



INITIAL INVESTIGATION FIELD REPORT

ERTS: 659418
Parcel(s): 114784094
County: Clark

SITE INFORMATION

Site Name (e.g., Co. name over door): Steamboat Landing Marina	Site Address (including City and Zip+4): 3710 SE 139th Ave Vancouver, 98683	Site Phone:
Site Contact and Title: HartCrowser	Site Contact Address (including City and Zip+4): 1700 Westlake Avenue North, Suite 200 Seattle, Washington 98109-6212	Site Contact Phone: (206) 324-5581
Site Owners: MC Marine LLC	Site Owner Address (including City and Zip+4): 250 NE Tomahawk Island Dr. Portland OR, 97217	Site Owner Phone:
Site Owner Contact:	Site Owner Contact Address (including City and Zip+4):	Owner Contact Phone:
Alternate Site Name(s):	Comments:	
Previous Site Owner(s):	Comments:	

Latitude (Decimal Degrees): 45.59
Longitude (Decimal Degrees): -122.53

INSPECTION INFORMATION

Inspection Conducted? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Date/Time:	Entry Notice: Announced <input type="checkbox"/> Unannounced <input type="checkbox"/>
Photographs taken? Yes <input type="checkbox"/> No <input type="checkbox"/>		
Samples collected? Yes <input type="checkbox"/> No <input type="checkbox"/>	If Yes, be sure to include a figure/sketch showing sample locations.	

RECOMMENDATION

No Further Action (Check appropriate box below):	LIST on Confirmed and Suspected Contaminated Sites List: <input checked="" type="checkbox"/>
Release or threatened release does not pose a threat <input type="checkbox"/>	
No release or threatened release <input type="checkbox"/>	
Refer to program/agency (Name: _____) <input type="checkbox"/>	
Independent Cleanup Action Completed (i.e., contamination removed) <input type="checkbox"/>	

COMPLAINT (Brief Summary of ERTS Complaint):

Caller reports release from UST while doing a site assessment. Thought these tanks were filled in place but samples results show impacts to soil from gasoline. They tried to over-excavate and sampled, those were high too. Work began about a month ago (8/11/15).

CURRENT SITE STATUS (Brief Summary of why Site is recommended for Listing or NFA):

Confirmed MTCA Method A CUL exceedances of TPH-G and benzene from below the gasoline UST.

Investigator: Aaren Fiedler	Date Submitted: April 12, 2016
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OBSERVATIONS

Description (please be sure to include the following: site observations, site features and cover, chronology of events, sources/past practices likely responsible for contamination, presence of water supply wells and other potential exposure pathways, etc.):

From UST Site Assessment Checklist received 4/11/16 completed by HartCrowser on 9/9/15:

Visual screening of surrounding soils did not indicate a release had occurred. There was no discoloration or staining on the soil above, below, or adjacent to the three USTs. The vent lines were removed from within the tank excavation and did not have any evidence of contamination. The fuel lines contained a trace amount of residual petroleum and water. The lines were disconnected at the 90-elbow adjacent to the gangway ramp and capped, then pulled out from the tank excavation. There was no evidence of contamination around the 90-elbows, valves, or other conveyance line connections.

Both tanks appear to have been partially emptied. Both tanks contained a mixture of sand/silt and accumulated water with the residual petroleum fuels. "Tank 1" contained approximately 500 gallons of diesel fuel and the water mixture, and "tank 2" contained approximately 1,100 gallons of gasoline fuel diesel and the water mixture. There are no records or plans to indicate when the last filling/emptying of the tanks are. They were likely filled upon installation in the 1980s. Both tanks have vent lines leading to the marina office, however they have been terminated below the ground surface. Both tanks have parallel fuel conveyance lines leading to the gangway ramp to the marina. They were previously disconnected at the bottom of the gangway. The tanks are cylindrical 6'4" in diameter and 17'4" long, nominally 4,000 gallons capacity.

The soils surrounding "Tank 1" and "Tank 2" were, from the ground surface, approximately one foot of moist, brown sandy SILT w/ abundant cobbles, roots and organic matter over damp to moist, light gray to gray fine SAND-SILT with trace cobbles (native). The tanks were contained within a fine to medium sand backfill.

The site is located in a gated residential community directly adjacent to the Columbia River. A parking lot and single-family homes are to the north, the small Marina office and gangway ramp is located to the east, the Columbia River and Marina are to the south, and a grassy area is to the west.

Aaren Fiedler: Sample SBM-UST-B1 was taken from below the diesel tank. Sample SBM-UST-B2 was taken from below the gasoline tank and showed MTCA Method A CULS exceedances for TPH-G and benzene. Samples SBM-UST-SW1 and SBM-UST-SW2 were surface samples taken north and southwest of excavation area. Sample SBM-UST-FL1 was taken near the 90 degree bend in the supply lines. Sample location maps are attached.

There are no known water wells in immediate vicinity of the site. The Site is located on the north shore of the Columbia River near Government Island.

(fill in contaminant matrix below with appropriate status choice from the key below the table)

CONTAMINANT GROUP	CONTAMINANT	SOIL	GROUNDWATER	SURFACE WATER	AIR	BEDROCK	DESCRIPTION
Non-Halogenated Organics	Phenolic Compounds						Compounds containing phenols (Examples: phenol; 4-methylphenol; 2-methylphenol)
	Non-Halogenated Solvents	C	S	S			Organic solvents, typically volatile or semi-volatile, not containing halogens, i.e., Chlorine, Iodine, Bromine or Fluorine. (Examples include acetone, benzene, toluene, ethylbenzene & xylenes [BTEX], methyl ethyl ketone, ethyl acetate, methanol, ethanol, isopropanol, formic acid, acetic acid, Stoddard solvent and naphtha)
	Polynuclear Aromatic Hydrocarbons (PAH)						Hydrocarbons composed of two or more benzene rings.
	Tributyltin						The main active ingredients in biocides used to control a broad spectrum of organisms. Found in antifouling marine paint, antifungal action in textiles and industrial water systems. (Examples: Tributyltin; monobutyltin; dibutyltin)
	Methyl tertiary-butyl ether	B	S	S			MTBE is a volatile oxygen-containing organic compound that was formerly used as a gasoline additive to promote complete combustion and help reduce air pollution.
	Benzene	C	S	S			Benzene
	Other Non-Halogenated Organics						Other Non-Halogenated Organics (Example: Phthalates)
	Petroleum Diesel	B	S	S			Petroleum Diesel
	Petroleum Gasoline	C	S	S			Petroleum Gasoline
	Petroleum Other	B	B	B			Crude oil and any fraction thereof. Petroleum products that are not specifically Gasoline or Diesel.
Halogenated Organics (see notes at bottom)	PBDE						Polybrominated di-phenyl ether
	Other Halogenated Organics						Other organic compounds with halogens (chlorine, fluorine, bromine, iodine). search HSDB (http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB) and look at the Chemical/Physical Properties, and Molecular Formula. If there is a Cl, I, Br, F in the formula, it is halogenated. (Examples: Hexachlorobutadiene; hexachlorobenzene; pentachlorophenol)
	Halogenated solvents						Solvents containing halogens (Halogen is typically chlorine, but can also be fluorine, bromine, iodine), and their breakdown products (Examples: Trichloroethylene; Tetrachloroethylene (aka Perchloroethylene); TCE; TCA; trans and cis 1,2 dichloroethylene; vinyl chloride)
	Polychlorinated Biphenyls (PCB)						Any of a family of industrial compounds produced by chlorination of biphenyl, noted primarily as an environmental pollutant that accumulates in animal tissue with resultant pathogenic and teratogenic effects
	Dioxin/dibenzofuran compounds (see notes at bottom)						A family of more than 70 compounds of chlorinated dioxins or furans. (Examples: Dioxin; Furan; Dioxin TEQ; PCDD; PCDF; TCDD; TCDF; OCDD; OCDF). Do not use for 'dibenzofuran', which is a non-chlorinated compound that is detected using the semivolatiles analysis 8270
Metals	Metals - Other						Metals other than arsenic, lead, or mercury. (Examples: cadmium, antimony, zinc, copper, silver)
	Lead	B	S	S			Lead
	Mercury						Mercury
	Arsenic						Arsenic
Pesticides	Non-halogenated pesticides						Pesticides without halogens (Examples: parathion, malathion, diazinon, phosmet, carbaryl (sevin), fenoxycarb, aldicarb)
	Halogenated pesticides						Pesticides with halogens (Examples: DDT; DDE; Chlordane; Heptachlor; alpha-beta and delta BHC; Aldrin; Endosulfan, dieldrin, endrin)
Other Contaminants	Radioactive Wastes						Wastes that emit more than background levels of radiation.
	Conventional Contaminants, Organic						Unspecified organic matter that imposes an oxygen demand during its decomposition (Example: Total Organic Carbon)

CONTAMINANT GROUP	CONTAMINANT	SOIL	GROUNDWATER	SURFACE WATER	AIR	BEDROCK	DESCRIPTION
	Conventional Contaminants, Inorganic						Non-metallic inorganic substances or indicator parameters that may indicate the existence of contamination if present at unusual levels (Examples: Sulfides, ammonia)
	Asbestos						All forms of Asbestos. Asbestos fibers have been used in products such as building materials, friction products and heat-resistant materials.
	Other Deleterious Substances						Other contaminants or substances that cause subtle or unexpected harm to sediments (Examples: Wood debris; garbage (e.g., dumped in sediments))
	Benthic Failures						Failures of the benthic analysis standards from the Sediment Management Standards.
	Bioassay Failures						For sediments, a failure to meet bioassay criteria from the Sediment Management Standards. For soils, a failure to meet TEE bioassay criteria for plant, animal or soil biota toxicity.
Reactive Wastes	Unexploded Ordnance						Weapons that failed to detonate or discarded shells containing volatile material.
	Other Reactive Wastes						Other Reactive Wastes (Examples: phosphorous, lithium metal, sodium metal)
	Corrosive Wastes						Corrosive wastes are acidic or alkaline (basic) wastes that can readily corrode or dissolve materials they come into contact with. Wastes that are highly corrosive as defined by the Dangerous Waste Regulation (WAC 173-303-090(6)). (Examples: Hydrochloric acid; sulfuric acid; caustic soda)

Status choices for contaminants	Definition
Contaminant Status	Definition
B - Below Cleanup Levels (Confirmed)	The contaminant was tested and found to be below cleanup levels. (Generally, we would not enter each and every contaminant that was tested; for example if an SVOC analysis was done we would not enter each SVOC with a status of "below". We would use this for contaminants that were believed likely to be present but were found to be below standards when tested)
S - Suspected	The contaminant is suspected to be present; based on some knowledge about the history of the site, knowledge of regional contaminants, or based on other contaminants known to be present
C - Confirmed Above Cleanup Levels	The contaminant is confirmed to be present above any cleanup level. For example - above MTCA method A, B, or C; above Sediment Quality Standards; or above a presumed site-specific cleanup level (such as human health criteria for a sediment contaminant).
RA - Remediated - Above	The contaminant was remediated, but remains on site above the cleanup standards (for example - capped area).
RB - Remediated - Below	The contaminant was remediated, and no area of the site contains this contaminant above cleanup standards (for example - complete removal of contaminated soils).

Halogenated chemicals and solvents: Any chemical compound with chloro, bromo, iodo or fluoro is halogenated; those with eight or fewer carbons are generally solvents (e.g. halogenated methane, ethane, propane, butane, pentane, hexane, heptane or octane) and may also be used for or registered as pesticides or fumigants. Most are dangerous wastes, either listed or categorical. Organic compounds with more carbons are almost always halogenated pesticides or a contaminant or derivative. Referral to the HSDB is recommended you are unfamiliar with a chemical name or compound, as it contains useful information about synonyms, uses, trade names, waste codes, and other regulatory information about most toxic or potentially toxic chemicals.

Dibenzodioxins and dibenzofurans are normalized to a combined equivalent toxicity based on 2,3,7,8-tetrachloro-p-dibenzodioxin as set out in Ch. 173-340-708(8)(d) and in the Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures using Toxicity Equivalency Factors Focus Sheet (<https://fortress.wa.gov/ecy/clarc/FocusSheets/tef.pdf>). Results may be reported as individual compounds and isomers (usually lab results), or as a toxic equivalency value (reports).