NW
UST # 11177
4.3885

UST REMOVAL SITE CHECK / SITE ASSESSMENT
(SITE ID #11177)

AMEX TAX & DUTY FREE SHOPS WEST VCP* NW0363
BLAINE, WASHINGTON

Prepared For:

Ultra Tank Services
P.O. Box 664
Bellingham, WA 98227

BEK ENGINEERING, INC.

2138 Humboldt Street
Bellingham, WA 98225
(360) 676-9589 (800) 859-5597
Fax (360) 676-4625

ENTERED
5/22/00

DEPARTMENT OF ECOLOGY
NWRO/TCP TANKS UNIT

INTERIM CLEANUP REPORT	☒
SITE CHARACTERIZATION	☐
FINAL CLEANUP REPORT	☐
OTHER _____	☐
AFFECTED MEDIA: SOIL	☒
OTHER _____ GW	☐
INSPECTOR (INIT.) [illegible] DATE 5/22/00	

BEK ENGINEERING, INC.

BELLINGHAM • EVERETT

CIVIL • GEOTECHNICAL • ENVIRONMENTAL • WETLANDS

360-676-9589 • 425-258-2059
800-859-5597 • 800-835-4971
FAX 360-676-4625 • 425-258-5046

NW
11177
4.3885

October 25, 1999

Ultra Tank Services
P.O. Box 664
Bellingham, WA 98227

Attn: George Willet

Re: **Report – Underground Storage Tank Removal Site Check / Site Assessment**
Amex Tax & Duty Free Shops West (Site ID #11177)
253 C Street
Blaine, Washington

Dear Mr. Willet:

BEK Engineering is pleased to present the results of a site assessment completed during the removal of the underground storage tanks at the above referenced property in Blaine, Washington. This report was completed in general accordance with Ecology's *Guidance for Site Checks and Site Assessments for Underground Storage Tanks (1992).*

SCOPE OF SERVICES

Our scope of services for this project included:

1. Conduct a site assessment of the UST excavation at the time of closure in accordance with the Washington State Department of Ecology *Guidance for Site Checks and Site Assessments for Underground Storage Tanks* (*Guidance*, 1992).
2. Collect soil samples for petroleum hydrocarbon analysis in accordance with the *Guidance.*
3. Arrange for quantitative laboratory analyses of soil samples at a Washington State Department of Ecology accredited laboratory.
4. Arrange for the transportation of samples to the laboratory using proper chain-of-custody procedures.
5. Complete this report, the *Closure and Site Assessment Notice,* and the *Site Check / Site Assessment Checklist* forms for submittal to the Washington State Department of Ecology.

INTRODUCTION

Four underground storage tanks (UST's) were removed from a single UST pit on August 9, 1999 by Ultra Tank Services, Inc. of Bellingham, Washington. The tanks had been used to store gasoline for a gasoline service station located at Amex Tax & Duty Free Shops West in Blaine, Washington. The Department of Ecology Site ID number is 11177. The service station discontinued operations prior to December 22, 1998. This report provides a summary of the site vicinity characteristics, a description of our field observations during removal of the UST's, and the analytical results for soil samples collected from the pump island.

SITE VICINITY CHARACTERISTICS

The subject property is located at 253 C Street, in the City of Blaine (Figure 1). The property lies approximately 1000 feet northeast of Semiahmoo Bay, at an elevation of approximately 50 feet MSL. The vicinity of the subject property is zoned UR-4, urban residential four units per acre. C Street bounds the subject property to the north. Second Street bounds the subject property to the west. Denny's Restaurant bounds the subject property to the south. A motel bounds the subject property to the east.

The geologic conditions in the vicinity of the subject property are described in the *Geologic Map of the Bellingham 1:100,000 Quadrangle, Washington* (Pringle et al., 1994). According to that map, the subject property is underlain by a former outwash plain of the Sumas Stade. Deposits in the outwash plain consist of boulders, cobbles, and gravel near the Canadian border, grading southwestward to sand near Lynden. These sediments were deposited in outwash streams when the terminus of the continental icesheet was in the vicinity of Sumas, Washington. The outwash plain of the Sumas Stade forms a thin mantle over the thicker and more continuous silts and clays of the Bellingham Drift.

Contrary to the geologic map, soil observed in the UST pit was brown to gray silt with sand and clay and blue clay with silt.

UST SYSTEM DATA

The four tanks at 253 C Street are listed in Ecology's records. A generalized site plan indicating the layout of the former service station is presented in Figure 2. The tanks were installed in April 1985 by Cannon Electric. The tanks were each 10,000 gallons in size. Tank four was listed as having stored unleaded gasoline. Tanks one, two and three were listed as having stored alcohol blend gasoline. The tanks were located in one UST pit adjacent to the pump islands. Three pump islands were observed approximately 10 feet west of the tank pit with five gasoline dispensing pumps. Distribution lines extended east from the pump islands to the UST's.

FIELD OBSERVATIONS

BEK Engineering personnel completed the site assessment on August 9, 1999. Product from the tank had been previously removed by the owner. The tanks and distribution lines were removed from the UST pit by Ultra Tank Services. The tanks were in good condition, and no visual evidence for corrosion, pitting, or holes were observed. A ground water monitoring well installed in the tank pit was also removed. The pump islands were removed and distribution lines appeared to be in good condition.

Ultra Tank Services informed us that the tanks were cleaned and two were shipped to Canada and two were shipped to a local resident.

The base of the UST pit was approximately fourteen feet below the ground surface (bgs). The native soil in the pit consisted of damp, brown to gray silt with sand and clay grading to moist to wet blue clay with silt. Fill soil in the pit consisted of brown sandy gravel with clay and silt, and approximately 1.5 feet of poorly graded pea gravel was used to cover the bottom of the tank pit. Soil under the pump islands consisted of brown to gray silt with sand and clay.

Water was observed at a depth of 4.8 feet below ground surface (bgs) in the tank pit prior to removal of the tanks. A gasoline sheen was observed on water in the tank pit, and a strong gasoline odor was noted in the fill soil used to backfill the pit around the tanks.

On August 9, 1999, soil samples were collected under the pump islands from the tank pit backfill. A fraction of each sample was placed in a ziplock bag. The headspace was subsequently analyzed with a MicroTip photo-ionization detector calibrated with 100 ppm isobutylene. Elevated concentrations of volatile hydrocarbon products were detected in soil samples from the west side of the pump island and the tank pit.

Based on the level of volatile hydrocarbons in the soil samples, the observed hydrocarbon sheen and odor in the tank pit, only limited sampling was completed until excavation of the contaminated soil in the UST pit and the west part of the pump island could occur.

ANALYTICAL RESULTS

Five soil samples were collected from the pump island at locations indicated in Figure 2. Samples 080999-1, -2, -4 and -5 were analyzed for gasoline range hydrocarbons, BTEX and lead by CCI Analytical Laboratories, Inc. (Everett, Washington), using the NWTPH-GX, EPA 8021 and EPA 7420 methods, respectively. Sample 080999-3 was analyzed for gasoline range hydrocarbons and BTEX exclusively. The complete laboratory report is included in Appendix II and the results are summarized in Table 1.

TABLE 1
Analytical Results – Soil
Samples Collected 8/9/99

Sample #	Sample Location	Depth (feet)	Field Screening Results		Fate	Lead (mg/kg)	Gasoline (mg/kg)	Volatile Aromatic Hydrocarbons (mg/kg)			
			Headspace Vapors (ppm)	Sheen				B	T	E	X
080999-1	W. Pump Is.	2.2	230	NA	Residual	3	6	ND<0.1	ND<0.1	ND<0.1	ND<0.3
080999-2	W. Pump Is.	2.1	380	NA	Disposed	13	130	ND<0.4	ND<0.4	ND<0.4	ND<1.2
080999-3	Mid Pump Is.	1.9	415	NA	Disposed	NA	1300	1.2	29	16	95
080999-4	E. Pump Is.	2.1	5	NA	Residual	3	ND<5	ND<0.1	ND<0.1	ND<0.1	ND<0.3
080999-5	E. Pump Is.	2.0	2	NA	Residual	2	ND<5	ND<0.1	ND<0.1	ND<0.1	ND<0.3
Method A Cleanup Standard						250	100	0.5	40	20	20

Shaded analytical results exceed the Model Toxics Control Act Cleanup Regulation Method A recommended cleanup standards; ND, not detected at indicated concentration; mg/kg = parts-per-million; NA = not analyzed.

Sheen: NS – No Sheen
LS – Light Sheen
MS – Moderate Sheen
HS – Heavy Sheen

Cleanup standards in the State of Washington are regulated under the *Model Toxics Control Act Cleanup Regulation* (MTCA, Chapter 173-340 WAC). Method A recommended cleanup standards as defined in the MTCA are generally applied to hydrocarbon products. The Method A cleanup standard for gasoline range hydrocarbon products is 100 mg/kg. Gasoline range hydrocarbon products were detected at concentrations exceeding the MTCA Method A standard in samples 080999-2, and -3. The standards for benzene and total xylenes were also exceeded in sample 080999-3. These samples were collected in the shallow subsurface on the west side of the pump island. Lead was analyzed in four samples and was detected at low concentrations, representative of background conditions. The Method A cleanup standard for lead is 250 mg/kg.

CONCLUSIONS

During removal of four UST's and adjacent pump islands, a strong gasoline odor was encountered. Two soil samples collected under the pump islands were above the cleanup standard for gasoline range hydrocarbons. Based on field observations, the soil in the tank pit was believed to be contaminated and further excavation was deemed necessary to determine the extent of the contamination in the vicinity of the tank pit and adjacent pump islands. Remedial action has been completed at the site. A separate report will be prepared by our firm to discuss removal of contaminated soil at the site.

A copy of this report, including all appendices, must be mailed to the following address to complete the UST closure process:

Underground Storage Tank Section
Department of Ecology
P.O. Box 47655
Olympia, WA 98504-7655

The signature of the tank closure contractor and the tank owner is required on the Closure and Site Assessment Notice (Appendix III). We have tagged that part of the Notice. Please be sure that signatures are attained prior to forwarding this report to Ecology.

INDEMNIFICATION AND LIMITATIONS

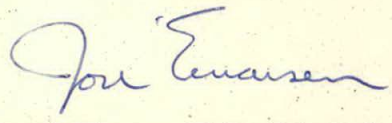
The analytical results, conclusions and recommendations within this report are based on the soil samples collected from the indicated locations at the time this report was prepared, and should not be construed as a warranty of the subsurface conditions throughout the site. No environmental investigation can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. An environmental investigation is intended to reduce, but not eliminate, uncertainty regarding the existence of recognized environmental conditions.

Within the limitations of scope, schedule and budget for our work, we warrant that our work has been done in accordance with our proposal and generally accepted environmental assessment practices followed in this area at the time the report was prepared. No other warranty, express or implied, is made.

We appreciate the opportunity to be of service to you. Should you have any questions concerning this report or require further information, please contact our office at (360)-676-9589 or (800)-859-5597.

Sincerely,

BEK ENGINEERING, INC.



Jon M. Einarsen, Ph.D., Principal
Geologist
WA UST Assessor and Decommissioning License #32-US-000684

Attach: APPENDIX I

Figure 1 – Site Vicinity Map
Figure 2 – Generalized Site Plan and Sample Locations
Figures 3 to 4 – Site Photographs

APPENDIX II

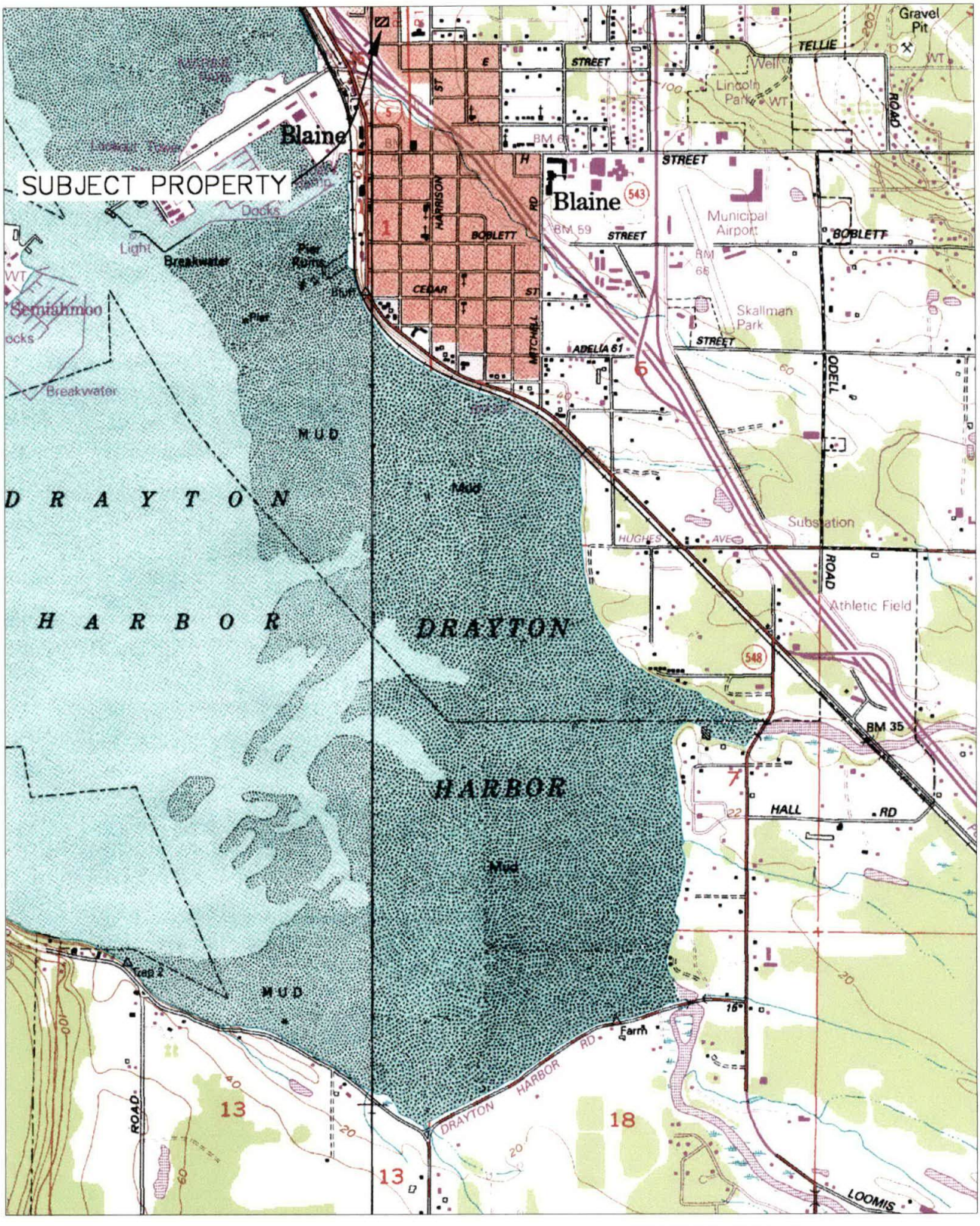
Laboratory Report

APPENDIX III

Closure and Site Assessment Notice
Site Check / Site Assessment Checklist

APPENDIX I

Figure 1 – Site Vicinity Map
Figure 2 – Generalized Site Plan & Sample Locations
Figures 3 to 4 – Site Photographs



GRAPHIC SCALE

2000 0 2000 4000

1 INCH = 2000 FEET

REFERENCE: BLAINE QUADRANGLE (U.S.G.S. 1952, REVISED 1994)
REFERENCE: BIRCH POINT QUADRANGLE (U.S.G.S. 1962, REVISED 1994)

JOB NO.:	99233
DESIGNED BY/DRAWN BY:	gtk
CHECKED BY:	jme
DWG FILE:	birchpoint- blaine

BEK ENGINEERING, INC.

CIVIL GEOTECHNICAL
ENVIRONMENTAL WETLANDS

2138 Humboldt Street
Bellingham, WA 98225
Ph: (360) 676-9589
Ph: (800) 859-5597
Fax: (360) 676-4625

FIGURE 1
SITE VICINITY MAP
AMEX TAX & DUTY FREE SHOPS WEST – 253 C STREET

DATE: 9/99 SCALE: H: 1:24,000 V: n/a

N

AMEX TAX AND DUTY FREE
253 C STREET

PAVED PARKING

DENNY'S RESTAURANT

RESIDENTIAL
HOUSES

C STREET

PUMP ISLAND

ND
080999-5

ND
080999-4

TANK PIT

10,000 GALLON TANK

10'

MONITORING WELL

1300
080999-3

130
080999-2

6
080999-1

APPROXIMATE EXCAVATION
BOUNDARIES

70'

60'

20'

30'

STORM DRAIN

PAVED PARKING

2ND STREET

PAC CAN DUTY FREE STORE

SAMPLES COLLECTED 8-9-99
080999-1 SAMPLE NUMBER
TOTAL GASOLINE (NWTPH-GX, MG/KG)

DRAWING IS NOT TO SCALE

BEK ENGINEERING, INC.
CIVIL GEOTECHNICAL ENVIRONMENTAL WETLANDS
2138 Humboldt Street
Bellingham, WA 98225
Ph: (360) 676-9589
Ph: (800) 859-5597
Fax: (360) 676-4625

JOB NO.: 99269	FIGURE 2
DESIGNED BY /DRAWN BY: GTK	GENERALIZED SITE PLAN
CHECKED BY: JME	AMEX TAX & DUTY FREE – BLAINE, WASHIGTON
DRAWING FILE: 99233 SITE PLAN	DATE: 10/99 SCALE: H: N/A V: N/A

Figure 3. Photograph of one 10,000 gallon underground storage tank in the tank pit. Distribution lines were present above tank.

Figure 4. Photograph of first 10,000 gallon underground storage tank removed from the tank pit. Water is present on the left side of the photograph adjacent to the tank.

APPENDIX II

Laboratory Report

[redacted] nalyt. bora Inc.
3229 Pine Street
Everett, WA 98201
Phone (425) 252-2620
(206) 292-9059 Seattle
(425) 259-6289 Fax

Cha[redacted]Of to
Laboratory Analysis Request

b# bora e Or

Date ________ Page 1 Of 1

PROJECT ID: 97233
REPORT TO COMPANY: ECK Engineering
PROJECT MANAGER: Jon Emerson
ADDRESS: 2135 Humboldt St.
Bellingham, WA 98225
PHONE: 360-733-1250 FAX: 360 671-4125
INVOICE TO COMPANY:
ATTENTION: ↑
ADDRESS: Same

P.O. NUMBER: CCI QUOTE:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	WTPH-G	WTPH-D ☐ 8015 MODIFIED ☐	WTPH-418.1	BTEX	WTPH-HCID	EPA 8020 ☐ 602 ☐	EPA 8010 ☐ 601 ☐	EPA 8240 ☐ 624 ☐ 8260 ☐	EPA 8270 ☐ 625 ☐	EPA 8080 ☐ 608 ☐ PCB only ☐ Pest only ☐	Metals Priority Pollutant ☐ RCRA ☐ TAL ☐	Metals Other (Specify)	TCLP Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herb ☐										NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. [illegible]0999-1	13:30	[illegible]	Soil																								1	
2. [illegible]0999-2	13:40	↓	↓																								1	
3. [illegible]0999-4	14:05	↓	↓																								1	
4. [illegible]0999-V5	14:10	↓	↓																								1	
5.																												
6.																												
7.																												
8.																												
9.																												
10.																												

ANALYSIS REQUESTED / OTHER (Specify)

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, and Time):

1. Relinquished By: [illegible] ECK Eng 9/10/99 3:00

Received By: ______________________

2. Relinquished By: ______________________

Received By: ______________________

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis

10 (Standard) ✓5 3 2 1 Same Day

Fuels & Hydrocarbon Analysis

✓5 (Standard) 3 1 Same Day

OTHER:

Specify: ______________________

* Turnaround Requests less than standard may incur Rush Charges

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: BEK ENGINEERING
2138 HUMBOLDT ST.
BELLINGHAM, WA 98225

DATE: 8/20/99
CCIL JOB #: 908049
CCIL SAMPLE #: 1
DATE RECEIVED: 8/13/99
WDOE ACCREDITATION #: C142

CLIENT CONTACT: JON EINARSEN

CLIENT PROJECT ID: 99233
CLIENT SAMPLE ID: 080999-1 8/9/99 13:30

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	6	MG/KG	100 MG/KG	8/18/99	LAH
BENZENE	EPA-8021	ND(<0.1)	MG/KG	.5MG/KG	8/18/99	LAH
TOLUENE	EPA-8021	ND(<0.1)	MG/KG	40MG/KG	8/18/99	LAH
ETHYLBENZENE	EPA-8021	ND(<0.1)	MG/KG	20MG/KG	8/18/99	LAH
XYLENES	EPA-8021	ND(<0.3)	MG/KG	20MG/KG	8/18/99	LAH
LEAD	EPA-6010	3	MG/KG		8/18/99	SJT

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY WEATHERED GASOLINE

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT CONCENTRATION ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 5 MG/KG

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ACTIONS LEVELS ARE PROVIDED ONLY WHEN PARAMETER DATA IS USED FOR A GENERALLY CONSISTENT APPLICATION. WHEN PROVIDED, THEY SHOULD BE USED AS GUIDELINES ONLY. THE APPROPRIATE REGULATORY DOCUMENT SHOULD BE CONSULTED BEFORE MAKING ANY DECISIONS BASED ON ANALYTICAL DATA

APPROVED BY: _____

3229 Pine St. • Everett, WA 98201 • 425 252-2620 • FAX 425 259-6289 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: BEK ENGINEERING
2138 HUMBOLDT ST.
BELLINGHAM, WA 98225

DATE: 8/20/99
CCIL JOB #: 908049
CCIL SAMPLE #: 2
DATE RECEIVED: 8/13/99
WDOE ACCREDITATION #: C142

CLIENT CONTACT: JON EINARSEN

CLIENT PROJECT ID: 99233
CLIENT SAMPLE ID: 080999-2 8/9/99 13:45

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	130	MG/KG	100 MG/KG	8/18/99	LAH
BENZENE	EPA-8021	ND(<0.4)	MG/KG	.5MG/KG	8/18/99	LAH
TOLUENE	EPA-8021	ND(<0.4)	MG/KG	40MG/KG	8/18/99	LAH
ETHYLBENZENE	EPA-8021	ND(<0.4)	MG/KG	20MG/KG	8/18/99	LAH
XYLENES	EPA-8021	ND(<1.2)	MG/KG	20MG/KG	8/18/99	LAH
LEAD	EPA-6010	13	MG/KG		8/18/99	SJT

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY WEATHERED GASOLINE

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT CONCENTRATION ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 5 MG/KG

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APPROVED BY: _____

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CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: BEK ENGINEERING
2138 HUMBOLDT ST.
BELLINGHAM, WA 98225

DATE: 8/20/99
CCIL JOB #: 908049
CCIL SAMPLE #: 3
DATE RECEIVED: 8/13/99
WDOE ACCREDITATION #: C142

CLIENT CONTACT: JON EINARSEN

CLIENT PROJECT ID: 99233
CLIENT SAMPLE ID: 080999-4 8/9/99 14:05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	100 MG/KG	8/18/99	LAH
BENZENE	EPA-8021	ND(<0.1)	MG/KG	.5MG/KG	8/18/99	LAH
TOLUENE	EPA-8021	ND(<0.1)	MG/KG	40MG/KG	8/18/99	LAH
ETHYLBENZENE	EPA-8021	ND(<0.1)	MG/KG	20MG/KG	8/18/99	LAH
XYLENES	EPA-8021	ND(<0.3)	MG/KG	20MG/KG	8/18/99	LAH
LEAD	EPA-6010	3	MG/KG		8/18/99	SJT

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT CONCENTRATION ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 5 MG/KG

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APPROVED BY: _____

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CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: BEK ENGINEERING
2138 HUMBOLDT ST.
BELLINGHAM, WA 98225

DATE: 8/20/99
CCIL JOB #: 908049
CCIL SAMPLE #: 4
DATE RECEIVED: 8/13/99
WDOE ACCREDITATION #: C142

CLIENT CONTACT: JON EINARSEN

CLIENT PROJECT ID: 99233
CLIENT SAMPLE ID: 080999-5 8/9/99 14:10

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	100 MG/KG	8/18/99	LAH
BENZENE	EPA-8021	ND(<0.1)	MG/KG	.5MG/KG	8/18/99	LAH
TOLUENE	EPA-8021	ND(<0.1)	MG/KG	40MG/KG	8/18/99	LAH
ETHYLBENZENE	EPA-8021	ND(<0.1)	MG/KG	20MG/KG	8/18/99	LAH
XYLENES	EPA-8021	ND(<0.3)	MG/KG	20MG/KG	8/18/99	LAH
LEAD	EPA-6010	2	MG/KG		8/18/99	SJT

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT CONCENTRATION ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 5 MG/KG

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APPROVED BY: _____

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ANALYTICAL
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CERTIFICATE OF ANALYSIS

CLIENT: BEK ENGINEERING
2138 HUMBOLDT ST.
BELLINGHAM, WA 98225

DATE: 8/20/99
CCIL JOB #: 908049

DATE RECEIVED: 8/13/99
WDOE ACCREDITATION #: C142

CLIENT CONTACT: JON EINARSEN

CLIENT PROJECT ID: 99233

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	ANALYTE	SUR ID	% RECV
908049-01	NWTPH-GX	TFT	77
908049-01	EPA-8021	TFT	99
908049-02	NWTPH-GX	TFT	*
908049-02	EPA-8021	TFT	*
908049-03	NWTPH-GX	TFT	62
908049-03	EPA-8021	TFT	84
908049-04	NWTPH-GX	TFT	64
908049-04	EPA-8021	TFT	84

*SURROGATE DILUTED OUT OF CALIBRATION RANGE

APPROVED BY: _____

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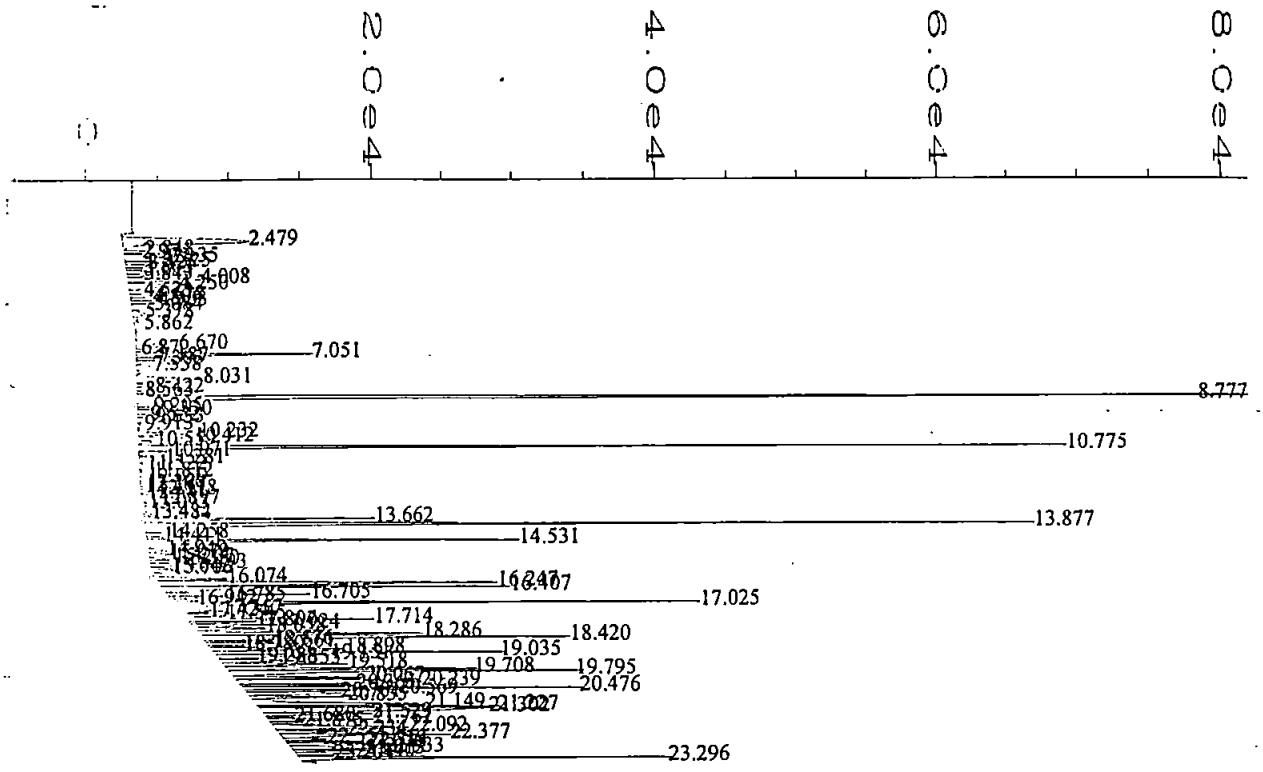

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External Standard Report

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Instrument	: GAS/BTEX	Vial Number	: 21
ample Name	: 908049-4 100UL	Injection Number	: 1
un Time Bar Code:		Sequence Line	: 6
cquired on	: 18 Aug 99 09:29 PM	Instrument Method	: TPHG0699.MTH
eport Created on	: 19 Aug 99 08:44 AM	Analysis Method	: BTEX2899.MTH
Last Recalib on	: 18 AUG 99 01:03 PM	Sample Amount	: 0
ultiplier	: 1	ISTD Amount	:

Sig. 2 in D:\HPCHEM\2\DATA\29081801\021R0601.D

et Time	Area	Type	Width	Ref#	ug/l	Name
7.051	69555	VV	0.085	1	0.356	Benzene
8.777	491104	VV	0.074	1	9.901	TFT surrogate ÷10×100=99%
10.775	265896	VV	0.061	1	1.579	Toluene
13.662	67106	VV	0.061	1	0.415	Ethylbenzene
13.877	292379	VV	0.068	1	1.179	M+P-Xylene
14.531	119724	VV	0.066	1	0.661	O-Xylene

==========

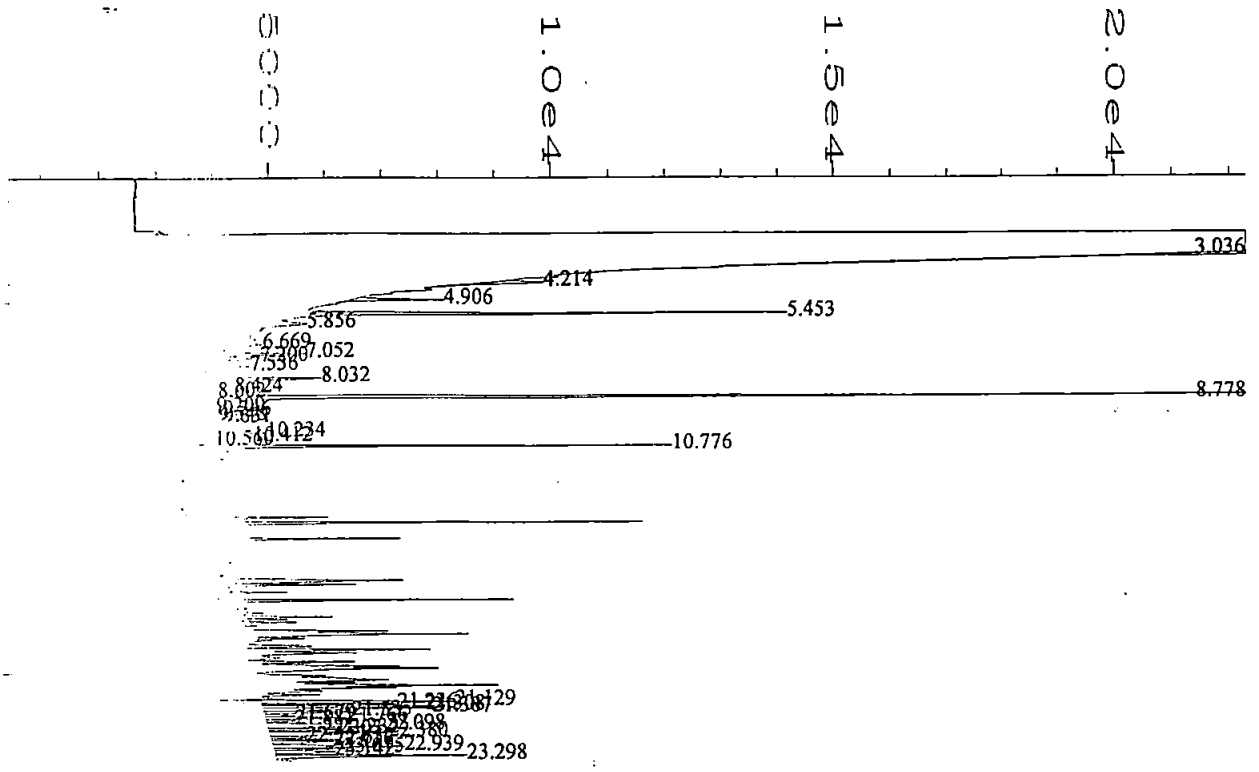
BTE <0.1mg/kg

X < 0.3mg/kg

Dry wt = 5.99g

VIEWED BY 6/9/99

8-19-99 LH



User modified

==========

External Standard Report

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Data File Name	: D:\HPCHEM\2\DATA\29081801\021F0601.D		
Operator	: LAH	Page Number	: 1
Instrument	: GAS/BTEX	Vial Number	: 21
Sample Name	: 908049-4 LH 100UL	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 18 Aug 99 09:29 PM	Instrument Method	: TPHG0699.MTH
Report Created on	: 19 Aug 99 10:04 AM	Analysis Method	: TPHG0699.MTH
Last Recalib on	: 29 JUN 99 05:16 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 1 in D:\HPCHEM\2\DATA\29081801\021F0601.D

Ret Time	Area	Type	Width	Ref#	ug/l	Name
8.778	97716	VV	0.072	1	7.698	TFT-surrogate 1:10 x 100 = 77%
10.776	749975	MM	1.412	1	76.370	gasoline envelop

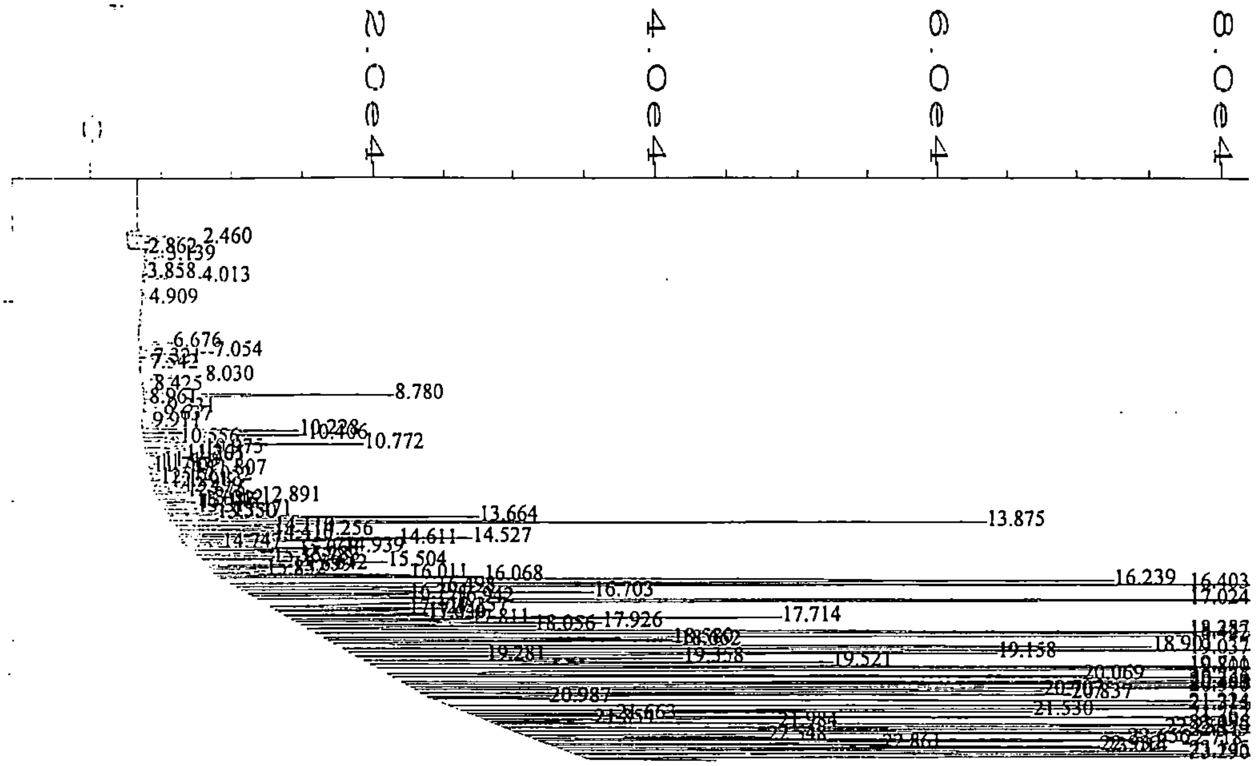
User Modified

==========

~~Gas < 5.0 mg/kg~~ LH Gas 76.370 mg/L x $\frac{5\,mL}{0.10}$ x $\frac{0.01\,L}{5.99\,g}$ = 6.4 mg/kg

Reviewed by [illegible] Date 8-19-99

8-19-99 LH



External Standard Report

I ta File Name	:	D:\HPCHEM\2\DATA\29081801\022R0601.D			
Cperator	:	LAH	Page Number	:	1
Instrument	:	GAS/BTEX	Vial Number	:	22
mple Name	:	908049-~~4 DUP 100~~ LH 2 25ul	Injection Number	:	1
Run Time Bar Code:			Sequence Line	:	6
Acquired on	:	18 Aug 99 10:01 PM	Instrument Method:		TPHG0699.MTH
port Created on:		19 Aug 99 08:44 AM	Analysis Method	:	BTEX2899.MTH
Last Recalib on	:	18 AUG 99 01:03 PM	Sample Amount	:	0
Multiplier	:	1	ISTD Amount	:	

Sig. 2 in D:\HPCHEM\2\DATA\29081801\022R0601.D

Ret Time	Area	Type	Width	Ref#	ug/l	Name
7.054	36477	VV	0.102	1	0.187	Benzene
8.780	83454	VV	0.071	1	1.240	TFT surrogate low due to dilution
10.772	76076	VV	0.071	1	0.382	Toluene
13.664	108558	VV	0.075	1	0.672	Ethylbenzene
13.875	257317	VV	0.067	1	1.037	M+P-Xylene
14.527	85309	VV	0.060	1	0.471	O-Xylene

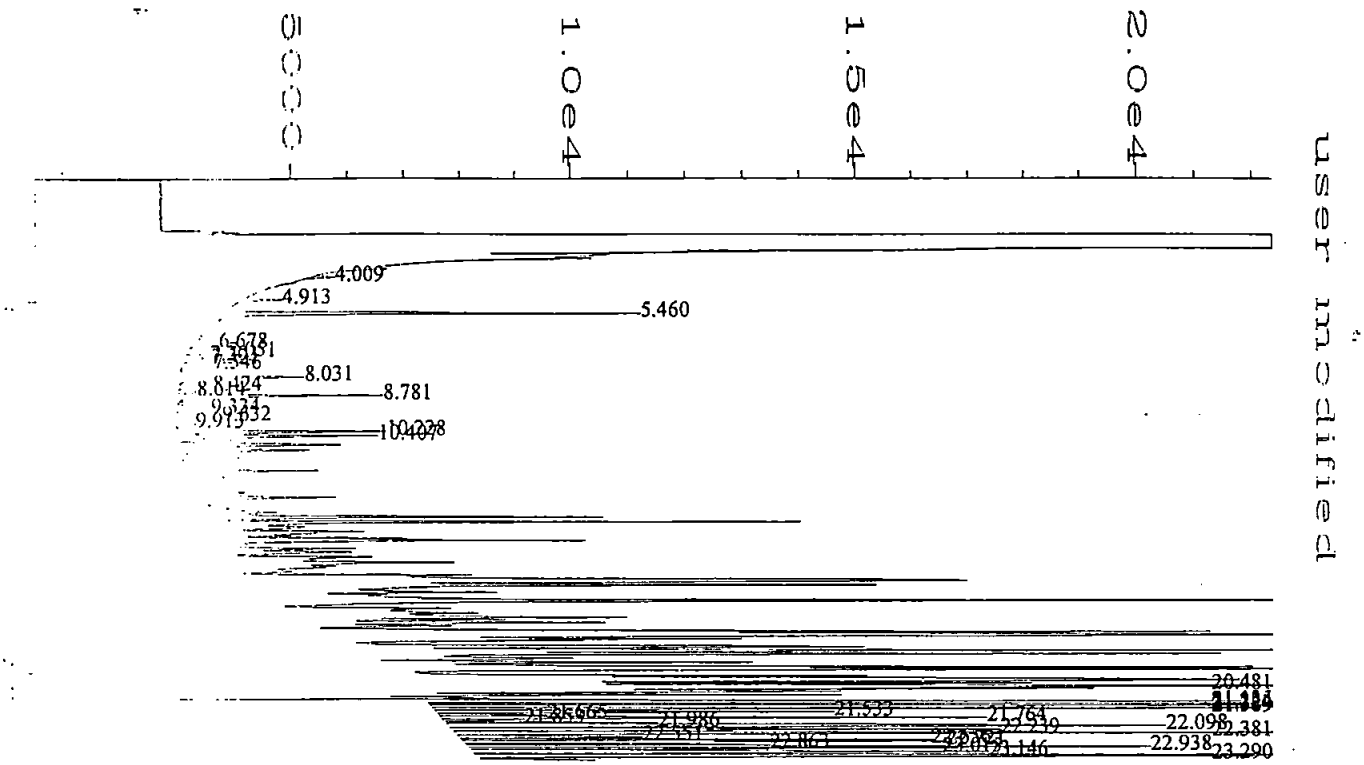
BTE < 0.4mg/Kg

X ~~50.~~ LH < 1.2mg/Kg

6.31g

8/19/99 LH

8-19-99 LH



External Standard Report

Data File Name	: D:\HPCHEM\2\DATA\29081801\022F0601.D		
Operator	: LAH	Page Number	: 1
Instrument	: GAS/BTEX	Vial Number	: 22
Sample Name	: 908049-~~4 DUP 100~~ LH	Injection Number	: 1
Run Time Bar Code:	-2 25ul	Sequence Line	: 6
Acquired on	: 18 Aug 99 10:01 PM	Instrument Method	: TPHG0699.MTH
Report Created on	: 19 Aug 99 09:46 AM	Analysis Method	: TPHG0699.MTH
Last Recalib on	: 29 JUN 99 05:16 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 1 in D:\HPCHEM\2\DATA\29081801\022F0601.D

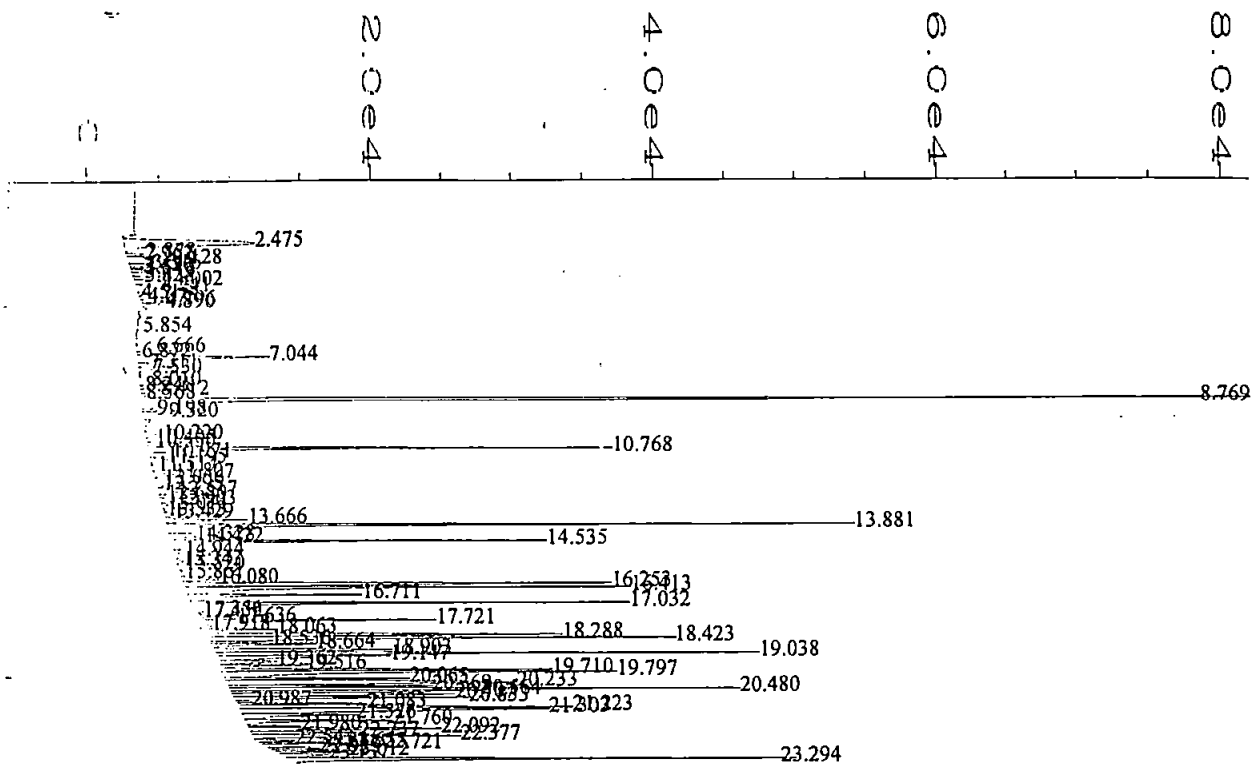
Ret Time	Area	Type	Width	Ref#	ug/l	Name
8.781	17195	VV	0.072	1	1.225	TFT-surrogate low due to dilution
20.481	2917672	MM	1.381	1	405.673	gasoline envelop

User Modified

Gas = $405.673 \mu g/L \times \frac{5 mL}{0.025 mL} \times \frac{0.01 L}{6.31 g} = 130 mg/kg$

REVIEWED & DATE 9/14/99

8-19-99 LH



External Standard Report

Data File Name	: D:\HPCHEM\2\DATA\29081801\023R0601.D		
Operator	: LAH	Page Number	: 1
Instrument	: GAS/BTEX	Vial Number	: 23
Sample Name	: ~~CLEANUP~~ 908849-3	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 18 Aug 99 10:33 PM	Instrument Method	: TPHG0699.MTH
Report Created on	: 19 Aug 99 08:45 AM	Analysis Method	: BTEX2899.MTH
Last Recalib on	: 18 AUG 99 01:03 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 2 in D:\HPCHEM\2\DATA\29081801\023R0601.D

Ret Time	Area	Type	Width	Ref#	ug/l	Name
7.044	57611	VV	0.091	1	0.295	Benzene
8.769	419816	VV	0.073	1	8.387	TFT surrogate ÷10 x100=84%
10.768	135223	VV	0.062	1	0.679	Toluene
13.666	27557	VV	0.068	1	0.171	Ethylbenzene
13.881	235169	VV	0.071	1	0.948	M+P-Xylene
14.535	130082	VV	0.069	1	0.719	O-Xylene

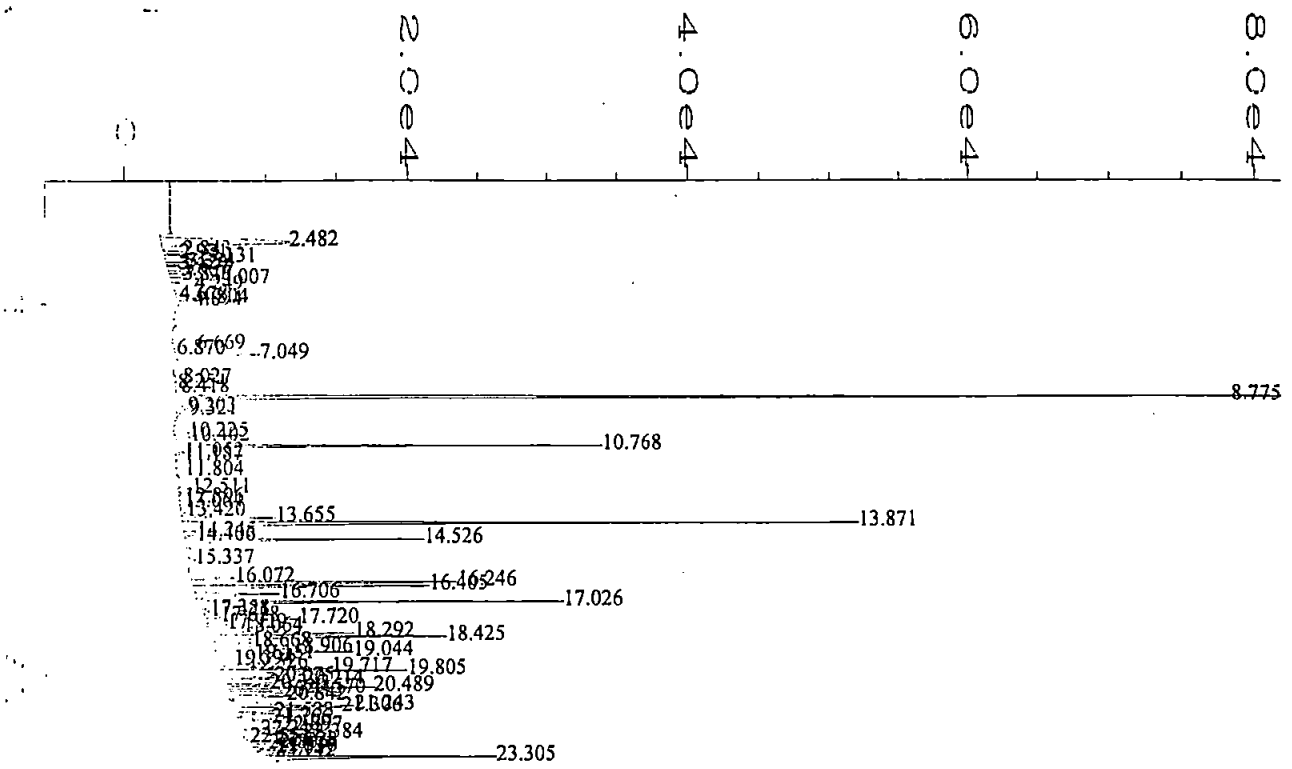
BTE <0.1mg/kg

X <0.3mg/kg

Dry wt= 7.35g

REVIEWED 8-19-99

8-19-99 LH



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External Standard Report

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ata File Name : D:\HPCHEM\2\DATA\29081801\024R0601.D
Operator : LAH
Instrument : GAS/BTEX
ample Name : ~~908056-1 100UL~~ 4 LH
Run Time Bar Code: 908049-4 100uL
cquired on : 18 Aug 99 11:04 PM
eport Created on: 19 Aug 99 08:45 AM
Last Recalib on : 18 AUG 99 01:03 PM
ultiplier : 1

Page Number : 1
Vial Number : 24
Injection Number : 1
Sequence Line : 6
Instrument Method: TPHG0699.MTH
Analysis Method : BTEX2899.MTH
Sample Amount : 0
ISTD Amount :

Sig. 2 in D:\HPCHEM\2\DATA\29081801\024R0601.D

et Time	Area	Type	Width	Ref#	ug/l	Name
7.049	33641	PV	0.085	1	0.172	Benzene
8.775	422045	PV	0.073	1	8.434	TFT surrogate ÷10×100=84%
10.768	127076	PV	0.062	1	0.638	Toluene
13.655	27158	VV	0.060	1	0.168	Ethylbenzene
13.871	224669	VV	0.068	1	0.906	M+P-Xylene
14.526	78409	VV	0.067	1	0.433	O-Xylene

==========

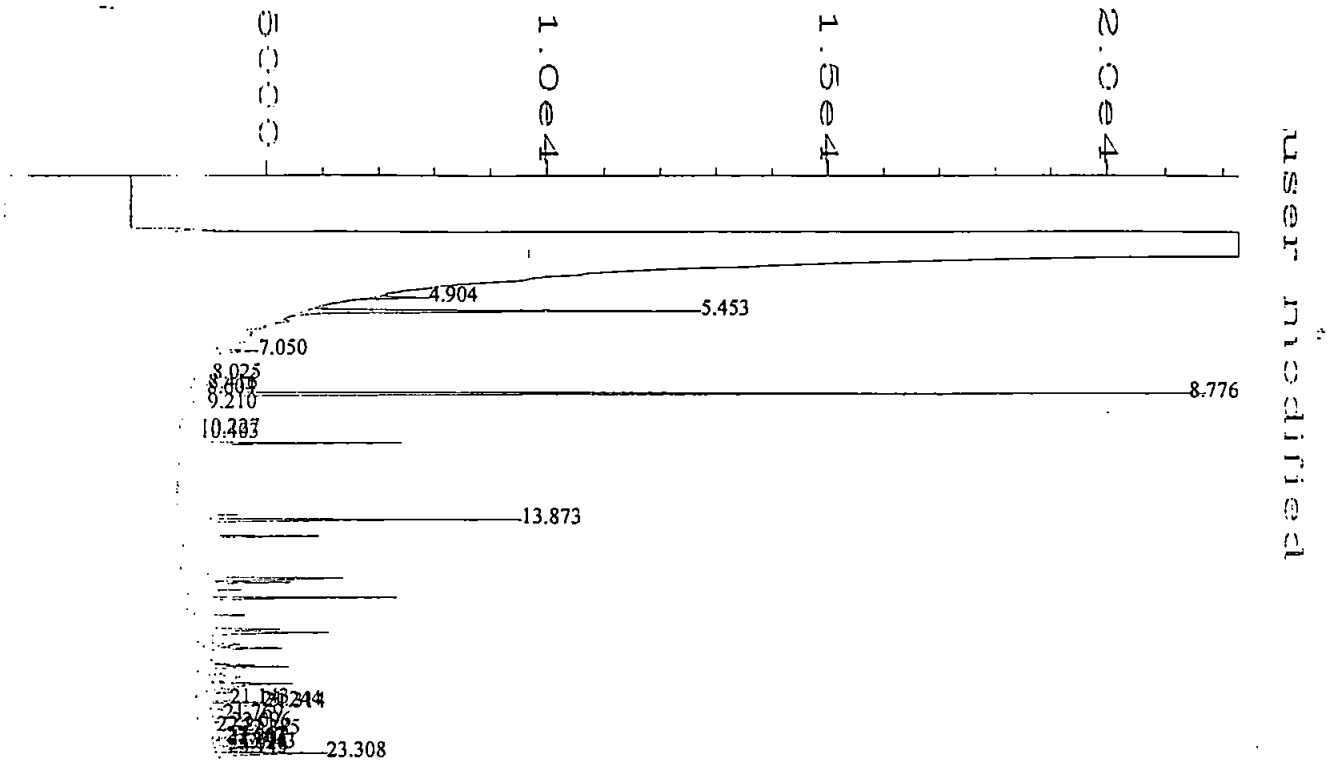
BTE <0.1 mg/kg

X <0.3 mg/kg

REVIEWED BY & DATE 8/19/99

Dry wt = 6.94g

8-19-99 LH



External Standard Report

Data File Name	: D:\HPCHEM\2\DATA\29081801\024F0601.D		
Operator	: LAH	Page Number	: 1
Instrument	: GAS/BTEX	Vial Number	: 24
Sample Name	: 908~~056~~-1 100UL	Injection Number	: 1
Run Time Bar Code:	9808494 100uL	Sequence Line	: 6
Acquired on	: 18 Aug 99 11:04 PM	Instrument Method	: TPHG0699.MTH
Report Created on	: 19 Aug 99 09:48 AM	Analysis Method	: TPHG0699.MTH
Last Recalib on	: 29 JUN 99 05:16 PM	Sample Amount	: 0
Multiplier	: 1	ISTD Amount	:

Sig. 1 in D:\HPCHEM\2\DATA\29081801\024F0601.D

Ret Time	Area	Type	Width	Ref#	ug/l	Name
8.776	84683	VV	0.072	1	6.421	TFT-surrogate ÷10 ×100 = 64%
13.873	333027	MM	0.893	1	28.889	gasoline envelop

User Modified

Gas < 50 mg/kg

REVIEWED 8-19-99

8-19-99 LH

C... Analytical Laboratories, Inc.
3229 Pine Street
Everett, WA 98201
Phone (425) 252-2620
(206) 292-9059 Seattle
(425) 259-6289 Fax

Chain Of Custody / Laboratory Analysis Request

C... # (Laboratory Use Only)

Date 8/19/99 Page 1 Of 1

PROJECT ID: 991233
REPORT TO COMPANY: EEK Consulting
PROJECT MANAGER: Jon Ericson
ADDRESS: 2138 Humboldt St. Everett WA 98203
PHONE: 360-22-6357 FAX: 360-776-1125
INVOICE TO COMPANY:
ATTENTION: Same
ADDRESS:
P.O. NUMBER: CCI QUOTE:

ANALYSIS REQUESTED: WTPH-G; WTPH-D ☐ 8015 MODIFIED ☐; WTPH-418.1; BTEX; WTPH-HCID; EPA 8020 ☐ 602 ☐; EPA 8010 ☐ 601 ☐; EPA 8240 ☐ 624 ☐ 8260 ☐; EPA 8270 ☐ 625 ☐; EPA 8080 ☐ 608 ☐ PCB only ☐ Pest only ☐; Metals Priority Pollutant ☐ RCRA ☐ TAL ☐; Metals Other (Specify); TCLP Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herb ☐

OTHER (Specify)

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	Other 1	Other 2	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. 081999-5	8/19	2:00	Soil		✓	✓	1	
2. 081999-6	8/19	2:15	Soil		✓	✓		
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, and Time):

1. Relinquished By: [signature] EEK Eng. 8/19/99 4:50
Received By:
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 (Standard) ☐ 5 ☐ 3 ☐ 2 ☐ 1 ☐ Same Day ☐

Fuels & Hydrocarbon Analysis: 5 (Standard) ☐ 3 ☒ 1 ☐ Same Day ☐

OTHER:
Specify:

* Turnaround Requests less than standard may incur Rush Charges.

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: BEK ENGINEERING
2138 HUMBOLDT ST.
BELLINGHAM, WA 98225

DATE: 8/13/99
CCIL JOB #: 908031
CCIL SAMPLE #: 1
DATE RECEIVED: 8/10/99
WDOE ACCREDITATION #: C142

CLIENT CONTACT: JON EINARSEN

CLIENT PROJECT ID: 99233
CLIENT SAMPLE ID: 080999-3 8/9/99 2:00

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	1300	MG/KG	100 MG/KG	8/13/99	LAH
BENZENE	EPA-8021	1.2	MG/KG	.5 MG/KG	8/13/99	LAH
TOLUENE	EPA-8021	29	MG/KG	40 MG/KG	8/13/99	LAH
ETHYLBENZENE	EPA-8021	16	MG/KG	20 MG/KG	8/13/99	LAH
XYLENES	EPA-8021	95	MG/KG	20 MG/KG	8/13/99	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT CONCENTRATION ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 5 MG/KG

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ACTIONS LEVELS ARE PROVIDED ONLY WHEN PARAMETER DATA IS USED FOR A GENERALLY CONSISTENT APPLICATION. WHEN PROVIDED, THEY SHOULD BE USED AS GUIDELINES ONLY. THE APPROPRIATE REGULATORY DOCUMENT SHOULD BE CONSULTED BEFORE MAKING ANY DECISIONS BASED ON ANALYTICAL DATA

APPROVED BY: _____

3229 Pine St. • Everett, WA 98201 • 425 252-2620 • FAX 425 259-6289 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: BEK ENGINEERING
2138 HUMBOLDT ST.
BELLINGHAM, WA 98225

DATE: 8/13/99
CCIL JOB #: 908031

DATE RECEIVED: 8/10/99
WDOE ACCREDITATION #: C142

CLIENT CONTACT: JON EINARSEN

CLIENT PROJECT ID: 99233

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	ANALYTE	SUR ID	% RECV
908031-01	NWTPH-GX	TFT	*
908031-01	EPA-8021	TFT	*
908031-02	NWTPH-GX	TFT	57
908031-02	EPA-8021	TFT	84

*SURROGATE DILUTED OUT OF CALIBRATION RANGE

APPROVED BY: _____

3229 Pine St. • Everett, WA 98201 • 425 252-2620 • FAX 425 259-6289 • Seattle 206 292-9059

APPENDIX III

Closure and Site Assessment Notice
Site Check / Site Assessment Checklist

UNDERGROUND STORAGE TANK
Closure and Site Assessment Notice

WASHINGTON STATE DEPARTMENT OF ECOLOGY

See back of form for instructions

FOR OFFICE USE ONLY
Site ID #:
Owner ID #:

Please ✓ the appropriate box(es)
☐ TemporaryTank Closure ☐ Change-In-Service ☒ Permanent Tank Closure ☒ Site Check/Site Assessment

Site Information

Site ID Number 11177
(Available from Ecology if the tanks are registered)
Site/Business Name Amex Tax + Duty Free Shops
Site Address 253 C Street (Street)
City/State Blaine, WA
Zip Code 98230 Telephone (___) _____

Owner Information

UST Owner/Operator _____
Mailing Address _____ (Street)
_____ (P.O. Box)
City/State _____
Zip Code _____ Telephone (___) _____

Owner's Signature _____

Tank Closure/Charge-In-Service Company

Service Company Ultra Tank Services Inc.
Certified Supervisor George Willet Decommissioning Certification No. 1060046-26
Supervisor's Signature George Willet
Address 2115 34th St (Street) P.O. Box 664 (P.O. Box) Telephone (360) 734-7611
Bellingham (City) WA. (State) 98227-0664 (Zip Code)

Site Check/Site Assessor

Certified Site Assessor Geoffrey T. Klise
Address 2138 Humboldt Street (Street) Telephone (360) 676-9589 ~~4825~~
Bellingham (City) WA (State) 98225 (Zip Code)

Tank Information

Tank ID	Closure Date	Closure Method	Tank Capacity	Substance Stored
4	8/9/99	Removed	10,000	Unleaded Gasoline
1	8/9/99	Removed	10,000	Alcohol Blend Gas
2	8/9/99	Removed	10,000	Alcohol Blend Gas
3	8/9/99	Removed	10,000	Alcohol Blend Gas

Contamination Present at the Time of Closure

☒ Yes ☐ No ☐ Unknown

Check unknown if no obvious contamination was observed and sample results have not yet been received from analytical lab.

☒ Yes ☐ No

If contamination is present, has the release been reported to the appropriate regional office?

To receive this document in an alternative format, contact the TOXICS CLEANUP PROGRAM at 1-800-826-7716 (voice) OR (360) 407-6006 (TDD).
ECY 020-94 (Rev. 6/95)

UNDERGROUND STORAGE TANK
Site Check / Site Assessment Checklist

FOR OFFICE USE ONLY

Owner #: _____

INSTRUCTIONS

When a release has **not** been confirmed and reported, this Site Check/Site Assessment Checklist must be completed and signed by a person certified by IFCI or a Washington registered professional engineer who is competent, by means of examination, experience, or education, to perform site assessments. **The results of the site check or site assessment must be included with this checklist.** This form must be submitted to Ecology at the address shown below within 30 days after completion of the site check/site assessment.

SITE INFORMATION: Include the Ecology site ID number if the tanks are registered with Ecology. This number may be found on the tank owner's invoice or tank permit.

TANK INFORMATION: Please list all tanks for which the site check or site assessment is being conducted. Use the owner's tank ID numbers if available, and indicate tank capacity and substance stored.

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSEMENT: Please check the appropriate item.

CHECKLIST: Please initial each item in the appropriate box.

SITE ASSESSOR INFORMATION: This form must be signed by the registered site assessor who is responsible for conducting the site check/site assessment.

Underground Storage Tank Section
Department of Ecology
PO Box 47655
Olympia WA 98504-7655

SITE INFORMATION

Site ID Number (Available from Ecology if the tanks are registered): 11177

Site/Business Name: Amex Tax + Duty Free Shops West

Site Address: 253 C Street (Street) Telephone: (____) _____

Blaine (City) WA (State) 98230 (Zip Code)

TANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
4	10,000 gallons	Unleaded Gasoline
1	10,000 " "	Alcohol Blend Gasoline
2	10,000 " "	" "
3	10,000 " "	" "

REASON FOR CONDUCTING SITE CHECK / SITE ASSESSMENT

Check one:

_____ Investigate suspected release due to on-site environmental contamination.
_____ Investigate suspected release due to off-site environmental contamination.
_____ Extend temporary closure of UST system for more than 12 months.
_____ UST system undergoing change-in-service.
_____ UST system permanently closed-in service.
__X__ UST system permanently closed with tank removed.
_____ Abandoned tank containing product.
_____ Required by Ecology or delegated agency for UST system closed before 12/22/88.
_____ Other (describe): _____

CHECKLIST

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.	YES	NO
1. The location of the UST site is shown on a vicinity map.	GK	
2. A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in site assessment guidance)	GK	
3. A summary of UST system data is provided. (see Section 3.1.)	GK	
4. The soils characteristics at the UST site are described. (see Section 5.2)	GK	
5. Is there any apparent groundwater in the tank excavation?		GK
6. A brief description of the surrounding land use is provided. (see Section 3.1)	GK	
7. Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.	GK	
8. A sketch or sketches showing the following items is provided:		
- location and ID number for all field samples collected	GK	
- groundwater samples distinguished from soil samples (if applicable)		
- samples collected from stockpiled excavated soil	GK	
- tank and piping locations and limits of excavation pit	GK	
- adjacent structures and streets	GK	
- approximate locations of any on-site and nearby utilities	GK	
9. If sampling procedures different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see Section 3.4)		
10. A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method and detection limit for that method.	GK	
11. Any factors that may have compromised the quality of the data or validity of the results are described.		GK
12. The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred.	GK	

SITE ASSESSOR INFORMATION

Geoffrey T. Klise
Person registered with Ecology

BEK Engineering
Firm Affiliated with

Business Address: 2138 Humboldt Street
Street

Telephone: (360) 676-9589

Bellingham
City

WA
State

98225
Zip Code

I hereby certify that I have been in responsible charge of performing the site check/site assessment described above. Persons submitting false information are subject to penalties under Chapter 173-360 WAC.

Date

Signature of Person Registered with Ecology