February 2016

MCCARTHY QUARRY

Environmental Compliance Approval Quarterly Monitoring Report (November 2015 to February 2016)

Submitted to:
Cindy Hood
Ontario Ministry of Environment
Barrie District Office
1203-54 Cedar Pointe Drive
Barrie ON
L4N 5R7

REPORT

Report Number: 1407634

Distribution:

1 Copy - Ontario Ministry of Environment Barrie District Office
1 Copy - Coco Aggregates Inc.
1 Copy - Golder Associates Ltd.

Golder Associates

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1.0 INTRODUCTION

Golder Associates Ltd. (Golder) was retained by QBJR/Coco Aggregates Inc. (Coco) to prepare a quarterly compliance report for the McCarthy Quarry located in the Township of Ramara, County of Simcoe (Figure 1). The Environmental Compliance Approval (ECA) No. 4731-987KM8 issued on October 15, 2013 requires this task. A copy of the ECA No. 4731-987KM8 is found in Appendix A.

The following report addresses the requirements described in Sections 7 and 8 of the ECA. Included herein are a brief background, summary and discussion of the sampling results and data collected on-site during each sampling event.

2.0 BACKGROUND

The McCarthy Quarry dewatering system consists of the collection of groundwater and surface water at the base of the quarry floor in a quarry sump which is pumped to a settling pond, at grade, to the south of the active quarry area (Figure 1). The sump is equipped with a 4-inch Grindex pump which is rated at 35 L/sec and is attached to a 4-inch (101 mm) diameter discharge line. Water is pumped from the quarry floor up the quarry face to a 4-inch (101 mm) diameter pipeline that directs the water to the 14,000 m^3 settling pond. The water in the settling pond is equipped with a Hickenbottom control structure that discharges the water to the roadside ditch along Concession Road 1. The water flows eastward along the north side of Concession Road 1 to a municipal drain and eventually to the Talbot River, which discharges into Lake Simcoe.

The dewatering activities from the McCarthy Quarry are currently carried out under the existing ECA No. 4731-987KM8 issued on October 15, 2013. Under the current ECA Coco is permitted to pump water from the quarry sump at a rate of 4,545 L/min (76 L/sec).

3.0 EFFLUENT MONITORING RESULTS

Weekly monitoring of the effluent is required by the ECA at three locations, as shown on Figure 1:

- The outfall of the settling pond (labelled as McCarthy Pond);
- The culvert along Concession Road 1 at the McCarthy property (SW1) downstream of the McCarthy Pond discharge location; and,
- 260 m north of the intersection of Concession Road 1 and the Mara Eldon Boundary Road (labelled as SW2) representing upstream conditions.

Weekly effluent monitoring is required per Section 7(2) for Total Suspended Solids (TSS), Oil and Grease, Phenolics (4AAP) and pH at the McCarthy Pond. Additional water quality sampling is required under Section 7(3) at a semi-annual frequency at all three locations, recognizing that, as of April 24, 2014 this monitoring was reduced from weekly sampling frequency to a semi-annual frequency following one year of quarry operation according to Section 7(7). The parameters required for semi-annual water quality monitoring at all three locations are listed in Table 3 of the ECA. Monthly acute lethality is also required at the McCarthy Pond under Section 8.

As per Section 7(8) an inline flow meter is installed in the discharge line of the sump pump in order to measure continuous flow rates. The flow rates are recorded and provided to Golder by staff at McCarthy Quarry.

The weekly effluent samples (Section 7(2)) were collected by staff at the McCarthy Quarry. The weekly water quality samples were sent to Maxxam Analytics Laboratory for analysis. The semi-annual water quality samples (Section 7(3) and Section 7(7)) are collected by Golder; the next semi-annual monitoring round will occur in May of 2016. Additionally, the monthly lethality samples were collected by Golder and sent to AGAT Laboratories Ltd.

There was no discharge from the McCarthy Pond on the weeks of December 21 to 28, 2015; December 29, 2015 to January 1, 2016; January 11 to 15, 2016; January 18 to 22, 2016 and January 25 to 29, 2016 and therefore the weekly water quality sample was not collected. In addition, during both the January monthly Site visit, the McCarthy Pond was frozen and there was no discharge, therefore a lethality sample was not collected.

4.0 EFFLUENT MONITORING RESULTS

Results of the weekly effluent monitoring are presented in Table 1; the monthly averages for the effluent monitoring are presented in Table 2 and the acute lethality results are presented in Table 3. All laboratory certificates of analysis for the November 2015 to February 2016 monitoring period are included in Appendix B.

An exceedance of TSS occurred on November 5, 2015 at the McCarthy Pond location (Table 1) where the TSS concentration of 46 mg/L exceeded the daily concentration limit of 30 mg/L; however, the monthly average TSS concentration in November 2015 (14.25 mg/L) was less than the TSS limit of 15 mg/L. This exceedance was reported to the Ministry of the Environment and Climate Change (MOECC) Barrie District Manager, Cindy Hood. The pH, Oil and Grease and Phenol (4AAP) concentrations were all below the daily and monthly concentration limits of the ECA.

Coco and Golder staff noted the water levels throughout the summer and fall of 2015 were very low, making it difficult to take an accurate sample with the laboratory supplied 500 mL sample bottle. During extreme low flow conditions it is difficult to sample the discharge from the pond. The pond discharge is directed through the rip-rap to limit erosion during high flow conditions, but during low flow conditions water from the pond trickles through the rip-rap slowly and the only place to sample the water is near the confluence of the ditch and the pond outflow. The water level in the drainage ditch is so low that bottom sediment is disturbed entrained in the sample bottle resulting in high TSS concentrations. All samples taken after November 12, 2015, when the water levels were higher, are well below the daily TSS limit of 30 mg/L.

The effluent between November 2015 and February 2016 was found to be non-lethal to rainbow trout and Daphnia magna (Table 4).

The rate and volume of discharge from the quarry is measured on-Site by an inline flow meter in the discharge line from the quarry sump. The pump records are provided by McCarthy Quarry staff. The pump records for November 2015 to February 2016 are found in Table 6. The discharge rate between August and November, 2015 was below the permitted rate of 4,545 L/min (76 L/sec).

5.0 SUMMARY AND RECOMMENDATIONS

All samples with the exception of the sample taken on November 5, 2015 met the daily concentration limits of the ECA No. 4731-987KM8. The pH of the effluent was maintained between 6.0 and 9.5 and the effluent was non-lethal to rainbow trout and Daphnia magna at all times.

Report Signature Page

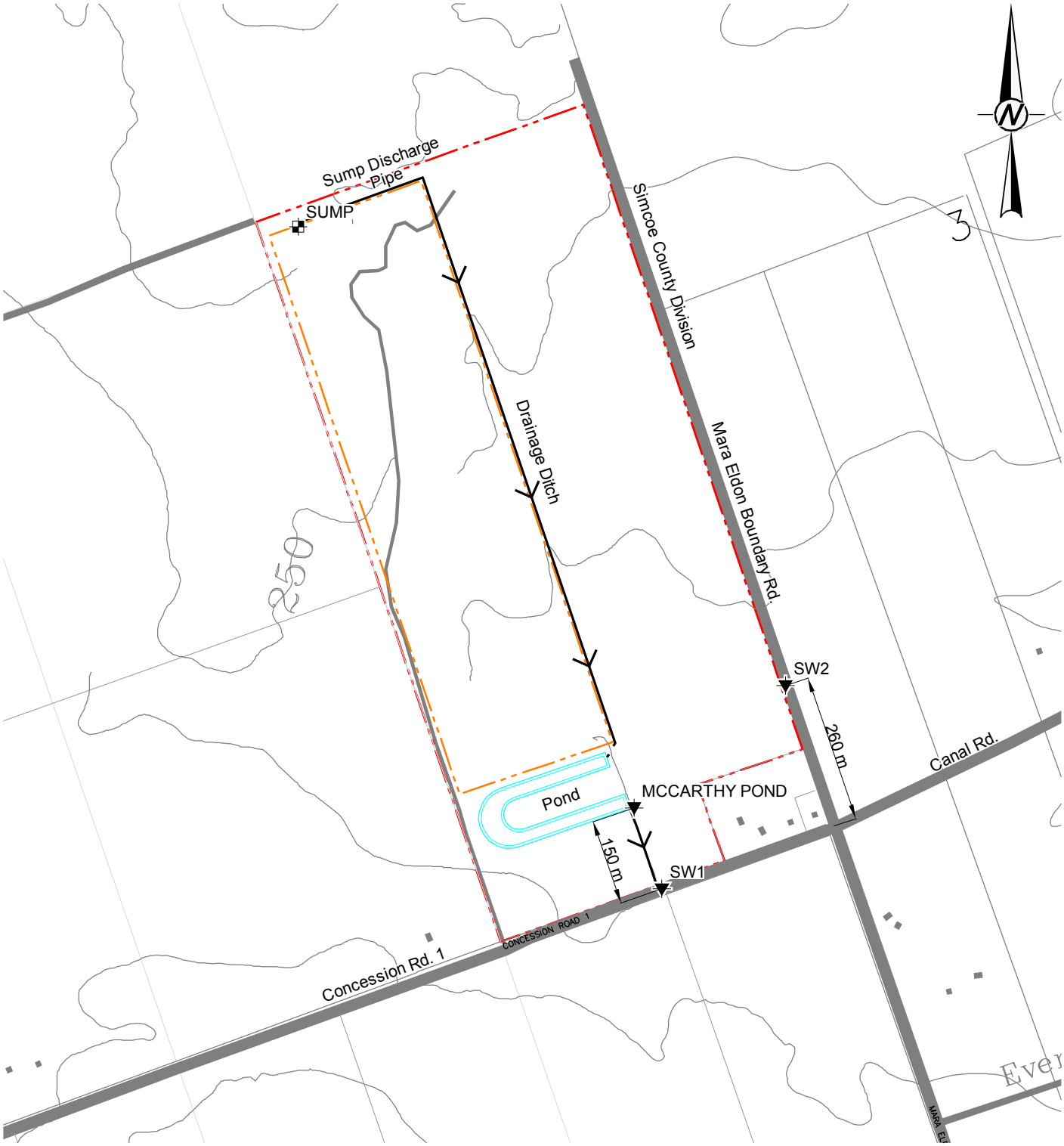
GOLDER ASSOCIATES LTD.

Jamie Bonany, M.A.Sc.
Project Scientist

John Easton, M.Sc., P.Geo.
Associate Senior Hydrogeologist

JEB/JAE/plc

FIGURE



LEGEND

- Approximate Property Boundary
- Approximate Licenced Boundary
- 5 m Contour Line
- Surface Water Sampling Location

REFERENCES AND NOTES

1. Projection UTM NAD83 Zone 17
2. Mapping based on ESRI Geography Network OBM Features and Bing Orthophotos

0 200 400 600 m

1:10000

CLIENT
COCO / QBJR AGGREGATES INC.

PROJECT
STAN MCCARTHY QUARRY

TITLE
LOCATION MAP

CONSULTANT
Golder Associates

YYYY-MM-DD	2014-09-02
PREPARED	STB
DESIGN	
REVIEW	
APPROVED	

PROJECT No.	SCALE	Rev.	Figure
14-07634	AS SHOWN	AB	1

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TABLES

Table 1: McCarthy Pond Weekly Water Quality Results (November 2015 to February 2016)

	Unit	Reportable Detection Limit (RDL)	PWQO [1]	Daily Concentration Limit[2]	McCarthy Quarry							
Sample ID					**Pond**							
Date					5-Nov-15	12-Nov-15	20-Nov-15	26-Nov-15	3-Dec-15	10-Dec-15	17-Dec-15	7-Jan-16
pH	pH	n/a		6.0-9.5	8.13	8.12	8.15	8.08	8.07	8.11	8.12	7.90
Total Suspended Solids	mg/L	1		30	**46**	3	5	3	3	3	4	2
Total Oil and Grease	mg/L	0.5	Note 3	30	<0.5	1.7	1.8	1.6	0.60	<0.5	<0.5	<0.5
Phenols (4AAP)	mg/L	<0.0010		0.04	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0027	<0.001

Notes

1. Provincial Water Quality Objectives (PWQO); shaded cells denote PWQO exceedance; some PWQOs are dependent on other water quality parameters hence the range in guideline values, refer to PWQO notes.
2. Daily Concentration Limit; bolded values denote exceedances in the Permit to Take Waters daily concentration limits.
3. The PWQO for Oil and Grease indicates that oil or petrochemicals should not be present in concentrations that: can be detected as a visible film, sheen or discolouration on the surface, can be detected by odour, can cause tainting of edible organisms, can form detectable deposits on shorelines and bottom sediments.
4. Results that are preceeded by "<" denote concentrations that are below the laboratory Reportable Detection Limit (RDL).

Table 2: McCarthy Pond Monthly Water Quality Results (November 2015 to February 2016)

	Unit	Reportable Detection Limit (RDL)	PWQO [1]	Monthly Concentration Limit[2]	McCarthy Quarry		
Sample ID					**Pond**		
Date					November	December	January
Total Suspended Solids	mg/L	1		15	14.25	3.33	2.00
Total Oil and Grease	mg/L	0.5	Note 3	15	1.40	0.53	<0.5
Phenols (4AAP)	mg/L	<0.0010		0.02	<0.001	0.0016	<0.001

Notes

1. Provincial Water Quality Objectives (PWQO); shaded cells denote PWQO exceedance; some PWQOs are dependent on other water quality parameters hence the range in guideline values, refer to PWQO notes.
2. Monthyl Concentration Limit; bolded values denote exceedances in the Permit to Take Waters monthly concentration limits.
3. The PWQO for Oil and Grease indicates that oil or petrochemicals should not be present in concentrations that: can be detected as a visible film, sheen or discolouration on the surface, can be detected by odour, can cause tainting of edible organisms, can form detectable deposits on shorelines and bottom sediments.
4. Results that are preceeded by "<" denote concentrations that are below the laboratory Reportable Detection Limit (RDL).

Table 3: Lethality Monitoring at McCarthy Pond

	Unit	Mortality Limit	McCarthy Quarry	
Sample ID			**Pond**	
Date			**20-Nov-15**	**21-Dec-15**
Daphnia Magna	% Mortality Rate*	<50%	0	0
Rainbow Trout	% Mortality Rate*	<50%	0	0

* Test results represent accute lethality (100% effluent) of toxicants to Daphnia Magna and Rainbow Trout

Table 4: Measured Water Volume and Rate of Discharge from Quarry Sump

Date	Start	Stop	Total Sec.	Total Min.	Total Litres	Rate of Taking (L/sec)	Rate of Taking (L/min)
ECA Permitted Rate					**6,550,000**	**76**	**4,545**
1-Nov-15	NO PUMP		0	0	-	-	-
2-Nov-15	7AM	2PM	25200	420	882,000	35	2,100
3-Nov-15	7AM	2PM	25200	420	882,000	35	2,100
4-Nov-15	7AM	2PM	25200	420	882,000	35	2,100
5-Nov-15	NO PUMP		0	0	-	-	-
6-Nov-15	NO PUMP		0	0	-	-	-
7-Nov-15	NO PUMP		0	0	-	-	-
8-Nov-15	7AM	3PM	28800	480	1,008,000	35	2,100
9-Nov-15	7AM	3PM	28800	480	1,008,000	35	2,100
10-Nov-15	7AM	3PM	28800	480	1,008,000	35	2,100
11-Nov-15	7AM	2PM	25200	420	882,000	35	2,100
12-Nov-15	7AM	3PM	28800	480	1,008,000	35	2,100
13-Nov-15	7AM	3PM	28800	480	1,008,000	35	2,100
14-Nov-15	NO PUMP		0	0	-	-	-
15-Nov-15	NO PUMP		0	0	-	-	-
16-Nov-15	7AM	3PM	28800	480	1,008,000	35	2,100
17-Nov-15	7AM	3PM	28800	480	1,008,000	35	2,100
18-Nov-15	7AM	3PM	28800	480	1,008,000	35	2,100
19-Nov-15	7AM	3PM	28800	480	1,008,000	35	2,100
20-Nov-15	7AM	2PM	25200	420	882,000	35	2,100
21-Nov-15	NO PUMP		0	0	-	-	-
22-Nov-15	NO PUMP		0	0	-	-	-
23-Nov-15	8AM	4PM	28800	480	1,008,000	35	2,100
24-Nov-15	8AM	4PM	28800	480	1,008,000	35	2,100
25-Nov-15	8AM	4PM	28800	480	1,008,000	35	2,100
26-Nov-15	7AM	3PM	28800	480	1,008,000	35	2,100
27-Nov-15	7AM	2PM	25200	420	882,000	35	2,100
28-Nov-15	NO PUMP		0	0	-	-	-
29-Nov-15	NO PUMP		0	0	-	-	-
30-Nov-15	NO PUMP		0	0	-	-	-
1-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
2-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
3-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
4-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
5-Dec-15	NO PUMP		0	0	-	-	-
6-Dec-15	NO PUMP		0	0	-	-	-
7-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
8-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100

Table 4: Measured Water Volume and Rate of Discharge from Quarry Sump

Date	Start	Stop	Total Sec.	Total Min.	Total Litres	Rate of Taking (L/sec)	Rate of Taking (L/min)
ECA Permitted Rate					**6,550,000**	**76**	**4,545**
9-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
10-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
11-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
12-Dec-15	NO PUMP		0	0	-	-	-
13-Dec-15	NO PUMP		0	0	-	-	-
14-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
15-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
16-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
17-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
18-Dec-15	NO PUMP		0	0	-	-	-
19-Dec-15	NO PUMP		0	0	-	-	-
20-Dec-15	NO PUMP		0	0	-	-	-
21-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
22-Dec-15	7AM	3PM	28800	480	1,008,000	35	2,100
23-Dec-15	7AM	12PM	18000	300	630,000	35	2,100
24-Dec-15	NO PUMP		0	0	-	-	-
25-Dec-15	NO PUMP		0	0	-	-	-
26-Dec-15	NO PUMP		0	0	-	-	-
27-Dec-15	8AM	12PM	14400	240	504,000	35	2,100
28-Dec-15	NO PUMP		0	0	-	-	-
29-Dec-15	NO PUMP		0	0	-	-	-
30-Dec-15	8AM	12PM	14400	240	504,000	35	2,100
31-Dec-15	NO PUMP		0	0	-	-	-
1-Jan-16	NO PUMP		0	0	-	-	-
2-Jan-16	NO PUMP		0	0	-	-	-
3-Jan-16	NO PUMP		0	0	-	-	-
4-Jan-16	7AM	3PM	28800	480	1,008,000	35	2,100
5-Jan-16	7AM	3PM	28800	480	1,008,000	35	2,100
6-Jan-16	7AM	3PM	28800	480	1,008,000	35	2,100
7-Jan-16	7AM	3PM	28800	480	1,008,000	35	2,100
8-Jan-16	7AM	3PM	28800	480	1,008,000	35	2,100
9-Jan-16	NO PUMP		0	0	-	-	-
10-Jan-16	NO PUMP		0	0	-	-	-
11-Jan-16	7AM	12PM	18000	300	630,000	35	2,100
12-Jan-16	7AM	12PM	18000	300	630,000	35	2,100
13-Jan-16	7AM	12PM	18000	300	630,000	35	2,100
14-Jan-16	7AM	12PM	18000	300	630,000	35	2,100

Table 4: Measured Water Volume and Rate of Discharge from Quarry Sump

Date	Start	Stop	Total Sec.	Total Min.	Total Litres	Rate of Taking (L/sec)	Rate of Taking (L/min)
ECA Permitted Rate					**6,550,000**	**76**	**4,545**
15-Jan-16	NO PUMP		0	0	-	-	-
16-Jan-16	NO PUMP		0	0	-	-	-
17-Jan-16	NO PUMP		0	0	-	-	-
18-Jan-16	NO PUMP		0	0	-	-	-
19-Jan-16	7AM	12PM	18000	300	630,000	35	2,100
20-Jan-16	7AM	2PM	25200	420	882,000	35	2,100
21-Jan-16	7AM	12PM	18000	300	630,000	35	2,100
22-Jan-16	NO PUMP		0	0	-	-	-
23-Jan-16	NO PUMP		0	0	-	-	-
24-Jan-16	NO PUMP		0	0	-	-	-
25-Jan-16	NO PUMP		0	0	-	-	-
26-Jan-16	7AM	12PM	18000	300	630,000	35	2,100
27-Jan-16	7AM	12PM	18000	300	630,000	35	2,100
28-Jan-16	7AM	12PM	18000	300	630,000	35	2,100
29-Jan-16	7AM	12PM	18000	300	630,000	35	2,100
30-Jan-16	NO PUMP		0	0	-	-	-
31-Jan-16	NO PUMP		0	0	-	-	-

APPENDIX A

Environmental Compliance Approval No. 4731-987KM8

- AKossi
- GQ.

Ontario

Ministry of the Environment
Ministère de l'Environnement

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 4731-987KM8
Issue Date: October 15, 2013

QBJR Aggregates Inc.
949 Wilson Ave
Toronto, Ontario, M3K 1G2

Site Location: McCarthy Quarry
Lot 1, Concession 1, Original Township of Mara
Lot 1, Concession 1
Ramara Township, County of Simcoe, L0K 1B0

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

a sewage works for the collection, transmission, treatment and disposal of quarry water effluent from an aggregate quarry consisting of the following:

- one (1) sump, measuring 20 metres long, 10 metres wide and 3 metres deep, located at the base of the quarry floor, equipped with two (2) submersible pumps each rated at 38 litres per second with a suction intake approximately one (1) metre above the bottom of the sump, discharging to a settling pond via a 203 millimetre diameter pipeline;

- one (1) horse-shoe shaped settling pond with an approximate volume of 14,000 cubic metres (at elevation 248.2 metres), with a Hickenbottom control structure equipped with a 150 millimetre diameter orifice plate, discharging to the roadside ditch along Concession Road 1 with ultimate discharge to the Talbot River via a private ditch;

- all other controls, electrical equipment, instrumentation, piping, pumps, valves and appurtenances essential for the proper operation of the aforementioned sewage works;

all in accordance with supporting documents listed in **Schedule A**.

For the purpose of this environmental compliance approval, the following definitions apply:

"Approval" means this entire document and any schedules attached to it, and the application;

"Director" means a person appointed by the Minister pursuant to section 5 of the *EPA* for the purposes of Part II.1 of the *EPA;*

"District Manager" means the District Manager of the Barrie District Office of the Ministry;

"EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;

"Ministry" means the ministry of the government of Ontario responsible for the *EPA* and *OWRA* and includes all officials, employees or other persons acting on its behalf;

"Owner" means QBJR Aggregates Inc.and its successors and assignees;

"*OWRA* " means the Ontario Water Resources Act, R.S.O. 1990, c. O.40, as amended;

"Quarterly" means all or part of a period of three consecutive months beginning on the first day of January, April, July or October;

"Semi-annually" means all or part of a period of six months beginning on the first day of January or July;

"Weekly" means a period of seven days, starting on Sunday and ending on Saturday; and

"Works" means the sewage works described in the Owner's application, this *Approval* and in the supporting documentation referred to herein, to the extent approved by this *Approval* .

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL CONDITION

(1) Except as otherwise provided by these Conditions, the *Owner* shall design, build, install, operate and maintain the *Works* in accordance with the description given in this *Approval* , the application for approval of the *Works* and the submitted supporting documents and plans and specifications as listed in this *Approval* .

(2) Where there is a conflict between a provision of any submitted document referred to in this *Approval* and the Conditions of this *Approval* , the Conditions in this *Approval* shall take precedence, and where there is a conflict between the listed submitted documents, the document bearing the most recent date shall prevail.

2. CHANGE OF OWNER

(1) The *Owner* shall notify the *District Manager* and the *Director* , in writing, of any of the following changes within **seven (7) days** of the change occurring:

(a) change of *Owner* or operating authority, or both;

(b) change of address of *Owner* or operating authority or address of new owner or operating authority;

(c) change of partners where the *Owner* or operating authority is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Partnerships Registration Act* ;

(d) change of name of the corporation where the *Owner* or operator is or at any time becomes a corporation, and a copy of the most current "Initial Notice or Notice of Change" (Form 1, 2 or 3 of O. Reg. 189, R.R.O. 1980, as amended from time to time), filed under the *Corporations Informations Act* shall be included in the notification to the *District Manager* ;

(2) In the event of any change in ownership of the *Works* , the *Owner* shall notify in writing the succeeding owner of the existence of this certificate, and a copy of such notice shall be forwarded to the *District Manager* .

(3) The *Owner* shall ensure that all communications made pursuant to this condition will refer to this Approval's number.

3. CHANGES IN PROCESSES OR PROCESS MATERIALS

The *Owner* shall give written notice to the *District Manager* of any plans to change the processes or process materials in the Owner's enterprise serviced by the *Works* where the change may significantly alter the quantity or quality of the influent to or effluent from the *Works* , and no such changes shall be made unless with the written concurrence or approval of the *District Manager* .

4. OPERATIONS MANUAL

(1) The *Owner* shall prepare an operations manual prior to the commencement of operation of the sewage *Works* , that includes, but not necessarily limited to, the following information:

(a) operating procedures for routine operation of the *Works* ;

(b) inspection programs, including frequency of inspection, for the *Works* and the methods or tests employed to detect when maintenance is necessary;

(c) repair and maintenance programs, including the frequency of repair and maintenance for the *Works* ;

(d) contingency plans and procedures for dealing with potential spill, bypasses and any other abnormal situations and for notifying the *District Manager* ; and

(e) complaint procedures for receiving and responding to public complaints.

(2) The *Owner* shall maintain the operations manual up to date through revisions undertaken from time to time and retain a copy at the location of the sewage works. Upon request, the *Owner* shall make the manual available for inspection and copying by Ministry personnel.

(3) A copy of the operations manual required by subsection (1) shall be provided to the *Director* no later than **three (3) months** prior to the commencement of operation of the sewage works.

5. EFFLUENT LIMITS

(1) The *Owner* shall design, construct and operate the *Works* such that the concentrations of the materials named below as effluent parameters are not exceeded in the effluent from the *Works* .

Table 1 - Effluent Limits

Effluent Parameter	Daily Concentration Limit (mg/L)	Monthly Average Concentration Limit (mg/L)
Column 1	Column 2	Column 3
Total Suspended Solids	30	15
Oil and Grease	30	15
Phenolics (4AAP)	0.04	0.02

(2) pH of the effluent maintained between 6.0 to 9.5, inclusive, at all times.

(3) The *Owner* shall ensure that the quarry water effluent shall be non-lethal to rainbow trout and *Daphnia magna* at all times.

(4) For the purposes of determining compliance with and enforcing subsection (1), exceedance of a daily concentration is deemed to have occurred when any daily single grab sample, analyzed for a parameter named
in Column 1 of Table 1, is greater than the corresponding daily concentration set in Column 2 of Table 1.

(5) For the purposes of determining compliance with and enforcing subsection (1), exceedance of a monthly average concentration is deemed to have occurred when the arithmetic mean concentration of all samples taken in a calendar month, analyzed for a parameter named in Column 1 of Table 1, is greater than the corresponding monthly average concentration set in Column 3 of Table 1.

(6) Non-compliance with respect to pH is deemed to have occurred when any single measurement is outside of the indicated range.

(7) For the purposes of determining compliance with and enforcing subsection (3), the effluent is deemed to be non-lethal if the test results, required pursuant to Condition 8, show mortality for no more than 50 percent of either test organism in each sample of undiluted effluent.

6. EFFLUENT - VISUAL OBSERVATIONS

Notwithstanding any other condition in this *Approval* , the *Owner* shall ensure that the effluent from the *Works* is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen or foam on the receiving waters.

7. EFFLUENT MONITORING AND RECORDING

The *Owner* shall, upon commencement of operation of the sewage works, carry out the following sampling from the final effluent control point (i.e. the outfall of the settling pond which is approximately 150 metres north of Concession 1) at the commencement of effluent discharge and for the duration of the discharge period, as follows:

(1) All samples and measurements taken for the purposes of this *Approval* are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored.

(2) Samples shall be collected and analyzed at the following sampling point, at the sampling frequencies and using the sample type specified for each parameter listed:

Table 2 - Effluent Monitoring - (End of Pipe Discharge Point)

Effluent Parameter	Frequency	Sample Type
Total Suspended Solids	Weekly	Grab
Oil and Grease	Weekly	Grab
Phenolics (4AAP)	Weekly	Grab

(3) The *Owner* shall collect effluent samples at the following locations and analyze for the parameters listed in Table 3 at a frequency of once per week:

(a) Outfall of settling pond approximately 150 metres north of Concession 1(i.e. end of pipe discharge);

(b) Box culvert on Eldon-Ramara Townline approximately 260 metres north of intersection of Ramara Concession 1 and Eldon-Ramara Townline (i.e. upgradient of end of pipe discharge);

(c) 80 centimetre CSP located at Concession 1 Road on McCarthy property (i.e. downgradient of end of pipe discharge).

Table 3 - Effluent and Surface Water Monitoring	
Frequency	Weekly
Sample Type	Grab
Parameters	Total Suspended Solids, Copper, Lead, Nickel, Zinc, Arsenic, Oil and Grease, Phenolics (4AAP), Hardness (as CaCO3), Alkalinity(as CaCO3), Conductivity, pH, Fluoride, Chloride, Nitrate (N), Nitrite (N), Sulphate, Calcium, Magnesium, Sodium, Potassium, Ammonia (N), Dissolved Organic Carbon, Iron, Total Kjeldahl Nitrogen, Phosphorus (Total), Cadmium, Chromium, Manganese, Anion (Sum), Cation (Sum) and Total Dissolved Solids

(4) There shall be at least **four days** between successive sampling.

(5) The methods and protocols for sampling, analysis, and recording shall conform, in order of precedence, to the methods and protocols specified in the following:

(a) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (August 1994), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions;

(b) the publication "Standard Methods for the Examination of Water and Wastewater" (17th edition) as amended from time to time by more recently published editions; and,

(c) in respect of any parameters not mentioned in (a) and (b), the written approval of the *District Manager* , shall be obtained prior to sampling.

(6) The measurement frequencies specified in subsection (2) in respect of any parameter are minimum requirements which may, **after 48 months** of monitoring in accordance with this Condition, be modified by the *District Manager* in writing from time to time.

(7) The measurement frequencies specified in subsection (3) in respect of any parameter shall be changed to semi-annually after one year of quarry operation.

(8) A continuous flow measuring device shall be installed and maintained to measure the flowrate of the effluent from the sewage works, with an accuracy to within plus or minus 15 per cent of the actual flowrate for the entire design range of the flow measuring device and the *Owner* shall measure, record and calculate the flowrate for each effluent stream on each day of sampling.

(9) The *Owner* shall retain for a minimum of **three (3) years** from the date of their creation, all records

and information related to or resulting from the monitoring activities required by this *Approval* .

8. LETHALITY MONITORING

(1) The *Owner* shall perform rainbow trout acute lethality test and *Daphnia magna* acute lethality test at least once a month on the quarry water effluent according to procedures published in Environment Canada publications entitled "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout", dated July 1990 and "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna* ", dated July 1990 and as updated from time to time.

(2) The acute lethality tests shall be carried out on a grab sample as a single concentration test using 100 per cent quarry water effluent.

(3) A minimum of two samples shall be tested for either test animal per each discharge period.

9. RECEIVER INSPECTION

The *Owner* shall, at least once per year, undertake a visual inspection of the downstream ditches for evidence of erosion and/or flooding and shall report the observations in the annual report.

10. REPORTING

(1) One week prior to the start up of the operation of the *Works* , the *Owner* shall notify the *District Manager* (in writing) of the pending start up date.

(2) The *Owner* shall report to the *District Manager* or designate, any exceedance of any parameter specified in Condition 5 orally, forthwith, and in writing within **seven (7) days** of the exceedance.

(3) In addition to the obligations under Part X of the *Environmental Protection Act* , the *Owner* shall, within **10 working days** of the occurrence of any spill, bypass or loss of any product, by product, intermediate product, oils, solvents, waste material or any other polluting substance into the environment, submit a full written report of the occurrence to the *District Manager* describing the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation.

(4) The *Owner* shall submit quarterly reports of the information obtained under Conditions 7 and 8 within **30 days** of the end of each quarter.

(5) The *Owner* shall prepare and submit a performance report to the *District Manager* on an annual basis within **sixty (60) days** following the end of the period being reported upon. The first such report shall cover the first annual period following the commencement of operation of the *Works* and subsequent reports shall be submitted to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:

(a) a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 5, including an overview of the success and adequacy of the sewage works;

(b) a description of any operating problems encountered and corrective actions taken;

(c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the sewage works;

(d) a summary of any effluent quality assurance or control measures undertaken in the reporting period; and

(e) a summary of the calibration and maintenance carried out on all effluent monitoring equipment.

Schedule A

Environmental Compliance Approval (ECA) supporting documents:

1. Application for Approval of Industrial Sewage Works submitted by Thomas S. McCarthy dated July 21, 2001 and revised January 25, 2002;

2. McCarthy Property - Certificate of Approval Application prepared by Dixon Hydrogeology Limited dated July 2001;

3. Revised Permit to Take Water - McCarthy Property prepared by Dixon Hydrogeology Limited dated April 11, 2002;

4. Letter and attachments dated January 25, 2002 from John Easton of Dixon Hydrogeology Limited to Mohamed Dhalla of the Ministry of the Environment;

5. Letter and attachments dated April 1, 2002 from Dave Hulme of Dave T. Hulme Enterprises Inc. to Stefanos Habtom of the Ministry of the Environment;

6. Letter dated April 10, 2002 from John Easton of Dixon Hydrogeology Limited to Stefanos Habtom of the Ministry of the Environment;

7. Environmental Review Amended Tribunal Decision: 02-214/02-217 and 03-188/03-189, dated May 25, 2006 - Trent Talbot River Property Owners Association, Marchand Lamarre and Jodi McIntosh v. Director, Ministry of the Environment; and

8. Notification of Change of Address/Ownership dated June 29, 2012, MOE Reference Number 3620-8VQPTZ acknowledging change in company address/ownership from Thomas S. McCarty, Rural Route No.1 Brechin, Ontario, L0K 1B0 to QBJR Aggregates Inc., 949 Wilson Ave., Toronto, Ontario, M3K 1G.

1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Director appointed for the purposes of
Part II.1 of the Environmental Protection Act
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 15th day of October, 2013

Edgardo Tovilla
Director
appointed for the purposes of Part II.1 of the
Environmental Protection Act

APPENDIX B

Water Quality Results

Your Project #: 1407634
Site#: McCarthy
Your C.O.C. #: 533889-05-01

Attention:Alicia Kimberley

Golder Associates Ltd
121 Commerce Park Drive
Unit L
Barrie, ON
L4N 8X1

Report Date: 2015/11/13
Report #: R3766087
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B5M8097
Received: 2015/11/06, 09:00

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Animal and Vegetable Oil & Grease	1	N/A	2015/11/12	CAM SOP-00326	EPA1664B m,SM5520B m
Total Oil and Grease	1	2015/11/10	2015/11/12	CAM SOP-00326	EPA1664B m,SM5520A m
pH	1	N/A	2015/11/07	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2015/11/10	CAM SOP-00444	OMOE E3179 m
TPH (Heavy Oil) (1)	1	2015/11/10	2015/11/12	CAM SOP-00326	EPA1664B m,SM5520F m
Low Level Total Suspended Solids	1	N/A	2015/11/12	CAM SOP-00428	SM 22 2540D m

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) Note: TPH (Heavy Oil) is equivalent to Mineral / Synthetic Oil & Grease

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Antonella Brasil, Senior Project Manager
Email: ABrasil@maxxam.ca
Phone# (905)817-5817
==========
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B5M8097
Report Date: 2015/11/13

Golder Associates Ltd
Client Project #: 1407634

RESULTS OF ANALYSES OF WATER

Maxxam ID		BHO271		
Sampling Date		2015/11/05 13:30		
COC Number		533889-05-01		
	UNITS	**533889 POND**	**RDL**	**QC Batch**
Calculated Parameters				
Total Animal/Vegetable Oil and Grease	mg/L	ND	0.50	4261663
Inorganics				
pH	pH	8.13	N/A	4263612
Phenols-4AAP	mg/L	ND	0.0010	4263601
Total Suspended Solids	mg/L	46	1	4263352
Petroleum Hydrocarbons				
Total Oil & Grease	mg/L	ND	0.50	4266514
Total Oil & Grease Mineral/Synthetic	mg/L	ND	0.50	4266516

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
ND = Not detected
N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

GENERAL COMMENTS

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

Package 1	17.0°C

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5M8097
Report Date: 2015/11/13

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1407634

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4263352	Total Suspended Solids	2015/11/12					ND,RDL=1	mg/L	NC	25	100	85 - 115
4263601	Phenols-4AAP	2015/11/10	93	80 - 120	99	85 - 115	ND, RDL=0.0010	mg/L	NC	20		
4263612	pH	2015/11/07			101	98 - 103			1.1	N/A		
4266514	Total Oil & Grease	2015/11/12			95	85 - 115	ND, RDL=0.50	mg/L	1.3	25		
4266516	Total Oil & Grease Mineral/Synthetic	2015/11/12			95	85 - 115	ND, RDL=0.50	mg/L	1.1	25		

N/A = Not Applicable

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.

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 (one or both samples < 5x RDL).

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Maxxam Job #: B5M8097
Report Date: 2015/11/13

Golder Associates Ltd
Client Project #: 1407634

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere

Cristina Carriere, Scientific Services

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Maxxam — Maxxam Analytics International Corporation o/a Maxxam Analytics 5740 Campobello Road Mississauga Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-Free (800) 563-6266 Fax (905) 817-5777 www.maxxam.ca

IMMEDIATE TEST

CHAIN OF CUSTODY RECORD

Page of

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#26238 Coco Paving Inc	Company Name:		Quotation #:	B47292	Maxxam Job #:	Bottle Order #: 533889
Attention:	Anthony Rossi/Dave Sanders	Attention:	Dawn Hoyle	P.O. #:			
Address:	949 Wilson Ave Toronto ON M3K 1G2	Address:		Project:	1407634	COC #: C#533889-05-01	Project Manager: Hongmei Zhao (Grace)
Tel:	(416) 570-7052 x Fax:	Tel:	Fax:	Project Name:			
Email:	ARossi@cocogroup.com;DSanders@cocogroup.com	Email:	Dawn_Hoyle@golder.com	Site #:	McCarthy		
				Sampled By:	Daryl Landry		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): ☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___

Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? ___

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Oil & Grease - A/V/M/T	pH	Phenols (4AAP)	Low Level Total Suspended Solids	pH					# of Bottles	Comments
1	533889	POND	11/05/15	130pm	S/W	N/A	✓	✓	✓	✓	✓						
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

06-Nov-15 09:00
Hongmei Zhao (Grace)
B5M8097
MK3 ENV-857

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
T. CRONK	15/11/05	200pm	Aliso Vahalitt Aliso VAHALITT	2015/11/06	09:00	
Teresa Cronk	15/11/05	200pm				

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No
	17/17/17	Present	✓	
	No Ice	Intact	✓	

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Your Project #: 1407634
Site#: 1407634
Site Location: McCarthy
Your C.O.C. #: 527064-05-01

Attention:Dawn Hoyle

Golder Associates Ltd
121 Commerce Park Drive
Unit L
Barrie, ON
L4N 8X1

Report Date: 2015/11/17
Report #: R3770755
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B5N3230
Received: 2015/11/13, 09:30

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Animal and Vegetable Oil & Grease	1	N/A	2015/11/16	CAM SOP-00326	EPA1664B m,SM5520B m
Total Oil and Grease	1	2015/11/16	2015/11/16	CAM SOP-00326	EPA1664B m,SM5520A m
pH	1	N/A	2015/11/14	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2015/11/16	CAM SOP-00444	OMOE E3179 m
TPH (Heavy Oil) (1)	1	2015/11/16	2015/11/16	CAM SOP-00326	EPA1664B m,SM5520F m
Low Level Total Suspended Solids	1	N/A	2015/11/16	CAM SOP-00428	SM 22 2540D m

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) Note: TPH (Heavy Oil) is equivalent to Mineral / Synthetic Oil & Grease

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Antonella Brasil, Senior Project Manager
Email: ABrasil@maxxam.ca
Phone# (905)817-5817
==========
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Maxxam Job #: B5N3230
Report Date: 2015/11/17

Golder Associates Ltd
Client Project #: 1407634
Site Location: McCarthy
Sampler Initials: BC

RESULTS OF ANALYSES OF WATER

Maxxam ID		BIP293		
Sampling Date		2015/11/12 13:00		
COC Number		527064-05-01		
	UNITS	**POND**	**RDL**	**QC Batch**
Calculated Parameters				
Total Animal/Vegetable Oil and Grease	mg/L	1.7	0.50	4270874
Inorganics				
pH	pH	8.13	N/A	4272318
Phenols-4AAP	mg/L	ND	0.0010	4272221
Total Suspended Solids	mg/L	3	1	4272305
Petroleum Hydrocarbons				
Total Oil & Grease	mg/L	1.7	0.50	4273392
Total Oil & Grease Mineral/Synthetic	mg/L	ND	0.50	4273393

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
ND = Not detected

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Maxxam Job #: B5N3230
Report Date: 2015/11/17

Golder Associates Ltd
Client Project #: 1407634
Site Location: McCarthy
Sampler Initials: BC

GENERAL COMMENTS

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

Package 1	13.0°C

Samples received with temp >10 C and analyses conducted with client's consent.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5N3230
Report Date: 2015/11/17

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1407634
Site Location: McCarthy
Sampler Initials: BC

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4272221	Phenols-4AAP	2015/11/16	99	80 - 120	99	85 - 115	ND, RDL=0.0010	mg/L	NC	20		
4272305	Total Suspended Solids	2015/11/16					ND,RDL=1	mg/L	NC	25	99	85 - 115
4272318	pH	2015/11/14			101	98 - 103			0.97	N/A		
4273392	Total Oil & Grease	2015/11/16			101	85 - 115	ND, RDL=0.50	mg/L	3.3	25		
4273393	Total Oil & Grease Mineral/Synthetic	2015/11/16			94	85 - 115	ND, RDL=0.50	mg/L	1.1	25		

N/A = Not Applicable

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.

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 (one or both samples < 5x RDL).

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Maxxam Job #: B5N3230
Report Date: 2015/11/17

Golder Associates Ltd
Client Project #: 1407634
Site Location: McCarthy
Sampler Initials: BC

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Brad Newman, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-Free:(800) 563-6266 Fax:(905) 817-5777 www.maxxam.ca

IMMEDIATE TEST

CHAIN OF CUSTODY RECORD

Page of

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#26238 Coco Paving Inc	Company Name:		Quotation #:	B47292
Attention:	Anthony Rossi/Dave Sanders	Attention:	Dawn Hoyle	P.O. #:	
Address:	949 Wilson Ave	Address:		Project:	1407634
	Toronto ON M3K 1G2			Project Name:	
Tel:	(416) 570-7052 x Fax:	Tel:	Fax:	Site #:	McCarthy
Email:	ARossi@cocogroup.com;DSanders@cocogroup.com	Email:	Dawn_Hoyle@golder.com	Sampled By:	Boyd Cronk

Laboratory Use Only:

Maxxam Job #:	Bottle Order #:
	527064
COC #:	Project Manager:
C#527064-05-01	Hongmei Zhao (Grace)

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)			Other Regulations		Special Instructions
☐ Table 1	☐ Res/Park	☐ Medium/Fine	☐ CCME	☐ Sanitary Sewer Bylaw	
☐ Table 2	☐ Ind/Comm	☐ Coarse	☐ Reg 558.	☐ Storm Sewer Bylaw	
☐ Table 3	☐ Agri/Other	☐ For RSC	☐ MISA	Municipality ______	
☐ Table ___			☐ PWQO		
			☐ Other ______		

Include Criteria on Certificate of Analysis (Y/N)? ______

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Low Level Total Suspended Solids	Oil & Grease - A/V/M/T	Phenols (4AAP)	pH	TP							# of Bottles	Comments
1	527064	POND	11/12/15	100pm	S/W	W/A	✓	✓	✓	✓	✓								
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests..
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ______ Time Required: ______ ☐
Rush Confirmation Number: ______ *(call lab for #)*

13-Nov-15 09:30
Hongmei Zhao (Grace)
B5N3230
HGR ENV-803

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
T. Cronk	15/11/12	200pm	Alex Vandulets 2ST ALEX VANDULETS	2015/11/13	09:30	
Teresa Cronk	15/11/12	200pm				

Laboratory Use Only

Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No
	13/13/13 No Ice	Present	✓	
		Intact	✓	

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam
A Bureau Veritas Group Company

Your Project #: 1407634
Site#: 1407634
Site Location: MCCARTHY
Your C.O.C. #: 533889-06-01

Attention:John Easton

Golder Associates Ltd
121 Commerce Park Drive
Unit L
Barrie, ON
L4N 8X1

Report Date: 2015/11/26
Report #: R3782906
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B5N9170
Received: 2015/11/20, 16:00

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Animal and Vegetable Oil & Grease	1	N/A	2015/11/25	CAM SOP-00326	EPA1664B m,SM5520B m
Total Oil and Grease	1	2015/11/25	2015/11/25	CAM SOP-00326	EPA1664B m,SM5520A m
pH	1	N/A	2015/11/25	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2015/11/24	CAM SOP-00444	OMOE E3179 m
TPH (Heavy Oil) (1)	1	2015/11/25	2015/11/25	CAM SOP-00326	EPA1664B m,SM5520F m
Low Level Total Suspended Solids	1	N/A	2015/11/23	CAM SOP-00428	SM 22 2540D m

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) Note: TPH (Heavy Oil) is equivalent to Mineral / Synthetic Oil & Grease

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Antonella Brasil, Senior Project Manager
Email: ABrasil@maxxam.ca
Phone# (905)817-5817
==========
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Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5N9170
Report Date: 2015/11/26

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: SG

RESULTS OF ANALYSES OF WATER

Maxxam ID		BJV387	BJV387		
Sampling Date		2015/11/20 09:00	2015/11/20 09:00		
COC Number		533889-06-01	533889-06-01		
	UNITS	527064 POND	527064 POND Lab-Dup	RDL	QC Batch
Calculated Parameters					
Total Animal/Vegetable Oil and Grease	mg/L	1.8		0.50	4281058
Inorganics					
pH	pH	8.15		N/A	4285793
Phenols-4AAP	mg/L	ND		0.0010	4281971
Total Suspended Solids	mg/L	5	4	1	4283112
Petroleum Hydrocarbons					
Total Oil & Grease	mg/L	1.8		0.50	4285578
Total Oil & Grease Mineral/Synthetic	mg/L	ND		0.50	4285579

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5N9170
Report Date: 2015/11/26

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: SG

GENERAL COMMENTS

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

Package 1	8.7°C

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5N9170
Report Date: 2015/11/26

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: SG

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4281971	Phenols-4AAP	2015/11/24	103	80 - 120	99	85 - 115	ND, RDL=0.0010	mg/L	NC	20		
4283112	Total Suspended Solids	2015/11/23					ND,RDL=1	mg/L	NC	25	99	85 - 115
4285578	Total Oil & Grease	2015/11/25	96	75 - 125	97	85 - 115	ND, RDL=0.50	mg/L	3.5	25		
4285579	Total Oil & Grease Mineral/Synthetic	2015/11/25			92	85 - 115	ND, RDL=0.50	mg/L	1.6	25		
4285793	pH	2015/11/25			102	98 - 103			0.51	N/A		

N/A = Not Applicable

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.

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 (one or both samples < 5x RDL).

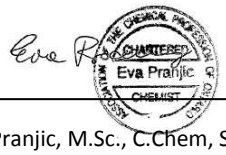
Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5N9170
Report Date: 2015/11/26

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: SG

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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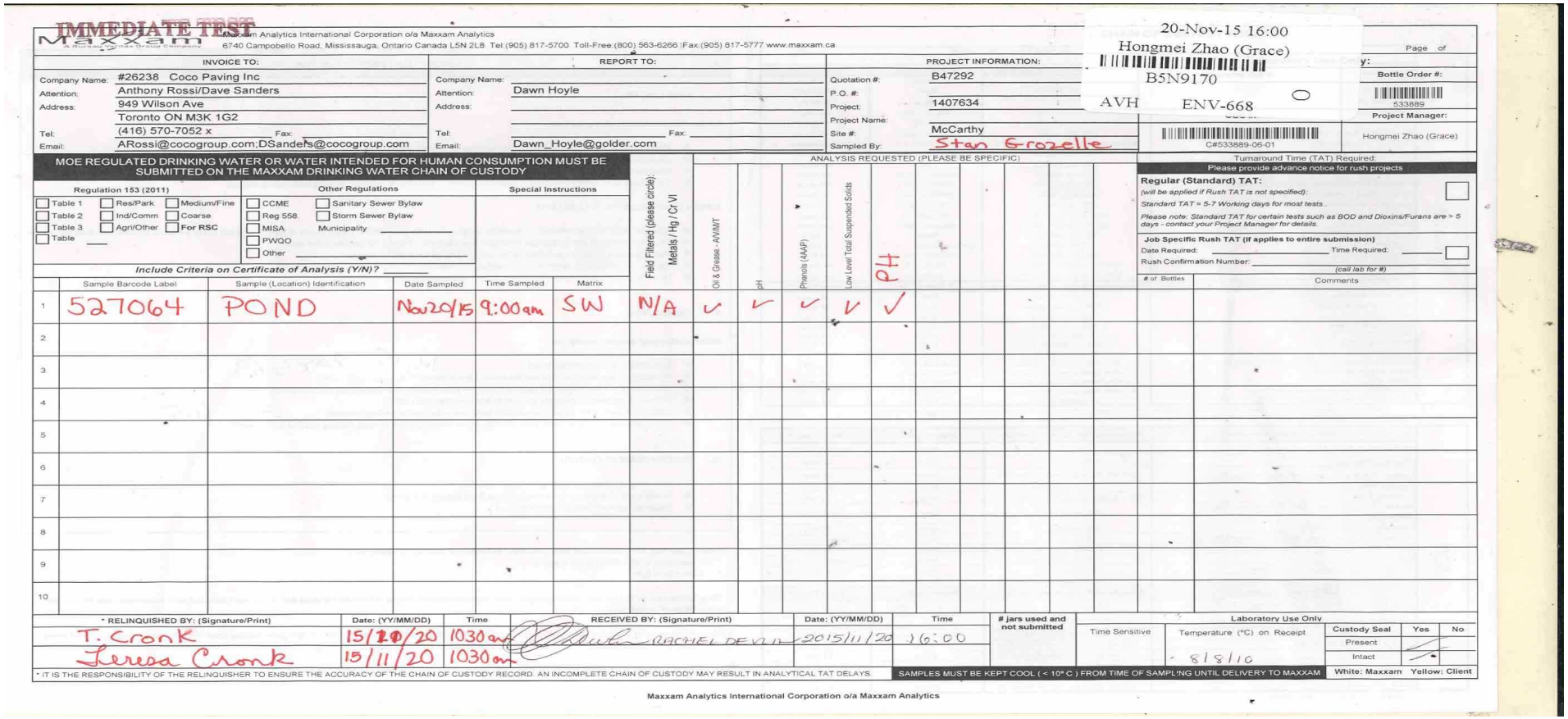

IMMEDIATE TEST

Maxxam

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-Free:(800) 563-6266 Fax:(905) 817-5777 www.maxxam.ca

20-Nov-15 16:00
Hongmei Zhao (Grace)
B5N9170
AVH ENV-668

Page of

INVOICE TO:
Company Name: #26238 Coco Paving Inc
Attention: Anthony Rossi/Dave Sanders
Address: 949 Wilson Ave, Toronto ON M3K 1G2
Tel: (416) 570-7052 x Fax:
Email: ARossi@cocogroup.com;DSanders@cocogroup.com

REPORT TO:
Company Name:
Attention: Dawn Hoyle
Address:
Tel: Fax:
Email: Dawn_Hoyle@golder.com

PROJECT INFORMATION:
Quotation #: B47292
P.O. #:
Project: 1407634
Project Name:
Site #: McCarthy
Sampled By: Stan Grozelle

Bottle Order #: 533889
Project Manager: Hongmei Zhao (Grace)
C#533889-06-01

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): ☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___

Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ☐ PWQO ☐ Other

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? ___

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects
Regular (Standard) TAT: (will be applied if Rush TAT is not specified): ☐
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.
Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required: ☐
Rush Confirmation Number: (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Oil & Grease - AVIMT	pH	Phenols (4AAP)	Low Level Total Suspended Solids	pH	# of Bottles	Comments
1	527064	POND	Nov20/15	9:00am	SW	N/A	✓	✓	✓	✓	✓		
2													
3													
4													
5													
6													
7													
8													
9													
10													

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
T. Cronk	15/20/20	1030am	RACHEL DEVLIN	2015/11/20	16:00	
Teresa Cronk	15/11/20	1030am				

Laboratory Use Only
Time Sensitive
Temperature (°C) on Receipt: 8 | 8 | 10
Custody Seal: Present ✓ Intact ✓ — Yes / No

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Your Project #: 1407634
Site#: 1407634
Site Location: MCCARTHY
Your C.O.C. #: 533624-02-01

Attention:John Easton

Golder Associates Ltd
121 Commerce Park Drive
Unit L
Barrie, ON
L4N 8X1

Report Date: 2015/12/03
Report #: R3792281
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B5O4302
Received: 2015/11/27, 09:24

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Animal and Vegetable Oil & Grease	1	N/A	2015/11/30	CAM SOP-00326	EPA1664B m,SM5520B m
Total Oil and Grease	1	2015/11/30	2015/11/30	CAM SOP-00326	EPA1664B m,SM5520A m
pH	1	N/A	2015/11/28	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2015/12/01	CAM SOP-00444	OMOE E3179 m
TPH (Heavy Oil) (1)	1	2015/11/30	2015/11/30	CAM SOP-00326	EPA1664B m,SM5520F m
Low Level Total Suspended Solids	1	N/A	2015/12/02	CAM SOP-00428	SM 22 2540D m

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) Note: TPH (Heavy Oil) is equivalent to Mineral / Synthetic Oil & Grease

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Antonella Brasil, Senior Project Manager
Email: ABrasil@maxxam.ca
Phone# (905)817-5817

==========

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Maxxam Job #: B5O4302
Report Date: 2015/12/03

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: TC

RESULTS OF ANALYSES OF WATER

Maxxam ID		BKV039	BKV039		
Sampling Date		2015/11/26 14:00	2015/11/26 14:00		
COC Number		533624-02-01	533624-02-01		
	UNITS	POND	POND Lab-Dup	RDL	QC Batch
Calculated Parameters					
Total Animal/Vegetable Oil and Grease	mg/L	1.6		0.50	4289854
Inorganics					
pH	pH	8.08	8.08	N/A	4291564
Phenols-4AAP	mg/L	ND	ND	0.0010	4291423
Total Suspended Solids	mg/L	3		1	4291623
Petroleum Hydrocarbons					
Total Oil & Grease	mg/L	1.6		0.50	4292338
Total Oil & Grease Mineral/Synthetic	mg/L	ND		0.50	4292341

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5O4302
Report Date: 2015/12/03

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: TC

GENERAL COMMENTS

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

Package 1	14.0°C

Sample received with temp >10 C and analyses conducted with client's consent.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5O4302
Report Date: 2015/12/03

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: TC

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4291423	Phenols-4AAP	2015/12/01	97	80 - 120	97	85 - 115	ND, RDL=0.0010	mg/L	NC	20		
4291564	pH	2015/11/28			102	98 - 103			0.0025	N/A		
4291623	Total Suspended Solids	2015/12/02					ND,RDL=1	mg/L	0	25	97	85 - 115
4292338	Total Oil & Grease	2015/11/30			99	85 - 115	ND, RDL=0.50	mg/L	1.3	25		
4292341	Total Oil & Grease Mineral/Synthetic	2015/11/30			93	85 - 115	ND, RDL=0.50	mg/L	2.7	25		

N/A = Not Applicable

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.

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 (one or both samples < 5x RDL).

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Maxxam Job #: B5O4302
Report Date: 2015/12/03

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: TC

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere

Cristina Carriere, Scientific Services

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Maxxam

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6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-Free (800) 563-6266 Fax (905) 817-5777 www.maxxam.ca

IMMEDIATE TEST

CHAIN OF CUSTODY RECORD

Page of

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#26238 Coco Paving Inc	Company Name:		Quotation #:	B47292	Maxxam Job #:	Bottle Order #: 533624
Attention:	Anthony Rossi/Dave Sanders	Attention:	Dawn Hoyle	P.O. #:			
Address:	949 Wilson Ave Toronto ON M3K 1G2	Address:		Project:	1407634	COC #: C#533624-02-01	Project Manager: Hongmei Zhao (Grace)
Tel:	(416) 570-7052 x Fax:	Tel:	Fax:	Project Name:			
Email:	ARossi@cocogroup.com,DSanders@cocogroup.com	Email:	Dawn_Hoyle@golder.com	Site #:	McCarthy		
				Sampled By:	Daryl Landry		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): ☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___

Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? ___

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	*Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Oil & Grease - A/V/M/T	pH	Phenols (4AAP)	Low Level Total Suspended Solids	TP						# of Bottles	Comments
1	527064	POND	Nov26/15	200pm	SW	N/A	✓	✓	✓	✓	✓							
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

27-Nov-15 09:24
Hongmei Zhao (Grace)
B5O4302
HGR ENV-797

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only			
T. Cronk	15/11/27	230pm	Alexandra Vandas	2015/11/27	09:24		Time Sensitive	Temperature (°C) on Receipt: 14/14/14 No Ice	Custody Seal Present: Yes ✓	No
Teresa Cronk	15/11/27	230pm							Intact: Yes ✓	

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam
A Bureau Veritas Group Company

Your Project #: 1407634
Site#: 1407634
Site Location: MCCARTHY
Your C.O.C. #: 533624-03-01

Attention:Dawn Hoyle/Jamie Bonany

Golder Associates Ltd
121 Commerce Park Drive
Unit L
Barrie, ON
L4N 8X1

Report Date: 2015/12/11
Report #: R3802568
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B5O9565
Received: 2015/12/04, 09:00

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Animal and Vegetable Oil & Grease	1	N/A	2015/12/08	CAM SOP-00326	EPA1664B m,SM5520B m
Total Oil and Grease	1	2015/12/08	2015/12/08	CAM SOP-00326	EPA1664B m,SM5520A m
pH	1	N/A	2015/12/07	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2015/12/08	CAM SOP-00444	OMOE E3179 m
TPH (Heavy Oil) (1)	1	2015/12/08	2015/12/08	CAM SOP-00326	EPA1664B m,SM5520F m
Low Level Total Suspended Solids	1	N/A	2015/12/09	CAM SOP-00428	SM 22 2540D m

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) Note: TPH (Heavy Oil) is equivalent to Mineral / Synthetic Oil & Grease

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Antonella Brasil, Senior Project Manager
Email: ABrasil@maxxam.ca
Phone# (905)817-5817
==========
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Maxxam Job #: B5O9565
Report Date: 2015/12/11

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: DF

RESULTS OF ANALYSES OF WATER

Maxxam ID		BLU817		
Sampling Date		2015/12/03 13:00		
COC Number		533624-03-01		
	UNITS	**POND**	**RDL**	**QC Batch**
Calculated Parameters				
Total Animal/Vegetable Oil and Grease	mg/L	0.60	0.50	4299190
Inorganics				
pH	pH	8.07	N/A	4302319
Phenols-4AAP	mg/L	ND	0.0010	4301725
Total Suspended Solids	mg/L	3	1	4302165
Petroleum Hydrocarbons				
Total Oil & Grease	mg/L	0.60	0.50	4303060
Total Oil & Grease Mineral/Synthetic	mg/L	ND	0.50	4303063

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5O9565
Report Date: 2015/12/11

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: DF

GENERAL COMMENTS

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

Package 1	11.0°C

Sample received with temp >10 C and analyses conducted with client's consent.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5O9565
Report Date: 2015/12/11

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: DF

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4301725	Phenols-4AAP	2015/12/08	99	80 - 120	101	85 - 115	ND, RDL=0.0010	mg/L	NC	20		
4302165	Total Suspended Solids	2015/12/09					ND,RDL=1	mg/L	2.3	25	98	85 - 115
4302319	pH	2015/12/07			101	98 - 103			0.34	N/A		
4303060	Total Oil & Grease	2015/12/08			99	85 - 115	ND, RDL=0.50	mg/L	4.9	25		
4303063	Total Oil & Grease Mineral/Synthetic	2015/12/08			91	85 - 115	ND, RDL=0.50	mg/L	3.8	25		

N/A = Not Applicable

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.

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 (one or both samples < 5x RDL).

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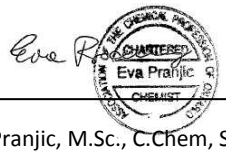
Maxxam Job #: B5O9565
Report Date: 2015/12/11

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: DF

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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6740 Campobello Road, Mississauga, Ontario, Canada L5N 2L8 Tel (905) 817-5700 Toll-Free (800) 563-6266 Fax (905) 817-5777 www.maxxam.ca

IMMEDIATE TAT

CHAIN OF CUSTODY RECORD

Page of

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#26238 Coco Paving Inc	Company Name:		Quotation #:	B47292	Maxxam Job #:	Bottle Order #: 533624
Attention:	Anthony Rossi/Dave Sanders	Attention:	Dawn Hoyle	P.O. #:			
Address:	949 Wilson Ave Toronto ON M3K 1G2	Address:		Project:	1407634	COC #:	Project Manager:
Tel:	(416) 570-7052 x Fax:	Tel:	Fax:	Project Name:	McCarthy	C#533624-03-01	Hongmei Zhao (Grace)
Email:	ARossi@cocogroup.com;DSanders@cocogroup.com	Email:	Dawn_Hoyle@golder.com	Site #:			
				Sampled By:	Daryl Landy		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___	☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? ___

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Oil & Grease - AV/MIT	pH	Phenols (4AAP)	Low Level Total Suspended Solids	1/2					# of Bottles	Comments
1	533624	POND	Dec3/15	1:00pm	SW	N/A	✓	✓	✓	✓							
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

04-Dec-15 09:00
Hongmei Zhao (Grace)
B5O9565
HGR ENV-895

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
T. Cronk	15/12/03	3:00pm	Alexandra Alexandra	2015/12/04	09:00	
Teresa Cronk	15/12/03	3:00pm				

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No
	11/11/11 NoTEMP	Present	✓	
		Intact	✓	

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam
A Bureau Veritas Group Company

Your Project #: 1407634
Site#: 1407634
Site Location: MCCARTHY
Your C.O.C. #: 533624-04-01

Attention:Dawn Hoyle/Jamie Bonany

Golder Associates Ltd
121 Commerce Park Drive
Unit L
Barrie, ON
L4N 8X1

Report Date: 2015/12/16
Report #: R3809376
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B5P5319
Received: 2015/12/11, 08:45

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Animal and Vegetable Oil & Grease	1	N/A	2015/12/15	CAM SOP-00326	EPA1664B m,SM5520B m
Total Oil and Grease	1	2015/12/14	2015/12/15	CAM SOP-00326	EPA1664B m,SM5520A m
pH	1	N/A	2015/12/12	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2015/12/14	CAM SOP-00444	OMOE E3179 m
TPH (Heavy Oil) (1)	1	2015/12/14	2015/12/15	CAM SOP-00326	EPA1664B m,SM5520F m
Low Level Total Suspended Solids	1	N/A	2015/12/15	CAM SOP-00428	SM 22 2540D m

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) Note: TPH (Heavy Oil) is equivalent to Mineral / Synthetic Oil & Grease

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Antonella Brasil, Senior Project Manager
Email: ABrasil@maxxam.ca
Phone# (905)817-5817

==========

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Maxxam Job #: B5P5319
Report Date: 2015/12/16

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: DL

RESULTS OF ANALYSES OF WATER

Maxxam ID		BMX259		
Sampling Date		2015/12/10 13:00		
COC Number		533624-04-01		
	UNITS	**533624-POND**	**RDL**	**QC Batch**
Calculated Parameters				
Total Animal/Vegetable Oil and Grease	mg/L	ND	0.50	4309302
Inorganics				
pH	pH	8.11	N/A	4311088
Phenols-4AAP	mg/L	ND	0.0010	4311199
Total Suspended Solids	mg/L	3	1	4311893
Petroleum Hydrocarbons				
Total Oil & Grease	mg/L	ND	0.50	4312216
Total Oil & Grease Mineral/Synthetic	mg/L	ND	0.50	4312218

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
ND = Not detected
N/A = Not Applicable

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Maxxam Job #: B5P5319
Report Date: 2015/12/16

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: DL

GENERAL COMMENTS

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

Package 1	12.3°C

Sample received with temp >10 C and analyses conducted with client's consent.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5P5319
Report Date: 2015/12/16

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: DL

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4311088	pH	2015/12/14			101	98 - 103			0.22	N/A		
4311199	Phenols-4AAP	2015/12/14	96	80 - 120	97	85 - 115	ND, RDL=0.0010	mg/L	NC	20		
4311893	Total Suspended Solids	2015/12/15					ND,RDL=1	mg/L	NC	25	101	85 - 115
4312216	Total Oil & Grease	2015/12/15			97	85 - 115	ND, RDL=0.50	mg/L	2.9	25		
4312218	Total Oil & Grease Mineral/Synthetic	2015/12/15			93	85 - 115	ND, RDL=0.50	mg/L	1.6	25		

N/A = Not Applicable

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.

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 (one or both samples < 5x RDL).

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Maxxam Job #: B5P5319
Report Date: 2015/12/16

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: DL

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere

Cristina Carriere, Scientific Services

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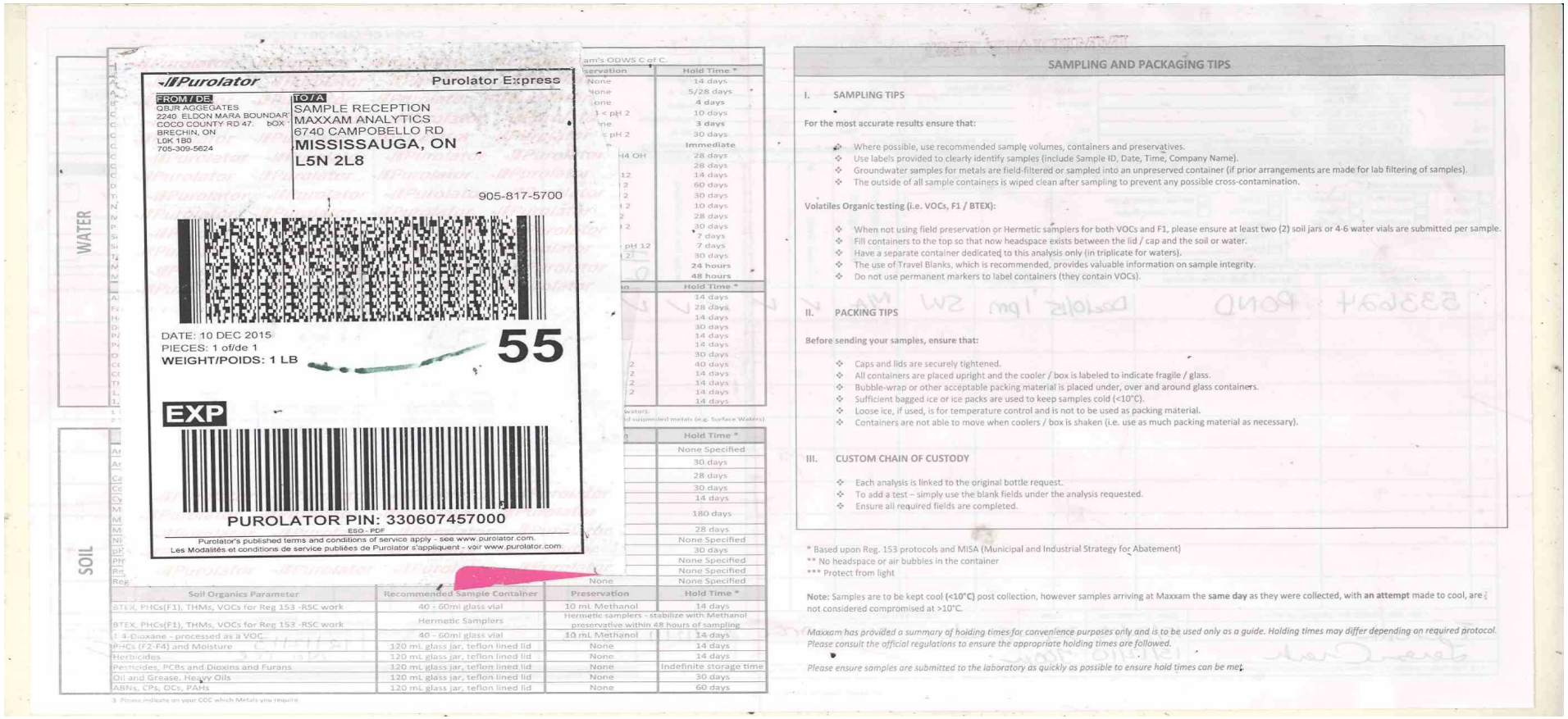

Purolator

Purolator Express

FROM / DE
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2240 ELDON MARA BOUNDAR
COCO COUNTY RD 47. bOX
BRECHIN, ON
L0K 1B0
705-309-5624

TO / A
SAMPLE RECEPTION
MAXXAM ANALYTICS
6740 CAMPOBELLO RD
MISSISSAUGA, ON
L5N 2L8

905-817-5700

DATE: 10 DEC 2015
PIECES: 1 of/de 1
WEIGHT/POIDS: 1 LB

55

EXP

PUROLATOR PIN: 330607457000

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WATER

SOIL

Soil Organics Parameter	Recommended Sample Container	Preservation	Hold Time *
BTEX, PHCs(F1), THMs, VOCs for Reg 153 -RSC work	40 - 60ml glass vial	10 mL Methanol	14 days
BTEX, PHCs(F1), THMs, VOCs for Reg 153 -RSC work	Hermetic Samplers	Hermetic samplers - stabilize with Methanol preservative within 48 hours of sampling	
1,4-Dioxane - processed as a VOC	40 - 60ml glass vial	10 mL Methanol	14 days
PHCs (F2-F4) and Moisture	120 mL glass jar, teflon lined lid	None	14 days
Herbicides	120 mL glass jar, teflon lined lid	None	14 days
Pesticides, PCBs and Dioxins and Furans	120 mL glass jar, teflon lined lid	None	Indefinite storage time
Oil and Grease, Heavy Oils	120 mL glass jar, teflon lined lid	None	30 days
ABNs, CPs, OCs, PAHs	120 mL glass jar, teflon lined lid	None	60 days

3 Please indicate on your COC which Metals you require.

SAMPLING AND PACKAGING TIPS

I. SAMPLING TIPS

For the most accurate results ensure that:

- Where possible, use recommended sample volumes, containers and preservatives.
- Use labels provided to clearly identify samples (include Sample ID, Date, Time, Company Name).
- Groundwater samples for metals are field-filtered or sampled into an unpreserved container (if prior arrangements are made for lab filtering of samples).
- The outside of all sample containers is wiped clean after sampling to prevent any possible cross-contamination.

Volatiles Organic testing (i.e. VOCs, F1 / BTEX):

- When not using field preservation or Hermetic samplers for both VOCs and F1, please ensure at least two (2) soil jars or 4-6 water vials are submitted per sample.
- Fill containers to the top so that now headspace exists between the lid / cap and the soil or water.
- Have a separate container dedicated to this analysis only (in triplicate for waters).
- The use of Travel Blanks, which is recommended, provides valuable information on sample integrity.
- Do not use permanent markers to label containers (they contain VOCs).

II. PACKING TIPS

Before sending your samples, ensure that:

- Caps and lids are securely tightened.
- All containers are placed upright and the cooler / box is labeled to indicate fragile / glass.
- Bubble-wrap or other acceptable packing material is placed under, over and around glass containers.
- Sufficient bagged ice or ice packs are used to keep samples cold (<10°C).
- Loose ice, if used, is for temperature control and is not to be used as packing material.
- Containers are not able to move when coolers / box is shaken (i.e. use as much packing material as necessary).

III. CUSTOM CHAIN OF CUSTODY

- Each analysis is linked to the original bottle request.
- To add a test – simply use the blank fields under the analysis requested.
- Ensure all required fields are completed.

* Based upon Reg. 153 protocols and MISA (Municipal and Industrial Strategy for Abatement)
** No headspace or air bubbles in the container
*** Protect from light

Note: Samples are to be kept cool **(<10°C)** post collection, however samples arriving at Maxxam the **same day** as they were collected, with **an attempt** made to cool, are not considered compromised at >10°C.

Maxxam has provided a summary of holding times for convenience purposes only and is to be used only as a guide. Holding times may differ depending on required protocol. Please consult the official regulations to ensure the appropriate holding times are followed.

Please ensure samples are submitted to the laboratory as quickly as possible to ensure hold times can be met.

Maxxam
A Bureau Veritas Group Company

Your Project #: 1407634
Site#: 1407634
Site Location: MCCARTHY
Your C.O.C. #: 533624-05-01

Attention:Dawn Hoyle/Jamie Bonany

Golder Associates Ltd
121 Commerce Park Drive
Unit L
Barrie, ON
L4N 8X1

Report Date: 2015/12/29
Report #: R3834363
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B5Q1059
Received: 2015/12/18, 08:32

Sample Matrix: SURFACE WATER
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Animal and Vegetable Oil & Grease	1	N/A	2015/12/22	CAM SOP-00326	EPA1664B m,SM5520B m
Total Oil and Grease	1	2015/12/21	2015/12/22	CAM SOP-00326	EPA1664B m,SM5520A m
pH	1	N/A	2015/12/19	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2015/12/23	CAM SOP-00444	OMOE E3179 m
TPH (Heavy Oil) (1)	1	2015/12/21	2015/12/22	CAM SOP-00326	EPA1664B m,SM5520F m
Low Level Total Suspended Solids	1	N/A	2015/12/21	CAM SOP-00428	SM 22 2540D m

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) Note: TPH (Heavy Oil) is equivalent to Mineral / Synthetic Oil & Grease

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Antonella Brasil, Senior Project Manager
Email: ABrasil@maxxam.ca
Phone# (905)817-5817
==========
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Maxxam Job #: B5Q1059
Report Date: 2015/12/29

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: DL

RESULTS OF ANALYSES OF SURFACE WATER

Maxxam ID		BOB314		
Sampling Date		2015/12/17 10:00		
COC Number		533624-05-01		
	UNITS	**POND**	**RDL**	**QC Batch**
Calculated Parameters				
Total Animal/Vegetable Oil and Grease	mg/L	ND	0.50	4320031
Inorganics				
pH	pH	8.12	N/A	4321251
Phenols-4AAP	mg/L	0.0027	0.0010	4323501
Total Suspended Solids	mg/L	4	1	4322164
Petroleum Hydrocarbons				
Total Oil & Grease	mg/L	ND	0.50	4322585
Total Oil & Grease Mineral/Synthetic	mg/L	ND	0.50	4322594

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
ND = Not detected
N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5Q1059
Report Date: 2015/12/29

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: DL

GENERAL COMMENTS

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

Package 1	10.0°C

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5Q1059
Report Date: 2015/12/29

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: DL

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4321251	pH	2015/12/21			101	98 - 103			0.45	N/A		
4322164	Total Suspended Solids	2015/12/21					ND,RDL=1	mg/L	NC	25	98	85 - 115
4322585	Total Oil & Grease	2015/12/22			98	85 - 115	ND, RDL=0.50	mg/L	3.4	25		
4322594	Total Oil & Grease Mineral/Synthetic	2015/12/22			94	85 - 115	ND, RDL=0.50	mg/L	1.6	25		
4323501	Phenols-4AAP	2015/12/23	100	80 - 120	101	85 - 115	ND, RDL=0.0010	mg/L	0.98	20		

N/A = Not Applicable

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.

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 (one or both samples < 5x RDL).

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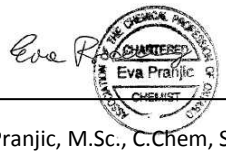
Maxxam Job #: B5Q1059
Report Date: 2015/12/29

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: DL

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

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IMMEDIATE TEST

CHAIN OF CUSTODY RECORD

Page of

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#26238 Coco Paving Inc	Company Name:		Quotation #:	B47292	Maxxam Job #:	Bottle Order #: 533624
Attention:	Anthony Rossi/Dave Sanders	Attention:	Dawn Hoyle	P.O. #:			
Address:	949 Wilson Ave	Address:		Project:	1407634		
	Toronto ON M3K 1G2			Project Name:		COC #: C#533624-05-01	Project Manager: Hongmei Zhao (Grace)
Tel:	(416) 570-7052 x Fax:	Tel:	Fax:	Site #:	McCarthy		
Email:	ARossi@cocogroup.com;DSanders@cocogroup.com	Email:	Dawn_Hoyle@golder.com	Sampled By:	Daryl Landry		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___	☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? ___

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Oil & Grease - AA/MIT	pH	Phenols (4AAP)	Low Level Total Suspended Solids	T/Q					# of Bottles	Comments
1	533624	POND	Dec 17/15	10am	SW	N/A	✓	✓	✓	✓	✓						
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

18-Dec-15 08:32
Hongmei Zhao (Grace)
B5Q1059
HGR ENV-602

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
Teresa Cronk	15/12/17	800pm	[illegible]	2015/12/18	08:32		Time Sensitive	Temperature (°C) on Receipt: 10/10/10	Custody Seal	Yes	No
Teresa Cronk	15/12/17	1pm							Present	✓	
									Intact	✓	

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam
A Bureau Veritas Group Company

Your Project #: 1407634
Site#: 1407634
Site Location: MCCARTHY
Your C.O.C. #: 533624-06-01

Attention:Dawn Hoyle/Jamie Bonany

Golder Associates Ltd
121 Commerce Park Drive
Unit L
Barrie, ON
L4N 8X1

Report Date: 2016/01/14
Report #: R3851835
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B603683
Received: 2016/01/08, 08:55

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Animal and Vegetable Oil & Grease	1	N/A	2016/01/12	CAM SOP-00326	EPA1664B m,SM5520B m
Total Oil and Grease	1	2016/01/12	2016/01/12	CAM SOP-00326	EPA1664B m,SM5520A m
pH	1	N/A	2016/01/09	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2016/01/11	CAM SOP-00444	OMOE E3179 m
TPH (Heavy Oil) (1)	1	2016/01/12	2016/01/12	CAM SOP-00326	EPA1664B m,SM5520F m
Low Level Total Suspended Solids	1	N/A	2016/01/14	CAM SOP-00428	SM 22 2540D m

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) Note: TPH (Heavy Oil) is equivalent to Mineral / Synthetic Oil & Grease

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Antonella Brasil, Senior Project Manager
Email: ABrasil@maxxam.ca
Phone# (905)817-5817
==========
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Maxxam Job #: B603683
Report Date: 2016/01/14

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: JP

RESULTS OF ANALYSES OF WATER

Maxxam ID		BPY690		
Sampling Date		2016/01/07 11:55		
COC Number		533624-06-01		
	UNITS	**POND**	**RDL**	**QC Batch**
Calculated Parameters				
Total Animal/Vegetable Oil and Grease	mg/L	ND	0.50	4338160
Petroleum Hydrocarbons				
Total Oil & Grease	mg/L	ND	0.50	4341195
Total Oil & Grease Mineral/Synthetic	mg/L	ND	0.50	4341197

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
ND = Not detected

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Maxxam Job #: B603683
Report Date: 2016/01/14

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: JP

RESULTS OF ANALYSES OF WATER

Maxxam ID		BPY690		
Sampling Date		2016/01/07 11:55		
COC Number		533624-06-01		
	UNITS	POND	RDL	QC Batch
Inorganics				
pH	pH	7.90	N/A	4339138
Phenols-4AAP	mg/L	ND	0.0010	4338882
Total Suspended Solids	mg/L	2	1	4340608

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B603683
Report Date: 2016/01/14

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: JP

GENERAL COMMENTS

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

Package 1	8.3°C

Results relate only to the items tested.

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Maxxam Job #: B603683
Report Date: 2016/01/14

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: JP

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
4338882	Phenols-4AAP	2016/01/11	94	80 - 120	99	85 - 115	ND, RDL=0.0010	mg/L	NC	20		
4339138	pH	2016/01/09			101	98 - 103			0.50	N/A		
4340608	Total Suspended Solids	2016/01/14					ND,RDL=1	mg/L	NC	25	98	85 - 115
4341195	Total Oil & Grease	2016/01/12	94	75 - 125	100	85 - 115	ND, RDL=0.50	mg/L	NC	25		
4341197	Total Oil & Grease Mineral/Synthetic	2016/01/12			96	85 - 115	ND, RDL=0.50	mg/L	2.7	25		

N/A = Not Applicable

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.

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 (one or both samples < 5x RDL).

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Maxxam Job #: B603683
Report Date: 2016/01/14

Golder Associates Ltd
Client Project #: 1407634
Site Location: MCCARTHY
Sampler Initials: JP

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Brad Newman, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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IMMEDIATE TEST

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CHAIN OF CUSTODY RECORD

Page of

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name	#26238 Coco Paving Inc	Company Name		Quotation #	B47292
Attention	Anthony Rossi/Dave Sanders	Attention	Dawn Hoyle	P.O. #	
Address	949 Wilson Ave Toronto ON M3K 1G2	Address		Project	1407634
				Project Name	
Tel	(416) 570-7052 x Fax	Tel	Fax	Site #	McCarthy
Email	ARossi@cocogroup.com;DSanders@cocogroup.com	Email	Dawn_Hoyle@golder.com	Sampled By	

Laboratory Use Only:

Maxxam Job #:	Bottle Order #:
	533624
COC #:	Project Manager:
C#533624-06-01	Hongmei Zhao (Grace)

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): ☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___

Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? ___

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Oil & Grease - A/V/M/T	pH	Phenols (4AAP)	Low Level Total Suspended Solids	PH					
1	533624	POND	JAN. 7/16	11:55 Am	SW	N/A	✓	✓	✓	✓	✓					
2																
3																
4																
5																
6																
7																
8																
9																
10																

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

# of Bottles	Comments
	08-Jan-16 08:55 Hongmei Zhao (Grace) B603683 SEL ENV-700

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Jodi Pascoe	16/01/07	11:55Am	Ashitha Sukumar / ASHITHA SUKUMAR	2016/01/08	08:55	
Jodi Pascoe	16/01/07	11:55Am				

Laboratory Use Only

Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No
	8/8/9	Present		
		Intact		

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: GOLDER ASSOCIATES LTD.
121 COMMERCE PARK DRIVE, UNIT L
BARRIE, ON L4N8X1
(705) 722-4492

ATTENTION TO: Dawn Hoyle

PROJECT: 1407634

AGAT WORK ORDER: 15T044820

ECOTOX ANALYSIS REVIEWED BY: Virginie Bérubé, biologiste

DATE REPORTED: Dec 07, 2015

PAGES (INCLUDING COVER): 5

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 15T044820

PROJECT: 1407634

CLIENT NAME: GOLDER ASSOCIATES LTD.

ATTENTION TO: Dawn Hoyle

SAMPLING SITE:

SAMPLED BY:

Daphnia magna toxicity - single concentration

DATE RECEIVED: 2015-11-20

DATE REPORTED: 2015-12-07

		SAMPLE DESCRIPTION:		POND
		SAMPLE TYPE:		Water
		DATE SAMPLED:		11/20/2015
Parameter	Unit	G / S	RDL	7213618
Mortality 100% v/v	% mortality-48h			0
Conclusion				NON LETHAL

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

7213618 Refer to the annex for analysis details.

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 15T044820

PROJECT: 1407634

CLIENT NAME: GOLDER ASSOCIATES LTD.

ATTENTION TO: Dawn Hoyle

SAMPLING SITE:

SAMPLED BY:

Rainbow trout toxicity - single concentration

DATE RECEIVED: 2015-11-20

DATE REPORTED: 2015-12-07

SAMPLE DESCRIPTION:				POND
SAMPLE TYPE:				Water
DATE SAMPLED:				11/20/2015
Parameter	Unit	G / S	RDL	7213618
Mortality 100% v/v	% mortality-96h			0
Conclusion				NON LETHAL

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

7213618 Refer to the annex for analysis details.

Certified By:

AGAT Laboratories

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MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: GOLDER ASSOCIATES LTD.

AGAT WORK ORDER: 15T044820

PROJECT: 1407634

ATTENTION TO: Dawn Hoyle

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
ECOTOX Analysis			
Mortality 100% v/v			NA
Conclusion			NA

AGAT Laboratories
5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water intended for human consumption)

Report Information:

Company: Golder Associates Ltd.
Contact: Dawn Hoyle
Address: 121 Commerce Park Dr. Unit L
Barrie, ON
Phone: 705 722 4492 Fax: 705 722 3786
Reports to be sent to:
1. Email: Dawn_Hoyle@golder.com
2. Email:

Project Information:

Project: 14076034
Site Location: McCarthy (Beeching, ON)
Sampled By: DH
AGAT Quote #: 60733 PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company: Golder Associates
Contact: Patti Chapple
Address: 121 Commerce Park Dr Unit L
Email: Patricia_Chapple@golder.com

Regulatory Requirements:

☐ No Regulatory Requirement
(Please check all applicable boxes)

☐ Regulation 153/04
Table ____ (Indicate One)
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region ____ (Indicate One)

☐ Regulation 558
☐ CCME
☒ Prov. Water Quality Objectives (PWQO)
☐ Other
____ (Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☒ No

Report Guideline on Certificate of Analysis ☐ Yes ☒ No

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Laboratory Use Only

Work Order #: 15T044820
Cooler Quantity: 9.8 (ice)
Arrival Temperatures:
Custody Seal Intact: ☐Yes ☐No ☐N/A
Notes:

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ 1 Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Metals and Inorganics	Metal Scan	Hydride Forming Metals	Client Custom Metals	ORPs: ☐B-HWS ☐Cl⁻ ☐CN ☐Cr⁶⁺ ☐EC ☐FOC ☐NO_3/NO_2 ☐Total N ☐Hg ☐pH ☐SAR	Nutrients: ☐TP ☐NH_3 ☐TKN ☐NO_3 ☐NO_2 ☐NO_3/NO_2	Volatiles: ☐VOC ☐BTEX ☐THM	CCME Fractions 1 to 4	ABNs	PAHs	Chlorophenols	PCBs	Organochlorine Pesticides	TCLP Metals/Inorganics	Sewer Use	Rainbow & Daphnia Single C
POND	2015/11/3	10:00	2	SW																X	

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Dawn Hoyle DHoyle	2015/11/3	5:00	Neil Ramnarain	Nov. 2/15	4:55 PM
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page 1 of 1

N°: T 018137

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

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FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: GOLDER ASSOCIATES LTD.
121 COMMERCE PARK DRIVE, UNIT L
BARRIE, ON L4N8X1
(705) 722-4492

ATTENTION TO: Dawn Hoyle

PROJECT: 1407634

AGAT WORK ORDER: 15T055447

ECOTOX ANALYSIS REVIEWED BY: Virginie Bérubé, biologiste

DATE REPORTED: Jan 14, 2016

PAGES (INCLUDING COVER): 5

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

AGAT Laboratories

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MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
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Certificate of Analysis

AGAT WORK ORDER: 15T055447

PROJECT: 1407634

CLIENT NAME: GOLDER ASSOCIATES LTD.

ATTENTION TO: Dawn Hoyle

SAMPLING SITE:

SAMPLED BY:

Daphnia magna toxicity - single concentration

DATE RECEIVED: 2015-12-22

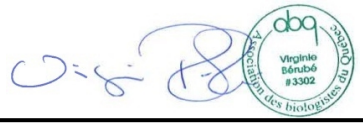
DATE REPORTED: 2016-01-14

				SAMPLE DESCRIPTION:	Pond
				SAMPLE TYPE:	Water
				DATE SAMPLED:	12/21/2015
Parameter	Unit	G / S	RDL	7304536	
Mortality 100% v/v	% mortality-48h			0	
Conclusion				NON LETHAL	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

7304536 Refer to the annex for analysis details.

Certified By:



AGAT Laboratories

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MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
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FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 15T055447

PROJECT: 1407634

CLIENT NAME: GOLDER ASSOCIATES LTD.

ATTENTION TO: Dawn Hoyle

SAMPLING SITE:

SAMPLED BY:

Rainbow trout toxicity- single concentration

DATE RECEIVED: 2015-12-22

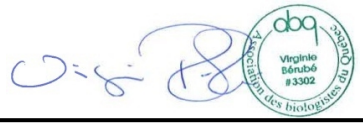
DATE REPORTED: 2016-01-14

				SAMPLE DESCRIPTION:	Pond
				SAMPLE TYPE:	Water
				DATE SAMPLED:	12/21/2015
Parameter	Unit	G / S	RDL	7304536	
Mortality 100% v/v	% mortality-96h			0	
Conclusion				NON LETHAL	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

7304536 Refer to the annex for analysis details.

Certified By:



5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: GOLDER ASSOCIATES LTD.

AGAT WORK ORDER: 15T055447

PROJECT: 1407634

ATTENTION TO: Dawn Hoyle

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
ECOTOX Analysis			
Mortality 100% v/v			NA
Conclusion			NA

AGAT Laboratories
5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water intended for human consumption)

Report Information:

Company: Golder Associates Ltd.
Contact: Dawn Hoyle
Address: 121 Commerce Park Drive Unit L
Barrie ON
Phone: 705 722 4492 Fax: 705 722 3786
Reports to be sent to:
1. Email: Dawn_Hoyle@golder.com
2. Email:

Project Information:

Project: 1407634
Site Location: McCarthy (Brechin, ON)
Sampled By: AJM
AGAT Quote #: 60738 PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company: Golder Associates
Contact: Patti Chapple
Address: 121 Commerce Park Dr. Unit L
Email: Patricia_Chapple@golder.com

Regulatory Requirements:

☐ No Regulatory Requirement
(Please check all applicable boxes)

☐ Regulation 153/04
Table ____ (Indicate One)
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region ____ (Indicate One)

☐ Regulation 558
☐ CCME
☒ Prov. Water Quality Objectives (PWQO)
☐ Other
____ (Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☒ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☒ No

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Laboratory Use Only

Work Order #: 1ST055447
Cooler Quantity: 6 4/6 0/1 -7°C
Arrival Temperatures: 5.6 / 1.4 / 4 °C
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes:

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ 1 Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Metals and Inorganics	Metal Scan	Hydride Forming Metals	Client Custom Metals	ORPs: ☐ B-HWS ☐ Cl⁻ ☐ CN ☐ Cr^{6+} ☐ EC ☐ FOC ☐ NO_3/NO_2 ☐ Total N ☐ Hg ☐ pH ☐ SAR (Check Applicable)	Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3/NO_2	Volatiles: ☐ VOC ☐ BTEX ☐ THM	CCME Fractions 1 to 4	ABNs	PAHs	Chlorophenols	PCBs	Organochlorine Pesticides	TCLP Metals/Inorganics	Sewer Use	Rainbow, Daphnia Single C
Pond	31-Dec-15	9:30	2	SW															X	

Samples Relinquished By (Print Name and Sign): Amanda Maillaux Amanda Maillaux — Date: 22-Dec-15 — Time: 7:30
Samples Relinquished By (Print Name and Sign): — Date: — Time:
Samples Received By (Print Name and Sign): MOE 2015/12/22 9:30 10:41 — Date: — Time:
Samples Received By (Print Name and Sign): — Date: — Time:

Page 1 of 1
N°: T 018139

Pink Copy - Client | Yellow Copy - AGAT | White Copy- AGAT

As a global, employee-owned organisation with over 50 years of experience, Golder Associates is driven by our purpose to engineer earth's development while preserving earth's integrity. We deliver solutions that help our clients achieve their sustainable development goals by providing a wide range of independent consulting, design and construction services in our specialist areas of earth, environment and energy.

For more information, visit golder.com

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