

Darrell Foote

From: Cathy Martin
Sent: June 18, 2021 3:29 PM
To: Eddie Bearns; Downer, Bruce; Duggan, William S
Subject: Burin sediment results
Attachments: C1E4134V2-R2021-06-09_15-07-18_R006 Highlight.pdf

Good Afternoon,

Attached is the sediment analysis report for Burin. I have highlighted the exceedance to landfill disposal criteria. I can proceed in asking the lab to complete silica gel cleanup and leachate on the samples with exceedences, but wanted to be sure that was how you wished to proceed before doing so.

There are 10 samples locations, and each location had 3 samples collected at various depths.

There are exceedance in the TPH (page 26-33, the guideline is 1000mg/kg), arsenic, copper, lead, zinc, selenium, molybdenum, and some of the hydrocarbons.
It doesn't look promising for landfill disposal.

Let me know if you have any questions,
Cathy

Cathy Martin

Environmental Services / Service Environnementaux

Public Services and Procurement Canada / Government of Canada

cathy.martin@pwgsc-tpsgc.gc.ca / Tel: 709-691-1567

Services publics et Approvisionnement Canada / Gouvernement du Canada

cathy.martin@tpsgc-pwgsc.gc.ca / Tél: 709-691-1567



Your P.O. #: 700585603
 Your Project #: R.116548.001
 Site Location: Burin Site Dredging, NL
 Your C.O.C. #: 47690, 47691, 47692

Attention: Matt Maloney

MDI Contracting
 37 Deborah Lynn Heights
 Paradise, NL
 Canada A1L 3E6

Report Date: 2021/06/09
 Report #: R6668408
 Version: 2 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1E4134

Received: 2021/05/27, 10:24

Sample Matrix: Sediment
 # Samples Received: 30

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Benzo(b/j)fluoranthene Sum (LL soil)	15	N/A	2021/06/02	N/A	Auto Calc.
Benzo(b/j)fluoranthene Sum (LL soil)	15	N/A	2021/06/04	N/A	Auto Calc.
Boron Solid MS - Hot Water Soluble	7	2021/06/01	2021/06/01	ATL SOP 00058	EPA 6020B R2 m
Boron Solid MS - Hot Water Soluble	12	2021/06/02	2021/06/02	ATL SOP 00058	EPA 6020B R2 m
Boron Solid MS - Hot Water Soluble	11	2021/06/03	2021/06/03	ATL SOP 00058	EPA 6020B R2 m
Hexavalent Chromium in Soil by IC (1, 3)	20	2021/06/02	2021/06/03	CAM SOP-00436	EPA 3060/7199 m
Hexavalent Chromium in Soil by IC (1, 3)	10	2021/06/04	2021/06/04	CAM SOP-00436	EPA 3060/7199 m
TEH in Soil (PIRI) (3)	25	2021/05/31	2021/05/31	ATL SOP 00111	Atl. RBCA v3.1 m
TEH in Soil (PIRI) (3)	5	2021/05/31	2021/06/01	ATL SOP 00111	Atl. RBCA v3.1 m
Metals Solids Acid Extr. ICPMS	14	2021/06/02	2021/06/03	ATL SOP 00058	EPA 6020B R2 m
Metals Solids Acid Extr. ICPMS	13	2021/06/03	2021/06/03	ATL SOP 00058	EPA 6020B R2 m
Metals Solids Acid Extr. ICPMS	3	2021/06/03	2021/06/04	ATL SOP 00058	EPA 6020B R2 m
Weak Acid Dissociable Cyanides (2)	29	2021/06/02	2021/06/04	STL SOP-00035	MA300-CN 1.2 R4 m
Weak Acid Dissociable Cyanides (2)	1	2021/06/07	2021/06/08	STL SOP-00035	MA300-CN 1.2 R4 m
Total Cyanide (2)	30	2021/06/02	2021/06/04	STL SOP-00035	MA300-CN 1.2 R4 m
Water Content (Subcontracted) (2, 4)	30	N/A	2021/06/04	STL SOP-00021	MA.100-S.T. 1.1 R5 m
Moisture	30	N/A	2021/05/31	ATL SOP 00001	OMOE Handbook 1983 m
PAH in sediment by GC/MS (Low Level) (3)	2	2021/05/31	2021/05/31	ATL SOP 00102	EPA 8270E R6 m
PAH in sediment by GC/MS (Low Level) (3)	13	2021/05/31	2021/06/01	ATL SOP 00102	EPA 8270E R6 m
PAH in sediment by GC/MS (Low Level) (3)	15	2021/06/02	2021/06/03	ATL SOP 00102	EPA 8270E R6 m
Low Level PCB in Soil by GC-ECD	20	2021/06/01	2021/06/04	ATL SOP 00106	EPA 8082A m
Low Level PCB in Soil by GC-ECD	10	2021/06/02	2021/06/04	ATL SOP 00106	EPA 8082A m
PCB Aroclor sum (low level soil)	30	N/A	2021/06/04	N/A	Auto Calc.
ModTPH (T1) Calc. for Soil	18	N/A	2021/06/01	N/A	Atl. RBCA v3.1 m
ModTPH (T1) Calc. for Soil	12	N/A	2021/06/02	N/A	Atl. RBCA v3.1 m
VPH in Soil (PIRI) - Field Preserved (5)	30	N/A	2021/06/01	ATL SOP 00119	Atl. RBCA v3.1 m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession



Your P.O. #: 700585603
Your Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your C.O.C. #: 47690, 47691, 47692

Attention: Matt Maloney

MDI Contracting
37 Deborah Lynn Heights
Paradise, NL
Canada A1L 3E6

Report Date: 2021/06/09
Report #: R6668408
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1E4134

Received: 2021/05/27, 10:24

using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) This test was performed by Bureau Veritas Mississauga
- (2) This test was performed by Bureau Veritas Montreal via Bedford
- (3) Soils are reported on a dry weight basis unless otherwise specified.
- (4) Offsite analysis requires that subcontracted moisture be reported.
- (5) No lab extraction date is given for C6-C10/BTEX and VOC samples that are field preserved with methanol. Extraction date is date sampled unless otherwise stated.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Atena Georgescu, Project Manager II

Email: Atena.Georgescu@bureauveritas.com

Phone# (902)420-0203 Ext:239

=====

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BUREAU
VERITAS

BV Labs Job #: C1E4134

Report Date: 2021/06/09

Legend:

T, M, B refer to the depth of the samples taken relative to each other

T-Top, M-Middle, B-Bottom

Example: SED 10T = Sediment #10, Top sample

MDI Contracting

Client Project #: R.116548.001

Site Location: Burin Site Dredging, NL

Your P.O. #: 700585603

Sampler Initials: MDI

RESULTS OF ANALYSES OF SEDIMENT

BV Labs ID		PRI649	PRI650	PRI651	PRI652	PRI653	PRI654	PRI655		
Sampling Date		2021/05/20 11:50	2021/05/20 12:00	2021/05/20 12:10	2021/05/20 12:20	2021/05/20 12:30	2021/05/20 12:40	2021/05/20 12:50		
COC Number		47690	47690	47690	47690	47690	47690	47690		
	UNITS	SED 10 T	SED 10 M	SED 10 B	SED 9 T	SED 9 M	SED 9 B	SED 8 T	RDL	QC Batch

Inorganics

Moisture	%	71	66	67	67	63	60	60	1.0	7376146
----------	---	----	----	----	----	----	----	----	-----	---------

Physical Testing

Moisture-Subcontracted	%w/w	75	72	76	72	75	81	65	0.50	7398034
------------------------	------	----	----	----	----	----	----	----	------	---------

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

BV Labs ID		PRI656			PRI656			PRI657	PRI658	PRI693		
Sampling Date		2021/05/20 13:00			2021/05/20 13:00			2021/05/20 13:10	2021/05/20 13:20	2021/05/20 13:30		
COC Number		47690			47690			47690	47690	47691		
	UNITS	SED 8 M	RDL	QC Batch	SED 8 M Lab-Dup	RDL	QC Batch	SED 8 B	SED 7 T	SED 7 M	RDL	QC Batch

Inorganics

Moisture	%	70	1.0	7377035	67	1.0	7377035	60	75	76	1.0	7377035
----------	---	----	-----	---------	----	-----	---------	----	----	----	-----	---------

Physical Testing

Moisture-Subcontracted	%w/w	69	0.50	7398034				75	78	81	0.50	7398034
------------------------	------	----	------	---------	--	--	--	----	----	----	------	---------

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

BV Labs ID		PRI694		PRI695	PRI696	PRI697	PRI698	PRI699		
Sampling Date		2021/05/20 13:40		2021/05/20 13:50	2021/05/20 14:00	2021/05/20 14:10	2021/05/20 16:00	2021/05/20 16:30		
COC Number		47691		47691	47691	47691	47691	47691		
	UNITS	SED 7 B	QC Batch	SED 6 T	SED 6 M	SED 6 B	SED 5 T	SED 5 M	RDL	QC Batch

Inorganics

Moisture	%	77	7377035	80	82	77	69	63	1.0	7376671
----------	---	----	---------	----	----	----	----	----	-----	---------

Physical Testing

Moisture-Subcontracted	%w/w	84	7398034	81	82	78	75	72	0.50	7398034
------------------------	------	----	---------	----	----	----	----	----	------	---------

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

BUREAU
VERITASBV Labs Job #: C1E4134
Report Date: 2021/06/09MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI**RESULTS OF ANALYSES OF SEDIMENT**

BV Labs ID		PRI700	PRI701	PRI702	PRI709	PRI710	PRI711	PRI712		
Sampling Date		2021/05/20 17:00	2021/05/21 08:00	2021/05/21 08:30	2021/05/21 09:00	2021/05/21 10:00	2021/05/21 10:30	2021/05/21 11:00		
COC Number		47691	47691	47691	47692	47692	47692	47692		
	UNITS	SED 5 B	SED 4 T	SED 4 M	SED 4 B	SED 3 T	SED 3 M	SED 3 B	RDL	QC Batch

Inorganics										
Moisture	%	46	73	72	69	70	70	66	1.0	7376671
Physical Testing										
Moisture-Subcontracted	%w/w	60	78	75	75	69	77	75	0.50	7398034
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										

BV Labs ID		PRI713	PRI714	PRI715		PRI716	PRI717		
Sampling Date		2021/05/21 11:15	2021/05/21 11:25	2021/05/21 11:40		2021/05/21 11:55	2021/05/21 12:15		
COC Number		47692	47692	47692		47692	47692		
	UNITS	SED 2 T	SED 2 M	SED 2 B	QC Batch	SED 1 T	SED 1 M	RDL	QC Batch

Inorganics									
Moisture	%	68	72	75	7377035	73	72	1.0	7376671
Physical Testing									
Moisture-Subcontracted	%w/w	74	75	76	7398034	82	75	0.50	7398034
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									

BV Labs ID		PRI718		
Sampling Date		2021/05/21 12:25		
COC Number		47692		
	UNITS	SED 1 B	RDL	QC Batch

Inorganics				
Moisture	%	76	1.0	7377035
Physical Testing				
Moisture-Subcontracted	%w/w	77	0.50	7398034
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

BUREAU
VERITASBV Labs Job #: C1E4134
Report Date: 2021/06/09MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI**ELEMENTS BY ICP/MS (SEDIMENT)**

BV Labs ID		PRI649	PRI650	PRI651	PRI652	PRI653	PRI654	PRI655		
Sampling Date		2021/05/20 11:50	2021/05/20 12:00	2021/05/20 12:10	2021/05/20 12:20	2021/05/20 12:30	2021/05/20 12:40	2021/05/20 12:50		
COC Number		47690	47690	47690	47690	47690	47690	47690		
	UNITS	SED 10 T	SED 10 M	SED 10 B	SED 9 T	SED 9 M	SED 9 B	SED 8 T	RDL	QC Batch

Metals

Soluble (Hot Water) Boron (B)	mg/kg	19	19	19	15	14	17	29	3.0	7384061
-------------------------------	-------	----	----	----	----	----	----	----	-----	---------

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

BV Labs ID		PRI656	PRI657	PRI658	PRI693	PRI694		PRI695		
Sampling Date		2021/05/20 13:00	2021/05/20 13:10	2021/05/20 13:20	2021/05/20 13:30	2021/05/20 13:40		2021/05/20 13:50		
COC Number		47690	47690	47690	47691	47691		47691		
	UNITS	SED 8 M	SED 8 B	SED 7 T	SED 7 M	SED 7 B	QC Batch	SED 6 T	RDL	QC Batch

Metals

Soluble (Hot Water) Boron (B)	mg/kg	27	23	29	23	18	7384061	24	3.0	7386549
-------------------------------	-------	----	----	----	----	----	---------	----	-----	---------

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

BV Labs ID		PRI696	PRI697	PRI698	PRI699	PRI700	PRI701	PRI702		
Sampling Date		2021/05/20 14:00	2021/05/20 14:10	2021/05/20 16:00	2021/05/20 16:30	2021/05/20 17:00	2021/05/21 08:00	2021/05/21 08:30		
COC Number		47691	47691	47691	47691	47691	47691	47691		
	UNITS	SED 6 M	SED 6 B	SED 5 T	SED 5 M	SED 5 B	SED 4 T	SED 4 M	RDL	QC Batch

Metals

Soluble (Hot Water) Boron (B)	mg/kg	28	23	31	26	18	23	23	3.0	7386549
-------------------------------	-------	----	----	----	----	----	----	----	-----	---------

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ELEMENTS BY ICP/MS (SEDIMENT)

BV Labs ID		PRI709	PRI710	PRI711	PRI712		PRI713	PRI713		
Sampling Date		2021/05/21 09:00	2021/05/21 10:00	2021/05/21 10:30	2021/05/21 11:00		2021/05/21 11:15	2021/05/21 11:15		
COC Number		47692	47692	47692	47692		47692	47692		
	UNITS	SED 4 B	SED 3 T	SED 3 M	SED 3 B	QC Batch	SED 2 T	SED 2 T Lab-Dup	RDL	QC Batch

Metals										
Soluble (Hot Water) Boron (B)	mg/kg	14	16	12	13	7381371	25	22	3.0	7386549
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										
Lab-Dup = Laboratory Initiated Duplicate										

BV Labs ID		PRI714	PRI715		PRI716	PRI717	PRI718		
Sampling Date		2021/05/21 11:25	2021/05/21 11:40		2021/05/21 11:55	2021/05/21 12:15	2021/05/21 12:25		
COC Number		47692	47692		47692	47692	47692		
	UNITS	SED 2 M	SED 2 B	QC Batch	SED 1 T	SED 1 M	SED 1 B	RDL	QC Batch

Metals									
Soluble (Hot Water) Boron (B)	mg/kg	24	23	7386549	17	17	22	3.0	7381371
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									

BUREAU
VERITASBV Labs Job #: C1E4134
Report Date: 2021/06/09MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI**CONVENTIONALS (SEDIMENT)**

BV Labs ID		PRI649		PRI650		PRI651	PRI652	PRI653		
Sampling Date		2021/05/20 11:50		2021/05/20 12:00		2021/05/20 12:10	2021/05/20 12:20	2021/05/20 12:30		
COC Number		47690		47690		47690	47690	47690		
	UNITS	SED 10 T	QC Batch	SED 10 M	QC Batch	SED 10 B	SED 9 T	SED 9 M	RDL	QC Batch

Inorganics

Total Cyanide (CN)	mg/kg	ND	7398033	ND	7398036	ND	ND	ND	1.0	7398033
WAD Cyanide (Free)	mg/kg	ND	7398032	ND	7398035	ND	ND	ND	1.0	7398032

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

BV Labs ID		PRI654	PRI655		PRI656		PRI657		PRI658		
Sampling Date		2021/05/20 12:40	2021/05/20 12:50		2021/05/20 13:00		2021/05/20 13:10		2021/05/20 13:20		
COC Number		47690	47690		47690		47690		47690		
	UNITS	SED 9 B	SED 8 T	QC Batch	SED 8 M	QC Batch	SED 8 B	QC Batch	SED 7 T	RDL	QC Batch

Inorganics

Total Cyanide (CN)	mg/kg	ND	ND	7398033	ND	7398036	ND	7398033	ND	1.0	7398036
WAD Cyanide (Free)	mg/kg	ND	ND	7398032	ND	7398035	ND	7398032	ND	1.0	7398035

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

BV Labs ID		PRI658		PRI693	PRI694		PRI695		PRI696		
Sampling Date		2021/05/20 13:20		2021/05/20 13:30	2021/05/20 13:40		2021/05/20 13:50		2021/05/20 14:00		
COC Number		47690		47691	47691		47691		47691		
	UNITS	SED 7 T Lab-Dup	QC Batch	SED 7 M	SED 7 B	QC Batch	SED 6 T	QC Batch	SED 6 M	RDL	QC Batch

Inorganics

Total Cyanide (CN)	mg/kg	ND	7398036	ND	ND	7398033	1.3	7398036	ND	1.0	7398033
WAD Cyanide (Free)	mg/kg	ND	7398035	ND	ND	7398032	ND	7398037	ND	1.0	7398032

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

ND = Not detected

BUREAU
VERITASBV Labs Job #: C1E4134
Report Date: 2021/06/09MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI**CONVENTIONALS (SEDIMENT)**

BV Labs ID		PRI697	PRI698	PRI699		PRI700		PRI701		
Sampling Date		2021/05/20 14:10	2021/05/20 16:00	2021/05/20 16:30		2021/05/20 17:00		2021/05/21 08:00		
COC Number		47691	47691	47691		47691		47691		
	UNITS	SED 6 B	SED 5 T	SED 5 M	QC Batch	SED 5 B	QC Batch	SED 4 T	RDL	QC Batch

Inorganics

Total Cyanide (CN)	mg/kg	ND	ND	ND	7398036	ND	7398033	ND	1.0	7398036
WAD Cyanide (Free)	mg/kg	ND	ND	ND	7398035	ND	7398032	ND	1.0	7398035

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

BV Labs ID		PRI702	PRI702	PRI709	PRI710	PRI711	PRI712	PRI713		
Sampling Date		2021/05/21 08:30	2021/05/21 08:30	2021/05/21 09:00	2021/05/21 10:00	2021/05/21 10:30	2021/05/21 11:00	2021/05/21 11:15		
COC Number		47691	47691	47692	47692	47692	47692	47692		
	UNITS	SED 4 M	SED 4 M Lab-Dup	SED 4 B	SED 3 T	SED 3 M	SED 3 B	SED 2 T	RDL	QC Batch

Inorganics

Total Cyanide (CN)	mg/kg	ND	ND	ND	ND	ND	ND	ND	1.0	7398033
WAD Cyanide (Free)	mg/kg	ND	ND	ND	ND	ND	ND	ND	1.0	7398032

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

ND = Not detected

BV Labs ID		PRI714	PRI715		PRI716	PRI717		PRI718		
Sampling Date		2021/05/21 11:25	2021/05/21 11:40		2021/05/21 11:55	2021/05/21 12:15		2021/05/21 12:25		
COC Number		47692	47692		47692	47692		47692		
	UNITS	SED 2 M	SED 2 B	QC Batch	SED 1 T	SED 1 M	QC Batch	SED 1 B	RDL	QC Batch

Inorganics

Total Cyanide (CN)	mg/kg	ND	ND	7398033	ND	ND	7398036	ND	1.0	7398033
WAD Cyanide (Free)	mg/kg	ND	ND	7398032	ND	ND	7398035	ND	1.0	7398032

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected



BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

BV Labs ID		PRI649			PRI650			PRI650		
Sampling Date		2021/05/20 11:50			2021/05/20 12:00			2021/05/20 12:00		
COC Number		47690			47690			47690		
	UNITS	SED 10 T	RDL	QC Batch	SED 10 M	RDL	QC Batch	SED 10 M Lab-Dup	RDL	QC Batch

Inorganics

Chromium (VI)	ug/g	ND	0.27	7389114	ND	0.53	7384601			
---------------	------	----	------	---------	----	------	---------	--	--	--

Metals

Acid Extractable Aluminum (Al)	mg/kg	11000	10	7383903	11000	10	7383903	10000	10	7383903
Acid Extractable Antimony (Sb)	mg/kg	2.0	2.0	7383903	ND	2.0	7383903	2.1	2.0	7383903
Acid Extractable Arsenic (As)	mg/kg	15	2.0	7383903	15	2.0	7383903	17	2.0	7383903
Acid Extractable Barium (Ba)	mg/kg	43	5.0	7383903	41	5.0	7383903	62 (1)	5.0	7383903
Acid Extractable Beryllium (Be)	mg/kg	ND	2.0	7383903	ND	2.0	7383903	ND	2.0	7383903
Acid Extractable Bismuth (Bi)	mg/kg	ND	2.0	7383903	ND	2.0	7383903	ND	2.0	7383903
Acid Extractable Boron (B)	mg/kg	130	50	7383903	120	50	7383903	130	50	7383903
Acid Extractable Cadmium (Cd)	mg/kg	2.0	0.30	7383903	1.7	0.30	7383903	1.9	0.30	7383903
Acid Extractable Chromium (Cr)	mg/kg	71	2.0	7383903	59	2.0	7383903	65	2.0	7383903
Acid Extractable Cobalt (Co)	mg/kg	7.9	1.0	7383903	8.4	1.0	7383903	7.0	1.0	7383903
Acid Extractable Copper (Cu)	mg/kg	140	2.0	7383903	110	2.0	7383903	77 (1)	2.0	7383903
Acid Extractable Iron (Fe)	mg/kg	31000	50	7383903	31000	50	7383903	28000	50	7383903
Acid Extractable Lead (Pb)	mg/kg	610	0.50	7383903	510	0.50	7383903	550	0.50	7383903
Acid Extractable Lithium (Li)	mg/kg	13	2.0	7383903	13	2.0	7383903	13	2.0	7383903
Acid Extractable Manganese (Mn)	mg/kg	300	2.0	7383903	310	2.0	7383903	270	2.0	7383903
Acid Extractable Mercury (Hg)	mg/kg	1.4	0.10	7383903	1.1	0.10	7383903	0.92	0.10	7383903
Acid Extractable Molybdenum (Mo)	mg/kg	33	2.0	7383903	31	2.0	7383903	27	2.0	7383903
Acid Extractable Nickel (Ni)	mg/kg	40	2.0	7383903	36	2.0	7383903	38	2.0	7383903
Acid Extractable Rubidium (Rb)	mg/kg	4.5	2.0	7383903	3.7	2.0	7383903	3.8	2.0	7383903
Acid Extractable Selenium (Se)	mg/kg	2.1	0.50	7383903	2.0	0.50	7383903	2.0	0.50	7383903
Acid Extractable Silver (Ag)	mg/kg	ND	0.50	7383903	ND	0.50	7383903	ND	0.50	7383903
Acid Extractable Strontium (Sr)	mg/kg	990	5.0	7383903	940	5.0	7383903	1200	5.0	7383903
Acid Extractable Thallium (Tl)	mg/kg	0.32	0.10	7383903	0.30	0.10	7383903	0.28	0.10	7383903
Acid Extractable Tin (Sn)	mg/kg	16	1.0	7383903	17	1.0	7383903	16	1.0	7383903
Acid Extractable Uranium (U)	mg/kg	20	0.10	7383903	19	0.10	7383903	23	0.10	7383903
Acid Extractable Vanadium (V)	mg/kg	110	2.0	7383903	100	2.0	7383903	98	2.0	7383903
Acid Extractable Zinc (Zn)	mg/kg	960	5.0	7383903	740	5.0	7383903	1600 (1)	5.0	7383903

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

ND = Not detected

(1) Poor RPD due to sample inhomogeneity. Verified by repeat digestion and analysis.

BUREAU
VERITAS

BV Labs Job #: C1E4134

Report Date: 2021/06/09

MDI Contracting

Client Project #: R.116548.001

Site Location: Burin Site Dredging, NL

Your P.O. #: 700585603

Sampler Initials: MDI

ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

BV Labs ID		PRI651		PRI652			PRI653		PRI654		
Sampling Date		2021/05/20 12:10		2021/05/20 12:20			2021/05/20 12:30		2021/05/20 12:40		
COC Number		47690		47690			47690		47690		
	UNITS	SED 10 B	RDL	SED 9 T	RDL	QC Batch	SED 9 M	RDL	SED 9 B	RDL	QC Batch
Inorganics											
Chromium (VI)	ug/g	ND	0.55	ND	0.54	7389114	ND	0.48	ND	0.45	7384601
Metals											
Acid Extractable Aluminum (Al)	mg/kg	10000	10	13000	10	7383903	8300	10	11000	10	7383903
Acid Extractable Antimony (Sb)	mg/kg	4.3	2.0	3.3	2.0	7383903	2.4	2.0	2.5	2.0	7383903
Acid Extractable Arsenic (As)	mg/kg	14	2.0	27	2.0	7383903	11	2.0	15	2.0	7383903
Acid Extractable Barium (Ba)	mg/kg	68	5.0	44	5.0	7383903	42	5.0	54	5.0	7383903
Acid Extractable Beryllium (Be)	mg/kg	ND	2.0	ND	2.0	7383903	ND	2.0	ND	2.0	7383903
Acid Extractable Bismuth (Bi)	mg/kg	ND	2.0	ND	2.0	7383903	ND	2.0	ND	2.0	7383903
Acid Extractable Boron (B)	mg/kg	130	50	110	50	7383903	100	50	120	50	7383903
Acid Extractable Cadmium (Cd)	mg/kg	1.8	0.30	3.0	0.30	7383903	2.0	0.30	2.0	0.30	7383903
Acid Extractable Chromium (Cr)	mg/kg	59	2.0	85	2.0	7383903	52	2.0	74	2.0	7383903
Acid Extractable Cobalt (Co)	mg/kg	7.9	1.0	11	1.0	7383903	7.4	1.0	9.7	1.0	7383903
Acid Extractable Copper (Cu)	mg/kg	170	2.0	200	2.0	7383903	110	2.0	950	2.0	7383903
Acid Extractable Iron (Fe)	mg/kg	29000	50	42000	50	7383903	29000	50	37000	50	7383903
Acid Extractable Lead (Pb)	mg/kg	540	0.50	720	0.50	7383903	640	0.50	470	0.50	7383903
Acid Extractable Lithium (Li)	mg/kg	13	2.0	18	2.0	7383903	10	2.0	14	2.0	7383903
Acid Extractable Manganese (Mn)	mg/kg	310	2.0	370	2.0	7383903	250	2.0	350	2.0	7383903
Acid Extractable Mercury (Hg)	mg/kg	1.4	0.10	1.3	0.10	7383903	2.0	0.10	24	0.10	7383903
Acid Extractable Molybdenum (Mo)	mg/kg	26	2.0	38	2.0	7383903	33	2.0	37	2.0	7383903
Acid Extractable Nickel (Ni)	mg/kg	33	2.0	41	2.0	7383903	37	2.0	47	2.0	7383903
Acid Extractable Rubidium (Rb)	mg/kg	3.7	2.0	4.6	2.0	7383903	3.3	2.0	3.7	2.0	7383903
Acid Extractable Selenium (Se)	mg/kg	2.1	0.50	2.5	0.50	7383903	1.6	0.50	2.0	0.50	7383903
Acid Extractable Silver (Ag)	mg/kg	ND	0.50	ND	0.50	7383903	ND	0.50	ND	0.50	7383903
Acid Extractable Strontium (Sr)	mg/kg	910	5.0	920	5.0	7383903	1100	5.0	920	5.0	7383903
Acid Extractable Thallium (Tl)	mg/kg	0.26	0.10	0.42	0.10	7383903	0.21	0.10	0.24	0.10	7383903
Acid Extractable Tin (Sn)	mg/kg	21	1.0	19	1.0	7383903	18	1.0	23	1.0	7383903
Acid Extractable Uranium (U)	mg/kg	19	0.10	23	0.10	7383903	18	0.10	17	0.10	7383903
Acid Extractable Vanadium (V)	mg/kg	97	2.0	110	2.0	7383903	87	2.0	110	2.0	7383903
Acid Extractable Zinc (Zn)	mg/kg	1500	5.0	1300	5.0	7383903	1200	5.0	1000	5.0	7383903
RDL = Reportable Detection Limit											
QC Batch = Quality Control Batch											
ND = Not detected											



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

BV Labs ID		PRI655			PRI656		PRI657		PRI658		
Sampling Date		2021/05/20 12:50			2021/05/20 13:00		2021/05/20 13:10		2021/05/20 13:20		
COC Number		47690			47690		47690		47690		
	UNITS	SED 8 T	RDL	QC Batch	SED 8 M	RDL	SED 8 B	RDL	SED 7 T	RDL	QC Batch
Inorganics											
Chromium (VI)	ug/g	ND	0.45	7389114	ND	0.60	ND	0.45	ND	0.73	7384601
Metals											
Acid Extractable Aluminum (Al)	mg/kg	13000	10	7383903	12000	10	13000	10	13000	10	7383903
Acid Extractable Antimony (Sb)	mg/kg	ND	2.0	7383903	2.8	2.0	2.2	2.0	ND	2.0	7383903
Acid Extractable Arsenic (As)	mg/kg	22	2.0	7383903	22	2.0	17	2.0	24	2.0	7383903
Acid Extractable Barium (Ba)	mg/kg	56	5.0	7383903	51	5.0	84	5.0	47	5.0	7383903
Acid Extractable Beryllium (Be)	mg/kg	ND	2.0	7383903	ND	2.0	ND	2.0	ND	2.0	7383903
Acid Extractable Bismuth (Bi)	mg/kg	ND	2.0	7383903	ND	2.0	ND	2.0	ND	2.0	7383903
Acid Extractable Boron (B)	mg/kg	200	50	7383903	210	50	130	50	260	50	7383903
Acid Extractable Cadmium (Cd)	mg/kg	2.0	0.30	7383903	1.8	0.30	1.9	0.30	3.3	0.30	7383903
Acid Extractable Chromium (Cr)	mg/kg	49	2.0	7383903	48	2.0	51	2.0	77	2.0	7383903
Acid Extractable Cobalt (Co)	mg/kg	10	1.0	7383903	8.6	1.0	9.6	1.0	11	1.0	7383903
Acid Extractable Copper (Cu)	mg/kg	100	2.0	7383903	110	2.0	110	2.0	130	2.0	7383903
Acid Extractable Iron (Fe)	mg/kg	33000	50	7383903	27000	50	34000	50	35000	50	7383903
Acid Extractable Lead (Pb)	mg/kg	300	0.50	7383903	330	0.50	810	0.50	220	0.50	7383903
Acid Extractable Lithium (Li)	mg/kg	17	2.0	7383903	13	2.0	16	2.0	19	2.0	7383903
Acid Extractable Manganese (Mn)	mg/kg	430	2.0	7383903	350	2.0	400	2.0	410	2.0	7383903
Acid Extractable Mercury (Hg)	mg/kg	1.4	0.10	7383903	1.1	0.10	0.61	0.10	0.83	0.10	7383903
Acid Extractable Molybdenum (Mo)	mg/kg	15	2.0	7383903	19	2.0	25	2.0	30	2.0	7383903
Acid Extractable Nickel (Ni)	mg/kg	32	2.0	7383903	31	2.0	33	2.0	49	2.0	7383903
Acid Extractable Rubidium (Rb)	mg/kg	4.3	2.0	7383903	4.2	2.0	4.1	2.0	5.2	2.0	7383903
Acid Extractable Selenium (Se)	mg/kg	2.3	0.50	7383903	2.3	0.50	2.1	0.50	3.9	0.50	7383903
Acid Extractable Silver (Ag)	mg/kg	ND	0.50	7383903	ND	0.50	ND	0.50	ND	0.50	7383903
Acid Extractable Strontium (Sr)	mg/kg	830	5.0	7383903	990	5.0	640	5.0	610	5.0	7383903
Acid Extractable Thallium (Tl)	mg/kg	0.30	0.10	7383903	0.31	0.10	0.25	0.10	0.45	0.10	7383903
Acid Extractable Tin (Sn)	mg/kg	14	1.0	7383903	9.8	1.0	14	1.0	15	1.0	7383903
Acid Extractable Uranium (U)	mg/kg	14	0.10	7383903	17	0.10	13	0.10	14	0.10	7383903
Acid Extractable Vanadium (V)	mg/kg	78	2.0	7383903	81	2.0	83	2.0	110	2.0	7383903
Acid Extractable Zinc (Zn)	mg/kg	370	5.0	7383903	500	5.0	610	5.0	530	5.0	7383903
RDL = Reportable Detection Limit QC Batch = Quality Control Batch ND = Not detected											



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

BV Labs ID		PRI693		PRI694			PRI695			PRI696		
Sampling Date		2021/05/20 13:30		2021/05/20 13:40			2021/05/20 13:50			2021/05/20 14:00		
COC Number		47691		47691			47691			47691		
	UNITS	SED 7 M	RDL	SED 7 B	RDL	QC Batch	SED 6 T	RDL	QC Batch	SED 6 M	RDL	QC Batch

Inorganics

Chromium (VI)	ug/g	ND	0.75	ND	0.79	7384601	ND	0.88	7389114	ND	0.98	7384601
---------------	------	----	------	----	------	---------	----	------	---------	----	------	---------

Metals

Acid Extractable Aluminum (Al)	mg/kg	12000	10	11000	10	7383903	12000	10	7386458	11000	10	7386458
Acid Extractable Antimony (Sb)	mg/kg	2.1	2.0	ND	2.0	7383903	ND	2.0	7386458	ND	2.0	7386458
Acid Extractable Arsenic (As)	mg/kg	17	2.0	12	2.0	7383903	36	2.0	7386458	15	2.0	7386458
Acid Extractable Barium (Ba)	mg/kg	46	5.0	49	5.0	7383903	47	5.0	7386458	37	5.0	7386458
Acid Extractable Beryllium (Be)	mg/kg	ND	2.0	ND	2.0	7383903	ND	2.0	7386458	ND	2.0	7386458
Acid Extractable Bismuth (Bi)	mg/kg	ND	2.0	ND	2.0	7383903	ND	2.0	7386458	ND	2.0	7386458
Acid Extractable Boron (B)	mg/kg	280	50	370	50	7383903	230	50	7386458	340	50	7386458
Acid Extractable Cadmium (Cd)	mg/kg	3.6	0.30	3.9	0.30	7383903	3.4	0.30	7386458	4.1	0.30	7386458
Acid Extractable Chromium (Cr)	mg/kg	57	2.0	63	2.0	7383903	84	2.0	7386458	62	2.0	7386458
Acid Extractable Cobalt (Co)	mg/kg	8.5	1.0	7.7	1.0	7383903	9.0	1.0	7386458	8.4	1.0	7386458
Acid Extractable Copper (Cu)	mg/kg	210	2.0	120	2.0	7383903	190	2.0	7386458	95	2.0	7386458
Acid Extractable Iron (Fe)	mg/kg	34000	50	27000	50	7383903	30000	50	7386458	28000	50	7386458
Acid Extractable Lead (Pb)	mg/kg	190	0.50	220	0.50	7383903	370	0.50	7386458	430	0.50	7386458
Acid Extractable Lithium (Li)	mg/kg	17	2.0	16	2.0	7383903	15	2.0	7386458	16	2.0	7386458
Acid Extractable Manganese (Mn)	mg/kg	340	2.0	310	2.0	7383903	320	2.0	7386458	320	2.0	7386458
Acid Extractable Mercury (Hg)	mg/kg	1.7	0.10	0.80	0.10	7383903	0.95	0.10	7386458	0.85	0.10	7386458
Acid Extractable Molybdenum (Mo)	mg/kg	38	2.0	47	2.0	7383903	36	2.0	7386458	44	2.0	7386458
Acid Extractable Nickel (Ni)	mg/kg	50	2.0	44	2.0	7383903	45	2.0	7386458	39	2.0	7386458
Acid Extractable Rubidium (Rb)	mg/kg	5.1	2.0	4.5	2.0	7383903	5.2	2.0	7386458	5.4	2.0	7386458
Acid Extractable Selenium (Se)	mg/kg	4.2	0.50	4.4	0.50	7383903	4.4	0.50	7386458	4.8	0.50	7386458
Acid Extractable Silver (Ag)	mg/kg	ND	0.50	ND	0.50	7383903	ND	0.50	7386458	ND	0.50	7386458
Acid Extractable Strontium (Sr)	mg/kg	620	5.0	620	5.0	7383903	550	5.0	7386458	460	5.0	7386458
Acid Extractable Thallium (Tl)	mg/kg	0.35	0.10	0.34	0.10	7383903	0.36	0.10	7386458	0.35	0.10	7386458
Acid Extractable Tin (Sn)	mg/kg	23	1.0	14	1.0	7383903	19	1.0	7386458	29	1.0	7386458
Acid Extractable Uranium (U)	mg/kg	15	0.10	19	0.10	7383903	15	0.10	7386458	16	0.10	7386458
Acid Extractable Vanadium (V)	mg/kg	140	2.0	110	2.0	7383903	120	2.0	7386458	92	2.0	7386458
Acid Extractable Zinc (Zn)	mg/kg	990	5.0	720	5.0	7383903	710	5.0	7386458	370	5.0	7386458

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

BUREAU
VERITASBV Labs Job #: C1E4134
Report Date: 2021/06/09MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

BV Labs ID		PRI697			PRI697			PRI698		
Sampling Date		2021/05/20 14:10			2021/05/20 14:10			2021/05/20 16:00		
COC Number		47691			47691			47691		
	UNITS	SED 6 B	RDL	QC Batch	SED 6 B Lab-Dup	RDL	QC Batch	SED 5 T	RDL	QC Batch
Inorganics										
Chromium (VI)	ug/g	ND	0.78	7384601	ND	0.78	7384601	ND	0.58	7384601
Metals										
Acid Extractable Aluminum (Al)	mg/kg	13000	10	7386458				16000	10	7386458
Acid Extractable Antimony (Sb)	mg/kg	2.3	2.0	7386458				ND	2.0	7386458
Acid Extractable Arsenic (As)	mg/kg	20	2.0	7386458				25	2.0	7386458
Acid Extractable Barium (Ba)	mg/kg	49	5.0	7386458				54	5.0	7386458
Acid Extractable Beryllium (Be)	mg/kg	ND	2.0	7386458				ND	2.0	7386458
Acid Extractable Bismuth (Bi)	mg/kg	ND	2.0	7386458				ND	2.0	7386458
Acid Extractable Boron (B)	mg/kg	250	50	7386458				190	50	7386458
Acid Extractable Cadmium (Cd)	mg/kg	3.5	0.30	7386458				2.3	0.30	7386458
Acid Extractable Chromium (Cr)	mg/kg	66	2.0	7386458				53	2.0	7386458
Acid Extractable Cobalt (Co)	mg/kg	11	1.0	7386458				13	1.0	7386458
Acid Extractable Copper (Cu)	mg/kg	160	2.0	7386458				140	2.0	7386458
Acid Extractable Iron (Fe)	mg/kg	36000	50	7386458				39000	50	7386458
Acid Extractable Lead (Pb)	mg/kg	250	0.50	7386458				140	0.50	7386458
Acid Extractable Lithium (Li)	mg/kg	16	2.0	7386458				16	2.0	7386458
Acid Extractable Manganese (Mn)	mg/kg	410	2.0	7386458				560	2.0	7386458
Acid Extractable Mercury (Hg)	mg/kg	1.0	0.10	7386458				0.84	0.10	7386458
Acid Extractable Molybdenum (Mo)	mg/kg	39	2.0	7386458				14	2.0	7386458
Acid Extractable Nickel (Ni)	mg/kg	45	2.0	7386458				34	2.0	7386458
Acid Extractable Rubidium (Rb)	mg/kg	5.2	2.0	7386458				5.1	2.0	7386458
Acid Extractable Selenium (Se)	mg/kg	4.3	0.50	7386458				2.8	0.50	7386458
Acid Extractable Silver (Ag)	mg/kg	ND	0.50	7386458				ND	0.50	7386458
Acid Extractable Strontium (Sr)	mg/kg	580	5.0	7386458				670	5.0	7386458
Acid Extractable Thallium (Tl)	mg/kg	0.38	0.10	7386458				0.34	0.10	7386458
Acid Extractable Tin (Sn)	mg/kg	21	1.0	7386458				9.7	1.0	7386458
Acid Extractable Uranium (U)	mg/kg	15	0.10	7386458				11	0.10	7386458
Acid Extractable Vanadium (V)	mg/kg	110	2.0	7386458				86	2.0	7386458
Acid Extractable Zinc (Zn)	mg/kg	700	5.0	7386458				430	5.0	7386458
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate ND = Not detected										



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

BV Labs ID		PRI699		PRI700			PRI701			PRI702		
Sampling Date		2021/05/20 16:30		2021/05/20 17:00			2021/05/21 08:00			2021/05/21 08:30		
COC Number		47691		47691			47691			47691		
	UNITS	SED 5 M	RDL	SED 5 B	RDL	QC Batch	SED 4 T	RDL	QC Batch	SED 4 M	RDL	QC Batch

Inorganics

Chromium (VI)	ug/g	ND	0.49	ND	0.33	7389114	ND	0.67	7384601	ND	0.63	7384601
---------------	------	----	------	----	------	---------	----	------	---------	----	------	---------

Metals

Acid Extractable Aluminum (Al)	mg/kg	14000	10	13000	10	7386458	13000	10	7386458	15000	10	7383903
Acid Extractable Antimony (Sb)	mg/kg	ND	2.0	2.3	2.0	7386458	ND	2.0	7386458	2.2	2.0	7383903
Acid Extractable Arsenic (As)	mg/kg	23	2.0	15	2.0	7386458	21	2.0	7386458	24	2.0	7383903
Acid Extractable Barium (Ba)	mg/kg	47	5.0	55	5.0	7386458	48	5.0	7386458	47	5.0	7383903
Acid Extractable Beryllium (Be)	mg/kg	ND	2.0	ND	2.0	7386458	ND	2.0	7386458	ND	2.0	7383903
Acid Extractable Bismuth (Bi)	mg/kg	ND	2.0	ND	2.0	7386458	ND	2.0	7386458	ND	2.0	7383903
Acid Extractable Boron (B)	mg/kg	160	50	82	50	7386458	160	50	7386458	170	50	7383903
Acid Extractable Cadmium (Cd)	mg/kg	2.0	0.30	1.0	0.30	7386458	2.7	0.30	7386458	2.9	0.30	7383903
Acid Extractable Chromium (Cr)	mg/kg	48	2.0	31	2.0	7386458	69	2.0	7386458	74	2.0	7383903
Acid Extractable Cobalt (Co)	mg/kg	11	1.0	6.8	1.0	7386458	12	1.0	7386458	17	1.0	7383903
Acid Extractable Copper (Cu)	mg/kg	130	2.0	200	2.0	7386458	130	2.0	7386458	160	2.0	7383903
Acid Extractable Iron (Fe)	mg/kg	35000	50	28000	50	7386458	36000	50	7386458	45000	50	7383903
Acid Extractable Lead (Pb)	mg/kg	320	0.50	270	0.50	7386458	280	0.50	7386458	190	0.50	7383903
Acid Extractable Lithium (Li)	mg/kg	15	2.0	14	2.0	7386458	16	2.0	7386458	21	2.0	7383903
Acid Extractable Manganese (Mn)	mg/kg	450	2.0	400	2.0	7386458	450	2.0	7386458	630	2.0	7383903
Acid Extractable Mercury (Hg)	mg/kg	1.2	0.10	2.4	0.10	7386458	1.5	0.10	7386458	0.89	0.10	7383903
Acid Extractable Molybdenum (Mo)	mg/kg	17	2.0	17	2.0	7386458	28	2.0	7386458	29	2.0	7383903
Acid Extractable Nickel (Ni)	mg/kg	34	2.0	26	2.0	7386458	46	2.0	7386458	52	2.0	7383903
Acid Extractable Rubidium (Rb)	mg/kg	4.4	2.0	3.2	2.0	7386458	4.4	2.0	7386458	3.4	2.0	7383903
Acid Extractable Selenium (Se)	mg/kg	2.4	0.50	1.4	0.50	7386458	3.4	0.50	7386458	2.9	0.50	7383903
Acid Extractable Silver (Ag)	mg/kg	ND	0.50	ND	0.50	7386458	ND	0.50	7386458	ND	0.50	7383903
Acid Extractable Strontium (Sr)	mg/kg	590	5.0	730	5.0	7386458	520	5.0	7386458	350	5.0	7383903
Acid Extractable Thallium (Tl)	mg/kg	0.30	0.10	0.22	0.10	7386458	0.34	0.10	7386458	0.31	0.10	7383903
Acid Extractable Tin (Sn)	mg/kg	11	1.0	12	1.0	7386458	17	1.0	7386458	17	1.0	7383903
Acid Extractable Uranium (U)	mg/kg	12	0.10	15	0.10	7386458	12	0.10	7386458	8.9	0.10	7383903
Acid Extractable Vanadium (V)	mg/kg	82	2.0	71	2.0	7386458	140	2.0	7386458	120	2.0	7383903
Acid Extractable Zinc (Zn)	mg/kg	650	5.0	610	5.0	7386458	780	5.0	7386458	550	5.0	7383903

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

BV Labs ID		PRI709			PRI710			PRI711		PRI712		
Sampling Date		2021/05/21 09:00			2021/05/21 10:00			2021/05/21 10:30		2021/05/21 11:00		
COC Number		47692			47692			47692		47692		
	UNITS	SED 4 B	RDL	QC Batch	SED 3 T	RDL	QC Batch	SED 3 M	RDL	SED 3 B	RDL	QC Batch

Inorganics

Chromium (VI)	ug/g	ND	0.58	7384601	ND	0.60	7389114	ND	0.61	ND	0.53	7384601
---------------	------	----	------	---------	----	------	---------	----	------	----	------	---------

Metals

Acid Extractable Aluminum (Al)	mg/kg	12000	10	7383903	13000	10	7386458	12000	10	10000	10	7386458
Acid Extractable Antimony (Sb)	mg/kg	ND	2.0	7383903	2.8	2.0	7386458	2.7	2.0	ND	2.0	7386458
Acid Extractable Arsenic (As)	mg/kg	15	2.0	7383903	16	2.0	7386458	14	2.0	16	2.0	7386458
Acid Extractable Barium (Ba)	mg/kg	40	5.0	7383903	39	5.0	7386458	59	5.0	52	5.0	7386458
Acid Extractable Beryllium (Be)	mg/kg	ND	2.0	7383903	ND	2.0	7386458	ND	2.0	ND	2.0	7386458
Acid Extractable Bismuth (Bi)	mg/kg	ND	2.0	7383903	ND	2.0	7386458	ND	2.0	ND	2.0	7386458
Acid Extractable Boron (B)	mg/kg	160	50	7383903	150	50	7386458	180	50	120	50	7386458
Acid Extractable Cadmium (Cd)	mg/kg	2.3	0.30	7383903	2.1	0.30	7386458	3.7	0.30	2.4	0.30	7386458
Acid Extractable Chromium (Cr)	mg/kg	54	2.0	7383903	59	2.0	7386458	56	2.0	56	2.0	7386458
Acid Extractable Cobalt (Co)	mg/kg	10	1.0	7383903	12	1.0	7386458	8.5	1.0	8.0	1.0	7386458
Acid Extractable Copper (Cu)	mg/kg	140	2.0	7383903	290	2.0	7386458	120	2.0	170	2.0	7386458
Acid Extractable Iron (Fe)	mg/kg	37000	50	7383903	34000	50	7386458	33000	50	29000	50	7386458
Acid Extractable Lead (Pb)	mg/kg	260	0.50	7383903	400	0.50	7386458	380	0.50	340	0.50	7386458
Acid Extractable Lithium (Li)	mg/kg	17	2.0	7383903	15	2.0	7386458	14	2.0	13	2.0	7386458
Acid Extractable Manganese (Mn)	mg/kg	410	2.0	7383903	430	2.0	7386458	360	2.0	320	2.0	7386458
Acid Extractable Mercury (Hg)	mg/kg	2.3	0.10	7383903	0.78	0.10	7386458	3.2	0.10	2.4	0.10	7386458
Acid Extractable Molybdenum (Mo)	mg/kg	34	2.0	7383903	21	2.0	7386458	36	2.0	27	2.0	7386458
Acid Extractable Nickel (Ni)	mg/kg	48	2.0	7383903	38	2.0	7386458	63	2.0	34	2.0	7386458
Acid Extractable Rubidium (Rb)	mg/kg	3.9	2.0	7383903	3.9	2.0	7386458	4.6	2.0	3.5	2.0	7386458
Acid Extractable Selenium (Se)	mg/kg	2.8	0.50	7383903	2.7	0.50	7386458	3.3	0.50	2.5	0.50	7386458
Acid Extractable Silver (Ag)	mg/kg	ND	0.50	7383903	ND	0.50	7386458	ND	0.50	ND	0.50	7386458
Acid Extractable Strontium (Sr)	mg/kg	510	5.0	7383903	470	5.0	7386458	640	5.0	670	5.0	7386458
Acid Extractable Thallium (Tl)	mg/kg	0.31	0.10	7383903	0.25	0.10	7386458	0.28	0.10	0.32	0.10	7386458
Acid Extractable Tin (Sn)	mg/kg	19	1.0	7383903	16	1.0	7386458	23	1.0	13	1.0	7386458
Acid Extractable Uranium (U)	mg/kg	12	0.10	7383903	11	0.10	7386458	16	0.10	11	0.10	7386458
Acid Extractable Vanadium (V)	mg/kg	120	2.0	7383903	88	2.0	7386458	120	2.0	92	2.0	7386458
Acid Extractable Zinc (Zn)	mg/kg	780	5.0	7383903	620	5.0	7386458	840	5.0	600	5.0	7386458

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

BV Labs ID		PRI713		PRI714			PRI715			PRI716		
Sampling Date		2021/05/21 11:15		2021/05/21 11:25			2021/05/21 11:40			2021/05/21 11:55		
COC Number		47692		47692			47692			47692		
	UNITS	SED 2 T	RDL	SED 2 M	RDL	QC Batch	SED 2 B	RDL	QC Batch	SED 1 T	RDL	QC Batch

Inorganics

Chromium (VI)	ug/g	ND	0.56	ND	0.65	7384601	ND	0.72	7389114	ND	0.67	7384601
---------------	------	----	------	----	------	---------	----	------	---------	----	------	---------

Metals

Acid Extractable Aluminum (Al)	mg/kg	14000	10	14000	10	7386458	13000	10	7386458	15000	10	7386467
Acid Extractable Antimony (Sb)	mg/kg	ND	2.0	2.6	2.0	7386458	2.0	2.0	7386458	2.3	2.0	7386467
Acid Extractable Arsenic (As)	mg/kg	18	2.0	24	2.0	7386458	22	2.0	7386458	25	2.0	7386467
Acid Extractable Barium (Ba)	mg/kg	40	5.0	46	5.0	7386458	48	5.0	7386458	40	5.0	7386467
Acid Extractable Beryllium (Be)	mg/kg	ND	2.0	ND	2.0	7386458	ND	2.0	7386458	ND	2.0	7386467
Acid Extractable Bismuth (Bi)	mg/kg	ND	2.0	ND	2.0	7386458	ND	2.0	7386458	ND	2.0	7386467
Acid Extractable Boron (B)	mg/kg	150	50	160	50	7386458	170	50	7386458	190	50	7386467
Acid Extractable Cadmium (Cd)	mg/kg	2.8	0.30	2.7	0.30	7386458	3.1	0.30	7386458	3.0	0.30	7386467
Acid Extractable Chromium (Cr)	mg/kg	62	2.0	68	2.0	7386458	68	2.0	7386458	86	2.0	7386467
Acid Extractable Cobalt (Co)	mg/kg	14	1.0	15	1.0	7386458	13	1.0	7386458	14	1.0	7386467
Acid Extractable Copper (Cu)	mg/kg	120	2.0	150	2.0	7386458	140	2.0	7386458	160	2.0	7386467
Acid Extractable Iron (Fe)	mg/kg	38000	50	41000	50	7386458	39000	50	7386458	41000	50	7386467
Acid Extractable Lead (Pb)	mg/kg	180	0.50	270	0.50	7386458	240	0.50	7386458	300	0.50	7386467
Acid Extractable Lithium (Li)	mg/kg	17	2.0	18	2.0	7386458	16	2.0	7386458	17	2.0	7386467
Acid Extractable Manganese (Mn)	mg/kg	500	2.0	560	2.0	7386458	510	2.0	7386458	500	2.0	7386467
Acid Extractable Mercury (Hg)	mg/kg	1.5	0.10	1.2	0.10	7386458	1.2	0.10	7386458	1.1	0.10	7386467
Acid Extractable Molybdenum (Mo)	mg/kg	25	2.0	32	2.0	7386458	38	2.0	7386458	37	2.0	7386467
Acid Extractable Nickel (Ni)	mg/kg	44	2.0	47	2.0	7386458	52	2.0	7386458	52	2.0	7386467
Acid Extractable Rubidium (Rb)	mg/kg	4.1	2.0	4.4	2.0	7386458	4.4	2.0	7386458	4.2	2.0	7386467
Acid Extractable Selenium (Se)	mg/kg	2.9	0.50	3.5	0.50	7386458	3.6	0.50	7386458	3.5	0.50	7386467
Acid Extractable Silver (Ag)	mg/kg	ND	0.50	ND	0.50	7386458	ND	0.50	7386458	ND	0.50	7386467
Acid Extractable Strontium (Sr)	mg/kg	420	5.0	410	5.0	7386458	490	5.0	7386458	500	5.0	7386467
Acid Extractable Thallium (Tl)	mg/kg	0.26	0.10	0.31	0.10	7386458	0.41	0.10	7386458	0.39	0.10	7386467
Acid Extractable Tin (Sn)	mg/kg	15	1.0	18	1.0	7386458	21	1.0	7386458	19	1.0	7386467
Acid Extractable Uranium (U)	mg/kg	9.4	0.10	10	0.10	7386458	11	0.10	7386458	14	0.10	7386467
Acid Extractable Vanadium (V)	mg/kg	120	2.0	140	2.0	7386458	150	2.0	7386458	130	2.0	7386467
Acid Extractable Zinc (Zn)	mg/kg	700	5.0	620	5.0	7386458	780	5.0	7386458	770	5.0	7386467

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

BV Labs ID		PRI717			PRI718		
Sampling Date		2021/05/21 12:15			2021/05/21 12:25		
COC Number		47692			47692		
	UNITS	SED 1 M	RDL	QC Batch	SED 1 B	RDL	QC Batch
Inorganics							
Chromium (VI)	ug/g	ND	0.63	7389114	ND	0.74	7384601
Metals							
Acid Extractable Aluminum (Al)	mg/kg	17000	10	7386467	15000	10	7386467
Acid Extractable Antimony (Sb)	mg/kg	2.7	2.0	7386467	2.6	2.0	7386467
Acid Extractable Arsenic (As)	mg/kg	21	2.0	7386467	26	2.0	7386467
Acid Extractable Barium (Ba)	mg/kg	46	5.0	7386467	50	5.0	7386467
Acid Extractable Beryllium (Be)	mg/kg	ND	2.0	7386467	ND	2.0	7386467
Acid Extractable Bismuth (Bi)	mg/kg	ND	2.0	7386467	ND	2.0	7386467
Acid Extractable Boron (B)	mg/kg	180	50	7386467	240	50	7386467
Acid Extractable Cadmium (Cd)	mg/kg	2.5	0.30	7386467	3.2	0.30	7386467
Acid Extractable Chromium (Cr)	mg/kg	87	2.0	7386467	85	2.0	7386467
Acid Extractable Cobalt (Co)	mg/kg	18	1.0	7386467	22	1.0	7386467
Acid Extractable Copper (Cu)	mg/kg	210	2.0	7386467	170	2.0	7386467
Acid Extractable Iron (Fe)	mg/kg	44000	50	7386467	44000	50	7386467
Acid Extractable Lead (Pb)	mg/kg	260	0.50	7386467	250	0.50	7386467
Acid Extractable Lithium (Li)	mg/kg	20	2.0	7386467	19	2.0	7386467
Acid Extractable Manganese (Mn)	mg/kg	610	2.0	7386467	520	2.0	7386467
Acid Extractable Mercury (Hg)	mg/kg	1.1	0.10	7386467	0.99	0.10	7386467
Acid Extractable Molybdenum (Mo)	mg/kg	35	2.0	7386467	40	2.0	7386467
Acid Extractable Nickel (Ni)	mg/kg	52	2.0	7386467	62	2.0	7386467
Acid Extractable Rubidium (Rb)	mg/kg	3.7	2.0	7386467	4.5	2.0	7386467
Acid Extractable Selenium (Se)	mg/kg	3.2	0.50	7386467	4.2	0.50	7386467
Acid Extractable Silver (Ag)	mg/kg	ND	0.50	7386467	ND	0.50	7386467
Acid Extractable Strontium (Sr)	mg/kg	420	5.0	7386467	390	5.0	7386467
Acid Extractable Thallium (Tl)	mg/kg	0.33	0.10	7386467	0.40	0.10	7386467
Acid Extractable Tin (Sn)	mg/kg	17	1.0	7386467	23	1.0	7386467
Acid Extractable Uranium (U)	mg/kg	13	0.10	7386467	13	0.10	7386467
Acid Extractable Vanadium (V)	mg/kg	130	2.0	7386467	140	2.0	7386467
Acid Extractable Zinc (Zn)	mg/kg	690	5.0	7386467	800	5.0	7386467
RDL = Reportable Detection Limit QC Batch = Quality Control Batch ND = Not detected							

BUREAU
VERITASBV Labs Job #: C1E4134
Report Date: 2021/06/09MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

SEMI-VOLATILE ORGANICS BY GC-MS (SEDIMENT)

BV Labs ID		PRI649		PRI650		PRI651		PRI652		
Sampling Date		2021/05/20 11:50		2021/05/20 12:00		2021/05/20 12:10		2021/05/20 12:20		
COC Number		47690		47690		47690		47690		
	UNITS	SED 10 T	RDL	SED 10 M	RDL	SED 10 B	RDL	SED 9 T	RDL	QC Batch
Polyaromatic Hydrocarbons										
1-Methylnaphthalene	mg/kg	0.12	0.0050	0.27	0.0050	0.16	0.0050	0.084	0.0050	7379434
2-Methylnaphthalene	mg/kg	0.14	0.0050	0.28	0.0050	0.24	0.0050	0.13	0.0050	7379434
Acenaphthene	mg/kg	0.75	0.0050	0.80	0.0050	1.7	0.0050	0.34	0.0050	7379434
Acenaphthylene	mg/kg	0.25	0.0050	0.50	0.0050	0.24	0.0050	0.13	0.0050	7379434
Anthracene	mg/kg	2.7	0.0050	5.3	0.0050	3.9	0.0050	1.2	0.0050	7379434
Benzo(a)anthracene	mg/kg	11	0.0050	25 (1)	0.050	10	0.0050	2.9	0.0050	7379434
Benzo(a)pyrene	mg/kg	4.9	0.0050	7.5	0.0050	5.4	0.0050	2.6	0.0050	7379434
Benzo(b)fluoranthene	mg/kg	4.4	0.0050	7.1	0.0050	4.6	0.0050	2.5	0.0050	7379434
Benzo(b/j)fluoranthene	mg/kg	7.0	0.010	11	0.010	7.1	0.010	3.8	0.010	7376200
Benzo(g,h,i)perylene	mg/kg	2.0	0.0050	2.7	0.0050	2.5	0.0050	1.2	0.0050	7379434
Benzo(j)fluoranthene	mg/kg	2.6	0.0050	4.0	0.0050	2.5	0.0050	1.3	0.0050	7379434
Benzo(k)fluoranthene	mg/kg	2.8	0.0050	4.3	0.0050	2.7	0.0050	1.5	0.0050	7379434
Chrysene	mg/kg	12	0.0050	24 (1)	0.050	10	0.0050	3.8	0.0050	7379434
Dibenzo(a,h)anthracene	mg/kg	0.64	0.0050	0.94	0.0050	0.82	0.0050	0.38	0.0050	7379434
Fluoranthene	mg/kg	42 (1)	0.050	68 (1)	0.050	42 (1)	0.050	4.5	0.0050	7379434
Fluorene	mg/kg	1.1	0.0050	1.4	0.0050	1.8	0.0050	0.68	0.0050	7379434
Indeno(1,2,3-cd)pyrene	mg/kg	2.0	0.0050	2.8	0.0050	2.5	0.0050	1.3	0.0050	7379434
Naphthalene	mg/kg	0.27	0.0050	0.50	0.0050	0.58	0.0050	0.13	0.0050	7379434
Perylene	mg/kg	1.3	0.0050	1.9	0.0050	1.4	0.0050	0.73	0.0050	7379434
Phenanthrene	mg/kg	7.0	0.0050	8.9	0.0050	9.4	0.0050	3.5	0.0050	7379434
Pyrene	mg/kg	26 (1)	0.050	45 (1)	0.050	26 (1)	0.050	5.2	0.0050	7379434
Surrogate Recovery (%)										
D10-Anthracene	%	94		102		97		91		7379434
D14-Terphenyl	%	85		85		85		89		7379434
D8-Acenaphthylene	%	91		95		91		91		7379434
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										
(1) Elevated PAH RDL(s) due to sample dilution.										



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

SEMI-VOLATILE ORGANICS BY GC-MS (SEDIMENT)

BV Labs ID		PRI653		PRI654		PRI655		PRI656		
Sampling Date		2021/05/20 12:30		2021/05/20 12:40		2021/05/20 12:50		2021/05/20 13:00		
COC Number		47690		47690		47690		47690		
	UNITS	SED 9 M	RDL	SED 9 B	RDL	SED 8 T	RDL	SED 8 M	RDL	QC Batch

Polyaromatic Hydrocarbons

1-Methylnaphthalene	mg/kg	0.18	0.0050	0.18	0.0050	0.031	0.0050	0.063	0.0050	7379434
2-Methylnaphthalene	mg/kg	0.25	0.0050	0.22	0.0050	0.14	0.0050	0.077	0.0050	7379434
Acenaphthene	mg/kg	1.0	0.0050	0.90	0.0050	0.34	0.0050	0.77	0.0050	7379434
Acenaphthylene	mg/kg	0.16	0.0050	0.20	0.0050	0.086	0.0050	0.14	0.0050	7379434
Anthracene	mg/kg	2.7	0.0050	3.2	0.0050	0.82	0.0050	1.1	0.0050	7379434
Benzo(a)anthracene	mg/kg	8.1	0.0050	8.0	0.0050	ND (1)	1.8	3.4	0.0050	7379434
Benzo(a)pyrene	mg/kg	4.4	0.0050	3.9	0.0050	0.98	0.0050	1.9	0.0050	7379434
Benzo(b)fluoranthene	mg/kg	3.8	0.0050	3.8	0.0050	1.1	0.0050	2.0	0.0050	7379434
Benzo(b,j)fluoranthene	mg/kg	5.9	0.010	5.7	0.010	1.6	0.010	2.9	0.010	7376200
Benzo(g,h,i)perylene	mg/kg	1.7	0.0050	1.7	0.0050	0.47	0.0050	0.79	0.0050	7379434
Benzo(j)fluoranthene	mg/kg	2.0	0.0050	1.9	0.0050	0.53	0.0050	0.96	0.0050	7379434
Benzo(k)fluoranthene	mg/kg	2.2	0.0050	2.2	0.0050	0.58	0.0050	1.1	0.0050	7379434
Chrysene	mg/kg	8.3	0.0050	8.5	0.0050	2.1	0.0050	3.7	0.0050	7379434
Dibenzo(a,h)anthracene	mg/kg	0.61	0.0050	0.55	0.0050	0.15	0.0050	0.26	0.0050	7379434
Fluoranthene	mg/kg	23 (2)	0.025	47 (2)	0.050	5.8	0.0050	15 (2)	0.025	7379434
Fluorene	mg/kg	1.4	0.0050	1.3	0.0050	0.59	0.0050	0.60	0.0050	7379434
Indeno(1,2,3-cd)pyrene	mg/kg	1.8	0.0050	1.7	0.0050	0.50	0.0050	0.86	0.0050	7379434
Naphthalene	mg/kg	0.39	0.0050	0.37	0.0050	0.12	0.0050	0.20	0.0050	7379434
Perylene	mg/kg	1.2	0.0050	1.1	0.0050	0.28	0.0050	0.53	0.0050	7379434
Phenanthrene	mg/kg	6.9	0.0050	8.8	0.0050	2.1	0.0050	3.3	0.0050	7379434
Pyrene	mg/kg	16 (2)	0.025	33 (2)	0.050	2.9	0.0050	7.0	0.0050	7379434

Surrogate Recovery (%)

D10-Anthracene	%	96		99		90		99		7379434
D14-Terphenyl	%	85		85		94		96		7379434
D8-Acenaphthylene	%	94		90		96		94		7379434

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Elevated PAH RDL(s) due to matrix / co-extractive interference.

(2) Elevated PAH RDL(s) due to sample dilution.

BUREAU
VERITASBV Labs Job #: C1E4134
Report Date: 2021/06/09MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

SEMI-VOLATILE ORGANICS BY GC-MS (SEDIMENT)

BV Labs ID		PRI657		PRI658		PRI693		PRI694		
Sampling Date		2021/05/20 13:10		2021/05/20 13:20		2021/05/20 13:30		2021/05/20 13:40		
COC Number		47690		47690		47691		47691		
	UNITS	SED 8 B	RDL	SED 7 T	RDL	SED 7 M	RDL	SED 7 B	RDL	QC Batch
Polyaromatic Hydrocarbons										
1-Methylnaphthalene	mg/kg	0.22	0.0050	0.84	0.0050	0.080	0.0050	0.12	0.0050	7379434
2-Methylnaphthalene	mg/kg	0.23	0.0050	1.3	0.0050	0.086	0.0050	0.15	0.0050	7379434
Acenaphthene	mg/kg	2.9	0.0050	8.2	0.0050	0.22	0.0050	0.78	0.0050	7379434
Acenaphthylene	mg/kg	0.10	0.0050	0.29	0.0050	0.096	0.0050	0.16	0.0050	7379434
Anthracene	mg/kg	1.2	0.0050	34 (1)	0.050	1.0	0.0050	3.3	0.0050	7379434
Benzo(a)anthracene	mg/kg	3.3	0.0050	31 (1)	0.050	3.4	0.0050	5.8	0.0050	7379434
Benzo(a)pyrene	mg/kg	2.1	0.0050	16	0.0050	2.0	0.0050	2.4	0.0050	7379434
Benzo(b)fluoranthene	mg/kg	1.9	0.0050	12	0.0050	1.9	0.0050	3.2	0.0050	7379434
Benzo(b/j)fluoranthene	mg/kg	2.8	0.010	19	0.010	2.9	0.010	4.9	0.010	7376200
Benzo(g,h,i)perylene	mg/kg	1.1	0.0050	6.7	0.0050	0.87	0.0050	1.0	0.0050	7379434
Benzo(j)fluoranthene	mg/kg	0.97	0.0050	6.8	0.0050	0.98	0.0050	1.6	0.0050	7379434
Benzo(k)fluoranthene	mg/kg	1.1	0.0050	7.6	0.0050	1.0	0.0050	1.7	0.0050	7379434
Chrysene	mg/kg	3.7	0.0050	29 (1)	0.050	3.4	0.0050	8.3	0.0050	7379434
Dibenzo(a,h)anthracene	mg/kg	0.32	0.0050	3.1	0.0050	0.30	0.0050	0.38	0.0050	7379434
Fluoranthene	mg/kg	15 (1)	0.025	65 (1)	0.050	15 (1)	0.025	30 (1)	0.025	7379434
Fluorene	mg/kg	0.87	0.0050	10	0.0050	0.45	0.0050	0.83	0.0050	7379434
Indeno(1,2,3-cd)pyrene	mg/kg	1.1	0.0050	7.2	0.0050	0.92	0.0050	1.2	0.0050	7379434
Naphthalene	mg/kg	0.69	0.0050	1.4	0.0050	0.074	0.0050	0.29	0.0050	7379434
Perylene	mg/kg	0.55	0.0050	3.7	0.0050	0.56	0.0050	0.68	0.0050	7379434
Phenanthrene	mg/kg	5.6	0.0050	60 (1)	0.050	2.5	0.0050	3.5	0.0050	7379434
Pyrene	mg/kg	9.3 (1)	0.025	49 (1)	0.050	8.7	0.0050	19 (1)	0.025	7379434
Surrogate Recovery (%)										
D10-Anthracene	%	91		103		96		93		7379434
D14-Terphenyl	%	85		88		90		87		7379434
D8-Acenaphthylene	%	92		87		86		84		7379434
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										
(1) Elevated PAH RDL(s) due to sample dilution.										



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

SEMI-VOLATILE ORGANICS BY GC-MS (SEDIMENT)

BV Labs ID		PRI695		PRI696		PRI697			PRI698		
Sampling Date		2021/05/20 13:50		2021/05/20 14:00		2021/05/20 14:10			2021/05/20 16:00		
COC Number		47691		47691		47691			47691		
	UNITS	SED 6 T	RDL	SED 6 M	RDL	SED 6 B	RDL	QC Batch	SED 5 T	RDL	QC Batch
Polyaromatic Hydrocarbons											
1-Methylnaphthalene	mg/kg	0.14	0.0050	0.054	0.0050	0.12	0.0050	7379434	0.13	0.0050	7384181
2-Methylnaphthalene	mg/kg	0.15	0.0050	0.065	0.0050	0.15	0.0050	7379434	0.099	0.0050	7384181
Acenaphthene	mg/kg	0.67	0.0050	0.23	0.0050	0.39	0.0050	7379434	0.75	0.0050	7384181
Acenaphthylene	mg/kg	0.76	0.0050	0.12	0.0050	0.31	0.0050	7379434	0.16	0.0050	7384181
Anthracene	mg/kg	7.0	0.0050	1.4	0.0050	5.5	0.0050	7379434	1.7	0.0050	7384181
Benzo(a)anthracene	mg/kg	43 (1)	0.10	3.8	0.0050	10	0.0050	7379434	7.4	0.0050	7384181
Benzo(a)pyrene	mg/kg	11	0.0050	1.8	0.0050	4.1	0.0050	7379434	2.7	0.0050	7384181
Benzo(b)fluoranthene	mg/kg	12	0.0050	2.0	0.0050	4.3	0.0050	7379434	2.4	0.0050	7384181
Benzo(b,j)fluoranthene	mg/kg	19	0.010	2.9	0.010	6.5	0.010	7376200	3.8	0.010	7376200
Benzo(g,h,i)perylene	mg/kg	3.6	0.0050	0.63	0.0050	1.6	0.0050	7379434	0.96	0.0050	7384181
Benzo(j)fluoranthene	mg/kg	6.3	0.0050	0.96	0.0050	2.1	0.0050	7379434	1.4	0.0050	7384181
Benzo(k)fluoranthene	mg/kg	6.9	0.0050	1.1	0.0050	2.3	0.0050	7379434	1.4	0.0050	7384181
Chrysene	mg/kg	34 (1)	0.10	3.8	0.0050	11	0.0050	7379434	6.6	0.0050	7384181
Dibenzo(a,h)anthracene	mg/kg	1.4	0.0050	0.23	0.0050	0.52	0.0050	7379434	0.28	0.0050	7384181
Fluoranthene	mg/kg	190 (1)	0.10	18 (1)	0.025	55 (1)	0.050	7379434	22 (1)	0.025	7384181
Fluorene	mg/kg	1.1	0.0050	0.58	0.0050	1.0	0.0050	7379434	0.58	0.0050	7384181
Indeno(1,2,3-cd)pyrene	mg/kg	4.1	0.0050	0.71	0.0050	1.7	0.0050	7379434	0.85	0.0050	7384181
Naphthalene	mg/kg	0.22	0.0050	0.067	0.0050	0.24	0.0050	7379434	0.20	0.0050	7384181
Perylene	mg/kg	2.8	0.0050	0.57	0.0050	1.1	0.0050	7379434	0.62	0.0050	7384181
Phenanthrene	mg/kg	12	0.0050	2.1	0.0050	4.5	0.0050	7379434	3.3	0.0050	7384181
Pyrene	mg/kg	120 (1)	0.10	9.8	0.0050	37 (1)	0.050	7379434	11	0.0050	7384181
Surrogate Recovery (%)											
D10-Anthracene	%	98		94		99		7379434	104		7384181
D14-Terphenyl	%	83		91		84		7379434	100		7384181
D8-Acenaphthylene	%	84		82		87		7379434	95		7384181
RDL = Reportable Detection Limit											
QC Batch = Quality Control Batch											
(1) Elevated PAH RDL(s) due to sample dilution.											



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

SEMI-VOLATILE ORGANICS BY GC-MS (SEDIMENT)

BV Labs ID		PRI698			PRI699	PRI700		PRI701		
Sampling Date		2021/05/20 16:00			2021/05/20 16:30	2021/05/20 17:00		2021/05/21 08:00		
COC Number		47691			47691	47691		47691		
	UNITS	SED 5 T Lab-Dup	RDL	QC Batch	SED 5 M	SED 5 B	RDL	SED 4 T	RDL	QC Batch

Polyaromatic Hydrocarbons										
1-Methylnaphthalene	mg/kg	0.064 (1)	0.0050	7384181	0.046	0.037	0.0050	1.7	0.0050	7384181
2-Methylnaphthalene	mg/kg	0.085	0.0050	7384181	0.080	0.048	0.0050	0.19	0.0050	7384181
Acenaphthene	mg/kg	0.84	0.0050	7384181	0.23	0.056	0.0050	5.5	0.0050	7384181
Acenaphthylene	mg/kg	0.31 (1)	0.0050	7384181	0.084	0.040	0.0050	0.29	0.0050	7384181
Anthracene	mg/kg	2.7	0.0050	7384181	1.1	0.48	0.0050	3.5	0.0050	7384181
Benzo(a)anthracene	mg/kg	16 (1)	0.0050	7384181	5.0	3.1	0.0050	15	0.0050	7384181
Benzo(a)pyrene	mg/kg	3.7	0.0050	7384181	1.5	0.66	0.0050	3.3	0.0050	7384181
Benzo(b)fluoranthene	mg/kg	3.6	0.0050	7384181	1.6	0.72	0.0050	3.2	0.0050	7384181
Benzo(b,j)fluoranthene	mg/kg				2.4	1.1	0.010	5.1	0.010	7376200
Benzo(g,h,i)perylene	mg/kg	0.90	0.0050	7384181	0.51	0.16	0.0050	0.98	0.0050	7384181
Benzo(j)fluoranthene	mg/kg	2.1	0.0050	7384181	0.86	0.40	0.0050	1.9	0.0050	7384181
Benzo(k)fluoranthene	mg/kg	2.3	0.0050	7384181	0.87	0.43	0.0050	2.1	0.0050	7384181
Chrysene	mg/kg	12 (1)	0.0050	7384181	4.2	2.4	0.0050	11	0.0050	7384181
Dibenzo(a,h)anthracene	mg/kg	0.33	0.0050	7384181	0.17	0.055	0.0050	0.35	0.0050	7384181
Fluoranthene	mg/kg	39 (2)	0.025	7384181	19 (3)	9.0 (3)	0.025	62 (3)	0.050	7384181
Fluorene	mg/kg	0.74	0.0050	7384181	0.54	0.12	0.0050	2.0	0.0050	7384181
Indeno(1,2,3-cd)pyrene	mg/kg	1.0	0.0050	7384181	0.52	0.17	0.0050	1.1	0.0050	7384181
Naphthalene	mg/kg	0.11 (1)	0.0050	7384181	0.13	0.081	0.0050	0.67	0.0050	7384181
Perylene	mg/kg	0.90	0.0050	7384181	0.38	0.16	0.0050	0.84	0.0050	7384181
Phenanthrene	mg/kg	3.4	0.0050	7384181	2.7	0.42	0.0050	10	0.0050	7384181
Pyrene	mg/kg	19 (2)	0.025	7384181	8.6	4.9	0.0050	35 (3)	0.050	7384181
Surrogate Recovery (%)										
D10-Anthracene	%	105		7384181	106	108		99		7384181
D14-Terphenyl	%	97		7384181	100	108		89		7384181
D8-Acenaphthylene	%	101		7384181	97	101		94		7384181

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

(1) Duplicate: results are outside acceptance limit. Analysis was repeated with similar results.

(2) Elevated PAH RDL(s) due to sample dilution. Duplicate: results are outside acceptance limit. Analysis was repeated with similar results.

(3) Elevated PAH RDL(s) due to sample dilution.



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

SEMI-VOLATILE ORGANICS BY GC-MS (SEDIMENT)

BV Labs ID		PRI702		PRI709		PRI710		PRI711	PRI712		
Sampling Date		2021/05/21 08:30		2021/05/21 09:00		2021/05/21 10:00		2021/05/21 10:30	2021/05/21 11:00		
COC Number		47691		47692		47692		47692	47692		
	UNITS	SED 4 M	RDL	SED 4 B	RDL	SED 3 T	RDL	SED 3 M	SED 3 B	RDL	QC Batch
Polyaromatic Hydrocarbons											
1-Methylnaphthalene	mg/kg	0.14	0.0050	0.43	0.0050	0.087	0.0050	0.18	0.14	0.0050	7384181
2-Methylnaphthalene	mg/kg	0.21	0.0050	0.54	0.0050	0.13	0.0050	0.21	0.16	0.0050	7384181
Acenaphthene	mg/kg	1.1	0.0050	0.95	0.0050	0.29	0.0050	0.57	0.57	0.0050	7384181
Acenaphthylene	mg/kg	0.34	0.0050	0.32	0.0050	0.11	0.0050	0.13	0.25	0.0050	7384181
Anthracene	mg/kg	5.1	0.0050	5.1	0.0050	1.2	0.0050	2.7	2.9	0.0050	7384181
Benzo(a)anthracene	mg/kg	17 (1)	0.050	15	0.0050	7.3	0.0050	10	11	0.0050	7384181
Benzo(a)pyrene	mg/kg	3.5	0.0050	3.9	0.0050	3.1	0.0050	2.6	2.9	0.0050	7384181
Benzo(b)fluoranthene	mg/kg	3.3	0.0050	3.1	0.0050	2.7	0.0050	2.4	2.9	0.0050	7384181
Benzo(b,j)fluoranthene	mg/kg	5.3	0.010	5.1	0.010	4.2	0.010	3.8	4.7	0.010	7376200
Benzo(g,h,i)perylene	mg/kg	1.0	0.0050	1.2	0.0050	1.3	0.0050	0.81	0.96	0.0050	7384181
Benzo(j)fluoranthene	mg/kg	2.0	0.0050	2.0	0.0050	1.5	0.0050	1.4	1.7	0.0050	7384181
Benzo(k)fluoranthene	mg/kg	2.2	0.0050	2.0	0.0050	1.7	0.0050	1.6	1.9	0.0050	7384181
Chrysene	mg/kg	16	0.0050	13	0.0050	6.0	0.0050	8.5	9.7	0.0050	7384181
Dibenzo(a,h)anthracene	mg/kg	0.36	0.0050	0.41	0.0050	0.38	0.0050	0.27	0.34	0.0050	7384181
Fluoranthene	mg/kg	99 (1)	0.050	43 (1)	0.025	25 (1)	0.025	46 (1)	41 (1)	0.025	7384181
Fluorene	mg/kg	1.6	0.0050	2.1	0.0050	0.55	0.0050	0.97	1.1	0.0050	7384181
Indeno(1,2,3-cd)pyrene	mg/kg	1.1	0.0050	1.2	0.0050	1.3	0.0050	0.87	1.1	0.0050	7384181
Naphthalene	mg/kg	0.55	0.0050	0.53	0.0050	0.22	0.0050	0.36	0.27	0.0050	7384181
Perylene	mg/kg	0.87	0.0050	0.90	0.0050	0.80	0.0050	0.65	0.74	0.0050	7384181
Phenanthrene	mg/kg	4.2	0.0050	12	0.0050	2.9	0.0050	5.2	5.8	0.0050	7384181
Pyrene	mg/kg	61 (1)	0.050	27 (1)	0.025	14	0.0050	28 (1)	24 (1)	0.025	7384181
Surrogate Recovery (%)											
D10-Anthracene	%	111		100		103		104	113		7384181
D14-Terphenyl	%	89		99		96		99	104		7384181
D8-Acenaphthylene	%	108		93		91		91	103		7384181
RDL = Reportable Detection Limit											
QC Batch = Quality Control Batch											
(1) Elevated PAH RDL(s) due to sample dilution.											



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

SEMI-VOLATILE ORGANICS BY GC-MS (SEDIMENT)

BV Labs ID		PRI713		PRI714		PRI715		PRI716		
Sampling Date		2021/05/21 11:15		2021/05/21 11:25		2021/05/21 11:40		2021/05/21 11:55		
COC Number		47692		47692		47692		47692		
	UNITS	SED 2 T	RDL	SED 2 M	RDL	SED 2 B	RDL	SED 1 T	RDL	QC Batch
Polyaromatic Hydrocarbons										
1-Methylnaphthalene	mg/kg	0.26	0.0050	0.47	0.0050	0.11	0.0050	0.11	0.0050	7384181
2-Methylnaphthalene	mg/kg	0.31	0.0050	0.69	0.0050	0.17	0.0050	0.17	0.0050	7384181
Acenaphthene	mg/kg	0.95	0.0050	13	0.0050	0.56	0.0050	0.42	0.0050	7384181
Acenaphthylene	mg/kg	0.21	0.0050	0.54	0.0050	0.46	0.0050	0.40	0.0050	7384181
Anthracene	mg/kg	3.0	0.0050	16 (1)	0.10	4.9	0.0050	4.9	0.0050	7384181
Benzo(a)anthracene	mg/kg	10	0.0050	22 (1)	0.10	26 (1)	0.050	18	0.0050	7384181
Benzo(a)pyrene	mg/kg	2.3	0.0050	5.0	0.0050	5.1	0.0050	3.7	0.0050	7384181
Benzo(b)fluoranthene	mg/kg	2.1	0.0050	4.7	0.0050	4.8	0.0050	3.5	0.0050	7384181
Benzo(b,j)fluoranthene	mg/kg	3.4	0.010	7.5	0.010	7.7	0.010	5.7	0.010	7376200
Benzo(g,h,i)perylene	mg/kg	0.72	0.0050	1.5	0.0050	1.5	0.0050	1.2	0.0050	7384181
Benzo(j)fluoranthene	mg/kg	1.3	0.0050	2.8	0.0050	2.9	0.0050	2.1	0.0050	7384181
Benzo(k)fluoranthene	mg/kg	1.4	0.0050	2.9	0.0050	2.9	0.0050	2.5	0.0050	7384181
Chrysene	mg/kg	7.4	0.0050	20 (1)	0.10	20	0.0050	15	0.0050	7384181
Dibenzo(a,h)anthracene	mg/kg	0.26	0.0050	0.56	0.0050	0.56	0.0050	0.44	0.0050	7384181
Fluoranthene	mg/kg	47 (1)	0.050	160 (1)	0.10	130 (1)	0.050	89 (1)	0.050	7384181
Fluorene	mg/kg	1.4	0.0050	5.3	0.0050	1.2	0.0050	1.2	0.0050	7384181
Indeno(1,2,3-cd)pyrene	mg/kg	0.81	0.0050	1.7	0.0050	1.7	0.0050	1.3	0.0050	7384181
Naphthalene	mg/kg	0.60	0.0050	1.5	0.0050	0.28	0.0050	0.30	0.0050	7384181
Perylene	mg/kg	0.59	0.0050	1.2	0.0050	1.3	0.0050	0.94	0.0050	7384181
Phenanthrene	mg/kg	6.0	0.0050	20 (1)	0.10	5.2	0.0050	6.7	0.0050	7384181
Pyrene	mg/kg	28 (1)	0.050	93 (1)	0.10	81 (1)	0.050	59 (1)	0.050	7384181
Surrogate Recovery (%)										
D10-Anthracene	%	110		105		120		120		7384181
D14-Terphenyl	%	98		81		94		95		7384181
D8-Acenaphthylene	%	105		98		100		106		7384181
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										
(1) Elevated PAH RDL(s) due to sample dilution.										



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

SEMI-VOLATILE ORGANICS BY GC-MS (SEDIMENT)

BV Labs ID		PRI717		PRI718		
Sampling Date		2021/05/21 12:15		2021/05/21 12:25		
COC Number		47692		47692		
	UNITS	SED 1 M	RDL	SED 1 B	RDL	QC Batch
Polyaromatic Hydrocarbons						
1-Methylnaphthalene	mg/kg	0.17	0.0050	0.12	0.0050	7384181
2-Methylnaphthalene	mg/kg	0.31	0.0050	0.17	0.0050	7384181
Acenaphthene	mg/kg	0.48	0.0050	0.36	0.0050	7384181
Acenaphthylene	mg/kg	0.29	0.0050	0.28	0.0050	7384181
Anthracene	mg/kg	3.3	0.0050	2.0	0.0050	7384181
Benzo(a)anthracene	mg/kg	18 (1)	0.050	9.5	0.0050	7384181
Benzo(a)pyrene	mg/kg	3.8	0.0050	2.7	0.0050	7384181
Benzo(b)fluoranthene	mg/kg	3.5	0.0050	2.6	0.0050	7384181
Benzo(b,j)fluoranthene	mg/kg	5.6	0.010	4.1	0.010	7376200
Benzo(g,h,i)perylene	mg/kg	1.2	0.0050	0.98	0.0050	7384181
Benzo(j)fluoranthene	mg/kg	2.1	0.0050	1.5	0.0050	7384181
Benzo(k)fluoranthene	mg/kg	2.3	0.0050	1.6	0.0050	7384181
Chrysene	mg/kg	14	0.0050	7.0	0.0050	7384181
Dibenzo(a,h)anthracene	mg/kg	0.40	0.0050	0.33	0.0050	7384181
Fluoranthene	mg/kg	84 (1)	0.050	48 (1)	0.025	7384181
Fluorene	mg/kg	1.3	0.0050	0.68	0.0050	7384181
Indeno(1,2,3-cd)pyrene	mg/kg	1.3	0.0050	1.0	0.0050	7384181
Naphthalene	mg/kg	0.75	0.0050	0.28	0.0050	7384181
Perylene	mg/kg	0.99	0.0050	0.68	0.0050	7384181
Phenanthrene	mg/kg	3.6	0.0050	3.6	0.0050	7384181
Pyrene	mg/kg	50 (1)	0.050	38 (1)	0.025	7384181
Surrogate Recovery (%)						
D10-Anthracene	%	111		105		7384181
D14-Terphenyl	%	94		87		7384181
D8-Acenaphthylene	%	94		90		7384181
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
(1) Elevated PAH RDL(s) due to sample dilution.						



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ATLANTIC RBCA HYDROCARBONS (SEDIMENT)

BV Labs ID		PRI649			PRI649			PRI650		
Sampling Date		2021/05/20 11:50			2021/05/20 11:50			2021/05/20 12:00		
COC Number		47690			47690			47690		
	UNITS	SED 10 T	RDL	QC Batch	SED 10 T Lab-Dup	RDL	QC Batch	SED 10 M	RDL	QC Batch
Petroleum Hydrocarbons										
Benzene	mg/kg	ND	0.025	7381367	ND	0.025	7381367	ND	0.025	7381367
Toluene	mg/kg	ND	0.050	7381367	ND	0.050	7381367	ND	0.050	7381367
Ethylbenzene	mg/kg	ND	0.025	7381367	ND	0.025	7381367	ND	0.025	7381367
Total Xylenes	mg/kg	ND	0.050	7381367	ND	0.050	7381367	ND	0.050	7381367
C6 - C10 (less BTEX)	mg/kg	ND	2.5	7381367	ND	2.5	7381367	ND	2.5	7381367
>C10-C16 Hydrocarbons	mg/kg	240	10	7379465				230	10	7379465
>C16-C21 Hydrocarbons	mg/kg	640	10	7379465				620	10	7379465
>C21-<C32 Hydrocarbons	mg/kg	1700	15	7379465				1200	15	7379465
Modified TPH (Tier1)	mg/kg	2600	15	7376024				2100	15	7376024
Reached Baseline at C32	mg/kg	No	N/A	7379465				No	N/A	7379465
Hydrocarbon Resemblance	mg/kg	COMMENT (1)	N/A	7379465				COMMENT (1)	N/A	7379465
Surrogate Recovery (%)										
Isobutylbenzene - Extractable	%	88		7379465				93		7379465
n-Dotriacontane - Extractable	%	122		7379465				127		7379465
Isobutylbenzene - Volatile	%	94		7381367	99		7381367	99		7381367
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate ND = Not detected N/A = Not Applicable (1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Lube oil fraction.										



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ATLANTIC RBCA HYDROCARBONS (SEDIMENT)

BV Labs ID		PRI651	PRI652	PRI653		PRI654		
Sampling Date		2021/05/20 12:10	2021/05/20 12:20	2021/05/20 12:30		2021/05/20 12:40		
COC Number		47690	47690	47690		47690		
	UNITS	SED 10 B	SED 9 T	SED 9 M	QC Batch	SED 9 B	RDL	QC Batch

Petroleum Hydrocarbons								
Benzene	mg/kg	ND	ND	ND	7381367	ND	0.025	7381368
Toluene	mg/kg	ND	ND	ND	7381367	ND	0.050	7381368
Ethylbenzene	mg/kg	ND	ND	ND	7381367	ND	0.025	7381368
Total Xylenes	mg/kg	ND	ND	ND	7381367	ND	0.050	7381368
C6 - C10 (less BTEX)	mg/kg	ND	ND	ND	7381367	ND	2.5	7381368
>C10-C16 Hydrocarbons	mg/kg	300	120	190	7379471	220	10	7379471
>C16-C21 Hydrocarbons	mg/kg	660	340	400	7379471	460	10	7379471
>C21-<C32 Hydrocarbons	mg/kg	1400	1300	980	7379471	1100	15	7379471
Modified TPH (Tier1)	mg/kg	2400	1700	1600	7376024	1800	15	7376024
Reached Baseline at C32	mg/kg	No	No	No	7379471	No	N/A	7379471
Hydrocarbon Resemblance	mg/kg	COMMENT (1)	COMMENT (1)	COMMENT (1)	7379471	COMMENT (1)	N/A	7379471
Surrogate Recovery (%)								
Isobutylbenzene - Extractable	%	89	89	93	7379471	92		7379471
n-Dotriacontane - Extractable	%	107	111	110	7379471	110		7379471
Isobutylbenzene - Volatile	%	98	115	107	7381367	113		7381368

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

N/A = Not Applicable

(1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Lube oil fraction.



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ATLANTIC RBCA HYDROCARBONS (SEDIMENT)

BV Labs ID		PRI654			PRI655	PRI656	PRI657		
Sampling Date		2021/05/20 12:40			2021/05/20 12:50	2021/05/20 13:00	2021/05/20 13:10		
COC Number		47690			47690	47690	47690		
	UNITS	SED 9 B Lab-Dup	RDL	QC Batch	SED 8 T	SED 8 M	SED 8 B	RDL	QC Batch
Petroleum Hydrocarbons									
Benzene	mg/kg	ND	0.025	7381368	ND	ND	ND	0.025	7381368
Toluene	mg/kg	ND	0.050	7381368	ND	ND	ND	0.050	7381368
Ethylbenzene	mg/kg	ND	0.025	7381368	ND	ND	ND	0.025	7381368
Total Xylenes	mg/kg	ND	0.050	7381368	ND	ND	ND	0.050	7381368
C6 - C10 (less BTEX)	mg/kg	ND	2.5	7381368	ND	ND	ND	2.5	7381368
>C10-C16 Hydrocarbons	mg/kg				93	180	130	10	7379471
>C16-C21 Hydrocarbons	mg/kg				200	610	240	10	7379471
>C21-<C32 Hydrocarbons	mg/kg				540	1200	540	15	7379471
Modified TPH (Tier1)	mg/kg				840	2000	910	15	7376024
Reached Baseline at C32	mg/kg				No	No	No	N/A	7379471
Hydrocarbon Resemblance	mg/kg				COMMENT (1)	COMMENT (1)	COMMENT (1)	N/A	7379471
Surrogate Recovery (%)									
Isobutylbenzene - Extractable	%				90	91	90		7379471
n-Dotriacontane - Extractable	%				105	111	104		7379471
Isobutylbenzene - Volatile	%	110		7381368	116	99	65		7381368
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate ND = Not detected N/A = Not Applicable (1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Lube oil fraction.									



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ATLANTIC RBCA HYDROCARBONS (SEDIMENT)

BV Labs ID		PRI658	PRI693	PRI694	PRI695	PRI696		
Sampling Date		2021/05/20 13:20	2021/05/20 13:30	2021/05/20 13:40	2021/05/20 13:50	2021/05/20 14:00		
COC Number		47690	47691	47691	47691	47691		
	UNITS	SED 7 T	SED 7 M	SED 7 B	SED 6 T	SED 6 M	RDL	QC Batch

Petroleum Hydrocarbons								
Benzene	mg/kg	ND	ND	ND	ND	ND	0.025	7381368
Toluene	mg/kg	ND	ND	ND	ND	ND	0.050	7381368
Ethylbenzene	mg/kg	ND	ND	ND	ND	ND	0.025	7381368
Total Xylenes	mg/kg	ND	ND	ND	ND	ND	0.050	7381368
C6 - C10 (less BTEX)	mg/kg	ND	ND	ND	ND	ND	2.5	7381368
>C10-C16 Hydrocarbons	mg/kg	450	580	390	530	290	10	7379471
>C16-C21 Hydrocarbons	mg/kg	910	1200	620	970	480	10	7379471
>C21-<C32 Hydrocarbons	mg/kg	2100	3000	1200	2100	1000	15	7379471
Modified TPH (Tier1)	mg/kg	3500	4700	2200	3700	1800	15	7376024
Reached Baseline at C32	mg/kg	No	No	No	No	No	N/A	7379471
Hydrocarbon Resemblance	mg/kg	COMMENT (1)	COMMENT (1)	COMMENT (1)	COMMENT (1)	COMMENT (1)	N/A	7379471
Surrogate Recovery (%)								
Isobutylbenzene - Extractable	%	88	92	91	92	92		7379471
n-Dotriacontane - Extractable	%	116	122	117	124	119		7379471
Isobutylbenzene - Volatile	%	95	50 (2)	107	104	98		7381368

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

N/A = Not Applicable

(1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Lube oil fraction.

(2) VPH surrogate not within acceptance limits due to matrix interference.



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ATLANTIC RBCA HYDROCARBONS (SEDIMENT)

BV Labs ID		PRI697	PRI698	PRI699	PRI700	PRI701		
Sampling Date		2021/05/20 14:10	2021/05/20 16:00	2021/05/20 16:30	2021/05/20 17:00	2021/05/21 08:00		
COC Number		47691	47691	47691	47691	47691		
	UNITS	SED 6 B	SED 5 T	SED 5 M	SED 5 B	SED 4 T	RDL	QC Batch

Petroleum Hydrocarbons								
Benzene	mg/kg	ND	ND	ND	ND	ND	0.025	7381368
Toluene	mg/kg	ND	ND	ND	ND	ND	0.050	7381368
Ethylbenzene	mg/kg	ND	ND	ND	ND	ND	0.025	7381368
Total Xylenes	mg/kg	ND	ND	ND	ND	ND	0.050	7381368
C6 - C10 (less BTEX)	mg/kg	ND	ND	ND	ND	ND	2.5	7381368
>C10-C16 Hydrocarbons	mg/kg	1100	220	180	59	970	10	7379471
>C16-C21 Hydrocarbons	mg/kg	1800	570	470	110	1700	10	7379471
>C21-<C32 Hydrocarbons	mg/kg	3600	1500	1100	250	3500	15	7379471
Modified TPH (Tier1)	mg/kg	6400	2200	1800	410	6100	15	7376024
Reached Baseline at C32	mg/kg	No	No	No	No	No	N/A	7379471
Hydrocarbon Resemblance	mg/kg	COMMENT (1)	COMMENT (1)	COMMENT (1)	COMMENT (1)	COMMENT (1)	N/A	7379471
Surrogate Recovery (%)								
Isobutylbenzene - Extractable	%	92	90	89	87	90		7379471
n-Dotriacontane - Extractable	%	126	121	121	106	130		7379471
Isobutylbenzene - Volatile	%	103	107	66	109	53 (2)		7381368

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

N/A = Not Applicable

(1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Lube oil fraction.

(2) VPH surrogate not within acceptance limits due to matrix interference.



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ATLANTIC RBCA HYDROCARBONS (SEDIMENT)

BV Labs ID		PRI702	PRI709		PRI710	PRI711		
Sampling Date		2021/05/21 08:30	2021/05/21 09:00		2021/05/21 10:00	2021/05/21 10:30		
COC Number		47691	47692		47692	47692		
	UNITS	SED 4 M	SED 4 B	QC Batch	SED 3 T	SED 3 M	RDL	QC Batch

Petroleum Hydrocarbons								
Benzene	mg/kg	ND	ND	7381368	ND	ND	0.025	7381368
Toluene	mg/kg	ND	ND	7381368	ND	ND	0.050	7381368
Ethylbenzene	mg/kg	ND	ND	7381368	ND	ND	0.025	7381368
Total Xylenes	mg/kg	ND	ND	7381368	ND	ND	0.050	7381368
C6 - C10 (less BTEX)	mg/kg	ND	ND	7381368	ND	ND	2.5	7381368
>C10-C16 Hydrocarbons	mg/kg	1200	410	7379471	460	500	10	7379945
>C16-C21 Hydrocarbons	mg/kg	2100	700	7379471	970	1200	10	7379945
>C21-<C32 Hydrocarbons	mg/kg	3900	1400	7379471	2000	2100	15	7379945
Modified TPH (Tier1)	mg/kg	7200	2500	7376024	3400	3800	15	7376024
Reached Baseline at C32	mg/kg	No	No	7379471	No	No	N/A	7379945
Hydrocarbon Resemblance	mg/kg	COMMENT (1)	COMMENT (1)	7379471	COMMENT (1)	COMMENT (1)	N/A	7379945
Surrogate Recovery (%)								
Isobutylbenzene - Extractable	%	91	93	7379471	90	94		7379945
n-Dotriacontane - Extractable	%	123	118	7379471	105	106		7379945
Isobutylbenzene - Volatile	%	101	91	7381368	102	90		7381368

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

N/A = Not Applicable

(1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Lube oil fraction.



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ATLANTIC RBCA HYDROCARBONS (SEDIMENT)

BV Labs ID		PRI712			PRI712			PRI713		
Sampling Date		2021/05/21 11:00			2021/05/21 11:00			2021/05/21 11:15		
COC Number		47692			47692			47692		
	UNITS	SED 3 B	RDL	QC Batch	SED 3 B Lab-Dup	RDL	QC Batch	SED 2 T	RDL	QC Batch
Petroleum Hydrocarbons										
Benzene	mg/kg	ND	0.025	7382018	ND	0.025	7382018	ND	0.025	7382018
Toluene	mg/kg	ND	0.050	7382018	ND	0.050	7382018	ND	0.050	7382018
Ethylbenzene	mg/kg	ND	0.025	7382018	ND	0.025	7382018	ND	0.025	7382018
Total Xylenes	mg/kg	ND	0.050	7382018	ND	0.050	7382018	ND	0.050	7382018
C6 - C10 (less BTEX)	mg/kg	ND	2.5	7382018	ND	2.5	7382018	ND	2.5	7382018
>C10-C16 Hydrocarbons	mg/kg	470	10	7379945				890	10	7379945
>C16-C21 Hydrocarbons	mg/kg	980	10	7379945				1600	10	7379945
>C21-<C32 Hydrocarbons	mg/kg	2200	15	7379945				3100	15	7379945
Modified TPH (Tier1)	mg/kg	3600	15	7376024				5600	15	7376024
Reached Baseline at C32	mg/kg	No	N/A	7379945				No	N/A	7379945
Hydrocarbon Resemblance	mg/kg	COMMENT (1)	N/A	7379945				COMMENT (1)	N/A	7379945
Surrogate Recovery (%)										
Isobutylbenzene - Extractable	%	93		7379945				95		7379945
n-Dotriacontane - Extractable	%	107		7379945				117		7379945
Isobutylbenzene - Volatile	%	71		7382018	71		7382018	69		7382018
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate ND = Not detected N/A = Not Applicable (1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Lube oil fraction.										



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

ATLANTIC RBCA HYDROCARBONS (SEDIMENT)

BV Labs ID		PRI714	PRI715	PRI716	PRI717	PRI718		
Sampling Date		2021/05/21 11:25	2021/05/21 11:40	2021/05/21 11:55	2021/05/21 12:15	2021/05/21 12:25		
COC Number		47692	47692	47692	47692	47692		
	UNITS	SED 2 M	SED 2 B	SED 1 T	SED 1 M	SED 1 B	RDL	QC Batch

Petroleum Hydrocarbons								
Benzene	mg/kg	ND	ND	ND	ND	ND	0.025	7382018
Toluene	mg/kg	ND	ND	ND	ND	ND	0.050	7382018
Ethylbenzene	mg/kg	ND	ND	ND	ND	ND	0.025	7382018
Total Xylenes	mg/kg	ND	ND	ND	ND	ND	0.050	7382018
C6 - C10 (less BTEX)	mg/kg	ND	ND	ND	ND	ND	2.5	7382018
>C10-C16 Hydrocarbons	mg/kg	1300	1400	1600	900	1100	10	7379945
>C16-C21 Hydrocarbons	mg/kg	3000	2500	3600	1700	1900	10	7379945
>C21-<C32 Hydrocarbons	mg/kg	5000	5000	6300	2800	3800	15	7379945
Modified TPH (Tier1)	mg/kg	9300	8900	12000	5400	6800	15	7376024
Reached Baseline at C32	mg/kg	No	No	No	No	No	N/A	7379945
Hydrocarbon Resemblance	mg/kg	COMMENT (1)	COMMENT (1)	COMMENT (1)	COMMENT (1)	COMMENT (1)	N/A	7379945
Surrogate Recovery (%)								
Isobutylbenzene - Extractable	%	93	97	98	93	97		7379945
n-Dotriacontane - Extractable	%	113	127	118	105	114		7379945
Isobutylbenzene - Volatile	%	74	47 (2)	43 (2)	40 (2)	28 (2)		7382018

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

N/A = Not Applicable

(1) One product in fuel / lube range. Unidentified compound(s) in fuel / lube range. Lube oil fraction.

(2) VPH surrogate not within acceptance limits due to matrix interference.



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

POLYCHLORINATED BIPHENYLS BY GC-ECD (SEDIMENT)

BV Labs ID		PRI649	PRI650	PRI651			PRI651		
Sampling Date		2021/05/20 11:50	2021/05/20 12:00	2021/05/20 12:10			2021/05/20 12:10		
COC Number		47690	47690	47690			47690		
	UNITS	SED 10 T	SED 10 M	SED 10 B	RDL	QC Batch	SED 10 B Lab-Dup	RDL	QC Batch
PCBs									
Aroclor 1016	mg/kg	ND	ND	ND	0.010	7381720	ND	0.010	7381720
Aroclor 1221	mg/kg	ND	ND	ND	0.010	7381720	ND	0.010	7381720
Aroclor 1232	mg/kg	ND	ND	ND	0.010	7381720	ND	0.010	7381720
Aroclor 1248	mg/kg	ND	ND	ND	0.010	7381720	ND	0.010	7381720
Aroclor 1242	mg/kg	ND	ND	ND	0.010	7381720	ND	0.010	7381720
Aroclor 1254	mg/kg	1.2	1.8	0.52	0.010	7381720	0.53	0.010	7381720
Aroclor 1260	mg/kg	ND	0.22	0.086	0.010	7381720	0.097	0.010	7381720
Calculated Total PCB	mg/kg	1.2	2.0	0.60	0.010	7376209			
Surrogate Recovery (%)									
Decachlorobiphenyl	%	103	90	101		7381720	85		7381720
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate ND = Not detected									



BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

POLYCHLORINATED BIPHENYLS BY GC-ECD (SEDIMENT)

BV Labs ID		PRI652	PRI653	PRI654	PRI655	PRI656	PRI657	PRI658		
Sampling Date		2021/05/20 12:20	2021/05/20 12:30	2021/05/20 12:40	2021/05/20 12:50	2021/05/20 13:00	2021/05/20 13:10	2021/05/20 13:20		
COC Number		47690	47690	47690	47690	47690	47690	47690		
	UNITS	SED 9 T	SED 9 M	SED 9 B	SED 8 T	SED 8 M	SED 8 B	SED 7 T	RDL	QC Batch

PCBs										
Aroclor 1016	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7381720
Aroclor 1221	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7381720
Aroclor 1232	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7381720
Aroclor 1248	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7381720
Aroclor 1242	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7381720
Aroclor 1254	mg/kg	0.26	0.37	2.3	0.19	0.23	0.27	1.0	0.010	7381720
Aroclor 1260	mg/kg	0.10	0.066	ND	0.068	0.058	0.085	0.15	0.010	7381720
Calculated Total PCB	mg/kg	0.36	0.43	2.3	0.26	0.29	0.35	1.1	0.010	7376209

Surrogate Recovery (%)

Decachlorobiphenyl	%	93	93	96	103	100	103	87		7381720
--------------------	---	----	----	----	-----	-----	-----	----	--	---------

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

BV Labs ID		PRI693	PRI694	PRI695	PRI696	PRI697	PRI698	PRI699		
Sampling Date		2021/05/20 13:30	2021/05/20 13:40	2021/05/20 13:50	2021/05/20 14:00	2021/05/20 14:10	2021/05/20 16:00	2021/05/20 16:30		
COC Number		47691	47691	47691	47691	47691	47691	47691		
	UNITS	SED 7 M	SED 7 B	SED 6 T	SED 6 M	SED 6 B	SED 5 T	SED 5 M	RDL	QC Batch

PCBs										
Aroclor 1016	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7381720
Aroclor 1221	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7381720
Aroclor 1232	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7381720
Aroclor 1248	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7381720
Aroclor 1242	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7381720
Aroclor 1254	mg/kg	6.9	0.53	0.95	0.50	0.76	0.27	0.36	0.010	7381720
Aroclor 1260	mg/kg	ND	0.068	0.16	ND	0.12	0.054	0.055	0.010	7381720
Calculated Total PCB	mg/kg	6.9	0.60	1.1	0.50	0.88	0.32	0.41	0.010	7376209

Surrogate Recovery (%)

Decachlorobiphenyl	%	96	92	89	93	94	92	99		7381720
--------------------	---	----	----	----	----	----	----	----	--	---------

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

POLYCHLORINATED BIPHENYLS BY GC-ECD (SEDIMENT)

BV Labs ID		PRI700	PRI701	PRI702		PRI709			PRI709		
Sampling Date		2021/05/20 17:00	2021/05/21 08:00	2021/05/21 08:30		2021/05/21 09:00			2021/05/21 09:00		
COC Number		47691	47691	47691		47692			47692		
	UNITS	SED 5 B	SED 4 T	SED 4 M	QC Batch	SED 4 B	RDL	QC Batch	SED 4 B Lab-Dup	RDL	QC Batch

PCBs											
Aroclor 1016	mg/kg	ND	ND	ND	7381720	ND	0.010	7384097	ND	0.010	7384097
Aroclor 1221	mg/kg	ND	ND	ND	7381720	ND	0.010	7384097	ND	0.010	7384097
Aroclor 1232	mg/kg	ND	ND	ND	7381720	ND	0.010	7384097	ND	0.010	7384097
Aroclor 1248	mg/kg	ND	ND	ND	7381720	ND	0.010	7384097	ND	0.010	7384097
Aroclor 1242	mg/kg	ND	ND	ND	7381720	ND	0.010	7384097	ND	0.010	7384097
Aroclor 1254	mg/kg	0.47	1.2	0.65	7381720	0.86	0.010	7384097	0.82	0.010	7384097
Aroclor 1260	mg/kg	ND	0.16	0.099	7381720	0.15	0.010	7384097	0.12	0.010	7384097
Calculated Total PCB	mg/kg	0.47	1.4	0.75	7376209	1.0	0.010	7376209			

Surrogate Recovery (%)											
Decachlorobiphenyl	%	98	102	85	7381720	98		7384097	100		7384097

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

ND = Not detected

BUREAU
VERITASBV Labs Job #: C1E4134
Report Date: 2021/06/09MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI**POLYCHLORINATED BIPHENYLS BY GC-ECD (SEDIMENT)**

BV Labs ID		PRI710	PRI711	PRI712	PRI713	PRI714	PRI715	PRI716		
Sampling Date		2021/05/21 10:00	2021/05/21 10:30	2021/05/21 11:00	2021/05/21 11:15	2021/05/21 11:25	2021/05/21 11:40	2021/05/21 11:55		
COC Number		47692	47692	47692	47692	47692	47692	47692		
	UNITS	SED 3 T	SED 3 M	SED 3 B	SED 2 T	SED 2 M	SED 2 B	SED 1 T	RDL	QC Batch

PCBs										
Aroclor 1016	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7384097
Aroclor 1221	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7384097
Aroclor 1232	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7384097
Aroclor 1248	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7384097
Aroclor 1242	mg/kg	ND	ND	ND	ND	ND	ND	ND	0.010	7384097
Aroclor 1254	mg/kg	0.68	1.0	0.60	1.2	1.0	1.8	0.85	0.010	7384097
Aroclor 1260	mg/kg	0.15	0.17	0.093	0.18	0.16	0.24	0.13	0.010	7384097
Calculated Total PCB	mg/kg	0.83	1.2	0.70	1.4	1.2	2.1	0.99	0.010	7376209

Surrogate Recovery (%)

Decachlorobiphenyl	%	103	97	98	92	87	88	81		7384097
--------------------	---	-----	----	----	----	----	----	----	--	---------

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

BV Labs ID		PRI717	PRI718		
Sampling Date		2021/05/21 12:15	2021/05/21 12:25		
COC Number		47692	47692		
	UNITS	SED 1 M	SED 1 B	RDL	QC Batch

PCBs					
Aroclor 1016	mg/kg	ND	ND	0.010	7384097
Aroclor 1221	mg/kg	ND	ND	0.010	7384097
Aroclor 1232	mg/kg	ND	ND	0.010	7384097
Aroclor 1248	mg/kg	ND	ND	0.010	7384097
Aroclor 1242	mg/kg	ND	ND	0.010	7384097
Aroclor 1254	mg/kg	1.0	0.85	0.010	7384097
Aroclor 1260	mg/kg	0.15	0.19	0.010	7384097
Calculated Total PCB	mg/kg	1.2	1.0	0.010	7376209

Surrogate Recovery (%)

Decachlorobiphenyl	%	82	83		7384097
--------------------	---	----	----	--	---------

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.0°C
Package 2	2.0°C
Package 3	2.0°C
Package 4	1.0°C
Package 5	3.7°C
Package 6	3.0°C

Hexavalent Chromium: Detection limits were adjusted due to high moisture content for all the samples on this worksheet.

CONVENTIONALS (SEDIMENT)

Total Cyanide and Weak acid dissociable cyanide: Due to a high percent humidity, the detection limits were adjusted.

ELEMENTS BY ATOMIC SPECTROSCOPY (SEDIMENT)

Hexavalent Chromium in Soil by IC: Hexavalent Chromium: Detection limits were adjusted due to high moisture content for all the samples

Results relate only to the items tested.



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7376146	KKE	RPD	Moisture	2021/05/31	1.5		%	25
7376671	ZMR	RPD	Moisture	2021/05/31	4.7		%	25
7377035	KKE	RPD [PRI656-01]	Moisture	2021/05/31	4.2		%	25
7379434	LGE	Matrix Spike	D10-Anthracene	2021/05/31		97	%	50 - 130
			D14-Terphenyl	2021/05/31		98	%	50 - 130
			D8-Acenaphthylene	2021/05/31		99	%	50 - 130
			1-Methylnaphthalene	2021/05/31		103	%	50 - 130
			2-Methylnaphthalene	2021/05/31		109	%	50 - 130
			Acenaphthene	2021/05/31		107	%	50 - 130
			Acenaphthylene	2021/05/31		98	%	50 - 130
			Anthracene	2021/05/31		113	%	50 - 130
			Benzo(a)anthracene	2021/05/31		117	%	50 - 130
			Benzo(a)pyrene	2021/05/31		105	%	50 - 130
			Benzo(b)fluoranthene	2021/05/31		105	%	50 - 130
			Benzo(g,h,i)perylene	2021/05/31		100	%	50 - 130
			Benzo(j)fluoranthene	2021/05/31		105	%	50 - 130
			Benzo(k)fluoranthene	2021/05/31		106	%	50 - 130
			Chrysene	2021/05/31		115	%	50 - 130
			Dibenzo(a,h)anthracene	2021/05/31		111	%	50 - 130
			Fluoranthene	2021/05/31		112	%	50 - 130
			Fluorene	2021/05/31		117	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2021/05/31		106	%	50 - 130
			Naphthalene	2021/05/31		107	%	50 - 130
			Perylene	2021/05/31		108	%	50 - 130
			Phenanthrene	2021/05/31		111	%	50 - 130
			Pyrene	2021/05/31		104	%	50 - 130
7379434	LGE	Spiked Blank	D10-Anthracene	2021/05/31		98	%	50 - 130
			D14-Terphenyl	2021/05/31		100	%	50 - 130
			D8-Acenaphthylene	2021/05/31		99	%	50 - 130
			1-Methylnaphthalene	2021/05/31		105	%	50 - 130
			2-Methylnaphthalene	2021/05/31		115	%	50 - 130
			Acenaphthene	2021/05/31		106	%	50 - 130
			Acenaphthylene	2021/05/31		100	%	50 - 130
			Anthracene	2021/05/31		113	%	50 - 130
			Benzo(a)anthracene	2021/05/31		120	%	50 - 130
			Benzo(a)pyrene	2021/05/31		106	%	50 - 130
			Benzo(b)fluoranthene	2021/05/31		111	%	50 - 130
			Benzo(g,h,i)perylene	2021/05/31		94	%	50 - 130
			Benzo(j)fluoranthene	2021/05/31		104	%	50 - 130
			Benzo(k)fluoranthene	2021/05/31		106	%	50 - 130
			Chrysene	2021/05/31		118	%	50 - 130
			Dibenzo(a,h)anthracene	2021/05/31		107	%	50 - 130
			Fluoranthene	2021/05/31		116	%	50 - 130
			Fluorene	2021/05/31		116	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2021/05/31		100	%	50 - 130
			Naphthalene	2021/05/31		112	%	50 - 130
			Perylene	2021/05/31		108	%	50 - 130
			Phenanthrene	2021/05/31		112	%	50 - 130
			Pyrene	2021/05/31		109	%	50 - 130
7379434	LGE	Method Blank	D10-Anthracene	2021/05/31		102	%	50 - 130
			D14-Terphenyl	2021/05/31		104	%	50 - 130
			D8-Acenaphthylene	2021/05/31		103	%	50 - 130

BUREAU
VERITASBV Labs Job #: C1E4134
Report Date: 2021/06/09MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			1-Methylnaphthalene	2021/05/31	ND, RDL=0.0050		mg/kg	
			2-Methylnaphthalene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Acenaphthene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Acenaphthylene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Anthracene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Benzo(a)anthracene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Benzo(a)pyrene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Benzo(b)fluoranthene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Benzo(g,h,i)perylene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Benzo(j)fluoranthene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Benzo(k)fluoranthene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Chrysene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Dibenzo(a,h)anthracene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Fluoranthene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Fluorene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Indeno(1,2,3-cd)pyrene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Naphthalene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Perylene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Phenanthrene	2021/05/31	ND, RDL=0.0050		mg/kg	
			Pyrene	2021/05/31	ND, RDL=0.0050		mg/kg	
7379434	LGE	RPD	1-Methylnaphthalene	2021/05/31	NC		%	50
			2-Methylnaphthalene	2021/05/31	NC		%	50
			Acenaphthene	2021/05/31	NC		%	50
			Acenaphthylene	2021/05/31	NC		%	50
			Anthracene	2021/05/31	NC		%	50
			Benzo(a)anthracene	2021/05/31	NC		%	50
			Benzo(a)pyrene	2021/05/31	NC		%	50
			Benzo(b)fluoranthene	2021/05/31	NC		%	50
			Benzo(g,h,i)perylene	2021/05/31	NC		%	50
			Benzo(j)fluoranthene	2021/05/31	NC		%	50
			Benzo(k)fluoranthene	2021/05/31	NC		%	50
			Chrysene	2021/05/31	NC		%	50
			Dibenzo(a,h)anthracene	2021/05/31	NC		%	50



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7379465	BHR	Matrix Spike	Fluoranthene	2021/05/31	45		%	50
			Fluorene	2021/05/31	NC		%	50
			Indeno(1,2,3-cd)pyrene	2021/05/31	NC		%	50
			Naphthalene	2021/05/31	NC		%	50
			Perylene	2021/05/31	NC		%	50
			Phenanthrene	2021/05/31	NC		%	50
			Pyrene	2021/05/31	45		%	50
7379465	BHR	Spiked Blank	Isobutylbenzene - Extractable	2021/05/31		90	%	60 - 130
			n-Dotriacontane - Extractable	2021/05/31		111	%	60 - 130
			>C10-C16 Hydrocarbons	2021/05/31		91	%	30 - 130
			>C16-C21 Hydrocarbons	2021/05/31		84	%	30 - 130
			>C21-<C32 Hydrocarbons	2021/05/31		80	%	30 - 130
7379465	BHR	Method Blank	Isobutylbenzene - Extractable	2021/05/31		92	%	60 - 130
			n-Dotriacontane - Extractable	2021/05/31		111	%	60 - 130
			>C10-C16 Hydrocarbons	2021/05/31		94	%	60 - 130
			>C16-C21 Hydrocarbons	2021/05/31		85	%	60 - 130
			>C21-<C32 Hydrocarbons	2021/05/31		86	%	60 - 130
7379465	BHR	RPD	Isobutylbenzene - Extractable	2021/05/31		87	%	60 - 130
			n-Dotriacontane - Extractable	2021/05/31		108	%	60 - 130
			>C10-C16 Hydrocarbons	2021/05/31	ND, RDL=10		mg/kg	
			>C16-C21 Hydrocarbons	2021/05/31	ND, RDL=10		mg/kg	
			>C21-<C32 Hydrocarbons	2021/05/31	ND, RDL=15		mg/kg	
7379465	BHR	RPD	>C10-C16 Hydrocarbons	2021/05/31	NC		%	50
			>C16-C21 Hydrocarbons	2021/05/31	NC		%	50
			>C21-<C32 Hydrocarbons	2021/05/31	NC		%	50
7379471	BHR	Matrix Spike	Isobutylbenzene - Extractable	2021/05/31		99	%	60 - 130
			n-Dotriacontane - Extractable	2021/05/31		116	%	60 - 130
			>C10-C16 Hydrocarbons	2021/05/31		NC	%	30 - 130
			>C16-C21 Hydrocarbons	2021/05/31		NC	%	30 - 130
			>C21-<C32 Hydrocarbons	2021/05/31		NC	%	30 - 130
7379471	BHR	Spiked Blank	Isobutylbenzene - Extractable	2021/05/31		94	%	60 - 130
			n-Dotriacontane - Extractable	2021/05/31		118	%	60 - 130
			>C10-C16 Hydrocarbons	2021/05/31		101	%	60 - 130
			>C16-C21 Hydrocarbons	2021/05/31		87	%	60 - 130
			>C21-<C32 Hydrocarbons	2021/05/31		88	%	60 - 130
7379471	BHR	Method Blank	Isobutylbenzene - Extractable	2021/05/31		86	%	60 - 130
			n-Dotriacontane - Extractable	2021/05/31		109	%	60 - 130
			>C10-C16 Hydrocarbons	2021/05/31	ND, RDL=10		mg/kg	
			>C16-C21 Hydrocarbons	2021/05/31	ND, RDL=10		mg/kg	
			>C21-<C32 Hydrocarbons	2021/05/31	ND, RDL=15		mg/kg	
7379471	BHR	RPD	>C10-C16 Hydrocarbons	2021/05/31	11		%	50
			>C16-C21 Hydrocarbons	2021/05/31	12		%	50
			>C21-<C32 Hydrocarbons	2021/05/31	14		%	50
7379945	MGN	Matrix Spike	Isobutylbenzene - Extractable	2021/05/31		90	%	60 - 130
			n-Dotriacontane - Extractable	2021/05/31		101	%	60 - 130
			>C10-C16 Hydrocarbons	2021/05/31		102	%	30 - 130



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7379945	MGN	Spiked Blank	>C16-C21 Hydrocarbons	2021/05/31		102	%	30 - 130
			>C21-<C32 Hydrocarbons	2021/05/31		102	%	30 - 130
			Isobutylbenzene - Extractable	2021/05/31		96	%	60 - 130
			n-Dotriacontane - Extractable	2021/05/31		106	%	60 - 130
			>C10-C16 Hydrocarbons	2021/05/31		113	%	60 - 130
7379945	MGN	Method Blank	>C16-C21 Hydrocarbons	2021/05/31		109	%	60 - 130
			>C21-<C32 Hydrocarbons	2021/05/31		113	%	60 - 130
			Isobutylbenzene - Extractable	2021/05/31		88	%	60 - 130
			n-Dotriacontane - Extractable	2021/05/31		101	%	60 - 130
			>C10-C16 Hydrocarbons	2021/05/31	ND, RDL=10		mg/kg	
7379945	MGN	RPD	>C16-C21 Hydrocarbons	2021/05/31	ND, RDL=10		mg/kg	
			>C21-<C32 Hydrocarbons	2021/05/31	ND, RDL=15		mg/kg	
			>C10-C16 Hydrocarbons	2021/05/31	NC		%	50
			>C16-C21 Hydrocarbons	2021/05/31	34		%	50
			>C21-<C32 Hydrocarbons	2021/05/31	0.80		%	50
7381367	SHL	Matrix Spike [PRI649-04]	Isobutylbenzene - Volatile	2021/06/01		96	%	60 - 130
			Benzene	2021/06/01		103	%	60 - 130
			Toluene	2021/06/01		106	%	60 - 130
			Ethylbenzene	2021/06/01		112	%	60 - 130
			Total Xylenes	2021/06/01		111	%	60 - 130
7381367	SHL	Spiked Blank	Isobutylbenzene - Volatile	2021/06/01		107	%	60 - 130
			Benzene	2021/06/01		93	%	60 - 140
			Toluene	2021/06/01		94	%	60 - 140
			Ethylbenzene	2021/06/01		95	%	60 - 140
			Total Xylenes	2021/06/01		94	%	60 - 140
7381367	SHL	Method Blank	Isobutylbenzene - Volatile	2021/06/01		106	%	60 - 130
			Benzene	2021/06/01	ND, RDL=0.025		mg/kg	
			Toluene	2021/06/01	ND, RDL=0.050		mg/kg	
			Ethylbenzene	2021/06/01	ND, RDL=0.025		mg/kg	
			Total Xylenes	2021/06/01	ND, RDL=0.050		mg/kg	
7381367	SHL	RPD [PRI649-04]	C6 - C10 (less BTEX)	2021/06/01	ND, RDL=2.5		mg/kg	
			Benzene	2021/06/01	NC		%	50
			Toluene	2021/06/01	NC		%	50
			Ethylbenzene	2021/06/01	NC		%	50
			Total Xylenes	2021/06/01	NC		%	50
7381368	SHL	Matrix Spike [PRI654-04]	C6 - C10 (less BTEX)	2021/06/01	NC		%	50
			Isobutylbenzene - Volatile	2021/06/01		111	%	60 - 130
			Benzene	2021/06/01		89	%	60 - 130
			Toluene	2021/06/01		93	%	60 - 130
			Ethylbenzene	2021/06/01		101	%	60 - 130
7381368	SHL	Spiked Blank	Total Xylenes	2021/06/01		101	%	60 - 130
			Isobutylbenzene - Volatile	2021/06/01		97	%	60 - 130
			Benzene	2021/06/01		81	%	60 - 140
			Toluene	2021/06/01		82	%	60 - 140



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7381368	SHL	Method Blank	Ethylbenzene	2021/06/01		84	%	60 - 140
			Total Xylenes	2021/06/01		86	%	60 - 140
			Isobutylbenzene - Volatile	2021/06/01		97	%	60 - 130
			Benzene	2021/06/01	ND, RDL=0.025		mg/kg	
			Toluene	2021/06/01	ND, RDL=0.050		mg/kg	
			Ethylbenzene	2021/06/01	ND, RDL=0.025		mg/kg	
			Total Xylenes	2021/06/01	ND, RDL=0.050		mg/kg	
			C6 - C10 (less BTEX)	2021/06/01	ND, RDL=2.5		mg/kg	
			Benzene	2021/06/01	NC		%	50
			Toluene	2021/06/01	NC		%	50
7381368	SHL	RPD [PRI654-04]	Ethylbenzene	2021/06/01	NC		%	50
			Total Xylenes	2021/06/01	NC		%	50
			C6 - C10 (less BTEX)	2021/06/01	NC		%	50
			Soluble (Hot Water) Boron (B)	2021/06/01		NC	%	75 - 125
			Soluble (Hot Water) Boron (B)	2021/06/01		104	%	75 - 125
7381371	BAN	Matrix Spike	Soluble (Hot Water) Boron (B)	2021/06/01	ND, RDL=0.30		mg/kg	
7381371	BAN	Spiked Blank	Soluble (Hot Water) Boron (B)	2021/06/01	1.1		%	35
7381720	RGE	Matrix Spike [PRI651-01]	Decachlorobiphenyl	2021/06/04		96	%	70 - 130
			Aroclor 1254	2021/06/04		93	%	70 - 130
7381720	RGE	Spiked Blank	Decachlorobiphenyl	2021/06/04		118	%	70 - 130
			Aroclor 1254	2021/06/04		100	%	70 - 130
7381720	RGE	Method Blank	Decachlorobiphenyl	2021/06/04		103	%	70 - 130
			Aroclor 1016	2021/06/04	ND, RDL=0.010		mg/kg	
			Aroclor 1221	2021/06/04	ND, RDL=0.010		mg/kg	
			Aroclor 1232	2021/06/04	ND, RDL=0.010		mg/kg	
			Aroclor 1248	2021/06/04	ND, RDL=0.010		mg/kg	
			Aroclor 1242	2021/06/04	ND, RDL=0.010		mg/kg	
			Aroclor 1254	2021/06/04	ND, RDL=0.010		mg/kg	
			Aroclor 1260	2021/06/04	ND, RDL=0.010		mg/kg	
			Aroclor 1016	2021/06/04	NC		%	50
			Aroclor 1221	2021/06/04	NC		%	50
7382018	SHL	Matrix Spike [PRI712-04]	Aroclor 1232	2021/06/04	NC		%	50
			Aroclor 1248	2021/06/04	NC		%	50
			Aroclor 1242	2021/06/04	NC		%	50
			Aroclor 1254	2021/06/04	1.8		%	50
			Aroclor 1260	2021/06/04	12		%	50
			Isobutylbenzene - Volatile	2021/06/01		67	%	60 - 130
			Benzene	2021/06/01		96	%	60 - 130
			Toluene	2021/06/01		101	%	60 - 130

BUREAU
VERITAS

BV Labs Job #: C1E4134

Report Date: 2021/06/09

MDI Contracting

Client Project #: R.116548.001

Site Location: Burin Site Dredging, NL

Your P.O. #: 700585603

Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7382018	SHL	Spiked Blank	Ethylbenzene	2021/06/01		106	%	60 - 130
			Total Xylenes	2021/06/01		106	%	60 - 130
			Isobutylbenzene - Volatile	2021/06/01		92	%	60 - 130
			Benzene	2021/06/01		87	%	60 - 140
			Toluene	2021/06/01		89	%	60 - 140
7382018	SHL	Method Blank	Ethylbenzene	2021/06/01		88	%	60 - 140
			Total Xylenes	2021/06/01		89	%	60 - 140
			Isobutylbenzene - Volatile	2021/06/01		92	%	60 - 130
			Benzene	2021/06/01	ND, RDL=0.025		mg/kg	
			Toluene	2021/06/01	ND, RDL=0.050		mg/kg	
7382018	SHL	RPD [PRI712-04]	Ethylbenzene	2021/06/01	ND, RDL=0.025		mg/kg	
			Total Xylenes	2021/06/01	ND, RDL=0.050		mg/kg	
			C6 - C10 (less BTEX)	2021/06/01	ND, RDL=2.5		mg/kg	
			Benzene	2021/06/01	NC		%	50
			Toluene	2021/06/01	NC		%	50
7383903	MLB	Matrix Spike [PRI650-01]	Ethylbenzene	2021/06/01	NC		%	50
			Total Xylenes	2021/06/01	NC		%	50
			C6 - C10 (less BTEX)	2021/06/01	NC		%	50
			Acid Extractable Antimony (Sb)	2021/06/03		126 (1)	%	75 - 125
			Acid Extractable Arsenic (As)	2021/06/03		108	%	75 - 125
7383903	MLB	Spiked Blank	Acid Extractable Barium (Ba)	2021/06/03		110	%	75 - 125
			Acid Extractable Beryllium (Be)	2021/06/03		106	%	75 - 125
			Acid Extractable Bismuth (Bi)	2021/06/03		108	%	75 - 125
			Acid Extractable Boron (B)	2021/06/03		NC	%	75 - 125
			Acid Extractable Cadmium (Cd)	2021/06/03		109	%	75 - 125
			Acid Extractable Chromium (Cr)	2021/06/03		NC	%	75 - 125
			Acid Extractable Cobalt (Co)	2021/06/03		104	%	75 - 125
			Acid Extractable Copper (Cu)	2021/06/03		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2021/06/03		NC	%	75 - 125
			Acid Extractable Lithium (Li)	2021/06/03		109	%	75 - 125
			Acid Extractable Manganese (Mn)	2021/06/03		NC	%	75 - 125
			Acid Extractable Mercury (Hg)	2021/06/03		109	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2021/06/03		NC	%	75 - 125
			Acid Extractable Nickel (Ni)	2021/06/03		96	%	75 - 125
			Acid Extractable Rubidium (Rb)	2021/06/03		109	%	75 - 125
			Acid Extractable Selenium (Se)	2021/06/03		108	%	75 - 125
			Acid Extractable Silver (Ag)	2021/06/03		109	%	75 - 125
			Acid Extractable Strontium (Sr)	2021/06/03		NC	%	75 - 125
			Acid Extractable Thallium (Tl)	2021/06/03		110	%	75 - 125
			Acid Extractable Tin (Sn)	2021/06/03		NC	%	75 - 125
			Acid Extractable Uranium (U)	2021/06/03		124	%	75 - 125
			Acid Extractable Vanadium (V)	2021/06/03		NC	%	75 - 125
			Acid Extractable Zinc (Zn)	2021/06/03		NC	%	75 - 125
			Acid Extractable Antimony (Sb)	2021/06/03		103	%	75 - 125
			Acid Extractable Arsenic (As)	2021/06/03		95	%	75 - 125
			Acid Extractable Barium (Ba)	2021/06/03		94	%	75 - 125
			Acid Extractable Beryllium (Be)	2021/06/03		91	%	75 - 125



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7383903	MLB	Method Blank	Acid Extractable Bismuth (Bi)	2021/06/03		97	%	75 - 125
			Acid Extractable Boron (B)	2021/06/03		94	%	75 - 125
			Acid Extractable Cadmium (Cd)	2021/06/03		96	%	75 - 125
			Acid Extractable Chromium (Cr)	2021/06/03		96	%	75 - 125
			Acid Extractable Cobalt (Co)	2021/06/03		97	%	75 - 125
			Acid Extractable Copper (Cu)	2021/06/03		97	%	75 - 125
			Acid Extractable Lead (Pb)	2021/06/03		96	%	75 - 125
			Acid Extractable Lithium (Li)	2021/06/03		102	%	75 - 125
			Acid Extractable Manganese (Mn)	2021/06/03		97	%	75 - 125
			Acid Extractable Mercury (Hg)	2021/06/03		102	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2021/06/03		95	%	75 - 125
			Acid Extractable Nickel (Ni)	2021/06/03		98	%	75 - 125
			Acid Extractable Rubidium (Rb)	2021/06/03		96	%	75 - 125
			Acid Extractable Selenium (Se)	2021/06/03		100	%	75 - 125
			Acid Extractable Silver (Ag)	2021/06/03		95	%	75 - 125
			Acid Extractable Strontium (Sr)	2021/06/03		98	%	75 - 125
			Acid Extractable Thallium (Tl)	2021/06/03		94	%	75 - 125
			Acid Extractable Tin (Sn)	2021/06/03		98	%	75 - 125
			Acid Extractable Uranium (U)	2021/06/03		99	%	75 - 125
			Acid Extractable Vanadium (V)	2021/06/03		97	%	75 - 125
			Acid Extractable Zinc (Zn)	2021/06/03		101	%	75 - 125
			Acid Extractable Aluminum (Al)	2021/06/03	ND, RDL=10		mg/kg	
			Acid Extractable Antimony (Sb)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Arsenic (As)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Barium (Ba)	2021/06/03	ND, RDL=5.0		mg/kg	
			Acid Extractable Beryllium (Be)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Bismuth (Bi)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Boron (B)	2021/06/03	ND, RDL=50		mg/kg	
			Acid Extractable Cadmium (Cd)	2021/06/03	ND, RDL=0.30		mg/kg	
			Acid Extractable Chromium (Cr)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Cobalt (Co)	2021/06/03	ND, RDL=1.0		mg/kg	
			Acid Extractable Copper (Cu)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Iron (Fe)	2021/06/03	ND, RDL=50		mg/kg	
			Acid Extractable Lead (Pb)	2021/06/03	ND, RDL=0.50		mg/kg	
			Acid Extractable Lithium (Li)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Manganese (Mn)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Mercury (Hg)	2021/06/03	ND, RDL=0.10		mg/kg	



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Molybdenum (Mo)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Nickel (Ni)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Rubidium (Rb)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Selenium (Se)	2021/06/03	ND, RDL=0.50		mg/kg	
			Acid Extractable Silver (Ag)	2021/06/03	ND, RDL=0.50		mg/kg	
			Acid Extractable Strontium (Sr)	2021/06/03	ND, RDL=5.0		mg/kg	
			Acid Extractable Thallium (Tl)	2021/06/03	ND, RDL=0.10		mg/kg	
			Acid Extractable Tin (Sn)	2021/06/03	ND, RDL=1.0		mg/kg	
			Acid Extractable Uranium (U)	2021/06/03	ND, RDL=0.10		mg/kg	
			Acid Extractable Vanadium (V)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Zinc (Zn)	2021/06/03	ND, RDL=5.0		mg/kg	
7383903	MLB	RPD [PRI650-01]	Acid Extractable Aluminum (Al)	2021/06/03	7.4		%	35
			Acid Extractable Antimony (Sb)	2021/06/03	6.3		%	35
			Acid Extractable Arsenic (As)	2021/06/03	9.9		%	35
			Acid Extractable Barium (Ba)	2021/06/03	41 (2)		%	35
			Acid Extractable Beryllium (Be)	2021/06/03	NC		%	35
			Acid Extractable Bismuth (Bi)	2021/06/03	NC		%	35
			Acid Extractable Boron (B)	2021/06/03	4.9		%	35
			Acid Extractable Cadmium (Cd)	2021/06/03	9.9		%	35
			Acid Extractable Chromium (Cr)	2021/06/03	8.7		%	35
			Acid Extractable Cobalt (Co)	2021/06/03	18		%	35
			Acid Extractable Copper (Cu)	2021/06/03	35 (2)		%	35
			Acid Extractable Iron (Fe)	2021/06/03	11		%	35
			Acid Extractable Lead (Pb)	2021/06/03	7.9		%	35
			Acid Extractable Lithium (Li)	2021/06/03	0.60		%	35
			Acid Extractable Manganese (Mn)	2021/06/03	14		%	35
			Acid Extractable Mercury (Hg)	2021/06/03	17		%	35
			Acid Extractable Molybdenum (Mo)	2021/06/03	13		%	35
			Acid Extractable Nickel (Ni)	2021/06/03	5.5		%	35
			Acid Extractable Rubidium (Rb)	2021/06/03	1.6		%	35
			Acid Extractable Selenium (Se)	2021/06/03	1.6		%	35
			Acid Extractable Silver (Ag)	2021/06/03	NC		%	35
			Acid Extractable Strontium (Sr)	2021/06/03	23		%	35
			Acid Extractable Thallium (Tl)	2021/06/03	8.4		%	35
			Acid Extractable Tin (Sn)	2021/06/03	1.8		%	35
			Acid Extractable Uranium (U)	2021/06/03	16		%	35
			Acid Extractable Vanadium (V)	2021/06/03	3.6		%	35
			Acid Extractable Zinc (Zn)	2021/06/03	72 (2)		%	35
7384061	MLB	Matrix Spike	Soluble (Hot Water) Boron (B)	2021/06/03		57 (3)	%	75 - 125
7384061	MLB	Spiked Blank	Soluble (Hot Water) Boron (B)	2021/06/02		100	%	75 - 125



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7384061	MLB	Method Blank	Soluble (Hot Water) Boron (B)	2021/06/02	ND, RDL=0.30		mg/kg	
7384061	MLB	RPD	Soluble (Hot Water) Boron (B)	2021/06/03	3.1		%	35
7384097	RGE	Matrix Spike [PRI709-01]	Decachlorobiphenyl	2021/06/04		96	%	70 - 130
			Aroclor 1254	2021/06/04		95	%	70 - 130
7384097	RGE	Spiked Blank	Decachlorobiphenyl	2021/06/04		120	%	70 - 130
			Aroclor 1254	2021/06/04		101	%	70 - 130
7384097	RGE	Method Blank	Decachlorobiphenyl	2021/06/04		125	%	70 - 130
			Aroclor 1016	2021/06/04	ND, RDL=0.010		mg/kg	
			Aroclor 1221	2021/06/04	ND, RDL=0.010		mg/kg	
			Aroclor 1232	2021/06/04	ND, RDL=0.010		mg/kg	
			Aroclor 1248	2021/06/04	ND, RDL=0.010		mg/kg	
			Aroclor 1242	2021/06/04	ND, RDL=0.010		mg/kg	
			Aroclor 1254	2021/06/04	ND, RDL=0.010		mg/kg	
			Aroclor 1260	2021/06/04	ND, RDL=0.010		mg/kg	
7384097	RGE	RPD [PRI709-01]	Aroclor 1016	2021/06/04	NC		%	50
			Aroclor 1221	2021/06/04	NC		%	50
			Aroclor 1232	2021/06/04	NC		%	50
			Aroclor 1248	2021/06/04	NC		%	50
			Aroclor 1242	2021/06/04	NC		%	50
			Aroclor 1254	2021/06/04	4.2		%	50
			Aroclor 1260	2021/06/04	20		%	50
7384181	LGE	Matrix Spike [PRI698-01]	D10-Anthracene	2021/06/03		106	%	50 - 130
			D14-Terphenyl	2021/06/03		103	%	50 - 130
			D8-Acenaphthylene	2021/06/03		98	%	50 - 130
			1-Methylnaphthalene	2021/06/03		NC	%	50 - 130
			2-Methylnaphthalene	2021/06/03		81	%	50 - 130
			Acenaphthene	2021/06/03		NC	%	50 - 130
			Acenaphthylene	2021/06/03		NC	%	50 - 130
			Anthracene	2021/06/03		NC	%	50 - 130
			Benzo(a)anthracene	2021/06/03		NC	%	50 - 130
			Benzo(a)pyrene	2021/06/03		NC	%	50 - 130
			Benzo(b)fluoranthene	2021/06/03		NC	%	50 - 130
			Benzo(g,h,i)perylene	2021/06/03		NC	%	50 - 130
			Benzo(j)fluoranthene	2021/06/03		NC	%	50 - 130
			Benzo(k)fluoranthene	2021/06/03		NC	%	50 - 130
			Chrysene	2021/06/03		NC	%	50 - 130
			Dibenzo(a,h)anthracene	2021/06/03		NC	%	50 - 130
			Fluoranthene	2021/06/03		NC	%	50 - 130
			Fluorene	2021/06/03		NC	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2021/06/03		NC	%	50 - 130
			Naphthalene	2021/06/03		NC	%	50 - 130
			Perylene	2021/06/03		NC	%	50 - 130
			Phenanthrene	2021/06/03		NC	%	50 - 130
			Pyrene	2021/06/03		NC	%	50 - 130



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7384181	LGE	Spiked Blank	D10-Anthracene	2021/06/03		104	%	50 - 130
			D14-Terphenyl	2021/06/03		102	%	50 - 130
			D8-Acenaphthylene	2021/06/03		99	%	50 - 130
			1-Methylnaphthalene	2021/06/03		92	%	50 - 130
			2-Methylnaphthalene	2021/06/03		95	%	50 - 130
			Acenaphthene	2021/06/03		88	%	50 - 130
			Acenaphthylene	2021/06/03		94	%	50 - 130
			Anthracene	2021/06/03		100	%	50 - 130
			Benzo(a)anthracene	2021/06/03		86	%	50 - 130
			Benzo(a)pyrene	2021/06/03		73	%	50 - 130
			Benzo(b)fluoranthene	2021/06/03		71	%	50 - 130
			Benzo(g,h,i)perylene	2021/06/03		64	%	50 - 130
			Benzo(j)fluoranthene	2021/06/03		71	%	50 - 130
			Benzo(k)fluoranthene	2021/06/03		77	%	50 - 130
			Chrysene	2021/06/03		95	%	50 - 130
			Dibenzo(a,h)anthracene	2021/06/03		66	%	50 - 130
			Fluoranthene	2021/06/03		90	%	50 - 130
			Fluorene	2021/06/03		98	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2021/06/03		66	%	50 - 130
			Naphthalene	2021/06/03		96	%	50 - 130
			Perylene	2021/06/03		70	%	50 - 130
			Phenanthrene	2021/06/03		94	%	50 - 130
			Pyrene	2021/06/03		92	%	50 - 130
7384181	LGE	Method Blank	D10-Anthracene	2021/06/03		105	%	50 - 130
			D14-Terphenyl	2021/06/03		101	%	50 - 130
			D8-Acenaphthylene	2021/06/03		100	%	50 - 130
			1-Methylnaphthalene	2021/06/03	ND, RDL=0.0050		mg/kg	
			2-Methylnaphthalene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Acenaphthene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Acenaphthylene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Anthracene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Benzo(a)anthracene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Benzo(a)pyrene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Benzo(b)fluoranthene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Benzo(g,h,i)perylene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Benzo(j)fluoranthene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Benzo(k)fluoranthene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Chrysene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Dibenzo(a,h)anthracene	2021/06/03	ND, RDL=0.0050		mg/kg	



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7384181	LGE	RPD [PRI698-01]	Fluoranthene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Fluorene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Indeno(1,2,3-cd)pyrene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Naphthalene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Perylene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Phenanthrene	2021/06/03	ND, RDL=0.0050		mg/kg	
			Pyrene	2021/06/03	ND, RDL=0.0050		mg/kg	
			1-Methylnaphthalene	2021/06/03	65 (4)		%	50
			2-Methylnaphthalene	2021/06/03	16		%	50
			Acenaphthene	2021/06/03	11		%	50
			Acenaphthylene	2021/06/03	63 (4)		%	50
			Anthracene	2021/06/03	43		%	50
			Benzo(a)anthracene	2021/06/03	73 (4)		%	50
			Benzo(a)pyrene	2021/06/03	29		%	50
			Benzo(b)fluoranthene	2021/06/03	39		%	50
			Benzo(g,h,i)perylene	2021/06/03	6.5		%	50
			Benzo(j)fluoranthene	2021/06/03	41		%	50
			Benzo(k)fluoranthene	2021/06/03	46		%	50
			Chrysene	2021/06/03	59 (4)		%	50
			Dibenzo(a,h)anthracene	2021/06/03	17		%	50
			Fluoranthene	2021/06/03	54 (5)		%	50
			Fluorene	2021/06/03	25		%	50
			Indeno(1,2,3-cd)pyrene	2021/06/03	16		%	50
			Naphthalene	2021/06/03	60 (4)		%	50
			Perylene	2021/06/03	37		%	50
			Phenanthrene	2021/06/03	2.3		%	50
			Pyrene	2021/06/03	57 (5)		%	50
7384601	VP2	Matrix Spike [PRI697-02]	Chromium (VI)	2021/06/03		0.60 (6)	%	70 - 130
7384601	VP2	Spiked Blank	Chromium (VI)	2021/06/03		91	%	80 - 120
7384601	VP2	Method Blank	Chromium (VI)	2021/06/03	ND, RDL=0.18		ug/g	
7384601	VP2	RPD [PRI697-02]	Chromium (VI)	2021/06/03	NC		%	35
7386458	BAN	Matrix Spike	Acid Extractable Antimony (Sb)	2021/06/03		103	%	75 - 125
			Acid Extractable Arsenic (As)	2021/06/03		109	%	75 - 125
			Acid Extractable Barium (Ba)	2021/06/03		94	%	75 - 125
			Acid Extractable Beryllium (Be)	2021/06/03		98	%	75 - 125
			Acid Extractable Bismuth (Bi)	2021/06/03		105	%	75 - 125
			Acid Extractable Boron (B)	2021/06/03		91	%	75 - 125
			Acid Extractable Cadmium (Cd)	2021/06/03		98	%	75 - 125
			Acid Extractable Chromium (Cr)	2021/06/03		102	%	75 - 125
			Acid Extractable Cobalt (Co)	2021/06/03		100	%	75 - 125
			Acid Extractable Copper (Cu)	2021/06/03		106	%	75 - 125
			Acid Extractable Lead (Pb)	2021/06/03		NC	%	75 - 125
			Acid Extractable Lithium (Li)	2021/06/03		106	%	75 - 125
			Acid Extractable Manganese (Mn)	2021/06/03		NC	%	75 - 125



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7386458	BAN	Spiked Blank	Acid Extractable Mercury (Hg)	2021/06/03		94	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2021/06/03		110	%	75 - 125
			Acid Extractable Nickel (Ni)	2021/06/03		102	%	75 - 125
			Acid Extractable Rubidium (Rb)	2021/06/03		97	%	75 - 125
			Acid Extractable Selenium (Se)	2021/06/03		101	%	75 - 125
			Acid Extractable Silver (Ag)	2021/06/03		98	%	75 - 125
			Acid Extractable Strontium (Sr)	2021/06/03		104	%	75 - 125
			Acid Extractable Thallium (Tl)	2021/06/03		101	%	75 - 125
			Acid Extractable Tin (Sn)	2021/06/03		106	%	75 - 125
			Acid Extractable Uranium (U)	2021/06/03		101	%	75 - 125
			Acid Extractable Vanadium (V)	2021/06/03		109	%	75 - 125
			Acid Extractable Zinc (Zn)	2021/06/03		NC	%	75 - 125
			Acid Extractable Antimony (Sb)	2021/06/03		104	%	75 - 125
			Acid Extractable Arsenic (As)	2021/06/03		99	%	75 - 125
			Acid Extractable Barium (Ba)	2021/06/03		98	%	75 - 125
			Acid Extractable Beryllium (Be)	2021/06/03		99	%	75 - 125
			Acid Extractable Bismuth (Bi)	2021/06/03		103	%	75 - 125
			Acid Extractable Boron (B)	2021/06/03		107	%	75 - 125
			Acid Extractable Cadmium (Cd)	2021/06/03		98	%	75 - 125
			Acid Extractable Chromium (Cr)	2021/06/03		98	%	75 - 125
			Acid Extractable Cobalt (Co)	2021/06/03		99	%	75 - 125
			Acid Extractable Copper (Cu)	2021/06/03		101	%	75 - 125
			Acid Extractable Lead (Pb)	2021/06/03		100	%	75 - 125
			Acid Extractable Lithium (Li)	2021/06/03		104	%	75 - 125
			Acid Extractable Manganese (Mn)	2021/06/03		100	%	75 - 125
			Acid Extractable Mercury (Hg)	2021/06/03		106	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2021/06/03		103	%	75 - 125
			Acid Extractable Nickel (Ni)	2021/06/03		100	%	75 - 125
			Acid Extractable Rubidium (Rb)	2021/06/03		97	%	75 - 125
			Acid Extractable Selenium (Se)	2021/06/03		101	%	75 - 125
			Acid Extractable Silver (Ag)	2021/06/03		99	%	75 - 125
			Acid Extractable Strontium (Sr)	2021/06/03		97	%	75 - 125
			Acid Extractable Thallium (Tl)	2021/06/03		101	%	75 - 125
			Acid Extractable Tin (Sn)	2021/06/03		101	%	75 - 125
			Acid Extractable Uranium (U)	2021/06/03		99	%	75 - 125
			Acid Extractable Vanadium (V)	2021/06/03		102	%	75 - 125
			Acid Extractable Zinc (Zn)	2021/06/03		99	%	75 - 125
7386458	BAN	Method Blank	Acid Extractable Aluminum (Al)	2021/06/03	ND, RDL=10		mg/kg	
			Acid Extractable Antimony (Sb)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Arsenic (As)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Barium (Ba)	2021/06/03	ND, RDL=5.0		mg/kg	
			Acid Extractable Beryllium (Be)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Bismuth (Bi)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Boron (B)	2021/06/03	ND, RDL=50		mg/kg	

BUREAU
VERITASBV Labs Job #: C1E4134
Report Date: 2021/06/09MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7386458	BAN	RPD	Acid Extractable Cadmium (Cd)	2021/06/03	ND, RDL=0.30		mg/kg	
			Acid Extractable Chromium (Cr)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Cobalt (Co)	2021/06/03	ND, RDL=1.0		mg/kg	
			Acid Extractable Copper (Cu)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Iron (Fe)	2021/06/03	ND, RDL=50		mg/kg	
			Acid Extractable Lead (Pb)	2021/06/03	ND, RDL=0.50		mg/kg	
			Acid Extractable Lithium (Li)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Manganese (Mn)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Mercury (Hg)	2021/06/03	ND, RDL=0.10		mg/kg	
			Acid Extractable Molybdenum (Mo)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Nickel (Ni)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Rubidium (Rb)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Selenium (Se)	2021/06/03	ND, RDL=0.50		mg/kg	
			Acid Extractable Silver (Ag)	2021/06/03	ND, RDL=0.50		mg/kg	
			Acid Extractable Strontium (Sr)	2021/06/03	ND, RDL=5.0		mg/kg	
			Acid Extractable Thallium (Tl)	2021/06/03	ND, RDL=0.10		mg/kg	
			Acid Extractable Tin (Sn)	2021/06/03	ND, RDL=1.0		mg/kg	
			Acid Extractable Uranium (U)	2021/06/03	ND, RDL=0.10		mg/kg	
			Acid Extractable Vanadium (V)	2021/06/03	ND, RDL=2.0		mg/kg	
			Acid Extractable Zinc (Zn)	2021/06/03	ND, RDL=5.0		mg/kg	
			Acid Extractable Aluminum (Al)	2021/06/03	2.0		%	35
			Acid Extractable Antimony (Sb)	2021/06/03	NC		%	35
			Acid Extractable Arsenic (As)	2021/06/03	5.5		%	35
			Acid Extractable Barium (Ba)	2021/06/03	NC		%	35
			Acid Extractable Beryllium (Be)	2021/06/03	NC		%	35
			Acid Extractable Bismuth (Bi)	2021/06/03	NC		%	35
			Acid Extractable Boron (B)	2021/06/03	NC		%	35
			Acid Extractable Cadmium (Cd)	2021/06/03	NC		%	35
			Acid Extractable Chromium (Cr)	2021/06/03	7.2		%	35
			Acid Extractable Cobalt (Co)	2021/06/03	0.50		%	35
			Acid Extractable Copper (Cu)	2021/06/03	4.6		%	35
			Acid Extractable Iron (Fe)	2021/06/03	5.1		%	35
			Acid Extractable Lead (Pb)	2021/06/03	39 (2)		%	35



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7386467	BAN	Matrix Spike	Acid Extractable Lithium (Li)	2021/06/03	5.3		%	35
			Acid Extractable Manganese (Mn)	2021/06/03	5.4		%	35
			Acid Extractable Mercury (Hg)	2021/06/03	10		%	35
			Acid Extractable Molybdenum (Mo)	2021/06/03	16		%	35
			Acid Extractable Nickel (Ni)	2021/06/03	9.0		%	35
			Acid Extractable Rubidium (Rb)	2021/06/03	9.4		%	35
			Acid Extractable Selenium (Se)	2021/06/03	1.6		%	35
			Acid Extractable Silver (Ag)	2021/06/03	NC		%	35
			Acid Extractable Strontium (Sr)	2021/06/03	NC		%	35
			Acid Extractable Thallium (Tl)	2021/06/03	NC		%	35
			Acid Extractable Tin (Sn)	2021/06/03	NC		%	35
			Acid Extractable Uranium (U)	2021/06/03	4.9		%	35
			Acid Extractable Vanadium (V)	2021/06/03	2.6		%	35
			Acid Extractable Zinc (Zn)	2021/06/03	12		%	35
			Acid Extractable Antimony (Sb)	2021/06/04		103	%	75 - 125
			Acid Extractable Arsenic (As)	2021/06/04		99	%	75 - 125
			Acid Extractable Barium (Ba)	2021/06/04		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2021/06/04		97	%	75 - 125
			Acid Extractable Bismuth (Bi)	2021/06/04		98	%	75 - 125
			Acid Extractable Boron (B)	2021/06/04		87	%	75 - 125
			Acid Extractable Cadmium (Cd)	2021/06/04		98	%	75 - 125
			Acid Extractable Chromium (Cr)	2021/06/04		101	%	75 - 125
			Acid Extractable Cobalt (Co)	2021/06/04		100	%	75 - 125
			Acid Extractable Copper (Cu)	2021/06/04		105	%	75 - 125
			Acid Extractable Lead (Pb)	2021/06/04		NC	%	75 - 125
			Acid Extractable Lithium (Li)	2021/06/04		109	%	75 - 125
			Acid Extractable Manganese (Mn)	2021/06/04		NC	%	75 - 125
			Acid Extractable Mercury (Hg)	2021/06/04		98	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2021/06/04		96	%	75 - 125
			Acid Extractable Nickel (Ni)	2021/06/04		101	%	75 - 125
			Acid Extractable Rubidium (Rb)	2021/06/04		100	%	75 - 125
			Acid Extractable Selenium (Se)	2021/06/04		100	%	75 - 125
			Acid Extractable Silver (Ag)	2021/06/04		101	%	75 - 125
			Acid Extractable Strontium (Sr)	2021/06/04		106	%	75 - 125
			Acid Extractable Thallium (Tl)	2021/06/04		98	%	75 - 125
			Acid Extractable Tin (Sn)	2021/06/04		98	%	75 - 125
			Acid Extractable Uranium (U)	2021/06/04		102	%	75 - 125
			Acid Extractable Vanadium (V)	2021/06/04		104	%	75 - 125
			Acid Extractable Zinc (Zn)	2021/06/04		NC	%	75 - 125
7386467	BAN	Spiked Blank	Acid Extractable Antimony (Sb)	2021/06/04		107	%	75 - 125
			Acid Extractable Arsenic (As)	2021/06/04		97	%	75 - 125
			Acid Extractable Barium (Ba)	2021/06/04		94	%	75 - 125
			Acid Extractable Beryllium (Be)	2021/06/04		93	%	75 - 125
			Acid Extractable Bismuth (Bi)	2021/06/04		99	%	75 - 125
			Acid Extractable Boron (B)	2021/06/04		97	%	75 - 125
			Acid Extractable Cadmium (Cd)	2021/06/04		95	%	75 - 125
			Acid Extractable Chromium (Cr)	2021/06/04		95	%	75 - 125
			Acid Extractable Cobalt (Co)	2021/06/04		95	%	75 - 125
			Acid Extractable Copper (Cu)	2021/06/04		97	%	75 - 125
			Acid Extractable Lead (Pb)	2021/06/04		98	%	75 - 125
			Acid Extractable Lithium (Li)	2021/06/04		96	%	75 - 125
			Acid Extractable Manganese (Mn)	2021/06/04		100	%	75 - 125



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7386467	BAN	Method Blank	Acid Extractable Mercury (Hg)	2021/06/04		101	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2021/06/04		97	%	75 - 125
			Acid Extractable Nickel (Ni)	2021/06/04		97	%	75 - 125
			Acid Extractable Rubidium (Rb)	2021/06/04		97	%	75 - 125
			Acid Extractable Selenium (Se)	2021/06/04		101	%	75 - 125
			Acid Extractable Silver (Ag)	2021/06/04		96	%	75 - 125
			Acid Extractable Strontium (Sr)	2021/06/04		98	%	75 - 125
			Acid Extractable Thallium (Tl)	2021/06/04		100	%	75 - 125
			Acid Extractable Tin (Sn)	2021/06/04		103	%	75 - 125
			Acid Extractable Uranium (U)	2021/06/04		99	%	75 - 125
			Acid Extractable Vanadium (V)	2021/06/04		97	%	75 - 125
			Acid Extractable Zinc (Zn)	2021/06/04		96	%	75 - 125
			Acid Extractable Aluminum (Al)	2021/06/04	ND, RDL=10		mg/kg	
			Acid Extractable Antimony (Sb)	2021/06/04	ND, RDL=2.0		mg/kg	
			Acid Extractable Arsenic (As)	2021/06/04	ND, RDL=2.0		mg/kg	
			Acid Extractable Barium (Ba)	2021/06/04	ND, RDL=5.0		mg/kg	
			Acid Extractable Beryllium (Be)	2021/06/04	ND, RDL=2.0		mg/kg	
			Acid Extractable Bismuth (Bi)	2021/06/04	ND, RDL=2.0		mg/kg	
			Acid Extractable Boron (B)	2021/06/04	ND, RDL=50		mg/kg	
			Acid Extractable Cadmium (Cd)	2021/06/04	ND, RDL=0.30		mg/kg	
			Acid Extractable Chromium (Cr)	2021/06/04	ND, RDL=2.0		mg/kg	
			Acid Extractable Cobalt (Co)	2021/06/04	ND, RDL=1.0		mg/kg	
			Acid Extractable Copper (Cu)	2021/06/04	ND, RDL=2.0		mg/kg	
			Acid Extractable Iron (Fe)	2021/06/04	ND, RDL=50		mg/kg	
			Acid Extractable Lead (Pb)	2021/06/04	ND, RDL=0.50		mg/kg	
			Acid Extractable Lithium (Li)	2021/06/04	ND, RDL=2.0		mg/kg	
			Acid Extractable Manganese (Mn)	2021/06/04	ND, RDL=2.0		mg/kg	
			Acid Extractable Mercury (Hg)	2021/06/04	ND, RDL=0.10		mg/kg	
			Acid Extractable Molybdenum (Mo)	2021/06/04	ND, RDL=2.0		mg/kg	
			Acid Extractable Nickel (Ni)	2021/06/04	ND, RDL=2.0		mg/kg	
			Acid Extractable Rubidium (Rb)	2021/06/04	ND, RDL=2.0		mg/kg	
			Acid Extractable Selenium (Se)	2021/06/04	ND, RDL=0.50		mg/kg	



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7386467	BAN	RPD	Acid Extractable Silver (Ag)	2021/06/04	ND, RDL=0.50		mg/kg	
			Acid Extractable Strontium (Sr)	2021/06/04	ND, RDL=5.0		mg/kg	
			Acid Extractable Thallium (Tl)	2021/06/04	ND, RDL=0.10		mg/kg	
			Acid Extractable Tin (Sn)	2021/06/04	ND, RDL=1.0		mg/kg	
			Acid Extractable Uranium (U)	2021/06/04	ND, RDL=0.10		mg/kg	
			Acid Extractable Vanadium (V)	2021/06/04	ND, RDL=2.0		mg/kg	
			Acid Extractable Zinc (Zn)	2021/06/04	ND, RDL=5.0		mg/kg	
			Acid Extractable Aluminum (Al)	2021/06/04	1.3		%	35
			Acid Extractable Antimony (Sb)	2021/06/04	NC		%	35
			Acid Extractable Arsenic (As)	2021/06/04	0.12		%	35
			Acid Extractable Barium (Ba)	2021/06/04	1.7		%	35
			Acid Extractable Beryllium (Be)	2021/06/04	NC		%	35
			Acid Extractable Bismuth (Bi)	2021/06/04	NC		%	35
			Acid Extractable Boron (B)	2021/06/04	NC		%	35
			Acid Extractable Cadmium (Cd)	2021/06/04	NC		%	35
			Acid Extractable Chromium (Cr)	2021/06/04	0.71		%	35
			Acid Extractable Cobalt (Co)	2021/06/04	12		%	35
			Acid Extractable Copper (Cu)	2021/06/04	1.5		%	35
			Acid Extractable Iron (Fe)	2021/06/04	1.7		%	35
			Acid Extractable Lead (Pb)	2021/06/04	2.2		%	35
			Acid Extractable Lithium (Li)	2021/06/04	0.54		%	35
			Acid Extractable Manganese (Mn)	2021/06/04	6.5		%	35
			Acid Extractable Mercury (Hg)	2021/06/04	5.5		%	35
			Acid Extractable Molybdenum (Mo)	2021/06/04	NC		%	35
			Acid Extractable Nickel (Ni)	2021/06/04	3.8		%	35
			Acid Extractable Rubidium (Rb)	2021/06/04	4.2		%	35
			Acid Extractable Selenium (Se)	2021/06/04	NC		%	35
			Acid Extractable Silver (Ag)	2021/06/04	NC		%	35
			Acid Extractable Strontium (Sr)	2021/06/04	2.3		%	35
			Acid Extractable Thallium (Tl)	2021/06/04	25		%	35
			Acid Extractable Tin (Sn)	2021/06/04	8.3		%	35
			Acid Extractable Uranium (U)	2021/06/04	0.95		%	35
			Acid Extractable Vanadium (V)	2021/06/04	2.0		%	35
			Acid Extractable Zinc (Zn)	2021/06/04	16		%	35
7386549	BAN	Matrix Spike [PRI714-01]	Soluble (Hot Water) Boron (B)	2021/06/03		NC	%	75 - 125
7386549	BAN	Spiked Blank	Soluble (Hot Water) Boron (B)	2021/06/03		101	%	75 - 125
7386549	BAN	Method Blank	Soluble (Hot Water) Boron (B)	2021/06/03	ND, RDL=0.30		mg/kg	
7386549	BAN	RPD [PRI713-01]	Soluble (Hot Water) Boron (B)	2021/06/03	11		%	35
7389114	RSU	Matrix Spike	Chromium (VI)	2021/06/04		59 (6)	%	70 - 130
7389114	RSU	Spiked Blank	Chromium (VI)	2021/06/04		93	%	80 - 120
7389114	RSU	Method Blank	Chromium (VI)	2021/06/04	ND, RDL=0.18		ug/g	
7389114	RSU	RPD	Chromium (VI)	2021/06/04	NC		%	35
7398032	éFQ	Spiked Blank	WAD Cyanide (Free)	2021/06/04		94	%	80 - 120



QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7398032	éFQ	Method Blank	WAD Cyanide (Free)	2021/06/04	ND, RDL=0.50		mg/kg	
7398032	éFQ	RPD [PRI702-03]	WAD Cyanide (Free)	2021/06/04	NC		%	25
7398033	éFQ	Spiked Blank	Total Cyanide (CN)	2021/06/04		94	%	80 - 120
7398033	éFQ	Method Blank	Total Cyanide (CN)	2021/06/04	ND, RDL=0.50		mg/kg	
7398033	éFQ	RPD [PRI702-03]	Total Cyanide (CN)	2021/06/04	NC		%	30
7398035	éFQ	Spiked Blank	WAD Cyanide (Free)	2021/06/04		96	%	80 - 120
7398035	éFQ	Method Blank	WAD Cyanide (Free)	2021/06/04	ND, RDL=0.50		mg/kg	
7398035	éFQ	RPD [PRI658-03]	WAD Cyanide (Free)	2021/06/04	NC		%	25
7398036	éFQ	QC Standard	Total Cyanide (CN)	2021/06/04		90	%	80 - 120
7398036	éFQ	Spiked Blank	Total Cyanide (CN)	2021/06/04		96	%	80 - 120
7398036	éFQ	Method Blank	Total Cyanide (CN)	2021/06/04	ND, RDL=0.50		mg/kg	
7398036	éFQ	RPD [PRI658-03]	Total Cyanide (CN)	2021/06/04	NC		%	30
7398037	éFQ	Spiked Blank	WAD Cyanide (Free)	2021/06/08		97	%	80 - 120
7398037	éFQ	Method Blank	WAD Cyanide (Free)	2021/06/08	ND, RDL=0.50		mg/kg	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times$ RDL).

(1) Recovery is within QC acceptance limits. $< 10\%$ of compounds in multi-component analysis in violation.

(2) Poor RPD due to sample inhomogeneity. Verified by repeat digestion and analysis.

(3) Matrix Spike exceeds acceptance limits, probable matrix interference.

(4) Duplicate: results are outside acceptance limit. Analysis was repeated with similar results.

(5) Elevated PAH RDL(s) due to sample dilution. Duplicate: results are outside acceptance limit. Analysis was repeated with similar results.

(6) The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample. The matrix spike was reanalyzed to confirm result.



BUREAU
VERITAS

BV Labs Job #: C1E4134
Report Date: 2021/06/09

MDI Contracting
Client Project #: R.116548.001
Site Location: Burin Site Dredging, NL
Your P.O. #: 700585603
Sampler Initials: MDI

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



Anton Perera, B.Sc., Chimiste

Brad Newman, B.Sc., C.Chem., Scientific Service Specialist



Miryam Assayag

Eric Dearman, Scientific Specialist



Nouredine Chafiaai, B.Sc., Chemist

Phil Deveau, Scientific Specialist (Organics)

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.