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**Parametrix, Inc.**

DEPT. OF ECOLOGY

Consultants in Engineering and Environmental Sciences

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December 1, 1994

Washington Department of Ecology  
Northwest Regional Office  
Toxic Cleanup Program  
3190 160th Avenue S.E.  
Bellevue, Washington 98008-5452

Re: Release Report for Brem-Air Property Located at 512 Sheldon Boulevard,  
Bremerton, Washington

Dear Gentlemen/Ladies:

On behalf of Brem-Air Disposal, Inc., Parametrix, Inc. is submitting this Release Report pursuant to WAC 173-340-300 (2) to provide information concerning potential subsurface contamination at the property located at 512 Sheldon Boulevard in Bremerton, Washington. This release report is organized in the following sections:

- Background
- Property Description and Use
- Site Investigation and Findings
- Conclusions

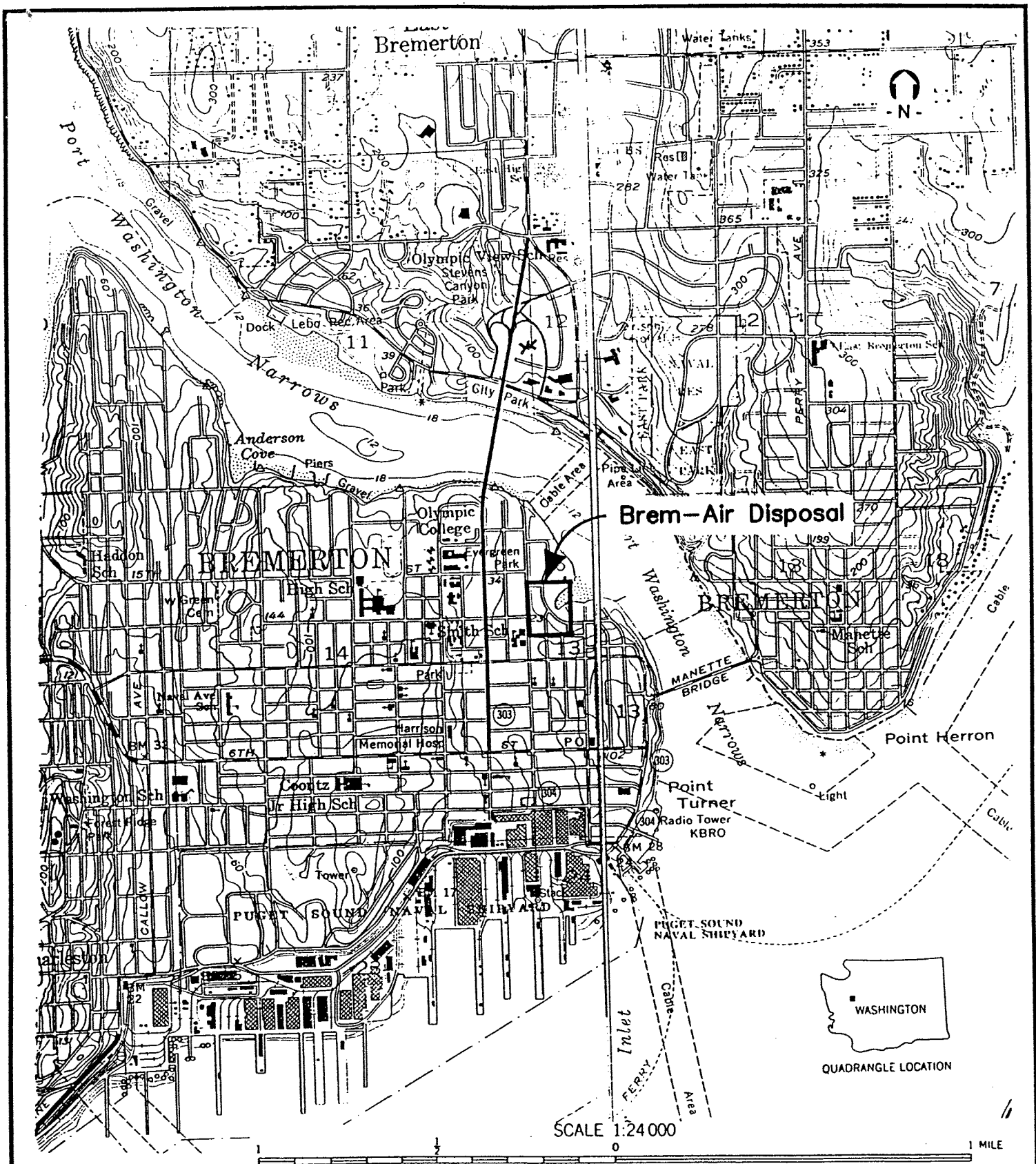
### **Background**

In October 1993 prior to purchasing the subject property from Brem-Air, Envirofil, Inc., the purchaser, performed a limited site investigation to evaluate the presence of subsurface contaminants. Findings of the limited site investigation indicated the potential for subsurface contamination on the property. In October 1994, after the purchase of the property, the new General Manager for Brem-Air, a subsidiary of Envirofil, became aware of the release reporting requirements in WAC 173-340-300 (2), which resulted in preparation of this Release Report.

### **Property Description and Use**

The subject property shown on Figures 1 and 2 is located on the waterfront approximately 0.5 miles from downtown Bremerton, Washington along Sheldon Boulevard and adjacent to Evergreen Park. The address is 512 Sheldon Boulevard.

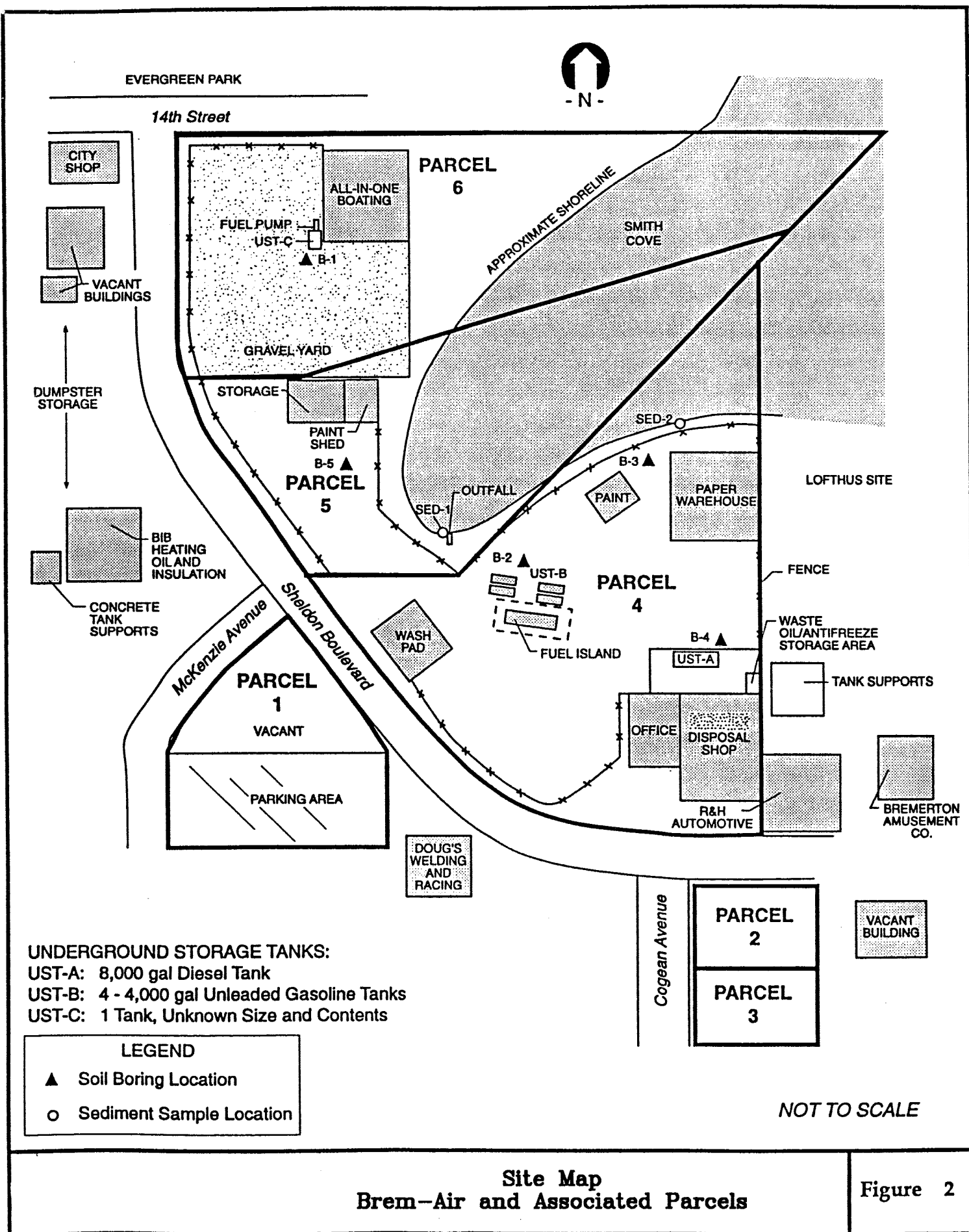




SOURCE: USGS BREMERTON EAST AND BREMERTON WEST, WASHINGTON

Site Location Map

Figure 1



**Site Map**  
**Brem-Air and Associated Parcels**

**Figure 2**



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The property owned by Brem-Air includes Parcels 1 through 6 in Figure 2. Parcels 1, 2, and 3 are currently vacant. Parcels 4 and 5 consist of the area currently used by Brem-Air as the administration/operations base for refuse and medical waste collection, and recycling operations. The property is primarily used for administration of Brem-Air operations and truck parking. Minor maintenance and painting of the trucks and refuse containers are performed on the property.

Four buildings are located on the property used for Brem-Air operations (parcels 4 and 5). Parcel 4 contains an office/maintenance shop, paint building used for equipment storage, paper warehouse used for storage of recyclable material, truck wash pad and fuel island. A paint storage/paint shed is located on parcel 5. Parcels 4 and 5 are covered with asphalt or concrete and surrounded by a fence. Six underground storage tanks (USTs) are located on the property.

#### History of Site and Surrounding Properties

As previously mentioned, Envirofil purchased the Brem-Air property in 1993 and continues to operate the property for their refuse and recycling business. The previous owner of Brem-Air, Don Lindgren, operated the same business at this location from 1971 to 1993.

Since 1911, the property and surrounding properties have been historically used for operations of lumber mills, a steam laundry, coal and gravel bunkers, and petroleum fuel storage. In addition, the shoreline bordering the property (Smith Cove) has changed significantly since 1918 and includes a history of filling and dredging.

Surrounding land uses currently consist of commercial and residential property, Smith Cove, and a city park (Evergreen Park) located across 14th street. Parcel 6 was formerly leased by All-in-One Boating. Residential and commercial uses, and a City of Bremerton shop are located to the west and south across Sheldon Boulevard from the Brem-Air property. The Lofthus Bulk Plant (Lofthus Oil site) is located to the east of Parcel 4, and has been the site of releases to the environment and listed on the Ecology Hazardous Sites list with the highest possible ranking (1). The Lofthus oil site is hydraulically upgradient to the subject property.

#### Description of USTs

Six USTs are located on the property. Five of these USTs are currently registered with WDOE, and have been out of service since 1991. A sixth tank was noticed during the limited site investigation (discussed below). No information is available concerning this tank, which has not been registered with WDOE.



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The five registered tanks are of single-wall steel construction and, at least, 15 to 20 years old. Four of the registered tanks have a capacity of 4,000 gallon and are located near the fuel island (parcel 4 in Figure 2). During the most recent tank tightness test in January 1989, these tanks contained unleaded gasoline. A fifth tank (8,000 gallon capacity), which contained diesel in 1989, is located north of the Envirofil Shop.

There are no indications that these five registered tanks are leaking based on the tightness test performed during 1989.

Submittals to WDOE are being prepared under separate cover for the following notices:

- Joe →
- 902 →
- Request for a 2 year extension for temporary closure of the five registered USTs.
  - Registration and notification of temporary closure for the sixth UST. A 1 year extension will be requested beyond the 1 year temporary closure period.

A description is provided below of a limited site investigation and findings leading to this Release Report.

### Site Investigation and Findings

Prior to purchasing the subject property in 1993, Envirofil performed a limited site investigation. Field investigation activities consisted of the following activities:

- Drilling five soil borings to depths ranging from 6.5 to 9.5 feet below ground surface (bgs), and collection of eleven subsurface soil samples.
- Collection of two surface sediment samples.

Samples were tested for volatile organic compounds, metals (copper, chromium, lead, and zinc), and screened for petroleum hydrocarbons (TPH) using the WTPH-HCID test. Samples testing positive for TPH in the screening level test were quantified for gasoline, diesel, and/or waste oil hydrocarbons using the WTPH methods.

Table 1 is a sample summary including sample locations, sample depths (subsurface samples), and associated site features. Sample locations are shown in Figure 2.



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**TABLE 1. SOIL SAMPLING PROGRAM**

<b>Boring or Surface Sample Location</b>	<b>Sample Depths, feet (bgs)</b>	<b>Associated Site Feature</b>
B-1	2, 5	UST, size and contents unknown, parcel 6
B-2	2, 5	Four, 4,000-gallon unleaded gasoline USTs adjacent to fuel island, parcel 4
B-3	2, 5	Downgradient (from site operations) sample location, parcel 4
B-4	2, 5, 6.5, 8	8,000-gallon diesel UST and above ground waste oil storage, parcel 4
B-5	2, 5	Parcel 5
SED-1	Surface	Drainage outfall
SED-2	Surface	Groundwater seep

bgs = below ground surface



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## Results

TPH was detected above the practical quantitation limit in soil at all sample locations. Results detected above the Model Toxics Control Act (MTCA) Method A cleanup levels (WAC 173-340) are reported in Table 2. The MTCA Method A levels are not necessarily applicable for the Brem-Air property, but allow comparison to established clean-up levels.

TPH was detected above the MTCA Method A cleanup levels at the following subsurface (soil) sample locations (Table 2):

- ▶ Downgradient sample location in parcel 4 (sample B-3);
- ▶ Diesel UST with 8,000 gallon capacity and above ground waste oil storage in parcel 4 (sample B-4)); and,
- ▶ Parcel 5 (sample B-5).

TPH was detected in these subsurface soil samples at concentrations ranging from 60 to 17,000 mg/kg. Samples B-3 (downgradient sample) and B-5 (parcel 5) were collected near the water table, which is present on the property at 4 to 6.5 feet bgs. Groundwater samples were not collected during this limited site investigation. The volatile organic compound, benzene, was also detected (1,000 mg/kg) above the Method A cleanup level in subsurface soil at parcel 5.

In addition, TPH was detected above Method A cleanup levels at the two surface water locations: drainage outfall to Smith Cove (SED-1) and a groundwater seep located in parcel 4. These two surface water sample locations are also shown in Figure 2.

Based on the findings of the limited site investigation, the following general statements can be made with respect to site features:

- Parcels 4 and 5, which are currently used for Brem-Air's operations, are covered with asphalt or concrete and surrounded by a fence, effectively precluding infiltration of precipitation that might mobilize contaminants (if any) and preventing contaminants from entering the subsurface soil.
- Groundwater is present on the property at approximate depths of 4 to 6.5 feet bgs.
- There are no groundwater users located hydraulically downgradient of the property. Drinking water supplies are not collected from the shallow groundwater, but supplied by the City of Bremerton from sources including the City's watershed collected at Casad Dam.



**TABLE 2. SUMMARY OF ANALYTICAL RESULTS DETECTED ABOVE MTCA METHOD A CLEANUP LEVEL**

Parameter	Units	Sample Location and Depth, feet below ground surface						Method A Cleanup Level
		B-2 2'-3.5'	B-2 5'-6.5'	B-3 5'-6.5'	B-5 5'-6.5'	SED-1 Surface	SED-2 Surface	
Total Petroleum Hydrocarbons								
Gasoline	mg/kg			1500 <sup>(1)</sup>			670 <sup>(1)</sup>	100
Diesel	mg/kg		100	7600	8600	1800	3700	200
Heavy oil	mg/kg	240	200	9200	17000		6000	200
Volatile Organic Compounds								
Benzene	ug/kg				1000			500

**Notes**

mg/kg: Milligrams per kilogram

ug/kg: Micrograms per kilogram

(1) Contaminant does not appear to be typical product. Elution pattern suggest it may be diesel or heavy oil.

Boldface denotes analyte concentration exceeds the Model Toxics Control Act (WAC 173-340) Method A cleanup level.





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- The shoreline of Smith Cove has historically been developed by filling and dredging operations. Silty sands from native soils and fill are present on the property at shallow depths (4 to 6.5 feet bgs).
- The presence of TPH may be attributed to the historical presence of fuel storage facilities on the property and releases on adjacent properties located hydraulically upgradient. Operations on the property since 1971 are not believed to have contributed to the presence of TPH on the property.

### Conclusions

TPH at concentrations exceeding the MTCA A clean up levels appears to be present on the property. The source of the contamination is unknown, but does not appear to be from the existing USTs, or Brem-Air operations during the last quarter century.

I trust that the information provided in this Release Report meets the requirement of WAC 173-340-300 (2). Please don't hesitate to contact me at (206) 377-0014 with questions concerning this Report, or contact Mr. Robert Berres, Vice President and General Manager at 479-1714.

Sincerely,

PARAMETRIX, INC.

T. Pat Allen, P.E.

cc: Robert Berres