

ANALYTICAL RESULTS SUMMARY

SEMI-VOLATILE ORGANICS 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: N6070

ATTENTION: Doug Scott





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DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Labora	atory Name :	CHEMTECH	Client :	JACOBS Engine	ering Grou	p, Inc		
Projec	ct Location:		Project Number :	148036466 - Foi	rmer Schlu	mberg	er Site	-
Labora	atory Sample ID	(s): <u>N6070</u>	Sampling Date(s):	12/14/2022				
List D	KQP Methods U	sed (e.g., 8260,8270, et Cetr	a) 8260D,8270-Modified,SM O)				
1	specified QA/C explain any crit	C performance criteria follow	is laboratory report package, wer red, including the requirement to able guidelines, as specified in th standards?		✓ Yes		No	
1A	Were the meth	od specified handling, preser	vation, and holding time requiren	nents met?	✓ Yes		No	
1B		Nas the EPH method conductive respective DKQ methods)	ted without significant modification	ons (see	☐ Yes		No	✓ N/A
2		les received by the laboratory ne associated chain-of-custoo	in a condition consistent with that document(s)?	at	✓ Yes		No	
3	Were samples	received at an appropriate te	mperature (4±2° C)?		☑ Yes		No	□ N/A
4	Were all QA/Qe standards ach	C performance criteria specifi nieved?	ed in the NJDEP DKQP		✓ Yes		No	
5		ng limits specified or referenc to the laboratory prior to sam	ed on the chain-of-custody or pple receipt?		√ Yes		No	
	b)Were these r	reporting limits met?			☐ Yes	V	No	□ N/A
6	results reporte		is laboratory report package, wer d in the method-specific analyte ite-specific QAPP?		∀ Yes		No	
7	Are project-spe	ecific matrix spikes and/or lab	oratory duplicates included in this	s data set?	☑ Yes		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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CHEMIECH

Cover Page

Order ID: N6070

Project ID: Former Schlumberger Site Princeton NJ

Client: JACOBS Engineering Group, Inc.

Lab Sample NumberClient Sample NumberN6070-01GW-BR-04-226-245-121422N6070-02TB-01-121422N6070-03OWBR-01-160-180-121422N6070-04OWBR-02-160-180-121422N6070-05OWBR-03-128-148-121422

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:	12/29/2022

NYDOH CERTIFICATION NO - 11376 NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

JACOBS Engineering Group, Inc.

Project Name: Former Schlumberger Site Princeton NJ

Project # N/A

Chemtech Project # N6070 Test Name: VOCMS Group3

A. Number of Samples and Date of Receipt:

5 Water samples were received on 12/14/2022.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group3. This data package contains results for VOCMS Group3.

C. Analytical Techniques:

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 Group3 was based on method 8260D.

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 Initial Calibration met the requirements.

The Continuous Calibration met the requirements.

The Tuning criteria met requirements.

E. Additional Comments:

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:

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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	
Digitature	

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CASE NARRATIVE

JACOBS Engineering Group, Inc.

Project Name: Former Schlumberger Site Princeton NJ

Project # N/A

Chemtech Project # N6070 Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:

5 Water samples were received on 12/14/2022.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group3. This data package contains results for SVOC-SIMGroup1.

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 SVOC-SIMGroup1 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 except for OWBR-03-128-148-121422 [Terphenyl-d14 - 142%] this compound 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 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 Initial Calibration met the requirements.

The Continuous Calibration File ID BN023280.D met the requirements except for 2-Fluorophenol and Phenol-d6, failure surrogate is not associated with the client list, as per criteria affected surrogates were passing, therefore no corrective action was taken.

The Tuning criteria met requirements.

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E. Additional Comments:

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

Signature_			
Signature			

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DATA REPORTING QUALIFIERS- ORGANIC

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

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 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 Indicates an estimated value. This flag is used:

- (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)
- (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 10 ug/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.
- B 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 aldolcondensation product.
- Q Indicates the LCS did not meet the control limits requirements



APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: N6070

		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)		✓
Check chain-of-custody for proper relinquish/return of samples		<u></u>
Is the chain of custody signed and complete		<u></u>
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts		<u>√</u> <u>√</u>
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		✓
CHAIN OF CUSTODY:		
Do requested analyses on Chain of Custody agree with form I results		✓
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?		✓
Was client requirement followed?		<u> </u>
Does the case narrative summarize all QC failure?		✓
All runlogs and manual integration are reviewed for requirements		<u> </u>
All manual calculations and /or hand notations verified		<u> </u>
1st Level QA Review Signature: SOHIL JODHANI	Date: 12/29/2022	
2nd Level QA Review Signature:	Date:	

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Hit Summary Sheet SW-846

SDG No.: N6070

Client ID:

N6070-05

Client: JACOBS Engineering Group, Inc.

OWBR-03-128-148-121422

Benzene

Total Voc :
Total Concentration:

OWBR-03-128-148 Water

Sample ID	Client ID Matri	x Parameter	Concentration	C	MDL	RDL	Units
Client ID:	GW-BR-04-226-245-121422						
N6070-01	GW-BR-04-226-24: Water	1,1-Dichloroethene	1.80		0.23	1.00	ug/L
N6070-01	GW-BR-04-226-24; Water	cis-1,2-Dichloroethene	9.00		0.17	1.00	ug/L
N6070-01	GW-BR-04-226-24; Water	Trichloroethene	4.90		0.27	1.00	ug/L
		Total Voc:	15.	7			
		Total Concentration:	15.	7			
Client ID:	OWBR-01-160-180-121422						
N6070-03	OWBR-01-160-180 Water	Trichloroethene	0.64	J	0.27	1.00	ug/L
		Total Voc:	0.6	4			
		Total Concentration:	0.64	1			

1.60

1.60

1.60

0.16

1.00

ug/L

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5

A

C

SAMPLE DATA

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12/14/22

5000

uL



Sample Wt/Vol:

5

Report of Analysis

Client: JACOBS Engineering Group, Inc. Date Collected:

mL

Units:

Project: Former Schlumberger Site Princeton NJ Date Received: 12/14/22

Client Sample ID: GW-BR-04-226-245-121422 SDG No.: N6070
Lab Sample ID: N6070-01 Matrix: Water

Analytical Method: SW8260 % Moisture: 100

Soil Aliquot Vol: uL Test: VOCMS Group3

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

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VX033441.D 1 12/15/22 14:50 VX121522

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.22	U	0.22	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.80		0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.20	U	0.20	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	9.00		0.17	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.18	U	0.18	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.18	U	0.18	1.00	ug/L
79-01-6	Trichloroethene	4.90		0.27	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.19	U	0.19	1.00	ug/L
127-18-4	Tetrachloroethene	0.18	U	0.18	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.8		70 (74) - 130 (125)	98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.3		70 (75) - 130 (124)	99%	SPK: 50
2037-26-5	Toluene-d8	47.6		70 (86) - 130 (113)	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.7		70 (64) - 130 (133)	97%	SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	115000	5.55			
540-36-3	1,4-Difluorobenzene	183000	6.763			
3114-55-4	Chlorobenzene-d5	164000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	77400	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

Final Vol:

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

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Report of Analysis

Client: JACOBS Engineering Group, Inc. Date Collected: 12/14/22

Project: Former Schlumberger Site Princeton NJ Date Received: 12/14/22

Client Sample ID: TB-01-121422 SDG No.: N6070

Lab Sample ID: N6070-02 Matrix: Water

Analytical Method: SW8260 % Moisture: 100

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

Soil Aliquot Vol: uL Test: VOCMS Group3

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

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VX033434.D 1 12/15/22 12:09 VX121522

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.22	U	0.22	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.20	U	0.20	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.17	U	0.17	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.18	U	0.18	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.18	U	0.18	1.00	ug/L
79-01-6	Trichloroethene	0.27	U	0.27	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.19	U	0.19	1.00	ug/L
127-18-4	Tetrachloroethene	0.18	U	0.18	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	46.7		70 (74) - 130 (125)	93%	SPK: 50
1868-53-7	Dibromofluoromethane	47.0		70 (75) - 130 (124)	94%	SPK: 50
2037-26-5	Toluene-d8	45.7		70 (86) - 130 (113)	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.2		70 (64) - 130 (133)	88%	SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	128000	5.556			
540-36-3	1,4-Difluorobenzene	204000	6.763			
3114-55-4	Chlorobenzene-d5	177000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	78600	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

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Report of Analysis

Client: JACOBS Engineering Group, Inc. Date Collected: 12/14/22

Project: Former Schlumberger Site Princeton NJ Date Received: 12/14/22

Client Sample ID: OWBR-01-160-180-121422 SDG No.: N6070

Lab Sample ID: N6070-03 Matrix: Water

Analytical Method: SW8260 % Moisture: 100

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

Soil Aliquot Vol: uL Test: VOCMS Group3

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

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VX033436.D 1 12/15/22 12:55 VX121522

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.22	U	0.22	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.20	U	0.20	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.17	U	0.17	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.18	U	0.18	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.18	U	0.18	1.00	ug/L
79-01-6	Trichloroethene	0.64	J	0.27	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.19	U	0.19	1.00	ug/L
127-18-4	Tetrachloroethene	0.18	U	0.18	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.8		70 (74) - 130 (125)	96%	SPK: 50
1868-53-7	Dibromofluoromethane	48.2		70 (75) - 130 (124)	96%	SPK: 50
2037-26-5	Toluene-d8	46.7		70 (86) - 130 (113)	93%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.6		70 (64) - 130 (133)	91%	SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	113000	5.556			
540-36-3	1,4-Difluorobenzene	180000	6.763			
3114-55-4	Chlorobenzene-d5	158000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	73100	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

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12/14/22

5000

uL

Sample Wt/Vol:

5

Report of Analysis

Client: JACOBS Engineering Group, Inc. Date Collected:

Units:

mL

Project: Former Schlumberger Site Princeton NJ Date Received: 12/14/22

Client Sample ID: OWBR-02-160-180-121422 SDG No.: N6070
Lab Sample ID: N6070-04 Matrix: Water

Analytical Method: SW8260 % Moisture: 100

Soil Aliquot Vol: uL Test: VOCMS Group3

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

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VX033437.D 1 12/15/22 13:18 VX121522

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.22	U	0.22	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.20	U	0.20	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.17	U	0.17	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.18	U	0.18	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.18	U	0.18	1.00	ug/L
79-01-6	Trichloroethene	0.27	U	0.27	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.19	U	0.19	1.00	ug/L
127-18-4	Tetrachloroethene	0.18	U	0.18	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	44.4		70 (74) - 130 (125)	89%	SPK: 50
1868-53-7	Dibromofluoromethane	44.6		70 (75) - 130 (124)	89%	SPK: 50
2037-26-5	Toluene-d8	43.7		70 (86) - 130 (113)	87%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.0		70 (64) - 130 (133)	84%	SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	111000	5.55			
540-36-3	1,4-Difluorobenzene	177000	6.763			
3114-55-4	Chlorobenzene-d5	155000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	69600	12.024			

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MDL = Method Detection Limit

LOD = Limit of Detection

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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

Final Vol:

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

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Report of Analysis

Client: JACOBS Engineering Group, Inc. Date Collected:

12/14/22

Project: Former Schlumberger Site Princeton NJ Date Received: 12/14/22

OWBR-03-128-148-121422 Client Sample ID:

SDG No.: N6070

Lab Sample ID: N6070-05 Matrix:

Analytical Method: SW8260

Water 100

Sample Wt/Vol: 5

mL

% Moisture: Final Vol:

5000 uL

Soil Aliquot Vol:

uL

Units:

Test:

VOCMS Group3

GC Column:

DB-624UI

ID: 0.18

Level:

LOW

File ID/Qc Batch:

Dilution:

Prep Date

Date Analyzed

Prep Batch ID

VX033438.D

12/15/22 13:41

VX121522

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
FARGETS						
75-01-4	Vinyl Chloride	0.22	U	0.22	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.20	U	0.20	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.17	U	0.17	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.18	U	0.18	1.00	ug/L
71-43-2	Benzene	1.60		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.18	U	0.18	1.00	ug/L
79-01-6	Trichloroethene	0.27	U	0.27	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.19	U	0.19	1.00	ug/L
127-18-4	Tetrachloroethene	0.18	U	0.18	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.3		70 (74) - 130 (125)	99%	SPK: 50
1868-53-7	Dibromofluoromethane	48.8		70 (75) - 130 (124)	98%	SPK: 50
2037-26-5	Toluene-d8	47.3		70 (86) - 130 (113)	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.6		70 (64) - 130 (133)	93%	SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	118000	5.55			
540-36-3	1,4-Difluorobenzene	187000	6.763			
3114-55-4	Chlorobenzene-d5	166000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	76400	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

N6070 17 of 31



284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

OrderID: N6070

Client:

JACOBS Engineering Group, Inc.

Contact: Doug Scott

OrderDate:

Location:

12/14/2022 4:13:00 PM

Project: Former Schlumberger Site Princeton NJ

M11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
N6070-01	GW-BR-04-226-245-1 21422	Water			12/14/22			12/14/22
	21422		VOCMS Group3	8260-Low			12/15/22	
N6070-02	TB-01-121422	Water			12/14/22			12/14/22
			VOCMS Group3	8260-Low			12/15/22	
N6070-03	OWBR-01-160-180-12 1422	Water			12/14/22			12/14/22
			VOCMS Group3	8260-Low			12/15/22	
N6070-04	OWBR-02-160-180-12 1422	Water			12/14/22			12/14/22
			VOCMS Group3	8260-Low			12/15/22	
N6070-05	OWBR-03-128-148-12 1422	Water			12/14/22			12/14/22
	1422		VOCMS Group3	8260-Low			12/15/22	

N6070 18 of 31



Hit Summary Sheet SW-846

SDG No.: N6070

Client: JACOBS Engineering Group, Inc.

MDL RDL Units Sample ID **Client ID Parameter** Concentration \mathbf{C} Client ID: GW-BR-04-226-245-121422 N6070-01 GW-BR-04-226-245-121 WATER 1,4-Dioxane 1.100 0.08 0.2 ug/L

> **Total Svoc:** 1.10 **Total Concentration:** 1.10

N6070 19 of 31













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SAMPLE DATA

N6070 **20 of 31**



Extraction Type:

Report of Analysis

Client: JACOBS Engineering Group, Inc. Date Collected: 12/14/22

Project: Former Schlumberger Site Princeton NJ Date Received: 12/14/22

GW-BR-04-226-245-121422 Client Sample ID: SDG No.: N6070 Lab Sample ID: N6070-01 Matrix: Water

100 Analytical Method: **SW8270SIM** % Moisture:

Sample Wt/Vol: 980 Units: mLFinal Vol: 1000 uL

Ν

LOW

Soil Aliquot Vol: uL Test: SVOC-SIMGroup1 Level:

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

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

BN023282.D 12/16/22 08:59 12/19/22 12:40 PB149692 1

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
123-91-1	1,4-Dioxane	1.10		0.080	0.20	ug/L
SURROGATES						
7297-45-2	2-Methylnaphthalene-d10	0.20		30 (30) - 150 (150)	50%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.27		30 (30) - 150 (150)	68%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.24		30 (11) - 130 (175)	59%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.28		30 (10) - 130 (175)	69%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.34		30 (54) - 130 (171)	84%	SPK: 0.4
INTERNAL STA	ANDARDS					
3855-82-1	1,4-Dichlorobenzene-d4	6910	7.999			
1146-65-2	Naphthalene-d8	22800	10.818			
15067-26-2	Acenaphthene-d10	14200	14.645			
1517-22-2	Phenanthrene-d10	30700	17.39			
1719-03-5	Chrysene-d12	24400	21.576			
1520-96-3	Pervlene-d12	17700	24.028			

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

Client:

Report of Analysis

JACOBS Engineering Group, Inc.

Units:

Date Collected: 12/14/22

Project: Former Schlumberger Site Princeton NJ Date Received: 12/14/22

OWBR-01-160-180-121422 Client Sample ID:

970

SDG No.:

Lab Sample ID: N6070-03 Matrix:

N6070

Water

Analytical Method: **SW8270SIM** % Moisture: Final Vol:

100 1000

uL

Sample Wt/Vol: Soil Aliquot Vol: mLuL

Test: Level:

GPC Cleanup:

SVOC-SIMGroup1

LOW

PH:

Extraction Type: Injection Volume:

Decanted: GPC Factor:

Ν

1.0

Ν

File ID/Qc Batch:

Dilution:

Prep Date

19600

Date Analyzed

Prep Batch ID

BN023283.D

1

12/16/22 08:59

12/19/22 13:16

PB149692

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
123-91-1	1,4-Dioxane	0.080	U	0.080	0.21	ug/L
SURROGATES						
7297-45-2	2-Methylnaphthalene-d10	0.25		30 (30) - 150 (150)	63%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.32		30 (30) - 150 (150)	80%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.35		30 (11) - 130 (175)	88%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.34		30 (10) - 130 (175)	85%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.37		30 (54) - 130 (171)	91%	SPK: 0.4
INTERNAL STA	ANDARDS					
3855-82-1	1,4-Dichlorobenzene-d4	7610	8.006			
1146-65-2	Naphthalene-d8	24600	10.819			
15067-26-2	Acenaphthene-d10	15900	14.645			
1517-22-2	Phenanthrene-d10	34000	17.39			
1719-03-5	Chrysene-d12	27200	21.58			

24.027

U = Not Detected

1520-96-3

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

Perylene-d12

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

N6070

22 of 31









Extraction Type:

Report of Analysis

Client: JACOBS Engineering Group, Inc. Date Collected: 12/14/22

Project: Former Schlumberger Site Princeton NJ Date Received: 12/14/22

OWBR-02-160-180-121422 Client Sample ID: SDG No.: N6070 N6070-04 Matrix: Lab Sample ID: Water

SW8270SIM 100 Analytical Method: % Moisture:

Sample Wt/Vol: 960 Units: mLFinal Vol: 1000 uL

Ν

Soil Aliquot Vol: uL Test: SVOC-SIMGroup1

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

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

BN023284.D 1 12/16/22 08:59 PB149692 12/19/22 13:53

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
123-91-1	1,4-Dioxane	0.080	U	0.080	0.21	ug/L
SURROGATES						
7297-45-2	2-Methylnaphthalene-d10	0.25		30 (30) - 150 (150)	61%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.25		30 (30) - 150 (150)	61%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.33		30 (11) - 130 (175)	82%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.33		30 (10) - 130 (175)	83%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.23		30 (54) - 130 (171)	56%	SPK: 0.4
INTERNAL STA	ANDARDS					
3855-82-1	1,4-Dichlorobenzene-d4	7230	7.999			
1146-65-2	Naphthalene-d8	23800	10.818			
15067-26-2	Acenaphthene-d10	14600	14.645			
1517-22-2	Phenanthrene-d10	32600	17.39			
1719-03-5	Chrysene-d12	25100	21.58			
1520-96-3	Pervlene-d12	17900	24.027			

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

Level:

LOW

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

N6070

23 of 31

Test:



Report of Analysis

Client: JACOBS Engineering Group, Inc. Date Collected: 12/14/22

Project: Former Schlumberger Site Princeton NJ Date Received: 12/14/22

OWBR-03-128-148-121422 Client Sample ID: SDG No.: N6070 N6070-05 Lab Sample ID: Matrix: Water

SW8270SIM 100 Analytical Method: % Moisture:

uL

Sample Wt/Vol: 960 Units: mLFinal Vol: 1000 uL

Soil Aliquot Vol: SVOC-SIMGroup1 Extraction Type: Level: Decanted: Ν LOW

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

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

BN023285.D 1 12/16/22 08:59 12/19/22 14:30 PB149692

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
123-91-1	1,4-Dioxane	0.080	U	0.080	0.21	ug/L
SURROGATES						
7297-45-2	2-Methylnaphthalene-d10	0.26		30 (30) - 150 (150)	66%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.28		30 (30) - 150 (150)	70%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		30 (11) - 130 (175)	89%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.40		30 (10) - 130 (175)	99%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.57	*	30 (54) - 130 (171)	142%	SPK: 0.4
INTERNAL STA	ANDARDS					
3855-82-1	1,4-Dichlorobenzene-d4	7020	7.999			
1146-65-2	Naphthalene-d8	23000	10.819			
15067-26-2	Acenaphthene-d10	14500	14.645			
1517-22-2	Phenanthrene-d10	30800	17.39			
1719-03-5	Chrysene-d12	23600	21.58			
1520-96-3	Pervlene-d12	16700	24.027			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

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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



284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

OrderID: N6070

Client:

JACOBS Engineering Group, Inc.

Contact: Doug Scott

OrderDate:

Location:

12/14/2022 4:13:00 PM

Project: Former Schlumberger Site Princeton NJ

M11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
N6070-01	GW-BR-04-226-245-1 21422	Water			12/14/22			12/14/22
	21422		SVOC-SIMGroup1	8270-Modified		12/16/22	12/19/22	
N6070-03	OWBR-01-160-180-12	Water			12/14/22			12/14/22
	1422		SVOC-SIMGroup1	8270-Modified		12/16/22	12/19/22	
N6070-04	OWBR-02-160-180-12	Water			12/14/22			12/14/22
	1422		SVOC-SIMGroup1	8270-Modified		12/16/22	12/19/22	
N6070-05	OWBR-03-128-148-12	Water			12/14/22			12/14/22
	1422		SVOC-SIMGroup1	8270-Modified		12/16/22	12/19/22	

N6070 **25 of 31**



SHIPPING DOCUMENTS

N6070 **26 of 31**



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

QUOTE NO. COC Number

7.1

	3000	80/		CLIENT PI	ROJECT IN	IFORM/	ATION	100	3	CLIENT BILLING INFORMATION					1873 83			
COMPANY:	Jacobs	PROJECT NAME: PANUSON STC								BILL T	BILL TO: Chr English PO#:							
ADDRESS: 10	0 10th Street Swite 1400	PROJEC	T NC	D:: D3	1662225	LOCA	ATION:	Prince	fonSina	paras.	ADDR	ESS:			-			
CITY Alla	STATE: GA ZIP: 30309					ns Er					CITY					STA	ΓE:	ZIP:
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SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	COMP	GRAB	DATE	TIME	# OF BOTTLES	AE.	E	3	4	5	6	7	8	9	A-HCI B-HN03 C-H2SO4	D-NaOH E-ICE F-OTHER
1.	GW-BR-04-226-245-121422	6W		X	12-14-22	1030	3	X	K								Rush!	
2.	TB-01-121422	DI		人	12-14-22	1035	2	X										
3.	awbr-01-160-180-121422	6W		X	12-14-22	800	3	X	X								Rust!	
4.	OW BR-02-160-180-121422	6W		X	12-14-22	900	3	人	×								Aush!	
5.	aw BR-03-128-148-121422	6v		X	12-14-22	1000	3	X	K								Rush!	
6.																		
7.																		
8.																		
9.																		
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RELINGUISHED BY 1. PRELINGUISHED BY	SAMPLER: DATE/TIME: RECEIVED BY: 12-14-22/16-0 SAMPLER: DATE/TIME: RECEIVED BY:	P	اسلام	60	Condition Commen	ons of bottles its:	or cooler Wolk	s at receip	ot: for	OMPLIANT SIX	e Spec	COMPLIA	NT Q	COOLER T	EMP	4.	Σ	°C
2.	2.				-													
REINWOOTS HED BY	DATE/TIME: 730 RECEIVED BY: 5	B			Page_		, ,	CLIENT CHEMTE		Hayd De		□ Of	therld Samp	ling		-	Shipmen YES	t Complete

From:Ynfante, John.Ynfante@jacobs.com>Sent:Thursday, December 22, 2022 10:14 PMTo:Jordan Hedvat; Samantha@chemtech.net

Cc: CHEMTECH-Data@chemtech.net

Subject: RE: [EXTERNAL] Summary Report Details For Project Former Schlumberger Site

Princeton NJ-N6070.

Jordan and Samantha,

It was brought to my attention that this report N6070 has some incorrect sample IDs. The first sample GW-BR-04-226-245-121422 is correct, but the other 3 samples need to be corrected to match the chain as listed below:

GW-BR-01-160-180-121422 should be "OWBR-01-160-180-121422" GW-BR-02-160-180-121422 should be "OWBR-02-160-180-121422" GW-BR-03-128-148-121422 should be "OWBR-03-128-148-121422"

Please revise and reissue the data. Thanks!

- John Y.

From: CHEMTECH-Data@chemtech.net < CHEMTECH-Data@chemtech.net>

Sent: Monday, December 19, 2022 5:35 PM

To: Murphy, Mary <Mary.Murphy@jacobs.com>; Warren, Melissa <Melissa.Warren@jacobs.com>; Scott, Doug <Doug.Scott@jacobs.com>; Bingeman, Ian <Ian.Bingeman@jacobs.com>; Jones, Philip <Philip.Jones1@jacobs.com>; Garvey, Bethany <Bethany.Garvey@jacobs.com>; khummler@chemtech.net; Ynfante, John <John.Ynfante@jacobs.com>

Subject: [EXTERNAL] Summary Report Details For Project Former Schlumberger Site Princeton NJ-N6070.



To Doug Scott;

Please see the attached Summary Report for the following project, or download the file using your login credentials from the link below.

Order ID : N6070

Project ID : Former Schlumberger Site Princeton NJ

Download File : https://chemtech.net/secureLogin.aspx

Order Date : 12/14/2022 4:13:00 PM

CHEMTECH's Project Manager : Samantha Beazley , <u>Samantha@chemtech.net</u> , Ext :

N6070 **28 of 31**

CHEMTECH's Sales Executive : Kurt Hummler , khummler@chemtech.net , 908-728-3143 Ext :3143

Thank you for the opportunity to provide you with our services. For any questions please feel free to contact your project manager.

Click Here for our short online customer Survey //chemtech.net/ClientSurvey.aspx.

Thank you,

CHEMTECH

Notice: The information transmitted in this e-mail message and in any attachments is intended Solely for the attention of the named addressee(s) and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is strictly prohibited and may be unlawful. If you have received this transmission in error, please notify us immediately by return e-mail, and permanently delete this transmission, including attachments if any, from any computer.

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Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0649
DOD ELAP (L-A-B)	L2219
Maine	2022022
Maryland	296
New Hampshire	255422
New Jersey	20012
New York	11376
Pennsylvania	68-00548
•	
Soil Permit	P330-21-00137
Texas	T104704488-22-15

QA Control Code: A2070148

N6070 30 of 31

LOGIN REPORT/SAMPLE TRANSFER

Order ID: N6070

JACO05

Order Date: 12/14/2022 4:13:00 PM

Project Mgr:

Client Name: JACOBS Engineering Grou

Project Name: Former Schlumberger Site F

Report Type: Level 4

Client Contact: Doug Scott

Receive DateTime: 12/14/2022 12:00:00 AM

EDD Type: CH2MHILL

Invoice Name: JACOBS Engineering Grou

Purchase Order:

5:30pm

Hard Copy Date:

Invoice Contact: Doug Scott

Date Signoff:

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD		FAX DATE	DUE DATES
N6070-01	GW-BR-04-226-245-121422	Water	12/14/2022	10:30			-			
					VOCMS Group3		8260-Low	1 Bus. Day		
N6070-02	TB-01-121422	Water	12/14/2022	10:35						
	OWBR				VOCMS Group3		8260-Low	10 Bus. Days		
N6070-03	GW BR-01-160-180-121422	Water	12/14/2022	08:00						
	OWBR				VOCMS Group3		8260-Low	1 Bus. Day		
N6070-04	GW-BR-02-160-180-121422	Water	12/14/2022	09:00						
	OWBR				VOCMS Group3		8260-Low	1 Bus. Day		
N6070-05	GW-B R-03-128-148-121422	Water	12/14/2022	10:00						
	SB 12/28/2022				VOCMS Group3		8260-Low	1 Bus. Day		

Date / Time : 12-14-23

Received By:

Date / Time:

Storage Area: VOA Refridgerator Room