DEPARTMENT OF ECOLOGY
State of Washington

☒ Check this box if you have attached any documents to this form (using the paperclip icon on the left).

ERTS #(s):	**725793**
Parcel # (s):	**0320301196**
County:	**Pierce**
FSID #:	100003109
CSID #:	17132
UST #:	Click to enter text.

SITE INFORMATION

Site Name (Name over the door): **Tacoma PUD Transformer Release at 6430 Tacoma Mall Blvd**	Site Address (including City, State, and Zip): **6430 Tacoma Mall Blvd, Tacoma, WA 98409**	Phone Click to enter text. Email **Click to enter text.**
Site Contact, Title, Business: **James Bozic, Senior Environmental Specialist, Tacoma Public Utilities**	Site Contact Address (including City, State, and Zip): **3628 South 35th Street, Tacoma, WA 98409-3192**	Phone **253.502.8767 253.331.8723** Email **jbozic@cityoftacoma.org**
Site Owner, Title Business: **Tacoma Public Utilities – Tacoma Power**	Site Owner Address (including City, State, and Zip): **3628 South 35th Street, Tacoma, WA 98409 3198**	Phone **253.502.8600** Email **cservice@cityoftacoma.org**
Site Owner Contact, Title, Business **Tri-Anchor Real Estate LLC**	Site Owner Contact Address (Including City, State, an Zip): **PO Box 392, Renton, WA 98057**	Phone **Click to enter text.** Email **Click to enter text.**
Previous Site Owner(s): **Click to enter text.**	Additional Info (for any Site Information Item): **According to the corporations and charities filing system, Tri-Anchor Real Estate is also located at the Site address.**	
Alternate Site Name(s): **Click to enter text.**		

Latitude (Decimal Degrees):	**47.19848**	**Longitude** (Decimal Degrees):	**-122.46319**

INSPECTION INFORMATION

☐ Please check this box if there is relevant inspection information, such as data or photos, in an existing site report for this site.

Inspection Conducted? Yes ☐ No ☒	Date/Time: Click to enter text.	Entry Notice:	Announced ☐ Unannounced ☐
Photographs taken?	Yes ☐	No ☒	Note: Attach photographs or upload to PIMS
Samples Collected?	Yes ☐	No ☒	Note: Attach record with media, location, depth, etc.

RECOMMENDATION

No Further Action (Check the 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: **Click to enter text.**)	☐	
Independent Cleanup Action Completed (contamination removed)	☐	

COMPLAINT (Brief Summary of ERTS Complaint):

An automotive accident caused mineral oil to be released from the transformer to the soil.

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

A limited cleanup was performed that removed a majority of the mineral oil. A high concentration of mineral oil remains beneath a sidewalk west of the transformer.

Investigator: **Aaren Fiedler**	Date Submitted: **12/21/2023**

OBSERVATIONS ☐ **Please check this box if you included information on the Supplemental Page at the end of the report.**

Description (If a site visit is made, 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.):

The release is in the following special condition zones:

Tacoma Smelter Plume (TSP) (Pierce County; FSID24971643) under 20 ppm.
City of Tacoma Water Division 10-year and 5-year Wellhead Protection Zone for well 4-A ABM922.
City of Tacoma Water Division 10-year and 5-year Wellhead Protection Zone for well 6 B AFT219.
City of Fircrest 10-year and 5-year Wellhead Protection Zone for well #9 AAY306.

Tacoma Public Utilities (TPU) estimated approximately 60 gallons of mineral oil were released into the soil. TPU personnel collected an initial prescreening sample (6430 TMB – Prescreen) on September 14, 2023) to determine impacts to the soil. This sample showed 180,000 mg/kg of mineral oil in the soil.

GeoEngineers performed the remedial activity for Tacoma PUD on November 18, 2023. Field screening consisting of visual appearance and water sheen testing were used to guide the excavation activities. The excavation's final area was 11 feet long by 10 feet wide with depths ranging from 0.25 feet to 4 feet.

The north (EX-2-1.0), south (EX-4-2.0), east (EX-1-0.25), and floor (EX-3-4.0) of the excavation all showed results below the laboratory reporting limit which was either 110 mg/kg or 120 mg/kg depending on the sample.

The western extent of the contamination migrated beneath a sidewalk that for unexplained reasons could not be removed to allow for further cleanup. Two samples from the west side wall (FS-1-1.0 and FS-2-1.25) showed high concentrations of mineral oil that exceeded that MTCA Method A soil CUL. FS-1-1.0 had a concentration of 15,000 mg/kg, and FS-2-1.25 had a concentration of 21,000 mg/kg. A pothole dug further to the west on the other side of the sidewalk down to a depth of 2 feet (EX-5-2.0) showed a mineral oil concentration of 210 mg/kg and sidewall samples collected around the two exceedance samples (FS-3-4.0, FS-4-0.5, FS-5-1.0) all showed mineral oil concentration below the laboratory reporting limit.

GeoEngineers estimates the area of mineral oil-contaminated soil in excess of the CUL to be approximately 3 feet by 1.25 feet or approximately ½ of a cubic yard.

The transformer's mineral oil was reportedly analyzed in 1992 for polychlorinated biphenyls (PCBs) and found to contain <1 ppm (the labs reporting limit [RL]). No records were provided.

The remaining mineral oil that exceeds the MTCA Method A soil CUL is small enough that there is not a sufficient benefit to removing it. However, there is a risk of future releases compounding an already existing problem. For that reason:

I recommend that the release requires no further action.
I do recommend that the release be listed on the Confirmed and Suspected Contaminated Sites List (CSCSL).

Documents reviewed:

GeoEngineers, Remedial Action Summary, memorandum addressed to Tacoma Public Utilities, December 20, 2023.

CONTAMINANT GROUP	CONTAMINANT	*SOIL*	*GROUNDWATER*	*SURFACE WATER*	*AIR*	*SEDIMENT*	DESCRIPTION
Non-Halogenated Organics	Phenolic Compounds	Select	Select	Select		Select	Compounds containing phenols (Examples: phenol; 4-methylphenol; 2-methylphenol)
	Non-Halogenated Solvents	Select	Select	Select	Select	Select	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)	Select	Select	Select	Select	Select	Hydrocarbons composed of two or more benzene rings.
	Tributyltin	Select	Select	Select		Select	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	Select	Select	Select	Select	Select	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	Select	Select	Select	Select	Select	Benzene
	Other Non-Halogenated Organics	Select	Select	Select	Select	Select	TEX
	Petroleum Diesel	Select	Select	Select		Select	Petroleum Diesel
	Petroleum Gasoline	Select	Select	Select	Select	Select	Petroleum Gasoline
	Petroleum Other	**C**	Select	Select		Select	Oil-range organics
Halogenated Organics (see notes at bottom)	PBDE	Select	Select	Select	Select	Select	Polybrominated di-phenyl ether
	Other Halogenated Organics	Select	Select	Select	Select	Select	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	Select	Select	Select	Select	Select	PCE, chloroform, EDB, EDC, MTBE
	Polychlorinated Biphenyls (PCB)	**B**	Select	Select	Select	Select	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)	Select	Select	Select	Select	Select	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	Select	Select	Select		Select	Cr, Se, Ag, Ba, Cd
	Lead	Select	Select	Select		Select	Lead
	Mercury	Select	Select	Select	Select	Select	Mercury
	Arsenic	Select	Select	Select		Select	Arsenic
Pesticides	Non-halogenated pesticides	Select	Select	Select	Select	Select	Pesticides without halogens (Examples: parathion, malathion, diazinon, phosmet, carbaryl (sevin), fenoxycarb, aldicarb)
	Halogenated pesticides	Select	Select	Select	Select	Select	Pesticides with halogens (Examples: DDT; DDE; Chlordane; Heptachlor; alpha-beta and delta BHC; Aldrin; Endosulfan, dieldrin, endrin)

CONTAMINANT GROUP	CONTAMINANT	*SOIL*	*GROUNDWATER*	*SURFACE WATER*	*AIR*	*SEDIMENT*	DESCRIPTION
Other Contaminants	Radioactive Wastes	Select	Select	Select	Select	Select	Wastes that emit more than background levels of radiation.
	Conventional Contaminants, Organic	Select	Select	Select		Select	Unspecified organic matter that imposes an oxygen demand during its decomposition (Example: Total Organic Carbon)
	Conventional Contaminants, Inorganic	Select	Select	Select	Select	Select	Non-metallic inorganic substances or indicator parameters that may indicate the existence of contamination if present at unusual levels (Examples: Sulfides, ammonia)
	Asbestos	Select	Select	Select	Select	Select	All forms of Asbestos. Asbestos fibers have been used in products such as building materials, friction products and heat-resistant materials.
	Other Deleterious Substances	Select	Select	Select		Select	Other contaminants or substances that cause subtle or unexpected harm to sediments (Examples: Wood debris; garbage (e.g., dumped in sediments))
	Benthic Failures	Select	Select	Select		Select	Failures of the benthic analysis standards from the Sediment Management Standards.
	Bioassay Failures	Select	Select	Select		Select	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	Select	Select	Select	Select	Select	Weapons that failed to detonate or discarded shells containing volatile material.
	Other Reactive Wastes	Select	Select	Select	Select	Select	Other Reactive Wastes (Examples: phosphorous, lithium metal, sodium metal)
	Corrosive Wastes	Select	Select	Select	Select	Select	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)

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

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 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 if 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 WAC 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 II REVIEWER USE ONLY (For Listing Sites):

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

Does an Early Notice Letter need to be sent: ☒ Yes ☐ No
If *No*, please explain why: Click to enter text.

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

Site Unit(s) to be created (Unit Type): ☐ Upland (includes VCP & LUST) ☐ Sediment
If multiple Unites needed, please explain why: Click to enter text.

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

Model Remedy Used? ☐
If yes, was this a transformer spill? ☐

Site Manager (Default Click to enter text.**)** Click to enter text.

Specific confirmed contaminants include:
Mineral Oil in Soil
Click to enter text. in Groundwater
Click to enter text. in Other (specify matrix: Choose an item.

Facility/Site ID No. (if known):
Click to enter text.
Cleanup Site ID No. (if known):
Click to enter text.

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.

Additional or Supplemental Information for Observations Page

Please use this box for any text that requires special formatting.

Click to enter text.

Ecology Figure 1: Release Location with Parcels

December 21, 2023

roads

1:1,128

0 0.01 0.01 0.03 mi

0 0.01 0.02 0.04 km

N

WA Dept. of Ecology

Pierce County Assessor-Treasurer
Property Summary

6430 TACOMA MALL BLVD

TRI-ANCHOR REAL ESTATE LLC
0320301196

Tax Description

Section 30 Township 20 Range 03 Quarter 11 : PARCEL B OF DBLR 92-09-01-0108 DESC AS COM AT A PT ON N LI OF NE 42 FT W OF NE COR OF NE SD PT BEING W LI OF TAC MALL BLVD TH S ALG SD W LI OF TAC MALL BLVD 188.78 FT TO POB TH S 240.32 FT TH W PAR/W S 64TH ST 108 FT TH N PAR/W E LI OF NE 240.32 FT TH S 89 DEG 21 MIN 23 SEC E TO POB EASE OF RECORD OUT OF 1-187, 1-186,1-097 & 1-137 SEG E-1152 JU 02-26-93CL

Property Details

Parcel Number	0320301196
Site Address	6430 TACOMA MALL BLVD
Account Type	Real Property
Category	Land and Improvements
Assessment Use Code	6199-MISC OFFICE SPACE

Taxpayer Details

Taxpayer Name	TRI-ANCHOR REAL ESTATE LLC
Mailing Address	PO BOX 392 RENTON, WA 98057

Appraisal Details

Neighborhood	203 / 820
Value Area	PI3
Appr Acct Type	Commercial
Business Name	SUNDOWN LAND BROKERS
Last Inspection	07/05/2023-New Construction
Appraisal Area	2

Related Parcels

Group Account Number	n/a
Located On	n/a
Associated Parcels	1200140831

Assessed Value

Value Year	2023	**Assessed Total**	1,063,800
Tax Year	2024	**Assessed Land**	826,800
		Assessed Improvements	237,000
Taxable Value	1,063,800		
Tax Code Area	005	**Current Use Land**	0
Tax Code Area Rate	0	**Personal Property**	0
Notice of Value Mailing Date	06/23/2023		

Assessment Details

2023 Values for 2024 Tax

Taxable Value	$1,063,800
Assessed Value	$1,063,800

Tax Amounts Due

Tax Year	Minimum Due	Total Due
TOTAL	**0.00**	**0.00**

Property Tax Exemptions

No exemptions

Land Details

Land Economic Area	2023
RTSQQ	03-20-30-11
Value Area	PI3
Neighborhood	203 / 820
Square Footage	26,332
Acres	0.604
Front Foot	240
Electric	Power Installed
Sewer	Sewer/Septic Installed
Water	Water Installed

Building 1 Details

General Characteristics

Property Type	Commercial
Condition	Average
Quality	Average
Neighborhood	203
Occupancy	Office Class C
Square Feet	9,070
Net Square Feet	7,585
Attached Garage Square Feet	0
Detached Garage Square Feet	0
Carport Square Feet	0
Finished Attic Square Feet	0
Total Basement Square Feet	0
Finished Basement Square Feet	0
Basement Garage Door	0
Fireplaces	0

Built-As

DESCRIPTION	Office Building
YEAR BUILT	1974
ADJUSTED YEAR BUILT	1988
SQUARE FEET	8,398
STORIES	2
BEDROOMS	0
BATHROOMS	0
EXTERIOR	n/a
CLASS	Wood Frame
ROOF	n/a
HVAC	Package Unit
UNITS	0
SPRINKLER SQUARE FEET	0

DESCRIPTION	Service Garage
YEAR BUILT	1974
ADJUSTED YEAR BUILT	1994
SQUARE FEET	672
STORIES	1
BEDROOMS	0
BATHROOMS	0
EXTERIOR	n/a
CLASS	Wood Frame
ROOF	n/a
HVAC	Electric
UNITS	0
SPRINKLER SQUARE FEET	0

Improvement Details

Type	Description	Units
Add On	Asphalt (AV)	14,000
Add On	Concrete	776

Sales History

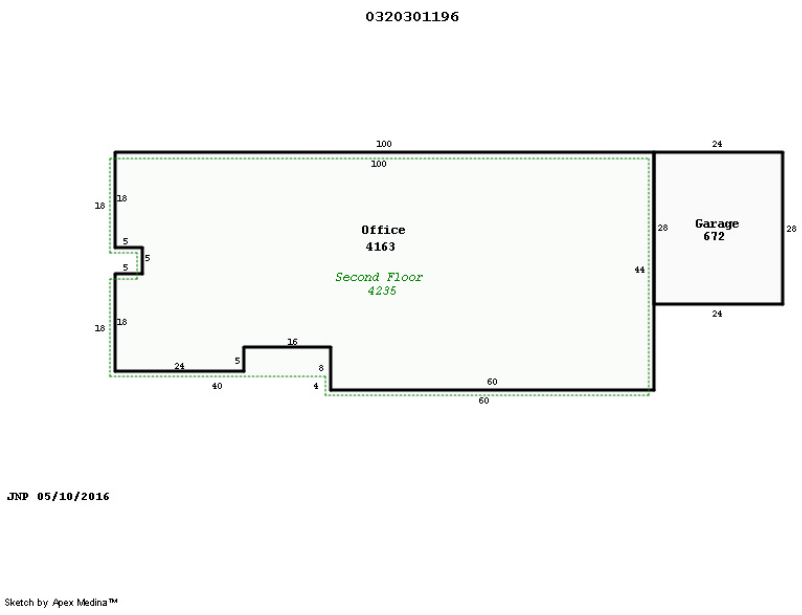
SALE DATE	01/20/2017
ETN	4422832
PARCEL COUNT	1
GRANTOR	HAYERTZ RICHARD ESTATE OF & HA
GRANTEE	ANWER SHUMAILA
SALE PRICE	755,000
DEED TYPE	Statutory Warranty Deed
SALES NOTES	Estate sale

Map

Photos

2023_PRI_7-5-2023_20230705MR_+.jpg

Sketches



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GeoEngineers

1101 South Fawcett Avenue, Suite 200
Tacoma, Washington 98402
253.383.4940

December 20, 2023

Tacoma Public Utilities
3628 South 35th Street
Tacoma, Washington 98409

Attention: James Bozic

Subject: Remedial Action Summary
Mineral Oil Release
6430 Tacoma Mall Boulevard,
Tacoma, Washington
File No. 0570-181-11

SUMMARY INFORMATION

Spill Location Address:	6430 Tacoma Mall Boulevard, Tacoma, Washington
Device Type:	Pad-Mounted Transformer
TPU Transformer ID Number:	1034444
PCB Concentration:	Analysis of mineral oil sample 32 reported by Sound Analytical Services, Inc. of Tacoma, Washington on October 30, 1992 did not detect polychlorinated biphenyls (PCBs) at a concentration greater than the laboratory reporting limit (RL) of 1.0 milligram per kilogram (mg/kg).
Spill Volume and Impact:	TPU estimated that approximately 60 gallons of mineral oil-range petroleum hydrocarbons were released from the transformer impacting soil beneath and adjacent to the device's concrete pad.
Latitude/Longitude of Release Area:	N47.19849° / W122.46321°
General Property Use:	Commercial
Ecology Incident Number:	725793

INTRODUCTION

GeoEngineers was contracted by Tacoma Public Utilities (TPU) to provide cleanup support for a mineral oil release from a pad-mounted transformer that was struck by an automobile on September 14, 2023. The approximate location of the spill relative to surrounding physical features is shown on the attached vicinity map, Figure 1. The location of the release was adjacent a commercial office building in Tacoma, Washington. TPU estimated that approximately 60 gallons of mineral oil was released from the transformer onto the soil beneath and adjacent to the device's concrete pad.

PCBs were not detected in the mineral oil within the transformer at a concentration greater than the laboratory reporting limit (RL) of 1.0 part per million (ppm) as reported by Sound Analytical Services, Inc. of Tacoma, Washington on October 30, 1992.

TPU reported the incident to the Washington State Department of Ecology's (Ecology) Environmental Report Tracking System (ERTS) on September 25, 2023. Ecology assigned the incident numbered 725793 to Aaren Fiedler, LG as their ERTS point of contact.

SPILL RESPONSE AND REMEDIAL EXCAVATION ACTIVITIES

The preferred remedial alternative for mineral oil-impacted soil is excavation of the mineral oil-impacted soil with concentrations exceeding Model Toxics Control Act (MTCA) Method A cleanup levels and disposing of the excavated soil and affected landscaping vegetation generated from cleanup activities at a permitted disposal facility. The chosen remedial alternative was selected because it results in the cleanup of the material released by the spill incident and removes the mineral oil-impacted soil from the property. Spill response activities described below were conducted on November 18, 2023.

Remedial Excavation Activities

Private and public utilities were located prior to remedial excavation activities. Tacoma Power provided the line crew and equipment to remove the transformer and pad to assist with gaining safe access to the mineral oil-impacted soil. The remedial activities were completed by a TPU contractor, Republic Services (Republic) using safe-dig techniques involving pressurized water and vactor trucks. Republic also removed additional landscaping shrubs to allow further access to the spill area.

Field screening (visual screening and water sheen testing) for petroleum hydrocarbons was performed to evaluate the vertical and lateral extent of mineral oil-impacted soil in the release area. Field screening methods are described in Appendix A. Initial water sheen testing of soil in the release area prior to the commencement of remedial excavation activities yielded a heavy sheen indicating the presence of residual mineral oil in localized areas of surface soil within the spill area. The approximate limits of the mineral oil-impacted soil were marked in white paint after the initial field screening to help focus the remedial excavation activities. Water sheen testing of the excavation base and sidewalls continued throughout the remedial excavation activities.

Five field screening soil samples (FS-1 through FS-5) were collected to evaluate the lateral and vertical limits of the mineral oil-impacted soil observed in the western sidewall of the excavation adjacent to a concrete walkway west of the spill area. Mineral oil-impacted soil was observed to extend to a depth of 1.25 feet below ground surface (bgs) in the western sidewall. The lateral extent of the mineral oil-impacted

soil appeared to be limited to an approximate 3-foot-wide portion of the sidewall. The field screening soil samples were provided to the on-site mobile laboratory operated by Libby Environmental, Inc. (Libby) of Lacey, Washington for analysis of mineral oil-range petroleum hydrocarbons by Ecology approved method NWTPH-DX (NWTPH-Dx). The locations of the field screening samples are presented in Figure 2 and the analytical results are presented on Table 1.

Republic completed one pothole to a depth of 2 feet bgs in the landscaping planter bed between the concrete walkway and the commercial building to evaluate the western extent of the mineral oil-impacted soil (Figure 2). The mineral oil-impacted soil appears to extend under the concrete walkway but does not extend to the commercial building foundation.

Confirmation soil samples were collected from the north, south and east sidewalls, the excavation base, and the bottom of the pothole in the planter bed west of the concrete walkway when water sheen testing indicated slight to no visible sheen in the soil. The confirmation soil samples were provided to the on-site mobile laboratory for analysis of mineral oil-range petroleum hydrocarbons by NWTPH-DX.

An estimated total of 10 cubic yards of mineral oil-impacted soil was removed from the release area by Republic Services using pressurized water to loosen the soil and a vactor truck to extract and contain the excavated material. The final limits of the excavation measured approximately 11 feet long (north to south) by 10 feet wide (east to west) and ranged in depth between 0.25 feet bgs on the east side to 4 feet bgs at the base of the excavation.

Groundwater was not encountered during the remedial excavation activities. No impacts to groundwater were observed.

Waste Disposal

A total of 6.75 tons of mineral oil-impacted soil and water along with five trash bags of mineral oil-impacted vegetation was removed from the property and transported by vactor trucks to PRS Group, Inc.'s permitted off-site disposal facility in Tacoma, Washington. A copy of the disposal documentation for the material is provided in Appendix B.

SOIL SAMPLING AND CHEMICAL ANALYSIS

One soil sample (6430 TMB - Prescreen) was obtained by TPU personnel from the area where mineral oil-impacted soil was observed on September 14, 2023 to prescreen the spill area prior to cleanup. The prescreening soil sample was analyzed by Libby for mineral oil-range petroleum hydrocarbons by NWTPH-Dx. Mineral oil-range petroleum hydrocarbons in sample 6430 TMB - Prescreen were detected at a concentration of 180,000 mg/kg, which exceeds the MTCA Method A soil cleanup level for unrestricted land use of 4,000 mg/kg for mineral oil. Soil represented by the prescreening soil sample was excavated and removed from the property during the remedial excavation activities.

Four of the five confirmation soil samples were collected at the northern, eastern, and southern limits and base of the excavation. The four confirmation soil samples were assigned the identification numbers EX-1-0.25, EX-2-1.0, EX-3-4.0, and EX-4-2.0 and were analyzed by Libby for mineral oil-range petroleum hydrocarbons by NWTPH-Dx. Mineral oil-range petroleum hydrocarbons in the confirmation soil samples

were not detected at concentrations greater than the laboratory RLs of 110 and 120 mg/kg which are less than the MTCA Method A soil cleanup level for unrestricted land use of 4,000 mg/kg for mineral oil.

Mineral oil-range petroleum hydrocarbons were detected in field screening soil samples FS-1-1.0 and FS-2-1.25 collected from the west sidewall adjacent to the concrete walkway at concentrations of 15,000 and 21,000 mg/kg which are greater than the MTCA Method A soil cleanup level for unrestricted land use of 4,000 mg/kg for mineral oil. Mineral oil-range petroleum hydrocarbons were not detected in the remaining three field screening soil samples FS-3-4.0, FS-4-0.5 and FS-5-1.0 at laboratory RLs of 110 and 120 mg/kg. Samples FS-3-4.0, FS-4-0.5 and FS-5-1.0 were collected from the western sidewall of the excavation surrounding field screening samples FS-1-1.0 and FS-2-1.25. Confirmation soil sample EX-5-2.0 was collected in the planter bed west of the concrete walkway and the field screening samples and had a mineral oil-range petroleum hydrocarbons detection at a concentration of 210 mg/kg, which is less than the MTCA Method A soil cleanup level for unrestricted land use of 4,000 mg/kg for mineral oil. The results indicate that soil with concentrations of mineral oil greater than the MTCA Method A soil cleanup level remaining in the west sidewall is confined to a cross-sectional area of approximately 3 feet by 1.25 feet, and is contained beneath the concrete walkway. Based on the sampling results, it is estimated that the volume of the residual mineral oil-impacted soil present under the concrete walkway is less than 1/2 of a cubic yard.

The soil chemical analytical results are summarized in Table 1 and presented in the laboratory reports provided in Appendix C. A spill location map is provided as Figure 2 showing the approximate final limits of the excavation and the locations of the field screening soil samples and the confirmation soil samples.

SPILL LOCATION RESTORATION

Excavation backfill and restoration activities were conducted by Tacoma Power personnel on November 18, 2023, following the completion of remedial excavation activities on the property. The excavation was backfilled with 5/8-inch minus crushed gravel. The concrete pad and transformer were reinstalled following excavation backfilling activities.

TERRESTRIAL ECOLOGICAL EVALUATION

A Terrestrial Ecological Evaluation (TEE) was completed for the spill location in accordance with MTCA. The simplified TEE was used to evaluate the potential level of exposure to ecological receptors because the area of the release was less than 350 square feet (Washington Administrative Code [WAC] 173-340-7492 (2)(a)(i)). Mineral oil is not identified as a Priority Contaminant of ecological concern (WAC 173-340, Table 749-2). Due to the remaining soil with mineral oil concentrations greater than the MTCA cleanup level being contained beneath a concrete walkway, there is no exposure potential for ecological receptors (i.e., wildlife). Based on the results, the remedial action is protective of ecological receptors in accordance with MTCA.

CONCLUSIONS

Based on the results of field observations, field screening, and the analysis of samples collected from the limits of the remedial excavation and west of the concrete walkway, soil with mineral oil at concentrations greater than the MTCA cleanup level has been removed from the property, with the exception of less than 1/2 of a cubic yard of mineral oil-impacted soil that could not be removed due to being covered by a concrete walkway. Because the remaining soil with mineral oil concentrations greater than the MTCA cleanup level is contained beneath a concrete walkway, there is no exposure pathway for human or ecological receptors. Additionally, the concrete walkway prevents stormwater infiltration and inhibits transport of mineral oil remaining in the soil. Given that the mineral oil-impacted soil has been removed from the spill area with the exception of a de minimis quantity under an impervious surface, it is our opinion that no further action is necessary relative to the release on this property. The residual soil with mineral oil may be removed in the future if the concrete walkway is removed.

LIMITATIONS

We have prepared this report for the exclusive use of Tacoma Public Utilities, their authorized agents and regulatory agencies. This report is not intended for use by others and the information contained herein is not applicable to other properties. No other party may rely on the product of our services unless we agree in advance, and in writing, to such reliance. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions.

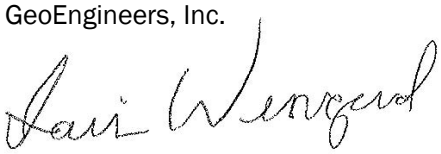
Our conclusions are based on our observations, field screening results and chemical analysis of a limited number of soil samples. It is always possible that contaminants remain in areas that were not observed, sampled or tested.

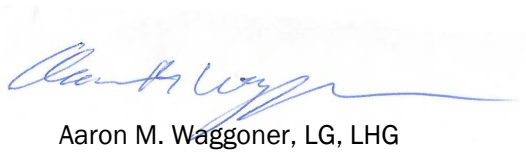
Within the limitations of scope, schedule and budget, our services have been executed in accordance with our general agreement with TPU (Contract No. CW2246350, Task No. GEO-0011) and generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Any electronic form of this document (email, text, table, and/or figure), if provided, and any attachments are only a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

Please contact Aaron Waggoner at 253.722.2449 with any questions or comments you may have concerning this report.

Sincerely,
GeoEngineers, Inc.





Iain H. Wingard
Principal Environmental Scientist

Aaron M. Waggoner, LG, LHG
Senior Geologist

WDS:AMW:IHW:ch

Attachments:
Table 1. Summary of Field Screening and Soil Sample Chemical Analytical Results
Figure 1. Vicinity Map
Figure 2. Spill Location Map
Appendix A. Field Methods
Appendix B. Disposal Documentation
Appendix C. Chemical Analytical Program

cc: Aaren Fiedler, LG
Washington State Department of Ecology
Southwest Regional Office
afie461@ecy.wa.gov

Table 1

Summary of Field Screening and Confirmation Soil Sample Chemical Analytical Results[1]

6430 Tacoma Mall Boulevard - Spill Cleanup

Tacoma, Washington

Sample Identification[2]	Date Sampled	Sample Depth (feet bgs)	Location	Water Sheen Field Screening	Mineral Oil-Range Petroleum Hydrocarbons[3] (mg/kg)
EX-1-0.25	11/18/23	0.25	East Sidewall	NS	110 U
EX-2-1.0	11/18/23	1.0	North Sidewall	NS	120 U
EX-3-4.0	11/18/23	4.0	Base	NS	120 U
EX-4-2.0	11/18/23	2.0	South Sidewall	NS	110 U
EX-5-2.0	11/18/23	2.0	West Limit Pothole	NS	**210**
FS-1-1.0	11/18/23	1.0	West Sidewall	HS	**15,000**
FS-2-1.25	11/18/23	1.25	West Sidewall	HS	**21,000**
FS-3-4.0	11/18/23	4.0	West Sidewall	NS	110 U
FS-4-0.5	11/18/23	0.5	West Sidewall	NS	120 U
FS-5-1.0	11/18/23	1.0	West Sidewall	NS	110 U
MTCA Method A Cleanup Level for Unrestricted Land Use					**4,000**

Notes:

[1] Chemical analyses by Libby Environmental, Inc. of Lacey, Washington.

[2] Approximate sample locations are shown on Figure 2.

[3] Mineral oil-range petroleum hydrocarbons analyzed by Ecology-approved method NWTPH-Dx.

bgs = below ground surface

MTCA = Model Toxics Control Act

U = not detected greater than the laboratory reporting limit

NWTPH-Dx = Northwest Total Petroleum Hydrocarbons - Diesel Extended

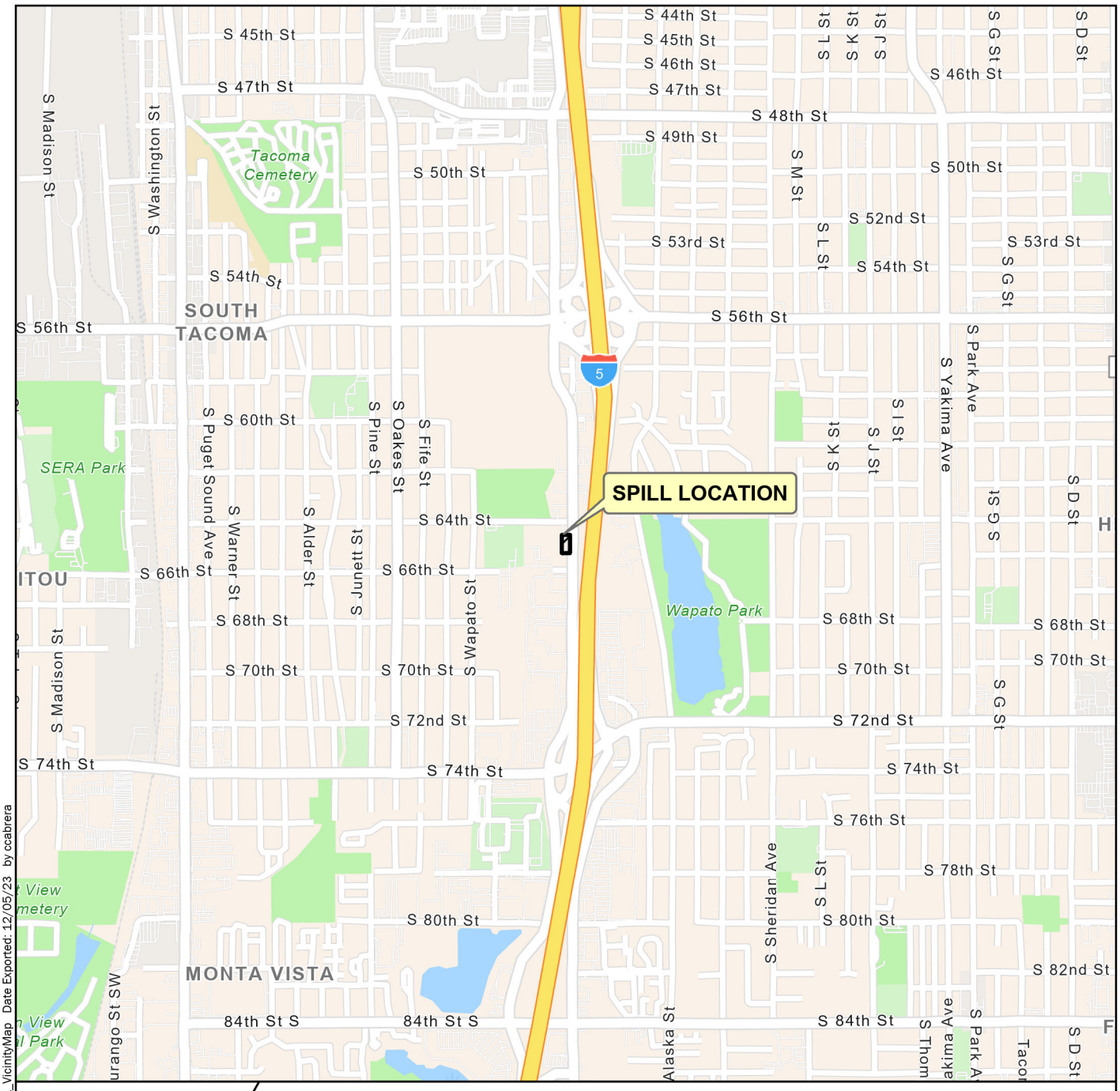
mg/kg = milligrams per kilogram

NS = no sheen

HS = heavy sheen

A bolded value indicates that an analyte was detected at the reported concentration

A shaded value indicates that an analyte was detected greater than the MTCA Method A cleanup level



Source(s):
- ESRI

Coordinate System: NAD 1983 UTM Zone 10N

Disclaimer: This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.

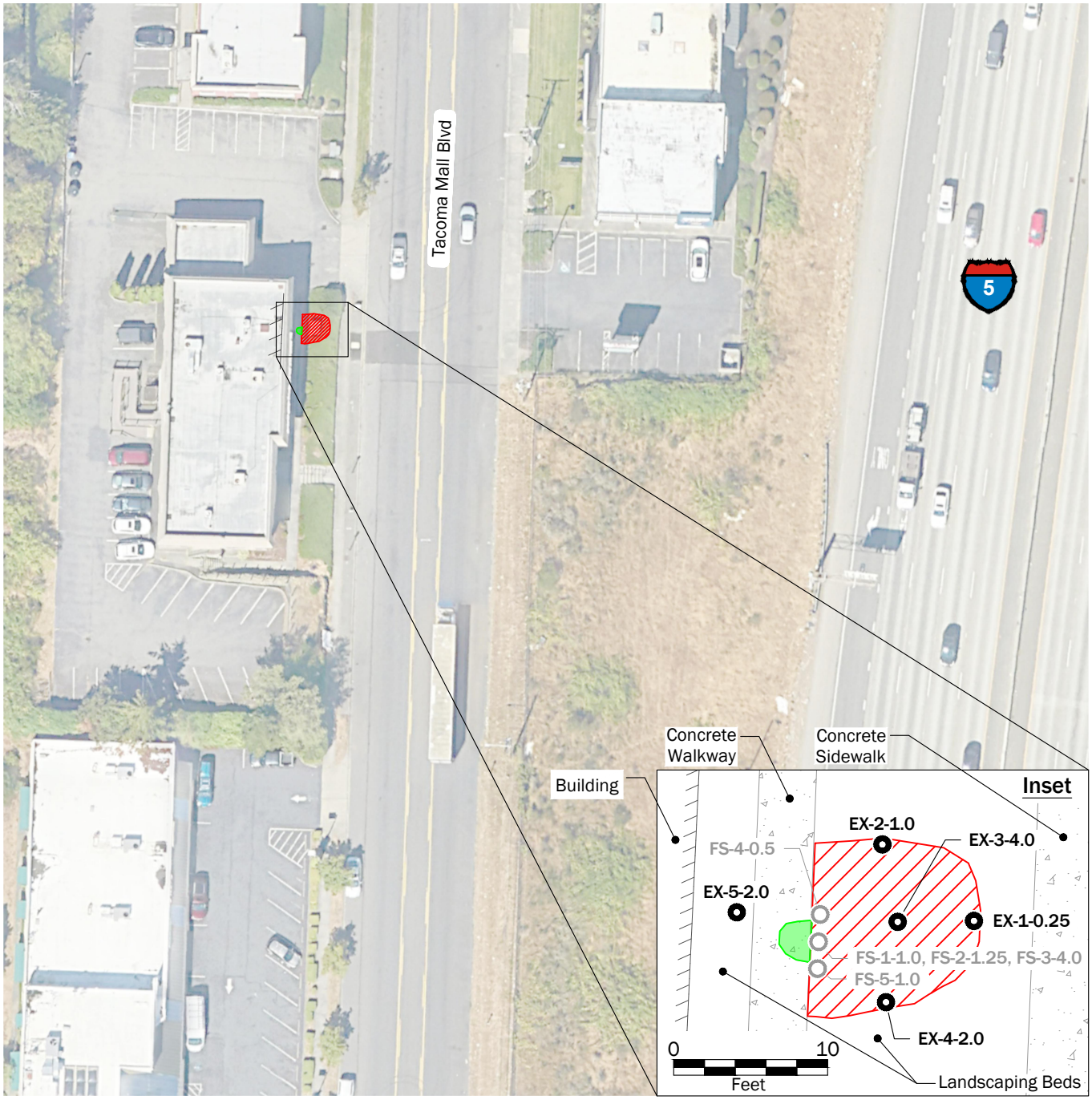
Vicinity Map

6430 Tacoma Mall Blvd
Tacoma, Washington

GeoEngineers

Figure 1

P:\0\0570181\GIS\0570181_Project\0570181_Project.aprx\0570181111_F01_VicinityMap Date Exported: 12/05/23 by ccabrera



Legend

- **EX-1-0.25** — Confirmation Soil Sample Location
- FS-1-1.0 — Prescreening Soil Sample
- Remedial Excavation Area
- Approximate Area of Residual Mineral Oil Remaining Under Concrete Walkway

0 60 Feet

N

Source(s):
- Aerial from Google Earth Pro, dated 08/24/2022

Projection: WA State Plane, South Zone, NAD83, US Foot

Disclaimer: This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.

Spill Location Map

6430 Tacoma Mall Boulevard - Spill Clean Up
Tacoma, Washington

GeoEngineers

Figure 2

P:\0\0570181\CAD\11\Spill Cleanup Report\0570181111_F02_Spill Location Map.dwg 2 Date Exported:12/18/2023 1:49 PM - by Gabby Register

APPENDIX A
Field Methods

APPENDIX A
FIELD METHODS

Field Screening and Sampling of Soil Samples

Soil samples were obtained in the field for screening of potential petroleum-related contamination using visual examination and water sheen screening. The samples were obtained using a shovel and/or a stainless steel trowel. The shovel and/or trowel were decontaminated with a soap solution (Simple Green® and distilled water) and a distilled water rinse between sampling locations. A portion of the soil was placed in laboratory-prepared sample jars. The sample containers were completely filled to minimize headspace.

Visual screening consists of observing the soil for stains indicative of petroleum-related contamination. Visual screening generally is more effective when contamination is present in high concentrations or when it is related to heavy petroleum hydrocarbons. Water sheen screening is effective for detecting the presence of lower concentrations of petroleum hydrocarbons when visible staining is not observed. Water sheen screening involves placing soil in water and observing the water surface for signs of sheen. Sheen classifications are as follows:

- No Sheen (NS) — No visible sheen on water surface.
- Slight Sheen (SS) — Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil may produce a slight sheen.
- Moderate Sheen (MS) — Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; few remaining areas of no sheen on water surface.
- Heavy Sheen (HS) — Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Field screening results are project specific. The effectiveness of field screening results will vary with temperature, moisture content, organic content, soil type, and type and age of contaminant. The presence or absence of sheen does not necessarily indicate the presence or absence of petroleum hydrocarbons.

APPENDIX B
Disposal Documentation

114778

PRS Group, Inc.

ENTRY LOG FOR NON-HAZARDOUS ITEMS

3003 Taylor Way
Tacoma, WA 98421
Phone: (253)383-4175 Fax: (253)383-4531
prs@prsplant.net

Date:	11/18/2023	**Carrier:**	nrc	**Vehicle #:**	Jan-61
Drivers Signature:		**Plant Employee:**	kenny	**Time:**	11:03 AM

Generator	Profile #	Work Order, BOL, Manifest	% Water:	% Oil / Fuel:	pH:	Flash >140:	x
			10%	0%	7	Other Flash:	
			% Solids:	% Other:	Tank # / Area:	Chlor Test NA:	x
			90%	0%	pit	Chlor <1000:	

Generator	Profile #	Work Order, BOL, Manifest	Used Oil	"A" & "C" Category Waste	Used Oil Filters	Off Spec Fuel	Oil / Water Mix	Oily Solids / Sludge	PCS	Absorbent	Spent Antifreeze	Wash Out
t.p.u	9106-b	10000164990							2.92t			x

Notes:

* The information contained in this entry log describes your waste as specified in the specific waste profile approved in to the PRS facility. Please verify the information for accuracy prior to signing.

114779

P216.12252

PRS Group, Inc.

ENTRY LOG FOR NON-HAZARDOUS ITEMS

3003 Taylor Way
Tacoma, WA 98421
Phone: (253)383-4175 Fax: (253)383-4531
prs@prsplant.net

Date: 11/18/2023	**Carrier:** nrc	**Vehicle #:**
Drivers Signature:	**Plant Employee:** kenny	**Time:** 1:48 PM

% Water:	% Oil / Fuel:	pH:	Flash >140: x
10%	0%	7	Other Flash:
% Solids:	% Other:	Tank # / Area:	Chlor Test NA: x
90%	0%	pit	Chlor <1000:

Generator	Profile #	Work Order, BOL, Manifest	Used Oil	"A" & "C" Category Waste	Used Oil Filters	Off Spec Fuel	Oil / Water Mix	Oily Solids / Sludge	PCS	Absorbent	Spent Antifreeze	Wash Out
p.s.e	9106-b	10000164990							3.83t			x

Notes:

* The information contained in this entry log describes your waste as specified in the specific waste profile approved in to the PRS facility. Please verify the information for accuracy prior to signing.

114780

PRS Group, Inc.

ENTRY LOG FOR NON-HAZARDOUS ITEMS

3003 Taylor Way
Tacoma, WA 98421
Phone: (253)383-4175 Fax: (253)383-4531
prs@prsplant.net

Date: 11/18/2023	**Carrier:** nrc	**Vehicle #:**
Drivers Signature:	**Plant Employee:** kenny	**Time:** 2:59 PM

% Water:	**% Oil / Fuel:**	**pH:**	**Flash >140:** x
10%	0%	7	**Other Flash:**
% Solids:	**% Other:**	**Tank # / Area:**	**Chlor Test NA:** x
90%	0%	pit	**Chlor <1000:**

Generator	Profile #	Work Order, BOL, Manifest	Used Oil	"A" & "C" Category Waste	Used Oil Filters	Off Spec Fuel	Oil / Water Mix	Oily Solids / Sludge	PCS	Absorbent	Spent Antifreeze	Wash Out
p.s.e	9106-b	10000164990							1t	5bags		x

Notes:

* The information contained in this entry log describes your waste as specified in the specific waste profile approved in to the PRS facility.
Please verify the information for accuracy prior to signing.

STRAIGHT BILL OF LADING

ORIGINAL -- NOT NEGOTIABLE

Tacoma Public Utilities

3628 South 35th Street - Tacoma, WA, 98409 - (253) 502-8600 or (800) 752-6745

Date: 11.18.23

TO: Consignee: PRS	**FROM:** Shipper: 6430 Tacom MALL Blvd
Street: 3003 Taylor Way	Street:
City: Tacoma State: WA Zip: 98421	City: Tacoma State: WA Zip:

Generation Location:	Vehicle #

# of Units & Container Type	HM	BASIC DESCRIPTION (Proper Shipping Name, Hazard Class, Identification Number (UN or NA) per 172.101, 172.202, 172.203)	TOTAL QUANTITY (Weight, Volume, Gallons etc.)
1 TT	No	**Non-DOT Regulated Material**	
			1 TON MIN
			5 BAGS ABSORBENTS
		EMERGENCY RESPONSE GUIDE (ERG) ON BOARD TRUCK	

PLACARDS TENDERED: YES: NO: X IN CASE OF AN EMERGENCY, SPILL OR LEAK USE ERG # Not Applicable

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified packaged, marked, and labeled and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Signature:

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of the Bill of Lading, the property described above in apparent good order, except as noted (contents and conditions of contents packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout the contract as meaning a person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification of the date of shipment. Shipper hereby certifies that they are familiar with all bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for themselves and their assigns.

SHIPPER:	CARRIER:
PER:	PER: DATE:
RECEIVED BY:	DATE:

APPENDIX C
Chemical Analytical Program

APPENDIX C
CHEMICAL ANALYTICAL PROGRAM

Analytical Methods

The samples were analyzed using the following methods:

- Mineral oil-range petroleum hydrocarbons by Ecology approved method NWTPH-Dx.

The analytical results and laboratory quality assurance/quality control (QA/QC) records are included in this attachment.

Analytical Data Review

The laboratory uses a combination of blanks, surrogate recoveries, duplicates, and laboratory control samples to evaluate the analytical results. No quality control exceptions were noted by the testing laboratory with the exception of high concentration of co-eluting target compounds interfering with surrogate recovery in soil samples FS-1-1.0 and FS-2.1.25.

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957
Phone (360) 352-2110 • libbyenv@gmail.com

November 21, 2023

Woodrow Stokstad
GeoEngineers
17425 NE Union Hill Road, Suite 250
Redmond, WA 98052

RE: TPU - 6430 Tacoma Mall Blvd - Spill Cleanup
Work Order Number: L23K086

Enclosed are the results of analyses for samples received by our laboratory on 11/18/2023.

Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please feel free to contact us. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry Chilcutt
Senior Chemist

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Chain of Custody Record

www.LibbyEnvironmental.c

Date: 11/18/23 Page: 1 of 1

Client: GeoEngineers - Redmond
Project Manager: Woodrow Stokstad
Address:
Project Name: Tacoma Public Utilities - 6430 Tacoma Mall Blvd - Spill Clea
City: State: Zip:
Location: 6430 Tacoma Mall Blvd City, State: Tacoma, WA
Phone: Fax:
Collector: Date of Collection: 11/18/23
Client Project #
Email:

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx min	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270			Field Notes
1 ~~ESW~~ EX-1-0.25		9:57	Soil	4oz Jar						X									mineral oil
2 ~~EX-2-1.0 WDS~~		10:13								X									FS-1-1.0
3 EX-3-1.0		11:15								X									Ex-2-1.0
4 ~~FS-1-1.25~~		11:26								X									FS-2-1.25
5 EX-4-4.0		11:40								X									Ex-3-4.0
6 ~~EX-5-2.0~~		12:35								X									Ex-4-2.0
7 ~~EX-6-2.0~~		13:00								X									Ex-5-2.0
8 FS-3-4.0		13:05								X									
9 FS-4-0.5		13:10								X									
10 FS-5-1.0		13:12								X									
11 PCS-1		08:55																	HOLD SAMPLE
12																			
13																			
14																			
15																			
16																			
17																			

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	11/18/23 14:18	E. Fowler	11/18/23 14:18
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks:

ML

TAT: 1-Day 2-Day 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

GeoEngineers
17425 NE Union Hill Road, Suite 250
Redmond, WA 98052

Project: TPU - 6430 Tacoma Mall Blvd - Spill Cleanup
Project Manager: Woodrow Stokstad

City/State: Tacoma, Washington
Work Order: L23K086
Reported: 11/21/2023 15:05

Notes and Definitions

Item	Definition
F	High concentration of co-eluting target compounds interfering with surrogate recovery. Outlying surrogate recoveries expected.
RL	Reporting Limit
ND	Analyte NOT DETECTED at or above the reporting limit
DET	Analyte DETECTED at or above the reporting limit
Qual	Qualifier
	All results reported on an "as received" basis unless indicated by "Dry"
RPD	Relative Percent Difference
%REC	Percent Recovery
Parent	Sample that was matrix spiked or duplicated

Work Order Sample Summary

Lab ID	Sample	Matrix	Date Sampled	Date Received
L23K086-01	EX-1-0.25	Soil	11/18/2023	11/18/2023
L23K086-02	FS-1-1.0	Soil	11/18/2023	11/18/2023
L23K086-03	EX-2-1.0	Soil	11/18/2023	11/18/2023
L23K086-04	FS-2-1.25	Soil	11/18/2023	11/18/2023
L23K086-05	EX-3-4.0	Soil	11/18/2023	11/18/2023
L23K086-06	EX-4-2.0	Soil	11/18/2023	11/18/2023
L23K086-07	EX-5-2.0	Soil	11/18/2023	11/18/2023
L23K086-08	FS-3-4.0	Soil	11/18/2023	11/18/2023
L23K086-09	FS-4-0.5	Soil	11/18/2023	11/18/2023
L23K086-10	FS-5-1.0	Soil	11/18/2023	11/18/2023
L23K086-11	PCS-1	Soil	11/18/2023	11/18/2023

Libby Environmental, Inc.

GeoEngineers
17425 NE Union Hill Road, Suite 250
Redmond, WA 98052

Project: TPU - 6430 Tacoma Mall Blvd - Spill Cleanup
Project Manager: Woodrow Stokstad

City/State: Tacoma, Washington
Work Order: L23K086
Reported: 11/21/2023 15:05

Libby Environmental Sample Detection Summary

Analyte	Result	Qual	Units	RL	Method
Sample: **FS-1-1.0**			Lab#: L23K086-02		
Mineral Oil	15000		mg/kg dry	110	NWTPH-Dx/Dx
Sample: **FS-2-1.25**			Lab#: L23K086-04		
Mineral Oil	21000		mg/kg dry	110	NWTPH-Dx/Dx
Sample: **EX-5-2.0**			Lab#: L23K086-07		
Mineral Oil	210		mg/kg dry	110	NWTPH-Dx/Dx

Note: If no entry is made, then no target compounds were detected.

Libby Environmental, Inc.

GeoEngineers 17425 NE Union Hill Road, Suite 250 Redmond, WA 98052	**Project:** TPU - 6430 Tacoma Mall Blvd - Spill Cleanup **Project Manager:** Woodrow Stokstad	**City/State:** Tacoma, Washington **Work Order:** L23K086 **Reported:** 11/21/2023 15:05

Sample Results

Client Sample ID: EX-1-0.25

Lab ID: L23K086-01 (Soil)

Analyte	Result	Qual	RL	Units	Date Analyzed	Analyst Initials
Mineral Oil by NWTPH-Dx/Dx						
Mineral Oil	ND		110	mg/kg dry	11/18/2023	ES
Surrogate: 2-FBP	*114%*		*43.6-129*		*11/18/2023*	*ES*
Moisture by ASTM D2216-19						
Moisture	8.8		0.50	%	11/20/2023	JC

GeoEngineers
17425 NE Union Hill Road, Suite 250
Redmond, WA 98052

Project: TPU - 6430 Tacoma Mall Blvd - Spill Cleanup
Project Manager: Woodrow Stokstad

City/State: Tacoma, Washington
Work Order: L23K086
Reported: 11/21/2023 15:05

Sample Results (Continued)

Client Sample ID: FS-1-1.0

Lab ID: L23K086-02 (Soil)

Analyte	Result	Qual	RL	Units	Date Analyzed	Analyst Initials
Mineral Oil by NWTPH-Dx/Dx						
Mineral Oil	15000		110	mg/kg dry	11/18/2023	ES
Surrogate: 2-FBP	*667%*	*F*	*43.6-129*		*11/18/2023*	*ES*
Moisture by ASTM D2216-19						
Moisture	9.6		0.50	%	11/20/2023	JC

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17425 NE Union Hill Road, Suite 250
Redmond, WA 98052

Project: TPU - 6430 Tacoma Mall Blvd - Spill Cleanup
Project Manager: Woodrow Stokstad

City/State: Tacoma, Washington
Work Order: L23K086
Reported: 11/21/2023 15:05

Sample Results (Continued)

Client Sample ID: EX-2-1.0

Lab ID: L23K086-03 (Soil)

Analyte	Result	Qual	RL	Units	Date Analyzed	Analyst Initials
Mineral Oil by NWTPH-Dx/Dx						
Mineral Oil	ND		120	mg/kg dry	11/18/2023	ES
Surrogate: 2-FBP	*112%*		*43.6-129*		*11/18/2023*	*ES*
Moisture by ASTM D2216-19						
Moisture	17		0.50	%	11/20/2023	JC

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Redmond, WA 98052

Project: TPU - 6430 Tacoma Mall Blvd - Spill Cleanup
Project Manager: Woodrow Stokstad

City/State: Tacoma, Washington
Work Order: L23K086
Reported: 11/21/2023 15:05

Sample Results (Continued)

Client Sample ID: FS-2-1.25

Lab ID: L23K086-04 (Soil)

Analyte	Result	Qual	RL	Units	Date Analyzed	Analyst Initials
Mineral Oil by NWTPH-Dx/Dx						
Mineral Oil	21000		110	mg/kg dry	11/18/2023	ES
Surrogate: 2-FBP	*881%*	*F*	*43.6-129*		*11/18/2023*	*ES*
Moisture by ASTM D2216-19						
Moisture	13		0.50	%	11/20/2023	JC

GeoEngineers
17425 NE Union Hill Road, Suite 250
Redmond, WA 98052

Project: TPU - 6430 Tacoma Mall Blvd - Spill Cleanup
Project Manager: Woodrow Stokstad

City/State: Tacoma, Washington
Work Order: L23K086
Reported: 11/21/2023 15:05

Sample Results (Continued)

Client Sample ID: EX-3-4.0

Lab ID: L23K086-05 (Soil)

Analyte	Result	Qual	RL	Units	Date Analyzed	Analyst Initials
Mineral Oil by NWTPH-Dx/Dx						
Mineral Oil	ND		120	mg/kg dry	11/18/2023	ES
Surrogate: 2-FBP	*105%*		*43.6-129*		*11/18/2023*	*ES*
Moisture by ASTM D2216-19						
Moisture	17		0.50	%	11/20/2023	JC

GeoEngineers
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Redmond, WA 98052

Project: TPU - 6430 Tacoma Mall Blvd - Spill Cleanup
Project Manager: Woodrow Stokstad

City/State: Tacoma, Washington
Work Order: L23K086
Reported: 11/21/2023 15:05

Sample Results (Continued)

Client Sample ID: EX-4-2.0

Lab ID: L23K086-06 (Soil)

Analyte	Result	Qual	RL	Units	Date Analyzed	Analyst Initials
Mineral Oil by NWTPH-Dx/Dx						
Mineral Oil	ND		110	mg/kg dry	11/18/2023	ES
Surrogate: 2-FBP	*115%*		*43.6-129*		*11/18/2023*	*ES*
Moisture by ASTM D2216-19						
Moisture	9.7		0.50	%	11/20/2023	JC

GeoEngineers
17425 NE Union Hill Road, Suite 250
Redmond, WA 98052

Project: TPU - 6430 Tacoma Mall Blvd - Spill Cleanup
Project Manager: Woodrow Stokstad

City/State: Tacoma, Washington
Work Order: L23K086
Reported: 11/21/2023 15:05

Sample Results (Continued)

Client Sample ID: EX-5-2.0

Lab ID: L23K086-07 (Soil)

Analyte	Result	Qual	RL	Units	Date Analyzed	Analyst Initials
Mineral Oil by NWTPH-Dx/Dx						
Mineral Oil	210		110	mg/kg dry	11/18/2023	ES
Surrogate: 2-FBP	*107%*		*43.6-129*		*11/18/2023*	*ES*
Moisture by ASTM D2216-19						
Moisture	6.2		0.50	%	11/20/2023	JC

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Project Manager: Woodrow Stokstad

City/State: Tacoma, Washington
Work Order: L23K086
Reported: 11/21/2023 15:05

Sample Results (Continued)

Client Sample ID: FS-3-4.0

Lab ID: L23K086-08 (Soil)

Analyte	Result	Qual	RL	Units	Date Analyzed	Analyst Initials
Mineral Oil by NWTPH-Dx/Dx						
Mineral Oil	ND		110	mg/kg dry	11/18/2023	ES
Surrogate: 2-FBP	*122%*		*43.6-129*		*11/18/2023*	*ES*
Moisture by ASTM D2216-19						
Moisture	10		0.50	%	11/20/2023	JC

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Project Manager: Woodrow Stokstad

City/State: Tacoma, Washington
Work Order: L23K086
Reported: 11/21/2023 15:05

Sample Results (Continued)

Client Sample ID: FS-4-0.5

Lab ID: L23K086-09 (Soil)

Analyte	Result	Qual	RL	Units	Date Analyzed	Analyst Initials
Mineral Oil by NWTPH-Dx/Dx						
Mineral Oil	ND		120	mg/kg dry	11/18/2023	ES
Surrogate: 2-FBP	*105%*		*43.6-129*		*11/18/2023*	*ES*
Moisture by ASTM D2216-19						
Moisture	15		0.50	%	11/20/2023	JC

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Project Manager: Woodrow Stokstad

City/State: Tacoma, Washington
Work Order: L23K086
Reported: 11/21/2023 15:05

Sample Results (Continued)

Client Sample ID: FS-5-1.0

Lab ID: L23K086-10 (Soil)

Analyte	Result	Qual	RL	Units	Date Analyzed	Analyst Initials
Mineral Oil by NWTPH-Dx/Dx						
Mineral Oil	ND		110	mg/kg dry	11/18/2023	ES
Surrogate: 2-FBP	*107%*		*43.6-129*		*11/18/2023*	*ES*
Moisture by ASTM D2216-19						
Moisture	7.3		0.50	%	11/20/2023	JC

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Project Manager: Woodrow Stokstad

City/State: Tacoma, Washington
Work Order: L23K086
Reported: 11/21/2023 15:05

Quality Control

Mineral Oil by NWTPH-Dx/Dx

Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BXK0095 - Extraction										
Blank (BXK0095-BLK1)					Prepared & Analyzed: 11/18/2023					
Mineral Oil	ND		100	mg/kg wet						
Surrogate: 2-FBP			*19.7*	*ug/mL*	*20.0*		*98.6*	*43.6-129*		
LCS (BXK0095-BS1)					Prepared & Analyzed: 11/18/2023					
Surrogate: 2-FBP			*20.8*	*ug/mL*	*20.0*		*104*	*43.6-129*		
Duplicate (BXK0095-DUP1)		**Parent: L23K086-01**			Prepared & Analyzed: 11/18/2023					
Mineral Oil	ND		110	mg/kg dry		ND				35
Surrogate: 2-FBP			*21.9*	*ug/mL*	*20.0*		*109*	*43.6-129*		

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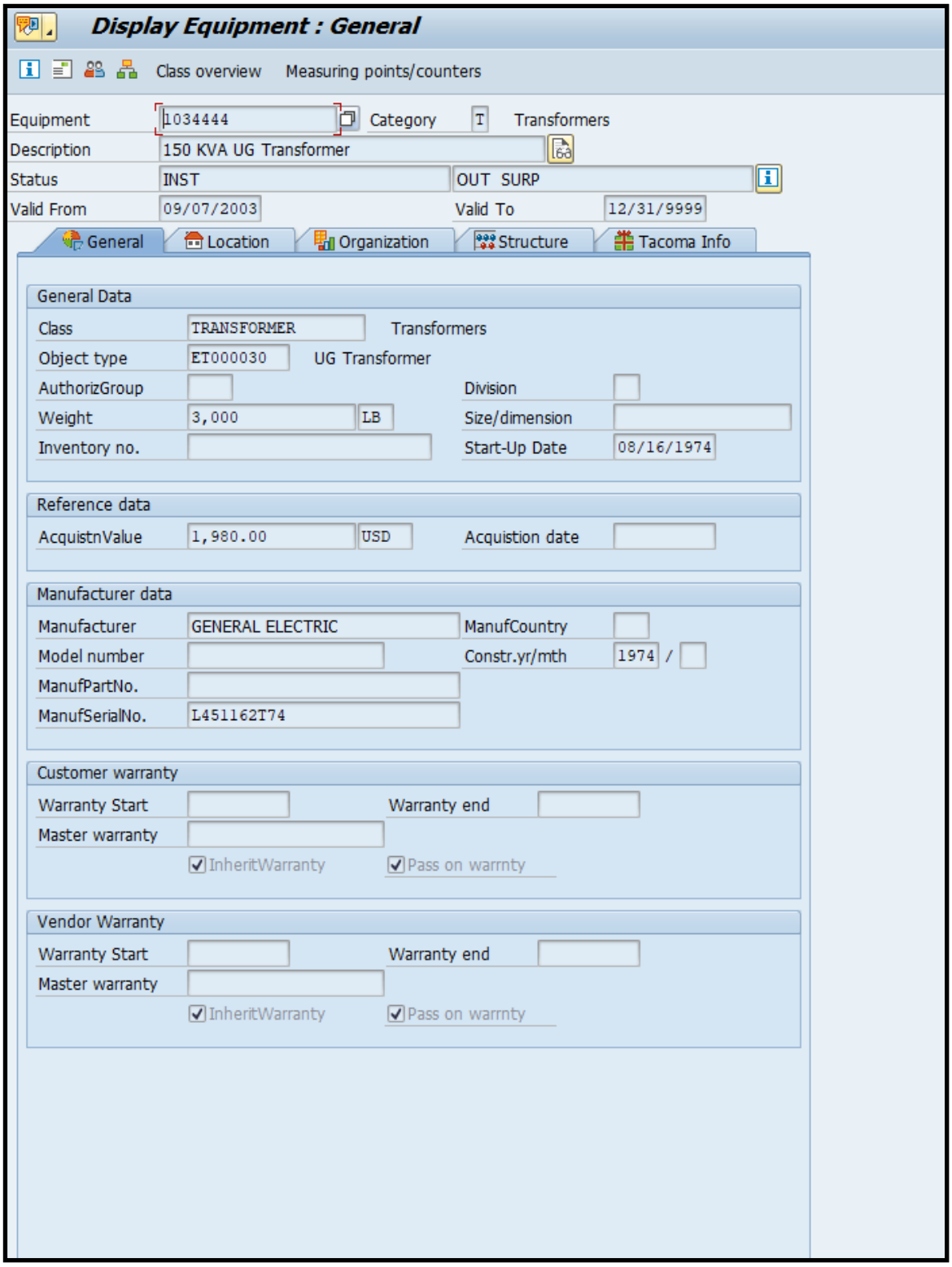
City/State: Tacoma, Washington
Work Order: L23K086
Reported: 11/21/2023 15:05

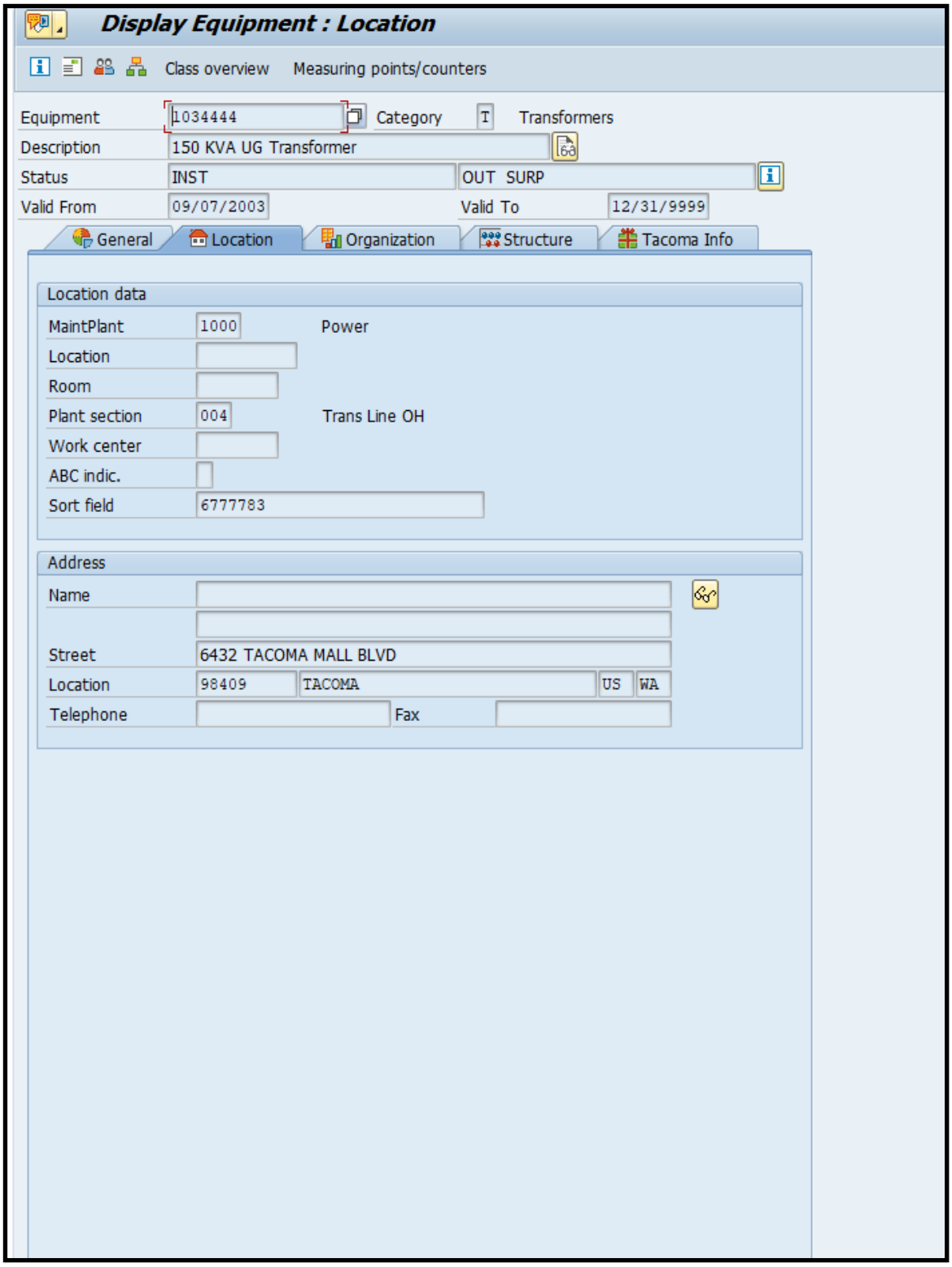
Quality Control
(Continued)

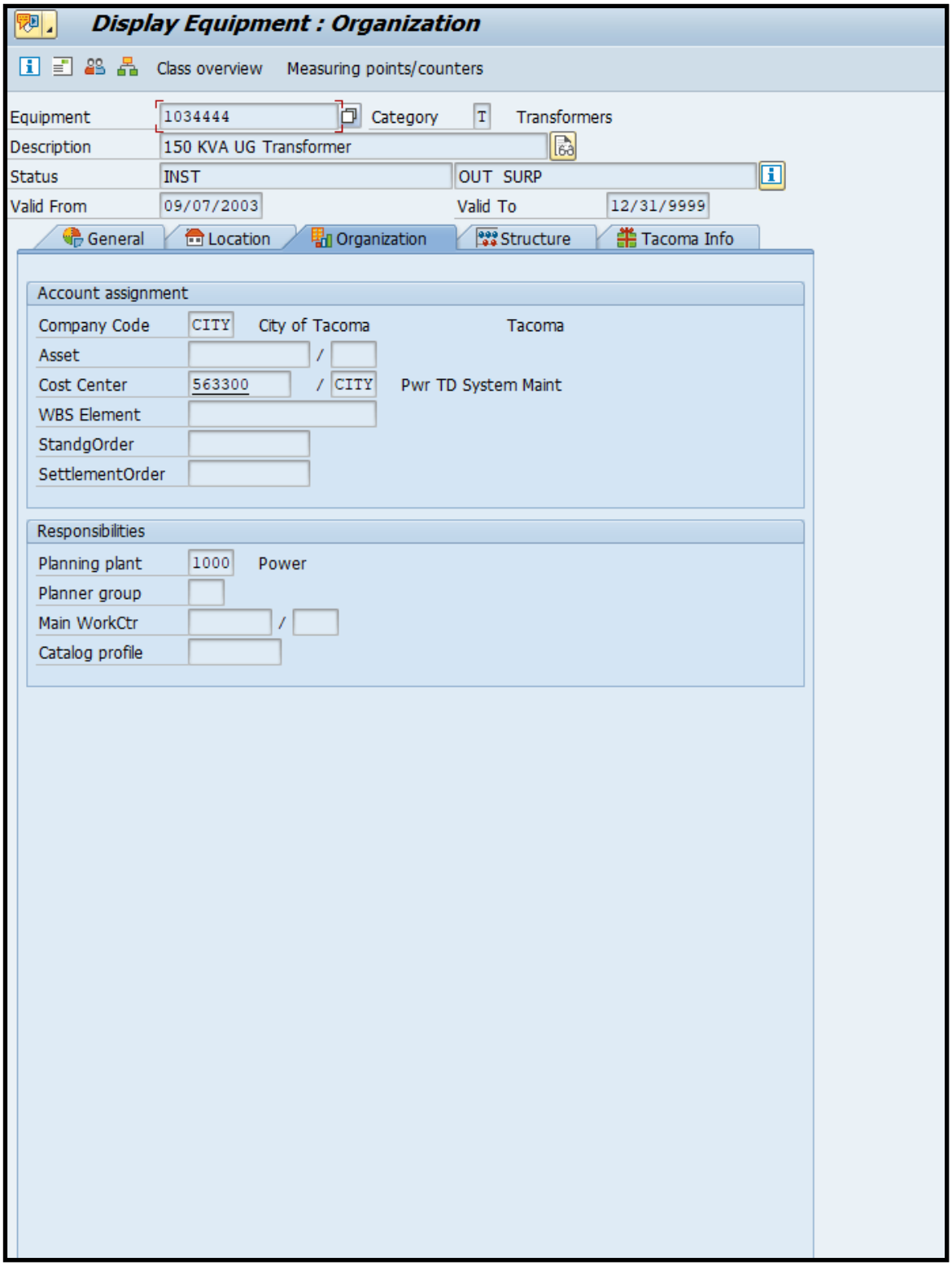
Moisture by ASTM D2216-19

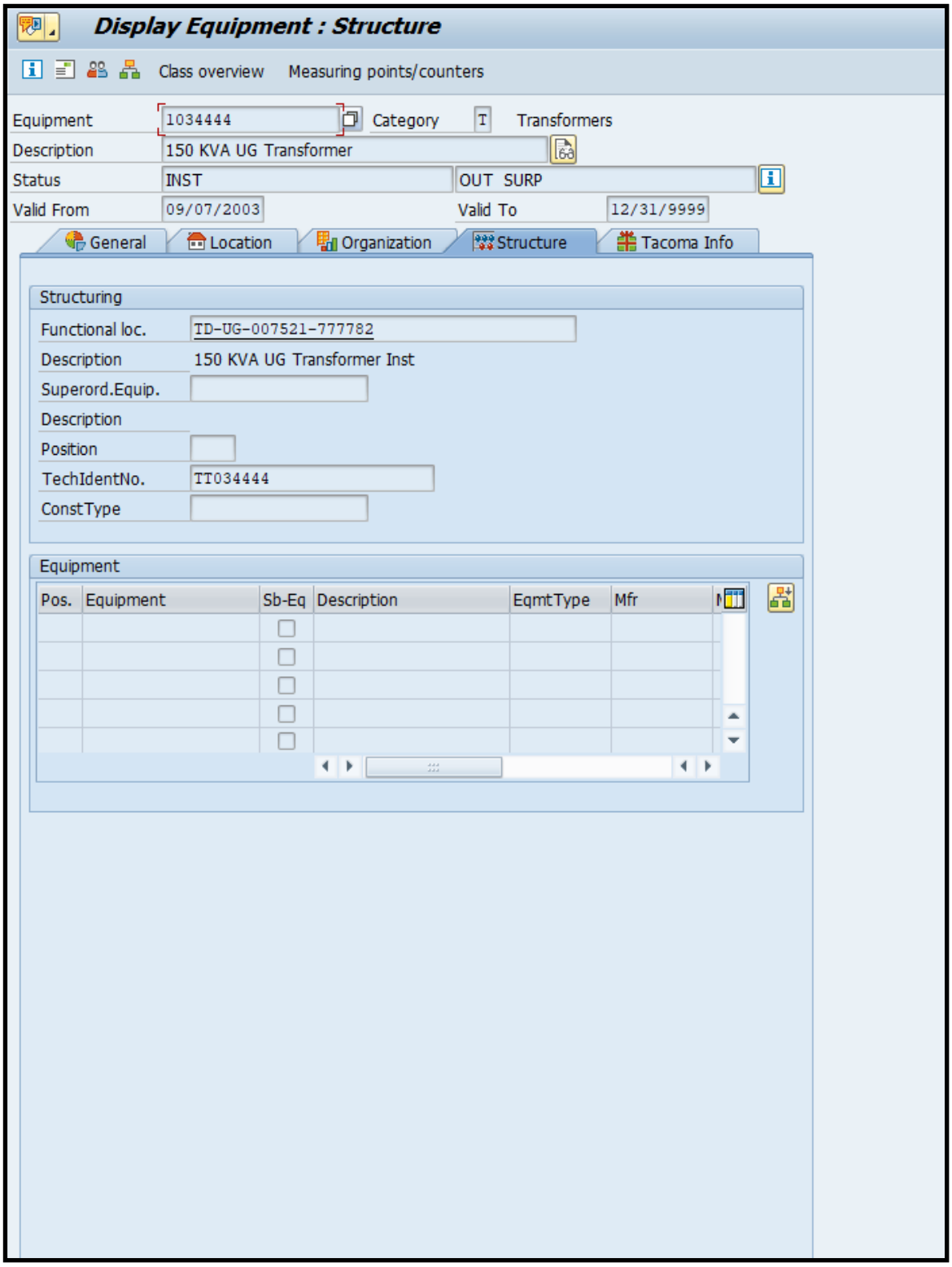
Analyte	Result	Qual	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BXK0101 - Gen Chem										
LCS (BXK0101-BS1)					Prepared & Analyzed: 11/20/2023					
Moisture	18			%	17.0		104	90-115		

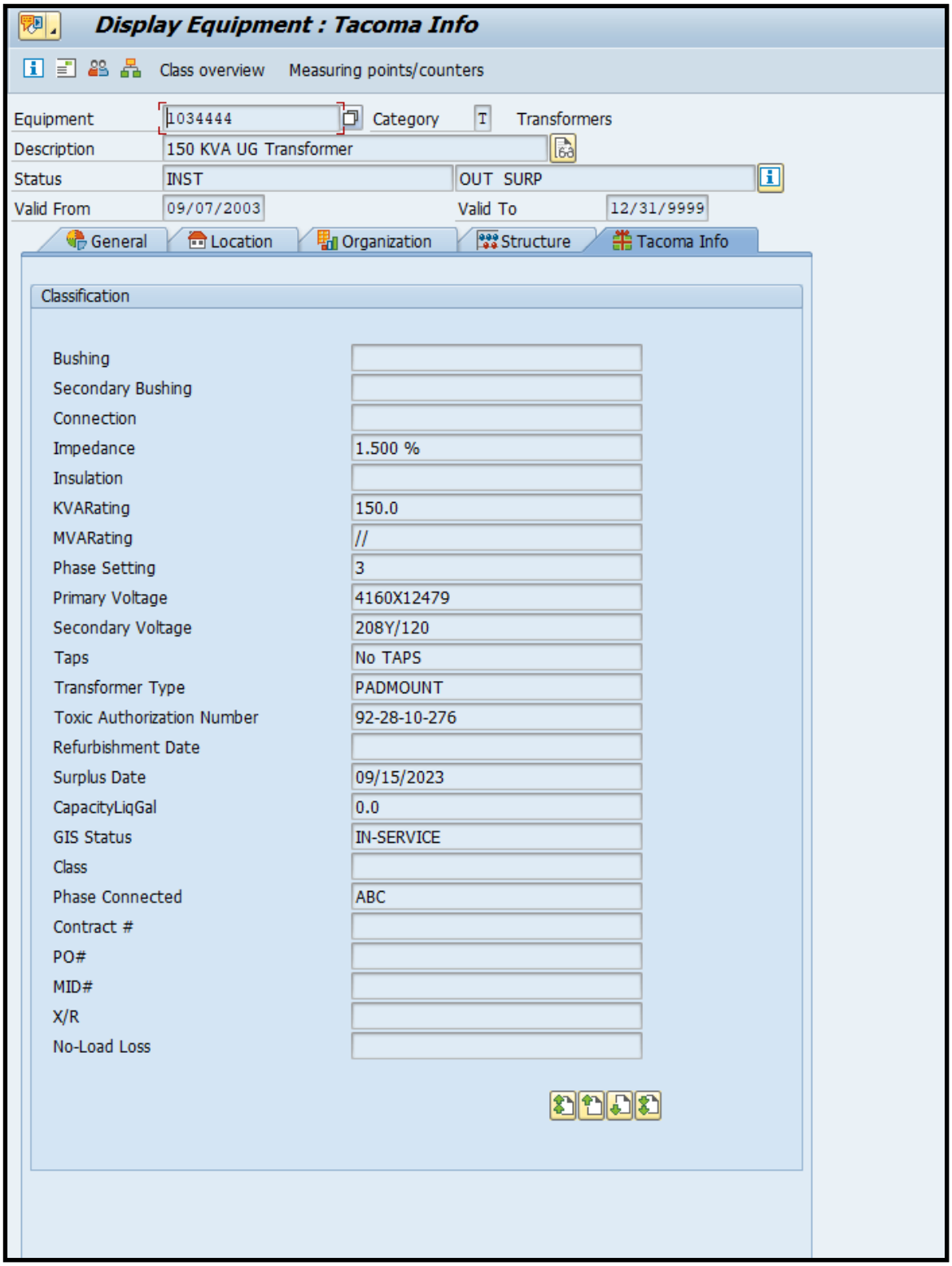
SAP Database Information: Transformer – #1034444


Display Equipment : General
Class overview
Measuring points/counters
Equipment 1034444
Category T Transformers
Description 150 KVA UG Transformer
Status INST OUT SURP
Valid From 09/07/2003
Valid To 12/31/9999
General
Location
Organization
Structure
Tacoma Info
General Data
Class TRANSFORMER Transformers
Object type ET000030 UG Transformer
AuthorizGroup
Division
Weight 3,000 LB
Size/dimension
Inventory no.
Start-Up Date 08/16/1974
Reference data
AcquistnValue 1,980.00 USD
Acquistion date
Manufacturer data
Manufacturer GENERAL ELECTRIC
ManufCountry
Model number
Constr.yr/mth 1974 /
ManufPartNo.
ManufSerialNo. L451162T74
Customer warranty
Warranty Start
Warranty end
Master warranty
InheritWarranty
Pass on warrnty
Vendor Warranty
Warranty Start
Warranty end
Master warranty
InheritWarranty
Pass on warrnty


Display Equipment : Location
Class overview
Measuring points/counters
Equipment 1034444
Category T Transformers
Description 150 KVA UG Transformer
Status INST
OUT SURP
Valid From 09/07/2003
Valid To 12/31/9999
General
Location
Organization
Structure
Tacoma Info
Location data
MaintPlant 1000 Power
Location
Room
Plant section 004 Trans Line OH
Work center
ABC indic.
Sort field 6777783
Address
Name
Street 6432 TACOMA MALL BLVD
Location 98409 TACOMA US WA
Telephone
Fax


Display Equipment : Organization
Class overview
Measuring points/counters
Equipment 1034444
Category T Transformers
Description 150 KVA UG Transformer
Status INST
OUT SURP
Valid From 09/07/2003
Valid To 12/31/9999
General
Location
Organization
Structure
Tacoma Info
Account assignment
Company Code CITY City of Tacoma Tacoma
Asset
Cost Center 563300 / CITY Pwr TD System Maint
WBS Element
StandgOrder
SettlementOrder
Responsibilities
Planning plant 1000 Power
Planner group
Main WorkCtr
Catalog profile


Display Equipment : Structure
Class overview
Measuring points/counters
Equipment
1034444
Category
T
Transformers
Description
150 KVA UG Transformer
Status
INST
OUT SURP
Valid From
09/07/2003
Valid To
12/31/9999
General
Location
Organization
Structure
Tacoma Info
Structuring
Functional loc.
ID-UG-007521-777782
Description
150 KVA UG Transformer Inst
Superord.Equip.
Description
Position
TechIdentNo.
TT034444
ConstType
Equipment
Pos.
Equipment
Sb-Eq
Description
EqmtType
Mfr


Display Equipment : Tacoma Info
Class overview
Measuring points/counters
Equipment 1034444
Category T Transformers
Description 150 KVA UG Transformer
Status INST
OUT SURP
Valid From 09/07/2003
Valid To 12/31/9999
General
Location
Organization
Structure
Tacoma Info
Classification
Bushing
Secondary Bushing
Connection
Impedance 1.500 %
Insulation
KVARating 150.0
MVARating //
Phase Setting 3
Primary Voltage 4160X12479
Secondary Voltage 208Y/120
Taps No TAPS
Transformer Type PADMOUNT
Toxic Authorization Number 92-28-10-276
Refurbishment Date
Surplus Date 09/15/2023
CapacityLiqGal 0.0
GIS Status IN-SERVICE
Class
Phase Connected ABC
Contract #
PO#
MID#
X/R
No-Load Loss

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

Report To: City of Tacoma
Light Division

Date: October 30, 1992

92-276

Report On: PCB in Oil

Lab No.: 27517-2
Page 1 of 2

IDENTIFICATION:
Samples Received on 10-29-92
P.O. No. PD-52652-L-BD
Authorization No. 92-28-10-276
Location: Various locations

ANALYSIS:

Laboratory Sample No.	Client Identification	PCB Type	PCB (mg/kg)
21	34647 L451163T74	---	< 1
22	34158 L446485T74	---	< 1
23	34439 L450533T74	---	< 1
24	34288 L448668T74	---	< 1
25	34659 L453029T74	---	< 1
26	34651 L453019T74	---	< 1
27	34406 L449055T74	---	< 1
28	36049 756001700	1260	1.0
29	34631 L451168T74	---	< 1
30	45880 81JL592175	---	< 1

Continued . . . . .

SOUND ANALYTICAL SERVICES, INC.

City of Tacoma
Light Division
Page 2 of 2
Lab No. 27517-2
October 30, 1992

92-276

Laboratory Sample No.	Client Identification	PCB Type	PCB (mg/kg)
31	49441 84JL307193	---	< 1
32	34444 L451162T74	---	< 1
33	39261 703246	---	< 1
34	37446 PID2115	1254	1.5
35	31805 PEF3866	---	< 1
36	34891 742J792021	---	< 1
37	34629 L451165T74	---	< 1
38	35986 756001634	---	< 1
39	34892 742J792024	---	< 1
40	34886 742J792013	---	< 1

SOUND ANALYTICAL SERVICES

Brent Hepner

BRENT HEPNER