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**From:** Dave Diplock, BEAR Enviro <davediplock@bearenviro.ca>  
**Sent:** Friday, November 23, 2018 2:17 PM  
**To:** [REDACTED]  
**Subject:** Cost Estimate - Preliminary Site Investigation - Grand Forks PW Fuel Facility

Hi [REDACTED]

Attached is the cost estimate to complete the assessment of the former tank area. Costs are based on the 2 days of drilling with up to 6 monitoring wells. Note that the actual effort will depend on what we find as we drill and success of collecting soil samples. The objective is to delineate the assumed contamination; that is, clean soil and water samples around the limits of the contamination and at least one well located within the source area.

There is always the risk of not achieving delineation, hence the phased approach standard to environmental investigation. Delineation is your end goal so we can complete a risk assessment to determine if any physical mitigation is required in the short and/or long term. As we discussed, if there is no off-site migration of the contamination and no high-risk conditions, there is no trigger for further work and a Monitored Natural Attenuation (MNA) or "enhanced" MNA approach would likely be the recommendation.

I have also included Mud Bay's estimate to complete the work with a sonic rig. The sonic rig (and Mud Bay in general) is more expensive but this method is more efficient and would provide more reliable and defensible soil data (due to the course nature of the soils and anticipated limited success of split-spoon soil sampling. The additional cost for Mud Bay on this phase of work is \$4K. I would recommend this route if you foresee the need for third party reliance or application of a MoE Certificate of Compliance. From our discussions, there appears to be a low likelihood of either of these scenarios. The only reasonable scenario I can predict is if there is off-site contamination, in which case we'd be remobilizing at a future date for another phase of work anyways.

Call me to discuss at any time.

Regards,  
Dave Diplock, P.Eng.

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