

**Ministry of the Environment
and Climate Change**

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Technical Support Section
Water Resources Unit

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**Ministère de l'Environnement et de
l'Action en matière de changement
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November 23, 2015

Mrs. Janet Irvine
7062 Highway 93
Tiny Township, Ontario
L0K 2E1

Dear Ms. Irvine

The Ministry of Environment and Climate Change (MOECC) has reviewed your water well interference complaint regarding the Permit to Take Water # 4317-87CNZN (Permit) for Cedarhurst Quarries & Crushing Limited (Permit Holder) at the Teedon Pit, 90 Darby Road, Tiny Township (Teedon Pit). In response to your complaint a site visit was conducted on June 30, 2015, and the Permit Holder's hydrogeologist, Ross Campbell, produced a water well assessment report dated August 2015. Acting on Mrs. Pauze and Mr. Pigeon's behalf, hydrogeologist, Wilf Ruland, conducted his own assessment and presented a report on October 20, 2015. In response, Mr. Campbell, produced another report responding to Mr. Ruland's report on November 5, 2015.

I have reviewed the above noted reports as well as the documentation within the file the MOECC has for this Permit and conclude the following:

- I agree that when issuing the latest Permit in 2010, the MOECC should have kept the condition that required monitoring the surface elevation of the wash pond that was in the original 2008 Permit. I am requesting that the Permit Holder recommence with this type of monitoring and recommend that upon any requests to renew or amend the Permit that this condition be reinstated.
- The potential violations of the Permit regarding notification of well interference complaints have been forwarded to the MOECC's local environmental officer who is planning on conducting a Permit inspection of the Teedon Pit in the near future.
- I believe that sufficient hydrogeological investigations were completed on-site to warrant the issuance of the Permit when it was issued in 2010.
- I disagree with Mr. Ruland's conceptual model that silt from the wash pond is affecting local wells, including your well. It is not possible for silt to flow through a silt, sand and gravel aquifer as a silt plume as Mr. Ruland has proposed.

- I do not believe that your water well impacts are due to the water takings associated with the Permit for the Teedon Pit.

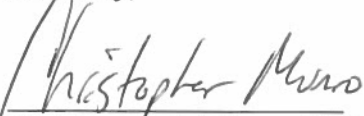
During the site visit, you showed us the sediment that was collecting on the metal filter of your hot water tank and in the toilet tank. This material did not look like the silt/clay material of Mrs. Pauze. Mr. Campbell's water quality sample resulted in no detected total suspended solids or turbidity, iron related bacteria were present, and a background bacteria count of 1000 CFU/100 mL.

It is clear from the reported bacteria level that the well is contaminated with biological material that is likely due to construction of your well at surface. The top of your well is only about 2 inches above ground surface and the well cap has an open hole on the centre of it which is designed for piping to exit; however there is no pipe or other plug sealing this hole. The wellhead has a large overturned metal bowl shaped container loosely covering it. At the present your well is vulnerable to insects, vermin, horse manure runoff, and foreign mater entering your well through the top of the well.

The materials on your filter and toilet tank are likely from either material falling into your well from the hole in your well cap or from the scaling of the inside of the well casing.

I recommend that you hire a licenced water well technician to raise the height of your well, to install a protective well cap, and inspect/disinfect/clean the inside of the well casing. Should you have any questions, please do not hesitate to contact myself at (416) 325-7487 or Mr. Mihran Aslanyan, who will be taking over this file, at (416) 326-4418.

Sincerely,



Christopher R. Munro, M.Sc.Eng., P.Eng.
Geological Engineer / Hydrogeologist

cc. Helen Zhang, Supervisor, Water Unit, Technical Support Section, MOECC
Mihran Aslanyan, Hydrogeologist, Water Unit, Technical Support Section, MOECC
Greg Athron, Environmental Officer, Barrie District, MOECC
Robert E. Graham, Permit Holder, Cedarhurst Quarries & Crushing Limited
Ross Campbell, Alpha Environmental Services
Prabin Sharma, Aggregates Technical Intern, MNRF
Shawn Persaud, Manager of Planning & Development, Township of Tiny