

## **DATA PACKAGE**

VOLATILE ORGANICS  
GENERAL CHEMISTRY  
METALS  
GC SEMI-VOLATILES  
SEMI-VOLATILE ORGANICS

**PROJECT NAME : MC054.36 23-8-1 LM - LANDING LANE NEW BRUNSWICK**

**R3M ENGINEERING, INC.**

**1405 Route 18 South Suite 208**

**Old Bridge, NJ - 08857**

**Phone No: 973-207-1820**

**ORDER ID : P5093**

**ATTENTION : Stacey L. Felts-Bock**



**Laboratory Certification ID # 20012**



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

1

Laboratory Name : Alliance Technical Group LLC Client : R3M Engineering, Inc.  
 Project Location : NJ Project Number : MC054.36 23-8-1 LM - Landing Lane New  
 Laboratory Sample ID(s) : P5093 Sampling Date(s) : 12/04/2024

List DKQP Methods Used (e.g., 8260,8270, et Cetra) **,6010D,7470A,8081B,8082A,8260-Low,8270E,9012B,9060A,Sample Prep,Sampling**

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1A	Were the method specified handling, preservation, and holding time requirements met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1B	EPH Method: Was the EPH method conducted without significant modifications (see Section 11.3 of respective DKQ methods)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Were samples received at an appropriate temperature (4±2° C)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5	a)Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?  b)Were these reporting limits met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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."

## Cover Page

**Order ID :** P5093

**Project ID :** MC054.36 23-8-1 LM - Landing Lane New Brunswick

**Client :** R3M Engineering, Inc.

**Lab Sample Number**

P5093-01  
P5093-02  
P5093-03

**Client Sample Number**

LL-001  
LL-001-FB-12-4-24  
TB-12-4-24

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 : \_\_\_\_\_

Date: 12/14/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

## **CASE NARRATIVE**

**R3M Engineering, Inc.**

**Project Name: MC054.36 23-8-1 LM - Landing Lane New Brunswick**

**Project # N/A**

**Chemtech Project # P5093**

**Test Name: VOC-TCLVOA-10**

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

3 Water samples were received on 12/04/2024.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Cyanide, Mercury, Metals ICP-TAL, PCB, Pesticide-TCL, SVOC-TCL BNA -20, TCL+30/TAL, TOC and VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

### **C. Analytical Techniques:**

The analysis performed on instrument MSVOA\_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI. The analysis of VOC-TCLVOA-10 was based on method 8260-Low.

### **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 (82X1121W.M) for Bromoform, this compound is passing on Quadratic Regression.

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 <20% 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 > 20% for the Initial Calibration curve for SW-846 analysis.



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**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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## **CASE NARRATIVE**

**R3M Engineering, Inc.**

**Project Name: MC054.36 23-8-1 LM - Landing Lane New Brunswick**

**Project # N/A**

**Chemtech Project # P5093**

**Test Name: SVOC-TCL BNA -20**

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

3 Water samples were received on 12/04/2024.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Cyanide, Mercury, Metals ICP-TAL, PCB, Pesticide-TCL, SVOC-TCL BNA -20, TCL+30/TAL, TOC and VOC-TCLVOA-10. This data package contains results for SVOC-TCL BNA -20.

### **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 SVOC-TCL BNA -20 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.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike for {PB165432BS} with File ID: BF140785.D met requirements for all samples except for 3,3-Dichlorobenzidine[68%], 3-Nitroaniline[63%] and 4-Chloroaniline[54%] . These compounds did not meet the NJDKQP criteria but met the in-house criteria .

The Blank Spike Duplicate for {PB165432BSD} with File ID: BF140786.D met requirements for all samples except for 3-Nitroaniline[62%], 4-Chloroaniline[49%] .

These compounds did not meet the NJDKQP criteria but met the in-house criteria .

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

The % RSD is greater than 20% in the Initial Calibration (8270-BF112124.M) for Benzoic acid, Hexachlorocyclopentadiene, 2,4-Dinitrophenol, these compounds are passing on Linear Regression

The Continuous Calibration File ID BF140760.D met the requirements except for 2,4-Dinitrophenol,4,6-Dinitro-2-methylphenol and 4-Nitrophenol . But associated samples have not positive hit for these compounds therefore no corrective action was taken.

The Continuous Calibration File ID BF140783.D met the requirements except for 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol and 4-Nitrophenol. But associated samples have not positive hit for these compounds therefore no corrective action was taken. The Tuning criteria met requirements.

**E. Additional Comments:**

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 <20% 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 > 20% 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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## **CASE NARRATIVE**

**R3M Engineering, Inc.**

**Project Name: MC054.36 23-8-1 LM - Landing Lane New Brunswick**

**Project # N/A**

**Chemtech Project # P5093**

**Test Name: Pesticide-TCL**

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

3 Water samples were received on 12/04/2024.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Cyanide, Mercury, Metals ICP-TAL, PCB, Pesticide-TCL, SVOC-TCL BNA -20, TCL+30/TAL, TOC and VOC-TCLVOA-10. This data package contains results for Pesticide-TCL.

### **C. Analytical Techniques:**

The analyses were performed on instrument GCECD\_D. The front column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 7HM-G017-11 . The rear column is ZBMR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalog # 7HM-G016-17. The analysis of Pesticide-TCLs was based on method 8081B 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 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 .

### **E. Additional Comments:**

### **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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## **CASE NARRATIVE**

**R3M Engineering, Inc.**

**Project Name: MC054.36 23-8-1 LM - Landing Lane New Brunswick**

**Project # N/A**

**Chemtech Project # P5093**

**Test Name: PCB**

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

3 Water samples were received on 12/04/2024.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Cyanide, Mercury, Metals ICP-TAL, PCB, Pesticide-TCL, SVOC-TCL BNA -20, TCL+30/TAL, TOC and VOC-TCLVOA-10. This data package contains results for PCB.

### **C. Analytical Techniques:**

The analyses were performed on instrument GCECD\_P. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalogue # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 µm; Catalogue # 7HM-G017-11. The analysis of PCBs was based on method 8082A 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 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 .

### **E. Additional Comments:**

### **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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## **CASE NARRATIVE**

**R3M Engineering, Inc.**

**Project Name: MC054.36 23-8-1 LM - Landing Lane New Brunswick**

**Project # N/A**

**Chemtech Project # P5093**

**Test Name: Metals ICP-TAL,Mercury**

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

3 Water samples were received on 12/04/2024.

### **B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Cyanide, Mercury, Metals ICP-TAL, PCB, Pesticide-TCL, SVOC-TCL BNA -20, TCL+30/TAL, TOC and VOC-TCLVOA-10. This data package contains results for Metals ICP-TAL,Mercury.

### **C. Analytical Techniques:**

The analysis of Metals ICP-TAL was based on method 6010D, 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 criteria for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike (COMPMS) analysis met criteria for all samples except for Mercury due to sample matrix interference.

The Matrix Spike Duplicate (COMPMSD) analysis met criteria for all samples except for Mercury due to sample matrix interference.

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:**

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## **CASE NARRATIVE**

**R3M Engineering, Inc.**

**Project Name: MC054.36 23-8-1 LM - Landing Lane New Brunswick**

**Project # N/A**

**Chemtech Project # P5093**

**Test Name: Cyanide,TOC**

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

3 Water samples were received on 12/04/2024.

### **B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Cyanide, Mercury, Metals ICP-TAL, PCB, Pesticide-TCL, SVOC-TCL BNA -20, TCL+30/TAL, TOC and VOC-TCLVOA-10. This data package contains results for Cyanide,TOC.

### **C. Analytical Techniques:**

The analysis of Cyanide was based on method 9012B and The analysis of TOC was based on method 9060A.

### **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:**

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## DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following “ Results Qualifiers” are used:

<b>J</b>	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).
<b>U</b>	Indicates the analyte was analyzed for, but not detected.
<b>ND</b>	Indicates the analyte was analyzed for, but not detected
<b>E</b>	Indicates the reported value is estimated because of the presence of interference
<b>M</b>	Indicates Duplicate injection precision not met.
<b>N</b>	Indicates the spiked sample recovery is not within control limits.
<b>S</b>	Indicates the reported value was determined by the Method of Standard Addition (MSA).
<b>*</b>	Indicates that the duplicate analysis is not within control limits.
<b>+</b>	Indicates the correlation coefficient for the MSA is less than 0.995.
<b>D</b>	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
<b>M</b>	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
<b>OR</b>	Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>Q</b>	Indicates the LCS did not meet the control limits requirements
<b>H</b>	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 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 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This 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 aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements



## APPENDIX A

### QA REVIEW GENERAL DOCUMENTATION

Project #: P5093

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

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

#### 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 Custody

✓

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?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 12/14/2024

### Hit Summary Sheet SW-846

SDG No.: P5093

Client: R3M Engineering, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	LL-001							
P5093-01	LL-001	Water	unknown1.593	* 8.10	J	0	0	ug/L
			Total Tics :	8.10				
			Total Concentration:	8.10				

A

B

C

D



# SAMPLE DATA

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001	SDG No.:	P5093
Lab Sample ID:	P5093-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044131.D	1		12/04/24 20:44	VX120424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
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
75-69-4	Trichlorofluoromethane	0.34	U	0.34	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
79-20-9	Methyl Acetate	0.60	U	0.60	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
74-97-5	Bromochloromethane	0.18	U	0.18	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
78-87-5	1,2-Dichloropropane	0.19	U	0.19	1.00	ug/L
75-27-4	Bromodichloromethane	0.24	U	0.24	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.75	U	0.75	5.00	ug/L
108-88-3	Toluene	0.18	U	0.18	1.00	ug/L

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001	SDG No.:	P5093
Lab Sample ID:	P5093-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044131.D	1		12/04/24 20:44	VX120424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-02-6	t-1,3-Dichloropropene	0.21	U	0.21	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	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
591-78-6	2-Hexanone	1.10	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.16	U	0.16	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
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L
100-42-5	Styrene	0.16	U	0.16	1.00	ug/L
75-25-2	Bromoform	0.21	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.27	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.24	U	0.24	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
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.42	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.51	U	0.51	1.00	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	52.6		70 (74) - 130 (125)	105%	SPK: 50
1868-53-7	Dibromofluoromethane	46.0		70 (75) - 130 (124)	92%	SPK: 50
2037-26-5	Toluene-d8	50.2		70 (86) - 130 (113)	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.3		70 (77) - 130 (121)	99%	SPK: 50
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	106000	5.544			
540-36-3	1,4-Difluorobenzene	205000	6.757			
3114-55-4	Chlorobenzene-d5	179000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	75300	12.018			
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>						

## Report of Analysis

Client:	R3M Engineering, Inc.		Date Collected:	12/04/24	
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick		Date Received:	12/04/24	
Client Sample ID:	LL-001		SDG No.:	P5093	
Lab Sample ID:	P5093-01		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044131.D	1		12/04/24 20:44	VX120424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
	unknown1.593	8.10	J		1.59	ug/L

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

## Report of Analysis

Client:	R3M Engineering, Inc.		Date Collected:	12/04/24	
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick		Date Received:	12/04/24	
Client Sample ID:	LL-001-FB-12-4-24		SDG No.:	P5093	
Lab Sample ID:	P5093-02		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044132.D	1		12/04/24 21:07	VX120424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
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
75-69-4	Trichlorofluoromethane	0.34	U	0.34	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
79-20-9	Methyl Acetate	0.60	U	0.60	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
74-97-5	Bromochloromethane	0.18	U	0.18	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
78-87-5	1,2-Dichloropropane	0.19	U	0.19	1.00	ug/L
75-27-4	Bromodichloromethane	0.24	U	0.24	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.75	U	0.75	5.00	ug/L
108-88-3	Toluene	0.18	U	0.18	1.00	ug/L

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001-FB-12-4-24	SDG No.:	P5093
Lab Sample ID:	P5093-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044132.D	1		12/04/24 21:07	VX120424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-02-6	t-1,3-Dichloropropene	0.21	U	0.21	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	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
591-78-6	2-Hexanone	1.10	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.16	U	0.16	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
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L
100-42-5	Styrene	0.16	U	0.16	1.00	ug/L
75-25-2	Bromoform	0.21	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.27	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.24	U	0.24	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
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.42	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.51	U	0.51	1.00	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	53.4		70 (74) - 130 (125)	107%	SPK: 50
1868-53-7	Dibromofluoromethane	45.7		70 (75) - 130 (124)	91%	SPK: 50
2037-26-5	Toluene-d8	48.7		70 (86) - 130 (113)	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.4		70 (77) - 130 (121)	99%	SPK: 50
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	111000	5.543			
540-36-3	1,4-Difluorobenzene	219000	6.763			
3114-55-4	Chlorobenzene-d5	189000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	79800	12.018			



## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001-FB-12-4-24	SDG No.:	P5093
Lab Sample ID:	P5093-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5                    Units:      mL	Final Vol:	5000                    uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI                    ID :   0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044132.D	1		12/04/24 21:07	VX120424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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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

## Report of Analysis

Client:	R3M Engineering, Inc.		Date Collected:	12/04/24	
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick		Date Received:	12/04/24	
Client Sample ID:	TB-12-4-24		SDG No.:	P5093	
Lab Sample ID:	P5093-03		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044133.D	1		12/04/24 21:30	VX120424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
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
75-69-4	Trichlorofluoromethane	0.34	U	0.34	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
79-20-9	Methyl Acetate	0.60	U	0.60	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
74-97-5	Bromochloromethane	0.18	U	0.18	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
78-87-5	1,2-Dichloropropane	0.19	U	0.19	1.00	ug/L
75-27-4	Bromodichloromethane	0.24	U	0.24	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.75	U	0.75	5.00	ug/L
108-88-3	Toluene	0.18	U	0.18	1.00	ug/L

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	TB-12-4-24	SDG No.:	P5093
Lab Sample ID:	P5093-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044133.D	1		12/04/24 21:30	VX120424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
10061-02-6	t-1,3-Dichloropropene	0.21	U	0.21	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	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
591-78-6	2-Hexanone	1.10	U	1.10	5.00	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	1.00	ug/L
106-93-4	1,2-Dibromoethane	0.16	U	0.16	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
179601-23-1	m/p-Xylenes	0.31	U	0.31	2.00	ug/L
95-47-6	o-Xylene	0.14	U	0.14	1.00	ug/L
100-42-5	Styrene	0.16	U	0.16	1.00	ug/L
75-25-2	Bromoform	0.21	U	0.21	1.00	ug/L
98-82-8	Isopropylbenzene	0.13	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.27	U	0.27	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.24	U	0.24	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
96-12-8	1,2-Dibromo-3-Chloropropane	0.46	U	0.46	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.42	U	0.42	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.51	U	0.51	1.00	ug/L
<b>SURROGATES</b>						
17060-07-0	1,2-Dichloroethane-d4	53.0		70 (74) - 130 (125)	106%	SPK: 50
1868-53-7	Dibromofluoromethane	45.3		70 (75) - 130 (124)	91%	SPK: 50
2037-26-5	Toluene-d8	48.9		70 (86) - 130 (113)	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.3		70 (77) - 130 (121)	99%	SPK: 50
<b>INTERNAL STANDARDS</b>						
363-72-4	Pentafluorobenzene	110000	5.544			
540-36-3	1,4-Difluorobenzene	215000	6.757			
3114-55-4	Chlorobenzene-d5	185000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	78600	12.024			

## Report of Analysis

Client:	R3M Engineering, Inc.		Date Collected:	12/04/24	
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick		Date Received:	12/04/24	
Client Sample ID:	TB-12-4-24		SDG No.:	P5093	
Lab Sample ID:	P5093-03		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044133.D	1		12/04/24 21:30	VX120424

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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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

<b>OrderID:</b>	P5093	<b>OrderDate:</b>	12/4/2024 12:24:38 PM
<b>Client:</b>	R3M Engineering, Inc.	<b>Project:</b>	MC054.36 23-8-1 LM - Landing Lane New Brunswick
<b>Contact:</b>	Stacey L. Felts-Bock	<b>Location:</b>	L41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
<b>P5093-01</b>	<b>LL-001</b>	<b>Water</b>	VOC-TCLVOA-10	8260-Low	<b>12/04/24</b>		12/04/24	<b>12/04/24</b>
<b>P5093-02</b>	<b>LL-001-FB-12-4-24</b>	<b>Water</b>	VOC-TCLVOA-10	8260-Low	<b>12/04/24</b>		12/04/24	<b>12/04/24</b>
<b>P5093-03</b>	<b>TB-12-4-24</b>	<b>Water</b>	VOC-TCLVOA-10	8260-Low	<b>12/04/24</b>		12/04/24	<b>12/04/24</b>

### Hit Summary Sheet SW-846

**SDG No.:** P5093  
**Client:** R3M Engineering, Inc.

Sample ID	Client ID		Parameter	Concentration	C	MDL	RDL	Units
Client ID :	LL-001							
P5093-01	LL-001	WATER	2-Pentanone, 4-hydroxy-4-methyl *	3.600	AB	0	0	ug/L
P5093-01	LL-001	WATER	Benzophenone *	2.900	J	0	0	ug/L
P5093-01	LL-001	WATER	Butane, 2-methoxy-2-methyl- *	170.000	JB	0	0	ug/L
P5093-01	LL-001	WATER	Supraene *	2.200	J	0	0	ug/L
			Total Tics :	178.70				
			Total Concentration:	178.70				
Client ID :	LL-001-FB-12-4-24							
P5093-02	LL-001-FB-12-4-24	WATER	1-Propanol, 2-(2-hydroxypropoxy) *	2.200	J	0	0	ug/L
P5093-02	LL-001-FB-12-4-24	WATER	2-Pentanone, 4-hydroxy-4-methyl *	4.000	AB	0	0	ug/L
P5093-02	LL-001-FB-12-4-24	WATER	Butane, 2-methoxy-2-methyl- *	170.000	JB	0	0	ug/L
			Total Tics :	176.20				
			Total Concentration:	176.20				



# SAMPLE DATA

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001	SDG No.:	P5093
Lab Sample ID:	P5093-01	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BF140765.D	1	12/06/24 09:33	12/06/24 14:40	PB165432

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
100-52-7	Benzaldehyde	4.00	U	4.00	10.0	ug/L
108-95-2	Phenol	0.93	U	0.93	5.00	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.20	U	1.20	5.00	ug/L
95-57-8	2-Chlorophenol	0.71	U	0.71	5.00	ug/L
95-48-7	2-Methylphenol	1.10	U	1.10	5.00	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.40	U	1.40	5.00	ug/L
98-86-2	Acetophenone	1.10	U	1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	1.20	U	1.20	10.0	ug/L
621-64-7	n-Nitroso-di-n-propylamine	1.50	U	1.50	2.50	ug/L
67-72-1	Hexachloroethane	1.00	U	1.00	5.00	ug/L
98-95-3	Nitrobenzene	1.30	U	1.30	5.00	ug/L
78-59-1	Isophorone	1.10	U	1.10	5.00	ug/L
88-75-5	2-Nitrophenol	2.00	U	2.00	5.00	ug/L
105-67-9	2,4-Dimethylphenol	1.50	U	1.50	5.00	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.00	U	1.00	5.00	ug/L
120-83-2	2,4-Dichlorophenol	0.88	U	0.88	5.00	ug/L
91-20-3	Naphthalene	1.00	U	1.00	5.00	ug/L
106-47-8	4-Chloroaniline	1.30	UQ	1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	1.30	U	1.30	5.00	ug/L
105-60-2	Caprolactam	1.70	U	1.70	10.0	ug/L
59-50-7	4-Chloro-3-methylphenol	0.84	U	0.84	5.00	ug/L
91-57-6	2-Methylnaphthalene	1.10	U	1.10	5.00	ug/L
77-47-4	Hexachlorocyclopentadiene	5.00	U	5.00	10.0	ug/L
88-06-2	2,4,6-Trichlorophenol	0.89	U	0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	1.00	U	1.00	5.00	ug/L
92-52-4	1,1-Biphenyl	0.91	U	0.91	5.00	ug/L
91-58-7	2-Chloronaphthalene	0.97	U	0.97	5.00	ug/L
88-74-4	2-Nitroaniline	1.40	U	1.40	5.00	ug/L
131-11-3	Dimethylphthalate	0.93	U	0.93	5.00	ug/L



## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001	SDG No.:	P5093
Lab Sample ID:	P5093-01	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BF140765.D	1	12/06/24 09:33	12/06/24 14:40	PB165432

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
208-96-8	Acenaphthylene	1.00	U	1.00	5.00	ug/L
606-20-2	2,6-Dinitrotoluene	1.20	U	1.20	5.00	ug/L
99-09-2	3-Nitroaniline	1.40	UQ	1.40	5.00	ug/L
83-32-9	Acenaphthene	0.81	U	0.81	5.00	ug/L
51-28-5	2,4-Dinitrophenol	6.40	U	6.40	10.0	ug/L
100-02-7	4-Nitrophenol	2.00	U	2.00	10.0	ug/L
132-64-9	Dibenzofuran	0.93	U	0.93	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	1.50	U	1.50	5.00	ug/L
84-66-2	Diethylphthalate	1.00	U	1.00	5.00	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.98	U	0.98	5.00	ug/L
86-73-7	Fluorene	0.96	U	0.96	5.00	ug/L
100-01-6	4-Nitroaniline	2.00	U	2.00	5.00	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	3.10	U	3.10	10.0	ug/L
86-30-6	n-Nitrosodiphenylamine	0.89	U	0.89	5.00	ug/L
101-55-3	4-Bromophenyl-phenylether	0.95	U	0.95	5.00	ug/L
118-74-1	Hexachlorobenzene	1.10	U	1.10	5.00	ug/L
1912-24-9	Atrazine	1.30	U	1.30	5.00	ug/L
87-86-5	Pentachlorophenol	1.90	U	1.90	10.0	ug/L
85-01-8	Phenanthrene	0.89	U	0.89	5.00	ug/L
120-12-7	Anthracene	1.10	U	1.10	5.00	ug/L
86-74-8	Carbazole	1.20	U	1.20	5.00	ug/L
84-74-2	Di-n-butylphthalate	1.50	U	1.50	5.00	ug/L
206-44-0	Fluoranthene	1.30	U	1.30	5.00	ug/L
129-00-0	Pyrene	1.10	U	1.10	5.00	ug/L
85-68-7	Butylbenzylphthalate	2.10	U	2.10	5.00	ug/L
91-94-1	3,3-Dichlorobenzidine	1.30	UQ	1.30	10.0	ug/L
56-55-3	Benzo(a)anthracene	0.94	U	0.94	5.00	ug/L
218-01-9	Chrysene	0.86	U	0.86	5.00	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.90	U	1.90	5.00	ug/L
117-84-0	Di-n-octyl phthalate	2.50	U	2.50	10.0	ug/L
205-99-2	Benzo(b)fluoranthene	1.10	U	1.10	5.00	ug/L

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001	SDG No.:	P5093
Lab Sample ID:	P5093-01	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BF140765.D	1	12/06/24 09:33	12/06/24 14:40	PB165432

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
207-08-9	Benzo(k)fluoranthene	1.20	U	1.20	5.00	ug/L
50-32-8	Benzo(a)pyrene	1.70	U	1.70	5.00	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	1.00	U	1.00	5.00	ug/L
53-70-3	Dibenzo(a,h)anthracene	1.20	U	1.20	5.00	ug/L
191-24-2	Benzo(g,h,i)perylene	1.20	U	1.20	5.00	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	1.10	U	1.10	5.00	ug/L
123-91-1	1,4-Dioxane	1.30	U	1.30	5.00	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	0.79	U	0.79	5.00	ug/L
<b>SURROGATES</b>						
367-12-4	2-Fluorophenol	89.8		15 (10) - 110 (139)	60%	SPK: 150
13127-88-3	Phenol-d6	60.9		15 (10) - 110 (134)	41%	SPK: 150
4165-60-0	Nitrobenzene-d5	95.0		30 (49) - 130 (133)	95%	SPK: 100
321-60-8	2-Fluorobiphenyl	97.5		30 (52) - 130 (132)	98%	SPK: 100
118-79-6	2,4,6-Tribromophenol	130		15 (44) - 110 (137)	87%	SPK: 150
1718-51-0	Terphenyl-d14	75.7		30 (48) - 130 (125)	76%	SPK: 100
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	65000	6.869			
1146-65-2	Naphthalene-d8	245000	8.151			
15067-26-2	Acenaphthene-d10	135000	9.904			
1517-22-2	Phenanthrene-d10	233000	11.398			
1719-03-5	Chrysene-d12	138000	14.051			
1520-96-3	Perylene-d12	150000	15.563			
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>						
000994-05-8	Butane, 2-methoxy-2-methyl-	170	JB		2.13	ug/L
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	3.60	AB		5.09	ug/L
000119-61-9	Benzophenone	2.90	J		10.6	ug/L
007683-64-9	Supraene	2.20	J		14.9	ug/L

## Report of Analysis

Client:	R3M Engineering, Inc.		Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick		Date Received:	12/04/24
Client Sample ID:	LL-001		SDG No.:	P5093
Lab Sample ID:	P5093-01		Matrix:	Water
Analytical Method:	SW8270		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-TCL BNA -20
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
BF140765.D	1	12/06/24 09:33	12/06/24 14:40	PB165432

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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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

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001-FB-12-4-24	SDG No.:	P5093
Lab Sample ID:	P5093-02	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BF140766.D	1	12/06/24 09:33	12/06/24 15:06	PB165432

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
100-52-7	Benzaldehyde	4.00	U	4.00	10.0	ug/L
108-95-2	Phenol	0.93	U	0.93	5.00	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.20	U	1.20	5.00	ug/L
95-57-8	2-Chlorophenol	0.71	U	0.71	5.00	ug/L
95-48-7	2-Methylphenol	1.10	U	1.10	5.00	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.40	U	1.40	5.00	ug/L
98-86-2	Acetophenone	1.10	U	1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	1.20	U	1.20	10.0	ug/L
621-64-7	n-Nitroso-di-n-propylamine	1.50	U	1.50	2.50	ug/L
67-72-1	Hexachloroethane	1.00	U	1.00	5.00	ug/L
98-95-3	Nitrobenzene	1.30	U	1.30	5.00	ug/L
78-59-1	Isophorone	1.10	U	1.10	5.00	ug/L
88-75-5	2-Nitrophenol	2.00	U	2.00	5.00	ug/L
105-67-9	2,4-Dimethylphenol	1.50	U	1.50	5.00	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.00	U	1.00	5.00	ug/L
120-83-2	2,4-Dichlorophenol	0.88	U	0.88	5.00	ug/L
91-20-3	Naphthalene	1.00	U	1.00	5.00	ug/L
106-47-8	4-Chloroaniline	1.30	UQ	1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	1.30	U	1.30	5.00	ug/L
105-60-2	Caprolactam	1.70	U	1.70	10.0	ug/L
59-50-7	4-Chloro-3-methylphenol	0.84	U	0.84	5.00	ug/L
91-57-6	2-Methylnaphthalene	1.10	U	1.10	5.00	ug/L
77-47-4	Hexachlorocyclopentadiene	5.00	U	5.00	10.0	ug/L
88-06-2	2,4,6-Trichlorophenol	0.89	U	0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	1.00	U	1.00	5.00	ug/L
92-52-4	1,1-Biphenyl	0.91	U	0.91	5.00	ug/L
91-58-7	2-Chloronaphthalene	0.97	U	0.97	5.00	ug/L
88-74-4	2-Nitroaniline	1.40	U	1.40	5.00	ug/L
131-11-3	Dimethylphthalate	0.93	U	0.93	5.00	ug/L

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001-FB-12-4-24	SDG No.:	P5093
Lab Sample ID:	P5093-02	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BF140766.D	1	12/06/24 09:33	12/06/24 15:06	PB165432

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
208-96-8	Acenaphthylene	1.00	U	1.00	5.00	ug/L
606-20-2	2,6-Dinitrotoluene	1.20	U	1.20	5.00	ug/L
99-09-2	3-Nitroaniline	1.40	UQ	1.40	5.00	ug/L
83-32-9	Acenaphthene	0.81	U	0.81	5.00	ug/L
51-28-5	2,4-Dinitrophenol	6.40	U	6.40	10.0	ug/L
100-02-7	4-Nitrophenol	2.00	U	2.00	10.0	ug/L
132-64-9	Dibenzofuran	0.93	U	0.93	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	1.50	U	1.50	5.00	ug/L
84-66-2	Diethylphthalate	1.00	U	1.00	5.00	ug/L
7005-72-3	4-Chlorophenyl-phenylether	0.98	U	0.98	5.00	ug/L
86-73-7	Fluorene	0.96	U	0.96	5.00	ug/L
100-01-6	4-Nitroaniline	2.00	U	2.00	5.00	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	3.10	U	3.10	10.0	ug/L
86-30-6	n-Nitrosodiphenylamine	0.89	U	0.89	5.00	ug/L
101-55-3	4-Bromophenyl-phenylether	0.95	U	0.95	5.00	ug/L
118-74-1	Hexachlorobenzene	1.10	U	1.10	5.00	ug/L
1912-24-9	Atrazine	1.30	U	1.30	5.00	ug/L
87-86-5	Pentachlorophenol	1.90	U	1.90	10.0	ug/L
85-01-8	Phenanthrene	0.89	U	0.89	5.00	ug/L
120-12-7	Anthracene	1.10	U	1.10	5.00	ug/L
86-74-8	Carbazole	1.20	U	1.20	5.00	ug/L
84-74-2	Di-n-butylphthalate	1.50	U	1.50	5.00	ug/L
206-44-0	Fluoranthene	1.30	U	1.30	5.00	ug/L
129-00-0	Pyrene	1.10	U	1.10	5.00	ug/L
85-68-7	Butylbenzylphthalate	2.10	U	2.10	5.00	ug/L
91-94-1	3,3-Dichlorobenzidine	1.30	UQ	1.30	10.0	ug/L
56-55-3	Benzo(a)anthracene	0.94	U	0.94	5.00	ug/L
218-01-9	Chrysene	0.86	U	0.86	5.00	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.90	U	1.90	5.00	ug/L
117-84-0	Di-n-octyl phthalate	2.50	U	2.50	10.0	ug/L
205-99-2	Benzo(b)fluoranthene	1.10	U	1.10	5.00	ug/L

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001-FB-12-4-24	SDG No.:	P5093
Lab Sample ID:	P5093-02	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BF140766.D	1	12/06/24 09:33	12/06/24 15:06	PB165432

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
207-08-9	Benzo(k)fluoranthene	1.20	U	1.20	5.00	ug/L
50-32-8	Benzo(a)pyrene	1.70	U	1.70	5.00	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	1.00	U	1.00	5.00	ug/L
53-70-3	Dibenzo(a,h)anthracene	1.20	U	1.20	5.00	ug/L
191-24-2	Benzo(g,h,i)perylene	1.20	U	1.20	5.00	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	1.10	U	1.10	5.00	ug/L
123-91-1	1,4-Dioxane	1.30	U	1.30	5.00	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	0.79	U	0.79	5.00	ug/L
<b>SURROGATES</b>						
367-12-4	2-Fluorophenol	101		15 (10) - 110 (139)	68%	SPK: 150
13127-88-3	Phenol-d6	65.0		15 (10) - 110 (134)	43%	SPK: 150
4165-60-0	Nitrobenzene-d5	105		30 (49) - 130 (133)	105%	SPK: 100
321-60-8	2-Fluorobiphenyl	109		30 (52) - 130 (132)	109%	SPK: 100
118-79-6	2,4,6-Tribromophenol	142		15 (44) - 110 (137)	95%	SPK: 150
1718-51-0	Terphenyl-d14	103		30 (48) - 130 (125)	103%	SPK: 100
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	71300	6.869			
1146-65-2	Naphthalene-d8	277000	8.151			
15067-26-2	Acenaphthene-d10	168000	9.904			
1517-22-2	Phenanthrene-d10	294000	11.398			
1719-03-5	Chrysene-d12	155000	14.051			
1520-96-3	Perylene-d12	187000	15.563			
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>						
000994-05-8	Butane, 2-methoxy-2-methyl-	170	JB		2.13	ug/L
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	4.00	AB		5.09	ug/L
000106-62-7	1-Propanol, 2-(2-hydroxypropoxy)-	2.20	J		8.39	ug/L

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001-FB-12-4-24	SDG No.:	P5093
Lab Sample ID:	P5093-02	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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
BF140766.D	1	12/06/24 09:33	12/06/24 15:06	PB165432

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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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

<b>OrderID:</b>	P5093	<b>OrderDate:</b>	12/4/2024 12:24:38 PM
<b>Client:</b>	R3M Engineering, Inc.	<b>Project:</b>	MC054.36 23-8-1 LM - Landing Lane New Brunswick
<b>Contact:</b>	Stacey L. Felts-Bock	<b>Location:</b>	L41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
<b>P5093-01</b>	<b>LL-001</b>	<b>Water</b>	SVOC-TCL BNA -20	8270E	<b>12/04/24</b>	12/06/24	12/06/24	<b>12/04/24</b>
<b>P5093-02</b>	<b>LL-001-FB-12-4-24</b>	<b>Water</b>	SVOC-TCL BNA -20	8270E	<b>12/04/24</b>	12/06/24	12/06/24	<b>12/04/24</b>



**Hit Summary Sheet**  
**SW-846**

A

**SDG No.:** P5093

**Order ID:** P5093

**Client:** R3M Engineering, Inc.

**Project ID:** MC054.36 23-8-1 LM - Landing Lane

B

C

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID :								

D

**Total Concentration: 0.000**



# SAMPLE DATA

## Report of Analysis

Client:	R3M Engineering, Inc.		Date Collected:	12/04/24	
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick		Date Received:	12/04/24	
Client Sample ID:	LL-001		SDG No.:	P5093	
Lab Sample ID:	P5093-01		Matrix:	WATER	
Analytical Method:	SW8081		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	10000	uL
Soil Aliquot Vol:		uL	Test:	Pesticide-TCL	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			
Prep Method :	3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD087061.D	1	12/06/24 08:32	12/06/24 15:52	PB165431

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
319-84-6	alpha-BHC	0.0061	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.014	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.015	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.0049	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.0054	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.0044	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.0090	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.0050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.0047	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.0045	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.0043	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.0075	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.0092	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.0035	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.0044	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.011	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.0097	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.0099	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.0060	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.0060	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	0.15	U	0.15	1.00	ug/L
<b>SURROGATES</b>						
2051-24-3	Decachlorobiphenyl	10.6		30 (43) - 150 (140)	53%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.0		30 (77) - 150 (126)	100%	SPK: 20

## Report of Analysis

Client:	R3M Engineering, Inc.		Date Collected:	12/04/24	
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick		Date Received:	12/04/24	
Client Sample ID:	LL-001		SDG No.:	P5093	
Lab Sample ID:	P5093-01		Matrix:	WATER	
Analytical Method:	SW8081		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	10000	uL
Soil Aliquot Vol:		uL	Test:	Pesticide-TCL	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			
Prep Method :	3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD087061.D	1	12/06/24 08:32	12/06/24 15:52	PB165431

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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### Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

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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

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

## Report of Analysis

Client:	R3M Engineering, Inc.		Date Collected:	12/04/24	
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick		Date Received:	12/04/24	
Client Sample ID:	LL-001-FB-12-4-24		SDG No.:	P5093	
Lab Sample ID:	P5093-02		Matrix:	WATER	
Analytical Method:	SW8081		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	10000	uL
Soil Aliquot Vol:		uL	Test:	Pesticide-TCL	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			
Prep Method :	3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD087062.D	1	12/06/24 08:32	12/06/24 16:06	PB165431

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
319-84-6	alpha-BHC	0.0061	U	0.0061	0.050	ug/L
319-85-7	beta-BHC	0.014	U	0.014	0.050	ug/L
319-86-8	delta-BHC	0.015	U	0.015	0.050	ug/L
58-89-9	gamma-BHC (Lindane)	0.0049	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.0054	U	0.0054	0.050	ug/L
309-00-2	Aldrin	0.0044	U	0.0044	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.0090	U	0.0090	0.050	ug/L
959-98-8	Endosulfan I	0.0050	U	0.0050	0.050	ug/L
60-57-1	Dieldrin	0.0047	U	0.0047	0.050	ug/L
72-55-9	4,4-DDE	0.0045	U	0.0045	0.050	ug/L
72-20-8	Endrin	0.0043	U	0.0043	0.050	ug/L
33213-65-9	Endosulfan II	0.0075	U	0.0075	0.050	ug/L
72-54-8	4,4-DDD	0.0092	U	0.0092	0.050	ug/L
1031-07-8	Endosulfan Sulfate	0.0035	U	0.0035	0.050	ug/L
50-29-3	4,4-DDT	0.0044	U	0.0044	0.050	ug/L
72-43-5	Methoxychlor	0.011	U	0.011	0.050	ug/L
53494-70-5	Endrin ketone	0.0097	U	0.0097	0.050	ug/L
7421-93-4	Endrin aldehyde	0.0099	U	0.0099	0.050	ug/L
5103-71-9	alpha-Chlordane	0.0060	U	0.0060	0.050	ug/L
5103-74-2	gamma-Chlordane	0.0060	U	0.0060	0.050	ug/L
8001-35-2	Toxaphene	0.15	U	0.15	1.00	ug/L
<b>SURROGATES</b>						
2051-24-3	Decachlorobiphenyl	16.2		30 (43) - 150 (140)	81%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.0		30 (77) - 150 (126)	105%	SPK: 20

## Report of Analysis

Client:	R3M Engineering, Inc.		Date Collected:	12/04/24	
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick		Date Received:	12/04/24	
Client Sample ID:	LL-001-FB-12-4-24		SDG No.:	P5093	
Lab Sample ID:	P5093-02		Matrix:	WATER	
Analytical Method:	SW8081		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	10000	uL
Soil Aliquot Vol:		uL	Test:	Pesticide-TCL	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			
Prep Method :	3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD087062.D	1	12/06/24 08:32	12/06/24 16:06	PB165431

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
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J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

LAB CHRONICLE

OrderID:	P5093	OrderDate:	12/4/2024 12:24:38 PM
Client:	R3M Engineering, Inc.	Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick
Contact:	Stacey L. Felts-Bock	Location:	L41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5093-01	LL-001	WATER			12/04/24			12/04/24
			PCB	8082A		12/06/24	12/06/24	
			Pesticide-TCL	8081B		12/06/24	12/06/24	
P5093-02	LL-001-FB-12-4-24	WATER			12/04/24			12/04/24
			PCB	8082A		12/06/24	12/06/24	
			Pesticide-TCL	8081B		12/06/24	12/06/24	

Hit Summary Sheet  
SW-846

A

B

C

D

SDG No.:	P5093	Order ID:	P5093
Client:	R3M Engineering, Inc.	Project ID:	MC054.36 23-8-1 LM - Landing Lane

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID :				Total Concentration:	0.000			





# SAMPLE DATA

## Report of Analysis

Client:	R3M Engineering, Inc.		Date Collected:	12/04/24	
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick		Date Received:	12/04/24	
Client Sample ID:	LL-001		SDG No.:	P5093	
Lab Sample ID:	P5093-01		Matrix:	WATER	
Analytical Method:	SW8082A		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	10000	uL
Soil Aliquot Vol:		uL	Test:	PCB	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			
Prep Method :	3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PP068862.D	1	12/06/24 08:30	12/06/24 19:23	PB165429

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
12674-11-2	Aroclor-1016	0.15	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.23	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.37	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.16	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.12	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.11	U	0.11	0.50	ug/L
37324-23-5	Aroclor-1262	0.14	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.12	U	0.12	0.50	ug/L
11096-82-5	Aroclor-1260	0.15	U	0.15	0.50	ug/L
<b>SURROGATES</b>						
877-09-8	Tetrachloro-m-xylene	20.9		30 (10) - 150 (157)	104%	SPK: 20
2051-24-3	Decachlorobiphenyl	11.0		30 (10) - 150 (173)	55%	SPK: 20

### Comments:

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MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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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

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

## Report of Analysis

Client:	R3M Engineering, Inc.		Date Collected:	12/04/24	
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick		Date Received:	12/04/24	
Client Sample ID:	LL-001-FB-12-4-24		SDG No.:	P5093	
Lab Sample ID:	P5093-02		Matrix:	WATER	
Analytical Method:	SW8082A		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	10000	uL
Soil Aliquot Vol:		uL	Test:	PCB	
Extraction Type:			Injection Volume :		
GPC Factor :	1.0	PH :			
Prep Method :	3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PP068863.D	1	12/06/24 08:30	12/06/24 19:39	PB165429

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
12674-11-2	Aroclor-1016	0.15	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.23	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.37	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.16	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.12	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.11	U	0.11	0.50	ug/L
37324-23-5	Aroclor-1262	0.14	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.12	U	0.12	0.50	ug/L
11096-82-5	Aroclor-1260	0.15	U	0.15	0.50	ug/L
<b>SURROGATES</b>						
877-09-8	Tetrachloro-m-xylene	21.8		30 (10) - 150 (157)	109%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.0		30 (10) - 150 (173)	75%	SPK: 20

### Comments:

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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

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

LAB CHRONICLE

OrderID:	P5093	OrderDate:	12/4/2024 12:24:38 PM
Client:	R3M Engineering, Inc.	Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick
Contact:	Stacey L. Felts-Bock	Location:	L41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5093-01	LL-001	WATER	PCB	8082A	12/04/24	12/06/24	12/06/24	12/04/24
P5093-02	LL-001-FB-12-4-24	WATER	PCB	8082A	12/04/24	12/06/24	12/06/24	12/04/24

### Hit Summary Sheet SW-846

**SDG No.:** P5093

**Order ID:** P5093

**Client:** R3M Engineering, Inc.

**Project ID:** MC054.36 23-8-1 LM - Landing Lane New

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
<b>Client ID : LL-001</b>								
P5093-01	LL-001	Water	Aluminum	4760		28.3	50.0	ug/L
P5093-01	LL-001	Water	Barium	198		6.28	50.0	ug/L
P5093-01	LL-001	Water	Beryllium	0.22	J	0.13	3.00	ug/L
P5093-01	LL-001	Water	Cadmium	0.26	J	0.094	3.00	ug/L
P5093-01	LL-001	Water	Calcium	24100		33.0	1000	ug/L
P5093-01	LL-001	Water	Chromium	5.63		0.66	5.00	ug/L
P5093-01	LL-001	Water	Cobalt	1.84	J	0.50	15.0	ug/L
P5093-01	LL-001	Water	Copper	8.11	J	7.07	10.0	ug/L
P5093-01	LL-001	Water	Iron	3300		18.5	50.0	ug/L
P5093-01	LL-001	Water	Lead	9.28		3.51	6.00	ug/L
P5093-01	LL-001	Water	Magnesium	8590		39.4	1000	ug/L
P5093-01	LL-001	Water	Manganese	204		1.46	10.0	ug/L
P5093-01	LL-001	Water	Nickel	5.63	J	0.85	20.0	ug/L
P5093-01	LL-001	Water	Potassium	4060		685	1000	ug/L
P5093-01	LL-001	Water	Sodium	19500		237	1000	ug/L
P5093-01	LL-001	Water	Vanadium	8.40	J	3.06	20.0	ug/L
P5093-01	LL-001	Water	Zinc	22.7		1.75	20.0	ug/L
<b>Client ID : LL-001-FB-12-4-24</b>								
P5093-02	LL-001-FB-12-4-24	Water	Manganese	1.80	J	1.46	10.0	ug/L



# SAMPLE DATA

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001	SDG No.:	P5093
Lab Sample ID:	P5093-01	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	4760		1	28.3	50.0	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-36-0	Antimony	2.06	U	1	2.06	25.0	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-38-2	Arsenic	3.48	U	1	3.48	10.0	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-39-3	Barium	198		1	6.28	50.0	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-41-7	Beryllium	0.22	J	1	0.13	3.00	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-43-9	Cadmium	0.26	J	1	0.094	3.00	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-70-2	Calcium	24100		1	33.0	1000	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-47-3	Chromium	5.63		1	0.66	5.00	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-48-4	Cobalt	1.84	J	1	0.50	15.0	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-50-8	Copper	8.11	J	1	7.07	10.0	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7439-89-6	Iron	3300		1	18.5	50.0	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7439-92-1	Lead	9.28		1	3.51	6.00	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7439-95-4	Magnesium	8590		1	39.4	1000	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7439-96-5	Manganese	204		1	1.46	10.0	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7439-97-6	Mercury	0.081	UN	1	0.081	0.20	ug/L	12/06/24 09:25	12/06/24 12:47	SW7470A	
7440-02-0	Nickel	5.63	J	1	0.85	20.0	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-09-7	Potassium	4060		1	685	1000	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7782-49-2	Selenium	5.88	U	1	5.88	10.0	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-22-4	Silver	0.58	U	1	0.58	5.00	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-23-5	Sodium	19500		1	237	1000	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-28-0	Thallium	2.32	U	1	2.32	20.0	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-62-2	Vanadium	8.40	J	1	3.06	20.0	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010
7440-66-6	Zinc	22.7		1	1.75	20.0	ug/L	12/09/24 09:10	12/10/24 12:18	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	TCL+30/TAL			

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

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001-FB-12-4-24	SDG No.:	P5093
Lab Sample ID:	P5093-02	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	28.3	U	1	28.3	50.0	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-36-0	Antimony	2.06	U	1	2.06	25.0	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-38-2	Arsenic	3.48	U	1	3.48	10.0	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-39-3	Barium	6.28	U	1	6.28	50.0	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-41-7	Beryllium	0.13	U	1	0.13	3.00	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-43-9	Cadmium	0.094	U	1	0.094	3.00	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-70-2	Calcium	33.0	U	1	33.0	1000	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-47-3	Chromium	0.66	U	1	0.66	5.00	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-48-4	Cobalt	0.50	U	1	0.50	15.0	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-50-8	Copper	7.07	U	1	7.07	10.0	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7439-89-6	Iron	18.5	U	1	18.5	50.0	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7439-92-1	Lead	3.51	U	1	3.51	6.00	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7439-95-4	Magnesium	39.4	U	1	39.4	1000	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7439-96-5	Manganese	1.80	J	1	1.46	10.0	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7439-97-6	Mercury	0.081	UN	1	0.081	0.20	ug/L	12/06/24 09:25	12/06/24 12:50	SW7470A	
7440-02-0	Nickel	0.85	U	1	0.85	20.0	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-09-7	Potassium	685	U	1	685	1000	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7782-49-2	Selenium	5.88	U	1	5.88	10.0	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-22-4	Silver	0.58	U	1	0.58	5.00	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-23-5	Sodium	237	U	1	237	1000	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-28-0	Thallium	2.32	U	1	2.32	20.0	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-62-2	Vanadium	3.06	U	1	3.06	20.0	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010
7440-66-6	Zinc	1.75	U	1	1.75	20.0	ug/L	12/09/24 09:10	12/10/24 12:22	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	TCL+30/TAL			

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

<b>OrderID:</b>	P5093	<b>OrderDate:</b>	12/4/2024 12:24:38 PM
<b>Client:</b>	R3M Engineering, Inc.	<b>Project:</b>	MC054.36 23-8-1 LM - Landing Lane New Brunswick
<b>Contact:</b>	Stacey L. Felts-Bock	<b>Location:</b>	L41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
<b>P5093-01</b>	<b>LL-001</b>	<b>Water</b>			<b>12/04/24</b>			<b>12/04/24</b>
			Mercury	7470A		12/06/24	12/06/24	
			Metals ICP-TAL	6010D		12/09/24	12/10/24	
<b>P5093-02</b>	<b>LL-001-FB-12-4-24</b>	<b>Water</b>			<b>12/04/24</b>			<b>12/04/24</b>
			Mercury	7470A		12/06/24	12/06/24	
			Metals ICP-TAL	6010D		12/09/24	12/10/24	



# SAMPLE DATA

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24 11:05
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001	SDG No.:	P5093
Lab Sample ID:	P5093-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.0010	J	1	0.00099	0.0050	mg/L	12/07/24 10:00	12/09/24 12:47	9012B
TOC	1.90		1	0.19	1.00	mg/L		12/05/24 13:09	9060A

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

## Report of Analysis

Client:	R3M Engineering, Inc.	Date Collected:	12/04/24 11:00
Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick	Date Received:	12/04/24
Client Sample ID:	LL-001-FB-12-4-24	SDG No.:	P5093
Lab Sample ID:	P5093-02	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.00099	U	1	0.00099	0.0050	mg/L	12/07/24 10:00	12/09/24 12:47	9012B
TOC	0.82	J	1	0.19	1.00	mg/L		12/05/24 14:29	9060A

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

OrderID:	P5093	OrderDate:	12/4/2024 12:24:38 PM
Client:	R3M Engineering, Inc.	Project:	MC054.36 23-8-1 LM - Landing Lane New Brunswick
Contact:	Stacey L. Felts-Bock	Location:	L41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5093-01	LL-001	WATER			12/04/24 11:05	12/07/24		12/04/24
			Cyanide	9012B			12/09/24 12:47	
			TOC	9060A			12/05/24 13:09	
P5093-02	LL-001-FB-12-4-24	WATER			12/04/24 11:00	12/07/24		12/04/24
			Cyanide	9012B			12/09/24 12:47	
			TOC	9060A			12/05/24 14:29	



# SHIPPING DOCUMENTS

# CHEMTECH

## CHAIN OF CUSTODY RECORD

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

CHEMTECH PROJECT NO.

QUOTE NO.

COC Number

P5093

2040990 P5094 11.1

### CLIENT INFORMATION

COMPANY: R3M Engineering, INC  
ADDRESS: 11 Landing Ln.  
CITY: New Brunswick STATE: NJ ZIP:   
ATTENTION: Stacey L. Felts-Book  
PHONE: (973) 207-1820 FAX:

### CLIENT PROJECT INFORMATION

PROJECT NAME: MCO54.36 23-B-1 LM - Landing  
PROJECT NO.:  LOCATION: Large New Brunswick  
PROJECT MANAGER:   
e-mail:   
PHONE:  FAX:

### CLIENT BILLING INFORMATION

BILL TO:  PO#:   
ADDRESS:   
CITY:  STATE:  ZIP:   
ATTENTION:  PHONE:

### ANALYSIS

### DATA TURNAROUND INFORMATION

FAX (RUSH)  DAYS\*   
HARDCOPY (DATA PACKAGE): STD DAYS\*   
EDD:  DAYS\*   
\*TO BE APPROVED BY CHEMTECH  
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

### DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)  
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP  
☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B  
+ Raw Data ☐ Other   
☐ EDD FORMAT

VOC-TCL  
SVOC-TCL  
Pest. PCB  
TOC  
Dioxin  
Metals  
Cyanide

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		A	E	E	C	E	B	D			← Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER	
1.	LL-001	W.		X	12/4	1105	10	X	X	X	X	X	X	X				
2.	LL-001-FB-12-4-24	W		X	12/4	1100	10	X	X	X	X	X	X	X				
3.	TB-12-4-24	W		X	12/4	—	2	X										
4.																		
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		

### SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <u>[Signature]</u>	DATE/TIME: <u>1200</u> <u>12/4/24</u>	RECEIVED BY: 1. <u>[Signature]</u>	Conditions of bottles or coolers at receipt: <input type="checkbox"/> COMPLIANT <input type="checkbox"/> NON COMPLIANT <input type="checkbox"/> COOLER TEMP <u>5.3°C</u> °C
RELINQUISHED BY SAMPLER: 2. <u>[Signature]</u>	DATE/TIME: <u></u>	RECEIVED BY: 2. <u></u>	Comments: <u></u>
RELINQUISHED BY SAMPLER: 3. <u>[Signature]</u>	DATE/TIME: <u>1300</u> <u>12/4/24</u>	RECEIVED BY: 3. <u></u>	Page <u>1</u> of <u>1</u>

CLIENT: ☐ Hand Delivered ☐ Other   
CHEMTECH: ☐ Picked Up ☐ Field Sampling  
Shipment Complete ☐ YES ☐ NO

# LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Landing Lane New Brunswick  
DATE: 12-4-24  
WEATHER: \_\_\_\_\_  
CONSULTING FIRM: Alliance Technical Group  
FIELD PERSONNEL: Gorge Veyron

MONITOR WELL #: \_\_\_\_\_ WELL DEPTH: 20'  
WELL PERMIT #: \_\_\_\_\_ WELL DIAMETER: 2" inches  
SCREENED/OPEN INTERVAL: \_\_\_\_\_

PID/FID READINGS (ppm): BACKGROUND: 0.0  
BENEATH OUTER CAP: 0.0  
BENEATH INNER CAP: 0.0  
PUMP INTAKE DEPTH: \_\_\_\_\_ ft below TOC  
DEPTH TO WATER BEFORE PUMP INSTALLATION: 22.8' ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
0925	X		7.38	NA	0.266	NA	162	NA	4.60	NA	257	NA	15.42	NA	—	22.8'
0930	X		7.24	0.14	0.261	0.005	157	5	4.03	0.57	253	4	16.05	0.63	—	22.8'
0935	X		7.14	0.1	0.257	0.004	139	18	2.77	1.26	94.8	158.2	16.44	0.39	—	22.8'
0940	X		7.11	0.03	0.255	0.002	132	7	1.89	0.88	73.6	21.2	16.66	0.22	—	22.8'
0945	X		7.11	0	0.254	0.001	128	4	1.19	0.7	60.1	13.5	16.92	0.26	—	22.8'
0950	X		7.11	0	0.252	0.002	122	6	2.11	0.92	54.2	5.9	16.82	0.1	—	22.8'
0955	X		7.11	0	0.253	0.001	121	1	2.12	0.01	52.8	1.4	16.79	0.03	—	22.8'
1000	X		7.11	0	0.255	0.002	120	1	2.08	0.04	52.6	0.2	16.78	0.01	—	22.8'
1005	X		7.11	0	0.257	0.002	122	2	2.06	0.02	51.9	0.9	16.77	0.01	—	22.8'

COMMENTS:

\*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  for pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



**FIELD SAMPLING LOG**

Client Name: R3M Engineering, INC  
Client Address: 11 Landing Ln. New Brunswick  
Client Rep on Site: Stacey L. Feltz - Beck  
Sampling Date: 12-4-24  
Arrival Time: 0700

Project Name: MCD54.36 23-8-1 LM-Landing  
Project Location: LANE New Brunswick  
Cooler Custody Seal: N/A  
Temperature Correction Factor (°C): —

Departure Time: 1200

**FIELD EQUIPMENT CALIBRATION**

pH Calibration (SM4500-H B/9040C)				
Calibration				ICV (± 0.1 pH unit)
	7.00 Buffer	4.00 Buffer	10.00 Buffer	7.00 Buffer
	W 3071	W 3107	W 3094	W 3093
Time	0710	0712	0714	0716
Temp °C	14.92	14.96	14.90	14.93
pH	7.00	4.01	10.02	7.00

**FIELD EQUIPMENT CALIBRATION**

Specific Conductance (mS/cm) (99% -101%)/(mmho/cm) (SM2510 B/120.1/9050A)		
Calibration (± 1%) (99% -101%)		ICV (± 1%) (99% -101%)
	WP	WP
Time		
Temp °C		
Reading (mS/cm)		

Sampler Signature/Date: [Signature] 12/4/24

Supervisor Review/Date: \_\_\_\_\_

Alliance Technical Group, LLC-Newark

284 Sheffield Street, Mountainside, NJ 07092 Tel. 908-789-8900 Fax 908-789-8922  
**FIELD SAMPLING LOG**

Client Name: R3M Engineering, INC

Client Address: 11 Landing Ln.

Client Rep on Site: Stacy L. Felts - Bock

Sampling Date: 12-4-24

Arrival Time: 0700 Departure Time: \_\_\_\_\_

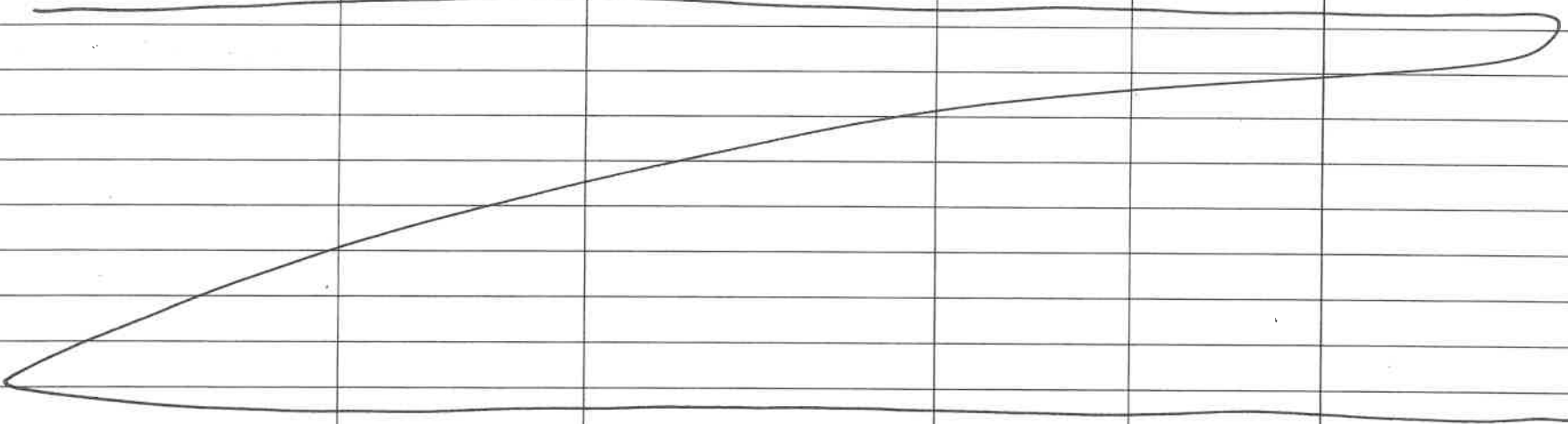
Project Name: MOOSE 36 23-8-1 LM - Landing  
Line New Brunswick

Project Location: New Brunswick

Cooler Custody Seal: N/A

Temperature Correction Factor (°C): \_\_\_\_\_

**FIELD SAMPLING INFORMATION**

Sampling Location	Date/Time of sampling	Field Measurements			
		Date/Time of Analysis	pH	Temperature °C	Specific Conductance (mS/cm) (99% -101%)
CCV (W3071)	12-4-24 0959	12-4-24 1001	7.01	16.70	0.266
LL-001	1003	1005	7.11	16.77	0.257
DUP	1007	1009	7.11	16.76	0.255
CCV (W3071)	1011	1013	7.00	16.72	0.264
					

Meter: YSI MPS, Model # 556, Serial # 085A0063

Sampler Signature/Date:  12/4/24

Supervisor Review/Date: \_\_\_\_\_

**Laboratory Certification**

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

## LOGIN REPORT/SAMPLE TRANSFER

Order ID : P5093 RTHR01

Order Date : 12/4/2024 12:24:38 PM

Project Mgr :

Client Name : R3M Engineering, Inc.

Project Name : MC054.36 23-8-1 LM - Lar

Report Type : Level 1

Client Contact : Stacey L. Felts-Bock

Receive DateTime : 12/4/2024 12:00:00 AM  
13:00

EDD Type : Excel NJ

Invoice Name : R3M Engineering, Inc.

Purchase Order :

Hard Copy Date :

Invoice Contact : Stacey L. Felts-Bock

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P5093-01	LL-001	Water	12/04/2024	11:05					
					VOC-TCLVOA-10	TCL+30/TAL	8260-Low	10 Bus. Days	
P5093-02	LL-001-FB-12-4-24	Water	12/04/2024	11:00					
					VOC-TCLVOA-10	TCL+30/TAL	8260-Low	10 Bus. Days	
P5093-03	TB-12-4-24	Water	12/04/2024	00:00					
					VOC-TCLVOA-10	TCL+30/TAL	8260-Low	10 Bus. Days	

Relinquished By :

Date / Time : 12/4/24 1400

Received By :

Date / Time :

Storage Area : VOA Refridgerator Room