

2 AM-JER/TR/G5-PKCA

June 19th, 2006

Chief Administrative Officer Nunavut Water Board P.O. Box 119 Gjoa Haven, Nunavut X0B 1J0 Delivered by Fax: (867) 360-6369

Water Resources Officer P.O. Box 278 Kugluktuk, NU X0B 0E0

RE: Notification of intent to discharge from the Processed Kimberlite Containment Area (PKCA) to Stream C3 – Part G, Item 5 of License NWB1JER0410

Please accept this letter as Tahera Diamond Corporations letter of intent as required in Part G, Item 5 of Water License NWB1JER0410, to commence with the drawdown of the PKCA to Stream C3.

Please find attached sample results collected from the PKCA for acute toxicity as required in Part G, Item 7 (a) and (b). These samples were analyzed by HydroQual Laboratories and indicate 0% mortality to Rainbow Trout, *Oncorhyncus mykiss* and crustacean *Daphina magna*. Toxicity testing will continue to be conducted monthly as indicated by the water license. Water chemistry results from Station JER-WQ2 for parameters required in Part 5, Item 6(a) will be submitted once received from the laboratory. While discharging, samples will be collected weekly as required and submitted within the monthly SNP reports.

Should you have any additional questions do not hesitate to contact site Environmental staff at 780 644-9129.

Cheryl Wray Environmental Supervisor

Harold Gates
Operations Manager

Nunavut Water Board Water July 20 2006 Public Registry



Result Summary

Client: Tahera Diamond Corporation; operation Yellowknife

Sample: PKCTOX01

Collection: collected on 2006/05/30 at not given by CW Receipt: received on 2006/05/31 at 1410 by L. Lamantange Containers: received 1 x 20 L pail at 18 °C, in good condition with no

seals and no initials

Description: type: water, collection method: grab

Test: started on 2006/06/01; ended on 2006/06/05

Client: TAH102

Reference: 06-1055-01-TRS

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Form: F060 v 3.0

Sample

Authorized by K.Steele, B.Sc., Quality Assurance Officer
The test data and results are verified correct.

control



Test Conditions

Client: TAH102

Reference: 06-1055-01-TRS

Form: F060 v 3.0

Method: Biological Test Method: Reference Method for Determining Acute Lethality of

Effluents to Rainbow Trout, 1990. Environment Canada, EPS 1/RM/13.

(amended 1996 and 2000)

Test type: Trout 96-h Static Acute Test (HQ 4.4.4.1)

Species: Oncorhynchus mykiss

Organism source: Ackenberry Trout Farms (Batch 20060529TR)

Acclimation: 3 days

Stock mortality: 0.6% (seven days preceeding testing)

Sample initial chemistry: pH: 7.5; EC: 176 (µS/cm); DO: 7.6 (mg/L); temperature: 18 °C

hardness (mg CaC03/L): 35; colour: colourless; odour: odourless

Sample holding time: 2 days (must be ≤ 5) Sample storage: 4 ± 2°C in darkness

Test vessel: The test was conducted in 22 L plastic pails with polyethylene liners

Test volume: 19 Litres

Sample pre-treatment: All test solutions and controls were pre-aerated for 30 minutes

Dissolved oxygen in full strength sample was 8.8 mg/L after pre-aeration

The sample was not filtered or pH adjusted prior to or during testing

Loading density: 0.21 g/Litre (must be ≤ 0.5 g/Litre)

Control water: Dechlorinated City of Calgary water acclimated to test conditions

Test concentrations: Undiluted sample plus a negative control

Test replicates: One replicate per treatment; 10 fish per replicate

Feeding: Fish are not fed 24 hours before test initiation and no feeding during test

Measurements: pH, conductivity, dissolved oxygen and temperature measured daily

Aeration: All treatments aerated at 6.5 (±1 mL/min/L)

Lighting: Overhead full spectrum fluorescent lights; 100-500 lux at surface

Photoperiod: 16h light:8h dark

Test temperature: 15 ± 1°C

Endpoint: Mortality, % mortality at 96-h

Test validity: The control had 100% survival (must ≥ 90%)

Reference toxicant: 96-h test with Phenol (C₆H₅0H) initiated June 5, 2006; current results

(96-h LC50 and 95% confidence limits) = 12.3 (10.4-14.4) mg/L Phenol

Note: Outlined sections are protocol deviations explained on the comment page; v/v, volume per volume



Test Data

Client: TAH102

Reference: 06-1055-01-TRS

Form: F060 v 3.0

Test Log:

	T		······································	
Date	Day	Time	Technician	Comment/Observation
2006/06/01	0	1100	B. Denny/M. Luong/A. Vogstad	
2006/06/02	1	1545		test fish loaded at 1100 h
2006/06/03	2	1300		all test fish appear normal
2006/06/04	3	1200		all test fish appear normal
2006/06/05	4	1200		all test fish appear normal all test fish appear normal

Chemistry:									
Sample	control	1				· · · · · · · · · · · · · · · · · · ·			
_			······································						
Day pH (units)									
0	7.6	7.3			<u> </u>	<u> </u>			
1	7.9	7.5							
2	7.9	7.6							
3	7.9	7.5							
4	7.9	7.6							
				· · · · · · · · · · · · · · · · · · ·		<u> </u>			
۰ ۲			Co	nductivity (uS/cm)			•	
0	416	156					1		
1	407	147							
2	410	149					- 		
3	416	149		T					
4	419	150				-			
				···		L			
~			Disso	ved Oxyge	n (ma/L)				
9 <u> </u>	8.7	8.8		T	1				
1	8.5	8.5				~ 			
2	8.4	8.4							
3	8.5	8.6							
4	8.4	8.4							
							1	<u> </u>	
<u> </u>			Te	mperature	(°C)				
0	15	16			1	T	T		
1 _	15	15		······································	 	 			
2	15	15			 	 	<u> </u>		
3	15	15		······································	_	 			
4	14	14		<u></u>	 	<u> </u>			
			··		<u></u>	<u> </u>			



Test Data

Client: TAH102

Reference: 06-1055-01-TRS

Form: F060 v 3.0

Number Alive:

MINIMAL	Alive:						
Sample	control	1			<u> </u>	T	
						<u> </u>	<u> </u>
Day _							
0	10	10					
1	10	10					
2	10	10					
3	10	10					
4	10	10					
		······································	·				
			Mortal	lity (%)			
4	0	0 T	14101 (61	iicy (70)		·	
							

Biology Summary Tables:

Control	Length	Weight
Fish	(cm)	(g)
1	3.7	0.4
2	2,9	0.3
3	4.1	0.7
4	3.5	0.4
5	3.3	0.3
6	3.5	0.2
7	3.7	0.5
8	3.4	0.4
9	3.8	0.5
10	3.7	0.4

average	3.6	0.4
sd	0.3	0.1
cv(%)	9.1	34.2

Notes: nd, not done; na, not applicable; sd, standard deviation; cv(%), coefficient of variation

Sample	Group Weight (g)	
control	4.0	
1	4.1	



Comments/Statistics

Client: TAH102

Reference: 06-1055-01-TRS

Form: F060 v 3.0

Test Result Comments:

None

Data Analysis:

None

Protocol Deviations:

Test fish were held less than 14 days prior to testing

Trout Test Report

Quality Assurance Information

Test Method: Trout 96h Static Acute Test. (LC50, five or more treatments plus a control)

HydroQual Test Method Manual, section: 4.4.4.1

Reference: Biological Test Method: Reference Method for Determining Acute Lethality of

Effluents to Rainbow Trout, 1990. Environment Canada, EPS 1/RM/13.

including May 1996 and December 2000 amendments.

Test Organism:

test species: Oncorhyncus mykiss culture source: Ackenberry Trout Farms

temperature (°C): 15 ± 1 dissolved oxygen: saturated stock mortality (last 7d): 0.3%

batch number: 20060529TR

Test Design:

vol. of test vessel (L): 22 test volume depth: >15 cm

replicates per treatment: 1 fingerlings per replicate: 10 loading (g fish/L): <0.5 temperature (°C): 15 + 1

photoperiod: 16h light: 8h dark

light level (water surface): 100-500 lux

control/dilution water: dechlorinated tap water

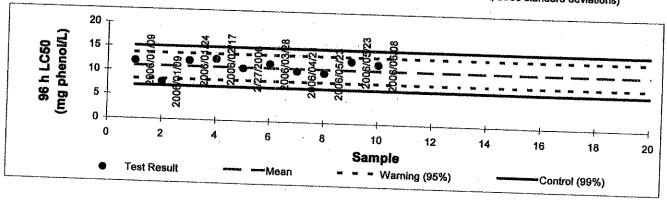
Warning Chart: mortality LC50 at 96 hours

toxicant: Phenol (C₆H₅OH)

Current Test: started on 2006/06/05 ended on 2006/06/08

result (96 h LC50): 12.3 mg phenol/L (95% confidence limits are in brackets) (10.4-14.4)Historical: mean: 11.0 std.dev: 1.4 cv(%): warning limits: 8.3

13.8 (lower and upper 95% confidence limit, two standard deviations) control limits: 6.9 (lower and upper 99% confidence limit, three standard deviations) 15.1



Qualty Assurance Unit:

Authorized by K.Steele, B.Sc., Quality Assurance Officer The test data and results are verified correct.



Result Summary

Client: Tahera Diamond Corporation; operation

Yellowknife

Sample: PKCTOX01

Result:

Collection: collected on 2006/05/30 at not given by CW Receipt: received on 2006/05/31 at 1410 by L. Lamantange Containers: received 1 x 20 L pail at 18 °C, in good condition

with no seals and no initials

Description: type: water, collection method: grab

Test: started on 2006/06/01; ended on 2006/06/03

Client: TAH102

Reference: 06-1055-01-DAS

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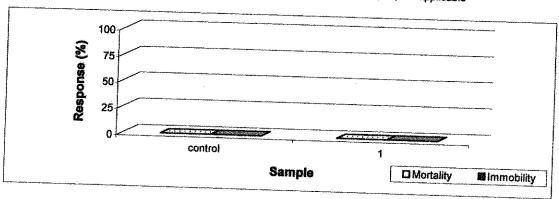
not toxic as tested

Form: F060 v 3.0

Sample	Client Code		erage	Comment
	Code	Mortality (%)	Immobility (%)	
control	lab control	0	0	
1	PKCTOX01	Ō	0	

0

Notes: sd, sample standard deviation; cv, coefficient of variation; nd, not done; na, not applicable



Authorized by K.Steele, B.Sc., Quality Assurance Officer The test data and results are verified correct.

Our liability is limited to the cost of the test requested on the collection, handling or transport of the sample, application the sample as received. No liability in whole or in part is assumed for the ication or interpretation of the fest data or results in part or in whole.



Test Conditions

Client: TAH102

Reference: 06-1055-01-DAS

Form: F060 v 3.0

Method: Biological Test method: Reference Method for Determining Acute Lethality of

Effluents to Daphnia magna, 1990. Environ. Can., EPS 1/RM/14.

(amended 1996 and 2000)

Test type: Daphnia 48-h Static Acute Test (HQ 4.4.3.1)

Species: Daphnia magna

Age: < 24 hours old

Organism source: in-house culture

Stock mortality: 0%

Culture brood data: 10 days to first brood

25 neonates per average brood

Sample initial chemistry: pH: 7.5; EC: 176 (µS/cm); DO: 7.6 (mg/L); temperature: 18 °C

hardness (mg CaC03/L): 35; colour: colourless; odour: odourless

Sample holding time: 2 days (must be ≤ 5) Sample storage: 4 ± 2°C in darkness

Test vessel: 385 mL plastic vessels

Test volume: 150 mL

Sample pre-treatment: The sample was not filtered or pH adjusted prior to or during testing

The sample was pre-aerated for 0 minutes (rate of 37.5 \pm 12.5 mL/min.L⁻¹) The hardness of the sample was not adjusted (mg CaCO₃/L) prior to or during

testina

Loading density: One daphnid/15 mL (must ≤ 1 organism/15 mL)

Control water: Dechlorinated City of Calgary water acclimated to test conditions

The hardness of the control/dilution water was 158 mg CaCO₃/L

Test concentrations: Undiluted sample plus a negative control

Test replicates: Three replicates per treatment, 10 daphnids per replicate

Feeding: None Aeration: None

Measurements: pH, conductivity, dissolved oxygen and temperature at test initiation and

termination

Lighting: Overhead full spectrum fluorescent lights; 400-800 lux at surface

Photoperiod: 16h light:8h dark

Test temperature: 20 ± 2°C

Note: Outlined sections are protocol deviations explained on the comment page



Test Conditions

Client: TAH102

Reference: 06-1055-01-DAS

Form: F060 v 3.0

Endpoint: Mortality, % mortality at 48-h

Immobility, % immobility at 48-h

Test validity: The control had 100% survival (must ≥ 90%)

Control had 0% abnormal behaviour (must < 10%), e.g. immobility

Reference toxicant: 48-h test with NaCl initiated May 30, 2006; current results

(48-h LC50 and 95% confidence limits) = 6.4 (5.7-7.5) g/L NaCl

Note: Outlined sections are protocol deviations explained on the comment page



Test Data

Client: TAH102

Reference: 06-1055-01-DAS

Form: F060 v 3.0

•	r	88	ŧ	L	O	Q	ž

i I		1	1	
Date	Day	Time	Technician	Comment/Observation
2006/06/01		1000		
	U	1600	B. Denny	test Daphnia appear normal
2006/06/02	1	1040	B.Denny	Troop parima appear initial
2006/06/03			D.Demy	test Daphnia appear normal
2000/00/03		1430	B.Denny	test Danhaia caraca accurat
			·	test Daphnia appear normal

Chemistry:

Sample	control		1 1 1			
replicate	a	h		a	<u> </u>	С

Day			pH (ι	ınits)		
0	7.9	7.9	7.9	7.5	7.5	7.5
2	7.9	7.9	7.9	7.6	7.5	7.5

		····	<u>Conductivi</u>	ty (µS/cm)			
U	431	431	431	178	178	170	
2	405	401	401	180	154	1/0	
	***************************************	·····			104	102	

^			Dissolved O	xygen (mg/L)	
U	8.1	8.1	8.1	7.8	7.8	7.8
2	8.0	7.9	7.9	7 R	70	7.0
			·		7.0	7.0

			Tempera	iture (°C)		
0	18	18	18	20	20	20
2		20	20	20	20	20

Biology:

	0			······				
	Sample	l	control				·····	
		 	CONTROL			1	i	Ĺ
	replicate	a	h			····		Ĺ
•	· · · · · · · · · · · · · · · · · · ·		1.7		a i	b	_	
						~		,

1	10	40	e and Behavio	(neuavior	is in bracket	s)
_	10	10	10	10	10	10
2	10	10	10 (1F)	10	10	10
	Notoe C Same		e; B, stuck on bub		10	10

2	Mortality (%) 0 0 0 0 0
9	Immobility (%)

0



Comments/Statistics

Client:	TAH	1	02
~*********	1 7 11 1		44

Reference: 06-1055-01-DAS

Form: F060 v 3.0

Test Result Comments:

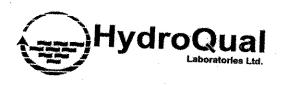
None

Data Analysis:

None

Protocol Deviations:

None



Daphnia **Test Report**

Quality Assurance Information

Test Method: Daphnia Static Acute Test (LC50, five or more treatments plus a control)

HydroQual Test Method Manual, section: 4.4.3.1

Reference: Biological Test Method: Reference Method for Determining the Acute Lethality of

Effluents to Daphnia magna, 1990. Environment Canada, EPS 1/RM/14.

including May 1996 and December 2000 ammendments.

Test Organism:

test species: Daphnia magna

culture source: in-house

original culture source: Environment Canada

days to first brood: 10 mean brood size: 25

ephippia in stock culture: no

age of test organisms: <24 hours old

culture mortality (%): 0

Test Design:

vol. of test vessel (mL): 500

toxicant: sodium chloride

test volume (mL): 150

replicates per treatment: 1

neonates per replicate: 10

volume per neonate (mL): 15 samples preaerated: no

hardness adjustment: no

temperature (°C): 20

photoperiod: 16h light:8h dark

light level (water surface): 400-800 lux

control/dilution water: dechlorinated tap water

Warning Chart: mortality LC50 at 48 hours

toxicant: Sodium Chloride (NaCl)

Current Test: started on 2006/05/30 ended on 2006/06/01 result (48 h LC50): 6.4 (5.7-7.5)

Historical:

g NaCl/L (95% confidence limits are in brackets)

warning limits:

mean:

5.6

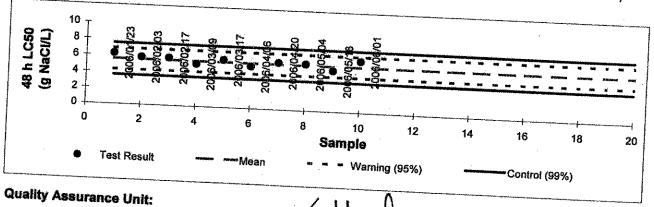
std. dev:

0.6

4.3

cv (%): 12

(lower and upper 95% confidence limit, two standard deviations) 6.9 control limits: 3.7 7.6 (lower and upper 99% confidence limit, three standard deviations)



Authorized by K.Steele, B.Sc., Quality Assurance Officer The test data and results are verified correct.

abing is minima to the cost of the sample, application of interpretation of the test data of results in part of in whole.