PREPARED FOR

UNITED STATES POSTAL SERVICE (USPS)

Theodore S. Clawson
Senior Environmental Geologist

Pamela J. Morrill
Project Manager/Environmental Scientist

2075.

UNDERGROUND STORAGE TANK REPLACEMENT OBSERVATION AND DOCUMENTATION

Terminal Annex
Seattle, Washington

E-4414-340

May 6, 1991

Earth Consultants, Inc.
1805 - 136th Place Northeast, Suite 101
Bellevue, Washington 98005
(206) 464-1584

222 East 26th Street, Suite 103
Tacoma, Washington 98411-9998
(206) 272-6608

Earth Consultants Inc.
Geotechnical Engineers, Geologists & Environmental Scientists

May 6, 1991

E-4414-340

United States Postal Service
Kent Facilities Service Office
P.O. Box 5000
Kent, Washington 98064-5000

Attention: Mr. Martin Hansen
Project Manager

Subject: **Underground Storage Tank Replacement**
Observation and Documentation
Terminal Annex
Seattle, Washington

Dear Mr. Hansen:

The Environmental Services Division of Earth Consultants, Inc. (ECI) is pleased to submit the attached report entitled "Underground Storage Tank Replacement, Observation and Documentation, Terminal Annex, Seattle, Washington." This report presents our summary of the tank removal and replacement, laboratory analyses, data evaluation, conclusions, and recommendations.

We appreciate the opportunity to provide environmental consulting services for you. If you have any questions, or if we may be of further service, please contact us.

Respectfully submitted,

EARTH CONSULTANTS, INC.

Theodore S. Clawson
Senior Environmental Geologist

Pamela J. Morrill
Project Manager/Environmental Scientist

TSC/PJM/clh/ah
[E4414340.R01]

1805 - 136th Place N.E., Suite 101, Bellevue, Washington 98005
222 E. 26th Street, Suite 101, Tacoma, Washington 98411-9998
Bellevue (206) 643-3780 Seattle (206) 464-1584 FAX (206) 746-0860 Tacoma (206) 272-6608

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UNDERGROUND STORAGE TANK REPLACEMENT
OBSERVATION AND DOCUMENTATION
Terminal Annex
Seattle, Washington

E-4414-340

EXECUTIVE SUMMARY

On February 20 through 26, 1991, one 8,000-gallon heating oil underground storage tank (UST) was excavated, removed, and replaced with a 6,000-gallon heating oil UST at the USPS Terminal Annex in Seattle, Washington. During site work, the excavated soil, and soil and groundwater in the tank pit were observed for evidence of hydrocarbon contamination. Visual discoloration and odors were noted in the soil, and a sheen and floating product were present on the groundwater surface. A visual examination of the excavated tank revealed evidence of leakage from at least 4 holes up to half an inch in diameter located in the bottom of the tank. Soil excavation continued until the discolored soil had been removed and hydrocarbon odors were no longer detected. Soil samples were then collected from the sides of the excavation near the groundwater interface and from the excavated stockpiled soil. The excavation was purged and allowed to recover overnight prior to collection of a groundwater sample. The samples were submitted to the project laboratory for analysis. Results of the laboratory analyses indicated petroleum hydrocarbon concentrations in the soil samples collected from the excavation sidewalls were below the current regulatory cleanup level of 200 parts per million (ppm). Petroleum hydrocarbon concentrations in the groundwater sample were less than the detection limit of 0.5 ppm and were also below the cleanup standard of 1 ppm. Samples analyzed from the stockpiled soil ranged from less than 10 to 310 ppm petroleum oil. The stockpiled soil was transported to an off-site facility for remediation by landfarming.

Based on field observations and the results of the laboratory analyses, it appears that petroleum hydrocarbon contamination is no longer present in the soil at concentrations which exceed the current Washington Department of Ecology (Ecology) cleanup guidelines. Although release occurred, analysis of groundwater collected from the excavation after it had been purged did not indicate residual hydrocarbon contamination.

Current regulations under WAC 173-340-450 require the installation of groundwater monitor wells under circumstances where contaminated soil has been in contact with groundwater. However, information which sufficiently characterize the release at the site may be substituted for the testing (wells) required. ECI believes that analytical results from the pit wells and floor and groundwater within the pit are sufficient information to characterize the release. Previous studies in the vicinity of the UST indicate the direction of groundwater flow in the area to be southerly, with variations to the east and west. Southeasterly and easterly groundwater flow would be moving underneath the Post Office facility and is believed to be the most likely direction of groundwater flow at this site. Based on the type and apparently small quantity of petroleum product released, it is anticipated that any petroleum product potentially remaining at the site would have attenuated to nondetectable concentrations by the time it reached the other side of the building. Therefore, it is ECI's opinion that further work at the site is not necessary.

PURPOSE AND SCOPE OF WORK

The purpose of this study was to observe and document the removal of an 8,000-gallon, single-wall heating fuel tank and the installation of a 6,000-gallon, double-wall fiberglass UST. The work performed by ECI during this project was limited to:

1) Observation and documentation of the UST's condition during removal by the contractor, Landmark Reclamation, Inc.

2) Observation and documentation of the testing of the new UST after installation.

3) Observation and photodocumentation of the condition of the soils exposed during the tank excavation.

4) Collection of soil and groundwater samples from appropriate locations in the tank excavation for laboratory analysis.

5) Laboratory analysis of seven soil samples and one groundwater sample for total petroleum hydrocarbons.

6) Final site inspection to review conditions after work had been completed at the site.

7) Preparation of this written report containing the following:

   - A summary of the work conducted at the site.
   - A summary of field sampling methodology.
   - A summary of the chemical analytical procedures used during this project.
   - A discussion and interpretation of the results of this study.
   - A site plan showing sampling and photograph locations, color photographs, and appendices containing laboratory data sheets and other closure documentation.

The scope of ECI's involvement on this project did not include the acquisition of permits, or acting as regulatory agency liaison. ECI was not responsible for the contractor's means, methods, procedures, techniques, or safety on the job site.

SITE LOCATION AND DESCRIPTION

The subject site is the USPS Terminal Annex facility located at 2445 Third Avenue, South in the city of Seattle, Washington. The site is bound by South Lander Street to the south, the Post Office Vehicle Maintenance Facility building to the north, Third Avenue South to the east, and the

Burlington Northern Railroad right-of-way to the west. The Post Office facility located on the site is a main distribution facility. The underground tank replaced during this investigation was located on the west side of the Post Office building beneath a concrete apron adjacent to the northwest corner of the loading dock (see Plate 1).

The UST removed during this investigation was approximately 28 years old and had been used to store diesel heating oil. It was of single-wall steel construction and had an 8,000-gallon capacity. Prior to removal, the UST had been used as a reserve source of fuel. Approximately 72 inches of product, or 6,650 gallons of heating oil was measured in the tank during the initial site reconnaissance performed by ECI in December 1990. Accurate fuel inventory records had not been maintained on the tank, so there was no knowledge of fuel loss.

UNDERGROUND STORAGE TANK REMOVAL

UST Preparation

Prior to site work the USPS had removed most of the product from the UST. On February 20, 1990, Landmark Reclamation (under contract to the USPS) began excavation for the removal of the UST on the referenced property. The contractor inerted the tank with dry ice and used a Gastech meter to periodically monitor conditions inside the tank for explosive vapor and oxygen concentrations. The explosive vapor concentration in the tank was less than 10 percent of the lower explosive limit (LEL) when the contractor removed the tank.

During site work it was noted that no proper vent line was found, except for a capped-off pipe that may have been the vent line. The tank did appear to be under pressure upon opening.

Soil Excavation and UST Removal

The soil around the UST was excavated to allow for tank removal and was temporarily stockpiled on an asphalt paved area adjacent to the northwest corner of the Terminal Annex building. Odors and discoloration were observed in some of the excavated soil. Following removal of the UST, the base and sides of the excavation were visually examined for evidence of petroleum hydrocarbon contamination. Soil discoloration and odors were observed in the excavation after the tank was removed. Therefore, excavation continued until visual evidence of contamination was no longer present in the exposed soil. A total of approximately 137 cubic yards of soil was excavated in order to remove the tank and contaminated soil. Based on field observations, the native soils adjacent to the excavation below the concrete and baserock consisted of 3 to 5 feet of light brown, silty, gravelly sand which was underlain by dark gray silty sand.

Groundwater was encountered at approximately seven feet below the existing ground surface. Upon encountering the groundwater, a sheen and several globules of floating product were observed on the surface of the water. The groundwater was purged from the excavation by Northwest EnviroService and transported to their recycling facility. A total of 2,533 gallons of water were purged (see Appendix A) prior to the allowing groundwater in the excavation to recover for sampling.

The excavated tank was visually inspected for evidence of holes, excessive corrosion, and evidence of leakage. The overall condition of the tank appeared fair; however, at least four holes ranging in size from 1/8 to 1/2 inch in diameter were visible in the bottom of the tank. Photographs 1 through 4 show the tank and excavation.

Soil and Groundwater Sampling

Four discrete soil samples (TA-E-4, -S-5, -N-6, and -W-7) were collected from the sidewalls of the excavation just above the groundwater interface. The approximate sampling locations within the excavation are shown in Plate 2. A groundwater sample (TA-8) was collected from the excavation after it had been pumped nearly dry and allowed to recover for approximately 24 hours. Two composite samples (TA-SP-1 and -2) and one discrete sample (TA-BS-3) were collected from five different locations in the stockpiled excavated soil. The samples collected from the stockpiled soil were collected from areas which appeared to have the highest contamination.

Soil samples were collected into clean, laboratory grade, 8 oz. borosilicate glass jars after scraping away approximately the top six inches of soil using a clean trowel. Each sample-filled jar was then sealed with a plastic Teflon lined cap. The groundwater sample was collected using a clean pyrex container and transferred into a clean, laboratory grade, 1 liter glass jar. The groundwater sample was collected by partially submerging the sampler and skimming from the water surface. Each sample was appropriately labeled with the sample number, job number, date and time of collection, and the sampler's initials. The samples were then placed in plastic bags, kept cool in an ice-filled chest, and transported under chain-of-custody to the contract laboratory for delivery the same day.

Sample Analysis

The soil and groundwater samples were analyzed, using EPA method 8015, for total high boiling point petroleum hydrocarbons (TPH-diesel) on a 24-hour expedited turnaround. EPA Method 8015 uses gas chromatography and photoionization techniques to quantify the analytes of interest. The detection limit for TPH-diesel in the soil samples was 10 parts per million (ppm), and 0.5 ppm in the groundwater sample.

When the excavated soil samples (TA-SP-1, -SP-2, and -BS-3) were analyzed, laboratory personnel observed indications of the presence of petroleum hydrocarbons beyond the diesel range, but were unable to quantify them using method 8015. Based on this information, the laboratory was requested to perform an additional analysis on the three samples of excavated soil using EPA method 418.1. EPA method 418.1 uses infrared spectrophotometry (IR) with supplemental silica gel separation to quantify Total Recoverable Petroleum Hydrocarbons (TRPH) ranging from C-4 to C-22. The detection limit for TRPH in the soil samples was 5 ppm.

Analytical Results

The laboratory data sheets and the chain-of-custody are included as Appendix B. A review of the laboratory analyses indicates the following results:

Table 1
Summary of Analytical Testing

Stockpiled Soil		Excavation Samples	
Sample I.D.	Concentration	Sample I.D.	Concentration
TA-SP-1 (8015)	170 ppm	TA-E-4	<10 ppm
TA-SP-1 (418.1)	310 ppm	TA-S-5	160 ppm
TA-SP-2 (8015)	140 ppm	TA-N-6	<10 ppm
TA-SP-2 (418.1)	180 ppm	TA-W-7	<10 ppm
TA-BS-3 (8015)	<10 ppm	TA-8 (water)	<0.5 ppm
TA-BS-3 (418.1)	11 ppm		

When compared to the Department of Ecology (Ecology) proposed cleanup standards, as noted in the Model Toxics Control Act (MTCA) regulations, the values for the samples collected from the excavation sidewalls are below the allowable limit of 200 ppm TPH-diesel in soil and 1 ppm TPH in groundwater.

Soil and Groundwater Disposal

Upon receipt of laboratory results, the stockpiled soil (approximate volume of 137 cubic yards) was transported by Gaston Brothers to Fife Sand and Gravel Co. in Fife, Washington to be landfarmed. Copies of the receipts for soil disposal are included in Appendix A.

UST Disposal

The excavated tank was transported to Northwest Enviroservice, Inc. in Seattle, Washington to be cleaned and used as scrap metal. The copy of the receipt for the tank is included in Appendix A.

UNDERGROUND STORAGE TANK REPLACEMENT

Following completion of tank removal activities, the contractor proceeded with the installation of a 6,000-gallon, double wall, fiberglass replacement tank. The excavation was lined with filter fabric and a backfill bed of pea gravel was placed in the bottom of the excavation. The tank was pressure tested for leaks, placed in the excavation on the backfill bed, anchored to concrete deadmen, pressure tested again, and the inside diameter was measured. After the tank was placed and anchored, an observation well screen and riser were placed in the excavation and the excavation was backfilled with pea gravel to subgrade. The tank diameter was measured again following completion of the backfill and no deflection or change in the tank's internal diameter was observed. Following tank placement, the drop tubes were installed and the product lines were plumbed and pressure tested. The tank monitoring system was also installed and tested at this time. The tank monitoring system includes sensors and alarms for the piping and tank interstitial space, as well as a tank monitor probe with printer, keyboard, and LCD display. After all electrical and piping connections were made and tested, the area was resurfaced with concrete over the bed of pea gravel backfill. Photographs 5 and 6 show the pea gravel backfill and placement of the tank risers and connections. Copies of the tank installation checklist, tank warranty, and an as-built drawing, as provided by Landmark Reclamation, are included in Appendix C.

FINAL SITE REVIEW

The site was inspected by a representative of ECI on March 1, 1991. Photographs of the site after work was completed are included as Photographs 7 and 8. It appeared that the site had been adequately returned to its original condition.

DISCUSSION

Based on observations of the condition of the soil, groundwater, and the excavated tank, there has been a release from the UST. The source of contamination (the UST) has been removed from the site and contaminated soil exceeding Method A cleanup standards contained in MTCA has been excavated and removed from the site. Analysis of a groundwater sample collected directly from the excavation did not contain hydrocarbon contamination at detectable levels.

This sample was potentially a worst case example of petroleum contamination since it was collected near the area where soil contamination was the worst and by skimming much of the surface water.

WAC 173-340-450 (3) (a) (iii) states that "If contaminated soil is found in contact with the groundwater...then testing shall include the installation of groundwater monitoring wells to test for the presence of possible groundwater contamination." This regulation goes on to state, however, that "Information gathered for the site check or closure site assessment conducted pursuant to the rules adopted under Chapter 90.76 RCW, which sufficiently characterizes the releases at the site, may be substituted for the testing required". Since the results of the groundwater sample, collected as a worst case example, was nondetected for petroleum hydrocarbons, it is ECI's opinion that the site has been adequately characterized such that further work would not be necessary.

Although the site specific gradient can be variable, ECI previously conducted a groundwater survey on an adjacent property and reviewed another consultant's groundwater study for the Terminal Annex Vehicle Maintenance Facility, which indicated the direction of groundwater flow in the area to be southerly with variations to the east and west. Groundwater flow in the area of the removed UST would be expected to be similar. If the direction of groundwater movement at the UST flows southeasterly, or easterly, groundwater would be moving underneath the building from the site. Any investigations performed under the building would be severely complicated due to the size of the building and its construction. The flooring of the building rests approximately four feet above the ground surface. There is no basement; however, there are tunnels throughout the building that were formerly used to transport mail by conveyor belts. The tunnels are approximately 10 feet deep, or approximately 6 feet below the ground surface. Some of these tunnels have sumps that collect groundwater and are run intermittently. Mr. Raymond Hill in the USPS maintenance department had not heard of any reportings of petroleum product being observed in any of the sumps. The presence of the tunnels and sumps, as well as the low building clearance and USPS activities, would preclude well installation within this building. If petroleum product from the UST has migrated east under the building it would have to travel a distance of greater than 150 feet to reach the opposite edge of the building. ECI believes it is unlikely that residual petroleum product would have reached the other side of the building without having attenuated to nondetectable levels, as based on the type of product released, soil conditions, and the distance it would have to travel.

CONCLUSIONS AND RECOMMENDATIONS

Based on ECI's visual inspection of the condition of the excavated UST, observations of the condition of the excavated soil, and the results of laboratory analysis of soil samples collected, it appears there has been a release from the excavated underground storage tank, which has impacted the soil and groundwater. Based on soil sampling in the excavation, it appears that impacted soil exceeding Ecology's clean-up regulations has been excavated.

A sample of groundwater collected from the tank excavation did not show detectable levels of petroleum hydrocarbons and indicates that the impact to groundwater was minimal, and may have been mostly removed while dewatering the excavation.

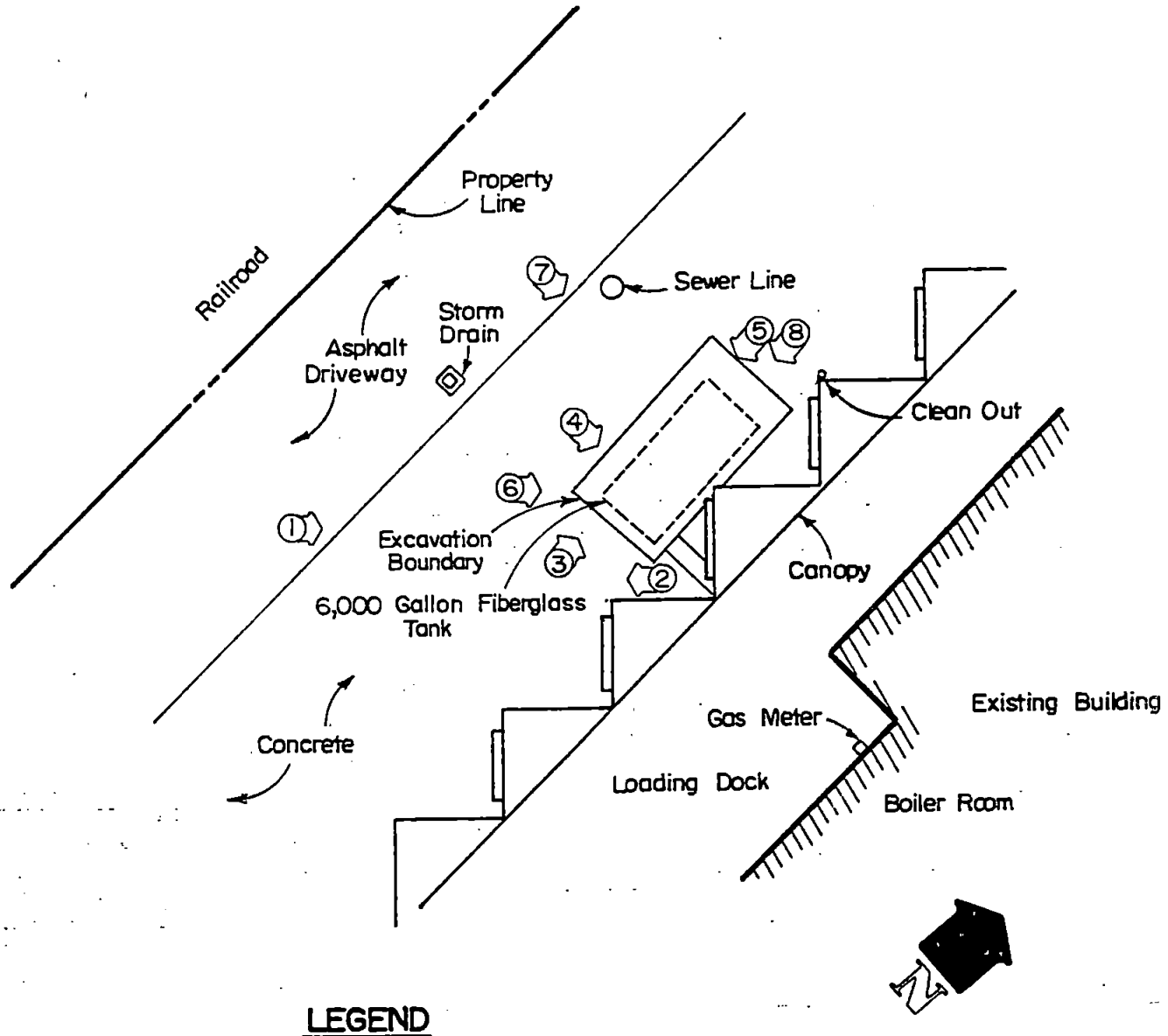
Current regulations under WAC 173-340-450 require the installation of groundwater monitor wells under circumstances where contaminated soil has been found to be in contact with the groundwater. However, based on the anticipated gradient at the site, a potential hydrocarbon plume would likely have migrated under the building. The installation of monitor wells inside the building would be highly impractical. Monitor wells installed on the opposite side of the building would also be impractical since it is reasonable to assume that the petroleum product, if any, would have attenuated to nondetectable concentrations prior to reaching the opposite side of the building. Since there is no evidence of significant hydrocarbon contamination remaining in the soil or groundwater, it is ECI's opinion that further studies would be impractical and unmeaningfull.

STANDARD LIMITATIONS

The findings and conclusions presented in this report have been prepared for specific application to this project and have been developed in a manner consistent with the level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area.

We have conducted limited environmental testing on this site. The conclusions, expectations, and recommendations presented in this report are our professional opinions based on our interpretation of information currently available to us. No warranty, expressed or implied, is made.

This report is for the exclusive use of the United States Postal Service and their representatives. Any subsequent consultations or other professional services made by ECI to third parties (parties other than you or your representatives) will require your prior written agreement with ECI. Any such ECI service to third parties ordinarily is new work (a) requiring formal agreement with the new client, and (b) done on a time-and-materials basis and in accordance with ECI's prevailing Standard Fee Schedule and General conditions.



LEGEND

① Photo Number and Direction of View

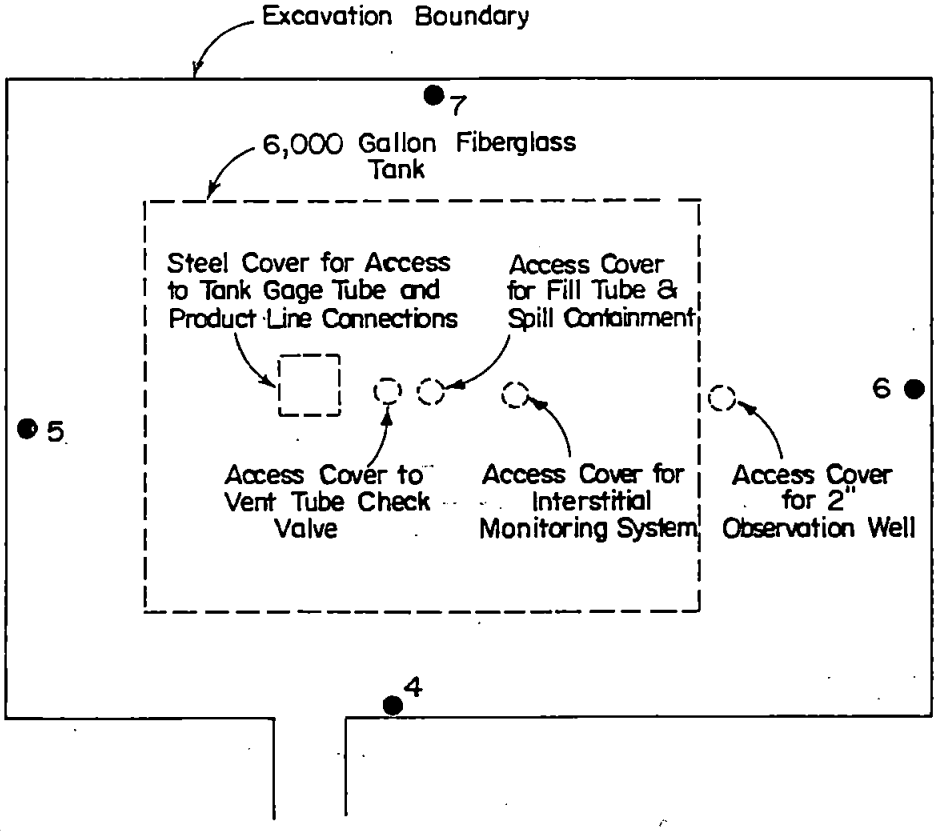
Approximate Scale
0 10 20 40ft.

Reference :
Site Sketch
By Earth Consultants Inc.
Dated 11/12/90

Earth Consultants Inc.
Geotechnical Engineers, Geologists & Environmental Scientists

Site Sketch
USPS Terminal Annex
Seattle, Washington

Proj. No. 4414-340	Drwn. GLS	Date Apr. '91	Checked TC	Date 4/15/91	Plate 1



LEGEND

● 7 Approximate Location of EC1 Sample

N

Not - To - Scale

NOTE :

SAMPLES 1, 2 AND 3 (NOT SHOWN) WERE COLLECTED FROM THE EXCAVATED SOIL. SAMPLE 8 (NOT SHOWN) WAS SAMPLE GROUNDWATER FROM EXCAVATION.

Earth Consultants Inc. Geotechnical Engineers, Geologists & Environmental Scientists			Sample Location Plan USPS Terminal Annex Seattle, Washington			
Proj. No. 4414-340	**Drwn.** GLS	**Date** Apr. '91	**Checked** TC	**Date** 4/16/91	**Plate** 2	

E-4414-340

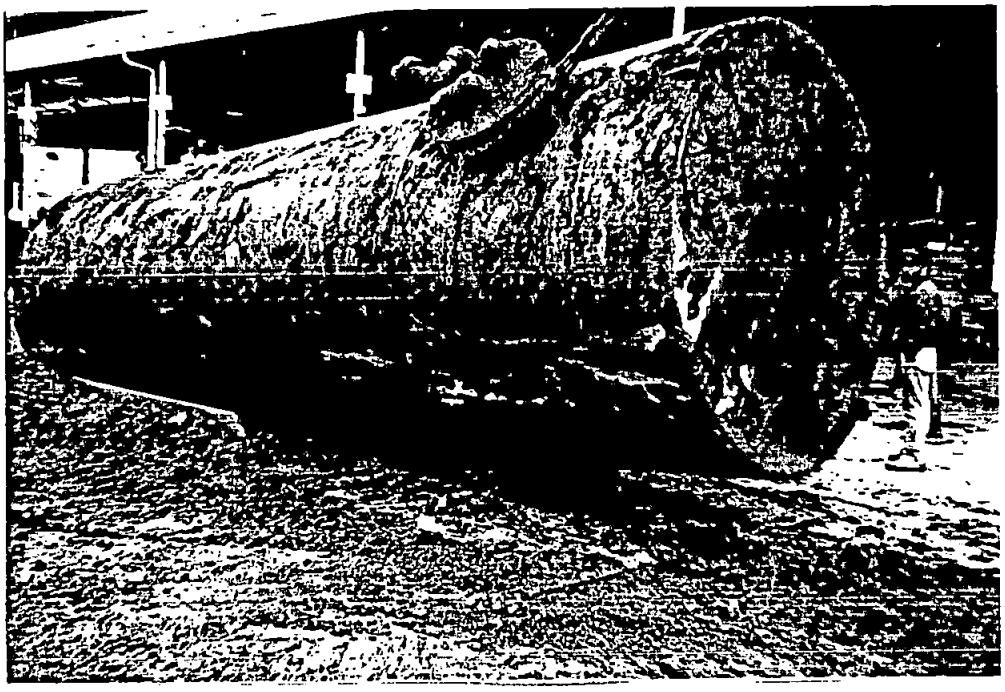


Photo 1 Photo of the 8,000 gallon tank showing the topside and south end of the tank.

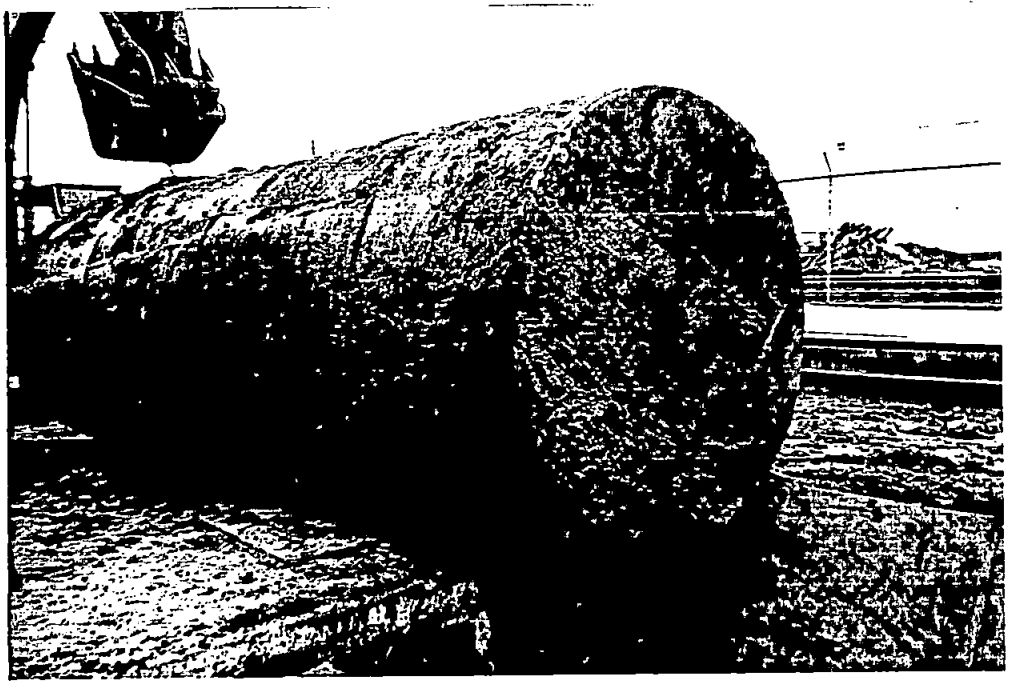


Photo 2 Photo of the 8,000 gallon tank showing the bottom side and north end of the tank.

Photos Dated 2/20/91

E-4414-340

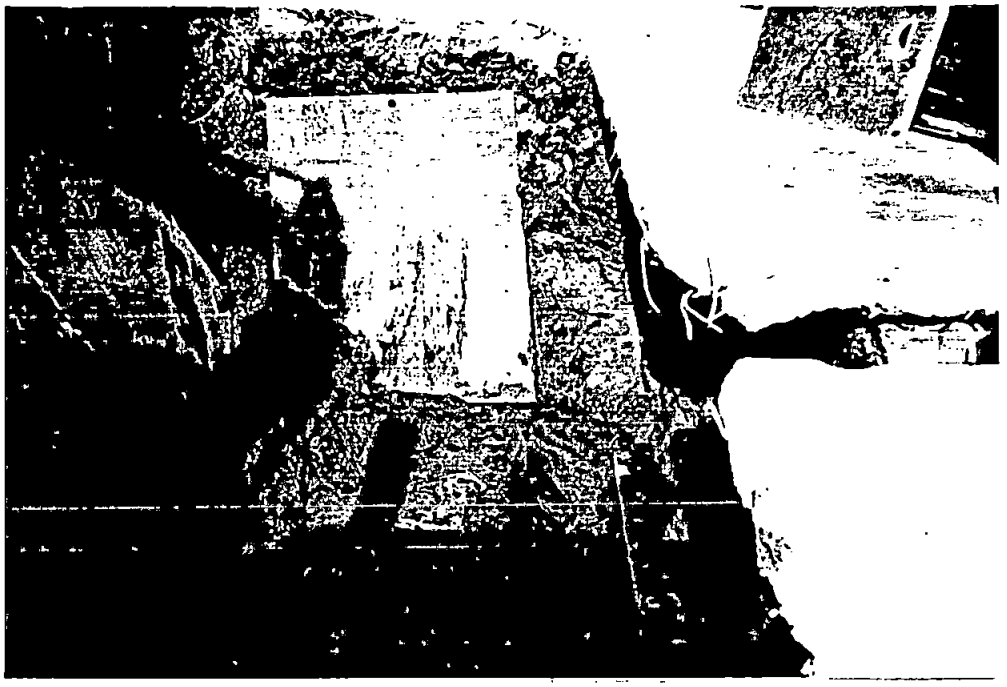


Photo 3 Photo showing groundwater in the tank excavation.

Photo 4 Photo showing the east wall of the excavation beneath the loading dock.

Photos Dated 2/21/91

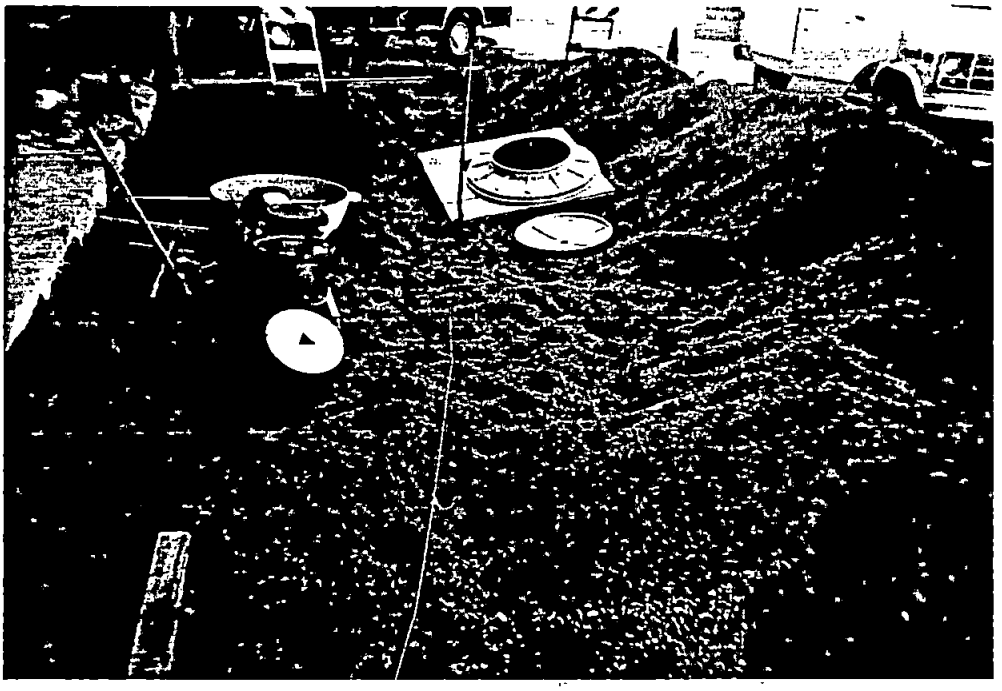


Photo 5 Photo showing tank access risers and pea gravel backfill covering the new tank.

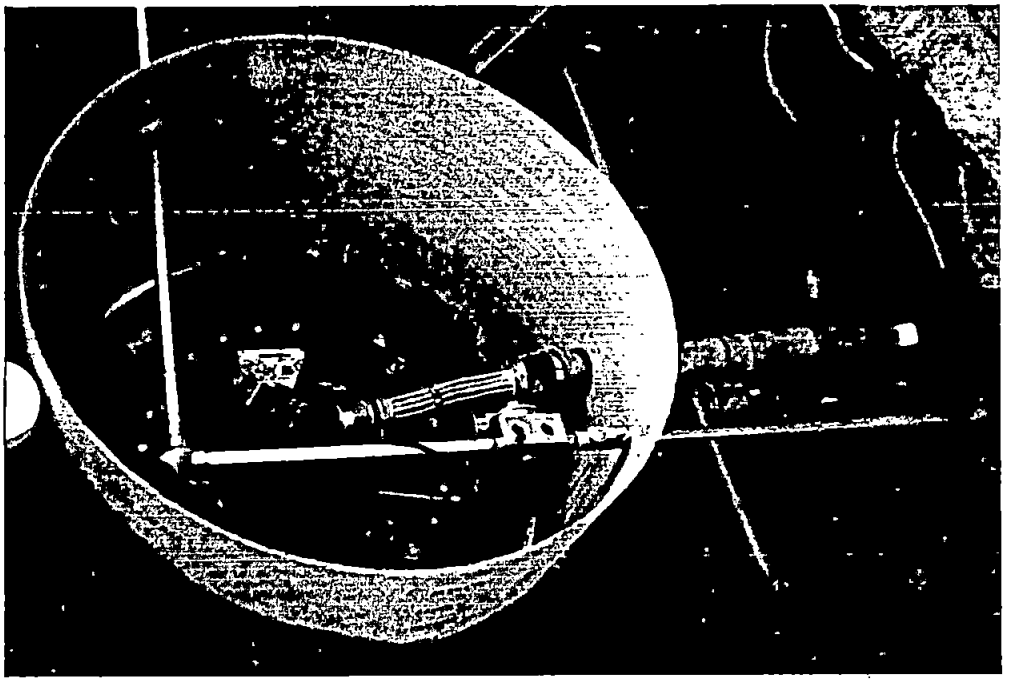


Photo 6 Photo showing suction and return line connections on the new tank.

Photos Dated 2/25/91

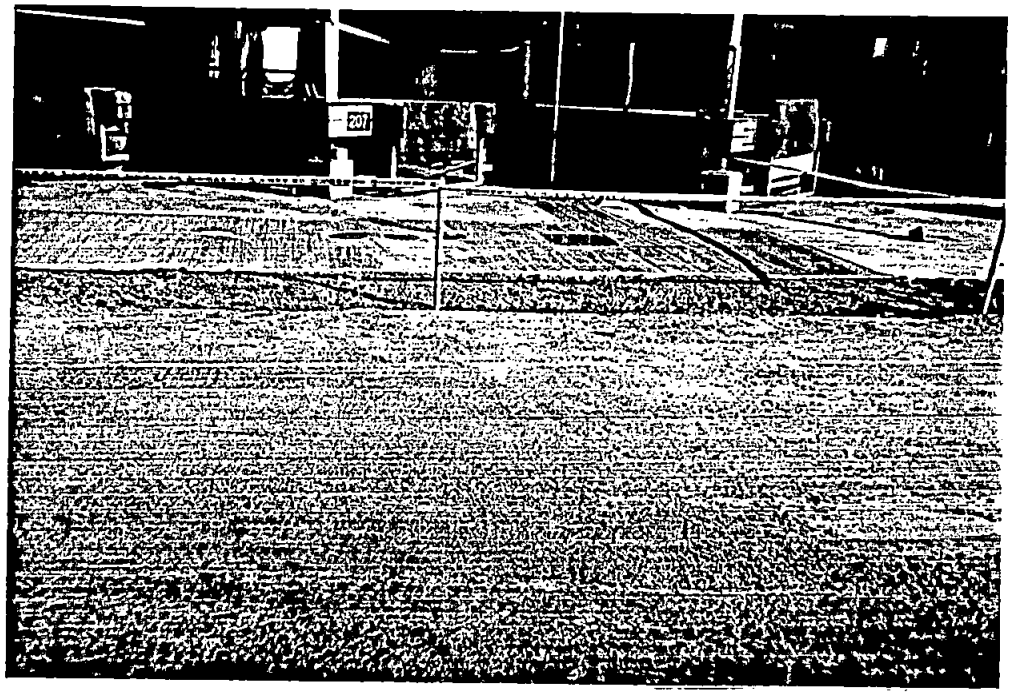


Photo 7 Photo showing completed site. Note vent tube riser in background at center of the photo.

Photo 8

Photo showing the finished concrete patch and access covers.

Photos Dated 3/1/91

Northwest EnviroField Services

DISPOSAL CERTIFICATION

DATE: March 5, 1991

TO: Landmark Reclamation
1 Tabor Center Suite 2500
Denver, Colorado 80202

REFERENCE P.O. W.O. 1810

To whom it may concern,

This letter is to certify that Northwest EnviroField Services has received the following tank(s) for cleaning and disposal in accordance with all federal, state and local rules and regulations:

1.) One (1) 7,500 gallon diesel

NWEFS JOB #: 32-21226

DATE RECEIVED: 02-20-91

DATE CLEANED: 02-27-91

DATE OF DISPOSAL: 02-27-91

METHOD OF DISPOSAL: Scrap Steel

LOCATION OF TANK ORIGIN: U.S. Post Office 4th & Lander/Seattle,WA

If you have any questions or requests for service, feel free to contact this office at (206)-762-1190.

Thank you for your business and we look forward to being of service in the future.

Sincerely,

Northwest EnviroField Services

Kim Ducatt
Underground Tank Division

KD:lh

EXPRESS STOP
Division of South Center Oil, Inc.

3215 4th Ave. So.
Seattle, WA 98134
(206) 621-9777

INVOICE No. S 22990

GASTON BROS

4 44

83820 G lb 10:49 AM 02/22/91

36,320

47,500

DATE 2-22-91

PRICE 5.50 PD ☒ CASH ☐ CHG.

SHIPPER _____ WEIGHER _____

DRIVER

EXPRESS STOP
Division of South Center Oil, Inc.

3215 4th Ave. So.
Seattle, WA 98134
(206) 621-9777

INVOICE No. S 23000

GASTON BROS

4

90560 G lb 01:13 PM 02/22/91

36,320

54,240

DATE 2-22-91

PRICE 5.50 PD ☒ CASH ☐ CHG.

SHIPPER _____ WEIGHER _____

DRIVER

EXPRESS STOP
Division of South Center Oil, Inc.

3215 4th Ave. So.
Seattle, WA 98134
(206) 621-9777

INVOICE No. S 22995

GASTON BROS

11

47,400

36320 G lb 11:18 AM 02/22/91

47,400

85720 G lb 12:57 PM 02/22/91

DATE 2-22-91

PRICE 5.50 PD ☒ CASH ☐ CHG.

SHIPPER #11 WEIGHER _____

DRIVER

EXPRESS STOP
Division of South Center Oil, Inc.

3215 4th Ave. So.
Seattle, WA 98134
(206) 621-9777

INVOICE No. S 23208

Gaston Bros

86320 G lb 03:39 PM 02/22/91

36320
50,000

02400 11

DATE 2-22-91

PRICE 5.50 PD ☒ CASH ☐ CHG.

SHIPPER [signature] 11 WEIGHER [signature] C
DRIVER

CK# 8216 22 80

EXPRESS STOP
Division of South Center Oil, Inc.

3215 4th Ave. So.
Seattle, WA 98134
(206) 621-9777

INVOICE No. S 22993

Gaston Bros

40580 G lb 11:09 AM 02/22/91

87340 G lb 11:43 AM 02/22/91

46,760

10,620 2

DATE 2-22-91

PRICE 5.50 ☒ CASH ☐ CHG.

SHIPPER Ray Gaston WEIGHER [signature] C
DRIVER

EXPRESS STOP
Division of South Center Oil, Inc.

3215 4th Ave. So.
Seattle, WA 98134
(206) 621-9777

INVOICE No. S 23205

Gaston Bros

99440 G lb 02:38 PM 02/22/91

40,580

58,860

10,620 2

DATE 2-22-91

PRICE 5.50 PD ☒ CASH ☐ CHG.

SHIPPER Ray Gaston WEIGHER [signature]
DRIVER

EXPRESS STOP

Division of South Center Oil, Inc.

3215 4th Ave. So.
Seattle, WA 98134
(206) 621-9777

INVOICE No. S 23240

Gaston Bros

4

37060 lb 02:33 PM 02/25/91

light weight

DATE 2-25-91

PRICE 5.50 (P.) ☒ CASH ☐ CHG.

SHIPPER _____ WEIGHER _____

DRIVER

Northwest EnviroService Inc.

09808

BILL OF LADING AND GALLONAGE REPORT

CUSTOMER Landmark Prod. DATE 2-7-91

JOB LOCATION 3rd + London Post Office

DRIVER Dan A EQUIP 24

JOB NO 32-21223 DOCUMENT NO

PRODUCT Oily Haz Waste EST. GALS 220

PRODUCT EST. GALS

DRUMS NO

OTHER EST SOLIDS

CUSTOMER SIGNATURE

N.W.E.S. DISPOSAL

WASH OUT: YES ☒ NO ☐ TIME IN 10:45 TIME OUT 12:35

WATER 2533 GAL LOCATION F-Pit TEST Oily

SOLIDS 267 GAL LOCATION F-Pit

(160 GALS) 12 % SUSPENDED SOLIDS BY CENTRIFUGE + 105 GALS. SEDIMENT

OIL/DIESEL GAL LOCATION TEST

HOC'S PCB'S B.S.&W. API. LAB: YES ☐ NO ☒

GAS GAL LOCATION

HWF GAL LOCATION

RECEIVED FEB 22 1991

OTHER

FACILITY REPRESENTATIVE

DRIVER SIGNATURE

NW118 (REV. 8/90)

JOB FOLDER

ACCOUNTING

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

Earth Consultants Inc.	Client Project ID:	USPS Terminal Annex, 4414-340	Sampled:	Feb 20, 1991
1805 136th Place N.E., Suite 101	Matrix Descript:	Soil	Received:	Feb 20, 1991
Bellevue, WA 98005	Analysis Method:	EPA 3550/8015	Extracted:	Feb 21, 1991
Attention: T.Clawson	First Sample #:	102-0571	Analyzed:	Feb 21, 1991
			Reported:	Feb 22, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	Extractable Hydrocarbons mg/kg (ppm)
102-0571	TA-SP-1	170
102-0572	TA-SP-2	140
102-0573	TA-BS-3	N.D.

Detection Limits:	**10**

Extractable (high boiling point) Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

NORTH CREEK ANALYTICAL

Scot Cocanour
Laboratory Director

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

Earth Consultants Inc.	Client Project ID:	USPS Terminal Annex, 4414-340	Sampled:	Feb 20, 1991
1805 136th Place N.E., Suite 101	Matrix Descript:	Soil	Received:	Feb 20, 1991
Bellevue, WA 98005	Analysis Method:	EPA 418.1 (I.R. with clean-up)	Extracted:	Feb 22, 1991
Attention: T.Clawson	First Sample #:	102-0571	Analyzed:	Feb 22, 1991
			Reported:	Feb 22, 1991

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Sample Number	Sample Description	Petroleum Oil mg/kg (ppm)
102-0571	TA-SP-1	310
102-0572	TA-SP-2	180
102-0573	TA-BS-3	11

Detection Limits:	**5.0**

Analytes reported as N.D. were not present above the stated limit of detection.

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Laboratory Director

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Earth Consultants Inc.
1805 136th Place N.E., Suite 101
Bellevue, WA 98005
Attention: T.Clawson

Client Project ID: USPS Terminal Annex, 4414-340
Sample Matrix: Soil
QC Sample Group: 102-0571 to -0573

Reported: Feb 22, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel Fuel	Petroleum Oil
EPA Method:	8015	418.1
Analyst:	S. Kouri	K. Stark
Reporting Units:	mg/kg	mg/kg
Date Analyzed:	Feb 21, 1991	Feb 22, 1991
QC Sample #:	BLK022191	1020573
Sample Conc.:	N.D.	11
Spike Conc. Added:	48	521
Conc. Matrix Spike:	30	439
Matrix Spike % Recovery:	62	82
Conc. Matrix Spike Dup.:	40	421
Matrix Spike Duplicate % Recovery:	83	79
Relative % Difference:	29	4.2

NORTH CREEK ANALYTICAL

Scot Cocanour
Laboratory Director

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

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Phone (206) 481-9200 • FAX (206) 485-2992

Earth Consultants Inc.	Client Project ID:	USPS Terminal Annex, 4414-340	Sampled:	Feb 21, 1991
1805 136th Place N.E., Suite 101	Matrix Descript:	Soil	Received:	Feb 21, 1991
Bellevue, WA 98005	Analysis Method:	EPA 3550/8015	Extracted:	Feb 21, 1991
Attention: T.Clawson	First Sample #:	102-0587	Analyzed:	Feb 21, 1991
			Reported:	Feb 22, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	Extractable Hydrocarbons mg/kg (ppm)
102-0587	TA-E-4	N.D.
102-0588	TA-S-5	160
102-0589	TA-N-6	N.D.
102-0590	TA-W-7	N.D.

Detection Limits:	**10**

Extractable (high boiling point) Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Earth Consultants Inc.	Client Project ID:	USPS Terminal Annex, 4414-340	Sampled:	Feb 21, 1991
1805 136th Place N.E., Suite 101	Matrix Descript:	Water	Received:	Feb 21, 1991
Bellevue, WA 98005	Analysis Method:	EPA 3510/8015	Extracted:	Feb 21, 1991
Attention: T.Clawson	First Sample #:	102-0591	Analyzed:	Feb 21, 1991
			Reported:	Feb 22, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	Extractable Hydrocarbons µg/L (ppb)
102-0591	TA-8	N.D.

Detection Limits:	500

Extractable (high boiling point) Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Earth Consultants Inc.
1805 136th Place N.E., Suite 101
Bellevue, WA 98005
Attention: T.Clawson

Client Project ID: USPS Terminal Annex, 4414-340
Sample Matrix: Soil
QC Sample Group: 102-0587 to -0590

Reported: Feb 22, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel Fuel

EPA Method:	8015
Analyst:	S. Kouri
Reporting Units:	mg/kg
Date Analyzed:	Feb 21, 1991
QC Sample #:	BLK022191

Sample Conc.:	N.D.
Spike Conc. Added:	48
Conc. Matrix Spike:	30
Matrix Spike % Recovery:	62
Conc. Matrix Spike Dup.:	40
Matrix Spike Duplicate % Recovery:	83
Relative % Difference:	29

NORTH CREEK ANALYTICAL

Scot Cocanour
Laboratory Director

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Earth Consultants Inc.
1805 136th Place N.E., Suite 101
Bellevue, WA 98005
Attention: T.Clawson

Client Project ID: USPS Terminal Annex, 4414-340
Sample Matrix: Water
QC Sample Group: 102-0587 to -0591

Reported: Feb 22, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel Fuel
EPA Method:	8015
Analyst:	S. Kouri
Reporting Units:	µg/L
Date Analyzed:	Feb 21, 1991
QC Sample #:	BLK022191
Sample Conc.:	N.D.
Spike Conc. Added:	1,450
Conc. Matrix Spike:	1,714
Matrix Spike % Recovery:	118
Conc. Matrix Spike Dup.:	1,053
Matrix Spike Duplicate % Recovery:	73
Relative % Difference:	48

NORTH CREEK ANALYTICAL

Scot Cocanour
Laboratory Director

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

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Earth Consultants Inc.	Client Project ID:	USPS Terminal Annex, 4414-340	Sampled:	Feb 20, 1991
1805 136th Place N.E., Suite 101	Matrix Descript:	Soil	Received:	Feb 20, 1991
Bellevue, WA 98005	Analysis Method:	EPA 3550/8015	Extracted:	Feb 21, 1991
Attention: T.Clawson	First Sample #:	102-0571	Analyzed:	Feb 21, 1991
			Reported:	Feb 22, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	Extractable Hydrocarbons mg/kg (ppm)
102-0571	TA-SP-1	170
102-0572	TA-SP-2	140
102-0573	TA-BS-3	N.D.

Detection Limits:	**10**

Extractable (high boiling point) Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Earth Consultants Inc.	Client Project ID:	USPS Terminal Annex, 4414-340	Sampled:	Feb 20, 1991
1805 136th Place N.E., Suite 101	Matrix Descript:	Soil	Received:	Feb 20, 1991
Bellevue, WA 98005	Analysis Method:	EPA 418.1 (I.R. with clean-up)	Extracted:	Feb 22, 1991
Attention: T.Clawson	First Sample #:	102-0571	Analyzed:	Feb 22, 1991
			Reported:	Feb 22, 1991

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Sample Number	Sample Description	Petroleum Oil mg/kg (ppm)
102-0571	TA-SP-1	310
102-0572	TA-SP-2	180
102-0573	TA-BS-3	11

Detection Limits:	**5.0**

Analytes reported as N.D. were not present above the stated limit of detection.

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Attention: T.Clawson

Client Project ID: USPS Terminal Annex, 4414-340
Sample Matrix: Soil
QC Sample Group: 102-0571 to -0573

Reported: Feb 22, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel Fuel	Petroleum Oil
EPA Method:	8015	418.1
Analyst:	S. Kouri	K. Stark
Reporting Units:	mg/kg	mg/kg
Date Analyzed:	Feb 21, 1991	Feb 22, 1991
QC Sample #:	BLK022191	1020573
Sample Conc.:	N.D.	11
Spike Conc. Added:	48	521
Conc. Matrix Spike:	30	439
Matrix Spike % Recovery:	62	82
Conc. Matrix Spike Dup.:	40	421
Matrix Spike Duplicate % Recovery:	83	79
Relative % Difference:	29	4.2

NORTH CREEK ANALYTICAL

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Laboratory Director

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

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Earth Consultants Inc.	Client Project ID:	USPS Terminal Annex, 4414-340	Sampled:	Feb 21, 1991
1805 136th Place N.E., Suite 101	Matrix Descript:	Soil	Received:	Feb 21, 1991
Bellevue, WA 98005	Analysis Method:	EPA 3550/8015	Extracted:	Feb 21, 1991
Attention: T.Clawson	First Sample #:	102-0587	Analyzed:	Feb 21, 1991
			Reported:	Feb 22, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	Extractable Hydrocarbons mg/kg (ppm)
102-0587	TA-E-4	N.D.
102-0588	TA-S-5	160
102-0589	TA-N-6	N.D.
102-0590	TA-W-7	N.D.

Detection Limits:	**10**

Extractable (high boiling point) Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Earth Consultants Inc.	Client Project ID:	USPS Terminal Annex, 4414-340	Sampled:	Feb 21, 1991
1805 136th Place N.E., Suite 101	Matrix Descript:	Water	Received:	Feb 21, 1991
Bellevue, WA 98005	Analysis Method:	EPA 3510/8015	Extracted:	Feb 21, 1991
Attention: T.Clawson	First Sample #:	102-0591	Analyzed:	Feb 21, 1991
			Reported:	Feb 22, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	Extractable Hydrocarbons µg/L (ppb)
102-0591	TA-8	N.D.

Detection Limits:	500

Extractable (high boiling point) Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Earth Consultants Inc.
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Bellevue, WA 98005
Attention: T.Clawson

Client Project ID: USPS Terminal Annex, 4414-340
Sample Matrix: Soil
QC Sample Group: 102-0587 to -0590

Reported: Feb 22, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel Fuel
EPA Method:	8015
Analyst:	S. Kouri
Reporting Units:	mg/kg
Date Analyzed:	Feb 21, 1991
QC Sample #:	BLK022191
Sample Conc.:	N.D.
Spike Conc. Added:	48
Conc. Matrix Spike:	30
Matrix Spike % Recovery:	62
Conc. Matrix Spike Dup.:	40
Matrix Spike Duplicate % Recovery:	83
Relative % Difference:	29

NORTH CREEK ANALYTICAL

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Laboratory Director

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

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Earth Consultants Inc.
1805 136th Place N.E., Suite 101
Bellevue, WA 98005
Attention: T.Clawson

Client Project ID: USPS Terminal Annex, 4414-340

Sample Matrix: Water
QC Sample Group: 102-0587 to -0591

Reported: Feb 22, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel Fuel
EPA Method:	8015
Analyst:	S. Kouri
Reporting Units:	µg/L
Date Analyzed:	Feb 21, 1991
QC Sample #:	BLK022191
Sample Conc.:	N.D.
Spike Conc. Added:	1,450
Conc. Matrix Spike:	1,714
Matrix Spike % Recovery:	118
Conc. Matrix Spike Dup.:	1,053
Matrix Spike Duplicate % Recovery:	73
Relative % Difference:	48

NORTH CREEK ANALYTICAL

Scot Cocanour
Laboratory Director

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

Earth Consultants Inc.

Geotechnical Engineers, Geologists & Environmental Scientists

CHAIN OF CUSTODY RECORD

SHEET 1 OF 1

24 hr rush

PROJECT	SAMPLERS: (Signature)
USPS Terminal Annex 4414-340	T. S. Clawson

LAB NUMBER	DATE	TIME	SAMPLE TYPE: WATER	SEDIMENT	TISSUE	AIR	OIL	OTHER	NO. OF CONTAINERS	REMARKS
TA-SP-1	2/20/91	1505		X		1020571			1	8015 Diesel
TA-SP-2	2/20/91	1510		X			572		1	↓
TA-BS-3	2/20/91	1645		X			573		1	↓

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature) T. S. Clawson	RECEIVED BY MOBILE LAB FOR FIELD ANALYSIS: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) / DATE/TIME	RECEIVED FOR LABORATORY BY: (Signature) Ellen Emmons NCA	DATE/TIME 2/20/91
METHOD OF SHIPMENT:		

Distribution: Original - Accompany Shipment
One Copy - Survey Coordinator Field Files

Earth Consultants Inc.

Geotechnical Engineers, Geologists & Environmental Scientists

CHAIN OF CUSTODY RECORD

SHEET 1 OF 1

24 hr rush

PROJECT: USPS Terminal Annex 4414-340

SAMPLERS: (Signature) J. J. Clawson

LAB NUMBER	DATE	TIME	SAMPLE TYPE: WATER	SEDIMENT	TISSUE	AIR	OIL	OTHER	NO OF CONTAINERS	REMARKS
TA-E-4	2/21/90	1230		X		100587			1	8015 Diesel
TA-S-5		1235		X		588			1	
TA-N-6		1240		X		589			1	
TA-W-7		1245		X		590			1	
TA-8		1250	X			591			1	

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature) J. J. Clawson	RECEIVED BY MOBILE LAB FOR FIELD ANALYSIS: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) / DATE/TIME	RECEIVED FOR LABORATORY BY: (Signature) Barb White, NCA	DATE/TIME 2/21/91 3:10 P
METHOD OF SHIPMENT:		

Distribution: Original - Accompany Shipment
One Copy - Survey Coordinator Field Files

Earth Consultants Inc.

Geotechnical Engineers, Geologists & Environmental Scientists

CHAIN OF CUSTODY RECORD

SHEET 1 OF 1

24 hr rush

PROJECT	SAMPLERS: (Signature)
USPS Terminal Annex 4414-340	T. L. Lawson

LAB NUMBER	DATE	TIME	SAMPLE TYPE						NO. OF CONTAINERS	REMARKS
			WATER	SEDIMENT	TISSUE	AIR	OIL	OTHER		
TA-SP-1	2/20/91	1505		X					1	8015 Diesel
TA-SP-2	2/20/91	1510		X					1	"
TA-BS-3	2/20/91	1645		X					1	"

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature) T. L. Lawson	RECEIVED BY MOBILE LAB FOR FIELD ANALYSIS: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) / DATE/TIME	RECEIVED FOR LABORATORY BY: (Signature) NCA	DATE/TIME 2/20/91
METHOD OF SHIPMENT:		

Distribution: Original - Accompany Shipment
One Copy - Survey Coordinator Field Files

Earth Consultants Inc.

Geotechnical Engineers, Geologists & Environmental Scientists

CHAIN OF CUSTODY RECORD

SHEET 1 OF 1

24 hr rush

PROJECT			SAMPLERS: (Signature)							
USPS Terminal Annex 4414-340			J. Mawson							
LAB NUMBER	DATE	TIME	SAMPLE TYPE						NO. OF CONTAINERS	REMARKS
			WATER	SEDIMENT	TISSUE	AIR	OIL	OTHER		
TA-E-4	2/21/90	1230		X					1	8015 Diesel
TA-S-5		1235		X					1	
TA-W-6		1240		X					1	
TA-W-7		1245		X					1	
TA-8	↓	1250	X						1	↓

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature) J. Mawson	RECEIVED BY MOBILE LAB FOR FIELD ANALYSIS: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) / DATE/TIME	RECEIVED FOR LABORATORY BY: (Signature) Barb White, NCA	DATE/TIME 2/21/91 3:10 pm
METHOD OF SHIPMENT:		

Distribution: Original - Accompany Shipment
One Copy - Survey Coordinator Field Files

O/C TANKS

VALIDATION CERTIFICATE—STRUCTURAL WARRANTY*
Installation Checklist And Inspection Procedure For Fiberglas Underground Tank Installation

***This checklist must be completed in its entirety by a trained O/C Tanks contractor to validate the 30 year structural warranty.**

Job Name Seattle Annex Owner U.S. Postal Date 2-19-91

Job Address 3rd and Lander, Seattle, Wash.

Installation Contractor Landmark Reclamation Foreman: [illegible]

Owner Representative: Title

Installation Checklist

	To be initialed by: Contractor Foreman	Owner's Representative
A. Handling and Testing		
☒ Tank tested at 5 psi for 4', 6', 8' and 10' diameter tanks; 3 psi for 12' diameter tanks. Soapy water solution applied and the entire tank surface carefully inspected for air bubbles.	WMR	TJC
☒ Double wall tanks tested in strict conformance with "Test Instructions" label on tank (Label No. L.22.20). **Do not connect the air hose directly to fitting in annular space.**		
B. Bed & Backfill Material		
Meets all ASTM C-33 requirements for quality and soundness. No more than 3% of backfill materials passes through a #8 sieve.	WMR	TJC
Supplier _____		
Type _____ (In accordance with installation specifications.)		
☒ Pea Gravel—Clean naturally rounded aggregate, with particle size not less than ⅛" or more than ¾" in diameter.		
☐ Crushed Stone or Crushed Gravel—Washed crushed stone or gravel with angular particle size not less than ⅛" or more than ½" in diameter.		
☐ Sieve analysis from a qualified soil engineer or from the supplier.		
C. Hole Size		
☒ Stable walls—4', 6', 8' and 10' diameter tanks—18" minimum (24" preferred) between adjacent tanks and between tanks and hole walls.	WMR	TJC
☐ Stable walls—12' diameter tanks—24" minimum between tanks and hole walls and 24" between adjacent tanks.		
☐ Unstable walls—½ tank diameter minimum between tanks and hole walls; 18" minimum between adjacent tanks. (24" for 12' diameter tanks).		
D. Anchoring		
☒ Hole flooding from high water table anticipated.	WMR	TJC
☐ Hole flooding from external surface water anticipated.		
☐ Completed in accordance with Installation Instructions _____ Slab ☒ Deadman		
☒ Owner's representative aware of anchoring requirements.		
☐ Not required.		
E. Installation Procedures		
1. Minimum 12" level backfill bed of approved material.	WMR	TJC
2. Initial backfill—1st two 12" lifts pushed completely under tank bottoms between ribs and under end caps to eliminate all voids.	WMR	TJC
3. Completed backfilling to tops of tanks in uniform lifts.	WMR	TJC
4. Tanks not filled until backfilled to the tops of the tanks. Exception: wet holes. See O/C Tanks Publication 3-PE-6304.	WMR	TJC
5. Tanks completely filled with water or product after backfill is to the top of tanks.	_____	TJC
6. Depth of bury/slab for traffic bonds. 4'-10' diameter tanks: 36" of backfill, or 30" of backfill plus 6" of asphalt, or 18" of backfill plus 6" of reinforced concrete. 12' diameter tanks: 38" of backfill plus 6" of asphalt or 38" of backfill plus 6" of reinforced concrete.	WMR	TJC
7. Filter fabric hole liner is recommended for the following installations: a. Tidal condition or frequently changing water table b. Unstable soils (muck or landfill) c. Water condition with silty soil See installation instructions 3-PE-6304 for recommended brand name filter fabrics.	WMR	TJC
8. Reference O/C Tanks publication 3-PE-6304 for complete installation instructions.		

Warranty

Standard Underground Petroleum Storage Tank

We warrant that our underground tanks and piping sumps*, if installed underground with proper backfill and otherwise installed in accordance with our instructions:

I. Will meet our published specifications and will be free from material defects in materials and workmanship for a period of one (1) year following date of original delivery by us;

II. Will not fail for a period of thirty (30) years from date of original purchase due to external corrosion; and

III. Will not fail for a period of thirty (30) years from date of original purchase due to internal corrosion provided the tank is used solely with or without tank water bottoms for the following products:

A. Petroleum products including gasoline, jet fuel, av-gas, motor oil (new or used), kerosene, diesel fuel or used for fuel oil at temperatures not to exceed 150°F.

B. Alcohol-gasoline blend motor fuels.

1. Ethanol blends
   - Gasohol (90% gasoline and 10% ethyl alcohol).
2. Methanol blends
   - Oxinol-50** waiver (90.5% gasoline and 9.5% Oxinol-50** composed of a mixture of 4.75% methanol and 4.75% GTBA).
   - DuPont EPA waiver (gasoline with 5% methanol and a minimum of 2.5% cosolvent. The blend may contain a maximum concentration of up to 3.7 weight percent oxygen in the final fuel).

C. Oxygenated motor fuels
   - Gasoline with up to 20% (by volume) of methyl tertiary butyl ether (MTBE)

D. Potable water at ambient temperatures.

IV. Will not leak for a period of thirty (30) years from date of original purchase due to structural failure, which shall be defined as breaking or collapse, provided the installation is in the United States and is performed and validated by a contractor trained by O/C Tanks, and is used as stated above. If the tank is exhumed and moved, it must be inspected, repaired (as necessary), and recertified by O/C Tanks in order to continue the structural warranty for the balance of 30 years.

Our liability under this warranty shall be limited to, at our option, (i) repair of the defective tank, (ii) delivery of a replacement tank to the point of original delivery, or (iii) refund of the original purchase price, and we shall not be liable for any labor, other installation costs, indirect or consequential damages or other damages in connection with such tanks. THE FOREGOING CONSTITUTES OUR EXCLUSIVE OBLIGATION AND WE MAKE NO EXPRESS OR IMPLIED WARRANTIES, OR ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WHATSOEVER, EXCEPT AS STATED ABOVE.

O/C TANKS

O/C Tanks Corporation
One Levis Square, Box 10025
Toledo, Ohio 43699-0025

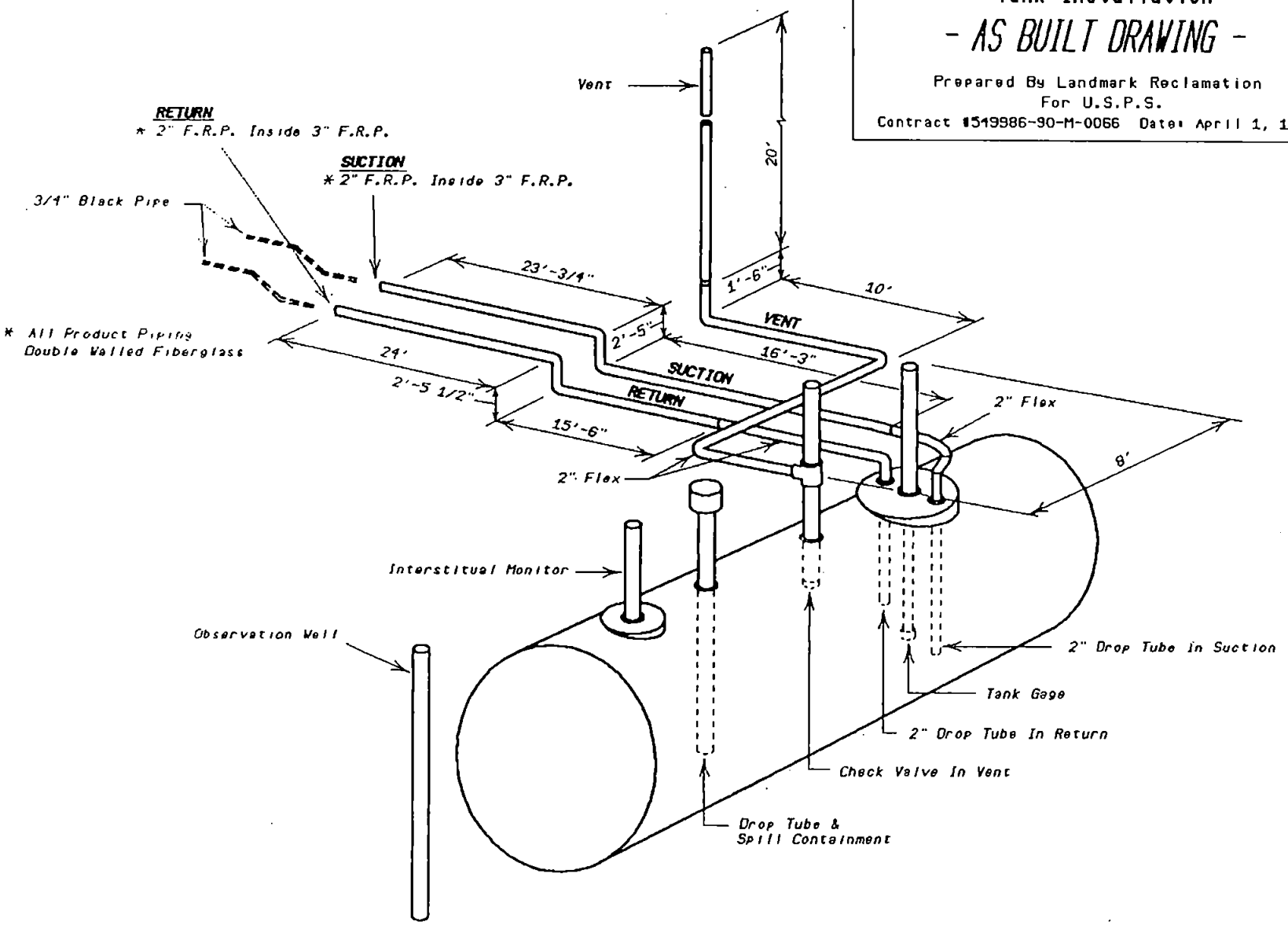
*Fiberglas components only
**TM Arco Chemical Co.

Pub. No. 15-PE-9387-G

Litho in U.S.A., April, 1989

SEATTLE POSTAL ANNEX
Tank Installation
- AS BUILT DRAWING -

Prepared By Landmark Reclamation
For U.S.P.S.
Contract #5419986-90-M-0066 Date: April 1, 1991



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Project Manager

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Olympia, Washington 98504-8711

Technical and Quality Review by:

Larry M. McGaughey, Ph.D., P.E.
Director, Environmental Services

TSC/PJM/ah/clh
[E4414340.R01]