

April 26, 2012

Arlene Kyle  
Mine Licensing Officer  
Department of Energy, Mines and Resources  
Government of Yukon  
P.O Box 2703 (K-9)  
Whitehorse, Yukon Y1A 2C6

Dear Ms.Kyle,

**Re: Revision to Monitoring and Surveillance Plan V2011-03 Section 8.3**

Following a recent memo from AMEC Earth & Environmental (enclosed), Yukon Zinc wishes to update Section 8.3 of the *Monitoring and Surveillance Plan V2011-03* (M&S Plan), submitted October 28, 2011. The purpose of this request is to update the status of the remaining seven operating humidity cells, consisting of four mine rock samples, one neutralization potential depleted ore sample and two cemented paste backfill samples. These cells were initiated in 2005 (three mine rock samples) and 2006 (one mine rock sample, one ore sample and the two backfill samples), and have been operating for a minimum of 305 weeks. As summarized in the attached memo, the mine rock and ore samples have reached acidic conditions and the backfill samples have had relatively stable release rates throughout the testwork. As such, continued operation of these cells “will not likely produce any additional information of significance”.

Wolverine Mine humidity cell testwork and reporting is required under Quartz Mining License QML-0006 (QML) and the Development Assessment Branch Wolverine Project Screening Report<sup>1</sup> (Screening) as follows:

- Screening (p. 38) - The 2005 humidity cell testwork and the 2006 paste backfill humidity cell testwork must continue until regulators are satisfied that the geochemical characteristics of the Wolverine deposit have been defined.
- Screening (p. 57) - Testwork must continue until mine regulators authorize its discontinuance.
- QML Section 10.5 and Screening (p. 57) – The Annual Report is to contain a summary of humidity cell tests undertaken for waste rock and paste backfill.
- QML Section 8.6 and Screening (p. 38) – The Reclamation and Closure Plan is to contain the results of ongoing humidity cell testing to monitor ARD/ML potential of waste rock dumps and paste

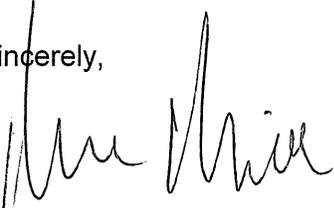
With this revision to Section 8.3 of the M&S Plan, Yukon Zinc seeks authorization for the discontinuance of the remaining seven humidity cells. Cells would be shut down using the standard MEND (Mine Environmental Neutral Drainage) shut down procedure, and the results will be reported in the *2012 QML Annual Report*.

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<sup>1</sup> Screening Report For Yukon Zinc Corporation’s Wolverine Project, Prepared by Government of Yukon Development Assessment Branch, September 20, 2006.

If you have any questions please do not hesitate to contact the undersigned at Mary.Mioska@yukonzinc.com or 604-682-5474 ext. 287.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mary Mioska', written in a cursive style.

Mary Mioska, M.Sc., E.I.T.  
Acting Environmental Manager  
Yukon Zinc Corporation

cc. Robin McCall – Environmental Superintendant, Wolverine Mine  
Ross River Dena Council – Mary Maje  
Liard First Nation – Jimmy Wolftail & Sheila Caesar

***Encl.***

AMEC Earth & Environmental letter April 16, 2012

April 16, 2012

TC53920

Ms. Mary Mioska  
Yukon Zinc Corporation  
701-475 Howe Street  
Vancouver BC  
V6C 2B3

Dear Ms. Mioska,

**Re: Wolverine Project Recommendations for Humidity Cell Termination**

This letter report provides recommendations for the termination of the Wolverine Project (Wolverine) humidity cell testing program. A total of 24 humidity cells have been operated during the course of the investigation; beginning in December 2005. Following recommendations made in November of 2008 (AMEC, 2008), 17 cells were shut down on February 19<sup>th</sup>, 2009. Termination of the 17 cells followed standard procedures as outlined in Price (1997) and MEND (2009). The results of this shutdown were presented in the AMEC report: *Wolverine Project Update: Shutdown of 17 Humidity Cells and Update of Continuing Humidity Cells* (AMEC, 2010).

The seven remaining operating humidity cells consisted of mine rock samples (HC 4, HC 6, HC 7, and HC 10), an NP depleted ore sample (HC 21), and cemented paste backfill samples (T1 and T2). Results from these seven remaining humidity cells were last reported on March 17 2012 (AMEC, 2012) with the summarized results being:

- Three of four mine rock cells including rhyolite (HC 4), carbonaceous-argillite (HC 7), and argillite rock (HC 10) samples were estimated to exhaust their NP prior to the exhaustion of sulphide, suggesting that acidic conditions could form within these materials over time. The calcite-pyrite exhalite sample (HC 6) is considered potentially non acid generating; however the difference between NP and sulphide depletion times is small and could result in the formation of acidic conditions in this sample.
- The rhyolite and carbonaceous-argillite rock samples have already begun generating acidic leachate during the testing period. The estimated NP exhaustion time for rhyolite and carbonaceous-argillite was around six to nine years.

- The leachate from NP-depleted ore cell (HC 21) has gone acidic. The release rates of sulphate, acidity and metals have either stabilized or decreased.
- The cemented paste backfill cells (T1 and T2) have generally stable release rates of sulphate, alkalinity, acidity and metals. The pH of leachates has remained circum-neutral throughout the test period. Both cells are expected to deplete their NP prior to the depletion of available sulphides. An estimated NP exhaustion time in the laboratory for these cells was approximately six or seven years.

Based on these results AMEC recommends that the seven remaining cells should be terminated. Continued operation of the cells will likely not produce any additional information of significance. The cells should be terminated following the standard procedures as outlined in MEND (2009) and Price (1997), which were also applied to the previous shutdown of the 17 cells in 2009. The results of the shutdown procedure should be summarized in a Closeout Report.

## References

- AMEC 2012. Wolverine Project Humidity Cell Update. Prepared by AMEC Environment & Infrastructure, March 17, 2012.
- AMEC 2010. Wolverine Project Update: Shutdown of 17 Humidity Cells and Update of Continuing Humidity Cells. Prepared by AMEC Earth & Environmental, March 17, 2010.
- AMEC 2008. Wolverine Project: Recommendations for Continued Humidity Cell Testing. Prepared by AMEC Earth & Environmental, November 2008.
- MEND 2009. Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials. MEND Report 1.20.1
- Price W.A., 1997. Draft Guidelines and Recommended Methods for the Prediction of Metal Leaching and Acid Rock Drainage at Minesites in British Columbia.

## CLOSURE

This memo was prepared exclusively for Yukon Zinc Corporation (YZC) by AMEC Americas Limited (AMEC). The quality of information, conclusions and estimates contained herein are consistent with the level of effort involved in AMEC's services and based on: i) information available at the time of preparation, ii) data supplied by outside sources and iii) the assumptions, conditions and qualifications set forth in this memo. This memo is intended to be used by YZC only, subject to the terms and conditions of its contract with AMEC. Any other use of, or reliance on, this report by any third party is at that party's sole risk.

Yours truly,

**AMEC Earth & Environmental,  
a Division of AMEC Americas Limited**



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**Ezra Kulczycki, Ph.D.**



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**Steve Sibbick, M.Sc., P. Geol.**  
Principal Geochemist  
Senior Review

EK/SS