


**AMENDED CERTIFICATE OF APPROVAL
 INDUSTRIAL SEWAGE WORKS**

NUMBER 2338-8MXGP9

Issue Date: October 25, 2011

Williams Operating Corporation
 P.O. Bag 500
 Marathon, Ontario
 P0T 2E0

Site Location: Williams Mine
 3 km west of junction of Highway 17 and Highway 614
 Township of Bomby
 Marathon Town, District of Thunder Bay

You have applied in accordance with Section 53 of the Ontario Water Resources Act for approval of:

sewage works for the collection, transmission, treatment and disposal of up to 288 cubic metres per hour of mine/mill site runoff and mine seepage water, consisting of the following:

New Works
BACKFILL QUARRY

- one (1) existing backfill quarry with a total area of 5.3 hectares that was previously mined as rock fill for underground operations and used for placement of waste rock with a naturally developing water cover (from meteoric and groundwater infiltration) with an invert overflow pipe located at 321.66 m (masl) and (after the quarry floods to this level) discharging a nominal 0.036 m³/hr into a beaver pond (located north of the quarry) that discharges into Cedar Creek.

SEDIMENTATION POND

- one (1) existing sedimentation pond and storm drain system to service run-off from the 16 hectare main mine site area with a capacity of approximately 6240 m³ complete with polyvinyl chloride (PVC) lined berms, a decant structure equipped with a sluice gate for discharge to Cedar Creek for a nominal design flow rate of 6,990 m³/day through a V-notch flow measurement weir, a spillway for emergency overflows into Cedar Creek and a floating boom consisting of a 60 m long log float and an aluminum fin extending 0.45 m below the log;

Existing Works
POLISHING POND

- one (1) polishing pond (Pond 400) for the treatment of the existing sedimentation pond effluent, runoff from an ore storage pile and seepage inflow into an open pit mining operation; the polishing pond is contained by berms constructed with a low permeable till core to provide an operating capacity of 20,000 cubic metres and a freeboard of 0.9 metres to the emergency spillway and 1.9 metres to the dam crest, including a decant structure housing two (2) submersible pumps, a magnetic flow meter, a baffle, stop logs and gate valve, discharging to Moose Creek via a 1200 millimetre diameter corrugated metal pipe, and also equipped with standby provisions to return the effluent to the tailings pump box at the mill; and

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 the following submitted supporting documents:

1. Application for Approval of Industrial Sewage Works submitted by Jeremy Dart of Williams Operating Corporation dated October 15, 2008 and attachments;
2. Application for Approval of Industrial Sewage Works submitted by Jamie Quesnel of Williams Operating Corporation dated February 21, 2006;
3. Letter and attachments (Design Brief Report) dated February 23, 2006 from Tom Aaltomaa of Cook Engineering to the Director of the Environmental Assessment and Approvals Branch of the Ministry of the Environment;
4. Application for the Approval of Plans and Specifications for the Construction of Works for the Collection, Transmission, Treatment and Disposal of Industrial Wastewater submitted by I. T. H. Hamilton of Lac Minerals Ltd. and supporting plans, specifications, reports and all other submitted information.
5. Land Transfer Agreement between Newmont Canada Corporation to Barrick Gold Inc., dated July 28, 2010, (site under operation by subsidiary Williams Operating Corporation).

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

"Certificate" means this entire certificate of approval document, issued in accordance with Section 53 of the *Ontario Water Resources Act*, and includes any schedules;

"Director" means any Ministry employee appointed by the Minister pursuant to section 5 of the *Ontario Water Resources Act*;

"District Manager" means the District Manager of the Thunder Bay District Office of the Ministry;

"Existing Works" means the sewage works previously constructed and approved under a certificate of approval;

"Ministry" means the Ontario Ministry of the Environment;

"New Works" means the sewage works as a result of the Land Transfer Agreement between Newmont Canada and Barrick Gold Inc., dated July 28, 2010;

"Owner" means Williams Operating Corporation and includes its successors and assignees; and

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

You are hereby notified that this 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 Certificate, the application for approval of the works and the

submitted supporting documents and plans and specifications as listed in this Certificate.

(2) Where there is a conflict between a provision of any submitted document referred to in this Certificate and the Conditions of this Certificate, the Conditions in this Certificate 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 30 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 Information 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 certificate's number.

3. CHANGES IN PROCESSES OR PROCESS MATERIALS

The Owners 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 not significantly alter the quantity or quality of the influent to the *Works*, while complying with the approved effluent quantity and quality from the *Works*, and no such change(s) shall be made unless with the written concurrence or approval of the *District Manager*.

4. EFFLUENT LIMITS

In addition to requirements under the O.Reg. 560/94, the Owner shall complete the following requirements:

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

Table 1 - Effluent Limits Sedimentation Pond and Backfill Quarry		
Effluent Parameter	Maximum Daily Concentration (mg/L unless otherwise indicated)	Monthly Average Concentration (mg/L unless otherwise indicated)
Column 1	Column 2	Column 3
Total Arsenic	1.0	0.5
Total Copper	0.6	0.3
Total Cyanide	2.0	1.0
Total Lead	0.4	0.2
Total Nickel	1.0	0.5
Total Zinc	1.0	0.5
Total Suspended Solids	30.0	15.0
Acute Lethality <i>Daphnia magna</i>	-	less than or equal to 50% mortality in undiluted effluent
Acute Lethality Rainbow Trout (<i>Oncorhynchus mykiss</i>)	-	less than or equal to 50% mortality in undiluted effluent
pH of the effluent maintained between 6.0 to 9.5, inclusive, at all times		

(2) For the purposes of determining compliance with and enforcing subsection (1):

(a) Non-compliance with respect to a *Maximum Daily Concentration* limit is deemed to have occurred when any single grab sample analyzed for a parameter named in Column 1 of subsection (1) is greater than the corresponding *Maximum Daily Concentration* limit set out in Column 2 of subsection (1);

(b) Non-compliance with respect to a *Monthly Average Concentration* limit is deemed to have occurred when the arithmetic mean concentration of all samples taken in a month analyzed for a parameter named in Column 1 of subsection (1) is greater than the corresponding *Monthly Average Concentration* limit set out in Column 3 of subsection (1); and

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

(2) The *Owner* shall control the quality of the effluent from the *Works* to ensure that each acute lethality test of *Daphnia magna* and Rainbow Trout (*Oncorhynchus mykiss*) performed on any grab sample of effluent results in mortality for no more than 50 per cent of the test organisms in 100 per cent effluent (undiluted effluent).

(3) The *Owner* shall report to the *District Manager* or designate, any exceedence of any effluent limit for any parameter specified in Condition 6 (1) orally within **forty-eight (48) hours** of becoming aware of the exceedence and in writing within **forty-five (45) days** of the exceedence including a summary of the cause(s) for exceedence and a description of a remedial action plan to improve the performance of the sewage works along with a schedule for its implementation.

5. OPERATIONS MANUAL

(1) The *Owners* 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*;
- (e) A contingency notification plan must be put into place with downstream users of Black River and White River watersheds to the satisfaction of the *Regional Director*. The plan must be annually reviewed and updated by **June 1 of each year**; and
- (f) complaint procedures for receiving and responding to public complaints.

(2) The *Owners* 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 *Owners* shall make the manual available for inspection and copying by *Ministry* personnel.

6. EFFLUENT MONITORING AND RECORDING

In addition to requirements under the O.Reg. 560/94, the *Owners* shall, upon commencement of operation of the sewage works, carry out the following monitoring program:

- (1) All samples and measurements taken for the purposes of this *certificate* 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(s), at the sampling frequencies and using the sample type specified for each parameter listed:

Table 2 - Effluent Monitoring Sampling Locations: Effluent Outfall			
Parameter	Frequency	Parameter	Frequency
Total Aluminum	Weekly	Un-ionized Ammonia	Weekly
Total Antimony	Weekly	Total Ammonia + Ammonium	Weekly
Total Arsenic	Weekly	Total Suspended Solids	Weekly
Total Cadmium	Weekly	Temperature	Weekly
Total Calcium	Weekly	Total Nitrate as Nitrogen	Weekly
Total Copper	Weekly	Total Sulphate	Weekly
Total Cyanide	Weekly	Specific Conductance	Weekly
Total Iron	Weekly	Dissolved Solids	Weekly
Total Lead	Weekly	Total Acidity	Weekly
Total Molybdenum	Weekly	Total Alkalinity	Weekly
Total Mercury	Weekly	Hardness	Weekly
Total Nickel	Weekly	Acute Lethality - <i>Daphnia magna</i>	Monthly
Total Zinc	Weekly	Acute Lethality - Rainbow Trout (<i>Oncorhynchus mykiss</i>)	Monthly
pH	Weekly	Free Cyanide	Weekly

(3) The methods and protocols for sampling, analysis, toxicity testing, 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" (21st edition) as amended from time to time by more recently published editions; and,

(c) the Environment Canada publications "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout" (July 1990) and "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Daphnia magna" (July 1990);

(4) The temperature and pH of the effluent from the works shall be determined in the field at the time of sampling for total ammonia. The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended, for ammonia (un-ionized).

(5) The stations, parameters and/or frequencies under this Condition may be changed (including additions or deletions) as specified by the *District Manager* in writing from time to time.

(6) A continuous flow measuring device(s) 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 *Owners* shall measure, record and calculate the flowrate for each effluent stream on each day of sampling.

(7) The *Owners* 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 *certificate*.

(8) The *Owner* shall establish sampling stations for intermittent discharges from the **Sedimentation Pond and Backfill Quarry** and shall collect and analyze a grab sample during periods of discharge into Cedar Creek with the measurement frequency specified for each parameter listed in Subsection (4) except for Free Cyanide.

7. REPORTING

(1) The *Owners* shall report to the *District Manager* or designate, any exceedance of any parameter specified in Condition 4 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedance.

(2) In addition to the obligations under Part X of the *Environmental Protection Act*, the *Owners* shall, within ten (10) working days of the occurrence of any reportable spill as defined in Ontario Regulation 675/98, bypass or loss of any product, by-product, intermediate product, oil, solvent, 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.

(3) The *Owners* shall prepare and submit a performance report to the *District Manager* on an annual basis. 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 4, 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;

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

(f) graphs that compare discharge volumes from the Sedimentation Pond to stream flow within Cedar Creek at the time of the pond discharge. Flows within Cedar Creek are to be determined at the Water Survey of Canada Station (02BB004) or other location or method acceptable to the *District Manager*. The *Owner* shall provide separate graphs for flows within Cedar Creek that are greater and less than 5 m³/s; and

(g) contingency plan update noting downstream users of Black River and White River watersheds in a format approved by the *Regional Director*. The plan must be annually reviewed and updated by **June 1 of each year**.

(4) The *Owner* shall provide written notification for the *District Manager* or designate when discharges from the Sedimentation Pond take place when flows in Cedar Creek are less than 1 m³/s.

8. CERTIFICATE OF REQUIREMENT

(1) Pursuant to Section 103 of the *Ontario Water Resources Act*, no person having an interest in the Property, shall deal with the Property in any way without first giving a copy of this *Certificate* to each person acquiring an interest in the Property as a result of the dealing.

(2) The *Owner* shall:

(i) within sixty (60) days of the date of the issuance of this *Certificate*, submit to the Director for their review, two copies of a completed Certificate of Requirement and a registerable description of the Property; and

(ii) within ten (10) calendar days of receiving the Certificate of Requirement authorized by the *Director*, register the Certificate of Requirement in the appropriate Land Registry Office on title to the Property and submit to the *Director* the duplicate registered copy immediately following registration.

(3) For the purposes of this condition, Property shall mean the property located at locations listed in Table 4:

Table 3 Mining Lands Descriptions: Hemlo Area - Newmont Canada Ltd.							
Parcel No.	Claim Group Name	Number of Units	Description	Property Name	Lease / Patent No.	Type	Township
2936	TB 673889, TB673886	2	pt 1 & 2 of plan 55R 5358	Goliath	107765	lease	Bomby
24015	TB 673888	1	pt 3 of Plan 55R 5358	Goliath	F002285	patent	Bomby
24016	TB 549612	1	pt 1 of Plan 55R 5660	1/4 Claim	F002286	patent	Bomby
24017	TB 673887	1	pt 1 plan 55R 5856	Goliath	F002287	patent	Bomby
24481	CLM 275	10	pt 1, 3 less res of 55R 5671	Goliath	F012470	patent	Bomby
24481	TB656688	1	part of Pt 1 Plan 55R - 5671 (severed landfill from CLM275)	Goliath	F012470	patent	Bomby
25433	TB 549611, TB549612	2	SRO of pt 1, 2, 3, 4 of Plan 55R 6465	David Bell	-	patent	Bomby

9. SOURCE WATER PROTECTION

The *Owner* shall, within sixty (60) calendar days of the Minister of the Environment posting approval of a *Source Protection Plan* on the Environmental Registry established under the *Environmental Bill of Rights, 1993* for the area in which this *Certificate* is applicable, apply to the *Director* for an amendment to this *Certificate* that includes the necessary measures to conform with all applicable policies in the approved *Source Protection Plan*.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is imposed to ensure that the works are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of Conditions in

the Certificate and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.

2. Condition 2 is included to ensure that the Ministry records are kept accurate and current with respect to approved works and to ensure that subsequent owners of the works are made aware of the certificate and continue to operate the works in compliance with it.
3. Condition 3 is included to ensure that the works is operated in accordance with the information submitted by the *owner* relating to the process and materials which are served by the works, and to ensure that any contemplated changes in them which could potentially affect the characteristics of effluent from the works will be properly reviewed and approved.
4. Condition 4 is imposed to ensure that the effluent discharged from the *works* to the natural receiver meets the *Ministry's* effluent quality requirements thus minimizing environmental impact on the receiver.
5. Condition 5 is included to ensure that a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the *owner* and made available to the *Ministry*. Such a manual is an integral part of the operation of the works. Its compilation and use should assist the owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for *Ministry* staff when reviewing the owner's operation of the *works*.
6. Condition 6 is included to require the *owner* to demonstrate on a continual basis that the quality and quantity of the effluent from the approved *works* is consistent with the (design objectives and) effluent limits specified in the certificate and that the approved *works* does not cause any impairment to the receiving watercourse.
7. Condition 7 is included to provide a performance record for future references and to ensure that the *Ministry* is made aware of problems as they arise, so that the *Ministry* can work with the *Owner* in resolving the problems in a timely manner.
8. Condition 8 is included in order to require the *Owner* to give notice of this *Certificate* to potential future owners of the property before the property is dealt with.
9. Condition 9 is included to ensure that the *works* covered by this *Certificate* will conform to the significant threat policies and designated Great Lakes policies in the *Source Protection Plan*.

This Certificate of Approval revokes and replaces Certificate(s) of Approval No. 9434-7LHMMJ issued on February 4, 2009.

In accordance with Section 100 of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, as amended, you may by written notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 101 of the Ontario Water Resources Act, R.S.O. 1990, Chapter 0.40, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the 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.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

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

This Notice must be served upon:

CONTENT COPY OF ORIGINAL

The Secretary*
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, Ontario
M5G 1E5

AND

The Director
Section 53, *Ontario Water Resources 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) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted sewage works are approved under Section 53 of the Ontario Water Resources Act.

DATED AT TORONTO this 25th day of October, 2011

Ian Parrott, P.Eng.
Director
Section 53, *Ontario Water Resources Act*

ET/
c: District Manager, MOE Thunder Bay - District
Jeremy Dart