Dave George
7/5/90
Comments written
(See inside)

REPORT ON UNDERGROUND GASOLINE CONTAMINATION REMOVAL

for

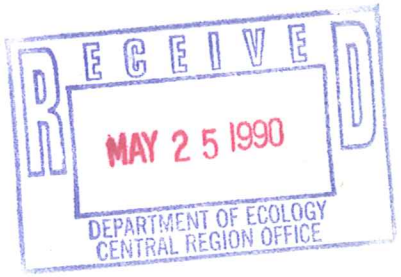
PEDERSON FRYER FARMS

1404 Birchfield Road

Yakima, Washington

March 1990

Job No. 90050



Prepared by

PLSA ENGINEERING & SURVEYING

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Yakima, WA 98902
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REPORT ON UNDERGROUND GASOLINE CONTAMINATION REMOVAL

for

PEDERSON FRYER FARMS

1404 Birchfield Road

Yakima, Washington

INTRODUCTION

Pederson Fryer Farms recently contracted to have an underground, steel, gasoline storage tank removed from their premises at 1404 Birchfield Road, Yakima, Washington. Presence of gasoline contaminated soil was suspected by Pederson personnel. PLSA Engineering and Surveying was retained to investigate for the presence of contamination and to direct any cleanup effort required.

This report summarizes the results of the investigation for contamination by gasoline and includes the results of laboratory testing of representative soil samples for presence of benzene, toluene, ethylene, and xylene (BTEX) and a sample for characterization of the contaminant by EPA 8015. A geotechnician from this office experienced with local soil conditions performed field testing for volatile organic compounds using a Photovac TIP 1 analyzer, and logged, observed, and field classified the soils found.

The owner's representative and contact person for this project is as follows:

Mr. John Chambers
Pederson Fryer Farms
1404 Birchfield Road
Yakima, Washington 98901
phone (509) 248-7633

SURFACE CONDITIONS

A former farmstead has been converted for use as product storage, truck parking, and general use for the purpose of fresh fryer distribution. The tank basin was located in a lawn and shrubbery area between the residence and the distribution and office building.

SUB-SURFACE CONDITIONS

A deep stratum of silt topsoil variable 6 to 8 feet thick overlies an alluvial stratum of gravel and sand. The water table is seasonally variable with the irrigation season. Water was found at 8 feet below the surface in April 1990.

A significant TIP 1 reading and contaminated soil was found at the south end of the tank basin. There is the possibility that gasoline was spilled during fuel delivery. The volume of contaminated soil could not be acurately determined, but is estimated at approximately 50 cubic yards.

From general topography, it appears that the groundwater hydraulic gradient is to the south or southwest.

CONTAMINANT CHARACTERIZATION

Two samples were collected from the contaminated soil found at the south end of the gasoline tank basin where the spill had apparently occured. Samples were refrigerated and shipped to a laboratory for analysis for BTEX and EPA 8015. Results of laboratory analysis are found in Appendix I. Gasoline was the only contaminant found.

CLEANUP ALTERNATIVES

Excavation equipment is available for removal of contaminated soil. The relatively small volume of soil is not suited to in situ methods, and equipment for these methods is not locally available. Cleanup by excavation and decontamination by on-site surface management or removal to an approved disposal site is selected as most economical methods and as showing the most promise for the desired results. On-site surface management is recommended as the least costly of the cleanup methods. Should the volume of contaminated soil exceed the capacity of area available for decontamination, removal to an approved disposal site will be used for the balance of the material removed.

remediate

Goal of the clean up process is to remove all contaminated soil to below Washington State Department of Ecology (WDOE) draft cleanup guidelines.

CONTAMINANT REMOVAL

The procedure proposed to achieve the cleanup goal is to use the Photovac TIP 1 photoanalyzer to detect volatile organic compounds (VOC's) as contaminated soil is removed until significant readings are no longer obtained, and then to submit representative samples for laboratory analysis to verify the TIP results.

Investigation has not revealed contaminated ground water. Should such contamination be encountered during the cleanup process, it is proposed to pump the water through an applicable aeration process to remove VOC's.

4/25/90
Note: As per site conversation with Mr. John Chambers, Manager, Pederson, a visible sheen was reportedly on the groundwater when the tank was removed
JG

DISPOSAL OF CONTAMINATED SOIL

There is sufficient area on the premises for on-site surface management if the volume of contaminated soil proves to be small.

need to follow up on this dust soil excavation

Soil will be placed over an impervious membrane diked to prevent percolation or runoff during remediation. As per Brad Card telecom, 7/5/90, area is west of warehouse - between structure and hop field.

Should the volume of contaminated soil prove to be too large for on-site surface management, two disposal sites are within reasonable hauling distance. These sites are the Yakima County Sanitary Landfill at Terrace Heights and Ron Anderson's Rocky Top Disposal site located between Yakima and Cowiche. Either site is proposed to be used.

SITE CLOSURE

Soil removal is planned to continue until the TIP 1 no longer obtained significant VOC readings. Samples will then be collected from the bottom of the excavation and then submitted for laboratory analysis for BTEX. The tank basin will then be backfilled with compact, clean, structural fill.

APPENDIX I

Analytical Results

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4630 PACIFIC HIGHWAY EAST, SUITE B-14, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922- 5047

Report To: PLSA Engineering Date: May 17, 1990

Report On: Analysis of Soil Lab No.: 11329

IDENTIFICATION:
Samples Received on 05-15-90
Job No. 90079

ANALYSIS:

Lab Sample No.	1	2
Client Identification	Sample #1	Sample #2
Matrix/Units	Soil ppm	Soil ppm
Benzene Toluene Ethyl Benzene Xylenes BTEX by EPA SW-846 Method 8020	0.15 75.3 38.8 347	< 0.05 23.8 20.2 159
Total Petroleum Fuel Hydrocarbons, by EPA SW-846 Modified Method 8015 TPH as	7,893 Gasoline	1,967 Gasoline

SOUND ANALYTICAL SERVICES

C. Larry Zuraw

C. LARRY ZURAW

SOUND ANALYTICAL SERVICES, INC.

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QUALITY CONTROL REPORT

DUPLICATES

Lab No: 11329
Date: May 17, 1990
Client: PLSA Engineering

Client ID: Sample #2
Matrix: Soil
Units: ppm

Compound	Sample(S)	Duplicate(D)	RPD*	
Benzene	< 0.05	< 0.05	----	
Toluene	23.85	21.1	12.0	
Ethyl Benzene	20.2	18.1	10.9	
Xylenes	159	146	8.5	
Total Petroleum Hydrocarbons	1,967	1,866	5.3	

*RPD = relative percent difference
= [(S - D) / ((S + D) / 2)] x 100