WASHINGTON STATE DEPARTMENT OF ECOLOGY

INITIAL INVESTIGATION FIELD REPORT

ERTS Number: 648167
Parcel #(s): 132809 210030 & 132809 2200
COUNTY: Clallam

SITE INFORMATION

Site Name (e.g., Co. name over door):	Site Address (including City and Zip+4):	Site Phone:
Forks Sand and Gravel	112 Ash Avenue Forks, WA 98331	N/A
Site Contact and Title: Jamie Zundel, Owner's Daughter	Email Address: 1wallace@whidbey.com	Site Contact Phone: (360) 730-4476
Site Owner: Jim Wallace, dba Forks Sand and Gravel	Site Owner Address (including City and Zip+4): PO Box 907 Langley, WA	Site Owner Phone: (360) 239-6517
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):	47.951056
Longitude (Decimal Degrees):	-124.391851

INSPECTION INFORMATION

Inspection Conducted? Yes ☒ No ☐	Date/Time: 4/22/14 10:00 AM	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): On 4/17/14, Jamie Zundel called to report a piece of sand and gravel equipment was vandalized. Someone opened the plug of a 20 gallon hydraulic fluid tank of the gravel crusher which was less than half full. Less than 10 gallons of oil spilled onto the ground. No surface water was impacted.

CURRENT SITE STATUS (Brief Summary of why Site is recommended for Listing or NFA): On 4/22/14, I completed an initial investigation. Between 5/1/14 and 5/8/14, the owner excavated 66.14 tons of petroleum contaminated soil and disposed it at permitted solid waste facilities. Three confirmation soil samples were taken and they were all below 2,000 mg/kg for both diesel range organics and residual range organics. Based on the independent cleanup action and corresponding soil sample results, Clallam County Environmental Health recommends no further action at this site.

Investigator: Jennifer Garcelon Date Submitted: 6-3-14

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.):

On 4/17/14, Jamie Zundel called Ecology to report a piece of sand and gravel equipment was vandalized at Forks Sand and Gravel located at 112 Ash Avenue in Forks, Washington. Someone opened the plug of a 20 gallon hydraulic oil tank which was less than half full.

Forks Sand and Gravel has been closed down for about a year and was not operating. The site is comprised of three parcels in the middle of the Forks City Limits. Parcel 132809 240000 is 6.36 acres and is where the sand and gravel was stored for sale, and where the office building and trucks are located; just to the north is parcel 132809 210030 which is 7.46 acres and is where the gravel crusher with the hydraulic fluid tank is located; and just to the west is parcel 132809 220000 which is 7.39 acres and located adjacent to the machinery. Forks Sand and Gravel is owned by Jim Wallace. He lives in Langley, Washington.

The City of Forks hired an environmental consultant, Jill Betts (503-819-2835), to evaluate a property adjacent to Forks Sand and Gravel. On 4/16/14, the consultant and City conducted a site visit. They had permission to access Forks Sand and Gravel property. They discovered hydraulic oil from a 20 gallon tank on the gravel crusher. It was on the ground and flowed out on a dirt road to the west. It is about 3,000' from the closest stream. Mr. Wallace estimates there was less than 10 gallons of hydraulic oil in the tank. Mr. Wallace had been to the site one or two days before it was discovered and had not seen the spill. It likely happened sometime between 4/14-16/14.

On 4/16/14, City of Forks workers and the consultant applied absorbent pads to the spill area. The contaminated soil next to the tank was dug out and placed onto a tarp and covered up. The consultant took two soil samples of the contaminated area and had them analyzed for Polychlorinated biphenyls (PCBs) and Northwest Total Petroleum Hydrocarbons-Diesel extended (NWTPH-Dx). The results for PCBs came back non-detect. The results showed at the base of the tank there was 830 mg/kg diesel range organics (DRO) and 100,000 mg/kg residual range organics (RRO); approximately 5' down slope from the tank, sample W.C. showed 830 mg/kg RRO and 14,000 mg/kg RRO. The Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses for DRO is 2,000 mg/kg and for RRO is 2,000 mg/kg. The samples exceeded the MTCA cleanup levels.

On 4/22/14, I completed an initial investigation. I met the property owner, Jim Wallace on site. He showed me the 20 gallon hydraulic fluid tank on the gravel crushing machine. He explained he had been to the site one or two days before the City of Forks and their consultant had been there and he did not observe a spill. The hydraulic tank was on the southwest side of the gravel crusher. The topography of the site is generally flat except where gravel was mined down about 50' in pits to the northwest and west of the gravel crusher. When the plug was removed from the tank, the hydraulic fluid flowed to the west down the road to the west gravel pit. Because the City of Forks discovered the spill, they dug about 10 yards^3 of soil out and applied absorbent socks down the area of the hydraulic fluid flow. The excavated soil was placed on a tarp and covered with another tarp. The soil was mainly dug from under the tank and to the west. Mr. Wallace indicated he would excavate more soil the following week.

On 5/1/14, I met the owner, Jim Wallace and his daughter Jamie Zundel on site. They were completing additional excavation work; they expected the excavation to take a half a day, but there was more soil to excavate than they expected. I showed Ms. Zundel how to conduct a field check by using a bucket of water and adding the soil to look for sheen. I also showed her how to take a soil sample using stainless steel equipment and avoiding contamination between samples. On 5/1/14, they disposed 19.48 tons of petroleum contaminated soil (PCS) at the Port Angeles Transfer Station; on 5/8/14, they disposed 46.66 tons of PCS at Kitsap Transfer Station, for a total amount of 66.14 tons of PCS disposed at permitted solid waste facilities.

On 5/8/14, Ms. Zundel took three soil samples and had them analyzed for NWTPH-Dx. A map of the sample locations is attached. The results are in the table below.

Sample Name	Analyte	Result in mg/kg
Base of Tank	DRO	Not Detected > Reporting Limit of 25
	RRO	560
W.C.	DRO	Not Detected > Reporting Limit of 25
	RRO	Not Detected > Reporting Limit of 50
50' Toe of Slope	DRO	Not Detected > Reporting Limit of 25
	RRO	260

The confirmation soil samples are all below MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses of 2,000 mg/kg for DRO and 2,000 mg/kg for RRO. Based on the independent cleanup action and corresponding soil sample results, Clallam County Environmental Health recommends no further action at this site.

(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 any halogens. To determine if a product has halogens, 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 not a Cl, I, Br, F in the formula, it's not halogenated. (Examples: acetone, benzene, toluene, xylenes, methyl ethyl ketone, ethyl acetate, methanol, ethanol, isopropranol, formic acid, acetic acid, stoddard solvent, Naptha). *Use this when TEX contaminants are present independently of gasoline.*
	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	RB					Petroleum Diesel
	Petroleum Gasoline						Petroleum Gasoline
	Petroleum Other	RB					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)	B					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.

CONTAMINANT GROUP	CONTAMINANT	SOIL	GROUNDWATER	SURFACE WATER	AIR	BEDROCK	DESCRIPTION
	Conventional Contaminants, Organic						Unspecified organic matter that imposes an oxygen demand during its decomposition (Example: Total Organic Carbon)
	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: Hydrochloric 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 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 derivitive. 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).

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: NFA List

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

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 ☒ Independent Action
☐ Voluntary Cleanup Program ☐ Ecology-supervised or conducted
☐ Federal-supervised or conducted

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

Site Manager (Default: Southwest Region): _____

Specific confirmed contaminants include:

_____ in Soil

_____ in Groundwater

_____ in Other (specify matrix: _____)

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

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.

Clallam County Parcel Map - Windows Internet Explorer

http://www.clallam.local/aimswebsite/CA_pacs_intra/viewer.htm

File Edit View Favorites Tools Help

Clallam County Parcel Map

Parcels

Rec	PNUM	VERSION	PROP_ID	PACS_INFO	ACRES_LAND	STATUS	PRC_STATUS	OWNER_COUN	OWNER	OWN_LAST	OWN_FIRST	OWN_ADDR1	OWN_ADDR2	OW
1	132809220000	0	5400	1 Prop Link	7.49	A	Active	1	FORKS SAND AND GRAVEL	FORKS SAND AND GRAVEL		PO BOX 907		

Identify Feature

Zoom to Parcel: Go

Zoom to Scale (no commas!) 1: 8443 Go