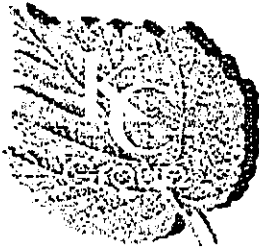


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KC Environmental Group Ltd.

Solutions for Business and Environment

15619 - 112 Avenue
Edmonton, Alberta, Canada
T5M 2V8

Phone: (780) 488-7926
Fax: (780) 452-8284
Email: kcgroupp@cleanitgreenit.net

FAX MESSAGE

DATE: September 8, 2003

TO: Karen Gervais
FAX: (403) 340-5022

FROM: Angella Vertzaya
FAX: 452-8284

NUMBER OF PAGES (8):

Karen, thanks for taking the time to review the status of the projects

Here is the revised remedial plan for Site #5720 (Alsike). As discussed over the phone you will contact Karen Clark letting her know I have faxed the plan to you and that I sent the original in the mail on September 2 2003 (last week) If there is anything else you need please let me know.

Sincerely,
KC Environmental Group Ltd

Angella Vertzaya
Angella Vertzaya

KC Environmental Group Ltd. is pleased to offer services for the design and implementation of

compost systems, environmental management systems, ISO 14000,
waste minimization projects, **community involvement and awareness programs**,
Phase I, II and III environmental assessments, environmental audits, **ECP (Ecologo) and ETV**
(Environmental Technology Verification) program certification..

Call us today for more information!



KC Environmental Group Ltd



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Solutions for Business and Environment

September 3, 2003

Harold Blize
 P O Box 233
 Swan Hills, Alberta
 T0G 2C0

Phone: (780) 775-2187
 Fax: (780) 333-4792

Dear Mr Blize

Re: Revised Proposed Remedial Plan for Site # 5720 located on Highway 20 and Highway 39 (Junction), Alsike, Alberta

KC Environmental Group Ltd. (KC) is pleased to submit a revised proposed remedial action plan for remediation of the Site# 5720 located on Highway 20 and Highway 39 (Junction), Alsike, Alberta. **The previously proposed In-situ Bioremediation is replaced with Excavation of the Contaminated Area and On-Site Aeration. The remedial plan is revised because the revised option will provide a complete site clean-up without extra cost for an on-going monitoring program, while the previously recommended option requires an on-going monitoring program as part of the risk management plan.**

The updated proposed plan is estimated to be \$99,000 +GST, while the estimated cost for the previously recommended plan is \$122,100+GST including a contingency cost of 10%. The contingency cost is provided for additional soil and groundwater monitoring, until the site is completely remediated.

The remedial action plan is revised for the following reasons:

- Environment Canada has recently asked the company that provides the previously recommended BioQuest technology to conduct more testing on its products prior to its commercial application, even though Alberta Environment has approved its application on remediating petroleum hydrocarbon contaminated soil (telephone conversation with Craig Burrow from BioQuest Technology on June 22, 2003).
- The Technical Committee on behalf of Safety Codes Council did not accept the previously proposed remedial plan. KC has revised the remediation plan

*file w/ways
 COPY to SCL
 AB ENV +
 Harold Blize
 Sent on Sept 2/2003*

as attached and believes that it will be a more cost effective remedial method for the site.

- The remedial plan is revised assuming that the groundwater sample recovered from GW8 (B8) has petroleum hydrocarbon levels below the applicable criteria, and the extent of impact is the same as previously evaluated.
- Above all, **the remedial plan is revised because the revised option will provide a complete site clean-up without extra cost for an on-going monitoring program, while the previously recommended option requires an on-going monitoring program as part of the risk management plan.**

The revised proposed remedial plan is based on the results of the Phase III work conducted to further delineate site contamination. The cost estimated for the proposed remedial work is based on current information and existing hydrocarbon contamination levels found to date. Thus, it should be noted, that this cost estimate may fluctuate should evidence of increased contamination be encountered during remediation.

The revised remediation option was selected and evaluated in context with the findings at site #5270. The option addresses all contaminant situations that do not comply with remediation criteria.

A detailed breakdown of professional fees and all related costs such as equipment and personnel requirements and laboratory costs are included in the proposed remedial plan. This provides an order of magnitude for decision-making and budgetary purposes; however, as these are very preliminary estimates, it is advised that costs be further defined during the project-planning phase. KC would be pleased to provide the environmental project management services for this project. KC is a fully qualified and insured environmental engineering firm that can undertake this work.

The total cost estimated for the revised proposed remedial plan is therefore approximately \$99,000 + GST.

As funding provided for each site by the Underground Tank Remediation Program is \$100,000 and \$16,955.51 has been used for the delineation purpose to date, only \$83,044.49 will be available to partly cover the remediation cost.

It is therefore estimated that Mr. Blize will be responsible for the balance of approximately \$15,955.51 and the GST of the project which is estimated at \$6930. These are very preliminary estimates and costs will be further defined during the project planning phase. It is anticipated that competitive

contractor bids will provide competitive pricing that will be closer to available funding for this project, however, Mr. Blize will still be responsible for payment of the GST. With this in mind, please note that more funding may be available for remediation or for covering costs that may be considered beyond his means. Mr. Blize should address this issue with the Safety Codes Council (SSC) and the Appeal Board, however, be advised that the SSC has stated that any additional funding will not be known until March 2004. The SSC has also stated that even if there are additional funds available, they may not be sufficient to cover all requests.

RECOMMENDED REVISED REMEDIAL ACTION PLAN - Excavation of the Contaminated Area with On-Site Aeration

- There are uncertainties in the other proposed remediation methods considered. Since the associated cost of this option appears to be the most cost effective remediation methods, this option is recommended.
- It provides immediate clean up for the contaminated area.
- As the contaminants have migrated to a large area, immediate clean up is necessary to prevent further contaminant migration.
- BTEX , the light petroleum hydrocarbons, are the major contaminants for the site. Only two soil samples have fraction F1 (E3 at a depth of 2.25 m has F1 of 1730 ppm and B2 at a depth of 4.5 m has F1 of 745 ppm) exceeding the criteria (660 ppm). It is noted that a mistake was found for Table 2 in the Phase III ESA report. The soil sample collected at "B2" is at a depth of 4.5 , not 2.25 m. Light petroleum hydrocarbons are volatile organic compounds that can be removed from the soil by aeration.
- The concentrations of the contaminants appear to peak at a depth of 3 m, except for the sample collected at "B2" at a depth of 4.5m. Therefore, the contaminated soil close to the gas pump can be excavated up to a maximum depth of 4.5 m. The remaining less contaminated soil can then be excavated up to a maximum depth of 3.0m.

Task 1. Liaison with Interested Parties

- a. Preparation of tender document
- b. Selection of contractors
- c. Review of site information with subcontractors including:
 - Site visits
 - Meetings
- d. Confirm terms of reference with contractors.
- e. Contractor selection process (establish review criteria which may include but is not limited to: cost, experience, availability and references), contractor review and selection.

- f. Co-ordination and scheduling of on and off site work with successful contractor(s), municipal authorities, which includes but is not limited to utility locates, mobilization (demobilization) of equipment and personnel, fencing, retaining structures, warning signs (as necessary), etc.
- g. Review work and provide direction to successful contractor(s).

Task 2. Detailed Action Plans for Remediation of Soil and Groundwater

- a. **Excavation of soil contaminated with petroleum hydrocarbons**
 - Excavation of the accessible area at 1:1 slope ratio.
 - Recover and dispose of liquids that accumulate during excavation.
 - Stockpiling of clean fill material, installation of a retaining wall, on-site aeration of contaminated soil, testing of aerated soil and placement around site when soil is remediated.
 - Test soil remaining in excavation to determine and assess extent of contamination, per Task 3a.
 - The pumps with associated piping and the two Underground Storage Tanks (USTs) located on the west side of the subject site will be removed.
 - Disposal of scrap metal and tanks at an approved class landfill.
 - Excavation of the accessible area at 1:1 slope ratio.
 - Recover and dispose of liquids that accumulate during excavation.
 - Adjust excavation area as per results of field samples
 - Backfill and compact excavation with remediated materials.
 - Delivery, backfill and compact clean fill soil if the more contaminated soil is not aerated on time for backfilling

Task 3. Laboratory Analysis and Reporting

- a. Confirmatory Laboratory Analysis for the Excavated Area
 - Soil vapor samples will be taken from the walls and bottom of the excavation area in a random manner and field tested using the photoionization detector (PID).
 - A maximum of 25 confirmatory soil samples from the excavated area will be sent for laboratory analysis.
 - A maximum of two liquid sample collected during excavation will be sent for laboratory analysis.
- b. Report Writing
 - The laboratory results will be compared to the applicable Criteria for Fine-Grained Soil and Groundwater, defined in the Alberta Environment's Risk Management Guidelines for Petroleum Storage

Tank Sites (October, 2001). All the soil samples will be tested for BTEX (Benzene, Toluene, Ethylbenzene, Xylenes), petroleum hydrocarbon fractions: Fraction 1 (C6 - C10), Fraction 2 (C10-C16), Fraction 3 (C16-C34), Fraction 4 (C34-50). Soil samples will be randomly selected for lead analysis, as phase II and Phase III ESA did not show that lead contamination is a concern.

- The groundwater sample will be tested for BTEX, and petroleum hydrocarbon fractions: F1 and F2.
- Laboratory results will be analyzed for the excavated area and the aerated soil and one remediation report will be submitted to the client.

A. COST ESTIMATE FOR THE PROPOSED REMEDIATION PLAN

This estimate is based on the existing hydrocarbon contamination levels found to date, however, it should be noted that these values may fluctuate should evidence of increased contamination be experienced during remediation. It should also be noted that on-site adjustments may be required depending on conditions found at the sub-surface level. Any additional work, other than outlined in the above tasks would only be undertaken with the consent from the client and Safety Codes Council. The total cost estimated for the revised proposed remediation project is approximately \$99,000 + GST and the current available funding is \$83,044.49.

Table 1. COST ESTIMATE FOR REVISED REMEDIAL PLAN (CONTRACTOR)

Job Description	Quantity	Estimated Cost	remarks
1. Utility Locates	N/A	\$ 500	eligible
2 Mobilization of Personnel & Equipment	N/A	\$ 2,000	eligible
3. Install Fencing & Signage	N/A	\$ 2,000	eligible
4. Install Retaining Structures	10 m (maximum)	\$ 3,000	eligible
5. Remove & Dispose of Piping & Tanks, and pump	2 tanks at \$2,000 each, and pumps and piping	\$ 5,000	eligible
6. Excavate and stockpile, Load & Transport Contaminated Material	1100 m ³	\$15,000	eligible
7. Vacuum Truck Recovery & Disposal of Pit Liquids	50 m ³	\$ 3,000	eligible
8 On-site Aeration with Allu Bucket /Screener	1,100 m ³	\$ 15,000	Eligible
9. Delivery, backfill and compact clean fill material if not all the contaminated soils aerated on time for backfilling	300 m ³	\$ 6,000	Eligible

<i>Job Description</i>	<i>Quantity</i>	<i>Estimated Cost</i>	<i>remarks</i>
10. Backfill, Delivery, Placement & 95% Compaction	As per Item 6	\$15,000	eligible
SubTotal \$		\$66,500	eligible

Notes:

1. Add 5% contingency for winter or inclement weather conditions.
2. N/A - not applicable

Table 2. COST ESTIMATE FOR REVISED REMEDIAL PLAN (KC Environmental Group Ltd.)

<i>Item</i>	<i>Quantity</i>	<i>Estimated Cost</i>	<i>remarks</i>
1. Tender Document Preparation	N/A	\$ 2,000	Eligible
2. Project Management for interested parties (coordination , work scheduling, providing direction)	N/A	\$ 3,000	Eligible
3. PID Field test equipment for soil samples from the excavated area and aerated remediated soil	N/A	\$1,500	Eligible
4. Confirmatory lab analysis (excavation) and aerated soils	N/A	\$ 17,000	Eligible
5. Data Compilation for excavation and aeration	1 report	\$ 3,000	Eligible
6. Engineering and Project Supervision (5 weeks) for excavated area and On-site aeration	N/A	\$ 6,000	Eligible
Sub Total \$		\$32,500	Eligible

Please note that any remediation underneath the building will be carried out only if permission is granted and if the structural integrity of the building is not compromised. The client and Alberta Remediation Program will be notified and consulted regarding this matter.

C. PROJECT SCHEDULE

A project schedule depicting the timing and duration of each task is provided as shown below:

Table 3. Project Schedule

<i>Project Task</i>	<i>Proposed/Date</i>
Project Initiation	Fall, 2003
Excavation, Backfilling, Compaction	25 days
Total Project time	25 days

D. PROJECT PAYMENT

The Project will be invoiced monthly. Project costs not covered by the Alberta Remediation Program will be billed directly to Mr. Blize.

E. PROJECT LIMITATIONS

This project was completed to the best of the consultant's abilities and in accordance to the APEGGA Code of Ethics. The report was based on the information reviewed to the extent that the information was available and to the extent considered reasonable within the allocated project time frame and project budget. KC Environmental Group Ltd. and the environmental consultants who prepared this report will not accept any liability for contamination that may be found later on the subject site and is not identified in this environmental report.

One copy of the report will be maintained in the consultant's files as required by APEGGA.

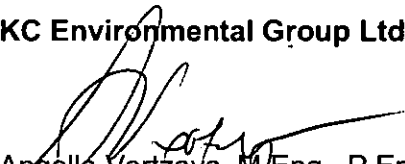
Your signature, or that of authorized personnel, in the space provided at the bottom of this letter will serve as our formal authorization to begin this work. Please fax us back a copy of this letter so that we may start as soon as possible. Written consent is also required from the Alberta Remediation Program in order to proceed with remediation.

A completion date will be discussed with the client upon approval of the project.

If you have any questions or need clarification on any of the points presented herein please contact the undersigned at your earliest convenience. We look forward to working with you on this project.

Sincerely Yours,

KC Environmental Group Ltd.


Angella Vertzaya, M.Eng., P.Eng.
Environmental Engineer

Work Authorization to Proceed:

Date: _____

