From: Nickel, Brian
To: June.Bergquist@deq.idaho.gov
Subject: RE: Sandpoint Zinc DMR data
Date: Friday, February 08, 2013 12:18:00 PM

June:

Looking back through the pretreatment annual reports, it looks like the reason I didn't do MLE for cyanide is that the analytical practical quantification levels (PQLs) were inconsistent over time.

In the instances where cyanide was detected (in 2006), the PQL was 1 µg/L. However, in other years for which I have the lab sheets with the PQLs listed (2003, 2004, and 2007) the PQL was 30 – 50 µg/L. For most years, I didn't have the lab sheets and thus I don't know what the PQL was. So, instead of using MLE, I just made the rule-of-thumb assumption that the coefficient of variation (CV) is 0.6.

As you've probably noticed, nickel was never measurable, so I couldn't do a reasonable potential analysis for nickel.

Zinc was nearly always measurable, with only two exceptions. Thus, I considered MLE to be overkill for zinc; instead, I just assumed that the "less than" concentrations for zinc were equal to half the PQL.

Thanks,

Brian Nickel, E.I.T.

Environmental Engineer
US EPA Region 10 | Office of Water and Watersheds | NPDES Permits Unit
Voice: 206-553-6251 | Toll Free: 800-424-4372 ext. 6251 | Fax: 206-553-0165
Nickel.Brian@epa.gov
http://epa.gov/r10earth/waterpermits.htm
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From: June.Bergquist@deq.idaho.gov [mailto:June.Bergquist@deq.idaho.gov]
Sent: Friday, February 08, 2013 10:00 AM
To: Nickel, Brian
Subject: RE: Sandpoint Zinc DMR data

Got it. Thanks.

From: Nickel, Brian [mailto:Nickel.Brian@epa.gov]
Sent: Friday, February 08, 2013 9:57 AM
To: June Bergquist
Subject: RE: Sandpoint Zinc DMR data

June:

Take a look at the file named "tsdcalcAug08_BN_Sandpoint.xlsx" that I sent to you on January 7th.

You will find the effluent data for zinc, cyanide, and nickel in the tab labeled "pretreatment testing."

The reason it was not necessary to produce separate workbooks for these pollutants (unlike arsenic, chromium, copper, mercury, and lead) was that it was not necessary to perform maximum likelihood estimation (MLE) for those data sets to fill in "less than" or non-detect values.

In hindsight, it's not immediately clear why I didn't do MLE for cyanide, but I don't think it would have made any difference in the outcome of the reasonable potential analysis.

Let me know if you need me to re-send the file.

Thanks,

Brian Nickel, E.I.T.

Environmental Engineer
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Nickel.Brian@epa.gov
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From: June.Bergquist@deq.idaho.gov [mailto:June.Bergquist@deq.idaho.gov]
Sent: Friday, February 08, 2013 9:28 AM
To: Nickel, Brian
Subject: Sandpoint Zinc DMR data

Hi Brian,
I seem to be lacking the spreadsheets with zinc data and RPTE calculations…could you send these to me? Thanks. Sorry to keep bugging you. Almost done.
June