INITIAL INVESTIGATION FIELD REPORT

WASHINGTON STATE DEPARTMENT OF ECOLOGY

ERTS: 682650
Parcel(s): 5002320010, 5002320020, 4075010961
County: Pierce

SITE INFORMATION

Site Name (e.g., Co. name over door): Former Thriftco Cleaners	Site Address (including City and Zip): ~~11012 Canyon Rd E, Puyallup, Pierce County, WA 98373~~	Site Phone: N/A
Site Contact and Title: Sandy Wagner, Sandmark Corporation (VCP Customer for SW1516)	Site Contact Address (including City and Zip): 1211 15th Ave SW, Puyallup, WA 98371-7323	Site Contact Phone: 253-431-8720
Site Owners: Sound Properties LLC	Site Owner Address (including City and Zip): c/o MK Property Services LLC, PO Box 997, Snoqualmie, WA 98065	Site Owner Phone: 425-888-2993
Site Owner Contact: Brad Middling, Sound Properties LLC	Site Owner Contact Address (including City and Zip): Same as above	Owner Contact Phone: Same as above
Alternate Site Name(s):	Comments:	
Previous Site Owner(s):	Comments:	

Latitude (Decimal Degrees): 47.155115
Longitude (Decimal Degrees): -122.358247

INSPECTION INFORMATION

Inspection Conducted? Yes ☐ No ☒	Date/Time:	Entry Notice: Announced ☐	Unannounced ☐
Photographs taken?	Yes ☐	No ☐	
Samples collected?	Yes ☐	No ☐	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:** ☒
Release or threatened release does not pose a threat	☐	
No release or threatened release	☐	
Refer to program/agency (Name:_____)	☐	
Independent Cleanup Action Completed (i.e., contamination removed)	☐	

COMPLAINT (Brief Summary of ERTS Complaint):

ERTS 682650: Suspected second release of PCE, TCE, DCE, and vinyl chloride in groundwater at monitoring well MW-11; currently part of well network monitoring a cleanup being conducted under Voluntary Cleanup Program (VCP) Project #SW1516.

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

Associated with a cleanup of the former Malms Summit Drycleaner facility (FSID: 95126596; CSID: 4482), VCP #SW1516.

Investigator: Tim Mullin	Date Submitted: 8/9/18

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.):

PCE in soil, groundwater, and air associated with the former Malms Summit Drycleaner facility (Malms; FSID: 95126596; CSID: 4482) is being cleaned up under Voluntary Cleanup Program (VCP) project #SW1516. PCE, TCE, DCE, and vinyl chloride contamination have been reported in groundwater at monitoring well MW-11. The concentration of PCE in MW-11 has been as high as 4,000 micrograms per liter.

Per the Pierce County Assessor-Treasurer's office, tax parcel 4075010752 is owned by Sound Properties LLC (same owner as tax parcel 5002320010), with a street address of 11122 Canyon Rd E, Puyallup. Monitoring wells MW-12 and MW-16D, currently used as part of the SW1516 monitoring well network, are located on tax parcel 4075010961, which is owned by Tapco Credit Union. Tapco has a mailing address of 6312 19th St W, Fircrest, Washington, 98466-6226. The street address of tax parcel 4075010961 is 5303 112th St E, Puyallup. Vinyl chloride is present in groundwater at MW-16D at concentrations exceeding the MTCA Method A cleanup level.

MW-11 is located 250 feet east of Malms and approximately 60 feet west of a former dry cleaning facility which was part of the former Thriftco shopping mall (Thriftco). Contamination at MW-11 is potentially from a second release and not related to Malms. Malms operates on tax parcel 5002320010. MW-11 is also located on tax parcel 5002320010. The Thriftco footprint occupied portions of Pierce County tax parcels 5002320020 and 4075010752. Insufficient data has been collected to date to determine if any contamination is present on tax parcel 4075010752.

Per the Pierce County Assessor-Treasurer's office, tax parcel 5002320020 is owned by Ardell Investment Company, c/o Albertson's LLC, 250 E Parkcenter Blvd, Boise, ID 83706. The 5002320020 parcel address is also listed with a street address of 11012 Canyon Road E, Puyallup. Ardell Investment Company is listed with the Washington Secretary of State as a Foreign Profit Corporation with a registered agent/mailing address of 106 5th Ave SE, Olympia, Washington, 98501. Based on vinyl chloride at wells MW-11 and MW-16D, Ecology suspects that groundwater beneath portions of tax parcel 5002320020 is also contaminated.

It does not appear that groundwater flow direction and gradient has been calculated for the deep aquifer.

<u>Evidence for two separate releases</u>:

- PCE in soil has not been detected at soil boring locations D-5 through D-8, located in an approximately north-south line between the Malms and MW-11. Soil was sampled at approximately 4 feet below ground surface (bgs) in each boring.
- No utilities extended to the east from Malms, which might have provided a preferential pathway for PCE to travel towards MW-11.
- PCE was not detected in shallow soils sampled during installation of monitoring wells MW-10 (5 and 12 feet bgs), MW-15, or MW-18 (8.5 feet bgs), also located between Malms and MW-11.
- Concentrations of PCE in soil beneath Malms are unlikely to produce the magnitude of PCE concentration in groundwater observed at MW-11.
- PCE degradation products have either not been detected or are at very low levels associated with the former Malms location. PCE, TCE, and vinyl chloride are present at concentrations greatly exceeding the MTCA Method A cleanup levels in groundwater at MW-11. This different breakdown suggests the potential for two different degradation timelines and quantities of release, and thus, two different releases.
- The concentrations of PCE in groundwater beneath Malms are approximately two orders of magnitude less than the PCE concentrations in groundwater at MW-11. If Malms was the source of the contamination at MW-11, it would be more likely than not that concentrations of PCE in groundwater in the immediate vicinity of the former Malms location (e.g., MW-9) would be greater than the concentrations in groundwater at MW-11. This is not the case.

<u>Evidence against two separate releases</u>:

- Data gap: no "deep aquifer" groundwater data have been collected which show two separate groundwater plumes of PCE or vinyl chloride.
- Vinyl chloride at monitoring well MW-17D. Monitoring well MW-17D is closer to Malms than MW-11, as MW-17D is located approximately 120 feet northeast of the Malms, and approximately 170 feet northwest of MW-11.
- PCE and its degradation products were not detected in soil at MW-11 at either 5 or 11 feet bgs, except for PCE at 0.01 milligrams per kilogram in soil sampled at 11 feet bgs.
- In 2006, no PCE (or its degradation products) was detected in soil sampled at two borings (B2 and B3) within the approximate Thriftco footprint.
- Groundwater flow direction during the SW1516 cleanup has been reported to the east-southeast (MW-11 is east of Malms).
- No PCE in soil or groundwater has been detected at monitoring well MW-5, located southeast of Thriftco.

To show if two separate releases are present, it is Ecology's opinion that it is necessary to collect additional soil and groundwater data. One or more of the recommendations below may already be proposed for implementation as part of EPI's *Draft Cleanup Action Plan* dated August 31, 2017. The purpose of the recommendations below is to attempt to define plume(s) of PCE and its degradation products in groundwater, with the null hypothesis being the data will show distinct plumes.

Recommendations:

- Install at least one groundwater monitoring well in the deep aquifer in the immediate vicinity of the source area of the Malms PCE release (SW1516 cleanup). The well screen interval should be similar to monitoring wells MW-16D and MW-17D.
- Install two groundwater monitoring wells between Malms and MW-11, screened in the deep aquifer.
- Install one monitoring well in the deep aquifer in the vicinity of MW-11, in order to determine vertical gradient.
- Additional aeral delineation in the vicinity of MW-11 may be necessary in both the shallow and deep aquifers, if not covered already by prior monitoring well installation.
- Monitoring well MW-13D has historically been dry. MW-13D should be overdrilled and re-installed (or decommissioned and a deeper well drilled next to it) to provide groundwater gradient and flow information in the deep aquifer.
- Sample soil for PCE and its degradation products at multiple intervals for any wells installed.
- Calculate a groundwater flow direction and gradient for the deep aquifer. Rose diagrams capturing shallow and deep aquifer groundwater flow directions may be appropriate.
- All monitoring wells installed in the deep aquifer will need to sufficiently seal off the shallow aquifer to prevent cross-contamination.

Cleanup reports received by Ecology as of 7/27/18:
1) See SW1516 (FSID: 95126596; CSID: 4482) Site file for more details.
2) https://fortress.wa.gov/ecy/gsp/CleanupSiteDocuments.aspx?csid=4482

(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						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, isopropranol, 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						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						Benzene
	Other Non-Halogenated Organics						Other Non-Halogenated Organics (Example: Phthalates)
	Petroleum Diesel						Petroleum Diesel
	Petroleum Gasoline						Petroleum Gasoline
	Petroleum Other						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	C	C		C		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 semivolatile organics analysis 8270*
Metals	Metals - Other						Metals other than arsenic, lead, or mercury. (Examples: cadmium antimony, zinc, copper, silver)
	Lead						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 Ordinance						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: Hydrochlori acid; sulfuric acid; caustic soda)

Status choices for contaminants	
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

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

FOR ECOLOGY USE ONLY (For Listing Sites):

How did the Site come to be known:
- ☐ **Site Discovery (received a report):** _____ (Date Report Received)
- ☒ **ERTS Complaint**
- ☐ **Other (please explain):** _____

Does an Early Notice Letter need to be sent: ☒ Yes ☐ No

If *No*, please explain why:

NAICS Code (if known): Otherwise, briefly explain how property is/was used (i.e., gas station, dry cleaner, paint shop, vacant land, etc.):

Site Unit(s) to be created (Unit Type): ☒ Upland (includes VCP & LUST) ☐ Sediment

If multiple Units needed, please explain why: _____

Cleanup Process Type (for the Unit):
- ☒ No Process
- ☐ Voluntary Cleanup Program
- ☐ Federal-supervised or conducted
- ☐ Independent Action
- ☐ Ecology-supervised or conducted

Site Status:
- ☒ Awaiting Cleanup
- ☐ Cleanup Started
- ☐ No Further Action Required
- ☐ Construction Complete – Performance Monitoring
- ☐ Cleanup Complete – Active O&M/Monitoring

Site Manager (Default: Southwest Region):

Specific confirmed contaminants include:

Facility/Site ID No. (if known):
_____

halogenated solvents in Soil

halogenated solvents in Groundwater

halogenated solvents in Other (specify matrix: air)

COUNTY ASSESSOR INFO:

Please attach to this report a copy of the tax parcel/ownership information for each parcel associated with the site, as well as a parcel map illustrating the parcel boundary and location.