

### **ANALYTICAL RESULTS SUMMARY**

VOLATILE ORGANICS GENERAL CHEMISTRY METALS SEMI-VOLATILE ORGANICS

**PROJECT NAME: FORMER SCHLUMBERGER SITE PRINCETON NJ** 

JACOBS ENGINEERING GROUP, INC.

412 Mt. Kemble Ave

**Downtown Building** 

Morristown, NJ - 07960

Phone No: 9732670555

ORDER ID: P3457

**ATTENTION: Mary I. Murphy** 







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### 1

# DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Labora	atory Name :	CHEMTECH	Client :	JACOBS Engine	eering	Grou	p, Inc		
Projec	ct Location :	Princeton, NJ	Project Number :	D3779922					
Labora	atory Sample II	D(s): <u>P3457</u>	Sampling Date(s):	08/02/2024					
List DI	KQP Methods l	Jsed (e.g., 8260,8270, et Cetra)	6010D,7196A,7470A,8260-	Low,8270-Modif	fied,8	270E,	200.7	,	
1	specified QA/0 explain any cr	ytical method referenced in this la QC performance criteria followed, iteria falling outside of acceptable of Known Quality performance sta	including the requirement to guidelines, as specified in the		<b>V</b>	Yes		No	
1A	Were the meth	hod specified handling, preservati	on, and holding time requiren	nents met?	$\overline{\mathbf{A}}$	Yes		No	
1B		Was the EPH method conducted of respective DKQ methods)	without significant modification	ons (see		Yes		No	✓ N/A
2		bles received by the laboratory in a the associated chain-of-custody d		at	$\overline{\mathbf{A}}$	Yes		No	
3	Were samples	received at an appropriate tempe	erature (4±2° C)?		V	Yes		No	□ N/A
4	Were all QA/C standards ac	QC performance criteria specified hieved?	in the NJDEP DKQP			Yes	V	No	
5		ing limits specified or referenced of to the laboratory prior to sample			V	Yes		No	
	b)Were these	reporting limits met?			$\overline{\mathbf{A}}$	Yes		No	□ N/A
6	results report	ytical method referenced in this la ted for all constituents identified in he DKQP documents and/or site-s	the method-specific analyte		V	Yes		No	
7	Are project-sp	ecific matrix spikes and/or labora	tory duplicates included in this	s data set?		Yes	<b>V</b>	No	

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information should be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Data of Known Quality."



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# **Cover Page**

Order ID: P3457

**Project ID:** Former Schlumberger Site Princeton NJ

**Client:** JACOBS Engineering Group, Inc.

#### Lab Sample Number Client Sample Number

P3457-01 924-K1-WS-080224 P3457-02 932-K1-WS-080224 P3457-03 TB-01-080224

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature :		
Signature .	Date:	10/28/202

NYDOH CERTIFICATION NO - 11376 NJDEP CERTIFICATION NO - 20012



#### CASE NARRATIVE

**JACOBS Engineering Group, Inc.** 

Project Name: Former Schlumberger Site Princeton NJ

Project # N/A

Chemtech Project # P3457 Test Name: VOCMS Group6

#### A. Number of Samples and Date of Receipt:

3 Water samples were received on 08/02/2024.

#### **B.** Parameters

According to the Chain of Custody document, the following analyses were requested: Hexavalent Chromium, Mercury, Metals Group4, SVOCMS Group3, SVOCMS Group6 and VOCMS Group6. This data package contains results for VOCMS Group6.

#### C. Analytical Techniques:

The analysis performed on instrument MSVOA\_N were done using GC column RXI-624SIL MS 30m 0.25mm 1.4 um. Cat#13868.The analysis performed on instrument MSVOA\_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UIThe analysis of VOCMS Group6 was based on method 8260D.

#### D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for TB-01-080224 [1,2-Dichloroethane-d4- 129%]this compound met the NJDKQP criteria but did not meet the in-house criteria but there was only one vial and now no more vials for confirmation therefore this data reported as Final Analysis.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD met criteria.

The Blank Spike met requirements for all samples.

The Blank Spike Duplicate met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The %RSD is greater than 15% in the Initial Calibration method (82X080724W.M) for Methylene chloride this compound is passing on Quadratic Regression.

The Continuous Calibration met the requirements.

The Tuning criteria met requirements.





#### E. Additional Comments:

This data package has been revised due to parameter list changed.

Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

#### **F. Manual Integration Comments:**

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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C.			
Signature_			
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#### CASE NARRATIVE

**JACOBS Engineering Group, Inc.** 

Project Name: Former Schlumberger Site Princeton NJ

Project # N/A

Chemtech Project # P3457 Test Name: SVOCMS Group3

#### A. Number of Samples and Date of Receipt:

3 Water samples were received on 08/02/2024.

#### **B.** Parameters

According to the Chain of Custody document, the following analyses were requested: Hexavalent Chromium, Mercury, Metals Group4, SVOCMS Group3, SVOCMS Group6 and VOCMS Group6. This data package contains results for SVOCMS Group3.

#### C. Analytical Techniques:

The samples were analyzed on instrument BNA\_N using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGAThe analysis of SVOCMS Group3 was based on method 8270-Modified and extraction was done based on method 3510.

#### D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD met criteria.

The Blank Spike met requirements for all samples.

The Blank Spike Duplicate met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The % RSD is greater than 20% in the Initial Calibration method (Method 8270Sim-BN080524.M) for 1,4-Dioxane, this compound is passing on Linear Regression.

The Continuous Calibration met the requirements.

The Tuning criteria met requirements.

#### E. Additional Comments:

For sample # 932-K1-WS-080224 some compounds below Method detection limits, therefore it is not reported as Hit in Form-1.

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.



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Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

#### **F. Manual Integration Comments:**

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature		



#### **CASE NARRATIVE**

**JACOBS Engineering Group, Inc.** 

Project Name: Former Schlumberger Site Princeton NJ

Project # N/A

Chemtech Project # P3457 Test Name: SVOCMS Group6

#### A. Number of Samples and Date of Receipt:

3 Water samples were received on 08/02/2024.

#### **B.** Parameters

According to the Chain of Custody document, the following analyses were requested: Hexavalent Chromium, Mercury, Metals Group4, SVOCMS Group3, SVOCMS Group6 and VOCMS Group6. This data package contains results for SVOCMS Group6.

#### C. Analytical Techniques:

The samples were analyzed on instrument BNA\_F using GC Column DB-UI 8270D which is 20 meters, 0.18 mm ID, 0.36 um dfThe analysis of SVOCMS Group6 was based on method 8270E and extraction was done based on method 3510.

#### D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for PB162489BL [2,4,6-Tribromophenol - 122%, Phenol-d6 - 111%, Terphenyl-d14 - 136%], these compounds did not meet the NJDKQP criteria but met the in-house criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS {P3466-02MS} with File ID: BF139004.D recoveries met the requirements for all compounds except for Fluoranthene[132%], this compound did not meet the NJDKQP criteria but met the in-house criteria also Benzaldehyde[0%] this compound did not meet the NJDKQP criteria and in-house criteria due to matrix interference.

The MSD {P3466-03MSD} with File ID: BF139005.D recoveries met the acceptable requirements except for 2-Methylphenol[69%], Fluoranthene[132%] these compounds did not meet the NJDKQP criteria but met the in-house criteria and Benzaldehyde[0%] this compound did not meet the NJDKQP criteria and in-house criteria due to matrix interference.

The RPD met criteria.

The Blank Spike met requirements for all samples.





The Blank analysis did not indicate the presence of lab contamination. The Initial Calibration met the requirements .

The Continuous Calibration File ID BF138879.D met the requirements except for Benzaldehyde, is marginally biased low therefore no corrective action was taken.

The Tuning criteria met requirements.

#### E. Additional Comments:

This data package has been revised due to parameter list changed.

The Form 6 is not included in the data package because the Initial Calibration was performed using 8 points.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

#### **F. Manual Integration Comments:**

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

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Signature			



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#### CASE NARRATIVE

JACOBS Engineering Group, Inc.

Project Name: Former Schlumberger Site Princeton NJ

Project # N/A

Chemtech Project # P3457 Test Name: Metals Group5

#### A. Number of Samples and Date of Receipt:

3 Water samples were received on 08/02/2024.

#### **B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Hexavalent Chromium, Mercury, Metals Group4, Metals Group5, SVOCMS Group3, SVOCMS Group6 and VOCMS Group6. This data package contains results for Metals Group5.

#### C. Analytical Techniques:

The analysis and digestion of Metals Group5 was based on method 200.7.

#### D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

#### E. Additional Comments:

This Data Package has been revised due to Metals Group5 test added as per Client Request.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

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#### CASE NARRATIVE

**JACOBS** Engineering Group, Inc.

Project Name: Former Schlumberger Site Princeton NJ

Project # N/A

Chemtech Project # P3457

**Test Name: Metals Group4, Mercury** 

#### A. Number of Samples and Date of Receipt:

3 Water samples were received on 08/02/2024.

#### **B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Hexavalent Chromium, Mercury, Metals Group4, SVOCMS Group3, SVOCMS Group6 and VOCMS Group6. This data package contains results for Metals Group4, Mercury.

#### C. Analytical Techniques:

The analysis of Metals Group4 was based on method 6020B, digestion based on method 3010 (waters). The analysis and digestion of Mercury was based on method 7470A.

#### D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike (923-K1-WS-080124MS) analysis met criteria for all samples except for Silver due to Chemical interference during Digestion Process.

The Matrix Spike Duplicate (923-K1-WS-080124MSD) analysis met criteria for all samples except for Silver Due to Chemical Interference during Digestion Process.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Serial Dilution met the acceptable requirements.

#### E. Additional Comments:

This Data Package has been revised due to Parameter List Change.

Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed



above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

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Signature			



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#### **CASE NARRATIVE**

**JACOBS Engineering Group, Inc.** 

Project Name: Former Schlumberger Site Princeton NJ

Project # N/A

Chemtech Project # P3457

**Test Name: Hexavalent Chromium** 

#### A. Number of Samples and Date of Receipt:

3 Water samples were received on 08/02/2024.

#### **B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Hexavalent Chromium, Metals Group4, SVOCMS Group3, SVOCMS Group6 and VOCMS Group6. This data package contains results for Hexavalent Chromium.

#### C. Analytical Techniques:

The analysis of Hexavalent Chromium was based on method 7196A.

#### D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike analysis met criteria for all samples.

The Matrix Spike Duplicate analysis met criteria for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

#### E. Additional Comments:

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

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#### DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following "Results Qualifiers" are used:

- J Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
- U Indicates the analyte was analyzed for, but not detected.
- ND Indicates the analyte was analyzed for, but not detected
- E Indicates the reported value is estimated because of the presence of interference
- M Indicates Duplicate injection precision not met.
- N Indicates the spiked sample recovery is not within control limits.
- S Indicates the reported value was determined by the Method of Standard Addition (MSA).
- \* Indicates that the duplicate analysis is not within control limits.
- + Indicates the correlation coefficient for the MSA is less than 0.995.
- D Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
- M Method qualifiers
  - **"P"** for ICP instrument
  - "PM" for ICP when Microwave Digestion is used
  - "CV" for Manual Cold Vapor AA
  - "AV" for automated Cold Vapor AA
  - "CA" for MIDI-Distillation Spectrophotometric "AS" for Semi –Automated Spectrophotometric
  - "C" for Manual Spectrophotometric
  - **"T"** for Titrimetric
  - "NR" for analyte not required to be analyzed
- OR Indicates the analyte's concentration exceeds the calibrated range of the
  - instrument for that specific analysis.
- Q Indicates the LCS did not meet the control limits requirements
- H Sample Analysis Out Of Hold Time



# DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following "Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. " $10\mathrm{U}$ ". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	<ul> <li>Indicates an estimated value. This flag is used:</li> <li>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)</li> <li>(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.</li> </ul>
В	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements



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#### APPENDIX A

#### **QA REVIEW GENERAL DOCUMENTATION**

Project #: P3457

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication, airbill, sample management lab chronicle, login page)	<u> </u>
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	<del>'</del> <del>'</del> <del>'</del>
Collect information for each project id from server. Were all requirements followed	<u> </u>
COVER PAGE:	_
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	<u> </u>
CHAIN OF CUSTODY:	_
Do requested analyses on Chain of Custody agree with form I results	<u> </u>
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	<u> </u>
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	_ ✓
ANALYTICAL:	
Was method requirement followed?	<u> </u>
Was client requirement followed?	<u> </u>
Does the case narrative summarize all QC failure?	<del>'</del> <del>'</del> <del>'</del> <del>'</del> <del>'</del> <del>'</del> <del>'</del> <del>'</del>
All runlogs and manual integration are reviewed for requirements	<u></u>
All manual calculations and /or hand notations verified	<u> </u>

QA Review Signature: SOHIL JODHANI Date: 10/28/2024



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#### Hit Summary Sheet SW-846

**SDG No.:** P3457

Client: JACOBS Engineering Group, Inc.



Sample ID	Client ID Ma	atrix Parameter	Concentration	C	MDL	RDL	Units
Client ID:	924-K1-WS-080224						
P3457-01	924-K1-WS-080224 Water	Acetone	4.90	J	1.40	5.00	ug/L
P3457-01	924-K1-WS-080224 Water	Toluene	0.34	J	0.18	1.00	ug/L
		Total Voc:	5.24				
		<b>Total Concentration:</b>	5.24				
Client ID:	932-K1-WS-080224						
P3457-02	932-K1-WS-080224 Water	Acetone	2.90	J	1.40	5.00	ug/L
P3457-02	932-K1-WS-080224 Water	Toluene	0.59	J	0.18	1.00	ug/L
		Total Voc:	3.49	)			
		Total Concentration:	3.49				









# SAMPLE DATA



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#### **Report of Analysis**

JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Client Sample ID: 924-K1-WS-080224 SDG No.: P3457

Lab Sample ID: P3457-01 Matrix: Water

Analytical Method: SW8260 % Solid: 0

Sample Wt/Vol: 5 Units: mL Final Vol: 5000 uL

Soil Aliquot Vol: uL Test: VOCMS Group6

GC Column: DB-624UI ID: 0.18 Level: LOW

Prep Method:

Client:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID

VX043002.D 1 08/09/24 17:48 VX080924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.21	U	0.21	1.00	ug/L
74-87-3	Chloromethane	0.35	U	0.35	1.00	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.56	U	0.56	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	1.00	ug/L
67-64-1	Acetone	4.90	J	1.40	5.00	ug/L
75-15-0	Carbon Disulfide	0.32	U	0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
75-09-2	Methylene Chloride	0.32	U	0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.60	U	1.60	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.19	U	0.19	1.00	ug/L
108-87-2	Methylcyclohexane	0.19	U	0.19	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	1.00	ug/L
75-27-4	Bromodichloromethane	0.24	U	0.24	1.00	ug/L
108-88-3	Toluene	0.34	J	0.18	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	0.16	U	0.16	1.00	ug/L

P3457



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SDG No.:

#### **Report of Analysis**

Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Lab Sample ID: P3457-01 Matrix: Water

924-K1-WS-080224

Analytical Method: SW8260 % Solid: 0

Sample Wt/Vol: 5 Units: mL Final Vol: 5000 uL

Soil Aliquot Vol: uL Test: VOCMS Group6

GC Column: DB-624UI ID: 0.18 Level: LOW

Prep Method:

Client Sample ID:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VX043002.D 1 08/09/24 17:48 VX080924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
1330-20-7	Total Xylenes	0.45	U	0.45	3.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.27	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.3		70 (74) - 130 (125)	105%	SPK: 50
1868-53-7	Dibromofluoromethane	50.8		70 (75) - 130 (124)	102%	SPK: 50
2037-26-5	Toluene-d8	53.4		70 (86) - 130 (113)	107%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.9		70 (64) - 130 (133)	100%	SPK: 50
INTERNAL STA	ANDARDS					
363-72-4	Pentafluorobenzene	149000	5.55			
540-36-3	1,4-Difluorobenzene	240000	6.763			
3114-55-4	Chlorobenzene-d5	219000	10.055			
3855-82-1	1.4-Dichlorobenzene-d4	96400	12.024			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

uL



SW8260

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#### **Report of Analysis**

JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Client Sample ID: 932-K1-WS-080224 SDG No.: P3457

P3457-02 Matrix: Water Lab Sample ID: % Solid:

Analytical Method: 5 Final Vol: 5000 Sample Wt/Vol: Units: mL

Soil Aliquot Vol: uL Test: VOCMS Group6

RXI-624 ID: 0.25 Level: LOW GC Column:

Prep Method:

Client:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID

VN083218.D 1 08/10/24 19:23 VN081024

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.21	U	0.21	1.00	ug/L
74-87-3	Chloromethane	0.35	U	0.35	1.00	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.56	U	0.56	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	1.00	ug/L
67-64-1	Acetone	2.90	J	1.40	5.00	ug/L
75-15-0	Carbon Disulfide	0.32	U	0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
75-09-2	Methylene Chloride	0.32	U	0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.60	U	1.60	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.19	U	0.19	1.00	ug/L
108-87-2	Methylcyclohexane	0.19	U	0.19	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	1.00	ug/L
75-27-4	Bromodichloromethane	0.24	U	0.24	1.00	ug/L
108-88-3	Toluene	0.59	J	0.18	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	0.16	U	0.16	1.00	ug/L



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SDG No.:

#### **Report of Analysis**

Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24 P3457

Lab Sample ID: P3457-02 Matrix: Water

932-K1-WS-080224

Analytical Method: SW8260 % Solid:

Final Vol: 5000 Sample Wt/Vol: 5 Units: mLuL

Test: VOCMS Group6 Soil Aliquot Vol: uL

ID: 0.25 Level: LOW GC Column: RXI-624

Prep Method:

Client Sample ID:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VN083218.D 1 08/10/24 19:23 VN081024

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
1330-20-7	Total Xylenes	0.45	U	0.45	3.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.27	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.0		70 (74) - 130 (125)	118%	SPK: 50
1868-53-7	Dibromofluoromethane	56.1		70 (75) - 130 (124)	112%	SPK: 50
2037-26-5	Toluene-d8	56.0		70 (86) - 130 (113)	112%	SPK: 50
460-00-4	4-Bromofluorobenzene	60.8		70 (64) - 130 (133)	122%	SPK: 50
INTERNAL STA	ANDARDS					
363-72-4	Pentafluorobenzene	140000	8.23			
540-36-3	1,4-Difluorobenzene	267000	9.1			
3114-55-4	Chlorobenzene-d5	272000	11.865			
3855-82-1	1.4-Dichlorobenzene-d4	122000	13.794			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



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#### **Report of Analysis**

JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Client Sample ID: TB-01-080224 SDG No.: P3457

Lab Sample ID: P3457-03 Matrix: Water

Analytical Method: SW8260 % Solid: 0

Sample Wt/Vol: 5 Units: mL Final Vol: 5000 uL

Soil Aliquot Vol: uL Test: VOCMS Group6

GC Column: DB-624UI ID: 0.18 Level: LOW

Prep Method:

Client:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID

VX042968.D 1 08/09/24 03:43 VX080824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.21	U	0.21	1.00	ug/L
74-87-3	Chloromethane	0.35	U	0.35	1.00	ug/L
75-01-4	Vinyl Chloride	0.34	U	0.34	1.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.56	U	0.56	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	1.00	ug/L
67-64-1	Acetone	1.40	U	1.40	5.00	ug/L
75-15-0	Carbon Disulfide	0.32	U	0.32	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	1.00	ug/L
75-09-2	Methylene Chloride	0.32	U	0.32	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
110-82-7	Cyclohexane	1.60	U	1.60	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	1.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.19	U	0.19	1.00	ug/L
108-87-2	Methylcyclohexane	0.19	U	0.19	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	1.00	ug/L
75-27-4	Bromodichloromethane	0.24	U	0.24	1.00	ug/L
108-88-3	Toluene	0.18	U	0.18	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	1.00	ug/L
100-41-4	Ethyl Benzene	0.16	U	0.16	1.00	ug/L

P3457

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TB-01-080224

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SDG No.:

#### **Report of Analysis**

Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Lab Sample ID: P3457-03 Matrix: Water

Analytical Method: SW8260 % Solid: 0

Sample Wt/Vol: 5 Units: mL Final Vol: 5000

Soil Aliquot Vol: uL Test: VOCMS Group6

GC Column: DB-624UI ID: 0.18 Level: LOW

Prep Method:

Client Sample ID:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID

VX042968.D 1 08/09/24 03:43 VX080824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
1330-20-7	Total Xylenes	0.45	U	0.45	3.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.27	U	0.27	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.19	U	0.19	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	64.5		70 (74) - 130 (125)	129%	SPK: 50
1868-53-7	Dibromofluoromethane	56.8		70 (75) - 130 (124)	114%	SPK: 50
2037-26-5	Toluene-d8	50.5		70 (86) - 130 (113)	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.3		70 (64) - 130 (133)	101%	SPK: 50
INTERNAL STA	ANDARDS					
363-72-4	Pentafluorobenzene	158000	5.55			
540-36-3	1,4-Difluorobenzene	312000	6.763			
3114-55-4	Chlorobenzene-d5	294000	10.055			
3855-82-1	1.4-Dichlorobenzene-d4	122000	12.024			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



#### **LAB CHRONICLE**

OrderID: P3457

Client: JACOBS Engineering Group, Inc.

Contact: Mary I. Murphy

**OrderDate:** 8/2/2024 12:31:00 PM

**Project:** Former Schlumberger Site Princeton NJ

**Location:** J21,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P3457-01	924-K1-WS-080224	Water			08/02/24			08/02/24
			VOCMS Group6	8260-Low			08/09/24	
P3457-02	932-K1-WS-080224	Water			08/02/24			08/02/24
			VOCMS Group6	8260-Low			08/10/24	
P3457-03	TB-01-080224	Water			08/02/24			08/02/24
			VOCMS Group6	8260-Low			08/09/24	

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#### Hit Summary Sheet SW-846

**SDG No.:** P3457

Client: JACOBS Engineering Group, Inc.

Sample ID	Client ID		Parameter	Concentration	$\mathbf{C}$	MDL	RDL	Units
Client ID:	924-K1-WS-080224							
P3457-01	924-K1-WS-080224	WATER	Phenanthrene	0.020	J	0.02	0.1	ug/L
P3457-01	924-K1-WS-080224	WATER	Fluoranthene	0.020	J	0.02	0.1	ug/L
			<b>Total Svoc:</b>		0.	.04		
			<b>Total Concentration:</b>		0	.04		
Client ID:	932-K1-WS-080224							
P3457-02	932-K1-WS-080224	WATER	Phenanthrene	0.030	J	0.02	0.1	ug/L
P3457-02	932-K1-WS-080224	WATER	Anthracene	0.030	J	0.02	0.1	ug/L
P3457-02	932-K1-WS-080224	WATER	Fluoranthene	0.050	J	0.02	0.1	ug/L
P3457-02	932-K1-WS-080224	WATER	Pyrene	0.040	J	0.02	0.1	ug/L
P3457-02	932-K1-WS-080224	WATER	Benzo(a)anthracene	0.040	J	0.02	0.1	ug/L
P3457-02	932-K1-WS-080224	WATER	Chrysene	0.040	J	0.03	0.1	ug/L
P3457-02	932-K1-WS-080224	WATER	Benzo(b)fluoranthene	0.040	J	0.03	0.1	ug/L
P3457-02	932-K1-WS-080224	WATER	Benzo(k)fluoranthene	0.030	J	0.03	0.1	ug/L
			Total Svoc:		0.	.30		
			<b>Total Concentration:</b>		0	.30		









D

# SAMPLE DATA

Test:



SVOCMS Group3



#### **Report of Analysis**

Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Client Sample ID: 924-K1-WS-080224 SDG No.: P3457

Lab Sample ID:P3457-01Matrix:WaterAnalytical Method:SW8270SIM% Solid:0

Sample Wt/Vol: 980 Units: mL Final Vol: 1000 uL

Extraction Type: Decanted: N Level: LOW

uL

Injection Volume : GPC Factor : 1.0 GPC Cleanup : N PH :

Prep Method: SW3510C

Soil Aliquot Vol:

 File ID/Qc Batch:
 Dilution:
 Prep Date
 Date Analyzed
 Prep Batch ID

 BN033262 D
 1
 08/05/24 09:05
 08/06/24 08:08
 PB162490

BN033262.D	I	08/05/24 (	19:05	08/06/24 08:08	PB162490	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
91-20-3	Naphthalene	0.020	U	0.020	0.10	ug/L
91-57-6	2-Methylnaphthalene	0.030	U	0.030	0.10	ug/L
208-96-8	Acenaphthylene	0.020	U	0.020	0.10	ug/L
83-32-9	Acenaphthene	0.020	U	0.020	0.10	ug/L
86-73-7	Fluorene	0.020	U	0.020	0.10	ug/L
85-01-8	Phenanthrene	0.020	J	0.020	0.10	ug/L
120-12-7	Anthracene	0.020	U	0.020	0.10	ug/L
206-44-0	Fluoranthene	0.020	J	0.020	0.10	ug/L
129-00-0	Pyrene	0.020	U	0.020	0.10	ug/L
56-55-3	Benzo(a)anthracene	0.020	U	0.020	0.10	ug/L
218-01-9	Chrysene	0.030	U	0.030	0.10	ug/L
205-99-2	Benzo(b)fluoranthene	0.030	U	0.030	0.10	ug/L
207-08-9	Benzo(k)fluoranthene	0.030	U	0.030	0.10	ug/L
50-32-8	Benzo(a)pyrene	0.060	U	0.060	0.10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.040	U	0.040	0.10	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.040	U	0.040	0.10	ug/L
191-24-2	Benzo(g,h,i)perylene	0.040	U	0.040	0.10	ug/L
123-91-1	1,4-Dioxane	0.070	U	0.070	0.20	ug/L
SURROGATES						
7297-45-2	2-Methylnaphthalene-d10	0.32		30 (30) - 150 (150)	79%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.37		30 (30) - 150 (150)	94%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.28		30 (11) - 130 (175)	70%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.41		30 (10) - 130 (175)	101%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.41		30 (54) - 130 (171)	102%	SPK: 0.4
INTERNAL STA	ANDARDS					
3855-82-1	1,4-Dichlorobenzene-d4	827	7.633			
1146-65-2	Naphthalene-d8	3120	10.34			
15067-26-2	Acenaphthene-d10	2030	14.143			
1517-22-2	Phenanthrene-d10	5010	16.914			
23457			29 of 58			R



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Matrix:

Water

#### **Report of Analysis**

Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Client Sample ID: 924-K1-WS-080224 SDG No.: P3457

Lab Sample ID: Analytical Method: SW8270SIM % Solid: 0

Final Vol: 1000 uL Sample Wt/Vol: 980 Units: mL

Soil Aliquot Vol: иL Test: SVOCMS Group3

Extraction Type: Decanted: Ν Level: LOW

Injection Volume: GPC Factor: 1.0 GPC Cleanup: Ν PH:

SW3510C Prep Method:

P3457-01

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID BN033262.D 1 08/05/24 09:05 08/06/24 08:08 PB162490

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
1719-03-5	Chrysene-d12	6880	21.122			
1520-96-3	Perylene-d12	7530	23.28			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Test:



SVOCMS Group3



#### Report of Analysis

Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Client Sample ID: 932-K1-WS-080224 SDG No.: P3457

Lab Sample ID: P3457-02 Matrix: Water

Analytical Method: SW8270SIM % Solid: 0

uL

Sample Wt/Vol: 980 Units: mL Final Vol: 1000 uL

Extraction Type: Decanted: N Level: LOW

Injection Volume : GPC Factor : 1.0 GPC Cleanup : N PH :

Prep Method: SW3510C

Soil Aliquot Vol:

 File ID/Qc Batch:
 Dilution:
 Prep Date
 Date Analyzed
 Prep Batch ID

 BN033263.D
 1
 08/05/24 09:05
 08/06/24 08:45
 PB162490

BN033203.D	1	08/03/24 (	19:05	08/06/24 08:43	PB102490	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
91-20-3	Naphthalene	0.020	U	0.020	0.10	ug/L
91-57-6	2-Methylnaphthalene	0.030	U	0.030	0.10	ug/L
208-96-8	Acenaphthylene	0.020	U	0.020	0.10	ug/L
83-32-9	Acenaphthene	0.020	U	0.020	0.10	ug/L
86-73-7	Fluorene	0.020	U	0.020	0.10	ug/L
85-01-8	Phenanthrene	0.030	J	0.020	0.10	ug/L
120-12-7	Anthracene	0.030	J	0.020	0.10	ug/L
206-44-0	Fluoranthene	0.050	J	0.020	0.10	ug/L
129-00-0	Pyrene	0.040	J	0.020	0.10	ug/L
56-55-3	Benzo(a)anthracene	0.040	J	0.020	0.10	ug/L
218-01-9	Chrysene	0.040	J	0.030	0.10	ug/L
205-99-2	Benzo(b)fluoranthene	0.040	J	0.030	0.10	ug/L
207-08-9	Benzo(k)fluoranthene	0.030	J	0.030	0.10	ug/L
50-32-8	Benzo(a)pyrene	0.060	U	0.060	0.10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	0.040	U	0.040	0.10	ug/L
53-70-3	Dibenzo(a,h)anthracene	0.040	U	0.040	0.10	ug/L
191-24-2	Benzo(g,h,i)perylene	0.040	U	0.040	0.10	ug/L
123-91-1	1,4-Dioxane	0.070	U	0.070	0.20	ug/L
SURROGATES						
7297-45-2	2-Methylnaphthalene-d10	0.26		30 (30) - 150 (150)	65%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.31		30 (30) - 150 (150)	78%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.26		30 (11) - 130 (175)	65%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		30 (10) - 130 (175)	88%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.40		30 (54) - 130 (171)	100%	SPK: 0.4
INTERNAL STA	NDARDS					
3855-82-1	1,4-Dichlorobenzene-d4	830	7.611			
1146-65-2	Naphthalene-d8	2970	10.351			
15067-26-2	Acenaphthene-d10	2060	14.144			
1517-22-2	Phenanthrene-d10	5100	16.915			
2/57			21 of 50			



Lab Sample ID:

284 Sheffield Street, Mountainside, New Jersey 07092, Phone: 908 789 8900, Fax: 908 789 8922

Matrix:

Water

#### **Report of Analysis**

Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Client Sample ID: 932-K1-WS-080224 SDG No.: P3457

Analytical Method: SW8270SIM % Solid: 0

Sample Wt/Vol: 980 Units: mL Final Vol: 1000 uL

Soil Aliquot Vol: uL Test: SVOCMS Group3

Extraction Type: Decanted: N Level: LOW

Injection Volume: GPC Factor: 1.0 GPC Cleanup: N PH:

Prep Method: SW3510C

P3457-02

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID

BN033263.D 1 08/05/24 09:05 08/06/24 08:45 PB162490

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
1719-03-5	Chrysene-d12	6330	21.113			
1520-96-3	Perylene-d12	7550	23.28			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



LAB CHRONICLE

OrderID: P3457

Client: JACOBS Engineering Group, Inc.

Contact: Mary I. Murphy

OrderDate: 8/2/2024 12:31:00 PM

**Project:** Former Schlumberger Site Princeton NJ

Location: J21,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P3457-01	924-K1-WS-080224	Water			08/02/24			08/02/24
			SVOCMS Group3	8270-Modifie d		08/05/24	08/06/24	
P3457-02	932-K1-WS-080224	Water			08/02/24			08/02/24
			SVOCMS Group3	8270-Modifie d		08/05/24	08/06/24	

P3457 Revised

А

В

C





284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

R

В

# D

#### Hit Summary Sheet SW-846

**SDG No.:** P3457

Client: JACOBS Engineering Group, Inc.

Sample ID Client ID Matrix Parameter Concentration C MDL RDL Units

Client ID:

0.000

Total Svoc: 0.00
Total Concentration: 0.00





# В



# SAMPLE DATA

SVOCMS Group6



284 Sheffield Street, Mountainside, New Jersey 07092, Phone: 908 789 8900, Fax: 908 789 8922

Test:

**Report of Analysis** 



Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Date Received: Former Schlumberger Site Princeton NJ 08/02/24

Client Sample ID: 924-K1-WS-080224 SDG No.: P3457

Lab Sample ID: P3457-01 Matrix: Water

Analytical Method: % Solid: 0 SW8270

uL

Sample Wt/Vol: 970 Units: mL Final Vol: 1000 uL

Level: Extraction Type: Decanted: Ν LOW

GPC Cleanup: PH: Injection Volume: GPC Factor: Ν

SW3510C Prep Method:

Soil Aliquot Vol:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID

BF138915.D 1 08/05/24 08:25 08/10/24 17:52 PB162489

BF138913.D	ı	08/03/24 08:23		08/10/24 17:52	PB102489		
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units	
TARGETS							
110-86-1	Pyridine	1.60	U	1.60	5.20	ug/L	
100-52-7	Benzaldehyde	4.10	U	4.10	10.3	ug/L	
95-48-7	2-Methylphenol	1.20	U	1.20	5.20	ug/L	
65794-96-9	3+4-Methylphenols	1.20	U	1.20	10.3	ug/L	
67-72-1	Hexachloroethane	1.00	U	1.00	5.20	ug/L	
98-95-3	Nitrobenzene	1.30	U	1.30	5.20	ug/L	
91-20-3	Naphthalene	1.10	U	1.10	5.20	ug/L	
87-68-3	Hexachlorobutadiene	1.30	U	1.30	5.20	ug/L	
91-57-6	2-Methylnaphthalene	1.20	U	1.20	5.20	ug/L	
88-06-2	2,4,6-Trichlorophenol	0.92	U	0.92	5.20	ug/L	
95-95-4	2,4,5-Trichlorophenol	1.00	U	1.00	5.20	ug/L	
208-96-8	Acenaphthylene	1.10	U	1.10	5.20	ug/L	
83-32-9	Acenaphthene	0.84	U	0.84	5.20	ug/L	
132-64-9	Dibenzofuran	0.96	U	0.96	5.20	ug/L	
121-14-2	2,4-Dinitrotoluene	1.60	U	1.60	5.20	ug/L	
86-73-7	Fluorene	0.99	U	0.99	5.20	ug/L	
118-74-1	Hexachlorobenzene	1.20	U	1.20	5.20	ug/L	
87-86-5	Pentachlorophenol	1.90	U	1.90	10.3	ug/L	
85-01-8	Phenanthrene	0.92	U	0.92	5.20	ug/L	
120-12-7	Anthracene	1.10	U	1.10	5.20	ug/L	
86-74-8	Carbazole	1.20	U	1.20	5.20	ug/L	
84-74-2	Di-n-butylphthalate	1.50	U	1.50	5.20	ug/L	
206-44-0	Fluoranthene	1.30	U	1.30	5.20	ug/L	
129-00-0	Pyrene	1.10	U	1.10	5.20	ug/L	
56-55-3	Benzo(a)anthracene	0.97	U	0.97	5.20	ug/L	
218-01-9	Chrysene	0.89	U	0.89	5.20	ug/L	
117-81-7	Bis(2-ethylhexyl)phthalate	1.90	U	1.90	5.20	ug/L	
205-99-2	Benzo(b)fluoranthene	1.20	U	1.20	5.20	ug/L	
207-08-9	Benzo(k)fluoranthene	1.20	U	1.20	5.20	ug/L	

08/02/24



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Test:

#### **Report of Analysis**

Client: JACOBS Engineering Group, Inc. Date Collected:

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Client Sample ID: 924-K1-WS-080224 SDG No.: P3457

Lab Sample ID: P3457-01 Matrix: Water Analytical Method: SW8270 % Solid: 0

иL

970 Final Vol: 1000 uL Sample Wt/Vol: Units: mL

Soil Aliquot Vol: SVOCMS Group6 Extraction Type: Decanted: Ν Level: LOW

Injection Volume: GPC Factor: 1.0 GPC Cleanup: Ν PH:

SW3510C Prep Method:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID BF138915.D 1 08/05/24 08:25 08/10/24 17:52 PB162489

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
50-32-8	Benzo(a)pyrene	1.70	U	1.70	5.20	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	1.10	U	1.10	5.20	ug/L
53-70-3	Dibenzo(a,h)anthracene	1.20	U	1.20	5.20	ug/L
191-24-2	Benzo(g,h,i)perylene	1.20	U	1.20	5.20	ug/L
123-91-1	1,4-Dioxane	1.30	U	1.30	5.20	ug/L
90-12-0	1-Methylnaphthalene	0.89	U	0.89	5.20	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	56.3		15 (10) - 110 (139)	38%	SPK: 150
13127-88-3	Phenol-d6	33.2		15 (10) - 110 (134)	22%	SPK: 150
4165-60-0	Nitrobenzene-d5	95.3		30 (49) - 130 (133)	95%	SPK: 100
321-60-8	2-Fluorobiphenyl	98.1		30 (52) - 130 (132)	98%	SPK: 100
118-79-6	2,4,6-Tribromophenol	149		15 (44) - 110 (137)	99%	SPK: 150
1718-51-0	Terphenyl-d14	112		30 (48) - 130 (125)	112%	SPK: 100
INTERNAL STA	ANDARDS					
3855-82-1	1,4-Dichlorobenzene-d4	39700	6.84			
1146-65-2	Naphthalene-d8	161000	8.116			
15067-26-2	Acenaphthene-d10	89900	9.869			
1517-22-2	Phenanthrene-d10	156000	11.357			
1719-03-5	Chrysene-d12	70600	13.998			
1520-96-3	Perylene-d12	83200	15.463			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



Lab Sample ID:

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Matrix:

Water

**Report of Analysis** 

Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Client Sample ID: 932-K1-WS-080224 SDG No.: P3457

Analytical Method: SW8270 % Solid: 0

Sample Wt/Vol: 970 Units: mL Final Vol: 1000 uL

Soil Aliquot Vol: uL Test: SVOCMS Group6

Extraction Type: Decanted: N Level: LOW

Injection Volume : GPC Factor : 1.0 GPC Cleanup : N PH :

Prep Method: SW3510C

P3457-02

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID

BF138916.D 1 08/05/24 08:25 08/10/24 18:22 PB162489

BF138910.D	ı	08/05/24	08.23	08/10/24 18:22	PB102489	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	1.60	U	1.60	5.20	ug/L
100-52-7	Benzaldehyde	4.10	U	4.10	10.3	ug/L
95-48-7	2-Methylphenol	1.20	U	1.20	5.20	ug/L
65794-96-9	3+4-Methylphenols	1.20	U	1.20	10.3	ug/L
67-72-1	Hexachloroethane	1.00	U	1.00	5.20	ug/L
98-95-3	Nitrobenzene	1.30	U	1.30	5.20	ug/L
91-20-3	Naphthalene	1.10	U	1.10	5.20	ug/L
87-68-3	Hexachlorobutadiene	1.30	U	1.30	5.20	ug/L
91-57-6	2-Methylnaphthalene	1.20	U	1.20	5.20	ug/L
88-06-2	2,4,6-Trichlorophenol	0.92	U	0.92	5.20	ug/L
95-95-4	2,4,5-Trichlorophenol	1.00	U	1.00	5.20	ug/L
208-96-8	Acenaphthylene	1.10	U	1.10	5.20	ug/L
83-32-9	Acenaphthene	0.84	U	0.84	5.20	ug/L
132-64-9	Dibenzofuran	0.96	U	0.96	5.20	ug/L
121-14-2	2,4-Dinitrotoluene	1.60	U	1.60	5.20	ug/L
86-73-7	Fluorene	0.99	U	0.99	5.20	ug/L
118-74-1	Hexachlorobenzene	1.20	U	1.20	5.20	ug/L
87-86-5	Pentachlorophenol	1.90	U	1.90	10.3	ug/L
85-01-8	Phenanthrene	0.92	U	0.92	5.20	ug/L
120-12-7	Anthracene	1.10	U	1.10	5.20	ug/L
86-74-8	Carbazole	1.20	U	1.20	5.20	ug/L
84-74-2	Di-n-butylphthalate	1.50	U	1.50	5.20	ug/L
206-44-0	Fluoranthene	1.30	U	1.30	5.20	ug/L
129-00-0	Pyrene	1.10	U	1.10	5.20	ug/L
56-55-3	Benzo(a)anthracene	0.97	U	0.97	5.20	ug/L
218-01-9	Chrysene	0.89	U	0.89	5.20	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.90	U	1.90	5.20	ug/L
205-99-2	Benzo(b)fluoranthene	1.20	U	1.20	5.20	ug/L
207-08-9	Benzo(k)fluoranthene	1.20	U	1.20	5.20	ug/L



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#### **Report of Analysis**

Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Client Sample ID: 932-K1-WS-080224 SDG No.: P3457

Lab Sample ID: P3457-02 Matrix: Water

Analytical Method: SW8270 % Solid: 0

Sample Wt/Vol: 970 Units: mL Final Vol: 1000 uL

Soil Aliquot Vol: uL Test: SVOCMS Group6

Extraction Type: Decanted: N Level: LOW

Injection Volume: GPC Factor: 1.0 GPC Cleanup: N PH:

Prep Method: SW3510C

 File ID/Qc Batch:
 Dilution:
 Prep Date
 Date Analyzed
 Prep Batch ID

 BF138916.D
 1
 08/05/24 08:25
 08/10/24 18:22
 PB162489

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
50-32-8	Benzo(a)pyrene	1.70	U	1.70	5.20	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	1.10	U	1.10	5.20	ug/L
53-70-3	Dibenzo(a,h)anthracene	1.20	U	1.20	5.20	ug/L
191-24-2	Benzo(g,h,i)perylene	1.20	U	1.20	5.20	ug/L
123-91-1	1,4-Dioxane	1.30	U	1.30	5.20	ug/L
90-12-0	1-Methylnaphthalene	0.89	U	0.89	5.20	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	55.1		15 (10) - 110 (139)	37%	SPK: 150
13127-88-3	Phenol-d6	32.6		15 (10) - 110 (134)	22%	SPK: 150
4165-60-0	Nitrobenzene-d5	97.9		30 (49) - 130 (133)	98%	SPK: 100
321-60-8	2-Fluorobiphenyl	98.9		30 (52) - 130 (132)	99%	SPK: 100
118-79-6	2,4,6-Tribromophenol	142		15 (44) - 110 (137)	95%	SPK: 150
1718-51-0	Terphenyl-d14	106		30 (48) - 130 (125)	106%	SPK: 100
INTERNAL STA	ANDARDS					
3855-82-1	1,4-Dichlorobenzene-d4	37200	6.839			
1146-65-2	Naphthalene-d8	144000	8.122			
15067-26-2	Acenaphthene-d10	78800	9.869			
1517-22-2	Phenanthrene-d10	134000	11.357			
1719-03-5	Chrysene-d12	64500	13.998			
1520-96-3	Perylene-d12	79600	15.462			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



### LAB CHRONICLE

OrderID: P3457

Client: JACOBS Engineering Group, Inc.

Contact: Mary I. Murphy

**OrderDate:** 8/2/2024 12:31:00 PM

**Project:** Former Schlumberger Site Princeton NJ

Location: J21,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P3457-01	924-K1-WS-080224	Water			08/02/24			08/02/24
			SVOCMS Group3	8270-Modified		08/05/24	08/06/24	
			SVOCMS Group6	8270E		08/05/24	08/10/24	
P3457-02	932-K1-WS-080224	Water			08/02/24			08/02/24
			SVOCMS Group3	8270-Modified		08/05/24	08/06/24	
			SVOCMS Group6	8270E		08/05/24	08/10/24	

P3457 **40 of 58** Revised

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932-K1-WS-080224

932-K1-WS-080224

Client ID:

P3457-02

284 Sheffield Street, Mountainside, New Jersey 07092, Phone: 908 789 8900,

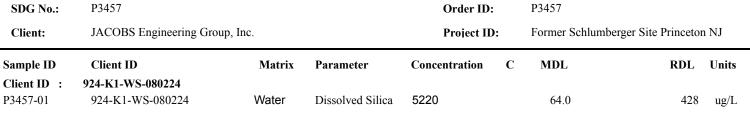
5030

64.0

Fax: 908 789 8922

Water

#### Hit Summary Sheet SW-846



Dissolved Silica





428

ug/L







В



# SAMPLE DATA

284 Sheffield Street, Mountainside, New Jersey 07092, Phone: 908 789 8900,

Fax: 908 789 8922

#### **Report of Analysis**



Cas	Parameter	Conc.	Qua. DF MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
Dissolved	Dissolved	5220	1 64.0	428	ug/L	10/24/24 11:45	10/24/24 21:54	EPA 200.7	,
Silica	Silica								

Color Before:

Colorless

Colorless

Clarity Before:

Clarity After:

Clear Clear Texture: Artifacts:

Color After: Comments:

Metals Group5

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence

of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

284 Sheffield Street, Mountainside, New Jersey 07092, Phone: 908 789 8900,

Fax: 908 789 8922

#### **Report of Analysis**



Cas	Parameter	Conc.	Qua. DF MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
Dissolved	Dissolved	5030	1 64.0	428	ug/L	10/24/24 11:45	10/24/24 21:58	EPA 200.7	,
Silica	Silica								

Color Before: Colo

Colorless

Clarity Before:

Clear

Texture:

Color After:

Colorless

Clarity After:

Clear

Artifacts:

Comments:

Metals Group5

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence

of interference.

OR = Over Range

N =Spiked sample recovery not within control limits



### LAB CHRONICLE

OrderID: P3457

Client: JACOBS Engineering Group, Inc.

Contact: Mary I. Murphy

**OrderDate:** 8/2/2024 12:31:00 PM

**Project:** Former Schlumberger Site Princeton NJ

Location: J21,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P3457-01	924-K1-WS-080224	Water			08/02/24			08/02/24
			Mercury	7470A		08/12/24	08/13/24	
			Metals Group4	6020B		08/23/24	08/25/24	
			Metals Group5	200.7		10/24/24	10/24/24	
P3457-02	932-K1-WS-080224	Water			08/02/24			08/02/24
			Mercury	7470A		08/12/24	08/13/24	
			Metals Group4	6020B		08/23/24	08/25/24	
			Metals Group5	200.7		10/24/24	10/24/24	

P3457 **45 of 58** Revised

Α

В

C



284 Sheffield Street, Mountainside, New Jersey 07092, Phone: 908 789 8900,

Fax: 908 789 8922

#### Hit Summary Sheet SW-846

**SDG No.:** P3457 **Order ID:** P3457

Client: JACOBS Engineering Group, Inc. Project ID: Former Schlumberger Site Princeton NJ

Chefft:	JACOBS Eligilicething Glob	ip, mc.		r roject in	· .	Pormer Schiumbe	iger Site i inicetor	1 113
Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	924-K1-WS-080224							
P3457-01	924-K1-WS-080224	Water	Aluminum	69.3		1.98	20.0	ug/L
P3457-01	924-K1-WS-080224	Water	Antimony	0.59	J	0.11	2.00	ug/L
P3457-01	924-K1-WS-080224	Water	Arsenic	0.85	J	0.090	1.00	ug/L
P3457-01	924-K1-WS-080224	Water	Barium	180		0.30	10.0	ug/L
P3457-01	924-K1-WS-080224	Water	Calcium	34800		62.5	500	ug/L
P3457-01	924-K1-WS-080224	Water	Chromium	0.45	J	0.40	2.00	ug/L
P3457-01	924-K1-WS-080224	Water	Cobalt	2.34		0.062	1.00	ug/L
P3457-01	924-K1-WS-080224	Water	Copper	0.72	J	0.40	2.00	ug/L
P3457-01	924-K1-WS-080224	Water	Iron	4360		9.60	50.0	ug/L
P3457-01	924-K1-WS-080224	Water	Lead	0.90	J	0.11	1.00	ug/L
P3457-01	924-K1-WS-080224	Water	Magnesium	9040		26.6	500	ug/L
P3457-01	924-K1-WS-080224	Water	Manganese	1940		0.24	1.00	ug/L
P3457-01	924-K1-WS-080224	Water	Nickel	1.11		0.18	1.00	ug/L
P3457-01	924-K1-WS-080224	Water	Potassium	4810		46.1	500	ug/L
P3457-01	924-K1-WS-080224	Water	Silver	0.85	J	0.077	1.00	ug/L
P3457-01	924-K1-WS-080224	Water	Sodium	175000		85.8	500	ug/L
P3457-01	924-K1-WS-080224	Water	Vanadium	0.38	J	0.072	5.00	ug/L
P3457-01	924-K1-WS-080224	Water	Zinc	5.22		0.56	5.00	ug/L
Client ID :	932-K1-WS-080224	10/-4	.1 :	00.0		1.00	20.0	/T
P3457-02	932-K1-WS-080224	Water	Aluminum	28.6		1.98	20.0	ug/L
P3457-02	932-K1-WS-080224	Water	Antimony	0.23	J	0.11	2.00	ug/L
P3457-02	932-K1-WS-080224	Water	Arsenic	0.92	J	0.090	1.00	ug/L
P3457-02	932-K1-WS-080224	Water	Barium	174		0.30	10.0	ug/L
P3457-02	932-K1-WS-080224	Water	Calcium	33700		62.5	500	ug/L
P3457-02	932-K1-WS-080224	Water	Cobalt	2.11		0.062	1.00	ug/L
P3457-02	932-K1-WS-080224	Water	Copper	0.80	J	0.40	2.00	ug/L
P3457-02	932-K1-WS-080224	Water	Iron	5010		9.60	50.0	ug/L
P3457-02	932-K1-WS-080224	Water	Lead	0.39	J	0.11	1.00	ug/L
P3457-02	932-K1-WS-080224	Water	Magnesium	8800		26.6	500	ug/L
P3457-02	932-K1-WS-080224	Water	Manganese	1670	-	0.24	1.00	ug/L
P3457-02	932-K1-WS-080224	Water	Nickel	0.99	J	0.18	1.00	ug/L
P3457-02	932-K1-WS-080224	Water	Potassium	4650	-	46.1	500	ug/L
P3457-02	932-K1-WS-080224	Water	Silver	0.47	J	0.077	1.00	ug/L
P3457-02	932-K1-WS-080224	Water	Sodium	172000	-	85.8	500	ug/L
P3457-02	932-K1-WS-080224	Water	Vanadium	0.28	J	0.072	5.00	ug/L
P3457-02	932-K1-WS-080224	Water	Zinc	3.71	J	0.56	5.00	ug/L







В

Б

# SAMPLE DATA

Matrix:

Water



Lab Sample ID:

Fax: 908 789 8922

P3457-01

#### **Report of Analysis**

Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Client Sample ID: 924-K1-WS-080224 SDG No.: P3457

Level (low/med): low % Solid: 0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	69.3		1	1.98	20.0	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7440-36-0	Antimony	0.59	J	1	0.11	2.00	ug/L ug/L	08/23/24 15:00	08/25/24 18:34		3010A
7440-38-2	Arsenic	0.85	J	1	0.090	1.00	ug/L	08/23/24 15:00	08/25/24 18:34		3010A
7440-39-3	Barium	180		1	0.30	10.0	ug/L	08/23/24 15:00	08/25/24 18:34		3010A
7440-41-7	Beryllium	0.16	U	1	0.16	1.00	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7440-43-9	Cadmium	0.30	U	1	0.30	1.00	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7440-70-2	Calcium	34800		1	62.5	500	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7440-47-3	Chromium	0.45	J	1	0.40	2.00	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7440-48-4	Cobalt	2.34		1	0.062	1.00	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7440-50-8	Copper	0.72	J	1	0.40	2.00	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7439-89-6	Iron	4360		1	9.60	50.0	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7439-92-1	Lead	0.90	J	1	0.11	1.00	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7439-95-4	Magnesium	9040		1	26.6	500	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7439-96-5	Manganese	1940		1	0.24	1.00	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7439-97-6	Mercury	0.081	U	1	0.081	0.20	ug/L	08/12/24 16:13	08/13/24 10:44	SW7470A	
7440-02-0	Nickel	1.11		1	0.18	1.00	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7440-09-7	Potassium	4810		1	46.1	500	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7782-49-2	Selenium	1.38	U	1	1.38	5.00	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7440-22-4	Silver	0.85	JN	1	0.077	1.00	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7440-23-5	Sodium	175000		1	85.8	500	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7440-28-0	Thallium	0.085	U	1	0.085	1.00	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7440-62-2	Vanadium	0.38	J	1	0.072	5.00	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A
7440-66-6	Zinc	5.22		1	0.56	5.00	ug/L	08/23/24 15:00	08/25/24 18:34	SW6020	3010A

Color Before: Colorless Clarity Before: Clear Texture: Medium

Color After: Colorless Clarity After: N/A Artifacts: N/A

Comments: Mercury

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits



Fax: 908 789 8922

#### **Report of Analysis**

Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Client Sample ID: 932-K1-WS-080224 SDG No.: P3457

Lab Sample ID: P3457-02 Matrix: Water

Level (low/med): low % Solid: 0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	28.6		1	1.98	20.0	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-36-0	Antimony	0.23	J	1	0.11	2.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-38-2	Arsenic	0.92	J	1	0.090	1.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-39-3	Barium	174		1	0.30	10.0	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-41-7	Beryllium	0.16	U	1	0.16	1.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-43-9	Cadmium	0.30	U	1	0.30	1.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-70-2	Calcium	33700		1	62.5	500	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-47-3	Chromium	0.40	U	1	0.40	2.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-48-4	Cobalt	2.11		1	0.062	1.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-50-8	Copper	0.80	J	1	0.40	2.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7439-89-6	Iron	5010		1	9.60	50.0	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7439-92-1	Lead	0.39	J	1	0.11	1.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7439-95-4	Magnesium	8800		1	26.6	500	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7439-96-5	Manganese	1670		1	0.24	1.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7439-97-6	Mercury	0.081	U	1	0.081	0.20	ug/L	08/12/24 16:13	08/13/24 10:46	SW7470A	<b>L</b>
7440-02-0	Nickel	0.99	J	1	0.18	1.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-09-7	Potassium	4650		1	46.1	500	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7782-49-2	Selenium	1.38	U	1	1.38	5.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-22-4	Silver	0.47	JN	1	0.077	1.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-23-5	Sodium	172000		1	85.8	500	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-28-0	Thallium	0.085	U	1	0.085	1.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-62-2	Vanadium	0.28	J	1	0.072	5.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A
7440-66-6	Zinc	3.71	J	1	0.56	5.00	ug/L	08/23/24 15:00	08/25/24 18:37	SW6020	3010A

Color Before: Colorless Clarity Before: Clear Texture: Medium Color After: Colorless Clarity After: N/A Artifacts: N/A

Comments: Mercury

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits



### LAB CHRONICLE

OrderID: P3457

Client: JACOBS Engineering Group, Inc.

Contact: Mary I. Murphy

**OrderDate:** 8/2/2024 12:31:00 PM

**Project:** Former Schlumberger Site Princeton NJ

Location: J21,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P3457-01	924-K1-WS-080224	Water			08/02/24			08/02/24
			Mercury	7470A		08/12/24	08/13/24	
			Metals Group4	6020B		08/23/24	08/25/24	
P3457-02	932-K1-WS-080224	Water			08/02/24			08/02/24
			Mercury	7470A		08/12/24	08/13/24	
			Metals Group4	6020B		08/23/24	08/25/24	

P3457 **50 of 58** Revised

A

В

C









## SAMPLE DATA

10





Project:

### **Report of Analysis**

Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24 08:55

Client Sample ID: 924-K1-WS-080224 SDG No.: P3457

Former Schlumberger Site Princeton NJ

Lab Sample ID: P3457-01 Matrix: WATER

% Solid: 0

08/02/24

Date Received:

Parameter	Conc. Qua.	DF MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Dissolved Hexavalent	0.0030 U	1 0.0030	0.010	mg/L		08/02/24 14:30	7196A
Chromium							

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits



P3457-02

Lab Sample ID:

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

#### **Report of Analysis**

Client: JACOBS Engineering Group, Inc. Date Collected: 08/02/24 09:50

Project: Former Schlumberger Site Princeton NJ Date Received: 08/02/24

Client Sample ID: 932-K1-WS-080224 SDG No.: P3457

% Solid: 0

WATER

Matrix:

Dissolved Hexavalent 0.0030 U 1 0.0030 0.010 mg/L 08/02/24 14:31 7196A	Parameter	Conc. Qua	. DF MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Dissolved Hexavalent	0.0030 U	1 0.0030	0.010	mg/L		08/02/24 14:31	7196A

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits





### LAB CHRONICLE

P3457 OrderID:

JACOBS Engineering Group, Inc.

Client: Mary I. Murphy Contact:

8/2/2024 12:31:00 PM OrderDate:

Former Schlumberger Site Princeton NJ Project:

Location: J21,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P3457-01	924-K1-WS-080224	WATER			08/02/24			08/02/24
			Hexavalent Chromium	7196A	08:55		08/02/24	
			nexavalent Cilionilum	7196A			14:30	
P3457-02	932-K1-WS-080224	WATER			08/02/24			08/02/24
					09:50			
			Hexavalent Chromium	7196A			08/02/24	
							14:31	





## SHIPPING DOCUMENTS



### 284 Sheffield Street, Mountainside, NJ 07092 (908) 789-8900 • Fax (908) 789-8922 www.chemtech.net

CHEMTECH PROJECT NO.

QUOTE NO.

coc Number 2041348

11.1

	CLIENT	INFORMATION					CLIENT P	ROJECT IN	IFORM/	ATION	PIN				7.5	CLIEN	T BILLII	NG INFO	PRMATION	F1 F1 F1 F1
COMPANY: Jacobs				PROJE	PROJECT NAME: STC PTC BILL TO: Mary Murphy									PO#:						
ADDRESS: 412 Mt Kemble Au Suite #100			PROJEC	PROJECT NO.: D377992 Z LOCATION: Princeton Junction address:																
CITY Morrisbour STATE: NJ ZIP: 07960			4/ //							CITY			STAT	E:	ZIP:					
ATTENTION: John Yorfante						90	y@J	1				ATTEN	NTION:				PHO	NE:		
PHONE: (281) 414-1719 FAX:				HONE: (201) 936-0566 FAX:																
DATA TURNAROUND INFORMATION							RABLE IN		ATION	10			, :	ĮH		7	150	ج میا		
FAX (RUSH) STANDARD TAT DAYS* HARDCOPY (DATA PACKAGE): DAYS* EDD: DAYS* *TO BE APPROVED BY CHEMTECH STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS				Leve	2 (Re   3 (Re   w Dat	sults - sults - ta)	+ QC)	Level 4 (QC NJ Reduce NYS ASP A Other	d 🔲 U	Raw Data S EPA CI 'S ASP E	P _P _100-	John S	M. 5. 10 10 10 10 10 10 10 10 10 10 10 10 10	10250	TIALP 6	/1	//8	/9	//	
CHEMTECH						IPLE		/IPLE	ES	400			PRES	SERVA	TIVES					MMENTS
SAMPLE	SA	PROJECT AMPLE IDENTIFICA	ATION	SAMPLE MATRIX		PE g		ECTION	OF BOTTLES	A/E	E	BE	E						A-HCI B-HN03	fy Preservatives D-NaOH E-ICE
ID					COMP	GRAB	DATE	TIME	# 90 #	1	2	3	4	5	6	7	8	9	C-H2SO4	F-OTHER
1.	924-K1-	WS-680224		WS		X	8/2/24	0855	8	2_	4	1	i							
2.	932 - KI-	WS-080224		WS		X	8/2/21	0950	8	2	4	li	į							
3.	TB-01-0			01			8/2/48		i	1										
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
		SAMPLE CUSTO	DY MUST BE DOC	UMENTE				ME SAMF	LES C	HANGE	POSS	SESSIO	N INCL	UDING	COUR	IER DE	LIVER		200	
1. A SHED B	YSAMPLER:	DATE/TIME: 1768	RECEIVED BY:	D	(2	2-2	Comme	ions of bottle nts: <u>See</u>	s or cools	rs at jecei	toble	COMPLIAN	requi	N COMPLI	analy	COOLER T	EMP ist e	F E	<0 <0-Voc	°C <b>S</b> ,
RELINQUISHED B	Y SAMPLER:	DATE/TIME:	REVEIVED BY:	V			7 EC	0-SV0	CS , .	and	ECC	) - W	etals.							
2.			2.				-1	.L ext	ya V	TOUNE	tor	ZVOC	and	PAI	1 au	alysis	<u>C</u>			
RELINQUISHED B	Y SAMPLAR:	8-2-24	RECEIVED BY:				Page	of	1	CLIEN CHEMT		Hand D		□ 0	ther	alina				nt Complete
P3457 2023	#	Oral	WHITE - CHEMTE	CH COPY FO	OR RET	URN T			W - CHE			☐ Pic	- SAMPLE		nu oaint	лнід			UI YES	□ NO Revis





Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (L-A-B)	L2219
Maine	2024021
Maryland	296
New Hampshire	255423
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

234 Sheffield Street, Mountainside, New Jersey 07092, Phone: 903 789 8900,

Fax: 908 789 8922

#### LOGIN REPORT/SAMPLE TRANSFER

Order ID: P3457

JACO05

Order Date: 8/2/2024 12:31:00 PM

Project Mgr:

Client Name: JACOBS Engineering Grou

Project Name: Former Schlumberger Site I

Report Type: Level 4

Client Contact: Mary I. Murphy

Receive DateTime: 8/2/2024 12:00:00 AM

EDD Type: CH2MHILL

Invoice Name: JACOBS Engineering Grou

Purchase Order:

Hard Copy Date:

Invoice Contact: Mary I. Murphy

Date Signoff:

LAB ID	CLIENT ID	MATRIX SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD		FAX DATE	DUE DATES
P3457-01	924 <del>-KI</del> -WS-080224	Water 08/02/2024	08:55						
	K1			VOCMS Group6		8260-Low	10 Bus. Days		
P3457-02	932 <del>-KI-</del> WS-080224	Water 08/02/2024	09:50						
	K1			VOCMS Group6		8260-Low	10 Bus. Days		
P3457-03	TB-01-080224	Water 08/02/2024	11:00						
				VOCMS Group6		8260-Low	10 Bus. Days		

Relinguished By

Date / Time:

-14:20 Reg# 4

Storage Area: VOA Refridgerator Room