## BGES, INC.



Providing Environmental and Geological Consulting Services

1042 East 6<sup>th</sup> Avenue Anchorage, Alaska 99501 Ph: (907) 644-2900 Fax: (907) 644-2901 www.BGESINC.com

September 9, 2010

Mr. Wesley Ghormley Division of Spill Prevention and Response Alaska Department of Environmental Conservation 610 University Avenue Fairbanks, Alaska 99709-3643

## **RE: STATUS UPDATE FOR REMEDIAL ACTION AND ASSESSMENT ACTIVITIES, 2050 PEGER ROAD, FAIRBANKS, ALASKA**

Dear Mr. Ghormley:

BGES, Inc. (BGES), on behalf of Kiewit Infrastructure West Co., is pleased to present this status update for the Remedial Action and Assessment Activities conducted during August 10 and 11, 2010 at 2050 Peger Road in Fairbanks, Alaska (hereafter referred to as the "subject property"). This status update is presented in order to expedite obtaining approval from you to continue to move forward with the proposed activities and close the open excavations as quickly as possible. The subject property and site features are shown on Figure 1.

The Remedial Action and Assessment Activities Work Plan (dated June 11, 2010) for the subject property was approved by you on July 9, 2010. The objectives of these remedial action and assessment activities were to excavate contaminated soils from the vicinity of the former used-oil aboveground storage tank (AST), to further evaluate the former fuel delivery line located between the southwestern corner of the 4-Bay building and the western property boundary, and to evaluate the former tank area located near the western property boundary.

A summary of the activities performed in August and the proposed continued activities are presented below.

**Former Used-Oil AST.** On August 10, 2010, excavation activities were initiated in the vicinity of the former used-oil AST. The off-site transport of contaminated soils for thermal treatment was approved by you on August 9, 2010. Approximately 156 tons of contaminated soil were excavated and transported off-site for thermal treatment at Alaska Soil Recycling (ASR) in Anchorage. The approximate dimensions of the excavation are 30 feet by 15 feet with an approximate depth of 8 feet below grade (bg).

The field screening and confirmation soil samples were collected and field screened as described in the approved Remedial Action and Assessment Activities Work Plan and in accordance with the Alaska Department of Environmental Conservation (ADEC) Draft Field Sampling Guidance (dated May 2010).

The excavation was left open and is appropriately barricaded. The analytical results for the confirmation soil samples indicate that the vertical extent of contamination has not been defined. Diesel range organics (DRO) concentrations ranged from 3,000 milligrams per kilogram (mg/Kg) to 13,000 mg/Kg in soil samples collected from the bottom of the excavation. These concentrations exceed the ADEC cleanup criterion of 250 mg/Kg for DRO. Naphthalene, 1,2,4-trimethylbenzene, 2-methylnaphthalene, and 1-methylnaphthalene concentrations exceeded their respective ADEC cleanup criteria in the soil sample and duplicate soil sample collected from the base of the excavation. A summary of the analytical data which exceed the ADEC cleanup criteria is presented as Figure 2.

Additionally, the lateral extent of contamination has not been defined to the east (beneath the building) and south of the excavation. However, the lateral extent of contamination appears to be defined along the northern and western sides of the excavation.

Groundwater was not encountered in this excavation. It is assumed that groundwater in the vicinity of the subject property is 10 to 15 feet bg. It is noted that there is a potential for on-site migration of contamination (e.g., chlorinated solvents) from an off-site source located southeast of the subject property. It is not known if this contaminant plume is present in the upper aquifer beneath the subject property.

Based on the close proximity of the building, it is not feasible to continue to remove any additional contaminated soils to the east or south of the current excavation because of the potential for undermining the building foundation. Therefore, it is proposed that nutrients and piping for a passive soil vent system be installed in the excavation prior to backfilling to promote the biodegradation of petroleum compounds. The plan is to backfill the open excavation as quickly as possible before winter. We are requesting your approval for the performance of these activities in the former used-oil AST area excavation.

Additionally, recommendations will be made in the report detailing these activities for the installation of soil borings/monitoring wells at a later date to define the extent of contamination in subsurface soils and groundwater in the vicinity of the former used-oil AST.

**Buried Fuel Delivery Line.** On August 11, 2010, the buried fuel delivery line, which is located near the southwestern corner of the 4-Bay building, was evaluated. The buried fuel delivery line was located at approximately six inches bg and extends from the 4-Bay building towards the western property boundary. Four shallow test pits were excavated adjacent to and beneath the former fuel delivery line. Prior to these investigation activities, it was not known whether an underground storage tank (UST) or an AST was previously located near the western property boundary. During these investigative activities, it was located at the end of the buried fuel delivery line and a septic tank was located in the subsurface near the end of the fuel delivery line. The investigative activities associated with the septic tank are described below.

Field screening and confirmation soil samples were collected from the test pits in accordance with the approved Remedial Action and Assessment Activities Work Plan and the ADEC Draft Field Sampling Guidance (dated May 2010). The soils were returned to the test pits after samples were collected.

DRO concentrations in three of the four test pits, completed along the fuel delivery line, ranged from 1,400 mg/Kg to 13,000 mg/Kg at depths of six inches bg all of which exceed the ADEC cleanup criteria. The DRO concentration in the fourth shallow test pit was below the ADEC cleanup criteria. Concentrations of 2-Methylnaphthalene, and 1-methylnaphthalene exceeded their respective ADEC cleanup criteria in the soil sample collected from the test pit located at the western end of the fuel delivery line. A summary of the analytical data which exceed the ADEC cleanup criteria is presented as Figure 3.

The soil samples collected adjacent to the test pit next to the building were analyzed for arsenic by Method 6010; however, the practical quantitation limits (PQL) were above the ADEC cleanup criterion of 3.9 mg/Kg. It is noted that all of the arsenic results were < 11 mg/Kg which is below the previous analytical result for arsenic of 17.3 mg/Kg. Based on this information, these samples will be re-analyzed for arsenic by Method 6020 which has a PQL less than the ADEC cleanup criterion for arsenic.

Based on these results, it is proposed that the fuel delivery line be removed and appropriately disposed, and the contaminated soils surrounding the fuel delivery line will be excavated and transported to ASR for thermal treatment and disposal. For planning purposes, it is estimated that up to approximately 25 to 30 cubic yards (approximately 37 to 45 tons) of contaminated soils will be removed during the fuel delivery line activities. These contaminated soils will be transported to ASR for thermal treatment and disposal.

We are requesting your approval for the performance of these activities adjacent to the fuel delivery line.

All continuing field activities, sample collection activities, laboratory analyses, soil transport, soil treatment, and soil disposal will be performed in accordance with the approved Remedial Action and Assessment Activities Work Plan for the subject property and the ADEC Draft Field Sampling Guidance (dated May 2010).

**Former Tank Location/Septic Tank.** On August 11, 2010, a septic tank was discovered and the western end of the former fuel delivery line. Soils located adjacent to the septic tank were evaluated for the presence of petroleum contamination. The field screening and confirmation soil samples were collected adjacent to the septic tank in accordance with the approved Remedial Action and Assessment Activities Work Plan and the ADEC Draft Field Sampling Guidance (dated May 2010). The soils excavated from the vicinity of the septic tank (approximately 35 cubic yards or 52 tons), were placed on 10 mil plastic and covered with 10 mil plastic. The excavation extended to an approximate depth of 6 feet bg next to the septic tank. Laterally, the excavation adjacent to the septic tank was approximately 2.5 to 3 feet wide.

The excavation around the septic tank was left open and is appropriately barricaded. The analytical results for the confirmation samples indicate that the vertical and lateral extent of contamination has not been defined in the vicinity of the former AST and the septic tank. DRO concentrations for samples collected adjacent to the septic tank ranged from 510 mg/Kg to 13,000 mg/Kg, all of which exceed the ADEC cleanup criteria. A summary of the analytical data which exceed the ADEC cleanup criteria is presented as Figure 3.

The lateral extent of contamination has not been defined in any direction away from the septic tank. The area between the septic tank and the western property boundary was not evaluated because of its close proximity to the property boundary and the fence. A field decision was made to not excavate on the western side of the septic tank so that the fence was not undermined.

Based on these results, it is proposed that the septic tank, along with its contents, will be removed, and appropriately disposed. Additionally, the contaminated soils will be excavated from the vicinity of the septic tank and transported to ASR for thermal treatment and disposal. For planning purposes, it is estimated that the approximately 35 cubic yards (approximately 52 tons) of contaminated soil currently located in stockpiles at the subject property will be transported to ASR for thermal treatment and disposal. Additionally, up to approximately 25 to 30 cubic yards (approximately 37 to 45 tons) of contaminated soils may be removed from the vicinity of the septic tank. These contaminated soils will be transported to ASR for thermal treatment and disposal. We are requesting your approval for the performance of these Page 4 of 5 09-075-02

activities adjacent to the fuel delivery line.

All continuing field activities, sample collection activities, laboratory analyses, soil transport, soil treatment, and soil disposal will be performed in accordance with the approved Remedial Action and Assessment Activities Work Plan for the subject property and the ADEC Draft Field Sampling Guidance (dated May 2010).

**<u>Proposed Schedule.</u>** In order to complete the proposed activities described in this status update letter before winter, the following preliminary schedule has been prepared.

Submit Summary Update Letter to ADEC	September 9, 2010
Receive Approval of Summary Update from ADEC	September 10, 2010
Conduct Utility Locates	September 15, 2010
Continue Remedial Activities	September 15-16, 2010
Soil Transport to ASR	September 15, 2010
Laboratory Analyses	September 17 – October 1, 2010
Prepare and Submit Report	October 1 - 22, 2010

We look forward to working with you towards the successful completion of this project. If you have any questions concerning our project update summary, please do not hesitate to contact us.

Please forward approval of this summary update and proposed activities to David Collentine at Kiewit Infrastructure West Co., Northwest District Environmental Manager, 2200 Columbia House Blvd., Vancouver, Washington, 98661 and BGES at 1042 East 6<sup>th</sup> Avenue, Anchorage, Alaska, 99501.

Sincerely, BGES, INC. Prepared by:

that

Jayne Martin Senior Environmental Scientist

Reviewed and Approved by:

Robert h. Brounstern

Robert N. Braunstein, C.P.G. President

Cc: David Collentine, Kiewit Infrastructure West Co.

Figure 1 – June 21, 2007 Aerial Photograph

Figure 2 - Former Used-Oil AST Excavation

Figure 3 – Buried Fuel Delivery Line & Septic Tank Site Diagram





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