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January 2004

Letter to Upstream Oil and Gas Industry

## Request for Hydrocarbon Impacted Soil and/or Soil Remediation Information - Weathered Petroleum Hydrocarbons in Soil Project

There is an existing PTAC project "Environmentally Acceptable Endpoints of CCME Canada Wide Standards (CWS) Petroleum Hydrocarbons Fraction F3 for Weathered Petroleum Hydrocarbons in Soil". As part of this project, the technical steering committee has identified a requirement for obtaining real world analytical data and information from hydrocarbon impacted sites that have undergone remediation and/or weathering, and do not meet the F3 fraction ASWQG Tier I criterion. The goal of this study is to provide information that may eventually lead to a defended relaxation of the CWS F3 concentration. Weight of evidence and information is imperative for regulatory movement on this issue. It is for this reason we implore industry to become involved by providing information on hydrocarbon impacted sites with the following characteristics indicated below.

Candidate sites would have impacted subsoil with the following characteristics:

- 1. Impacted with crude oil or diesel invert and have been physically and chemically characterized (pre- and post-treatment in the case of remediated sites) including hydrocarbons (e.g., previously, TEH C<sub>11</sub>-C<sub>60+</sub>, or more recent CCME CWS PHC);
- 2. Remediated or weathered (post-spill monitoring) to the point that hydrocarbons are stable (e.g., F3 fraction reaching asymptotic endpoint) and with non-detectable levels of BTEX and CCME CWS F1, minimal F2 levels, and F4 that meets ASWQG Tier I criterion, or exhibit good crop response:
- 3. Meet CCME criteria for any salt and/or heavy-metal contamination;
- 4. Minimal organic matter, and if organic material added (e.g., compost remediation), known amount and type of additive;
- 5. Potentially have a minimum 40L sample (representative composite) available for collection and additional testing, if required, conducted as part of this study.

The ideal candidate would also have had toxicity bioassay work (e.g., acute and/or chronic plant, earthworm, springtail, Microtox) completed. Please also note whether a weathered crude or diesel invert sample of the impacted material would be available for further study. The specific site (legal) location and operator name will be kept confidential.

Please contact any member of the technical steering committee if you have soil remediation information and/or candidate soil available, or any questions about the PTAC project.

Sincerely,

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