# STATE OF ALASKA

## **DEPT. OF ENVIRONMENTAL CONSERVATION** DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES PROGRAM

SARAH PALIN, GOVERNOR

610 University Avenue Fairbanks, AK 99709-3643 PHONE: (907) 451-5174 FAX: (907) 451-5105 www.dec.state.ak.us

File: 102.38.018 102.26.053

April 20, 2007

Westours Motor Coaches, Inc. Attention: Kelly Clark 300 Elliot Ave., West Seattle, WA 98119

Re: Record of Decision Fairbanks Bus Maintenance Facility Event ID 983

Dear Ms. Clark:

The Alaska Department of Environmental Conservation, Contaminated Sites Program, (ADEC) reviewed the HART CROWSER February 8, 2006, *Report for Groundwater and Remediation Cell Assessment, Westours Motor Coaches, Inc., Fairbanks Bus Maintenance Facility.* Based on the information provided to date, ADEC has determined that soil and groundwater contamination remains at the site above the most stringent 18 AAC 75.341 and 18 AAC 75.345 cleanup levels, but the nature and extent of the contamination does not pose a risk to human health or the environment. Because of this determination, no further cleanup action is required at this time and the site will be closed subject to site specific conditions.

Please note the following information that was considered in determining the environmental status of this site.

## Site Background

The Westours Bus Maintenance Facility is located at 1980 South Cushman Street in a commercial land use area. Groundwater at the site averages 10 feet below ground surface (bgs) and flows to the north-northwest.

Prior to 1960, the site was operated as a residential trailer park but it was acquired by Alaska Overland Inc. and used for the maintenance and storage of school buses. Alaska Overland eventually became Westours, Inc. who own and/or operate the site today. Three buildings are present on the site: a storage building, a maintenance shop, and a small shed on the east side of the maintenance shop. Site activities have included vehicle fueling, washing, storage, painting, and mechanical maintenance and repair.

In January 1989, halogenated volatile organics and petroleum hydrocarbon contamination was identified at the site. Three potential sources for contamination were:

- 1. A dry sump area located on the north side of the maintenance shop. The soil was excavated down to 19 feet (approximately 10 feet below the groundwater table) but contaminated soil remained on the south side of the former dry sump area under the building. The former location of the outfall pipe had 11,400 parts per million (ppm) Total Petroleum Hydrocarbons (TPH) and it was estimated that 140 cubic yards of impacted soil remained in the ground. The contaminants of concerns identified above ADEC cleanup levels included trichloroethylene (TCE), tetrachloroethylene (PCE), methylene chloride, benzene, ethylbenzene and xylenes. The soil samples from the bottom of the excavation did not exceed the ADEC inhalation and ingestion cleanup levels except for one sample with xylene above the inhalation cleanup level at approximately 10 to 12 feet bgs.
- 2. The area south of the maintenance shop was a former fuel island with five regulated underground storage tanks (UST) and one unregulated UST which were removed in 1991. Diesel and gasoline contamination was identified at the two regulated tanks (1,500-gallon diesel UST and a 2,000-gallon gasoline UST) location but no contaminated soil was associated with the other four USTs. The contaminated soil associated with the leaking underground storage tanks was excavated and placed into the on-site remediation cell.
- 3. A surface ditch on the southern property line was associated with runoff from vehicle washing. This ditch was approximately 20 feet south of the former USTs and contaminated soil was excavated from this area and placed in the on-site remediation cell. Soil samples from the excavated area detected TCE, PCE and methylene chloride above the most stringent ADEC cleanup levels but below ADEC human health based levels for ingestion and inhalation.

Additional site investigations between 1989 and 1993 installed 19 monitoring wells on site and the adjacent property. Two groundwater contaminant plumes were identified and it is suspected they originate from two sources: the dry sump area and the former UST/surface ditch area. The groundwater monitoring program has shown a decreasing trend in volatile organic compound concentrations.

Table 1 provides the groundwater concentrations from three on-site wells collected in 2005.

	ESL MW3	ANI MW3	ESL MW8A	ADEC cleanup levels
1,1,1-Trichloroethane	ND	3.3	1.9	200
1,2-Dichloroethane	ND	1.4	ND	5
1,2-Dichloropropane	ND	ND	1.1	5
Chloroform	ND	0.35J	0.58	100
PCE	0.88	ND	ND	5
ТСЕ	ND	8.3	0.97	5

#### Table 1: Groundwater concentrations (August 2005).

Concentrations are in micrograms per liter ( $\mu g/L$ )

ND = Non-detect

J = Indicates an estimated value that falls below the Practical Quantitation Limit (PQL), but is greater than the MDL.

In 2000, ADEC requested additional groundwater data to determine if dense non-aqueous phased liquids (DNAPL) migrated deeper in the aquifer. HART CROWSER reportedly installed two monitoring wells in 2006 to provide this information. One of the wells (GWP-1) was installed north of the property on adjacent property downgradient of the former dry sump area. The other well (GWP-2) was installed on the southern border of the property in the area of the surface ditch and former USTs. Groundwater was sampled at 5-foot intervals between 15 and 35 feet bgs for PCE and TCE using a gas chromatograph (GC). Two groundwater samples from each boring were also collected for laboratory analysis. The laboratory samples were collected at 15 feet bgs and at 30 feet bgs in GWP-1 and 35 feet bgs in GWP-2. The samples from 15 feet bgs were also analyzed for low-level 1,2-dibromoethane (EDB).

The groundwater sample results did not detect volatile organic compounds above ADEC cleanup levels. It was noted that some low-level response was observed in the GC samples from shallow depths but no response at depth.

#### **Remediation Cell**

In 1991, approximately 3,000 cubic yards of both halogenated volatile organic and petroleum hydrocarbon contaminated soil was placed in a 100 foot by 50 foot by 10 foot deep remediation cell located in the northeast corner of the site. The contaminated soil included 1,200 cubic yards from surface stained areas with halogenated volatile organic contamination; 400 cubic yards of petroleum-contaminated soil associated with the USTs from the site; and 1,400 cubic yards of contaminated soil from other Westours sites in the Fairbanks area.

An aeration system to provide oxygen to the contaminated soil reportedly operated for at least five years over the time the soil has been buried.

In 2006, HART CROWSER collected 12 soil samples from the cell in a grid pattern, from the middle of the pile approximately 5 to 7 feet bgs. They limited the depth of the samples to 7 feet so as not to endanger the integrity of the bottom liner of the cell. The samples were submitted to the laboratory for analysis of volatile organic compounds (VOC), gasoline range organics (GRO), diesel range organics (DRO), and residual range organics (RRO). The four soil samples exhibiting the highest field screen readings were submitted to the laboratory for analysis of EDB. Also, the sample with the highest DRO result was analyzed for polynuclear aromatic hydrocarbons (PAH).

All of the sample results were below ADEC cleanup levels for VOCs, GRO, RRO, EDB and PAHs. However, DRO exceeded the cleanup level in several samples.

Table 2 provides the DRO sample results from the remediation cell.

Borehole Number	Organic Vapors (ppmV)	DRO (mg/kg)
SPB-1	5	837
SPB-2	7	1,440
SPB-3	20	79
SPB-4/DUP 2	4	37.2 / 52
SPB-5	10	328
SPB-6	19	35.2

#### Table 2: Soil sample results from remediation cell

SPB-7	15	334
SPB-8	25	465
SPB-9	10	202
SPB-10/DUP 3	22	<b>298</b> / 232
SPB-11	5	56.5
SPB-12	5	85
ADEC Soil Cleanup Level		250

#### **Contaminants of Concern**

Benzene Toluene Ethylbenzene **Xylenes** DRO GRO RRO Methylene Chloride TCE PCE 1,1,1-Trichloroethane 1,1,2-Trichloroethane 1.2-Dichloroethane Chloroform Carbon tetrachloride 1,2- Dichloropropane

#### **Pathways Evaluated**

The following exposure and/or migration pathways were considered in this decision document. The exposure pathways for human health that were evaluated include indoor and outdoor inhalation; ingestion of soil; dermal contact with soil; and ingestion of groundwater or surface water.

The soil contamination does not exceed the ingestion or inhalation levels established in 18 AAC 75.341, therefore the site conditions do not pose an unacceptable risk to human health. NOTE: There was an exceedance of the inhalation for xylene at 12 feet bgs in the past but this is considered residual contamination and not representative of soils across the site.

The ingestion of groundwater pathway was considered incomplete at the site because the groundwater is not used as a drinking water source and the area is served by a community water system.

The migration to groundwater pathway is complete but there was only a minor exceedance of TCE in one well. This is not representative of groundwater quality across the site and it is expected to attenuate over time.

#### **Cleanup Levels**

The cleanup levels for the site are:

18 AAC 75.341 Table B1 and B2, under 40 inch zone, migration to groundwater levels for soil; and 18 AAC 75.345 Table C for groundwater.

### **ADEC Decision**

Based on the information provided to date, ADEC has determined that further remedial action at the Westours Bus Maintenance Facility is not required. The residual soil and groundwater contamination remaining at the site does not pose an unacceptable risk to human health or the environment provided site-specific conditions and/or controls are attached to the property. Based on the information the site will be conditionally closed subject to the following conditions.

- 1. In accordance with 18 AAC 75.325(i), ADEC approval must be obtained prior to transport and/or disposal of soil or groundwater from this site.
- 2. A deed notice (Notice of Environmental Contamination) shall be filed with the State Recorder's Office regarding the location of residual contamination remaining at the site. The residual contamination will also be noted in ADEC's Contaminated Sites Database.
- 3. No groundwater wells shall be installed on the property without the prior review and approval of ADEC.
- 4. The long-term groundwater monitoring plan consists of sampling ESL-MW 3, ESL-MW8A, ANI-MW3 in 2007 for VOCs and every other year until the groundwater meets ADEC Table C cleanup levels.

In accordance with 18 AAC 75.380(d)(2), ADEC reserves the right to require additional site assessment, monitoring, remediation, and/or other necessary actions at this facility if new information become available that suggests any contamination at this site may pose a threat to human health or safety, or the environment.

ADEC will consider a Site Closure (and removal of institutional controls) only after the soil and/or groundwater achieves the established cleanup levels for the site.

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, P.O. Box 111800, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99811-1800, within 15 days of the decision. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, P.O. Box 111800, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99811-1800, within 30 days of the decision. If a hearing is not requested within 30 days, the right to appeal is waived.

Sincerely,

Schrah Williams

Deborah Williams Environmental Program Specialist

Sincerely,

Jim Frechione Environmental Program Manager

cc: Nino Muniz, Hart Crowser, Inc. (via e-mail)