02/25 06:15	04/02/25 06:41	121,3500CR-B	CAR
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG2048293-1										
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	04/02/25 06:58	121,4500CN-E(M)	KAF
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG2048303-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	04/02/25 07:10	04/02/25 12:04	121,4500CN-CE	JER
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG2048306-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	04/02/25 06:40	121,2540D	BAY
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG2048413-1										
Chemical Oxygen Demand	ND		mg/l	20	6.0	1	04/02/25 09:30	04/02/25 12:38	44,410.4	CVN
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG2048454-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	04/02/25 09:35	04/02/25 11:05	140,1664B	TPR

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG2048234-2								
Nitrogen, Nitrate/Nitrite	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG2048282-2								
Chromium, Hexavalent	102		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG2048293-2								
Cyanide, Free	97		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG2048303-2								
Cyanide, Total	90		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG2048306-2								
Solids, Total Suspended	110		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG2048413-2								
Chemical Oxygen Demand	94		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG2048454-2								
Oil & Grease, Hem-Grav	98		-		78-114	-		18

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

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): 01-04 QC Batch ID: WG2048234-4 QC Sample: L2515043-21 Client ID: MS Sample												
Nitrogen, Nitrate/Nitrite	18.8	4	23	105		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048234-6 QC Sample: L2519385-03 Client ID: OF009-040125												
Nitrogen, Nitrate/Nitrite	0.49	4	4.6	103		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048282-4 WG2048282-5 QC Sample: L2519385-03 Client ID: OF009-040125												
Chromium, Hexavalent	0.005J	0.1	0.108	108		0.110	110		85-115	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048293-4 WG2048293-5 QC Sample: L2519385-03 Client ID: OF009-040125												
Cyanide, Free	0.005J	0.25	0.263	105		0.259	104		80-120	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048303-3 WG2048303-4 QC Sample: L2519376-05 Client ID: MS Sample												
Cyanide, Total	0.002J	0.2	0.195	98		0.202	101		90-110	5		30
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048303-6 WG2048303-7 QC Sample: L2519385-03 Client ID: OF009-040125												
Cyanide, Total	0.008	0.2	0.212	102		0.173	**82**	Q	90-110	20		30
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048413-3 QC Sample: L2519385-03 Client ID: OF009-040125												
Chemical Oxygen Demand	30.	238	280	103		-	-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048454-4 WG2048454-5 QC Sample: L2519376-05 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	39.6	39	98		38	95		78-114	4		18

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2519385
Report Date: 04/02/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048454-6 WG2048454-7 QC Sample: L2519385-03 Client ID: OF009-040125									
Oil & Grease, Hem-Grav	ND	39.2	36	92	34	88	78-114	4	18

Lab Duplicate Analysis

Batch Quality Control

Project Name: SPS TECHNOLOGIES
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Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048234-3 QC Sample: L2515043-21 Client ID: DUP Sample						
Nitrogen, Nitrate/Nitrite	18.8	19	mg/l	1		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048234-5 QC Sample: L2519385-03 Client ID: OF009-040125						
Nitrogen, Nitrate/Nitrite	0.49	0.50	mg/l	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048282-3 QC Sample: L2519385-02 Client ID: OF006-040125						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048293-3 QC Sample: L2519385-03 Client ID: OF009-040125						
Cyanide, Free	0.005J	0.005J	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048303-5 QC Sample: L2519376-05 Client ID: DUP Sample						
Cyanide, Total	0.002J	0.001J	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048303-8 QC Sample: L2519385-03 Client ID: OF009-040125						
Cyanide, Total	0.008	0.008	mg/l	1		30
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048306-3 QC Sample: L2519385-03 Client ID: OF009-040125						
Solids, Total Suspended	8.1	40	mg/l	**133**	Q	32
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048413-4 QC Sample: L2519385-03 Client ID: OF009-040125						
Chemical Oxygen Demand	30.	32	mg/l	6		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG2048454-3 QC Sample: L2519376-05 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18

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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
F	Absent
G	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2519385-01A	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-01B	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-01C	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-01D	Plastic 250ml NaOH preserved	B	>12	>12	2.4	Y	Absent		TCN-4500(14)
L2519385-01E	Plastic 250ml HNO3 preserved	B	<2	<2	2.4	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)
L2519385-01F	Plastic 250ml HNO3 preserved	B	<2	<2	2.4	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519385-01G	Plastic 250ml H2SO4 preserved	B	<2	<2	2.4	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2519385-01H	Plastic 950ml unpreserved	B	7	7	2.4	Y	Absent		HEXCR-3500(1),FCN(1)
L2519385-01J	Plastic 950ml unpreserved	B	7	7	2.4	Y	Absent		TSS-2540(7)
L2519385-01K	Amber 1L HCl preserved	B	NA		2.4	Y	Absent		OG-1664(28)
L2519385-01L	Amber 1L HCl preserved	B	NA		2.4	Y	Absent		OG-1664(28)
L2519385-02A	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-02B	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-02C	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-02D	Plastic 250ml NaOH preserved	E	>12	>12	2.9	Y	Absent		TCN-4500(14)

*Values in parentheses indicate holding time in days

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2519385-02E	Plastic 250ml HNO3 preserved	E	<2	<2	2.9	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)
L2519385-02F	Plastic 250ml HNO3 preserved	E	<2	<2	2.9	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519385-02G	Plastic 250ml H2SO4 preserved	E	<2	<2	2.9	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2519385-02H	Plastic 950ml unpreserved	E	7	7	2.9	Y	Absent		HEXCR-3500(1),FCN(1)
L2519385-02J	Plastic 950ml unpreserved	E	7	7	2.9	Y	Absent		TSS-2540(7)
L2519385-02K	Amber 1L HCl preserved	E	NA		2.9	Y	Absent		OG-1664(28)
L2519385-02L	Amber 1L HCl preserved	E	NA		2.9	Y	Absent		OG-1664(28)
L2519385-03A	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-03A1	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-03A2	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-03B	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-03B1	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-03B2	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-03C	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-03C1	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-03C2	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-03D	Plastic 250ml NaOH preserved	B	>12	>12	2.4	Y	Absent		TCN-4500(14)
L2519385-03D1	Plastic 250ml NaOH preserved	C	>12	>12	3.0	Y	Absent		TCN-4500(14)
L2519385-03D2	Plastic 250ml NaOH preserved	C	>12	>12	3.0	Y	Absent		TCN-4500(14)
L2519385-03E	Plastic 250ml HNO3 preserved	B	<2	<2	2.4	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)
L2519385-03E1	Plastic 250ml HNO3 preserved	C	<2	<2	3.0	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)
L2519385-03E2	Plastic 250ml HNO3 preserved	C	<2	<2	3.0	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)

*Values in parentheses indicate holding time in days

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2519385-03F	Plastic 250ml HNO3 preserved	B	<2	<2	2.4	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519385-03F1	Plastic 250ml HNO3 preserved	C	<2	<2	3.0	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519385-03F2	Plastic 250ml HNO3 preserved	C	<2	<2	3.0	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519385-03G	Plastic 250ml H2SO4 preserved	B	<2	<2	2.4	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2519385-03G1	Plastic 250ml H2SO4 preserved	C	<2	<2	3.0	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2519385-03G2	Plastic 250ml H2SO4 preserved	C	<2	<2	3.0	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2519385-03H	Plastic 950ml unpreserved	B	7	7	2.4	Y	Absent		HEXCR-3500(1),FCN(1)
L2519385-03H1	Plastic 950ml unpreserved	C	7	7	3.0	Y	Absent		HEXCR-3500(1),FCN(1)
L2519385-03H2	Plastic 950ml unpreserved	C	7	7	3.0	Y	Absent		HEXCR-3500(1),FCN(1)
L2519385-03J	Plastic 950ml unpreserved	B	7	7	2.4	Y	Absent		TSS-2540(7)
L2519385-03J1	Plastic 950ml unpreserved	C	7	7	3.0	Y	Absent		TSS-2540(7)
L2519385-03J2	Plastic 950ml unpreserved	C	7	7	3.0	Y	Absent		TSS-2540(7)
L2519385-03K	Amber 1L HCl preserved	B	NA		2.4	Y	Absent		OG-1664(28)
L2519385-03K1	Amber 1L HCl preserved	C	NA		3.0	Y	Absent		OG-1664(28)
L2519385-03K2	Amber 1L HCl preserved	C	NA		3.0	Y	Absent		OG-1664(28)
L2519385-03L	Amber 1L HCl preserved	B	NA		2.4	Y	Absent		OG-1664(28)
L2519385-03L1	Amber 1L HCl preserved	C	NA		3.0	Y	Absent		OG-1664(28)
L2519385-03L2	Amber 1L HCl preserved	C	NA		3.0	Y	Absent		OG-1664(28)
L2519385-04A	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-04B	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-04C	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-04D	Plastic 250ml NaOH preserved	E	>12	>12	2.9	Y	Absent		TCN-4500(14)
L2519385-04E	Plastic 250ml HNO3 preserved	E	<2	<2	2.9	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)
L2519385-04F	Plastic 250ml HNO3 preserved	E	<2	<2	2.9	Y	Absent		CR-2008S(180),NI-2008S(180)
L2519385-04G	Plastic 250ml H2SO4 preserved	E	<2	<2	2.9	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2519385-04H	Plastic 950ml unpreserved	E	7	7	2.9	Y	Absent		HEXCR-3500(1),FCN(1)
L2519385-04J	Plastic 950ml unpreserved	E	7	7	2.9	Y	Absent		TSS-2540(7)

*Values in parentheses indicate holding time in days

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2519385-04K	Amber 1L HCl preserved	E	NA		2.9	Y	Absent		OG-1664(28)
L2519385-04L	Amber 1L HCl preserved	E	NA		2.9	Y	Absent		OG-1664(28)
L2519385-05A	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)
L2519385-05B	Vial Na2S2O3 preserved	A	NA		2.0	Y	Absent		624.1-PPM(7)

*Values in parentheses indicate holding time in days

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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.

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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

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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.)

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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.

Serial_No:04022516:13

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: 04/02/25

ALPHA Job #: L2519385

Project Information

Project Name: SPS Technologies

Project Location: Jenkintown, PA

Project #: 658978

Project Manager: Julie Acton

ALPHA Quote #:

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

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

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

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 Crhome 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 Suspended Solids SM 2540 D	Sample Specific Comments	TOTAL # BOTTLES
19385-01	OF002-040125	4/1/25	0740	SW	AT	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		#11
	~~OF004~~ (AT)			~~SW~~		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		#
-02	OF006-040125	4/1/25	0905	SW	AT	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		#11
-03	OF009-040125	4/1/25	0830	SW	AT	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	MS/MSD	#33
-04	DUP 040125	4/1/25	0800	SW	AT	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		#11
-05	TB-OF-040125	3/24/25	—	W		☐	☐	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐		#2
	~~SF-~~ (AT)			~~SW~~		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		#
	~~SF-~~ (AT)			~~SW~~		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		#
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

	Oil and Grease	Free Cyanide	Total Cyanide	Hex Chrome	Total Cr, Ni	Dissolved Cr, Ni	Total Al, Fe, Pb, Zn, Cu	COD	MEK, Toluene	Nitrate-Nitrite	Total Hardness	TSS
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
Amber Ankrom	4/1/25 1450	[signature] PACE	4/1/25 1450
[signature] PACE		Anthony Green	APR 01 2025 2345
Anthony Green		[signature] PACE	4/2/25 0230
[signature] PACE 4/2/25 0405		[signature]	4/2/25 0405

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)