



**IT Corporation**

555 South Renton Village Place, Suite 700  
Renton, WA 98055-3295  
Tel. 425.228.9645  
Fax. 425.228.9793

A Member of The IT Group

March 23, 1999

Mr. John Lilly  
Washington Department of Ecology  
3190 160th Avenue SE  
Bellevue, WA 98008-4542

RECEIVED

MAR 24 1999

DEPT. OF ECOLOGY

**RE: Addendum to "Request for Review of Completed Cleanup at  
The Barrett Property"  
416 Rainier Avenue South Seattle, Washington**

Dear Mr. Lilly:

IT Corporation (IT), on behalf of Harriet Barrett, is sending this Addendum to the letter "Request for Review of the Completed Cleanup at the Barrett Property", dated October 21, 1998. On March 1, 1999, IT collected a soil sample for Interim TPH analysis. The sample was collected from the petroleum impacted area located underneath the sidewalk bordering the western edge of the site (Figure 1). To ensure sample GB-1 was collected from the impacted soil interval identified in previous work it was taken at a depth of eight to nine feet below grade, from soil matching the lithology of the two previous soil samples impacted with TPH-G. Further, it was noted during collection that soil sample GB-1 had a petroleum odor.

Compounds analyzed by the Interim TPH method were not detected at or above the method reporting limit. A complete analytical breakdown can be found in the attached Laboratory report. This sample data limits the extent to which petroleum contaminated soil (PCS) could remain at the site to a very few cubic feet which we were unable to excavate due to the proximity of the sidewalk and a power pole.

Based on the GB-1 sample data and the information delineated in the previous letter we conclude that cleanup of petroleum hydrocarbons at the site has been achieved to the point that the Barrett Property warrants "No Further Action" status. Please call Stan Haskins at (425) 228-9645 if you have questions or comments.

Sincerely,  
**IT Corporation**

A handwritten signature in blue ink that reads 'Chris N. Storey for:'.

Chris N. Storey  
Staff Engineer

**IT Corporation**

A handwritten signature in blue ink that reads 'Stan Haskins'.

Stan Haskins, R.G.  
Project Manager

cc: John Barrett  
attachments

**IT Corporation**

555 South Renton Village Place, Suite 700  
Renton, WA 98055-3295  
Tel. 425.228.9645  
Fax. 425.228.9793

A Member of The IT Group

**Fax Transmission**

Date: 3/23/99 Project: Barnett

To: John Lilly

Location: WDOE NW

Fax #:

From: Stan Hartman Total Pages (including cover): 27

Originals to follow: ☐ by mail ☐ by courier ☐ fax only

Message:

Letter and lobs + figure went  
out in today's mail.

Stan

This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader is not the intended recipient or designee, please destroy and notify us immediately by calling (425) 228-9645.

**IT Corporation**

555 South Renton Village Place, Suite 700  
Renton, WA 98055-3295  
Tel. 425.228.9645  
Fax. 425.228.9793

*A Member of The IT Group*

March 23, 1999

Mr. John Lilly  
Washington Department of Ecology  
3190 160th Avenue SE  
Bellevue, WA 98008-4542

**RE: Addendum to "Request for Review of Completed Cleanup at  
The Barrett Property"  
416 Rainier Avenue South Seattle, Washington**

Dear Mr. Lilly:

IT Corporation (IT), on behalf of Harriet Barrett, is sending this Addendum to the letter "Request for Review of the Completed Cleanup at the Barrett Property", dated October 21, 1998. On March 1, 1999, IT collected a soil sample for Interim TPH analysis. The sample was collected from the petroleum impacted area located underneath the sidewalk bordering the western edge of the site (Figure 1). To ensure sample GB-1 was collected from the impacted soil interval identified in previous work it was taken at a depth of eight to nine feet below grade, from soil matching the lithology of the two previous soil samples impacted with TPH-G. Further, it was noted during collection that soil sample GB-1 had a petroleum odor.

Compounds analyzed by the Interim TPH method were not detected at or above the method reporting limit. A complete analytical breakdown can be found in the attached Laboratory report. This sample data limits the extent to which petroleum contaminated soil (PCS) could remain at the site to a very few cubic feet which we were unable to excavate due to the proximity of the sidewalk and a power pole.

Based on the GB-1 sample data and the information delineated in the previous letter we conclude that cleanup of petroleum hydrocarbons at the site has been achieved to the point that the Barrett Property warrants "No Further Action" status. Please call Stan Haskins at (425) 228-9645 if you have questions or comments.

Sincerely,  
IT Corporation

A handwritten signature in cursive script, appearing to read 'Chris N. Storey'.

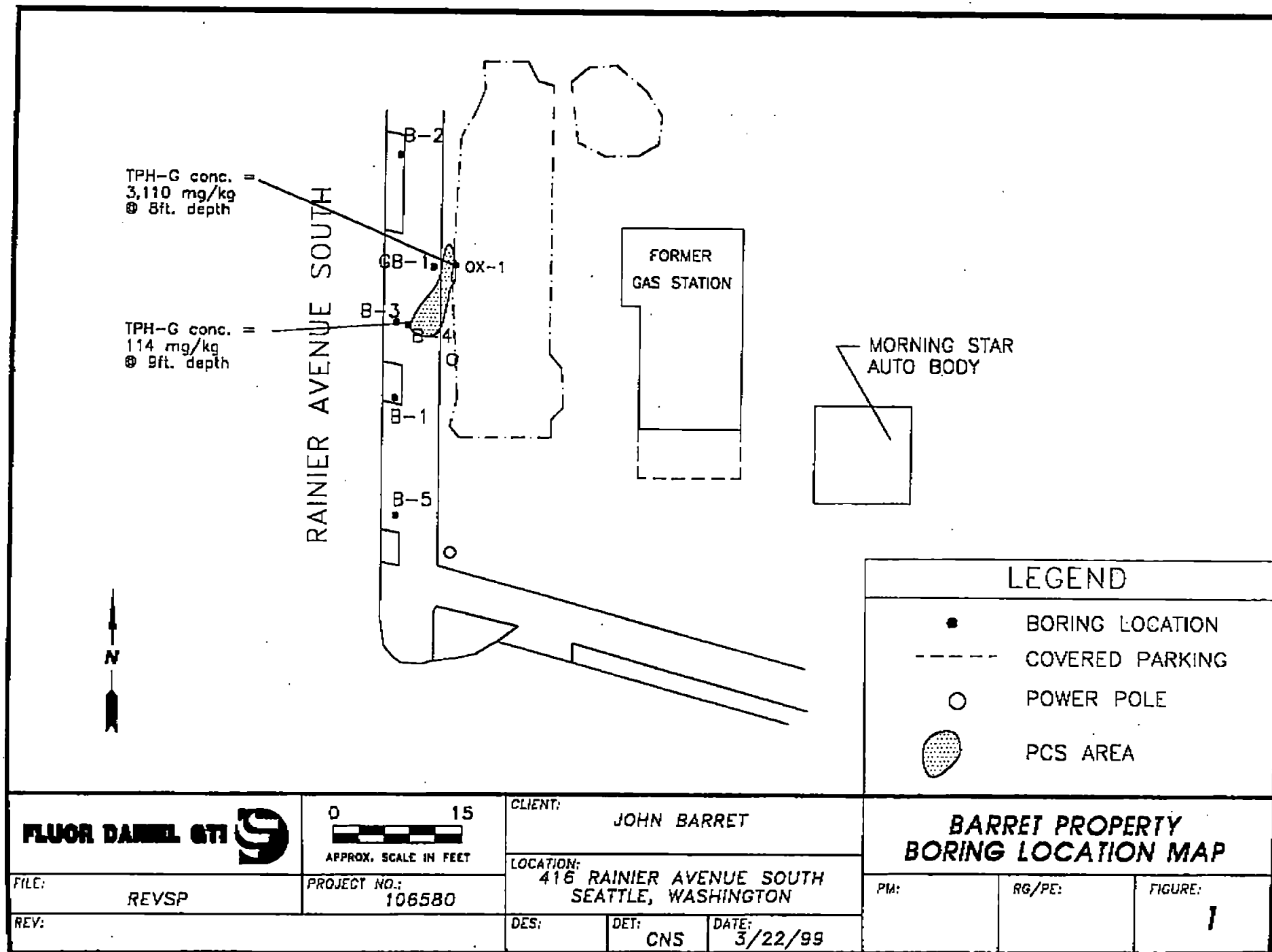
Chris N. Storey  
Staff Engineer

cc: John Barrett  
attachments

IT Corporation

A handwritten signature in cursive script, appearing to read 'Stan Haskins'.

Stan Haskins, R.G.  
Project Manager





Seattle 18939 Lewis Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9230  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1683  
541.383.9310 fax 541.382.7588

IT Corporation - Renton  
555 South Renton Village Place, Ste 700  
Renton, WA 98055

Project: Barrett  
Project Number: I08314-60200000  
Project Manager: Stan Haskins

Sampled: 3/1/99  
Received: 3/2/99  
Reported: 3/16/99 11:23

### ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
GB-1	B903043-01	Soil	3/1/99

RECEIVED MAR 13 1999

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.  
This analytical report must be reproduced in its entirety.*

Joy B Chang, Project Manager

North Creek Analytical, Inc.  
Environmental Laboratory Network



Seattle 18939 1st Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.908.9200 fax 503.908.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton	Project: Barrett	Sampled: 3/1/99
555 South Renton Village Place, Ste 700	Project Number: 108314-60200000	Received: 3/2/99
Renton, WA 98055	Project Manager: Stan Haskins	Reported: 3/16/99 11:23

**Volatile Petroleum Hydrocarbons by modified WDOE Interim TPH Policy Method  
North Creek Analytical - Bothell**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>GB-1</b>				<b>B903043-01</b>			<b>Soil</b>	
C5-C6 Aliphatics	0390389	3/15/99	3/15/99		5.00	ND	mg/kg dry	
C6-C8 Aliphatics	"	"	"		5.00	ND	"	
C8-C10 Aliphatics	"	"	"		5.00	ND	"	
C10-C12 Aliphatics	"	"	"		5.00	ND	"	
C8-C10 Aromatics	"	"	"		5.00	ND	"	
C10-C12 Aromatics	"	"	"		5.00	ND	"	
C12-C13 Aromatics	"	"	"		5.00	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	60.0-140		84.4	%	
Surrogate: 4-BFB (PID)	"	"	"	60.0-140		87.6	"	

North Creek Analytical - Bothell

\*Refer to end of report for text of notes and definitions.

Joy B Chang, Project Manager

North Creek Analytical, Inc.  
Environmental Laboratory Network

Page 2 of 12



Seattle 18939 124th Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite 9, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton	Project: Barrett	Sampled: 3/1/99
555 South Renton Village Place, Ste 700	Project Number: 108314-60200000	Received: 3/2/99
Renton, WA 98055	Project Manager: Stan Haskins	Reported: 3/16/99 11:23

**BTEX, MTBE and Naphthalene by WDOE Interim TPH Policy Method using GC/MS**  
**North Creek Analytical - Bothell**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>GB-1</b>				<b>B903043-01</b>			<b>Soil</b>	
Methyl tert-butyl ether	0390065	3/3/99	3/3/99		1.00	ND	mg/kg dry	
Benzene	"	"	"		0.100	ND	"	
Toluene	"	"	"		0.100	ND	"	
Ethylbenzene	"	"	"		0.100	ND	"	
m,p-Xylene	"	"	"		0.200	ND	"	
o-Xylene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
Surrogate: 2-Bromopropene	"	"	"	70.0-130		91.6	%	
Surrogate: 1,2-DCA-d4	"	"	"	70.0-130		81.4	"	
Surrogate: Toluene-d8	"	"	"	70.0-130		89.0	"	
Surrogate: 4-BFB	"	"	"	70.0-130		80.6	"	

North Creek Analytical - Bothell

\*Refer to end of report for text of notes and definitions.

Joy B Chang, Project Manager

North Creek Analytical, Inc.  
Environmental Laboratory Network

Page 3 of 12



Seattle 18939 1st Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99205-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.363.9310 fax 541.382.7588

IT Corporation - Renton	Project: Barrett	Sampled: 3/1/99
555 South Renton Village Place, Ste 700	Project Number: 108314-60200000	Received: 3/2/99
Renton, WA 98055	Project Manager: Stan Haskins	Reported: 3/16/99 11:23

**Extractable Petroleum Hydrocarbons by modified WDOE Interim TPH Policy Method**  
**North Creek Analytical - Bothell**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>GB-1</b>				<b>B903043-01</b>			<b>Soil</b>	
C8-C10 Aliphatics	0390147	3/9/99	3/8/99		5.00	ND	mg/kg dry	
C10-C12 Aliphatics	"	"	"		5.00	ND	"	
C12-C16 Aliphatics	"	"	"		5.00	ND	"	
C16-C21 Aliphatics	"	"	"		5.00	ND	"	
C21-C34 Aliphatics	"	"	"		5.00	ND	"	
C10-C12 Aromatics	"	"	3/13/99		5.00	ND	"	
C12-C16 Aromatics	"	"	"		5.00	ND	"	
C16-C21 Aromatics	"	"	"		5.00	ND	"	
C21-C34 Aromatics	"	"	"		5.00	ND	"	
Extractable Petroleum Hydrocarbons	"	"	3/8/99			ND	"	
Surrogate: 2-FBP	"	"	3/13/99	50.0-150		76.2	%	
Surrogate: Octacosane	"	"	3/8/99	50.0-150		64.5	"	
Surrogate: Undecane	"	"	"	30.0-150		69.4	"	





Seattle 18939 1st Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton	Project: Barrett	Sampled: 3/1/99
555 South Renton Village Place, Ste 700	Project Number: 108314-60200000	Received: 3/2/99
Renton, WA 98055	Project Manager: Stan Haskins	Reported: 3/16/99 11:23

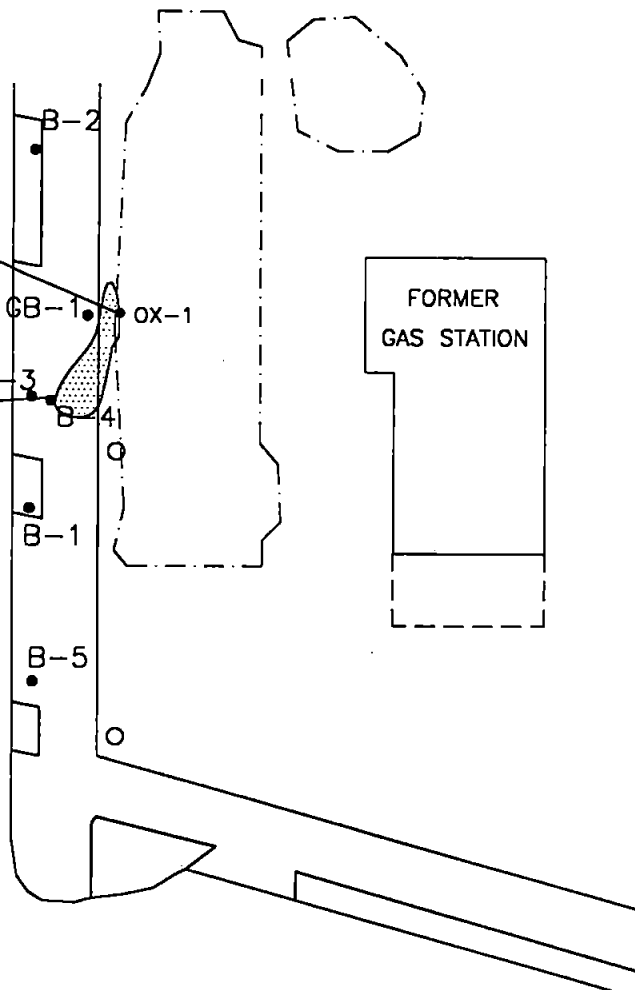
Polynuclear Aromatic Hydrocarbons by GC/MS-SIM  
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>GB-1</b>				<b>B983043-01</b>			<b>Soil</b>	
Acenaphthene	0390147	3/9/99	3/12/99		0.0100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0100	ND	"	
Anthracene	"	"	"		0.0100	ND	"	
Benzo (a) anthracene	"	"	"		0.0100	ND	"	
Benzo (a) pyrene	"	"	"		0.0100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0100	ND	"	
Benzo (ghi) perylene	"	"	"		0.0100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0100	ND	"	
Chrysene	"	"	"		0.0100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0100	ND	"	
Fluoranthene	"	"	"		0.0100	ND	"	
Fluorene	"	"	"		0.0100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0100	ND	"	
2-Methylnaphthalene	"	"	"		0.0100	ND	"	
Naphthalene	"	"	"		0.0100	ND	"	
Phenanthrene	"	"	"		0.0100	ND	"	
Pyrene	"	"	"		0.0100	ND	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		66.1	%	

TPH-G conc. =  
3,110 mg/kg  
@ 8ft. depth

TPH-G conc. =  
114 mg/kg  
@ 9ft. depth

RAINIER AVENUE SOUTH



FORMER  
GAS STATION

MORNING STAR  
AUTO BODY

## LEGEND

- BORING LOCATION
- COVERED PARKING
- POWER POLE
- ◐ PCS AREA

FLUOR DANIEL GTI



0 15  
APPROX. SCALE IN FEET

CLIENT: JOHN BARRET

LOCATION:  
416 RAINIER AVENUE SOUTH  
SEATTLE, WASHINGTON

## BARRET PROPERTY BORING LOCATION MAP

FILE: REVSP

PROJECT NO.:  
106580

DES: DET: CNS DATE: 3/22/99

PM:

RG/PE:

FIGURE:

1

MAR 24 1999

RECEIVED

DEPT. OF ECOLOGY



RECEIVED

MAR 24 1999

DEPT. OF ECOLOGY

Seattle 1800 1st Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton 555 South Renton Village Place, Ste 700 Renton, WA 98055	Project: Barrett Project Number: 108314-60200000 Project Manager: Stan Haskins	Sampled: 3/1/99 Received: 3/2/99 Reported: 3/16/99 11:23
--	--	--

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
GB-1	B903043-01	Soil	3/1/99

RECEIVED MAR 13 1999

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.  
This analytical report must be reproduced in its entirety.*

Joy B Chang, Project Manager

North Creek Analytical, Inc.  
Environmental Laboratory Network

Page 1 of 12



Seattle 189... Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton	Project: Barrett	Sampled: 3/1/99
555 South Renton Village Place, Ste 700	Project Number: 108314-60200000	Received: 3/2/99
Renton, WA 98055	Project Manager: Stan Haskins	Reported: 3/16/99 11:23

Volatile Petroleum Hydrocarbons by modified WDOE Interim TPH Policy Method  
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>GB-1</b>				<b>B903043-01</b>			<b>Soil</b>	
C5-C6 Aliphatics	0390389	3/15/99	3/15/99		5.00	ND	mg/kg dry	
C6-C8 Aliphatics	"	"	"		5.00	ND	"	
C8-C10 Aliphatics	"	"	"		5.00	ND	"	
C10-C12 Aliphatics	"	"	"		5.00	ND	"	
C8-C10 Aromatics	"	"	"		5.00	ND	"	
C10-C12 Aromatics	"	"	"		5.00	ND	"	
C12-C13 Aromatics	"	"	"		5.00	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	60.0-140		84.4	%	
Surrogate: 4-BFB (PID)	"	"	"	60.0-140		87.6	"	



Seattle 189 Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton	Project: Barrett	Sampled: 3/1/99
555 South Renton Village Place, Ste 700	Project Number: 108314-60200000	Received: 3/2/99
Renton, WA 98055	Project Manager: Stan Haskins	Reported: 3/16/99 11:23

**BTEX, MTBE and Naphthalene by WDOE Interim TPH Policy Method using GC/MS**  
**North Creek Analytical - Bothell**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>GB-1</b>				<b>B903043-01</b>			<b>Soil</b>	
Methyl tert-butyl ether	0390065	3/3/99	3/3/99		1.00	ND	mg/kg dry	
Benzene	"	"	"		0.100	ND	"	
Toluene	"	"	"		0.100	ND	"	
Ethylbenzene	"	"	"		0.100	ND	"	
m,p-Xylene	"	"	"		0.200	ND	"	
o-Xylene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
Surrogate: 2-Bromopropene	"	"	"	70.0-130		91.6	%	
Surrogate: 1,2-DCA-d4	"	"	"	70.0-130		81.4	"	
Surrogate: Toluene-d8	"	"	"	70.0-130		89.0	"	
Surrogate: 4-BFB	"	"	"	70.0-130		80.6	"	



Seattle 1891 Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton	Project: Barrett	Sampled: 3/1/99
555 South Renton Village Place, Ste 700	Project Number: 108314-60200000	Received: 3/2/99
Renton, WA 98055	Project Manager: Stan Haskins	Reported: 3/16/99 11:23

Extractable Petroleum Hydrocarbons by modified WDOE Interim TPH Policy Method  
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>GB-1</b>			<b>B903043-01</b>				<b>Soil</b>	
C8-C10 Aliphatics	0390147	3/9/99	3/8/99		5.00	ND	mg/kg dry	
C10-C12 Aliphatics	"	"	"		5.00	ND	"	
C12-C16 Aliphatics	"	"	"		5.00	ND	"	
C16-C21 Aliphatics	"	"	"		5.00	ND	"	
C21-C34 Aliphatics	"	"	"		5.00	ND	"	
C10-C12 Aromatics	"	"	3/13/99		5.00	ND	"	
C12-C16 Aromatics	"	"	"		5.00	ND	"	
C16-C21 Aromatics	"	"	"		5.00	ND	"	
C21-C34 Aromatics	"	"	"		5.00	ND	"	
Extractable Petroleum Hydrocarbons	"	"	3/8/99			ND	"	
Surrogate: 2-FBP	"	"	3/13/99	50.0-150		76.2	%	
Surrogate: Octacosane	"	"	3/8/99	50.0-150		64.5	"	
Surrogate: Undecane	"	"	"	30.0-150		69.4	"	



Seattle 1893 Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton	Project: Barrett	Sampled: 3/1/99
555 South Renton Village Place, Ste 700	Project Number: 108314-60200000	Received: 3/2/99
Renton, WA 98055	Project Manager: Stan Haskins	Reported: 3/16/99 11:23

**Polynuclear Aromatic Hydrocarbons by GC/MS-SIM**  
**North Creek Analytical - Bothell**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>GB-1</b>				<b>B903043-01</b>			<b>Soil</b>	
Acenaphthene	0390147	3/9/99	3/12/99		0.0100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0100	ND	"	
Anthracene	"	"	"		0.0100	ND	"	
Benzo (a) anthracene	"	"	"		0.0100	ND	"	
Benzo (a) pyrene	"	"	"		0.0100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0100	ND	"	
Benzo (ghi) perylene	"	"	"		0.0100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0100	ND	"	
Chrysene	"	"	"		0.0100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0100	ND	"	
Fluoranthene	"	"	"		0.0100	ND	"	
Fluorene	"	"	"		0.0100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0100	ND	"	
2-Methylnaphthalene	"	"	"		0.0100	ND	"	
Naphthalene	"	"	"		0.0100	ND	"	
Phenanthrene	"	"	"		0.0100	ND	"	
Pyrene	"	"	"		0.0100	ND	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		66.1	%	



Seattle 1 1st Avenue NE, Suite 101, Bothell, WA 98011-9503  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton	Project: Barrett	Sampled: 3/1/99
555 South Renton Village Place, Ste 700	Project Number: 108314-60200000	Received: 3/2/99
Renton, WA 98055	Project Manager: Stan Haskins	Reported: 3/16/99 11:23

**Dry Weight Determination**  
**North Creek Analytical - Bothell**

Sample Name	Lab ID	Matrix	Result	Units
GB-1	B903043-01	Soil	84.3	%

North Creek Analytical - Bothell

Joy B Chang, Project Manager

North Creek Analytical, Inc.  
Environmental Laboratory Network





Seattle 189 Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton 555 South Renton Village Place, Ste 700 Renton, WA 98055	Project: Barrett Project Number: 108314-60200000 Project Manager: Stan Haskins	Sampled: 3/1/99 Received: 3/2/99 Reported: 3/16/99 11:23
--	--	--

**Volatile Petroleum Hydrocarbons by modified WDOE Interim TPH Policy Method/Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 0390389</b>										
<b>Blank</b>										
<b>Date Prepared: 3/15/99</b>										
<b>Extraction Method: EPA 5030B (P/T)</b>										
<b>0390389-BLK1</b>										
C5-C6 Aliphatics	3/15/99			ND	mg/kg dry	5.00				
C6-C8 Aliphatics	"			ND	"	5.00				
C8-C10 Aliphatics	"			ND	"	5.00				
C10-C12 Aliphatics	"			ND	"	5.00				
C8-C10 Aromatics	"			ND	"	5.00				
C10-C12 Aromatics	"			ND	"	5.00				
C12-C13 Aromatics	"			ND	"	5.00				
Surrogate: 4-BFB (FID)	"	4.00		3.89	"	60.0-140	97.3			
Surrogate: 4-BFB (PID)	"	4.00		3.90	"	60.0-140	97.5			
<b>LCS</b>										
<b>0390389-BS1</b>										
C5-C6 Aliphatics	3/15/99	2.00		1.83	mg/kg dry	70.0-130	91.5			
C6-C8 Aliphatics	"	1.00		0.721	"	70.0-130	72.1			
C8-C10 Aliphatics	"	1.00		0.870	"	70.0-130	87.0			
C10-C12 Aliphatics	"	1.00		1.01	"	70.0-130	101			
C8-C10 Aromatics	"	4.00		3.96	"	70.0-130	99.0			
C10-C12 Aromatics	"	1.00		1.03	"	70.0-130	103			
C12-C13 Aromatics	"	2.00		2.64	"	70.0-130	132			1
Surrogate: 4-BFB (FID)	"	4.00		4.06	"	60.0-140	101			
Surrogate: 4-BFB (PID)	"	4.00		4.07	"	60.0-140	102			
<b>Duplicate</b>										
<b>0390389-DUP1 B903043-01</b>										
C5-C6 Aliphatics	3/15/99		ND	ND	mg/kg dry			25.0		
C6-C8 Aliphatics	"		ND	ND	"			25.0		
C8-C10 Aliphatics	"		ND	ND	"			25.0		
C10-C12 Aliphatics	"		ND	ND	"			25.0		
C8-C10 Aromatics	"		ND	ND	"			25.0		
C10-C12 Aromatics	"		ND	ND	"			25.0		
C12-C13 Aromatics	"		ND	ND	"			25.0		
Surrogate: 4-BFB (FID)	"	4.75		4.42	"	60.0-140	93.1			
Surrogate: 4-BFB (PID)	"	4.75		4.57	"	60.0-140	96.2			



Seattle 1893 Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton 555 South Renton Village Place, Ste 700 Renton, WA 98055	Project: Barrett Project Number: 108314-60200000 Project Manager: Stan Haskins	Sampled: 3/1/99 Received: 3/2/99 Reported: 3/16/99 11:23
--	--	--

**BTEX, MTBE and Naphthalene by WDOE Interim TPH Policy Method using GC/MS/Quality Control  
North Creek Analytical - Bothell**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recovery Limits	Recovery %	RPD Limit	RPD %	Notes*
<b>Batch: 0390065</b>										
<b>Blank</b>										
<b>0390065-BLK1</b>										
<b>Extraction Method: EPA 5030B [MeOH]</b>										
Methyl tert-butyl ether	3/3/99			ND	mg/kg dry	1.00				
Benzene	"			ND	"	0.100				
Toluene	"			ND	"	0.100				
Ethylbenzene	"			ND	"	0.100				
m,p-Xylene	"			ND	"	0.200				
o-Xylene	"			ND	"	0.100				
Naphthalene	"			ND	"	0.100				
Surrogate: 2-Bromopropene	"	2.00		1.95	"	70.0-130	97.5			
Surrogate: 1,2-DCA-d4	"	2.00		1.96	"	70.0-130	98.0			
Surrogate: Toluene-d8	"	2.00		2.14	"	70.0-130	107			
Surrogate: 4-BFB	"	2.00		1.77	"	70.0-130	88.5			
<b>LCS</b>										
<b>0390065-BS1</b>										
Benzene	3/3/99	1.00		0.875	mg/kg dry	70.0-130	87.5			
Toluene	"	1.00		0.840	"	70.0-130	84.0			
Surrogate: 2-Bromopropene	"	2.00		1.89	"	70.0-130	94.5			
Surrogate: 1,2-DCA-d4	"	2.00		1.84	"	70.0-130	92.0			
Surrogate: Toluene-d8	"	2.00		1.91	"	70.0-130	95.5			
Surrogate: 4-BFB	"	2.00		1.66	"	70.0-130	83.0			
<b>Matrix Spike</b>										
<b>0390065-MS1 B902473-04</b>										
Benzene	3/3/99	1.12	ND	1.03	mg/kg dry	70.0-130	92.0			
Toluene	"	1.12	ND	0.915	"	70.0-130	81.7			
Surrogate: 2-Bromopropene	"	2.23		2.12	"	70.0-130	95.1			
Surrogate: 1,2-DCA-d4	"	2.23		2.08	"	70.0-130	93.3			
Surrogate: Toluene-d8	"	2.23		2.03	"	70.0-130	91.0			
Surrogate: 4-BFB	"	2.23		1.91	"	70.0-130	85.7			
<b>Matrix Spike Dup</b>										
<b>0390065-MSD1 B902473-04</b>										
Benzene	3/3/99	1.12	ND	1.03	mg/kg dry	70.0-130	92.0	20.0	0	
Toluene	"	1.12	ND	1.06	"	70.0-130	94.6	20.0	14.6	
Surrogate: 2-Bromopropene	"	2.23		1.94	"	70.0-130	87.0			
Surrogate: 1,2-DCA-d4	"	2.23		1.85	"	70.0-130	83.0			
Surrogate: Toluene-d8	"	2.23		2.19	"	70.0-130	98.2			
Surrogate: 4-BFB	"	2.23		1.82	"	70.0-130	81.6			

North Creek Analytical - Bothell

\*Refer to end of report for text of notes and definitions.

Joy B Chang, Project Manager

North Creek Analytical, Inc.  
Environmental Laboratory Network

Page 8 of 12



Seattle 189 Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton	Project: Barrett	Sampled: 3/1/99
555 South Renton Village Place, Ste 700	Project Number: 108314-60200000	Received: 3/2/99
Renton, WA 98055	Project Manager: Stan Haskins	Reported: 3/16/99 11:23

**Extractable Petroleum Hydrocarbons by modified WDOE/Interim TPH Policy Method/Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 0390147</b>										
<b>Blank</b>										
<b>Date Prepared: 3/4/99</b>										
<b>0390147-BLK1</b>										
<b>Extraction Method: EPA 3550B</b>										
C8-C10 Aliphatics	3/13/99			ND	mg/kg dry	5.00				
C10-C12 Aliphatics	"			ND	"	5.00				
C12-C16 Aliphatics	"			ND	"	5.00				
C16-C21 Aliphatics	"			ND	"	5.00				
C21-C34 Aliphatics	"			ND	"	5.00				
C10-C12 Aromatics	3/8/99			ND	"	5.00				
C12-C16 Aromatics	"			ND	"	5.00				
C16-C21 Aromatics	"			ND	"	5.00				
C21-C34 Aromatics	"			ND	"	5.00				
Extractable Petroleum Hydrocarbons	"			ND	"					
Surrogate: 2-FBP	"	12.0		9.90	"	50.0-150	82.5			
Surrogate: Octacosane	3/13/99	12.3		10.7	"	50.0-150	87.0			
Surrogate: Undecane	"	13.3		9.72	"	30.0-150	73.1			
<b>LCS</b>										
<b>0390147-BS1</b>										
Extractable Petroleum Hydrocarbons	3/8/99	167		138	mg/kg dry	30.0-120	82.6			
Surrogate: 2-FBP	"	12.0		7.79	"	50.0-150	64.9			
Surrogate: Octacosane	3/12/99	12.3		14.2	"	50.0-150	115			
Surrogate: Undecane	"	13.3		10.9	"	30.0-150	82.0			
<b>LCS Dup</b>										
<b>0390147-BSD1</b>										
Extractable Petroleum Hydrocarbons	3/8/99	167		123	mg/kg dry	30.0-120	73.7	40.0	11.4	
Surrogate: 2-FBP	"	12.0		8.49	"	50.0-150	70.7			
Surrogate: Octacosane	"	12.3		6.23	"	50.0-150	50.7			
Surrogate: Undecane	"	13.3		10.5	"	30.0-150	78.9			
<b>Matrix Spike</b>										
<b>0390147-MS1 B902408-16</b>										
Extractable Petroleum Hydrocarbons	3/8/99	194	3760	3640	mg/kg dry	30.0-120	NR			2
Surrogate: 2-FBP	"	14.0		10.4	"	50.0-150	74.3			
Surrogate: Octacosane	"	14.3		ND	"	50.0-150	NR			3
Surrogate: Undecane	"	15.4		11.1	"	30.0-150	72.1			



Seattle 16 1st Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton	Project: Barrett	Sampled: 3/1/99
555 South Renton Village Place, Ste 700	Project Number: 108314-60200000	Received: 3/2/99
Renton, WA 98055	Project Manager: Stan Haskins	Reported: 3/16/99 11:23

**Polynuclear Aromatic Hydrocarbons by GC/MS-SIM/Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recovery Limits	Recovery %	RPD Limit	RPD %	Notes*
---------	---------------	-------------	---------------	-----------	-----------------------	-----------------	------------	-----------	-------	--------

**Batch: 0390147**

**Date Prepared: 3/4/99**

**Extraction Method: EPA 3550B**

**Blank**

**0390147-BLK1**

Acenaphthene	3/9/99		ND	mg/kg dry	0.0100					
Acenaphthylene	"		ND	"	0.0100					
Anthracene	"		ND	"	0.0100					
Benzo (a) anthracene	"		ND	"	0.0100					
Benzo (a) pyrene	"		ND	"	0.0100					
Benzo (b) fluoranthene	"		ND	"	0.0100					
Benzo (ghi) perylene	"		ND	"	0.0100					
Benzo (k) fluoranthene	"		ND	"	0.0100					
Chrysene	"		ND	"	0.0100					
Dibenz (a,h) anthracene	"		ND	"	0.0100					
Fluoranthene	"		ND	"	0.0100					
Fluorene	"		ND	"	0.0100					
Indeno (1,2,3-cd) pyrene	"		ND	"	0.0100					
2-Methylnaphthalene	"		ND	"	0.0100					
Naphthalene	"		ND	"	0.0100					
Phenanthrene	"		ND	"	0.0100					
Pyrene	"		ND	"	0.0100					
Surrogate: p-Terphenyl-d14	"	0.267	0.224	"	30.0-150	83.9				

**Blank**

**0390147-BLK2**

Acenaphthene	3/12/99		ND	mg/kg dry	0.0100					
Acenaphthylene	"		ND	"	0.0100					
Anthracene	"		ND	"	0.0100					
Benzo (a) anthracene	"		ND	"	0.0100					
Benzo (a) pyrene	"		ND	"	0.0100					
Benzo (b) fluoranthene	"		ND	"	0.0100					
Benzo (ghi) perylene	"		ND	"	0.0100					
Benzo (k) fluoranthene	"		ND	"	0.0100					
Chrysene	"		ND	"	0.0100					
Dibenz (a,h) anthracene	"		ND	"	0.0100					
Fluoranthene	"		ND	"	0.0100					
Fluorene	"		ND	"	0.0100					
Indeno (1,2,3-cd) pyrene	"		ND	"	0.0100					
2-Methylnaphthalene	"		ND	"	0.0100					
Naphthalene	"		ND	"	0.0100					
Phenanthrene	"		ND	"	0.0100					
Pyrene	"		ND	"	0.0100					

North Creek Analytical - Bothell

\*Refer to end of report for text of notes and definitions.

Joy B Chang, Project Manager

North Creek Analytical, Inc.  
Environmental Laboratory Network

Page 10 of 12



Seattle 189 Avenue NE, Suite 101, Bothell, WA 98011-9508  
 425.420.9200 fax 425.420.9210  
 Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
 509.924.9200 fax 509.924.9290  
 Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
 503.906.9200 fax 503.906.9210  
 Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
 541.383.9310 fax 541.382.7588

IT Corporation - Renton	Project: Barrett	Sampled: 3/1/99
555 South Renton Village Place, Ste 700	Project Number: 108314-60200000	Received: 3/2/99
Renton, WA 98055	Project Manager: Stan Haskins	Reported: 3/16/99 11:23

**Polynuclear Aromatic Hydrocarbons by GC/MS-SIM/Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
<b>Blank (continued)</b>										
	<b>0390147-BLK2</b>									
Surrogate: <i>p</i> -Terphenyl-d14	3/12/99	0.267		0.214	mg/kg dry	30.0-150	80.1			
<b>LCS</b>										
	<b>0390147-BS2</b>									
Chrysene	3/12/99	0.333		0.290	mg/kg dry	10.0-125	87.1			
Fluorene	"	0.333		0.291	"	11.0-116	87.4			
Indeno (1,2,3-cd) pyrene	"	0.333		0.316	"	10.0-147	94.9			
Surrogate: <i>p</i> -Terphenyl-d14	"	0.267		0.197	"	30.0-150	73.8			
<b>LCS Dup</b>										
	<b>0390147-BSD2</b>									
Chrysene	3/12/99	0.333		0.311	mg/kg dry	10.0-125	93.4	28.0	6.98	
Fluorene	"	0.333		0.292	"	11.0-116	87.7	32.0	0.343	
Indeno (1,2,3-cd) pyrene	"	0.333		0.345	"	10.0-147	104	34.0	9.15	
Surrogate: <i>p</i> -Terphenyl-d14	"	0.267		0.213	"	30.0-150	79.8			
<b>Matrix Spike</b>										
	<b>0390147-MS2</b>		<b>B903043-01</b>							
Chrysene	3/12/99	0.396	ND	0.382	mg/kg dry	10.0-125	96.5			
Fluorene	"	0.396	ND	0.320	"	10.0-154	80.8			
Indeno (1,2,3-cd) pyrene	"	0.396	ND	0.419	"	10.0-144	106			
Surrogate: <i>p</i> -Terphenyl-d14	"	0.316		0.259	"	30.0-150	82.0			



Seattle 11th Avenue NE, Suite 101, Bothell, WA 98011-9508  
425.420.9200 fax 425.420.9210  
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
Bend 20354 Empire Avenue, Suite E-9, Bend, OR 97708-1883  
541.383.9310 fax 541.382.7588

IT Corporation - Renton	Project: Barrett	Sampled: 3/1/99
555 South Renton Village Place, Ste 700	Project Number: 108314-60200000	Received: 3/2/99
Renton, WA 98055	Project Manager: Stan Haskins	Reported: 3/16/99 11:23

### Notes and Definitions

#	Note
---	------

- 1 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
  - 2 Analyses are not controlled on matrix spike RPD and/or percent recoveries when the sample concentration is significantly higher than the spike level.
  - 3 Due to interference from coeluting organic compounds with the primary surrogate, results of the secondary surrogate have been used to control the analysis.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference



**NORTH  
CREEK  
ANALYTICAL**  
Environmental Laboratory Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508  
East 11115 Montgomery, Suite B, Spokane, WA 99206-4779  
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

(425) 420-9200 FAX 420-9210  
(509) 924-9200 FAX 924-9290  
(503) 906-9200 FAX 906-9210

## CHAIN OF CUSTODY REPORT

Work Order # **B903043**

REPORT TO: <b>THE IT CORP</b>			INVOICE TO: " "		
ATTENTION: <b>Sam Maskins</b>			ATTENTION: <b>Connie Hoffman</b>		
ADDRESS: <b>595 S. Renton Village Place #700</b>			ADDRESS: " "		
PHONE: <b>425-228-9645</b> FAX: <b>425-228-9793</b>			P.O. NUMBER: NCA QUOTE #:		
PROJECT NAME: <b>Barrett</b>			Analysis Request: <b>Trace TPH (CPH-UPH)</b>		
PROJECT NUMBER: <b>Barrett 108314-60240000</b>					
SAMPLED BY: <b>Chris Storey</b>					
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)			
1. <b>GB-1</b>	<b>3/1/99 10:35</b>	<b>B903043-01</b>			
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

TURNAROUND REQUEST in Business Days \*

☒ 10 Standard    ☐ 7    ☐ 5    ☐ 4    ☐ 3    ☐ 2    ☐ 1 Same Day

Fuels & Hydrocarbon Analyses

☐ 5 Standard    ☐ 3-4    ☐ 2    ☐ 1 Same Day

OTHER Specify: \_\_\_\_\_

\* Turnaround Requests less than standard may incur Rush Charges.

MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS

RELINQUISHED BY (Signature): <b>Chris N. Storey</b>	DATE: <b>3/2/99</b>	RECEIVED BY (Signature): <b>K Barker</b>	DATE: <b>3/2/99</b>
PRINT NAME: <b>Chris N. Storey</b>	FIRM: <b>IT CORP</b> TIME: <b>8:45</b>	PRINT NAME: <b>K Barker</b>	FIRM: <b>NCA</b> TIME: <b>11:0</b>
RELINQUISHED BY (Signature): <b>K Barker</b>	DATE: <b>3/2/99</b>	RECEIVED BY (Signature): <b>D. HEINZ</b>	DATE: <b>3/2/99</b>
PRINT NAME: <b>K Barker</b>	FIRM: <b>NCA</b> TIME: <b>14:35</b>	PRINT NAME: <b>D. HEINZ</b>	FIRM: <b>NCA B</b> TIME: <b>14:35</b>

ADDITIONAL REMARKS: 13.0 w/o